

No. 36847

18-1

Court of Common Pleas of
Montgomery County, Ohio

IN THE MATTER OF THE MIAMI
CONSERVANCY DISTRICT

1st Report of the Board of Directors

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Report of the Board of Directors

To the Honorable Judges of the Court of Common Pleas:—

Pursuant to the order of this Court entered in the above case on the 3rd of May, 1918, the Board of Directors of The Miami Conservancy District present herewith a report of its proceedings from the inception of the District, and a financial statement of the receipts and disbursements for the period ending July 31, 1918, (see Exhibit A). To this report is attached a supplemental report by Mr. Arthur E. Morgan, Chief Engineer, in which matters relating to the construction of the works are presented in detail (see Exhibit B.)

ORGANIZATION

The Miami Conservancy District was organized on June 28, 1915, at which time Messrs. E. A. Deeds, Henry M. Allen and Gordon S. Rentschler were appointed directors for terms of seven, five and three years respectively. Since said appointment Mr. Rentschler has been reappointed for a further term of five years. The Directors so appointed are all in the discharge of their duties, there having been no vacancies.

On the 7th of July, 1915, the Board of Directors having been duly qualified, organized by the selection of Mr. E. A. Deeds, President, and the selection of the following additional officers: Ezra M. Kuhns, Secretary and Treasurer; Arthur E. Morgan, Chief Engineer; Judge O. B. Brown, Attorney; Honorable John A. McMahon, Counsel. These officers likewise continue to discharge their duties, there having been no vacancies.

OFFICIAL PLAN

The first duty of the Board of Directors upon its organization was the preparation of a plan for the improvements for which the District was created. Much prior labor had already been expended upon this subject under the auspices of The Dayton Citizens Relief Commission who provided the financial and other means whereby said work was carried on. This was taken over by this Board and the work conducted thereafter under its direction. The preparation of the Official Plan required a thorough and comprehensive consideration of all of the many problems involved and the end to be obtained. It also involved the preparation of maps, profiles, plans and other data and descriptions as became necessary to set forth the location and character of the work and of the property benefited, or taken or damaged, with estimates of cost and specifications for doing the work. The Board spared no pains to arrive at a proper solution of their problems, and the conclusions of the Chief Engineer were carefully checked and verified by able engineers of wide and varied experience in such matters.

On the 29th of February, 1916, the Chief Engineer transmitted to the Board of Directors a plan for flood protection. The Board thereupon ordered the same published according to law, and met on the 10th of April, 1916, for the purpose of considering the proposed Official Plan and such objections as had been filed. The hearing on these objections was completed on the 10th of May, 1916, after which the Plan presented by the Chief Engineer wrought out under the direction of the Board was adopted with several modifications and amendments. A complete presentation of the Plan was printed in three volumes, copies being furnished to this Court and interested parties and attorneys. In order that the fullest publicity might be given, notice of the adoption of the Official Plan was published in 29 newspapers of general circulation in the District.

On the 19th of June, 1916, this Court met at Dayton, Ohio, for the purpose of hearing and considering objections to the Official Plan. Upon its assembling an application was filed for a continuance. Consideration of the Plan was thereupon laid over until October 3, 1916, at which time the Court again met and proceeded with the hearing. This was completed on the 24th of November and on the 25th of the same month an entry was filed overruling the objections and approving the Official Plan as presented by the Board of Directors. There have been several modifications in minor details of the Plan approved by the Court, but the Plan as adopted has undergone no substantial or material changes or modifications.

APPRAISAL ROLL

On August 4, 1915, upon the recommendation of the Board of Directors this Court appointed Messrs. J. Edward Sauer of Dayton, Ohio, Samuel M. Goodman of Hamilton, Ohio, and Charles W. Kiser of Piqua, Ohio, as a Board of Appraisers for the purpose of appraising the benefits and damages resulting from the organization of the District and the execution of the Official Plan. The Appraisers qualified according to law upon said date and organized by the selection of J. Edward Sauer of Dayton, Ohio, as President, the Secretary of the Board of Directors acting as the Secretary of the Board of Appraisers, and the other officers and employees of the District cooperating with said Board of Appraisers as occasion required.

Immediately upon its organization the Board of Appraisers entered upon a thorough consideration of its problems and during the preparation of the Official Plan made an extensive examination and survey of the improvements and of the lands and other property affected thereby, preparatory to making appraisals. The large volume of work involved made the task an exceedingly difficult one and the Directors desire at this time to express their full appreciation of the patience, thoroughness, and skill with which the appraisal was accomplished.

The work was completed without undue delay and on May 9, 1917, the Appraisal Roll was filed and publication thereof was made according to law. This Court assembled in Dayton, Ohio, on June 18, 1917, approving the same on July 30, 1917, with such modifications as were made from time to time during the progress of the hearing. The Board of Directors had already made settlements for a substantial part of the lands damaged and since the approval of the Appraisal Roll other settlements have been made with the result that the number of appeals pending are few in number when considered in view of the many tracts involved. Of the total benefits approved by the Court, \$2,051,575.95 was appealed, but of this amount there have been settled or adjusted (October 1, 1918), \$966,364.25, from which there was realized the sum of \$847,895.91.

On the 6th of August, 1917, pursuant to the order of Court, the Board of Directors filed its election for easement or purchase of those lands for which settlement had not already been made.

CASH COLLECTIONS AND SALE OF BONDS

Upon the approval of the Appraisal Roll steps were taken pursuant to law to levy an assessment to cover the cost of the proposed work. This levy was made on the first of September, 1917, and amounted to the sum of \$27,804,480.64. Publication was duly had and every facility afforded for persons assessed to pay the assessments with the least inconvenience, the District opening sub-offices in each of the counties containing lands assessed. Cash collections were made in the sum of \$759,264.98.

At this point it became necessary for the Board of Directors to secure a market for its proposed bonds. The uncertainties at that time existing in financial matters growing out of international disturbances and accentuated by the financial needs of our own Government, led to the discouragement of all public or private financing except such as related directly to the winning of the war. In addition to this the Secretary of the Treasury regarded it as a patriotic duty on the part of any persons or corporations desiring to be financed to relate the same to the wishes of the Government.

The Board of Directors accordingly were confronted with a difficult problem. The responsibility for the protecting of life and property in the Valley from future floods remained as imperative as ever and any postponement of further operations in that respect as it appeared to the Board, might entail misgivings and uncertainties on the part of the public as to eventual protection.

In order to carry on the first year's work in which was involved the purchase of not less than \$7,000,000 of real estate, easements and settlements for damages, it was apparent that a substantial part of the bond issue should be disposed of. After considerable effort the Board of Directors succeeded in obtaining the assistance of an eastern syndicate consisting of The National City Company, the Guaranty Trust Company, and Messrs. Harris, Forbes and Company, all of New York, which as a result of negotiations purchased \$10,000,000 of the bonds, with a further option on \$5,000,000 more, at a price of 96, with interest. The Secretary of the Treasury who was consulted as to the necessity of the improvements consented to the issue in a letter reviewing at length the conditions in the Miami Valley, in which the propriety of the financing referred to was recognized.

Accordingly, on the 3d of December, 1917, a bonding resolution was passed providing for the issuing of \$24,340,690.53 of bonds to bear interest at 5½%, the same to be payable semi-annually, of

which amount \$15,000,000 was sold to the syndicate as above explained, the syndicate having exercised its option on the \$5,000,000 additional.

In view of the difficult and complex conditions existing in the securities market, the Board of Directors deemed itself fortunate in obtaining the assistance of a syndicate of the resources and wide connections of the companies above named. It is interesting to observe that the bonds when offered to the public were favorably received and met with a wide and popular distribution.

The bond issue provides for annual maturities beginning December 1, 1922, and ending December 1, 1946. These maturities are so arranged that the principal and interest becoming due constitute a fairly constant annual sum throughout the entire period, thereby equalizing over the period the annual assessments. The bonds and semi-annual interest are payable at the office of the Treasurer of the State of Ohio, also in New York.

A complete and satisfactory system has been installed for the registration of the bonds and interest coupons. The system adopted is the result of an investigation made as to the methods employed by various municipalities and others, and by adopting the best features thus obtained with features of its own, the Board of Directors believes that it has worked out a record for the bonds and interest coupons containing ample checks for preventing confusion and duplication, as demonstrated in the payment of the first installment.

BIDS

Immediately upon the close of the cash collection period the Secretary, under the direction of the Board of Directors and with the cooperation of the Chief Engineer, advertised for bids for the construction of the works. Several bids were filed and were opened on the 15th of November, 1917, but on account of the irregular and unsatisfactory character of the same, due mostly to war conditions and control of commodities by the Federal Government, all were rejected except one which pertained to a small section of levee work in the vicinity of Dayton, Ohio. Thereupon the Board of Directors passed the following resolution:

WHEREAS, The Miami Conservancy District has already adopted an Official Plan and which plan calls for construction of a large and extensive kind; and

WHEREAS, legal publications were duly had requesting bids for the construction of said works; and

MIAMI CONSERVANCY DISTRICT

WHEREAS, bids received, with the exception of that of The McWilliams Northern Dredging Company, proved unsatisfactory and were duly rejected at a meeting of this Board heretofore had; and

WHEREAS, after carefully canvassing the situation and the necessity for prompt progress in actual construction work, it appears advisable and reasonable for the District to construct the work upon force account.

THEREFORE BE IT RESOLVED, that immediately upon the financing of the enterprise the District proceed to organize for the purpose of construction and that all necessary and proper additions be made to the working force looking to that end, and that everything necessary be done to bring the construction of the flood prevention works to an early completion.

In view of the resolution the Chief Engineer under the direction of the Board of Directors proceeded to form an organization to carry on the construction work as shown in the Official Plan.

At the same time steps were taken to assemble machinery, equipment, material and supplies. On account of the stress of war which was then upon the country this presented another most difficult task. However, it became possible quite early in 1918 to proceed with the construction work. An open season singularly free from prolonged adverse weather conditions, has enabled progress to be made of a very substantial kind. This is reported on in detail by the Chief Engineer in his attached report, from which the Court will observe that construction is proceeding favorably at practically every point involved in the Official Plan and that where no work has yet been started it is due to the synchronized character of the whole. There are at this time approximately 1500 employees of the District in all departments. Certain portions of the work, however, could be more advantageously and economically handled by contract and accordingly wherever such was the case the Board authorized a sub-letting as will be shown in the Chief Engineer's report.

One of the most perplexing problems incident to construction work has arisen from the shortage of unskilled labor. The great demand for such labor in Government enterprises and those industries having priority has interfered to a large degree in the ready obtaining of necessary help, but the Board of Directors look forward to a simplifying of the conditions above described due to the cessation of the war.

