fcNPS Form 10-900
(Oct. 1990)

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

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HISTORIC PRESERVATION OFFICE

This form is for use in nominating or requesting determinations for individual properties and 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 from 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.

1. Name of Property

historic name Newark Penn Station and Dock Bridge (Boundary Increase and Additional Documentation)

other name/site number Newark Station, Penn Station, Newark Pennsylvania Station, Market Street Station

2. Location

street & town Raymond Plaza West ☐ not for publication

city or town City of Newark and Town of Harrison ☐ vicinity

state New Jersey code NJ county Essex and Hudson code 013 & 017 zip code 07102

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby 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.)

Ass't Commissioner 9/17/12

Signature of certifying official/Title Date

NJ Dept of Environmental Protection

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 the property is:

☑ entered in the National Register.
☐ See continuation sheet.
☐ determined eligible for the National Register
☐ See continuation sheet.
☐ determined not eligible for the National Register.
☐ removed from the National Register.
☐ other, (explain:) _____

Signature of the Keeper Date of Action

Edson H. Beall 11.21.12

Newark Penn Station and Dock Bridge
(Boundary Increase and Additional Documentation)
Name of Property

City of Newark, Essex County and Town of Harrison,
Hudson County, New Jersey
City, County and State

5. Classification

Ownership of Property
(check as many boxes as apply)

- ☐ private
- ☒ public-local
- ☐ public-State
- ☐ public-Federal

Category of Property
(check only one box)

- ☒ building(s)
- ☐ district
- ☐ site
- ☒ structure
- ☐ object

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

Contributing	Noncontributing	
0	0	buildings
0	0	sites
0	0	structures
0	0	objects
0	0	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

4

6. Function or Use

Historic Function
(Enter categories from instructions)

TRANSPORTATION/rail-related
TRANSPORTATION/road-related

Current Function
(Enter categories from instructions)

TRANSPORTATION/rail-related
TRANSPORTATION/road-related

7. Description

Architectural Classification
(Enter categories from instructions)

MODERN MOVEMENT: Moderne, Art Deco

Materials
(Enter categories from instructions)

foundation STEEL, CONCRETE
walls BRICK, LIMESTONE
roof ASPHALT, GLASS, STEEL
other

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

☒See continuation sheet(s) for Section No. 7

PHYSICAL DESCRIPTION

Structure and Plan

The Newark Penn Station complex comprises a 302' by 79' station building; a 1,200' long, elevated train shed; an exterior southern plaza; and the Dock Bridge. The station building includes a street-level, two-story rectangular Main Waiting Room and intersecting interior concourses and corridors. The elevated, attached train shed passes over the eastern three-fourths of the station building and connects to the Dock Bridge immediately to the north. This train shed extends approximately 300' north and 600' south of the station building, and is elevated above the station building and street through the use of a series of five steel and masonry bridges, or viaducts. Supporting the foundation are caissons that extend approximately eighty feet below grade. To prevent the transmission of track and road vibrations to the station, the footings of the track slabs and other pathways are tectonically independent of the structure supporting the deck. For the same purpose, all column bases of the station rest on anti-vibration pads of lead, asbestos, and steel.

The overall interior configuration of Newark Penn Station, begun in 1929 and completed in 1937, was intentionally designed to provide easy access between the various modes of transportation traveling in and out of the station. This was accomplished by two main axes running through the building transversely beneath the elevated train shed: the Main Concourse to the south and the North Concourse (originally the Rapid Transit Concourse) to the north. Additionally, the Main Waiting Room, the West Corridor (originally called the North Corridor), and the East Corridor (originally called the South Corridor) longitudinally intersect with the Main and North Concourses. In 2000, an additional concourse was added that parallels Raymond Boulevard and provides interior access to the station from the street level north of Raymond Boulevard. Access to city buses and taxi service are also on the exterior, immediately adjacent to the station. Access between the concourses and corridors is provided by several stairways, ramps, escalators, and elevators. Numerous concessions, offices, utility closets, lavatories, storage areas, and other rooms are accessed from these concourses and corridors.

Exterior of the Station Building and Train Shed

The exterior of the station building is post-Classical in form, and along with the attached train shed, is embellished with a variety of Art Deco decorative themes, such as stylized rosettes, flora and fauna, reed and tie banding, eagles, five-pointed stars, Greek keys, and anthemia (palmettes). While the exterior finish material is a combination of granite, limestone, and buff brick, the overall appearance is a nearly monochromatic gray-beige, accentuated by the windows and aluminum detailing.

The principal (western) façade of the station building includes a base, body, and cap that conform to the Classical method of pedestal, column, and entablature (see Photographs #1 and #2). The base is

faced with rubbed pink granite, while the body and cap are faced with gray Indiana limestone. The cap's entablature is continuous along the exterior façade and divided symmetrically into the five parts of an *a b c b a* rhythm. The frieze along the "*a*" sections of the western façade is punctuated by Pennsylvania Railroad logos at the pilasters, while the "*c*" portion is carved with the words "Pennsylvania Railroad."

The two dominant parts, or "*b*" elements, are the two main entrances. The northern entrance was originally for the Hudson & Manhattan Railroad, and the southern for the Pennsylvania Railroad. These twin entrances are emphasized by identical high rounded arch openings of rubbed pink granite rising continuously from street level to the entablature (see Photograph #3). Both arches have semi-circular profiles, and a low-relief of curvilinear lotus flowers, a ribbon, and produce fills the corners outside of the arch. The spandrels above these arches are carved with a row of Greek keys in the architrave and stylized renderings (from north to south) of a cattle head, a head of wheat, a flower, and a ram head in the frieze. The pediments above the entablature over each of the main entrance bays are ornamented with flanking hourglasses and stylized flowers: the southern pediment has an aluminum accented clock at the center, while the northern pediment features a sun and diagonal band of astrological symbols at the center.

The marquee awnings over both main entrances are identical, with the word "Pennsylvania" and Greek key and stylized floral designs in the fascia. The lighted ceilings of the awnings are ornamented with a series of progressively inset squares, five-pointed stars, and a large radiant sun at the center (see Photograph #4). The entrances below these awnings each contain seven plate glass and aluminum doors (originally red Formica over wood cores and inlaid with aluminum kick plates and strips) [1] with a square-paned transom and an aluminum reed and tie surround (see Photograph #5).

At the northern end of the western façade is a smaller, four-door entrance topped by a semi-circular marquee awning (see Photograph #6). Designed to serve as the entrance to a restaurant, it now accesses the Greyhound Bus ticket room.

The two-story vertical columns of windows along the western façade of the station building are set in aluminum mullions and arranged in sets of three ribbons between pilasters. A single horizontal band of square aluminum medallions replaces one pane in each column of the windows at the second story level, and features a repeating design of differently stylized anthemia.

The western elevation is the main and most ornate façade, and it also contains the most dramatic alteration to Newark Penn Station's exterior appearance, with the introduction in 1972 of an elevated, enclosed walkway linking the main block of the station building to the Gateway 1 Project directly

[1] Many of the glass doors throughout the station were substituted for the original in 1974 under Title X of the Public Works and Economic Development Act, when the Station underwent a great deal of general cleaning and repair work.

across Raymond Plaza West (see Photograph #2). This elevated walkway extends through the upper part of the north entrance's two-story archway to meet an interior second floor landing. Stairs and escalators from this landing provide access to the PATH platforms above, as well as the main level and Main Waiting Room below. This interior extension of the bridge has eliminated the upper half of the original two-story lobby immediately inside the north entrance's archway.

The north and south elevations of the station building's main block are of identical size and similar composition, but have different decorative elements. Each continues the basic organization of a granite base, limestone-clad upper elements, and entablature. The north elevation contains one central window, composed of three vertical bands glazed with standard glass, topped by an unornamented architrave and a pediment with anthemia (see Photograph #2). The horizontal row of five decorative aluminum grilles, located above the window and below the entablature, masks air intake vents. The south elevation contains a central window, similar in configuration to that on the north end, but glazed with a translucent marble (see Photograph #7). Below the window is a large marquee awning over a set of four glass and aluminum doors (also originally red Formica) leading into the Main Waiting Room. The window surround is also more ornate than the one on the north elevation, decorated with a spread-winged eagle perched on a reed and tie lintel, flanked by stylized floral motifs and five-pointed stars.

The entrance on the south elevation opens up to a small plaza bounded by this end of the station building to the north, a portion of the train shed to the east, Raymond Boulevard West to the west, and Market Street to the south. Although the plaza was originally unenclosed and open to some vehicular traffic, it is currently fenced in with full-height black steel railings and concrete bollards. Inside the plaza are rows of benches along two inlaid pathways and a modern hexagonal gazebo (see Photograph #8).

The 1,200' long elevated train shed runs approximately northeast-southwest above the eastern portion of the station building. The train shed, actually a series of five steel and masonry bridges, is divided into bays of varying size, dependant on tracks carried and the location of the street and pedestrian passageways below. The bays generally range from 30' to 40' wide, except for the wider spans necessary at Raymond Boulevard and Market Street (see Photographs #9 and #10). The east and west longitudinal elevations are faced in buff brick with limestone window surrounds. The chief decorative elements of the train shed exterior are the horizontal linear motifs and the ribbon windows that line the façades (see Photograph #11). Between the window bays are square green Terra Cotta panels, inset with aluminum trim, surrounded by gray limestone frames.

The vehicular passageways of Market Street and Raymond Boulevard beneath the train shed are emphasized by segmentally curved arched openings. Similarly curved Terra Cotta panels are set above these passageways, also inset with aluminum trim, surrounded by gray limestone frames. The pedestrian passages are emphasized by pairs of pink granite columns, banded and topped by a stylized

granite eagle, flanking the entrances (see Photograph #12). A round window and a pediment, ornamented with a lion's head, five-pointed stars, and stylized flowers, also accentuate the pedestrian passages along the train shed. Along the roofline of the western façade of the train shed is a low cresting of cast aluminum anthemia.

Below the train shed at both Market Street and Raymond Boulevard are lanes and shelters for the city's bus system. The bus lane at Market Street includes one shelter, constructed in 2001, that has a buff brick veneer, ribbons of plate glass windows, and a gable roofline. The four lanes at Raymond Boulevard each have an aluminum shelter, constructed during the late 1980s, with full-length plate glass windows and sliding doors, and exterior decorative features that replicate the five-pointed stars and reed and tie framing found in the main block of the station.

Interior of the Station Building and Train Shed

In terms of the interior of the station, the Main Waiting Room features the most elaborate ornamentation and decorative details in Newark Penn Station. The subsidiary spaces, the concourses, corridors, and interiors of the train sheds, all repeat features initially found in the Main Waiting Room, but at a lesser scale.

The Main Waiting Room's immense size (175' long, 58' wide, with 46' high ceilings), two-story windows, Classical arrangement, and variety of finishes were used to create a grand impression upon entering the Main Waiting Room from either the street or concourses (see Photographs #13 and #14). The elevations of the Main Waiting Room are organized around a Classical ordering of elements that are each symmetrically arranged around a doorway. The west (main) elevation, with the full-height windows, has the most elaborate doorway. Its projecting aluminum vestibule is ornamented with seven aluminum grilles in the transom (one above each door), a medallion with the Pennsylvania Railroad logo in the gable, and flanking reed and tie pilasters crowned with axe heads (see Photograph #15). Inside the vestibule, the grilles are repeated on the walls, and are flanked by travertine panes set in aluminum and finished with a stylized floral medallion at the center (see Photograph #16).

The doorway at the south end, leading to the exterior plaza and Market Street, also has a projecting vestibule that contains four doors with corresponding grilles in the transom. The façade of this vestibule is almost entirely grillwork framed by pilasters punctuated by five-pointed stars, and has a clock at the center of the gable (see Photograph #17). The window above the doorway is glazed with thin sheets of translucent oil-treated Alabama marble.

The east doorway, leading into the Main Concourse, is enframed by a high rounded arch similar to that on the main (west) exterior elevation, and is flanked by travertine fluted pilasters and paneled spandrels (see Photograph #13). Within this arch, immediately above the passageway to the Main

Concourse, is a balcony with a grillwork railing. Although this area is now enclosed, historic photographs indicate that it was originally recessed and contained a single, central doorway.

The north doorway, originally leading to the North Concourse and now closed, is the least ornate of the four entranceways in the Main Waiting Room. It has a grillwork transom, a travertine surround with reed and tie pilasters, and a clock, centered between a pair of eagles in flight, in the gable (see Photograph #18). Some of the alterations to this elevation took place in the early 1950s, when the Waiting Room for the City Bus Terminal (which had been located in the central portion of the station's north side, currently Amtrak offices) was eliminated. As part of this project, a ramp leading to a planned second mezzanine over the original Bus Terminal (included in the original plans, but never built) was modified to make space for a concession installed in this area of the Main Waiting Room. In 1957, a section of wall was removed to make space for a Railway Express office built into the northwest corner of the Main Waiting Room, and a doorway was cut through the travertine wainscot on the north elevation to provide access to this office. Historic photographs show that a set of lockers were also once installed in this northwest corner, but had been removed by 1960. Currently, a concession and café combine to occupy the northwest and north elevations of the Main Waiting Room.

While the full height windows on the western wall of the Main Waiting Room are separated by Napoleon Gray marble pilasters, the south, east, and northern walls all have high wainscoting of travertine. Above the wainscoting of these three walls are blank limestone bordered panels, divided by pilasters, enframing a series of thirteen cast plaster medallions illustrating different historical and contemporary modes of transportation. The south, east, and north elevations contain two, eight, and three medallions respectively. Counterclockwise from the south, these are entitled "Horse," "Prairie Schooner," "Stagecoach," "Steam Locomotive," "Motor Bus," "Electric Locomotive," "Steam Ship," "Clipper Ship," "Mayflower," "Santa Maria," "Viking Ship," (untitled, depicting an airplane and crescent moon), and "The Canoe." The entablature is continuous throughout the Main Waiting Room and features Greek keys above the pilasters, which are located between the windows and medallions. Modern recessed lighting has been installed between the Greek keys on the west and east elevations. The cornice, also continuous, is decorated with a simplified egg and dart motif.

The ceiling of the Main Waiting Room is segmentally arched and finished in acoustical tile, painted a variegated blue and set in a herringbone pattern (see Photograph #19). Bands of gold leaf traverse the arched ceiling between the pilasters on the west and east walls, and are bisected by a larger, curvilinear banding between the doorways on the north and south ends. Four spherical light fixtures of white bronze and opal glass are ornamented with a pierced band depicting astrological symbols (see Photograph #20). Each globe is 5' in diameter, weighs approximately 800 pounds, and is suspended from the ceiling by a chain and steel cable that could be lowered for maintenance. The globes also contained three groups of lamps, which allowed them to be set to three different intensities of light. Two of the fixtures, which had been removed in 1957 when changes were made to the north end of the

room, have since been reinstalled. The recessed lighting located between the banding of the ceiling is modern.

