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COVER

BY JACK CONSOLI

There was no information on the mount of this slide. Here are my conclusions:

The photo was taken of #5844 and train approaching Englewood; the station platform is to the right. It is eastbound, as the sun is coming from the left (south).

E7A #5844 was built August/September 1947. This group had the as-built pilot coupler doors that were causing problems. Prior to receiving the units, PRR saw design problems on the drawings. It would be impossible to couple two of these units nose-to-nose, and the pilot step boards of some shifting locomotives would foul the pilots, especially on curves. END could not change the design quickly enough, and the units were delivered with this door/pilot design. When they arrived in August 1947, it was found that the pilot doors, when open, extended beyond the pulling face of the coupler, and when the locomotive was coupled to a head-end car it was impossible for an average-size car inspector to squeeze in between to couple the air and steam lines. Temporary emergency measures were implemented "to eliminate the train detentions, hazardous working conditions and potential derailments." The left side pilot doors were removed, 2" rotary lock steam couplings were substituted and material was removed from several locations within the pilot, including a notch cut into the bottom of the arch on the left side. PRR had tested a longer-term solution by October 1947. The nose couplers were replaced with ones with 7" longer shanks to provide more room, and Altoona Shop personnel had fashioned a sample pair of new doors, re-contoured to cover the longer couplers for unit #5840A. The new design also incorporated modified locking, hinging and coupler release rigging arrangements. This new configuration was ordered applied to the remaining locomotives of the group #5840A-5855A.

In this photo #5844 has the Altoona doors, which were applied starting mid-1948. The 3" numberboard seen on this unit started to be replaced with 5" numbers in late 1950. This photo was probably taken between mid-1948 and early 1951. There are leaves on the trees, so that could be narrowed to mid-1948 to late 1950. Since the photo is likely before June 1951, when the classification system was revamped, the diesels would still be class EP-3. It's mid- to late afternoon. In the summer of 1949, picking the middle of the timespan, there was quite an afternoon parade eastbound at Englewood:

11:30 a.m. <i>Manhattan Limited</i>	3:00 p.m. <i>The Trail Blazer</i>
1:00 p.m. <i>The Union</i>	3:30 p.m. <i>Broadway Limited</i>
1:30 p.m. <i>The Admiral</i>	3:50 p.m. <i>Liberty Limited</i>
2:30 p.m. <i>The General</i>	4:30 p.m. <i>The Rainbow</i>

Chances are the train is either *The Admiral* or *The General*. Based on the consist, your editor's guesses that it's the latter.

The Pennsylvania Railroad Technical & Historical Society

The PRRT&HS is an educational, Pennsylvania non-profit tax-exempt 501(c)(3) corporation, incorporated in 1974. Our goals are to promote the preservation and recording of all information regarding the organization, operation, facilities and equipment of the PRR.

The Society has over 2,900 members worldwide; many gather each year at our annual meeting, usually held in early May. Meetings are held in different cities to encourage maximum participation. Local chapters around the country provide members and invited guests with regular meetings throughout the year.

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Railroads to Jamaica Bay

BY KEVIN OLSEN

INTRODUCTION

Jamaica Bay is an unlikely place for railroads. It is a shallow tidal estuary on the southern shore of Long Island. It measures approximately 20 square miles, and is roughly semicircular with 15 sandy, low-lying islands dominated by tidal marsh vegetation. The Rockaway Peninsula forms the southern boundary of the bay. Located at the tip of the peninsula, the Rockaway Inlet is the only opening from the bay into the ocean. Eight major tidal creeks and smaller bays reach inland from the shoreline. Until the late 1800s the majority of the shoreline consisted of tidal marshes.

Jamaica Bay is unique in that it lies entirely within the borders of New York City. Its eastern side and the Rockaway Peninsula are in the Borough of Queens and the western side is in the Borough of Brooklyn. Jamaica Bay never developed into a maritime center, but with its proximity to major population centers, passenger railroads would play a major role in transforming it into a popular resort and then help to create sought-after residential communities (Figure 1).

For most of the 1800s the only two reasons any part of the bay attracted development were the presence of dry land and the availability of railroad connections. These were the conditions that created the tourism industry at Canarsie, Broad Channel, the Raunt, and the Rockaways. Bergen Beach had neither dry land nor railroads, and the

developers of that resort had to create the land and build the railroad. Ramblersville, located in what would become the Howard Beach neighborhood of Queens (later best known as the home of John Gotti), started as a railroad stop and would thrive despite the lack of dry land, but this was only because the construction of houses on stilts over the creeks was seen as an integral part of its charm.

Most people today know Jamaica Bay as the water body next to John F. Kennedy International Airport, or as the Jamaica Bay National Wildlife Refuge that is part of the Gateway National Recreation Area. Because the New York City subway's Rockaway Line crosses Jamaica Bay, it has often been described as "the world's only wildlife refuge with a subway running through it."

BEFORE THE RAILROADS

The earliest European settlement on Long Island near Jamaica Bay was Flatlands, which was established by the Dutch in 1631. It was an accurate name, as much of this land was low and flat. Large portions were covered with each tide and but there were plentiful natural resources including open meadows for grazing, creeks deep enough for navigation and filled with fish, abundant waterfowl, and wild game.

Located north of the bay and somewhat removed from its marshy shores, the town of Jamaica was founded in the 1660s. A small settlement that would eventually become Canarsie was established on spit of land extending into the

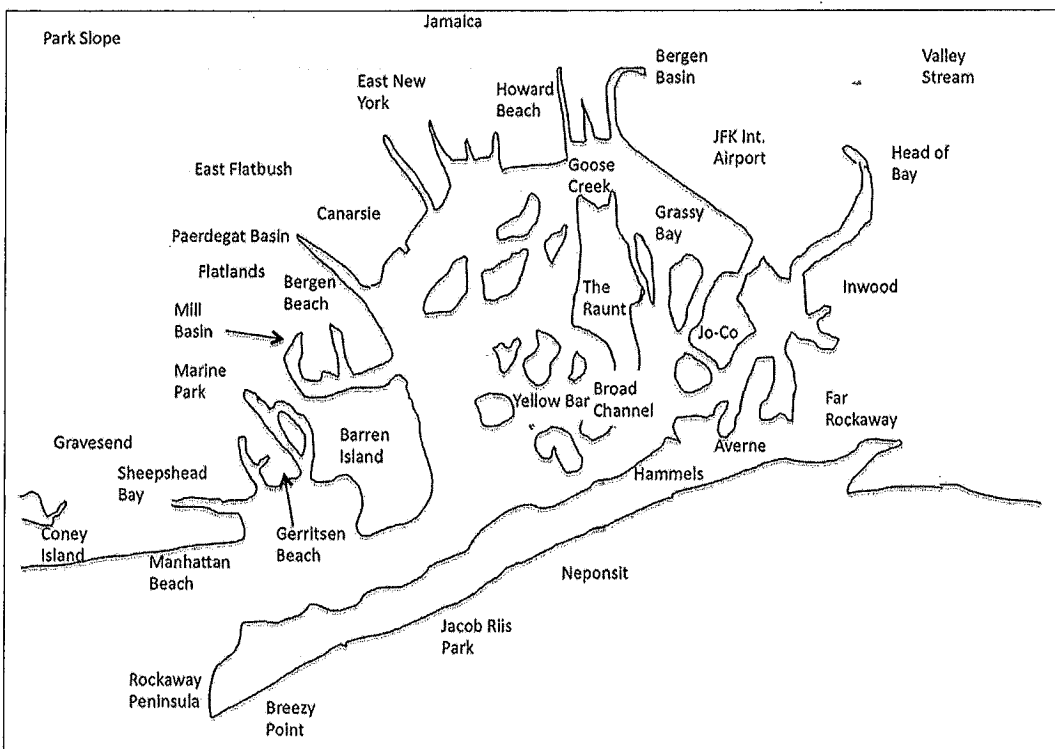


Figure 1. Map of Jamaica Bay showing the major neighborhoods. Prior to the consolidation of the five boroughs into New York City, most of the communities shown were independent townships. (Author's map)

bay from its western shore. South of Canarsie was Barren Island, a lonely and uninviting sandy island near the Rockaway Inlet.

Jamaica Bay's greatest asset might have been its isolation. Before the Civil War, Americans who could afford to leave the cities in the hot summers or during disease outbreaks began to patronize resorts in ever-larger numbers. The Rockaways, which at this time referred to the area where the Rockaway Peninsula joined rest of Long Island, were one of the early summer resorts. The area along the ocean and slightly east of the main body of the peninsula was known as Far Rockaway. During the 1700s there were two roads to the Rockaways, one linking it to Jamaica and the other to Hempstead. The Marine Pavilion was the first resort built at Far Rockaway, in 1834. This prompted the building of a turnpike road from Brooklyn in the same year. A year earlier there was a proposal for a railroad, but no progress was made until the 1860s.¹

Philip Hone and his family were among the first reported vacationers in the Rockaways. Hone was a former mayor of New York, and the Hones were one of New York City's elite families. They ventured to Rockaway to escape the 1832 cholera outbreak.² In 1833 Hone was one of the leaders of the Rockaway Association that purchased the land on which the Marine Pavilion would be built. The classical-revival style hotel had 160 rooms and cost a princely \$43,000. The Marine Pavilion became one of the country's most famous hotels.³

The Rockaway Association would also build an improved turnpike that in later years became the Jamaica & Jericho Turnpike. During the early 1900s this was the route of a trolley line linking Jamaica and Far Rockaway.⁴ The modern roadway is still referred to by these names. Jamaica Avenue is the name of the road west of the Cross Island Expressway, and it is the Jericho Turnpike east of the expressway.

In 1853 an unnamed summer visitor identified only as "E.B." contributed a short article to the *New York Times* describing Far Rockaway. While most of the visitors came from New York or Brooklyn, some came from as far away as Albany and Montreal. Without a direct railroad connection, most took the Long Island Rail Road (LIRR) to Jamaica and then a stagecoach to the resort.

Despite its proximity to the settled areas of Kings and Queens Counties, until the 1860s the bay shores were sparsely settled marshlands and the primary resource utilized in the area was the marsh grasses. Because good roads connected the farming centers to the Brooklyn Ferries from an early date, Jamaica Bay never developed as anything but a minor maritime center. This lack of development preserved the bay for the legions of tourists who would come later.

