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1950

BUREAU OF ENGINEERING, SURVEYS AND ZONING  
Executive Offices, Room 1103 City Hall Annex  
Philadelphia

Chief Engineer and Surveyor  
A. ZANE HOFFMAN

Acting Chief Engineer and Surveyor  
SAMUEL S. BAXTER

Acting Assistant Chief Engineer  
MAX BAROFSKY

Assistant Chief Engineer and Surveyor  
FREDERICK T. THORPE, JR.

Design Division

Acting Principal Assistant Engineer - John R. Grandinetti

Construction Division

Acting Principal Assistant Engineer - C. Elmer Black  
Division Engineer - J. G. Bailey, M. T. Connell, F. Zielinski,  
A. Hearst, C. C. Munoz

Plans and Registry Division

Chief - James J. Cratin  
Assistant Chief - Lester Freedman  
Senior Assistant Engineer, City Plans - Albert W. Moser

Zoning Division

Chief - Joseph H. Rosenberg  
Assistant Chief - Leo W. Masterson

Accounting Division

Chief Clerk - George W. Allen  
Cost Accountant - R. Frank Hendricks

Testing Laboratory

Principal Assistant Testing Engineer - A. F. Burbidge

Projects Control Division

Chief - James A. Brady, Jr.

Sewer Permit Division

Project Analyst - James A. Brady, Jr.  
Chief Engineering Clerk - Guy E. Haldeman  
Senior Engineering Clerk - J. E. Dealy

Northeast Sewage Treatment Works

Superintendent - Ralph A. Hoot  
Assistant Superintendent - Edward P. Morris  
Senior Engineering Chemist - Joseph M. Thorpe

Industrial Waste Division

Chief - Harry W. Beaumont  
Industrial Waste Engineer - J. S. Reich

BOARD OF SURVEYORS

President - A. Zane Hoffman  
Chief Engineer and Surveyor  
Vice President - Frederick T. Thorpe, Jr.  
Assistant Chief Engineer and Surveyor

SURVEYORS AND REGULATORS

Howard LeQuin  
Raymond C. Good  
Ben H. Joseph  
Amos B. Engle  
Joseph F. Delany

John H. Robinson  
George T. Shegog  
Ernest R. Brooks  
John T. Campbell  
Joseph A. Singer

Secretary - Robert J. Rosborough

3-1950



BUREAU OF ENGINEERING, SURVEYS AND ZONING

A. ZANE HOPPMAN, Chief Engineer and Surveyor

ADMINISTRATION

During 1950, the Bureau of Engineering, Surveys and Zoning continued to play an important part in the overall Public Works improvement program in Philadelphia. The amount and variety of work exceeded that of any recent years.

The Bureau has many and diverse responsibilities which have been assigned to it during its ninety-five years existence. The work in connection with these responsibilities has increased due to new administrative demands and to variety and complexity of modern engineering techniques. The Bureau functions through two main divisions. The Survey Division includes the work of the Board of Surveyors which has legal responsibility for the City plan, the Survey Districts which perform land and construction surveying, the Registry Division which maintains records of land ownership and has custody of the City Plan and street records, the Zoning Division which administers the Zoning Ordinance and the City Plans Division which performs work in connection with the design and layout of new streets.

The Engineering Division of the Bureau has the responsibility for the design and construction of sewers, sewage disposal plants, bridges, airports, flood control work, retaining walls, major highway improvements, railroad and grade crossing eliminations, City-State highway projects, and many miscellaneous projects. It operates the Sewage Disposal Plant and operates a Testing Laboratory, which also serves other City Departments.

Because the Bureau has primary responsibility in connection with the layout of streets and the construction of many Public Works facilities, it has always performed many related functions and acts as liaison between other Bureaus and Departments. This is an important phase of its work.

Previous annual reports have described in detail many of the functions of this Bureau, and they are not included in this report. The proposed new City Charter, to be acted upon by the voters during 1951, however, contains procedures which will radically change the functions of the Bureau, particularly those in connection with City Plan work. It has, therefore, been thought desirable to include in this report for record purposes under the Surveys section a fairly complete account of the functioning of this part of the Bureau.

During the year work continued on the sixty million dollar sewage disposal project. At the end of the year, contracts totalling

\$32,100,000 had been placed in operation, since the start of work in 1947. In June 1950 work was started on the eight million dollar terminal building at the Philadelphia International Airport. This project has been described in earlier reports. On November 11, 1950, the new Walnut Lane Bridge was dedicated as a war memorial, with the actual opening for traffic planned early in 1951. This bridge has attracted nation-wide attention as the first prestressed concrete bridge to be designed and constructed in the United States.

Work continued during the year at a heavy rate on sewers, with contracts being executed in the amount of \$3,948,050. Flood relief work continued as described in detail later in this report, with the work being high-lighted by a \$1,550,000. for control of flood waters on Frankford Creek, which started in May of 1950.

The nation-wide construction program which has continued since the close of World War II has permitted the employment of all available engineers. At practically no time in the last five years has this Bureau had enough design and construction engineers to properly man its program and to place work under contract within the required time schedule. A new up-swing in engineering work was caused by the situation in Korea, and the shortage of trained personnel in this Bureau became more acute during the latter months of 1950.

The personnel situation, particularly in connection with engineering work, will continue to be acute until means are taken to attract and hold a continuing number of young engineers, in City service. In recent years, criticisms of City employees in general have tended to lead younger men to believe that they should stay away from City service.

In the Bureau of Engineering, Surveys and Zoning, the depression of the 1930's caused the dropping of many experienced men with practically no new men being hired during that period. The same thing applied during the war years. At the close of the war, there was an increase in the number of new engineering employees in this Bureau. This has left the Bureau, however, with experienced older men, some competent newer men, but with a real shortage of experienced and competent men in the thirty to fifty year age bracket.

During the year two hundred and five (205) new contracts were executed, having a total value of \$32,152,782. This was more than twice the 1949 figure of \$14,395,918. At the close of the year, the value of contracts in force was \$48,171,666.

Several changes and adjustments were made in supervisory personnel during the year. Due to the serious illness of A. Zane Hoffaan, Chief Engineer and Surveyor, Samuel S. Baxter has acted as Chief Engineer and Surveyor since July 24th. Since that time, also, Mr. Max Barofsky has been acting as Assistant Chief Engineer, and C. Elmer Black has been in charge of the Construction Division, replacing Mr. Barofsky.

On January 1, 1950, Charles MacDonnell retired as Chief of the Zoning Division after thirty-years' service with the City, and was succeeded by Joseph H. Rosenberg. Robert H. Bell retired as Chief Clerk on July 31st and was succeeded by George W. Allen. Preliminary to the start of the new Northeast Treatment Works, Mr. Ralph A. Hoot entered the service of the Bureau on March 1, 1950, as Superintendent of the Sewage Disposal Plants. He came to Philadelphia from Fort Wayne, Indiana, where he was Superintendent of the sewage disposal plant.



PERSONNEL

Previous annual reports have stressed the difficulty of attracting and holding competent engineering personnel. In 1950, due to the decided upswing in construction, due to the international situation, the problem of engineering personnel became more acute.

One result of our inability to obtain engineers on the City payroll has been an increase in the number of contracts with consulting engineers. Although such practice can be justified, the City should pay its engineers sufficient salary to keep a reasonably sized staff. Consulting engineers pay much higher rates than comparable positions in City service, with the City paying these higher rates in the long run through the fees paid to consulting engineers.

The situation is more critical in supervisory personnel, particularly in the Design and Construction Divisions. The Bureau contains many competent older men, but there is no reservoir of middle-aged men to fill the gap in future years, when these older men retire.

It is apparent that the City will not be able to attract men to fill these supervisory positions, either directly or by bringing along younger men until an adjustment in compensation is made.

Details of personnel turnover are shown statistically below:

	<u>Budget</u>					<u>Loan</u>					<u>Totals</u>				
	<u>'46</u>	<u>'47</u>	<u>'48</u>	<u>'49</u>	<u>'50</u>	<u>'46</u>	<u>'47</u>	<u>'48</u>	<u>'49</u>	<u>'50</u>	<u>'46</u>	<u>'47</u>	<u>'48</u>	<u>'49</u>	<u>'50</u>
New appointments	69	70	41	34	23	38	113	78	36	22	107	183	119	70	45
Promotions	54	33	17	45	17	36	46	39	17	42	90	79	56	62	59
Resignations	29	29	19	17	30	10	26	42	35	28	39	55	61	52	58
Retired-Pension	0	4	0	5	4	0	0	0	1	2	0	4	0	6	6
Deceased	0	2	2	4	5	0	3	4	4	3	0	5	6	8	8
	<u>152</u>	<u>138</u>	<u>79</u>	<u>105</u>	<u>79</u>	<u>84</u>	<u>188</u>	<u>163</u>	<u>93</u>	<u>97</u>	<u>236</u>	<u>326</u>	<u>242</u>	<u>198</u>	<u>176</u>

	<u>TOTAL EMPLOYEES -</u>	<u>December 31, 1949</u>	<u>December 31, 1950</u>
Budget A-5 .....		226	209
" SR-A-1 .....		64	80
Loans .....		<u>251</u>	<u>235</u>
		<u>541</u>	<u>524</u>

## SURVEYS DIVISION

The Surveys Division consists of the Board of Surveyors and the ten Survey Districts into which the City of Philadelphia is now divided, each headed by a District Surveyor in responsible charge thereof, the Plans and Registry Division, and the Zoning Division.

Board of Surveyors - The administration of the confirmed City Plan of the street system and land subdivision control in Philadelphia, is exercised by the Board of Surveyors, through the powers granted the Board of Surveyors by the Legislature, to confirm or reject plans of the street system. The supplement to the Act consolidating the City of Philadelphia approved April 21, 1855, provided in Section 4 for the organization of the Board of Surveyors, prescribing their duties and continuing the Board as the planning agency for the City. This was followed by a further supplement to the Consolidation Act approved May 13, 1856, the ordinance of Councils approved June 20, 1863, the Act of June 6, 1871, relative to the confirmation of plans of the street system, the Charter Act of June 25, 1919, and the Act of May 3, 1945, all of which vested in the Board of Surveyors the power to confirm or reject plans of the general street system. Section 3 of the Act of May 3, 1945 furthermore provided that "all Plans and revisions of plans of land laid out in plots, or building lots, and the streets, highways, alleys or other portions of the same intended to be dedicated to public use, or the use of purchasers or owners of lots fronting thereon or adjacent thereto, located within the City limits shall be recorded in the office of the Recorder of Deeds after submission to and approval by the Board of Surveyors. And, it shall not be lawful to receive or record any such plan in any public office unless the same shall bear thereon, by endorsement or otherwise, the approval of the Board of Surveyors. The approval of any such plan by said Board shall not impose any duty upon the City concerning the improvement or maintenance of any such dedicated streets or highways until the proper authorities of the City shall have made actual appropriation for such improvements and maintenance, and the disapproval of any such plan by the Board of Surveyors shall be deemed a refusal of any proposed dedication. The owners and purchasers of such lots shall be conclusively presumed to have notice of public plans, maps and reports of the said Board affecting such property within its jurisdiction".

The Act of December 27, 1871 provides that it shall not be lawful to erect any building upon any of the streets laid out on the plans of the City, after said plans have been confirmed, and when said streets are ordered to be opened, buildings erected upon them since their confirmation shall be removed at the expense of the owner and without any damages being paid therefor. By the Act of May 16, 1891, it was provided that no person shall hereafter be entitled to recover any damages for any buildings or improvements of any kind which shall or may be placed or constructed upon or within the lines of any located street or alley, after the same shall have been located or ordained by Councils. It has been decided that



the placing of a street upon the City plan is so far and interference with the rights of property that no building may thereafter be erected within the lines, and those so erected must be removed at the expense of the owner, and without damages being paid therefor when the street is opened.

In order to mitigate the hardships imposed upon the owners of property where a large taking is implied, more often an entire tract or lot - as in the case of parks and parkways - two later Acts were approved by the Legislature. The act of May 3, 1923, P.L. 135, provides in substance in Section 1 that wherever any park or parkway may, after the date of the Act, be superimposed upon the confirmed plan of the streets or parks of any City in sections not entirely built up, by ordinance of Council or by appropriate action of the Park Commissioners, unless an ordinance actually appropriating the land within the lines of the said park or parkway to public use be duly passed, or the said land be actually acquired by the Park Commissioners within three years from the superimposing thereof upon the City Plan, the action in so superimposing shall be void and said plan shall be automatically removed from said land as if it had never been placed thereon, nor shall any plan be again superimposed on said land without an accompanying ordinance condemning the same to public use. The Act of June 7, 1915, P.L. 894, provides inter alia, that when a City of the First-class shall hereafter superimpose upon the confirmed plan of streets of said City any park or parkway in an entirely built-up section of the said City, said plotting shall be considered as an appropriation to public use at the expiration of five years from the date of confirmation of the plan. Such, in brief, is the legislation which provides for the enforcement of the City Plan in Philadelphia. About twenty-five special Acts of Assembly and ordinances of Council constitute a code, which taken collectively, furnish an efficient and effective method of controlling land subdivision and the confirmed plan of the street system in Philadelphia.

The Survey Districts organization consists of the personnel of the ten Survey Districts in which the City of Philadelphia is now divided, each District headed by a District Surveyor and Regulator in responsible charge thereof; the whole supervised by a Chief Engineer and Surveyor and an Assistant Chief Engineer and Surveyor.

The District Surveyors and Regulators comprise a Board of Surveyors headed by the Chief Engineer and Surveyor, as President, and the Assistant Chief Engineer and Surveyor, whose functions are as follows:

A BOARD OF SURVEYORS is "attached to", and a "part of" the Department of Public Works. It consists of the Chief Engineer and Surveyor, Assistant Chief Engineer and Surveyor, and the Surveyors and Regulators of the Survey Districts of the Bureau of Engineering, Surveys and Zoning. The Chief acts as its President. The Assistant Chief as its Vice President.

The Board of Surveyors administers the official plans of the street system. It is required to hold public hearings of parties interested in the confirmation of plans or the revisions of plans of the street system; to confirm or reject all plans or revisions of plans to approve or disapprove of land-subdivision plans; to act upon communications with reference to City plan changes, Deeds of Dedication, releases of damages, street openings and similar matters; to prepare and approve reports for street railway and railroad plans; prepare and approve committee reports upon ordinances of Council relative to City plan changes; placing streets upon the City plan; revisions of plans of the street system; striking streets from the City plan; opening, widening, narrowing, changing the grades and vacating streets; changing street names; approve or disapprove reports of standing committees of the Board and reports of committees of the Board assigned to special problems or special research.

The Chief Engineer and Surveyor is President of the Board of Surveyors and is an ex-officio member of the Board of Highway Supervisors and the Fairmount Park Commission.

The Board of Surveyors held twenty-seven (27) meetings, at which they reported on two hundred fifty-four (254) ordinances, as compared to one hundred two (102) ordinances in the year 1949. The Board held hearings on one hundred eighteen (118) City plan changes, as compared to one hundred six (106) in the year 1949. Five (5) street railway plans were approved, as compared to eight (8) in the year 1949, and one hundred ninety-six (196) Deeds of Dedication and releases were accepted, as compared to one hundred fifty-two (152) for the year 1949. One hundred seven (107) City plans were confirmed, as compared to one hundred seven (107) for the year 1949.

Of the one hundred seven (107) plans confirmed by the Board of Surveyors:

- 55 were in connection with private residential developments
- 13 were in connection with the development of industrial sites
- 27 were in connection with the development of commercial sites
- 5 were in connection with the development of recreational sites
- 1 was in connection with the development of Independence Mall
- 6 were for miscellaneous purposes

Five (5) changes in street names were approved by the Board of Surveyors and two (2) land-subdivision plans were approved.

Through the early control of land subdivision and street plotting, beginning with the appointment of surveyors and regulators in 1721 and continuing with the creation of the Board of Surveyors by the Consolidation Act of 1854, the problem of widely scattered land subdivisions not comprehensively planned or coordinated with the planning of the general street system, never existed to an

appreciable extent in Philadelphia. Controlled street plotting, surveying and land subdivision by the Board of Surveyors and by the early surveyors and regulators from the City's founding, have kept our Courts clear of title litigation and promoted the orderly development of the City's growth in accordance with the vision and experience of men who represented the best in City planning - thought available for their day and age. At the present time virtually the entire City is covered with confirmed plans of the street system except an area of about 7000 acres in the extreme Northeast, where the Bureau of Engineering, Surveys and Zoning has a tentative plan for its guidance in residential, commercial and industrial land subdivisions and which embodies the principal drainage, traffic and residential streets which are considered essential to the integrity of the City plan, together with the areas that are considered desirable to be kept open as parks or open-valley area for the relief of the stormwater intercepting system.

SURVEY DISTRICTS - The Survey District organization consists of the personnel of the ten survey districts into which the City is now divided. Each survey district is headed by a District Surveyor and Regulator in responsible charge thereof, and each District Surveyor and Regulator is a member of the Board of Surveyors. The routine duties of the survey districts are divided into about ninety different classifications of work which are listed elsewhere in the Appendix on the statistical report showing the activities of the survey districts. The classifications of work performed by the survey districts can, however, be grouped broadly in the following general summary:

- (a) For private interests, make all types of surveys and plans for subdivision of land and the conveyance of property; furnish lines and grades for the construction of new buildings; furnish lines for party walls and street lines; make surveys and prepare plans for architects; furnish lines and grades for private construction work, and perform a variety of services for private interests.

For performing the above types of work, the survey districts charge fees which are paid on certified vouchers directly to the Office of the Receiver of Taxes. The fees earned by the survey districts during the year 1950 for the performance of the above duties amounted to \$184,005.21, which exceeds by \$40,922.26 the fees earned during the year 1949 and exceed the fees earned during any of the previous ten years for the period 1940-1949.

- (b) Prepare detailed City plans and survey and monument the same.
- (c) Prepare plans for all types and classes of Municipal street improvements and furnish lines and grades; measure, certify and compute quantities of completed construction work; and prepare assessments for all types of municipal improvements, including paving and repaving of alleys and driveways.

- (d) Prepare plans for the Department of Law for various legal purposes in the condemnation of land for various municipal public purposes, including opening, widening, narrowing, vacating, striking from the City plan, and changing the grades of streets; prepare descriptions for Deeds of Dedication, liens and other legal purposes.
- (e) Prepare plans and furnish lines and grades for the construction of various public utilities, including street railways and railroads.
- (f) Furnish pierhead and bulkhead lines and perform various surveys and make property plans for the development of the river fronts.
- (g) Prepare plans and reports upon ordinances of Council with estimates of cost for opening, widening, narrowing, vacating, striking from the City plan, changing the grades of streets and for various municipal improvements.

There are about fifty-five additional miscellaneous classifications of work performed by the survey districts which cannot be standardized, are local in their nature and are restricted to certain survey districts only by reason of topographical and physical conditions. The survey districts make surveys for special purposes, such as precise surveys tying the monuments of the United States Engineer Department, to which the revised pierhead and bulkhead lines of the Delaware and Schuylkill Rivers are referenced, into the confirmed plan and performing the necessary calculations; surveys and plans for special engineering projects; settlement levels at the Municipal Stadium; Airport surveys; topographical surveys; contours plans for F.H.A.; certifying old surveys, and title records; special surveys for various City departments and bureaus, Federal and State agencies; Housing projects, and measuring and locating temporary bulkheads constructed by the Department of Wharves, Docks and Ferries in connection with hydraulic filling and dredging operations and apportionment of the cost of the work among the property owners benefited by the improvement.

A wide variety of surveys and plans are made by the survey districts for the Bureau of City Property, Bureau of Highways, Bureau of Water, construction division of the Bureau of Engineering, Surveys and Zoning, Department of Wharves, Docks and Ferries, Department of Law, Department of City Architecture, Division of Housing and Sanitation, Department of Public Health and the Pennsylvania State Highway Department.

The survey districts furnish City plan and basic survey, engineering, title and property line, and topographical information and make surveys and plans for the public utilities, railroads and street railways, the Philadelphia Housing Authority, the Philadelphia Redevelopment Authority, and various public or semi-public agencies interested in housing; make preliminary



surveys and prepare plans for the construction of certain segments of the Pennsylvania State Highway program for the improvement of arterial thoroughfares; make miscellaneous surveys and plans; answer numerous requests for checking bench marks; furnish basic street and property lines for engineering and title purposes; determine the true meridian and astronomic coordinates, latitudes, longitude and time, upon special requests; check tidal datum planes, tie the monuments of the United States Coast and Geodetic Survey into the confirmed City plan by coordinates to street monuments and check their precise bench marks; establish the center line of railroads and check railroad plans and surveys, and perform many other special surveying and engineering services for a wide miscellany of engineering and construction purposes.

Personnel and Organization of the Survey Districts - For performing the wide variety of services enumerated above, it is necessary for the survey districts to maintain a complete plant of basic engineering, title, survey, City plan and topographical information, together with the necessary instrumental drafting and office equipment automotive equipment and the necessary personnel to man and operate each survey district. The personnel of the survey districts consists of about one hundred fifty-five men, including the District Surveyors and Regulators. During the current year the Surveys District organization lost twenty-six men, all in the younger and sub-professional groups, consisting of Engineering Field Aides, Chainmen and Rodmen, Transitmen and Junior Surveyors. The only loss in key personnel was through the death of Mr. John T. Campbell, Surveyor and Regulator, Ninth District, who died in October 1950 after more than fifty years service with the Bureau. Most of the loss in personnel was for induction into the military services, with a few resignations to accept employment in private industry at higher salaries.

It is noted that the rate of turnover for military inductions and resignations to accept employment in private industry at higher salaries increased sharply toward the end of the year and will reach alarming proportions as the Nation enters into the stages of all-out mobilization for global warfare.

The Board of Surveyors held several conferences to consider the problem of labor turnover and it was the general opinion of the conferees that the prospects for replacing men lost to the military services and private industry were not good and that the services of the personal service contractors and private engineering firms under contract with the City of Philadelphia would have to be continued for the duration of boom in residential building and the huge public works improvement program, or until Governmental restrictions were placed in effect that would have a tendency to slow down the present pace.

Personal Service Contractors - During the current year the sum of \$307,122.99 was paid out on warrant to the various personal service contractors for work done under the supervision of the District Surveyors and Regulators. This work included furnishing



lines and grades, engineering services, etc., for the construction of sewers for which contracts were entered into with the firms of Franklin and Lindsey, Consulting Engineers, and Damon and Foster, Civil Engineers; furnishing lines and grades for grading streets under contract with the firm of George A. Gieseke, Civil Engineers; preparation of grading plans under contracts with the firms of Franklin and Lindsey, Consulting Engineers, Barton and Martin, Civil Engineers, Damon and Foster, Civil Engineers, and George A. Gieseke, Civil Engineers; preparation of paving plans under contracts with the firm of Barton and Martin, Civil Engineers; preparation of re-paving plans under contract with the firm of H. A. Kuljian and Company; preparation of Board of Viewers plans with the firm of Barton and Martin, Civil Engineers. Contracts were also entered into with the firm of Franklin and Lindsey, Consulting Engineers, for the surveying and preparation of City plans for the huge Andorra Homes development in the northwest section of the City; for engineering services for the surveying and preparation of a revised City plan for placing Pennsylvania boulevard upon the City plan, from Fifteenth Street to the proposed West Schuylkill Expressway, and for surveying and the preparation of several other City plans for residential development.

Trends in Activities of the Survey Districts - The yearly cash returns from the Survey Districts are the highest for any of the preceding year years, 1940 to 1949 inclusive, and amount to \$184,005.21. A comparison of the amounts of fees collected by the Survey Districts for the eleven-year period, 1940 to 1950 inclusive, is as follows:

<u>1940</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1944</u>	<u>1945</u>
\$87,808.64	112,342.06	72,998.61	60,758.00	56,069.30	65,054.46
<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>	
120,477.37	122,636.70	145,566.52	143,192.61	184,005.21	

The total amount of completed construction work measured, computed, certified, billed, recorded and assessed by the Survey Districts and for which lines and grades were furnished during 1950, is \$8,747,053.10, which is less by \$5,744,888.56 than the amount certified for the year 1949. The comparison for the eleven-year period, 1940 to 1950 inclusive, is shown below:

<u>1940</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1944</u>	<u>1945</u>
\$1,531,214.	1,356,514.	972,652.	1,380,953.	1,075,082.	855,325.
<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>		
2,316,634.	6,393,435.27	9,153,689.07	14,491,941.96		
		<u>1950</u>			
		8,747,053.10			

For the various classifications of work performed for private interests and for which fees are charged all of the various classifications of work show substantial increases over any of the preceding ten years. There is a slight decrease in the items of work for which lines and grades were furnished for completed construction work under contract as compared with the years 1948 and 1949. In

general, the trend during 1950 was toward a continuance of the high plateau reached since the close of World War II, which indicate a progressive increase in the items of work performed for the operative builders, land developers, architects, small-scale builders and contractors, architects, the real estate profession, land title companies and allied interests generally, and for which fees are charged and returned to the City Treasury. The district cash receipts are approximate indices for measuring the activities of the building industry and the real estate market generally, and therefore, they indicate an appreciable increase over the year 1949, which was thought to be the peak year since the close of World War II. It is probable that the expansion of the industrial plants throughout the Philadelphia metropolitan area, to take care of the mobilization of industry for all-out war production, will attract increased population to the City who will find great difficulty in securing adequate housing accommodations. This will greatly intensify the demand for residential and apartment building and lead, perhaps, to a rapid turnover in old properties such as was experienced during and at the close of World War II before new building construction was resumed. Governmental restrictions may interfere somewhat with residential building and curtail activities for new construction; nevertheless, it is a reasonable assumption that 1951 will lead to no great reduction in the volume of work that will have to be handled by the survey districts.

The total amount of completed construction work measured, computed, certified, billed, recorded and assessed during the year 1950 amount to \$8,747,053.10 which, at the conservative overhead of three per cent. for the administration of the above services amounts to \$262,412. so that fees collected by the Survey Districts and engineering services furnished for the administration of City contracts combined, amounts to \$446,417. compared to \$434,758. during the year 1949. Survey Districts' personnel cost approximately \$509,850. compared to \$561,670. for the year 1949, so that approximately 87.6 per cent. of personnel costs were recouped in 1950 from fees earned by the Survey Districts and returned to the City Treasury, and from engineering services rendered in the administration of City contracts. There is, therefore, a spread of approximately 13.4 per cent. of district personnel costs which are distributed over about seventy-five different classifications of work performed by the Survey Districts for other City departments and bureaus, for which fees are not charged and which, for bookkeeping purposes, can be pro-rated among the municipal agencies, for which the work was done. The corresponding percentages for the year 1949 were 77.4 per cent. and 22.4 per cent. so that measured in terms of dollars and cents, the Survey Districts performed more efficiently during the year 1950 with reduced personnel than the preceding year of 1949. This is partly attributable to the fact that personnel added to the Survey Districts since the start of the huge public works improvement program are becoming more experienced and capable in handling the work. All payments made for personal service contractors work are charged to appropriate loan item.

Lines and grades for the construction of sewers and for grading streets were furnished principally by personal service contractors working under the supervision of the District Surveyors and Regulators. Grading, paving, and repaving plans were completed mostly by personal service contractors under the supervision of the District Surveyors and Regulators. The work done by personal service contractors was charged to the appropriate loan items.

## IMPROVEMENT PLANS BY SURVEY DISTRICTS

During the year 1950, the following plans were prepared by the District Surveyors and Regulators and the personal service contractors working under their supervision:

Board of Viewers Plans - Thirty-three Board of Viewers plans were completed for street openings and other purposes, involving one hundred seventy-three properties with an acreage of 305 acres. During the year 1949, twenty-three Board of Viewers plans were prepared, involving one hundred ninety-one properties with an acres.

Sewers - One hundred ninety-one base sewer plans were made by the District Surveyors during the year 1950, compared to one hundred sixty-two base sewer plans in 1949. The base sewer plans prepared during 1950 covered 23.5 miles of sewers and drains compared to 22.2 miles of sewers and drains for the year 1949. One hundred fifty-one plans of constructed sewers and drains were completed during 1950 covering 22.5 miles of sewers and drains, compared to two hundred twenty plans covering 39.7 miles of sewers and drains completed in 1949. Lines and grades were furnished for 27.5 miles of sewers and drains compared to 46.5 miles of sewers and drains in 1949.

Water Pipe - Three hundred twenty-two plans were prepared for the Bureau of Water during 1950 covering 31.2 miles of pipe. The figures for the year 1949 were two hundred eighty-six plans covering 32 miles of pipe. Lines and grades were furnished for 21 miles of water pipe in 1950 compared to 16 miles in 1949.

Grading - One hundred sixty-four grading plans covering 22.4 miles of streets were prepared during the year 1950. During the year 1949 one hundred forty-five plans, covering 21.1 miles of streets, were prepared. Forty miles of lines and grades were furnished during 1950 for grading streets, compared to 71.2 miles during 1949.

Pav~~e~~ Paving - One hundred sixty-four paving plans were completed in 1950, covering 20 miles of streets compared to one hundred ninety-six plans covering 30.4 miles of streets in 1949. Ninety-two and one-tenth miles of lines and grades were furnished for paving streets in 1950 compared to 100.1 miles in 1949.

Repaving - Twenty-nine plans for repaving streets were completed in the year 1950, covering 6 miles of streets, compared to forty-six repaving plans completed during the year 1949, covering 85 miles of streets. Lines and grades were furnished for repaving 34 miles of streets in 1950 compared to 58.5 miles in 1949.

Summary - Improvement plans completed during 1950 covered one hundred three and one-tenth miles compared to one hundred fourteen and two-tenths miles in 1949. Lines and grades were furnished for two hundred twenty-one miles of street improvements during the year 1950, compared to three hundred and eight-teenths miles in 1949.



PLANS AND REGISTRY DIVISION - REGISTRY UNIT

The Registry Division is required by law to keep a record of the registered owners of property, for assessment purposes, and for this purpose maintains registry books which show the location, size, and registered owners of all parcels of land in the City; files and indexes all City plans, Board of Viewers plans, street railway and railroad plans; deeds of dedication, and other documents in order to maintain a complete record of the legal status of streets and highways. It is custodian of the City plan. It prepares plans of registered owners of property for service of legal notice in the condemnation of land for street openings and other municipal purposes and does much of the preliminary work for the stated meetings of the Board of Surveyors. The routine work of the Registry Division falls into about thirty-five main classifications, most of which are indicated in the statistical summarization of the activities for the year 1950, which appears in the Appendix to the Annual Report.

The Registry Division developed in response to the gradual evolution of land title recording and registration in Philadelphia over a period of many years. The first Provincial assembly held at Chester in 1682 passed an Act requiring all charters, gifts, conveyances of land and certain other securities to be recorded within two months or else to be void in law. The Act of May 28, 1715 consolidated and revised all previous recording Acts and constituted the foundation of the Pennsylvania Recording System. The Act of March 18, 1775 remedied the defect of the earlier Act, i.e., "that an unrecorded deed was not void, as against subsequent purchasers or mortgages without notice" and provided "that any deed or conveyance not recorded within six months should be void against any subsequent purchaser or mortgagee for valuable consideration". This was followed by the Act of May 25, 1878 which is now in force and which abolished the six months time limit as regards Philadelphia and provided that a deed is valid against subsequent purchasers and mortgagees only from the date of record. The Act of May 19, 1893 reduced the six months time limit to ninety days except for deeds executed outside the State. The Act of 1925 abolished the period of grace for recording and this extended the Philadelphia rule to the entire State. The Supreme Court has stated that the primary object of recording deeds is "to give public notice in whom title resides so that no one may be defrauded by deceptive appearance of title".

In cities of the first, second and third classes, and in all counties having a population of more than 500,000, all deeds must be registered in addition to being recorded. Deeds are registered according to the location of property. The registry books contain detailed maps and show every deed that has been registered and recorded in connection with a given property by geographical location. A search at the Registry Division facilities title searching and forms an additional means of verifying title. In Philadelphia, deeds have been registered since 1865. The Act of March 14, 1865 provided "That the Chief Engineer and Surveyor of the City of Philadelphia, under an ordinance and appropriation by the Councils



thereof, shall cause to be made books of plans of the said City, divided into sections, so far as the streets of the said City are or shall be laid out, which shall show the situation and dimensions of each property therein with the City numbers thereof, and who are the owners, with such succession, of blank columns as will permit the names of future owners to be entered therein, with the dates of transfer and with index for recording such names alphabetically; and the person or persons who shall be employed to perform such duty shall have access to all plans of survey in the offices of any surveyor of the said City, to all books in the recorder of deeds office, and all records of the Courts, and in the register's office, and may take copies or extracts thereof, without any charge therefor". The Act formed the foundation of the present system of registration of real property in Philadelphia today.

Summarization of Activities of the Registry Division for 1950 -  
The year 1950 stands out as the peak of the five post-war years of residential construction in Philadelphia. The heavy increase in the number of new row or attached homes completed and sold during this prosperous year of building was largely responsible for an unusually active year in the Registry unit of this Division.

Activities in the Book Room - The volume of real estate transfers throughout the City in 1950 compared favorably with the years 1948 and 1949, although there was a slight decrease of straight transfers of title to real estate. 59,761 transfers entered during the year 1950 was a decrease of only 2,145, as compared to the year 1949, when 61,908 were entered.

The number of transfers subdividing larger tracts of land usually indicative of new residential construction by operative builders and land developers increased by 1,036 over 1949 figures. This type of transfer necessitated the drawing on a new scale of 7 new registry plates, which equaled the number drawn in 1949. The number of official certifications of registered owners issued to the public increased from 70 in 1949 to 98 in the year 1950. There was a substantial increase in the number of certifications issued to the Department of Law - 280 certifications being issued in 1950 in comparison with 184 during the year 1949. A total of 105,826 examinations of the registry books were made by the public and officials of the various City Departments.

Activities in the Plans and Legal Records Room - There was a substantial increase in the work of this unit over 1949 figures. 197 plans were drawn by this unit for the various City Departments. Of this number, 28 were plans showing registered owners of property for the service of notice of the condemnations of land for opening streets for highway purposes; 88 were plans made for the use of the Department of Law for the preparation of agreements and bonds and the balance were made for other City divisions. Advertising data was prepared for legally advertising public hearings on 118 City plan changes or area revisions, as required by law. 107 confirmed City plans were indexed and filed and the City plan changes noted on the registry books, record maps and cards. Legal

openings affecting 228 streets were filed in this Division and the registry plates, record maps and cards recorded and indexed. 1550 loans of confirmed City plans were made to various City Departments and Bureaus. The volume of work in the Road Record Room increased substantially especially in plan information given to the public, City divisions and personal service engineers.

During the year the assistants employed in this unit made 40 appearances in Court, testifying to City plan information, legal opening records and title records. This is a marked decline in comparison to this type of service performed during 1949.

A total of 244 Deeds of Dedication were filed, of which 181 were finally approved and recorded. A great majority of the legal descriptions in these deeds were drawn up and typed by this Division.

In the Appendix there is included a statistical summarization of the work performed by this unit during the year 1950.

The Assistant Chief of the Plans and Registry Division is the active head of the Division and much of the work preliminary to the stated meetings of the Board of Surveyors is prepared in the Registry Division.

PLANS AND REGISTRY DIVISION - CITY PLAN UNIT

The City Plans Division of the Bureau of Engineering, Surveys and Zoning is a unit set up within the Bureau to perform many staff functions of an advisory nature in addition to certain routine duties in the preparation of land use maps, street maps showing the legal and physical status of every street in the City of Philadelphia; small scale maps of the general street system, ward maps, special maps showing population growth and other technical elements of City planning; and maps for a variety of uses which are in great demand by private and public corporations, public utilities, individuals, City and County departments, bureaus, commissions and authorities, State and Federal agencies and departments, housing and redevelopment authorities, and miscellaneous sources. The Division furnishes advice and assistance to the District Surveyors and Regulators in the preparation of plans of revision of the confirmed street system; land subdivision plans; preliminary plans for establishing lines and grades for the newly developing areas of the City; preparation of plans and reports on ordinances of Council authorizing City plan changes, and for establishing lines and grades in newly developing areas for confirmation by the Board of Surveyors; reviews preliminary land subdivision plans for land developers and operative builders; reviews plans involving changes in the confirmed plans of the street system for various public and semi-public housing and redevelopment authorities, cooperates with the Philadelphia City Planning Commission in reviewing and initiating changes in the confirmed City plan and in planning the newly developing areas of the City; initiates, reviews, reports upon and prepares City plan studies for the Bureau of Engineering, Surveys and Zoning; cooperates with the Pennsylvania State Highway Department in reviewing plans of major traffic thoroughfares on the Pennsylvania State Highway system; initiates, reviews and prepares plans for the relief of traffic congestion and for traffic channelization; answers communications from the public and administrative officials interested in City planning from other communities; prepares and reviews technical articles on City planning; prepares statistical reports and analyzes trends in City and Regional planning; prepares cost estimates for the condemnation of land for municipal purposes and performs many other functions involving all of the technical elements of planning.

During the year 1950, 126 revisions were confirmed upon the City plan, consisting of large area revisions, striking, placing, widening and redesigning the street system of the City. The Division contributed to numerous of these revisions by examination of developers' plans, preparation of preliminary plans of land subdivisions, field inspections of sites and cooperation with the interested District Surveyors in the preparation of plans and ordinance report plans, design, calculations and drafting plans of revision of lines and grades on several of the larger area revisions. Some of the City plans prepared for confirmation were:

Area bounded by the Roosevelt boulevard, Adams avenue, Castor avenue, Wyoming avenue and Tacony Creek;

Change of grade of Aramingo avenue, from Butler street to Orthodox street;

Area bounded by Trevese avenue, Maple avenue, Prospect avenue and the County Line, also Maple avenue to Bustleton avenue.

Other City plans were prepared, or being prepared, but not confirmed during the year such as:

Area bounded by Grant avenue, Frankford avenue and Academy road;

Area bounded by the Roosevelt boulevard, Willits road, Ashton road, Welsh road, Helms avenue and Ferryback Park.

Numerous preliminary City plan revision studies were made. This required preparation of base plans showing topography, legal and physical conditions; sewer, water and public utility information, registered property owners and the proposed design for the revisions of the City plan.

City-State Highway Program - The Division prepared a new City-State Highway Map to accompany the revised route system which became effective January 1, 1950, under the new legislation. Cooperation with the Survey Districts, Personal Service Contractors, and the Pennsylvania State Highway Department continued through the year by preparation of base studies, field inspection trips, City plan information to the State, Ardmore office, in preparing contract plans for several City-State routes, as follows:

The Roosevelt boulevard, east roadway widening, from Welsh road to the Montgomery County Line;

Aradingo avenue, from Ontario street to Orthodox street;

Harbison avenue, from Torresdale avenue to the Roosevelt boulevard;

The Schuylkill Expressway with the Roosevelt boulevard and Vine street extensions;

The Pennsylvania boulevard, from the Benjamin Franklin Parkway to the Schuylkill Expressway;

The Roosevelt boulevard, from 9th street to Oxford Circle.

Land Subdivision Studies - The Division received many land developers' proposals for subdividing tracts as to their effect on the City plan and prepared studies for the final City plan revisions as confirmed on the City plan. The following areas are additional revision studies in collaboration partly with the City Planning Commission, Personal Service Contractors and private interests, a few of which are confirmed in part on the City plan:

Noe Tract - Ryberry road and Verree road;

Lotz Tract - Bustleton avenue and Tomlinson road;

Rodgers Tract - Bustleton avenue and Tomlinson road;

City Homes Tract - 82nd street and Lyons avenue;



Magee Tract - Walsh road and Rising Sun avenue;  
 Wilson Tract - Shawn street and Revere street;  
 Meyers Tract - Red Lion road and Verree road;  
 Birchler Tract - Red Lion road and Roosevelt boulevard;  
 Smith Tract - Academy road and Red Lion road;  
 McConnell Tract - Pine road and Tomlinson road;  
 Tyson Tract - Edison avenue and Kelvin avenue;  
 McFadden Tract - Pine road and Bloomfield avenue;  
 City of Philadelphia - Rowland avenue and Ryan avenue;  
 Bodek Tract - Coleman street and 76th street;  
 Dintenfuss Tract - Bustleton avenue and Fox Chase road.

Many of these locations are in the far northeastern section of the City and effort was made to plan comprehensively with surrounding area, but as in the past, the developer, mainly, only wants a revision of the City plan to fit his individual tract of land.

Street Improvement Plans - The Division prepared basic studies and furnished information to the Personal Service Contractors, for making field surveys of physical conditions, or preparation of final improvement plans for such street improvements as:

48th street, from Market street to Haverford avenue;  
 44th street, from Market street to Haverford avenue;  
 Ramona avenue, from Wyoming avenue to Adams avenue;  
 Scotts lane, from Ridge avenue to Henry avenue;  
 Wissahickon avenue, from Hunting Park avenue to Chelton avenue.

Plans - Map Information, etc. - The Division received numerous requests during the year to furnish plans, maps, various charts, equipment, technical books and articles, and miscellaneous information service to private corporations and individuals; City and County departments, bureaus, divisions, commissions and authorities; State department and agencies; Federal agencies; private map companies; public utilities and other sources.

City Sectional Maps and Other Records -

<u>Issued</u>		<u>No Charge</u>	<u>Fee</u>
Land Use Maps	200' scale	2221	17 - \$169.00
Street Maps	500' "	715	65 - 28.25



Issued (continued)		No Charge	Fee
Street Maps	1000' scale	1239	9 1/4 - \$22.50
" "	1600' scale	125	27 - 4.00
" "	1600' scale (3 sec.)	114	11 - 11.00
Street Data Maps	500' scale	647	14 - 17.10
Zoning Maps	500' scale	388	106 - 70.75
Other Records	various scales	1208	- -
Ward Maps	200' scale	54	- -
Photo Prints	8" x 10"	137	- -
" "	11" x 17"	153	- -
Hunter Electro	various scales	12	- -
	Totals:	7303	52 1/4 \$322.60

During the year the Division was handicapped by the loss of personnel, who revised these sectional map records and as a result the records are behind for five months. The required changes and revisions show a decided increase in number by comparison with the total 1949 figures and a six-month period of 1950. The Division cannot keep up these records unless map draftsmen are assigned to it.

From Zoning Permits	-	975 (1950-6 months)	1072 - (1949)
From Use Registration Permits	-	1395 " "	2322 - "
From Demolition Permits	-	106 " "	256 - "
From House Numbering Records	-	205 " "	201 - "

The revisions required by City plan confirmations appear on five different map records with numerous overlapping effecting more than one sectional map per revision. The year saw 126 confirmations of the City plan which would constitute approximately 810 required map revisions. The year 1949 had a comparative 509 items.

City Planning Commission Liaison - The Division furnished the City Planning Commission technical staff with the usual large number of maps and other records as basic information for their studies and projects. One of these projects is the design of a comprehensive or master plan of the City for the area north of Pennypack Park. The Commission was furnished with a large number of the latest confirmed City plans and land development studies as the basic information for trying in existing plans with such a comprehensive study.

Collaboration continues on the City plan revision initiated by the Commission revising the area located at the Roosevelt boulevard and Walsh road, C. P. #352-353, also the proposals for housing sites of the Philadelphia Redevelopment Authority.

Personal Services Contractors - Assistance was given the Personal Service Contractors by furnishing basic City plan data, plans and information for the projects assigned to them. Cooperation was given Clarke, Rapuano and Holleran; Knappen, Tippetts, Abbott Engineering Company; Burton and Martin, Civil Engineers; Franklin and Lindsey, Civil Engineers; George Giesecke, Civil Engineer; Damon and Foster, Civil Engineers and Surveyors; and Modjeski and Masters, Consulting

Engineers, on such projects as the Pennsylvania boulevard, Roosevelt boulevard, Scotts lane, Ramona avenue, Wissahickon avenue, 44th street and 48th street, and for City plan revisions for the Houston Estate and many other projects. As a result of this collaboration, many ideas for revision of the plans by the Division were adopted into the projects.

Bureau of Traffic Engineering - The Division examined many inter-sectional channelization studies prepared by the Bureau of Traffic Engineering. These proposals required field inspections and reports and several plans for alternate suggestions. The Division collaborated on traffic design for City-State Highway routes and many other traffic problems affecting the present confirmed City plan.

The Philadelphia Housing Authority - At the request of the Philadelphia Housing Authority, base plans were prepared by the Division for twenty (20) proposed housing sites; requesting twenty-five (25) plans showing City plan information, registered property owners and property dimensions, sewer and water facilities, public utilities and legal and physical status of streets. These plans were accompanied by many land use maps, 500' scale street maps and zoning maps. These plans furnish the Authority with basic information to study the problem of assembling the sites and to have architectural site plans designed to show what revisions will be required on the confirmed City plan. The list of site names follows:

SITES

Germentown Poor House	Abbott
Juniata Park	Mill Creek (2)
Girard Estate	North Allen (2)
Cemetery	Norris
Elmwood	Harrison (2)
Island	Mantua
East Oregon	Cresson
Wilson Park	Roberts
Liddonfield	Princeton
Rising Sun (2)	East Poplar (2)

Other Activities - A plan was prepared of the Germentown Historic areas which were created by ordinance during the year.

Many maps were furnished the Boy Scouts of America for their activities in Philadelphia during the jamboree held at Valley Forge.

