

GENERAL REPORT

No. 1786

Covering Properties of
The Columbus Railway & Light Company

VOID

PUBLISHED BY THE
OHIO INSPECTION BUREAU
T. B. SELLERS, Manager
COLUMBUS, OHIO

VOID

MAY, 1909.

OHIO INSPECTION BUREAU

COLUMBUS, OHIO

T. B. SELLERS, MANAGER

GENERAL INSPECTION REPORT No. 1786

OF

THE PROPERTIES OF

THE COLUMBUS RAILWAY & LIGHT COMPANY.

H. R. MARKEL, INSPECTOR.

DATE: MAY, 1909.

GENERAL DESCRIPTION

The Columbus Railway & Light Co. is a corporation acting as an operating company only, and leasing the property of the four corporations, The Columbus Railway Co., The Columbus Traction Co., The Columbus Edison Co., and The Columbus Light Heat & Power Co., and granting guaranteed dividends on the stocks of the several company's holdings. Following are the amounts of outstanding bonds and stocks of the several corporations:

	Outstanding Bonds	Outstanding Stocks.
Columbus Railway Co.....	\$6,428,000.	\$6,500,000.
Columbus Traction Co.	500,000.	750,000.
The Columbus Edison Co.	750,000.	1,385,800.
The Columbus Light, Heat & Power Co.....	750,000.	620,444.
Totals,	\$8,428,000.	\$9,256,244.

This company has entire control of all the street railway service and all the public electric lighting, heating and power service in the city of Columbus, Ohio, except that generated and used by the city for its street lighting, etc. Railway service is excellent, cars being of modern design and well kept up. The rate of fare on the principal lines is five cents for cash fare and seven tickets for a quarter with universal transfers. Those lines entering The Ohio Electric Railway Co's loop are operated as a separate system at a five cent cash fare or eight tickets for a quarter with transfers to other cars of this system only. There are 139 miles of trackage owned, it being located in the city and suburbs including the short interurban lines to Arlington and Westerville. Cars are also operated over some of the city trackage of the Ohio Electric Railway Co. and several of the interurban railways operate their cars over the city tracks of The Columbus Railway & Light Co. (SEE TRACKAGE MAP No. 1.)

The public generally makes liberal use of the railway, light and power service, which results in good profits, and the company financially is in excellent condition with its stocks well up in the market.

The general offices are located at 12-16 North High Street, Columbus Ohio, the office in charge being the following:

Robert E. Sheldon, President.	Edw. K. Stewart, Vice Pres., Treas. & Genl. Mgr.
P. V. Burrington, Secy. & Auditor.	Linden G. White, General Supt.
C. C. Collins, Assistant General Supt.	F. R. Brosius, Chief Engineer.
Chas. E. Hott, Master Mechanic.	

PROMINENTLY DESIRABLE FEATURES.

The Company is well organized and in prosperous condition, system and management good, rolling stock is modern and well kept up, buildings are usually kept in good condition, employees as a class are well trained and efficient, internal hazards are usually well guarded, most of the properties have private protection including A. D. T. watchman's service, and many are within reach of public fire protection.

PROMINENTLY UNDESIRABLE FEATURES.

Buildings are partly old and some are poorly constructed for their class of occupancy, component exposure is common and a number of the buildings are exposed by outside risks. A portion of the property is in congested districts, some risks have no public fire protection and inadequate private protection, and one of the semi-fireproof power houses is not included in the policy form, nor insured.

SYSTEM OF OPERATION.

Electric power is generated in five power stations located throughout the city, three being used principally for railway service and the others for light, heating and power service. All are arranged so that in case of the disabling of one, others can temporarily take all or part of its load until repairs can be made. This is done by generating both alternating and direct current and connecting the several stations with transmission lines and installing in each one or more motor generators, consisting of alternating current and direct current machines connected, and so arranged as to permit of reversal, the stations in this way receiving or furnishing electric power as desired. Alternating current is generated and transmitted at 4400 volts, 3 phase, 60 cycles and is received either by motor generators and converted into direct current or is stepped down by small transformers to 110 or 220 volts and used for commercial lighting and power, this being principally done in the outlying portions of the city. Cars are operated entirely by 500 volts direct current with feeder lines from the several stations, these in several instances being supplemented by boosters and storage batteries. A 500 volt commercial power circuit is maintained this sometimes being operated in parallel with the trolley circuits. Commercial lighting and power service in the center of the city is principally by 110 and 220 volt direct current, three wire system, and is generated direct at the Gay Street Power Station. Engines are of many types ranging from the simple engine to the turbo-generator. Boilers are mostly of modern design and usually are provided with economizers. Cars are operated on regular time schedules and routes usually so arranged that cars return to the same storage house at night but the Winter and Summer service calls for considerable shifting of car values at the beginning of these seasons although certain barns are kept regularly as storage barns and others as operating barns, repair shops etc. All repairing except the casting of car wheels is done by the company and this principally at the Rose Avenue Barns. Lighting and power service is delivered to customers with meters registering in kilowatt hours.

