NPS Form 10-900
(Oct. 1990)

OMB No. 1024-0018

1072

United States Department of the Interior
National Park Service

RECEIVED 2280
OCT 30 2009
NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

RECEIVED
APR 13 2009
HISTORIC PRESERVATION OFFICE

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance, enter only categories and subcategories listed in the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

RECEIVED 2280
FEB 05 2010
NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

1. Name of Property

historic name New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive #206

other names/site number

2. Location

street & number Maywood Station Museum, 271 Maywood Avenue ☐ not for publication

city or town Maywood Borough ☐ vicinity

state New Jersey code NJ county Bergen code 003 zip code 07607

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant ☐ nationally ☒ statewide ☐ locally. ☐ See continuation sheet for additional comments.

Signature of certifying official/Title — Date 9/10/09

State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet for additional comments.

Signature of certifying official/Title — Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that this property is:

	Signature of the Keeper	Date of Action
☑ entered in the National Register. ☐ See continuation sheet.	Patrick Andrus	3/19/2010
☐ determined eligible for the National Register. ☐ See continuation sheet.		
☐ determined not eligible for the National Register.		
☐ removed from the National Register.		
☐ other, (explain:)		

NY, Susquehanna & Western RR Locomotive #206
Name of Property

Bergen Co., NJ
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- [X] private
- [ ] public-local
- [ ] public-State
- [ ] public-Federal

Category of Property
(Check only one box)

- [ ] building(s)
- [ ] district
- [ ] site
- [x] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		sites
1		structures
		objects
1		Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

1

6. Function or Use

Historic Functions
(Enter categories from instructions)

Transportation (rail related)

Current Functions
(Enter categories from instructions)

Recreation+Culture / museum

7. Description

Architectural Classification
(Enter categories from instructions)

N/A

Materials
(Enter categories from instructions)

founda
tion
walls
roof
other

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

8 Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [ ] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] **B** Property is associated with the lives of persons significant in our past.
- [X] **C** Property embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria considerations
(mark "x" in all the boxes that apply.)

Property is:

- [ ] **A** owned by a religious institution or used for religious purposes.
- [ ] **B** removed from its original location.
- [ ] **C** a birthplace or grave.
- [ ] **D** a cemetery.
- [ ] **E** a reconstructed building, object or structure.
- [ ] **F** a commemorative property.
- [ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Transportation

Period of Significance
1942-1958

Significant Dates
1942

Significant Person
(Complete if Criterion B is marked above)

Cultural Affiliation
N/A

Architect/Builder
American Locomotive Company (Schenectady, NY)

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography
(cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [ ] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings Survey # _____
- [ ] recorded by Historic American Engineering Record # _____

Primary location of additional data

- [ ] State Historic Preservation Office
- [ ] Other State agency
- [ ] Federal agency
- [ ] Local government
- [ ] University
- [X] Other

Name of repository:

10. Geographical Data

Acreage of property 0.0

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	18	578650	4527450	3			
2				4			

☐ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title **Edward S. Kaminski/Historian**

organization **Maywood Station Historical Committee Division of the New York, Susquehanna & Western Technical & Historical Society, Inc.** date **April 2009**

street & number **108 Stelling Avenue** telephone **201-845-3323**

city or town **Maywood** state **NJ** zip code **07607**

Additional Documentation

Submit the following items with the completed form:
Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.)

name **New York, Susquehanna & Western Technical & Historical Society, Inc.**

street & number **P.O. Box 121** telephone **732-433-4221**

city or town **Rochelle Park** state **NJ** zip code **07662-0121**

Narrative Description

Diesel-Electric Locomotives

A diesel locomotive is a type of railroad locomotive containing a prime mover. Several types of Diesel locomotive have been developed with the main differences being the method by which the prime mover's mechanical power is conveyed to the driving wheels.

Early internal-combustion powered locomotives used gasoline as their fuel source. In 1892, Dr. Rudolf Diesel patented his first compression-ignition engine. Shortly afterward, its application for railway propulsion was considered. Development for a railroad application was slow due to the poor power-to-weight ratio of the early engines, as well as the difficulty in mechanically applying power to multiple driving wheels on swiveling trucks.

Steady improvements in diesel engine design gradually reduced its physical size and improved its power-to-weight ratio to a point where one could be mounted in a locomotive. Once the concept of diesel-electric drive was made practical in the early 1900's, the pace of development quickened. By the mid 20th century the diesel locomotive had become the dominant type of locomotive in much of North America, offering greater flexibility and performance than the steam locomotive, as well as substantially lower operating and maintenance costs. Currently, almost all diesel locomotives are diesel-electric. Aside from railroad uses for propulsion, the diesel engine was successfully applied to marine propulsion and stationary applications.

Steam vs. Diesel Locomotives

Diesel locomotives offer significant operating advantages over steam locomotives. They can safely be operated by one person, making them ideal for switching duties, and they are much quieter, fully weatherproof and without the dirt and heat that is part of operating a steam locomotive. Diesel engines can be started and stopped almost instantly, meaning that a diesel locomotive has the potential to incur no costs when not being used. Steam locomotives typically require heavy maintenance, lubrication and cleaning before, during and after use. Preparing a steam locomotive for use can take many hours, especially if the locomotive is being fired from cold. A diesel engine can be left idling unattended for hours or even days, especially since practically every diesel engine used in locomotives has systems that automatically shut the engine down if a problem such a loss of oil pressure or coolant loss occur. A steam locomotive, by comparison, requires regular and frequent attention to maintain the fire and the level of water in the boiler.

Moreover, maintenance and operational costs of steam locomotives were much higher than diesel counterparts. Annual maintenance costs for steam locomotives accounted for 25% of the initial purchase price. Spare parts were machined from wooden masters for specific locomotives. The sheer amount of unique steam locomotives meant that there was no feasible way for spare part inventories to be maintained. Steam engines also required large quantities of coal and water, which were expensive variable operating costs.

In a diesel-electric locomotive, the diesel engine prime mover drives an electric generator whose output provides power to the traction motors. There is no mechanical connection between the prime mover and the driving wheels. Conceptually, this type of locomotive is an electric locomotive that incorporates its own generating station, making it suited for operation in areas that do not have electrified railways. The electrical output from the generator is directed through the switchgear to the traction motors, which are mechanically coupled to the drivers by spur gearing.

Diesel Switchers and Diesel Road Switchers

A diesel switcher is a small railroad locomotive intended not for moving trains over long distances but rather for assembling trains ready for a road locomotive to take over, disassembling a train that has been brought in, and generally moving railroad cars around, which is usually known as switching. Switchers may also make short transfer runs and even be the principle power on branch lines and switching terminal railroads.

The typical switcher is relatively low-powered but with a high starting tractive effort for getting heavy cars rolling quickly. Switchers are geared to produce high torque but are restricted to low top speeds and have small diameter driving wheels. Diesel switchers tend to have a high cab and often lower and/or narrower hoods that contain the diesel engines, for all round visibility. Good visibility in both directions is critical, because a switcher may be running in either direction; turning the locomotive is time-consuming.

A road switcher is a type of railroad locomotive used for delivering or picking up cars outside of a railroad yard. Since the road switcher must work some distance away from a yard, it needs to be able to operate at road speeds, it must also have high-visibility while it is switching, and it must have the ability to run in both directions. For these reasons, road switchers are generally called hood units. The set-back cab of a hood unit provides more safety in the event of a collision at speed than most switcher designs. Due to their ability to both run at road speeds and switch cars, road switchers are often used for yard switching and mainline freight duties. The American Locomotive Company's RS-1 road switcher was the first successful example of the type, and virtually all modern hood units are laid out in the same fashion.

Since the earliest diesel-electric locomotives were developed, new technology has constantly moved forward and 4400-horsepower locomotives are now common today and 6000-horsepower examples are utilized by several North American railroads. From the formative years of diesel-electric locomotives, when a host of traditional steam locomotive builders like ALCO, Baldwin Locomotive Works, Lima Locomotive Works and later others like Fairbanks-Morse entered the field, only two primary suppliers have survived to meet the diesel-electric locomotive needs of today's railroads – GE and EMD.

The ALCO S-2 Locomotive

The American Locomotive Company (ALCO) of Schenectady, New York and their Canadian licensee, Montreal Locomotive Works (MLW), both longtime manufacturers of steam locomotives, built 1502 of their 1000 horsepower S-2 diesel-electric switcher locomotives in a production run that

lasted between April 1940 and June 1950. The Alco S-Series was by far the company's most successful diesel-electric locomotive line that they produced, selling well over 3000 units in total and was ALCO's first true commercial and mass-produced diesel line. Perhaps the most successful aspect of the ALCO S-Series were their durability and simplicity

The ALCO S-2's are distinguishable externally from the very similar ALCO S-1 and S-3 660 horsepower switchers in that they have a larger exhaust stack with an oblong base and a larger radiator shutter area on the nose sides. The S-1/S-3 radiator shutter area is taller than it is wide, while the S-2/S-4 radiator area is wider. The larger stack is due to the presence of a turbocharger. All ALCO S-1's and S-2's were built with ALCO Blunt-type trucks while the later S-3 and S-4 models received AAR-type trucks. The carbody and cab of late-production S-2s are nearly indistinguishable from those of the later S-4 model, which was produced between August 1950 and January 1961. Hence, a truck swap can cause many to misidentify a unit.

New York, Susquehanna & Western Railroad (NYS&W) #206 is an excellent example of one of the early ALCO S-2's. Built in April 1942, it was one of six originally built for the NYS&W. The locomotive had a long career with the NYS&W that lasted until 1985 when it was retired. NYS&W #206 has not been modified and still retains all of its as-built exterior as well as most of its internal components. Weighing 230,000 pounds, the locomotive has a wheel base of 22-feet, six-inches and length over pulling face of the couplers of 45-feet, 5-3/4-inches. The height from top of rail to cab roof is 14-feet, 4-inches. All of the original fixtures and appliances remain including the headlight (See Photo #9), brake wheel (See Photo #14), horns and cab throttle stand and controls (See Historical Photo #12 and Photos #15, 17 & 18). The original builder plate on the engine block remains and measures approximately 30-inches long by 12-inches high (See Photo #10). NYS&W #206 exhibits a riveted cab hood design, which appeared on all ALCO switchers built prior to 1945 and has its original ALCO Blunt-type trucks (See Photo #11, 12 & 13). The riveted design is a clear spotting feature that indicates that #206 is an early-production ALCO S-2. Beginning in late 1944, ALCO began to eliminate the riveted design and began using new welding techniques on their locomotive cab hoods.