The United States Navy, this year's host at the Army-Navy Football game, were furnished stadium seating plans for making their arrangements for the game. The Division personnel made their usual yearly seating check at the stadium.

## ZONING DIVISION

The Zoning Division is under the responsible charge of a Chief of Division, and comprises a single unit, carefully organized to perform the highly specialized duties involved. The primary activity of the Zoning Division is the administration of zoning, as authorized by ordinance of Council approved August 10, 1933 and amendments thereto, including the supplemental ordinance of October 28, 1936.

The Charter Act for Philadelphia, approved June 25, 1919, provided in Section 9 thereof: "For the purpose of promoting the public health, safety, order and general welfare any such City may regulate the location, size and use of buildings therein, and may make different regulations for different districts thereof. For the purpose of carrying out the foregoing authority, the Mayor may appoint a zoning commission. Any Park Commission having control over any public park within any such City may make such regulations as to the location, size and use of buildings any portion of which shall come within two hundred feet of any park, parkway, playground or other public place under its care or management. Upon the approval by the Council of such City, said regulations made by such Zoning Commission or Park Commission shall have the same effect as if originally made by the Council." This legislation was followed by the Zoning Enabling Act of Assembly approved May 6, 1929, P.L. 151, entitled "An act authorizing cities of the first-class to draft and enforce zoning ordinances." Subsequently Council and the Mayor approved the Zoning Ordinance of August 10, 1933 which contained detailed regulations for use, height and area and which established different classes of zoning districts.

Summarization of Activities of the Zoning Division - The year 1950 was the all-time high year since zoning was inaugurated in Philadelphia in 1933. Every main item shows a substantial increase over 1949, the previous banner year; the greatest increases are shown in Zoning Permits issued, Zoning Permits refused, cash receipts, resolutions and ordinance of City Council for proposed Zoning Map changes. The above mentioned items are practically the heart of zoning administration and represent the bulk of the every day work load; and since the average increase exceeds 50 per cent. over the last highest year, and since all this was accomplished without any increase in personnel, it was believed that the year 1950 represented a peak in the efficiency of zoning administration.

A major amendment to the text of the Philadelphia Zoning Ordinance was approved by City Council, January 25, 1950, which in effect prohibits the erection of dwellings, hotels, hospitals, sanitariums, eleemosynary, libraries and public welfare institutions, etc., in "Industrial" and "Least Restricted" Districts. It is too early to evaluate the good or bad effects of this amendment on the overall Zoning scheme in Philadelphia.

Attention is directed to the two major weaknesses in our present Zoning administration as a constructive means of giving Philadelphia the best possible service in such an important civic function. First, inadequate inspectional service to assure proper physical performance of all applications approved by the Zoning Division is essential. At present the inspectional work has been confined to complaints and occasional spot inspections which can never give satisfactory administrative results. At least six (6)

additional inspectors must be added to Zoning personnel to overcome this weakness. Secondly, the weak enforcement of all the provisions of our Zoning Ordinance has the same effect as a law without teeth. Prosecutions of zoning violations leave much to be desired and a conscientious effort should be made to correct this weakness.



ENGINEERING DIVISION

This Division continued to function with three basic units - Design, Construction and Operation - and with the Testing Laboratory acting as a service unit.

In July, Mr. Baxter became Acting Chief Engineer and Surveyor, and Mr. Barofsky moved up to Acting Assistant Chief Engineer. With this change, the Operating Units of Sewage Treatment, Industrial Waste, and Projects Control Divisions reported directly to Mr. Baxter. Mr. Barofsky assumed responsibility for the Design and Construction Divisions.

In July, Mr. C. Elmer Black became Acting Principal Assistant Engineer of Construction, and Mr. Allan L. Hearst assumed responsibility as a division engineer of construction.

Work on the new Northeast Sewage Treatment Works was pushed during the year, but shortages of some critical materials prevented the start of operation before the end of the year.

The new Walnut Lane prestressed concrete bridge over Lincoln Drive was dedicated as War Memorial Bridge on November 11, 1950. The bridge was substantially completed at that time, but the bridge was not scheduled for traffic until early in 1951.

At the Southeast Sewage Treatment Works, construction continued on the pumping station. At the Southwest Works the contractor continued work on the primary sedimentation tanks, and contract bids were advertised in December for the sludge digestion tanks at this location, with bids scheduled to be received on January 19, 1951.

During the year the main relief sewer in 29th street, from Pennsylvania avenue to Columbia avenue, was completed, as was also the extension of the main relief sewer from 23d and Aspen streets to 24th street and North College avenue.

Work continued on the Wingohecking street main relief sewer between Third street and Ninth street, and work was started during the year on the section from Ninth street to Broad street.

A start was made on the channelization of Frankford Creek for flood control purposes between Castor avenue and Torresdale avenue, with a \$1,500,000. contract which started in May of this year.

At the Philadelphia International Airport, the high light was the start of work on the \$7,000,000. terminal building. Bids for this project were received on March 15, 1950, and work started on July 7th.

The Bureau continued its installation of modern street lighting with contracts for nine miles of high intensity mercury vapor lights on highways in South and Southwest Philadelphia. Two contracts for this work, totalling \$1,000,000. started in March of this year.

Details of work carried on by the Design and Construction Divisions are described in detail under the reports by these Divisions.

## DESIGN DIVISION

The activities of the Design Division during the year included the preparation of plans, estimates, specifications and proposals for sewers, sewage disposal projects, other drainage projects, highway bridges and viaducts, airport development, street improvements, retaining walls, the preparation of reports on drainage and flooding, including changes and additions to City Plans, preliminary estimates of cost, test borings, preparation of proposals for contracts for other City Bureaus; mimeographing and blueprinting; 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 marquises, canopies, etc. projecting within the street lines; checking and approval of railroad bridge plans, inspection of highway bridges over the Reading Railroad, checking shop drawings, conducting tests of pumps and other mechanical equipment; expert testimony in condemnation case meetings; Utilities Technical Committee.

During the year 1950, the Design Division had 346 major assignments, most of which are listed elsewhere herein.

### Sewers - New Construction

Sewers were built at public cost during the year as funds were available for all necessary construction, and only one sewer was built at private cost, circumstances in this case contributing to the convenience of this arrangement to the builder. Sewer construction continued throughout the year at an accelerated pace and thus continued the extensive program which has been in progress since 1946.

The home building program tended to expand as the year progressed, and placed a constant pressure on the Bureau to provide drainage for these operations. The construction of sewers to provide for new building operations was limited to projects either actively under construction or with definite procedure plans satisfactory to the Bureau, and all such projects were provided with drainage facilities without unnecessary delay.

The construction of sewers to relieve insanitary conditions was actively continued during the year. The repaving of streets, such as Lancaster avenue between 50th street and 650 feet northwest, required the reconstruction of sewers in bad condition; and the improvement of other streets and of major state highways involved the construction of new sewers or of limited surface drainage where other outlets for sewers were not available. The construction of sewers to serve new or expanded industrial plants included a sewer on Tacony street between Santer street and Vankirk street, where a number of large water mains and other utilities presented unusual difficulties in finding space for the sewer, and a location was finally found necessary which limited the service to one side of the street only. Due to the great volume of new housing sewer

work, the preparation of plans for sewer reconstruction and for sewers to provide drainage for old developed areas without drainage was somewhat limited during the year.

Sewer contracts were designated under two classes, "A" for sewers for new housing and "B" for relief of insanitary conditions and other purposes. Plans, estimates and specifications were prepared by the Division for 164 sewers of the "A" classification and 73 sewers of the "B" type during the year.

As in the previous year the services of personal service contractors was utilized in drafting sewer plans, surveys and base plans being made by them under the direction of this Division, and a complete sewer design then prepared by this Division, from which information the finished contract plan was drafted by the contractors.

Sewers were constructed with reinforced concrete pipe in most cases, optional bids being taken for either concrete or vitrified pipe for sizes up to 36 inches diameter. Reinforced concrete pipe of 102 inches diameter was used for sewers for the first time in the City; and vacuum processing of reinforced concrete pipe which provides a denser and more durable concrete was specified for special jobs where conditions warranted, and was used in intercepting sewers. In concrete sewers poured in place invert sections were provided with this method. Brick sewer construction was used in relatively few complete sewers; it was used in some cases for spur construction where there were existing brick sewers and alignment was difficult with pipe.

The bulk of the sewer construction during the year was in the Northeast and Oak Lane, West Oak Lane and Upper Wissahickon sections of the City.

A few additional branch sewers were built in the Sandy Run area during the year, and these were made complete sewers, anticipated early construction of the main stormwater outlet. Plans were completed for this main sewer with an outlet to the stream at Tabor road late in the year. The use of the stream as a permanent outlet is still in doubt, and if used it will be desirable to maintain the stream in a drainage right-of-way or park to a point near Elgin avenue; dredging of the stream will be necessary for a distance of 2300 feet to Dungan road for a permanent outlet. The construction of this outlet sewer was held up by negotiations with the Reading Company, to determine the procedure to be followed in constructing the sewer at the rather shallow undercrossing of the Railroad main running tracks in Maple avenue north of Tabor road; but it will be placed under contract early in 1951. Plans for the completion of the stormwater system to drain all the existing sewers above this point have been virtually completed.

In the Northeast the construction of the long deferred sanitary outlet sewer in Malne avenue from the Pernypack Creek Low Level Intercepting Sewer to the Roosevelt boulevard Circle, and in the Roosevelt boulevard to Stanwood street, was followed by the extension of the separate system sewers in the area northwest of the boulevard, and provided a much needed improvement.



These stormwater conduits had been built as complete sewers in the portion of Holme avenue and the boulevard above referred to in 1917, before the use of a separate system of sewers was required for the Pennypack Creek watershed, making the addition of the sanitary sewer outlet somewhat difficult with the depth involved. The extension of the sewer system in Solly avenue to Castor avenue was completed during the year and this permitted the diversion of drainage of an area at Castor avenue which had been temporarily drained to the Castor avenue sewer with a resulting overload on that sewer.

The main sewer in Cheltenham avenue from 7th street to Lawrence street was under construction and 90 per cent. completed during the year. This sewer was required for the drainage of an extensive City area in Oak Lane, and a number of the branch sewers in this area have been planned and built or placed under construction during the year. The Cheltenham avenue sewer drains an extensive area which has a natural surface outlet to Cheltenham Township at Lawrence street. However, it was impracticable to discharge this drainage through the Township area to inadequate drainage facilities and existing use of property, and the Cheltenham avenue sewer was designed to carry this drainage through the summit at Fifth street to an outlet to the stream west of Seventh street; the separate sewer system is used in this area and the sewage drained via Cheltenham avenue to Verbena street, and through the Tenth street sewage cutoff sewer and the Rock Run sewer system, to the Tacony Creek High Level Intercepting sewer. Routing this sewer through the summit on Cheltenham avenue required a rather deep tunnel section 634 feet in length in hard rock. In order to avoid the construction of an additional shaft to provide a central manhole on the sanitary pipe sewer, provision was made for access to this sewer through a removable slab in the invert of the 54-inch diameter stormwater conduit.

The planning and development of the large property holdings of the Henry H. Houston Estate on the Upper Wissahickon and Schuylkill River areas progressed rapidly during the year. This involved the preparation of complete City plans covering the area lying between the Wissahickon Creek and the Schuylkill River and extending from Shawsont avenue and Wise's Mill road northwestward to the Montgomery County line; also an area northeast of the Wissahickon Creek above Harwell avenue. This required the study of the proposed plan for drainage and a general design of the future drainage system, in order to establish necessary rights-of-way for drainage along the numerous streams and gullies which will be preserved in this suburban type of development.

An area of approximately 100 acres, known as "Andorra", at the highest point of this section, along and northwest of Cathedral road between Ridge avenue and the Wissahickon Creek, was completely developed during the year. Some 200 houses were built with a suburban setting, and complete separate system sewers were built from plans prepared by personal contractors working plans and designs being furnished by the Design Division. In order to facilitate work the entire improvement including grading and drainage was embodied in one contract from specifications prepared by the Design Division. Following this an area of approximately 65 acres south-



east of Cathedral road adjoining the above area is now under active planning for an additional 200 houses, and sewer plans were being prepared late in the year for this area, in a similar manner to the first project.

Two other large housing development projects were in process of planning during the year. The earlier one of these was the section to be known as "Stonhurst" covering an area of 60 acres lying northwest of Mermaid lane and Cherokee street, and is planned as a garden type apartment development. The sewer plans for this area were begun during the year, and involve a somewhat complicated separate system sewer layout.

The other of these two, known as "Malrose Park Gardens" has been planned and drainage studied during the year. This covers a large section southward from Cheltenham avenue to Godfrey avenue and west of Crescentville road to Second street, comprising approximately 65 acres, of which about 12 acres of the stream valley will be unimproved or park. It will involve the construction of upwards of 1000 houses in rows of various lengths. The sewer system for this drainage area has been changed from the originally planned combined type to a separate system, in order to utilize the stream below Front street as the outlet for stormwater discharge and to avoid the use of a number of small sewage interception slots, which are often objectionable, even with fairly good maintenance.

This period of the growth of the City often requires the development of areas involving difficult grading and drainage problems, which have not been previously developed for this reason. An example of this is the present proceeding development of the Philadelphia Country Club property in West Philadelphia along City avenue adjoining Fairmount Park. This is known as the "Country Club Gardens" and covers an area of approximately 90 acres. It will include 7 large modern apartment buildings and an extensive shopping center. The area is drained by a stream which follows the north side of Conshohocken avenue and former Windemere avenue and through the Park to the Schuylkill River, and has heavy valley and side hill grades. The original provision for the sewage of this area was to carry the sewage across the river to the existing Upper Schuylkill Low Level Intercepting Sewer. However, as this sewer is inadequate and overcharged, and the Schuylkill River dredging project still is an uncertain stage it was decided to provide at this time a small pumping station near Neill drive, and pump the sewage to the nearest outlet sewer which is in Monument road south of Conshohocken avenue. This pumping station will be sufficient to serve the entire drainage area north of the Park, which includes another small stream shed south of the one described above, and the sewer system will serve the existing development of this area and permit further development. Plans for the separate system sewers and the sewage pumping station were completed late in the year, and were prepared by Personal Service contractor from designs furnished by the Design Division.

Reconstruction - The replacement of old sewers in bad condition was provided for by the preparation of plans and specifications by the Design Division for three contracts.

The reconstruction of the main sewer in Fairmount avenue from Delaware avenue to 195 feet west of Front street and relining of the existing sewer from this point to Second street, was completed during the year. Future reconstruction of this sewer westward from Second street is planned to provide adequate capacity and depth.

Work on the reconstruction of the 20'0" diameter Mill Creek Main Sewer in 46th street crossing Market street, was in progress during the year and is about 60 per cent. complete. This sewer is being rebuilt as a 17'0" x 18'0" reinforced concrete sewer which size will be continued northward in 46th street to replace the existing 15'0" diameter in the future as a part of the Mill Creek Storm Relief project.

Work on the reconstruction of the old circular brick sewer in Bodine street westward from American street to drainage right-of-way in bed of former Culvert street was begun late in the year. This sewer is being replaced by an 8'0" x 9'0" reinforced concrete rectangular sewer. The existing sewer here is very shallow and flooding has been experienced in the area it drains, west of Bodine street.

Relief of this flooding is planned by continuing this reconstruction from American street eastward via Laurel street and Hancock street to the junction with the twin 11'0" diameter sewer in Allen street at Germantown avenue. To obtain sufficient capacity in the new sewer it was necessary to lower the invert approximately two feet below the old sewer, and until the reconstruction is completed to the large outlet sewer, temporary concrete invert was provided to the level of the old sewer invert to maintain self-cleansing flow in the sewer.

Contract plans were prepared by the Design Division during the year for the reconstruction in a different alignment of a short portion of the outlet of the sewer in Palmer street east of Beach street; the existing 6'6" diameter brick sewer to be replaced by a 6'6" x 7'0" rectangular reinforced concrete sewer. This work was to be done under an agreement with and at the expense of the Philadelphia Electric Company, to provide for the expansion of that company's power plant. However, changes in the Electric Company's plans will make it necessary to revise and extend this proposed reconstruction, and studies are now being made for this work by the Division.

Stormwater Relief - The construction of the main relief sewer has been completed during the year northward in 23d street to Poplar street, and in private property and the grounds of the Girard College to North College avenue, and thence to 22nd street; also completed, was the 29th street relief sewer from Pennsylvania avenue to Columbia avenue. The extension of the main relief sewer has provided for the diversion of stormwater flow from the 4'6" diameter sewer in 24th street at North College avenue and this will relieve overcharging in an extensive area in this vicinity. The completion of the 29th street relief sewer relieves the serious flooding experienced

in the area along 28th street, where depressions were repeatedly flooded, and should materially improve drainage conditions in this general area.

Plans were prepared to complete the Wingohocking Relief sewer by the extension of this sewer in Wingohocking street, from the upper end of the portion now being constructed under a former contract at 9th street to Belfield avenue, and in Belfield avenue to Broad street, and construction begun during the year. The major portion of this work is being constructed as a 16'0" x 17'0" horse-shoe section in tunnel, as originally planned. The sewer section used in the former contract east of 9th street, which was a 12'0" high x 21'0" wide arch top and flat invert section, with provision for the use of the natural rock formation as the vertical sides of the sewer carrying the concrete arch load, proved to be unsatisfactory due to the unstable condition of this mica-schist rock formation, which was found to deteriorate rapidly on exposure to the atmosphere. This condition made it necessary to provide concrete walls to carry the arch load of the sewer. For this reason, the new contract provided for the use of the 16'0" x 17'0" horse-shoe type section as originally planned for the tunnel construction. A short run of approximately 326 feet of this sewer in Belfield avenue is in open cut as insufficient cover exists for tunnel operation and the section for this part is 16'0" x 14'0" rectangular. At Broad street, the sewer will connect to triple section sewer conduits crossing under the subway which were built with the Transit subway construction, to accomplish this relief diversion.

Plans were being prepared during the latter part of the year for sewer construction to relieve flooding experienced in the industrial section along Erie avenue west of "I" street. This required the construction of the long-planned extension of the Castor avenue outlet sewer from its present terminus at Frankford avenue, via Castor avenue, Glenwood avenue and Venango street to the existing sewer at "J" street. At this time, the existing 6'6" diameter sewer in Venango street connects to a diversion chamber with an existing 5'3" diameter outlet sewer eastward in "J" street, and provision for the outlet to the future sewer northward to Castor avenue. Additional relief construction included in this project involves the construction of a new 48" diameter concrete pipe sewer paralleling the existing 4'6" diameter sewer in "I" street between Venango street and Erie avenue to provide needed additional capacity for the outlet of the Erie avenue sewer. In this case, there is sufficient space for the construction of a parallel sewer which will be more economical than the reconstruction of the existing sewer. Several interconnections are to be made for the new 48" diameter pipe sewer to the existing 4'6" diameter sewer to provide for proper distribution of flow between the two sewers. The future Gunnars Run High Level Intercepting sewer is planned to extend along "I" street between Venango street and Erie avenue, and an intercepting chamber will be constructed on the 5'6" diameter sewer in "I" street, a short distance east of Venango street below the lower end of the 48" diameter pipe relief sewer.

Preparation of plans was begun during the latter part of the year for the construction of the portion of the Mill Creek Storm Relief sewer between 52nd street and Wyalusing avenue and 50th street and Brown street, the route



of this sewer being via Wyalusing avenue, 51st street, and Brown street, and field surveys have been made by Personal Service contractors. It will be a 16'0" x 18'0" circular arch top, flat invert reinforced concrete sewer, and will eventually replace the existing old circular brick sewer ranging in size from 14'3" diameter to 14'6" diameter. This existing sewer follows a diagonal route between these limits and thus underlies many residential properties. In its overcharged condition, this constitutes a dangerous hazard to the public. This portion of the Mill Creek Relief Project is being planned as the next step, with the purpose of furnishing at least partial relief for the serious flooding which occurs so often in the depressed area along Wyalusing avenue east of 52nd street. To accomplish this, it is planned to continue the use of the existing circular brick sewer, the combined capacity of the old and new sewers thus furnishing increased storage capacity with a lower gradient at the Wyalusing avenue end, and relieving the pressure of overcharging in the old sewer. The early construction of the new Main Relief sewer below 50th street and Brown street via 50th street and Fairmount avenue to 47th street, and in 47th street to the completed portion south of Fairmount avenue will, of course, be necessary as the next step, to be followed or done simultaneously with the reconstruction of the old sewer in 47th street between Fairmount avenue and Market street, and will be necessary before the abandonment of the old sewer about 50th street and Brown street.

Plans and specifications were prepared during the year for the Clearfield street Relief sewer, and it was placed under contract late in the year.

This sewer will extend from a junction with the Allegheny avenue sewer east of Richmond street via Allegheny avenue, Edgemont street, and Clearfield street to Kensington avenue as a 102-inch diameter reinforced concrete pipe section, with an extension from this point northward in "G" street to Allegheny avenue as a 72-inch diameter. The design of the sewer crossing Kensington avenue was complicated by the numerous utilities underground structures and a number of large water mains with interconnections, and the proximity of footing foundations of the Elevated Transit structure, as well as by the necessity of connecting branch sewers. It was necessary to use a rectangular design for the sewer which permitted reduction of height to pass under these structures. Interference with water mains, which were in the cartway, made it necessary to replace them by a new main in each footway, and this added materially to the cost of the project. This relief sewer will eliminate the serious flooding experienced at the Kensington avenue-Clearfield street intersection and adjoining area, by furnishing a direct adequate outlet, and by diverting extensive areas west of Kensington avenue, which are now drained to the inadequate Allegheny avenue sewer. The future provision of additional capacity in Allegheny avenue from Richmond street east to the river outlet was originally planned, but it is not anticipated that this will be necessary for further flooding relief.

Street Improvements - Plans were prepared during the year for sewers and other drainage structures, retaining walls and steps, etc., in connection with highway improvements at various points and with highway paving.

The improvement of major highways by the City involved extensive sewer and stormwater drainage construction. Bureau survey district personnel was unable to perform all these tasks and, as in the previous year, survey and planning work was in many cases given to Personal Service contractors. It was usually found expedient to incorporate the sewer and drainage work with the improvement plans. In these cases, a complete design



for this drainage work was made by the Design Division and furnished to these contractors.

The projected improvement of Cheltenham avenue by joint action of the City and County required the elimination of the open stream, flowing within the limits of the proposed widened highway, and extending from Lakeside avenue, where the large City stormwater conduit now discharges to it, to a point west of 7th street where it flows into Cheltenham Township. Twin 8 $\frac{1}{2}$ -inch diameter reinforced concrete pipes are being provided for this stream flow. The depth of this structure was limited in the upper portion, i.e., from Lakeside avenue to a point 400 feet east, by the necessity for clearing the existing Cheltenham Township sanitary pipe sewer which has a relatively shallow outlet. The sharp natural degrading drop in the stream bed in the vicinity of the Reading Company North Penn Railroad bridge over Cheltenham avenue, and the increased depth of the natural stream bed west of 7th street where the stream channel was dredged to a greater depth to accommodate the outlet of the City stormwater conduit recently constructed from 7th street westward, made it desirable to provide a flight drop in the sewer at the railroad bridge, rather than build the sewer on a steep grade with excessive velocities for storm flows.

At the outlet to the stream, a 50-foot section of the channel is to be paved and banks walled where necessary to prevent erosion. Plans and specifications for this work were prepared by the Design Division, and it was placed under contract later in the year.

State Highway Improvements - Plans for sewer construction required for the improvement of Arminge avenue from Orthodox street to the Frankford Creek were completed during the year. Sewer plans for the proposed Pennsylvania boulevard, prepared by Personal Service contractor for the State Highway Department for the portion from 30th street to 32nd street, and Market street, were revised along 30th street at the request of the Pennsylvania Railroad Company. These suggested revisions were submitted for approval and reviewed by the Design Division during the later part of the year.

Drainage Studies - Many studies and reports were made during the year on various drainage problems -- including those involved in proposed additions of new streets or striking of old streets from the City plan, and other revisions and additions to the City plan; proposed private developments, many of which covered extensive areas, public school projects, industrial plant construction, stormwater drainage for street improvements in outlying areas; investigations of existing sewer capacities for possible extension to drainage areas, or to determine causes and possible relief of flooding. A partial list of locations covered by these studies is included in the "Details of Work Performed", attached hereto.

#### SEWAGE DISPOSAL - INTERCEPTORS

Pennypack Creek Low Level Intercepting Sewer - Construction of this sewer (as under contract) to a point approximately 1000 feet northeast of Veree road was virtually completed during the year. There are no plans for its immediate extension above this point, and early future work will

probably be directed towards the construction of branches of this sewer to serve the rapidly progressing development in this area. Wooden Bridge Run branch of the Pennypack Creek Low Level Intercepting Sewer construction was completed during the year northward to Grant avenue. Field surveys were made for the extension of this sewer above this point, the route being along the Wooden Bridge Run through the Philadelphia Northeast Airport property and thence along Grant avenue to the Roosevelt boulevard, and contract plans were in course of preparation during the year.

Upper Delaware High Level Intercepting Sewer - Plans and specifications were prepared by the Design Division late in the year for the extension of this sewer in Grant avenue from State road to Tulip street; also for the Hyberry Creek Branch of the Upper Delaware in Grant avenue from their junction at Tulip street to a point north of Hegeman street. This work was advertised for bids in December. Plans were also begun for the branch intercepting sewer which will connect to the upper end of the Hyberry Creek Branch north of Hegeman street and extend westward along the stream in the bed of Longfield street, which will be stricken from the City plan westward to Eden street, and either a drainage right-of-way or a public park established in its place. The construction of this sanitary branch sewer to Eden street will furnish the outlet for an extensive area.

Lower Delaware Low Level Intercepting Sewer - The construction of this sewer northward to Kenilworth street was in progress during the year and is virtually completed. Plans and specifications were prepared during the year for the branch intercepting sewer in Oregon avenue, from its junction with the Lower Delaware Low Level at Swanson street to Delaware avenue, and its construction begun. Plans for the intercepting sewers in Delaware avenue northward from Packer avenue to Oregon avenue and southward from Snyder avenue were in course of preparation during the year. These sewers will collect the sewage from five large outlet sewers discharging to the Delaware River in this area.

East Central Schuylkill Low Level Intercepting Sewer - The construction of this sewer northward to a point in 26th street north of Lombard street, was continued during the year and is now virtually complete.

West Central Schuylkill Low Level Intercepting Sewer - The construction of this sewer from north of Arch street and extending 1100 feet northward was completed early in the year.

Work on the revision of plans for the portion of this sewer from the Central Schuylkill Sewage Pumping Station northward to Arch street was carried on during the year. The realignment of the sewer below South street to adjust it to the final location of the pumping station and possible realignment north of South street due to the planning of the proposed Schuylkill Expressway will require additional study and field surveys.

Southwest Main Gravity Intercepting Sewer - Plans were completed and specifications prepared during the year and work begun in March on the portion of this sewer from 70th street and Lyons avenue, via 70th street and Balist avenue to 68th street. This comprises the extension of the triple section siphon conduits to Dicks avenue and the open cut rectangular

14'0" x 13'0" section from this point to 68th street. Space was left for the future construction of the siphon entrance chamber at Dicks avenue. This contract includes the reconstruction of the 69th street 5'6" diameter brick combined system sewer as a 5'0" x 4'6" reinforced concrete rectangular sewer across the intercepting sewer and an intercepting chamber south of Buist avenue, with a sewage dam and regulator controlled side port. This work is approximately 60 per cent. complete.

Plans were also completed and specifications prepared during the year for the extension of this sewer from 68th street and Buist avenue to its upper end at 43d street and Locust street, where the sewage from the Mill Creek Main sewer will be intercepted; and also for the portion of the sewer northward in Paschall avenue to a point north of 46th street, which will furnish the gravity outlet for the sewage from the Central Schuylkill Sewage Pumping Station; and this work was placed under contract in September. All of this sewer extension except a very short run crossing 45th street from Woodland avenue to Clark's Park, is in tunnel. The size ranges from 14'0" diameter below 60th street and Grays avenue, where the Cobbs Creek High Level Cutoff sewer will join it; a 12'6" diameter from this point to 47th street and Paschall avenue, the junction of the flow from the Central Schuylkill Pumping Station; and a 6'0" diameter from this point to 45th street and Woodland avenue, and the remainder a 5'6" diameter to the Mill Creek interception. Borings taken at 500 foot intervals along the route of the sewer indicate rock excavation will be encountered in much of the work. The entire sewer, as above outlined, was awarded as a single contract and the bid price \$5,432,314. indicates the magnitude of the project.

Sewage Gaugings - Prior to the construction of the Westmoreland street chamber, the sewage flow in this sewer was gauged by Bureau personnel, velocity of flow and depth readings being taken at hourly or convenient intervals over a period of several weeks. The results of these gaugings showed heavier sewage flows than previously estimated, and this fact emphasized the desirability for checking the sewage flow in other sewers to be intercepted. Arrangements were then made with a personal service contractor to gauge the sewage flows at a number of such locations. Nine of these were on sewers connecting to the Somerset Low Level Intercepting Sewer, and five on sewers connecting to the Oregon avenue, Delaware avenue branch of the Lower Delaware Low Level Intercepting sewer. The method of gauging used was an automatic recording device installed in a sewer man-hole, and recording on a chart the depth of flow back of a rectangular weir installed in the sewer, above the influence of tidal flow if possible. From these gaugings a fairly accurate estimate of range of ultimate flows to be provided for in interceptions was obtained.

#### SEWAGE INTERCEPTING CHAMBERS

##### Somerset Low Level Intercepting Sewer:-

Westmoreland Street Chamber - The construction of this chamber was completed in June of this year. It is the new type automatically operated



with electric solenoid switch control and oil pressure cylinders for operating the port and tide gate, as developed by the Design Division in 1949, when a pilot model unit was assembled and tested by Division personnel at the Northeast Works Shops.

Cambria street Chamber with tide gate and an intercepting gate, each operated independently by float controlled hydraulic cylinders using City water pressure, was under construction during the year.

Indiana street Chamber with a sewage dam and a hydraulically operated interceptor gate float controlled, was under construction during the year.

Plans were completed during the year and construction begun on the chambers in Venango street, Tioga street, Ontario street, Castor avenue, and Somerset street. These chambers have the Brown and Brown, Inc. type of regulator, directly operated by float control and hinged timber tide gates.

Plans and specifications for the Allegheny avenue chamber were completed during the year. This chamber has a hydraulic cylinder operated vertical sluice gate controlling the sewage flow through a port in the side of the sewer, and circular type metal hinged tide gates. The sluice gate closes to a predetermined position during storm flows to limit the sewage intercepted to the proper maximum amount. In comparison with the regulator type of interception, this method with its limitation of operating with only one closing position will tend to increase the amount and duration of sewage discharge to the river, especially in times of light storms.

In connection with the Somerset street chamber, it was necessary to provide for the diversion of the entire sewage flow from the Stokely street High Level Cutoff Sewer to the Cohocksink sewer system and through it to interception points on the Lower Delaware Low Level Intercepting sewer, as planned in the design of the Intercepting Sewer System. The Somerset street chamber contract included the provision of a two feet high sewage dam in the diversion chamber at Indiana avenue and 24th street, where the Stokely street flow is now divided equally between the sewer in Indiana avenue to the Somerset System and the sewer in 24th street to the Cohocksink System, which will divert the dry-weather flow, with a minimum of interference with stormwater flows.

Lower Delaware Low Level Intercepting Sewer - Packer avenue Chamber - Plans and specifications were prepared during the year for this chamber which will be of the regulator type with hinged timber tide gates, and this work will be advertised for bids early in 1951; also for the extension of the Packer avenue main sewer 330 feet from former terminus to the bulkhead, replacing the existing open channel. This was planned for the improvement of the southern half of Packer avenue to provide an access road for use of the new City Fire Boat Station. This contract also included the pipe sanitary sewer on the south side of Packer avenue to provide for sewage connections along this frontage from Delaware avenue to the Delaware River. This pipe sewer will be connected at Delaware avenue



to the future intercepting sewer in Delaware avenue.

Plans were being prepared during the year for the following for intercepting chambers along Delaware avenue southward from Snyder avenue, Delaware avenue north of Porter street; Oregon avenue; and Bigler street. These chambers will be of the regulator type with hinged timber tide gates.

Main Effluent Conduits for Southwest Treatment Works - Plans were begun and field surveys made during the year for the extension of these conduits from the terminus of the existing construction.

Northeast Treatment Works - All construction work and installation of mechanical and electrical equipment were completed during 1950. Contracts were awarded during the year for Sludge Gas Metering Equipment, Ceramic and Precision type Air Diffuser Tubes and Tube Cleaning equipment, Repairs to No. 3 Sewage Pump and Motor in present Pumping Station, new aluminum sash and doors for Grit Chamber Building, new gates on Force Main.

Final electrical wiring and flood lighting contract proposal was completed during the year and will be advertised in January 1951.

Plans and specifications were also prepared and completed for the following work which will be advertised the early part of 1951: Repairs and additional lighting to Outfall Pier, new fence around plant property, landscaping plant property (design work done by consulting landscape architect).

Frankford Grit Chamber - Contract was awarded during the year for new Grit Removal Equipment.

Southwest Treatment Works - Construction work and installation of mechanical equipment for the primary settling and flocculation tanks were 99 per cent. completed during the year.

Plans and specifications for construction work and mechanical equipment and piping, electrical work, and plumbing work for the Sludge Digestion Tanks were completed during the year and advertised in December. Bids will be received in January 1951.

Southeast Treatment Works - Design work and the preparation of contract plans and specifications progressed during the year for the construction work, mechanical and electrical equipment, piping and conduit work for the primary settling and flocculation tanks. Proposals will be advertised the early part of 1951.

Central Schuylkill Pumping Station - Contracts were awarded during the year for construction work and circular cranes, electrical work, and plumbing for the superstructure of this station.

A contract was awarded during the year for the construction of aluminum roofs on Central Schuylkill Pumping station and Southeast Pumping Station.

Design work and contract plans and specifications progressed during the year for the final mechanical equipment and electrical work for Central Schuylkill and Southeast Pumping Stations.

Tests on mechanical and electrical equipment were run by the Design Division personnel at various manufacturers' plants and at Northeast Treatment Works.

#### PHILADELPHIA AIRPORTS

The North Philadelphia Airport has been used during the year for unscheduled air freight operations. It was also designated during the year as a point for the assembly of approximately one-half the private aircraft operating as a unit in the Civil Defense organization.

Construction of the stormwater drainage system and sanitary sewers for the apron and hangar areas was completed during the year. Additions to these systems were authorized to serve the Fixed Base Operations Building.

A large concrete heavy duty apron, a main taxiway, a system of light duty taxiways within the "T" Hangar area, and stub taxiways connecting these facilities to the existing taxiways and runways were placed under contract during the year. Of these facilities, the light duty taxiways remain to be completed.

Plans have been completed for the construction of a Fixed Base Operations Building by the Jack S. Steeles Company of Philadelphia.

Plans were being prepared during the year for the conversion of a portion of "T" Hangar space adjacent to shop areas, for inclusion within the enlarged shop areas and other "T" hangar space was redesigned for storage areas and for additional offices.

Plans for the utilities to service these areas were also in process of preparation.

Plans were prepared and a contract awarded during the year for alterations and additions to the Control Tower on the Administration Building. The painting of this building was also placed under contract.

Tie-downs and grounding rods in the turf area between the new apron and "T" hangar row were selected as an item for a grant in aid from the "safety fund" of the Pennsylvania Aeronautics Commission.

At the Philadelphia International Airport the year 1950 saw the beginning of actual construction of the new Terminal Building. This work began in the early summer and consisted of eight contracts covering general construction, plumbing, heating, ventilating and air conditioning, elevator and electrical dumbwaiters; food service equipment, baggage handling facilities, and moving stairways.

A contract was let in the early fall of the year for the paving of the runway extension to provide an instrument-landing runway approximately 7300 feet in length, and the paving of the peripheral taxiway, connecting taxiways and first-stage apron of the new Terminal Area. Also included in this contract was a new field drainage system for the areas under construction. The main outlet for this drainage system consists of three 78-inch diameter corrugated metal pipes.

The Civil Aeronautics Administration participated in the payment of a portion of the cost of the runway extension and related work, and loading piers of the new Terminal Building.

Plans were prepared during the year by Airways Engineering Corporation for installation of high-intensity runway lighting on the extension of runway 9-27; installation of a wind tee; underground conduit system for electric power and communications; high voltage distribution system and the reconstruction of the tidal drainage system to the Delaware River.

Plans were prepared during the year by Carroll, Grisdale and Van Alan, for the control tower at new Terminal Building, which plans were subject to review by the Civil Aeronautics Administration.

The Pennsylvania Aeronautics Commission participated in the payment of a portion of the cost of the boiler-house adjacent to the new Terminal Building.

With the occupation of the "T" hangar area by Wings, Inc., the need became apparent for additional facilities to meet the added requirements caused by the increase in ownership of the executive type aircraft. This need was met by plans for an addition to hangar Unit "Q" and a Fixed Base Operations Building, which were prepared during the year, and the work was placed under contract.

A general improvement of the "T" hangar area was the provision of lighting, power and communications, the installation of toilet rooms and the furnishing of office spaces.

The shop area in hangar Unit "Q" was enlarged to include an additional shop, a wash-down room, a battery room and other facilities; all of which space was incorporated in the existing hangar unit, and an addition made to hangar Unit "Q" consisting of a locker room, wash-room, toilet room and heater room.

The Fixed Base Operations Building is a structure devoted to the registration of aircraft and reception of pilots and their passengers. It contains facilities for display and sale of aircraft accessories.

Offices, lounge and toilet rooms are provided in the building, which has overall dimensions of 113 feet by 28 feet.

The general improvement of the "T" hangar area together with the Fixed Base Operations Building involved the preparation of plans and specifications for contracts.

In Hangar Group "A", adjacent to Island Avenue, a mechanical foam fire-extinguishing system, together with its related projects of a booster pump for the present foam first aid fire-fighting system, the construction of gasoline separators on the hangar floor drainage system, and the installation of a sprinkler system in the lean-to areas was placed under contract in the summer of 1950.

The heating system for the hangars was replanned to suit the demands of the tenant and improved under plans and specifications prepared by the Design Division. Contracts for this work and other necessary electrical alterations were completed during the year.

A hydrant refueling system, together with the necessary fuel storage facilities, was installed adjacent to Hangar Group "A" by the Esso-Standard Company of Pennsylvania. Plans for this work were reviewed and approved by the Design Division.

A 120' x 100' building adjacent to the Domestic Terminal Area, to provide facilities for cargo storage and handling, international passenger service, operations office, plane sewage disposal and fire fighting apparatus was completed during the year. Plans and specifications were prepared by Airways Engineering Corporation for the utilities and access facilities to this building, together with the extension of the passenger loading facilities. This latter work was placed under contract in July of 1950 and was nearing completion at the end of the year.

An enlargement of the plane sewage disposal facility was planned during the year, and plans and specifications completed for early advertisement. Plans to provide three gate houses for airport security were prepared and a contract for their construction awarded in December.

The runway resurfacing program was continued with the resurfacing of the remaining portion of runway 4-22 and a portion of runways 12-30 and 9-27. This improvement was done from plans and specifications prepared by the Division during the year.

As a preliminary step to the inspection and cleaning of Airport stormwater drains, a start was made on extending manholes to grade adjacent to runways 9-27 and 12-30. Specifications for this work were prepared by the Design Division and a contract awarded late in the year.

Drainage studies were made for the extension of the airfield to include the new Terminal area, the length of runways, and new taxiways required to serve the first stage development, and to provide for future field extension. These studies were a revision of earlier studies based



on the Master plan of 1946.

The 1946 Master plan called for parallel runways in four directions. Because of the large area involved, this plan provided for most of the new airfield and to drain to a pumping station along the Delaware River within land recently acquired.

During 1950 tentative revisions in the Master plan were made which showed the definite possibility that only one parallel runway would be built.

The revised drainage studies, based on this revised Master plan, indicated that the drainage from the new portion of the field, including the runway extension and Terminal area, could be drained into the present Church Creek and then to the Mingo Creek Pumping Station. The new plan is predicated on the enlargement of the present drainage channel on the route of Old Church Creek eastward to Island avenue and the provision of a new adequate drainage channel from Island avenue south of and paralleling Penrose avenue, to connect to the main drainage channel system at 80th street.

Another drainage study was made for the extensive area set aside for the Pennsylvania Air National Guard east of the present terminal and cargo loading area. This drainage will be first connected to the Eagle Creek to the east and ultimately to the above described new channel along Penrose avenue.

#### BRIDGES

Pine road Bridge over Philadelphia, Newtown and New York Railroad -  
A single span steel and concrete deck structure with reinforced concrete abutments and gravity type wing walls. Plans and specifications have been prepared by Mr. Thomas E. Bruder, R.E., under contract with the Department. The design has been approved by, and the plans and specifications checked by the Design Division.

The clear span of this bridge is 20 feet, the clearance above tracks is 20 feet, and the width between house lines is 57'0".

Walnut Lane Bridge over Lincoln Drive and Paper Mill Run - The year 1950 saw the completion of walnut lane Bridge - the first prestressed concrete bridge ever constructed in America. The bridge has a center span of 160 feet and two side spans of 74 feet each. It has a 14 feet wide roadway and two 10-foot wide footways.

The bridge, which is known as the Walnut Lane Memorial Bridge, was dedicated on November 11, 1950 by His Honor, Mayor Bernard Samuel, as a Memorial to World War II dead of the 21st and 22nd Wards of this City.

66th street Footbridge over the Philadelphia, Baltimore and Washington Railroad - This bridge was completed and opened to pedestrians on June 1, 1950. It is a three-span steel structure with reinforced concrete abutments and steel columns at intermediate supports. Spans are 21'0"; 60'9" and 33'6"  $\frac{1}{2}$  to  $\frac{1}{2}$  of main beams is 12'0" and the minimum clearance above top of railroad tracks is 21'0". The contractor for this bridge was Perry J. Goldman.

Martin's Mill road Bridge over P.N. and N.Y. Railroad and N.Y. Short Line - This bridge will replace a through steel plate girder bridge which is constricted in width and which has only one narrow footway. The new bridge for which studies are now being made will have two (2) 8'0" footways and a roadway of the same width as Martin's Mill road - 36'. Studies now complete indicate a new type of deck - a precast, prestressed concrete slab deck which will be an innovation for this vicinity. Such a deck will provide unrestricted vision and an improvement in grades on the Cheltenham side of the bridge. However, as economical aspects must also be considered, a separate study is now being made of a steel bridge for a comparison of costs with the prestressed concrete deck. It is expected that contract plans for this bridge will be completed by the spring of 1951.

Wingohocking street Bridge under the Philadelphia, Newtown and New York Railroad - During the year 1950, Mr. Thomas E. Bruder, under contract with the Department as a consultant, designed and prepared contract drawings and specifications for a bridge on line of Wingohocking street under the Philadelphia, Newtown and New York Railroad, and a contract for the erection of this bridge was awarded to Oxford Construction Company of Philadelphia. This is a half-through steel girder railroad bridge with a span of 65'9" with stone faced concrete abutments and carrying one track. The width  $\frac{1}{2}$  to  $\frac{1}{2}$  of main girders is 18'6- $\frac{3}{8}$ " and the minimum overhead clearance is 14'7". This bridge replaces a timber and steel trestle which was in a precarious condition, and the construction of the new bridge, together with the opening of Wingohocking street, will serve to relieve the heavy traffic which now travels Rising Sun avenue. The contract price for this bridge was \$144,307.35, and this price included grading and paving under the bridge and immediately adjacent thereto.

The supervision of the design and preparation of plans was by the Design Division.

Willits road Bridge over Wooden Bridge Run - On June 29, 1950 bids were received for the improvement of Willits road from 380 feet northwest of Convent road to Ashton road, including a bridge on line of Willits road over Wooden Bridge Run. This bridge will have a precast concrete deck with reinforced concrete abutments and wing walls. The clear span is 30 feet, and the clearance above the normal water line of Wooden Bridge Run is 26 feet.

Alternate bids were taken on a steel stringer bridge with a reinforced concrete deck but the bids showed a saving of approximately 15 per cent. in the use of precast concrete deck. These concrete deck sections have been used on many small bridges by the Pennsylvania State Highway Commission, but this is the first installation of this kind in Philadelphia.

This improvement included 40,000 cu. yds. of grading; 5350 sq. yds. of paving; 895 lin. ft. of sewer; and 1200 lin. ft. of water main; and will make more accessible a new housing development known as Academy Gardens.

The total cost of the improvement is estimated to be \$175,000.00, and the contract for this work was awarded to General Asphalt Paving Company of Philadelphia.

Tabor Avenue Bridge under Philadelphia and Frankford Branch-Reading Company - During 1950 the Design Division completed the design and the preparation of contract drawings for the improvement of Tabor Avenue, from Harrison Street and Godfrey Avenue, and the construction of a bridge on line of Tabor Avenue under the Philadelphia and Frankford Branch of Reading Company. A contract for this improvement was awarded to Kaufman Construction Company of Philadelphia on January 25, 1950.