A total of eight openings are set into the eastern wall of the Main Waiting Room on either side of the entrance to the Main Concourse. Three of those to the north of the entrance are currently used for Amtrak ticket sales (two staffed windows, one enclosed and fronted with ticket machines), the fourth (northernmost) is closed and blocked by the café (see Photograph #21). These four windows were originally planned as the Main Waiting Room's PRR ticket windows, but the southernmost window was actually used by a newsstand soon after the station opened. The four windows located to the south of the Main Concourse entrance are currently in use by NJ TRANSIT (three staffed windows, one enclosed and fronted with ticket machines, see Photograph #22). Architectural plans and historic photographs show that two of these windows were originally open desk counters providing telegraph and florist services, while the southernmost two openings provided entrances to banks of public telephones and a travelers' aid lounge. In 1963, a bank concession was installed in this area and altered the original configuration of this section of the wall, but the symmetrical placement has since been restored with the set of four openings occupied by NJ TRANSIT.

The kiosk at the center of the Main Waiting Room (see Photograph #23) does not appear in the original plans or in early photographs of the station interior. However, based on photographs at the Newark Public Library, the octagonal marble counter of the kiosk was added sometime prior to 1960. These photographs, and those included in the original 1978 National Register Nomination for Newark Penn Station, show that the kiosk remained an open counter until at least 1978, but that by 1985 the top had been enclosed. Currently the kiosk is enclosed by eight sheet glass panels and topped with a translucent, laminated art glass canopy (similar to a tortoise-shell pattern), supported by eight aluminum finish, extruded columns similar to the reed and tie banding found throughout the station. Aluminum grillwork, also similar to that originally used in the station, covers the fascia. These recent alterations to the kiosk were designed by the architectural firm of Beyer, Blinder, Belle in the 1990s and were completed by 1997.

The floor throughout the Main Waiting Room is a rose colored terrazzo, inlaid with black and yellow curvilinear and stylized floral designs outlined in brass (see Photograph #24), with a red marble base at the walls. All but one of the original double-sided benches, or settees, remain in the waiting room (the four located in the northwestern section were removed over time to allow a series of concessions to be installed). These benches are constructed of walnut and inlaid with aluminum floral designs, numbers, and in some cases, the Pennsylvania Railroad logo (see Photograph #25). The benches are set in a base of red marble, and heating vents are located beneath them at foot level. A row of the same type of bench seating is also installed under the windows along the wall of the western elevation, but those seats located north of the main entrance, as well as the three remaining free-standing benches in the northwest quadrant of the Main Waiting Room, have been incorporated into a café.

The remaining interior spaces are increasingly less ornate in correspondence with their functional importance, and repeat the same decorative elements found in the Main Waiting Room on a smaller scale.

The primary entrance to the Main Concourse (see Photograph #26) is from the Main Waiting Room. The ceiling is insulated to minimize noise from above, the floors are a rose colored terrazzo, and the walls are finished with aluminum framing and pilasters of Napoleon Gray marble, topped by an entablature of decorative aluminum or aluminum and stucco. Overhead lighting is provided by dome fixtures set in recessed rectangular sections that cross the 10' high ceiling above the platform entrances (see Photograph #27). Recessed concessions and doorways accessing the elevated platforms flank the north and south sides of the 45' wide hall, which opens on the east to Raymond Plaza East. An exit to the city buses is located on the south side of this concourse, while entrances to the West and East Corridors, both of which also intersect with the North Concourse, extend from the north side. A barber shop originally located on the north side of the Main Concourse was eliminated in the late 1950s, and replaced by approximately five concessions, resulting in the reconfiguration of the walls with new storefronts along the West Corridor and Main Concourse. The mens' and womens' lavatories located on the north side of the Main Concourse were rehabilitated in 1974 as part of Title X of the Public Works and Economic Development Act.

The West Corridor leads from the Main Concourse to the North Concourse, passing a set of convex former Pennsylvania Railroad ticket windows, set in the eastern wall, finished with cast aluminum, now closed (see Photograph #28). As originally planned, these ticket windows backed onto the Pennsylvania Railroad ticket windows in the east wall of the Main Waiting Room. The East Corridor, opened when the station was completed in 1937, is lined with concessions (see Photograph #29) and also leads from the Main Concourse to the North Concourse.

The North Concourse (see Photograph #30) is accessed from the exterior by the north entranceway on the main façade (see Photograph #31 and #32) and via stairs and escalators down from the Gateway entrance at the upper level (see Photograph #33 and #34). The concourse terminates on the eastern end at the original concave, marble and aluminum Hudson and Manhattan (H&M) rapid transit ticket windows (see Photograph #35). Although the windows are still in place, they were closed prior to the 1962 acquisition of the H&M by the Port Authority Trans-Hudson Corporation (PATH), which instead operates an automatic fare collection system on the platform. In 1957, the original Dining Room (located off the North Concourse in the station's northwest corner) was replaced by the Greyhound Bus facility, with its buses loading on Raymond Plaza West. A restaurant was constructed at the intersection of the North Concourse and West Corridor, slightly east of the original Dining Room. The construction of this new restaurant, currently a fast food restaurant, resulted in the elimination of the original entrance hallway to the City Bus Terminal. In 1972, access to and from the City Bus Terminal was further modified with the closing of several staircases connecting to the platforms above and the ramp between the bus mezzanine and the North Concourse as a crime prevention measure.

The newest section of the station, the Raymond Boulevard Concourse (see Photograph #36) opened in 2000, is located beyond the bus lanes north of the station building and immediately adjacent to the Dock Bridge. It has entrances to both the upper level platforms and street level exits to Raymond Plaza East and City Dock Street, but there is no direct access to the station building.

Platforms

The station's platforms are contained within the 1200' long elevated train shed, immediately east of the main block of the station building. Some platforms, no longer in use, extend south from the train shed towards the former Central Railroad of New Jersey (CNJ) bridge; one is open and the others are buff brick and covered by a shallow canopy. Primary access to the platforms is through escalators and stairs up from the Main Concourse, but there are also several auxiliary access points between the platforms and stations areas.

While primarily utilitarian, the public spaces within the train shed contain some architectural and decorative elements, most notably the ceiling's two longitudinal skylights (see Photographs #37 and #38) and the aluminum waiting rooms, or shelters, on the platforms (see Photographs #39 and #40). Since Newark Penn Station has the unusual feature of tracks crossing above the station building, a roofless platform area could have potentially led to water damage in the station building below, so the platforms needed to be almost entirely enclosed. In addition, since the line had been electrified, there was also no longer a need to provide smoke ventilation, except for the few steam locomotives that the PRR operated through the 1950s, and the diesel trains still operated by NJ TRANSIT. While protecting the platforms and station building, the skylights provide a great deal of light to the platforms and create a sense of openness within an enclosed space. The original National Register Nomination for the station describes the skylight structure in more detail:

> The skylights' bell form steel bents are flared at the bottom for a smooth transition into concrete rood slabs. The bents consist of paired columns joining the bell shaped to chord at mid-height and horizontally intersecting the bottom chord. The top chord flares at the base to meet the slightly arching bottom chord and continues into the plane of the relatively flat roof. All bent members are connected longitudinally by a steel purlin atop each column and curving braces. Between the flared bottom and curved peak of each bent, the top chord is straight to form a flat plane for the glass opening between the adjoining concrete roof slabs. The framing of these skylights is similar to those designed by Graham, Anderson, Probst and White for Chicago's Union Station, and also the suburban platforms at Philadelphia 30th Street Station. The wave form of the corrugated wire glass in the skylight and rafterless connections between panes create a continuous unbroken undulating surface which both repeats the larger curves of the framing bents

and reflects the linear character of the tracks and trains served, while also reiterating the architectural curves found throughout the building.[2]

The prominent bell shape of the two skylights (see Photograph #38), shown under construction in historic photographs of the station, is a key visual element of the platform interiors.

The one-story platform waiting rooms, or shelters (see Photographs #39 and #40), are clad with cast ornamental aluminum and have metal framed windows, steel doors painted red, tiled walls, and buff colored terrazzo floors. The shelters are various sizes, the largest being 150' long by 13' wide. The interiors are heated and furnished with benches lining the exterior walls. Most of the ornamental aluminum framing and panels, originally used to provide a bright, clean appearance, date from the original construction, but some were replaced in 2001, and all were professionally cleaned to remove extensive tarnish in 2004.

The walls within the train shed are primarily buff brick with limestone trim. Round windows, framed with limestone, are placed intermittently between rows of horizontal ribbon windows, also framed with limestone. The floors of the platforms are constructed of reinforced concrete.

Platform H is located on an upper level, near the center of the train shed. It receives only one track, and does not have any shelters (see Photograph #41).

Dock Bridge, Dock Tower, and Track Layout

Dock Bridge, constructed in conjunction with the two phases of the Pennsylvania Railroad's improvements at Newark in the 1930s, is actually two separate but nearly identical side-by-side vertical lift bridges carrying a total of six tracks across the Passaic River into the station (see Photograph #42). The vertical lift crossings, carrying six tracks, replaced the "cumbersome old swing bridge" carrying only two tracks.[3]

The first of the two bridges to be constructed was the northeastern bridge (see Photograph #43), completed in 1935 for the opening of the new station building at Newark. This bridge consists of 96' long western and 68' long eastern deck girder approaches, a 230' long through Warren truss lift span carrying three tracks (see Photograph #44), and two 67' wide, 212' high vertical towers. With a combined length of 528' feet, the bridge was at the time of its construction the longest three-track

[2] Diana Cave, "Pennsylvania Station, City of Newark, Essex County, New Jersey," 1978, National Register Nomination, copy on file at the New Jersey Historic Preservation Office, Trenton, New Jersey.
[3] "Pennsy Span Among World's Largest," *Newark Star Eagle* (March 23, 1935), n.p.

railway lift span, exceeded in length by only three vertical lift highways bridges, two in upstate New York and one in England.[4]

Approximately 5000 tons of steel were used to build the superstructure, which was designed by Waddell and Hardesty and erected by the Bethlehem Steel Corporation. The abutments and piers, constructed by J. Rich Steers, Inc., are concrete with stone facings, with timber fenders lining the piers on each side.[5] According to a report of the bridge's foundation during the beginning of its construction:

> The bridge towers are carried on four main piers, the easterly one of which is on piles. The three others were sunk by means of pneumatic caissons, the deepest one reaching a bearing of 92' below mean water level, an operation which kept a force of 'groundhogs' busy for several months. The steel frames for the caissons were fabricated in Kearny and towed to the bridge site, then sunk by adding concrete on top as the mud was removed from underneath by 'sandhogs' working under maximum air pressure of forty-two pounds a square inch. When the bottom was reached, the 'toes' were extended at forty-five degrees downward for six more feet at each side of the caisson. [6]

The 2,100-ton weight of the movable span is supported by 64 wire ropes fed around eight sheave wheels (15' in diameter), located atop the steel towers at either end of the lift span, and down to the concrete counterweights in each tower. According to a commemorative booklet issued at the 1935 opening of the Newark Penn Station, the lift span's tracks are supported by "an unprecedented method of hanging continuous floor beams from overhead cross trusses, 54 feet long, at each panel point. The transverse cross trusses, which carry the weight of trains and steel into the main trusses, are 21 feet above the rail and the catenary wire is 18 feet above the rail." The span's moving machinery is located at the center of the top chord of the trusses. When in the lowered position, the lift span provides 24' of clearance, but a total of 135' when raised to full height. As initially constructed, the bridge could be raised to full height in 85 seconds, or 2' per second. An unstaffed machinery house is located at the top of the span.

The second bridge, also designed by Waddell and Hardesty, was completed in 1937 (see Photograph #45) and is paired to the east side of the first bridge. This bridge consists of two independently operating lift spans, one originally built to carry two rapid transit (H&M) tracks and the other to carry one additional PRR track. Unstaffed machinery houses are located on the top of each span. The abutments and piers were constructed by J. Rich Steers, Inc., as were those of the first bridge, but the

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[4] *Commemorating the Opening of Pennsylvania Station, Newark, New Jersey, March 23, 1935* (Newark, New Jersey: 1935), n.p.
[5] "Pennsylvania Completes Station at Newark, N.J.," *Railway Age* 102, no. 26 (June 26, 1937), 1050.
[6] "New Lift Span Here Longest for 3 Tracks," *Newark Sunday Call* (March 19, 1935), n.p.

Mount Vernon Bridge Company was responsible for the superstructure, with steel again supplied by the Bethlehem Steel Corporation.[7] While similar in size, appearance, and construction method, this bridge is very different from the first in terms of its track arrangement, particularly in the high level track (see Photograph #45). When both bridges were completed, the complex track plan laid out as part of the improvements was implemented:

> ...the new track layout is designed to carry both the Pennsylvania and rapid transit tracks directly through the new passenger station... as it approaches the Passaic River from the east it includes six tracks... Immediately east of the river, the westbound rapid transit track rises on a structural steel, concrete-deck viaduct and swings southerly over three more northerly Pennsylvania tracks. At about the same point east of the river, the eastbound rapid transit track rises on a structural steel viaduct and swings to the north over the adjacent Pennsylvania track, so that directly east of the river the track arrangement, from north to south, includes a group of three Pennsylvania tracks, then two rapid transit tracks, then a single Pennsylvania track.
>
> Immediately west of the river, the six-track crossing of the river expands to a layout of eight tracks and continues as such through the station area.[8]

The two rapid transit tracks that cross over the PRR tracks during their approach enter the station at different levels; the westbound trains arrive at the higher level platform, Platform H (see Photograph #47), while the eastbound trains arrive on the same level as the PRR. This complex track arrangement in and out of the new station necessitated updated signal and interlocking machines. To house this machinery, as well as the power generators for the new bridges, a new operator and machinery house, known as the Dock Tower, was constructed approximately 1500' east of the station along the bridge approaches (see Photographs #48 and #49). Completed as part of the first phase of improvements, this hipped roof building is a:

> three-story brick structure with a basement being 123ft, 8in long by 25 ft. wide, and the second and third floors being 71ft., 4in. long by 25ft. wide. The basement houses principally electrical cubicles, busses, circuit breakers, and other such equipment, and also provides space for air compressors and for small workshops for the track and signal forces. The ground level is the power generating floor, essentially for bridge operation and station lighting; the second floor is occupied essentially by signal relays and associated equipment, while the third floor houses the interlocking machine and bridge control desk.[9]

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[7] "Pennsylvania Completes Station at Newark, N.J.," June 26, 1937, 1050.
[8] Ibid., 1049.
[9] "Pennsylvania Opens New Passenger Station at Newark, N.J.," *Railway Age* 98, no. 13 (March 30, 1935), 491.

The dock tower is similar in overall appearance to another control tower, also constructed by the PRR, in Philadelphia a few years previously, with a hipped roof, brick façade, and projecting second story bay of windows.[10] Few changes to the Dock Tower have been documented, but it is known that as part of an overall renovation project in the 1970s, steam heating was installed.