LANDS AND FARM OPERATIONS

One of the most intricate pieces of work in connection with the District's operations grew out of the purchase of real estate and the acquirement of easement rights. Much of this had already been either optioned or contracted for. There were thousands of separate tracts, title to which was carefully abstracted and passed upon by competent attorneys. This work involved much detail and required great patience and skill. Substantially all of the real estate held under option or contract has been acquired, together with easements, and, with few exceptions, there only remain those tracts in which the valuations have been appealed. Many of the appealed cases have been settled, but there still remain for adjustment or adjudication several hundred cases.

The farm lands which have already come into the possession of the District have been placed under the supervision of a competent manager, and the prevailing prices of farm produce promise to furnish the District with considerable revenue. Wherever feasible, rentable city and village properties have also been continued on a revenue producing basis. This applies particularly to the Village of Osborn.

The District has leased 2500 acres of land in Bath Township, Greene County, Ohio, to the United States Government for an aviation field. This land lies within the Huffman Basin. The lease is upon a year to year basis for five years and calls for \$20,000 annual rental and contains an option of purchase at a sum of \$350,000.

The Board of Directors has not yet arrived at a final policy in regard to the farms, but at this time it is much inclined to the view that the same should in time reach the private owner. As to how this shall be accomplished, however, it is not prepared at this time to express its conclusion. But meanwhile, the farms will be maintained at the highest point of efficiency possible, with a view of preventing deterioration and waste. In any disposition of farm lands, however, the District will retain its necessary easement and other rights.

INTEREST AND DEPOSITS

The inactive funds of the District have been deposited at advantageous rates in various financial institutions including those of the Miami Valley, which received a substantial amount. We have no doubt that by this policy the acute local demand for funds incident to the Government's war financing and war industrial development was partially met.

TAXATION

On the 20th of April, 1918, the Board of Directors made its first annual levy for the collection of interest on the bonds by regular taxation processes. The amount of this levy was \$1,804,308. Duplicates were prepared for each of the counties and filed in August of this year with the auditors of said counties, and all the forms are most carefully complied with. Receipt books are being supplied to each of the County Treasurers and all steps have been taken for the regular and methodical handling of this important detail.

The amount of the annual levy is intended to cover two years' interest on the \$15,000,000 of bonds sold, together with the statutory ten percent contingent fund, and is payable in equal installments in the succeeding December and June, according to law. In order to take care of the June and December, 1918, coupons, it became necessary to anticipate collections by advancing out of the principal funds. Reimbursement to this extent will be made as soon as settlements are made with the County Treasurers. Meanwhile, the duplicate stands charged with \$825,000 to be repaid to the District as soon as realized.

In this connection it is interesting to know that the grand duplicates of the political subdivisions which stand charged with approximately 50% of the levy, have materially increased so that the total general rate incident to the Conservancy levy has not been excessively increased. It is almost safe to assert that within a period of four or five years the expanding duplicates will completely absorb the Conservancy rate so that the total rate of levy for all purposes in each political subdivision will again have approached normal.

AUDITORS

May 3, 1918, the Conservancy Court appointed Messrs. Tanner, Gilman and Ellis, of Chicago, Illinois, certified public accountants, to audit the books and financial transactions of the District. The length of time covered by the audit (three years), as well as the multitude of transactions growing out of the purchases of ma-

chinery, equipment, material, supplies, lands, etc., has required considerable time and much patient effort to complete the audit. We are informed that this is substantially finished and will be filed with the Court at an early date.

LEGAL STATUS

The Court is familiar with the many angles of this subject, as it has itself participated and assisted in the solution of a great variety of questions, many of which were quite novel in their character. The following cases are now pending:

1. Louis H. Orr, Appellant, vs. Henry M. Allen et al., Appellees, No. 288, October Term, Supreme Court of the United States, in which case the Appellant prays by his Bill of Complaint, filed June 12, 1917, in the United States District Court for the Southern District of Ohio, for an injunction restraining the Board of Directors from borrowing money or from levying assessments upon the real property of Orr, or from levying assessments upon the City of Piqua, Ohio, where his property is located. This case was heard by Judge Warrington of the Circuit Court of Appeals and Judges Hollister and Cochran of the District Court and a decision rendered in favor of the District on all points by a unanimous court. This case was appealed to the Supreme Court of the United States and was submitted upon printed briefs and the record October 14, 1918.

2. W. L. Silvey et al., Taxpayers in The Miami Conservancy District and the watershed drained by the Great Miami River, Complainants, vs. Edward A. Deeds et al., Defendants, No. 15, in the District Court of the United States for the Southern District of Ohio, Western Division. This case involves a multitude of questions, particularly that relating to the navigability of the Miami River and the public waterway character of the Miami and Erie Canal. The motion to dismiss on the ground of want of jurisdiction and other reasons was filed and submitted on oral arguments and briefs to Judge Hollister.

3. Joseph S. Blevins, Plaintiff, vs. the State of Ohio, No. 16 in the District Court of the United States of America, for the Southern District of Ohio, Western Division. In this case Plaintiff alleges that the State of Ohio has emitted bills of credit contrary to the Constitution of the United States, referring to The Miami Conservancy District's bonds, the motion being filed to dismiss this case, the same having been argued and submitted on brief to Judge Hollister.

A case was recently filed in the Common Pleas Court of Shelby County, Ohio, Marcus Mills, Plaintiff vs. The Miami Conservancy District of Dayton, Ohio, Defendant, in which our attorneys report questions already adjudicated are again sought to be raised.

Pursuant to the direction of this Court suits have been filed in various counties of the District pursuant to Section 34 of the Conservancy Act of Ohio, for the purpose of arriving at compensation for damages and the amount of benefits accruing to the particular property involved. Some of these cases are now in the process of hearing.

SUMMARY

In conclusion the members of the Board desire to express to the members of this Court their appreciation for their patience and cooperation in the difficult matters which have arisen since the inception of the District. The Board appreciates that many of the problems have involved great responsibility in arriving at a decision. Meanwhile, the Board has endeavored to handle its trust with a full sense of its duties and responsibilities.

It is gratifying to know that in a few more months certain parts of the Valley will already have had a certain degree of protection and that, no untoward circumstances intervening, by another year sufficient progress will have been made to furnish protection in a substantial degree.

It is proper to state at this time that with the readjustment naturally to be expected from the cessation of the war, the Board is encouraged to believe that the Official Plan will be completed according to schedule and is hoping to confine the cost within the estimates. In any event, the large real estate holdings of the District will constitute a valuable asset which can be resorted to if necessary.

Respectfully submitted,

EDWARD A. DEEDS,

HENRY M. ALLEN,

GORDON S. RENTSCHLER,

Directors of the Miami Conservancy District.

EZRA M. KUHNS, Secretary.
Dayton, Ohio, November 30, 1918.

EXHIBIT B
DEPARTMENT OF ENGINEERING AND CONSTRUCTION
Introduction

Since the decision was made in December, 1917, to do the bulk of the work with its own forces, the Miami Conservancy District has had to assemble a construction organization, purchase, transport, and erect a construction equipment, secure supplies, prepare living quarters at five dam sites, do the preliminary work, such as changes in river channels, clearing of timber, and removal of railroad tracks, and finally get well started on a diversified construction program. To accomplish this the Department of Engineering and Construction has spent, so far, \$4,253,564.39 and has in addition incurred obligations of approximately \$182,435.61, making a total of approximately \$4,436,000.

Equipment

The assembling of the construction equipment for the entire work is practically completed. This equipment represents an expenditure of \$1,500,000. The most important items are as follows:

18 draglines and 1 steam shovel, costing.....	\$470,820
13 standard gage locomotives and 98 cars, costing.....	315,000
6 narrow gage gasoline locomotives and 35 cars, costing	15,000
5 gravel screening and washing plants with concrete mixers and cement storage, costing.....	65,000
5 pumping outfits complete, for hydraulic method of dam construction, costing.....	50,000
1 central repair shop covering 14,000 sq. ft. with such equipment that major repairs can be made on machinery, and capable of a wide variety of work, costing	50,000
1,000 tons of steel rails, costing.....	61,000
60 trucks and automobiles, costing.....	90,000

The remainder of the amount spent for equipment was expended for the wide variety of tools and equipment necessary to accomplish such a diversified construction program as confronts the Conservancy District, such as drills, pumps, derricks, scows, hydraulic giants, pipe of many sizes, small concrete mixers, and many others. The equipment came from many sources. Probably 80 percent is new.

Supplies

The assembling of materials and supplies necessary to prosecute the work of the District is well passed the halfway mark. While much material is yet to be purchased, the greatest part has been necessary for the preliminary work and for placing concrete in the outlet conduits for the dams. This has largely been secured, and reserve supplies of cement, coal, and food stuffs, as well as minor supplies, are on hand to guard against interruption of the work this winter, due to a tie-up in the transportation system of the country. Lumber, pipe, and house building equipment have been supplied to build the construction camps, and food supplies to feed the workmen. To date, these supplies represent an expenditure of \$1,180,000. The most striking of these items are the 36,500 barrels of cement, and the 20,450 tons of coal that have been received on the work so far.

Transportation

To move this amount of equipment and supplies to the work has required 2,002 freight car loads, in car load lots, and a large number of less than car load shipments. In addition to the railroad service the District has organized and maintains a trucking service of its own, that operates between the different parts of the District.

Camps

As all five dams to be built are some distance from any town, it has been necessary to build five camps to provide living accommodations. Each camp has an eating hall and dormitories for unmarried men, houses for married men, houses for groups of men with their own cook, and a store for the accommodation of all, as well as an office, store, hospital, etc. All five camps have sewer and water systems, and electric lights. In the aggregate 200 buildings have been built or rebuilt for the accommodation of the employees of the District.

Work Done by District's Own Forces

The first time that the "dirt flew" on the work to be done by The Conservancy District was on January 24, 1918, when ground was broken for the construction of a siding from the Big Four Railroad at Huffman damsite.

By far the greatest part of all that has been done so far has been accomplished by the employees of the District themselves on the flood prevention works. Besides the preliminary work, which is practically completed, excavation for the outlet conduits for all the dams, excavation for the cut-off trench at four of the dams, placing of earth in four of the dam embankments, and concreting in the outlet conduits at three of the dams, are all well under way. The "hydraulic fill" has been started at Taylorsville.

Besides these physical evidences of progress, an organized construction force is at hand and settled down in the camps at the work. Except for a shortage of common labor the construction organization is complete.

Work Done by Contract

Wherever it has been to the interests of the District small contracts for minor parts of the flood prevention work have been let. To date the expenditures for this purpose have totaled \$106,000. The first work done under a contract for the District was started November 27, 1916, on the Dayton levees near Island Park. Since then levee work in Dayton and elsewhere, stripping on the dam-sites, pile trestles at the dams, building scows, boat building, temporary timber dams, etc., have been done in this manner, and in a large degree completed.