This bridge has a span of 87'0", with main girders 17'6"  $\frac{1}{2}$  to  $\frac{1}{2}$  and has a minimum clearance over Tabor Avenue of 16'0 $\frac{1}{2}$ ". It is a half-through steel plate bridge with stone faced concrete abutments and carries one track. The cost of the bridge (without adjacent improvements), which amounted to approximately \$160,000.00, was paid for 75 per cent. by the City and 25 per cent. by Reading Company.

In the course of this work it was necessary to lower Tabor Avenue by as much as five feet and this obligated the City to construct retaining walls along the frontages of the various properties abutting Tabor Avenue. The roadway paving was also laid from Harrison Street to Godfrey Avenue - a total area of 8700 square yards - and 1320 lin. ft. of new 24-inch diameter pipe sewer was constructed. These and various incidental items made the total contract for the bridge and improvements amount to \$352,586.50, of which approximately \$40,000.00 was paid by the Reading Company.

The opening of Tabor Avenue in this area will give a through thoroughfare from Rising Sun Avenue to Martin's Mill Road and will undoubtedly relieve the more heavily traveled streets in this section of the City.

Preliminary and Engineer's Estimates - Numerous estimates of cost were made during the year for the construction of new sewers and drains, the reconstruction of sewers, and for the comparison of alternate schemes of drainage. A partial list of locations covered by the preliminary estimates is included in the "Details of Work Performed".

The following summary of Engineer's estimates of cost indicates the volume of work performed by the Design Division in the preparation of proposals for advertisement of work for bids.

<u>Type of Work</u>	<u>No. of Contracts</u>	<u>Bid Prices</u>
Sewer Construction	119	\$ 3,505,901.
Storm Relief Sewer	2	3,039,498.
Intercepting Sewers	6	6,697,307.
Intercepting Chambers	4	230,853.
Sewage Treatment Works	15	2,357,525.
Pumping Stations	4	178,707.
Frankford Creek Flood Relief	1	1,372,631.
Airport Construction	35	10,671,481.
Bridges	3	671,282.
Street Lighting	5	396,899.
Miscellaneous	<u>3</u>	<u>39,548.</u>
Total	197	\$29,161,635.

Marquees, Private Bridges, etc. - Plans for structures such as marquees, vaults, private bridges, etc., which are to be located within the building lines of City streets are submitted to the Highway Supervisors for approval and sent to the Design Division for checking for strength in the interests of safety for the public on the City streets.

Public Utilities Structures - Plans submitted by Public Utilities with applications for permit to the Board of Highway Supervisors are referred to the Design Division to be checked for possible interference with existing or proposed drainage structures. If not approved, the general procedure for the Design Division is to contact the Utility representatives and have necessary adjustments made in their plans. 2165 such applications, many of which involved a number of plans, were checked during the year.



CONSTRUCTION DIVISION

During the year 1950 the Construction Division supervised the construction of 315 active contracts, 110 of which were carried over from 1949, and 205 executed during the year. One hundred and sixty-six contracts were completed at a total cost of \$14,097,771.95 and the total cost of construction work performed during the year, including partial payments on contracts which have not been completed and are being carried over into 1951, amounted to \$14,943,019.19

The work consisted of the construction and reconstruction of main and branch sewers, flood relief sewers, the construction of the various projects for sewage disposal and treatment plants, bridges, airports, street lighting, and City-State Highway improvements.

In addition, records relating to sewer rentals and the cost of construction and operation of sewage disposal facilities were kept by this Division.

The organization of the Construction Division in 1950 numbered 126 employees and consisted of the following:

Executive and Accounting	-	7
Engineering	-	12
Inspection	-	72
Surveying	-	24
General	-	<u>11</u>
Total		126

The number and amount of the various types of contracts executed and completed in 1950 was as follows:

	<u>No. and Amt. of Contracts Executed</u>	<u>No. of Contracts Comp'd.</u>	<u>Assessment Bills</u>	<u>Total Cost</u>
NE Sewage Disposal	8- \$ 439,565.	5		\$ 209,521.00
NE Sewage Treatment Works	11- 634,948.	8		1,747,811.00
SE Sewage Disposal	1- 500,000.	0		--
SW Sewage Disposal	6- 7,021,990.	4		1,407,623.00
Sewage Disposal General	1- 32,000.	3		60,175.00
North Phila. Airport	3- 447,700.	1		89,927.00
Phila. Intern'l. Airp.	31- 11,580,064.	18		3,827,073.00
Bridges	4- 845,600.	5		1,058,939.00
City-State Highways	2- 495,000.	0		--
Miscellaneous	8- 497,665.	6		288,464.00
Sewers for new Housing	86- 2,144,950.	74	\$825,868.68	1,271,603.97
Sewers for other Purposes	31- 1,803,100.	27	157,016.06	814,801.76
Flood Relief	5- 5,069,000.	3		2,591,082.15
Reconstruction	6- 600,000.	4		564,557.12
Sewers-Miscellaneous	<u>2- 41,200.</u>	<u>8</u>	<u>16,444.91</u>	<u>166,193.95</u>
GRAND TOTAL	205- \$32,152,782.	166	\$999,329.65	\$11,097,771.95
TOTALS FOR 1949	147- 14,395,918.	159	969,884.90	12,885,103.82

The completed contracts in 1950 for sewer construction represents a total increase in the City's sewer system of 26.53 miles. Six contracts were entered into for the reconstruction of sewers that had either collapsed or were in very bad condition and 0.72 miles were reconstructed.

The increased mileage for the various types of sewers in 1950 is as follows:

<u>Sewers</u>	<u>Miles Completed</u>
For new housing	14.49
For other purposes	5.69
Flood relief	0.71
Sewage Disposal	4.47
Miscellaneous	<u>1.17</u>
Total	26.53

The construction of the following main relief sewers was in progress during 1950:

Main Relief Sewer in 23d street and Girard College from north of Aspen street to North College avenue, and in North College avenue from 22nd street to 24th street. This is a section of the very necessary sewer required to relieve flooding in an extensive area in North Philadelphia. The structure is a 13'0" diameter concrete sewer in rock tunnel, with vacuum processed invert. The work was started in 1949 and completed this year. Amount of Contract - \$1,137,474.00.

Main Relief Sewer in 29th street from Pennsylvania avenue to Columbia avenue. This sewer was required to relieve extensive flooding in the vicinity of 29th street and Columbia avenue. It consisted of a 6'0" diameter vacuum processed concrete pipe sewer, encased in concrete, in rock tunnel. The work was started in 1948 and completed this year. Amount of Contract - \$550,584.00.

Main Relief Sewer in Wingohocking street from 3d street to east of 9th street. This is the second section of the project to relieve the overtaxed Wingohocking sewer in Courtland street east of Broad street. The project when completed will eliminate the extensive flooding in the area eastward from Broad street and centering at the depression at 12th and Courtland streets. The structure consists of a 12'0" x 21'0" concrete sewer, in rock tunnel, with vacuum processed invert. The work was started in 1949 and is 80 per cent. completed. Amount of Contract - \$1,150,000.00

Main Relief Sewer in Wingohocking street from east of 9th street to Old York road and in Belfield avenue from Old York road to Broad street. This contract was entered into late in 1950 and is the final section of the above project. The structure consists of a 16'0" x 14'0" concrete sewer, in rock tunnel, with vacuum processed invert. The work was started in 1950 and is 5 per cent. complete. Amount of contract - \$1,350,000.00.

PROJECTS CONTROL DIVISION

The year 1950 was the busiest year for this Division since its founding, to begin with a siege of illness struck two of its employees with the result each was sidelined for over a month. In the spring of 1950 Civilian Defense again plagued the country and with the Bureau Chief being assigned to the position of Chairman of Utilities, Transportation and Industry Division, this division was called upon to assist him in many of the numerous details a job of that magnitude entails, such as organization charts etc.

The following is a list of many of the functions which this Division performed during the year 1950:

Prepared thirteen (13) Ordinances amending the sewer ordinance of April 5, 1948 to serve new residential developments at two hundred five (205) locations.

Fourteen (14) Ordinances were prepared amending the Ordinance of June 20, 1946 to relieve bad sanitary conditions at thirty three (33) locations; and seven (7) Ordinances were prepared for the construction of new sewers in place of old at twelve (12) locations.

Five (5) general improvement Ordinances (including grading, paving, drainage water, etc.) were prepared for six (6) locations.

Ordinances were prepared for joint, City, State Highway work at the following locations:

Schuylkill Expressway from City Avenue to University Avenue; Vine Street from Fifteenth Street to Schuylkill Expressway; Roosevelt Boulevard and Roosevelt Boulevard extension from Ninth Street to Schuylkill Expressway.

Levick Street from Keystone Street to State Road.

Roosevelt Boulevard from Ninth Street to Oxford Circle.

An Ordinance was prepared adopting and approving the execution of a grant agreement between the City and U.S.A. C.A.A.

An Ordinance was prepared adopting and approving the execution of an amendment to Grant Agreement between the City and U.S.A. C.A.A.

Eighty-five (85) reports on Ordinances were made to the Public Works Committee of City Council covering One Hundred Seventy Five (175) locations.

Fifty-one (51) reports on Mayor's Ordinances covering two hundred seventy one (271) locations.



During the year 1950 schedules for the advertising for bids were received on sixty (60) dates covering a variety of construction as follows:

Sewers for new housing	-	89 Contracts	170 Locations
Sewers to eliminate bad sanitary conditions	-	36 "	18 "
Sewer Reconstruction	-	5 "	9 "
Street Lighting	-	5 "	12 "
Airport	-	34 "	2 "
Bridges	-	3 "	3 "
General Improvement	-	1 "	1 "
Sewage Disposal	-	26 "	-
Storm Relief Sewers	-	3 "	6 "
Miscellaneous	-	3 "	3 "

Fifty-eight (58) affidavits were filed by builders for sewers to serve new residential areas covering one hundred sixteen (116) locations.

The following Agreements were executed in 1950:

The following agreements were executed in 1950, between the City and the Commonwealth of Pennsylvania.

Schuylkill Expressway from City Line to University Avenue; Vine Street from Fifteenth Street to Schuylkill Expressway; Roosevelt Boulevard and Roosevelt Boulevard extension from Ninth Street to Schuylkill Expressway.

Lavick Street from Keystone Street to State Road.

Roosevelt Boulevard from Ninth Street to Oxford Circle.

The following supplemental agreements were executed in 1950 between the City and the Commonwealth of Pennsylvania:

Construction of Vine Street from the East curb line of N. 12th Street to West curb line of North 11th Street.

Construction of Vine Street from Thirty (30') feet West of 19th Street to Thirteen (13) feet East of 12th Street.

An agreement was executed between the City and the Township of Lower Merion covering the receipt, conveyance and treatment of sewage from

sewers in the Township of Lower Merion along City Avenue.

The following were some of the Divisions' special assignments:

Revised the map of the Philadelphia International Airport showing locations, number of contracts under construction, and the number of completed contracts and their costs.

Prepared for display purposes charts showing improvements under construction with associated pictures for the State Sanitary Water Board and the Academy of Natural Sciences.

Prepared for the Pennsylvania Departments of Forest and Waters the necessary applications, forms, data, etc. for the following improvements:

Wooden Bridge Run Interceptor Sewer - Frankford Creek

Improvement (Part A, B & C ) Contract M-107, M-108, M-109).

Caster Avenue to Torresdale Avenue - Frankford Creek

Improvement (Part B Contract M-110), Torresdale Ave. to Pennsylvania Railroad Bridge.

Battleton Avenue Bridge over Pennypack Creek.

Willets Road Bridge over Wooden Bridge Run.

Prepared the necessary data for filing applications with the Pennsylvania Public Utility Commission as follows:

Pennypack Creek Intercepting Sewer under the line of the Reading Company.

Preparation of the necessary application forms for Airport financial assistance from the Commonwealth of Pennsylvania and the Federal Government.

Preparation of data for the City Planning's Commission Six Year Program (1951-1956)

Assisted in gathering the necessary information for the City's Capital Budget for 1951.

Preparation of the Bureau's portion of the Director of Public Works 1950 Improvement Program.

Preparation of Director's Monthly Statistical Report on Bureau of Engineering, Surveys and Zoning construction contracts.

Effective May 1, 1950 the Sewer Permit Division was divorced from the construction division and assigned to the Project Control Division for

administration. The work of this Division was exceptionally heavy during the year 1950 because of the tremendous private building program, and additionally extensive because of illness and change of personnel.

A complete report of the Sewer Permit Division appears elsewhere in this Annual Report.

CITY-STATE HIGHWAY PROGRAM

Vine street Approach to Delaware River Bridge (Routes 67015, 67052, 67004) - Work is continuing on construction of the overall project for improvement of Vine street. On January 13, 1950, the City and the Commonwealth entered into a supplemental agreement for construction of the section of Vine street between Twelfth street and Nineteenth street. Union Paving Company of Philadelphia was awarded a contract for the work after submitting a bid of \$719,883.01, of which the City is responsible for work amounting to \$327,796.06.

During 1950 the bridge between Eleventh street and Twelfth street, carrying tracks of Reading Company over Vine street, was completed and opened to train traffic. Paving of the section of highway between Eleventh street and Twelfth street had to await completion of the bridge. On August 28, 1950, the City and the Commonwealth entered into a supplemental agreement for this section. Bids were received on August 18, 1950, and Union Paving Company of Philadelphia submitted the low bid of \$172,998.32 of which the City is responsible for work amounting to \$95,857.77.

Levick street from Keystone street to State Road (Route 67022) - On February 23, 1950 City Council approved an ordinance authorizing the execution of an agreement between the City and the Commonwealth for improvement of Levick street from Keystone street to State road, including the widening of Levick street and construction of a bridge across Levick street under the tracks of the Pennsylvania Railroad. The agreement was executed on March 10, 1950.

Under this agreement the City is required to prepare plans and specifications for the improvement. The City entered into contract with Modjeski and Masters on August 1, 1950, for preparation of plans for the improvement. The contract is in the amount of \$45,000., and work is in progress on plan preparation.

Roosevelt boulevard from Oxford Circle to Ninth street (Route 67009) - On October 11, 1950, City Council approved an ordinance authorizing the execution of an agreement between the City and the Commonwealth for improving Roosevelt boulevard and widening five bridges between Oxford Circle and Ninth street. The agreement was executed on November 13, 1950. The City is obligated by this agreement to prepare plans and specifications for the improvement. A contract was prepared between Modjeski and Masters and the City for plan preparation. The contract will be valued at \$170,000. but had not yet been executed at the end of 1950.

Roosevelt boulevard from Bucks County Line to Grant avenue - east roadway only - and both Roadways from Goodnow street to Welsh road (Route 67009) - City Council approved an ordinance on November 30, 1949, authorizing execution of an agreement between the City and the Commonwealth for improving this section of Roosevelt boulevard. On June 1, 1950, James B. Morrissey, Inc. of Philadelphia was notified to proceed with work on a contract for repaving the east roadway of Roosevelt boulevard



from Bucks County Line to Grant avenue and both roadways from Goodnow street to Welsh road. Work was started in 1950 and carried over into 1951. The cost is borne solely by the Commonwealth, with the exception of tree trimming along the route of the improvement.

Pennsylvania boulevard (Route 67005-P) - Various agreements between the City and the Pennsylvania Railroad, and the City and the Commonwealth have fixed responsibility upon the parties to the agreements to undertake various elements of the work. By authority of an ordinance approved August 14, 1946, the City entered into contract with Clarke, Rapuano and Holleran on May 31, 1949 for preparation of contract drawings and specifications for all structures to be built in the section of Pennsylvania boulevard between Thirtieth street and Thirty-second street. These plans were completed to the point where they were submitted to the State Highway Department for approval at the end of 1950.

Aradingo avenue from Ontario street to Orthodox street (Route 67047) - By ordinance approved February 17, 1948, Council authorized the City to enter into agreement with the Commonwealth for the improvement of this highway. Under terms of the agreement signed March 17, 1948, the City is obligated to prepare contract plans. On January 6, 1949, the City entered into contract with Knappen, Tibbett and Abbet for preparation of contract drawings. The limit of this contract is \$38,000. and by the end of 1950 the drawings were completed, to the extent that they were submitted to the State Highway Department for checking.

Two sewer contracts also were completed during 1950. Under one contract a sewer was constructed in Aradingo avenue from Venango street to Butler street, and from Butler street to a point 230 feet northeast of Wheatshaf lane. The cost was \$44,360.29. The other sewer contract extended in Aradingo avenue from Ontario street to Tloga street. This contract amounted to \$14,259.79.

Schuylkill Expressway and Extensions - Council, by ordinance approved December 7, 1950, authorized the City to enter into an agreement with the Commonwealth for construction of the Schuylkill Expressway from City Line to University avenue; the extension of Vine street from Fifteenth street to Schuylkill Expressway; Roosevelt boulevard and Roosevelt boulevard extension from Ninth street to Schuylkill Expressway. This agreement was executed on December 14, 1950.

Preliminary plans were prepared by Clarke, Rapuano and Holleran for the City Planning Commission.

As conditions of the agreement, the Commonwealth is required to prepare all contract drawings and to acquire all rights-of-way for making the improvement. At the end of 1950 the Commonwealth was negotiating with engineering firms for preparation of contract drawings covering the entire extent of the work.

Harbison avenue from Torresdale avenue to Roosevelt boulevard  
(Route 67017) - The City and the Commonwealth entered into an agreement on March 17, 1948 for the improvement of Harbison avenue from Torresdale avenue to Roosevelt boulevard. The ordinance of Council authorizing execution of this agreement was approved February 17, 1948.

Under this agreement the City is responsible for preparation of plans. Contract drawings are being prepared by Bureau forces and numerous conferences have been held between the City and the Commonwealth relative to these plans. The City is responsible also for construction of sanitary sewers and for demolition of properties in the right-of-way.

The demolition was completed in 1950 at a cost to the City of \$7,918. A contract valued at \$58,000. is under way for construction of sewers in Harbison avenue from Sanger street to Vaukirck street; Harbison avenue from Bamer street to Frankford avenue; Harbison avenue from Frankford avenue to Levick street; and Harbison avenue from Levick street to Kellerman street.

Penrose avenue Bridge and Approaches (Route 67023) - Work is continuing on construction of the superstructure of Penrose avenue Bridge and approaches between Twenty-sixth street and Island avenue. The City is responsible for installation of power cable and duct system for the bridge lighting system. A \$43,000. contract for this work was awarded to Howard P. Foley and work was still in progress at the end of 1950.

BUREAU OF ENGINEERING, SURVEYS, AND ZONING

ANNUAL REPORT

1950

SEWER PERMIT DIVISION

The Sewer Permit Division issued 1279 permits in 1950, a decrease of 109 from 1949. These permits resulted in 7180 connections to sewers, an increase of 1266 over 1949 reflecting the increase in the number of new dwellings constructed in 1950.

The total receipts for the year were \$126,599.93, which is an increase of \$21,848.34 over 1949. Of this total \$87,885.00 was collected from lateral fees, an increase of \$14,220.00 and \$38,714.93 from service charge bills, an increase of \$7,628.34

## INDUSTRIAL WASTES DIVISION

During the year 1950 the Industrial Wastes Division has cooperated with many industries to help solve their industrial wastes disposal problems. Often these problems seemed unsolvable to the industries in question but after consultation, in every case, an agreement has resulted which assured the industries of a continued source of wastes disposal and the sewage disposal plants a minimum load to be accepted from industry.

The Clean Streams Act of the Commonwealth of Pennsylvania and the action of the State Sanitary Water Board in citing industry for disposal of industrial wastes into the water courses has contributed numerous problems to both industry and the City.

It has been the policy of the Industrial Wastes Division to assist industry in the solution of their problems, accept their approved industrial wastes and to attempt to keep industry continuously operating in Philadelphia.

The Industrial Wastes Division has made most of its preliminary arrangements by conferences either at the office of industry or at that of the Industrial Wastes Division and by telephone. Letters have been sent to those who have committed violations only after telephone conferences have been held and to maintain a position, with the full understanding of industry that the letter only expressed the ultimate and that penalties would only be invoked against flagrant and continuous violators.

Numerous consultations have been held with industries both large and small to assist them in solving their industrial water-borne waste disposal problems. The primary consideration in most of these conferences has been to reduce the volume and the pollution load.

Negotiations consummated with the Container Corporation in 1949 have resulted in virtual completion of installation of their waste purification equipment and the amount of industrial waste discharged by them has been decreased approximately two-thirds. The strength of their wastes is now approaching that of normal Philadelphia sewage.

The International Shoe Company tannery has completed studies toward reducing the volume of their industrial wastes and materially reducing the pollution load from their operation. Their wastes will be decidedly less concentrated than prior to negotiations with this division and because of water saving will have a much smaller volume. Installation of this equipment is now in progress.

The Publicker Distilling Company's plants continue to be large sources of pollution to the rivers, and they should approach their problem with an intelligent effort to separate their contaminated waste from their cooling waters. Acceptance of all of their wastes diluted with their cooling water could greatly exceed the capacity of the Southeast Sewage Disposal Works. Steps should be made to have a complete separation of their cooling water before acceptance of their industrial wastes into our sewers.

The Charles Lennig Plant of the Rohm and Haas Company, a very large chemical industry, has completed their piping system for the separation of



contaminated and uncontaminated wastes. They will have to neutralize their contaminated waste to pH of 5.0 before turning their wastes into our sewers.

The Barrett Chemical Plants have been making studies on separation of their wastes and should shortly be prepared with a plan to accomplish this result.

The Industrial Wastes Division has a contract with the U. S. Navy to receive their acceptable industrial wastes from League Island Navy Yard. Representatives have discussed their problems with us, and numerous suggestions for primary treatment at the source were made. Their wastes will probably come to us in a form that will require no special treatment at the Southeast Sewage Disposal Works.

During the year of 1950, the Industrial Wastes Division completed a great number of projects other than those involving industrial wastes. These extraneous projects fell into two distinct classes, namely drainage and flood control.

One of these extraneous projects was the obtaining of grants and easements to permit construction of facilities for the Frankford Creek flood control program and the maintenance upon completion, for that part of the project between Castor avenue and the Pennsylvania Railroad Project. Numerous difficulties were encountered and quite frequently compromises were effected. By December 31, 1950 all but one of these agreements had been obtained, and it is hoped that this property owner will give his consent in the near future. This Division cooperated with the industries now or formerly discharging wastes into the Frankford Creek and should have all of these discharging approved industrial wastes into the sewers adjacent thereto.

This Division is now engaged in a sanitary survey of the Delaware River from Bristol to Marcus Hook, in conjunction with the U. S. Geological Survey. Field trips are made monthly to obtain samples to determine the state of the river at eight (8) cross-sections. The purpose of this survey is to ascertain the quality of the river water and degree of pollution prior to and subsequent to treatment of the City sewage.

A similar survey is being carried on by Inceel above Trenton.

This Division is now engaged in an industrial survey to discover special or excessive wastes from industries which will be discharged into the interceptors going into our Northeast Sewage Treatment Works. This survey should disclose, in a number of instances, industries which are not paying sewage rents for disposal of well or stream water utilized by them in their processes and then discharged into our sewers.

Numerous local drainage problems were discussed with industries, such as the Reading Railroad Company, Philadelphia Electric Company, etc.

At various times, flows of abnormal industrial wastes were noted at the Northeast Sewage Disposal Works and the source of these, as well as any special treatment which might be required, were discussed with the operating personnel.

Numerous cases of breaks in separate system sewers have been traced and these breaks were repaired.

Oil slicks appeared periodically, emanating from the Leverington avenue sewer on the Manayunk Canal. This oil was a source of complaint from all on the Manayunk Canal, especially the Glassine Company who used the Canal water for both power and processing. The source of this oil was traced to the Allied Cleaners Company, 486 Leverington avenue. Repairs were made by the owner to the fuel oil system, thus eliminating this illegal discharge into the storm sewer.

All Operation Reports of the Northeast Sewage Disposal Works, and the Frankford Grit Chamber are reviewed by this Division and then submitted monthly to the State Sanitary Water Board. The records of operation of the sewage disposal plants at E. W. Badd and Company and Yale and Towne are submitted to this Division for review in compliance with the requirements of their permits from the State Sanitary Water Board. All applications from the Department of Public Works to the State Sanitary Water Board for sewers and sewage treatment are prepared and submitted by this Division. Conferences are held at frequent intervals with the District Engineer in conjunction with these application permits.

The Industrial Wastes Division has cooperated with the Law Department in the preparation of cases involving the City in claims for damage arising out of sewers and other drainage problems.

A number of industries which are beyond the present sewer lines were cited by the State Sanitary Water Board for discharging their wastes into the Schuylkill. These industries, which include among others the American Oil Company, the Grays Ferry Plant of the Barrett Chemical Company, Baltimore and Ohio Railroad, Consolidated Dressed Beef Company, DuPont de Nemours, Oscar Mayer and Company, Patterson Fuel Oil Company, Richfield Oil Company, Standard Oil Company, Socony Oil Company, Texas Oil Company, U. S. Gypsum Company, West Philadelphia Stock Yard, have been given assurance of our intention to take their discharges of acceptable industrial wastes into our sewers when same are available.

The Delta Finishing Company proposed to discharge thirty (30) tons per day of Caustic Soda to our Ashland street sewer without treatment. This would effectively destroy the bacteria necessary for the digestion of sewage at the Northeast Sewage Disposal Works and, doubtlessly, destroy the function of this plant. Acceptance of this industrial waste was denied them. At a conference they decided to go ahead with plans for a project to recover approximately 95 per cent. of this valuable commodity at a low cost rather than neutralize their entire waste. This recovery will show a substantial profit above the cost of recovery. The small portion of their waste which will be too dilute for recovery will have to be neutralized.

A number of electro platers discharging cyanides and other deleterious wastes have been instructed in methods of destroying these properties of certain of their wastes and to recover values from others.

Esslinger's Brewery were grinding up and discharging their waste hops to the sewers. A survey of all the breweries in Philadelphia was made to determine if any others were proceeding in a similar manner.

It was determined that all the other breweries were trucking this waste to dumps, where upon Esslinger's were ordered to cease discharging their waste hops to the sewer.

A number of dairies were instructed how to reduce their pollution load by recovering for animal feed the can drainings before rinsing the can contents into the sewers.

The Philadelphia Inquirer was discharging solvents and heavy solids to the sewer. They are now having plans made for adequate interceptors to prevent these wastes from entering the sewers.

This Division had numerous informal conferences with both the U. S. Naval authorities at League Island Navy Yard and the U. S. Army authorities at the Quartermaster's Depot at 20th and Johnson streets regarding their wastes and methods of preliminary treatment before discharge to our sewers.

The Philadelphia Electric Company is constructing a coal pier at Falmer street and a water de-ionizing unit at 26th and Grays Ferry avenue. This Division has consulted with their engineers on these projects. The project at Falmer street is below the effluent outlet of the Northeast Sewage Disposal Works. That at 26th and Grays Ferry along the Schuylkill River was considered in its effect on the quality of its industrial wastes and their effect on sewage disposal.

Easements and rights-of-way for a sewer and the abandonment to the City of Riparian Rights in Dobson's Run have been obtained from all but one property owner. This owner is expected to sign the agreement shortly.

In addition to the above, the Industrial Wastes Division maintained a liaison with the Plumbing Inspection Division. The function of this liaison is to investigate the character and the amount of discharge from industrial establishments to the drainage system of the City; to locate violations of drainage regulations and correct undesirable conditions, collect samples for laboratory analysis, locate and direct the correction of storm-water connections to sanitary drains and sanitary connections to stormwater drains, supervise the installation of equipment to neutralize industrial wastes detrimental to the drainage system and sewage treatment processes and perform related work in connection with the Plumbing Division of the Board of Health, such as industrial wastes problems that are brought into the Plumbing Division by contractors and plumbers.

This Division has cooperated with the Fire Marshal in a number of waste problems, involving combustible or explosive wastes which enter our sewers, and with the Air Pollution Control Division of the Department of Public Health on problems bordering on both fields.

Numerous requests for special information were received from sources outside the City of Philadelphia. The Industrial Wastes Division endeavored to reflect the policy of the Department in replies to these municipalities, agencies and industries.

Studies are in progress to make a compensating charge for acceptance of industrial wastes whose concentration is greater than normal Philadelphia sewage and also on the advisability of permitting garbage grinders to be installed in areas whose drainage is disposed of through a sewage disposal plant.

Philadelphia is a great industrial City, and it is the policy of the Industrial Wastes Division to offer every aid possible to retain industry within the City.



## NORTHEAST SEWAGE TREATMENT WORKS

The year 1950 was somewhat unusual at the Northeast Sewage Treatment Works. To begin with, the plant had two superintendents. Mr. Morris in January and February and Mr. Ralph A. Hoot from March 1st on.

Secondly, the year was dominated to a considerable extent by the sewer construction work on Wheatshaf lane immediately adjoining the administration building. This created working conditions which were at times disconcerting. They might aptly be described by stating that for half the year the main office was "That structure behind the pile of dirt in which, about every time one attempted to do anything, one found a bulldozer, crane or air hammer swinging into action immediately outside the window".

None the less, operations at Northeast struggled along. Some 24 billion gallons of sewage were treated and approximately 13 billion pounds of B.O.D. (biological oxygen demand) loading was prevented from reaching the river. This, of course, was only a small portion of the total B.O.D. loading to the rivers from Philadelphia but at least it represents results in the right direction.

Plant Routine - Plant routine during 1950 was about as it has been during recent years. Grit removed at Frankford was manually and hydraulically transferred to the storage bins and from there, along with the screenings trucked to Northeast for disposal. Grit and screenings removed at Northeast were blown daily by compressed air to the lagoons.

Raw sewage samples were collected at both Frankford and Plant Grit at two hour intervals, made into a weekly composite and tested for pH, suspended solids, percent volatile, alkalinity, chloride, organic nitrogen, ammonia nitrogen, total nitrogen, oxygen consumed and fats. Of these tests pH, suspended solids and percent volatile were determined weekly while the others were made at four week intervals, staggered, with alkalinity and chloride one week, and nitrogens another, oxygen consumed the third and fats the fourth.

Imhoff samples, both influent and effluent, were collected at four hour intervals 7-11 Mondays through Saturday and 7-3 Sundays and holidays. No samples (of the tanks) were collected 11 p.m. to 7 a.m.

These samples were tested immediately for settleable solids and averaged for a daily result. The residue was then transferred to the laboratory for suspended solids and percent volatile determination.

B.O.D. determinations were also made of Imhoff samples but only once a week, on Wednesdays, at the time supposedly of maximum sewage flow.

Sludge samples were also collected as sludge was withdrawn and tested for specific gravity, percent solids and percent volatile.

Bacteriological tests were also made of the "A" Battery influent and effluent, but these are not summarized in this report.

River Samples - River samples were collected monthly as per the routine established August 1949, eight river crossings, five samples per crossing. These were tested for temperature, immediate dissolved oxygen and five-day biological oxygen demand with percent. saturation calculated.

The results indicate that the pollution load on the Delaware River is primarily a warm weather function. This is shown by the following winter vs summer dissolved oxygen results.

Winter Conditions	Summer Conditions
36 deg. Water Temp.	79 deg. Water Temp.
<u>March 1950</u>	<u>August 1950</u>

River Sampling Station

Bristol	110		51
Torresdale	112		47
Lehigh	93	pounds	7
Delaware River Bridge	76	034	4
Wharton	69	Mil. Gal.	2
Navy Yard	66		2
Eddystone	74		7
Marcus Hook	76		8

Since 30-40 pounds oxygen per million gallons is the generally accepted figure for the sustenance of fish life, it can be seen that at the time of the August 1950 survey the Delaware was a "dead" river, sanitarily speaking.

Milnor street Pumping Station - The Milnor street pumping station, placed in operation November 28, 1949, operated quite satisfactorily during 1950.

In August the electrical switch to the communitor burned out and was later replaced by the contractor (Pangborne) as part of his year's guarantee.

Academy Gardens - Operations at Academy Gardens, turned over the city November 4, 1949, were a matter of concern all year.

The shafts on both pumps were found broken on February 15th. These were subsequently replaced by Walter Egan Company as part of the year's guarantee.

Following restoration of service, the station gave periodic concern due to clogging of the float tubes which trouble was eventually solved by changing the method of flushing.

In August both pumps developed warm spots and were removed separately for overhaul.

On August 21st, and for reasons never determined but fortunately at a time when one pump was in the shop for its overhaul, the station flooded and the second motor was submerged. It, along with the sump pump motor, had to be sent out for rewinding at a combined cost of \$127.50.

During the great storm of Saturday, November 25th, the power to the station was found off at 9.00 a.m. and remained off until 4.00 p.m. Sunday. Once again emergency siphoning had to be resorted to at considerable overtime expense.

At the year's end, some semblance of normalcy seemed to be established. However, it should be noted that, as a result of the flood experience of August, only one pump and motor are kept in place, with the second held in reserve in the shop for contingencies.

Metering Stations - No special trouble was experienced during the year with the Cheltenham, Erdenheim, Mermaid Lane and Willow Grove metering stations. The only work of mention done at those stations was a complete small-pipe overhaul and mercury replacement at Cheltenham.

At Willow Grove, Winston road, Woodbrook and Bouvier nothing was done. These stations, according to Godfrey, were provided with explosion proof meters in 1947, including heaters to prevent moisture and dampness, with the understanding that current would be brought to the stations by the Electrical Bureau. However, up to the end of 1950, no progress in this work had been made. In the meantime, Godfrey reports considerable flow in each sewer.

Interceptor Stations - The interceptor stations, and their servicing, functioned in 1950 about as they have in recent years. This means, perhaps, not too satisfactorily. As a matter of fact, it probably would be a correct statement to say that of the entire Northeast chain the interceptors are the weakest link.

On March 1st, the interceptor patrol was making 32 stops of a possible 52 on the Northeast drainage area. These included the five slots on Penny-pack, F1 to F5; the eleven hydraulically operated gates on the Upper Delaware Low Level Collector, D2 to D15; and the slots and hand operated gates on the Tacony Creek Collector.

Of these, the ones of major importance so far as sewage flow is concerned, are the hydraulically operated chambers on the Delaware Low Level. Not one of these was in perfect operation on March 1st. In fact, four of them - Disston, Levick, Sanger and Lardner - were completely out of commission with their sewage flow going direct to the river, and all the other seven either needed mechanical overhaul or extensive outfall cleanings, or both.

Cottman and Magee - It was obvious that the repairs to the hydraulic operated chambers was way beyond what the interceptor patrol could do. The mechanical work was, therefore, turned over to the mechanical crew to do as much as time and other work permitted.

The Cottman street Regulator was taken first and given a complete overhaul, as described in item No. 4 in the appendix. This work, started in May, was not completed until October, with the obtainance of the leathers for the large cylinders being the major cause of delay.

Following Cottman street the Magee street Regulator was overhauled. This station was taken second, due to the trouble Sears-Roebuck had with



basement flooding which they thought might be attributed to improper operation of this regulator.

Following those, both of which were completed before the year's end with the exception of the small brass cylinder for Magee which is ordered but not yet received (station though in operation) three other stations were dismantled and the parts removed to the shop. They are Orthodox, Levick and Bridge streets. These stations are scheduled for restoration for service late in the spring or earlier if parts can be obtained.

Item No. 5 in the appendix gives the details of the work done at Magee street.

Frankford Low Level Collector - Virtually no work whatsoever was done on the interceptors on the Frankford Low Level collectors F1 to F24, the water wheel type.

Westmoreland Street Interceptor Station - Westmoreland was the only new interceptor station turned over to Northeast Works for operation in 1950. This station is not in service as yet and will not be until the new work is started and sewage transported through the Somerset Collector.

Of the other stations on the Somerset Low Level, Castor, Venango, Tioga, Ontario, Allegheny, Indiana, Cambria and Somerset, none have been assigned to Northeast Works. The Northeast shop has had considerable to do developing the control gates of Cambria and Indiana and making manhole locks for some of these units.

Frankford Grit Chamber - This chamber had more or less a routine year in 1950 until November, when overflow from the chamber, and even minor drainage from grit removal work interfered with the contractor's work on the Frankford Creek Project.

The result was that during the closing weeks of the year, the level at Frankford Grit Chamber was maintained somewhat lower than usual and this lowering resulted in about a foot and a half velocity, in the channels.

In December, and as a result of continued complaints by the contractor that even in spite of the lower operating level overflow still occurred, a vapor proof flood light was installed in the outfall sewer so the operators could more readily observe any dry-weather flow.

The Frankford Grit building is badly in need of repairs, both inside as well as outside, electrical as well as mechanical. This work is beyond the capacity of the present plant crew. At the same time, the cleaning of the building which is a MUST item of the first magnitude will be started shortly.

Mechanical work at Frankford Grit in 1950 consisted of replacement of water and sanitary piping and fabricating the stop gates. Over 85 per cent. of the small piping was replaced and five stop gates were made, four small and one large.

While this is interesting, the high point of the year so far as this station is concerned, was the letting of the contract for equipment for the mechanical handling of grit.



Northeast Grit Chamber - Nothing unusual occurred in the Northeast Grit Chamber in 1950. Work was pretty much routine. At the same time, a number of repair jobs were completed.

New wiring was installed to the electric outlets for the portable pump. Channel No. 7, dismantled in 1934 so far as mechanical removal of grit was concerned, was re-established mechanically. Considerable sheet metal repair work was done on the housings of the grit elevators; the bucket conveyor to channel No. 3 was replaced and a new chain, bottom sprocket wheels and shaft installed in channel No. 4. Also in the fall, a program of motor, floor and wall painting was completed which improved appearances considerably.

Pumping Station:- Two very important items were completed in the Pumping Station during the year. Lift pump and motor No. 3 were given a complete overhaul and the check valves on the force main were replaced.

The force main check valves were replaced in October by Perry Goldman Company, contract NE 150, for \$8,132.

Pump No. 3, contract NE 151, was overhauled by the Keystones Engineering Company at a cost of \$5,180. Motor No. 3, contract NE 152, was overhauled by the General Electric Company at a cost of \$1300.

Both items, according to the electric pump operator in charge, have improved plant operation considerably. The work done on lift pump and motor No. 3 is listed in items No. 18 and No. 19 in the Appendix. (2)

Heating Plant - The Heating Plant was given its usual cursory overhaul. This included replacing grate bars where needed, descaling drums and tubes, installing new gaskets, packing, etc. It also included repairs to the inside of the furnaces using thermoweld and plybrico patching material. Although far from perfect, the heating plant is carrying on.

Mechanical Crew - Work by the mechanical crew from March 1st on was, to a large extent, a continuation of the same type work performed before.

In addition to the regular work, the mechanical crew did a number of special jobs which are fully itemized in the Appendix. These were:

- 1 - The overhaul of the Cottman street Regulator.
- 2 - Overhaul of the Magee street Regulator.
- 3 - Disassembly of the Orthodox, Levick and Bridge street Regulators.
- 4 - Repairs and re-assembly of Pennsylvania Compressor No. 4. This unit had stood uncompleted about two years.
- 5 - Overhauled both Academy Gardens pumps.
- 6 - Installed mechanical screw conveyor in Grit Chamber No. 7. This channel had been "non-mechanical" since 1934.
- 7 - Repaired grit conveyor housings.
- 8 - Installed a new stream regulator on heating system.
- 9 - Dismantled, repaired and serviced the Milnor street Communitor.
- 10 - Fabricated new stop gates for Frankford Grit Chamber.

- 11 - Fabricated and "A" frame for Academy Gardens.
- 12 - Machined four sets of manhole locks for aluminum covers.

Electrical Work - Electrical work in 1950 was mostly the usual mine run sewage plant maintenance of cleaning contacts, brushes and slip rings on motors in the Compressor Room, Pumping Station, Low Level Grit and High Level Grit Chambers, servicing of the electric lighting in buildings and chambers, servicing and repairing electrical work in meter stations, reading of meters monthly, cleaning switches and contacts on switch panels in both Pumping Station and main switch panel in Transformer Building.

However, a number of special jobs were completed. In addition to the portable pump outlets in the Grit Chamber previously mentioned, the electricians overhauled all the switches at Academy Gardens; installed new switches for the fluorescent lights in the projects building, installed the new time clock in the locker building and installed temporary, and later permanent, flood lights for the garage.

1950 was not a routine year for the electricians. Contract work was going on in the Transformer Building throughout the entire period. This meant electrical stock storage elsewhere and a great many man hours devoted to cooperation with the workmen putting in the new equipment.

Improvements scheduled for the electricians are:

- (a) Remove meter maintenance from the Transformer Building and give that office back to the electricians;
- (b) Provide the electrician with a desk, adequate filing, necessary prints, instructions sheets etc.

Building Maintenance - Nothing of importance was done structurally to the main plant buildings. The only item of exterior repair was a new roof for the Projects Building.

Considerable building maintenance was done in the form of painting and glass window replacement. The outside window trim was painted on the pumping station, locker building, transformer building, and half of the heating plant, including shop and compressor room. In addition, the rolling doors of the garage were painted. All told, this work gave an appreciable "new look" to the plant. Plans are to finish the outside trim this coming summer.

In addition to the outside work, the locker building, which badly needed it, has been completely repainted inside. Even the broken tile wall was plastered and painted. This work was uncompleted at the year's end. As soon as the locker building is completed, men will be transferred to Frankford Grit to go over that interior.

Plant Personnel - Plant personnel, in spite of the tremendous employee turnover experienced by some city departments in the closing months, remained relatively stable. W. Miller, pumping station, went on pension; J. Watson, plant grit, resigned to go with the Water Bureau; M. Vergillo,

Frankford Grit Chamber, died; J. DiFolio, laborer, resigned; and E. Clayton and L. Henderson were suspended. In addition, two new employees, J. Vergillo and V. Russo, worked only a short time and quit.

Eight new employees came with the Department who were still with it December 31st. They are Ralph A. Hoot, Superintendent; Guarino, junior engineering chemist; Bell, plant grit; Morrow, a janitor; and Eyer, Pettis, Gallizia and W. Russo, laborers. These latter three came as a result of the policy to obtain younger, huskier men in the laboring crew. They have been of considerable help.

In spite of this rather favorable report, all is not too well with the personnel. One man, Mosby, is in the hospital ill and probably never will return. Another, Vanderslice, was ailing at year's end and actually went to the hospital early in January '51'. Maleno, an old standby of the interceptor patrol was done with a heart attack, and Mazzie, another, has the word of his doctor that his eyes are too bad for interceptor work. Also Birney, although reporting, is very poorly and is a hinderance as much as a help. J. Fry, formerly of the laboring crew, had a heart attack and is now assigned to janitor duties in the administration building.

Safety - Very little was done on safety at Northeast Works in 1950. This may seem like a strange admission since safety is such a vital factor in sewage plant operation.

However, certain things were accomplished. In the first place, a rather elaborate list of safety equipment, including a portable explosive mixture indicator, an oxygen deficiency indicator, an oxygen breathing apparatus, a hydrogen sulfide detector and a carbon monoxide indicator were purchased.

In addition, safety shoes were placed on all plant ladders, a scaffolding purchased for "high work", a safety harness, danger flags and stands provided for the interceptor patrol.

Deficient fire extinguishers were replaced and a program of plant cleanup started in December.

However, the main meat of a safety program, safety meetings, bulletins, drills, cautions and precautions are things of the future. They will follow as the new personnel arrives, especially the operating chemists and the typist.

Administration and Laboratory - Office and laboratory improvements were held in abeyance pending the rehabilitation of the Administration Building. Discussions were held with the representatives of Jack Steele and Company, architects, relative to remodeling plans. Also, a representative of the Hamilton Manufacturing Company, suppliers of laboratory cabinets, was called in to prepare plans for this revamping of the east laboratory.

Actual purchases for the office included a new typewriter, time clock for the locker building which has cut office routine materially, and two large filing cabinets. Other pieces will be ordered shortly without waiting longer for administration building repairs.



## AUTOMOTIVE DIVISION

The Automotive Division for the year 1950 functioned as a separate unit in the Bureau of Engineering, Surveys and Zoning with the same operating personnel, namely one motor mechanic, one mechanical helper, one laborer, one clerk, with no loss of time due to sickness or accident. The total of sixty-four (64) cars and trucks are assigned as follows:

37 Budget Items #208, 21 Loan Funds, 6-SR-5

also one special compactor for Airport.

New cars and trucks purchased during the year 1950 included seven Chevrolet Suburban Carryalls assigned to the Survey Districts (the older station wagons were traded in as part of cost); one new Ford Sedan assigned to Sewage Disposal Division; one new Ford Sedan for the Assistant Chief Engineer; one new half-ton Panel Body Ford Truck for Meter Servicing division; one new Chevrolet Suburban Carryall assigned to the Projects division.

Monthly service and check-up of each unit has continued during the year, and the results of this maintenance is shown by the fact that only 38 service calls were needed during the year, most of these calls were replacing batteries and fuel pumps. Six of these calls involved towing the car to shop. Along with this monthly service, the Repair Shop completed 201 jobs. Major repair jobs which included installing new clutches, rears, transmissions, overhauling front steering systems, new brake drums and brake shoes, the minor adjustments, the nature of changing spark plugs, repairing ignition and lighting wires, changing tires and tubes, carburetor adjustments, etc.

The following equipment used for maintenance and service work was purchased and installed during the year: one new Hardie pressure booster for washing cars; one set each of small and large socket wrenches and handles; new seal leathers and oil installed in the hydraulic car hoist used in the service shop.