The interlocking machine, as housed in the third floor of the Dock Tower, is a complex piece of equipment that physically manages the signals and track connections. The model installed in the Dock Tower in time for the 1935 opening of the first bridge was a 155-lever machine, along a variety of other signal and switch machines. In 1937, the fully operational interlocking machine was described as "of the electro-pneumatic type" with "70 working levers. Of these, 33 levers govern 93 signals; 27 govern 44 switches; 3 govern 6 bridge and 24 rail locks; 3 govern 9 smash boards; and four govern traffic direction."[11] In addition, the operators utilized a "model board," which provides visual indication of tracks at all times.[12]

Within the bridges themselves are the main drive motors (260-horsepower DC series wound electric motors), each with electro-hydraulic trustor brakes. The motors are geared through common spur reduction gears on shafts, which transmit power to the cable drums. Power for the motors is supplied via an underground tunnel of cables carrying single-phase and 3-phase 4150-volt AC from the Dock Tower to the bridge. In case of emergency or power failure, a 150 horsepower gasoline engine is located the machinery house of each span. The machinery and electrical systems for Dock Bridge were installed by Earle Gear and Machine Company and Gibbs and Hill, respectively.[13]

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[10] Edwin P. Alexander, *The Pennsylvania Railroad, A Pictorial History* (New York: W.W. Norton and Company, Inc., 1947), n.p., plate 88.
[11] "Pennsylvania Completes Station at Newark, N.J.," June 26, 1937, 1050.
[12] Ibid.
[13] Janice Artemel, "Dock Bridge," October 24, 1977, National Register Nomination, copy at the New Jersey Historic Preservation Office, Trenton, New Jersey.

Newark Penn Station and Dock Bridge
(Boundary Increase and Additional Documentation)
Name of Property

City of Newark, Essex County and Town of Harrison,
Hudson County, New Jersey
City, County and State

8. Description

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.

☒ **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)

ARCHITECTURE

TRANSPORTATION

Period of Significance

1929-1937

Significant Dates

1929, 1935, 1937

Significant Persons

(Complete if Criterion B is marked above)

Cultural Affiliation

N/A

Architect/Builder

McKim, Mead and White (architect), George A. Fuller Company (builder)

Waddell & Hardesty (engineer) Bethlehem Steel Corporation and Mount Vernon Bridge Company (builders)

Narrative Statement of Significance

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

☒ See continuation sheet(s) for Section No. 8

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
☐ Other Name of repository:

Hagley Soda House Archives, DE. Newark Public Library, NJ.

☒ See continuation sheet(s) for Section No. 9

STATEMENT OF SIGNIFICANCE

Newark Penn Station & Dock Bridge, constructed as part of the Pennsylvania Railroad's and City of Newark's "Newark Improvements," are significant under National Register Criterion A as an innovative, multi-modal transportation facility associated with the early twentieth century modernization of the Pennsylvania Railroad's main line between New York City and Washington, DC. Under Criterion C, the station is significant for its post-Classical form and Art Deco ornamentation, intentionally designed by the prominent architectural firm of McKim, Mead & White to reflect the Pennsylvania Railroad's modernization efforts. In addition to being a crucial element of the Newark Improvements, the Dock Bridge, in actuality a pair of side-by-side independent bridge structures, is also significant for its western span, which was the world's largest three track railroad lift bridge ever constructed.

The Newark Improvements, a phased effort by the Pennsylvania Railroad and City of Newark, was initiated during the early 1920s and was brought to completion in 1937. The purpose of the improvements within the city was to replace the existing station, deemed inadequate in terms of both facilities and capacity, with a "union" station capable of handling not only the Pennsylvania Railroad's train lines through the city, but also allow passengers to easily connect with all other modes of travel in and out of the city: rapid transit, bus, taxi, and automobile. On a larger scale, the Newark Improvements were also a major component of the Pennsylvania Railroad's overall electrification of the line from Washington to New York, a "modernization" intended to increase both speed and efficiency, while reducing pollution from coal-burning steam locomotives. Although the cost to the Pennsylvania Railroad and City of Newark was high, the result was an efficient rail line which "in its heyday, saw the daily passage of over 150 freight, 250 passenger, and 450 commuter trains."[1]

Beginnings of Rail Transportation in Newark

Newark's nineteenth and twentieth development was heavily based on the strength of its transportation systems. Railroads, the Passaic River, the Morris Canal, and nearby ports all provided Newark's industries with raw materials and access to markets.

The Morris Canal was completed to Phillipsburg in 1831 and began bringing coal from Pennsylvania and iron from Morris County into Newark.[2] With this increased accessibility to the city came a "dispersion of industry," increased population, and a surge of urbanization.[3]

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[1] Mike Nesladek, "Overhead Catenary of the PRR," *The Keystone* 29, no. 4 (Winter, 1996), 40.
[2] John T. Cunningham, *Newark* (Newark, New Jersey: The New Jersey Historical Society, 1988), 101.
[3] James O. Drummond, *Transportation and the Shaping of the Physical Environment in an Urban Place: Newark 1820-1900* (New York University: Ph.D. Dissertation, 1979), 36-37.

The addition of railroads further encouraged this development. The New Jersey Railroad and Transportation Company was chartered in 1832, and built a station in 1834 near the location of the current Newark Penn Station.[4] By 1835, the railroad was carrying approximately 100,000 passengers annually on trains out of Newark to Jersey City and New Brunswick. The Morris and Essex Railroad, chartered in 1835, began operation from Newark to Morristown in 1838.[5]

The New Jersey Railroad and Transportation Company and the Camden and Amboy Railroad, which had both begun operations in the 1830s, competed with each other throughout the mid-nineteenth century over control of territory in New Jersey. Finally, in 1867, the two lines merged to create the United New Jersey Railways and Canal Company. While these two lines were growing and merging, the Pennsylvania Railroad (PRR) was also expanding and looking to create a more direct route from Philadelphia to New York City. It began negotiations with United New Jersey Railways and Canal Company to lease the new line, and in 1871, the line became known as the New York Division of the Pennsylvania Railroad Company.[6] A direct route between the two cities was achieved, creating the present-day line that runs between Philadelphia and New York through Trenton, New Brunswick, and Newark.

As Newark's population increased dramatically during the late nineteenth century, the availability of labor and access to transportation routes attracted increasingly more industries. In the 1880s and 1890s, Newark supported at least 225 individual industries.[7] In 1889, construction of a new Market Street station was begun, to be located just south of Market Street, also near the current Newark Penn Station.

> The main brick station, built on the west side of the track, was a brick building ninety-two feet long and seventy-four feet wide, ornamented with brownstone and terra cotta trimmings, and contained waiting and retiring rooms and a ticket office. A brick waiting room, twenty-one feet wide by 164 feet long, was built on the opposite side of the track for the accommodation of eastbound passengers, two passageways being constructed beneath the tracks to enable passengers to pass safely between the two buildings. Two shelters, each 383 feet in length, were also erected for the use of the passengers.[8]

The station opened in 1891, and elevation of the tracks around the station was complete by 1903.[9]

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[4] "Saga of Railroading is Recalled Here," *Newark Star Eagle* (March 23, 1935), n.p.
[5] Robert E. Meadows, *Cultural Resources Survey of Downtown Newark, New Jersey, 1985*, prepared for Renaissance Newark (New York: Robert E. Meadows, P.C. Architect, 1985), 22-23.
[6] Heritage Studies, Inc., *The Operating Railroad Stations of New Jersey: An Historical Survey*, prepared for NJ TRANSIT (Princeton, New Jersey: Heritage Studies, Inc., 1981), 23-24.
[7] Meadows 1985, 24 and 27.
[8] "Saga of Railroading is Recalled Here," March 23, 1935, n.p.
[9] Ibid.

During the next three decades, the number of industries located in Newark more than quadrupled,[10] while the city's population rose to nearly one-half million, making it the eighteenth largest city in the United States.[11] The increase in industries and population, as well as the rapid development of suburban communities outside of the city, led to more and more demand for improved capacity in the rail lines, and other modes of transportation, in and out of the city. Although the second Market Street station had been improved and expanded over time,[12] it was proving to be inadequate and the demand for better facilities reached a peak in the early twentieth century.

Electrification of the Pennsylvania Railroad's Northeast Corridor Line

From 1903 to 1935, the PRR pursued electrification of several of its lines, including the main line between Washington, DC, and New York City. The impetus for electrification came from the need for reduction of congestion at the railroad terminals as well as for faster and more efficient service, and from the awareness of the polluting effects of coal-burning steam locomotives.

A couple of years prior to initiating the electrification project, the PRR had decided to build a new station in mid-town Manhattan to allow its trains direct access into the city. This project required construction of a total of six river tunnels, but as steam engines could cause asphyxiation in a lengthy tunnel, the railroad needed to use an alternative power source. The steam locomotive had already been under attack for causing pollution problems in upper Manhattan, along the New York Central Railroad main line, leading to a ban on the use of steam within the city in 1908.[13]

The incentive for an electrified system also came from the increased efficiency afforded by electric locomotives. An electric locomotive could produce more power than a steam locomotive of comparable weight, and is more efficient in starting heavier trains at higher speeds.[14] Electricity had already been used to power streetcars and trains on inter urban lines, but not for the heavier trains traveling over longer distances. Following the example of the Baltimore and Ohio Railroad's use of an overhead third rail for its Howard Street tunnel project in Baltimore, the Pennsylvania Railroad decided to electrify its New York City lines in 1903. In 1910, an outside third rail was installed from Sunnyside Yard in Long Island City to the Manhattan Transfer,[15] a pair of 28-foot by 1,100-foot high-level platforms connected with an underpass located just east of Newark in Harrison, where every

[10] Bureau of Labor Statistics of New Jersey, *Industrial Directory of New Jersey* (1940-41), 414.
[11] George H. Burgess and Miles C. Kennedy, *Centennial History of the Pennsylvania Railroad Company, 1846-1946* (Philadelphia: The Pennsylvania Railroad Company, 1949), 619.
[12] "Saga of Railroading is Recalled Here," March 23, 1935, n.p.
[13] Nesladek 1996, 16.
[14] Ibid., 19.
[15] "A Great Railway Electrification Project," *Railway Age* (February 25, 1933), 265.

train's head-end power would be switched from steam to electric eastbound and from electric to steam westbound.[16]

As the suburbs around Philadelphia grew, congestion and pollution problems developed at its Broad Street Station, which handled more than 500 trains a day in 1913. The PRR believed that electrification would ameliorate the congestion, pollution, and maintenance costs resulting from use of steam locomotives here, and chose the Westinghouse Company, which had already assisted with other electrification projects, for the work at Broad Street as well as the electrification of the entire main line. Begun in 1914, the erection of catenary between Philadelphia and Paoli, Pennsylvania, was completed in September of 1915 and service began. "Civic leaders, local residents and the traveling public praised the Pennsylvania Railroad for the cleanliness of its new service."[17]

The study for electrification of the main line from Washington to New York was completed in 1925, and catenaries were extended from Philadelphia to Wilmington, Delaware, in 1928 and through to Trenton, New Jersey, two years later. With the increased competition from automobile traffic during the 1920s, the improved efficiencies from electrification were even more important.[18]

With regards to the work in and around Newark, serious discussion had begun about the need for a new "union" station in the early 1920s. Now that the electrification of the line through New Jersey was proceeding, the effort became a reality in 1929 when the City and PRR struck a deal for the long awaited "Newark Improvements."

While work was underway at Newark, the electrification of the entire line progressed and the PRR received federal loans during the Depression that enabled the company to continue the project. With the idea that this electrification project would provide much needed employment, the Reconstruction Finance Corporation lent $27.5 million and the Public Works Administration lent $80 million.[19] The gap between New Brunswick and Trenton closed in 1932 and the Pennsylvania Railroad inaugurated through service from Philadelphia to New York City on January 16, 1933. That year, *Railway Age* reported that "fast suburban services are established in the vicinity of both cities, clean smooth-operating through trains are performing satisfactorily and in all probability schedules will be shortened."[20]

The electrification project continued to progress, employing approximately 25,000 in 1934. On January 28, 1935, the first locomotive hauled a passenger train along the entire line from Washington

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[16] Brian J. Cuhady, *Rails Under the Mighty Hudson: The Story of the Hudson Tubes, the Pennsy Tunnels, and Manhattan Transfer* (New York: Fordham University Press, 2002): 41-49.
[17] Nesladek 1996, 19.
[18] Burgess & Kennedy 1949, 599-600.
[19] Nesladek 1996, 20.
[20] "A Great Railway Electrification Project," February 25, 1933, 265.

to New York with electric propulsion, and by May the freight electrification was also complete, with an all-electric route of 240 miles (1,343 track miles) of overhead catenary.[21]

At the same time the electrification was completed, the new station facilities at Newark were also opened. The commemorative booklet issued for the March 23, 1935 official opening of the station discusses the electrification of the line:

> Inauguration of service at the new station at this time is particularly impressive by reason of being linked with the establishment of through passenger train electrification between New York, Newark, Philadelphia, Baltimore and Washington, with materially faster schedules planned for the near future and electrification of the freight service soon to follow. This gives New Jersey's metropolitan city a place of great prominence on the largest railroad electrification project in transportation history.[22]

With the line's electrification complete, the PRR saw travel times decrease. In April 1936, the time required to travel the main line between New York City and Washington was three hours and thirty-five minutes, 40 minutes faster than any previous time. But the project had been expensive, with the entire electrification project between New York and Washington costing approximately $87,000,000 for "fixed property, such as the distribution system" and an additional $39,000,000 for electric motive power. But with the electrification of a total of 1,405 miles of track, the project exceeded "in magnitude and importance that of any other railroad in miles of track electrified, in volume and density of traffic handled, in number of trains affected, and terminal operations involved." [23]

The importance of this investment in electrification is reflected in the PRR's 1934 and 1935 annual reports to their stockholders:

> The work on this extensive electrification and equipment building program, which is the largest private construction project in the country and the most extensive single program of improvement undertaken in many years, is in harmony with the National Recovery Program, and is of direct widespread benefit in increasing the production of capital goods and in reducing unemployment. The entire program will involve approximately 45,000,000 man-hours of employment on the railroad and in the supply industries and the expenditure of many millions of dollars for the products of American industries.[24]
>
> The electrified line between New York, Philadelphia, Baltimore and Washington... constituted the largest single project of its kind ever undertaken, and was of direct and

[21] Nesladek 1996, 21.
[22] *Commemorating the Opening of Pennsylvania Station* 1935, n.p.
[23] Burgess & Kennedy 1949, 615 and 651.
[24] *The Pennsylvania Railroad Company Eighty-eighth Annual Report of the Board of Directors to the Stockholders for the Year 1934*, April 9, 1935, n.p.

widespread benefit in increasing production and creating employment throughout the country.[25]

The new electrified lines accommodated the increased traffic and provided efficient transportation during World War II, when the eastern seaboard served as the staging area for troops and supplies in transit to Europe. Freight traffic increased forty percent over pre-Depression levels, and both civilian and military passenger service increased. "In full operation for less than a decade, the Pennsylvania's electrification had proven itself to be of inestimable value not only to the railroad but to the nation."[26]

After World War II, diesel locomotives proved to be more efficient than those trains powered by electricity, and electrification of additional lines gradually stopped. While electrification required an extensive commitment of money, labor, and time to build the catenaries, diesel provided the same advantages with regards to power and efficiency, but at a lesser cost. In addition, diesel locomotives could be placed in service immediately and the diesel system could be phased in gradually as funding became available.[27]

By 1996, only half of the original lines electrified by the PRR were still in use. The portion of the rails that is still electrified is owned and operated by AMTRAK or used by SEPTA and NJ TRANSIT commuter trains.[28] Although all electric service eventually declined, the PRR's electrification project was one of the largest transportation projects undertaken in the first half of the twentieth century.