However, it was found expedient to let by contract the entire work of removing the Baltimore & Ohio, Big Four and Erie, and Ohio Electric Railroads to higher ground where they traverse the retarding basins, with the exception of some of the concrete culverts on the Big Four and Erie. To date \$600,000 has been spent to meet the estimates on these railroad contracts. The work is well under way towards final completion.

Volume of Work Done

A considerable proportion of the work to date has been done in getting the machinery on the ground, building camps, preparing the ground for the work to follow, and in a number of places in shifting the position and conditions of the existing water-ways. But considerable progress has been made in the actual construction of the protection works themselves, and the following tabulation shows the quantities of the material moved or placed up to October 16, 1918:

Earth removed from cut-off trenches and outlet works at the various damsites.....	274,680 cu. yds.
Loose rock and hard pan removed from cut-off trenches and outlet works at the various damsites	64,000 " "
Solid rock removed from cut-off trenches and outlet works at the various damsites.....	535 " "
Clearing and grubbing trees from damsites.....	21 acres
Earth removed in stripping the surface layer of dirt from the damsites.....	98,127 cu. yds.
Earth placed in the dams.....	87,900 " "
Earth moved in permanent road building.....	7,840 " "
Earth taken out of the river channels in the various city improvements.....	47,190 " "
Earth placed in levees in the various city improvements	55,800 " "
Earth placed in levees in dressing the surface for seeding	2,000 " "
Excavation and back fill in sewers in the various city improvements	2,360 " "
Concrete placed on the entire work, exclusive of public service relocations.....	11,680 " "

On the public service relocations the following volume of work has been done:

Earth excavation	193,500 cu. yds.
Loose rock excavation.....	15,000 " "
Solid rock excavation.....	255,500 " "
Concrete in structures.....	8,500 " "

Proposed Work for the Remainder of the Fall and for the Coming Winter

In general, the work for the coming winter will consist in continuing the actual construction of the flood prevention works, which has had a good start this summer and fall. The preparatory and preliminary work having been practically completed, there is every reason to expect substantial progress on these flood prevention works before next summer.

It is planned that the outlet conduits for the dams at Germantown, Englewood, and Lockington will be completed. The placing of earth in the dam at Englewood by the hydraulic method will be started.

At Taylorsville, the placing of earth, by the hydraulic method in the dam, which has just started, and the excavation for the outlet conduits, will both be continued. At Huffman it is expected that excavation for the outlet conduits will be completed. Excavation in the river and levee construction at Dayton and Hamilton will go forward throughout the winter. The public service relocations will progress rapidly and will show a substantial part of their construction completed.

Forces at Work

At present an average of 1200 men are at work every day, with an average of 1500 men on the payroll. Payroll expenditures to date have been \$1,050,000.

Survey Work

Before the construction period started, all the proposed work had been located and staked out by the survey parties. Nothing remained to be done except to give line and grade, and construction stakes, to the working forces. Small surveying parties are maintained on the construction work to do this. As land was purchased, it has been necessary to survey a considerable proportion of this, and to stake off the right-of-way as it was needed. Miscellaneous surveys are also sometimes necessary, and survey parties are kept busy in doing this kind of work, and in handling the highway relocations in the basins, which are not close to the other work.

Directive Work

The construction program to be followed is worked out in advance, drawings prepared, and the material ordered. A force is maintained to do this and while not large, does a big volume of work, and is, at present, a long ways in advance of the actual construction program.

Attached are reports from the directive heads of the various divisions, setting forth in more detail the work accomplished to date in their divisions.

Respectfully submitted,

ARTHUR E. MORGAN,
Chief Engineer.

October 15, 1918.

GERMANTOWN DAM

Equipment Installed

To date there has been installed on the job the following construction plant and equipment:

- 1 Lidgerwood electric dragline, 100-foot boom, 2½-yard bucket.
- 1 Marion steam shovel, 40-foot boom, 1½-yard bucket.
- 2 40-ton steam, saddle tank locomotives.
- 10 12-cubic yard air-dump cars.
- 1 complete plant for screening and washing sand and gravel, and for mixing concrete.

Part of the equipment and machinery for sluicing plant.

All piping, trackage, and electric wiring for operation of screening and concrete plant, pumps, motors, compressors, cable, etc.

Commencement of Work

The first machinery for the Germantown Dam arrived on March 11, and the next day the first actual work was begun by unloading of same. Equipment and material continued to arrive steadily after this date, and the months of March, April, May, June and July were spent in hauling out and erecting machinery and in building camp, camp roads, etc.

The survey party began staking out the dam and outlets on March 20; on the 23d a small gang began cleaning and grubbing brush on damsite.

Work Done by Force Account

Camp Construction. In order to secure and keep the necessary labor, it was necessary to construct a camp for the accommodation of 250 laborers and their families. To provide the above accommodations a camp has been laid out and constructed containing 25 cottages, 12 bunk houses, 1 central mess house, 1 store, 1 camp warehouse, 1 heating plant for heating mess and store, and 1 school-house. All the buildings are lighted by electricity, and connected up with sewerage and water supply pipe lines. At present the camp is about 96 per cent completed.

Before any work could be done on any of the permanent features of the dam, certain preliminary construction had to be completed, such as roads, warehouse, shops, transmission lines and temporary railroads.

Roads. When actual work was started, parts of the roads from Germantown to the damsite were in very poor condition, and before much hauling could be done, certain stretches had to be gravelled. About 3000 cubic yards of gravel has been hauled and spread, most of which was put on the road on the south side of Twin Creek, on the stretch from the covered bridge to camp. This road, after a rain, previous to the application of gravel, was nearly impassable.

A new road about $1\frac{1}{2}$ miles long has been built from the present road on the north side of the river to the construction plant, and at the present time all of our material, cement and coal is being hauled over it.

Warehouses. As our camp is on the south side of the river and our construction plant is on the north side, we have established a warehouse on each side of the river. On the camp side a building 18 ft. x 52 ft. was built for storing supplies which are needed on the camp side, while on the north side, an old tobacco shed was partitioned off and is used for a warehouse for storing material. We also built a cement warehouse on the north side of the river for storing 3000 bbls. of cement.

Shops. A building 20 ft. x 60 ft. was built for a combined blacksmith, machine, and carpenter shop.

Transmission Lines. Transmission lines were constructed up to our substation by the Dayton Power and Light Company. The substation and distribution lines were constructed by the Conservancy force, as needed for construction purposes.

Temporary Railroads. On this job $1\frac{1}{2}$ miles of standard gage and about $\frac{1}{2}$ mile of 36-inch gage track has been constructed. The standard gage track is used for disposing of the rock excavated by dragline for conduits and outlet channel, while the 36-inch gage track is used for concrete distribution.

Clearing and Grubbing. This work was started on March 23 and continued intermittently to the present time as the progress of the soil stripping, excavation of conduits, and outlet channels continued. It has been the plan not to do more of this than what was absolutely required to keep ahead of this season's work, as it can be done during the winter months, and thus serve to hold the force together.

Excavation of Cut-Off Trench and Outlet Works

This work was begun on July 31, upon completion of the erection of the dragline machine. The top soil was first stripped off to an average depth of about one foot.

A puddle trench to cut off seepage into the excavation was then dug and refilled with impervious material, tying into the main cut-off trench. The excavation for the outlet structure was then commenced and has progressed without interruption. At the present time the dragline has completed the outlet portion and is now digging in the conduit proper. During this period 500 cubic yards has been averaged for the actual day's work. The loam, clay, and gravel suitable for embankment has been placed within the limits of the dam to be later spread in layers and properly compacted, while the unsuitable material has been wasted either in a spoil bank directly below the dam, or else loaded in cars and hauled to another spoil bank to the north.

Work Done by Contract

Agreement No. 16, dated June 3, was entered into with Joseph Connelly for the stripping of material at the Germantown Dam at 50 cents per cubic yard, which contract was completed on July 31.

Classification and Quantities of Work Done

The quantities of the work done on this job, up to date, are as follows:

Clearing and grubbing.....	0.6	acres
Soil stripping	2,121	cu. yds.
Excavation, cut-off trench.....	4,465	" "
Excavation, outlet works, Class 1 (earth).....	16,000	" "
Excavation, outlet works, Class 2 (earth & rock).....	14,000	" "
Excavation, Road No. 1, Class 1 (earth).....	2,220	" "
Concrete, Road No. 1.....	15	" "
Concrete, outlet works.....	840	" "
Reinforcing steel, outlet works.....	6,000	lbs.
Reinforcing steel, Road No. 1.....	924	" "

Proposed Work for This Season

First; we will complete the excavation of the portion of the conduit, and entrance and outlet channels, which are to be concreted. Second, we will rush the concreting as much as possible. Third, we will start excavation for outlet works on the portions above and below the concrete sections. Fourth, we will complete clearing and grubbing the damsite. Fifth, do the necessary soil stripping on the north and south ends to elevation 780, and clean out the river channel. Sixth, we will drive steel sheet piling across the river along the center line of the dam.

Forces at Work

At the present time, there are 198 men on our payroll.

Other Information

All our form lumber has been delivered to the job, and a miscellaneous supply for stock has been ordered. By October 22 we expect to have our winter supply of coal laid in; that is, 50 carloads or about 2500 tons.

We have in storage at our cement warehouse 300 barrels of cement and this, as fast as it is being used, is replenished daily by new shipments.

ARTHUR L. PAULS,
Division Engineer.

October 15, 1918.

ENGLEWOOD DAM

Equipment Installed

In addition to the items of plant mentioned in the description of the work, and, in part to recapitulate, the following may be listed:

- 2 large draglines, electric
- 1 large dragline, steam
- 1 medium size dragline, steam
- 1 small dragline, steam
- 1 locomotive crane
- 1 gasoline locomotive
- 4 standard gage, 40-ton locomotives
- 20 standard gage, 12-yard air-dump cars
- 4 concrete side dump cars
- 1 Sullivan air compressor
- 14 electric motors, various horsepower up to 500
- 20 transformers

Work Commenced

Clearing of brush and trees from the damsite was begun February 20, 1918, and this date marked the commencement of actual construction on the Englewood Dam. On that day the Marion Model 36 steam shovel began grading the roadbed.

Preparatory Work

A standard gage railroad spur was constructed, connecting with the Dayton, Toledo and Chicago Railroad at a point about $\frac{1}{2}$ mile south of Englewood. The total trackage aggregates about 3.2 miles, of which 1.9 miles is permanent for the life of the job and 1.3 miles will be shifted as occasion arises to meet the requirements of construction.

In connection with the railroad line a contract for the construction of a pile trestle, about 280 feet long, across Stillwater River was entered into with Price Brothers of Dayton. Work on this contract was begun April 11, 1918, and the bridge was substantially finished May 2.