In cooperation with the Bureau of Mechanical Equipment, new forms were printed and a method of reporting and expediting accidents installed. The new method will simplify the recording of personnel, property and cars involved in accidents, in this office, the City Solicitor's Office, and Bureau of Mechanical Equipment Office and Repair Shop.

All equipment of the Automotive Division is in very good condition with few exceptions. These few cars are listed to be traded in when new cars will be purchased during the ensuing year.



## TESTING LABORATORY

Work during 1950 consisted of chemical and physical testing of specimens in accordance with their respective specification requirements, as submitted by the various City Departments and Bureaus; investigation of materials proposed for City use and on materials failing under usage; formulation and revision of specifications; consulting service; field inspection of materials; sampling and sample collection.

High efficiency standard is maintained on all work by the Laboratory's connection with national standards organizations and by holding membership on several main and sub-committees of the American Society for Testing Materials, forming standards and procedures of tests; the City adopts and uses many of the standards published by this Society.

The Laboratory is equipped with modern standard apparatus capable of producing the finest results, but due to the location and general conditions of the present Laboratory, the potential value of this fine apparatus cannot be fully exploited.

Cooperative tests were performed from time to time with laboratories allied with business concerns who sell their products to the City. This establishes an efficiency ratio between such laboratories and the City Laboratory, and thus is important.

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 central mix concrete plants to prove the grade of concrete purchased by the City from them.

The tables in the Appendix show the total, variety, distribution and percentage of distribution of the tested specimens; the tabulation headed "Tests" is added to demonstrate the minimum number of tests necessary to complete the specification requirements of these specimens, and some idea of the time consumed in fulfilling specification test requirements.

## ACCOUNTING AND REPORTING DIVISION

All the normal functions of the Bureau, in conjunction with its gigantic construction program, were reflected in the Division's activities during 1950.

The routine matters of audit and disbursement of all Budget appropriations for payrolls and supplies, operations attending the expenditures from Loan funds, preparation of proposals, advertising, reading, checking and scheduling of bids, the furnishing of contract information to the Department of Law, the requisitioning and disbursement of supplies required by the several divisions and the Survey District offices, the compilation and maintenance of personnel records, coupled with the progressive program of the Bureau, have all tended toward a busy year for the Division.

The continuation of the Bureau's plan for public improvements resulted during the year in fifty-seven (57) public readings of bids, involving two hundred and five (205) projects (added to these figures were numerous miscellaneous contracts awarded by the Department of Supplies and Purchases, and contracts to outside engineers for engineering services); two hundred and thirty-one (231) contracts were certified by the Controller's office and entered on the Bureau's records; during the year 1950 one hundred and eighty-one (181) contracts were carried to completion (this includes contracts for Repairs, Supplies, Engineering Services, etc.); 1992 separate warrants were drawn calling for a payment of \$17,150,698.29 from both Budget and Loan Funds.

RECEIPTS FOR THE YEAR WERE AS FOLLOWS:

	<u>VOUCHERS</u>	<u>AMOUNTS</u>	
Survey Districts	5973	\$184,005.21	
Registry	54	433.10	
Sewer Registrar	859	126,599.93	
Zoning	5732	47,945.00	
			<u>\$358,983.24</u>
Witness Fees		175.00	
Ground Rents		120.00	
Rental of Wharf		1,200.00	
			<u>\$ 1,495.00</u>
Lower Merion	(	100.00	
Springfield Township	)	1,415.00	
Upper Darby	( Sewer Rentals	1,000.00	
Cheltenham	)	12,235.66	
Rockledge	)	31.86	
			<u>\$ 14,782.52</u>
	Total -		<u><u>\$375,260.76</u></u>





409245 8-22-50 CONT. #B-109 Looking S. From N. End Of BUSTLETON  
Ave. BRIDGE OVER PENNYPACK CREEK.

75-1950





4/2/2-5 4-5-51 PENROSE AVE. W. LOOKING E. FROM W. APPROACH.

76-1950



40991-1 10-12-50 CONT. # B-107 W. ELEVATION 66TH ST FOOTBRIDGE  
COMPLETED.

77-1950



40697-4 22750 N.E. SEWER TREATMENT WORKS - GEN. VIEW S. TOWARDS  
BLOWER BLDG.

78-1950

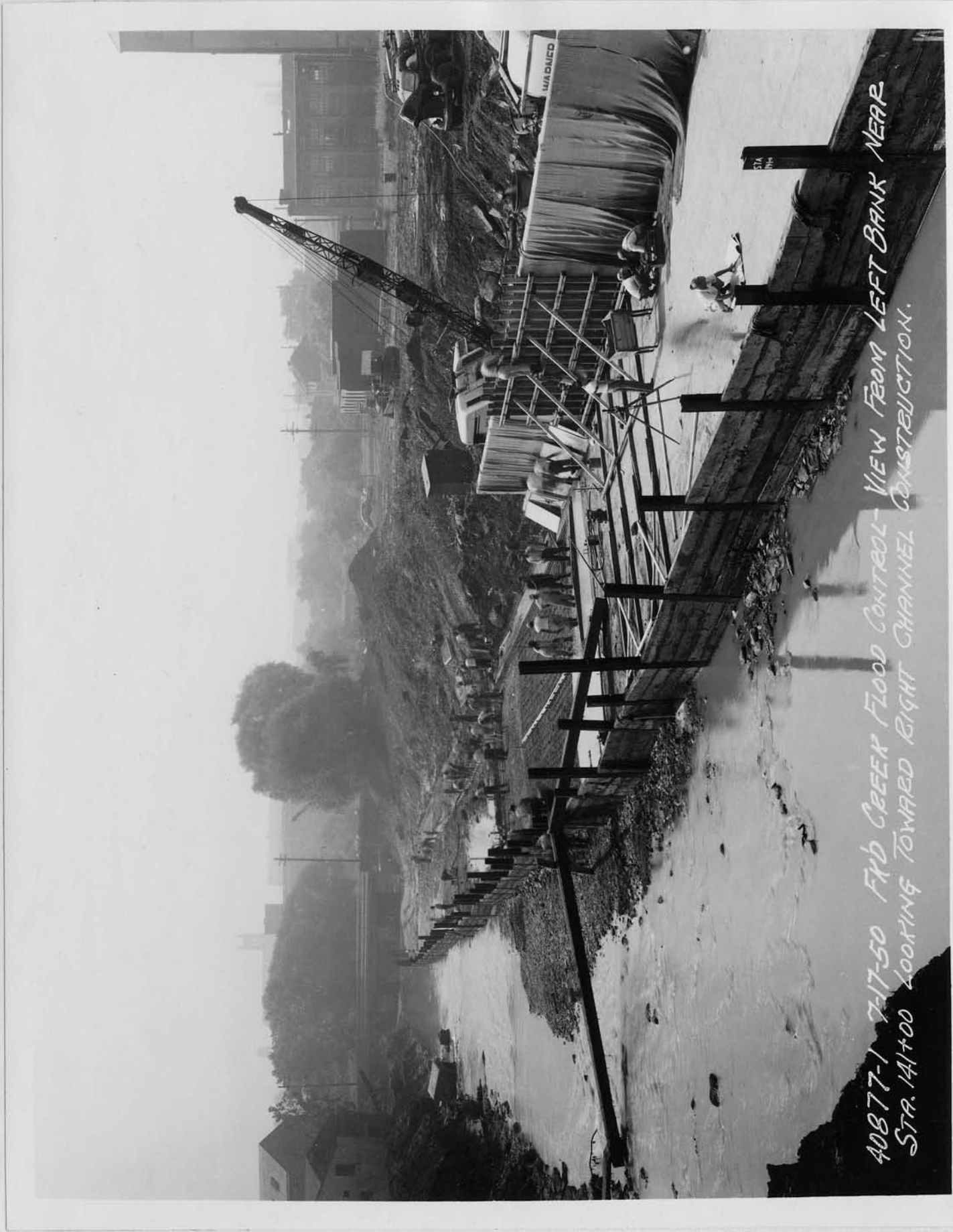




41098-2 12-19-50 Cont. #50-131-SW. 59TH & GRAYS AVE.  
LOOKING W. FROM STA. 176+24.

79-1950





40877-1 7-17-50 FRY CREEK FLOOD CONTROL - VIEW FROM LEFT BANK NEAR  
STA. 141+00 LOOKING TOWARD RIGHT CHANNEL CONSTRUCTION.

80-1950



410 861 12-7-50 PAULA INT. AIRPORT - NEW TERMINAL - E. END OF MAIN  
BLDG SHOWING FORM COLUMNS & 2ND FLOOR SLATE.

81-1950



40 706-5 3-3-50 Pima Int. Airport Showing Completed Hangars  
Looking S.W.

0561-28

DEPARTMENT OF PUBLIC WORKS  
ANNUAL REPORT OF THE OFFICIAL PHOTOGRAPHER

	PHOTOGRAPHY							ELECTRO-COPIES BLUE-PRINTS				
	8"x10" NEGS.	8"x10" PRINTS	4"x5" NEGS.	14"x17" NEGS.	8"x11" ENLARG.	16"x20" ENLARG.	40"x60" ENLARG.	LANTERN SLIDES	SQ. FT. PAPER	SQ. FT. CLOTH	SQ. FT. BLUEPRNT VANDYKE	SQ. FT.
1950												
ENG., SURVEYS & ZONING	2667	4867	94	50	240	25	18	206	14886	999	285551	3810
HIGHWAYS & ST. CLEAN'G	22	6							12		68267	127
WATER	335	2225		10	4x5 16			43	640		139139	640
CITY PROPERTY	128	540							565		720	145
TRAFFIC ENG.	48	81							125		1456	619
ELECTRICAL											16349	420
LAW												
HEALTH	23	106	20					4				
ART JURY												
CITY PLANNING											16112	
PHILA. HOUSING											3952	
CIVILIAN DEFENSE				8					150		118	
AERONAUTICS	31	255							32			
CITY TRANSIT											260	
GAS & LIGHTING	7	20							80			
BOY SCOUTS OF AMERICA.											410	
MAYOR'S OFFICE				2			8					
TOTALS	3261	8100	114	70	240	4x5 16 25	26	253	6090	999	546752	5761

HEAD PHOTOGRAPHER.  
*Frederic R. Lister*



STATISTICAL SUMMARIZATION

OF

ACTIVITIES

84-1950

DETAILS OF WORK PERFORMED IN THE SURVEY DISTRICTS

LOTS STAKED

For building purposes, scattered, four or less	1,597
For building purposes, operations, over four	286
Grades furnished for new buildings, linear feet	22,698

CONVEYANCE

Properties surveyed for conveyances, scattered	1,228
"          "          "          "          Operations	7,315
Plans made for conveyance purposes	1,183
Descriptions of property prepared	553

FARM SURVEYS

Number made	22
Acres surveyed or staked	930.5

MISCELLANEOUS SURVEYS

Acres staked	45.0
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CURB REGULATIONS

Orders	2,874
Linear feet	456,365
Curb corners staked out	1,068
Linear feet of curb measured and certified	52,182

FOOTWAYS

Sq. yds. of paving or repaving measured and certified	8,393
Curb and footway assessment bills prepared	562

ALLEYS AND DRIVENWAYS

Plans for paving or repaving	18
Linear feet covered	9,105
Number for which lines and grades were furnished	172
Linear feet furnished	91,231
Sq. yds. of paving or repaving measured and certified	13,902
Assessment bills prepared	1,293

SUBDIVISION PLANS

Number made	144
Lots shown thereon	2,045

ARCHITECT PLANS

Number made	92
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WHARF PLANS

Plans and Surveys made	1
Number for which lines were furnished	-
Linear feet	-

MISCELLANEOUS PLANS

Number made	48
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85-1950

CITY PLANS

Small City Plans prepared	100
Sectional City Plans prepared or revised - number	19
- acres	2,212.5
Compiled City Plans prepared - number	-
- acres	-
Acres surveyed for new or revised sectional plans	286.0
Topography taken for city or private plans - acres	306.1
Acres covered by stoning or restoning City Plans	370.0
Monuments set or reset (city or private)	321
Linear feet of levels run to establish grades or benches	204,540
Reports on City Plan changes	119
Reports on Deeds of Dedication, releases and affidavits	137
Descriptions prepared for deeds of dedication	161

LAW PLANS

Plans prepared for Board of View	33
Properties included - number	173
- acres	304.87
Plans prepared for various legal purposes	14

PASSENGER RAILWAYS

Linear feet of lines and grades furnished	29,797
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UTILITY COMPANIES

Linear feet of lines and grades furnished	40,460
Reports on applications for footway locations	636

BRIDGES

Preliminary plans and surveys made	1
Number for which lines and grades were furnished	-
Linear feet furnished	-

DRAINAGE

Preliminary surveys and plans made for sewers and drains	191
Linear feet street covered	124,307
Linear feet of lines and grades furnished	145,314
Cubic yards of trench excavation measured	276,906
Cubic yards of masonry measured	658
Number of inlets staked out	996
Linear feet of lateral pipe and inlet connections measured	158,850
Plans of constructed sewers and appurtenances prepared	151
Linear feet street covered	118,300
Assessment bills prepared	1,337

WATER PIPE

Plans prepared for Bureau of Water and water companies	322
Linear feet street covered	164,817
Linear feet of lines and grades furnished	108,647
Fire hydrants for which lines and grades were furnished	129
Reports on grade of streets for water pipe to be laid	6
Assessment bills prepared	1,694

CURRENT ESTIMATES

Any contract	382
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86-1950



REPORTS

On street openings, including plans or estimates	20
On street improvements, including plans or estimates	74
On mandamus certificates	-
Made to Chief Engineer	452
Miscellaneous (not otherwise classified)	125

LIENS

Descriptions prepared for any Department or Bureau	218
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ZONING

Properties posted for Board of Adjustment	-
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PERMITS

Bureau of Building Inspection, number investigated	-
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MISCELLANEOUS

Linear feet-lines and grades-repaving-guttermarks	15,563
Blueprint copies of property plans previously made	704
Traffic islands - staked	4
Certification of old surveys	9
Plans of traffic islands	2
Plans approved for track curves	2
Linear feet-lines and grades-fence line-Municipal Stadium-Bureau of Highways	2,600
Levels at Municipal Stadium	- acres 13
Attendance - Witness at Court	1
Safety islands - measured and certified	26

GRADING

Plans and preliminary estimates (including country roads)	164
Linear feet of street covered	118,147
Cubic yards measured, cut and fill	497,187
Linear feet of street covered	71,246
Linear feet of lines and grades furnished	211,049

PAVING

Plans prepared for paving (including country roads)	165
Linear feet of street covered	105,434
Square yards measured and certified	544,321
Linear feet of street covered	152,294
Assessment bills prepared	1,375

REPAVING

Plans prepared for repaving (including country roads)	29
Linear feet of street covered	31,195
Square yards measured and certified	258,000
Linear feet of street covered	56,215
Linear feet of lines and grades furnished	179,194



AMOUNT OF COMPLETED CONTRACTS

Retaining walls	\$ 6,699.27
Main and branch sewers	4,496,236.75
Private sewers and drains	2,000.00
Grading	248,016.34
Paving and improvement	2,646,755.55
Repaving and resurfacing	1,347,345.19
Total Costs	8,747,053.10

RECEIPTS

District Cash Receipts	184,005.21
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TRAFFIC

Reports on complaints	-
Counts made	-
Investigations of coordinated signal lights (each intersection to be counted each time investigated)	-
Investigations of single signal lights (each signal light to be counted each time investigated)	-

88-1950

DETAILS OF WORK PERFORMED IN REGISTRY DIVISION

ACTIVITIES IN THE BOOK ROOM

Group I

1.	Deed abstracts filed for registering .....	50,520
2.	Descriptions contained in abstracts.....	57,657
3.	Transfers plotted.....	59,761
4.	Original lots plotted .....	8,945
5.	Deed abstracts filed from 1865 to 1950 (inclusive)....	3,634,451
6.	Titles examined for plan book entries.. ..	2,748
7.	Plan books examined by the public and officials.....	105,826
8.	Certificates of registered owners issued to public....	98
9.	Certificates of registered owners issued to Law Dep't.	280
10.	Registry plates redrawn.....	7
11.	Miscellaneous receipts.....	\$446.60

ACTIVITIES IN THE PLANS AND LEGAL RECORDS ROOM

Group II

12.	Miscellaneous plans drawn for City Departments.....	197
13.	Plans loaned out.....	1,550
14.	Subpoenas issued against Registry Division.....	54
15.	Appearances in court.....	40
16.	Amount of witness fees collected.....	\$121.00
17.	Certificates of street openings issued to City Dep'ts.	215
18.	Affidavits of street openings filed.....	15
19.	Streets opened by affidavits.....	15
20.	Jury plans ordered.....	24
21.	Jury plans filed.....	33
22.	Streets authorized to be opened by ordinance.....	33
23.	Certifications filed of openings and condemnations....	29
24.	Street opening agreements filed.....	0
25.	Agreements filed in connection with City plan changes.	51
26.	Deeds of Dedication filed.....	244
27.	Deeds of Dedication approved and recorded.....	181
28.	Grant of drainage area.....	1
29.	Releases of abutting owners filed.....	5
30.	Releases of abutting owners approved and recorded.....	7
31.	Releases of mortgages approved and recorded.....	7
32.	Cost of recording deeds and releases, etc. ....	\$126.75

89-1950



ANNUAL REPORT OF  
ZONING DIVISION  
FOR 1 9 5 0

	Dif- ference	1949	1950	% DECREASE	% INCREASE
Number of requests for information	+ 2420	20650	23070		11.72
Number of applications filed	+ 1259	10031	11290		12.55
Number of Zoning Permits issued	+ 5124	7727	12851		66.31
Number of Use Registration Permits issued	+ 749	3939	4688		19.01
Number of References to the Board of Adjustment	+ 58	309	367		18.77
Number of Applications stamped "Permit not Required"	+ 16	3280	3296		0.48
Number of Zoning Permits refused	+ 565	1400	1965		40.35
Number of Use Registration Permits refused	+ 443	2691	3134		16.46
Number of Refusals appealed to the Board of Adjustment	+ 565	3382	3947		16.70
Number of Inspections	+ 36	561	597		6.41
Number of Complaints investigated	- 67	383	316	17.49	
Number of Vouchers issued	+ 760	4968	5728		15.29
Amount of Cash Receipts	\$ +16870.	\$ 31075.	\$ 47945.		54.28
No. of true copies of applications certified to B of A	+ 374	2825	3199		13.24
No. of sign applications (Highway) acted upon	+ 6	137	143		4.38
No. of descriptions for District Classification Changes	+ 34	41	75		82.92
No. of Letters to Fire Marshal for approval or disapproval of use	+ 7	530	537		1.32
No. of Changes of Zoning Maps made by Ordinance of Council	+ 34	42	76		80.95
Number of changes of Zoning Maps proposed by resolution of Council	+ 67	92	159		72.82
Number of Housing and Sanitation refusals	+ 22	511	533		4.30

90-1950

TOTAL SPECIMENS AND TESTS 1950

PHYSICAL AND CHEMICAL

	<u>Specimens</u>	<u>Tests</u>
Standardizing, Apparatus, Instruments	14	168
Boiler Waters and Compounds	14	112
Water, Industrial Waste and Sewage	48	192
Fuels	348	1905
Lubricants	68	272
Jointing Materials and Compounds	8	66
Metals	205	551
Paint and Paint Materials	342	1944
Road Materials, Asphaltic	218	1018
Rock and Silicious Materials, Aggregates	67	134
Roofing Materials	27	162
Soaps and Detergents	12	48
Paper and Wood Products	16	45
Brick, Tile	15	58
Cement, Portland	401	1604
Concrete	4700	9341
Soils	13	65
Field Tests	579	579
Miscellaneous Materials	<u>93</u>	<u>503</u>
TOTALS	7188	18,767

91-1950



DISTRIBUTION OF PHYSICAL SPECIMENS 1950

	<u>Specimens</u>	<u>%</u>
Department of Public Works		
Bureau of Engineering, Surveys & Zoning	3717	62.70
Bureau of Highways	503	8.50
Bureau of Water	21	0.40
Bureau of City Property	1	0.03
Water Works Improvement	365	6.20
 Department of Public Safety		
Bureau of Building Inspection	7	0.10
 Department of Supplies and Purchases	2	0.07
Department of Wharves, Docks & Ferries	694	11.70
Department of City Transit	<u>613</u>	<u>10.30</u>
TOTALS	5923	100.00%

92-1950

4

CHEMICAL LABORATORY 1950

	<u>Specimens</u>	<u>Tests</u>
Standardizing, Apparatus, Instruments	14	168
Boiler Waters and Compounds	14	112
Water, Industrial Waste and Sewage	48	192
Coal, Anthracite	277	1662
Coal, Bituminous	10	60
Oil, Fuel	38	114
Oil, Lubricating	68	272
Aggregates	4	8
Asphaltic Materials, Misc.	59	472
Metal, Ferrous	38	228
Metal, Non-Ferrous	21	126
Roofing Materials	27	162
Joint Materials	6	60
Cement Admixture	1	6
Gasoline	23	69
Soap and Cleaning Materials	12	48
Mixed Paint	161	1288
Pigment in Oil	39	117
Dry Pigments	31	124
Linseed Oil	38	152
Paint Thinners	29	87
Varnish	19	76
Driers	25	100

(Cont'd)

93-1950



CHEMICAL LABORATORY 1950

(Cont'd)

	<u>Specimens</u>	<u>Tests</u>
Asphalt Cement	45	90
Wearing Surface	114	456
Coatings	-	-
Food	6	18
Ink	2	16
Antifreeze	2	12
Chemicals	9	27
Paper	11	22
Fire Test	2	8
Insulation	3	15
Tile	3	15
Soils	13	65
Miscellaneous	<u>51</u>	<u>261</u>
	TOTALS	6712

94-1950

DISTRIBUTION OF CHEMICAL SPECIMENS 1950

	<u>Specimens</u>	<u>%</u>
Department of Public Works		
Bureau of Engineering, Surveys & Zoning	266	21.0
Bureau of Highways	247	19.5
Bureau of Water	69	5.5
Bureau of City Property	59	4.7
Bureau of Mechanical Equipment	6	0.5
Water Works Improvement	2	0.2
Department of Public Safety		
Bureau of Building Inspection	6	0.5
Bureau of Police	0	
Electrical Bureau	15	1.2
Department of Supplies & Purchases	457	36.1
Department of Wharves, Docks & Ferries	90	7.1
Department of City Transit	21	1.6
Department of Public Welfare	5	0.4
Bureau of Health	<u>22</u>	<u>1.7</u>
TOTALS	1265	100.0%

95-1950



PHYSICAL LABORATORY 1950

	<u>Specimens</u>	<u>Tests</u>
Asphalt Aggregates	34	68
Brick, Sewer	6	18
Brick, Paving	1	10
Brick, Building	5	15
Concrete Aggregates	27	54
Concrete Block	6	12
Concrete Beams	59	59
Concrete Cores	379	758
Concrete Cylinders	4256	8512
Joint Materials	2	6
Metals, Ferrous	142	189
Metals, Non-Ferrous	4	8
Portland Cements	401	1604
Rocks & Silicious Materials	2	4
Miscellaneous	17	51
Curing Compounds	3	108
Field Tests	<u>579</u>	<u>579</u>
TOTALS	5923	12,055

96-1950

DETAILS OF WORK PERFORMED BY THE DESIGN DIVISION

SEWERS - NEW CONSTRUCTION

Algon Ave., Cottman Ave. to Friendship St.  
Andover Rd., Fordham Rd. to Summit N. of Convent Ave.  
Algard St., Robbins St. to Devereaux St.  
Ashland St., Frankford Creek to Adams Ave.  
"A" St., Nedro Ave. to Champlost Ave.  
"A" St., Champlost Ave. to Spencer Ave.  
Adams Ave. and Almond St. intersection (inlets only)  
Algard St., Magee Ave. to Unruh Ave.  
Algard St., Hellerman St. to Magee Ave.  
Aramingo Ave., 456' S.W. of Tioga St. to 305' S. W. of Tioga St.  
Ardleigh St., Washington Lane to Johnson St.  
Annabury St., Weymouth St. to "G" St.  
Anderson St., Washington Lane to Johnson St.  
Ardleigh St., Rounfort Ave. to Gowen Ave.  
Alden St., Elmwood Ave. to Lindbergh Blvd.  
Arbor St., Ashdale St. to Albanus St.  
Albion St., Weston St. to Stamford St.  
Albion St., Winchester Ave. to Stamford St.  
Bennington St., Hunting Park Ave. to Lycoming St.  
Bustleton Ave., Robbins St. to Roosevelt Blvd.  
Bingham St., Roosevelt Blvd. to Ashdale St.  
"B" St., Nedro Ave. to Champlost Ave.  
"B" St., Somerville Ave. to Lima St.  
Bayard St., Gowen Ave. to Wadsworth Ave.  
Bleigh Ave., Wisconsin St. to 265' S.E. of Milnor St.  
(Sanitary sewer only)  
Barnett St., Charles St. to Frankford Ave.  
Bingham St. (N.W. side) Adams Ave. to Garland St. (Laterals & Inlets, Etc.).  
Bradford St., Harbison Ave. to Knorr St.  
Church Lane, 16th St. to Old York Rd.  
Cleverly Rd., Wooden Bridge Rd. to Annapolis Rd.  
Cemly St., Oakland St. to Saul St.  
Cottage St., Robbins St. to Levick St.  
Creston St., Oakland St. to Saul St.  
Castor Ave., Delaware River bulkhead line to present terminus, approximately  
300 ft. west  
Cottman Ave., Duffield St. to Roosevelt Blvd.  
Cottman Ave., Horrocks St. to Large St.  
Cathedral Rd., Glenroy Rd. to 570 ft. east of Glenroy Rd. thence through  
Fairmount Park to the Wissahickon Low Level Intercepting  
Sewer (Sanitary Sewer only)  
Cathedral Road, 685 ft. N.E. of Wissahickon Ave. to Glenroy Rd. including  
stormwater outlet to stream.  
Cathedral Rd., Wissahickon Ave. to 685 ft. N.E. of Wissahickon Ave., including  
stormwater outlet to stream.

SEWERS - NEW CONSTRUCTION

Cathedral Rd., Wissahickon Ave. to Old Line Rd.  
Cathedral Rd., Old Line Rd. to Brierdale Rd.  
Clyde Lane, Sagamore Rd. to Lyken Lane  
Cottage St., Magee Ave. to Unruh Ave.  
Calvert St., Unruh Ave. to Knorr St.  
Cayuga St., Dungan St. to "J" St.  
Claridge St., Cayuga St. to Bristol St.  
Chandler St., Large St. to Horrocks St.  
Conshohocken Ave. from Drainage R/W at Windemere Ave. to 40th St.  
(Sewer and Force Main)  
Conshohocken Ave., 40th St. to Monument Rd. and in Monument Ed. from Conshohocken  
Ave. to a point S. of Ford Rd. (Sewer & Force Main)  
Ditman St., Robbins St. to Devereaux St.  
Drainage R/W, Wooden Bridge Run Intercepting Sewer to Wooden Bridge Rd.  
Disston St., Summerdale Ave. to E. of Summerdale Ave.  
Drainage and Improvement in Vernon Park  
Disston St., Revere St. to Brous Ave.  
Disston St., Frankford Ave. to Erdrick St.  
Dover St., Moore St. to Mifflin St.  
Dover St., Morris St. to Moore St.  
Dorset St., Mansfield Ave. to Lower Ave.  
Dungan Rd., Cottman Ave. to Bleigh Ave.  
Disston St., Whitaker Ave. to Algon Ave.  
Dungan Rd., St. Vincent St. to Cottman Ave.  
Drainage R/W in Houghton St., Kingsley St. to a point 170' S.E. of Kingsley  
St. (Temporary Brain)  
Drainage R/W from Sta. 13 + 59.33 to Conshohocken Ave. including Stormwater  
Outlet to Stream (Sewer & Force Main)  
Englewood St., Algon Ave. to Summerdale Ave.  
Emily St., 26th St. to 27th St.  
Etting St., Snyder Ave. to McKean St.  
Erringer Place (N.E. Footway), Manheim St. to a point S.E. therefrom  
Elmwood Ave., 56th St. to Lindbergh Blvd. and in Lindbergh Blvd., Elmwood Ave.  
to B & O R.R. R/W  
Ella St., Medro St. to Champlot Ave.  
Etting St., Mifflin St. to Moore St.  
Erdrick St., Pratt St. to Bridge St.  
Emerson St., Caster Ave. to Frontenac St.  
Forrest Ave., Johnson St. to Upsal St.  
Fairway Terrace, Pechin St., S.W. to Dead End  
Ferndale St., Verree Rd., to Hartel St. (Stormwater Conduit)  
Friendship St., Edmond St. to Hegerman St.  
Fairmount Park west of Neill Drive Sta. 0 + 00 to Sta. 6 + 81.72  
(Sanitary Sewer, Stormwater Conduit & Force Main)  
Fairmount Park and in Drainage R/W Sta. 6 + 81.72 to Sta. 13 + 59.33  
(Sanitary Sewer, Stormwater conduit & Force Main)



SEWERS - NEW CONSTRUCTION (Continued)

Glendale St., Hunting Park Ave. to Bristol St.  
Graklyn Lane, Wissahickon Ave. to Lothian Place  
Greeby St., Erdrick St. to Walker St.  
Gillespie St., Magee Ave. to Unruh Ave.  
Glenview St., Revere St. to Brous Ave.  
Gilham St., Frankford Ave. to Battersby St.  
Glenview St., Summerdale Ave. to Algon Ave.  
Glenview St., Frontenac St. to Summerdale Ave.  
Hale St., Jackson St. to Nitman St.  
Holme Ave., Roosevelt Blvd. to Pennypack Creek intercepting sewer  
sanitary outlet sewer (2 plans)  
Holme Ave., (S.E. side) Academy Rd. to Willits Rd.  
Howell St., Sylvester St. to Saul St.  
Hortter St., Stenton Ave. to Mansfield Ave.  
Howland St., Bristol St. to Cayuga St.  
Hartel St., Ferndale St. to Rockwell Ave. (Stormwater Conduit)  
Hartel St., Rockwell Ave. to Hasbrock Ave. (Stormwater Conduit)  
Hasbrock St., Hartel St. to Oxford Ave. (Stormwater Conduit)  
Hawthorne St., Gilham St. to Hellenman St.  
Ivy Hill Rd., Pickering St. to Cheltenham Ave.  
Johnson St., Stenton Ave. to Crittenden St.  
Jackson St., Robbins St. to Devereaux St.  
Lawnale St., Hunting Park Ave. to Lycoming St.  
Lardner St., Leonard St. to Warnsworth St.  
Lawnale St., Luzerne St. to Lycoming St.  
Lykens Lane, Grakya Lane to Mittany Lane  
Lykens Lane, Clyde Lane to Saganore Rd.  
Lynford St., Cottman Ave. to St. Vincent St.  
Lynford St., Princeton Ave. to Tyson Ave.  
Leonard St., Unruh Ave. to Knorr St.  
Lansing St., Large St. to Castor Ave.  
"L" St., Bristol St. to Cayuga St.  
Loney St., Furholme Ave. to Fillmore St.  
Longshore Ave., Pennway St. to Summerdale Ave.  
Levick St., Eucla St. to Oxford Ave.  
Lawrence St., 66th Ave. N. to Cheltenham Ave.  
Matthews St., Upsal St. to Cliveden St.  
Milton St., Upsal St. to Cliveden St.  
Michener St., Mt. Airy Ave. to Bowen Ave.  
Milton St., Washington Lane to Johnson St.  
McKean St., 26th St. to 27th St.  
Mansfield Ave., Ivy Hill Rd. to 98'  $\frac{1}{2}$  N.W. of Rounfort Rd.  
Magdalena St., Harborough Ave. to a point 174'  $\frac{1}{2}$  South  
Mayfair St., Bingham St. to Taber Ave.  
Marwood Rd., Taber Rd. to Ashdale St.  
Marsden St., Robbins St. to Devereaux St.



SEWERS - NEW CONSTRUCTION (Continued)

Michener St., Cowen Ave. to Wadsworth Ave.  
Montague St., Cheltenham Ave. to Sanger St.  
Martindale St., Weston St. to Stamford St.  
Nittany Lane, Lykens Lane to Sagamore Rd.  
Napfle Ave., Tabor Ave. to Verree Rd. (Stormwater Conduit)  
Ogontz Ave. (N.E. Side, 77th Ave. N. to 78th Ave. N.  
Old Line Rd., Cathedral Rd. to summit north of Grakyn  
Oakland St., Conly St. to Benner St. (Laterals, inlets, etc.)  
Oak Lane, 7th St. to 8th St.  
Oakmont St., Castor Ave. to Large St.  
Oxford Ave., Loney St. to S. of Loney St. (additional laterals)  
Phil-Ellens St., Stenton Ave. to Mansfield Ave.  
Provident St., Cowen Ave. to Wadsworth Ave.  
Pratt St., Valley St. to Walker St.  
Pennway St., Longshore Ave. to Tyson Ave.  
Plainfield St., Stenton Ave. to Mansfield Ave.  
Presidential Blvd., City Ave. to Winding Drive  
Revere St., St. Vincent St. to Cottman Ave.  
Roosevelt Blvd. (N.W. side) Solly Ave. to Stanwood St.  
River St., Snyder Ave. to a point 560 ft. S.E. of Snyder Ave.  
Roosevelt Blvd. (E. side) Cottman Ave. to Sandyford Ave.  
Reach St., Wyoming Ave. to Courtland St.  
Raymond St., Weymouth St. to "G" St.  
Roosevelt Blvd. (N.W. side), Unruh Ave. to Knorr St.  
Ryers St., Tudor St. to Sheldale Ave.  
Rosewood St., Tasker St. to Merris St.  
Rockwell Ave., Hartel Ave. to Oxford Ave.  
Rockwell Ave., Hartel Ave. to Ridgeway St.  
Solly Ave., Roosevelt Blvd. to Horrocks St.  
Solly Ave., Horrocks St. to Castor Ave.  
St. Vincent St., Brous Ave. to Revere St.  
Stanwood St. Roosevelt Blvd. to Eastwood St.  
Stream dredging, etc., in: Drainage R/W from Stenton Ave. southeastward, Northwest  
of Woodbrook Lane  
Sagamore Rd., Grakyn Lane to Cathedral Rd.  
Sagamore Rd., Glyde Lane to Grakyn Lane  
Stenton Ave., Johnson St. to Barringer St.  
Solly Ave., Verree Rd. to Halstead St.  
Somerville Ave., Rising Sun Ave. to Ella St.  
Sycamore St., Somerville Ave. to Tabor Ave.  
Solly Ave., Castor Ave. to Frontenac St.  
Slocum St., Mansfield Ave. to Lowber St.  
Slocum St., Lowber St. to Woolston Ave.  
Sackett St., Gilham St. to Hellenman St.  
Summerdale Ave., Knorr St. to Tyson Ave.  
Sanger St., Erdrick St. to a point S.E. of Walker St.  
Stevens St., Leonard St. to Farnsworth St.  
Sackett St., Stirling St. to Barnett St. (Private Sewer)

SEWERS - NEW CONSTRUCTION (Continued)

Tyson Ave., Summerdale Ave. to E. of Summerdale Ave.  
Tyson Ave., Whitaker Ave. to Pennway St.  
Tiona St., Grakyn Lane to Cathedral Rd.  
Thompson St., Butler St. to Summit N.E.  
Tyson Ave., Pennway St. to Summerdale Ave.  
Tacony St., Sanger St. to Vankirk St.  
Unruh Ave., Roosevelt Blvd. to Bustleton Ave.  
Unruh Ave., Akron St. to Bustleton Ave.  
Upsal St., Stenton Ave. to Crittenden St.  
Vankirk St., Bustleton Ave. to 250' east of Bustleton Ave.  
Vernon Rd., Lowber St. to Thouron Ave.  
Valley St., Pratt St. to Bridge St.  
Vernon Rd., Ferrest Ave. to Thouron Ave.  
Wooden Bridge Rd., Convent Ave. to Summit W. of Annapolis Rd.  
Wooden Bridge Rd., Summit W. of Annapolis Rd. to Annapolis Rd.  
Willits Rd., Holme Ave. to Summit North of Academy Rd.  
Washington Lane, Anderson St. to Sprague St.  
Walker St., Robbins St. to Devereaux St.  
Wellens St., Howard St. to Front St. (drainage requirements prior to paving)  
Williams Ave., Sharpnack St. to Phil-Ellena St.  
Water St., Nedro Ave. to Champlost Ave.  
Wisschicken Ave., Cathedral Rd. to summit north of Grakyn Lane  
Water St., Champlost Ave. to Spencer Ave.  
Washington Lane South, 236'  $\frac{1}{2}$  N.E. of Crittenden St.  
to Stenton Ave. and in Stenton Ave. from Washington Lane  
South to a point on existing sewer 100' N.W.  
Wellington St., Algon Ave. to Summerdale Ave.  
Wheeler St., 56th St. to Lindbergh Blvd.  
Woodbrook Lane, Stenton Ave. to Mansfield Ave.  
Wister St., Rodney St. to Woolston Ave.  
Weymouth St., Courtland St. to Annsbury St.  
Walker St., Pratt St. to Bridge St.  
Walker St., Cheltenham Ave. to Sanger St.  
Washington Lane, Crittenden St. to Anderson St.  
Weston St., Winthrop St. to Albion St.  
Winding Drive, Presidential Blvd. to Neill Drive  
Winchester Ave., Albion St. to a point 112'  $\frac{1}{2}$  N.W. of Albion St. including  
outlet through Pennypack Park to Pennypack Intercepting  
Sewer  
7th St., Cheltenham Ave. to Oak Lane  
56th St., Elmwood Ave. to Grays Ave.  
27th St., McKean St. to a point S. of McKean St.  
28th St., McKean St. to a point S. of McKean St.  
67th St., Girard Ave. to Haverford Ave.  
8th St., Oak Lane to Summit South  
7th St., Oak Lane to a point 420' N. of 66th Ave. N.

RECONSTRUCTION

Lancaster Ave., 50th St. to 650' N.W. of 50th St.  
Juniata St., Wayne Ave. to Germantown Ave.  
Bodine St., from line of former Culvert St. to American St.  
Palmer St., Beach St. to Delaware River

STORMWATER FLOOD RELIEF

Wingohocking St., 9th St. to Belfield Ave. Belfield Ave., Wingohocking St. to Broad St.  
I St., Erie Ave. to N. of Venango St., Venango St., J St. to Glenwood Ave.; Glenwood Ave., Venango St. to Castor Ave.; Castor Ave., Glenwood Ave. to Frankford Ave.  
Allegheny Ave., E. of Richmond St. to Edgement St.; Edgement St., Allegheny Ave. to Clearfield St.; Clearfield St., Edgement St. to Kensington Ave.; G St., Kensington Ave. to Allegheny Ave.  
Brown St., 50th St. to 51st St.; 51st St., Brown St. to Wyalusing Ave.; Wyalusing Ave., 51st St. to 52nd St.

STREET IMPROVEMENT

Academy Road, Frankford Ave. to Willits Rd. - Sewers and inlet drainage  
Bustleton Ave., Rennard St. to 160' N.E. inlet drainage  
Castor Ave., Cayuga St. to approximately 425' N.E. of Wingohocking - sewer and inlet drainage  
Cheltenham Ave., Lakeside Ave. to outlet in stream W. of 7th St. - stormwater drainage  
Haines St., 15th St. to Ogontz Ave. - sewer  
Harley St., Lindbergh Blvd. to Eastwick Lane - Stormwater drainage  
Laurens St., Clapier St. to Abbottsford Ave. - sewer  
Lansdowne Ave., at Haverford Ave. - inlet drainage  
Ogontz Ave., Lindley Ave. to Somerville Ave. - inlets drainage  
Packer Ave., Delaware Ave. to existing bulkhead 980' East - main sewer  
Pattison Ave., - Penrose Ave. to 20th St. - Stormwater drainage and ditches  
Ramona Ave., Wyoming Ave. to Adams Ave. and Tacony Creek Park from Ramona Ave. to Frankford Creek - inlet drainage  
Silverwood St., Parker Ave. to Summit S. of Leroy St. - sewer  
Walnut Lane, Wisschickon Ave. to Kingsley St. - sewer and inlet drainage  
Willits Road, Academy Rd. to Ashton Rd. - sewers and inlet drainage  
Pattison Ave., 7th St. to E. of Randolph St. - inlet drainage  
Welsh Rd., Craig St. to Frankford Ave. - sewer and inlet drainage

STATE HIGHWAY IMPROVEMENT

Aramingo Ave. Sewer Plans - Duncan St., to Frankford Creek: Orthodox St. to Duncan Street  
Pennsylvania Boulevard: Revision of sewer plans and profiles at 30th St. studied for approval.



DRAINAGE STUDIES

Hagee Ave.; Milnor St. to Delaware Ave.  
Coleman St.; and Woodcrest Ave., - 76th St. to 77th St.  
Carlisle St.; Wood St. to Carlton St.  
Balfour St.; Tioga St. to Russell St.  
Berkshire St.; Almond St. to Edgemont St. across Thompson St.  
Intersection of Livesy St. and LeRoy St.  
Rhawn St.; Fairfield St. to Holme Ave.  
Salmon St.; Wheatshaf Lane to Butler St.  
44th St. northward to Haverford Ave. at 43rd St.  
Almond St.; Wheatshaf Lane to Luzerne St.  
Hasbrook Ave.; Shel mire St. to Cottman Ave.  
Thornton Rd., Byberry Rd., Academy Rd. & north branch of Byberry Run  
Gaul St.; Castor Ave. to Butler St.  
Shel mire St.; Edmund St. to State Rd.  
Alcott St.; Newtown Ave. to Weymouth St.  
Old Front St.; Sedgley Ave. to "K" St.  
47th St.; Market St. to Ludlow St.  
"A" St.; Spencer Ave. to Godfrey Ave.  
Gregg St.; Torresdale Ave. to Jackson St.  
Bleigh St.; Edom St. to State Rd.  
Etting St.; Moore St. to Mifflin St.  
Juniata St.; Christ. Creek to Almond St.  
Edgemont St.; Roxborough St. to Berkshire St.  
N. of Welsh Rd.; N. of Pennypack Park  
Bloomfield Ave.; Benton St. to Frontenac St.  
Lowbar St.; Walnut Lane to Wynsam St.  
Charles St.; Bridge St.; Cottage St., Pratt St.  
64th Ave.; 2nd St. to 3rd St.  
Grovers Ave.; 81st St. to drainage ditch W. of 82nd St.  
Alden St.; Kluwood Ave. to Lindbergh Ave.  
Disston St.; Summerdale Ave. to Algon St.  
Darlen St.; Brown St. to Parrish St.  
Winchester Ave.; Roosevelt Blvd., Woodward St.  
Fairfield St.; Holme Ave., Lexington Ave., Rhawn St.  
Balfour St.; Ontario St. to Tioga St.  
Russell St.; Balfour St. to Caspar St.  
Houston Estate - City Plan No. 1 - Port Royal Ave., Hagy's Mill Rd.,  
County Line, Wissahickon Ave.  
Houston Estate - City Plan No. 2 - Wise's Mill Rd., Wigard Ave., Ridge Ave.,  
Port Royal Ave., Cathedral Rd.  
Houston Estate - City Plan No. 3 - Willow Grove Ave., Thomas Mill Rd., Cathedral  
Rd., Seminole Rd.  
Houston Estate - City Plan No. 4 - Shawmont Ave., Northwestern Ave., Hagy's Mill  
Rd., Umbria St.



DRAINAGE STUDIES (Continued)

Houston Estate - City Plan No. 5 - Wissahickon Ave., Wissahickon Creek,  
Northwestern Ave., Cathedral Rd.  
Brabrant St., Tioga St. to Kingston St., Bath St., Tioga St. to Kingston St.,  
Cooper St., Tioga St. to Kingston St., Allen  
Street to Kingston St.  
Lensing St., Frontenac St. to Summerdale Ave.  
Island Ave., Pattison Ave., 79th St., Dicks Ave.  
48th St., Market St. to Haverford Ave.

Odd Fellows Cemetery Site, 22nd and Dauphin Sts. - Phila. Housing Authority	"	"	"
Girard Park Site, 23rd & Porter Sts.	"	"	"
Juniata Park Site, Cayuga & "J" Sts.	"	"	"
Germanatown Poorhouse Site - Rittenhouse St. & Pulaski Ave.	"	"	"
Elmwood Site, 76th St. & Elmwood Ave.	"	"	"
Wilson Park Site, 25th St. & Snyder Ave.	"	"	"
Island Ave. & Grovers Ave.	"	"	"
East Oregon Site - Oregon Ave. & 3rd St.	"	"	"
Liddenfield Site - Terrasdale Ave. & Pennypack Ave.	"	"	"
Harrison Project - 10th Street and Master St.	"	"	"
Norris Project - Norris St. & 10th St.	"	"	"
North Allen Project - 11th St. & Berks St.	"	"	"
Mill Creek Low Rent Housing Project - Fairmount Ave. and 46th St.	"	"	"
Abbotts Low Rent Housing Project - 56th St. S. of Race Street.	"	"	"

Area South of Grant Avenue, Academy Rd. to Frankford Ave.  
Roosevelt Blvd., Lott Ave., Red Lion Road, Bustleton Ave.  
Stenton Ave., Stroud St., Northwestern Ave.  
S. E. of Bustleton Ave.; S. W. of Tomlinson Road  
Edison Ave., Worthington Rd., Napier St., Lindsay Ave.  
60th St. & Lancaster Ave., Flooding Study  
1379 Pratt St., S. E. of Saul St., Flooding Study.  
1671 Cheltenham Ave., S.E. of Saul St., Flooding study.  
Castor Ave. & Magee Ave., Flooding Study.  
"D" St. & Wyoming Ave., Flooding study.  
Pennypack Homes, Crispin St., Flooding study.  
Delaware Ave. & Shackamaxon St., Flooding Study.  
Laurel Hill Cemetery, Hunting Park Ave. & Ridge Ave., Flooding Study.  
7th St., Porter St. to Shunk St., Flooding Study.  
72nd St. and Greenway Ave., Flooding Study.  
Cuneo Press - "G" St. & Erie Ave., Flooding Study.

