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SEWAGE DISPOSAL DIVISION OF OPERATION

The operation of the Northeast Sewage Treatment Works, including the Frankford Creek grit chamber and appurtenant intercepting chambers was transferred from the custody of the Bureau of Water to the Bureau of Engineering, Surveys and Zoning as of January 1, 1946.

The sewage arriving at the Northeast Sewage Treatment Works during 1946 amounted to 19,830 million gallons; 13,340 m.g. from the high level gravity flow sewers and 6590 m.g. from the low level sewers which required pumpage. The daily total flow averaged 54 m.g.

The Northeast Works provides treatment for sewage originating within the area along the Delaware River between Allegheny Avenue and Poquessing Creek and extending westwardly to Germantown Avenue and to the Montgomery County Line. Along the County Line sewage is received into city sewers for treatment at these Works from the Tacony Creek section and the Cheltenham Avenue section of Cheltenham Township.

The treatment processes employed comprise coarse screens for the removal of coarse solid material; grit chamber for the settling out of sand and inorganic material; and Imhoff tanks for settling out and digesting organic material present in the sewage prior to its discharge into the Delaware River at Wheatsheaf Lane.

Laboratory analysis of samples collected indicate a settling solid content of 7.1 c.c. per liter in the Imhoff tanks influent, and 0.8 c.c. per liter in the effluent, a removal of 89% settling solids. Suspended solids content of the sewage influent of 153 p.p.m. and of the effluent 47 p.p.m. indicate a removal of 69% of suspended solids. Five-day b.o.d. tests for the year are reported as averaging 283 p.p.m. for tank influent and 205 p.p.m. in the effluent, a removal of 28%.

Ether extracted fat in the tank influent is reported as 35 p.p.m. and that in the effluent as 18 p.p.m., a reduction of 49%. While chlorination is not employed at these Works, the removal of organic solids results in a slight reduction in the bacteria count. Yearly average bacteria determinations per c.c. on lactose litmus agar for 24 hours at 37° C. are reported as follows:

Influent total numbers	394,000
Acid formers	221,000
Resembling B. Coli	144,000
Effluent total	352,000
Acid formers	211,000
Resembling B. Coli	133,000

Skimmings from the Northeast Works Imhoff tanks amounted to 1094 cu. yds. and from the Frankford Creek low level grit channels 28 cu. yds. Solids intercepted by the screens at the Northeast low level pumping station amounted to 276 cu. yds. and from the Frankford Creek grit chamber screens 1109 cu. yds. Grit intercepted at the Northeast low level grit chamber amounted to 562 cu. yds. and at the Frankford Creek grit chamber 993 cu. yds.

The skimmings, screenings and grit from the Northeast low level grit chamber and from the Frankford Creek high level grit chamber were deposited on low ground at the site of the Northeast Works.

The total cost of operation, maintenance and repairs during 1946, for the Northeast Sewage Treatment Works, grit chamber and pumping station, the Frankford grit chamber and the intercepting channels amounted to \$101,599.96 or \$5.12 per m.g. of sewage. There will be a slight reduction to these costs by reason of credits due the City from Cheltenham Township for conveying and treatment of sewage for said Township at the Northeast Sewage Treatment Works. By reason of construction material restrictions during the recent war period, considerable deferred maintenance work has accumulated, and as funds become available every effort will be made to restore the plant and equipment to good operating conditions.

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REGISTRY DIVISION

The annual statistical report is submitted herewith showing functions in three separate groups.

GROUP 1 - Activities in the Book Room

Regarding straight transfers of title to real estate there was an increase in volume of 30 per cent over the previous year. 95,234 transfers entered in 1946 was the largest for any single year since 1923, when 113,323 straight transfers were entered.

1923: 113,323 - 1945: 73,039 - 1946: 95,234

The number of title transfers parcelling smaller tracts, usually indicative of new residential development, showed an increase in volume of more than 50 per cent over the previous year. Two hundred fourteen certifications of registered owner were prepared and issued to the public while two hundred eighty-six were prepared and issued to the Department of Law.

GROUP 2 - Activities in the Plans and Legal Records Room

Advertising data was prepared to legally advertise public hearings on 51 City plan revisions. Forty-seven confirmed City plans were indexed and filed and changes entered on the books, maps and cards. Legal openings affecting 181 streets were filed in this division and the books, maps and cards likewise revised.

Forty deeds of dedication and releases were prepared in this section. 1135 certifications of legal status of streets were prepared and issued and 771 City plans loaned out to the various Departments, Bureaus and Divisions.

Thirty new registry plates, to replace worn and out of scale maps were drawn.

In this section 155 miscellaneous plans were drawn for other City offices, as against 100 plans of this character the previous year.

GROUP 3 - Activities of the Board of Surveyors

The Board of Surveyors held 28 meetings at which they reported on 45 ordinances. The Board held public hearings on 50 City plan changes. Two plans were voided. Fourteen street railway plans were approved. One hundred thirteen deeds of dedication and fifteen releases of abutting owner were approved. Forty-seven City plans were confirmed.

Of the 47 City plans confirmed:

17	were	in	connection	with	private	residential	development.		
13	"	"	"	"	development	of	industrial	sites.	
2	"	"	"	"	development	of	school	sites.	
2	"	"	"	"	the	City-State	highway	improvement	program.
2	"	"	"	"	the	developments	of	commercial	sites.

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1 was in connection with new bridge construction.
1 " " " " main sewer construction.
1 " " " " the development of a public building site.
8 were for miscellaneous purposes.

Among the 17 City plans confirmed in connection with private residential development was the City plan lying northeast of Haverford avenue and extending from Lebanon avenue to City avenue. This section, as revised on the City plan, embraced an area of approximately 37 acres and provides for a street arrangement in harmony with Morris Park and with grades conforming closely to the natural topography.

Worthy of note among the 13 City plans confirmed in connection with the development of industrial sites were:

Revision at 23d street and Westmoreland street (Sharples & Co.)
" " Shackamaxon street and Delaware avenue (Penna. Sugar Co.)
" " Roosevelt Blvd. and Piermont street (Yale-Towne Co.)
" " Godfrey avenue and Whitaker avenue (Sears-Roebuck Co.)
" " Montour street and Harrison street (Supplee-Willis-Jones.)

CITY PLANS DIVISION

City-State Highway Program. The Division collaborated with the Pennsylvania Department of Highways and consultants, Modjeski and Masters, and the City Planning Commission, in furthering the detailing of City-State highway routes and intersectional channelization. Some of the routes worked on during the year are as follows:

Penrose-Schuylkill River bridge route.
Henry Avenue.
Tacony-Palmyra Bridge approaches.
Pennsylvania boulevard.
Roosevelt boulevard.

City Plan Revisions. City plans were prepared in collaboration with the interested Survey District of:

Ashton road, Holme Circle to Grant Avenue.
Overbrook area, bounded by Haverford Avenue, Lansdowne Avenue, Cobbs Creek and City Avenue.
Penrose Avenue, Schuylkill River bridge, 26th Street to Essington Avenue and Island Avenue.
Birdwood Farms area - Verree road and Bloomfield Avenue.

Other areas were studied for revisions as follows:

Oxford Avenue - Fox Chase Area.
Bustleton Avenue, Castor Avenue through Bustleton.
Verree Road and Welsh Road.
Grant Avenue and Roosevelt Boulevard.

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Somerton Area - from Tomlinson Road to Byberry Road, both east and west of Bustleton Avenue.
 Airport Areas including the Grant Avenue revision study at Northeast Airport.
 State Road to Delaware River - Torresdale Avenue.
 Tacony-Palmyra Bridge approaches at the Oxford Avenue end.

Several subdivision projects were prepared or reviewed for developers or Survey Districts:

Somerton Area - north of Southampton Road.
 Somerton Area - west of Philmont Avenue.
 69th Street and Woodbine Avenue.
 Cobbs Creek Parkway and Springfield Avenue.
 Birdwood Farms - Verree Road and Bloomfield Avenue, Verree Road and Welsh Road.
 Academy Gardens - Academy and Willitt Roads.
 Overbrook Park - Job No. 3.

Plans - Maps - Information. The division furnished plans, maps, various charts, equipment, technical books and articles and miscellaneous information services 530 times during the year to the following:

To private corporations and individuals	-	251
City departments, bureaus, divisions	-	166
U. S. Government Agencies	-	24
Penna. Department of Highways	-	16
Public Utilities	-	57
Miscellaneous	-	16

City Sectional Maps and Other Records. The Division issued sectional maps and other records as follows:

<u>Issued</u>	<u>No Charge</u>	<u>Fee</u>
Land Use Maps - 200' scale	1166	237 - \$114.50
Street Maps - 500' scale	395	230 - 53.50
Street Maps - 1000' scale	453	414 - 55.80
Street Maps - 1600' scale	65	29 - 2.30
Street Maps - 1600' scale (3 sec.)	92	20 - 14.75
Street Data Maps - 500' scale	604	40 - 12.35
Zoning Maps - 500' scale	67	161 - 56.20
Other Records - various	1279	
Photo Prints - 8" x 10"	283	
Photo Prints - 14" x 17"	196	
Hunter Electro Copies	94	
Services in connection with maps		25.00
Totals	4508	1131 - \$334.40

During the year these map records required changes and revisions as follows:

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From Zoning permits	-	540
" Use Registration permits	-	1746
" Demolition permits	-	206
" Registry records	-	31
" Miscellaneous corrections	-	98
" Confirmation of City Plans	-	255
" Dedications and other openings	-	148
" Grading and Paving records	-	<u>56</u>
Total	-	3080

City Planning Commission. The Division furnished the Commission numerous map records during the year. Cooperation was given on highway design and related problems.

The Division head collaborated on the several conferences held to promote an origin and destination traffic survey for the metropolitan area of the City and Camden.

Other Activities. Personnel assistance was given the Civil Service Commission as monitors at examinations.

Assistance was furnished in various detail for holding the Army-Navy football game at the Municipal Stadium.

Field observation surveys were made during the year on such projects as the Pennsylvania Terminal Improvements, Southwest Airport, Adams Avenue Improvement, Martin's Mill Road, Lincoln Drive, Henry Avenue, Walnut Lane Bridge, and others.

Assistance was given the Chief Engineer on his lecture and exhibition activities.

ZONING DIVISION

This report covers the same twenty items that have been shown on the previous reports. For purpose of easy comparison all pertinent figures for the years 1945 and 1946 have been tabulated in five (5) columns. Beginning at the left, the numerical differences between the figures for 1945 and 1946 are shown without any sign since those for 1946 are without exception greater than for 1945. These are followed by the cold totals for 1945 and 1946. Then come the columns for percentages of decrease and increase. There are no figures in the percentage decrease column.

To find years that compare most closely with 1946 in the number of applications filed and permits issued (items which most accurately reflect work done) it is necessary to go back to 1938 and 1939; two prewar years.

The figures by years follow:

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	<u>1938</u>	<u>1939</u>	<u>1946</u>
Applications	8734	8788	8864
Zoning Permits issued	4569	5959	6358
Use Registration Permits issued	<u>2000</u>	<u>2389</u>	<u>3788</u>
Total Number of Permits issued	6569	8348	10146

These figures would tend to show that construction work in this country, or Philadelphia at least, is getting back to where it was before the war. However, the number of Use Registration Permits issued is quite high and shows there is quite some changing about of established businesses and the establishment of new ones. Sometimes the shifting of the old and establishment of the new businesses went on almost simultaneously. The writer knows of a retail business established for years moving because the rent was more than doubled when the lease expired and of a new-comer, without previous experience, moving in immediately.

The picture of the Division struggling under the weight of work is not easy to see clearly. In the first place, the work done in 1946 was practically double that done in 1945. The question might be sandwiched in here, "But didn't you have Mr. Brady and Mr. Schmidt back from the war to help you, and you said over and over that they are first-class men?" True, but they were away for three and five years. They had to work back into the routine and help others while doing it.