Camp Construction. On March 6, 1918, a gang of carpenters began work on the construction of the camp buildings. A large tobacco house was remodeled into a 72-man bunkhouse. Similarly an existing barn was transformed into a 52-man bunkhouse. Following the established principle of utilizing all existing buildings not interfered with by construction operations, a farmhouse was used, first as a temporary mess hall and later as a bunkhouse. Also

a summer bungalow was adapted to a residence for the Division Engineer, another is being remodeled into a schoolhouse, and still another will be made suitable for permanent residence of a member of the engineering force.

Following is a list of the buildings:

- 1 72-man bunkhouse (remodeled)
- 1 52-man bunkhouse (remodeled)
- 1 16-man bunkhouse (remodeled)
- 1 schoolhouse
- 2 bungalows (remodeled)
- 2 8-man bunkhouses
- 4 cottage bunkhouses
- 35 cottages
- 1 mess hall
- 1 store
- 1 office
- 1 hospital

All the cottages are occupied and there is a waiting list of prospective tenants. To partially relieve the situation two 2-family cottages are in process of erection. Complete water supply and sewerage systems have been installed for the camp.

About 5,000 linear feet of roadway, of 30 or 40-foot total width, have been graded and surfaced with gravel. Some of this work was by contract, as a result of competitive bids, and some by the forces of the District. The general subgrading, such work as was adaptable to mechanical excavation, was let by contract to L. A. Marshall of Dayton. The material was excavated by means of a Keystone excavator and teamed to the fills, the road profile being calculated to balance cuts and fills. Work was begun April 3 and substantially completed April 24. The gravel surfacing is being done by the District's teams, utilizing them for this in conjunction with the other teaming demands of the work.

Power Transmission. Power is furnished for operating the principal items of plant by the Dayton Power & Light Company. The local sub-station is located upon a gravelly knoll near the dam. Here are erected five 500 KVA transformers, reducing the voltage from 33,000 to 2,300. Further reduction of voltage is accomplished at the secondary transformers, where the voltage is stepped down from 2300 to 440 for the machines, and to 110 for the lighting.

Shops, Etc. A combined blacksmith shop, carpenter shop, and job warehouse has been erected near the lower end of the outlet conduit. Near the upstream end of the conduit the gravel screening

and concrete mixing plant, as well as a cement shed of 3000 barrels capacity, have been constructed.

Permanent Work

Clearing and Grubbing. Work done to date, 3 acres. Work was begun March 11 and has proceeded intermittently to date, as needed.

Removal of Buildings. This work was done partly by forces of the District and partly by selling the buildings to purchasers who were required to remove them from the site. This item is about 90 per cent completed.

Soil Stripping. This item aggregates about 41,000 cubic yards and the work was contracted for, as a result of competitive bidding, with Ward Brothers of Cleveland. Work started April 6 and was continued to May 6, when the outfit was moved to Taylorsville Dam. Work was resumed June 7 and completed July 10. The soil was excavated by means of an elevating grader, at times hauled by mule power and at others by a traction engine, and transported to the toes of the dam in bottom dump wagons. Here it was piled in windrows to be later spread over the finished slopes of the dam.

Excavation of Cut-Off Trench. A Bucyrus, electrically operated, Class 24 dragline, equipped with a 5-yard bucket and an 85-foot boom, excavated the cut-off trench along the center line of the dam, east of the river, for a distance of about 700 feet. The average depth of the cut was about 10 to 12 feet and it was about 20 feet wide. The excavation amounted to 8300 cubic yards and was spread by the dragline upon the downstream portion of the dam in the form of permanent embankment.

Excavation and Concrete in Outlet Works. Excavation for the outlet conduit was started by the large steam Bucyrus dragline on May 10 and is nearly completed. About 54,000 cubic yards have been excavated. Some of the material was wasted, but about 20,000 cubic yards were placed near the downstream side of the dam east of the river. In this way waste material was so disposed as to prevent the outwash from the conduits during floods from reaching the lower toe of the dam. The remainder of the excavation was dumped below the dam on the west side of the river. A pleasing feature in this excavation was the excellent foundation uncovered for the conduits. While it was known that this was satisfactory, the actual conditions were even more favorable than preliminary investigations had indicated.

Concreting in the conduits was begun on August 10 and to date approximately 4000 cubic yards have been placed.

Rolled Embankment. To safeguard the water-tightness of the structure, an impervious clay blanket was placed upon the upstream portion of the foundation of the dam where the underlying material was gravel. The average thickness of the blanket was 3 feet. Work was done by Ward Brothers, Cleveland, Ohio, between July 11 and September 11. The yardage amounted to 20,000. The material was excavated upstream from the dam and rolled by a steam roller into 6-inch layers.

To enable the actual embankment work to start this season, preparations are being made to begin hydraulic fill east of the river. A cross dam is being constructed from toe to toe of the main dam, to serve as an earth retaining wall, thereby preventing the material deposited by the hydraulic pumps from spilling out at the end. Work on this was begun October 14 and is progressing favorably. The material is being deposited in a saturated condition, and worked into place by a large electrically operated dragline.

Proposed Work for the Season

It is expected that the outlet conduits will be practically completed this season. The hydraulic pumping plant will be installed in a month or so and hydraulic fill commenced. The river bed and banks will be stripped to a good foundation for embankment by means of the large steam dragline now excavating for the conduit.

About 6000 tons of coal have been stored upon the ground. Sufficient lumber is available in the job lumber yard for the contemplated needs of the near future.

Forces at Work

During the week ending October 15, 386 men were on the payroll.

H. S. R. McCURDY,
Division Engineer.

October 15, 1918.

LOCKINGTON DAM**Equipment Installed**

- 1 electric dragline, 100-foot boom, 2½-cubic yard bucket
- 1 steam dragline, 65-foot boom, 1½-cubic yard bucket
- 2 steel derricks, 105-foot booms, 120-foot masts, operated by two drum electric hoists
- 2 gasoline dinkys, 36-inch gage, 3-ton
- 1 steam dinky, 36-inch gage, 18-ton
- 8 6-yard hand-operated dump cars, 36-inch gage
- 7 heavy flat cars, 55-inch x 55-inch platform, 36-inch gage
- 7 steel, bottom dump, self-dumping buckets, capacity 1¼ cubic yards
- 1 10-inch x 10-inch Sullivan air compressor
- 1 gravel plant, complete, consisting of 160-foot incline belt conveyor
 - 3 revolving screens
 - 1 drill patent sand separator
 - 1 screw conveyor sand separator
 - 3 storage bins and measuring chutes with steel gates
- 1 1-yard Smith concrete mixer with charging hopper
- 1 6-inch centrifugal pump, belted to motor
- 1 4-inch centrifugal pump, belted to motor
- 1 4-inch centrifugal pump, direct connected to motor
- 2 33,000 to 2300-volt transformer banks, each consisting of two 400 KVA self-cooled transformers
- 1 33,000-volt steel transformer tower complete with disconnecting switches, fuses, choke coils, and electrolytic lightning arrestors
- 1 shop equipped with 1 forge and blower, 1 saw rig, 1 band saw, 1 drill press, 1 grinding wheel, and other small tools
- 1 warehouse including stock of small tools, equipment, and supplies

Commencement of Work

The work at Lockington began February 28 by clearing brush and cutting railroad ties.

Work Done by Force Account

Two farm buildings and fences were removed from site of dam, and land cleared of trees and brush. Buildings were remodeled for office, cottage, and three bunkhouses. Sanitary sewer system, electric lighting, and domestic water supply were installed, including 127-foot drilled well, electric pump, and 18,000-gallon tank. A half mile of road was built through camp, being part of a permanent detour to carry traffic which formerly went over the county road crossing the damsite.

Plant construction consisted in cutting ties and building one-half mile of electric railroad track to connect the Western Ohio Railroad with cement shed, shop and warehouse; building 5 miles of 33,000-volt pole line to the dam from Piqua for power supply; building gravel bins, gravel washing and screening plant, cement storage shed, cement mixing plant, general shop, warehouse; erecting draglines; building narrow gage track to haul gravel to hopper of washing plant, waste to spoil bank, and concrete from mixing plant to forms.

Work Done by Contract

Joseph Connelly stripped the damsite of sod. Portions of the camp buildings were built by contract.

Classification and Quantities of Work Done

Clearing and grubbing damsite.....	7 acres
Soil stripping	11,870 cu. yds.
Earth excavation for outlet works.....	66,665 " "
Rock excavation	535 " "
Excavation for highways.....	1,000 " "
Concrete in outlet works.....	8,300 " "

Proposed Work for the Season

We will continue concrete work in outlet structure, placing approximately 16,000 cubic yards before winter. The balance, about 16,000 cubic yards, will be placed next spring so that creek can be turned through its new channel and earth fill of dam started by May or June, after the spring rains have ceased.

Contract has been let for immediate repair of the State dam at Port Jefferson, needed to divert water from Miami River into a feeder of the Miami and Erie Canal for use next year in placing the hydraulic fill in the dam.

It is planned to have the large dragline finish its work on the outlet excavation in order to use the machine during the winter for clearing the river bottom and excavating the cut-off trench. With the earth excavation completed, the rock excavation in the bottom may be completed during periods too cold for concreting. The road work will be put in condition to be continued during weather not suitable for concreting. During the winter, the dredge pumps and motors, which are on the ground, will be installed preparatory to sluicing and pumping for the hydraulic fill. Pipe and high pressure water pumps are also on the ground ready to be installed. Arrangements have been made with the Dayton Power & Light Co.

for a 33,000-volt transmission line from Taylorsville dam to Piqua, to insure continuous power supply during the winter months. A supply of coal has been ordered for steam dragline, steam dinkey, and domestic supply.

Forces at Work

At Lockington about 100 men are regularly employed.

BARTON M. JONES,
Division Engineer,

October 15, 1918.

TAYLORSVILLE DAM

Equipment Installed

The locomotive crane arrived March 21. The first car of Class 14 Bucyrus dragline arrived March 23. This machine was erected and started work on April 15. The Lidgerwood 100-foot boom dragline began to be delivered at site of outlet works on April 29. Erection was completed and work started on excavation for outlet works on July 18.

On April 12 ten 12-yard standard gage Western dump cars arrived. On May 29 one 50-ton American saddle tank locomotive arrived. This was later sent to Hamilton. On June 4 the erection of the Marion Model 36 caterpillar dragline was started. This machine started work on June 18. On June 23, two 40-ton American saddle tank locomotives arrived.