DRAINAGE STUDIES (Continued)

Muhlfield St.; 70th St. to Powers Lane  
"O" St.; Cayuga St. to Wingochocking St.  
Roxborough St.; Almond St. to Frankford Creek  
Passmore St.; Hawthorne St. to Battersby St.  
Bradford St.; Strahle St. to Lexington Ave.  
Eastwood St.; Strahle St. to Lexington Ave.  
Kerper St.; Penway St. to Algon Ave.  
Algon Ave.; Unruh St. to Knorr St.  
Stenton Ave.; Mt. Pleasant Ave., Ellet St.  
Frontenac St., Stanwood St. to Arthur St.  
Ramona Ave.; Wyoming Ave. to Adams Ave.  
Tomlinson Road; Roosevelt Boulevard to Haldeman Avenue  
Jackson St.; Gregg St. to Linden Avenue  
Adams Ave.; Tulip St. to Aramingo Avenue  
Orthodox St.; Delaware Ave. to Delaware River

SEWAGE DISPOSAL

Intercepting Chambers

Somerset Low Level

Westmoreland St. - checking shop drawings  
Cambria St. - checking shop drawings  
Indiana St. - Checking shop drawings  
Venango St. - contract plans and specifications - checking shop drawings  
(plans drafted by General Industries, Inc.)  
Tioga St. - chamber - contract plans and specifications - checking shop drawings  
(plans drafted by General Industries, Inc.)  
Ontario St. - contract plans and specifications - checking shop drawings -  
(plans drafted by General Industries, Inc.)  
Castor Ave. - contract plans and specifications - checking shop drawings  
Somerset St. Chamber - contract plans and specifications - checking shop drawings  
Allegheny Ave. - contract plans and specifications - diversion dam at 24th St.  
and Indiana Ave.

Southwest Main Gravity

69th and Buist Ave. - contract plans and specifications - checking shop drawings  
45th and Woodland Ave. - studies

Lower Delaware Low Level

Packer Ave. - contract plans and specifications (plans drafted by General Industries,  
Inc.)  
Bigler St. - contract plans - (plans drafted by General Industries, Inc.)

Annual Report - Details of Work  
Design Division - 1950

Oregon Ave. - contract plans (plans drafted by General Industries, Inc.)  
Wolf St. - (Delaware Ave. north of Porter St.) contract plans (plans drafted  
by General Industries, Inc.)  
Snyder Ave. - studies and plans - with branch sanitary sewers in River St.  
to Delaware Ave.

INTERCEPTING SEWERS

Tacony Creek High Level: - studies, alignment surveys and contract plans for  
branch from Adams Ave. northward to stream at Godfrey Ave. and  
Northwestward along Second Street  
Pennypack Creek Low Level - Sketch showing connections to branch at Verree  
Road and Grant Avenue  
Wooden Bridge Run branch of the Pennypack Creek Low Level - surveys and  
preparation of plans for extension from first crossing of Grant Ave.  
to Roosevelt Boulevard.  
Upper Delaware Low Level - Studies and alignment for extension, and contract plans.  
Byberry Creek Low Level - studies for realignment in Grant Avenue east of Holme  
Avenue, and contract plans; also branch in Longfield Ave. to Eden St.  
Southeast Main Gravity - contract plans for extension from 68th and Buist Ave.  
to 43rd and Locust Sts. and connection for Central Schuylkill Pumping  
Station in Paschall Ave. to 46th Street.  
Cobbs Creek High Level Cutoff Sewer - revision of contract plans for reception  
of Delaware County sewage.  
West Central Schuylkill Low Level - contract plans and studies for realignment  
Lower Delaware Low Level - contract plans and specifications for Oregon Ave.  
from Swanson St. to Delaware Ave. - contract plans for branches in  
Delaware Ave. from Oregon Ave. to Snyder Ave. and from Oregon Ave. to  
Packer Ave. Branch sanitary sewer in south side of Packer Ave. from  
Delaware River to Delaware Ave.  
Studies for connection of Industrial plant sewage to sewer system at various  
points along Frankford Creek and Schuylkill River.  
Northeast Village Roosevelt Boulevard and Red Lion Road - Study and report on  
sanitary drainage system and outlet for disposal of sewage - 1. Treatment  
on the site. 2. Pumping to Extension of Wooden Bridge Run Intercepting  
Sewer in Grant Avenue. 3. Upper Delaware Low Level, Byberry Creek  
intercepting sewer extension.

NORTHEAST SEWAGE TREATMENT WORKS

Repairs to outfall pier and additional lighting - 2 plans  
Drainage of aeration tanks main airline troughs to tank drainage conduit - 1 plan  
Method of protecting underground structures - 1 plan  
Gas metering equipment in sludge digester type tunnel and blower building -  
plan and specification  
Gas holder compressor pit, modifications to piping - plan  
Lubrication oil cooling, piping and lubrication, oil drain, piping for blowers -  
plan  
Over hauling No. 3 lift pump in pump house - specification  
Ceramic and precision type air diffuser, tubes and tube cleaning equipment -  
specifications



Annual Report - Details of Work  
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New fence around plant - 2 plans and specifications  
Grit Chamber building new aluminum sash and doors - 2 plans and specifications  
New Gates on force main  
Electric wiring and floodlighting  
Landscaping - 2 plans and specifications. Designed by consulting landscape architect.  
Switch assemblies - blower building  
Checking various shop drawings.

FRANKFORD CREEK HIGH LEVEL  
GRIT CHAMBER

New grit removal equipment - 1 plan

SOUTHWEST SEWAGE TREATMENT WORKS

8 sludge digesters, 110 feet diameter x 35 feet sidewater depth. Nominal capacity 350,000 cubic feet each tank - digestion period 26 days - contract plans 19 structural, 12 mechanical, 6 electrical, 1 plumbing  
Screen and grit chamber design.  
Main effluent conduits, field surveys and preparation of plans

SOUTHEAST SEWAGE TREATMENT WORKS

Primary tanks and flocculation channels including pipe gallery - contract plans - 17 structural, 14 mechanical, 1 architectural, 4 electrical.

CENTRAL SCHUYLKILL PUMPING STATION

Superstructure - 6 plans  
Plan and detail of pile foundation for support of discharge pipes - 1 plan  
Water supply pipe riser, valve boxes and foundation details - 1 plan  
30 inch sewage pumps - pump casing drain pipe & valve.  
Aluminum roofs - 2 plans and specifications

SOUTHEAST SEWAGE PUMPING STATION

Details of foundation for discharge pipe lines - 1 plan  
Location plan and detail of valve boxes and fire hydrants for water service lines.

Tests on mechanical and electrical equipment by Division personnel.

PHILADELPHIA AIRPORTS

North Philadelphia Airport

Paving and Utilities for Small Plane Hangar Area and Aprons	7 plans
Painting of Administration Building -	Specifications
Alterations to Control Tower Administration Building	2 plans
Fixed Base Operations Building - Jack S. Steel Co.	
General	7 plans
Plumbing and Drainage	1 plan
Heating and Air Conditioning	2 plans
Electrical Work	1 plan

PHILADELPHIA INTERNATIONAL AIRPORT

Small Plane Hangar Area

Lighting and Power in "T" Hangars	3 plans
Installation of Toilet Rooms and Finishing of Offices	1 plan
Structural Alterations to Unit "G"	4 plans
Heating, Unit "G"	1 plan
Additional Plumbing, Unit "G"	2 plans
Fixed Base Operations Building - Conduit layout Unit "G" and Floodlighting details "T" Hangar Area	2 plans
Fixed Base Operations Building - Structural	6 plans
"    "    "    "    - Heating and Air Conditioning	3 plans
"    "    "    "    - Plumbing	3 plans
"    "    "    "    - Electrical	2 plans
"    "    "    "    - Underground	
Conduits and Cables for Power and Lighting System	1 plan

Site "A" Hangar Area

Hangar Doors - Wiring Diagram Supplement	1 plan
Hangar Apron Floodlighting	
Supplementary Lighting for No. 1 Hangar	
Power Supply to Refueling System	4 plans
Automatic Fire Extinguishing System	
Fire Pump House - Piping and Mechanical Equipment	8 plans
Automatic Fire Extinguishing System - Structural	4 plans
Revisions to Heating System	2 plans
Drinking Fountains for Hangars #3 and #4	1 plan
Furnishing and Installing Door and Window Screens	2 plans
Additional Work revision to Shop Office Floor	1 plan

General

Drainage Studies, Design and Report - Terminal Area and Comprehensive Field Extension.	
Drainage Studies and Design - Penna. National Guard Area and Access Road	
Paving and Improvement adjacent to Cargo Building	2 plans

Annual Report - Details of Work  
Design Division - 1950

Cargo Building - Roof Ventilators :  
" " - Plane Sewage Disposal :  
" " - Catwalk Details : 4 plans  
" " - Additional Toilet Room :

Plane Sewage Disposal, Cargo Building, - Plumbing - 1 plan  
" " , Equipment and Piping - 1 plan

Resurfacing of Runway 9-27-Specifications

Extending Manholes to Grade adjacent to Runways 9-27 and 12-30-Specifications

Gate Houses - 1 plan

Project application to C.A.A. for New Access Road - 7 plans

Terminal Area - Airways Engineering Corporation

Terminal Building - General Construction :  
" " - Elevator and Electrical Dumbwaiters : 94 plans  
" " - Moving Stairways :  
" " - Plumbing - 13 plans  
" " - Heating, Ventilation & Air Conditioning - 13 plans  
" " - Electrical Work - 29 plans  
" " - Food Service Equipment - 6 plans  
" " - Baggage Handling - : 2 plans  
" " - Pneumatic Tube System :

Drainage, Grading and Paving of Runway (9-27)

Extension, Taxiways, First Stage Apron and adjacent areas - 26 plans

General

Paving and Improvement adjacent to Cargo Building - 7 plans

BRIDGES

Sixty-sixty Street footbridge over P.B.&W. Railroad - 3 span steel beam with  
concrete deck - checked shop drawings, railing details, and  
reinforcing details - 100% complete

Walnut Lane over Lincoln Drive - 3 span prestressed reinforced concrete bridge -  
checked construction details (forms, centers, etc.) and Railing  
Expansion Details - 84% complete

Tabor Ave. under Phila. and Frankford Branch (Reading Company)

checked, all construction details, concrete walls, fences,  
steel shop drawings, reinforcing details and stonework - 59% completed

Bustleton Ave. over Pennypack Creek - widening of roadway and addition of footways  
checked all construction details, steel shop drawings, reinforcing  
details, railings and stonework details - 100% completed



BRIDGES (Continued)

Pine Road over P.N. and N.Y.R.R. (Reading Co.) contract plans and specifications completed  
Wingohecking Street under P.N. and N.Y.R.R. (Reading Co.) Contract let, checked all construction details, steel shop drawings, reinforcing details, and stonework details - 20% completed  
Upsal St. under the Chestnut Hill Branch (Reading Co.) Survey Plan completed.  
Cathedral Road over Lincoln Drive - Studies made particularly as to approaches.

MISCELLANEOUS

Bustleton Ave; Tyson St. to Princeton St., Location of laterals.  
20th Street; Callowhill St. to Vine St. - Location and elevation of 20" slant.  
Champlost St., "B" Street - Location for City Inlet.  
Holme Ave., Willits Rd., Academy Rd. - Size and location of sewer laterals.  
Algon Ave., Friendship St. - Sketch showing drainage spur.  
Seventh Street, - Oak Lane - Sketch showing revised alignment of sewer  
Fisk Ave.; Cresson St. to Dobson St. - Intermediate inlet location.  
Broad St., Glenwood Ave. to Cambria St. - Electrical conduit location  
Rhawn St.; Lexington Ave., Pennypack Creek - Sketch showing location of borings.  
Houghton St.; Kingsley St. to Markle St. - Sketch showing location of borings.  
Erringer Place; Manheim St. to Clapier St. - Change of alignment of sewer.  
Delaware River; Wheatshaf Lane to S. of Gaster Ave. - Coal-handling wharf,  
Philadelphia Electric Company  
Hellerman St.; Battersby St. - Sketch showing additional inlets.  
Knorr St.; Martins Mill Road, Oakley St. - Vent pipe required  
Hellerman St.; Cottage St. - Additional inlets.  
Willits Road; Exeter Rd. to Academy Rd. - Drainage structures required prior to paving.  
Algard St.; Unruh St. - Drainage structures required prior to paving.  
Wellens St.; Howard St. to Front St. - Drainage structures required prior to paving.  
Philadelphia Psychiatric Hospital, Monument Avenue and Ford Road, - drainage.  
List of flood relief projects with estimates of cost.  
Riss & Co., Inc. - Trucking warehouse sewer connection, Thompson and Luzerne  
Moyamensing Prison - Drainage for additional facilities.  
Eastern Penna. Psychiatric Institute - Drainage connections.  
Whitaker Co. - Proposed building, drainage R/W 33rd St.  
American Stores Warehouse - drainage - 54th St. and Oxford St.  
Bloomfield Ave. - Culvert design for City Plan Revision  
Frankford Creek - Flooding at Van Dyke and Paul Sts.  
Civilian Defense Project - Drainage map of city.  
Henry Disston & Sons - Force main and manhole - Delaware Ave. Unruh to Magee.

MISCELLANEOUS (Continued)

Penna. R.R. - Reconstruction of sewer manhole - Powelton Ave. and West River Drive.  
Adams Ave. - Wingchoking St. - lateral requirements.  
Summerdale Ave. & Tyson Ave. - Drainage for proposed school.  
Black Oak Park - 52nd St. to Pine St. - drainage  
Sewer Design - City Transit plans for Market St. subway construction.  
Claridge Apts. - 18th and walnut - Sewer connection.  
Savoy Apts. - 1806 Rittenhouse St. - Sewer connections.  
Athletic Field - Field house - sewer connection - 49th and Spruce Sts.  
Park Plaza Apt. - Manning St. and 18th St. - Sewer connection  
Newkirk St. - Moore St. to Mifflin St. - Investigation for inlet construction.  
United Engineers and Constructors, Inc. - Underground electric conduits across  
34th Street at Spruce St.  
Steam Main - 22nd St. and Pemberton St.  
Caster Ave. N. of Strahle St. - Sewer connection for restaurant.  
Dobson's Mill Property on Dobson's Run, elimination of water rights  
Pier 80 South - Contract plans and specifications for plumbing, heating and  
fire sprinkler system - for Dept. of Wharves, Docks and Ferries.  
Lardner Point Pumping Station layout for storage of pumps and accessories  
for Central Schuylkill and Southeast Pumping Stations.  
Partial demolition of building N.W. corner, Pensdale and Station Sts. - specifications  
Municipal Stadium - plans for miscellaneous work - 3 drawings.  
Market St. shed - 2nd St. between Lombard and South Sts. - 1 plan for repairs  
Improvements to 12th Floor, City Hall Annex  
Alterations - 8th Survey District  
Ash dump enclosure - preliminary drawings.

PRELIMINARY ESTIMATES

Ramona Ave. - Adams Ave. to Wyoming Ave.  
Bustleton Ave. - Princeton Avenue to St. Vincent St.  
Willits Road - Holme Ave. to N. W. of Academy Rd.  
Pennway St. - Cottman Avenue to St. Vincent St.  
Ogontz Ave. - Lindley St. to Somerville St.  
Greysmont St. - Verree Rd. to Jeanes St.  
60th St. and Lancaster Ave. - inlet drainage.  
Caster Ave. - Frankford Ave. to Glenwood Ave.; Glenwood Ave. and Venango St. to  
"J" St., "I" St. from Venango St. to Erie Ave.  
Main Relief Sewer, 22nd and N. College Ave. to 16th and Tioga Sts.  
Mill Creek Flood Relief, 46th and Market St. to 55th and Master Sts.  
48th St., Market St. to Haverford Ave.  
Longfield Ave. outlet sewer - Eden St. to Poquessing Creek.

Plans, Specifications and Estimates for Use of Bureau  
of Highways

- Regent Street (N.W. side) east of 68th Street: - Details for water and gas service pipes through retaining walls.
- Cedar Street between Venango Street and Tioga Street: - Checked plan for pipe line across street.
- N.E. Side of Main St. N.W. of Sumac Street:-Investigation and report on existing 50 ft. high retaining wall for proposed grading in front of wall.
- Passmore Street at Phila., Newtown and N.Y.R.R.:-Checked plan for retaining wall.
- Second Street between Luzerne Street and Hunting Park Avenue:-Plan for drainage for Phila. Hospital for Contagious Diseases
- Horwood Avenue South of Sunset Avenue:-Checked plans for retaining walls.
- N.E. side of Walnut Lane about 135 ft. east of Daniel Street:-Plan for retaining wall and steps.
- 18 Miscellaneous estimates of cost for various drainage structures and items in connection with grading and improvement contracts.

MARQUEES, VAULTS, PRIVATE BRIDGES, ETC.

Private Bridge	:	Howard and Clearfield Sts. - Yarn Dyers
Private Bridge	:	Ontario St. E. of Rosehill St. - Philco Corporation
Pipe Bridge	:	Vandalie St. N. of Snyder Ave. - Publicker Industries
Marquee	:	4024 W. Girard Ave. - Theatre
Marquee	:	139 S. 39th St. - Hotel
Marquee	:	Frankford Ave. and Wellington St. - Theatre
Marquee	:	Chestnut St. West of Broad St. - Theatre
Marquee	:	Broad and Wingochocking St. - Super Market
Marquee	:	Frankford Ave. and Granite St. - Theatre
Marquee	:	8th and Market Sts. - Lit Brothers
Sign	:	Phila. International Airport - TWA
Sign	:	Phila. International Airport - PIASECKI
Excavation	:	12th and Sanson Sts. - Sheathing and Shoring
Stairway	:	20th St. South of Spruce St. - Doctor's office
Ramp	:	52nd St. and Jefferson Sts. - Wynnefield Hospital
Underground	:	
Conduit	:	Filbert St. W. of 7th - Lit Bros.
Steam Pipes	:	South St. Viaduct - University Hospital



CHECKING APPLICATIONS FOR THE PUBLIC UTILITIES

Philadelphia Gas Works Company	1519.
Bell Telephone Company	434.
Philadelphia Electric Company	106.
Miscellaneous (Traffic Engineering - Water Bureau)	106.
	<hr/>
Total	2165.

MICROGRAPHING

All proposals for the Bureau of Engineering, Records and Forms for the various Divisions and the Bureau of Aeronautics.

FILING

Filing and Recording of all plans used by the various Divisions of the Bureau of Engineering and the Bureau of Aeronautics; including Main and Branch Sewer Plans, Sewage Disposal Plans, Bridge Plans, Airport Plans, Miscellaneous Plans, etc.

BLACK LINE PRINTING

Black Line Printing by the Osalid Dry Ammonia Process for the Bureau of Engineering - Design Division - Projects Division - Registry Division - Aeronautics Bureau, etc.

Paper used for all purposes amounted to 136,000 square feet.

WORK COMPLETED AND UNDER CONSTRUCTION - 1950

COMPLETED

Northeast Sewage Disposal  
Contracts carried from 1949  
Contract No. SD-111-NE

Milnor Street Pumping Station - Construction and Equipment Work  
Date of Contract - September 30, 1947  
Notice to Proceed - November 5, 1947  
Contractor - Yetman Contractors, Inc.  
Amount of Contract - \$43,999.00  
Completed - January 20, 1950

Contract No. SD-115-NE

Milnor Street Sanitary Sewer - Milnor Street Pumping Station to  
Grant Avenue  
Date of Contract - July 31, 1947  
Notice to Proceed - September 23, 1947  
1207 linear feet - 15" Vit. Pipe Sewer  
14 linear feet - 12" Vit. Pipe Sewer  
20 linear feet - 16" C.I. Pipe Sewer  
87 linear feet - 6" C.I. Pipe Sewer  
Contractor - Yetman Contractors, Inc.  
Amount of Contract - \$25,939.00  
Completed - March 6, 1950

Contract No. SD-116-NE

Milnor Street Pumping Station (Electrical)  
Date of Contract - September 22, 1947  
Notice to Proceed - November 5, 1947  
Contractor - W.V. Pangborne & Co.  
Amount of Contract - \$7,482.00  
Completed - January 20, 1950

Contract No. SD-136-NE

Intercepting Chamber in Westmoreland Street between Delaware  
Avenue and West of Brabant Street  
Date of Contract - May 31, 1949  
Notice to Proceed - June 21, 1949  
Contractor - Acchione Contracting Co.  
Amount of Contract - \$54,036.00  
Completed - May 23, 1950

114-1950

Northeast Sewage Disposal

Contracts awarded during 1950

Contract No. SD-149-NE

Wooden Bridge Run Intercepting Sewer on Private Property  
from 1340' North of Willitts Avenue to Grant Avenue

Date of Contract - April 11, 1950

Notice to Proceed - May 3, 1950

3298 linear feet - 30" R.C. Pipe Sewer

150 linear feet - 10" Vit. Pipe Sewer

Contractor - James D. Morrissey, Inc.

Amount of Contract - \$78,065.00

Completed - August 20, 1950

Northeast Sewage Treatment Works

Contracts carried from 1949

Contract No. SD-107-NE

East Pump House, Plumbing and Piping - Sludge Digestion System

Date of Contract - June 25, 1947

Notice to Proceed - July 25, 1947

Contractor - Bulman Bros.

Amount of Contract - \$1,590.00

Completed - August 14, 1950

Contract No. SD-108-NE

Sludge Digestion Tanks Galleries, etc. (Structural)

Date of Contract - June 20, 1947

Notice to Proceed - July 25, 1947

Contractor - Virginia Engineering Co., Inc.

Amount of Contract - \$1,039,890.00

Completed - March 20, 1950

Contract No. SD-109-NE

Sludge Digestion Tanks Galleries, etc. (Mechanical)

Date of Contract - June 20, 1947

Notice to Proceed - July 25, 1947

Contractor - Virginia Engineering Co., Inc.

Amount of Contract - \$608,633.00

Completed - March 20, 1950

115-1950



Contract No. SD-118-NE

Elevated Water Tank  
Date of Contract - November 25, 1947  
Notice to Proceed - December 22, 1947  
Contractor - Chicago Bridge & Iron Co.  
Amount of Contract - \$34,550.00  
Completed - June 27, 1950

Northeast Sewage Treatment Works

Contracts awarded during 1950

Contract No. SD-147-NE

Precision Air Diffuser Tubes for Aeration Tanks  
Date of Contract - March 23, 1950  
Notice to Proceed - April 14, 1950  
Contractor - Chicago Pump Co.  
Amount of Contract - \$17,946.00  
Completed - August 2, 1950

Contract No. SD-148-NE

Ceramic Air Diffuser Tubes for Aeration Tanks  
Date of Contract - March 23, 1950  
Notice to Proceed - April 14, 1950  
Contractor - Chicago Pump Co.  
Amount of Contract - \$31,890.00  
Completed - August 2, 1950

Contract No. SD-150-NE

Replacing Existing Gates on Force Mains  
Date of Contract - July 11, 1950  
Notice to Proceed - August 10, 1950  
Contractor - Ferry J. Goldman Construction Co.  
Amount of Contract - \$8,132.00  
Completed - October 19, 1950

Contract No. SD-151-NE

Overhauling No. 3 Lift Pump in Pump House  
Date of Contract - May 31, 1950  
Notice to Proceed - June 20, 1950  
Contractor - Keystone Engineering Co.  
Amount of Contract - \$5,180.00  
Completed - November 24, 1950

116-1950

Southwest Sewage Disposal

Contracts carried from 1949

Contract No. SD-108-SW

East Central Schuylkill Pumping Station and River Syphon  
Date of Contract - August 4, 1948  
Notice to Proceed - August 20, 1948  
Contractor - Leo Butler Co.  
Amount of Contract - \$1,374,855.00  
Completed - August 26, 1950

Contract No. SD-125-SW

Southwest Main Gravity Intercepting Sewer across West  
Interchange at Penrose Avenue Bridge  
Date of Contract - September 20, 1949  
Notice to Proceed - October 1, 1949  
127 linear feet - Triple Section R.C. Sewer (6'-9" High)  
Contractor - Accione Contracting Co.  
Amount of Contract - \$24,851.00  
Completed - January 6, 1950

Contract No. SD-126-SW

Bulkhead Wall, Landscaping etc. in Drainage R/W at Sugar Leaf  
Road and Wissahickon Creek North of Germantown Avenue  
Date of Contract - December 30, 1949  
Notice to Proceed - February 4, 1950  
Contractor - Joseph Paolino  
Amount of Contract - \$3,427.00  
Completed - November 17, 1950

Southwest Sewage Disposal

Contracts awarded during 1950

Contract No. SD-124-SW

Electrical Conduit System at Southwest Treatment Works  
Date of Contract - January 13, 1950  
Notice to Proceed - February 4, 1950  
Contractor - Electro Construction Co.  
Amount of Contract - \$4,490.00  
Completed - December 21, 1950

117-1950

General Sewage Disposal

Contracts carried from 1949

Contract No. SD-106-G

Sluice Gates for Pumping Station  
Date of Contract - March 29, 1948  
Notice to Proceed - April 16, 1948  
Contractor - Krejewski-Pesant Manufacturing Co.  
Amount of Contract - \$37,843.00  
Completed - August 17, 1950

Contract No. SD-108-G

Aluminum Manhole Frames & Covers, Gaskets & Patterns  
Date of Contract - October 3, 1949  
Notice to Proceed - October 25, 1949  
Contractor - Robert McMahon  
Amount of Contract - \$3,495.00  
Completed - January 19, 1950

Contract No. SD-128-G

Sewage Meter Chambers at Stenton Avenue & Erdenheim Avenue  
and Stenton Avenue & Mermaid Lane  
Date of Contract - August 31, 1948  
Notice to Proceed - September 24, 1948  
Contractor - Eastern Engineering Co.  
Amount of Contract - \$18,837.00  
Completed - July 20, 1950

AIRPORTS

Philadelphia International Airport

Contracts carried from 1949

Contract No. A-116-SW

Hangars Site A (General Construction)  
Date of Contract - October 21, 1947  
Notice to Proceed - June 2, 1948  
Contractor - Hughes Foulkred Co.  
Amount of Contract - \$1,186,386.00  
Completed - January 28, 1950

Contract No. A-122-SW

Hangars Site A (Plumbing)  
Date of Contract - December 2, 1947  
Notice to Proceed - December 22, 1947  
Contractor - Daniel J. Keating Co.  
Amount of Contract - \$97,300.00  
Completed - February 2, 1950

118-1950



Contract No. A-153-SW

Metal Partitions, Steel Frame Doors and Appurtenant  
Electrical Work in Hangars 1 & 2  
Date of Contract - November 1, 1949  
Notice to Proceed - November 23, 1949  
Contractor - J. Joseph Edelman  
Amount of Contract - \$12,986.00  
Completed - March 27, 1940

Philadelphia International Airport

Contracts awarded during 1950

Contract No. A-154-SW

Connections from Airport Buildings to Sewers  
Date of Contract - February 17, 1950  
Notice to Proceed - March 6, 1950  
Contractor - Sabatini Co.  
Amount of Contract - \$5,947.00  
Completed - September 23, 1950

Contract No. A-165-SW

Interior Finishing of Offices in Toilet Areas in "T" Hangars  
Date of Contract - June 5, 1950  
Notice to Proceed - June 23, 1950  
Contractor - William Sterling  
Amount of Contract - \$8,681.00  
Completed - October 14, 1950

Contract No. A-170-SW

Screen Doors & Windows in Hangars 1-2-3 & 4  
Date of Contract - July 6, 1950  
Notice to Proceed - August 4, 1950  
Contractor - Kane Manufacturing Co.  
Amount of Contract - \$8,187.00  
Completed - December 18, 1950

Contract No. A-182-SW

Resurfacing Runway #9-27 with Bituminous Material  
Date of Contract - September 13, 1950  
Notice to Proceed - October 5, 1950  
Contractor - Asphalt Paving & Supply Co.  
Amount of Contract - \$71,999.00  
Completed - November 17, 1950

119-1950

Contract No. A-142-SW

Metal Cargo & Operational Buildings (General Construction)  
Date of Contract - October 26, 1949  
Notice to Proceed - November 23, 1949  
Contractor - Perry J. Goldman Construction Co.  
Amount of Contract - \$105,840.00  
Completed - August 11, 1950

Contract No. A-143-SW

Metal Cargo & Operational Buildings (Electrical)  
Date of Contract - October 27, 1949  
Notice to Proceed - November 23, 1949  
Contractor - Keystone Engineering Co.  
Amount of Contract - \$17,009.00  
Completed - October 4, 1950

Contract No. A-144-SW

Metal Cargo & Operational Buildings (Plumbing)  
Date of Contract - October 26, 1949  
Notice to Proceed - November 23, 1949  
Contractor - Cooper & Hartsfield  
Amount of Contract - \$11,666.00  
Completed - October 16, 1950

Contract No. A-145-SW

Metal Cargo & Operational Buildings (Heating & Ventilating)  
Date of Contract - November 23, 1949  
Notice to Proceed - December 12, 1949  
Contractor - Cooper & Hartsfield  
Amount of Contract - \$18,930.00  
Completed - November 1, 1950

Contract No. A-148-SW

Grading & Sub-drainage between Runways 12L & 17L  
Date of Contract - April 25, 1949  
Notice to Proceed - May 12, 1949  
Contractor - Samuel Glasgow  
Amount of Contract - \$246,664.00  
Completed - April 12, 1950

Contract No. A-152-SW

Cargo Apron & Taxiway Connection to Runways 30R & 27R  
Date of Contract - October 4, 1949  
Notice to Proceed - October 25, 1949  
Contractor - Union Paving Co.  
Amount of Contract - \$437,823.00  
Completed - June 5, 1950

170-1950

Contract No. A-123-SW

Hangars Site A (Heating)  
Date of Contract - December 2, 1947  
Notice to Proceed - December 22, 1947  
Contractor - Daniel J. Keating Co.  
Amount of Contract - \$100,196.00  
Completed - February 11, 1950

Contract No. A-132-SW

Taxiways & Field Improvements between Runways 12L & 17L  
Date of Contract - September 8, 1948  
Notice to Proceed - September 24, 1948  
Contractor - Union Paving Co.  
Amount of Contract - \$471,760.00  
Completed - May 17, 1950

Contract No. A-133-SW

Paving Hangars, Apron & Approaches to Runway 17  
Date of Contract - December 20, 1948  
Notice to Proceed - January 4, 1949  
Contractor - Hughes Foulkrod Co.  
Amount of Contract - \$446,015.00  
Completed - June 16, 1950

Contract No. A-140-SW

Grading, Paving and Installation of Utilities in "T"  
Hangar Area  
Date of Contract - September 12, 1949  
Notice to Proceed - September 29, 1949  
Contractor - Union Paving Co.  
Amount of Contract - \$156,650.00  
Completed - June 20, 1950

Contract No. A-141-SW

Clearing and Grading Runway Extension and Taxiway  
Date of Contract - June 2, 1949  
Notice to Proceed - July 2, 1949  
Contractor - Buckley & Co., Inc.  
Amount of Contract - \$423,034.00  
Completed - November 30, 1949

121-1950



North Philadelphia Airport  
Contract carried from 1949  
Contract No. A-118-NE

Drainage of Hangar & Apron Area  
Date of Contract - July 27, 1949  
Notice to Proceed - August 12, 1949  
Contractor - Leva Bros.  
Amount of Contract - \$89,927.00  
Completed - May 18, 1950

Highways & Bridges  
Contract carried from 1949  
Contract No. E-104

70th Street Bridge over P.B. & W. R.R.  
Date of Contract - November 10, 1947  
Notice to Proceed - January 31, 1948  
Contractor - Kaufman Construction Co.  
Amount of Contract - \$228,193.00  
Completed - March 30, 1950

Contract No. B-105

Castor Avenue Bridge over Frankford Creek  
Date of Contract - November 20, 1947  
Notice to Proceed - January 22, 1948  
Contractor - Kaufman Construction Co.  
Amount of Contract - \$624,884.00  
Completed - November 29, 1949

Contract No. B-107

Footbridge on line of 66th Street over P.B. & W. R.R.  
Date of Contract - October 11, 1949  
Notice to Proceed - October 27, 1949  
Contractor - Perry J. Goldman Construction Co.  
Amount of Contract - \$45,967.00  
Completed - October 6, 1950

Contract No. B-108

Paving and Improving Castor Avenue from Wingochocking Street  
to Wyoming Avenue  
Date of Contract - September 20, 1949  
Notice to Proceed - October 11, 1949  
Contractor - Eastern Asphalt Co.  
Amount of Contract - \$82,295.00  
Completed - January 11, 1950

122-1950

Highways & Bridges

Contract awarded during 1950

Contract No. B-109

Widening Bridge and Approaches on the line of Bustleton  
Avenue over Pennypack Creek

Date of Contract - January 13, 1950

Notice to Proceed - February 2, 1950

Contractor - Herbert J. Elkins

Amount of Contract - \$77,600.00

Completed - September 26, 1950

GENERAL

Contracts carried from 1949

Contract No. M-118

Relocation and Reconstruction of a portion of 60th Street  
Branch of P.B. & W. R.R.

Date of Contract - February 16, 1949

Notice to Proceed - May 16, 1949

Contractor - Robert Hawthorne, Inc.

Amount of Contract - \$214,451.00

Completed - March 15, 1950

Contract No. M-123

Arch Street Viaduct near P.R.R. Station at 30th Street

Date of Contract - November 7, 1949

Notice to Proceed - November 26, 1949

Contractor - W.M. Anderson Co.

Amount of Contract - \$9,018.00

Completed - March 15, 1950

Hunting Park & Ridge Avenues

Street Lighting System & Vault Equipment

Date of Contract - November 4, 1948

Notice to Proceed - December 8, 1948

Contractor - Welsbach Corp.

Amount of Contract - \$27,830.00

Completed - December 20, 1949

Contracts awarded during 1950

Contract No. M-126

Foundations Adjacent to Arch Street, Schuylkill Expressway Access Roads

Date of Contract - January 13, 1950

Notice to Proceed - February 4, 1950

Contractor - Conduit & Foundation Corp.

Amount of Contract - \$26,767.00

Completed - June 16, 1950

123-1950

Contract No. M-127

Demolition of Buildings in Harbison Avenue from Vankirk Street  
to Benner Street

Date of Contract - February 20, 1950  
Notice to Proceed - March 13, 1950  
Contractor - Kane Construction Contractors  
Amount of Contract - \$7,918.00  
Completed - April 19, 1950

Contract No. M-133

Partial Demolition of Building Northwest Corner of Pensdale and  
Station Streets

Date of Contract - October 9, 1950  
Notice to Proceed - October 27, 1950  
Contractor - Wm. Sterling & Co.  
Amount of Contract - \$2,480.00  
Completed - November 15, 1950

WORK UNDER CONSTRUCTION

Northeast Sewage Disposal  
Contracts carried from 1949

Contract No. SD-131-NE

Pennypack Creek Intercepting Sewer along Pennypack Creek North  
of Krewstown Road

Date of Contract - October 18, 1949  
Notice to Proceed - November 16, 1949  
3939 linear feet - 42" R.C. Pipe Sewer  
398 linear feet - 54" R.C. Pipe Sewer  
260 linear feet - 30" R.C. Pipe Sewer  
704 linear feet - 12" Vit. Pipe Sewer  
Contractor - Bucks County Construction Co., Inc.  
Amount of Contract - \$410,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-137-NE

Intercepting Chambers - Cambria Street between Melvale Street and  
Allen Street and in Indiana Avenue in Private Property  
Southeast of Allen Street

Date of Contract - December 29, 1949  
Notice to Proceed - January 31, 1950  
Contractor - Ferry J. Goldman Construction Co.  
Amount of Contract - \$42,000.00  
Percentage of Completion - 87% December 31, 1950

124-1950



Northeast Sewage Disposal  
Contracts awarded during 1950  
Contract No. SD-144-NE

Intercepting Chamber in Castor Avenue at Balfour Street  
Date of Contract - April 14, 1950  
Notice to Proceed - May 10, 1950  
Contractor - Conduit & Foundation Corp.  
Amount of Contract - \$38,000.00  
Percentage of Completion - 18% December 31, 1950

Contract No. SD-145-NE

Intercepting Chamber in Tioga Street at Casper Street  
Date of Contract - May 9, 1950  
Notice to Proceed - May 29, 1950  
Contractor - Conduit & Foundation Corp.  
Amount of Contract - \$36,000.00  
Percentage of Completion - 65% December 31, 1950

Contract No. SD-146-NE

Intercepting Chamber - Somerset Street East of Richmond Street  
in Private Property  
Date of Contract - November 28, 1950  
Notice to Proceed - December 19, 1950  
Contractor - Perry J. Goldman Co.  
Amount of Contract - \$125,000.00  
Percentage of Completion - None December 31, 1950

Contract No. SD-153-NE

Intercepting Chambers in Venango Street and in Ontario Street  
West of Casper Street  
Date of Contract - May 25, 1950  
Notice to Proceed - June 12, 1950  
Contractor - Yetman Contractors, Inc.  
Amount of Contract - \$73,000.00  
Percentage of Completion - None December 31, 1950

Contract No. SD-158-NE

Furnish & Install Grit Removal Equipment at Frankford Grit  
Chamber and Appurtenant Work  
Date of Contract - November 9, 1950  
Notice to Proceed - December 15, 1950  
Contractor - Derbyshire Machine & Tool Co.  
Amount of Contract - \$12,000.00  
Percentage of Completion - None December 31, 1950

125-1950

Contract No. SD-160-NE

Branch Intercepting Sewer in Tacony Creek Park and in  
Private Property along Stream etc.  
Date of Contract - November 6, 1950  
Notice to Proceed - November 22, 1950  
Contractor - Adam Leva  
Amount of Contract - \$50,000.00  
Percentage of Completion - None December 31, 1950

Contract No. SD-161-NE

Branch Intercepting Sewer in Private Property along Stream from  
Front Street Northeast of Laveer Street to Mascher Street  
Date of Contract - December 11, 1950  
Notice to Proceed - December 21, 1950  
Contractor - A. DiSandro Contracting Co.  
Amount of Contract - \$27,500.00  
Percentage of Completion - None December 31, 1950

Northeast Sewage Treatment Works

Contracts carried from 1949

Contract No. SD-105-NE

Settling & Aeration Tanks (Mechanical)  
Date of Contract - June 9, 1947  
Notice to Proceed - June 25, 1947  
Contractor - Virginia Engineering Co.  
Amount of Contract - \$1,050,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-110-NE

Sludge Digestion Tanks Galleries, etc. (Electrical)  
Date of Contract - July 3, 1947  
Notice to Proceed - July 25, 1947  
Contractor - W.V. Pangborne Co.  
Amount of Contract - \$28,000.00  
Percentage of Completion - 95% December 31, 1950

Contract No. SD-111-NE

Centrifugal Blowers Motors and Appurtenances  
Date of Contract - September 2, 1947  
Notice to Proceed - October 3, 1947  
Contractor - Roots-Comersville Blower Corp.  
Amount of Contract - \$48,765.00  
Percentage of Completion - 99% December 31, 1950

126-1950

Contract No. SD-112-NE

Positive Displacement Blowers & Motors  
Date of Contract - September 2, 1947  
Notice to Proceed - October 2, 1947  
Contractor - Roots-Connersville Blower Corp.  
Amount of Contract - \$100,351.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-119-NE

Outdoor Sub-station at Transformer Building  
Date of Contract - October 9, 1947  
Notice to Proceed - November 6, 1947  
Contractor - W.V. Pangborne Co.  
Amount of Contract - \$105,000.00  
Percentage of Completion - 91% December 31, 1950

Contract No. SD-122-NE

Blower Building (Construction)  
Date of Contract - July 28, 1948  
Notice to Proceed - August 20, 1948  
Contractor - Hughes, Foulkrod Co.  
Amount of Contract - \$700,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-123-NE

Blower Building (Mechanical Equipment and Piping)  
Date of Contract - August 12, 1948  
Notice to Proceed - September 10, 1948  
Contractor - Virginia Engineering Co., Inc.  
Amount of Contract - \$490,000.00  
Percentage of Completion - 91% December 31, 1950

Contract No. SD-124-NE

Blower Building (Electrical)  
Date of Contract - August 4, 1948  
Notice to Proceed - August 30, 1948  
Contractor - Ross Electrical Construction Co.  
Amount of Contract - \$135,000.00  
Percentage of Completion - 79% December 31, 1950

Contract No. SD-126-NE

Blower Building (Steam Heating Systems)  
Date of Contract - August 9, 1948  
Notice to Proceed - August 30, 1948  
Contractor - Philadelphia Mechanical Contractors, Inc.  
Amount of Contract - \$16,500.00  
Percentage of Completion - 92% December 31, 1950

127-1950



Contract No. SD-127-NE

Blower Building (Plumbing)  
Date of Contract - July 28, 1948  
Notice to Proceed - August 20, 1948  
Contractor - Bulman Bros.  
Amount of Contract - \$6,000.00  
Percentage of Completion - 87% December 31, 1950

Contract No. SD-128-NE

Sludge Heater Units, etc. in Blower Building  
Date of Contract - November 1, 1948  
Notice to Proceed - November 29, 1948  
Contractor - Selas Corp. of America  
Amount of Contract - \$92,000.00  
Percentage of Completion - 75% December 31, 1950

Contract No. SD-133-NE

Welded Steel Spherical Pressure Gas Holder  
Date of Contract - April 14, 1949  
Notice to Proceed - May 2, 1949  
Contractor - Virginia Engineering Co., Inc.  
Amount of Contract - \$72,000.00  
Percentage of Completion - 98% December 31, 1950

Contract No. SD-140-NE

Earth Embankment for Digestion Tanks  
Date of Contract - November 16, 1949  
Notice to Proceed - December 2, 1949  
Contractor - Samuel Glasgow  
Amount of Contract - \$38,000.00  
Percentage of Completion - 90% December 31, 1950

Northeast Sewage Treatment Works

Contracts awarded during 1950

Contract No. SD-135-NE

Influent Sewers and Meters  
Date of Contract - January 24, 1950  
Notice to Proceed - February 17, 1950  
Contractor - Oxford Construction Co.  
Amount of Contract - \$175,000.00  
Percentage of Completion - 94% December 31, 1950

Contract No. SD-141-NE

Waste Gas Burners and Burner Building  
Date of Contract - January 24, 1950  
Notice to Proceed - February 17, 1950  
Contractor - Oxford Construction Co.  
Amount of Contract - \$33,000.00  
Percentage of Completion - 65% December 31, 1950

128-1950

Contract No. SD-142-NE

Grading, Paving & Stormwater Drainage  
Date of Contract - January 27, 1950  
Notice to Proceed - February 9, 1950  
Contractor - Samuel Glasgow  
Amount of Contract - \$130,000.00  
Percentage of Completion - 69% December 31, 1950

Contract No. SD-143-NE

Underground Electrical Conduit & Light Power Control Wiring  
Date of Contract - January 11, 1950  
Notice to Proceed - February 4, 1950  
Contractor - W.V. Pangborne Co.  
Amount of Contract - \$165,000.00  
Percentage of Completion - 84% December 31, 1950

Contract No. SD-152-NE

Repairs to Electric Motor on No. 3 Lift Pump in Pump House  
Date of Contract - June 16, 1950  
Notice to Proceed - July 19, 1950  
Contractor - General Electric Co.  
Amount of Contract - \$1,300.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-155-NE

Furnish and Install Sludge Gas Metering Equipment in Sludge  
Digester Tunnel and Blower Building, Piping and Appurtenant Work  
Date of Contract - August 15, 1950  
Notice to Proceed - October 2, 1950  
Contractor - Oxford Construction Co.  
Amount of Contract - \$7,500.00  
Percentage of Completion - None December 31, 1950

Contract No. SD-163-NE

Precision Air Diffuser Tubes and Tube Cleaning Equipment  
Date of Contract - November 17, 1950  
Notice to Proceed - December 9, 1950  
Contractor - Chicago Pump Co.  
Amount of Contract - \$60,000.00  
Percentage of Completion - None December 31, 1950

129-1950

Southeast Sewage Disposal  
Contracts carried from 1949  
Contract No. SD-101-SE

Lower Delaware Low Level Intercepting Sewer  
Date of Contract - December 12, 1947  
Notice to Proceed - February 12, 1948  
2408 linear feet - 11'-0" dia. Concrete Sewer  
4081 linear feet - 10'-6" dia. Concrete Sewer  
Contractor - James N. Driscoll Co.  
Amount of Contract - \$2,650,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-102-SE

Southeast Sewage Pumping Station (Construction)  
Date of Contract - October 11, 1948  
Notice to Proceed - October 29, 1948  
Contractor - Virginia Engineering Co.  
Amount of Contract - \$800,000.00  
Percentage of Completion - 86% December 31, 1950

Contract No. SD-103-SE

Southeast Sewage Pumping Station (Electrical)  
Date of Contract - November 10, 1949  
Notice to Proceed - December 7, 1949  
Contractor - Electro Construction Co.  
Amount of Contract - \$27,000.00  
Percentage of Completion - 76% December 31, 1950

Contract No. SD-104-SE

Southeast Sewage Pumping Station (Plumbing)  
Date of Contract - October 13, 1948  
Notice to Proceed - October 29, 1948  
Contractor - W.M. Anderson Co.  
Amount of Contract - \$11,000.00  
Percentage of Completion - 64% December 31, 1950

Contract No. SD-105-SE

Lower Delaware Low Level Intercepting Sewer in Swanson Street from  
Moore Street to Morris Street, etc.  
Date of Contract - August 23, 1949  
Notice to Proceed - October 11, 1949  
3707 linear feet - 10'-0" dia. Concrete Sewer  
1532 linear feet - 9'-6" dia. Concrete Sewer  
Contractor - James N. Driscoll Co.  
Amount of Contract - \$2,100,000.00  
Percentage of Completion - 99% December 31, 1950

130-1950



Southeast Sewage Disposal  
Contract awarded during 1950  
Contract No. SD-106-SE

Lower Delaware Low Level Collecting Sewer Branch in Oregon Avenue  
from Swanson Street to Delaware Avenue  
Date of Contract - July 17, 1950  
Notice to Proceed - August 17, 1950  
2635 linear feet - 48" R.C. Pipe Sewer  
Contractor - Conduit & Foundation Corp.  
Amount of Contract - \$500,000.00  
Percentage of Completion - 8% December 31, 1950

Southwest Sewage Disposal  
Contracts carried from 1949  
Contract No. SD-110-SW

Southwest Main Gravity Intercepting Sewer in 70th Street from  
Essington Avenue to Lyons Avenue  
Date of Contract - September 8, 1948  
Notice to Proceed - October 7, 1948  
4269 linear feet - Triple Section R.C. Sewer (6'-9" High)  
65 linear feet - 36" C.I. Pipe Sewer  
Contractor - Accione Contracting Co.  
Amount of Contract - \$725,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. SD-116-SW

East Central Schuylkill Intercepting Sewer from about 450' East  
of 34th Street to a point in 26th Street North of Lombard Street  
Date of Contract - March 28, 1949  
Notice to Proceed - May 1, 1949  
4432 linear feet - 8'-6" dia. Concrete Sewer  
144 linear feet - 48" C.I. Pipe Sewer  
Contractor - Square Construction Corp.  
Amount of Contract - \$1,800,000.00  
Percentage of Completion - 96% December 31, 1950

Contract No. SD-120-SW

Intercepting Sewer in Schuylkill Ave. West from Arch Street  
Northward about 1000 feet  
Date of Contract - November 15, 1948  
Notice to Proceed - December 1, 1948  
932 linear feet - 36" C.I. Pipe Sewer  
Contractor - Conduit & Foundation Corp.  
Amount of Contract - \$200,000.00  
Percentage of Completion - 99% December 31, 1950

131-1950

Contract No. SD-123-SW

General Construction Mechanical Equipment & Piping for Primary  
Settling Tanks

Date of Contract - July 26, 1949

Notice to Proceed - August 11, 1949

Contractor - Hughes Foulkrod Co.