Statement of Significance

Manufactured in 1942, the New York, Susquehanna and Western Railroad Locomotive No. 206 is one of the best-preserved examples of an American Locomotive Company (ALCO) "S-2 type" diesel-electric switcher locomotive. ALCO was best known for its yard switchers, which were designed principally for railyard work, and for their larger cousins, the "road switchers," which were used for switching cars along the right-of-way, and it was one of the three principal American makers of locomotives in the twentieth century. Of the more than 1500 S-2-type engines that ALCO produced, fewer than 100 are believed to remain, divided between perhaps 50 that are still used in railyard operations and about 25 or more that have been acquired by railroad museums and historical societies. NYS&W no. 206 meets National Register Criterion C as a well-preserved example of a locomotive type that has had a significant impact on American railroading generally.

The History of the Diesel Locomotive

General Electric (GE) entered the railroad industry in the early twentieth century, as Thomas Edison developed a patent on the electric locomotive, his design actually being a type of electrically propelled railcar. GE built its first electric locomotive prototype in 1895. However, high electrification costs caused GE to turn its attention to diesel power to provide electricity for electric railcars. Problems related to co-coordinating the diesel engine and the electric motor were immediately encountered, primarily due to limitations drive system that had been chosen. As early as 1913, an experimental 60-horsepower diesel-electric railcar was developed in Sweden. About 30 cars of this type were built with a more powerful 150-horsepower engine and soon went into service in Sweden, Denmark, France and Tunisia.

The first significant breakthrough occurred in 1914, when Hermann Lemp, a GE electrical engineer, developed and patented a reliable direct current electrical control. Lemp's design used a single lever to control both engine and generator in a coordinated fashion, and became the basis for all subsequent diesel-electric locomotive control systems. In 1917, GE produced an experimental diesel-electric locomotive using Lemp's control design, the first known to be built in the United States.

In 1923, an important development occurred that would hasten the need for diesel-electric technology. The Kaufman Act of 1923 was passed in New York City, which banned steam locomotives from the confines of New York City due to severe pollution problems that were occurring. The initial response to this law was to electrify high traffic rail lines. However, electrification was uneconomical to apply to lower traffic areas. In response to the Kaufman Act, New York City railroads approached Ingersoll-Rand (IR), GE and the American Locomotive Company (ALCO) to build a prototype diesel-electric switching locomotive. The result was the creation of the ALCO-GE-IR Boxcab, which was built in July 1925 and equipped with an electrical generator, traction motors and a form of Lemp's control system supplied by GE; a four-stroke diesel engine by supplied by IR; and the carbody built by ALCO. The prototype design offered a 300-horsepower, 60-ton diesel electric switching locomotive in basically a box shaped body. The prototype unit was then demonstrated on a total of fourteen different railroads. The first commercially-produced diesel-electric locomotive of this

design was sold on October 20, 1925 to the Central Railroad Company of New Jersey as their #1000 was successfully delivered in July 1925. The locomotives demonstrated that the diesel-electric power unit could provide many of the benefits of an electric locomotive without expense of electrification.

In the mid 1920s, Baldwin Locomotive Works, a manufacturer of steam locomotive in Eddystone, Pennsylvania also developed a prototype diesel-electric locomotive for using electrical equipment from Westinghouse Electric Company. In 1929 the Canadian National Railway became the first North American railway to use diesels in mainline service with 2 units, 9000 and 9001, from Westinghouse.

In 1930, General Motors Corporation, which at the time was mainly an automobile manufacturer, acquired the Electro-Motive Corporation and Winton Engine Company. Winton was an established producer of diesel engines. Electro-Motive Corporation soon began developing smaller, lighter weight diesel engines and began offering their model SC 600-horsepower switcher, the first of which was ordered by the Delaware, Lackawanna & Western Railroad in 1935. The carbody design features an enclosed cab on one end and running boards on each side. This design would serve as the model for most of the popular switcher-type locomotives for more than the next decade.

The first regular service of diesel-electric locomotives was in switching applications. General Electric produced several small switching locomotives in the 1930s and later, the successful 44-ton switcher that was introduced in 1940. Westinghouse Electric and Baldwin collaborated to build switching locomotives starting in 1929. Diesel-electric railroad locomotion entered the mainstream when the Chicago, Burlington & Quincy Railroad and Union Pacific Railroad began using self-propelled diesel powered streamliners in the 1930's to haul passengers, which were built by the Budd Company, a builder of passenger cars, using Electro-Motive Corporation diesel-electric engines. Following the successful 1939 tour of a demonstrator freight locomotive set by new entrant in the diesel-electric field, Electro-Motive Corporation, the transition from steam to diesel power began. Due material shortages and restrictions brought on by World War II, advancements slowed down. Technology and production increased in the years following the close of World War II.

American Locomotive Company and the Competition

The American Locomotive Company (ALCO) was created in 1901 from the merger of several smaller locomotive manufacturers: the Brooks Locomotive Works in Dunkirk, NY; the Cooke Locomotive and Machine Works in Paterson, NJ; the Dickson Manufacturing Company in Scranton, PA; Manchester Locomotive Works in Manchester, NH; Pittsburgh Locomotive and Car Works in Pittsburgh, PA; Rhode Island Locomotive Works in Providence, RI; Richmond Locomotive Works in Richmond, VA; and Schenectady Locomotive Works in Schenectady, New York. In 1904, ALCO acquired the Locomotive and Machine Company of Montreal, Canada. In 1905, ALCO also purchased the Rogers Locomotive Works of Paterson, NJ, then the second-largest locomotive manufacturer in the United States. The company headquartered itself in Schenectady, and by the 1930's closed all but their Schenectady plants and those in Montreal, Quebec where all manufacturing was then concentrated. The Montreal operation was eventually renamed the Montreal Locomotive Works (MLW) and continued to manufacture Alco designs after the parent company ceased production in 1969.

During the steam-era, ALCO built some of the best and well-know locomotives to ever ride the rails. These included such locomotives as the 4-6-4 Hudson, 4-8-4 Niagara, 4-6-6-4 Challenger and 4-8-8-4 Big Boy. Although ALCO was strongly committed to the steam locomotive, they were also involved with the production of the first commercially successful diesel-electric locomotive in 1924 in a consortium with General Electric (GE) and Ingersoll-Rand. This locomotive was sold to the Central Railroad Company of New Jersey, and subsequent locomotives were built for a number of railroads including the Long Island Railroad and Chicago & Northwestern Railway.

In 1929, ALCO bought an engine manufacturer, McIntosh & Seymour Diesel Engine Company and henceforth produced its own diesel engines, although electrical equipment was supplied by GE. In 1940, ALCO and GE entered into a partnership to build diesels under the name ALCO-GE, an arrangement that lasted until 1953. In the 1930's, ALCO was the pre-eminent diesel locomotive builder in the United States, but the General Motors Electro-Motive Division (formerly Electro-Motive Corporation) took over that position with aggressive marketing, a ready supply of development capital from its parent company and the intervention of the war years. During World War II, Alco was allocated the construction of diesel switcher and road switcher locomotives, a handful of DL-109 dual-service engines and its proven steam locomotive designs, whereas EMD was allocated the construction of mainline road freight diesels (the production of straight passenger-service engines was prohibited by the War Production Board). This was because United States Army selected ALCO for a vital task – to produce their revolutionary and proven RS-1 road switcher for military needs in moving troops and supplies overseas. Not only was the company prevented from selling them to mainline U.S. railroads, the thirteen RS-1s that had already been built were commandeered for duty in Iran. This gave EMD an unfair lead in the diesel locomotive market that could not be overcome in the years that followed but, however, at the same time proved the importance of ALCO's early diesel switcher and road switcher designs to the U. S. war efforts. The restrictions imposed affected ALCO's destiny well beyond the war. Another factor contributing to ALCO's competitive problems was that its own diesel locomotives were competing with its own steam locomotive products, while EMD had no such overlap. ALCO's corporate culture also was slow to admit that diesel-electric locomotives were superior to steam locomotives since they had such a heavy investment made in the manufacture of steam locomotives. ALCO would build its last steam locomotive in 1948. In the 1950's, EMD also built a strong reputation for quality while some of the ALCO's road switcher line of locomotives were plagued with mechanical problems.

By 1948, ALCO possessed 40% of the diesel locomotive market. PA and FA-type road units, as well as the ubiquitous S-Series of 660 and 1000-horsepower switchers and RS-Series of 1000, 1500 and 1600-horsepower road switchers represented ALCO well in those years of the steam-to-diesel motive power transition following World War II. Much of their success in this period can be tied to their pioneering RS-Series representing the first modern road-switcher, a design that has long outlasted ALCO.

The company held the number two position in the market until GE, dissatisfied with the results of its partnership with ALCO, entered the domestic road diesel locomotive market itself in 1956. GE quickly took the number two position from ALCO, and eventually eclipsed GM-EMD in overall production. Despite continual innovation in its designs (the first AC/DC transmission among others), ALCO

gradually succumbed to its competition, in which its former ally, GE, was becoming an important element. A new line of "Century" locomotives including the C630 (the first AC/DC transmission), the C430 and the C636, the first 3,600 horsepower locomotive, failed to keep the company going. Third place in the market proved to be an impossible position. ALCO products did not have the market position or reputation for reliability of GM-EMD's products nor the financing muscle and customer support of GE, and profits were not forthcoming. ALCO gradually ceased locomotive production, shipping its last two locomotives, a pair of T-6 switchers to the Newburgh & South Shore Railroad (#1016 and #1017) in January 1969. ALCO closed its Schenectady locomotive plant later that year, and sold its designs to the Montreal Locomotive Works.

The ALCO S-2 Locomotive

The American Locomotive Company (ALCO) of Schenectady, New York and their Canadian licensee, Montreal Locomotive Works (MLW), both longtime manufacturers of steam locomotives, built 1502 of their 1000 horsepower S-2 diesel-electric switcher locomotives in a production run that lasted between April 1940 and June 1950. The Alco S-Series was by far the company's most successful diesel-electric locomotive line that they produced, selling well over 3000 units in total and was ALCO's first true commercial and mass-produced diesel line. Perhaps the most successful aspect of the ALCO S-Series were their durability and simplicity.

The S-2 locomotive proved to be ALCO's largest selling locomotive in the S-Series line and was commonly used in switching operations by both large and small railroads as well as in industrial switching operations. The S-2 became know as a workhorse that railroads depended on. However, beginning in the late 1960's, the S-2's numbers started to dwindle as newer, more efficient switcher models from General Motors Electro-Motive Division began to replace them. ALCO also ceased as an entity in 1969 and parts have become scarcer as years went by. Nonetheless, many S-2's operated into the 1970's for their owners and a few examples are still in service today on tourist excursion railroads or on industrial operations.

New York, Susquehanna & Western Railroad (NYS&W) Locomotive #206 is an excellent example of one of the early ALCO S-2's. Built in April 1942, it was one of six originally built for the NYS&W. The locomotive had a long career with the NYS&W that lasted until 1985 when it was retired. In its 43 years of service, NYS&W #206 could be found working the various industries on the NYS&W between Jersey City, New Jersey and Butler, New Jersey.