Other equipment that has arrived from time to time either on the job or at the warehouse, and has just recently been installed ready for service, is as follows:

Two 6-inch Allis-Chalmers centrifugal pumps, 150-foot head, with 75 H. P. Allis-Chalmers motors; one 12-inch Allis-Chalmers centrifugal pump, 80-foot head, direct connected to a 150 H. P. Allis-Chalmers motor; two 15-inch United Iron Works dredge pumps, direct connected to 350 H. P. Allis-Chalmers motor. (Only one outfit installed at present.)

In connection with the pump installation there has been laid about 1000 feet of 18-inch wood stave pipe, about 1000 feet of 15-inch 12-gage spiral riveted pipe, and about 1300 feet of 15-inch 10-gage dredge pipe.

Work Commenced

February 8 started construction on siding just south of dam-site. This was finished enough for about 3 cars in about four weeks.

Work Done by Force Account

36 cottages
11 bunkhouses
1 mess hall
1 large building containing bakery, ice plant, and meat shop
1 commissary
1 office
1 schoolhouse
1 boiler house
1 pump house and well for camp water supply
1 farm house remodeled for club house
1 sedimentation tank
1 16,000-gallon water tank
7,000 feet of sewers and water mains
1½ miles of gravel roads

Preparatory work has consisted of the following:

10 acres of timber land cleared
8,000 feet of standard gage railroad
Gravel screening plant 75% complete
Old barn converted into warehouse
10,000-gallon water tank for locomotives
About 10,000 feet of transmission and lighting lines running from No. 8 to 4/0 wire
1 pump house 12 ft. x 70 ft. on pile foundation, with intake sump about 17 feet deep and 90 ft. x 30 ft. (for sluicing pumps)
1 dredge pump house 15 ft. x 20 ft. with intake sump in rock 12 ft. x 12 ft. x 10 ft. deep

Permanent Work. Excavating for the cut-off trench between the railroad and the river was started on May 7 with the aid of a Class 14 Bucyrus dragline. The excavated material was dumped in a waste bank about 40 or 50 feet north of the trench. That part of the cut-off trench near the outlet works on the east bank of the river was excavated by a large Lidgerwood dragline. The principal part of the excavation for the outlet works was taken out by the small caterpillar dragline working as a steam shovel. The material was loaded into 12-yard dump cars, hauled across the river and placed in the cross dike near the west bank of the river. The balance of the material taken from the cut-off trench has been handled by the Lidgerwood dragline, and most of it was placed in the cofferdam levee between the outlet works and the river.

Work Done by Contract

The first permanent work done on the dam was soil stripping, which was let by contract to Ward Brothers. The work was started on May 6 and finished in about four weeks. The work was done by elevating grader drawn in good weather by a large traction engine and in wet weather by 16 mules. The dirt was taken away from the grader by 3-mule teams in bottom dump wagons. On good days they were able to handle about 1000 yards a day.

Two timber trestles across the river, one 500 feet and the other 450 feet long were built under contract by Price Brothers.

A road to the damsite from the west was built in part by Ward Brothers and in part by Farrell & Compton.

Classification and Quantities of Work Done

Soil stripping	15,400 cu. yds
Cut-off trench excavation.....	25,050 " "
Outlet works excavation.....	24,400 " "
Embankment in dam.....	19,800 " "

Proposed Work for the Season

About 35,000 cubic yards is to be placed yet in the cross dike. About 20,000 cubic yards of dry excavation is to be placed in the upper toe of the dam and wetted down. About 75,000 cubic yards of hydraulic fill is to be pumped from the outlet excavation into the dam.

Preparation for Winter Work

Sixty-three cars of coal have been received. An effort is being made to get form lumber so that much of this can be cut during winter. An effort is being made to remove the earth from the south end of the outlet channel, so that during the winter the Lidgerwood dragline can continue on the excavation of the harder material.

Forces at Work

There are 216 names on this week's payroll. The average is probably 160 since beginning of work.

O. N. FLOYD,
Division Engineer,

October 15, 1918.

HUFFMAN DAM

Equipment Installed

- 1 $4\frac{1}{2}$ -cubic yard electric dragline, with 85-foot boom
- 1 $1\frac{1}{2}$ -cubic yard steam dragline with 60-foot boom
- 2 40-ton locomotives
- 21 12-yard side dump cars
- 14 electric motors
- 12 transformers

One-half mile of transmission lines have been erected for furnishing power to the various machinery and equipment on the job.

Work Commenced

On Jan. 24, 1918, the first ground was broken at Huffman Dam. It consisted of grading for a siding connecting with the Big Four Railroad. This siding and also one connecting with the Erie Railroad, for the delivery of equipment and material, were completed before March 1st. The first car-load of equipment was delivered to the Erie siding on March 1st, it being a part of a $1\frac{1}{2}$ -cubic yard dragline. On April 1st, this dragline began excavating material to build railroad embankment for our construction tracks.

Work Done

Preparatory Work. For the housing of employees, 27 cottages, two 24-man, four 8-man, and two cottage bunkhouses have been built, and an existing farmhouse remodeled for a dormitory. An existing brick building has been rebuilt for a mess-hall. Buildings have been erected for offices, store, and first-aid hospital. Water supply and sewer systems have been completed for the camp. All the buildings are equipped with modern plumbing and connected with these, water and sewer systems; 3000 feet of camp roads and streets have been graded and surfaced with gravel.

A 34-ton capacity dynamite house has been built. Existing buildings have been remodeled for garages and warehouses. A carpenter and blacksmith shop have been erected and equipped.

The gravel washing and screening plant for supplying the aggregates necessary for the 42,000 cubic yards of concrete required in the outlet works, has been completed. The mixing plant for the above concrete has been installed; 6500 feet of railroad track have been built for construction purposes, involving 300 feet of trestle, and the placing of 25,000 cubic yards of embankment. About 10,000 cubic yards of material has been placed in dikes and coffer dams to protect the work from high water during its construction.

In the preparation of the site of the dam, 7 acres of timber land have been cleared and the stumps and roots grubbed out; 23,000 cubic yards of soil stripping have been excavated by contract; 150 holes with a total length of 3000 feet have been drilled for blasting the limestone excavation, required for the outlet works.

It has been necessary to divert the channel of the Mad River for a distance of 2000 feet. This required the excavation of 24,000 cubic yards of material. 10,000 cubic yards of material have been excavated, being part of a cut-off trench under the dam, along its axis. This 10,000 cubic yards of material has been assorted and placed in its proper place in the permanent embankment for the dam; 6000 cubic yards of additional selected material have been brought from borrow pits and placed as rolled embankment for an impervious blanket under the upstream half of the dam; 3000 cubic yards of ballast gravel have been furnished to the Big Four Railroad for ballasting their relocated lines. The Ohio Electric Railroad track, for a distance of $1\frac{1}{2}$ miles, and the Big Four Railroad tracks, for a distance of $1\frac{1}{4}$ miles, have been moved, in order to allow the outlet works for the dam to be built.

Proposed Work for the Season

The excavation of the 180,000 cubic yards of material required to be moved for these outlet works, will commence at once, and it is expected that the work will proceed uninterrupted during the winter until completed. The placing of the concrete in these outlet works will be begun and proceed as the seasons will allow.

Forces at Work

There are, at present, about 125 employees in this division.

Other Information

All of the sheet piling required for the cut-off trench under the dam has been delivered and will be driven during the winter. All of the 50 tons of reinforcing steel required on this division is on the ground. A stock of lumber has also been delivered. A supply of coal sufficient for all the requirements of the job during the next year, has been placed in stock. A large supply of dynamite and powder has been stored near the job.

C. C. CHAMBERS,
Division Engineer,

October 15, 1918.

DAYTON IMPROVEMENT

Equipment Installed

The principal equipment installed to date by the District for prosecuting the Dayton channel improvement is as follows:

- 1 Bucyrus electric dragline excavator No. 789, 125-foot boom, 3½-cubic yard bucket
- 1 Bucyrus electric dragline excavator No. 790, 135-foot boom, 3½-cubic yard bucket
- 1 deck scow 40 ft. x 80 ft. x 6 ft., for mounting dragline excavator
- 3 deck scows 40 ft. x 120 ft. x 5 ft., for transporting excavated material
- 1 deck scow-tender 8 ft. x 18 ft.
- 2 8-inch centrifugal electric driven pumps for unwatering trenches for laying city water mains in river channel
- 3.4 miles transmission line of three No. 3 bare wire, from Miller's Ford lower station to Main Street
- 1.9 miles transmission line of three No. 0 bare wire, above Main Street

Work Commenced

The first construction on channel improvement in Dayton under supervision of the District consisted of raising the levees opposite the new Island Park Dam, as required by the construction of this dam. This work was done by C. L. Reichelderfer & Son under contract with the City of Dayton, and involved 13,800 cubic yards of levee embankment, 1,600 cubic yards of surface dressing and grassing, 1,140 linear feet of timber piles, and 380 cubic yards of concrete retaining wall, as principal quantities. It was begun November 27, 1916, and completed the following year.

The major work of channel excavation was begun at Herman Avenue Bridge June 4, 1918.

Work Done by Force Account

This has consisted principally of channel excavation and levee work along Miami River above the mouth of Mad River. A total of 198,000 cubic yards of channel excavation has been moved, 51,000 cubic yards of which have been placed in final position, in levee embankment or in soil bank.

A 12-inch cast iron water main and a 4-inch compressed air pipe have been uncovered and relaid in the river channel.

Work Done by Contract

Feature No. 41, consisting principally of 58,300 cubic yards of levee embankment and 8000 cubic yards of soil stripping above Island Park Dam, was let to the McWilliams Northern Dredging Co. They began operations July 3, 1918, using a Monighan walking dragline excavator with a 70-foot boom.

Contract for building four timber deck scows was let to Mahaffey Brothers, and was completed September 26.

A temporary timber dam is being built under contract by Price Brothers Construction Company across the Miami River above Third Street, to pond the river for floating scows and excavating machines.

Classification and Quantities of Work Done

Clearing and grubbing.....	0.4 acres
Channel excavation	47,000 cu. yds.
Embankment (Class D).....	4,000 " "
Embankment (Class E).....	37,800 " "
Surface dressing and grassing.....	2,000 " "
Concrete in retaining walls.....	380 " "

Proposed Work for the Season

Construction of a 20 ft. x 70 ft. steam tug for towing scows has been started. Construction of a dry dock for use in keeping the scows and tug in repair is being planned. This will be made in an existing basin on the upstream side of the temporary dam, the natural gravel bottom and sides of which will not be floored with wood.

Dragline No. 789 is now building up a portion of the spoil bank on which will be located a plant for manufacturing 175,000 reinforced concrete paving blocks. The blocks will be made by Price Brothers Construction Company under contract, work on which will be started within a month. No other concrete work is contemplated during the winter.

Excavation on the main channel work will continue through the winter so far as permitted by ice conditions.