JAMAICA BAY'S FIRST RAILROADS

Before 1898 the island of Manhattan was New York City. What would become the other four boroughs of Greater New York, Richmond (Staten Island), the Bronx, Brooklyn, and Queens, were independent counties. The modern borough of Brooklyn was formed by consolidating all of the towns of Kings County. The actual city of Brooklyn occupied the land along the East River. Like most cities of the period, the growth of Brooklyn after the Civil War was facilitated by the expansion of rapid transit lines and passenger railroads. Brooklyn seems to have been particularly blessed with an abundance of steam dummy lines. By 1873 they were in operation at Flatbush, Fort Hamilton, Bath, Coney Island, Canarsie, East New York, and other neighborhoods. The growth of these railroads was not without its critics. A letter writer to the *Brooklyn Daily Eagle* noted in March of 1873 that Long Island was only four to twelve miles wide, but would soon have six steam railroads running through it. Most of the enthusiasm for new railroad construction, according to the writer who identified himself only as "Anti-Pandemonium," was the result of hype created by real estate promoters and railroad companies. More steam dummy lines, according to Anti-Pandemonium, would fill the streets with locomotives "hissing and rattling," horses would be frightened, it would not be safe for old people to venture outdoors, and dwellings would be filled with smoke; steam, and "the abominable odor of coal gas." The suggested solution would be to increase the frequency of horse car service.⁵

Horse-drawn transportation in the form of a stagecoach route had already linked Far Rockaway to the rest of Long Island for several decades when in 1868 the South Side Railroad Company organized the Far Rockaway Branch Railroad Company. By this time there was already a steady stream of steamboats to bring visitors from New York and northern New Jersey to the Rockaways. The original route of the South Side Railroad was laid out in 1860 and by 1867 it was operational between Jamaica and Sayville, a distance of 41 miles. The stations included Springfield, Pearsall's Corner (five miles from Far Rockaway) Rockville Center, Oyster Bay, Amityville, Islip, and Saysville. Stagecoach connections from Pearsall's Corner ran to Rockaway, although it was hoped that a branch line or horse cars would soon replace the stage.⁶

The goal of the Far Rockaway Branch Railroad Company was to build between Valley Stream and Far Rockaway. The route circled around Jamaica Bay on its eastern side (Figure 2). It posed no particular challenges and it was completed relatively quickly. The region was described as being densely settled as early as 1873. The promoters claimed that there was a sufficient year-round population to support four trains daily (Figure 3).⁷ The railroad had a terminal near the beach, at a point just west of the Village of Far Rockaway. After a year or two of operation severe

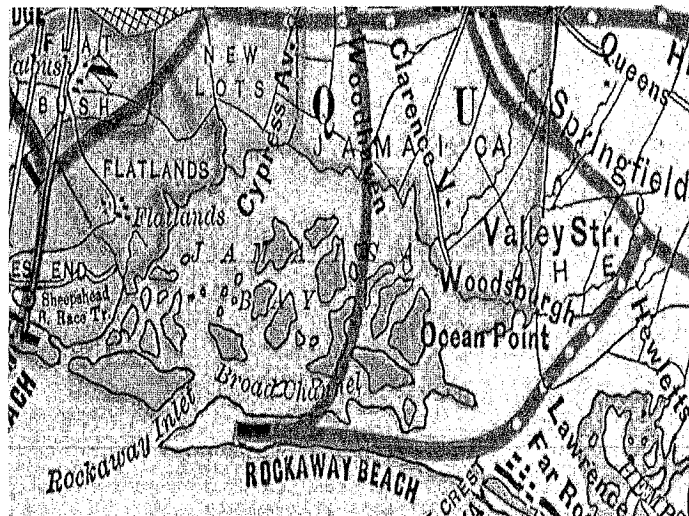


Figure 2. This 1884 map of LIRR commuter lines shows the original route of the South Side Railroad around the eastern shore of the bay. The rapid transit and trolley lines are not depicted. The peninsula that was the original site of Canarsie was part of Flatlands. (Library of Congress)

winter storms shifted the beachfront. In 1871 the company was forced to organize the Rockaway Railroad Company for the purpose of building an additional four miles of track to a new terminal.⁸

A grove of oak trees surrounded the new terminal. Emerging from these, the first sight greeting an arriving traveler was said to be closed and shuttered pink and white

houses in the winter, but in the summer there were the sounds of clinking glasses, rattling spoons, clicking billiard balls, and the rumbling of bowling pins. There were carriages and brisk pacers on the streets and throngs of pedestrians on the sidewalks.⁹

During the time that the passenger business to Far Rockaway and Rockaway Beach was being developed by the South Side System, LIRR was determined to enter the field. In 1870 its managers organized the New York & Rockaway to construct a railroad from Jamaica to Far Rockaway. It began at Rockaway Junction, about one mile east of the Village of Jamaica, and ran south to a crossing with the South Side Railroad at Springfield Junction and on to the Village of Far Rockaway.

A real estate promotional brochure of 1873 explained that travelers to the Rockaways changed trains at Valley Stream (Figure 4). The railroad claimed that during the busy month of August 1872, passenger train lengths reached 20 cars.¹⁰

The LIRR route was built in 1873 and it was originally known as the Springfield Cut-off because it passed through Springfield Junction and entered the Rockaways at a point named Oceanside. Oceanside was later named Cedarhurst and the line would later be known as the Cedarhurst Cut-off. The route is still visible on maps of Queens as a wide gap between Edgewood and Huxley Streets. (Portions of the Cut-off would later be abandoned and rebuilt.¹¹) Its ter-



Figure 3.

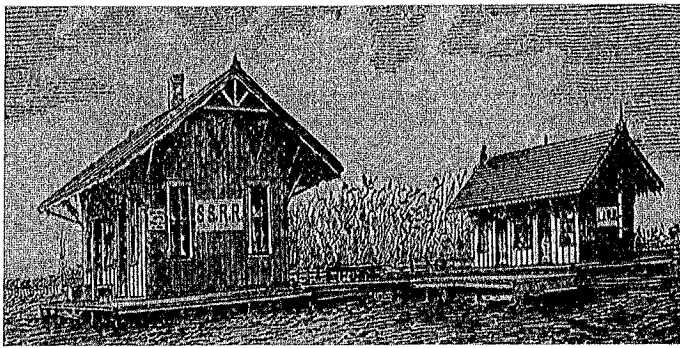


Figure 4. The junction of LIRR and the Rockaway Branch of South Side was in Valley Stream, although the site of the junction was identified as Ocean Point. The respective stations of the South Side and LIRR were depicted by an unidentified artist in 1873. (Library of Congress)

minal was reported to be more convenient than that of the South Side Railroad's. Immediately after completion of the line, competition between the South Side Railroad and LIRR intensified.¹² The older railroad was bankrupt by 1886 and its sale was set for March 23, 1886.¹³ Like most of the railroads on Long Island, the South Side would later become a part of LIRR.

The South Side Railroad and inexpensive steamboat fares democratized the Rockaways. The expanded railroad networks after the Civil War brought guests from as far away as Chicago, St. Louis, Cincinnati, Montreal, and Quebec, but Far Rockaway was no longer seen as being particularly exclusive. Steamboats brought crowds of Sunday visitors from New York, Newark, and Jersey City who came for the surf bathing and clam bakes. They were mostly middle-class people noted for their decorum and good behavior, yet they still covered the area "like a swarm of bees."¹⁴

TRAINS TO CANARSIE

About the same time that the South Side Railroad and its subsidiaries began bringing visitors to Jamaica Bay from the east, another railroad started bringing tourists to the Rockaway Peninsula from the west. The Brooklyn & Rockaway Beach left the Bay Ridge Branch of the LIRR near the shore of Jamaica Bay east of Canarsie, ran over the shoreline marshes, drove straight through the center of Canarsie, and terminated at the docks of Canarsie Landing (Figure 5). Passengers transferred to a steamboat for the trip to the Rockaway Peninsula or remained in Canarsie to swim, fish, or boat in quieter waters of Jamaica Bay. The railroad originated when DeWitt C. Littlejohn (1820-1890) obtained a charter to build a railroad from Broadway in Brooklyn, through Vesta Ave., and to Canarsie. As Littlejohn's brother was then speaker of the state assembly, there was no difficulty obtaining the charter, and the land required for the right of way was inexpensive. Canarsie's isolation caused many people to think that there was little

reason to build such a railroad and less reason to expect that it would be profitable.¹⁵ Some press reports credit the construction of the railroad to Littlejohn's father-in-law, identified only as Dr. Thompson. Thompson was reported to have a large tract of land on the Rockaway Peninsula and wanted a railroad to bring people to the beach.¹⁶

A similar version of the story involves real estate promoter James S. Remsen, after whom Remsen Avenue is named. He owned 150 acres on the peninsula's beachfront that he wanted to develop into a tourist resort. Remsen offered Littlejohn 75 acres if he built the railroad. A 3.5-mile, single-track line was completed by 1865. The railroad began operation with a few four-wheeled cars and two dummy locomotives.¹⁷

By 1871 the Canarsie railroad came under the control of Phil H. Reed, owner of the Howard House Hotel (not to be confused with the Hotel Howard at Howard Beach). The bar at the hotel was a popular place to wait for the trains and people came pouring into the hotel between 9 a.m. Sunday morning and 3:00 Sunday afternoon. During the warmest part of the summer of 1871, an estimated 8,000 to 10,000 used the railroad to visit Rockaway Beach.¹⁸

The railroad was immediately popular. According to one press report the "restaurant men and mosquitoes of Canarsie did a lively business." The mosquitoes were less of a nuisance on the Rockaway Peninsula, but the large numbers of "noisy young men" who frequented Fort Hamilton for baseball and bathing did tend to discourage the "better class of people" from using the beaches there.¹⁹ In the decades after the Civil War a few forward thinking corporations and a number of government agencies began offering white-collar employees paid vacations. This benefit would not reach the working classes until the 1920s so they made do with day trips. Resorts like those around Jamaica Bay and Canarsie in particular were easily reached by the