However, Mr. Brady has left and gone places where service, ability, and loyalty are better rewarded though not more appreciated. It looks now as if Zoning would be losing one of its dependables of later acquisition. There is a better paying job open in any bureau that he can and surely will fill.

Another drudge job has been added to the woes of the Division and it is directly proportional to the number of applications taken in. On April 26, 1946, an Ordinance passed by Council was approved by the Mayor. A complete history of this operation, before and after, may be found in the monthly report for June dated July 16, 1946. What the Ordinance says doesn't mean anything in this discussion. What does mean something is that the Zoning Division is required to send to the Receiver of Taxes all the names that appear on the applications and there usually are four.

A typical sheet will be transmitted herewith. Nobody explained how the overburdened division was going to do this. There is another provision of the ordinance that no permits shall be issued to those found not in good standing. Who is going to keep that list up and check up when issuing permits?

Something that doesn't show on the statistical report is the number of times and the length of time spent in court by someone as a witness. This happened at least seven (7) times on cases and matters that didn't concern the Zoning Division.

The volume of written complaints increased 171% over last year. No track was kept of the oral complaints that were shunted aside. The Division is surely popular in this respect to its Complaint Department. It takes the greater part of Mr. Beesley's time just to keep the boat from being sunk by weight of complaints.

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It used to be that complaints didn't result in Violation Notices being served. Now the complainants seem to mean business. More Violation Notices are served and result in more prosecutions. In 1946 thirty-one (31) cases were sent to the City Solicitor for appropriate action. It might be noted also that more of these cases are taken to courts of record. Probably the most interesting case, certainly the one giving the greatest pyrotechnic display was that concerning the Atlantic Metals Corporation, Frankford Avenue and Hagert Street. They finally agreed to move and filed an agreement with the court to that effect.

ENGINEERING DIVISION

Design. The activities of the Design Division during the year included the preparation of plans for sewers, sewage disposal projects, other drainage projects, highway bridges and viaducts, airport development, street improvements; the preparation of reports on drainage and flooding; preliminary estimates of cost; maintenance of drainage maps; investigations and approval of applications by utility companies and others for permits for underground structures, such as conduits, pipes, tunnels, vaults, and for new railroad sidings in city streets, for interference with existing or proposed drainage structures and for strength of proposed structures; checking and approval of proposed structures such as marquees, canopies, etc., projecting within the street lines; checking and approval of railroad bridge plans; inspection of highway bridges over the Reading Railroad.

During the year 1946, the Design Division had 312 major assignments, most of which are listed elsewhere herein.

Sewers (private). The construction of sewers by operative builders at private cost showed a marked increase over the preceding years as numerous building operations were undertaken throughout the City to meet the acute housing shortage which developed during the war years. Plans and specifications were prepared by the Design Division for 38 sewers of this type. However, during the latter part of the year, the increase in cost discouraged private sewer construction and in many cases new plans and specifications were prepared by the Division for these sewers to be built at public cost.

Sewers (public). City Council has appropriated large sums for the construction of sewers to relieve sections where lack of drainage results in unsanitary conditions and to provide for new building development, and an exceptionally large sewer program has been undertaken during the year. Plans, estimates and specifications have been prepared by the Division for 39 sewers for the relief of unsanitary conditions and 92 sewers for new building development.

Rising costs have made it imperative to revise the conventional sewer design in every way practicable for economy. Vitrified and reinforced concrete pipe have been substituted for brick sewers where possible, and the depth of sewers reduced to a minimum where shallow depth of cellars made this feasible.

A revision of City standards for drainage structures has been made and will be completed for printing early next year. They provide a wider range

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of vitrified pipe sizes; new reinforced concrete pipe sewers to conform to modern commercial concrete pipe; a new type of reinforced concrete pipe manhole; heavy weight cast steel manhole cover and frame substituted for light weight; revisions in details of inlet construction and the addition of a grate-top country road inlet. Some standards considered obsolete have been eliminated and numerous construction details have been modernized.

As an aftermath of wartime conditions it was necessary during the year to replace the temporary concrete slab manhole covers which were used instead of the standard cast iron covers and frames because of the shortage of critical materials. 711 existing concrete covers on sewer manholes were replaced with standard cast-iron covers and frames.

Sandy Run Sewer. Plans were prepared for the construction of several branches as sanitary pipe sewers and were started for the main stormwater conduit from its present terminus in Summerdale avenue south of Faunce Street to Faunce Street at Whitaker Avenue. Further extensions on the upper portion of this system will be necessarily restricted to sanitary sewers until the construction of the large main stormwater conduit can be completed to the limits of the main sanitary sewer.

An extension of the main sewer in Castor Avenue was placed under contract from Chandler Street to Griffith Street, together with several branches, to be built as a complete sewer.

Knorr Street System. Plans were completed during the year for Hasbrook Avenue, Magee Avenue to Knorr Street, and the outlet sewer in Knorr Street from Hasbrook Avenue to the Cheltenham Township line, and the work placed under contract. The Township has built the sewage meter and outlet sewer to receive the sewage from this system and this will complete the connection of City sewage to the Cheltenham Township sewers.

Reconstruction. Reconstruction of old sewers in bad condition was continued during the year. The major project was the reconstruction of portions of the large 9'-6" circular brick Clearfield Street main sewer between Sheridan and 6th Streets and 12'-0" circular brick sewer east of Fairhill Street. These sections of sewer were entirely reconstructed as 8'-6" x 9'-6" and 9'-6" x 9'-6" rectangular reinforced concrete sewers. The depth of sewer ranged from 25 feet to 37 feet and involved extensive shoring to prevent settlement of buildings fronting on the work. Due to scarcity of materials and labor the cost of this work, which is not yet completed, was considerably higher than the usual reconstruction work being about \$120.00 per lin. ft. of sewer. Plans were also prepared for the reconstruction of 350 feet of the 12'-0" circular brick sewer east of Fairhill Street as a 9'-6" x 9'-6" rectangular section.

Plan was prepared for the demolition of houses preparatory to the reconstruction of the Mill Creek Main sewer north of Haverford Avenue and this work placed under contract.

State Highway Improvements. Plan was prepared by the Design Division for sewer in Adams Avenue, Whitaker Avenue to Montour Street to be used by the State Highway Department in the improvement of this highway.

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The consultants' plans for the Penrose Avenue-Schuylkill River bridge and approaches between 26th Street and Island Avenue have reached the stage which will permit a start on construction in the coming spring. Contract plans were prepared by the Design Division for the main sewer and appurtenant drainage work in the east approach from the river to a point west of 26th Street. This outlet will ultimately consist of two 7'0" x 9'0" rectangular reinforced concrete conduits, one of which will be built in the southerly low level or local access street under this project and the other one when required later as the tributary area is developed. These conduits will not have sewage connections below 26th Street, where the sewage will be intercepted and connected to the East Lower Schuylkill Low Level Intercepting sewer, and the large oil company properties are providing treatment plants for their sewage. This construction presented a difficult drainage problem, as the new highway traverses a low area now drained by ditches below tide level and pumped to the river, and it is necessary to protect the low area along Lanier Avenue adjacent to Penrose Avenue from flooding at high tide by a back pressure device. This will permit this area to drain only at lower tidal periods, and until the area is filled to the elevation of the grades established for Lanier and Penrose Avenues, there will be some ponding during rainstorms.

The State has prosecuted the construction of the final sections of the Vare Avenue, 34th Street Highway in south Philadelphia and the Island Avenue Project in southwest Philadelphia during the year. On Island Avenue it was necessary to rebuild a number of manholes on the 36-inch diameter intercepting sewer in the track area and plans were made by this Division for this work which required a specially designed steel ladder to replace the ladder bars in the old manholes.

Core borings were taken during the year on Hunting Park Avenue between East River Drive and Indiana Avenue to determine the foundation design for the underpass at Ridge Avenue and approaches, and plans were prepared by the Design Division for the underpass and retaining walls of the approaches which will be reinforced concrete construction. This project will be started by the State Highway Department during the coming year.

Drainage Studies. Investigations and reports were made on various drainage problems including those involved in proposed City plan revisions, proposed private developments, public school projects, industrial plants, etc.; investigations of outlet sewer capacity for possible additions to drainage area; flood investigations to determine causes and possible remedies. Altogether 47 such studies were made in 1946.

Preliminary Sewer Estimates. Numerous estimates of cost were made during the year for the construction and reconstruction of sewers, stormwater drains, etc.

Philadelphia Airports. The Philadelphia Northeast Airport is now used for cargo transport and for private flying. Extensive grading operations have been completed during the year in the area set aside for terminal and service facilities. Studies have been made for an extension of the apron paving in the cargo loading area along the access road and for apron and taxiway paving to serve proposed hangars which are being designed by this Division.

At the Philadelphia Southwest Airport the work on the paving, drainage, fencing, etc., for the Temporary International Terminal Area has been completed

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from plans prepared by this Division. Studies have been made for an extension of the apron paving to provide for proposed hangars designed by this Division. Plans for the expansion of this airport are being prepared by the Airways Engineering Consultants, Inc., employed by the City, and it is planned to start work early in 1947 on the grading of the site for the new terminal area. The expansion of the airpost will require extensive revision of the drainage system as planned for the area in the vicinity and studies have been made by the Design Division of this feature.

During the year plans were started for the construction of a quadruple hangar for the Southwest Airport and a double hangar for the Northeast Airport. Each unit will be 150 feet wide by 120 feet deep which is large enough to house a plane of the type known as the "Constellation".

The hangar skeleton will be of steel of the multiple span rigid frame design which has advantages over other designs making its use imperative at the Southwest Airport, where the subsoil conditions are poor and unable to support heavy loads. The legs of the frames will be supported on spread footings without the use of piles.

The buildings will have wood lagging roofs with 5 ply built-up roofing laid thereon and will be protected from fire by sprinklers. They will be heated by hot air which will be forced to different locations throughout the building from an automatic oil heating plant in the lean-to. The lighting will be obtained from 400 watt mercury and incandescent lamps spaced at 25 foot intervals giving a floor intensity equal to 15-foot candles. In addition there will be flood lights flush with the walls so located that there will be ample light under the wings of all planes.

Each hangar will have a lean-to located at the rear in which there will be locker rooms, washrooms, work shops, offices, storerooms and the heating plant.

The plans are in a state of completion that will permit construction in 1947.

Sewage Disposal. The Design Division has completed the organization and training of an efficient designing force of engineers and draftsmen for the highly specialized work on the design of sewage treatment works and other features of the Sewage Disposal Project, and work on the design and drafting of contract plans and preparation of specifications has been actively prosecuted during the year.

The plans for the Northeast Sewage Treatment Works were reviewed by the consulting firm of Greeley and Hansen, and changes agreed upon in conferences with them have been incorporated in the plans.

The plans and specifications for the influent and effluent conduits and the primary, aeration and final settling tanks and sludge lines have been approved by the State Sanitary Water Board, and this portion of the work will be advertised for bids early in 1947. 58 plans were required for this part of the Works.

The design of the digestion tanks has been completed and includes 45 plans. An optional design for the use of pre-stressed concrete tanks is

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being prepared which will add 9 plans. Plans for the blower building will require 62 drawings and this work is approximately 50 per cent complete. It is expected that plans and specifications will be entirely completed within seven months.

Studies have been made for the Southwest and Southeast Treatment Works to determine the size of the various units and tentative plant layouts.

Plans were prepared during the year for the extension of the Upper Delaware Low Level Intercepting Sewer northward from Pennypack Street to Eden Street, and this work is now under construction. This is a 6'0" x 5'0" rectangular reinforced concrete section. Studies have been made for a suitable location for the small low level pumping station required to lift the sewage from the area between State Road and the River North of Linden Street to the intercepting sewer. A location was tentatively selected at Eden Street and Milnor Street, but objections were raised by the residents of the neighborhood. Consideration is being given to an underground station in the bed of Milnor Street on the line of the private sewer south of Grant Avenue with a connection to State Road via Grant Avenue or Fidler Street.