An additional dragline excavator on caterpillar mounting, with 60-foot boom, has been requisitioned for building levees, trimming slopes, excavating under bridges, and for making the channel excavation on Features Nos. 45 and 46.

Forces at Work

The number of men employed on the force of the District is as follows:

Maximum payroll.....	50
Minimum payroll, since June 1, 1918.....	30
Average from June 1 to date.....	36

C. A. BOCK,
Division Engineer.

October 15, 1918.

WEST CARROLLTON IMPROVEMENT

A contract was made with J. I. Geiger, June 15, for the construction of local protection work at West Carrollton. Work commenced on June 24, and on October 15, 14,000 cubic yards of embankment, or about 40 per cent of the work, had been completed.

The contractor's equipment consists of 10 wheeled scrapers and small tools. The force employed is about 20 men. Work has been suspended for the season on account of lack of right-of-way.

J. H. KIMBALL,
Constructing Engineer.

October 15, 1918.

FRANKLIN IMPROVEMENT

A contract for the construction of paving on the Dixie Highway of 1.26 miles northerly from the Franklin corporation line has been entered into between the State Highway Department and Messrs. Williams and Little, of Cleveland. This section of road included two points at which the road was to be elevated in connection with the levee construction of the Franklin improvement. In order to avoid the expense of repaving the roadway, arrangements have been made with the contractors to place the necessary filling for the elevation of the road previous to its paving. The filling at the more northerly of the two points; that is, opposite the dam at Chautauqua, has now been made. The filling at the north corporation line will probably be made about November 1. The arrangement entered into with the contractor is the payment of actual cost for work done, plus 10 per cent.

Work commenced September 28, and to date about 75 percent of first road elevation, containing about 1,000 cubic yards embankment has been completed. The two road elevations are to be completed this season.

The raising of the tracks of the Cincinnati & Dayton Traction Company is being done by that Company.

J. H. KIMBALL,
Constructing Engineer.

October 15, 1918.

MIDDLETOWN IMPROVEMENT

The early construction of the proposed levee at Middletown, south of the Cincinnati & Dayton Traction Company's bridge, having been requested by residents particularly interested, bids were received on September 20 for the construction of this work, involving the length of about 6000 feet and an embankment containing about 65,000 cubic yards of material. The bids first received were not satisfactory, but a satisfactory bid was received from Donald Jeffrey of Middletown on October 9, and the work was let to him. The beginning of the actual placing of levee embankment is expected within a few days.

The contractor's equipment consists of one railroad shovel with 70-foot boom, fitted with dragline bucket. Work was commenced October 10, 1918, on placing the equipment. The work to be done during the present season consists of about 6,000 feet of levee construction involving the placing of about 65,000 cubic yards of embankment.

J. H. KIMBALL,
Constructing Engineer.

October 15, 1918.

HAMILTON IMPROVEMENT

Equipment Installed

Feature No. 58, Hamilton Local Protection—Miami River

- 1 class 24 Bucyrus electric dragline, 100-foot boom, 3½-cubic yard bucket
- 1 class 14 Bucyrus steam dragline, 60-foot boom, 1½-cubic yard bucket
- 1 48.5-ton American saddle tank locomotive No. 3; two others which are now elsewhere on the District work will be added later
- 30 12-yard Western air-dump cars
- 200 gross tons 60-lb. rail
- 10 frogs and switches
- 1,000 feet of 1-inch water pipe
- 1 5-ton Pierce-Arrow truck
- 1 Ford touring car
- 1 Ford light delivery
- 1 300-gallon gasoline tank and pump
- 50,000 feet (approximate) copper wire No. 2-0
- Transformers for power and lighting

Feature No. 60 Sewer Construction Made Necessary by River Improvement

- 1 traveling derrick, 30-foot boom, 55-H. P. hoist
- 1 24-inch, 3-ton gasoline locomotive
- 4 1½-cubic yard Western dump cars
- 840 feet 30-lb. rail
- 250 feet water pipe
- 1 ½-cubic yard Smith concrete mixer
- 1 Ford light delivery truck

Shop Equipment

- 1 10-H. P. motor
- 1 emery wheel stand
- 1 circular saw rig
- 1 band saw rig
- Shafts, belts, pulleys, etc.

Work Comemnced

The first work done was on the transmission line which was begun on March 18, 1918.

Work Done by Force Account

The Class 24 dragline has excavated about one mile of channel 45-foot bottom width and from 5 to 20 feet deep, aggregating 150,000 cubic yards.

The Class 14 dragline has built about 25,000 cubic yards of railway embankment, graded a storage yard 100 ft. x 500 ft., and built a diversion channel and levee for supplying the Ohio Electric Pwver Station with condensing water from the Miami & Erie Canal and Crawford's Run, to prevent the loss of this supply by the works of the District.

About 4000 feet of standard gage track have been laid. (The above work is all preliminary to the construction of the improvement proper which will be reached in about 3 or 4 weeks.)

Riley's Island has been cleared of timber and brush, and some clearing has been done along the Old River channel. About 3.1 miles of electric transmission line were built. The old Fort Hamilton mill has been remodeled and made into an office for the District. The Ross & Jenkins brick livery stable back of the office has been fitted out as a shop and warehouse.

Work was begun on the Buckeye Street sewer, Feature No. 60, on August 8. The outlet and 250 feet of 5-foot concrete sewer have been completed. A sufficient amount of lumber for sheeting and bracing the sewer trench and some additional for miscellaneous uses is on hand.

Fifty-four cars or about 2500 tons of coal have been received and stored. A fair supply of repair parts for machinery is on hand.

Work Done by Contract

A contract has been awarded to Horace Shields of Hamilton for sawing lumber, cutting piling and clearing on the west side of the river. It is expected that over 100,000 feet board measure of lumber will be sawed and the necessary piling cut for a trestle across the river. This work, which is necessary preliminary to excavation in this section, is to be completed by March 1, 1919.

Classification and Quantities of Work Done

The following quantities pertain to Feature No. 60 only:

Earth excavation	2,360 cu. yds.
Rock excavation	60 " "
Concrete excavation	160 " "
Concrete sewer completed.....	250 lin. ft.

Proposed Work for the Season

Winter work for the large dragline has been laid out away from the main river channel, and it is expected that the work will continue except during extreme weather or very high water.

The small dragline after completing the railroad work on which it is now engaged will probably be moved to the north end of town to work on the head-race for the proposed hydraulic power station. It is hoped that this work also will continue throughout the winter.

Forces at Work

The total number of men on the payroll runs between 70 and 90.

C. H. EIFFERT,
Division Engineer,

October 15, 1918.

ERIE AND BIG FOUR RAILROAD AND OHIO ELECTRIC RAILWAY RELOCATION

Equipment Installed

- 2 70 C. Bucyrus steam shovel
- 6 50-ton standard gage locomotives
- 45 12-yard dump cars
- 1 Jordan spreader
- 6 concrete mixers
- 3 pile drivers (2 steam hammers, 1 drop hammer)
- 15 standard gage camp cars
- 6 steam drills
- 3 6-inch well drills
- 15 8-man bunkhouses
- 3 Austin elevating graders
- 6 7-ton dump trucks
- 100 horses and mules
- 25 2-yard dump wagons
- 1 unloading outfit consisting of clam shell bucket and hopper
operated by steam boiler and hoist
- 2 team camps

Work Commenced

Work was started April 11, 1918.

Work Done

Excavation is 30 per cent completed; concrete in structures, 50 per cent completed; concrete drainage pipe, 50 per cent completed.

The grading on the Big Four temporary track around the south end of Huffman Dam has been completed, and track laying and surfacing is well under way, being about 85 per cent completed. The Ohio Electric temporary location around the south end of the Huffman Dam has been completed and traffic is now in operation. Also 5600 feet of the Ohio Electric permanent track leading up to this temporary change has been completed, and traffic is now being operated over same. The Walsh Construction Co. is doing the work.

The grading for the highway changes made necessary by the relocation of the railroads is practically completed, and the contract for surfacing the same has been let to J. C. McCann and will be completed this year. All concrete work in connection with the Erie and Big Four structures is well under way and will be completed by the first of the year. The excavating in the big cut at Huffman Hill is now progressing at the rate of about 4,000 cubic yards per day.

MIAMI CONSERVANCY DISTRICT

Classification and Quantities of Work Done

Earth excavation	180,500	cu. yds.
Loose rock excavation.....	15,000	" "
Solid rock excavation.....	255,500	" "
Earth excavation for structures.....	13,000	" "
Concrete in structures.....	8,500	" "

Forces at Work

The average number of men employed on the Erie and Big Four relocation work is about 300.

Other Information

Coal on hand 1000 tons.

BALTIMORE & OHIO RAILROAD RELOCATION

Equipment Installed

3 revolving shovels
3 70 C. Bucyrus shovels
27 teams and wagons
7 18-ton locomotives
80 4-yard dump cars
5 hoisting engines and derricks
3 ½-yard concrete mixers
2 ¼-yard concrete mixers
4 6-inch centrifugal pumps

Work Commenced

Construction of camps was started May 7, 1918. The first steam shovel began work at Poplar Creek, May 21, 1918.

H. C. Kahl, General Contractor, has the contract for construction of this relocation and has sublet the grading and masonry to several contractors, which include A. McAndrew & Bros., Kahl Bros. Construction Co., Vang Construction Co., Condon & Smith, D. H. Condon and G. L. La Boiteaux.

The work has progressed without interruption since the start, with the result that the excavation is now about 35 per cent completed, about 29 per cent of the roadbed is completed practically to subgrade, and the structures are about 68 per cent completed.

Classification and Quantities of Work Done

Excavation (unclassified)	255,700	cu. yds.
Concrete and structures.....	4,500	" "

REPORT OF BOARD OF DIRECTORS

39

Forces at Work

A. McAndrews & Bros.....	10 men	1 camp
Kahl Bros. Construction Co.....	42 "	2 "
Vang Construction Co.....	125 "	2 "
Condon and Smith.....	40 "	1 "
D. H. Condon.....	15 "	1 "
G. L. La Boiteaux.....	8 "	1 "

Other Information

Coal Supply

Kahl Bros. Construction Co.....	150 tons
Vang Construction Co.....	200 "
Condon and Smith.....	150 "

E. N. FLOYD,
Assistant Engineer.

October 15, 1918.