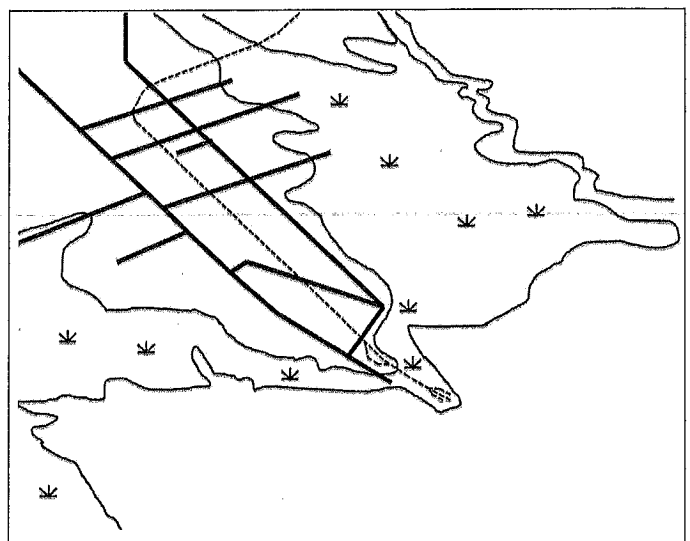


Figure 5. The tracks and streets at Canarsie in 1873 were confined to a narrow peninsula extending into Jamaica Bay. (Author's map)

Figure 6. Rogers Locomotive built its 2-4-2T for the service to Canarsie. The locomotive could run in either direction and is fitted with a vacuum brake apparatus on the cab roof. Most of the earlier locomotives were enclosed steam dummies. (Google Books)

tens of thousands of working class people of Brooklyn, and Queens. In contrast with the decorum that often characterized the resorts frequented by the wealthy, the working classes were more relaxed about alcohol, dancing, and flirting with the opposite sex.

In 1871, the rolling stock of the railroad was described as consisting of a number of open passenger cars. Two new steam locomotives were built at the Grant Locomotive Works in Paterson, New Jersey. They had 2-4-2T wheel arrangements and were designed to run in either direction without turning. These locomotives were reported to have been dummies. With 50" diameter driving wheels they had an estimated speed of 30 mph. However, an engraving of a 2-4-2T locomotive reported to have been built for the railroad survives from this era (Figure 6). The locomotive in the engraving was built by the Rogers Locomotive Works of Paterson, New Jersey, it was not a dummy, and the driving wheels are not 50 inches in diameter. The railroad also experimented with fireless locomotives. A report in the October 18, 1873 issue of *Scientific American* stated that a four-coupled engine towed a single passenger car weighing an estimated 12.5 tons with its load of 120 persons. The engine was reported to have a "boiler" ten feet long by 46 inches wide. The cylinders had an 8" diameter with a 12" stroke. Unusual for a locomotive of this period, there were condensers for each cylinder but there was no provision for working the steam expansively. The locomotive made one round trip with a single charge of steam but the pressure had fallen from an initial 180 psig to 45 at its return. Running downgrade to Canarsie required 12 minutes but the return trip upgrade required 17 minutes. There were reports that the Grant Locomotive Works might build additional fireless locomotives but no further mention of these is found in subsequent press reports.²⁰

Whatever type of locomotive brought the train to the waterfront, the next stage of the journey was by steamboat. From Canarsie to Rockaway the voyage on the steamboat "E. Corning, Jr." took about an hour. No liquors were sold on board.²¹

The route back from the waterfront was from the Howard House in East New York to the curve of East New York Ave., is still undeveloped county, woods, fields, and route over the marsh grass meadows was described as "serpentine." Occasionally the train passed frames for the drying of nets or fishing boats. Fishing stakes appeared along the creeks and finally the Bay View House came into view. Canarsie itself was described as sandy and very dusty on windy days. The tourists at Canarsie were described as lounging, strolling on the beach, or going out in boats. Newspaper accounts say that they "stuff themselves with shellfish," play billiards at the hotels, or take a punt out to fish.²² Reid issued free tickets for poor children and offered half-price, group excursion fares to any school group or Sunday school. The railroad also erected an amusement pavilion at the terminal but bathing was only possible at high tide. In 1873 the use of bathing machines was still expected. The *Brooklyn Daily Eagle* reported that as Reid had yet to provide these, there would be no swimming that summer unless someone came forward to provide this service.²³ Within a decade bathing machines were no longer in use, but renting a swimsuit was a common practice.

Some additional insight into the state of the railroad in the early days is provided by press reports of a fire that claimed its engines and rolling stock in January of 1876. Alarms rang out through the areas around East New York about 5:30 a.m., on Wednesday, January 19. Companies were called out to see great tongues of fire reaching into the sky. At first the firefighters thought that the blaze was in New Lots, and only after arriving in the village did they see that the fire was in Canarsie. Reports reached the firefighters that one of the large hotels was burning, but eventually word came that the railroad's shed, its wooden cars, its locomotives, 50 tons of coal, and a store of lubricating oils and kerosene were on fire. The locomotives' fires were out and none of them had steam. Bystanders attempted to push them out of the shed, but at 18 tons apiece this could not be done.²⁴

The fire started when a fireman was attempting to start the fire in one of the cold engines and saw a tongue of flame

shoot out of the firebox and onto the woodwork of the locomotive's body. The dry wood caught fire and the flames soon spread.²⁵

The report is interesting for the details it sheds on the railroad's operations. First, that all of its rolling stock fit inside a single shed, reported to be about 50 feet long and containing four tracks. Press reports also state that there were 11 cars, all with wooden bodies. The railroad was operating on that January morning; it was not just a summer tourist operation. The reports state that there were two wooden-bodied dummy locomotives and two other locomotives. Other sources state that there were only two dummy locomotives operating on the railroad.²⁶

The fire spared the Bayview House, a nearby hotel, but consumed another hotel owned by a man identified as Mr. McFall. Another hotelkeeper, identified as Mr. Smith, had one of his buildings damaged, but his other structures were spared. There were at least three hotels close to the train shed. The railroad was obviously serving more than day-trippers, and Canarsie had a well-developed tourism infrastructure.²⁷

The summer schedule for 1877 called for three trains daily that met the steamboat. They would leave the Howard House in East New York at 10 a.m., noon, and 8 p.m., daily and Sunday. Return trains ran 11:15 a.m., 1:45 p.m., and 5:30 p.m., daily and Sundays. Advertisements informed patrons that this was the "most pleasant, safe, and popular family route" to the Rockaways and the trip was free from danger and seasickness. For passengers who did not need to meet the steamboat, trains for Canarsie ran daily and Sundays, half-hourly from 6:30 a.m. to 8:30 p.m.²⁸ A report of the Army Corps of Engineers stated that the principal users of the dredged channels near Canarsie were the steamboat companies that moved 750,000 passengers annually to and from the resorts of Rockaway, Bergen Beach, and Ruffle Bar.²⁹

The railroad's prosperity continued until 1878, when city officials allowed LIRR steam locomotives to operate on Atlantic Ave. in Brooklyn after a hiatus of some years. The people of central Brooklyn now had more options for their leisure activities. Ridership declined, as did earnings. At that time Reid was renting the railroad and he still owed about \$5,000 in rent to Littlejohn. Reid himself claimed to reporters that Littlejohn owed him about \$10,000 for unspecified legal work associated with obtaining a charter for another Brooklyn Railroad.³⁰

On a Tuesday evening in late February 1878 Reid collected the railroad employees and assembling the entire rolling stock of the company into three trains, and attempted to run them from Canarsie to East New York, where they would supposedly be safe from seizure. However, Littlejohn sent a force of workmen, who tore up about 300 yards of track. The two groups exchanged insults and witnesses claimed that bloodshed was imminent. Reid,

however, urged his men to stand down and ran the trains back to Canarsie.³¹

The 1894 edition of the *Brooklyn Citizen Almanac* states that during the summer months, the railroad ran trains to Canarsie every hour between 6:30 a.m. and 8:30 p.m. Trains from Canarsie ran on the half hour. The trip lasted 13 minutes.³² Plans to double-track the railroad were announced in 1891, and the work was completed in 1894.³³

In September of 1896 the railroad notified the New York State Railroad Commission that they would not run service during winter months. It had been operated year-round, but the owners claimed that revenues did not meet expenses after October.³⁴ Clearly there were still tourists to be carried, but the year-round population had other transportation options, such as the expanding streetcar and rapid transit networks. The Brooklyn Rapid Transit Company announced that they would take over the line in November of 1905, upgrade it, and incorporate it into the city's rapid-transit network.³⁵

STREET CARS AND CHANGING DEMOGRAPHICS

One reason that the city's population was able to expand so rapidly in the decades around 1900 was the profusion of trolley lines. By 1906 Brooklyn and Queens had 650 miles, equal to the entire trolley mileage of New Jersey. Trolleys not only brought people to the bay; they also helped to alter its geography. In 1906 *Moody's Magazine* reported that 135 acres of marshland around Coney Island and Jamaica Bay had been filled with the help of the Brooklyn traction companies. At the time, only a few far-sighted conservationists worried about marshlands and the effects of habitat loss on wildlife. For most people, they were smelly places where disease-carrying mosquitoes bred. Filling them in was both a way to create taxable land and a laudable public health measure. Most city residents at the time burned coal for heating and cooking so there was an abundant supply of ashes to use as landfill material. There was also far more horse manure on the streets than the region's farmers could use as fertilizer. This was mixed with the ashes to create landfill material. Specialized trolley cars with two side-dumping bins roamed the streets at night and collected ashes. They were light enough for temporary tracks laid over the soggy ground and unconsolidated fill. Surviving photographs of these cars show them as having two trucks on a central beam, the two boxy bins, a central post where the trolley pole was mounted and undersized open platforms for the motorman on both ends (Figure 7).³⁶

THE OTHER TRACKS

In his definitive history of mass transportation in Brooklyn, *How We Got to Coney Island* (Fordham University Press, 2002) Brian Cudahy argues that one of the most important reasons for building passenger railroads to what was then



Figure 8
in the f

the undeveloped southern parts of Brooklyn was the large number of horse racing tracks. Horse racing drew large crowds throughout the May to October racing season. To some extent this traffic was less dependent on the weather than a day at the beach or boating.