Plans have been prepared during the year for the extension of the Cobbs Creek intercepting sewer westward along the Cobbs Creek from 69th Street to City Avenue, and the first section of this sewer comprising 1325 lin. ft. of 18-inch diameter vitrified pipe sewer with complete encasement is now under construction. This sewer will provide the sewage outlets for an area of 133 acres lying west of Haverford Avenue which is now being developed with residential housing by the Warner-West Corporation and others.

The extension of the Wissahickon Low Level intercepting sewer northward from present terminus at Germantown Avenue to Norwood Avenue and Sugarloaf Drive has been placed under contract in December. The further extension to Stenton Avenue will be constructed at an early date and will provide for the connection with sewers from Springfield Township, under an agreement which will be entered into by the City and the Township.

A section of the Southwest Main Gravity Intercepting Sewer extending in Mingo Avenue between the existing portion south of Church Creek and the portion constructed in Essington Avenue in 1942 with the State Highway Improvement was placed under construction during 1946. This consists of 1949 lin. ft. of triple section rectangular concrete conduits 6'9" x 4'3", 6'9" x 5'3", and 6'9" x 7'0", and is a portion of the intercepting sewer designed to function as an inverted siphon discharging to the future Southwest Sewage Treatment Works.

Bridge Design. Church Lane is extensively used as a traffic artery between Southwest Philadelphia and the 69th Street Section of Upper Darby. Church Lane crosses Cobbs Creek over a narrow girder bridge which has proved a traffic hazard to the high speed traffic of today. The Delaware County Officials have requested the City to cooperate in the elimination of this restriction by the construction of a new and wider bridge. The proper selection of the site for the new bridge involved the revision of the City plan and after several studies were made a plan was selected which included the use of 70th Street as a continuation of Church Lane to and over the P.B. and W.

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Railroad, where a new bridge also will be required.

Plans have been prepared for both these bridges which will have the following physical features.

The Church Lane bridge will have a span of 84'2" along a line parallel to Church Lane and will be about 9 $\frac{1}{2}$ feet above the normal water level of Cobbs Creek. Both abutments and wing walls will be stone faced with local stone having a wide range of color to suit the beauty of the surroundings.

The 70th Street bridge over the P.B. and W. Railroad will have a span of 95 feet and will have a 20-foot underclearance over the high rail elevation. Both abutments and wing walls will be stone faced with local stone. The railings over the railroad tracks will be 6'6" high and will be made of aluminum.

In the interests of efficiency the drafting force employed on bridge repairs was transferred to its function as a part of the Bureau of Highways as of January 1, 1946.

Marquees, Vaults, Etc. To protect the public on City streets, it is necessary to check for strength all marquees, vaults, etc., whose failure might endanger life and limb. Plans for these structures are submitted to the Highway Supervisors for approval and are sent to this Bureau for checking.

Drainage. During the year 1946, contracts were entered into for eighty-four public sewers, fourteen sewers at private cost, and four sewage disposal sewers, which together with sewer contracts carried over from 1945 made a total increase of 10.97 miles to the drainage system of the City. This amount represents an increase of 8.44 miles over last year's total.

There was a tremendous demand for sewers during 1946, due to the very few constructed in the last five years. City Council provided one million dollars for sewers in 1945, and five million dollars in 1946. The enabling ordinances divided the sewers into two classifications,—"Sewers for New Housing" in which it was necessary for the prospective builder to make an affidavit stating the time his buildings would be started, thus helping this Bureau to build the most urgent first and also preventing land speculation, and "Sewers for Other Purposes" consisting of sewers to eliminate cess-pools, reconstruction of defective sewers, and any other urgent sewer not coming under the first classification. The 102 sewer contracts entered into this year have not been exceeded since 1930. 2.08 miles of private sewers were built during the year, an increase of 1.77 miles.

At the end of 1946, there was a total of 1,856.55 miles of sewers completed within the limits of the City of Philadelphia.

Construction. Dauphin Street from Broad Street eastward.

On July 5, 1945, the 12 feet diameter sewer in Dauphin Street west of Broad Street collapsed and a contract in the sum of \$130,000.00 was entered into late that year to reconstruct it as an 11'0" x 11'0" reinforced concrete sewer with stone block invert. Physical work was completed this year and the sewer is now in operation.

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Clearfield Street between 6th Street and 8th Street and from the west house line of Fairhill Street eastward.

In the latter part of 1945, after heavy rains a portion of the sewer in Clearfield Street at Sheridan Street collapsed. After a careful inspection, the Highway Bureau requested reconstruction of the 12'0" diameter brick sewer from Fairhill Street eastward and the 9'6" diameter brick sewer between 6th Street and 8th Street. A contract in the sum of \$157,000. was entered into this year for the work, the new sizes being 9'6" x 9'6" reinforced concrete sewer and 8'6" x 9'6" reinforced concrete sewer respectively, both with stone block inverts. Work is proceeding and is approximately 60% completed.

Sewer Permits. The Sewer Permit Division issued 633 permits in 1946, an increase of 91 over 1945. These permits resulted in 2,576 connections to sewers, an increase of 137 percent over 1945. This upsurge in activity, due to the great number of new sewers constructed this year, should be more than doubled in 1947, as the new sewers planned and now under contract become completed.

The total receipts for the year were \$21,565.97, an increase of 83% over 1945. \$9,628.00 were collected from lateral fees, an increase of \$6,293.00 and \$11,937.97 from service charge bills, an increase of \$3,515.55. On April 9, 1946, an Ordinance of Council increased the charge for use of a sewer lateral from \$10.00 to \$15.00. This accounts for the large increase in revenue from that source during this year.

2,984 more reports on sewers were made to the Title Companies than last year, the total being 17,700. Locations and measurements given to plumbers increased from 1,084 in 1945 to 3,050 this year.

Testing Laboratory. Work during 1946 consisted of chemical and physical testing of materials for construction and maintenance in accordance with their respective specification requirements as submitted by the various City Departments and Bureaus; investigation of materials proposed for use on City contracts and various failures; formulation and revision of specifications; consulting service; inspections, sampling and sample collection.

Efficiency standard of the highest possible level is maintained on all work; this is greatly aided by the Laboratory's connection with national organizations who standardize in this type of work. The Laboratory has direct contact with the American Society for Testing Materials, holding membership on four of its major and nine of its sub-committees, and this directly aids the Society in formulating its standards and test methods for materials. The City adopts and uses many of the standards published by this Society.

The Bureau is purchasing new standard laboratory apparatus and equipment, as it becomes available, to replace that which is out-moded and thus modernize the laboratory. With such modernization, the laboratory will be able to perform the work in accordance with the newest requirements adopted by the City; further, the laboratory will be on equal basis with the laboratories of industry who wish to sell their products to the City.

Periodic cooperative tests were performed with various laboratories of recognized standing to establish the efficiency ratio between the same; the

14-1946

importance of this is that many of these finely equipped laboratories are allied with business concerns who sell their products to the City. Many investigations and varied services were performed for the various branches of the City.

All brands of portland cement common to the Philadelphia market have been checked during the year for the purpose of classification to the City's list of approved brands. Check tests were performed at the local centralmix concrete plants to establish the grade of concrete produced by them for the City.

The appended tables show the total, variety, distribution, and percentage of distribution of the tested specimens.

Accounting and Reporting Division. During the year, 12 public readings of Bids were held involving 89 Projects, 82 of which were certified as contracts and entered on the Bureau records. In addition, 27 contracts were certified and entered on the Bureau records for work in connection with Sewage Disposal and improving the Northeast and Southwest Airports. Fifteen contracts unfinished in 1945 were carried to completion during the year. 912 separate warrants were drawn calling for payments of \$2,793,886.60 from both Budget and Loan funds.

Appropriations and listing of Expenditures with principal projects may be examined on last pages of statistical reports.

15-1946

STATISTICAL SUMMARIZATION

OF

ACTIVITIES

16-1946

DETAILS OF WORK PERFORMED IN THE SURVEY DISTRICTS

<u>Lots Staked</u> - for building purposes, scattered, four or less	1,293
for building purposes, operations, over four	172
grades furnished for new buildings, linear feet	18,589
<u>Conveyance</u> - properties surveyed for conveyance, scattered	2,617
properties surveyed for conveyance, operations	1,425
plans made for conveyance purposes	1,537
descriptions of property prepared	313
<u>Farm Surveys</u> - number made	21
acres surveyed or staked	988
<u>Miscellaneous Surveys</u> - made or staked	161
<u>Curb Regulation</u> - orders	2,519
linear feet	129,931
curb corners staked out	565
linear feet of curb measured and certified	12,336
<u>Footways</u> - square yards of paving or repaving measured and certified	2,828
curb and footway assessment bills prepared	435
<u>Alleys and Driveways</u> - plans for paving or repaving	23
linear feet covered	15,648
number for which lines and grades were furnished	117
linear feet furnished	61,275
square yards of paving or repaving measured and certified	17,926
assessment bills prepared	2,061
<u>Subdivision Plans</u> - number made	82
lots shown thereon	624
<u>Architect Plans</u> - number made	92
<u>Wharf Plans</u> - plans and surveys made	20
number for which lines were furnished	19
linear feet	10,181
<u>Miscellaneous Plans</u> - number made	89
<u>City Plans</u> - small City Plans Prepared	39
sectional City Plans prepared or revised (number	7
(acres	925
topography taken for city or private plans, acres	85
acres covered by stoning or restoning city plans	100
monuments set or reset (city or private)	120
linear feet of levels run to establish grades or benches	243,612
reports on City Plan changes	60
reports on deeds of dedication, releases and affidavits	145
descriptions prepared for deeds of dedication	143
<u>Law Plans</u> - plans prepared for Board of View	6
properties included	201
area in acres	1,463.4
plans prepared for various legal purposes	20
<u>Passenger Railways</u> - plans prepared (number	3
(linear feet of street covered	5,000
linear feet of lines and grades furnished	35,255
<u>Utility Companies</u> - linear feet of lines and grades furnished	7,595
reports on applications for footway locations	345
<u>Bridges</u> - preliminary plans and surveys made	3

17-1946

<u>Drainage</u> - preliminary surveys and plans made for sewers and drains	209
linear feet of street covered	111,825
linear feet of lines and grades furnished	54,259
cubic yards of trench excavation measured	104,005
cubic yards of masonry measured	1,142
number of inlets staked out	310
linear feet of lateral pipe and inlet connections measured	69,484
plans of constructed sewers and appurtenances prepared	70
linear feet of street covered	50,403
assessment bills prepared	812
<u>Water Pipe</u> - plans prepared for Bureau of Water and Water companies	142
linear feet of street covered	77,972
linear feet of lines and grades furnished	9,540
fire hydrants for which lines and grades were furnished	1
reports on grade of streets for water pipe to be laid	15
assessment bills prepared	158
<u>Current Estimates</u> - any contract	139
<u>Reports</u> - on street openings, including plans or estimates	13
on street improvements, including plans or estimates	103
made to Chief Engineer	443
miscellaneous (not otherwise classified)	137
<u>Liens</u> - descriptions prepared for any Department or Bureau	129
<u>Zoning</u> - properties posted for Board of Adjustment	6
<u>Miscellaneous</u> - linear feet lines and grades, gutter marks, cross	
sections, location measurements, levels, profiles, etc.	38,600
Blue Print copies of property plans previously made	156
Letters certifying to old surveys	8
<u>Grading</u> - plans and preliminary estimates (including country roads)	36
linear feet of street covered	30,508
cubic yards measured, cut and fill	235,813
linear feet of street covered	14,216
linear feet of lines and grades furnished	33,657
<u>Paving</u> - plans prepared for paving (including country roads)	24
linear feet of street covered	17,523
square yards measured and certified	81,631
linear feet of street covered	27,468
linear feet of lines and grades furnished	78,204
assessment bills prepared	83
<u>Repaving</u> - plans prepared for repaving (including country roads)	33
linear feet of street covered	43,050
square yards measured and certified	132,533
linear feet of street covered	41,376
linear feet of lines and grades furnished	100,536
<u>Amount of Completed Contracts</u> - main and branch sewers	\$911,395.20
private sewers and drains	132,748.00
grading - dredging	112,829.27
paving and improvement	210,156.97
repaving and resurfacing	949,504.78
Total Cost	\$2,316,634.22
<u>Receipts</u> - District Cash Receipts	\$120,477.37