Amount of Contract - \$1,400,000.00

Percentage of Completion - 98% December 31, 1950

Southwest Sewage Disposal

Contracts awarded during 1950

Contract No. SD-112-SW

Central Schuylkill Sewage Pumping Station (Structural & Architectural)

Date of Contract - April 4, 1950

Notice to Proceed - May 3, 1950

Contractor - Laub Construction Co.

Amount of Contract - \$175,000.00

Percentage of Completion - 27% December 31, 1950

Contract No. SD-113-SW

Central Schuylkill Sewage Pumping Station (Electrical)

Date of Contract - April 4, 1950

Notice to Proceed - May 3, 1950

Contractor - Electro Construction Co.

Amount of Contract - \$15,000.00

Percentage of Completion - None December 31, 1950

Contract No. SD-114-SW

Central Schuylkill Sewage Pumping Station (Plumbing)

Date of Contract - April 11, 1950

Notice to Proceed - May 3, 1950

Contractor - W.M. Anderson Co.

Amount of Contract - \$2,500.00

Percentage of Completion - None December 31, 1950

Contract SD-127-SW

Southwest Main Gravity Intercepting Sewer in 70th Street from  
Lyons Avenue to Buist Avenue, etc.

Date of Contract - March 15, 1950

Notice to Proceed - April 1, 1950

1126 linear feet - Triple Section R.C. Sewer (6'-9" High)

1610 linear feet - 14'-0" x 13'-0" R.C. Sewer

8 linear feet - 5'-0" x 4'-6" and 10'-3" x 13'-0" R.C. Sewer

43 linear feet - 5'-0" x 4'-6" R.C. Sewer

20 linear feet - 42" R.C. Pipe Sewer

7 linear feet - 3'-0" x 2'-0" Brick Sewer

20 linear feet - 18" Vit. Pipe Sewer

Contractor - Jos. Lombardi & Sons

Amount of Contract - \$825,000.00

Percentage of Completion - 31% December 31, 1950

132-1950

Contract No. SD-131-SW

Southwest Main Gravity Intercepting Sewer - Parts "A", "B" and "C"  
Date of Contract - August 8, 1950  
Notice to Proceed - October 2, 1950  
5302 linear feet - 14'-0" dia. Concrete Sewer  
7137 linear feet - 12'-6" dia. Concrete Sewer  
644 linear feet - 8'-0" dia. Concrete Sewer  
1793 linear feet - 6'-0" dia. Concrete Sewer  
3419 linear feet - 5'-6" dia. Concrete Sewer  
40 linear feet - 12'-6" x 14'-0" R.C. Sewer  
77 linear feet - 6'-0" x 5'-0" R.C. Sewer  
81 linear feet - 3'-6" x 5'-0" and 4'-6" x 5'-0" R.C. Sewer  
29 linear feet - 4'-6" x 5'-0" R.C. Sewer  
40 linear feet - 5'-0" dia. Brick Sewer  
15 linear feet - 3'-6" dia. Brick Sewer  
Contractor - P. Kiewit Sons and Bates & Rogers Construction Corp.  
Amount of Contract - \$6,000,000.00  
Percentage of Completion - 2% December 31, 1950

Sewage Disposal General

Contracts carried from 1949

Contract No. SD-104-G

Electrical Motor Driven Pumping Equipment for Central Pumping  
Station and Southeast Pumping Station  
Date of Contract - May 4, 1948  
Notice to Proceed - June 8, 1948  
Contractor - Worthington Pump & Machinery Co.  
Amount of Contract - \$270,000.00  
Percentage of Completion - 50% December 31, 1950

Contract No. SD-105-G

Gate Valves for Pumping Station  
Date of Contract - March 29, 1948  
Notice to Proceed - April 16, 1948  
Contractor - A.P. Smith Manufacturing Co.  
Amount of Contract - \$96,000.00  
Percentage of Completion - 99% December 31, 1950

Sewage Disposal General

Contract awarded during 1950

Contract No. SD-107-G

Roofing on the Southeast Sewage Pumping Station & Central  
Schuylkill Pumping Station  
Date of Contract - August 23, 1950  
Notice to Proceed - September 11, 1950  
Contractor - Overly Manufacturing Co.  
Amount of Contract - \$32,000.00  
Percentage of Completion - None December 31, 1950

133-1950



AIRPORTS

Philadelphia International Airport

Contracts carried from 1949

Contract No. A-134-SW

Island Road 13.2 KV Outdoor Sub-Station  
Date of Contract - October 28, 1948  
Notice to Proceed - November 22, 1948  
Contractor - Henkels & McCoy  
Amount of Contract - \$90,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. A-139-SW

Electrical Installations at Hangars, Terminal Building and  
Restaurant Building  
Date of Contract - August 17, 1949  
Notice to Proceed - September 7, 1949  
Contractor - Electro Construction Co.  
Amount of Contract - \$22,000.00  
Percentage of Completion - 99% December 31, 1950

Philadelphia International Airport

Contracts awarded during 1950

Contract No. A-135-SW

Automatic Thermo-Pneumatically Operated Mechanical Foam Systems  
and Water Sprinkler Systems  
Date of Contract - July 27, 1950  
Notice to Proceed - August 17, 1950  
Contractor - Rockwood Sprinkler Co.  
Amount of Contract - \$190,000.00  
Percentage of Completion - 7% December 1950

Contract No. A-146-SW

Electrical Installations in "T" Hangars - G, H & I  
Date of Contract - June 2, 1950  
Notice to Proceed - June 21, 1950  
Contractor - L. Bauer, Jr.  
Amount of Contract - \$25,000.00  
Percentage of Completion - 98% December 31, 1950

Contract No. A-155-SW

Fire Pump & Foam Liquid Storage Building, Gasoline Interceptors  
and Concrete Structures - Drainage Piping  
Date of Contract - August 1, 1950  
Notice to Proceed - August 17, 1950  
Contractor - Murphy-McDonnell Co.  
Amount of Contract - \$65,000.00  
Percentage of Completion - 43% December 31, 1950

134-1950

Contract No. A-156-SW

Terminal Building (General Construction)  
Date of Contract - June 9, 1950  
Notice to Proceed - July 7, 1950  
Contractor - John McShain, Inc.  
Amount of Contract - \$5,500,000.00  
Percentage of Completion - 16% December 31, 1950

Contract No. A-157-SW

Terminal Building (Plumbing)  
Date of Contract - June 9, 1950  
Notice to Proceed - July 7, 1950  
Contractor - L.E. Winter & Co.  
Amount of Contract - \$310,000.00  
Percentage of Completion - 25% December 31, 1950

Contract No. A-158-SW

Terminal Building (Heating, Ventilating & Air Conditioning)  
Date of Contract - June 12, 1950  
Notice to Proceed - July 7, 1950  
Contractor - Ambrose Augusterfer  
Amount of Contract - \$990,000.00  
Percentage of Completion - 4% December 31, 1950

Contract No. A-159-SW

Terminal Building (Electrical)  
Date of Contract - June 8, 1950  
Notice to Proceed - July 7, 1950  
Contractor - Howard P. Foley Co.  
Amount of Contract - \$930,000.00  
Percentage of Completion - 1% December 31, 1950

Contract No. A-160-SW

Terminal Building (Elevator & Electrical Dumbwaiters)  
Date of Contract - June 28, 1950  
Notice to Proceed - August 7, 1950  
Contractor - Security Elevator Co.  
Amount of Contract - \$20,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-161-SW

Terminal Building (Food Service Equipment)  
Date of Contract - June 13, 1950  
Notice to Proceed - July 7, 1950  
Contractor - W.F. Dougherty & Sons  
Amount of Contract - \$120,000.00  
Percentage of Completion - None December 31, 1950

135-1950

Contract No. A-162-SWa

Terminal Building (Baggage Handling)  
Date of Contract - June 21, 1950  
Notice to Proceed - September 29, 1950  
Contractor - Standard Conveyor Co.  
Amount of Contract - \$41,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-162-SWb

Terminal Building (Pneumatic Tube System)  
Date of Contract - June 28, 1950  
Notice to Proceed - August 7, 1950  
Contractor - Grover Co.  
Amount of Contract - \$47,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-163-SW

Terminal Building (Moving Stairways)  
Date of Contract - June 9, 1950  
Notice to Proceed - July 7, 1950  
Contractor - Otis Elevator Co.  
Amount of Contract - \$67,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-164-SW

Grading, Drainage, Lighting and Installation of Utilities in  
Vicinity of Cargo and International Building  
Date of Contract - July 27, 1950  
Notice to Proceed - August 30, 1950  
Contractor - Herbert J. Elkins  
Amount of Contract - \$190,000.00  
Percentage of Completion - 70% December 31, 1950

Contract No. A-166-SW

Additional Incandescent Lighting System for Hangar No. 2  
Apron Refueling Conduits, etc.  
Date of Contract - April 28, 1950  
Notice to Proceed - May 23, 1950  
Contractor - Electric Power Construction Co.  
Amount of Contract - \$11,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. A-167-SW

Plumbing and Septic Tank System in "T" Hangar - H  
Date of Contract - June 2, 1950  
Notice to Proceed - June 21, 1950  
Contractor - American Sanitary Sales & Service  
Amount of Contract - \$22,000.00  
Percentage of Completion - 99% December 31, 1950

136-1950



Contract No. A-176-SW

Motorized Dampers, Fuel Oil Preheaters, Automatic Louvers and  
Appurtenant Work for Forced Air Heat System in Hangars 1-2-3 and 4  
Date of Contract - August 24, 1950  
Notice to Proceed - September 11, 1950  
Contractor - Williard Sales and Service, Inc.  
Amount of Contract - \$25,000.00  
Percentage of Completion - 53% December 31, 1950

Contract No. A-177-SW

Fixed Base Operations Building (Construction)  
Date of Contract - November 21, 1950  
Notice to Proceed - December 9, 1950  
Contractor - M & L Construction Co.  
Amount of Contract - \$90,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-178-SW

Fixed Base Operations Building (Septic Tank System)  
Date of Contract - October 13, 1950  
Notice to Proceed - November 29, 1950  
Contractor - J. Borden & Bro.  
Amount of Contract - \$40,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-179-SW

Fixed Base Operations Building (Heating & Air Conditioning)  
Date of Contract - October 27, 1950  
Notice to Proceed - November 29, 1950  
Contractor - American Sanitary Sales & Service, Inc.  
Amount of Contract - \$51,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-180-SW

Fixed Base Operations Building (Electrical)  
Date of Contract - October 19, 1950  
Notice to Proceed - November 11, 1950  
Contractor - L. Bauer, Jr.  
Amount of Contract - \$16,250.00  
Percentage of Completion - None December 31, 1950

Contract No. A-181-SW

Drainage and Paving Runway Extensions and First Stage Apron  
Date of Contract - September 14, 1950  
Notice to Proceed - September 28, 1950  
Contractor - Progressive Builders, Inc.  
Amount of Contract - \$2,500,000.00  
Percentage of Completion - 54% December 31, 1950

137-1950

Contract No. A-185-SW

Plumbing Work in "T" Hangar - G  
Date of Contract - December 1, 1950  
Notice to Proceed - December 19, 1950  
Contractor - American Sanitary Sales & Service, Inc.  
Amount of Contract - \$140,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-186-SW

Steam Heating System in "T" Hangar - G  
Date of Contract - December 1, 1950  
Notice to Proceed - December 19, 1950  
Contractor - American Sanitary Sales & Service, Inc.  
Amount of Contract - \$50,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-187-SW

Improvements to "T" Hangars - G, H and I  
Date of Contract - December 1, 1950  
Contractor - Roberts Construction Co., Inc.  
Amount of Contract - \$65,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-188-SW

Electrical Work in "T" Hangar - G and Area Adjacent to "T"  
Hangars and Fixed Base Operations Building  
Date of Contract - December 4, 1950  
Contractor - Ross Electrical Construction Co.  
Amount of Contract - \$50,000.00  
Percentage of Completion - None December 31, 1950

Contract No. A-189-SW

Extending Stormwater Manholes to Grade Adjacent to Runways 9-27 & 12-30  
Date of Contract - December 19, 1950  
Contractor - Jos. Visco  
Amount of Contract - \$2,000.00  
Percentage of Completion - None December 31, 1950

Resurfacing of a Portion of Runway 22, Runway 27 and Runway 30  
with Bituminous (Hot Mix)  
Date of Contract - January 10, 1950  
Notice to Proceed - June 28, 1950  
Contractor - Union Paving Co.  
Amount of Contract - \$28,000.00  
Percentage of Completion - 99% December 31, 1950

North Philadelphia Airport  
Contracts awarded during 1950  
Contract No. A-120-NE

Paving and Utilities for Small Hangar Area and Apron  
Date of Contract - May 3, 1950  
Notice to Proceed - June 15, 1950  
Contractor - Union Paving Co.  
Amount of Contract - \$140,000.00  
Percentage of Completion - 76% December 31, 1950

Contract No. A-125-NE

Alterations to Control Tower of Administration Building  
Date of Contract - December 12, 1950  
Contractor - K. Litvin & Son  
Amount of Contract - \$6,500.00  
Percentage of Completion - None December 31, 1950

Painting Exterior of Administration Building  
Date of Contract - July 20, 1950  
Notice to Proceed - September 11, 1950  
Contractor - Rebnan & Barry  
Amount of Contract - \$1,200.00  
Percentage of Completion - 80% December 31, 1950

Highways and Bridges  
Contracts carried from 1949  
Contract No. B-103

Church Lane Bridge over Cobbs Creek  
Date of Contract - July 3, 1950  
Notice to Proceed - August 23, 1950  
Contractor - Kaufman Construction Co.  
Amount of Contract - City's Share \$180,000.00  
Delaware County's Share \$130,000.00  
Percentage of Completion - 99% December 31, 1950

Contract No. B-106

Walnut Lane Bridge over Lincoln Drive  
Date of Contract - March 11, 1949  
Notice to Proceed - April 8, 1949  
Contractor - Henry W. Horst Co.  
Amount of Contract - \$770,000.00  
Percentage of Completion - 84% December 31, 1950

139-1950



Highways and Bridges  
Contracts awarded during 1950  
Contract No. B-110

Tabor Avenue Bridge under the Philadelphia and Frankford  
Branch of Reading Co.  
Date of Contract - February 8, 1950  
Notice to Proceed - March 1, 1950  
Contractor - Kaufman Construction Co.  
Amount of Contract - \$400,000.00  
Percentage of Completion - 59% December 31, 1950

Contract No. B-111

Wingohocking Street Bridge under Newtown Branch of Reading Co.  
Date of Contract - May 8, 1950  
Notice to Proceed - June 19, 1950  
Contractor - Oxford Construction Co.  
Amount of Contract - \$168,000.00  
Percentage of Completion - 20% December 31, 1950

Contract No. B-113

Improvement of Willitts Road from 380' Northwest of Convent Road  
to Ashton Road including a Willitts Road Bridge over  
Wooden Bridge Run  
Date of Contract - August 2, 1950  
Notice to Proceed - September 13, 1950  
Contractor - General Asphalt Paving Co.  
Amount of Contract - \$200,000.00  
Percentage of Completion - 7% December 31, 1950

GENERAL

Municipal Stadium  
Contract carried from 1949  
Contract No. M-106

Foundation Reinforcement  
Date of Contract - May 18, 1948  
Notice to Proceed - June 8, 1948  
Contractor - Conduit & Foundation Corp.  
Amount of Contract - \$176,000.00  
Percentage of Completion - 99% December 31, 1950

Frankford Creek  
Contracts awarded during 1950  
Contract No. M-107 (Part "A")  
Contract No. M-108 (Part "B")  
Contract No. M-109 (Part "C")

Flood Control  
Date of Contract - April 17, 1950  
Notice to Proceed - May 10, 1950  
Contractor - Progressive Builders, Inc.  
Amount of Contract - \$1,550,000.00  
Percentage of Completion - 50% December 31, 1950

140-1950

Passyunk, Essington & Island Avenues

Contract No. M-124

Street Lighting Systems

Date of Contract - February 1, 1950

Notice to Proceed - February 24, 1950

Contractor - W.V. Pangborne Co.

Amount of Contract - \$210,000.00

Percentage of Completion - 94% December 31, 1950

26th, 34th Streets, Oregon, Vane, Penrose and Moyamensing Avenues

Contract No. M-125

Street Lighting Systems

Date of Contract - February 1, 1950

Notice to Proceed - February 25, 1950

Contractor - W.V. Pangborne Co.

Amount of Contract - \$192,000.00

Percentage of Completion - 72% December 31, 1950

Penrose Ave. Bridge

Contract No. M-130

Power Cable and Duct System for Street Lighting System

Date of Contract - June 15, 1950

Notice to Proceed - July 5, 1950

Contractor - Howard P. Foley

Amount of Contract - \$43,000.00

Percentage of Completion - 24% December 31, 1950

Strawberry Mansion Bridge

Contract No. M-132

Street Lighting System

Date of Contract - November 21, 1950

Contractor - W.V. Pangborne Co.

Amount of Contract - \$9,000.00

Percentage of Completion - None December 31, 1950

Walnut Lane Bridge and Approaches

Contract No. M-134

Street Lighting System

Date of Contract - October 10, 1950

Notice to Proceed - November 4, 1950

Contractor - W.V. Pangborne Co.

Amount of Contract - \$6,500.00

Percentage of Completion - None December 31, 1950

141-1950

WORK PERFORMED BY SURVEY DISTRICTS

IN CONNECTION WITH PUBLIC WORKS PROGRAM

First District

Water Pipe Plans Prepared

	<u>From</u>	<u>To</u>
Aberdale Road	Tolbut St.	Jackson St.
Algard St.	Magee Ave.	Unruh Ave.
Algard St.	Hellerman St.	Magee Ave.
Alma St.	Elgin Ave.	132' N.E. of Elgin Ave.
Ashville St.	Torresdale Ave.	Edmund St.
Battersby St.	Cottman Ave.	Teesdale St.
Battersby St.	Teesdale St.	Nesper St.
Bleigh Ave.	Glendale Ave.	84' E. of Frontenac St.
Brous Ave.	Cottman Ave.	Teesdale St.
Brous Ave.	Teesdale St.	Nesper St.
Carrwath St.	Revere St.	Lexington Ave.
Castor Ave.	Rhawn St.	130' N. of Rhawn St.
Castor Ave.	Shelmire Ave.	112' N. of Shelmire Ave.
Chandler St.	Summerdale Ave.	Frontenac St.
Cottage St.	Hellerman St.	Magee Ave.
Cottage St.	Robbins St.	Levick St.
Cottman Ave.	Brous Ave.	Battersby St.
Crispin St.	Fuller St.	Welsh Road
Crispin St.	Fuller St.	Fuller St.
Crispin St.	Welsh Road	Arthur St.
Ditman St.	Eden St.	154' S. of Eden St.
Dorcas St.	Rhawn St.	Solly Ave.
Edmund St.	Hartel Ave.	Decatur St.
Elgin Ave.	Castor Ave.	Alma St.
Erdrick St.	Hellerman St.	Magee Ave.
Fairfield St.	Brous Ave.	Revere St.
Fuller St.	Crispin St.	Fairview St.
Fuller St.	Crispin St.	Leon St.
Gillespie St.	Robbins St.	Levick St.
Glendale Ave.	Shisler St.	Loretto Ave.
Greeby St.	Erdrick St.	Walker St.
Guilford St.	Battersby St.	Hawthorne St.
Guilford St.	Brous Ave.	Battersby St.
Guilford St.	Brous Ave.	The Roosevelt Blvd.
Hawthorne St.	Teesdale St.	Guilford St.
Hellerman St.	Algard St.	80' W. of Algard St.
Hellerman St.	Walker St.	100' E. of Walker St.
Jackson St.	Tyson Ave.	132' N. of Tyson Ave.
Large St.	Shelmire Ave.	112' N. of Shelmire Ave.
Leon St.	102' S. of Stanwood St.	Arthur St.
Levick St.	Jackson St.	93' N. of Gillespie St.
Levick St.	Cottage St.	82' E. of Cottage St.

142-1950



Survey District No. 1 - (Cont'd)

Water Pipe Plans Prepared

	<u>From</u>	<u>To</u>
Magee Ave.	Tulip St.	Keystone St.
Magee Ave.	Erdrick St.	Walker St.
Meridian St.	Ditman St.	Torresdale Ave.
Nesper St.	Brous Ave.	Hawthorne St.
Revere St.	Cottman Ave.	Guilford St.
Revere St.	Guilford St.	Sandyford Ave.
Revere St.	The Roosevelt Blvd.	Fairfield St.
Revere St.	Fairfield St.	Ryan Ave.
Rhawn St.	Castor Ave.	127' E. of Castor Ave.
Rising Sun Ave.	Hartel Ave.	105' S. of Hartel Ave.
Robbins St.	Jackson St.	116' W. of Ditman St.
Shelmire Ave.	Sackett St.	Rowland Ave.
Shelmire Ave.	Castor Ave.	Large St.
Shisler St.	Cottman Ave.	Bleigh Ave.
Shisler St.	Bleigh Ave.	Glendale Ave.
Solly Ave.	Algon Ave.	Dorcas St.
Starwood St.	Leon St.	Crispin St.
Teesdale St.	Brous Ave.	Battersby St.
Terry St.	Rhawn St.	Welsh Road
Tolbut St.	Frankford Ave.	Aberdale Road
Tyson Ave.	Hegerman St.	Tulip St.
Vista St.	Shisler St.	85' W. of Shisler St.
Walker St.	Hellerman St.	Magee Ave.
Welsh Road	Tolbut St.	Willits Road
Windish St.	Battersby St.	Hawthorne St.

STREETS WHERE LINES AND GRADES WERE FURNISHED FOR WATER PIPE

Aberdale Road	Frankford Ave.	Jackson St.
Algard St.	Unruh Ave.	Magee Ave.
Alma St. and Elgin Ave. Intersection		
Alma St. and Bleigh Ave. Intersection		
Brous Ave.	Cottman Ave.	Teesdale St.
Carnwath St.	Revere St.	Lexington Ave.
Chandler St.	Summerdale Ave.	Frontenac St.
Cottage St.	Hellerman St.	Magee Ave.
Crispin St.	Starwood St.	Arthur St.
Dorcas St.	Rhawn St.	Solly Ave.
Dunmore Road	Ferndale St.	Alicia St.
Emerson St.	Ferndale St.	Verree Road
Fairfield St.	Brous Ave.	Revere St.
Fuller St.	Crispin St.	Leon St.
Keystone St.	Hellerman St.	Magee Ave.
Lansing St.	Watson St.	Rockwell Ave.
Large St.	Shelmire Ave.	127' N. of Shelmire Ave.
Leon St.	Starwood St.	Arthur St.
Milnor St.	Robbins St.	Levick St.
Revere St.	Roosevelt Blvd.	Ryan Ave.

143-1950

Survey District No. 1 - (Cont'd)

Streets Where Lines and Grades Were Furnished for Water Pipe

	<u>From</u>	<u>To</u>
Robbins St.	Milnor St.	238' E. of Milnor St.
Ryan Ave. and Sackett St.	St. Intersection	
Sandyford Ave.	Roosevelt Blvd.	Brous Ave.
Shelmire Ave.	Rowland Ave.	Sackett St.
Solly Avenue	Dorcas St.	Algon Ave.
Starwood St.	Crispin St.	Leon St.
Terry St.	Rhawn St.	Welsh Road

Paving Plans Prepared

Academy Road	Frankford Ave.	Leon St.
Algard St.	Knorr St.	Glenview St.
Battersby St.	Cottman Ave.	Nesper St.
Bleigh Ave.	Shisler St.	93' W. of Shisler St.
Brous Ave.	Cottman Ave.	Guilford St.
Brous Ave.	Guilford St.	Sandyford Ave.
Cottage St.	Hellerman St.	Magee Ave.
Cottage St.	Robbins St.	Levick St.
Dean Plaza	Holme Ave.	Ferdham Road
Emerson St.	Halstead St.	470' E. of Ferndale St.
Ferndale St.	Hoffnagle St.	Solly Ave.
Gillespie St.	Robbins St.	Levick St.
Glendale Ave. and Summerdale Ave. (Traffic Islands)		
Hartel Ave.	Verree Road	Rockwell Ave.
Hellerman St.	Walker St.	Cottage St.
Holme Ave.	Willits Road	Academy Road
Knorr St.	Cottage St.	Algard St.
Magee Ave. and Walker St.	St. Intersection	
Nesper St.	Brous Ave.	Battersby St.
Nesper St.	Battersby St.	Hawthorne St.
Rockwell Ave.	Oxford Ave.	Rhawn St.
Ryers St.	Cottman Ave.	Tudor St.
Sandyford Ave.	Roosevelt Blvd.	Brous Ave.
Shelmire Ave.	Castor Ave.	Large St.
Shelmire Ave.	Rowland Ave.	Sackett St.
Stamford St.	Holme Ave.	Albion St.
Starwood St.	Leon St.	Welsh Road
Willits Road	Ashton Road	380' N. of Convent Ave.
Willits Road	Academy Road	Exeter Road

Survey District No. 1 - (Cont'd)

Streets Where Lines and Grades Were Furnished for Paving

	<u>From</u>	<u>To</u>
Alma St.	Elgin Ave.	Bleigh Ave.
Andover Road	Convent Ave.	Fordham Road
Annapolis Road	Convent Ave.	410' N. of Convent Ave.
Ashville St.	Torresdale Ave.	Edmund St.
Battersby St.	Cottman Ave.	Nesper St.
Bleigh Ave.	Alma St.	Castor Ave.
Bleigh Ave.	Shisler St.	92' W. of Shisler St.
Brous Ave.	Cottman Ave.	Guilford St.
Cloverly Road	Wooden Bridge Road	Annapolis Road
Cottage St.	Robbins St.	Levick St.
Edmund St.	Hartel Ave.	Decatur St.
Elgin Ave.	Castor Ave.	Alma St.
Ferndale St.	Strahle St.	Benson St.
Frontenac St.	93' S. of Afton St.	Napfle Ave.
Gillespie St.	Robbins St.	Levick St.
Guilford St.	Battersby St.	Hawthorne St.
Guilford St.	Battersby St.	Brous Ave.
Hawthorne St.	Teesdale St.	Nesper St.
Meridian St.	Torresdale Ave.	Ditman St.
Robbins St. (N. Shoulder)	85' E. of Gillespie St.	85' W. of Gillespie St.
Robbins St. (N. Shoulder)	Algard St.	90' E. of Cottage St.
Ryan Ave.	Lexington Ave.	Rowland Ave.
Shelmaire Ave.	Loretto Ave.	Glendale Ave.
Shelmaire Ave.	Castor Ave.	Large St.
Shisler St.	Cottman Ave.	Bleigh Ave.
Stamford St.	Winchester Ave.	Winthrop St.
Starwood St.	Leon St.	Welsh Road
Teesdale St.	Battersby St.	Brous Ave.
Torresdale Ave.	Sheffield Ave.	Rhawn St.
Treaty Road	120' N. of Fordham Road	410' N. of Convent Ave.
Welsh Road	Rowland Ave.	Moro St.
Windish St.	Battersby St.	Hawthorne St.
Winthrop St.	Stamford St.	Welsh Road
Wooden Bridge Road	Convent Ave.	Annapolis Road

Grading Plans Prepared

Academy Road	Frankford Ave.	Leon St.
Algard St.	Hellerman St.	Magee Ave.
Bleigh Ave.	Large St.	Horrocks St.
Brous Ave.	Ryan Ave.	Loney St.
Carwithan Ave.	Ditman St.	Jackson St.
Cottage St.	Levick St.	Robbins St.
Cottage St.	Hellerman St.	Magee Ave.
Crispin St.	Starwood St.	Solly Ave.
Ditman St.	Tolbut St.	Carwithan Ave.
Hellerman St.	Cottage St.	Walker St.



Survey District No. 1 --(Cont'd)

Grading Plans Prepared

<u>From</u>	<u>To</u>
Lister St.	Ryan Ave.
Lister St.	Loney St.
Oakmont St.	Large St.
Revera St.	Loney St.
Rockwell Ave.	Hartel Ave.
Ryers St.	Shelshire Ave.
Sackett St.	Nesper St.
Solly Ave.	Eastwood St.
Starwood St.	Eastwood St.
Tolbut St.	Ditman St.
Tudor St.	Ryers St.
Willits Road	380' N. of Convent Ave.
Willits Road	Exeter Road

Streets Where Lines and Grades Were Furnished for Grading

Algard St.	Hellerman St.	Magee Ave.
Algon Ave.	Afton St.	Hartel Ave.
Arthur St.	Crispin St.	Leon St.
Barry Road	Frankford Ave.	Torresdale Ave.
Brous Ave.	Cottman Ave.	Sandyford Ave.
Cottage St.	Robbins St.	Levick St.
Ditman St.	Convent Ave.	Eden St.
Glendale Ave.	Cottman Ave.	Summerdale Ave.
Jackson St.	Convent Ave.	Eden St.
Langdon St.	Afton St.	Hartel Ave.
Maxwell St.	Ashton Road	Tremont St.
Napfle Ave.	Algon Ave.	Summerdale Ave.
Oakmont St.	Castor Ave.	Large St.
Rockwell Ave.	Hartel Ave.	Rhawn St.
Ryan Ave.	Lexington Ave.	Rowland Ave.
Shelshire Ave.	Sackett St.	Rowland Ave.
Starwood St.	Crispin St.	Welsh Road
Tremont St.	Ashton Road	Maxwell St.
Welsh Road	Rowland Ave.	Moro St.

Base Sewer Plans Prepared

Albion St.	Weston St.	Stamford St.
Albion St.	Winchester Ave.	Stamford St.
Algard St.	Magee Ave.	Unruh Ave.
Barnett St.	Frankford Ave.	Charles St.
Brocklehurst Ave.	Carnwath St.	Ryan Ave.
Brous Ave.	Carnwath St.	Ryan Ave.

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Survey District No. 1 - (Cont'd)

Base Sewer Plans Prepared

	<u>From</u>	<u>To</u>
Carmwath St.	Lexington Ave.	Brous Ave.
Chandler St.	Large St.	Horrocks St.
Cottage St.	Magee Ave.	Unruh Ave.
Cottage St.	Knorr St.	Longshore Ave.
Cottman Ave. (N. Side)	Battersby St.	Roosevelt Blvd.
Cottman Ave.	Horrocks St.	Large St.
Diston St.	Frankford Ave.	Erdrick St.
Dungan Road	Cottman Ave.	Bleigh Ave.
Friendship St.	Edmund St.	Hegerman St.
Gillespie St.	Magee Ave.	Unruh Ave.
Greeby St.	Erdrick St.	Walker St.
Lansing St.	Large St.	Castor Ave.
Lister St.	Carmwath St.	Ryan Ave.
Martindale St.	Weston St.	Stamford St.
Oakmont St.	Large St.	Castor Ave.
Pennypack Park	Intercepting Sewer	Winchester Ave.
Rhawn St.	Lexington Ave.	Farnsworth St.
Rockwell Ave.	Oxford Ave.	Hartel Ave.
Roosevelt Blvd. (S.E. Side)	Pennypack Circle	Hoffnagle St.
Ryan Ave.	Brocklehurst Ave.	Pennypack Creek
Ryers St.	Tudor St.	Shelmire Ave.
Solly Ave.	Verree Road	Halstead St.
Solly Ave.	Castor Ave.	Frontenac St.
Welsh Road	Frankford Ave.	Craig St.
Weston St.	Winthrop St.	Albion St.
Winchester Ave.	Albion St.	200' N.W. of Albion St.

Sewer Contracts Completed for Which Lines and Grades Were Furnished  
and  
Return Plans of Constructed Sewers Made

Algard St.	Hellerman St.	Magee Ave.
Algard St.	Magee Ave.	Unruh Ave.
Andover Road	Fordham Road	Summit N. of Convent Ave.
Barnes St.	Borbeck Ave.	Loney St.
Cloverly Road	Wooden Bridge Road	Annapolis Road
Cottage St.	Robbins St.	Levick St.
Cottage St.	Unruh Ave.	Magee Ave.
Cottman Ave.	Battersby St.	Roosevelt Blvd.
Cottman Ave.	Horrocks St.	Large St.
Crabtree St.	Sheffield Ave.	Shelmire Ave.
Drainage Right-of-Way	Wooden Bridge Run	Wooden Bridge Road
	Intercepting Sewer	
Gillespie St.	Unruh Ave.	Magee Ave.
Greeby St.	Erdrick St.	Walker St.
Holme Ave.	Willits Road	Academy Road

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Survey District No. 1 - (Cont'd)

Sewer Contracts Completed for Which Lines and Grades Were Furnished  
and  
Return Plans of Constructed Sewers Made

	<u>From</u>	<u>To</u>
Jackson St.	Sheffield Ave.	McMenamy St.
Jackson St.	McMenamy St.	Hartel Ave.
Keystone St.	Hellerman St.	Magee Ave.
Lansing St.	Large St.	Castor Ave.
Loney St.	Oxford Ave.	Burholme Ave.
Meridian St.	Ditman St.	Torresdale Ave.
McMenamy St.	Cottage St.	Ditman St.
Rhawn St.	Castor Ave.	Frontenac St.
Robbins St.	Gillespie St.	Walker St.
Roosevelt Blvd. (S.E. Side)	Sandyford Ave.	Cottman Ave.
Ryers St.	Tudor St.	Shelmire Ave.
Shelmire Ave.	Rowland Ave.	Bedford St.
Stanwood St.	Leon St.	Crispin St.
Terry St.	Rhawn St.	Welsh Road
Vista St.	Shisler St.	Glendsle Ave.
Willits Road	Holme Ave.	265' N.W. of Academy Road
Wooden Bridge Road	Convent Ave.	Summit W. of Annapolis Road
Wooden Bridge Road	Annapolis Road	Summit W. of Annapolis Road



Second District

Water Pipe Plans Prepared

Bigler Street from Alder Street to Mildred Street  
Mifflin Street from 28th Street to 29th Street  
Moore Street from 28th Street to 29th Street  
Newkirk Street from Moore Street to Mifflin Street  
River Street from Snyder Avenue to a point 884' southward

Streets Where Lines and Grades were Furnished for Water Pipe

Bigler Street from Alder Street to Mildred Street  
Emily Street from 26th Street to 27th Street  
Etting Street from McKean Street to Snyder Avenue  
Etting Street from Mifflin Street to Moore Street  
McKean Street from 26th Street to 28th Street  
Mifflin Street from 28th Street to 29th Street  
Moore Street from 28th Street to 29th Street  
Mountain Street from Beulah Street to a point 70' eastward  
Newkirk Street from Moore Street to Mifflin Street  
Packer Avenue from Delaware Avenue to the Delaware River  
Point Breeze Avenue from Snyder Avenue to 26th Street  
River Street from Snyder Avenue to a point 884' southward  
Snyder Avenue from 215'6" east of 27th Street to Point Breeze Avenue

Paving Plans Prepared

Broad Street from Wolf Street to Oregon Avenue  
Emily Street from 26th Street to 27th Street  
Etting Street from McKean Street to Snyder Avenue  
McKean Street from 25th Street to 26th Street  
McKean Street from 26th Street to 28th Street  
Mifflin Street from 28th Street to 29th Street  
Moore Street from 28th Street to 29th Street  
Moyamensing Avenue from Morris Street to Dickinson Street  
Pattison Avenue from 7th Street to a point 697' eastward  
Pattison Avenue from 20th Street to Penrose Avenue  
7th Street and Pattison Avenue (Incenerator Plant)  
23rd Street at Point Breeze Avenue and at Moore Street

Streets Where Lines and Grades were Furnished for Paving

Broad Street from Wolf Street to Oregon Avenue  
11th Street from Bainbridge Street to Reed Street  
Moyamensing Avenue from Morris Street to Dickinson Street  
Newkirk Street from Moore Street to Morris Street  
16th Street and Snyder Avenue  
3rd Street and Reed Street  
Vollmer Street from 4th Street to 5th Street

Survey District No. 2 - continued

Grading Plans Prepared

Emily Street from 26th Street to 27th Street  
Etting Street from Moore Street to Mifflin Street  
McKean Street from 25th Street to 26th Street  
McKean Street from 27th Street to 28th Street  
McKean Street from 26th Street to 27th Street  
Mifflin Street from 28th Street to 29th Street

Streets Where Lines and Grades were Furnished for Grading

Emily Street from 26th Street to 27th Street

Base Sewer Plans Prepared

Carpenter Street from Broad Street to 16th Street  
Delaware Avenue from Snyder Avenue to Packer Avenue (5 Plans)  
Dover Street from Mifflin Street to Moore Street  
Dover Street from Moore Street to Morris Street  
Emily Street from 26th Street to 27th Street  
Etting Street from McKean Street to Snyder Avenue  
Etting Street from Moore Street to Mifflin Street  
McKean Street from 26th Street to 27th Street  
Moore Street from 34th Street to 36th Street  
Oregon Avenue from Delaware Avenue to Swanson Street (2 Plans)  
Packer Avenue from Delaware Avenue to a point 330' eastward  
35th Street from Moore Street to Mifflin Street  
28th Street from McKean Street to a point 80' southward  
27th Street from McKean Street to a point 80' southward

Sewer Contracts Completed for Which Lines and Grades were Furnished  
and Return Plans of Constructed Sewers Made

Emily Street from 26th Street to 27th Street  
Etting Street from McKean Street to Snyder Avenue  
Etting Street from Moore Street to Mifflin Street  
McKean Street from 26th Street to 27th Street  
Moore Street from 7th Street to 10th Street  
28th Street from McKean Street to 80' southward  
27th Street from McKean Street to 80' southward

Survey District No. 2 - continued

Repaving Plans Prepared

9th Street from Moore Street to Mifflin Street  
16th Street from Bigler Street to Moyamensing Avenue  
16th Street from Shunk Street to Oregon Avenue  
Snyder Avenue from 23rd Street to 24th Street

Streets Where Lines and Grades Were Furnished for Repaving

Bainbridge Street from 5th Street to 13th Street

Resurfacing Plans Prepared

None

Streets Where Lines and Grades Were Furnished for Resurfacing

Bonsall Street from Ritner Street to Wolf Street  
Broad Street from Packer Avenue to Curtin Street  
18th Street from Ritner Street to Wolf Street  
Ellsworth Street from Broad Street to 18th Street  
Linn Street from 12th Street to Tasker Street  
Marshall Street from Federal Street to Wharton Street  
19th Street from Carpenter Street to Catharine Street  
16th Street from Dickinson Street to Wharton Street

Plans for Miscellaneous Drainage Improvements  
and Concrete Gutters Prepared

Pattison Avenue from 7th Street to a point 697' eastward

Streets Where Lines and Grades Were Given for Miscellaneous Drainage  
Improvements and Concrete Gutters

None



Third District

Water Pipe Plans Prepared

None

Lines and Grades Given for Water Pipe

Pennsylvania Ave. from 20th St. to 21st St.  
Vine St. from 9th St. to 15th St.

Paving Plans Prepared

None

Lines and Grades Given for Paving

Vine St. from 9th St. to 18th St.

Grading Plans Prepared

None

Lines and Grades for Grading

Vine St. from 9th St. to 18th St.

Base Sewer Plans Prepared

None

Lines and Grades Given for Sewers

Dover St. - Thompson St. to Master St.  
Fairmount Ave. - Delaware Ave. to 2nd St.  
Front St. - Dock St. to Spruce St.  
Spruce St. - Front to 3rd St.  
" " 3rd St. to 4th St.  
" " 5th St. to 6th St.  
" " Broad St. to Hicks St.  
" " 20th St. east (Incomplete)  
20th St. - Callowhill St. to Wood St.  
23rd St. - North of Aspen St. to N. College Ave. (Tunnel)  
29th St. - Pennsylvania Ave. to Columbia Ave. (Tunnel)  
29th St. - Thompson St. to Master St.  
Vine St. - 9th St. to 11th St.  
" " 11th St. to 12th St.  
" " 12th St. to 15th St.

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Survey District No. 3 - continued

Repaving Plans Prepared

Appletree St. - 10th St. to 11th St.  
Columbia Ave. - Broad St. to Ridge Ave.  
Jefferson St. - Frankford Ave. to 2nd St.  
Market St. - At 11th St. (Traffic Islands)  
Ranstead St. - 19th St. west  
Sansom St. - 6th St. to 7th St.  
Spring Garden St. - 8th St. to Broad St. (Traffic Islands)  
Spruce St. - Front St. to 4th St.  
" " 5th St. to 6th St.  
" " Broad St. to Hicks St.  
" " 19th St. to 20th St.  
St. James St. - 16th St. to 17th St.  
20th St. - at Ridge Ave. (Traffic Island)

Lines and Grades Given for Repaving

Cherry St. - 5th St. to 11th St.  
Columbia Ave. - Broad St. to Ridge Ave.  
Filbert St. - 7th St. to 8th St.  
Jefferson St. - Frankford Ave. to 2nd St.  
Market St. at 11th St. (Traffic Island)  
7th St. - Montgomery Ave. to Susquehanna Ave.  
7th St. - Parrish St. to Girard Ave.  
6th St. - Oxford St. to Germantown Ave.  
Spruce St. - Front St. to 4th St.  
" " 5th St. to 6th St.  
" " Broad St. to Hicks St.  
20th St. at Ridge Ave. (Traffic Island)  
23rd St. - Chestnut St. to Market St.  
Vine St. - 9th St. to 11th St.  
" " 12th St. to 18th St.

Resurfacing Plans Prepared

None

Lines and Grades Furnished for Resurfacing

Filbert St. - 10th St. to 11th St.  
Market St. - 20th St. to 21st St.  
16th St. - Market St. to Chestnut St.  
10th St. - Filbert St. to 200' south  
12th St. - Pine St. to Lombard St.  
Vine St. - 15th St. to 18th St.