The first races were informal affairs where wealthy visitors to Manhattan and Brighton Beaches wagered on impromptu matches along Coney Island's Ocean Parkway. In 1879 the racing scene was formalized with the establishment of the Brighton Beach Racing Association and the construction of a track and grandstand. The Coney Island Jockey Club followed a year later with a track at Sheepshead Bay. The Brooklyn Jockey Club built their track in 1886. Anti-gambling reform efforts forced the closure of all three of these tracks by 1910, but by then they had already played a vital role in promoting tourism and building up

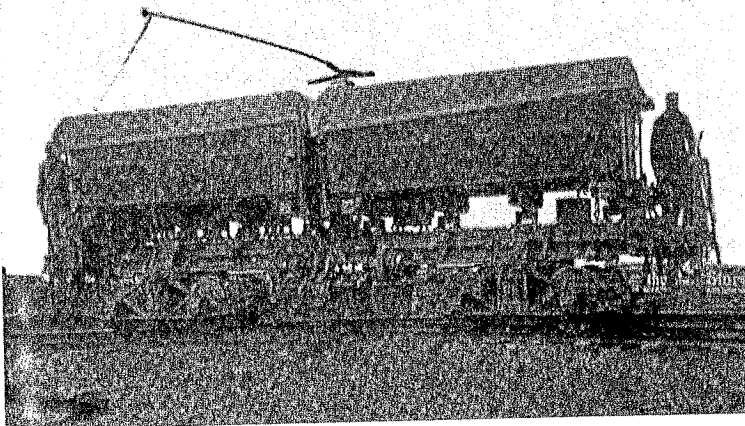


Figure 7. In the late 1800s special trolley cars roamed New York City collecting ashes that would be used for landfill materials. (Google Books)

the tourism infrastructure.

The Queens County Jockey Club opened Aqueduct Racetrack in 1894 and this was followed by Belmont Park being opened in the Town of Hempstead in Nassau County, in 1905. Belmont was served by a spur from LIRR's main line east of Jamaica.

Aqueduct Racetrack was built along the line of the New York, Woodhaven & Rockaway Beach Railway (NYW&R). This railroad was the first to avoid the shores of Jamaica Bay and launch itself directly over the center of the bay.

TRACKS OVER THE BAY

The railroads serving the Rockaway peninsula from the east and west would now be joined by one coming directly across the bay from the north. NYW&R was able to cross the center of the bay by laying track on Broad Channel and some of the smaller islands. To reach these islands, in 1879, the railroad began driving what would become a total of 1,719 piles grouped into bents for a trestle over the north and south edges of Jamaica Bay (Figure 8). The trestle bents were 12 to 17 feet between centers, but state inspectors noted that some of them were driven at an angle to the main line of the bridge. This appears to have been an error. The inspectors did note that the masonry piers of three drawbridges crossing the main navigation channels at Beach Channel, Broad Channel, and Goose Creek were all well constructed and rested upon well-braced, closely driven piles. Modern signals warned the trains' engineers if they were approaching an open bridge and full-time bridge tenders were hired for the season. The trestle was built so that the top of rail was about nine feet above at mean tide. Rails were laid on cross-ties that supported both

tracks and measured eight by six inches by 22 feet in length. Each tie was spiked to track stringers that rested on the trestle bents.³⁷

Although the trestle looked impressive, state inspectors found some minor flaws. Each trestle bent consisted of eight spruce piles, each one foot in diameter, but some of the piles had not been driven deep enough, and began to settle. Where this occurred an additional three piles per bent were driven. In bridge construction, guardrails are laid between the running rails so that in case of an accident, the car wheels were forced to remain on the track. The Jamaica Bay trestle appears to have been provided with some sort of wooden guardrails, but because some of these had gaps at the ends, they would not have been effective in case of derailment. The inspectors recommended the installation of steel or iron guardrails. Inspectors observed that some of the piles had been damaged by shipworms and replacement with creosoted piles was necessary. Because the railroad was only operated during the summer months, the inspectors noted that special care had to be taken to check the trestle before trains began running again each spring. They also noted that in the sandy soils of the region spruce cross ties could not be expected to last more than five years.³⁸

The railroad had some curious throwbacks to earlier practices, no doubt intended to save money, but still satisfactory to the inspectors. The rails were a mere 56 pounds per yard. Only half of the track was laid with steel rail; the remainder was iron. The line used stub switches that were soon to be regarded an obsolete technology. Union Switch & Signal Co. installed a modern interlocking system at Woodhaven and Glendale junctions. All metal bridges on the railroad, including the moveable spans, were constructed by Passaic Bridge Company. Most of these bridges crossed highways and other railroad lines.³⁹

The state inspectors noted that the railroad's eight locomotives, 53 "first-class" coaches and nine combination cars were all "in first-class order; passenger cars, modern in style, very neat and bright." The passenger cars had 42" wheels and weighed about 20 tons. They were fitted with vacuum brakes, a technology that was suited for light equipment but not the heavy passenger cars operated on mainline trains. They also were fitted with Miller hook couplers.⁴⁰ The inspection report does not mention the railroad owning any freight cars.

The inspectors concluded that "A careful examination was made of the whole property, and nothing presented itself as objectionable or unsafe, except the matter of guard rails for a short distance on the long pile bridge."⁴¹ What emerges from the report is an account of a lightly built railroad that was well suited for hauling a large number of summer visitors to the Rockaway Peninsula and the island of Broad Channel.

In 1881 passengers destined for Rockaway Beach could

board NYW&R trains at one of three terminal points: Hunter's Point on the East River, Bushwick Ave., or Flatbush Avenue. LIRR owned all of these stations. The Hunter's Point station was located opposite Manhattan's 39th St. Hunter's Point - Rockaway trains had the longest runs, 15 miles, which was made in 45 minutes. The Bushwick Ave. terminal was located at the end of a short branch line, where three horse car lines converged. The Flatbush Ave. terminal had direct horse car connections to the Fulton Ferry. Trains using the Flatbush Ave. station traversed a short length of LIRR to reach the main line of NYW&R. The trains of the line featured the "finest excursion cars upon any railroad in the world" and these were equipped not only with steam brakes, but "every appliance requisite for the safety and comfort of its passengers."⁴²

After crossing Jamaica Bay the tracks arrived at Hammel's, turned west, and ran on the Rockaway peninsula for approximately one-and-a-half miles. There were five station stops at the various hotels and resorts: Hammel's & Elder's, Holland's Station, Seaside Station, Neptune, and the Rockaway Beach Hotel.⁴³ Much of this line was already served by the LIRR, which had extended its own tracks eastward on the peninsula.

The Far Rockaway Railroad, a horse car line, was purchased by LIRR and electrified in 1898. It is not clear if LIRR intended to use it as a connection with NYW&R. Perhaps management wanted it to serve as a feeder line to LIRR, or perhaps the plans were some combination of both. The original line ran one mile from LIRR's Far Rockaway depot to the beach. In 1902 the line owned two motorcars and three trailer cars.⁴⁴ Surviving photographs show open cars and press reports from 1909 suggest that the line was still operating with open cars. By the start of WWI, it was carrying about 2.7 million passengers annually.⁴⁵ In 1903 the original one-mile line was extended to Hammels, Rockaway Beach, and Rockaway Park. The 1912 *McGraw Electric Railway Manual* stated that the line owned 7.82 miles of track, with trackage rights on LIRR for another 6.84 miles.⁴⁶ It was eventually extended past Hammels to Neponsit.

During the summer months NYW&R promised surf bathing and "as pleasant promenading as can be asked for." On the bay side of the peninsula there were opportunities for "still water bathing," boating, and fishing. (Holland's Station was also the site of a yacht club.) The first trains for the Rockaways departed in the early morning between 5:30 and 7:00 (times varied by station) and the last trains left the peninsula around 10:30 p.m. The 1881 timetable lists a total of 27 trains per day. It is not clear if any trains were beginning to be operated during the rest of the year.⁴⁷ Press reports from 1902 mention a small freight yard at Holland's Station, which appears to have been used for delivering building and other supplies to the Rockaway Peninsula.⁴⁸ After the line was taken over by LIRR there was an extensive freight terminal at Hammels.

Although the islands in the bay had been occupied by small sportsmen's clubs, fishing shacks, and the occasional vacation home, the railroad over the bay facilitated the building of small hotels along its route. Trains stopped at Howard's Landing, Goose Creek, The Raunt, Broad Channel, Beach Channel, and Rockaway Park (Figure 9). Hoteliers on The Raunt advertised that their hotels were only 40 minutes from New York by rail.

Hotels along the cross-bay trestle catered largely to recreational anglers. They were generally simple two-story frame buildings with most claiming to have "first class" dining rooms and well-stocked bars. The more modern hotels even boasted of telephone connections. In 1902 typical boat rentals were 50¢ on weekdays and 75¢ on Sundays and holidays.⁴⁹

Another important stop on NYW&R was Howard Beach. Today it is a neighborhood with over 28,000 residents, according to the 2000 census. It began as a group of shacks along Haw Tree Creek at the point where the railroad trestle left the Queens shore. Later known as Ramblersville, it grew as the vacation cottages of the more affluent joined the original squatters' shacks. The community was linked by crude boardwalks that were often covered at high tide. Although it was also a flag stop of NYW&R, the area had only a handful of permanent residents at the start of the 20th century.

By the summer of 1890, 500 to 1,000 recreational anglers arrived at Jamaica Bay every day. It was estimated that the value of the hotels, boat liveries, tackle shops, and other in-

frastructure supporting recreational fishing exceeded \$200,000.⁵⁰

Between the 1880s and the early 1930s Jamaica Bay was also a major yachting center with numerous yacht clubs, a busy racing calendar, houseboats for every budget, several boat builders, and repair facilities. At the start of the 1920s, resident baymen could boast that there were about 102 boat, canoe, rowing, and yacht clubs in the area.⁵¹

Unfortunately for both the environmental health of Jamaica Bay and the long-term prospects of the tourism sector, the number of visitors grew faster than the region's ability to cope with their waste products. By 1904 public health officials had identified numerous sources of sewage contamination, including the summer bungalow colonies at Sand Bay (127 cottages), Old Mill Creek (176 cottages), Ramblersville (220 cottages), Bergen Creek (50 cottages), Cornell Creek (53 cottages), and another 200 or more cottages along the line of NYW&R. All of these buildings had privies that discharged into the water or onto marshes subject to tidal overflow.⁵² Ultimately the sewage problem would cause the State of New York to make shellfish harvesting illegal in the early 1920s and discourage both boating and swimming. The tourism industry might have died out entirely before the 1920s if the bay had not been a convenient place for rumrunners to discharge their cargoes.