18-1946

DETAILS OF WORK PERFORMED BY ZONING DIVISION

	<u>Dif-</u> <u>ference</u>	<u>1945</u>	<u>1946</u>	<u>% Annual</u> <u>Decrease</u>	<u>% Annual</u> <u>Increase</u>
Number of requests for information	6,880	11,490	18,370		60.0
Number of applications filed	3,564	5,300	8,864		67.3
Number of Zoning Permits issued	4,367	1,991	6,358		219.5
Number of Use Registration Permits issued	1,552	2,236	3,788		69.6
Number of References to the Board of Adjustment	119	94	213		127.1
Number of Applications stamped "Permit not Required"	831	2,173	3,004		38.3
Number of Zoning Permits refused	471	554	1,025		85.2
Number of Use Registration Permits refused	1,131	1,270	2,401		99.9
Number of refusals appealed to the Board of Adjustment	1,432	1,425	2,857		100.2
Number of Inspections	263	249	512		105.7
Number of Complaints investigated	221	129	350		171.1
Number of Vouchers issued	1,753	2,533	4,286		69.2
Amount of Cash Receipts.	15,989	10,450	26,439		153.0
Number of true copies of applications certified to B. of A.	1,200	1,299	2,499		92.3
Number of Sign Applications (Highway) acted upon	78	83	161		94.0
Number of Descriptions for District Classification Changes	48	18	66		266.4
Number of Letters to Fire Marshall for approval or disapproval of use	208	182	390		115.1
Number of changes of Zoning Maps made by Ordinance of Council	30	14	44		214.2
Number of changes of Zoning Maps proposed by Resolution of Council	76	39	115		194.7
Number of Housing and Sanitation refusals	171	245	416		69.9

19-1946

FROM: ZONING DIVISION, BUREAU OF ENGINEERING SURVEYS AND ZONING,
Keystone Phone - Ext. 2191 - - Bell Phone-Public Works
Ext. 161.

TO: RECEIVER OF TAXES

The following are names appearing on Applications, made to the Zoning Division:

NAME AND ADDRESS	APP. NO.
Applicant	
Owner or Agent	
Contractor	
Architect	
Applicant	
Owner or Agent	
Contractor	
Architect	
Applicant	
Owner or Agent	
Contractor	
Architect	
Applicant	
Owner or Agent	
Contractor	
Architect	
Applicant	
Owner or Agent	
Contractor	
Architect	
Applicant	
Owner or Agent	
Contractor	
Architect	

FOR ZONING DIVISION

20-1946

DETAILS OF WORK PERFORMED IN THE REGISTRY DIVISION

Deed abstracts filed for registering	73,609
Descriptions contained on abstracts	83,012
Transfers Plotted	95,234
Original lots plotted	4,313
Deed abstracts filed from 1865 to 1946 (inclusive)	3,430,288
Titles examined for plan book entries	7,374
Plan books examined by the public and officials	97,200
Certificates of registered owners issued to public	214
Certificates of registered owners issued to Law Dept.	286
Registry plates redrawn	30
Miscellaneous receipts	\$469.80
Miscellaneous plans drawn for City departments	155
Plans loaned out	771
Subpoenas issued against Registry Division	55
Appearance in Court	45
Amount of Witness fees collected	\$162.00
Certificates of street openings issued to City departments	1,135
Affidavits of street openings filed	9
Streets opened by affidavits	7
Jury plans ordered	10
Jury plans filed	4
Streets authorized to be opened by ordinance	13
Certifications filed of openings and condemnations	8
Street opening agreements filed	3
Agreements filed in connection with City plan changes	31
Deeds of Dedication filed	128

21-1946

Deeds of Dedication approved and recorded	113
Releases of abutting owners filed	15
Releases of abutting owners approved and recorded	13
Cost of recording deeds and releases, etc.	\$66.25
Number of meetings, incl. Road Day hearings	28
City Plans ordered	71
Confirmed City plans filed	47
City plans advertised for public hearing	51
Ordinances returned to Council, favorable recommendation	23
Subt. " " " " " "	21
Ordinances " " " , special "	0
" " " " , negative "	1
General plans for construction of bridges approved	0
" " " " sewer "	0
Approved street railway plans filed	14

22-1946

DEPARTMENT OF PUBLIC WORKS

ANNUAL REPORT OF THE OFFICIAL PHOTOGRAPHER

	PHOTOGRAPHY						ELECTRO-COPIES			BLUE PRINTS		PRINTING
	8" x 10" NEGS.	8" x 10" PRINTS	5" x 7" ENLARG.	4" x 6" ENLARG.	LANTERN SLIDES	SQ. FT. PAPER	SQ. FT. TRACINGS	SQ. FT. BLUE PRINTS	SQ. FT. VANDYKES			
1946												
ENG. SUR. & ZONING	615	1570	18	43	62	3237	410	75,285	1972			
HIGHWAY & ST. CLEAN.	322	546						19,256	193			
WATER	83	1305				24		38,243	693			
CITY PROPERTY	27	176				65		469				
TRAFFIC ENG.						18		8,582	475			
ELECTRICAL						600		7,499	377			
LAW	161	193										
HEALTH								2,750				
ART JURY	5	10										
CITY PLANNING												
PHILA. HOUSING												
COM. MUSEUM												
CIVIL SERVICE	24	48										
WHARVES DOCKS		20										
CITY TRANSIT						248						
MECH. EQUIPT		40										
TOTALS	1237	3908	18	43	62	4204	410	166,028	3710			

Charles J. Bender
OFFICIAL PHOTOGRAPHER

23-1946

DETAILS OF WORK DONE IN THE TESTING LABORATORY

Total Number of Specimens - 1946

Boiler Water	1,173
Boiler Compounds	4
Brick	55
Cement, Hydraulic	742
Concrete	2,813
Fuels	2,977
Metals	192
Miscellaneous	19
Paint and Paint Materials	96
Road and Road Materials	204
Tile	66
Water, Industrial Waste and Sewage	44
Total	<u>8,385</u>

Distribution of Total Specimens

	<u>Number of Specimens</u>	<u>%</u>	<u>Number of Specimens</u>	<u>%</u>
Department of Public Health			1,087	13.0
Department of Public Safety			165	2.0
Bureau of Building Inspection	69	0.9		
Electrical Bureau	90	1.0		
Bureau of Fire	1	0.0		
Bureau of Police	5	0.1		
Department of Public Works			4,996	59.5
Bureau of City Property	3	0.0		
Bureau of Engr. Surveys, Zoning	2206	26.3		
Bureau of Highways	766	9.2		
Bureau of Water	2021	24.0		
Department of Supplies and Purchases			1,099	13.1
Water Works Improvement			1,038	12.4
Total			<u>8,385</u>	<u>100.0</u>

24-1946

Specimens for Chemical Test

Boiler Feed Waters		1,173
Boiler Compounds		4
Coal		2,976
Anthracite -	2,853	
Bituminous -	123	
Metals		139
Ferrous -	50	
Non-ferrous-	89	
Miscellaneous Materials		9
Oils		1
Fuel	1	
Paint and Paint Materials		96
Drier	2	
Linseed Oil	5	
Paints, Mixed	65	
Pigments, Dry	3	
Pastes	16	
Turpentine	3	
Varnish	2	
Road and Road Materials		204
Asphalt Cement	72	
Asphalt Compounds	18	
Wearing Surface	114	
Soap, Powdered		1
Water, Industrial Waste and Sewage		44
		<hr/>
Total		4,647

Distribution of Chemical Specimens

Department of Public Health		1,087
Department of Public Safety		97
Bureau of Building Inspection -	1	
Bureau Electrical -	90	
Bureau of Fire -	1	
Bureau of Police -	5	
Department of Public Works		2,332
Bureau of City Property	3	
Bureau of Engr., Surveys & Zoning	107	
Bureau of Highways	246	
Bureau of Water	1,976	
Department of Supplies and Purchases		1,099
Water Works Improvement		32
		<hr/>
Total		4,647

25-1946

Specimens for Physical Tests

Brick		55
Building -	35	
Sewer -	20	
Concrete		2813
Aggregate, fine	5	
Aggregate, coarse	6	
Block	18	
Cores	138	
Cylinders	2,646	
Metals		53
Ferrous	53	
Miscellaneous Materials		9
Tile		<u>66</u>
Total		2,996

Distribution of Physical Specimens

Department of Public Works		1,922
Bureau of Engr. Surveys & Zoning	1,719	
Bureau of Highways	200	
Bureau of Water	3	
Department of Public Safety		68
Bureau of Building Inspection	68	
Water Works Improvement		<u>1,006</u>
Total		2,996

Hydraulic Cement Specimens

Domestic Hydraulic Cements		<u>742</u>
Total		742

Distribution of Cement Specimens

Department of Public Works		742
Bureau of Engr., Surveys & Zoning -	380	
Bureau of Highways -	320	
Bureau of Water	42	
Total		<u>742</u>

26-1946

DETAILS OF WORK PERFORMED BY THE DESIGN DIVISION

Preliminary Estimates

Lawnton Street, Lakeside Avenue to Summit south of 69th Avenue North.
69th Avenue N. 10th St. to 11th St.
11th St., 69th Ave. N. to Summit South.
68th Avenue N., 13th Street to Old York Road.
12th Street, 70th Avenue North to Cheltenham Avenue.
Oak Lane, York Road to 13th Street.
66th Avenue North, 8th Street to 12th Street.
10th Street, Summit North Oak Lane to Cheltenham Avenue.
Lawnton Street, Summit South of Oak Lane to 65th Avenue N.
65th Avenue North, Lawnton Street to 10th Street.
11th Street, Summit South of Oak Lane to 66th Avenue N.
Oak Lane, Summit E. Lawnton Street to 12th Street.
Lawnton Street, Summit S. of 69th Street to Summit S. of Oak Lane.
11th Street, Summit S. of 69th Avenue N. to Summit S. of Oak Lane.
Cheltenham Avenue, Summit E. of Broad Street to 70th Avenue N.
Verbena Street, Oak Lane to Cheltenham Avenue.
Toubat Street, Oak Lane to 69th Avenue N.
10th Street, Summit S. of Oak Lane to 69th Avenue N.
69th Avenue N., 10th Street to Verbena Street.
Haines Street, Old York Road to Broad Street.
Lakeside Avenue, Old York Road to Broad Street.
Oaklyn Avenue, Broad Street to 15th Street.
15th Street, Oaklyn Avenue to 71st Street.
Barton Street, Wissinoming Street to State Road.
West End Drive, Woodcrest Avenue to Brookhaven Road.
75th Street, Brockton Road to Lebanon Avenue.
Lebanon Avenue, 75th Street to Haverford Avenue.
Brockton Road, 76th Street to Farrington Road.
77th Street, Overbrook Avenue to Woodbine Avenue, and Woodbine Avenue
to stream South of Woodbine Avenue.
Brookhaven Road, Haverford Avenue to West End Drive.
Haverford Avenue (West side), Sherwood Road to Overbrook Avenue.
Woodbine Avenue, 76th Street to 77th Street.
Cobbs Creek Intercepting extension, 69th Street to City Avenue, and
branches.
Faunce Street, Summerdale Avenue to Whitaker Avenue Stormwater conduit.
Ferndale Avenue, Napfle Avenue to Hartel Avenue - sanitary sewer.
Hartel Avenue, Ferndale Avenue to Hasbrook Avenue - " " .
Hasbrook Avenue, Hartel Avenue to Oxford Avenue - " " .
Oxford Avenue, Hasbrook Avenue to Rhawn Street - " " .
Halstead Street, Hartel Avenue to Rhawn Street - " " .
Rhawn Street, Halstead Street to Ridgeway Street - " " .
Faunce Street, Summerdale Avenue to Tabor Road, and
Tabor Road, Faunce Street to Napfle Avenue stormwater conduit.
Tabor Avenue, Harrison Street to Godfrey Avenue.
Wissahickon Low Level Intercepting Sewer Extension, Germantown Avenue
to Stenton Avenue.
Norwood Avenue, Sugarloaf Drive to Hillcrest Avenue.
Norwood Avenue, Hillcrest Avenue to Chestnut Hill Hospital.
Pennsylvania Boulevard, 15th Street to Schuylkill River.