The Newark Improvements

While only a part of the electrification project of the PRR's main line, the Newark Improvements were critical in that they completed the heavily traveled link between New York and Philadelphia. And, as much as the prospective electrification helped the PRR push the construction of Newark Penn Station forward, so did the desire for more adequate station facilities. Even with an expansion of the second Market Street station, there were only three main PRR tracks, an "antiquated station," and two platforms.[29]

The City of Newark was also growing increasingly insistent that the number of tracks and facilities at Newark was insufficient.[30] Newark's Chamber of Commerce had called for a new

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[25] *The Pennsylvania Railroad Company Eighty-ninth Annual Report of the Board of Directors to the Stockholders for the Year 1935*, February 10, 1936, n.p.
[26] Michael Bezilla, *Electric Traction on the Pennsylvania Railroad, 1895-1968* (University Park, Pennsylvania: The Pennsylvania State University Press, 1980), 164-165.
[27] Nesladek 1996, 22.
[28] Ibid., 40.
[29] Records of the Pennsylvania Railroad Company (Accession 1810, Box 337, Folder 11, "1935-1936").
[30] Ibid.

station as early as 1916,[31] and at around the same time noted architect Kenneth Murchison began looking into preliminary ideas for a new station.[32] According to PRR records, the combination of the "prospective electrification" and the "desire of the City Administration of Newark to coordinate local rapid-transit and bus transportation with the greatest volume of traffic moving between Newark and New York" led to the decision to pursue the building of a "joint station" for the PRR and the Hudson and Manhattan Railroad (H&M).[33] The H&M had begun operation in 1908, providing service to New York City through two sets of railroad tunnels under the Hudson River. Previously there had been no other rail connections to lower Manhattan, and passengers headed to that part of the city would have to disembark at various railroad terminals in Hoboken and Jersey City and then take ferries across the river. As the H&M proved much more reliable than the ferries, demand for the service rapidly increased.

As early as 1924, *The New York Times* reported that plans were being filed with the City for a new station at Newark. Headlined "Station is Proposed for Rail, Tubes and Trolley, to Face onto Market Street," the report stated that the project would also include two new "drawbridges" over the Passaic, and that the "union" station would relieve the severe "bottleneck" of lines into Newark at a projected cost of $15 million dollars.[34] As electrification of the line had not yet been completed, the plan at that time called for the new station to be the location at which steam trains would be switched for electric powered locomotives, therefore uniting the functions of the existing Market Street Station, the Park Place station of the H&M, and the Manhattan Transfer.[35]

However, these initial plans did not proceed quickly. Internal correspondence of the PRR during 1926 discusses how the "Comprehensive Plan of 1924" to make a "union" station and track improvements at Newark clearly needed to be implemented. The goals of the project, outlined by the PRR in 1924 and restated in 1926, were similar to what would be the final result years later: consolidation of modes of transportation and increased trackage across the Passaic.[36]

In 1927, plans for the improvements began to proceed more steadily between the PRR and the City. In anticipation of an agreement, the PRR applied that same year to the War Department through the US Army District Engineer for three new Passaic River crossings, the two that would eventually be built at the station as well as for one farther to the north for a freight line.[37] At the time, almost 60 industries were located up river from the proposed bridges, and a meeting was called by the PRR for those who

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[31] "Dedication of New P.R.R. Station Fulfills Dream," *Newark Star Eagle* (March 23, 1935), n.p.
[32] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 20, June 1, 1928 letter from Murchison).
[33] Burgess & Kennedy 1949, 619.
[34] "Plan New Terminal for Newark Lines," *The New York Times* (October 9, 1924), 24.
[35] "Big Transportation Centre is Projected for Newark," *The New York Times* (November 30, 1924), X8.
[36] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 15, May 6, 1926 internal correspondence).
[37] David W. Messer and Charles Roberts, "Triumph V, Philadelphia to New York, 1830 – 2002" (n.d.), 174.

might be affected by a potential change in the navigability of the river.[38] The approval to proceed with plans for the river crossings was approved May 14, 1928 by the Acting Secretary of War.[39]

As more solid plans were forming, the PRR's negotiations began in earnest for the City of Newark to bear a significant portion of the costs of the improvements. The PRR fortified its arguments with examples of past cost sharing projects with cities, such as Baltimore, and by emphasizing the benefits the City would reap from the heavy volume of passengers, who may be induced to shop in Newark, passing through a "union" station each day.[40]

Also in preparation for a deal with the City, the PRR had begun more serious discussions with architects about plans for the station building itself. While Kenneth Murchison had been involved at some level early on, by 1928 the PRR had contacted the architectural firm of McKim, Mead and White to prepare "some preliminary studies." According to his May, 1928 letter to E.B. Temple (the PRR's Chief Engineer for the New York Division), Murchison was disappointed to hear of McKim, Mead and White's involvement, and had long hoped for the new station to "become a reality." In addition, Murchison stated that he hoped to "regain pleasant relations with Pennsylvania officials" and asked if there were any other upcoming station projects that might need an architect.[41] Temple replied that the McKim, Mead and White work was only preliminary, and there would not be any final decisions about the Newark station "any time soon."[42] In addition, Temple stated that although he often admired the Baltimore station, which Murchison had designed for the PRR, there were no new projects for which the PRR could use his services. In July, 1928, only one month later, McKim, Mead and White submitted preliminary architectural plans for the station, a "semicircular affair with a tower atop."[43] PRR records of the project include an artist's rendering of this initial design, which also included an elevated, enclosed train shed.

Discussions about the financial aspects and the City's involvement with the project continued, and after additional negotiations, called "harmonious" by the PRR,[44]

> An agreement between the Railroad Company and the City was finally consummated as of January 9, 1929, which provides that an adequate station, tracks, and platform be constructed, and that the H.&M. service be brought into the Market Street Station… so that the transfer of passengers between P.R.R. trains and H.&M. trains to

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[38] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 15, Notice from Victor Gelineau, Director of the State of New Jersey Board of Commerce and Navigation and December 24, 1927 "Industries on the Passaic River North of P.R.R. Bridge at Market Street, Newark, NJ").
[39] Messer and Roberts n.d., 174.
[40] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 20, 1928 internal memorandum from E.B. Temple).
[41] Idem (Accession 1807/1810, Box 1526, Folder 20, May 19, 1928 letter from Murchison).
[42] Idem (Accession 1807/1810, Box 1526, Folder 20, June 1, 1928 letter from E.B. Temple).
[43] "New P.R.R. Station Plans O.K.'d by City Commission," *Newark Star Eagle* (May 13, 1931), n.p.
[44] *Commemorating the Opening of Pennsylvania Station* 1935, n.p.

and from Downtown, New York, could be made at Market Street instead of Manhattan Transfer.[45]

The PRR estimated that the entire project would cost $25,106,100, and the Board made an initial authorization of $877,000.[46]

In addition to servicing the PRR and H&M lines, the station would also service a new subway system in Newark. The Public Service Company of the City of Newark had recently acquired the right-of-way of the abandoned Morris Canal with the intention of building a local subway in the canal bed. As the canal bed intersected with the PRR just north of the proposed site of the transportation complex, connections to the subway system could also be worked into the plans, as could a large bus terminal and room for taxi stands. The city also agreed to devote land and resources to several new vehicular arteries planned to pass in the immediate vicinity of the new station.[47] The construction of the large, new station facilities and new roadways, and the incorporation of the other access modes would all combine to provide a much needed multi-modal facility for the city.

Just as the tracks of the earlier station had been elevated, so would those of the new station, not only for convenience in and around the station, but also to help raise the approach to the new river crossings. Two vertical lift bridges were proposed to help with "removing the bottle neck arrangement at Newark" caused by a "wornout" bridge across the Passaic River. The replacement of the bridge would also comply with an order of the War Department "to improve conditions of the Passaic River channel by removal of the two-track swing bridge, operated from a middle pier, claimed to be an impediment to River traffic."[48]

While work on the first bridge over the Passaic River was planned to begin within three months of the initial contract,[49] most of the work of the "Newark Improvements" was to be phased. The initial phase included the main station block with two platforms and three tracks over a new lift bridge over the Passaic River. The second phase included construction of two more tracks and platforms for the H&M. The final step, to be completed by 1937, was for an additional vertical lift bridge, three additional tracks, and four more platforms.[50]

By April, 1929, the preliminary work of clearing "undeveloped lots" for use in constructing "Newark's Union Station and Plaza" had begun, and the initial work on the bridge, estimated to cost more than $2 million,[51] was underway.

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[45] Records of the Pennsylvania Railroad Company (Accession 1810, Box 337, Folder 11, "1935-1936").
[46] Ibid.
[47] Ibid.
[48] Idem (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements," 2).
[49] "Gets $25,000,000 Station," *The New York Times* (January 10, 1929), 17.
[50] *Commemorating the Opening of Pennsylvania Station* 1935, n.p.
[51] "Way Cleared for Newark Station," *The New York Times* (April 21, 1929), 169.

While the bridge construction was already proceeding, the PRR was asking for the "architects to get busy" on the final plans for the station.[52] Although the "semicircular" design submitted by McKim, Mead and White was rejected, the firm did receive the commission for the work and was paid $10,000 for the preliminary studies.[53] New conceptual plans were drafted and submitted by May of 1931. This new design called for a limestone rectangular main block and front elevation centered around a two-story rounded arch of pink granite.[54]

This design would end up being conceptually very close to the final result, but upon review, the City asked for an additional, equally prominent entrance added to the main façade for use by the H&M.[55] Also requested were "decorative" end windows instead of blank walls on the north and south elevations. These changes, estimated to cost an additional $200,000, were incorporated into the final design, which was approved in July, 1931. A 10' by 30' model of the final station plan was created, and it toured Philadelphia and Newark.[56]

While station plans were being completed, construction of the vertical lift bridge across the Passaic River proceeded, with the consulting firm of Waddell and Hardesty as the engineers.[57] According to a 1931 article in the *Newark Sunday Call*, construction of the bridge was well underway:

> The bridge foundations were built by J. Rich Steers, Inc. The structural steel was supplied and erected by the McClintic-Marshall Corporation [later the Bethlehem Steel Corporation]. The structure was designed and built under the supervision of A.C. Watson, chief engineer, New York Zone, Pennsylvania Railroad, and T.W. Pinard, engineer of bridges and buildings, New York Zone, Pennsylvania Railroad. The work on the ground was under the direction of L.P. Struble of Westfield, engineer of the Pennsylvania Railroad Improvements in Newark.[58]

PRR records of the Newark Improvements and several secondary resources, such as *Railway Age* and numerous news articles of the time, list only internal PRR staff as the bridge engineers. However, internal records at Hardesty & Hanover (the successor firm to Waddell and Hardesty) indicate that they were in fact responsible for the specific engineering plans for the bridge,[59] which is based on the firm's

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[52] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 16, January 5, 1929 internal correspondence from G. LeBoutiller to A.C. Watson).
[53] Idem (Accession 1807/1810, Box 1526, Folder 20, October 9, 1930 internal memorandum).
[54] "Newark Adopts Plans for New Rail Station," *The New York Times* (May 14, 1931), 14; "New P.R.R. Station Plans O.K.'d by City Commission," May 13, 1931, n.p.
[55] Cave 1978.
[56] "New P.R.R. Station Plans O.K.'d by City Commission," May 13, 1931, n.p.
[57] Hardesty & Hanover, LLP, Inventory of bridge projects, 1890 to 2000; Artemel 1977.
[58] "New Lift Span Here Longest for 3 Tracks," March 19, 1935, n.p. The McClintic-Marshall Corporation later became known as Bethlehem Steel Corporation, noted in Records of the Pennsylvania Railroad Company (Accession 1810, Box 337, Folder 11, January 2, 1936 internal PRR memorandum).
[59] Hardesty & Hanover, LLP, Inventory of bridge projects, 1890 to 2000; Glen E. Schetelich, P.E., Hardesty & Hanover Associate, personal communication, November 28, 2008.

"Waddell and Harrington" type of vertical lift. The "Waddell and Harrington" vertical lift if typified by a counterweighted vertical-lift span raised and lowered by steel cables passing over sheaths at the top of steel towers mounted on the span's piers.

By 1933, construction of the station building was also underway. The steel work for the train shed was erected by August 10th of that year, when Mayor Meyer C. Ellenstein announced that the George A. Fuller Company of New York City had been awarded the $2 million contract for the construction of the main block of the station building.[60] Historic photographs of the construction show that much of the main façade and the steel frame of the train shed was completed in 1934.

In January of 1935, electric passenger trains began to travel along the PRR's entire line from Washington to New York,[61] and as the electrification of the overall line had progressed, the PRR realized that one element of the plans for the Newark Improvements could be eliminated: the need for a location to switch trains to electric power. Therefore, neither the Manhattan Transfer nor the potential for switching motive power at the new station would be necessary:

> Since through electric operation makes unnecessary the interchange of power at Manhattan Transfer, and since the new station facilities under way at Newark will provide for the interchange of passengers between Pennsylvania trains and those of the Hudson and Manhattan Railroad, Manhattan Transfer, at least in so far as the Pennsylvania service is concerned, will eventually pass into history.[62]

At the same time the PRR was able to eliminate this additional step, the first phase of the Newark Improvements were completed: the three track vertical lift bridge, the main block of the station building, and part of the platforms.[63] A formal dedication was planned for March 23, 1935, and according to the *Newark Evening News*, it drew thousands of people despite the rain.

> "Dedication of P.R.R. Station Draws Throngs, Formal Tender to the City"
> At 3 o'clock, Vice President Martin W. Clement of the Pennsylvania Railroad will open the ceremonies by turning over the new station to Mayor Ellenstein. The mayor, after receiving it, will act as master of ceremonies. The next speaker will be Jerome T. Congelton, former mayor, who took a leading part six years ago in the joint negotiations which are culminating today in the dedication. United States Senators Barbour and Moore will follow. Then Thomas N. McCarter, president of the Public Service Corp.,... and a speech by Vice President George LeBoutillier of the Pennsylvania Railroad will conclude the program."[64]

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[60] "Station Contract Let," *The New York Times* (August 11, 1933), 9.
[61] Nesladek 1996, 21.
[62] "A Great Railway Electrification Project," February 25, 1933, 272.
[63] *Commemorating the Opening of Pennsylvania Station* 1935, n.p.
[64] "Dedication of P.R.R. Station Draws Throngs, Formal Tender to the City," *Newark Evening News* (March 23, 1935), n.p.

News reports of the dedication gave a great deal of attention to the "modern" design of the station and the decorative features of the Main Waiting Room, such as the "high wainscot of real rose yellow travertine from Montana, here used for the first time in the East." The station's "modern aluminum touches" and the "thermostatic temperature control" air-conditioning were widely reported and praised.