Prohibition gave the older tourist infrastructure one last burst of prosperity. During Prohibition Broad Channel was the only inhabited island in Jamaica Bay and its population was still large, as high as 4,000 persons according to Thelma



E. Smith, a deputy librarian the Municipal Reference Library who was interviewed by the *New York Times* in 1962. Broad Channel and the other islands were known as Little Cuba with yacht clubs, nightclubs, and rum running.⁵³ The quantities of liquor brought into Jamaica Bay were not small; in one incident 435 sacks of liquor, each containing 12 bottles, were confiscated at a dock on Shad Creek Road, Broad Channel. Although the liquor was seized the boat that brought it in escaped, and shortly afterwards another 445 sacks of the same type of liquor were seized at Averte and 17 persons were arrested. Again, the boat escaped capture so there was no information in the press reports about it.⁵⁴ During Memorial Day Weekend of 1927, while an estimated 200,000 people thronged the Rockaways, two Prohibition raids on Broad Channel netted 3,600 bottles of liquor.⁵⁵

NYW&R was not the only way to reach the ocean, but it was the most direct route to the Rockaway peninsula. Its completion prompted discussions within the city government of a public, non-commercial beach on the Rockaway Peninsula. There were by that time a large number of private beach developments.

Public beaches were another matter. In 1904, the population of New York was 3.7 million, while the city owned less than ten acres of beach. This worked out to 1.4 square inches of sand per resident. Even the city's 752,000 children under ten years of age would have overwhelmed this small area. Clearly, the city would need to acquire land on the Rockaway Peninsula if more New Yorkers were to have access to "the open and the God-given."⁵⁶

The city began looking in 1904 and purchased much of the land at the site of the future Jacob Riis Park in 1912.⁵⁷ It was located at the tip of the peninsula and beyond the neighborhoods served by railroads. Thus the beach that was created at least in part as a response to rapid transit development would not be served by rapid transit.

The transfer of Jamaica Bay to the city's Parks Department, construction of the Belt Parkway, and the opening of the Cross Bay Bridge in 1925, followed by the Marine Parkway Bridge in 1937, would forever change the recreational landscape. Although there were reports of heavy ridership on many railroads, the Memorial Day weekend of 1927 was also notable for the large number of visitors who came to the beaches by automobile. The Queensboro Bridge was reported to have been busy from dawn to late night; an extra 75 policemen were on duty to direct traffic on Coney Island, where an estimated 500,000 people spent the day. Eight ferryboats were assigned to the Staten Island Ferry service, and handled 5,000 automobiles.⁵⁸

When Jamaica Bay and Jacob Riis Park became part of the National Park system, park planners noted that while bus service might be provided, the lack of other forms of public transportation to this beach would limit visitation.

A TROLLEY LINE TO BERGEN BEACH

To build along the shores of Jamaica Bay in the late 1800s there were only two requirements: dry land such as Canarsie and the Rockaway Peninsula, and railroad connections. What if neither had been available?

Standing in sharp contrast to the small hotels, fishing camps, boathouses, and small businesses were Bergen Beach Amusement Park (1894-1925), and Golden City Amusement Park (1907-1938). The latter was described as the "big new amusement park" at Canarsie at the time of its sale by the Golden City Construction Company to the Canarsie Amusement Company in August of 1907. Golden City featured among its other attractions a "journey over the Rockies" and "daring circus acts."⁵⁹ Golden City was sold to a real estate company in July of 1926 but continued in operation. The last remnants of the park were destroyed to make room for the construction of the Belt Parkway.⁶⁰

Bergen Beach Amusement Park was created by real estate developers who had tried to sell residential property near Canarsie, but discovered that despite Jamaica Bay's popularity as a resort and the population growth in the rest of the city, homebuyers were not easy to find.

Portions of the land were described as a "sandy waste," but another section was considered more suited for development, if it had not been located too far from the railroads or rapid transit lines to attract more than a few purchasers.⁶¹ Transportation to the area was via the Flatbush Ave. trolley and a stage line from the trolley line terminal. A channel was being dredged and bulkheads created so that excursion steamers could reach the area from the Rockaway Inlet. Negotiations were also underway to extend the trolley line as far as the beach where a new hotel was planned. Several cottages were already erected on the beach, and there was a "pretty little club house." Press reports at the time listed the activities available for recreation. Canarsie, Coney Island, and Rockaway Beach were all a short sail away. Jamaica Bay abounded in fish and offered opportunities for fishermen and sportsmen. Bergen Beach was a good place to own a horse and the shady, shell-packed roads were well suited for bicycles.⁶²

Because the streetcar line still did not actually extend all the way to the new community, the promotional advertisements promised that free stages met the Flatbush Ave. cars at the line's terminal. The advertisements claimed that real estate values would double within the year.⁶³ The partners did not build the streetcar line, and therefore had no control over its route. This was not the pattern on Coney Island, Manhattan Beach, and portions of the Rockaways, where railroad promoters also owned hotels and resorts.

By 1895 a few houses had been built and a clubhouse erected for use by the residents. A bulkhead was built along the waterfront and an "immense dredge" was at work filling in behind it.⁶⁴ Two years after its founding, Bergen Beach, however, did not actually have a beach.

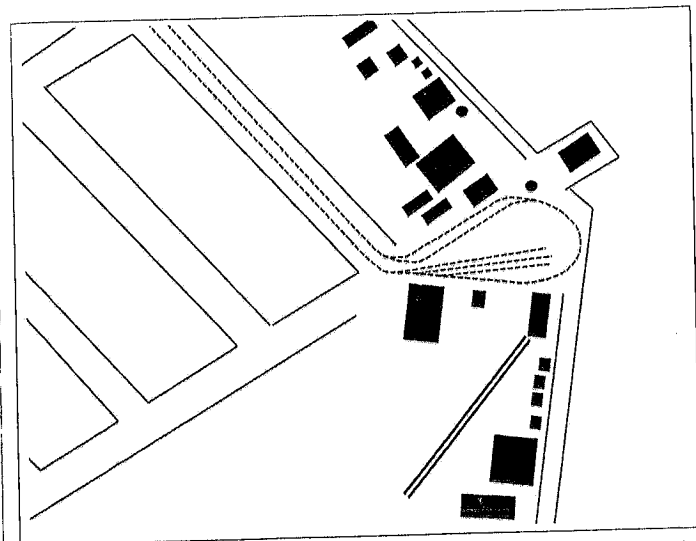


Figure 10. Sketch map of the trolley terminal at Bergen Beach, c. 1906, showing the reversing loop and a walkway next to the bay. The amusement park buildings shown on the map include a theatre, skating rink, swimming pool, a scenic railway, and two buildings identified as casinos. (Author's map)

Over half a million yards of marshland had to be reclaimed and covered by a boardwalk before it was ready for visitors.⁶⁵ Despite the progress made, the poor response to the real estate development caused the property owners to convert the project to an amusement park.

The Bergen Beach Branch of the Brooklyn Heights Trolley System linked Bergen Beach to the rest of Brooklyn. It was opened on Saturday, May 23, 1896. Press reports announced that the line would operate cars on two-minute headway. The park at Bergen Beach was set to open for the season on Friday, May 29.⁶⁶

At the time that the streetcar line opened, the Boardwalk stretched a mile and new attractions for the season included a large grandstand for viewing Paul Boyton's Water Circus featuring "fancy" swimming and high diving exhibitions. The circus also featured a miniature boat race in which trained monkeys were contestants, a walrus hunt where reenacted, and a mock naval engagement featuring a ship blown up by dynamite.⁶⁷

By 1899 it was claimed that more than 80,000 visitors came on a typical Sunday or holiday. The average daily attendance was reported at 30,000. Since the streetcar lines charged a 10¢ fare, a conservative estimate for their revenues generated by Bergen Beach was \$200,000 for the season.

In 1901 cars operated during the summer months were described as being open, with 14 benches, and weighing 22,000 pounds. Most of the cars had single-chain hand brakes, but some had both hand and friction brakes. All had sanders. It is unclear how many persons they could accommodate, but some reports placed the number as high as 99.⁶⁸

The Bergen Beach Branch had a reversing loop at the ter-

minal (Figure 10). Cars running to the beach originated on the Flatbush Ave. and Nostrand Ave. lines, as well as the Lorimer Line that served the ferry terminal at Greenport. The Flatbush Line was the busiest; cars operated on a 2½ minute headway.⁶⁹

The road connection over the meadows was still poor, so that when a fire broke out at the Bergen Beach Amusement Park, the horse-drawn fire engines became stuck in the sand. The firemen flagged down a passing trolley car and hitched the engine to the car. A second fire engine was hooked to another trolley car and the fire was successfully controlled.⁷⁰

At the beginning of the twentieth century there were two steam railroads serving different portions of the Rockaway peninsula and the Ocean Electric Railway running parallel to the Atlantic Ocean. Other local trolley lines were established near Far Rockaway and in the eastern half of Queens. A plan to reach across Jamaica Bay with a combination highway bridge and trolley line running parallel to NYW&R was conceived in the late 1890s but never realized.⁷¹ When the Cross Bay Boulevard highway bridge over Jamaica Bay was opened in 1924 there were no street-car lines on it.⁷²

THE LONG ISLAND ELECTRIC RAILWAY

The passenger potential of the growing communities on the east side of Jamaica Bay, the crowds that came to the race tracks, and the tourists coming to the beach attracted another railroad in 1896. Long Island Electric Railroad (LIER) applied for a street railway franchise in Far Rockaway in February of that year.⁷³ A map reconstructing the route of the line when it was part of Jamaica Central Railroad in the late 1920s appeared in Stephen Meyers' *Lost Trolleys of Queens and Long Island*. The route had double-tracked street running beginning at Liberty Ave. and 100th St., continuing to South St., and then to New York Boulevard. The double tracks ended shortly after the Linden Avenue car barn. A single-track line continued along Baisley Boulevard, and the Rockaway Turnpike, Mott Avenue, Lawrence Ave., Doughty Boulevard, and terminated at Redfern Ave.⁷⁴ An 1899 advertisement in the *Brooklyn Eagle* stated that cars could be boarded every 20 minutes at the City Line Station of the Fulton St. Elevated Railroad. They would descend an inclined plane to street level.⁷⁵

Because of the populations in the territory it served, both LIRR and Interborough Rapid Transit (IRT) invested in LIER so that it could serve as a feeder line, but all street railways were ultimately constrained by the condition of the streets, which at the time was less than optimal. There was a legal requirement that the company share the cost of street improvements. There also was a serious drainage issue; street flooding periodically interrupted service, and the problem was so persistent on Jamaica Ave. between 184th and 186th Sts. that the area became known as Stans-

Figure 11. LIER's specially modified car towing cars through high water.