27-1946

Private Sewers

Wells Street, Loretto Avenue to Frontenac Street.
Frontenac Street, Stirling Street to Levick Street.
Stirling Street, Loretto Avenue to Frontenac Street.
Duval Street, Stenton Avenue to Crittenden Street.
Hellerman Street, Algon Avenue to Summerdale Avenue.
Foulkrod Street, Summerdale Avenue to Roosevelt Blvd.
Kerper Street, Frontenac Street to Summerdale Avenue.
Malvern Avenue, West End Drive to Haverford Avenue.
Disston Street, Whitaker Avenue to Oxford Avenue.
Fanshawe Street, Loretto Avenue to Frontenac Street.
Rugby Street, Upsal Street to Vernon Road.
Gilham Street, Summerdale Avenue to Algon Avenue.
Fayette Street, Vernon Road to Phil-Ellena Street.
Brighton Street, Brous Avenue to Battersby Street.
Princeton Avenue, Brous Avenue to Battersby Street.
Tyson Street, Brous Avenue to Battersby Street.
Netherfield Road E., Netherfield Road W. to Netherfield Road.
Lansing Street, Rowland Avenue to Crispin Street.
Meridian Street, Rowland Avenue to Crispin Street.
Hartel Street, Rowland Avenue to Crispin Street.
Woodcrest Avenue, Graham Street to Salford Street.
Woodcrest Avenue, West End Drive to Haverford Avenue.
Tackawanna Street, Benner Street to Devereaux Avenue.
Gardenia Street, Walnut Lane to Tulpehocken Street.
Magnolia Street, Walnut Lane to Tulpehocken Street.
Roosevelt Blvd. (s.e. side), Knorr Street to Longshore Street.
Passmore Street, Cranford Avenue to Summerdale Avenue.
Woodbrook Lane, Cheltenham Avenue to Pickering Street.
Murdock Road, Cheltenham Avenue to Pickering Street.
Ashville Street, Torresdale Avenue to Ditman Street and
Torresdale Avenue (n.w. side) Ashville Street to Decatur Street.
Hartel Avenue, Ditman Street to Torresdale Avenue
Barnard Street, Princeton Avenue to Cottman Avenue.
Jackson Street, Swanson Street to Water Street.
McKean Street, Swanson Street to Dilworth Street.
So. R/W Northwood Cemetery to North R/W.
Ridge Avenue, LeMonte Street to about 43 feet N.W. (Temporary drain).
Gillespie Street, Devereaux Avenue to Robbins Street.
Godfrey Avenue, Summerdale Avenue to Langdon Street.

Public Sewers

Manayunk Avenue, Osborn Street to Osborn Street.
Woodcrest Avenue and Morris Park, West End Drive to outlet in Morris
Park and West End Drive, Woodcrest Avenue to Malvern Avenue.
Loretto Avenue, Griffith Street to Borbeck Street.
Borbeck Avenue, Castor Avenue to Frontenac Street.
Cheltenham Avenue, Reach Street to Hasbrook Avenue.
Robbins Street, Loretto Avenue to Summerdale Avenue.
Henry Avenue, Hermit Street to Rittenhouse Street.
Wellington Street, Battersby Street to Hawthorne Street.
Hawthorne Street, St. Vincent Street to Wellington Street.
Ridgeway Street, Rockwell Avenue to Rhawn Street.
Osborn Street, Manayunk Avenue to Righter Street.
Frontenac Street, Levick Street to Hale Street.

28-1946

Public Sewers (Continued)

Hale Street, Frontenac Street to Loretto Avenue.
Robbins Street, Frontenac Street to Loretto Avenue.
Kerper Street, Rising Sun Avenue to Bingham Street.
Blabon Street, Hunting Park Avenue to Richmond Br. P. & R. Ry.
Longshore Avenue, Roosevelt Blvd. to Bustleton Avenue.
Whitaker Avenue, S.W. R/W Line of Phila. and Frankford R.R. to
Adams Avenue.
Whitaker Avenue, Godfrey Avenue to S.W. R/W Line of Phila. and
Frankford R.R.
Harrison Street, Montour Street to Whitaker Avenue.
Godfrey Avenue, 600 ft. s.e. of Tabor Avenue to Whitaker Avenue.
West End Drive, Woodcrest Avenue to Drexel Avenue.
Wadsworth, Mansfield Avenue to Stenton Avenue.
Allens Lane, Mansfield Avenue to Stenton Avenue.
Slocum Street, Mansfield Avenue to Stenton Avenue.
Durham Street, Mansfield Avenue to Stenton Avenue.
Vernon Road, Mansfield Avenue to Stenton Avenue.
Williams Avenue, Cliveden Street to Limekiln Tpk.
Knorr Street, Hasbrook Avenue to County Line.
Hasbrook Avenue, Knorr Street to Magee Avenue.
Erdrick Street, Princeton Avenue to Wellington Street.
Roosevelt Blvd. (n.w. side), Tyson Avenue to Longshore Avenue.
Benner Street, Revere Street to Brous Avenue.
Stevens Street, Revere Street to Farnsworth Avenue.
Lardner Street, Revere Street to Farnsworth Avenue.
Devereaux Avenue (s.w. side), Revere Street to Farnsworth Avenue.
Gilbert Street, Sharpnack Street to Vernon Road.
Temple Road, Greenwood Street to Sedgwick Street.
Williams Avenue, Phil-Ellena Street to Vernon Road.
Fayette Avenue, Phil-Ellena Street to Vernon Road.
Wellington Street, Walker Street to Erdrick Street.
Montague Street, Cottman Avenue to Wellington Street.
Gillespie Street, Devereaux Avenue to Robbins Street.
Mt. Airy Avenue, Mansfield Avenue to Stenton Avenue.
Stenton Avenue, Mt. Airy Avenue to Wadsworth Street.
Weaver Street, Thouron Street to Forrest Avenue.
Gratz Street, 65th Avenue N. to 66th Avenue N.
Ogontz Avenue (e. side), 65th Avenue N. to 66th Avenue N.
Foulkrod Street, Summerdale Avenue to Roosevelt Blvd.
Wynsam Street, Rodney Street to Woolston Avenue.
Windish Street, Hawthorne Street to Sackett Street.
Algon Avenue, Levick Street to Magee Avenue.
Tabor Avenue, Benner Street to Robbins Street.
Battersby Street, Princeton Avenue to Cottman Avenue.
St. Vincent Street, Battersby Street to Brous Avenue.
Princeton Avenue, Brous Avenue to Battersby Street.
Rowland Avenue, Tyson Avenue to Disston Street.
Disston Street, Rowland Avenue to Hawthorne Street.
Tyson Avenue, Hawthorne Street to Brous Avenue.
Tyson Avenue, Rowland Avenue to Hawthorne Street.
Drexel Road, Haverford Avenue to West End Drive.
Drexel Road, Haverford Avenue to 75th Street.
Woodbine Avenue, Haverford Avenue to West End Drive.
Magee Avenue, Horrocks Street to Oakland Street.

Public Sewers (Continued)

Sylvester Street, Magee Avenue to Unruh Avenue.
Passmore Street, Algon Avenue to Summerdale Avenue.
Woolston Avenue, Upsal Street to Phil-Ellena Street.
Napfle Avenue, Roosevelt Blvd. to Bradford Street; Bradford Street,
Napfle Avenue to Shel mire Street.
Brookhaven Road, Haverford Avenue to West End Drive.
Castor Avenue, Chandler Street to Griffith Street.
West End Drive, Drexel Road to Sherwood Road.
Porter Street, 28th Street eastward to dead end.
Washington Lane, N. and E. Washington Lane, Crittenden Street
to Stenton Avenue.
Crittenden Street, E. Washington Lane to Johnson Street.
Brighton Street, Brous Avenue to Battersby Street.
Princeton Avenue, Barnard Street to Battersby Street.
Lawnton Street, Chelton Avenue to 66th Avenue North.
Wilder Street, 12th Street to Dickinson Street (reconstruction).
Erdrick Street, Princeton Avenue to Wellington Street.
Brockton Road, 76th Street to Farrington Road and R/W to Cobbs
Creek Park.
Brockton Road, 76th Street to east of Westbury Drive and R/W to
75th Street.
Sepviva Street, Castor Avenue to Butler Street.
Woodbine Avenue, 75th Street to Haverford Avenue.
Brookhaven Road, 75th Street to Haverford Avenue.
Cottman Avenue (N.E. side), Castor Avenue to Loretto Avenue.
Parker Avenue, Lawnton Street to 150 ft. west of Matthias Street.
Fairthorne Avenue, Lawnton Street to Ridge Avenue.
Tulip Street, Butler Street to Pacific Street.
Volley Street, Harrison Street to Wakeling Street.
Pearce Street, Church Street to Duncan Street.
Vankirk Street, Langdon Street to Oxford Avenue.
Rutland Street, Bridge Street to Oxford Avenue.
Bridge Street, Rutland Street to Oxford Avenue.
Roxborough Street, Thompson Street to Almond Street.
Adams Avenue, Thompson Street to Almond Street.
Juniata Street, Thompson Street to Almond Street.
Thompson Street, Roxborough Street to Juniata Street.
Thompson Street, Luzerne Street to Roxborough Street.
Loretto Avenue, Cottman Avenue to Bleigh Avenue.
Overbrook Avenue, Haverford Avenue to 76th Street.
75th Street, Brockton Road to Rhoads Street.
Farrington Road, Malvern Avenue to Brockton Road.
Pennington Road, Malvern Avenue to Brockton Road.
76th Street, Malvern Avenue to Brockton Road.
Kimberly Drive, Malvern Avenue to Brockton Road.
Westbury Drive, Malvern Avenue to Brockton Road.
Longshore Avenue, Castor Avenue to Loretto Avenue.
Ryan Avenue, Rowland Avenue to Sackett Avenue.
Malvern Avenue, 64th Street to 66th Street.
Malvern Avenue, 75th Street to Farrington Road.
Ashville Street, Torresdale Avenue to Ditman Street and
Torresdale Avenue (n.w. side), Ashville Street to Decatur Street.
Hartel Avenue, Torresdale Avenue to Ditman Street.
Chadwick Street, Carpenter Street to Washington Avenue.