With the station now opened, the new bridge was put into service. Due to the spatial confines of the work site, the final step in the first bridge project was to detach and float away the old bridge. This complicated operation even needed permission from the War Department, which allowed the river to be closed for 48 hours for the procedure.[65]

Even though the first phase was complete, the station facilities were not yet fully functional as a multi-modal transportation hub. According to internal PRR correspondence at the time:

> The H.&M. Service has not yet been brought into the Market Street Station, and the present facilities are inadequate to enable this to be done. To carry out our obligation with the City to provide satisfactory service, it will be necessary to provide an additional three track bridge over the Passaic River, and construct two H.&M. tracks from the east bank of the River to South Street, and two additional railroad tracks and two additional platforms at Market Street Station.[66]

A PRR internal report for the year end, 1935, provides a summary of some, but not all, of the $13,754,470 expended for the first phase of the Newark Improvements:

Cost of new Market St. Station Building, and station facilities	2,425,000.
Cost of new Train Shed, Platforms, and Enclosures	825,000.
Cost of three-track bridge over the Passaic River	2,300,000.
Cost of Viaducts, Retaining Walls, and Street Bridges	3,175,000.
Cost of Signals and Interlockers, Telephone and Telegraphs Lines, and electrification	1,850,000.

While this report estimated an additional cost of $8,250,000 to finish the station building, construct the additional bridge, and add more tracks, miscellaneous facilities, enclosures,[67] some estimates were closer to $9 million.[68] And at the time of the dedication, *The New York Times* reported that the total cost of the improvements, with all phases completed, would come to $42 million, financed half by the PRR and half by the City of Newark, and that it was "considered the largest railroad passenger-traffic improvement constructed in this vicinity since the completion of the Manhattan Transfer in 1901."[69]

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[65] "Newark Dedicates Its New Terminal," *The New York Times* (March 24, 1935), N1.
[66] Records of the Pennsylvania Railroad Company (Accession 1810, Box 337, Folder 11, "1935-1936").
[67] Idem (Accession 1810, Box 337, Folder 11, December 31, 1935 internal PRR report).
[68] Idem (Accession 1810, Box 337, Folder 11, "1935-1936").
[69] "Newark Dedicates New Station Today," *The New York Times* (March 23, 1935), 13.

Within four months of the dedication ceremony, work had begun on the second and third phases of the work. Historic photographs show that the old tracks, located immediately east of the new platforms, were removed by July 1935, in preparation for the additional platforms and roadway improvements.

A series of letters from the spring of 1936 between McKim, Mead and White and the PRR relates to a variety of cost overruns the architects incurred as a result of delays, stoppages of work, and changes to the plans. Most of the correspondence is with Lawrence Grant White, who was the son of the founder Stanford White and the firm's chief contact for the PRR. White stated in his May 7, 1936, letter that "at present the situation is financially disastrous" for the architectural firm and that they "should have been hard-boiled and availed ourselves of the clause permitting us to break the contract when the work was stopped."[70] The reason for the work stoppages aren't clearly stated, but there are some references throughout the files to labor disputes caused by the use of "out-of town" labor for some of the work. Whatever the cause, as a result, McKim, Mead and White submitted a statement of their estimates and overruns, asking for an additional $95,066.96 to cover these costs.[71]

Construction was set to begin on the second bridge, paired to the east side of the first, in August, 1936,[72] and unlike work on the station building, it appears to have gone on schedule. A *Railway Age* report about the construction of this bridge states that the abutments and piers were constructed by J. Rich Steers, Inc., as were those of the first bridge, but that the Mount Vernon Bridge Company was responsible for the superstructure, but again with steel supplied by the Bethlehem Steel Corporation.[73] The second bridge, actually consisting of two independent lift spans carrying one and two tracks each, was completed in 1937 at a cost of $2.4 million.[74]

Waddell & Hardesty also served as the engineers for the second bridge,[75] but PRR internal records provide only a few details regarding their work on this structure. In a statement dated December 14, 1936, shortly before the second bridge was finished and put into service, Shortridge Hardesty submitted a memo referencing a $343.95 cost associated with "drafting room salary costs in connection with the checking of the erection stresses in the towers of the single track and double track lift plans over the Passaic River."[76] In 1937, a payment of $17,500 was made to Waddell and Hardesty "for work on lift spans," then shortly thereafter another "final payment of $1750" was made.[77] However, there are no other summary statements, correspondence, or contracts mentioning Waddell & Hardesty among the hundreds of other documents regarding the Newark Improvements, and the PRR's

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[70] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 6).
[71] Idem (Accession 1807/1810, Box 1526, Folder 6, August 25, 1936 letter from White).
[72] Idem (Accession 1810, Box 337, Folder 11, April 30, 1936 internal PRR memorandum).
[73] "Pennsylvania Completes Station at Newark, N.J.," June 26, 1937, 1050.
[74] Records of the Pennsylvania Railroad Company (Accession 1810, Box 337, Folder 11, February 20, 1937 internal PRR report).
[75] Hardesty & Hanover, LLP, Inventory of bridge projects, 1890 to 2000; Glen E. Schetelich, P.E., Hardesty & Hanover Associate, personal communication, November 28, 2008.
[76] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 20, December 14, 1936 letter from Shortridge Hardesty to Mr. T.W. Pinard, Engineer of Bridges).
[77] Idem (Accession 1807/1810, Box 1526, Folder 6).

final summary of the improvements also does not mention any specific engineering firms, stating only that the total costs for engineering for the bridge was $783,900, slightly under budget.[78]

Despite any earlier delays on the station building, the final phases of all the work were completed in 1937, a time frame estimated by the PRR when the first phase had been completed.[79] All the elements were put into service on June 20, 1937,[80] although with much less fanfare than in 1935. This phase was perhaps more important, though, since the station facilities were now fully multi-modal and fully capable of handling the high volume of traffic on the line. According to a "Summary of Improvements" by the PRR:

> These improvements resulted in the speeding up of train service, not only from elimination of delays but from the shortening of main line schedules as much as five minutes… and a reduction of overtime of local train crews, also cost of supervision.
>
> A more dependable performance has been provided for H.&M. trains, as at Newark Station these trains are always available for loading transfer passengers, and connections with the main line trains do not have to be protected as was the case at Manhattan Transfer.
>
> The time of the [H&M] operations has been reduced by two minutes [on] account of a more dependable service provided, due to the less number of drawbridge openings, as the new drawbridge arrangement for H.&M. trains provides 35-foot clearance for vessels on the River, as compared with 10 feet at the old location, reducing the number of openings on of the drawbridge by H.&M. trains about 75%.[81]

The Pennsylvania Railroad had more than a passing interest in performance of H&M trains. The Pennsylvania Railroad and the Hudson & Manhattan Railroad operated joint service on the H&M's line between Summit Street (Journal Square) in Jersey City and Newark. Joint service was the result of a 1906 agreement between the PRR and H&M, and continued until the Port of New York Authority (now the Port Authority of New York and New Jersey) acquired the assets of the bankrupt H&M in 1962 and began operating the entire H&M system as the Port Authority Trans Hudson (PATH) system.[82]

While "officially" done, there were some elements of the improvements that were originally planned but not implemented.

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[78] Idem (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements").
[79] *Commemorating the Opening of Pennsylvania Station* 1935, n.p.
[80] "Pennsylvania Completes Station at Newark, N.J.," June 26, 1937, 1044.
[81] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements," 2).
[82] Cuhady 2002, 6, 24, and 57-58.

> These facilities are deemed adequate for some time to come. The only further expenditure that will become necessary is about $1,500,000. for extension of H.&M. service to South Street passenger station, and possibly a restaurant in the Market Street Station [an early moniker for Newark Penn Station]. No pressure is being brought to bear upon us at this time to provide the facilities at South Street.[83]

The final cost of the "Newark Improvements" was also provided by the 1939 Summary of Improvements. The City of Newark's cost was approximately $24 million, while the PRR's total cost of the improvements, including the station, surrounding area, and the H&M facilities was $25,147,500.[84] The summary report also itemizes several of the cost overruns, and lists those under budget. In all, the summary states the final total cost was close to the estimates as revised after the first phase was completed in 1935.

Some of the items that overran included the train shed viaducts, as they needed heavier weight materials to reduce vibrations, the third rail and catenary, as many needed to be added and some installed below ground, and the signal and interlocking machines, as the estimate for building Dock Tower was too low. The report provides the following reasons that the vertical lift bridges overran their estimate by $96,559:

> The overrun on the river bridges was occasioned by lengthened bridge fenders required by the War Department, the substitution of solid for open track floors in the tower spans and the fact that the bridge operators were housed in the interlocking tower instead of being on the bridge, thereby making necessary a larger tower and increasing the cost of the electrical work due to lengthening the bridge cables.[85]

In addition, the cost overrun for the "station facilities" was $441,640, due to the "additional amount paid to the Architect over the amount included in the original estimate due to revision of plans and the fact that the work extended over a much longer time than was first contemplated." Also, construction elements that were not originally planned included an additional escalator to the westbound station track, more storage in the basement, a stairway to the western side of Market Street, and more ornamental platform shelter enclosures than planned.[86]

In April, 1938, a final amount of $392,081.57 had been released to McKim, Mead and White,[87] apparently satisfying their requests to receive additional funds for the extra work and time devoted to the project. Lawrence White responded that:

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[83] Records of the Pennsylvania Railroad Company (Accession 1810, Box 337, Folder 11, "1935-1936").
[84] Idem (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements"); Burgess & Kennedy 1949, 621.
[85] Idem (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements," 9).
[86] Ibid.
[87] Idem (Accession 1807/1810, Box 1526, Folder 6, April 13, 1938 correspondence).

> This marks the official end for a project on which we have been working over ten years under difficult conditions. We wish to thank you and the other officials of the Railroad for your courtesy and fairness in handling the various questions which have arisen. We are proud of the building and hope that is proving satisfactory to the railroad.
>
> This is the second large project which we have designed for the Pennsylvania Railroad, and we venture to hope that it may not be the last.[88]

With the final improvements at Newark finished, and the PRR's electrification of the entire line also completed, the PRR experienced a marked decrease in travel times. In some places, this decrease was as large as 15 percent, "attributed mainly to the change from steam to electric traction… this performance seems quite adequate in the present state of rail transport."[89] Overall, the Newark Improvements met both the City of Newark's and the PRR's many goals for the project: replace the old station with adequate facilities that could serve the distinct transportation systems passing through the station, serve as the principal rail center for passenger traffic, reduce delays and improve efficiency through the electrification of the line, eliminate the Manhattan Transfer, and increase the reliability and capacity of the Passaic River crossings.

Transportation Significance

The station facilities and adjacent bridges, all part of the "Newark Improvements," are significant for their association with the PRR's electrification efforts, as a critical link in the overall project between Washington and New York. In addition, they provided an improved transportation system for the developing City of Newark itself. Newark's development as a commercial, professional, and industrial center not only necessitated rail improvements provided by electrification and expansion to and through the city, but also drove the need for the multi-modal aspects of the station, and its dual service of local and long distance transportation.

The increased efficiencies provided by electrification were particularly important to the line between New York and Washington, as "the greatest advantage offered by electrification has always been its ability to increase the amount of traffic which could be hauled over a given section of line."[90] This line had the greatest combined freight and passenger density of any portion of the PRR's system,[91] and approximately 232 trains passed through Newark daily in 1935, a number surpassed only by New York

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[88] Idem (Accession 1807/1810, Box 1526, Folder 6, April 12, 1938 correspondence).
[89] Burgess & Kennedy 1949, 651.
[90] "A Great Railway Electrification Project," February 25, 1933, 265.
[91] Burgess & Kennedy 1949, 612.

and Chicago.[92] The result was a need for an increase in the overall number of lines, both on the PRR's main line, and locally within Newark as well.[93]

The hoped for effect that the Newark Improvements would have on the city was stated by Newark's Mayor Ellenstein at the 1935 opening ceremony:

> Newark has advanced so far on all transportation fronts, so to speak, that Newark's dominance as a shipping and industrial distribution centre in the East should not be a remote nor extravagant prospect.

The mayor also declared that this project should be viewed in the larger picture of the city's development as a transportation hub, by pointing out that the recently established Newark Airport [opened 1927] was among the "busiest in the world," the Port Newark was under development, and the Pulaski Skyway [opened 1932] between Newark and Jersey City had recently been built. Former Governor (and then Senator) A. Harry Moore remarked at the ceremony that "there may be some here today who remember when the site of this station was just a dangerous railroad crossing," but that "today you have a station commensurate with the greatness and importance of this metropolis of New Jersey."[94] New Jersey Governor Harold G. Hoffman's congratulatory message sent to the opening recognized an even larger importance of the project to the city:

> This new railroad station is not merely a gathering place between train time; it is not merely a decorative splash across the city's canvas. Rather it is the interpretation of a vision, the vision of the city fathers who ally themselves with the representatives of this great railroad in a gigantic, cooperative movement that has for its only purpose the development of the city of Newark and its natural resources.[95]

In addition to the station's significance associated with the PRR's modernization of the Northeast Corridor line, its well developed and sophisticated functional organization also allowed it to serve as a multi-modal transportation hub. Although there had been larger stations that linked two or three modes of public transportation, Newark Penn Station was alone in containing intercity and local subway, regional commuter railroad, rapid transit, and local bus facilities within the building complex as originally designed.

The station's complex circulation system is both compact and efficient within the station, with pedestrian traffic between these modes being separate from vehicular traffic. The external improvements to the surrounding roadways is also a part of this station's multi-modal significance, one that had been in the works by the City and PRR for many years prior to its formal initiation. Although

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[92] "Dedication of New P.R.R. Station Fulfills Dream," March 23, 1935, n.p.
[93] Burgess & Kennedy 1949, 612.
[94] "Newark Dedicates Its New Terminal," March 24, 1935, N1.
[95] "Hoffman Congratulates City, P.R.R.," *Newark Star Eagle* (March 23, 1935), n.p.

built at great expense to both the City and PRR, without these improvements, growth of this critical point along the PRR's main line would have been severely hampered. Upon the station's completion, the PRR and the City of Newark saw their visions of a complex transportation scheme, designed to in fact simplify travel, realized:

> Pennsylvania Station, Newark, which now becomes the new gateway for the entire Pennsylvania Railroad System to and from the great centralized area of trade and commerce in downtown New York City, is the newest of the world's metropolitan railroad terminals and embodies all the latest features of construction and design. It also stands unique among such structures by reason of the fact that it brings in, on four different levels, four different agencies of transportation, viz., street railway services by subway under the city street, motor vehicle transport, standard through rail service and interurban Hudson tube trains.[96]

Architectural Significance

The station's architecture is significant for its use of Art Deco decorative elements, applied on a post-Classical form, designed to reflect the "modernization" and progress that were the impetus for the PRR's electrification of the main line and the Newark Improvements.

Between the World Wars, architecture experienced a transition from the Neo-Classical styles to the International Style, with Art Deco (or *Le Style Moderne* in France) being one of the most popular variants. "Because it was 'essentially a decorative skin,' Art Deco lent itself readily to architecture. It proved especially popular in the United States where it reached its most flamboyant phase in the 1930s".[97] While not one of the more "flamboyant" examples of the style, Newark Penn Station's design clearly displays elements of that emerging style, characterized by smooth wall surfaces, stylized geometric floral motifs, and decorative vertical projections.

Since the 1890s, McKim, Mead and White had been one of the most prominent architectural firms designing in the Neo-Classical and Beaux Arts styles. Although two of the original founders, McKim and White, had both died shortly after the turn of the century, the firm continued producing designs in a similar style under the same name. As they began to incorporate modern styles into their designs, they often preserved the Classical form and composition while integrating "modern" decorative details.