Exhibit A

REPORT OF

Cash Receipts and Disbursements

COVERING THE PERIOD

AUGUST 12, 1915 to JULY 31, 1918

THE MIAMI CONSERVANCY DISTRICT
CASH RECEIPTS AND DISBURSEMENTS
From August 12, 1915, to July 31, 1918

	GENERAL FUND		BOND FUND		TOTAL	
	ITEMS	TOTAL	ITEMS	TOTAL	ITEMS	TOTAL
R E C E I P T S:						
Sale of Bonds			15 000 000 00			
Less Discount			600 000 00			
Total				14 400 000 00		14 400 000 00
Loans	1 080 000 00					
Less Interest Deducted	300 00					
Total		1 079 700 00				1 079 700 00
Interest:						
Checking Account	1 762 73		54 591 52			
Special Deposits			90 413 76			
Bonds (Accrued)			29 027 77			
Miscellaneous			143 63			
Total		1 762 73		174 176 68		175 939 41
Assessments Paid in Advance				759 268 94		759 268 94
Rentals		2 141 66		31 325 19		33 466 85
Sale of Crops		353 66		5 739 33		6 092 99
Sale of Technical Reports		1 154 05		415 60		1 569 65
Sale of Meals				460 43		460 43
Sale of Seeds				662 05		662 05
Sales, Commissary Stores				184 31		184 31
Accounts Receivable				2 221 54		2 221 54
Unclaimed Wages				25 69		25 69
Guarantee Fund (Deposits)		430 00				430 00
Miscellaneous		542 95		772 05		1 315 00
Balance from General Fund (Contra)				32 148 95		
TOTALS		1 086 085 05		15 407 400 76		16 461 336 86

D I S B U R S E M E N T S:**FINANCIAL:**

Payment of Loans	130 000 00	950 000 00	1 080 000 00
Special Deposits (Schedule 1)	110 000 00	4 142 568 50	4 252 568 50
Cash Advances (Working Funds)			
(Schedule 2)	1 300 00	34 000 00	35 300 00
Interest on Bonds		413 325 00	413 325 00
Interest on Loans	1 484 83	38 456 17	39 941 00
Temporary Building		16 934 05	16 934 05
Osborn Business Claims		73 015 00	73 015 00
Osborn Bonds (Principal)	500 00	500 00	1 000 00
Financial Carried Forward	243 284 83	5 668 798 72	5 912 083 55

THE MIAMI CONSERVANCY DISTRICT

CASH RECEIPTS AND DISBURSEMENTS - From August 12, 1915, to July 31, 1918.

	GENERAL FUND		BOND FUND		TOTAL	
	ITEMS	TOTAL	ITEMS	TOTAL	ITEMS	TOTAL
Financial Brought Forward		243 284 83		5 668 798 72		5 912 083 55
Osborn Bonds (Interest)		537 50				537 50
Guarantee Fund (Refunds)		225 00		10 00		235 00
Ohio Electric Relocation		604 67				604 67
Notes Receivable				3 400 00		3 400 00
<u>ADMINISTRATIVE:</u>						
Salaries and Wages	37 144 43		18 785 84		55 930 27	
Operating Expense - Office	5 385 66		9 497 09		14 882 75	
Operating Expense - Building	3 506 58		1 810 72		5 317 30	
Operating Expense - Garage	623 49		305 60		929 09	
Traveling	1 630 02		77 42		1 707 44	
Consulting and Auditing			3 235 47		3 235 47	
Technical Reports	321 32		1 783 80		2 105 12	
Miscellaneous	5 332 95		1 007 40		6 340 35	
Books, Maps and Drawings	662 97				662 97	
Building Plumbing	58 50				58 50	
Printing Contracts	1 219 75				1 219 75	
Furniture and Fixtures	1 699 24		1 724 45		3 423 69	
Equipment	1 271 45		3 75		1 275 20	
Total Administrative		58 856 36		38 231 54		97 087 90
<u>LEGAL:</u>						
<u>General Counsel:</u>						
Salaries	22 735 69		27 612 32		50 348 01	
Operating Expense - Office	478 03		1 876 30		2 354 33	
Traveling	835 20		212 56		1 047 76	
Recording Deeds			1 642 31		1 642 31	
Miscellaneous	7 904 74		722 80		8 627 54	
Total	31 953 66		32 066 29		64 019 95	
<u>Local Counsel:</u>						
Salaries	11 362 18		7 544 23		18 906 41	
Professional Services	30 799 15		26 881 42		57 680 57	
Court Costs			241 28		241 28	
Miscellaneous	4 222 25		284 66		4 506 91	
Total	46 383 58		34 951 59		81 335 17	
Consultation	53 095 34		10 035 53		63 130 87	
Furniture and Fixtures	68 55		235 20		303 75	
Total Legal		131 501 13		77 288 61		208 789 74
Carried Forward		435 009 49		5 787 728 87		6 222 738 36

THE MIAMI CONSERVANCY DISTRICT

CASH RECEIPTS AND DISBURSEMENTS - From August 12, 1915, to July 31, 1918.

	GENERAL FUND		BOND FUND		TOTAL	
	ITEMS	TOTAL	ITEMS	TOTAL	ITEMS	TOTAL
Brought Forward		435 009 49		5 787 728 87		6 222 738 36
<u>APPRAISAL and TAXATION:</u>						
Salaries and Wages	131 373 01		14 898 09		146 271 10	
Traveling	6 684 57		246 51		6 931 08	
Channel Improvement	520 00				520 00	
Miscellaneous	10 823 27		2 806 93		13 630 20	
Furniture and Fixtures	3 917 49		647 86		4 565 35	
Equipment	3 375 45				3 375 45	
Total Appraisal and Taxation		156 693 79		18 599 39		175 293 18
<u>LAND:</u>						
Salaries and Wages	1 091 67		8 392 54		9 484 21	
Operating Expense - Office	214 92		335 84		550 76	
Traveling	65 03		225 57		290 60	
Miscellaneous	3 94		278 37		282 31	
Land and Buildings Purchased			6 022 488 07		6 022 488 07	
Interest (Accrued on Purchases)			2 494 64		2 494 64	
Crops and Damages	15 031 73		11 556 50		26 588 23	
Easements	5 700 00		191 216 27		196 916 27	
Land Damages			212 277 93		212 277 93	
Accrued Taxes	32 32		8 618 12		8 650 44	
Taxes			5 030 46		5 030 46	
Betterments	728 23		1 888 13		2 616 36	
Repairs			2 468 31		2 468 31	
Insurance	20 00		4 720 97		4 740 97	
Options	4 103 00				4 103 00	
Seeds	52 70		12 443 25		12 495 95	
Crops	897 19		3 813 91		4 711 10	
Rentals			6 438 50		6 438 50	
Furniture and Fixtures	53 20		405 31		458 51	
Equipment			3 207 44		3 207 44	
Total Land		27 993 93		6 498 300 13		6 526 294 06
<u>GENERAL EXPENSE:</u>						
Automobile Expense	8 300 93		2 918 21		11 219 14	
Fire Insurance	89 49		2 976 78		3 066 27	
Liability Insurance	3 881 22		4 745 88		8 627 10	
Taxes (Dayton Office)	468 32		698 90		1 167 22	
Miscellaneous	202 34				202 34	
Total General Expense		12 942 30		11 339 77		24 282 07
Carried Forward		632 639 51		12 315 968 16		12 948 607 67

THE MIAMI CONSERVANCY DISTRICT

CASH RECEIPTS AND DISBURSEMENTS - From August 12, 1915, to July 31, 1918.

	GENERAL FUND		BOND FUND		TOTAL	
	ITEMS	TOTAL	ITEMS	TOTAL	ITEMS	TOTAL
Brought Forward		632 639 51		12 315 968 16		12 948 607 67
<u>ENGINEERING AND CONSTRUCTION:</u>						
<u>Salaries and Wages:</u>						
Office and Drafting Room	202 694 21		125 825 12		328 519 33	
Field	126 682 71		399 992 57		526 675 28	
Total	<u>329 376 92</u>		<u>525 817 69</u>		<u>855 194 61</u>	
Consultation	30 840 85				30 840 85	
Traveling	17 070 25				17 070 25	
Miscellaneous	9 341 87				9 341 87	
Office Expense - Operating	9 146 35				9 146 35	
<u>Purchases:</u>						
Cement			24 206 08		24 206 08	
Vitrified Pipe			5 101 90		5 101 90	
Cast Iron Pipe			436 23		436 23	
Coal			22 663 12		22 663 12	
Lumber			133 154 58		133 154 58	
Miscellaneous Supplies	9 301 91		484 783 63		494 085 54	
Furniture and Fixtures	4 017 45		11 315 67		15 333 12	
Plant & Equipment	12 295 47		1 178 409 48		1 190 704 95	
Total Purchases	<u>25 614 83</u>		<u>1 860 070 69</u>		<u>1 885 685 52</u>	
Add: Freight and Handling			17 065 12		17 065 12	
	25 614 83		1 877 135 81		1 902 750 64	
Deduct: Cash Discount	94 48		6 445 53		6 540 01	
Net Purchases	<u>25 520 35</u>		<u>1 870 690 28</u>		<u>1 896 210 63</u>	
Direct Charges			343 720 81		343 720 81	
Advances to Field Clerks			3 000 00		3 000 00	
Transfers to Other Departments			890 26		890 26	
Suspense			256 056 21		256 056 21	
Total Engineering and Construction		<u>421 296 59</u>		<u>3 000 175 25</u>		<u>3 421 471 84</u>
Total Net Disbursements		1 053 936 10		15 316 143 41		16 370 079 51
Balance December 31, 1917 (Contra)		32 148 95				
Balance July 31, 1918 (Schedule 3)				91 257 35		91 257 35
TOTALS		<u>1 086 085 05</u>		<u>15 407 400 76</u>		<u>16 461 336 86</u>

THE MIAMI CONSERVANCY DISTRICT

Exhibit "A"
Schedule 1ALLOCATION OF SPECIAL DEPOSIT FUNDS
July 31, 1918.