30-1946

Public Sewers (Continued)

St. Vincent Street, Hawthorne Street to Battersby Street.
Bustleton Avenue, St. Vincent Street to Princeton Avenue.
Glenview Street, Bingham Street to Rising Sun Avenue.
Erdrick Street, Cottman Avenue to Wellington Street.
Fayette Street, Mt. Pleasant Avenue to Mt. Airy Avenue.
Temple Road, Mt. Pleasant Avenue to Mt. Airy Avenue.
Williams Avenue, Mt. Pleasant Avenue to Mt. Airy Avenue.
Woodbrook Lane, Cheltenham Avenue to Pickering Street.
Murdock Road, Cheltenham Avenue to Pickering Street.
Westview Street, Wayne Avenue to Sherman Street.
Stirling Street, Loretto Avenue to Frontenac Street.
Gardenia Street, Walnut Lane to Tulpehocken Street.
Magnolia Street, Walnut Lane to Tulpehocken Street.
Rugby Street, Sharpnack Street to Vernon Road.
Sylvester Street, Knorr Street to Tyson Avenue.
Oakland Street, Knorr Street to Tyson Avenue.
Forrest Avenue, Mt. Airy Avenue to Wadsworth Avenue (laterals & inlets).
Clearfield Street, between 6th street and 8th street), and from
w.h.l. of Fairhill Street eastward (reconstruction).
Castor Avenue, Unity Street to Frankford Creek.
Nedro Avenue, Warnock Street to Marvine Street.
Levick Street, Battersby Street to Brous Avenue.
68th Street, Lebanon Avenue to Malvern Avenue.
Walnut Lane, Rodney Street to Woolston Avenue.
Hellerman Street, Summerdale Avenue to Cranford Avenue.
Tulpehocken Street, Rodney Street to Woolston Street.
Clearfield Street, 70 feet east of Fairhill Street to 40 feet east of
5th Street (reconstruction).

Drainage Studies

Milnor Street, Comly Street to Benner Street.
Trotter Street, Elmhurst Street, Robbins Street to Levick Street.
Ryan Avenue, Rowland Avenue to Sackett Street.
Woodbine Avenue, Monument Avenue to 41st Street.
Milnor Street, Comly Street to Benner Street, and Higbee Street
to 250 feet n.w.
5th Street to 6th Street, Chestnut Street to Race Street.
Melvale Street, Wensley Street to Ontario Street.
Locust Street, 58th Street to 59th Street.
Godfrey Avenue, Bridge Street to Algon Avenue.
Louden Street, Stenton Avenue to Reading Railway.
Kerper Street, Summerdale Avenue to Algon Avenue.
23d Street, Reading Railway to Westmoreland Street.
Cheltenham Avenue, Lawrence Street to 7th Street.
Juniata Street, Fox Street to McMichael Street.
McCallum Street, Mermaid Lane, St. Martin's Lane, Cherokee Street.
Kerper Street, Algon Avenue to Pennway Street.
Schuylkill River East Side R.R., Ellsworth Street to Peltz Street.
Haldeman Avenue, Tomlinson Road, Jamison Avenue, Piermont Street.
James Street, Grant Avenue to Fidler Street.
Chandler Street, Castor Avenue to Large Street.
18th Street, Haines Street to north property line Northwood Cemetery.
Jamison Avenue, Lott Avenue to Bustleton Avenue; Morrell Street and
Bowler Street, Bustleton Avenue to Jamison Avenue.
Ritner Street, Swanson Street to Vandalia Street.

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Drainage Studies (Continued)

Philmont Avenue, Montgomery County Line, Smithfield Avenue, Overhill Avenue and Bustleton Avenue.

Ashton Road, Holme Avenue to Grant Avenue.

Cottman Avenue, Roosevelt Blvd., Faunce Street, Bustleton Avenue.

Green Street, Broad Street to 15th Street.

31st Street, 253 N. Grays Ferry Avenue to Schuylkill River East Side Railroad.

Bustleton Avenue, Cottman Avenue, Roosevelt Blvd. & St. Vincent Street.

Mower Street, Mt. Pleasant Avenue to Durham Street.

Proposed Development Wissahickon Creek, Gypsyla, School House Lane.

Tract northwest of Verree Road and northeast of Bloomfield Avenue.

Welsh Road and Verree Road - tract.

Birwood Street, Lott Avenue to Bowler Street, etc.

Loney Street, Ridgeway Street to Ferndale Street, Halstead, Griffith to Rhawn.

Hess Street, Craig Street to Leon Street.

Ludlow Street, 56th Street to 57th Street.

Clark Street, Murray Street to Fulmer Street.

Cottman Avenue, Bustleton Avenue, Princeton Avenue, Horrocks Street.

66th Street, Callowhill Street, 67th Street, Girard Avenue.

Wayne Avenue, Horter Street to Lincoln Drive.

Elaine, McPherson Streets, Pickering Street to Cheltenham Avenue.

Overbrook Avenue, Callowhill Street, Greenhill Road.

Henry Avenue, Hermit Street to Rittenhouse Street.

Sherwood Street, 72nd Street to 69th Street - tract.

Leverington Avenue, Pechin Street to High Street - inlets.

Cobbs Creek Area - City Plan No. 348 Revision.

Adams Avenue Improvement: State Highway

Adams Avenue, Whitaker Avenue to Montour Street - sewer plan.

Penrose Avenue Improvement: State Highway

Schuylkill River Bridge and approaches: grade and drainage studies.

Contract Plans - stormwater drainage - Penrose Avenue Schuylkill River to point west of 26th Street and in Lanier Avenue northwest of Penrose Avenue.

Island Avenue Improvement: State Highway

Plan for reconstruction of manholes on intercepting sewer in track area.

Hunting Park Avenue Underpass Under Ridge Avenue: State Highway

Contract plans - for underpass and retaining walls.

Boring plan - Hunting Park Avenue East River Drive to Indiana Avenue.

Philadelphia Southwest Airport

Contract Plan - drainage, paving, fencing, etc. Temporary International Terminal Area.

Plans for leases of Facilities to Airlines, hangars, apron and taxiway paving and drainage, studies and design.

Philadelphia Northeast Airport

Studies for extension of apron paving and drainage in cargo loading area.

Proposal for Grading Contract.

Hangars, apron and taxiway paving and drainage, studies and design.

Plans for leases of facilities to Airlines.

32-1946

Sewage Disposal

Sewage connection from Springfield Twp., Mermaid Lane and Stenton Avenue.
U.S. Navy Yard sewage Force Main - 10th St., Pattison Ave. to S.E. Works.
Intercepting Slot - Woodcrest Avenue and Morris Park.
Intercepting Slot - R/W Brockton Road and Farrington Road.
Lower Delaware Low Level Intercepting Sewer - Moore Street to S.E. Works.
Wissahickon Low Level Intercepting Sewer - extension to County Line.
Wissahickon Low Level Intercepting Sewer - Norwood Avenue Branch.
Cobbs Creek Intercepting Sewer extension 69th Street to City Avenue.
Wooden Bridge Run Intercepting Sewer - alignment and profile survey.
Springfield Township Sewage Agreement Data.
Southwest Main Gravity Intercepting Sewer - Church Creek to Essington Avenue.
Wissahickon Low Level Intercepting Sewer Extension - Engineering report.
Cobbs Creek Intercepting Sewer Extension - Engineering report.
Southwest Main Gravity Intercepting Sewer - Church Creek to Essington Avenue - Engineering record.
Sewer Rental Maps and Data.
Somerset Intercepting Chambers - Revision for mechanical improvements.
Northeast Sewage Treatment Works extension - design and plans.
Northeast Sewage Treatment Works - Report on hydraulics - revisions.
Southeast Sewage Treatment Works - Preliminary design studies.
Southwest Sewage Treatment Works - Preliminary design studies.
Upper Delaware Low Level - Extension Pennypack Street to Eden Street.
Eden Street Low Level Pumping Station and intercepting sewers - studies.

Miscellaneous

Water Storage Tank, Tioga and Salmon Streets.
Gulf Oil Corp. Oil Lines - Penrose Avenue southwest of Lanier Avenue.
Railroad Siding - Delaware Avenue south of Porter Street.
Philadelphia Transportation Co. conduit - Dauphin Street, Broad Street to 15th Street.
Proposed Mall - Chestnut Street to Race Street, 5th Street to 6th Street - sewer investigation.
Philadelphia Electric Tunnel, Schuylkill Avenue - Christian Street.
Tunnel, American Street south of Somerset Street.
Map location of Major Relief Sewers proposed throughout City.
Barrett Company - water main in Wakeling Street R/W - Frankford Creek.
Phila. Electric Duct - Delaware Avenue - Southwark Sta. to Delaware Sta.
Curtis Publishing Co. - tunnel - Sansom Street west of 6th Street.
Hutchinson Street, Nedro Avenue to Champlost Avenue - retaining wall.
Steam conduit - across 9th Street and Hutchinson Street - No. of Tioga St.
Tunnel - American Street south of Somerset Street.
Penna. R.R. Siding - Washington Avenue - west of 13th Street.
Clearfield Street Sewer Reconstruction - lateral connections.
Reading Company - siding - American Street south of Somerset Street.
Steam Conduit, Mascher Street South of Westmoreland Street.
Temporary Pipe Overpass - Ridge Avenue south of Sunset Avenue.
Gulf Oil Corp. - Penrose Avenue - Water Disposal and Sewer Lines.
Gulf Oil Corp. - Penrose Avenue - Pipe Lines.
Steam Conduit - McKean Street west of Vandalia - Mifflin Street east of Swanson for Continental Distilling Company.
Steam Conduit - 1027 Callowhill Street.
Tunnel, loading platform and bridge - 15th Street south of Hamilton St.

Miscellaneous (Continued)

Bridge - Milnor Street between Benner and Lardner Streets.
 Sidewalk Vault - 8th and Market Streets - Strawbridge and Clothier.
 Reading Co. Siding - Fairhill Street south of Clearfield Street.
 Reading Co. Siding - American Street, Dauphin Street to York Street.
 Barrett Company - Fire Service Mains - Margaret, Bermuda, Stiles Streets.
 Penna. Railroad Siding - Washington Avenue west of 20th Street.
 Ashton Road Improvement - Retaining Wall and cribbing.
 Frankford Creek Flood Relief - studies.
 Revisions and Additions to City standards.
 Reconstruction of outlet sewer - B & O R.R. R/W Line of Arch Street.
 City Transit Department Plans for reconstruction of sewers - 33d Street.
 South of Walnut to Market Street, Market Street, 32d Street to 36th
 Street and Ludlow Street, 32nd Street to 34th Street.

Bridges

Walnut Lane over Lincoln Drive - Design and plans.
 Castor Avenue over Frankford Creek - design and plans.
 Footbridge in Juniata Park over Frankford Creek - design and plans.
 Church Lane over Cobbs Creek - design and plans.
 70th Street over P.B.&W. R.R. - plans.
 Footbridge 66th Street over P.B. & W.R.R. - design.
 Overpass - Broad and Vine Streets - design studies.
 Underpass - 13th and Vine Streets - design studies.
 Underpass - 15th and Vine Streets - design studies.
 15th Street over Reading Company Main Line - reconstruction, checking plans.
 34th Street over Penna. Railroad Main Line - reconstruction, checking plans.
 Penna. Railroad Trestle in Washington Avenue over 25th Street - checking plans.

Marquees, Private Bridges, Etc.

Loading Platform for Railroad Siding - American Street south of Somerset
 Street - E. F. Houghton Company.
 Industrial Bridge - Ranstead Street west of Broad Street -
 for Girard Trust Company.
 Marquee - 1830 Market Street - Pix Theatre.
 Marquee - Frankford Avenue and Barnett Street - Guild Theatre.
 Marquee - 6219 Lancaster Avenue - Greenhill Theatre.
 Marquee - 15th Street north of Chestnut Street - Goldman Theatre.
 Vault Reconstruction - 8th Street and Ranstead Street.
 Vault Reconstruction - 9th Street and Ranstead Street.

CHECKING APPLICATIONS FOR PUBLIC UTILITIES

Philadelphia Gas Works Company	-	697
Bell Telephone Company	-	451
Philadelphia Electric Company	-	151
Philadelphia Steam Company	-	21
Philadelphia Transportation Co.	-	8
Miscellaneous	-	29
	Total	<u>1357</u>

Mimeographing - Sheets and records for various divisions of the
 Bureau of Engineering, Surveys and Zoning.

Filing - Main and Branch sewer plans, bridge plans,
 miscellaneous plans, etc.

Blueprinting - Contract and Miscellaneous plans for the
 Design Division.