Newark Penn Station was one of the firm's last public commissions, the plans for which were coordinated primarily through Lawrence Grant White, only son of the firm's co-founder Stanford

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[96] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 17, June 19, 1937 PRR Press Release).

[97] Horst Woldemar Janson, *History of Art* (New York: Harry N. Abrams, Inc., Publishers, 1962, revised and expanded by Anthony F. Janson, 1995), 856.

White, who was murdered in 1906. The station exhibits much of the Classical tradition McKim, Mead and White was known for with symmetrical arrangements, vestigial use of an architectural order containing base, column, and entablature, and other Classically inspired decorative motifs such as anthemia.

But even if some of the Classical design elements for which the firm was known were retained in the form of the station, the final design details do clearly incorporate the new "modern" style of Art Deco through the decorative treatments and materials. Although it not known why McKim, Mead and White's early plans for the proposed station, with a Neo-Classical semi-circular, three story, colonnaded main façade, were abandoned, the shift from that conceptual design to the final, preferred design also reflects the changing architectural styles of that time and a focus on advancement. "Modernization" was a stated objective of the improvements, and demonstrating the railroad's role in industrial and commercial progress clearly had a role as well, as evidenced by the transportation themed medallions in the Main Waiting Room.

The building's profusion of decorative details and finishes declines in density and richness from the larger spaces, such as the Main Waiting Room, to the corridors and other parts of the building. The major concentrations of detail work are on the exterior surrounds of the main façade's entranceways, the interiors and entrances of the Main Waiting Room, and the surrounds of the pedestrian and vehicular passageways under the train shed. Repetitive use of motifs, such as rosettes, flora and fauna, reed and tie, eagles, five-pointed stars, Greek Keys, and anthemia, are found throughout the interior and exterior, finished in materials such as marble, limestone, granite, aluminum, and terrazzo.

The use of curves, another Art Deco characteristic, is also a thematic design feature throughout the station. Curved lines occur both horizontally and vertically, and are reflected in the semi-circular granite arches surrounding the main entranceways, the opening from the Main Waiting Room into the Main Concourse, the passageways under the train shed, the ceiling of the Main Waiting Room, the convex and concave ticket windows, and the framing and glass of the two bell shaped platform skylights.

The greater frequency of use of decoration in relation to the importance of the space is a common Art Deco device, but the often monochromatic color scheme of Newark Penn Station is not. However, the use of aluminum, an innovative material at the time, was popularized by the Art Deco movement because of its connotation with modernism. Aluminum's bright, unsoiled appearance was also reflective of the electrification of the line in that it was a cleaner, more efficient fuel method than the steam being phased out. Details such as the "modern touch" given by the aluminum trim in the Main Waiting Room was a feature intentionally highlighted by the PRR.[98]

Therefore, the end result is that the station's architecture is not only significant as an excellent example of the Art Deco style, but also as deliberately reflective of the modernization that was the impetus

[98] "Dedication of New P.R.R. Station Fulfills Dream," March 23, 1935, n.p.

behind its construction. As reported by the *Newark Sunday Call* in 1936, instead of an "outmoded, turreted station that failed to provide the proper gateway to a progressive city," passengers "may feast their eyes on harmonious and modern decorations…[and] enjoy the appointments of a modern, majestic station."[99]

Dock Bridge Significance

Dock Bridge, or more specifically the two vertical lift bridge structures that sit side-by-side over the Passaic River, is significant not only as a crucial element of the Newark Improvements, but also for its rare capacity to carry a total of six tracks across three lift spans. The first bridge, completed in 1935, is the largest three-track vertical lift bridge ever constructed, and the second, completed in 1937, utilizes an unusual arrangement of track heights to bring the tracks into the station platforms. The bridge was critical to the operation of the PRR's main line as it could handle heavy railroad traffic while also being able to open quickly to allow passage of the frequent river traffic at the time.

Moveable bridges are constructed over navigable waterways when it is impractical or uneconomical to build fixed bridges high enough to safely allow the passage of vessels. As part of the Newark Penn Station project, a moveable bridge was necessary as the approach spans could not be built high enough to safely cross the river; the surrounding area was too densely developed and there was already an elevated CNJ Newark and New York Branch crossing over the line to the south of the station's location.[100]

Another reason behind the decision to replace the existing swing bridge with a vertical lift bridge in this location was that the phased improvements called for adding additional spans. On railways with growing traffic, additional parallel vertical lift and bascule bridges could be added as needed, whereas swing bridges would have to be replaced altogether.[101] However, vertical lifts have several advantages over bascules, including the fact they are less expensive to construct than bascules and suffer less from wind resistance than bascules.[102] Also, a vertical lift can be partially raised when height requirements are low; therefore, it would not need to rise as high as a bascule does to allow passage of low-masted vessels. In addition, vertical lifts are also more easily altered in case of changes in grade, or shifting waterways.[103]

As J.A.L. Waddell argued, "the inherent simplicity of the vertical lift as a piece of mechanism, compared with the bascule, makes it more reliable in operation."[104] Waddell was one of the first to

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[99] "Wait Worth While: New Penn Station Dream Come True," *Newark Sunday Call* (March 29, 1936), n.p.
[100] David W. Messer and Charles Roberts, "Triumph V, Philadelphia to New York, 1830 – 2002," 168; Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 15, May 16, 1926 internal memorandum, 5).
[101] Otis Ellis Hovey, *Movable Bridges* (New York: John Wiley & Sons, 1926), 24.
[102] Otis Ellis Hovey, "Movable Bridges," *Civil Engineering* 1, no. 7 (April 1931), 595.
[103] J.A.L. Waddell, "The Economics of Movable Spans," *Railway Age* 70, no. 24 (June 17, 1921), 1391-1392.
[104] Ibid.

patent a simplified and improved design of vertical lift bridges in the United States, and is credited with designing the first large vertical lift bridge in 1892. Simple vertical lift bridges with small spans and low lifts had been constructed in Europe for hundred of years, but no vertical lift bridges of any significant size were constructed until the late nineteenth century. In the early twentieth century, as cities became more densely developed and transportation routes and methods were expanding and evolving, construction of vertical lift bridges became more widespread.

An increased use of the vertical lift type of moveable bridge can also be attributed in part to the War Department, who gained jurisdiction over certain bridge specifications at the end of the nineteenth century and subsequently began to demand more efficient, reliable, and safe bridges. Under Section 18 of the 1899 act, the Secretary of War was authorized to notify the owners of bridges and other structures deemed by the Chief of Engineers to be an "unreasonable obstruction to the free navigation" of navigable waterways in the United States (55th Cong. 3d Sess. Chap. 425). For lift bridges, the War Department's minimum requirement was 135' above mean high water, exactly the clearance of the Dock Bridge. In addition to satisfying the height requirement, the new bridges over the Passaic River also met with their approval as they would allow river crossings even in the event one bridge failed, lost power, or was damaged.[105] The strategic importance of these crossings is perhaps best highlighted by the fact that they were one of the main targets of a failed plot by Nazi saboteurs in 1942 to disable a number of key American rail systems.[106]

Designed by Waddell and Hardesty, both bridges are clearly based on the Waddell & Harrington design of a counterweighted, tower-and-cable, vertical-lift span. They closely resemble other known Waddell & Harrington types, such as the two-track vertical lift bridge crossing the Louisville and Portland canal near Louisville, Kentucky.[107] Also designed for the Pennsylvania Railroad, the Louisville bridge has a 260' span length (Newark's are each 230'), 64 wire ropes of 2 1/8 diameter fed over 15' diameter sheave wheels, and a machinery house on the bridge. The Kentucky bridge's operator's house is also on the bridge, and although the Dock Bridge's operator's house, located in Dock Tower, is on the northeastern approach span, it was originally intended to be on the bridge.[108] Also, while Waddell asserts that one advantage to a vertical lift is the ability to run utilities across the top of the towers instead of underground or underwater,[109] the Dock Bridge's cables were in fact run under the Passaic River to the Operator's House on the approach span. However, this again appears to be later adjustment to the original plans.[110]

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[105] David Plowden, *Bridges, the Spans of North America* (New York: Viking Press, 1974), 188.
[106] Peter A. Hansen, "Hitler's Wreckers," *Classic Trains* (Winter, 2001), 40, 44, and 47.
[107] Hovey 1926, 157-159.
[108] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements").
[109] J.A.L. Waddell, *Economics of Bridgework, A Sequel to Bridge Engineering* (New York: John Wiley and Sons, Inc. 1921), 286-287.
[110] Records of the Pennsylvania Railroad Company (Accession 1807/1810, Box 1526, Folder 17, 1937 "Summary of Improvements").

In addition to being the "most modern of the Pennsylvania's bridges,"[111] and containing the largest three-track vertical lift bridge ever built as of 1977, Dock Bridge was the only vertical lift bridge on the Northeast Corridor railroad route.[112]

[111] Alexander 1947, 53.
[112] Artemel 1977.

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Newark Penn Station and Dock Bridge
(Boundary Increase and Additional Documentation)
Name of Property

City of Newark, Essex County and Town of Harrison,
Hudson County, New Jersey
City, County and State

10. Geographical Data

Acreage of Property 14.5 acres

UTM References
(Place additional boundaries of the property on a continuation sheet.)

	Zone	Easting	Northing
1	18T	570380	4509332
2	18T	570340	4509360
3	18T	570954	4509944
4	18T	570959	4509875

Verbal Boundary Description
(Describe the boundaries of the property.)

☒See continuation sheet(s) for Section No. 10

Property Tax No.

Boundary Justification
(Explain why the boundaries were selected.)

☒See continuation sheet(s) for Section No. 10

11. Form Prepared By

name/title Nancy L. Zerbe, Tyreen Reuter

organization ARCH^2, Inc. date April, 2012

street & number 16 Wernik Place telephone 732-906-8203

city or town Metuchen state NJ zip code 08840-2422

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
name/title **Station**: NJ TRANSIT (under lease with power of attorney from owner Newark Penn Station Associates)
c/o Dara Callender

street & number 1 Penn Plaza East telephone 973-491-7205

city or town Newark state NJ zip code 07105-2246

Dock Bridge: Michael Stern, Senior Associate General Counsel
Amtrak, 50 Union Avenue, New Haven, CT 06519

Verbal Boundary Description

Newark Penn Station is located on Block 150.01, Lots 140 and 141; Block 151.02, Lots 80 and 81; Block 152, Lots 1 and 10; Block 157, Lot 1; and Block 169, Lot 58 in the City of Newark, Essex County, New Jersey. The Dock Bridge, located above the Passaic River between the City of Newark in Essex County and the Town of Harrison in Hudson County, is not assigned a Block and Lot. However, the Dock Bridge's approach spans and the Dock Tower are located on Block 80A, Lots 17 and 22 in the Town of Harrison, Hudson County, New Jersey.

Boundary Justification

The boundary has been drawn to include the existing station complex, including the main station block and the train shed, the stairway entrance down to the City Subway below, and the adjacent Dock Bridge, constructed in conjunction with the station as part of the "Newark Improvements."

PHOTOGRAPHS

For all photographs:

Property Name:	Newark Penn Station and Dock Bridge (Boundary Increase and Additional Documentation)
Property Location:	City of Newark, Essex County and Town of Harrison, Hudson County, New Jersey
Photographer:	Tyreen Reuter
Date:	July 22, 2008 (shots 2-6, 8-10, 12-16, 18-37, 39-41, and 44-48), October 25, 2008 (shots 1, 7, 11, 17, 38, 42, 43, and 49)
Location of Negatives:	ARCH^2, Inc., 16 Wernik Place, Metuchen, NJ 08840

Photograph No. 1 of 49:
View looking northeast towards the west and south elevations of the station building

Photograph No. 2 of 49:
View looking south towards the west and north elevations of the station building.

Photograph No. 3 of 49:
View looking southeast towards the south arch entrance along the west elevation.

Photograph No. 4 of 49:
View looking northeast along the ceiling of the south marquee awning along the west elevation.

Photograph No. 5 of 49:
View looking southeast towards the south entrance doors along the west elevation.

Photograph No. 6 of 49:
View looking south towards the entrance at the northern end of the west elevation.

Photograph No. 7 of 49:
View looking northeast towards the decorative lintel above the central window on the south elevation.

Photograph No. 8 of 49:
View looking west towards the southern exterior plaza from the elevated train shed.

Photograph No. 9 of 49:
View looking southwest towards the southwestern façade of the elevated train shed from the plaza.

Photograph No. 10 of 49:
View looking east towards the northwest façade of the elevated train shed and the Dock Bridge.

Photograph No. 11 of 49:
View looking west towards the east façade of the train shed.

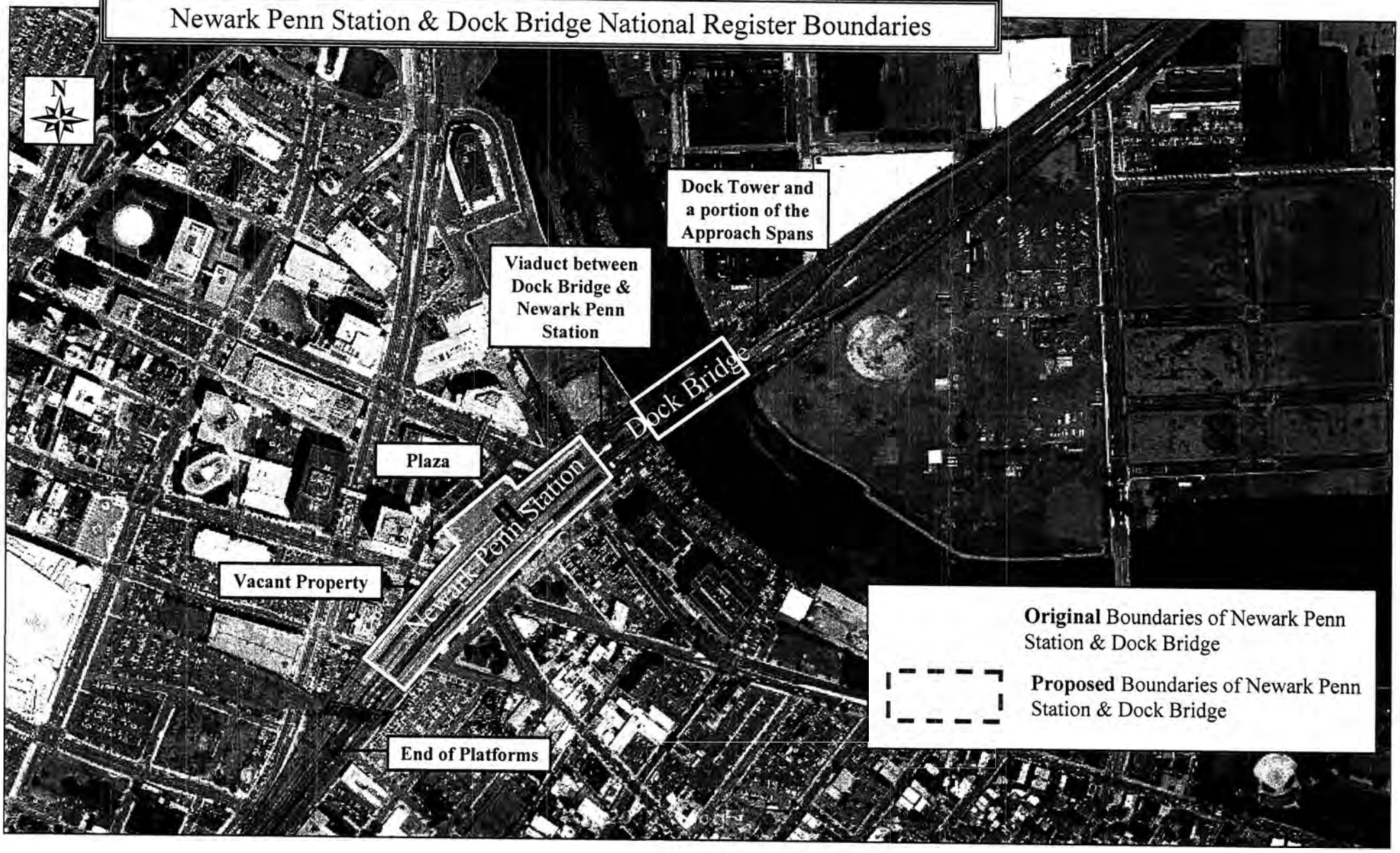
Photograph No. 12 of 49:
View looking west towards a pedestrian passage along Raymond Boulevard.