Even though a healthy production-run of 1502 ALCO S-2 were built, today there are very few examples that have been saved and preserved. NYS&W ALCO S-2 #206 is one of approximately twenty-five to be owned by railroad museums or historical societies in the United States and is believed to be the only one in such custody in the State of New Jersey.

Brief History of the New York, Susquehanna & Western Railroad

As far back as 1826, John L. Sullivan, an engineer, proposed a railroad through parts of the states of New York and New Jersey and made the first survey for a railroad from the Hudson River through Maywood to the Pennsylvania coal fields. The route he chose was substantially the one used by the

New Jersey Midland Railway, which later became the New York, Susquehanna & Western. The significance of such a route through Paterson, in particular, can be easily understood, as the city had heavy manufacturing facilities and was in close proximity to the iron mines in northern New Jersey.

A group of local businessmen decided to take action on Mr. Sullivan's survey and on March 8, 1832 the state legislature granted their petition for a charter for The New Jersey, Hudson & Delaware Railroad. The incorporators included: Jacob M. Ryerson, Samuel Fowler, Thomas C. Ryerson, James Stoll, William Dickey, John Bell, Daniel M. Broadhead, Joseph E. Edsall, William Heyberger, John Haggerty, John Moore and James M. Porter. All of these men were closely associated with iron mining and manufacturing concerns in Sussex, Morris and Passaic counties. The charter authorized construction of a railroad commencing at any point or places on the Delaware River between the New York State line and where the Paulinskill River empties into the Delaware River, along with the authority to construct a bridge or bridges across the Delaware River by and with the consent of the State of Pennsylvania. From that point of crossing the Delaware, the line would extend east through Snufftown, New Jersey (now Stockholm in Hardyston Township in Sussex County to the Hudson River, opposite New York City, or join any other railroad chartered or proposed to be chartered that would lead to a terminus on the Hudson River. The group of men planned to raise the necessary capital through stock offerings but the plan ran into problems due to the financial panic of 1837. The planned railroad then laid dormant until 1853, when the Charter was transferred to the Pennsylvania Coal Company. However, the financial panic of 1857 caused the proposed railroad to be once again put off.

In 1867, the original owners of the charter purchased it back from the Pennsylvania Coal Company. Plans to finance the new railroad once again encountered problems since it would be constructed near the general area of the successful Morris Canal, which was built years earlier. However, due to ever increasing per ton prices for coal delivered by the canal, there was an added incentive to have the railroad built and thus permit coal to be transported more cheaply to the major manufacturing centers in northern New Jersey. Work on the new railroad was finally started on January 31, 1867 with grading taking place in Bloomingdale, NJ. As work progressed slowly, a multitude of re-chartering occurred, which led to changes in the original route, connecting railroads and the deadline for completion. A new deadline was established as July 4, 1873 and the result of the re-chartering was the formation of the New Jersey Midland Railway, combining four other existing railroad lines. Cornelius Wortendyke became the first president of the NJM. Wortendyke had controlled the New Jersey Western Railroad, a line which was being built west from Hawthorne, NJ to Bloomingdale, NJ that was one of the four lines combined into the NJM. The NJM would assume the responsibility for constructing the railroad line in accordance with the charter granted to the New Jersey, Hudson & Delaware Railroad. The NJM was able to raise sufficient capital funds to begin construction of the line.

In 1871, the New York & Oswego Midland Railroad began eyeing the NJM as a through route from the Great Lakes to New York Harbor and assumed control of the NJM. The NY&OM planned to connect with the NJM in Middletown, NY. On March 11, 1872, the NJM opened between Hackensack, NJ and New Foundland, NJ. However, the financial panic of 1873 greatly affected the NY&OM and it was placed into receivership losing its control of the NJM. The NY&OM would emerge

in 1880 as the New York, Ontario & Western and gain access through another route to New York Harbor at Kingston, NY on the West Shore Railroad (New York Central) and no longer need the NJM as a through route. In 1875, the NJM also entered receivership and emerged in 1880 as the Midland Railroad Company of New Jersey with Garrett A. Hobart serving as its receiver. Mr. Hobart would later go on to become the vice president of the United States under President William McKinley.

In June 1881, after several reorganizations, the line became known as the New York, Susquehanna & Western Railroad and it eventually consisted of about 230 miles of track from Jersey City, NJ to the coalfields near Scranton, PA with a branch to Hanford, NY. In 1898, the NYS&W came under Erie Railroad control and was run as a division. During Erie control, the physical plant was modernized with new locomotives and equipment while bridges were rebuilt and the track upgraded. In 1937, the NYS&W fell into bankruptcy, was reorganized and gained independence from the Erie in 1940. The NYS&W was an innovator in the use of self-propelled rail-diesel cars in commuter service first acquired cars from the American Car & Foundry Company in 1940 and later from the Budd Company in 1950. While the service was successful into the 1950's losses from commuter operations began to mount at an accelerated rate by the late 1950's. The next decade saw the NYS&W fight for freight traffic and slowly reduce its passenger train frequency, eventually ceasing all passenger operations on June 30, 1966. In 1976, the NYS&W once again fell into bankruptcy after years of retrenching into what eventually became a terminal operation. When the line was purchased by Delaware Otsego Corporation in 1980, about 38 miles of original track was in service stretching from Jersey City, NJ to Butler, NJ. With a forward thinking management team led by the late Walter G. Rich, the NYS&W reactivated dormant track, acquired additional lines cast off by Conrail in New Jersey and New York State and arranged for trackage rights to connect its lines, which now consisted of about 400 miles from Jersey City, NJ to Syracuse, NY. In the mid-1980's the NYS&W came full circle and became part of transcontinental double stack intermodal traffic route originating and terminating out its Little Ferry, NJ facility. Today, the NYS&W continues to provide freight services on its lines in New Jersey, New York and Pennsylvania at a time when the railroad industry is increasingly being looked upon as an economical and environmental alternative with greater operating efficiencies than ever before.

New York, Susquehanna & Western S-2 Locomotive #206

New York, Susquehanna & Western Railroad (NYS&W) S-2 #206 was one of six switcher-type locomotives built by the American Locomotive Company (ALCO) in Schenectady, New York between December 1941 and April 1942. The locomotives marked the first diesel-electric locomotives of any type on the NYS&W's roster. The success of the NYS&W ALCO S-2's plus additional ALCO RS-1 road switchers purchased in the coming years would allow the NYS&W to completely dieselize and retire all steam locomotives in late 1947. The S-2 locomotives were equipped with a 1000 horsepower Seymour-McIntosh 539 engine producing a maximum tractive effort of 72,400 pounds through four traction motors while riding on ALCO B-B Blunt-type trucks (See Photo #11). When built, they weighed an average of 230,000 pounds on rail utilizing the standard North American track gauge of 4-feet, 8-1/2-inches.

The NYS&W S-2's were numbered 202, 203, 204, 205, 206 and 208. As was NYS&W numbering practice for diesel-electric locomotives, those with even numbers (202, 204, 206 and 208) were

multiple-unit equipped and could operate in tandem with other locomotives while those with odd numbers (203 and 205) did not have this feature and were restricted to operating alone as a single unit. The NYS&W S-2's were originally purchased for use in yard and local freight switching but the multiple-unit equipped ones could also be found occasionally in road freight service teamed with the NYS&W fleet of ALCO RS-1 road switchers. All of the NYS&W S-2's were based out of the Little Ferry, New Jersey yard and could often be found working locations between Jersey City, NJ and Paterson, NJ including the Lodi Branch, Passaic Branch and Edgewater yard.

The success of NYS&W #206 and the other ALCO S-2's can be measured by how quickly the New York, Susquehanna & Western Railroad began to retire its older steam locomotive power due to the modern efficiencies that were afforded by the diesel-electric locomotive technology. The NYS&W was one of the earliest Class 1 railroads to be able to boast that they had completely dieselized. That feat was accomplished in October 1947 when the last steam locomotive fires were dropped.

When built by ALCO, all of the S-2's were delivered in the new NYS&W maroon and gray paint scheme (See Historic Photos #1, 2, 5 & 8) with black underframe and trucks. The units wore this scheme into the 1950's when a new, simplified, paint scheme was developed, which included a silver body with "Susquehanna" lettering in a maroon stripe along the hood that tapered down on the units' nose (See Historic Photos #6 & 7). It appears some, but not all, of the NYS&W S-2's received this scheme. The underframe and trucks remained black. Documented units appearing in this scheme were NYS&W #203, #204, #206 and #208. By the late 1950's, the NYS&W adopted an even more simplified scheme of a solid silver body with a small, black "NYS&W" stenciled on the hood and small black numbers on the cab (See Historic Photos #3 & 11). The underframe and trucks also remained black. In the early 1960's, all of the S-2's would be repainted into this scheme.

The NYS&W S-2's had long careers on the NYS&W, and several lasted into the 1970's with the most notable being NYS&W #206. By the late 1970's, all of the NYS&W S-2's had been retired or scrapped except #206, which was basically relegated to the role of Little Ferry shop switcher and very rarely strayed far from the yard limits. In early 1985, the NYS&W #206 was rebuilt by the NYS&W, and through the efforts of the Bergen-Rockland Chapter of the National Railway Historical Society, it was repainted into its original NYS&W maroon and gray paint scheme (See Historic Photos #4, 9 & 10). In the spring of 1985, the NYS&W acquired a portion of former Lehigh & Hudson River Railway trackage between Sparta, New Jersey and Warwick, New York and NYS&W #206 was moved there to handle local freight customers on the line. Later in the spring of 1985, NYS&W #206 suffered an engine failure and was sidelined. In 1986, the NYS&W officially retired #206 and in 1988, it was used as a trade-in credit for the NYS&W's new order of four B40-8 locomotives placed with General Electric. In 1989, General Electric donated NYS&W #206 to the United Railroad Historical Society of New Jersey (URHS) for eventual inclusion in a planned State of New Jersey Transportation Museum. In the early 1990's, the URHS occasionally moved NYS&W #206 to several railroad related events and it was probably best known for its yearly appearances each September at the Hoboken Festival in Hoboken, New Jersey. In the late 1990's, the URHS placed NYS&W #206 into storage in an unused yard at the Public Service Electric & Gas (PSE&G) generating station in Ridgefield Park, New

Jersey where it resided in anonymity out of public view in the hopes that a State of New Jersey Transportation Museum would materialize.