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Survey District No. 3 - continued

Plans for Drainage Improvements, etc.

None

Lines and Grades for Drainage Improvements

None

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Fourth District

Plans Prepared for The Bureau of Water

Alton Street from Rising Sun Avenue to Creswood Road  
Creswood Road from Ferndale Street to Verree Road  
Creswood Road from Rising Sun Avenue to Alton Street  
Dungan Road from Murray Street to Fulmer Street  
Erwin Street from Philmont Avenue to Maple Avenue  
Ferndale Street from Creswood Road to 117' north of Sanford Street  
Faraday Street from Maple Avenue to Philmont Avenue  
Fulmer Street from Dungan Road to 112'6" northwest of Evans Street  
Krewstown Road from Grant Avenue to Rising Sun Avenue  
Overhill Avenue from Barcalow Street to 200' southeast  
Proctor Road from Napier Street to 390' northeast  
Rising Sun Avenue from Welsh Road to Alton Street  
Rising Sun Avenue from Alton Street to Krewstown Road  
Rennard Street from Banas Street to Heather Street  
Thornton Road from Byberry Road to 1800' southwest  
Verree Road from Red Lion Road to Chesworth Road  
Verree Road from Medway Street to Chesworth Road  
Verree Road from Medway Road to 348' northeast of Redd Rambler Drive  
Wistaria Street from Fulmer Street to Lott Avenue

Lines and Grades Furnished for Bureau of Water

Alton Street from Creswood Road to Rising Sun Avenue  
Banas Street from Fulmer Street to Pearson Street  
Creswood Road from Verree Road to Ferndale Street  
Creswood Road from Rising Sun Avenue to Alton Street  
Berwyn Street from Bowler Street to Birwood Street  
Birwood Street from Bowler Street to Lott Avenue  
Edison Avenue from Kelvin Avenue to Southampton Road  
Erwin Street from Philmont Avenue to Maple Avenue  
Ferndale Street from Creswood Road to 127' northeast of Sanford Street  
Fulmer Street from Dungan Road to 112' southeast of Cowden Street  
Faraday Street from Philmont Avenue to Maple Avenue  
Maple Avenue from Barcalow Street to Erwin Street  
Proctor Road from Napier Street to 472' northeast  
Thornton Road from Byberry Road to Woodhaven Road

Plans and Estimates for Grading

Buxmont Avenue from Overhill Avenue to County Line Road  
Edison Avenue from Kelvin Avenue to Southampton Road  
Endicott Street from Southampton Road to Herschel Road  
Hemlock Street from Endicott Street to Carter Road  
Herschel Road from Endicott Street to Carter Road  
Milford Street from Hemlock Street to Herschel Road  
Welton Street from Banas Street to Depue Avenue

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Survey District No. 4 - continued

Lines and Grades Furnished for Grading

Buxmont Street from Overhill Avenue to County Line Road  
Berwyn Street from Bowler Street to Birwood Street  
Berwyn Street from Hoff Street to Clark Street  
Birwood Street from Bowler Street to Lott Avenue  
Bowler Street from Bustleton Avenue to Hoff Street  
Burgess Street from Gifford Avenue to Ferndale Street  
Clark Street from Lott Avenue to 30' southwest of Bowler Street  
Ferndale Street from Rennard Street to Tomlinson Road  
Gifford Avenue from Rennard Street to Burgess Street  
Hoff Street from Bowler Street to Lott Avenue  
Larkspur Street from Gifford Avenue to Ferndale Street  
Rennard Street from Heather Street to 150' northwest of Ferndale Street  
Selma Street from Gifford Avenue to Ferndale Street

Lines and Grades Furnished for Paving

Barcalow Street from Overhill Avenue to Philmont Avenue  
Dungan Road from Murray Street to Fulmer Street  
Evans Street from Murray Street to Fulmer Street  
Fulmer Street from Bustleton Avenue to Roosevelt Boulevard  
Hilspach Street from Fulmer Street to Lott Avenue  
Larkspur Street from Bustleton Avenue to Gifford Avenue  
Wistaria Street from Fulmer Street to Lott Avenue

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Fifth District

Plans for Waterpipe

<u>From</u>	<u>To</u>
"A" St.	Spencer Avenue
American St.	27' 6" N.
Ashdale St.	Bingham St.
Bayard St.	Wadsworth Ave.
Bennington St.	Lycoming St.
Bingham St.	Ashdale St.
Bingham St.	Tabor Road
Bristol St.	"M" St.
Champlost Ave.	"A" St.
Fayette St.	Gowen Ave.
Forrest Ave.	Gowen Ave.
Geneva St.	Olney Ave.
Glendale St.	Bristol St.
Gowen Ave.	Lynnewood Road
Hortter St.	Lowber Ave.
Hunting Park Ave.	Lawndale St.
Ivy Hill Road	81' 9" S.W. of S <sup>W</sup> H.L. of Fayette St.
Ivy Hill Road	98' 3" E. of Williams Ave.
Lawndale St.	Luzerne St.
Lowber Ave.	130' N. of NW.P.I. of Phil-Ellena St.
Mansfield Ave.	121' 9" S. of S.W.P.I. of Hortter St.
	437' 10" W. of W.H.L. of Maple Lane
	Maple Lane (East & West))
	Geneva Ave.
	Roumfort Road
	Gowen Ave.
	Woolston Ave.
	Mansfield Ave.
	91' 10" E. of E.H.L. of "A" St.
	156' 2" N. of NHL. 67th Ave.
	78th Ave.
	Geneva Ave.
	Bingham St.
	Lowber Ave.
	Wyoming Ave.
	77' 6" S.W. of S.W.H.L. of Fayette St.
	120' N.E. of N.E.H.L.
	Forrest Ave.
	"A" St.
Ivy Hill Road	110' 6" S.W. of Thouron Ave.
Lawndale St.	Lycoming St.
Lowber Ave.	108' 3" S. of S.W.P.I. of Hortter St.
Mansfield Ave.	Dorset St.
(Maple Lane (East & West) Maple Lane (North & South)	
(Maple Lane (North & South) Wyoming Avenue	
Marwood Road	Tabor Road
Michener Ave.(S.W.Footway)	Ivy Hill Road
Michener Ave.(S.W.Footway)	Roumfort Road
Middleton St.	Rodney St.
Murdock Road	Stenton Ave.
Nedre Ave.	Front St.
Ogontz Ave.(E.Footway)	68th Ave. N.
Ogontz Ave.(E.Footway)	77th Ave.
Olney Ave.	Clarkson Ave.
Olney Ave.	Geneva Ave.
Phil-Ellena St.	Mansfield Ave.
Reach St.	Courtland St.
Roumfort Road	Michener St.
Roumfort Road (E.Footway)	111' S.W. of S.W.H.L. Thouron Ave.
Spencer Ave.	Front St.

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Survey District No. 5 - continued

Plans for Paving

	<u>From</u>	<u>To</u>
Castor Ave.	Bristol St.	Wingohocking St.
Cheltenham Ave.	Washington Lane	19th St.
Cliveden Street	Thouren Avenue	Limekiln Pike
Courtland St.	"G" St.	84' W. of Weymouth St.
Duncannon Ave.	8th St.	Dead End East
Forrest Ave.	Johnson St.	Upsal St.
Geneva Ave.	Marwood Road	Olney Ave.
Glendale St.	Hunting Park Ave.	Bristol St.
Haines St.	Ogontz Ave.	15th St.
Haines St.	Stenton Ave.	Limekiln Pike
Hortter St.	Stenton Ave.	Lowber Ave.
Lawndale St.	Luzerne St.	Lycoming Ave.
Lowber Ave.	Hortter St.	Phil-Ellena St.
Lowber Ave.	Vernon Road	Slocum St.
Marwood Road	Geneva St.	Tabor Road
Middleton St.	Rodney St.	Woolston Ave.
Murdoch Road	Stenton Ave.	Mansfield Ave.
Nedro Ave.	Front St.	92' 6" E. of "A" St.
Olney Ave.	Geneva Ave.	Bingham St.
Olney Ave.	Geneva Ave.	Clarkson Ave.
Phil-Ellena St.	Stenton Ave.	Lowber Ave.
Raymond St.	Weymouth St.	"G" St.
Reach St.	Wyoming Ave.	Courtland St.
Rodney St.	Middleton St.	Walnut Lane
Rodney St.	Walnut Lane	Wynsam St.
Rodney St.	Wynsam St.	Tulpehocken St.
Spencer Ave.	Front St.	"A" St.
Sedgwick St.	Forrest Ave.	Thouren Ave.
Walnut Lane	Rodney St.	Woolston Ave.
Weymouth St.	Courtland St.	Annsbury St.
Weymouth St.	Wyoming Ave.	Courtland St.
Williams Ave.	Sedgwick St.	Gorgas St.
Wingohocking St.	Whitaker Ave.	Tampa St.
Woolston Ave.	Walnut Lane	Wynsam St.

Traffic Islands

Allegheny Ave. & Kensington Ave.  
Broad St. & Windrim Ave.  
Somerville Ave., Wagner Ave., 10th & 11th Sts.  
10th - Windrim Ave. & Fisher Ave.

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Survey District No. 5 - continued

Stakes for Paving

	<u>From</u>	<u>To</u>
Bristol St.	Glendale St.	"M" St.
(Courtland St. (Weymouth St.	"G" St. Wyoming Ave.	84' W. of Weymouth St.) Courtland St.
11th St.	Nedro Ave.	Champlost Ave.
Fayette St.	Mt. Airy Ave.	Wadsworth Ave.
Glendale St.	Hunting Park Ave.	Bristol St.
Gorgas St.	Thouren Ave.	Williams St.
Gowen Ave.	Porrest Ave.	Williams St.
Gowen Ave.	Stenton Ave.	Lynnewood Road
Lawndale St.	Luzerne St.	Lycoming St.
Luray St.	4th St.	5th St.
Luzerne St.	Phila. & Bustleton R.R.	"G" St.
Mansfield Ave.	S.H.L. Gowen Ave.	N.H.L. Wadsworth Ave.
Murdoch Road	Stenton Ave.	Mansfield Ave.
Nedro Ave.	Front St.	92' 6" E. of "A" St.
Nedro Ave.	Hutchinson St.	12th St.
Pickering Ave.	S.H.L. Gowen Ave.	NCL. Wadsworth Ave.
(Roumfort Road (Roumfort Road	S.W.H.L. Williams Ave. N.E.H.L. Williams Ave.	Pt. 132'9" S. of Williams Ave. 97' 6" N. of Williams Ave.
Schiller St.	8th St.	Hutchinson St.
Temple Road	Mt. Airy Ave.	Mt. Pleasant Ave.
Temple Road	Mt. Airy Ave.	Wadsworth Ave.
Venango St.	"I" St.	"K" St.
Water St.	N.H.L. Nedro Ave.	SCL. Champlost Ave.
Water St.	S.C.L. Spencer Ave.	NCL. Champlost Ave.
Wellens St.	Front St.	Howard St.
Williams Ave.	E.C.L. Gorgas St.	Existing Paving of Vernon Road
Williams Ave.	N.C.L. Gowen Ave.	N.H.L. Roumfort Road
Williams Ave.	N.H.L. Sharpnack St.	S.H.L. Phil-Ellena St.
Wynsam St.	Wadsworth Ave.	Gowen Ave.
	WCL. Lowber Ave.	ECL. Rodney St.

Plans for Grading

"A" St.	Champlost Ave.	Spencer Ave.
"A" St.	Nedro Ave.	Champlost Ave.
"B" St.	Nedro Ave.	Champlost Ave.
Baldwin St.	Phil-Ellena St.	Sharpnack St.
Bayard St.	Wadsworth Ave.	Gowen Ave.
Bermington St.	Cayuga St.	Bristol St.
Bristol St.	"K" St.	"L" St.
Bristol St.	Lawndale St.	Bermington St.

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Survey District No. 5 - continued

Plans for Grading

	<u>From</u>	<u>To</u>
Claridge St.	Cayuga St.	Bristol St.
Colonial St.	2nd St.	Third St.
Dorset St.	Woolston Ave.	Lowber Ave.
Ella St.	Nedro Ave.	Champlost Ave.
Elsinore St.	Cayuga St.	Bristol St.
Forrest Ave.	Johnson St.	Upsal St.
Gowen Ave.	Michener Ave.	Pickering Ave.
Haines St.	Stenton Ave.	Limekiln Pike
Haines St.	15th St.	Ogontz Ave.
Hammond Ave.	Nedro Avenue	Champlost Ave.
Hortter St.	Lowber Ave.	Baldwin St.
Howland St.	Cayuga St.	Bristol St.
"J" St.	Cayuga St.	Hunting Park Ave.
"J" St.	Lycoming St.	Hunting Park Ave.
"K" St.	Cayuga St.	Bristol St.
"L" St.	Cayuga St.	Bristol St.
Lawndale St.	Bristol St.	Cayuga St.
Lawrence St.	66th Ave. N.	67th Ave. N.
Lowber Ave.	Phil-Ellena St.	Dorset St.
Lowber Ave.	Vernon Road	Upsal St.
Malta St.	Hunting Park Ave.	Cayuga St.
Mansfield Ave.	Phil-Ellena St.	Dorset St.
Marwood Road	Taber Road	Ashdale St.
Nedro Ave.	Front St.	Hammond Ave.
Palmetto St.	Cayuga St.	Bristol St.
Phil-Ellena St.	Woolston Ave.	Lowber Ave.
Plainfield St.	Stenton Ave.	Mansfield Ave.
Provident St.	Wadsworth Ave.	Gowen Ave.
Rorer St.	Ashdale St.	Taber Road
Sharpnack St.	Lowber Ave.	Pt. East of Baldwin St.
64th Ave. N.	2nd St.	3rd St.
Slocum St.	Woolston Ave.	Lowber Ave.
Spencer Ave.	Front St.	"A" St.
Third St.	Chelton Ave.	65th Ave. N.
Venango St.	"I" St.	"K" St.
Water St.	Champlost Ave.	Spencer St.
Water St.	Nedro Ave.	Champlost Ave.
Williams Ave.	Sharpnack St.	Phil-Ellena St.
Woolston Ave.	Phil-Ellena St.	Vernon Road

Stakes for Grading

("A" St.	Champlost Ave.	Spencer Ave.)
(Water St.	Champlost Ave.	Spencer Ave.)
(Bayard St.	Wadsworth Ave.	Gowen Ave.)
(Provident St.	Wadsworth Ave.	Gowen Ave.)

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Survey District No. 5 - continued

Stakes for Grading

	<u>From</u>	<u>To</u>
(Bingham St. (Marwood Road (Olney Ave.	Olney Ave. Geneva Ave. Geneva Ave.	Tabor Road ) Tabor Road ) Bingham St.)
("L" St. (Lawndale St.	Cayuga St. Cayuga St.	Bristol St.) Bristol St.)
Marwood Road	Tabor Road	Ashdale St.
(Nedro Ave. (Ella St. (A" St. (B" St.	Front St. Nedro Ave. Nedro Ave. Nedro Ave.	Hammond Ave. ) Champlost Ave.) Champlost Ave.) Champlost Ave.)
Spencer Ave.	Front St.	"A" St.
Williams Ave.	Sharpnack St.	Phil-Ellena St.

Demolition & Removal of Buildings

S. SD. Haines St. at Woolston Ave.  
(6857-6858 Woolston Ave.)

Base Plans for Sewers

	<u>From</u>	<u>To</u>
"A" St. American St. Annsbury St. Arbor St. "B" St. "B" St. Baldwin St. Bayard St. Castor Ave. Cayuga St. Cheltenham Ave. Claridge St. Dorset St. 8th St. Ella St. Elsinore St. 4th St. Glendale St. Haines St. Hortter St.	Nedro Ave. 66th Ave. N. Weymouth St. Ashdale St. Nedro Ave. Somerville Ave. Sharpnack St. Gowen Ave. Cayuga St. "J" St. 5th St. Cayuga St. Mansfield Ave. Oak Lane Nedro Ave. Cayuga St. 66th Ave. N. Hunting Park Ave. Ogontz Ave. Stenton Ave.	Champlost Ave. 67th Ave. N. "Q" St. Albans St. Champlost Ave. Lina St. Phil-Ellena St. Wadsworth Ave. N. of Wingohocking St. Dungan St. 2nd St. Bristol St. Lowber Ave. Summit N. of 66th Ave. Champlost Ave. Bristol St. Cheltenham Ave. Bristol St. 15th St. Mansfield Ave.

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Survey District No. 5 - continued

Base Plans for Sewers

	<u>From</u>	<u>To</u>
Howland St.	Cayuga St.	Bristol St.
Ivy Hill Road	Pickering Ave.	Cheltenham Ave.
"L" St.	Cayuga St.	Bristol St.
Lawndale St.	Luzerne St.	Lycoming St.
Lawrence St.	66th Ave. N.	Cheltenham Ave.
Marwood Road	Tabor Road	Ashdale St.
Michener Ave.	Gowen Ave.	Wadsworth Ave.
Oak Lane	5th St.	Cheltenham Ave.
Oak Lane	7th St.	N. Penna. R.R.
Ogontz Ave.	77th Ave. N.	78th Ave. N.
Palmetto St.	Cayuga St.	Bristol St.
Phil-Ellena St.	Lowber Ave.	Woolston Ave.
Phil-Ellena St.	Stenton Ave.	Mansfield Ave.
Plainfield St.	Stenton Ave.	Mansfield Ave.
Provident St.	Gowen Ave.	Wadsworth Ave.
Raymond St.	Weymouth St.	"G" St.
Reach St.	Wyoming Ave.	Courtland St.
Sharpnack St.	Mansfield Ave.	Baldwin St.
Sharpnack St.	Woolston Ave.	Baldwin St.
67th Ave. N.	American St.	5th St.
Slocum St.	Lowber Ave.	Woolston Ave.
Slocum St.	Mansfield Ave.	Lowber Ave.
Somerville Ave.	Ella St.	Rising Sun Ave.
Stenton Ave.	Johnson St.	Barringer St.
Sycamore St.	Somerville Ave.	Ella St.
3rd St.	66th Ave. N.	Cheltenham Ave.
Vernon Road	Forrest Ave.	Thouron Ave.
Vernon Road	Lowber Ave.	Thouron Ave.
Water Street	Nedro Ave.	Champlost Ave.
Weymouth St.	Courtland St.	Annsbury St.
Williams Ave.	Sharpnack St.	Phil-Ellena St.
Woolston Ave.	Phil-Ellena St.	Vernon Road

Stakes for Sewers and Final Sewer Plans

"A" St.	Nedro Ave.	Champlost Ave.
(Bayard St.	Wadsworth Ave.	Gowen Ave.)
(Provident St.	Wadsworth Ave.	Gowen Ave.)
(Bonnington St.	Hunting Park Ave.	Lycoming St. )
(Lawndale St.	Lycoming St.	Hunting Park Ave.)
Bingham St.	Ashdale St.	Roosevelt Boulevard
Church Lane	Old York Road	Sixteenth St.

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Survey District No. 5 - continued

Stakes for Sewers and Final Sewer Plans

	<u>From</u>	<u>To</u>
(Fayette St. (Temple Road	Gowen Ave. Gowen Ave.	Ivy Hill Road ) Ivy Hill Road )
(Forrest Avenue (Theuron Ave.	Gowen Ave. Gowen Ave.	Ivy Hill Road ) Ivy Hill Road )
(Forrest Ave. (Franklin St.	Johnson St. Wellens St.	Upsal St. ) South to Dead End )
(Gorgas St. (Rodney St.	Mansfield Ave. Gorgas St.	Rodney St. ) Sedgwick St. )
(Gowen Ave. (Glendale St.	Stenton Ave. Hunting Park Ave.	Lynnewood Road ) Bristol St. )
(Hortter St. (Lowber Ave. (Phil-Ellena St.	Mansfield Ave. Hortter St. Lowber Ave.	Lowber Ave. ) Phil-Ellena St. ) Mansfield Ave. )
Lawndale St.	Luzerne St.	Lycoming St.
Michener Ave.	Gowen Ave.	Ivy Hill Road
Ogontz Ave. (N.E. side)	77th Ave. N.	78th Ave. N.
Reach St.	Courtland St.	Wyoming Ave.
7th St.	Cheltenham Ave.	Oak Lane
(Stenton Ave. (Murdoch Road	Roumfort Road Stenton Ave.	Stream N.W. Ivy Hill Rd. ) Mansfield Ave. )
(Sycamore St. (Somerville Ave. ("B" St.	Ella St. Ella St. Somerville Ave.	Somerville Ave. ) Rising Sun Ave. ) Lima St. )
10th St.	66th Ave. N.	Summit S. of 69th Ave. N.
Upsal St.	79th Ave. N.	80th Ave. N.
Water St.	Champlost Ave.	Nedro Ave.
(Water St. ("A" St.	Champlost Ave. Champlost Ave.	Spencer Ave. ) Spencer Ave. )
Whitaker Ave.	Erie Ave.	Cayuga St.
Williams Ave.	Sharpnack St.	Phil-Ellena St.
Wister St. (Now Middleton St.)	Rodney St.	Woolston Ave.

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Survey District No. 5 - continued

Plans for Re-Paving and Improvement

	<u>From</u>	<u>To</u>
Haines St.	Ogontz Ave.	15th St.
Haines St.	Stenton Ave.	Linekiln Pike
Ogontz Ave.	Somerville Ave.	Lindley St.

Stakes for Re-Paving and Improvement

5th St.	Luserne St.	Wyoming Ave.
(Wyoming Ave.)	Roosevelt Blvd.	10th St. )
(8th St.)	Roosevelt Blvd.	Loudon St.)
(9th St.)	Roosevelt Blvd.	Loudon St.)

Construction of Safety Islands

( Intersections of - Belfield Avenue, Lindley Ave. & Logan St. )  
( " " Chelton Ave., Ogontz Ave. & Stenton Ave. )  
( " " Chew Ave., Kemble Ave. & Ogontz Ave. )  
( " " 19th St., Haines St. & Ogontz Ave. )

( Intersections of - Germantown Ave. - Rising Sun Ave. )  
( " " York Road to Ontario St. )

( Intersections of - 10th St., Windrim Ave. & Fisher Ave. )

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Sixth District

Water Pipe Final Plans

Allegheny Avenue (Northeast footwalk) from Richmond St. to 1160' Southeast  
of Richmond St.  
Pacific St. from Sepviva St. to Tulip St.  
Silver St. from Coral St. to Amber St.  
Tulip St. from Castor Avenue to Pacific St.

Lines and Grades Furnished for Water Pipe

Pacific St. from Sepviva St. to Tulip St.  
Tulip St. from Castor Ave. to Pacific St.

Grading Plans Prepared

Earlham St. from Cresson St. to Gypsy Lane.  
Gypsy Lane from Cresson St. to School House Lane  
Weightman St. from Cresson St. to Gypsy Lane  
Winona St. from Cresson St. to Gypsy Lane

Lines and Grades Furnished for Grading

None - - - No grading done

Paving Plans Made

Castor Ave. (20' strip) from Allen St. to Casper St.  
Castor Ave. (North shoulder from 275' West of Tulip St. to 400' West  
of Tulip St., (Private)  
Wishart St. from Martha St. to Amber St.

Lines and Grades Furnished for Paving

No work done

Plans Made for Traffic Safety Islands

17th St., Pulaski Ave., Butler St. 1-island  
Clarissa St. & Hunting Park Ave. 3-islands  
29th & Hunting Park Ave. 1-island

Lines and Grades Furnished for Traffic Safety Islands

17th St., Pulaski Ave., Butler St. - - 1 Island  
Erie Ave. & Germantown Ave. - - 2 Islands  
Erie Ave. & Broad St. - - 1 Island

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Survey District No. 6 - continued

Miscellaneous Drainage Improvement - Lines and Grades Furnished

Inlet - - Southeast corner Henry & Roberts Avenues

Base Sewer Plans Made

Indian Queen Lane from Krail St. to Ridge Ave.  
Juniata St. from Wayne Ave. to Germantown Ave.  
Midvale Ave. from Ridge Ave. to Schuylkill River  
Ridge Ave. from Indian Queen Lane to Midvale Ave.  
Thompson St. from Butler St. to Summit N.E. of Butler St.  
Thompson St. from Luzerne St. to 115' S.W. of Luzerne St.  
Winona St. from Cresson St. to Gypsy Lane

Return Plans of Sewers

Aramingo Ave. from Ontario St. to Tioga St.  
Aramingo Ave. from Venango St. to 230' N.E. of Wheatsheaf Lane  
Castor Ave. (Former) from E. of Delaware Ave. to Bulkhead of Delaware River  
Thompson St. from Castor Ave. to Butler St.  
Westmoreland St. from Delaware Ave. to West of Brabant St.  
Wheatsheaf Lane from 156' S.E. of Aramingo Ave. to N.W.H.L. of Aramingo Ave.  
Wissahickon Ave. from School House Lane to Midvale Ave.

Lines and Grades Furnished for Sewers

Aramingo Ave. from Ontario St. to Tioga St.  
Aramingo St. from Venango St. to 230' N.E. of Wheatsheaf Lane  
Castor Ave. (Former) from East of Delaware Ave. to Bulkhead of Delaware River  
Thompson St. from Castor Ave. to Butler St.  
Westmoreland St. from Delaware Ave. to West of Brabant St.  
Wheatsheaf Lane from 156' S.E. of Aramingo Ave. to N.W.H.L. Aramingo Ave.  
Wissahickon Ave. from School House Lane to Midvale Ave.

Repaving Plans Made

Dauphin St. from Broad St. to 15th St.  
Ridge Ave. (Track area) from Huntingdon St. to Lehigh Ave.

Lines and Grades Furnished for Repaving

Dauphin St. from Broad St. to 15th St.  
Harold St. from Thompson St. to Almond St.  
Huntingdon St. from Richmond St. to Kensington Ave.  
Morris St. from Front St. to 5th St.

Survey District No. 6 - continued

Improvement Plans Made

Scotts Lane (Cartway surfacing, curb, sidewalk and drainage work) from  
Abbettsford Ave. to 250' South of P.G. & N. R.R.

Lines and Grades Furnished for Improvement

Butler St. (Cartway widening) from Germantown Ave. to 15th St.  
Erie Ave. (Widening North shoulder) from Park Avenue to Germantown Ave.  
Erie Ave. (Widening South shoulder) from Broad St. to Germantown Ave.

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Seventh District

Water Pipe Plans Prepared

Lines and Grades Furnished for Water Pipe

<u>Street</u>	<u>From</u>	<u>To</u>
Ashurst	Brookhaven	Woodbine
Brookhaven	Ashurst	75th
50th	Wyndale	Wynnefield
56th	Grays Ave.	Elmwood
Lindbergh	Wheeler	Elmwood
Meribrook	Brookhaven	Woodbine
Parkwyn	Wyndale	Wynnefield
75th	Woodbine	Malvern
76th	Woodbine	102' South
76th	97' 6" S.E. of Woodbine	222' S.E. of Coleman
76th	127' N. of Malvern	109' S. of Woodbine
76th	Brookhaven	81' North
77th	Sherwood	Woodbine
Wheeler	56th	Lindbergh
Woodbine	Ashurst	77th
Woodcrest	75th	76th
Woodcrest	50th	Parkwyn
Wyndale	50th	Parkwyn

Improvement Plans - Paving

Belmont	Parkside (Intersection)	(Traffic Safety Island)
Brookhaven	77th	Cobbs Creek Park
56th	Elmwood	Grays
Harley	53rd	Lindbergh
Haverford	Lansdowne	Cut-off N.W.C.
Ludlow	Farragut	47th
75th	Brentwood	Brookhaven
76th	Brookhaven	81.5' N.
Stiles	66th	Atwood
Woodbine	76th	77th
Woodbine	77th	Ashurst

Lines and Grades Furnished for Paving

Ashurst	Brookhaven	Woodbine
Brookhaven	75th	77th
Brookhaven	77th	Cobbs Creek Park
50th	Wyndale	Wynnefield
54th	City (Intersection)	(Safety Islands)
Meribrook	Brookhaven	Woodbine
Parkwyn	Wynnefield	Wyndale

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Survey District No. 7 - continued

Lines and Grades Furnished for Paving

<u>Street</u>	<u>From</u>	<u>To</u>
75th	Brookhaven	Brentwood
75th	Malvern	Woodbine
76th	Brookhaven	81.5' N.
76th	City	110' N.W. of Overbrook
77th	Sherwood	Woodbine
Stiles	66th	Atwood
Woodbine	76th	77th
Woodbine	77th	Ashurst
Woodcrest	75th	76th
Woodcrest	50th	Parkwyn
Wyndale	Parkwyn	50th

Improvement Plans - Base Sewer Plans

Elmwood	56th	Lindbergh
56th	Elmwood	Grays
Lancaster	50th	650' N.W.
Lindbergh	Elmwood	56th
67th	Girard	Haverford
Wheeler	56th	Lindbergh

Plans of Constructed Sewers

Ashurst	Woodbine	Brookhaven
Elmwood	56th	Lindbergh
50th	Wynnefield	Wyndale
56th	Elmwood	Grays
Lindbergh	Elmwood	56th
Meribrook	Woodbine	Brookhaven
Mill Creek Sewer	46th & Haverford	47th & Fairmount
Parkwyn	Wynnefield	Wyndale
67th	Girard	Haverford
75th	Malvern	Woodbine
76th	Woodbine	Malvern
University	Woodland	Curie
Wheeler	56th	Lindbergh
Woodbine	77th	Ashurst
Woodcrest	75th	76th
Woodcrest	50th	Parkwyn
Wyndale	50th	Parkwyn



Survey District No. 7 - continued

Sewers - Lines and Grades Furnished

<u>Street</u>	<u>From</u>	<u>To</u>
Ashurst	Woodbine	Brookhaven
Elmwood	56th	Lindbergh
50th	Wynnefield	Wyndale
56th	Elmwood	Grays
Lindbergh	Elmwood	Railroad R/W
Meribrook	Woodbine	Brookhaven
Mill Creek	46th & Haverford	47th & Fairmount
Parkwyn	Wynnefield	Wyndale
67th	Girard	Haverford
75th	Malvern	Woodbine
76th	Malvern	Woodbine
Woodbine	76th	Ashurst
Woodcrest	75th	76th
Woodcrest	50th	Parkwyn
Wheeler	56th	Lindbergh
Wyndale	50th	Parkwyn

Repaving Plans

54th	Jefferson	Columbia
Girard	38th	40th
Jefferson	53rd	54th
Kingsessing	43rd	45th
Market	30th	32nd
Vine	Haverford	65th

Lines and Grades Furnished for Repaving

54th	Upland Way	Jefferson
Jefferson	53rd	54th
Kingsessing	43rd	45th
Lancaster (Track Area)	Belmont	52nd
33rd	Walnut	Woodland
Vine	Haverford	65th
Walnut	32nd	Woodland

Improvement Plans - Grading

Daggett	Vine	Callowhill
Edgemore	Media	Haverford
Presidential	City	330' S. of Winding Dr.
67th	Girard	Haverford
Winding Drive	Neill Drive	Presidential Blvd.

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Survey District No. 7 - continued

Lines and Grades Furnished for Grading

<u>Street</u>	<u>From</u>	<u>To</u>
Brookhaven	75th	77th
Brookhaven	77th	Cobbs Creek Park

Miscellaneous Drainage Improvement Plans

(Black Oak Park (52nd	Pine	Larchwood
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Eighth DistrictWater Pipe - Plans

<u>Street</u>	<u>From</u>	<u>To</u>
Adams	Whitaker	70' E. of Montour
Akron	Princeton	St. Vincent
Akron	Levick	Hellerman
Algard	Devereaux	Robbins
Benner	Saul	Bustleton
Benner	Roosevelt Blvd.	Saul
Bradford	St. Vincent	Cottman
Bustleton (W.foot.)	Princeton	St. Vincent
Bustleton (E.foot.)	Tyson	St. Vincent
Bustleton (E.foot.)	St. Vincent	Cottman
Calvert	Robbins	Levick
Calvert	Princeton	St. Vincent
Calvert	Princeton	110' S. of Princeton
Cardiff	Devereaux	Robbins
Cardiff	Robbins	Levick
Comly	Horrocks	Saul
Cottage	Devereaux	Robbins
Crafton	Robbins	Levick
Crafton	Devereaux	Robbins
Creston	Oakland	Saul
Devereaux	Farnsworth	Revere
Devereaux	Leonard	Farnsworth
Devereaux	100'9" W. of Newtown	95' W. of Hasbrook
Ditman	McKinley	Robbins
Dorcas	Levick	Hellerman
Eastwood	Roosevelt Blvd.	45' S. of Robbins
Farnsworth	Levick	Hellerman
Farnsworth	Devereaux	88' N. of NHL Lardner
Farnsworth	Robbins	Levick
Farnsworth	Devereaux	Robbins
Fillmore Terrace	Summerdale	Roosevelt Blvd.
Foulkrod	Montour	Whitaker
Friendship	Bustleton	Roosevelt Blvd.
Glenloch	Kennedy	Harbison
Glenview	Whitaker	Penway
Harbison (W.foot.)	Torresdale	Ditman
Harbison (N.foot.)	Kennedy	Sanger
Harbison (E.foot.)	Battersby	Levick
Hasbrook	Robbins	102' N. of Robbins
Hawthorne	Hellerman	125' N. of Hellerman
Hellerman	Hawthorne	Frankford
Hellerman	Battersby	Hawthorne
Horrocks	Princeton	St. Vincent
Horrocks (W.foot.)	Tyson	Princeton
Howell	Langdon	Oxford
John	Tackawanna	188' W. of Tackawanna
John	Josephine	230'6" E. of Tackawanna
Kerper	Tabor	Montour
Kindred	Princeton	St. Vincent

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Survey District No. 8 - continued

Water Pipe - Plans

<u>Street</u>	<u>From</u>	<u>To</u>
Kindred	Tyson	Princeton
Kindred	St. Vincent	Cottman
Knorr	Whitaker	Pennway
Langdon	Vankirk	72' N. of Howell
Langdon	Oxford	82' N. of Howell
Langdon	Anchor	Vankirk
Lardner	Bustleton	Leonard
Lardner	Roosevelt Blvd.	Benner
Lardner	Leonard	Farnsworth
Large	Princeton	Cottman
Leonard	Stevens	Lardner
Leonard	Princeton	110'2" S. of SHL Princeton
Leonard	Robbins	Levick
Leonard	Princeton	St. Vincent
Levick	Bustleton	84' E. of Eastwood
Levick	Dorcas	84' E. of Dorcas
Levick	Horrocks	84' W. of Eastwood
Levick (S.footway)	Harbison	Battersby
Longshore	Whitaker	Pennway
Longshore	Summerdale	218' E.
Loretto	83' N. of Levick	28'8" S. of Elbridge
Loretto	Greeby	Gilham
Loretto	27' N. of McKinley	63' S. of Hale
Loretto	124' N. of Stirling	82'3" S. of Levick
Loretto	Hale	Robbins
Magee	Horrocks	78'6" W. of Horrocks
Marsden	Brill	Harbison
Martins Mill	Oxford	Montour
Martins Mill	Tabor	217' N. of Tabor
Martins Mill	Hellerman	85' N. of Hellerman
Martins Mill	125' N. of Magee	140' S. of Magee
McKinley	Leonard	Farnsworth
Montour	Tyson	93'6" S. of Tyson
Newtown	Lardner	88'6" N. of Benner
Oakland	Princeton	St. Vincent
Oakland	Benner	108' N. of Vankirk
Oakland	Robbins	Levick
Oakland	Benner	102'3" S. of Roosevelt Blvd.
Oakland	Roosevelt Blvd.	102' S. of Roosevelt Blvd.
Oakland	Cheltenham	108' N. of Vankirk
Penn	Vankirk	Comly
Pennway	96'8" S. of Knorr	100' N. of Knorr
Pennway	Longshore	100' S. of SHL Glenview
Princeton	68' E. of Large	75' W. of Souder
Princeton	Lynford	68' E. of Large
Princeton	Horrocks	83' W. of WCL Souder
Princeton	Leonard	Roosevelt Blvd.
Princeton (N.foot.)	Horrocks	94' E. of Oakland
Princeton	90'6" W. of Eastwood	80' E. of Akron

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Survey District No. 8 - continued

Water Pipe - Plans

<u>Street</u>	<u>From</u>	<u>To</u>
Princeton	Bustleton	Leonard
Reach	Lardner	Devereaux
Reach	Benner	Lardner
Revere	Devereaux	Robbins
Revere	Robbins	Levick
Robbins	Farnsworth	Mershon
Robbins	Roosevelt Blvd.	31'6" E. of Eastwood
Robbins	31'11" E. of Horrocks	88'9" W. of Eastwood
Roosevelt Blvd.	Oakland	146' S.W. of Devereaux
Roosevelt Blvd.	Horrocks	Oakland
Sackett	Hellerman	126'3" N. of Hellerman
St. Vincent	Castor	Kindred
Saul	Comly	Benner
Saul	Comly	111' N. of Vankirk
Saul	Vankirk	111' N. of Vankirk
Souder	Tyson	Princeton
Souder (S. of St.Vinc.)	Horrocks	St. Vincent
Stearly	Newtown	Reach
Stevens	Farnsworth	Revere
Summerdale	Longshore	129' N. of NHL Knorr
Summerdale	Friendship	Cottman
Sylvester	Robbins	Levick
Sylvester	Vankirk	110' N. of Vankirk
Sylvester	Comly	110' N. of Vankirk
Torresdale	Vandike	Worrell
Tyson	Summerdale	222'10" E. of EHL of Summerdale
Vandike	Torresdale	119' S.
Vankirk	Bustleton	37'1" E. of Leonard
Vankirk	Saul	Bustleton
Vankirk (S. footway)	Oakland	178' W. of Oakland
Vankirk (N. footway)	Oakland	Sylvester
Vankirk	Oakland	Saul
Whitaker	95'6" S. of Knorr	93'10" N. of Knorr
Whitaker	Tyson	101' S. of Tyson

Water Pipe - Stakes

Almond	Roxborough	Juniata
Benner	Roosevelt Blvd.	Saul
Calvert	Unruh	Knorr
Comly	Horrocks	Saul
Cottage	Robbins	Devereaux
Crafton	Robbins	Levick

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Survey District No. 8 - continued

Water Pipe - Stakes

<u>Street</u>	<u>From</u>	<u>To</u>
Creston	Saul	Oakland
Disston	Summerdale	Frontenac
Hale	Ditman	Jackson
Howell	Sylvester	Saul
John	Josephine	105' N.W.
John	Tackawanna N.W. 250'	Dead end
Keystone (water-pipe chamber)	Devereaux	
Knorr	Whitaker	Pennway
Large	Tyson	Princeton
Leonard	Unruh	Knorr
Lynford	Tyson	Princeton
Oakland	Benner	100' N.
Oakland	Benner	Vankirk
Passmore	Hasbrook	County Line
Pennway	Knorr	112' north
Pennway	Knorr	95' south
Pennway	123' S.W.	175' N.E. of Tyson
Revere	Robbins	Levick
Revere	Cottman	St. Vincent
St. Vincent	Roosevelt Blvd.	Brous
Sylvester	Vankirk	Comly
Tyson	Pennway	Whitaker
Whitaker	Tyson	108' N.E. of Tyson
Whitaker	Knorr	112' north
Whitaker	Knorr	119' south

Paving - Plans

Algon	Cottman	Friendship
Almond	Croydon	Alresford
Benner	Roosevelt Blvd.	Saul
Benner	Saul	Bustleton
Bustleton	Bridge	Cheltenham
Bustleton	Robbins	Roosevelt Blvd.
Brous	Tyson	Disston
Bustleton	Vankirk	Comly
Castor & Adams Aves.	Traffic Safety Island	
Comly	Horrocks	Oakland
Comly	Oakland	Saul
Creston	Oakland	Saul
Devereaux	Farnsworth	Revere
Devereaux	Leonard	Farnsworth
Ditman	Devereaux	Robbins
Dyre	Penn	Leiper
Elbridge	Farnsworth	Revere

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Survey District No. 8 - continued

Paving - Plans

<u>Street</u>	<u>From</u>	<u>To</u>
Englewood	Summerdale	Algon
Farnsworth & Stevens intersection		
Harbison	Roosevelt Blvd.	Unruh
Hawthorne & Hellerman intersection		
Hellerman	Farnsworth	Revere
Hellerman	Hawthorne	Frankford
Hellerman	Roosevelt Blvd.	Revere
John	Josephine	E.E.W. of Tackawanna
Lardner	Roosevelt Blvd.	Benner
Lardner	Leonard	Farnsworth
Large	Princeton	Cottman
Levick	Algon	84' W. of Dorcas
Levick	Oxford	Enola
Longshore	Pennway	Whitaker
Martins Mill	Rising Sun	County Line
Oakland	Comly	Roosevelt Blvd.
Oakland	Robbins	Levick
Oakland	St. Vincent	Princeton
Pennway	Cottman	St. Vincent
Pennway	Kerper	Longshore
Pratt	Valley	85' S.E. of Walker
Revere	Levick	Hellerman
Rising Sun & Adams - cut off corner S.E.		
Roosevelt Blvd. & Adams intersection		
Saul	Comly	Benner
Tacony & Bridge - improving S.E. corner		
Tyson	Oxford	246' E. of Summerdale
Unruh	Leonard	Roosevelt Blvd.
Vankirk	Bustleton	249' E. of Bustleton
Whitaker & Kerper intersection		
Whitaker & Knorr intersection		

Paving - Stakes

Akron	Princeton	St. Vincent
Akron	Mages	Knorr
Akron	Levick	Hellerman
Belgrade	Lefevre	Buckius
Benner (N. shld)	Mulberry	115' N.E.
Benner (N. shld)	Mulberry	115' S.W.
Bingham	Longshore	Glenview
Bradford	St. Vincent	Cottman
Bustleton	Roosevelt Blvd.	Cottman
Bustleton	Robbins	Roosevelt Blvd.
Bustleton	Vankirk	Comly
Calvert	120' N. of Brighton	St. Vincent
Cardiff	Robins	Levick

Survey District No. 5 - continued

Plans for Waterpipe

	<u>From</u>	<u>To</u>
Temple Road	Ivy Hill Road	Roumfort Road
Temple Road	Roumfort Road	Gowen Ave.
10th St.	65th Ave. N.	66th Ave. N.
Thouron Ave.	Ivy Hill Road	Roumfort Road
Thouron Ave.	Roumfort Road	Gowen Ave.
Wadsworth Ave.	Michener Ave.	202' E. of E.H.L.
		Michener Ave.
Water St.	Champlost Ave.	Nedro Ave.
Water St.	Champlost Ave.	Spencer Ave.
Williams Ave.	Ivy Hill Road	Roumfort Road
Williams Ave.	Phil-Ellena St.	Sharpnack St.
Williams Ave.	Sedgwick St.	Vernon Road

Stakes for Waterpipe

Ashdale St.	"D" St.	Bingham St.
Bingham St. (W. sd.)		S. from Ashdale St.
Champlost Ave.	Front St.	"A" St.
Geneva Ave. (NECL)		W. of Olney Ave.
Gowen Ave.	Mansfield Ave.	Lynnwood Road
Gowen Ave.	Michener Ave.	Pickering St.
Hortter St.	Mansfield Ave.	Lowber Ave.
Hunting Park Ave.		E. of Railroad
Hunting Park Ave. (S.sd.)	Lawndale St.	"K" St.
Lawndale St.		S. of Hunting Park Ave.
Lowber Ave.	116' N. of Phil-Ellena St.	97' S. of Hortter St.
Mansfield Ave.	Dorset St.	104' S. of Hortter St.
Mansfield Ave.	Ivy Hill Road	S. of Woodbrook Lane
Maple Ave.		N. of Wyoming Ave.
Narwood Road		Olney Ave.
Murdock Road	Woodbrook Lane	Ivy Hill Road
Olney Ave. (WCL)		Geneva Ave. N.
Olney Ave.		Tabor Road
Nedro Ave.		E. of Front St.
Phil-Ellena St.	Mansfield Ave.	Lowber Ave.
Sedgley Ave.		200' W. of W.H.L. of "K" St.
Water St.		Shamplost Ave. North

Plans for Paving

"A" St.	Champlost Ave.	Spencer St.
Annsbury St.	Weymouth St.	"G" St.
Arbor St.	Albanus St.	Ashdale St.
Ashdale St.	"D" St.	Bingham St.
Bingham St.	Ashdale St.	"D" St. & Roosevelt Blvd.
Bingham St.	Olney Ave.	Tabor Road
Bristol St.	"G" St.	"H" St.
Bristol St.	Glendale St.	"M" St.