BUILDINGS.

Buildings are fifty in number and located in sixteen different general locations. The principal buildings are mostly of brick but often have undesirable features of design or construction for the class of occupancy housed, such as frame additions, wooden floors and pits, large areas, three stories in height, not well cut up into fire divisions, inside wooden partitions and finish and wooden roof structures. A few however which have been recently built are of more modern construction. The park buildings and a few storage houses etc. are frame. Buildings generally are kept in fair repair and are usually occupied as originally intended.

MACHINERY AND STOCK.

Machinery is of various design and manufacture but mostly modern and of substantial construction. Repair machinery, including woodworking machines is practically all located in the Rose Avenue Shops while the electrical machinery is in the several power houses the main values being in the Spring Street Station and the Gay Street Station. Car repairs and supplies are largely kept at the Rose Avenue Shops, while commercial lighting and power supplies are kept in the several risks of the Meter Department at Kimball and Broad Streets. Horses are kept in the Kimball Street Stable and in the Car House and Stable on South High Street.

ROLLING STOCK.

There are 333 cars insured with The Columbus Railway & Light Company's property at a total of \$875,000.00 and 59 cars insured with The Columbus Traction Company's property at \$85,750.00 the total number of cars being 392 and the total insurance on rolling stock \$960,750.00. Special attention is called to the fact that there are a number of additional worn out or scrap cars which are not included in the above number of cars but which are owned and kept on some of the outside storage tracks, and which with the present policy form would probably be included for losses.

Operating cars are mostly about 30 feet in length with double, bicycle trucks, one motor to each truck, and are principally with General Electric equipments. Trolleys are of the single wheel type, with the usual overhead trolley to rail system of current supply. Car equipments and bodies are kept in excellent repair but none of the cars are wired standard a few being quite defective. Car lighting is entirely by incandescent electric lamps operated in series from the trolley service, and car heating is principally electric a few cars only having the Peter Smith hot water systems. Following is the usual distribution of the rolling stock.

THE COLUMBUS RAILWAY & LIGHT CO'S CARS.

Location.	Number of Cars	Insurance Value.
South High Street Car House and Stable,.....	38	\$ 99849.9
South Pearl Street Car Storage House,.....	18	47297.3
Rose Avenue Paint Shop,	10	26276.3
Rose Avenue Car House and Office,.....	17	44669.7
Rose Avenue Repair Shop and Storage,.....	4	10510.5
Oak Street Car Storage House,	45	118243.3
North High Street Car House,	36	94594.6
West Broad Street Car House and Repair Shop,.....	20	52552.6
West Broad Street Car Storage House,	75	197072.2
Milo Car House, Wash Room and Office,.....	62	162913.0
Milo Car Storage House,.....	7	18393.4
Westerville Car Storage House,.....	1	2627.6
 Totals,	 333	 *\$875000.79

*In figuring the above \$2627.63 was used as an average car value making a slight difference in the total car value which should be \$875000.00.

THE COLUMBUS TRACTION CO'S CARS.

Location.	Number of Cars	Insurance Value.
Meritt Street Barn, in Barns and on tracks,....	}.....59	\$32300.00
Merritt Street Barn, On Tracks Only,.....		52700.00
Central Avenue Power House and Storage,....		750.00
 Totals,.....	 *59	 \$85750.00

*The number of cars given were those found in service at time of inspection, and with this number the average car value would be \$1453.39.

Ordinarily no foreign cars are stored in this company's barns nor are their cars stored in foreign barns except that The Ohio Electric Railway sometimes stores one car and some supplies in the Power House at Central Avenue.