In the summer of 2006, the Maywood Station Historical Committee (MSHC) division of the New York, Susquehanna & Western Technical & Historical Society (NYS&WT&HS) approached the URHS about the possibility of giving NYS&W #206 a new life as part of the Maywood Station Museum, which the URHS embraced. In October 2006, MSHC/NYS&WT&HS members conducted their first work session at the PSE&G storage yard by performing brush cutting and securing NYS&W #206. During 2007, work was also conducted on NYS&W #206 for the eventual equipment move. On October 14, 2008, NYS&W #206 was moved to Maywood Station (NPS #03000487) by the New York Susquehanna & Western Railway and placed on a display track next to Maywood Station's caboose. Soon after NYS&W #206 arrived at Maywood Station, MSHC/NYS&WT&HS members began to perform a full cosmetic restoration, which is planned to be completed sometime in mid-2009 (See Photos #1 thru 8).

Even though a total of 1502 of the 1000-horsepower S-2 models were originally manufactured by ALCO between April 1940 and June 1950, less than (50) remain in service today on railroad shortlines, tourist operations and industrial operations. Some examples of those still in service include the Chestnut Ridge Railway #21 in Palmerton, Pennsylvania; Buffalo Southern #105 in Eden, New York; Tioga Central Railroad #14 in Wellsboro, Pennsylvania; Livonia, Avon & Lakeville Railroad #72 in Lakeville, New York. Additionally, a company named Relco which, specializes in leasing older, low horsepower lower horsepower models to industrial operations and steel mills has about (10) S-2's in their lease fleet. About (25) examples have been preserved at museums including a former U. S. Army S-2 at the Amarillo Railroad Museum in Amarillo, Texas; former Atchison, Topeka & Santa Fe Railway #2381 at the Pacific Southwest Railroad Museum in Campo, California; Manufacturers Railway #211 at the National Museum of Transportation in St. Louis, Missouri; and Baltimore & Ohio #9063 at the B&O Railroad Museum in Baltimore, Maryland.

9.) Major Bibliographical References

- Chappelle, Gordon, *Steam Over Scranton: The Locomotives of Steamtown,* Scranton, Pennsylvania, National Parks Service, United States Department of the Interior, 1991
- Churella, Albert, *Corporate Culture And Marketing In The American Locomotive Industry: American Locomotive And Electro-Motive Respond to Dieselization*, Cambridge, Massachusetts, Business History Review, Volume 69, Number 22; 1995
- Drury, George H., *The Historical Guide to North American Railroads*, Waukesha, WI, Kalmbach Publishing Co., 1991
- Liljistrand, Bob, *Alco Reference #1*, Hanover, PA, The Railroad Press, 1998
- Lucas, Walter A., *The History of the New York, Susquehanna & Western Railroad*, New York, NY, Railroadians of America, 1939
- Kaminski, Edward S., *The Susquehanna Alco S-2*, Rochelle Park, NJ, The New York, Susquehanna & Western Technical & Historical Society, Inc., Susquehanna Reflector Volume 13, Number 4; 2009
- Karlewicz, Ken and Hartley, Scott, *From Shortlines to Stackpacks*, Piscataway, NJ, Railpace Company, Inc., 1987
- Kerr, O. M, Illustrated Treasury of The American Locomotive Company, New York, NY, W. W. Norton and Co, Inc., 1990
- Kirkland, John F., *The Diesel Builders, Volume Two, American Locomotive Company & Montreal Locomotive Works*, Glendale, CA, Interurban Press, 1989
- Krause, John and Crist, Ed, *Susquehanna*, Newton, NJ, Carstens Publications, 1991
- Mohowski, Robert, *New York, Susquehanna & Western*, Baltimore, MD, Johns Hopkins University Press, 2003
- Pinkepank, Jerry A., *Diesel Spotter's Guide*, Milwaukee, WI, Kalmbach Publishing Co., 1967
- Reich, Sy, *Diesel Locomotive Rosters*, New York, Wayner Publications, 1973
- Steinbrenner, Richard T., The American Locomotive Company: A Centennial Remembrance On Track Publishers LLC, New Brunswick, NJ, 2003
- Szachacz, Keith F., *Classic Locomotives Vol. 1: Alco Switchers S-1 Thru S-6*, Flushing, NY, H&M Productions, 1993
- Tupaczewski, Paul, *New York, Susquehanna & Western – In Color*, Scotch Plains, NJ, Morning Sun Books, Inc., 2002

Maps and Drawings

- United States Department of the Interior, U.S. Geological Survey, *Hackensack, N.J. Quadrangle, 7.5 Minute Series (Topographic)*, 1997
- Gerard Scott, P.L.S., *Tax Map of the Borough of Maywood, Bergen County, New Jersey*, Azzolina and Feury Engineering Co., Paramus, NJ, June 1986
- *Localized District Map of the Borough of Maywood, Bergen County, New Jersey*, June 1986
- *Land Survey of Maywood Train Station* (NPS #03000347) – July 1998
- New York, Susquehanna & Western Railroad, *Track and Structures Map of Maywood, New Jersey*, 1928

- New York, Susquehanna & Western Railroad, *New York, Susquehanna & Western Railroad System Map*, 1955
- New York, Susquehanna & Western Railroad, *Line Drawing of New York, Susquehanna & Western Railroad American Locomotive Company S-2 Model Diesel-Electric Locomotives built in 1941 and 1942*

10.) Geographical Data

Verbal Boundary Description

The nominated object is located on Tax Lot 124 of Tax Block 56 in the Tax Maps of the Borough of Maywood, New Jersey (see attached). This is a rectangular shaped lot extending approximately 125-feet from the 50-foot right-of-way of Maywood Avenue in the Borough of Maywood. On the east of the property, the line extends for 50 feet along Maywood Avenue. The north and south end of the property line extends for 125-feet along the right-of-way of the New York, Susquehanna & Western Railway. Maywood Station (NPS Building #03000487), which is a National, New Jersey and Bergen County, New Jersey Register Listed Historical Place, is located within the boundaries.

Local Area

The Borough of Maywood, New Jersey is a 1.3 square mile area on the plateau between the Hackensack and Saddle Brook Rivers in Bergen County, New Jersey. Coles Brook separates Maywood on the east from the City of Hackensack, New Jersey. Essex Street forms Maywood's southern boundary with the Borough of Lodi, New Jersey. The Township of Rochelle Park, New Jersey and Paramus are located on Maywood's western boundary. Paramus also forms Maywood's northern boundary.

Boundary Justification

The nominated object is located on the entire historical parcel that remains associated with the historic Maywood Railroad Station (NPS Building #03000487). The New York, Susquehanna & Western railroad tracks run past the south side of the nominated object in an east-west direction. The tracks remain active for freight service (and planned passenger service) and provide a context for the parcel that includes the historic Maywood Railroad Station.

11.) List of Photographs

Photographer: Edward S. Kaminski
108 Stelling Avenue
Maywood, NJ 07607
Telephone: 201-845-3323

Date of Photographs: See below captions
Location of Original Negatives: Edward S. Kaminski
Historic Photos [HP] are credited as noted in below captions

HP #1 - New York, Susquehanna & Western Locomotive #206 is shown pulling a freight up to the station in Butler, New Jersey in July 1946. (Photo by John L. Treen)

HP #2 – New York, Susquehanna & Western Locomotive #206 is shown working at Butler, New Jersey in July 1946. (Photo by John L. Treen)

HP #3 - New York, Susquehanna & Western Locomotive #204 and #206 (background) are shown on the turntable in Little Ferry, New Jersey in December 1960. NYS&W #204 was a sister locomotive of NYS&W #206 and was retired and scrapped by the railroad in the late 1970's. (Photo by Donald P. Wallworth)

HP #4 - New York, Susquehanna & Western Locomotive #206 is shown on display in September 1991 at Hoboken, NJ wearing its restored, original maroon gray paint scheme. By this date, the locomotive had been retired by the NYS&W and was part of the United Railroad Historical Society of New Jersey museum collection. (Photo by Robert P. Pisani)

HP #5 – New York, Susquehanna & Western Locomotive #206 (left) is seen working with sister ALCO S-2 #202 at Passaic Junction in Saddle Brook, New Jersey in the early 1950's. (Photo by Rich Pedersen)

HP #6 – New York, Susquehanna & Western ALCO S-2 #203 is seen at Little Ferry, New Jersey Yard in November 1957. NYS&W #203 is identical to NYS&W Locomotive #206 and wears the 2nd NYS&W paint scheme to adorn the S-2's of silver body and maroon stripe. (Photo by Donald P. Wallworth)

HP #7 – New York, Susquehanna & Western ALCO S-2 #203 is seen at Edgewater, New Jersey in February 1954. (Photo by Sy Reich)

HP # 8 – An ALCO builder photo of New York, Susquehanna & Western S-2 #204 taken in February 1942, two months before NYS&W Locomotive #206. NYS&W #204 is identical to NYS&W Locomotive #206. (Maywood Station Museum collection)

HP #9 – New York, Susquehanna & Western Locomotive #206 is seen on display in its original, restored paint scheme at the Hoboken Festival at New Jersey Transit's Hoboken, New Jersey train station in September 1991. (Photo by Mike Scalia)

HP #10 – New York, Susquehanna & Western Locomotive #206 is seen at work with a local freight at Lake Grinnell, New Jersey on April 19, 1985. The locomotive had just been reactivated by the railroad and painted back to its original paint scheme. (Edward S. Kaminski collection)

HP #11 – New York, Susquehanna & Western Locomotive #206 is seen at Little Ferry, New Jersey in February 1969. The locomotive wears the "simplified" silver paint scheme that was applied to all NYS&W locomotives beginning in the late 1950's. (Edward S. Kaminski collection)

HP #12 – The cab throttle stand, controls and parts as illustrated in the ALCO *Manual for Enginemen* from 1942. (Maywood Station Museum collection)

PHOTO #1 – The engineer's side of New York, Susquehanna & Western Locomotive #206 Locomotive #206 is shown on July 26, 2008 at Ridgefield Park, New Jersey. The locomotive was in the process of being moved to Maywood Station in Maywood, New Jersey for restoration and display. (Photo by Edward S. Kaminski)

PHOTO #2 - The engineer's front side of New York, Susquehanna & Western Locomotive #206 Locomotive #206 is shown on July 26, 2008 at Ridgefield Park, New Jersey. The locomotive was in the process of being moved to Maywood Station in Maywood New Jersey for restoration and display. (Photo by Edward S. Kaminski)

PHOTO #3 – A full side view of the engineer's side of New York, Susquehanna & Western Locomotive #206 Locomotive #206 is shown on July 26, 2008 at Ridgefield Park, New Jersey. The locomotive was in the process of being moved to Maywood Station in Maywood, New Jersey for restoration and display. (Photo by Edward S. Kaminski)

PHOTO #4 – A full side view of the fireman's side of New York, Susquehanna & Western Locomotive #206 is shown on July 27, 2008 at Ridgefield Park, New Jersey. The locomotive was in temporary storage while it awaited its next move to Maywood Station in Maywood, New Jersey for restoration and display. (Photo by Edward S. Kaminski)