34-1946

ACCOUNTING AND REPORTING DIVISION

BUDGET ITEMS

<u>Item</u>	<u>Appropriated</u>	<u>Encumbered</u>	<u>Expended</u>
A25 Personal Services	485,258.70	-	482,767.59
A26 Personal Services	85,000.00	-	79,426.85
35 Transportation & Expenses not otherwise provided for	800.00	-	799.62
36 Recording of Deeds, Agreements & Permits, & advertising City Plans	750.00	-	562.61
37 Rent - District offices	8,340.00	-	8,340.00
38 Cleaning offices	900.00	-	895.00
39 Construction of Sewers in the Sanitary & Stormwater Drainage System	182,405.27	-	161,580.42
40 Dredging Schuylkill River	2,350.68	-	2,349.93
41 Dredging Frankford Creek	1,797.16	-	9.00
42 Post War Public Works Improvement	61,005.56	273.75	50,815.72
43 Construction or Reconstruction of a Sewer in Malvern Ave.	42.94	-	-
44 Reconstruction of Mill Creek Sewer	24,153.00	-	24,152.67
45 Storage of Automobiles & Trucks	1,582.00	-	1,577.33
46 Construction, Maintenance & Repairs of Sewers & Sewage Disposal Systems	375,652.00	-	-
320 to 329 inclusive - Department of Supplies & Purchases	14,962.64	-	7,226.81
	<hr/>	<hr/>	<hr/>
	1,244,999.95	273.75	820,503.55

35-1946

ACCOUNTING AND REPORTING DIVISION

LOAN ITEMS

<u>Item</u>	<u>Appropriated</u>	<u>Encumbered</u>	<u>Expended</u>
210AL Henry Ave. over Wissahickon Creek	3,901.20	-	-
250½L Highways, Bridges, Viaducts & Bulkheads	11,108.44	-	412.24
380½L Elimination of Grade Crossings at 21st, 22nd, Allegheny & Mt. Airy Aves.	121,915.21	-	-
440½L Highway, Bridges, Viaducts & Bulkheads	90,805.73	-	5,367.94
441L Municipal Improvement in East River Bank of Schuylkill River & Fairmount Park	185,930.87	-	114.14
462L Sewage Disposal	10,264.66	-	-
462½L Construction of Plant & Equipment Sewage Disposal System	4,017.15	-	-
463GL Manayunk, Germantown & Chestnut Hill Grade Crossing	141,193.97	-	10,713.87
464½L Construction of Sewers in the Sanitary & Stormwater Drainage System	177,617.29	21,200.00	143,176.48
510AL Improvement Phila. S.W. Airport	2,500,050.70	700,724.38	522,962.02
510BL Improvement Phila. N.E. Airport	2,500,000.00	46,374.31	300,193.84
520AL Improvement, Construction & Extension Sewage Disposal System	6,981,604.33	927,647.71	428,440.36
520BL Improvement, Construction & Extension Sewers, & Drainage Facilities	965,283.70	396,090.95	555,512.93
540AL Improvement & Extension of Sewage Treatment Works, Intercepting Sewers	29,000,000.00	-	-
540BL Improvement, Construction & Extension Sewers & Drainage Facilities	5,000,000.00	640,983.96	13,716.04
555L Toward the carrying out of agreement with Penna. R.R. Co.	4,300,000.00	-	-
560L Betterment, Improvement, development & Extension of Phila. Municipal Airports	10,000,000.00	-	-
571L Penna. Blvd. Improvement	600,000.00	-	-

36-1946 62,593,693.25 2,733,021.31 1,980,609.86

PROJECTS DIVISION

The need created by the large program of post war improvements resulted in the appointment of a Projects Engineer on February 1, 1946. The principal duties assigned were - responsibility for the over-all development of all of the large scale projects from preliminary stage to final completion, the direct responsibility for the construction of all projects of the Bureau of Engineering, Surveys and Zoning, except main and branch sewers, the responsibility for all surveying work on these projects and the supervision of the work of all consulting engineers who were awarded contracts with the Bureau. Other duties included responsibility for the City's share of work on the City-State Highway program, and the keeping of all records relating to sewer rentals, and the cost of the sewer and sewage disposal system.

The Division started with one employee on February 1st. The number of employees on June 30th and December 31st is shown in the following tabulation.

	<u>June 30th</u>	<u>December 31st</u>
Executive, Office, and Accounting	3	7
Engineering, Inspection, and Surveying	<u>15</u>	<u>32</u>
Total	18	39

CONSTRUCTION

SEWAGE DISPOSAL

A start was made on the post war sewage treatment program. Work has been started on the following contracts:

CONTRACT #SD 102 NE:

State Road - Ashburner Street to Pennypack Street
Date of Contract - February 26, 1946
Notice to Proceed - March 25, 1946
2176 Linear Feet - 6'0" x 5'0" Reinforced Concrete Sewer
Contractor - James N. Driscoll
Amount of Contract - \$170,000
Percent finished December 31, 1946 - 21%

CONTRACT #SD 103 NE:

State Road - Pennypack Street to Eden Street
Date of Contract - March 13, 1946
Notice to Proceed - March 25, 1946
6346 Linear Feet - 6'0" x 5'0" Reinforced Concrete Sewer
Contractor - D. and C. Spinosa Company
Amount of Contract - \$375,000
Percent finished December 31, 1946 - 34%

37-1946

CONTRACT #SD 101 SW:

Mingo Avenue - Station 14+00 (South of Church Creek) to
Essington Avenue.
Date of Contract - September 23, 1946
Notice to Proceed - October 24, 1946
1947 Linear Feet - Triple Section Reinforced Concrete Sewer 6'-9" high.
31'0" Linear Feet - 9'-6" x 8'-0" Reinforced Concrete Culvert
31'0" Linear Feet - 6'-6" x 6'-0" Reinforced Concrete Culvert
Contractor - Acchione Contractor Company
Amount of Contract - \$370,000
Percent finished December 31, 1946 - 13%

CONTRACT #SD 102 SW:

Cobbs Creek Park - 69th Street to Station 53+87 and the Mill Road Branch
Date of Contract - November 12, 1946
Notice to Proceed - November 25, 1946
2885 Linear Feet - 15" Diameter Sewer
25 Linear Feet - 15" Diameter Sewer in Tunnel
Contractor - Charles J. Corr
Amount of Contract - \$40,000
Percent finished December 31, 1946 - 0%

Work on all contracts was affected by shortages in some materials, particularly shoring lumber, steel pile shells, and sheet copper, but, except for steel pile shells, sufficient quantity of other items, or acceptable substitutes were available at the end of the year. All contractors have made reasonable progress, except for Contract #SD 102 NE which has fallen far behind schedule. Delay on this contract has been caused by exceptionally hard rock, and the failure of the contractor to properly organize, equip and man the job.

AIRPORTS

The following construction work was supervised by the Projects Division at the Northeast and Southwest Airports.

NORTHEAST AIRPORT - CONTRACT #A 106 NE:

This contract provided for the clearing and grading of the area at the southeast corner of the field, preparatory to the construction of hangars at this location. Principal items of work were 169,692 cubic yards of excavation, and the construction and relocation of 2277.1 linear feet of fence.

Contractor - James D. Morrissey, Inc.
Date of Contract - May 21, 1946
Notice to Proceed - June 7, 1946
Work Completed - October 18, 1946
Cost - \$55,186.10

38-1946

SOUTHWEST AIRPORT - CONTRACT #A 112 SW:

This contract provided for the construction of a new concrete apron in front of the International Area (Old National Guard Area), the widening of the ramp in front of the main administration building, the construction of necessary taxiways to serve these ramps, and incidental fencing, footway, and other paving.

Contractor - Seaboard Construction Company
Date of Contract - July 6, 1946
Notice to Proceed - July 25, 1946
Amount of Contract - \$220,000

This work was practically completed and in usable condition by November 30, 1946, but inability to obtain steel gutter grating has caused the contract to be continued into 1947.

Construction of a restaurant building at Southwest Airport, and a combined restaurant and public lavatory building at Northeast Airport was started in 1946. Construction work on these contracts was supervised by the Department of City Architecture, but payment was made from funds in the Bureau of Engineering, Surveys and Zoning. The total contract amount for the building at Southwest Airport was \$122,500, and the total amount at Northeast Airport was \$143,000. Work at Southwest is approximately 80.7 percent complete and at Northeast 78.5 percent complete.

STADIUM

During the summer of 1946, serious cave-ins were observed on the outside wall of the Stadium at several places. These cave-ins were found to be caused by the collapse of shoring of the open caissons which had been constructed around some of the outside columns of the structure. These caissons had been built at some earlier time to observe settlement of the footings, and to relieve loads on footings. An inspection of all the caissons was made and five (5) of these were found to be in dangerous condition. Enough of the old shoring was removed to permit the filling of the holes with cinders. The work was performed under the general direction of the Projects Division, with forces of the Bureau of Highway and Street Cleaning, and with truck crane hired by the Bureau of City Property.

A complete examination of the Stadium was made during the summer of 1946. As a result of this examination, it was decided that temporary shoring and other supports should be erected before the Stadium was used for large football crowds. This work was performed under the supervision of the Projects Division by E. Clifford Durrell and Son, 3701 N. Broad Street, under contract dated September 4, 1946. The work was completed September 19, 1946, and cost \$3,698.00.

SURVEYS

A survey unit was established in the Projects Division to perform the necessary survey work for contract work, and to make necessary preliminary surveys for new work. In addition to the work performed on all contracts under supervision of the Projects Division, other surveys were made as follows:

39-1946

Complete Topographical Survey of:

Frankford Creek - Delaware River to Castor Avenue - 17,465 ft.

Preliminary Survey of:

Northeast Treatment Works.

Bench Levels for:

Central Schuylkill Intercepting Sewer - East and West side of River.
Twenty-Third Street and Arch Street to University Avenue.

Preliminary Survey for:

Intercepting Sewer in Cobbs Creek Park and the Mill Creek and
Malvern Branch.
Interceptor Sewer - 7976 Feet
Mill Creek Branch - 1672 Feet
Malvern Branch - 1452 Feet

Fence Relocation Survey:

Southwest Airport (for C.A.A.) in vicinity of Runway #27.

CITY-STATE HIGHWAYS

Island Avenue, Buist Avenue to Eastwick Avenue, Route 67053, Section 2:

This work is being done under an agreement with the Commonwealth dated June 18, 1946, and authorized by the ordinance of October 14, 1941. Work on this section was delayed by the war. The 18 foot wide macadam road, flanked by trolley tracks, is being replaced by a dual highway with 2 (33' wide) lanes in each direction, and with a double trolley track in the divisor strip. The overall width of the new highway is 118' 0" feet; the total length of the work is 4426 feet.

The work is being done under a State contract, with the City joining in the contract for its share of the work. The contractor is the Seaboard Construction Company. Work started on August 27, 1946, and was about 47.0% complete on December 31, 1946. The total contract is \$389,513.71, and the City's share of the work will cost \$37,750.00.

Adams Avenue, Montour Street to Whitaker Avenue, Route 67027, Section 1:

This work is being done under an agreement with the Commonwealth dated September 10, 1946, and authorized by the ordinance of April 9, 1946.

The project consists of the widening of the present 21 feet wide road into a dual highway, with a total width of 100' 0". The City's share of the work includes the construction of a branch sewer, and curb and footway work.

40-1946

The total amount of the joint City-State contract is \$54,721.58, and the City's share is \$21,000. The Contractor is Frank R. Curtis Company. Work started on November 25, 1946, and was 51.0% complete on December 31, 1946.

Penrose Avenue, Airport Circle to 26th Street, Route 67023:

Work continued on the preparation of plans for the construction of this route, including the high level bridge over the Schuylkill River. Under the terms of the agreement between the City and the Commonwealth, the City engaged the firm of Modjeski and Masters, Harrisburg, to prepare the plans which were the responsibility of the City. The preparation of the plans required many meetings in Harrisburg and Philadelphia and Joint conferences with the Commonwealth and other agencies. Work on the plans was 90 percent complete on December 31, 1946.