(Chuck Blardone collection)

bury's Lake. LIER took an old open car, moved the motor above the floor, and used it to tow passenger cars through the flood. The existence of this car would be open to question if photographs of it did not survive. (Figure 11)

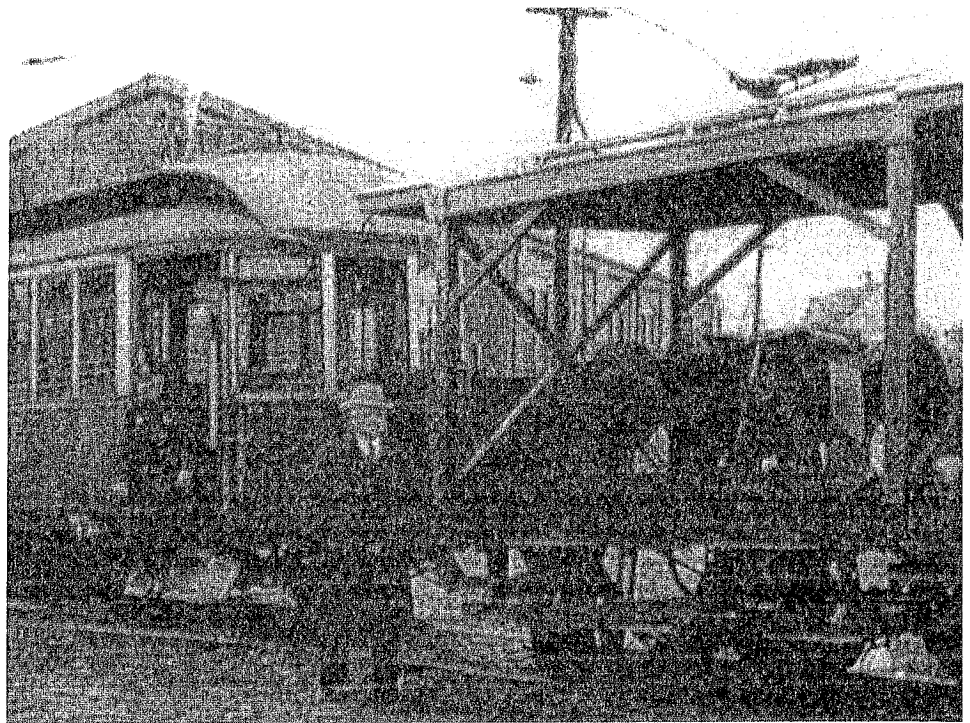
The company was also crippled by a New York City law that held all transit fares to 5¢. LIER was in receivership by the mid-1920s, and became Jamaica Central Railroad in 1926.⁷⁶ At that time the new owners reported that the road was still viable and that ridership was 40% higher in April of 1926 compared to April of 1925.⁷⁷ By 1928 Jamaica Central was fighting repeated incursions of bus companies into its operating territories. The railroad petitioned the Transit Commission not to grant a franchise to Equitable Coach Line, claiming that bus competition would result in the annual loss of \$90,000.⁷⁸ The railroad would fight similar battles with the Transit Commission and the city government over the next several years. However, during the 1920s the population of Queens went from 469,000 to 1,079,000 and the newspapers of the period are filled with stories about new bus companies seeking to create routes throughout the borough.

LIER (later Jamaica Central) was also known for its collection of poor equipment and extensive use of used streetcars. Meyers writes that LIER was known as the "banana line" because "the cars were yellow and came in bunches." In 1924 the company spent \$63,000 for 25 third-hand cars from the Second Avenue Railroad. The end came in 1932 when the city announced plans to improve Jamaica Ave. Rather than pay the costs of re-laying its track, the company switched to busses. The last streetcar ran on December 3, 1933.⁷⁹

THE LONG ISLAND STEPS IN

By the start of the twentieth century, all of the steam railroads that ran directly to the Rockaway Peninsula had come under the control of LIRR and its parent company, PRR. LIRR also came to own an extensive network of suburban rail lines on eastern Long Island.

The resort destinations on the Rockaway Peninsula, including Arverne and Edgemere, as well as Far Rockaway, featured prominently in the railroad's promotions, as did their beaches. Commuters were enticed by visions of a place that was at once urban and rural, thanks, of course, to



LIRR reliable service. Multiple-ride tickets were available at 2¢ per mile, but had to be purchased in advance. The railroad stressed that these tickets, while nominally issued to the head of a family, "can be used by any immediate member or domestic servant."⁸⁰

PRR had grand plans for its Long Island subsidiaries. They began boring tunnels under the East River for direct access to Manhattan in 1902 and in 1906 began the electrification of all lines in Brooklyn and Queens.⁸¹

In writing about the electrification, *Railway Age* noted that the heaviest power demands would come on days that the racetracks at Belmont Park and near Springfield Junction were operating, but these would only be once a day for four weeks. A heavy demand that would last for longer periods would come from the trains of Brooklyn Rapid Transit. They would leave the elevated structure at Chestnut Street Junction, run 1.8 miles to Woodhaven Junction, and then over Jamaica Bay to Rockaway Park. *Railway Age* noted that while these trains might be lighter in weight compared to those of LIRR, they would be running more frequently.⁸²

The trestle over Jamaica Bay was electrified in 1904. By 1906 the electrification extended to Valley Stream, and soon the eastern half of Jamaica Bay was encircled by high capacity commuter rail service. Although primarily a passenger railroad, LIRR did have facilities large enough to handle 52 freight cars at Far Rockaway, and advertised that express service was available on Broad Channel.⁸³ The efficiencies allowed by running trains directly to Pennsylvania Station in Manhattan were expected to vastly shorten commuting times. The trip between Pennsylvania Station and Far Rockaway or Rockaway Beach was only 33 minutes. It is estimated that eliminating the ferry ride over the

East River would save commuters between 20 and 25 minutes in each direction.⁸⁴

About the time that the electrification was completed LIRR management began what appeared to be a bizarre series of decisions about the Cederhurst Cut-off. Deciding that both the original South Side line and the Cut-off were not needed, the tracks were removed on the Cut-off around the time of WWI. It was rebuilt after the war, and finally torn up during the Great Depression.⁸⁵ The decision to abandon, rebuild, and abandon again seems to have resulted from uncertainties about how much capacity would be required in the future, as well as the need to protect the right-of-way from encroaching real estate development.

LIRR began extensive rebuilding of their lines on the Rockaway Peninsula, but it was not until 1927 that they sought to address the long-standing arrangement where LIRR main line trains shared tracks with the trolley cars operated by Ocean Electric Railway. LIRR officials testifying before the Rapid Transit Commission in June of that year stated that their preferred option was a four-track line down the peninsula with two express and two local tracks. This would be accompanied by the abandonment of surface bus service and local streetcar service between Hammels and Far Rockaway. Service between Hammels and Neponsit had already been discontinued. The local residents claimed to have been inconvenienced by this development. Rumors circulated through the community that LIRR had sold off its best streetcars in anticipation of the abandonment and without the approval of the Rapid Transit Commission. Some cars had been sold, but with the parent railroad's approval.⁸⁶

The first of the other major improvements involved new track work. A large wye with double track on all of its legs was constructed at Hammels (Figure 12). This was the site where NYW&R touched the Rockaway Peninsula and turned west. Now trains could turn east or west or run the length of the peninsula without leaving the LIRR main line. Inside the wye there was a substation with transformer and battery rooms. It was served by a dedicated siding. Also inside the wye was a small freight yard with a freight station. The Sanborn Fire Insurance Maps for 1912 also show what appear to be either team tracks or tracks serving a lumberyard located next to the substation. In 1920 the Queens Chamber of Commerce guide stated that the team tracks at this location could handle 15 cars. Sheds for storing shingles, lumber, and other construction supplies were located just over the tracks on the east leg of the wye. The neighborhood east of this location seems to have attracted the businesses that kept the resort humming: an automobile supply company, a planing mill (with its own freight siding) for finished lumber, another lumberyard to the north of the tracks, and an ice plant.