PHOTO #5 – The cab-end view of New York, Susquehanna & Western Locomotive #206 is shown on October 14, 2008 at Maywood Station in Maywood, New Jersey (Photo by Edward S. Kaminski)

PHOTO #6 – A three-quarter view of the fireman's side of New York, Susquehanna & Western Locomotive #206 is shown on October 14, 2008 at Maywood Station in Maywood, New Jersey (Photo by Edward S. Kaminski)

PHOTO #7 - New York, Susquehanna & Western Locomotive #206 is shown on October 18, 2008 at Maywood Station in Maywood, New Jersey with Maywood Station Historical Committee Caboose #24542, which is on permanent display. (Photo by Edward S. Kaminski)

PHOTO #8 - New York, Susquehanna & Western Locomotive #206 is shown on November 22, 2008 while undergoing restoration at Maywood Station in Maywood, New Jersey. The locomotive is being restored by the all-volunteer, 501©3 non-profit Maywood Station Historical Committee Division of the New York, Susquehanna & Western Technical & Historical Society, Inc., which have also restored the adjacent Historic Maywood Train Station (NPS #03000487) and now operate the site as a museum. (Photo by Edward S. Kaminski)

Photo #9 – A close-up of the original headlight and housing on the long-hood end of New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #10 – The original builder plate on the engine block of New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #11 – A close-up of one of the original ALCO Blunt-type trucks on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #12 – A close-up of the axle journal cover on New York, Susquehanna & Western Locomotive #206's ALCO Blunt-type trucks. Note the stamped "ALCO" logo. (Photo by Edward S. Kaminski)

Photo #13 – A close-up of the "ALCO" stamping on one of the original ALCO Blunt-type trucks on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #14 – The original cab interior brake wheel on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #15 - The original cab throttle and control stand on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #16 – The cab interior door to the engine room on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

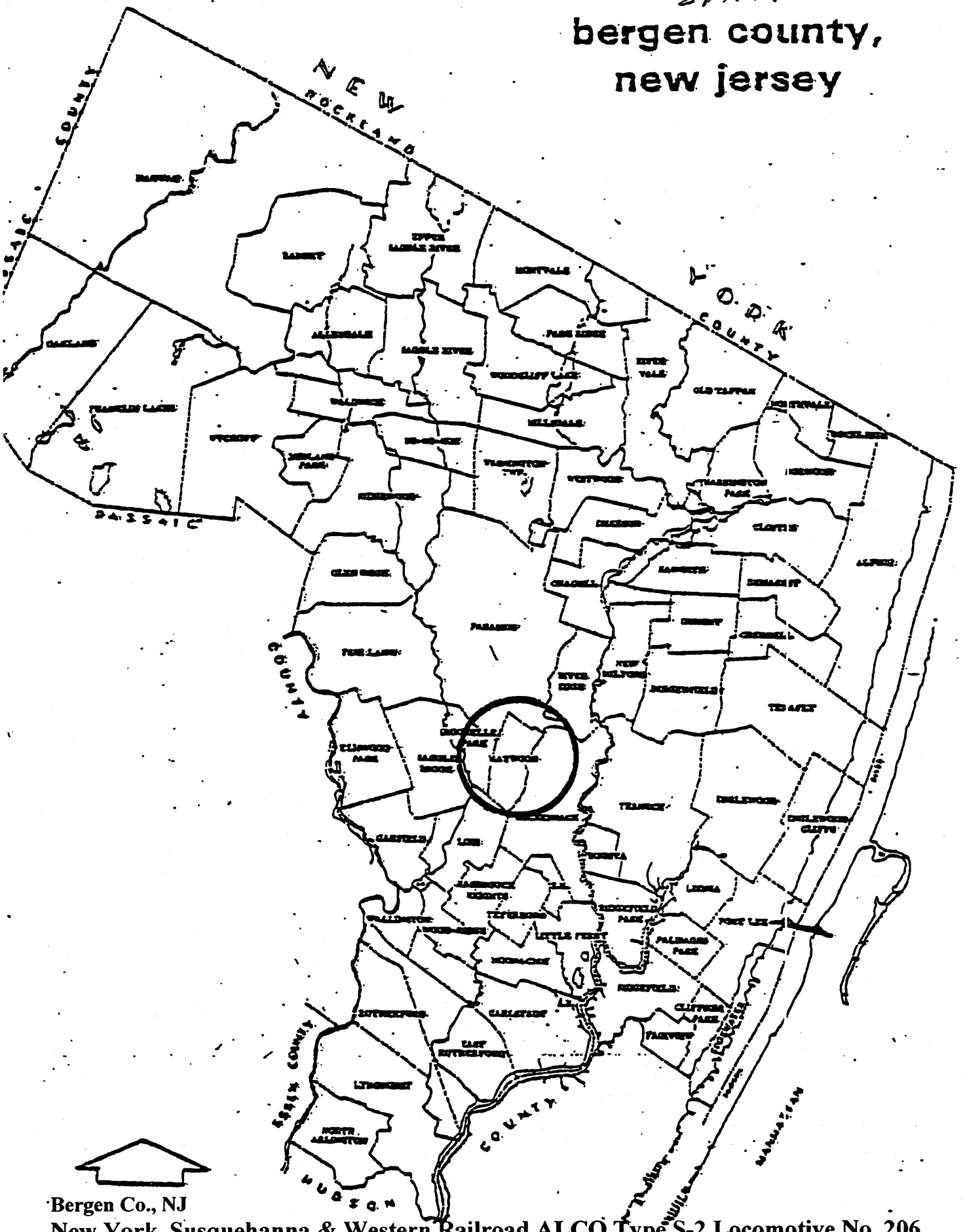
Photo # 17 - The original cab throttle stand and relay controls on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #18 – A close-up of the original cab throttle on New York, Susquehanna & Western Locomotive #206 as shown on April 3, 2009. (Photo by Edward S. Kaminski)

Photo #19 – A cab interior view of the original emergency fuel cut off device used to shut off fuel at the tank and stop the engine and the radiator shutter control to open and close the shutters over the radiator fan as shown on April 3, 2009. (Photo by Edward S. Kaminski)