Photograph No. 13 of 49:
View looking northeast towards the east and north walls of the Main Waiting Room.

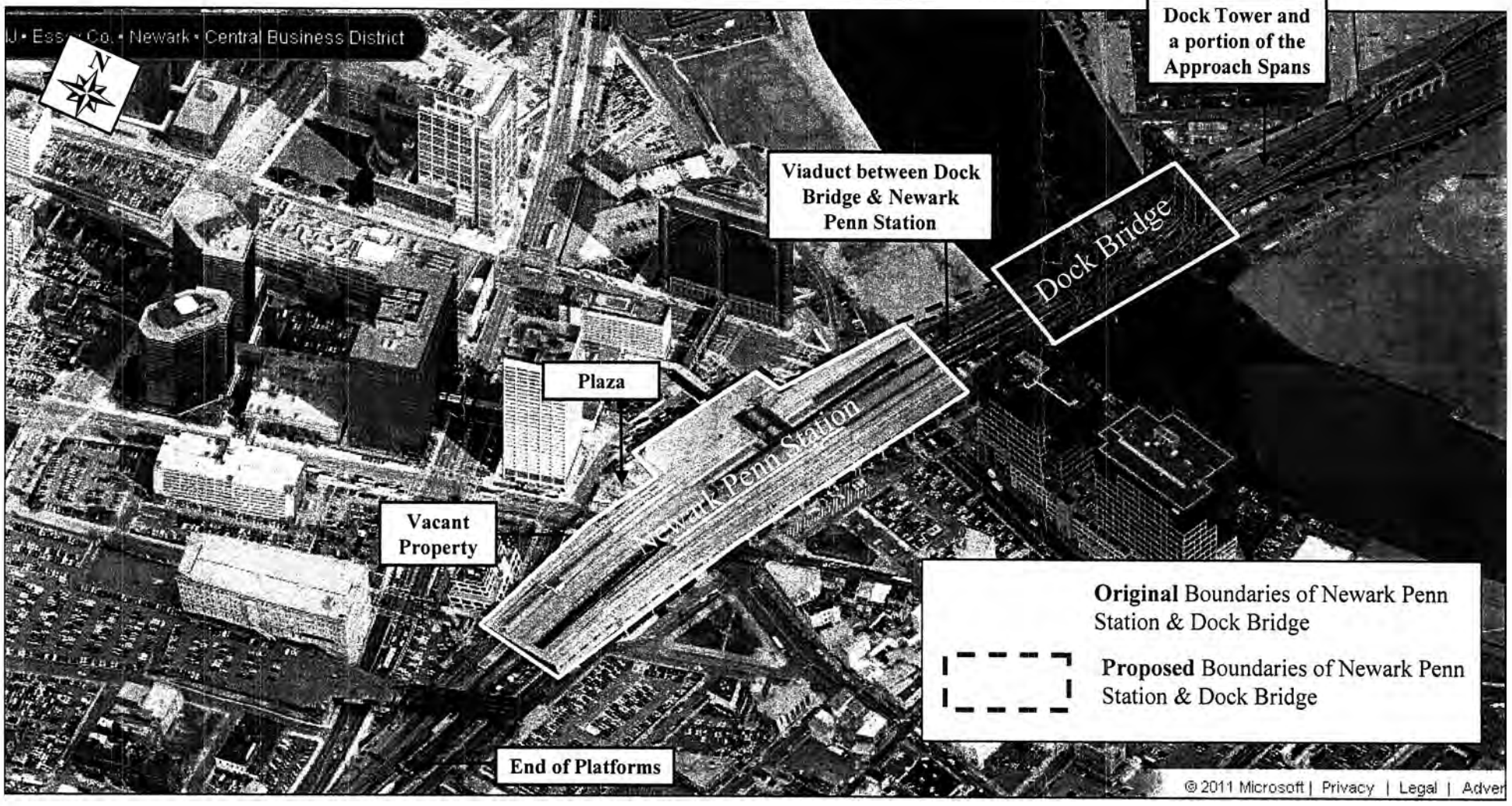
Photograph No. 14 of 49:
View looking southwest towards the south and west walls of the Main Waiting Room.
Photograph No. 15 of 49:
View looking north towards the west entranceway of the Main Waiting Room.
Photograph No. 16 of 49:
View looking southwest towards the decorative walls along the west vestibule.
Photograph No. 17 of 49:
View looking southwest towards the south entranceway of the Main Waiting Room.
Photograph No. 18 of 49:
View looking northeast towards the north entranceway of the Main Waiting Room.
Photograph No. 19 of 49:
View looking southwest towards the ceiling of the Main Waiting Room.
Photograph No. 20 of 49:
View looking west towards a globe light fixture hanging from the ceiling of the Main Waiting Room.
Photograph No. 21 of 49:
View looking northeast towards the northeast wall of the Main Waiting Room.
Photograph No. 22 of 49:
View looking south towards the southeast wall of the Main Waiting Room.
Photograph No. 23 of 49:
View looking northeast towards the octagonal kiosk at the center of the Main Waiting Room.
Photograph No. 24 of 49:
View looking southeast towards the floor of the Main Waiting Room.
Photograph No. 25 of 49:
View of the aluminum details along the sides of the benches in the Main Waiting Room.
Photograph No. 26 of 49:
View looking southeast towards the Main Concourse.
Photograph No. 27 of 49:
View looking southwest towards the light fixtures along the Main Concourse.
Photograph No. 28 of 49:
View looking north towards the convex Pennsylvania Railroad ticket windows along the West Corridor.
Photograph No. 29 of 49:
View looking north along the East Corridor from the North Concourse.
Photograph No. 30 of 49:
View looking southeast towards the North Concourse.
Photograph No. 31 of 49:
View looking southeast towards the entrance doors of the north vestibule.
Photograph No. 32 of 49:
View looking northeast towards the north wall of the north vestibule.

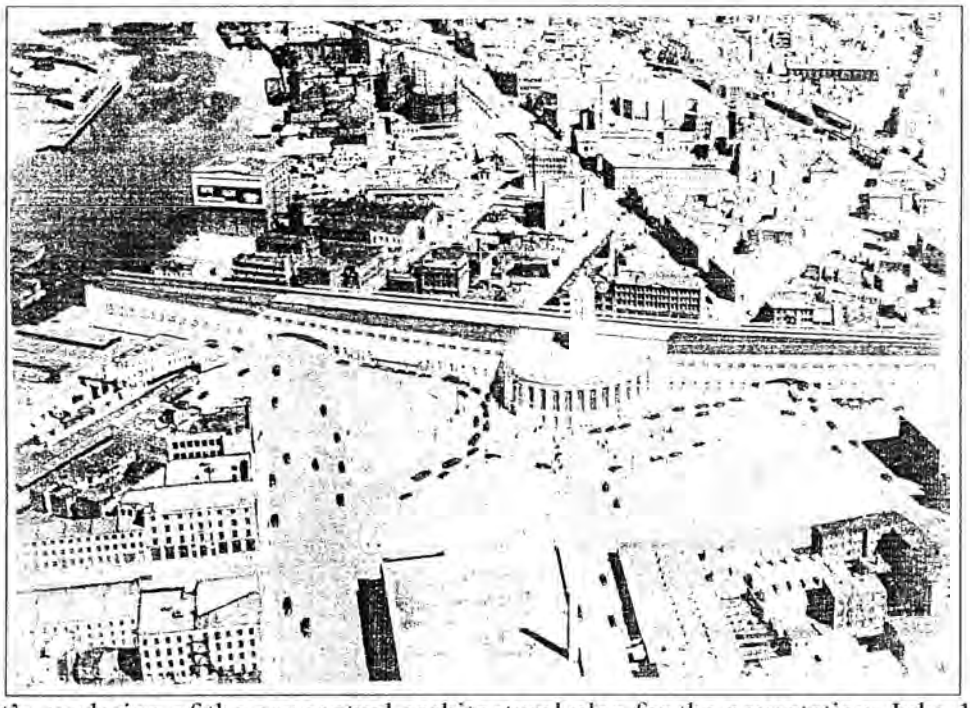
Photograph No. 33 of 49:
View looking east towards the Gateway entrance to the station on the upper level of the north entranceway.
Photograph No. 34 of 49:
View looking west towards the escalators near the North Concourse the connect to the Gateway entrance at the upper level.
Photograph No. 35 of 49:
View looking southeast towards the concave Hudson and Manhattan rapid transit ticket windows at the east end of the North Concourse.
Photograph No. 36 of 49:
View looking southeast along the Raymond Boulevard Concourse.
Photograph No. 37 of 49:
View looking southwest along the roof towards the bell-shaped skylights in the train shed.
Photograph No. 38 of 49:
Detailed view of the skylight framing on Platforms 3 and 4.
Photograph No. 39 of 49:
View looking south from Platform 5 towards the platforms and aluminum shelters in the train shed.
Photograph No. 40 of 49:
View looking south from Platform 5 towards the aluminum shelters in the train shed.
Photograph No. 41 of 49:
View looking southwest along Platform H.
Photograph No. 42 of 49:
View looking northeast towards the north end of the station building and the Dock Bridge.
Photograph No. 43 of 49:
View looking northeast towards the west side of the Dock Bridge.
Photograph No. 44 of 49:
View looking northeast towards the three tracks carried over the western bridge.
Photograph No. 45 of 49:
View looking north towards the eastern side of the Dock Bridge.
Photograph No. 46 of 49:
View looking north towards the multiple levels of the tracks along the east bridge.
Photograph No. 47 of 49:
View looking northeast from Platform H towards the two high level tracks across the eastern bridge.
Photograph No. 48 of 49:
View looking southeast towards the west side of the Dock Bridge and Dock Tower.
Photograph No. 49 of 49:
Detailed view looking northwest towards Dock Tower.
Supplement No. 1:
View looking southwest towards the end of the extended platform.

Newark Penn Station & Dock Bridge National Register Boundaries



Bird's-Eye View of Newark Penn Station & Dock Bridge National Register Boundaries



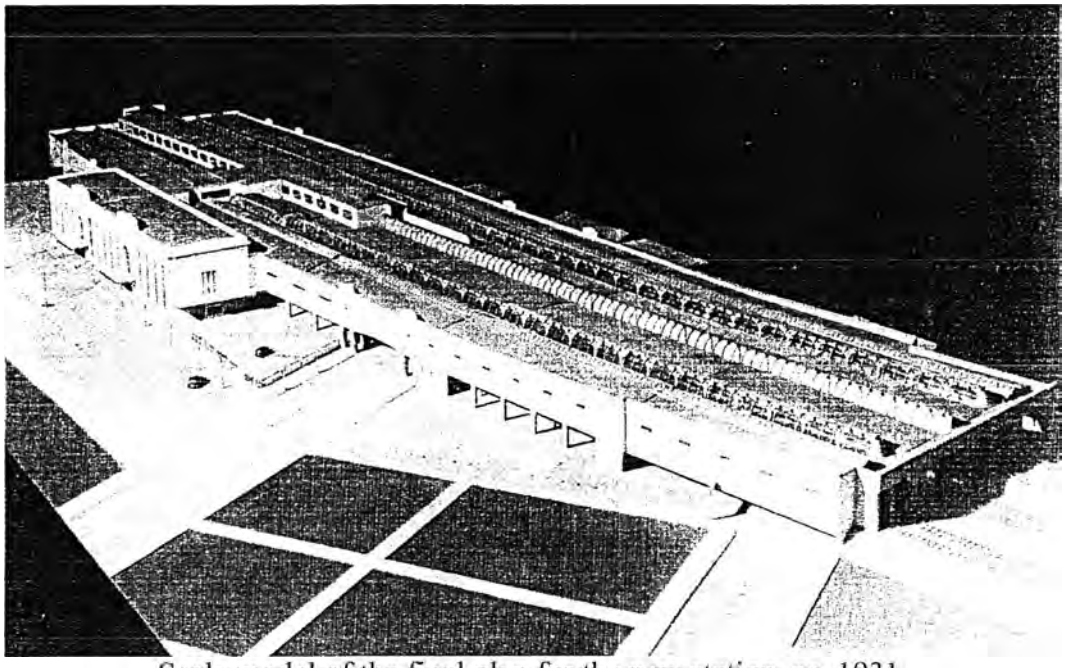


Artist's rendering of the conceptual architectural plan for the new station, July, 1928.
On file at the Hagley Archives, Accession 1988.231, Box 27.

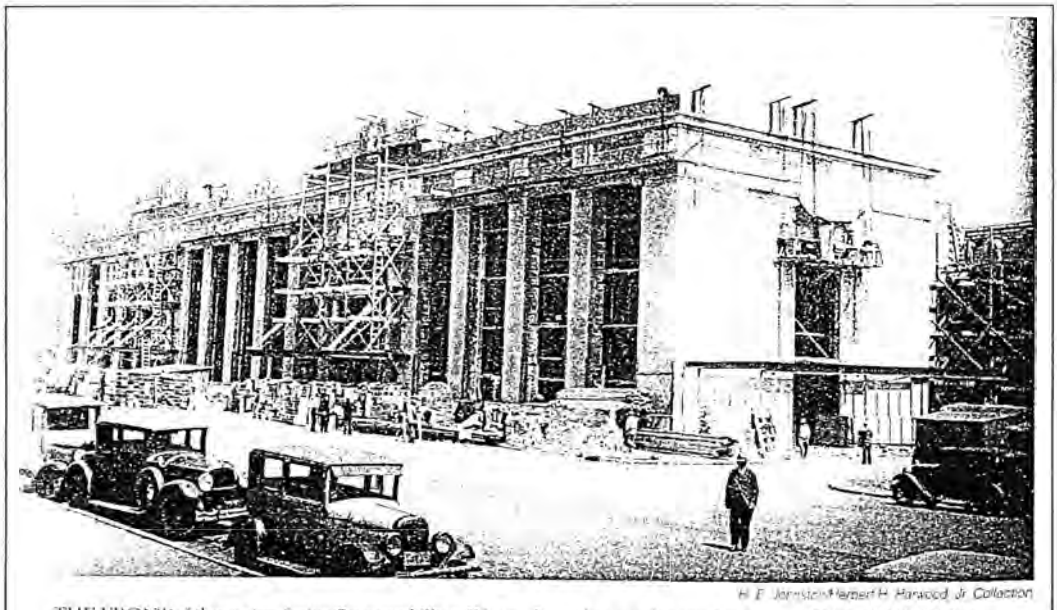
HOW NEWARK RAILROAD STATION WILL LOOK.