The terminal at the western end was also extensive. The two-track line split into four tracks at what it today Beach

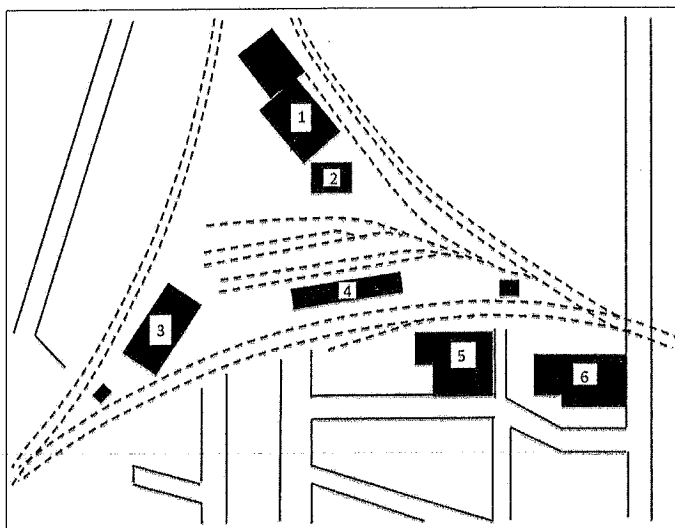


Figure 12. Each leg of the wye at Hammels was double-tracked. Freight handling facilities and a electrical substation were located inside the wye. The buildings are as follows: (1), substation with transformer and battery room, (2), lumberyard office, (3), Hammels passenger station, (4), freight house, (5), Sheffield Farms dairy and wagon house, and (6), Hicks, Hicks, and Hicks Wood-working Plant. (Author's map, based on a 1912 Sanborn Fire Insurance map)

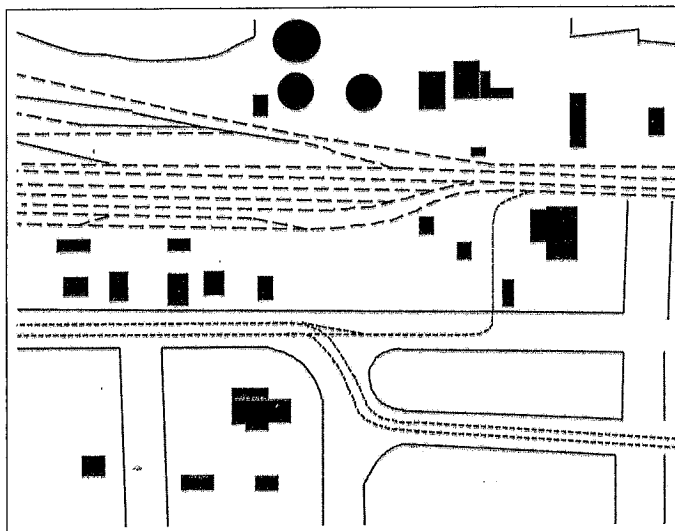


Figure 13. East end of the LIRR terminal on the Rockaway Peninsula in the early 1900s, located on the shore of Jamaica Bay near a gasworks (top, center). Cars of Ocean Electric could leave the LIRR at this point. (Author's map)

104th St., about one mile west of Hammels. The terminal was on the north shore of the peninsula on Jamaica Bay. The street entrance was located on Beach 118th St., which was also known as 5th Ave. The current subway terminal is located two blocks farther east on Beach 116th St.

The terminal began at Beach 108th St., where there was a large gasholder between the tracks and Jamaica Bay (Figure 13). Immediately to the west of the gasholder was the works of the Queens-Brooklyn Gas & Electric Light Company. The period maps do not show this industry as being served by freight sidings. If these maps are correct, because this industry was on the bay, it may be assumed that coal

arrived exclusively by barge.

The 1912 Sanborn maps show a three-track enclosed car-barn with another eight tracks running the length of the terminal. Although the line was electrified by this time, there was still a turntable in the terminal's yard. The terminal's most unusual feature was a reversing loop that enclosed all of the stub-ended terminal tracks (Figure 14). It ran on a concrete and iron-truss trestle that allowed passengers to walk from the station building to the terminal tracks without crossing the reversing loop. Since LIRR MU cars would have been capable of double-ended operation, it may be supposed that this loop was used by the Ocean Electric cars. This would allow them to be turned without interfering with the operations of the main line.

The first multiple-unit cars used on LIRR were not the MP54 types developed by PRR. The railroad ordered 134 MP41 (motor passenger) and five MP45 types⁸⁷ (Figure 15). American Car & Foundry produced these all-steel cars that were 51 feet long and painted Tuscan red. They were later supplemented by the better-known MP54s of the PRR although some of these earlier cars were not retired until the 1950s (Figure 16). LIRR owned a fleet of older open-platform cars that were used on Brooklyn Rapid Transit (BRT) behind steam locomotives. These were converted to trailer cars and operated between pairs of motorized units until about 1915. As the MP41 cars were rarely assigned to Manhattan runs through the East River tunnels, they must have been a common sight around Jamaica Bay.⁸⁸

The MP41 and MP45 were all-steel, and their design was almost an exact copy of the cars on the IRT subway. There was a proposal, never realized, to connect LIRR and IRT, so it made sense to use the same car designs. They are sometimes called Gibbs Cars, after their designer, George Gibbs. The Gibbs cars required a few modifications for suburban service including roof-mounted headlights on each end, steps and traps (because LIRR had many track-level platforms), and a metal pilot.⁸⁹ There are excellent descriptions of these cars in Brian Cudahy's book, *A Century of Subways: Celebrating 100 Years of New York's Underground Railways*, (Fordham University Press, 2004). A WWI housing shortage in New York forced a growing number of people to commute from the outer boroughs and to convert seaside resorts into permanent housing. This prompted LIRR to employ a large number of trailer cars and install heating in all of the equipment.⁹⁰

In 1920 LIRR ran between 50 and 75 daily trains to the Rockaway Peninsula and about twice that number on weekends.⁹¹ The most complete description of service, track arrangements, and schedules around Jamaica Bay can be found in *Change at Ozone Park*, by Herbert George (RAE Publishers, 1993).

Some idea of the demand generated by day-trippers for railroad service to the Rockaway Peninsula comes from a 1913 account of a service interruption. On June 29, a Sun-

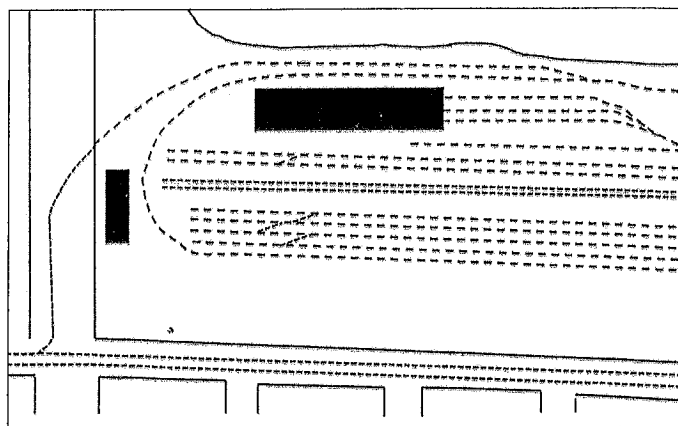


Figure 14. The western end of the LIRR terminal was encircled by a loop of the Ocean Electric. The loop was elevated on a concrete trestle. Street tracks of the Far Rockaway Railroad also radiated out of this location, but having to share the main line with trolley cars created a number of operational headaches for LIRR. (Author's map)

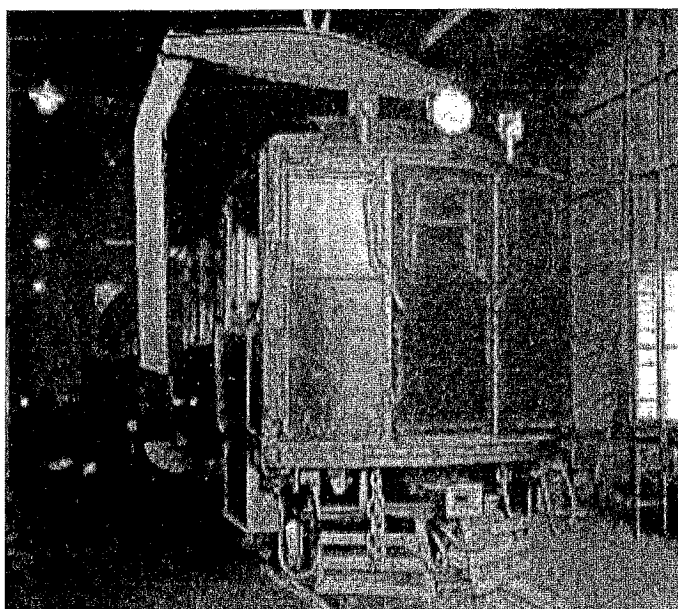


Figure 15. One of the original ACF MP41 "Gibbs" cars, designed to also operate on subways, in the shop for traction motor work, c.1910. (Google Books)

day night, a short circuit caused a fire in two railroad cars and caused minor damage to the Jamaica Bay Bridge. Some of the passengers on the stranded train panicked and jumped into the bay. Fortunately they landed in either shallow water or mud and there were no injuries. The remaining passengers were unloaded and had to walk. The train crew then tried to put out the fire but had only buckets and barrels of water. Trains following on the trestle were stopped and passengers were forced to walk back to the shore. An estimated 30,000 were stranded at Rockaway Beach. A parade of streetcars providing alternative service passed through the streets of Jamaica between midnight and 3 a.m. Thousands more people slept on the beach and the police station housed women and children. House-

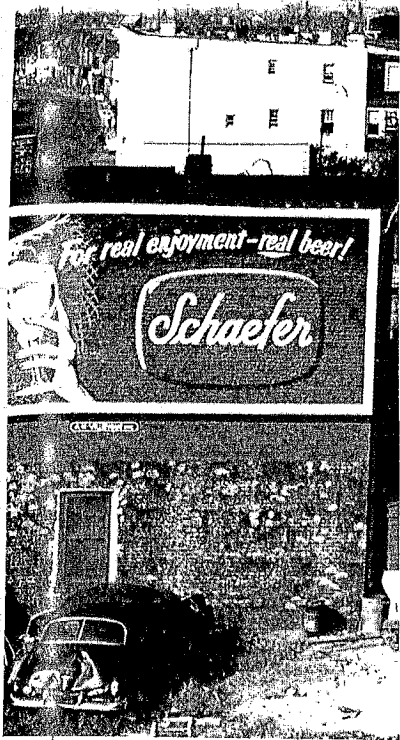


Figure 16. The MP54 cars were originally constructed with clerestory roofs, but many were eventually fitted with rounded roofs and port-hole-type forward windows. The concrete viaduct on the Rockway Peninsula was the last major railroad project around Jamaica Bay. (Mike Boland collection)

holders charged as much as \$5 for a single room and the owners of motor trucks collected up to \$1.50 per passenger for a trip off the peninsula. Finally, a special train from Rockaway Beach to Jamaica by way of Far Rockaway and Valley Stream relieved the situation.⁹² The 1913 incident serves as a reminder that the Jamaica Bay trestle was a major maintenance headache from the beginning.