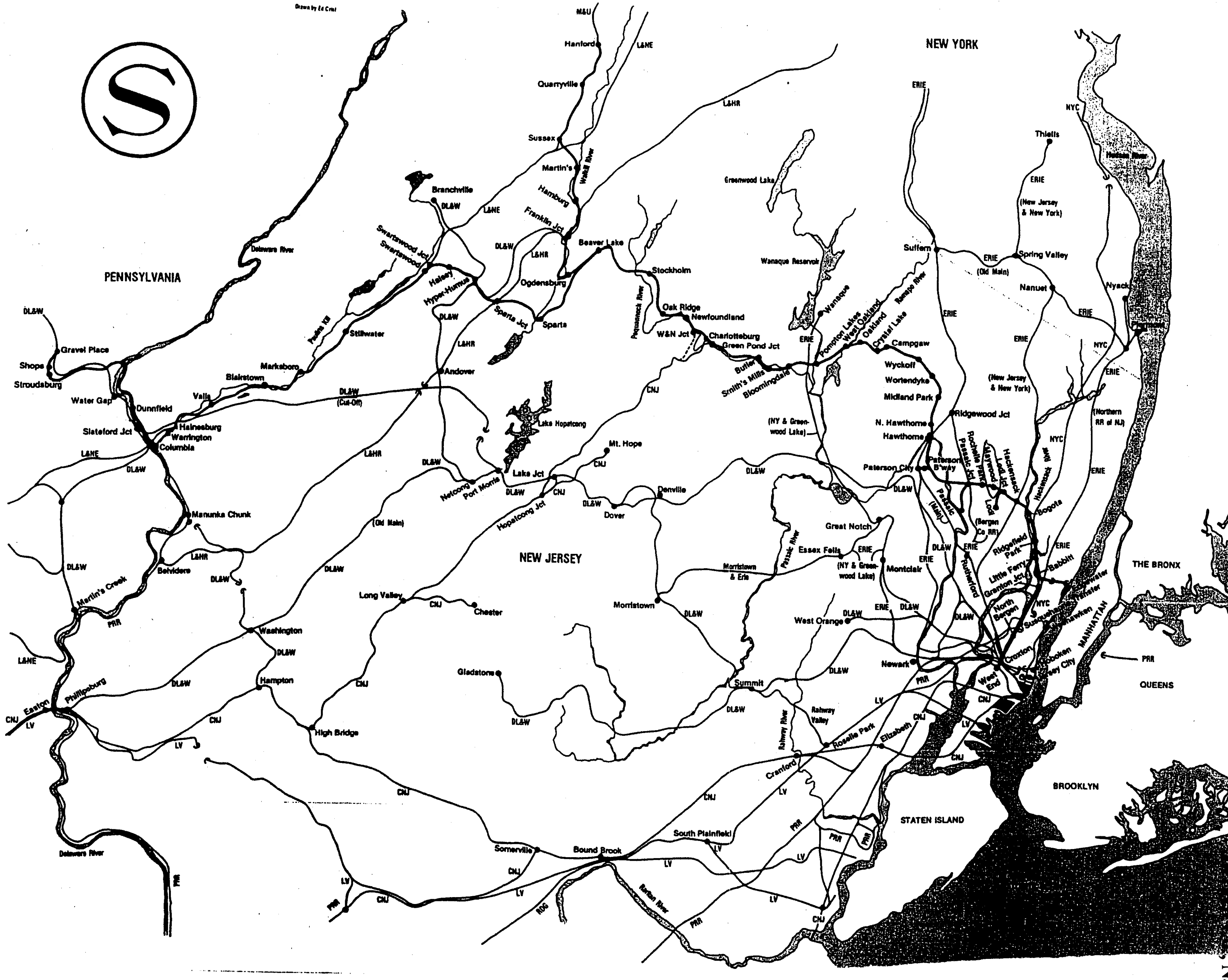
MAYWOOD RR STATION

bergen county, new jersey



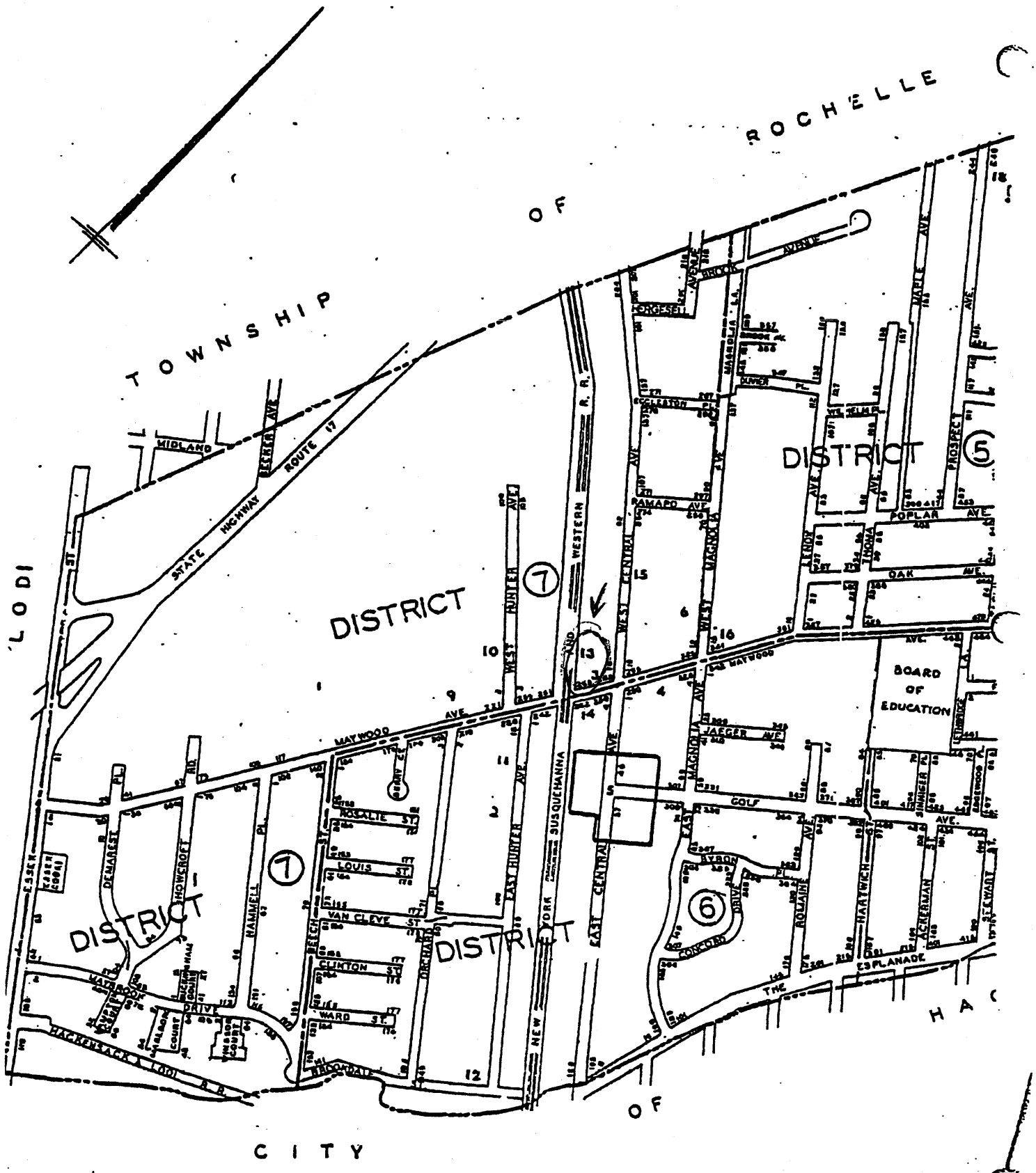
Bergen Co., NJ

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206



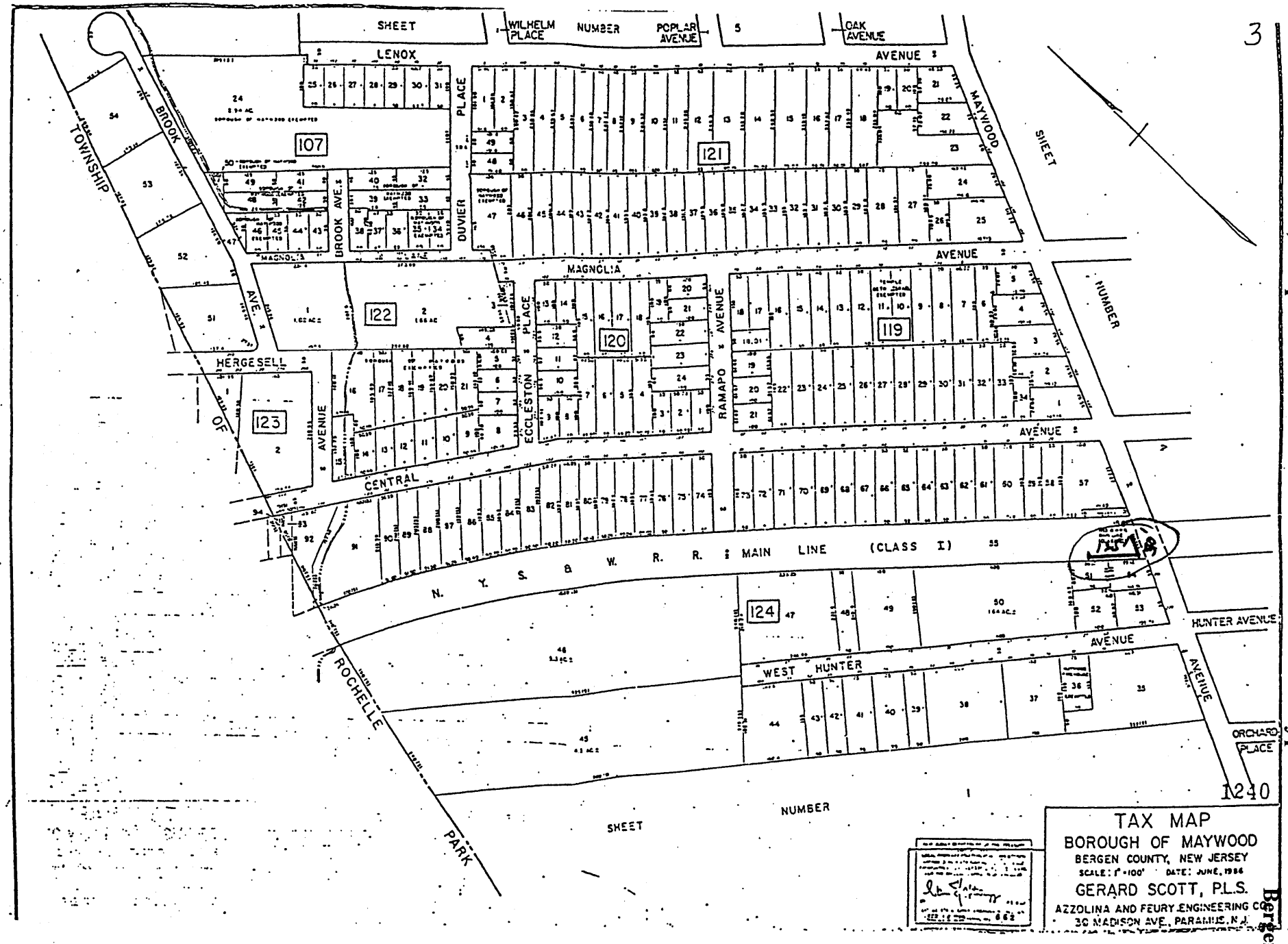
New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206

, NJ

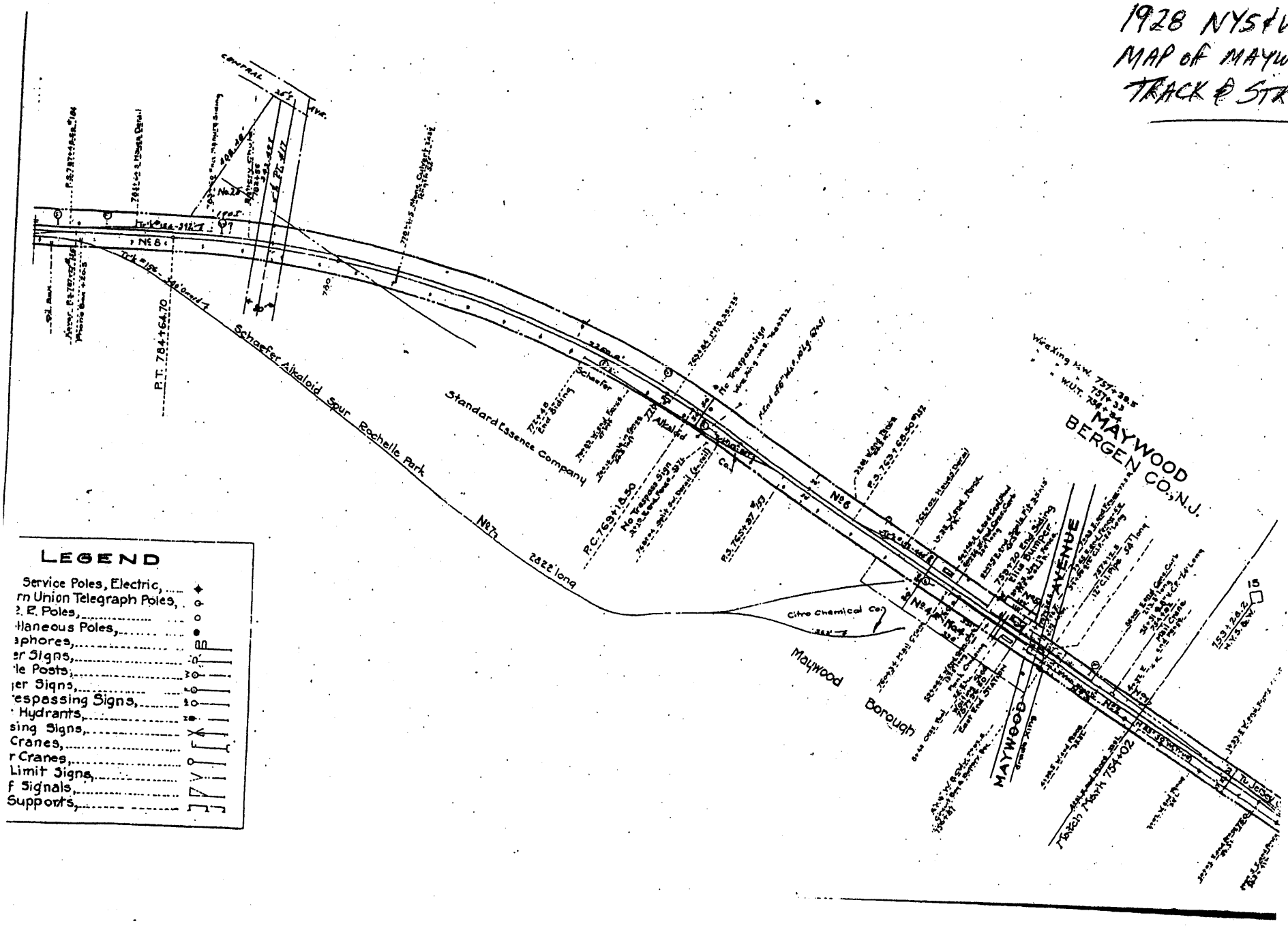


Bergen Co., NJ

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 2061


SHEET
WILHELM PLACE
NUMBER
POPLAR AVENUE
5
OAK AVENUE
LENOX AVENUE
MAYWOOD AVENUE
SHEET
TOWNSHIP OF
BROOK AVE.
DUVIER PLACE
BROOK AVE.
MAGNOLIA AVENUE
MAGNOLIA
NUMBER
HERGESELL AVENUE
ECCLESTON PLACE
RAMAPO AVENUE
CENTRAL AVENUE
N. Y. S. & W. R. R. MAIN LINE (CLASS I)
ROCHELLE PARK
WEST HUNTER AVENUE
HUNTER AVENUE
ORCHARD PLACE
NUMBER
SHEET
107
121
122
120
119
123
124
TAX MAP
BOROUGH OF MAYWOOD
BERGEN COUNTY, NEW JERSEY
SCALE: 1"=100' DATE: JUNE, 1984
GERARD SCOTT, P.L.S.
AZZOLINA AND FEURY ENGINEERING CO.
30 MADISON AVE., PARAMUS, N.J.
1240