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Survey District No. 8 - continued

Paving - Stakes

<u>Street</u>	<u>From</u>	<u>To</u>
Cardiff	Devereaux	Robbins
Cottage	Devereaux	Robbins
Crafton	Levick	Robbins
Grafton	Devereaux	Robbins
Devereaux	Leonard	Farnsworth
Devereaux	Hasbrook	Reach
Devereaux (S. shld)	Mulberry	115' N.E.
Devereaux (S. shld)	Mulberry	115' S.W.
Disston	Montour	Whitaker
Dorcas	Levick	Hellerman
Eastwood	Princeton	St. Vincent
Elbridge	Farnsworth	Revere
Farnsworth	Devereaux	Robbins
Farnsworth (20' center)	Lardner	77' N.E.
Farnsworth & Stevens intersection		
Farnsworth	Lardner	Stevens
Farnsworth	Stevens	Devereaux
Farnsworth	Levick	Robbins
Foulkrod	Whitaker	Montour
Friendship	Bustleton	Roosevelt Blvd.
Frontenac	Longshore	Glenview
Frontenac	Cheltenham	Oxford
Frontenac	Longshore	Cottman
Gilham	Brous	Battersby
Glenview	Whitaker	Pennway
Hawthorne & Hellerman intersection		
Hasbrook	Levick	Devereaux
Hellerman	Horrocks	Eastwood
Hellerman	Farnsworth	Revere
Hellerman	Hawthorne	Battersby
Horrocks	Magee	Hellerman
Howell	Rising Sun	360' Westward
Howell	Sylvester	Saul
John	Josephine	W. of Tackawanna
Kindred	Princeton	St. Vincent
Knorr	Eastwood	Bustleton
Knorr	Bustleton	Roosevelt Blvd.
Knorr	Whitaker	Pennway
Lardner	Roosevelt Blvd.	Benner
Lardner	Leonard	Farnsworth
Lardner	Hasbrook	Reach
Lardner	Hasbrook	Shelborne
Large	Princeton	Cottman
Large	Tyson	Princeton
Leonard	120' N. of Brighton	St. Vincent
Leonard	Knorr	104' S. of Glenview

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Survey District No. 8 - continued

Paving - Stakes

<u>Street</u>	<u>From</u>	<u>To</u>
Levick	Bustleton	Eastwood
Levick	County Line	Rising Sun
Levick	Horrocks	Eastwood
Levick	Algon	84' W. of Dorcas
Longshore	Penway	Whitaker
Loretto	McKinley	Greeby
Loretto (shlds.)	Glenview	Friendship
Loretto (shlds.)	Glenview	Magee
Loretto	Greeby	Magee
Lynford	Princeton	St. Vincent
Lynford	Tyson	Princeton
Martins Mill	Oxford	Rising Sun
Newtown	Levick	Robbins
Oakland	Robbins	Levick
Penn	Vankirk	272' N.E.
Penway (N.W.shld.)	107' S.W. of Kerper	Longshore
Penway	Kerper	Longshore
Princeton	Roosevelt Blvd.	Bustleton
Princeton	Souder	Horrocks
Princeton	Bustleton	Horrocks
Reach	Benner	Devereaux
Revere	Devereaux	Robbins
Revere	Levick	Hellerman
Robbins (S.shld.)	Revere	Cardiff
Robbins (S.shld.)	Jackson	Ditman
Robbins (N.shld.)	Cardiff	100' E.
Robbins (N.shld.)	Cardiff	100' W.
Robbins (S.shld.)	Farnsworth	Revere
Robbins (N. shld.)	102' W. of Farnsworth	100' E. of Crafton
Robbins	Algon	Summerdale
St. Vincent	Rutland	Large
St. Vincent	Large	Kindred
Souder	Tyson	Princeton
Stearly	Newtown	Reach
Stevens	Revere	Farnsworth
Summerdale	Cottman	St. Vincent
Trenton	Margaret	Orthodox
Vandike	Bustleton	249' E.
Vankirk	Bustleton	Sylvester
Whitaker & Kerper intersection (E. side)		
Whitaker & Knorr intersection (E. side)		
Whitaker (N.W. shld.)	107' S.W. of Kerper	Longshore

Eighth District Continued

Grading - Plans

Street

Algon  
 Algon (Supplemental)  
 Bingham  
 Bradford Terrace  
 Calvert  
 Comly  
 Disston  
 Ditman  
 Edrick  
 Garland  
 Gilham  
 Glenview  
 Glenview  
 Hale  
 Harbison  
 Horrocks  
 Howell  
 Jackson  
 Kerper  
 Leonard  
 Levick  
 Lynford  
 Lynford  
 Marsden  
 Mayfair  
 Montague  
 Newtown  
 Oakland  
 Passmore  
 Penway  
 Pratt  
 Revere  
 Sanger  
 Sanger  
 Saul  
 Stevens  
 Unruh  
 Unruh  
 Valley  
 Walker  
 Walker

Cottman  
 Cottman  
 Adams  
 Hellerman  
 Unruh  
 Oakland  
 Brous  
 Devereaux  
 Pratt  
 Tabor  
 Frankford  
 Algon  
 Brous  
 Ditman  
 Roosevelt Blvd.  
 Princeton  
 Sylvester  
 Devereaux  
 Algon  
 Unruh  
 Oxford  
 Princeton  
 Cottman  
 Devereaux  
 Tabor  
 Cheltenham  
 Cheltenham  
 Comly  
 Hasbrook  
 Cottman  
 Valley  
 Knorr  
 Edrick  
 Edrick  
 Comly  
 Farnsworth  
 Leonard  
 Bustleton  
 Pratt  
 Cheltenham  
 Pratt

Friendship  
 Friendship  
 Tacony Creek  
 Roosevelt Blvd.  
 Knorr  
 Horrocks  
 Revere  
 Robbins  
 Bridge  
 Bingham  
 Battersby  
 Summerdale  
 Revere  
 Jackson  
 Bustleton  
 St. Vincent  
 Saul  
 Robbins  
 Penway  
 Knorr  
 Enola  
 Tyson  
 St. Vincent  
 Robbins  
 Bingham  
 Sanger  
 Vankirk  
 Roosevelt Blvd.  
 Phila. & Newtown R.R.  
 St. Vincent  
 85' S.E. of Walker  
 Tyson  
 S.E. of Walker  
 Walker  
 Berner  
 130' S.E. of Leonard  
 Roosevelt Blvd.  
 Harbison  
 Bridge  
 Sanger  
 Bridge

Grading - Stakes

Algard  
 Cottage  
 Lardner  
 Large  
 Lynford  
 Lynford  
 Martins Mill

Robbins  
 Robbins  
 Farnsworth  
 Tyson  
 Cottman  
 Princeton  
 Oxford

Devereaux  
 Devereaux  
 120' E. of Leonard  
 Princeton  
 St. Vincent  
 Tyson  
 Rising Sun

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Eighth District Continued

Grading - Stakes

Oakland  
Oakland  
Passmore  
Penway  
Princeton  
Saul  
Saul  
Souder  
Stevens  
Sylvester  
Unruh  
Unruh

Robbins  
Vankirk  
Hasbrook  
St. Vincent  
Horrocks  
Vankirk  
Comly  
Horrocks  
Farnsworth  
Vankirk  
Leonard  
Bustleton

Levick  
Comly  
Phila. & Newtown R.R.  
Cottman  
Bustleton  
Comly  
Benner  
St. Vincent  
130' S.E. of Leonard  
Comly  
Roosevelt Blvd.  
Harbison

Sewers - Base Plans

Almond & Adams intersection (inlets)

Bingham (NWsd. laterals)  
Bradford  
Bradford Terrace  
Calvert  
Devereaux  
Disston  
Disston  
Disston  
Dungan  
Erdrick  
Garland (laterals)  
Gilham  
Glenview  
Glenview  
Glenview  
Harbison  
Hawthorne  
Howell  
Jackson  
Lardner  
Leonard  
Levick  
Longshore  
Lynford  
Lynford  
Marsden  
Mayfair  
Montague  
Oakland (laterals NW sd.)  
Penway  
Penway  
Pratt  
Pratt  
Revere  
Revere  
Revere  
Roosevelt Blvd. (NWsd.)

Adams  
Harbison  
Roosevelt Blvd.  
Unruh  
Mulberry  
sewer E. of Summerdale  
Whitaker  
Revere  
St. Vincent  
Pratt  
Bingham  
Frankford  
Revere  
Frontenac  
Summerdale  
Unruh  
Magee  
Sylvester  
Robbins  
Leonard  
Unruh  
Oxford  
Penway  
Princeton  
Cottman  
Robbins  
Bingham  
Cheltenham  
Comly  
St. Vincent  
Longshore  
Cottage  
Valley  
Knorr  
Unruh  
St. Vincent  
Unruh

Garland  
Knorr  
Hellerman  
Knorr  
Harbison  
Summerdale  
Algon  
Brous  
Cottman  
Bridge  
Tabor  
Battersby  
Brous  
Summerdale  
Algon  
Bustleton  
Hellerman  
Saul  
Devereaux  
Farnsworth  
Knorr  
Enola  
Summerdale  
Tyson  
St. Vincent  
Devereaux  
Tabor  
Sanger  
Benner  
Cottman  
Tyson  
Walker  
Walker  
Tyson  
Knorr  
Cottman  
Knorr

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Eighth District Continued

Sewers - Base Plans

Roosevelt Blvd. (E. sd.)	Knorr	Longshore
Sackett	Mages	Hellerman
Sackett (private)	Stirling	Barnett
St. Vincent	Brous	Revere
Sanger	Erdrick	S.E. of Walker
Stevens	Leonard	Farnsworth
Summerdale	Knorr	Tyson
Tacony	Sanger	Vankirk
Tyson	sewer E. of Summerdale	Summerdale
Tyson	Whitaker	Pennway
Tyson	Oxford	Montour
Tyson	Pennway	Summerdale
Unruh	Akron	Bustleton
Unruh	Roosevelt Blvd.	Bustleton
Valley	Pratt	Bridge
Walker	Pratt	Bridge
Walker	Cheltenham	Sanger

Sewers - Stalms & Return Plans

Alcott	Newtown	Weymouth
Algard	Robbins	Devereaux
Algon	Cottman	Friendship
Ashland	Adams	Frankford Ck.
Bustleton	Hellerman	Longshore
Bustleton	Roosevelt Blvd.	Robbins
Castor (drainage with pav.)	Winghooking	Wyoming
Comly	Oakland	Saul
Creston	Oakland	Saul
Disston	Summerdale	246' S.E.
Ditman	Robbins	McKirdy
Eaglewood	Summerdale	Algon
Hale	Jackson	Ditman
Howell	Sylvester	Saul
John	Josephine	D. E.
Langdon	Robbins	Devereaux
Lardner	Leonard	Farnsworth
Lardner	Reach	Newtown
Mages (S.W. side)	Lynford	Large
Martins Mill	Oxford	Rising Sun
Newtown	Devereaux	Stearly
Newtown	Vankirk	Alcott
Oakland	Robbins	Levick
Oakland	St. Vincent	Princeton
Oakland (inlets & laterals)	Comly	Benner
Princeton (under pav.contr.)	Horrocks	Oakland
Reach	Devereaux	Benner
Reach	Vankirk	Summit NE of Cheltenham
Revere	Cottman	St. Vincent
Sackett (private)	Barnett	Stirling
St. Vincent	Brous	Revere
St. Vincent (under pav.contr.)	Rutland	Lynford
Souder	St. Vincent	Horrocks
Stevens	Reach	Newtown

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Survey District No. 8 - continued

Sewers - Stakes & Return Plans

<u>Street</u>	<u>From</u>	<u>To</u>
Tabor (under Martins Mill) ( improvement )	Levick	Martins Mill
Trotter	Robbins	Devereaux
Tyson	Summerdale	246' S.E.
Tyson	Whitaker	Penway
Unruh	Akron	Bustleton
Vankirk	Reach	Newtown & 20' drainage reservation Newtown & Vankirk to stream S.W.
Vankirk	Bustleton	250' E. of Bustleton
Vankirk (inlets & laterals)	Oakland	Sylvester
Walker	Robbins	Devereaux
Wellington	Summerdale	Algon
Weymouth	Cheltenham	Vankirk

Repaving - Stakes

Penn	Arrott	Oxford
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Ninth District

Water Pipe Plans Prepared

Anderson Street	Upsal St. to 102' E. of E. H. L. of Barringer St.
Anderson Street	Duval St. to 102' S. of S. H. L. of Barringer St.
Anderson Street	Phil-Ellena St. to Upsal St.
Anderson Street	Gravers Lane to Southampton Ave.
Ardleigh Street	Upsal St. to 118' 10" S. of Barringer St.
Ardleigh Street	Upsal St. to 684' 6" N. of N. H. L. of Upsal St.
Ardleigh Street	Duval St. to 118' 10" S. of S. H. L. of Barringer St.
Barringer St.	Ardleigh St. to Anderson St.
Cardeza St.	Anderson St. to Crittenden St.
Cliveden St.	Anderson St. to Crittenden St.
Cliveden St.	Ardleigh St. to Anderson St.
Crittenden St.	Yerkes St. to 85' 9" N. of Upsal St.
Crittenden St.	Phil-Ellena St. to 84' 9" N. of N. H. L. of Upsal St.
Johnson St.	Ardleigh St. to Anderson St.
LeRoy St.	Pawling St. to 57' 9" S. of S. H. L. of Manti St.
Livesey St.	Manti St. to Pawling St.
Magdalena St.	Roxborough Ave. to Jamestown Ave.
Main St.	#3725
Manti St.	Livesey St. to LeRoy St.
Pawling St.	LeRoy St. to Livesey St.
Portico St.	Seymour St. to 393' 5" South
Rosemary Lane	Lincoln Drive to Emlen St.
Silverwood St.	LeRoy St. to Livesey St.
Silverwood St.	LeRoy St. to Paoli Ave.
Umbria St.	Parker Ave. to 1240' North
Upsal St.	Anderson St. to Crittenden St.
Upsal St.	Anderson St. to 164' 2" S. of S. H. L. of Ardleigh St.
Yerkes St.	Anderson St. to Crittenden St.

Streets Where Lines and Grades Were Furnished for Water Pipe

Anderson St.	Upsal St. to Phil-Ellena St.
Anderson St.	Upsal St. to South of Barringer St.
Anderson St. (E)	Gravers Lane to Southampton Ave.
Ardleigh St.	127' S. of Barringer St. to Phil-Ellena St.
Barringer St.	Anderson St. to Ardleigh St.
Cliff St.	100' S. of Livesey St. to 100' North
Cliveden St.	Anderson St. to Ardleigh St.
Cliveden St.	151' 6" S.W. of Ardleigh St. to Crittenden St.
LeRoy St.	Pawling St. to 57' W. of Manti St.
LeRoy St.	100' S. of Livesey St. to 100' North
Livesey St.	Manti St. to Cliff St.
Livesey St.	Manti St. to Pawling St.
Magdalena St.	Jamestown Ave. to Roxborough Ave.
Manti St.	Livesey St. to LeRoy St.
Pawling St.	Livesey St. to LeRoy St.
Silverwood St.	Livesey St. to LeRoy St.
Upsal St.	164' W. of Ardleigh St. to Crittenden St.
Yerkes St.	Crittenden St. to Anderson St.

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Ninth District Continued

Streets Where Lines and Grades Were Furnished for Grading

Anderson St.	Cliveden St. to Johnson St.
Anderson St.	Johnson St. to Washington Lane
Ardleigh St.	Barringer St. to Washington Lane
Cliveden St.	Sprague St. to Crittenden St.
Duval St.	Ardleigh St. to Anderson St.
Johnson St.	Sprague St. to Boyer St.
Matthew St.	Cliveden St. to Upsal St.
Milton St.	Cliveden St. to Upsal St.
Milton St.	Washington Lane to Johnson St.
Sharpnack St.	Anderson St. to Crittenden St.
Sprague St.	Cliveden St. to Johnson St.

Base Sewer Plans Prepared

Anderson St.	Washington Lane to Johnson St.
Ardleigh St.	Rounsort Ave. to Gowen Ave.
Ardleigh St.	Washington Lane to Johnson St.
Brringer Place (N.E. Footway)	Manheim St. to 350' S. E.
Fairway Terrace	Pechin St. to Lauriston St.
Johnson St.	Stenton Ave. to Crittenden St.
Johnson St.	Belfield Ave. to Ardleigh St.
Magdalena St.	Roxborough Ave. to approximately 174' south
Sunrise Lane	Hillman St. to Dead End
Upsal St.	Stenton Ave. to Crittenden St.
Washington Lane	Crittenden St. to Anderson St.

Sewer Contracts Completed for Which Lines and Grades Were  
Furnished and Return Plans of Constructed Sewers Made

Anderson St.	Upsal St. to Phil-Ellena St.
Ardleigh St.	Washington Lane to Johnson St.
Ardleigh St.	Upsal St. to approx. 450' S.E. of Phil-Ellena St.
Cardeza St.	Anderson St. to Crittenden St.
Cliveden St.	Crittenden St. to Ardleigh St.
Brringer Place	Manheim St. to 330' S. E. of Manheim St.
Johnson St.	Stenton Ave. to Crittenden St.
Magdalena St.	Roxborough Ave. to 174' S. E.
Matthews St.	Upsal St. to Cliveden St.
Milton St.	Upsal St. to Cliveden St.
Ridge Ave.	Parker Ave. to Domino Lane
Sharpnack St.	Crittenden St. to Anderson St.
Stenton Ave.	Barringer St. to Johnson St.
Yorke St.	Anderson St. to Crittenden St.

Repaving Plans Prepared

Chelton Ave. (track area)	Magnolia St. to Morton St.
Midvale Ave. (track area)	Coulter St. to E. of Wissahickon Ave.

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Ninth District Continued

Paving Plans Prepared

Ardleigh St.  
Boyer St.  
Cliveden St.  
Laurens St.  
Magdalena St.  
Silverwood St.  
Walnut Lane

Barringer St. to Upsal St.  
Slocum St. to Pleasant St.  
Anderson St. to Ardleigh St.  
Abbotsford Ave. to Clapier St.  
Roxborough Ave. to 163' S. of Rector St.  
Parker Ave. to Paoli Ave.  
Wissahickon Ave. to W. H. L. of Kingsley St.

Streets Where Lines and Grades Were Furnished for Paving

Anderson St.  
Ardleigh St.  
Barringer St.  
Cliveden St.  
Crittenden St.  
Brringer Pl. (E.s.)  
Harner St.  
Hortter St.  
Sunset Ave.  
Walnut La. (N.s.)  
Washington La.  
Winston Rd.

Upsal St. to Johnson St.  
Phil-Ellena St. to Upsal St.  
Anderson St. to Ardleigh St.  
Crittenden St. to Anderson St.  
Upsal St. to Phil-Ellena St.  
Manheim St. to Clapier St.  
Sunset Ave. to Ivins Rd.  
W. C. L. Stenton Ave. to E. H. L. Crittenden St.  
Harner St. to Pembroke Rd.  
Daniel St. to 200' E. of Kingsley St.  
Washington Lane (s) to Stenton Ave.  
Ardleigh St. to Reading Railroad

Grading Plans Prepared

Cathedral Rd.  
Chippewa Rd.  
Chippewa Rd.  
Clyde Lane  
Glen Campbell Rd.  
Glenroy Rd.  
Grakyn Lane  
Inverness Rd.  
Johnson St.  
Laurens St.  
Lomond Lane  
Lykens Lane  
Lykens Lane  
Lykens Lane  
Millman St.  
Nittany Lane  
Old Line Rd.  
Old Line Rd.  
Sagamore Rd.  
Sharpnack St.  
Sunrise Lane  
Tiona St.  
Wissahickon Ave.  
Wissahickon Ave.

50' N.E. of Wissahickon Ave. to 50' W. of Brierdale Rd.  
Lomond Lane to Glen Campbell Rd.  
Glen Campbell Rd. to Dead End  
Lykens Lane to Sagamore Rd.  
Inverness Rd. to Chippewa Rd.  
Cathedral Rd. to Lomond Lane  
Brierdale Rd. to Wissahickon Ave.  
Scotia Rd. to Lykens Lane  
Crittenden St. to Stenton Ave.  
Abbotsford Ave. to Clapier Ave.  
Scotia Rd. to Glen Campbell Rd.  
Inverness Rd. to Scotia Rd.  
Clyde Lane to Sagamore Rd.  
Grakyn Lane to Nittany Lane  
Gravers Lane to 400' N. of Hartwell Lane  
Lykens Lane to Sagamore Rd.  
Cathedral Rd. to 515' N. W. of Grakyn Lane  
Cathedral Rd. to Port Royal Ave.  
Clyde Lane to Cathedral Rd.  
Anderson St. to Crittenden St.  
Millman St. to Dead End N. E.  
Grakyn Lane to Cathedral Rd.  
Cathedral Rd. to Manatawna Ave.  
Cathedral Rd. to Inverness Rd.

Fifth District Continued

Streets Where Lines and Grades Were Furnished for Repaving

Baldwin St.	Wilde St. to Silverwood St.
Cotton St.	Silverwood St. to Tower St.
Dupont St.	Smick St. to Silverwood St.
Ritchie St.	Dupont St. to Green Lane

Resurfacing Plans Prepared

None

Streets Where Lines and Grades Were Furnished for Resurfacing

None

Plans for Miscellaneous Drainage Improvements and Concrete Gutters Prepared

Norwood Ave.	South of Sunset Ave.
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Streets Where Lines and Grades Were Given for Miscellaneous Drainage Improvements and Concrete Gutters

Verhon Park

Water Pipe Plans Prepared

	<u>From</u>	<u>To</u>
Este Avenue 94' S.W. of	Seventy-fifth Street	Seventy-sixth Street
Island Avenue (N.E. Footway)	Crothers Avenue	Eighty-second Street
Lisser Avenue	Eighty-first Street	Eighty-third Street
Seventy-seventh Street	Lindbergh Boulevard	200' South

Streets where Lines and Grades Were Furnished for Water Pipe

Este Avenue 94' S.W. of	Seventy-fifth Street	Seventy-sixth Street
Island Avenue (N.E. Footway)	Crothers Avenue	Eighty-second Street
Lisser Avenue	Eighty-first Street	Eighty-third Street
Seventy-seventh St.	Lindbergh Boulevard	200' South

Paving Plans Prepared

Fifty-seventh Street	Elmwood Avenue	Lindbergh Boulevard
Seventy-second Street	Guyer Avenue	Crothers Avenue

Streets Where Lines and Grades Were Furnished for Paving

Grays Avenue	Edgewood Street	Sixty-first Street
Intersection - Cobbs Creek Parkway,	Sixtieth Street and	Warrington Avenue
		(Safety Island)

Grading Plans Prepared

Alden Street	Elmwood Avenue	Lindbergh Boulevard
Eighty-fourth Street	N. of Tinicum Avenue	Chester Branch

Streets where Lines and Grades Were Furnished for Grading

Grays Avenue	Sixtieth Street	Sixty-first Street
Island Avenue (N.W. Footway)	Buist Avenue	Dicks Avenue
Regent Street	Sixty-sixth Street	Sixty-eighth Street

Base Sewer Plans Prepared

Alden Street	Elmwood Avenue	Lindbergh Boulevard
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Sewer Contracts Completed for which Lines and Grades Were Furnished and Return Plans of Constructed Sewers Made

Sylmar Street	Dicks Avenue	Dead End South
(Done in connection with Department of Welfare Playground Contract)		

Repaving Plans Prepared

None

Streets where Lines and Grades Were Furnished for Repaving

None

188-1950

Tenth District Continued

Resurfacing Plans Prepared

None

Streets where Lines and Grades Were Furnished for Resurfacing

None

Plans for Miscellaneous Drainage Improvements and Concrete Gutters Prepared

Dickens Avenue	Seventy-eighth Street	Seventy-ninth Street
Este Avenue	Seventy-seventh Street	Seventy-ninth Street
	Powers Lane at Chester Branch Railroad	
Seventy-eighth Street	Baist Avenue	point No. of Este Ave.
Seventy-ninth Street	Baist Avenue	point N. of Este Ave.

Streets where Lines and Grades Were Given for Miscellaneous  
Drainage Improvements and Concrete Gutters

Ashwood Avenue	Eighty-sixth Street	Eighty-eighth Street
Brunswick Avenue	Seventy-ninth Street	Island Avenue
Eighty-first St. (E. Side)	Lyons Avenue	Grovers Avenue
Eighty-seventh Street	Tinicum Avenue	Ashwood Avenue
Erwig Avenue	Eighty-fifth Street	Nintieth Street
Grovers Avenue	Seventy-ninth Street	Eighty-first Street
Holstein Avenue	Eighty-sixth Street	Eighty-seventh Street
Laycock Avenue	Eighty-fifth Street	Eighty-eighth Street
Lindbergh Boulevard	Island Avenue	Seventy-ninth Street
Lindbergh Boulevard	Seventy-ninth Street	Eightieth St. (N. side only)
Seventy-ninth Street	Suffolk Avenue	Lindbergh Boulevard
Suffolk Avenue	Island Avenue	Elm Street
Madison Avenue	Eightieth Street	Eighty-first Street

189-1950



SEWERS COMPLETED DURING 1950 FOR NEW HOUSING

<u>Location</u>	<u>Linear Foot</u>	<u>Assessment Bills</u>	<u>City Cost</u>	<u>Total Cost</u>
"A" Street from Hedro Avenue to Champlost Avenue	514.	\$ 3,160.00	\$ 4,884.05	\$ 8,044.05
Algard Street from Helleman Street to Magee Avenue	1098.	6,617.10	9,283.80	16,100.90
Algard Street from Magee Avenue to Duruh Avenue	1200.	6,032.68	6,098.75	14,131.43
Algard Street from Robbins Street to Devereaux Avenue	1722.	10,417.33	30,751.97	41,149.30
Walker Street from Robbins Street to Devereaux Avenue	2669.	17,062.70	19,885.90	36,948.60
Algon Avenue from Cottman Avenue to Friendship Street	5725.	34,635.25	62,643.85	97,279.10
Englewood Street from Summerville Avenue to Algon Avenue	834.	3,073.33	8,971.87	12,045.20
Anderson Street from Cliveden Street to Phillelma Street	982.	5,742.28	4,794.22	10,466.50
Cardesa Street from Anderson Street to Crittenden Street	3222.	19,445.96	49,556.44	69,002.40
Yerkos Street from Anderson Street to Crittenden Street	834.	3,073.33	8,971.87	12,045.20
Andover Road from Fordham Road to summit N. of Convent Ave.	982.	5,742.28	4,794.22	10,466.50
Wooden Bridge Road from Convent Avenue to summit W. of Annapolis Road;	3222.	19,445.96	49,556.44	69,002.40
Wooden Bridge Road from W. of Annapolis Road to Annapolis Road;	834.	3,073.33	8,971.87	12,045.20
Cloverly Road from Wooden Bridge Road to Annapolis Road;	982.	5,742.28	4,794.22	10,466.50
Drainage Right-of-way from Wooden Bridge Run Intercepting Sewer to Wooden Bridge Road	3222.	19,445.96	49,556.44	69,002.40
Ardleigh Street from Washington Lane to Johnson Street	834.	3,073.33	8,971.87	12,045.20
Bayard Street from Wadsworth Avenue to Cowen Avenue	982.	5,742.28	4,794.22	10,466.50
Provident Street from Wadsworth Avenue to Cowen Avenue	3222.	19,445.96	49,556.44	69,002.40
Bennet Street from Oakland Street to Bustleton Avenue	834.	3,073.33	8,971.87	12,045.20
Lardner Street from Roosevelt Boulevard to Bennet Street	982.	5,742.28	4,794.22	10,466.50
Bustleton Avenue from Bennet Street to Devereaux Avenue	3222.	19,445.96	49,556.44	69,002.40
Lardner Street from Bustleton Avenue to Leonard Street	834.	3,073.33	8,971.87	12,045.20
Leonard Street between Stevens Street and Lardner Street	982.	5,742.28	4,794.22	10,466.50
Bemington Street from Hunting Park Avenue to Looming Street 1010.	3222.	19,445.96	49,556.44	69,002.40
Lamdale Street from Looming Street to Hunting Park Avenue	834.	3,073.33	8,971.87	12,045.20
Bingham Street from Ashdale Street to Roosevelt Boulevard	982.	5,742.28	4,794.22	10,466.50
Bustleton Avenue from Roosevelt Boulevard to Robbins Street	3222.	19,445.96	49,556.44	69,002.40

190-1950

<u>Location</u>	<u>Linear Feet</u>	<u>Assessment Bills</u>	<u>City Cost</u>	<u>Total Cost</u>
Cliveden Street from Ardleigh Street to Crittenden Street	1227.	\$ 8,135.40	\$ 8,104.60	\$16,240.00
Cottage Street from Robbins Street to Devereaux Avenue	599.	4,005.34	1,432.51	5,437.85
Cottage Street from Unruh Avenue to Kago Avenue	1556.	9,996.85	11,153.85	21,150.70
Gillespie Street from Unruh Avenue to Magee Avenue				
Greedy Street from Fredrick Street to Walker Street				
Cottage Street from Robbins Street to Lovick Street	599.	3,992.00	5,184.59	9,176.59
Cottman Avenue from Horrocks Street to Large Street	552.5	4,015.23	7,778.13	11,793.41
Cottman Avenue from Duffield Street to Roosevelt Blvd.	1034.	6,988.75	22,680.25	29,669.00
Creston Street from Oakland Street to Saul Street	1326.	7,555.32	19,115.78	26,671.10
Comly Street from Oakland Street to Saul Street				
Vankirk Street from Bastleton Avenue to a point 250 feet E. of Bastleton Avenue				
Elmwood Avenue from 58th Street to Lindbergh Blvd.	1373.	6,711.92	11,406.56	18,118.28
Lindbergh Blvd. from Elmwood Avenue to Phila. and Baltimore Right-of-way				
Wheeler Street from 56th Street to Lindbergh Blvd.	413.	2,568.00	4,164.25	6,732.25
Emily Street from 27th Street to 26th Street	430.	1,296.37	6,495.63	7,794.00
Irringer Place (NE footway) from Kanheim Street to 330 feet SE of Kanheim Street	418.	2,402.00	4,605.59	7,007.59
Etting Street from Mifflin Street to Moore Street	2360.	14,891.20	12,781.50	27,672.50
Fayette Street from Gowen Avenue to Ivy Hill Road				
Temple Road from Gowen Avenue to Ivy Hill Road				
Forrest Avenue from Gowen Avenue to Ivy Hill Road	2426.	13,228.02	19,685.58	32,913.60
Theuron Avenue from Gowen Avenue to Ivy Hill Road				
56th Street from Elmwood Avenue to Grays Avenue	636.	3,117.95	5,637.90	8,755.85
Glendale Street from Hunting Park Avenue to Bristol Street	506.	3,533.33	5,926.92	9,360.25
Gorgas Street from Mansfield Avenue to Rodney Street				
Rodney Street from Gorgas Street to Sedgwick Street	780.	4,861.62	10,608.93	15,470.60

191-1950

<u>Location</u>	<u>Linear Feet</u>	<u>Assessment Bills</u>	<u>City Cost</u>	<u>Total Cost</u>
Gowen Avenue from Stenton Avenue to Lynnwood Road	958.	4,575.84	9,617.01	14,193.85
Hale Street from Jackson Street to Ditman Street	870.	4,672.00	8,966.98	13,638.98
Ditman Street from Robbins Street to McKinley Street	1478.	8,741.64	12,053.05	20,794.69
Hortter Street from Mansfield Avenue to Lowber Avenue	712.	3,962.56	10,637.70	14,600.26
Lowber Avenue from Hortter Street to Phillelma Street	830.	5,170.10	8,843.65	14,013.75
Phillelma Street from Lowber Avenue to Mansfield Avenue	998.	6,488.67	4,586.56	11,075.23
Howell Street from Sylvester Street to Saul Street	1002.	6,000.00	5,689.00	11,689.00
Johnson Street from Stenton Avenue to Crittenden Street	574.5	3,777.04	7,347.54	11,124.58
Stenton Avenue from Barringer Street to Johnson Street	526.	3,842.84	1,816.91	5,659.75
Kindred Street from St. Vincent Street to Princeton Avenue	830.	5,033.26	10,484.89	15,518.15
Large Street from Tyson Avenue to Princeton Avenue	400.	3,440.00	1,070.00	4,510.00
Langdon Street from Robbins Street to Devereaux Avenue	1251.	8,817.67	5,189.58	14,007.25
Trotter Street from Robbins Street to Devereaux Avenue	223.6	436.08	6,581.74	7,017.82
Lansing Street from Large Street to Castor Avenue	196.	570.00	1,500.50	2,070.50
Lardner Street from Leonard Street to Farnsworth Street	1022.	5,195.45	12,231.87	17,427.32
Lardner Street from Reach Street to Newtown Avenue				
Stevens Street from Reach Street to Newtown Avenue				
Laudale Street from Luxerms Street to Lyeoming Street				
Lynford Street from St. Vincent Street to Cottman Avenue				
Lynford Street from Tyson Avenue to Princeton Avenue				
Magdalena Street from Roxborough Avenue to a point 174 1/2 feet southeast				
Mages Avenue (SW side) from Lynford Street to Large Street				
McKean Street from 26th Street to 27th Street				
Etting Street from Snyder Avenue to McKean Street				
27th and 28th Streets from McKean Street southward to existing sewer				
Meridian Street from Ditman Street to Torresdale Avenue	301.5	1,794.84	1,084.48	2,879.32

192-1950

<u>Location</u>	<u>Linear Feet</u>	<u>Assessment Bills</u>	<u>City Cost</u>	<u>Total Cost</u>
Michener Avenue from Coven Avenue to Ivy Hill Road	1186.	7,377.60	10,298.95	17,674.55
Milton Street from Upsal Street to Cliveden Street Matthews Street from Upsal Street to Cliveden Street	890.	5,774.13	7,563.02	13,327.20
Westown Avenue from Devereaux Avenue to Stearly Street Reuch Street from Devereaux Avenue to Benner Street	1344.7	6,022.85	19,475.69	27,498.54
Oakland Street from St. Vincent Street to Princeton Street Souder Street from St. Vincent Street to Horrocks Street	681.	6,263.14	3,287.46	9,550.60
Oakland Street from Robbins Street to Levick Street	495.	3,160.00	2,380.00	5,540.00
Ogenix Avenue (NE side) from 77th Avenue to N. 73th Ave. N	238.	760.00	2,873.40	3,633.40
Parlayn Road from Wynnefield Avenue to Wyncdale Avenue 50th Street from Wynnefield Avenue to Wyncdale Avenue Woodcrest Avenue from 50th Street to Parlayn Road Wyncdale Avenue from 50th Street to Parlayn Road	1565.	8,287.00	21,476.60	29,733.90
Reach Street from Courtland Street to Wyoming Avenue	577.	3,740.03	3,065.77	6,795.80
Roosevelt Boulevard (SE side) from Sandyford Avenue to Cottman Avenue	1273.	4,023.32	22,093.57	26,116.89
Roosevelt Boulevard (NW side) from Robbins Street to Bustleton Avenue; Bustleton Avenue (W side) from Roosevelt Boulevard to Levick Street; Robbins Street from Eastwood Street to Roosevelt Boulevard; Bustleton Avenue from Levick Street to Hellerman Street	1273.	5,555.59	10,620.71	16,176.30
Byers Street from Tudor Street to Sheluire Avenue	790.	5,709.50	7,121.65	12,831.15
Sharpnack Street from Crittenden Street to Anderson St.	581.	3,921.72	3,188.73	7,110.50
Stenton Avenue from Roundfort Avenue to stream NW of Ivy Hill Road Murdoch Road from Stenton Avenue to Mansfield Avenue	1556.	7,850.16	33,884.02	41,734.18
St. Vincent Street from Brous Avenue to Revere Street Revere Street from Cottman Avenue to St. Vincent Street	1080.	6,584.63	9,416.17	16,000.85

193-1950



<u>Location</u>	<u>Linear Feet</u>	<u>ASSESSMENT Bills</u>	<u>City Cost</u>	<u>Total Cost</u>
Eycamore Street from Ella Street to Somerville Avenue	1232.	5,995.34	18,040.20	24,035.54
Somerville Avenue from Ella Street to Rising Sun Avenue				
"G" Street from Somerville Avenue to Lima Street				
67th Street from Girard Avenue to Haverford Avenue	329.	2,012.96	5,657.04	7,670.00
75th Street from Malvern Avenue to Woodbine Avenue				
76th Street from Woodbine Avenue to Malvern Avenue	1748.	11,648.22	14,994.28	26,642.50
Woodcrest Avenue from 75th Street to 76th Street				
Terry Street from Rhawn Street to Welsh Road	1099.	6,584.90	13,130.20	19,715.10
Tyson Avenue from Summerville Avenue to 246 feet SE of Summerville Avenue; Diston Street from Summerville Avenue to 246 feet SE of Summerville Avenue; Tyson Avenue from Whitaker Avenue to Penny Street	1023.	6,664.00	7,250.10	13,914.10
Unruh Avenue from Alron Street to Bustleton Avenue	240.	1,589.08	1,332.62	2,921.90
Upsal Street from 79th Avenue N. to 80th Avenue N.	406.7	2,668.88	2,752.70	5,421.58
Vista Street from Shisler Street to Glendale Avenue	289.3	2,139.88	3,780.62	5,920.50
Water Street from Champlott Avenue to Spencer Avenue	1109.	4,670.12	12,774.63	17,444.75
"A" Street from Champlott Avenue to Spencer Avenue				
Water Street from Champlott Avenue to Nedro Avenue	520.	3,216.00	4,283.00	7,499.00
Wellington Street from Summerville Avenue to Algon Avenue	536.	3,488.00	5,752.40	9,240.40
Williams Avenue from Sharpnack Street to Phillelona Street	422.	2,560.00	3,999.68	6,559.68
Willits Road from Holms Avenue to a point approximately 265 feet NW of Academy Road	2393.	3,400.00	48,143.00	56,543.00
Holms Avenue (SE side) from Academy Road to Willits Road				
Wissahickon Avenue from Midvale Avenue to School House Lane	1097.	5,720.43	32,272.72	37,993.15
Wister Street from Rodney Street to Woolston Avenue	804.	5,005.60	6,840.90	11,846.50
Woodbine Avenue from 77th Street to Ashurst Road				
Ashurst Road from Woodbine Avenue to Brookhaven Road				
Meribrook Road from Woodbine Avenue to Brookhaven Road	1367.	8,287.46	13,993.79	22,281.25

194-1950

SEWERS COMPLETED DURING 1950 FOR OTHER PURPOSES

<u>Location</u>	<u>Linear Feet</u>	<u>Assessment Hills</u>	<u>City Cost</u>	<u>Total Cost</u>
Adams Avenue and Almond Street intersection (inlets)	---	---	\$ 2,404.50	\$ 2,404.50
Aramingo Avenue from Ontario Street to Tioga Street	1355.	\$ 4,244.76	10,015.03	14,259.79
Aramingo Avenue from Venango Street to Butler Street	2918.	15,850.44	28,509.85	44,360.29
Aramingo Avenue from Butler Street to a point 230 $\pm$ ft. NE of Wheatshaf Lane				
Wheatshaf Lane from a point 158 $\pm$ ft. SE of Aramingo Avenue to the HW house line of Aramingo Avenue				
Ardleigh Street from Upsal Street to about 450 feet SE of Philellena Street	680.	5,017.49	6,316.01	11,333.50
Ashland Street from Adams Avenue to Frankford Creek	1237.	9,004.42	38,568.52	46,572.94
Bustleton Avenue from Hollerman Street to Longshore Street	2169.	11,431.17	32,312.78	43,743.95
Main sewer in Drainage Right-of-way in bed of former Castor Avenue from its present terminus E. of Delaware Avenue to bulkhead line of the Delaware River	607.1	---	104,412.35	104,412.35
Church Lane from Old York Road to 16th Street	274.	2,136.71	4,829.29	6,966.00
Crabtree Street from Sheffield Avenue to Shelmore Avenue	1688.5	3,112.00	38,618.07	42,730.07
Shelmore Avenue from Rowland Avenue to Bedford Street				
Dover Street from Master Street to Thompson Street and laterals in 29th Street (east end only) from Master Street to Thompson Street	434.	3,141.76	10,594.94	13,736.72
Forrest Avenue from Johnson Street to Upsal Street	1004.	8,034.81	4,176.69	12,211.50
Jackson Street from Sheffield Avenue to McKenny Street	1426.	8,684.79	15,396.81	24,081.60
Jackson Street from McKenny Street to Hartel Avenue				
McKenny Street from Cottage Street to Ditman Street				
John Street from Josephine Street to dead end W. of Tackawanna Street	560.	3,491.81	7,505.79	10,997.60

<u>Location</u>	<u>Linear Feet</u>	<u>Assessment Bills</u>	<u>City Cost</u>	<u>Total Cost</u>
Keystone Street from Hellerman Street to Magee Avenue	538.	\$ 1,569.34	\$ 5,943.36	\$ 7,412.70
Loney Street from Oxford Avenue to Burholms Avenue	1150.61	7,085.59	19,279.75	26,365.33
Barnes Street from Borbeck Avenue to Loney Street	---	---	2,963.00	2,963.00
Inlets and laterals in Oakland Street from Conly Street to Benner Street	---	---	---	---
Rhawn Street from Gastor Avenue to Frontenas Street	1192.12	8,227.76	18,643.47	26,871.23
Ridge Avenue from Parker Avenue to Domino Lane	2022.	13,858.05	72,567.73	86,425.78
Robbins Street from Gillespie Street to Walker Street	749.	3,866.67	10,797.73	14,664.40
Stamford Street from Leon Street to Crispin Street	346.	2,109.41	3,475.84	5,585.25
7th Street from Cheltenham Avenue to Oak Lane	875.	4,328.40	38,791.15	41,119.55
Thompson Street from Castor Avenue to Butler Street	745.	5,404.58	5,362.02	10,766.60
10th Street from 66th Avenue N. to summit S. of 69th Ave. N.	1250.	7,536.76	25,898.77	33,435.53
20th Street (W. side) from Callowhill Street to Wood St.	262.5	---	12,532.97	12,532.97
Vankirk Street from Resch Street to Newtown Avenue	2640.	11,725.51	66,190.37	77,915.88
20' wide Drainage Reservation from Newtown Avenue and Vankirk Street to stream southwest				
Newtown Avenue from Vankirk Street to Alcott Street				
Alcott Street from Newtown Avenue to Weymouth Street				
Weymouth Street from Cheltenham Avenue to Vankirk Street				
Resch Street from Vankirk Street to summit NE of Cheltenham Avenue				
Washington Lane south from 236 <sup>1</sup> / <sub>2</sub> feet NE of Crittenden Street to Stenton Avenue	574.	2,918.59	11,983.96	14,902.45
Stenton Avenue from Washington Lane south to a point on existing sewer approximately 100 ft. NW of Washington La. S.				
Whitaker Avenue from Erie Avenue to Cayuga Street	3373.	17,227.43	58,795.05	76,022.48

196-1950

ACCOUNTING AND REPORTING DIVISIONLOAN ITEMS

<u>ITEM</u>	<u>APPROPRIATED</u>	<u>ENCUMBERED</u>	<u>EXPENDED</u>
380½L Grade Crossings	" —	—	—
440½L Highways, Bridges, Viaducts and Bulkheads	\$ 1,529.10	—	—
441L Municipal Improvement, East Bank of Schuylkill	" —	—	—
462L Sewage Disposal	.03	—	.03
463CL Manayunk, Germantown and Chestnut Hill Grade Crossings	115,016.04	—	2,564.31
510AL Improve Philadelphia Inter- national Airport	92,409.10	84,387.04	5,454.92
510BL Improve North Philadelphia Airport	230,741.76	11,200.00	193,070.42
520AL Sewage Disposal	488,772.05	313,908.56	161,666.34
520 BL Sewers	12,351.18	10,329.67	—
540AL Sewage Disposal	9,667,707.44	2,662,821.22	6,961,034.28
540BL Sewers	1,921,047.41	323,869.24	1,563,105.82
540CL Relief Sewers	366,480.33	99,000.00	267,253.27
554AL Improvement - Frankford Creek	490,923.68	2,964.42	487,698.76
555L Agreement with Pennsylvania Rail- road Company (Chinese Wall)	4,300,000.00	—	—
560AL Improve Philadelphia Inter- national Airport	4,010,601.62	2,055,684.75	1,936,117.81
560BL Improve North Philadelphia Airport	663,108.61	162,750.72	277,270.87
571L In Connection with Pennsylvania Boulevard	390,376.77	65,338.86	81,680.01
591CL Surveys and Plans for Parks, etc.	220.00	—	—
595L Repair Buildings, etc., Municipal Stadium	12,796.40	8,819.55	—
642L Drainage and Flood Control	2,935,794.11	1,674,063.87	1,199,801.34

197-1950



ACCOUNTING AND REPORTING DIVISION

LOAN ITEMS

(continued)

<u>ITEM</u>		<u>APPROPRIATED</u>	<u>ENCUMBERED</u>	<u>EXPENDED</u>
670AL	Sewage Disposal	3,500,144.18	715,313.00	155,531.85
670BL	Sewers	1,500,000.00	219,535.18	1,265,611.57
683L	Flood Control	1,400,000.00	1,350,000.00	—
700L	Sewage Disposal and Sewers	23,000,000.00	—	—
700AL	Sewage Disposal	12,000,000.00	5,919,975.20	94,024.80
700BL	Sewers	5,000,000.00	1,246,604.27	456,233.22
713L	Improve Philadelphia International Airport	1,000,000.00	906,529.09	93,470.91
750L	Municipal Airports	4,000,000.00	2,641,902.41	985,504.52
751L	Flood Control	1,000,000.00	630,000.00	—
		<u>\$78,100,019.81</u>	<u>21,104,997.05</u>	<u>16,187,095.05</u>

\* These Items were transferred from the Bureau by November Election

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