With any moveable railway bridge the most fearsome mishap is a train running through an open draw and landing in a deep shipping channel. At 8:21 am, July 21, 1928, the drawbridge was opened for the tugboat *Dynamic*. Shortly after the tug passed, a ten-car electric train running from Flatbush Avenue to Rockaway Park ran through the open drawbridge. The first car, which was reserved for smokers, plunged into the bay but the other nine cars, while violently shaken, remained on the trestle. The second car hung halfway off the bridge but did not fall off.⁹³

Contemporary observers reported that the fifteen passengers and the motorman might have drowned if the tide had not been low. The motorman and passengers broke out windows and were able to swim until rescued by passing tugboats. The captain of the *Dynamic*, John Ackerman, dove into the water and entered through the open windows of the car. He is credited with assisting at least three passengers out of the car. The 30-year old motorman, Charles

Muller or Queens, was taken to the Rockaway Beach Hospital where he was later placed under arrest. He was charged with criminal negligence for running a red signal. When questioned by representatives from the Queens County District Attorney's Office, Muller admitted to seeing the signal. Because he was suffering from a severe stomach ailment, Muller claimed to have passed out before being able to apply to stop the train. He claimed to have awakened only after the leading car was underwater. Within a day, investigators had quickly determined that the signal was operating correctly, as was the bridge mechanism.⁹⁴

Traffic was restored after a wrecking crew cut the second car away from the rest of the train and allowed it to slip into the bay. That night the largest floating derrick in the world, the appropriately named *Colossus*, was used to raise the cars from the water.⁹⁵

In the days that followed, Muller's sickness became an issue in the investigations. He claimed to have been working late the night before the accident and was feeling ill. He asked to be excused from work, but his superintendent refused his request. Muller was found guilty and given an "indeterminate" sentence in the state penitentiary. In April of 1929, the State Appellate Court cited his illness in reversing Muller's conviction.⁹⁶

The last significant railroad construction project on the

Rockaway peninsula was to elevate LIRR tracks to eliminate grade crossings. The number of grade crossing accidents was growing and the situation was getting worse as the number of automobiles increased. In April of 1928 the city's Transit Commission ordered LIRR to separate 27 grade crossings on the Rockaway Line. Although some residents called for the tracks to be lowered below street level, city engineers found this would place them below sea level. A reinforced concrete structure was selected instead. It was to provide a 14-foot road clearance, have a thick concrete floor to reduce noise, and have room for additional track if needed.⁹⁷ This project was completed in the 1930s; the reinforced concrete structure would later be used by the subway system.

FROM PASSENGER RAILROAD TO SUBWAY

In July of 1950 a federal court gave the railroad permission to proceed with the abandonment of the route over Jamaica Bay. One month later, LIRR petitioned the Interstate Commerce Commission to abandon this route from a point in the Hamilton Beach neighborhood on the north shore of the bay to the Rockaway Peninsula. In seeking to abandon the trestle, the railroad stated that between 1942 and 1950 there were 29 fires on the bridge, resulting in \$622,171 in damage. The most serious was in May of 1950, when 1,800 feet of the trestle was destroyed and repair costs were estimated at \$739,000. New York City's Public Service Commission had a standing policy of opposing all abandonment requests by LIRR and Commissioner George A. Arkwright promised that this application would be treated no differently.⁹⁸

In September of 1952, New York City and LIRR closed

the deal to purchase the Rockaway Line, the trestle over the bay and the lines on the Rockaway Peninsula. The purchase price was \$8,500,000 and a check for \$850,000 was presented to the railroad as a down payment.⁹⁹ The first subway train operated on the line in 1956 (Figure 17).

The transfer of the Rockaway Line to the city occurred during the final stage of the transition between resort and residential communities on the Rockaway Peninsula. Beginning as early as 1890 and continuing to about 1910, press reports repeatedly drew contrasts between the less intensely developed resorts such as Canarsie, Bergen Beach, the Raunt, and Ramblersville and the crowded resort of Coney Island with its many "catchpenny" amusements.¹⁰⁰ Newspaper and magazines regularly noted with amazement that these communities were so close to New York City, and their stories featured pictures of happy children splashing in the bay and smiling adults with fishing tackle. While the smaller resort communities did not appear to be deliberately defining themselves specifically as an alternative to Coney Island, it is clear that they were actively promoting healthier and wholesome activities such as swimming, fishing, and boating.

Preserving the distinction between the honky-tonk of Coney Island and the comparative peacefulness of the Rockaways became a primary goal of New York City's Coordinator of Construction, Robert Moses (1888-1981). Moses began his career with the city as the Parks Commissioner and eventually rose to supervise all major construction projects including airports, highways, and even the United Nations headquarters. Moses was a great believer in highway construction and made a point of not supporting any type of mass transit project. By the early 1950s the

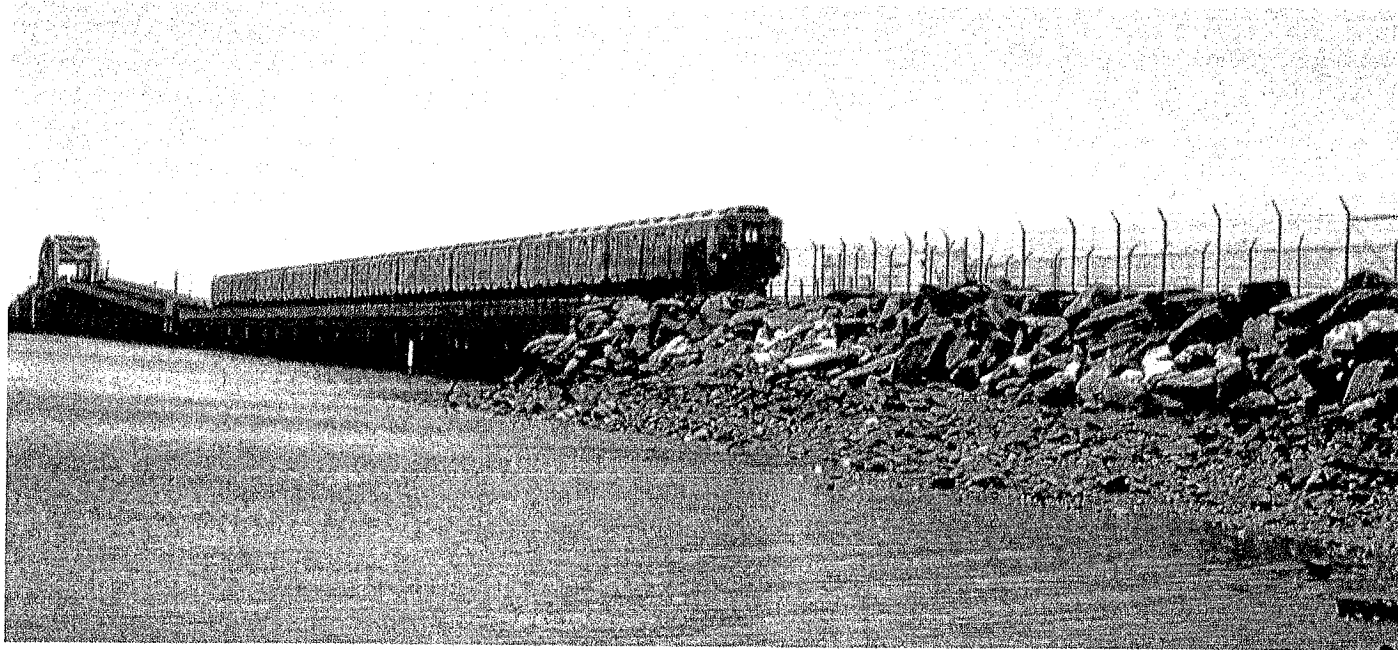


Figure 17. An early 1970s photo showing the Jamaica Bay trestle after being rebuilt for subway use. This was the time that Jamaica Bay became part of the National Park Service. (NOAA)

Rockaways were less attractive as a middle-class resort because expanded automobile ownership allowed more people to reach the beaches farther east on Long Island or along the Jersey Shore. The result of this development was that there was now enough inexpensive land on the Rockaway Peninsula to create massive public housing projects. Parcels that could not be purchased were subject to eminent domain.¹⁰¹

At that time, the Rockaways were in transition and the sudden influx of the urban poor only served to further destabilize the communities. There are a number of excellent studies of this phenomena and the interested reader is directed to Charles Denson's *Coney Island: Lost and Found* and Robert Caro's definitive study of Moses, *The Power Broker*. The subways across and around Jamaica Bay appear to have helped some of the residents reach their jobs and eventually move out of public housing, but the long subway ride only served to isolate those who remained. The last public housing project was built in the early 1970s and the neighborhoods began a long process of revitalization.

The subway system did not reuse the entire Rockaway Branch from the LIRR main line to Jamaica Bay. The new subway connected to the existing system's A Line at Liberty Avenue and 99th St. LIRR track between Liberty Ave. and the main line at Rego Park was abandoned. Other than being overgrown, the right-of-way remains largely intact. At the time of this writing there are competing proposals to restore rail service or create a rail-trail for pedestrians and cyclists.

LIRR focused its passenger operations along the east side of Jamaica Bay down the route of the South Side Railroad.

The reconstruction of line across the bay in 1953 helped create one of the most important features of the Jamaica Bay wildlife refuge. Six million cubic yards of dredged sand were used to create two impoundments, which were then planted with vegetation by the New York City Parks Department. The choice of plantings was determined by their ability to thrive in coastal conditions and to provide food and nesting sites to bird populations.¹⁰²

EPILOGUE

The railroads that served Jamaica Bay were all originally built with private money and were all primarily passenger routes. There was money to be made supporting the tourism industry and hauling day-trippers to the beaches and fishing resorts. Such an arrangement could only last as long as Jamaica Bay remained unspoiled and the huge urban population had few alternative destinations. The coming of the automobile would both allow the city to expand outwards around the bay and open up more distant opportunities for recreation. Eventually the railroads that helped popularize the beaches would serve a growing number of permanent residents.

FOOTNOTE

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