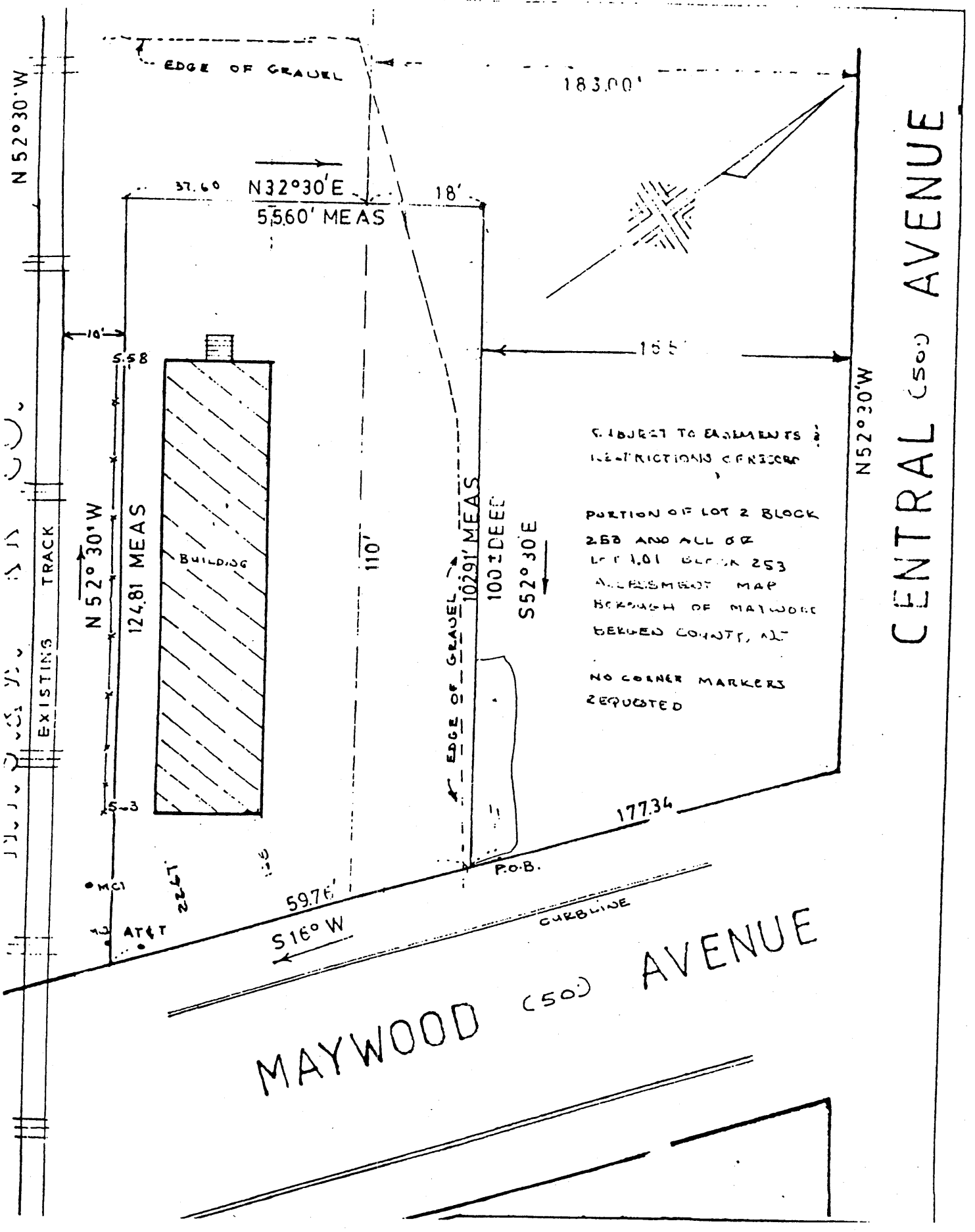
1928 NYS&WRR
MAP OF MAYWOOD, N.J.
TRACK & STRUCTURES



New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206

Bergen Co., NJ

-E UNDERSIGNED WILL NOT BE RESPONSIBLE OR LIABLE FOR ANY ASSIGNMENT OF THIS SURVEY THROUGH A
RVEY AFFIDAVIT TO ANY PERSONS NOT SO NAMED.



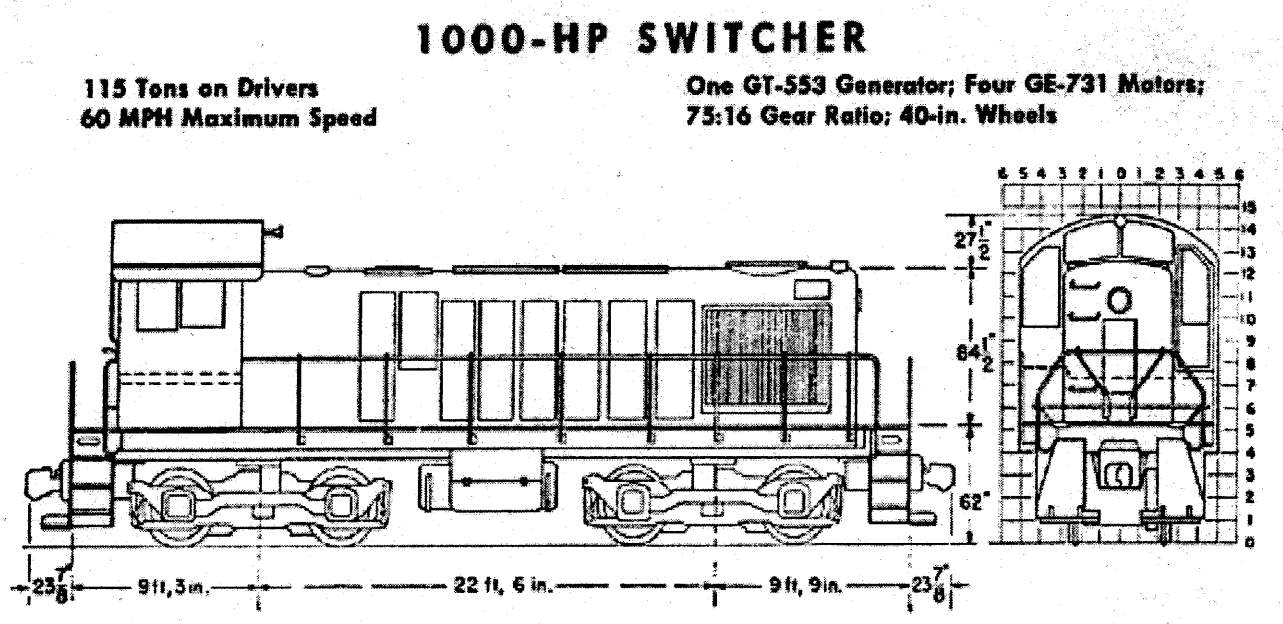
Bergen Co., NJ

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206

ALCO S-2

1000-HORSEPOWER SWITCHER

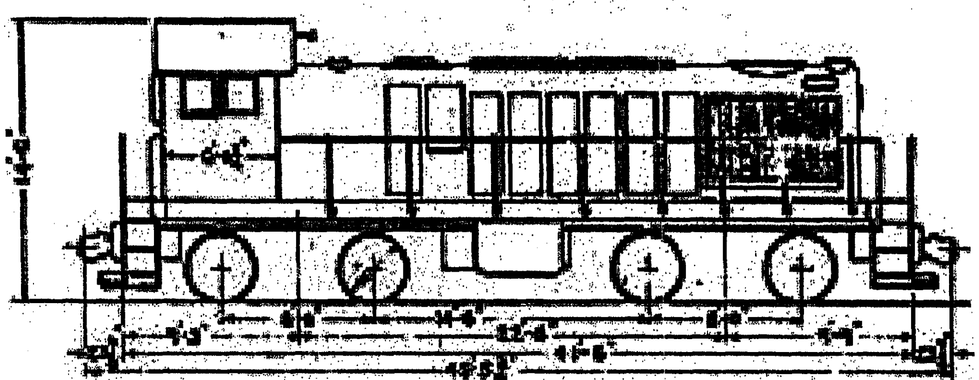
115 Tons of Drivers **One GT-553 Generator; Four GE-731 Motors**
60 MPH Maximum Speed 75:16 Gear Ratio; 40-in. Wheels



Bergen Co., NJ
New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206

ALCO S2 Drawing

DIESEL ELECTRIC SWITCHER
AMER. LOCO. CO., 1941, 42,



WEIGHT - TOTAL LOAD	230000 LBS
WEIGHT - LIGHT	222400 LBS
TRACTIVE EFFORT	58570 LBS
FACTOR OF ADHESION	4
GEAR RATIO	75 TO 16
MAX. DESIGNED SPEED	60 MPH
ENGINE - DIESEL	539
CYLINDERS	6 — 12 1/2 X 13"
HORSEPOWER	1000
R.P.M. (MAX.)	740
R.P.M. (IDLE)	250

MAIN GENERATOR	GT-553-A
AUX. GENERATOR	GMG-139-A2
TRACTION MOTORS	4 — 731-A
BATTERY CAPY.	64V. — 281 AMP. HR.
ALTERNATOR	NONE
CONTROL VOLTAGE	64 - 75
TRANSITION	
ELEC. PNEU. BRAKES	NONE
DYNAMIC BRAKES	NONE
BRAKE LEVER RATIO	8.4 : 1

AIR BRAKES	14EL
AIR COMPRESSOR	3CD
CAPY. COMP. (MAX.)	228 C.F.M. AT 740 R.P.M.
CAPY. COMP. (IDLE)	78 C.F.M. AT 250 R.P.M.
MAIN RESERVOIR SIZE	22 1/2 X 84
BRAKE CYLS.	4 — 10" X 10"
SAND	27 CU. FT.
COOLING SYSTEM CAPY.	240 GAL.
FUEL CAPY.	635 GAL.
LUBE OIL CAPY.	80 GAL.
MULT. UNIT OPER.	NO