HAZARDS.

Lighting is electric throughout the building with wiring usually in quite good condition and with service except in a very few instances from low voltage non-grounded service. Heating is usually by steam and well installed except that a few coal stoves are used in the car barn wash rooms and a few gas stoves in offices. Where electric power is used wiring is rather well installed and resistances properly mounted. Electric generating machinery is of fair design and properly installed with switchboards of marble or slate on angle iron frames, and with wiring, lightning protection, etc. in fair condition, much being standard. Boilers are well arranged and except in a few instances have stacks safe. Ashes in all instances appear to be properly handled. In most of the property oily waste and the storage of oils is properly taken care of but there are

several properties where considerable improvement along this line should be made.

ADMINISTRATION.

This company is quite well organized and systematized. The management is divided into a number of special departments each with their special heads giving entire attention to a particular class of the business, and the engineers employed for this work are intelligent and progressive, so that the results obtained are necessarily good. Employees appear well trained for their several duties and the discipline maintained is good, this probably being due to some extent to the arrangement with them by the Company by which they are permitted to share in the Company's profits. Employees throughout appear to be well advised as to the use of fire protective devices and the necessity of care and cleanliness in fire prevention. That the Company is operated with satisfactory profits is assured by the fact that its stocks are always in demand and have usually been popular purchases when on the market. The best of relations appear to be maintained with other railway companies etc. with which business is being done. Current is furnished for both the Olentangy and the Indianola Parks.

FIRE PROTECTION.

Most of the principal risks are inside the city limits and have public fire protection, but the Central Avenue Power House property and the car barns and power house at Milo are without any public fire protection, and the barns and repair shops at Rose Avenue and Oak Street have poor public protection. Private protection consists of vertical pipe and hose and hand chemical extinguishers in most of the risks, but chemical extinguishers are not always of standard manufacture and some of the hose equipments are in poor condition. Nearly all the main risks have night watch service with watchman reporting rounds by the A. D. T. system. There are no sprinklered risks.

INSURANCE.

Insurance is written under five general forms and in separate policies. Items of insurance in the several locations are divided into separate amounts on buildings, contents not electrical, electrical machinery and rolling stock. All the principal properties are covered under the 80 per cent Clause on buildings and contents and the 100 per cent Clause on rolling stock. Rolling stock in The Columbus Railway & Light Co. form is in a single item covered while in barns and on tracks while that insured in The Columbus Traction Co. form is in three items one covering while in the Power House at Central Avenue, another in barns and on tracks and a third while on tracks only with the 50 Foot Clear Space Clause attached. The total amount of insurance carried on all properties contained in this report is \$1,719,350.00 the individual items, arrangement of forms and the liabilities being indicated in the value sheet (SEE VALUE SHEET).

THE COLUMBUS RAILWAY AND LIGHT CO. MHP No. 1

OHIO INSPECTION BUREAU.
T. B. SELLERS, MGR.

COLUMBUS, OHIO.
MARCH - 1909
H. F. M.

Scale: 1 inch = 1.1 Mile.

14

9



STATE HOUSE.

LOCATION OF RISKS.

- | | |
|--|------------------------------|
| 1. CLEVELAND AVE. BARNS AND POWER HO. | 9 MINERVA PARK. |
| 2. CENTRAL AVE POWER HO. | 10. N HIGH ST. CAR BARN |
| 3. GAY ST. POWER STATION. | 11. ROSE AVE. BARNS. |
| 4. LYNN ALLEY SUB. STATION. | 12. SO. HIGH ST CAR BARNS. |
| 5. W. MILAN AVE. POWER HO. | 13 SPRING ST. POWER STATION. |
| 6. MOUND ST. POWER STATION. | 14. STORAGE BATTERY HO. |
| 7. METER DEPT, STORAGE HOUSE ETC, W. BROAD ST. | 15. W. BROAD ST. CAR HOUSES. |
| 8. MERRITT ST. CAR BARN. | 16. WESTERVILLE CAR BARN. |

— The C.Ry. & Lt. Cos. Tracks.
 - - - Tracks of other ownership over which The C.Ry. & Lt. Cos. Cars are operated.
 . . . Steam Railway Tracks.