Pennsylvania Boulevard, Benjamin Franklin Parkway to 32nd Street, Route 67005P:

An agreement was prepared between the Commonwealth and the City relative to the construction of this highway. The agreement was authorized by the ordinance of November 16, 1946, and executed November 27, 1946. Under the terms of the agreement, the Commonwealth agreed to designate Pennsylvania Boulevard, from Benjamin Franklin Parkway to 32nd and Market Streets, and Woodland Avenue from 32nd Street to Chestnut Street, as an alternate and parallel State highway. The purpose of this was to have the State perform the construction work on Pennsylvania Boulevard, which would otherwise have to be done by the City. The agreement covers the construction of a bridge over the Schuylkill River, and also five lesser bridges.

Under the direction of a resolution of Council dated April 26, 1946, the City Planning Commission was required to prepare a general plan of the improvement, which was to be approved by all agencies concerned. This plan was not complete as of December 31, 1946. The agreement between the Commonwealth and the City provides that the City shall make the contract drawings for the new highway, with the State donating \$150,000 to the City as partial compensation. Work on these plans has not started, pending the completion of an approved general plan by the City Planning Commission.

Vare Avenue - 34th Street, From Passyunk Avenue to Grays Ferry Avenue, Route 67012, Section 2C:

This project is covered by an agreement between the Commonwealth and the City dated October 14, 1941, and authorized by an ordinance approved September 27, 1941. It was delayed by the war, and also by a desire not to demolish 24 dwellings between Wharton Street and Reed Street until the housing shortage became less acute. During the year, the supplemental agreement covering the City's share of the work was executed on January 28, 1947.

OTHER PROJECTS

Frankford Creek Flood Control:

As a result of an electoral loan approved at the Spring Primary in 1946, City Council approved an ordinance on June 28, 1946, appropriating \$1,500,000 for flood control purposes.

41-1946

The Knappen Engineering Company of New York, was engaged by a contract dated November 12, 1946, to make an engineering report for the correction of flood conditions on Frankford Creek, and to make contract drawings and supervise construction if so ordered. Work on the report was 6.0% complete at the end of the year.

STADIUM

From the time of the construction of the Municipal Stadium during the Sesqui-Centennial Exhibition in 1926, certain progressive settlement has been noted in parts of the structure. Parts of the superstructure have been renewed from time to time, and caissons were constructed around some of the columns on the outside wall. These caissons were originally for the purpose of examining the capping on top of the pile foundation. Because it was discovered that some of the pile foundations had failed, the caissons were left open to relieve the load on the remaining piles.

In order to properly determine the causes of settlement, and to ascertain what remedial steps could be taken to insure the continued safety of the structure, a Contract was entered into with Elwyn E. Seelye and Company of New York for a complete engineering examination and report. Work started under the contract on August 12, 1946, and was completed on December 6, 1946, at a cost of \$17,350.00.

The entire structure was examined by the engineers, including substructure and superstructure. A comprehensive examination of the sub-soil conditions was made by use of borings at critical points.

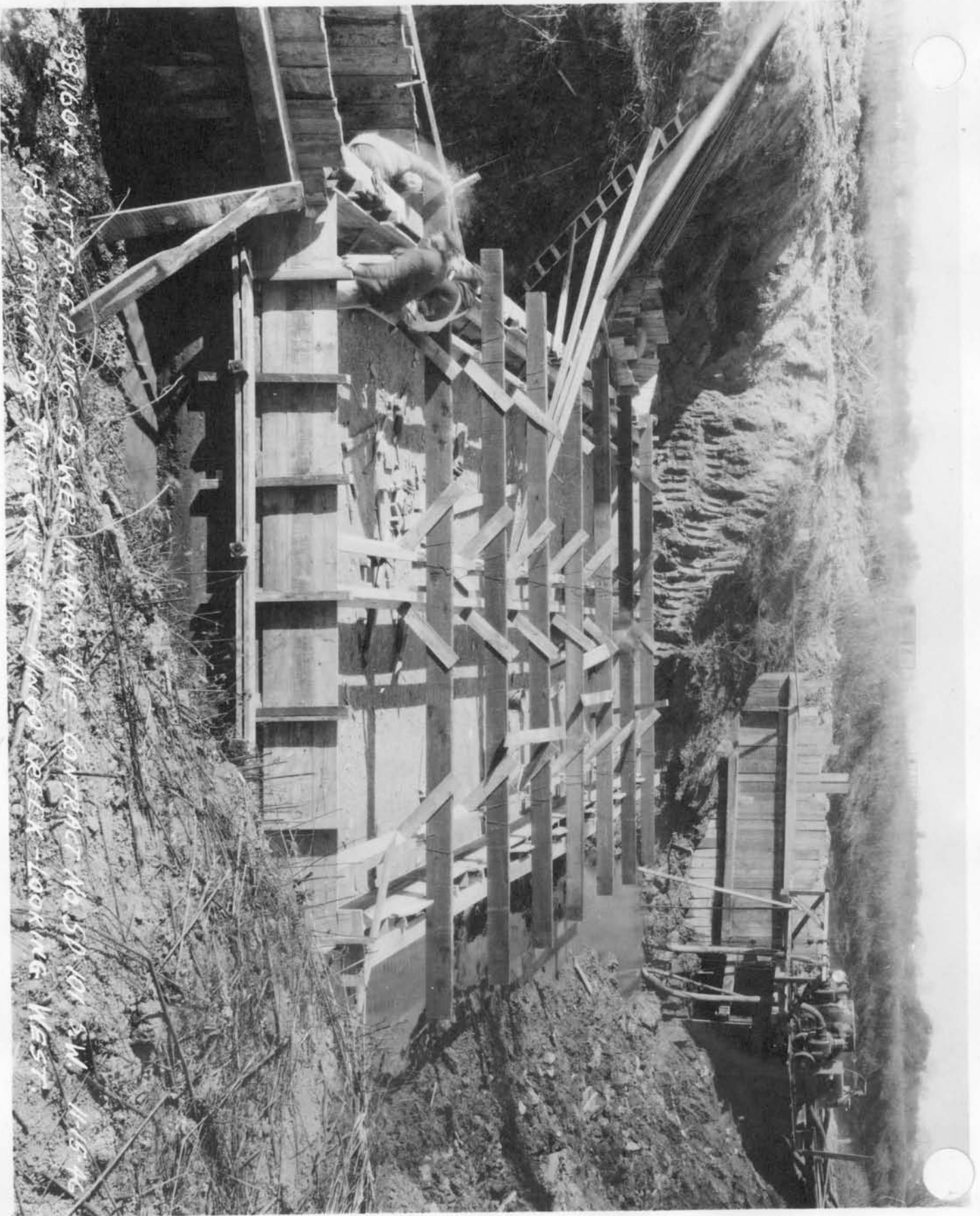
The investigation disclosed that certain areas had been badly damaged by settlement, causing dangerous distortion of columns and rupture of rafters and pile caps. During the investigation, it was decided that some of the defects had approached the point of being dangerous, and temporary shores were built. These are described in another portion of this report.

The Seelye report recommended the reinforcement of certain footings by driving of additional piles and transfer of the load to these new piles. Other structural members which have failed will be strengthened or renewed.

42-1946



39236 INTERCEPTING SEWER IN MINQO AVE. - LOOKING N. FROM
STN. 30+50 SHOWING PILES, RODS AND FORMS.



38160-4 INTERCEPTING SEWER MAINS NE CORNER No. 351 KM SW 1/16 N
FOUNDATION FOR NEW CULTURE AND CAREER LOOKING WEST



38967-19

SEWER IN STATE RD. FROM PENNYPACK ST. TO EDEN ST.

8-13-46



39296-5 FRANKFORD CREEK EAST AT PROPERTY OF AMERICAN PILE AND FABRIC CO.

39296-17 FRANKFORD CREEK LOOKING UPSTREAM FROM KENSINGTON AVE.



39296-15 FRANKFORD CREEK NORTH FROM BROMLEY MILLS





39104

10

LOOKING SOUTH FROM NORTH END OF APRON AT INTERNATIONAL BUILDING

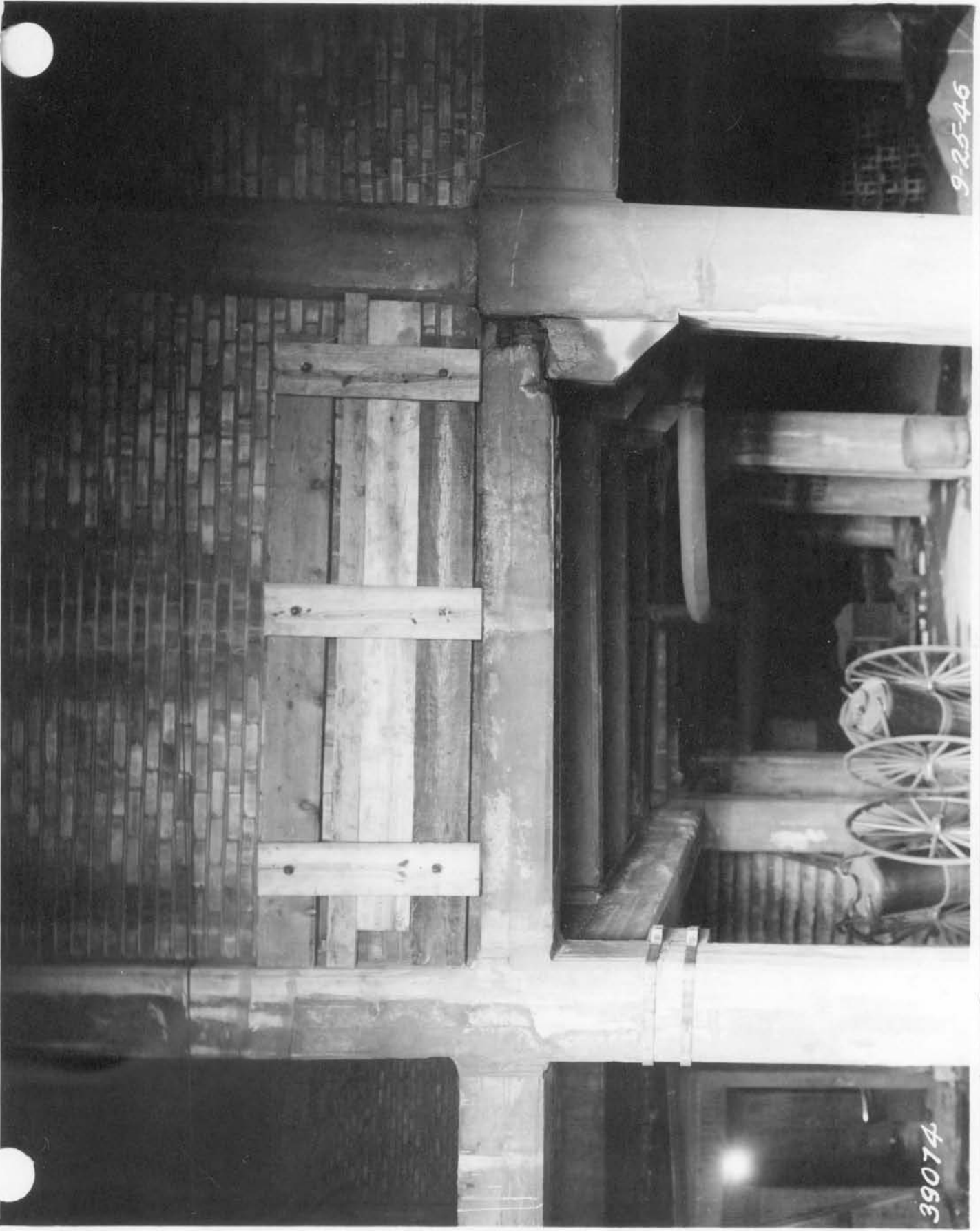
10-3-46



39070

9-25-46

STADIUM COLUMN - J15



9-25-46

39074

STADIUM COLUMNS