<u>NAME OF DEPOSITORY</u>	<u>INTEREST RATE</u>	<u>AMOUNT</u>
The American Loan & Savings Association	3 1/2%	90 000 00
The Citizens National Bank, Piqua	3 1/2%	40 000 00
The Citizens Savings Bank & Trust Company	3 1/2%	125 000 00
The City Trust & Savings Bank	3 1/2%	150 000 00
The Dayton National Bank	3 1/2%	80 000 00
The Dayton Savings & Trust Company	3 1/2%	200 000 00
The East Dayton Savings & Banking Company	3 1/2%	25 000 00
The Farmers & Merchants Bank	3 1/2%	25 000 00
The First National Bank, Hamilton	3 1/2%	350 000 00
The First National Bank, Middletown	3 1/2%	50 000 00
The First National Bank, Troy	3 1/2%	40 000 00
The First Savings and Banking Company	3 1/2%	100 000 00
The Fourth National Bank	3 1/2%	100 000 00
The Gem City Building & Loan Association	3 1/2%	135 000 00
The Germania Building Association	3 1/2%	145 000 00
The Hamilton Dime Savings Bank	3 1/2%	100 000 00
The Market Savings Bank	3 1/2%	20 000 00
The Merchants National Bank	3 1/2%	80 000 00
The Miami Loan & Building Association	3 1/2%	65 000 00
The Miamisburg Banking Company	3 1/2%	10 000 00
The Mutual Home & Savings Association	3 1/2%	245 000 00
The National City Bank of New York	3 %	1 502 568 50
The North Dayton Savings Bank	3 1/2%	25 000 00
The Oglesby & Barnitz Company	3 1/2%	25 000 00
The Piqua National Bank	3 1/2%	40 000 00
The Piqua Savings Bank & Trust Company	3 1/2%	40 000 00
The Second National Bank, Hamilton	3 1/2%	175 000 00
The Third National Bank	3 1/2%	40 000 00
The Troy National Bank	3 1/2%	40 000 00
The West Dayton Commercial & Savings Bank	3 1/2%	20 000 00
The West Side Building & Loan Company	3 1/2%	70 000 00
The Winters National Bank	3 1/2%	100 000 00
TOTAL (Exhibit "A")		<u>4 252 568 50</u>

THE MIAMI CONSERVANCY DISTRICT

Exhibit "A"
Schedule 2C A S H A D V A N C E S (WORKING FUNDS)
July 31, 1918

<u>NAME or LOCATION</u>	<u>POSITION</u>	<u>AMOUNT</u>
Copenhafer, F. M.	Land Agent	400 00
Dodds, F. J.	Paymaster	1 500 00
Kennedy, Robert	Land Agent	300 00
Matthis, G. H.	Office Engineer	2 500 00
O'Brien, Wade B.	Auditor	300 00
Payroll Fund (Sub- Schedule "a")		30 200 00
Petty Cash Fund		<u>100 00</u>
		35 300 00
Taylorsville	Field Clerk	700 00
Lockington	Field Clerk	500 00
Englewood	Field Clerk	500 00
Hamilton	Field Clerk	300 00
Huffman	Field Clerk	500 00
Germantown	Field Clerk	<u>500 00</u>
		<u>3 000 00</u>
TOTAL (Exhibit "A")		<u>38 300 00</u>

THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF PAYROLL FUND
WITH CITY NATIONAL BANK
July 31, 1918.

Balance per Bank Statement, July 31, 1918

44 367 49

Deduct Outstanding Checks:

<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>
3032	6 10	10507	42 00	10570	62 50
9226	150 00	10509	105 00	10571	50 00
9596	150 00	10511	65 00	10573	46 88
9810	160 00	10513	60 00	10574	37 50
10011	150 00	10517	100 00	10575	125 00
10197	150 00	10518	100 00	10576	100 00
10206	58 33	10519	100 00	10577	100 00
10236	3 00	10520	87 50	10578	100 00
10237	25	10521	80 00	10579	100 00
10243	3 00	10522	75 00	10581	62 50
10257	No Check	10523	75 00	10582	62 50
10292	55 00	10524	75 00	10583	62 50
10417	87 50	10525	75 00	10584	85 00
10421	225 00	10526	75 00	10585	75 00
10422	150 00	10527	70 00	10586	62 50
10427	112 50	10528	70 00	10587	62 50
10431	125 00	10530	62 50	10588	40 00
10457	54 00	10531	75 00	10589	35 00
10458	50 77	10532	62 50	10590	35 00
10471	No Check	10533	62 50	10591	30 00
10472	No Check	10535	62 50	10592	31 67
10474	104 17	10537	50 00	10593	25 00
10475	87 50	10538	87 50	10594	25 00
10476	75 00	10539	70 00	10595	23 44
10477	75 00	10540	70 00	10596	25 00
10478	66 67	10541	50 00	10597	25 00
10480	100 00	10545	42 50	10598	20 00
10481	83 33	10547	30 00	10599	20 00
10482	75 00	10548	28 13	10600	20 00
10483	37 50	10549	24 38	10602	600 00
10484	50 00	10550	27 50	10604	187 50
10486	62 50	10556	30 00	10605	166 67
10488	45 00	10557	100 00	10606	150 00
10491	56 00	10559	57 50	10607	162 50
10492	59 50	10560	75 00	10608	187 50
10493	52 50	10561	57 50	10609	150 00
10496	87 50	10562	75 00	10610	150 00
10497	70 00	10563	45 00	10611	150 00
10498	70 84	10564	50 00	10612	125 00
10500	57 50	10565	50 00	10613	125 00
10506	40 50	10568	112 50	10614	125 00

Carried Forward,

44 367 49

THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF PAYROLL FUND WITH CITY NATIONAL BANK, JULY 31, 1918.

Brought Forward

44 367 49

<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>
10615	125 00	10626	137 50	10637	300 00
10616	105 00	10627	137 50	10638	200 00
10617	100 00	10628	137 50	10639	50 00
10618	100 00	10629	112 50	10640	50 00
10619	100 00	10630	112 50	10641	250 00
10620	87 50	10631	125 00	10643	375 00
10621	100 00	10632	137 50	10644	150 00
10622	100 00	10633	100 00	10645	150 00
10623	166 67	10634	125 00	10646	104 17
10624	225 00	10635	200 00	10647	<u>87 50</u>
10625	150 00	10636	125 00		

Total Outstanding Checks

14 112 97

30 254 52

Adjustments:

Add: Overpayment on Check #584 (Deducted August 15)	20 40
Overpayment on Payroll July 31	10
Overpayment on Payroll (Jackson)	<u>36 47</u>

56 97

Deduct: Underpayment on Payroll July 23 (Included
August 8)

2 45

54 52

TOTAL BALANCE JULY 31, 1918

30 200 00

THE MIAMI CONSERVANCY DISTRICT

Exhibit "A"
Schedule 3

ALLOCATION OF CHECKING ACCOUNTS
July 31, 1918.

<u>NAME OF BANK</u>	<u>AMOUNT</u>
The City National Bank (Sub-Schedule "a")	4 450 36
The Citizens' National Bank, Piqua	2 000 00
The Dayton Savings & Trust Bank (Sub-Schedule "b")	76 981 83
The First National Bank, Germantown (Sub-Schedule "c")	5 000 00
The First National Bank, Troy (Sub-Schedule "d")	<u>15 664 21</u>
	104 096 40
The National City Bank of New York (Sub-Schedule "e")	<u>12 839 05*</u>
 TOTAL (Exhibit "A")	 <u><u>91 257 35</u></u>

* Denotes overdraft.

THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF BANK BALANCE
THE CITY NATIONAL BANK
July 31, 1918.

Balance per Bank Statement, July 31, 1918

129 334 84

Deduct Outstanding Checks:

<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>
122	7 672 82	1243	6 000 00
174	21 600 00	1244	899 02
241	2 000 00	1251	2 490 71
245	50 00	1263	996 62
264	325 00	1270	1 496 62
291	55 00	1284	1 695 88
303	1 958 65	1528	6 472 88
357	2 242 42	1536	100 00
360	6 481 37	1944	1 079 19
361	4 483 38	1946A	754 03
373	6 984 01	1947	2 96
429	30 00	1949	720 78
752	1 545 00	1950	145 42
1019	3 75	1951	27 115 63
1227	1 496 74	1952	227 29
1228	4 287 21	1953	30 60
1236	1 594 28	1954	149 62
1240	2 095 75	1955	1 124 24
1241	2 989 54	1956	2 500 00
1242	2 988 07		

Total Outstanding Checks

124 884 48

TOTAL BOOK BALANCE, July 31, 1918

4 450 36

THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF BANK BALANCE
THE DAYTON SAVINGS & TRUST COMPANY
July 31, 1918.

Balance per Bank Statement, July 31, 1918	136 717 02
<u>Less Deposit of Auditor's Check, July 16</u>	<u>65 97</u>
	136 651 05

Deduct Outstanding Checks:

<u>Number</u>	<u>Amount</u>	<u>Number</u>	<u>Amount</u>
61	50 00	403	498 65
111	4 800 00	405	498 65
123	4 600 00	436	150 00
179	14 92	437	15 000 00
242	25 00	438	6 000 00
243	425 00	439	345 84
264	1 00	494	1 500 00
268	39 58	632	48 00
273	208 00	687	10 15
276	3 973 06	722	1 000 00
297	2 900 00	723	800 00
301	1 670 00	724	1 00
302	800 00	725	640 00
304	715 00	804	13 00
309	75 00	814	43 50
316	500 00	833	1 239 30
317	250 00	902	16 37
318	1 00	947	12 61
320	420 00	988	60 00
328	50 00	1020	6 07
329	50 00	1029	3 89
336	200 00	1034	17 25
338	125 00	1040	14 69
339	3 195 00	1042	55 25
374	30 00	1064	18 40
387	3 000 00	1065	360 00
394	40 00	1066	27 00
398	1 640 00	1068	492 04
		1069	<u>1 000 00</u>

Total Outstanding Checks	<u>59 669 22</u>
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TOTAL BOOK BALANCE, July 31, 1918	<u><u>76 981 83</u></u>
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THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF BANK BALANCE
FIRST NATIONAL BANK, GERMANTOWN, OHIO
July 31, 1918.

Balance per Bank Book, July 31, 1918

6 141 43

Deduct Outstanding Checks:

<u>Number</u>	<u>Amount</u>
19	520 45
20	<u>620 98</u>

Total Outstanding Checks
Emergency Fund Deposit

1 141 43
5 000 00

6 141 43

THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF BANK BALANCE
THE FIRST NATIONAL BANK, TROY, OHIO
July 31, 1918.

Balance per Bank Statement, August 1, 1918	45 583 17
<u>Less</u> Interest Deposit of August 1	<u>121 58</u>
	45 461 59

Deduct Outstanding Checks:

<u>Number</u>	<u>Amount</u>	
18	10 250 00	
30	100 00	
47	2 980 08	
54	193 30	
68	125 00	
92	600 00	
133	40 00	
136	30 00	
140	2 804 00	
141	6 000 00	
142	55 00	
152	40 00	
165	130 00	
168	520 00	
169	1 500 00	
170	1 730 00	
176	1 500 00	
180	200 00	
192	<u>1 000 00</u>	
Total Outstanding Checks		<u>29 797 38</u>
TOTAL BOOK BALANCE		<u>15 664 21</u>

THE MIAMI CONSERVANCY DISTRICT

RECONCILIATION OF BANK BALANCE
THE NATIONAL CITY BANK, NEW YORK
July 31, 1918.

Balance per Bank Statement, July 31, 1918

18 389 13

Deduct Outstanding Checks:

<u>Number</u>	<u>Amount</u>
321	11 000 00
390	6 029 00
394	1 695 16
397	484 80
400	1 000 00
402	456 91
403	495 62
404	9 079 48
405	<u>987 21</u>

Total Outstanding Checks

31 228 18

AMOUNT OVERDRAWN, July 31, 1918

12 839 05