STEAM GENERATOR	NONE
STEAM GENERATOR WATER CAPY.	NONE GAL.
HEATER (STANDBY)	NONE
DRAFT GEAR	M.M. — M-17-A
SPEED RECORDER	NONE
SHUTTERS	MANUALLY OPERATED
JOURNALS	FRICTION 7" X 14"
WHEELS	40" DIA.
RADIO	

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

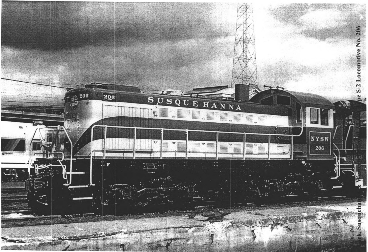
HP #1

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

HP #2

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Hoboken, NJ

HP #3



Ber… Co., NJ
Ne…ork, Susqueha… W… pe S-2 Locomotive No. 206

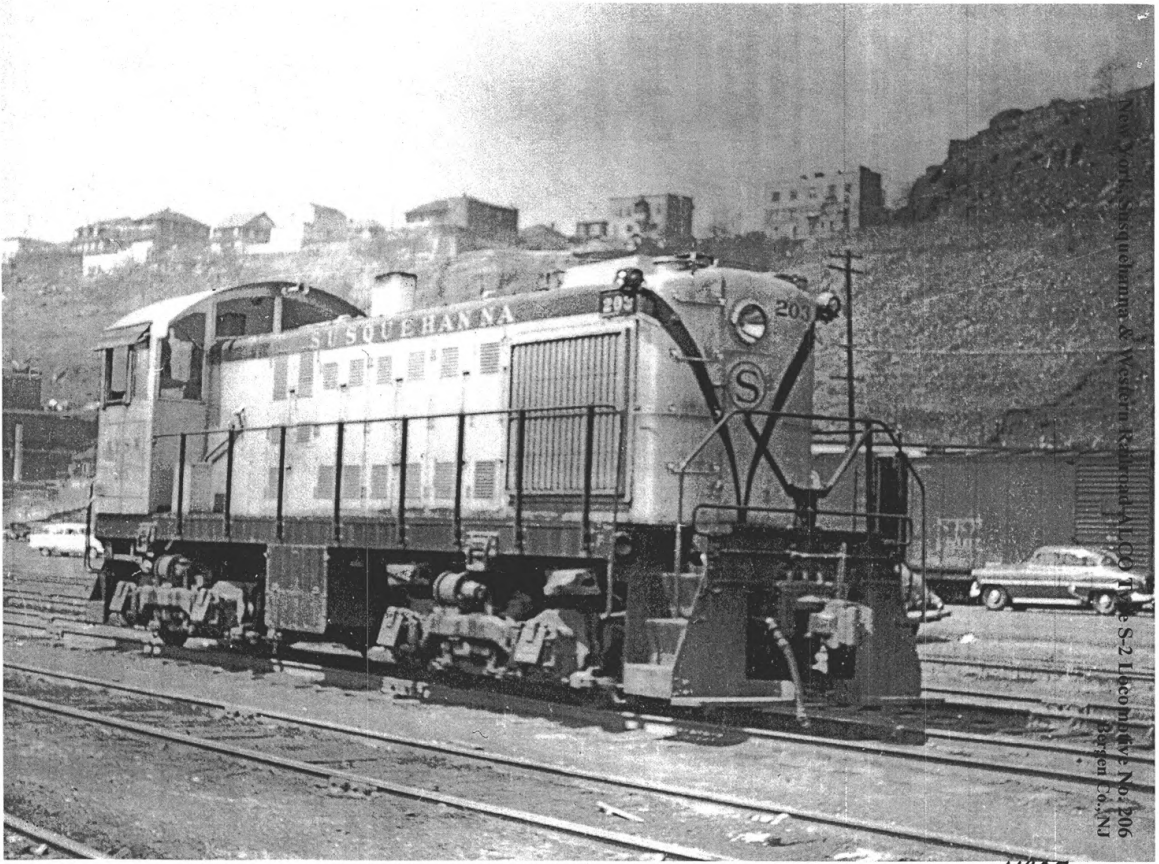
HP #4

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

HP #5

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

HB #6



New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

HP#7

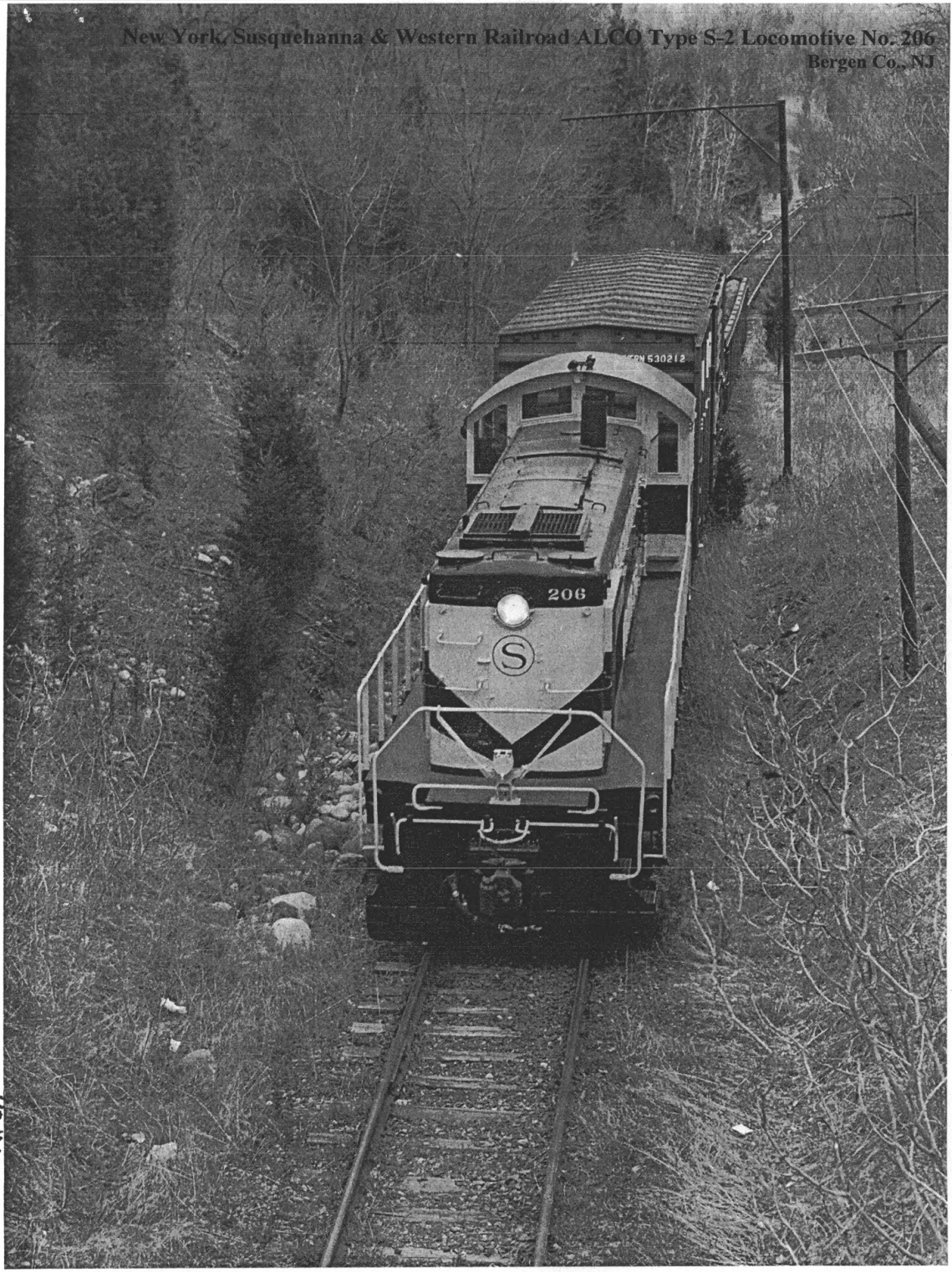
New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206

Bergen Co., N.J

HP#8

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

HP#9



New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206
Bergen Co., NJ

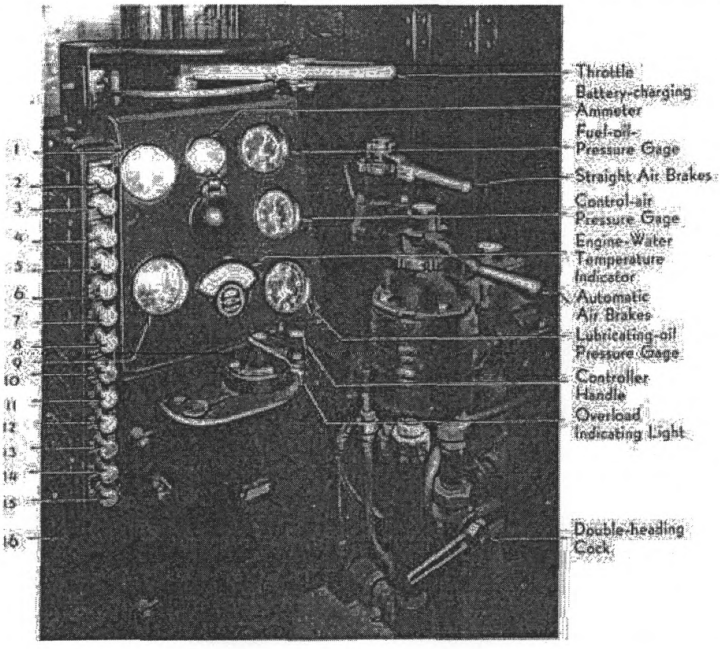
HP#10

New York, Susquehanna & Western Railroad 4-6-0 Type Steam Locomotive No. 206
Bergen Co., NJ

HP#11

New York, Susquehanna & Western Railroad ALCO Type S-2 Locomotive No. 206

Bergen Co., NJ



1 - Main and Equalizing Reservoirs Air Gauge - red is *main-reservoir, white is equalizing-reservoir pressure.*	9 - Brake-cylinder and Brake-pipe Air Gauge -- red is *cylinder pressure, and white is pipe pressure.*
2 - Engine-start Switch -- cranks engine from the battery.	10 & 11 - Switches for Gage and Dome Lights.
3 - Control Switch -- energizes control circuits.	12 - Switch for Engine-rom Lights.
4 - Fuel-pump Switch -- starts fuel-oil-pump mototr.	13 & 14 -- Number-lights and Marker-lights Switches.
5, 6, 7 & 8 - Headlight switches -- for bright, first close *Dim* switch and then *Bright* switch.	15. HeaterSwitch -- starts cab-heater motor. 16 - Wheel-slip Buzzer -- warns of wheel slipping

HP #12