The classic façade of the Pennsylvania's new building fronting or Raymond Plaza West will be of limestone with the central arch of pink granite.

Artist's sketch of the proposed new passenger station.
The New York Times, May 14, 1931 page 14.



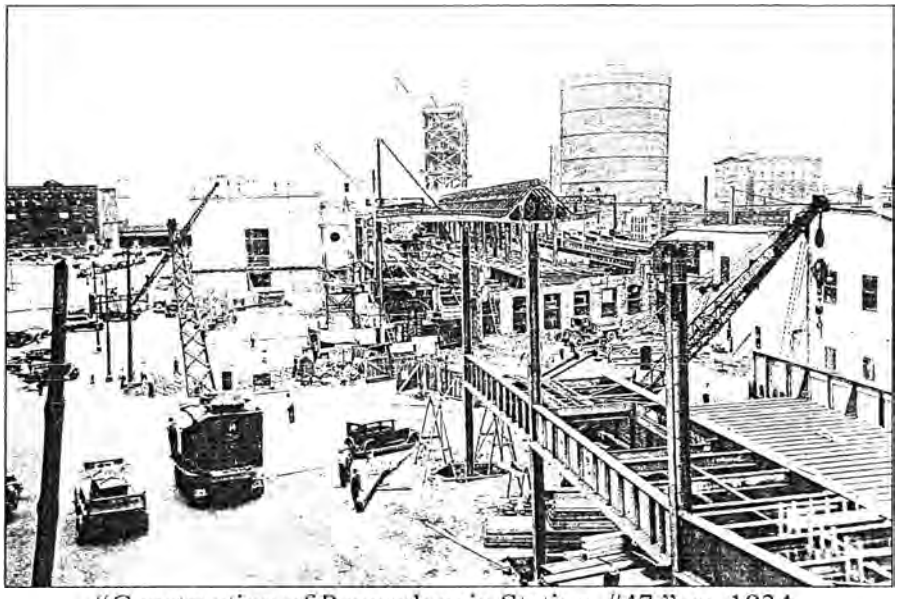
Scale model of the final plan for the new station, ca. 1931.
On file at the Hagley Archives, Accession 1988.231, Box 27.



H. F. Johnston/Herbert H. Harwood, Jr. Collection

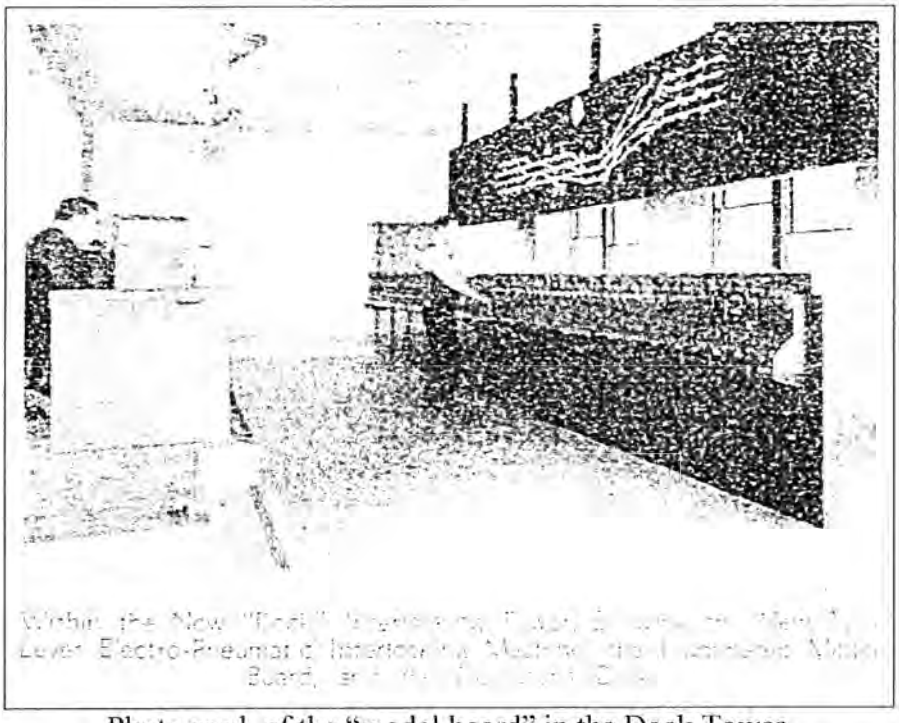
THE FRONT of the station facing Raymond Plaza West is shown here under construction on 28 May 1934. Workmen are putting the finishing touches on the decorative stonework adorning the façade and the westward end shown here.

Main block of the station building under construction, 1934.
Triumph V, page 169.

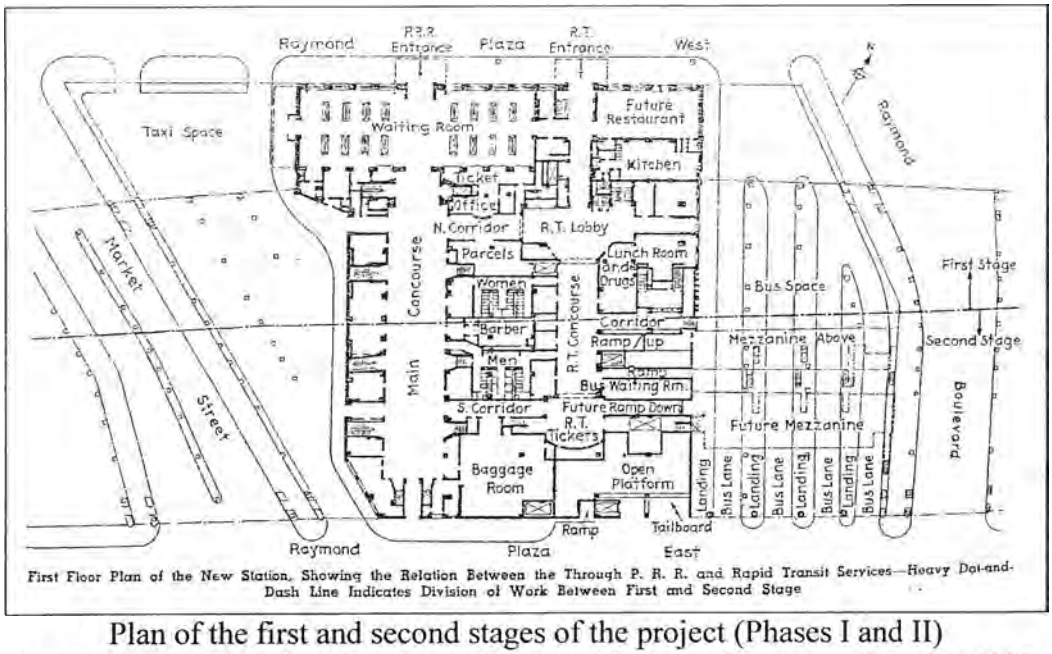


"Construction of Pennsylvania Station, #47," ca. 1934.
Newark Public Library Historic Photograph Collection.

Aerial view of station construction, after tracks removed from the east side.
Train Shed under construction, July 1, 1935. "Newark-Railroads-Pennsylvania, #33," Newark Public Library Historic Photograph Collection.

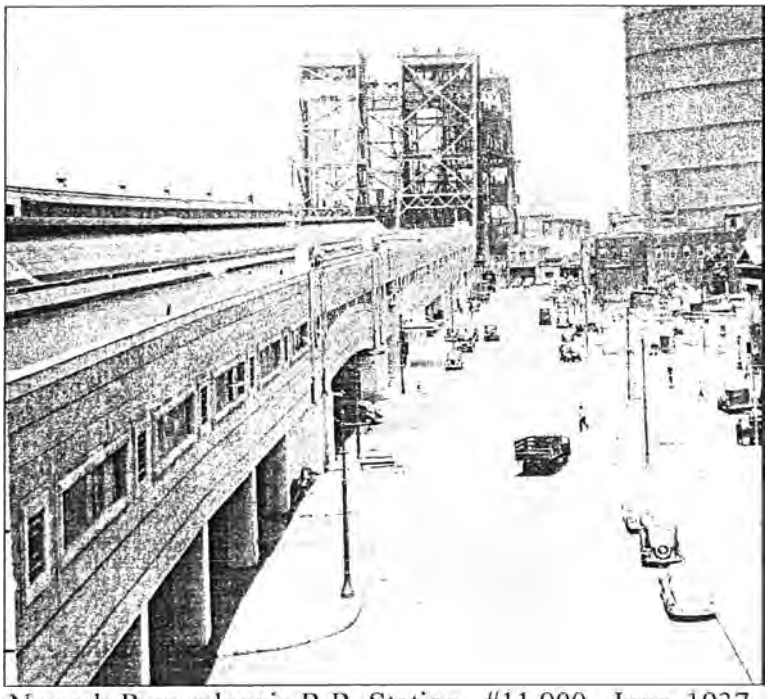


Photograph of the "model board" in the Dock Tower.
"Pennsylvania Opens New Passenger Station at Newark, N.J." *Railway Age*, March 30, 1935.

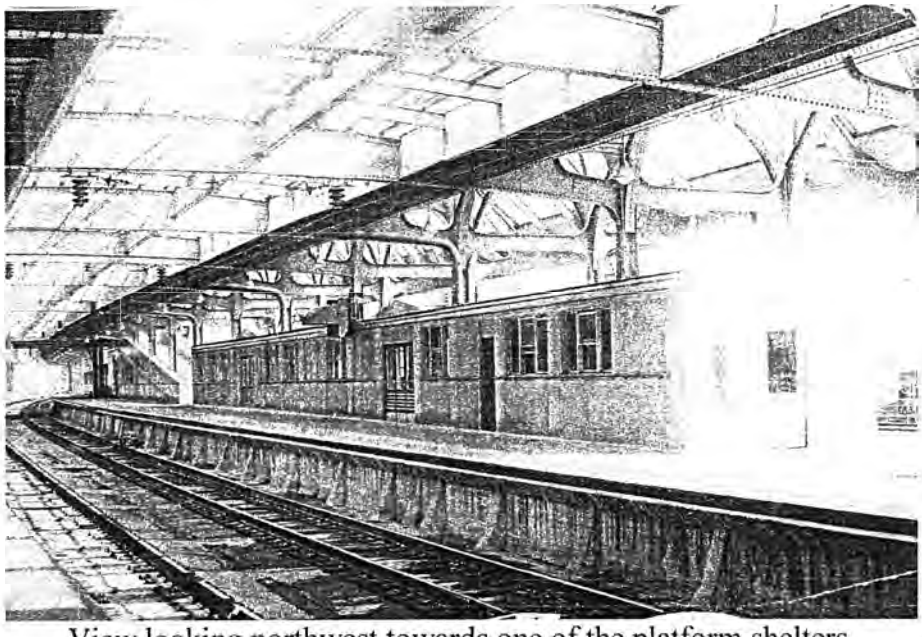


First Floor Plan of the New Station, Showing the Relation Between the Through P. R. R. and Rapid Transit Services—Heavy Dot-and-Dash Line Indicates Division of Work Between First and Second Stage

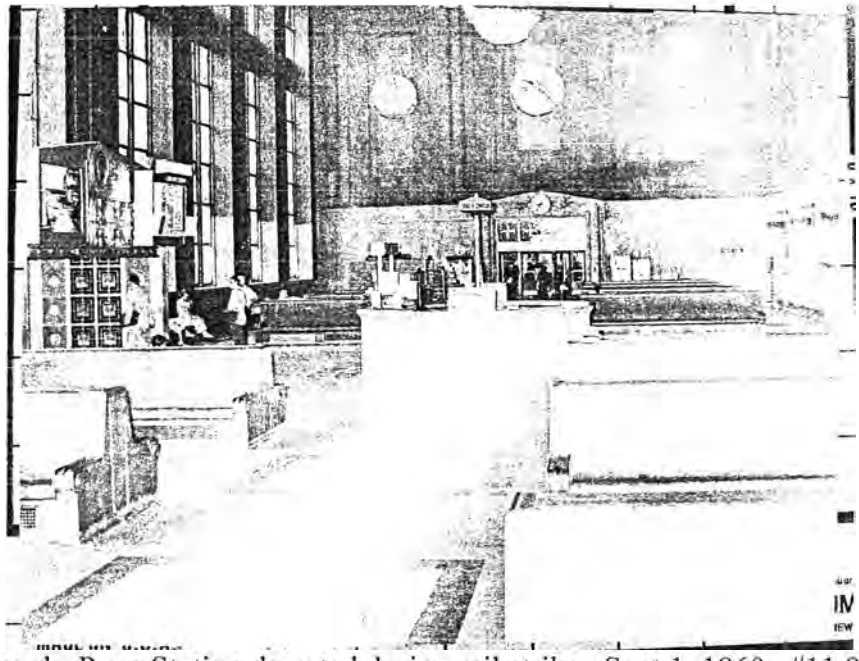
Plan of the first and second stages of the project (Phases I and II)
"Pennsylvania Completes Station at Newark, N.J." *Railway Age*, June 26, 1937.



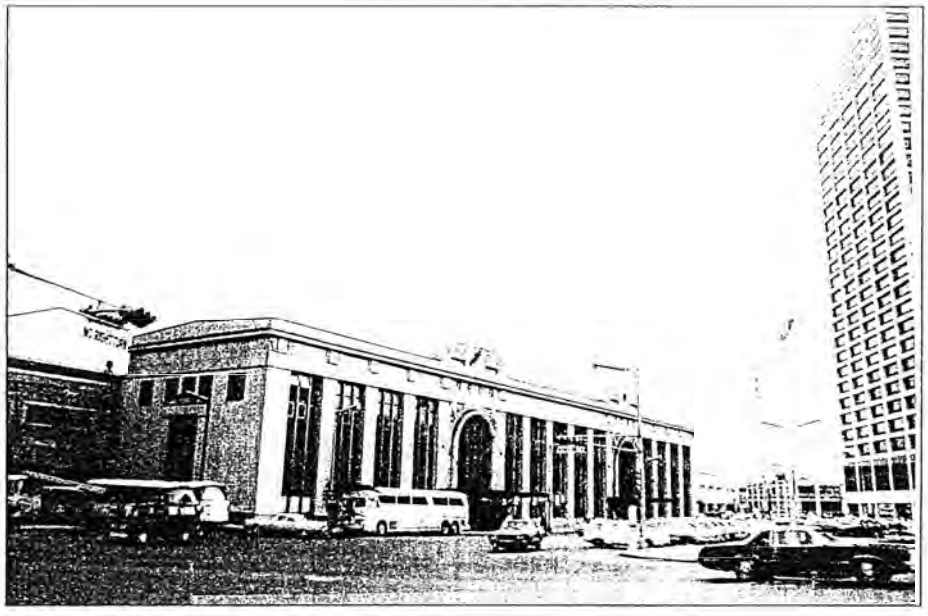
Newark-Pennsylvania R.R. Station. #11,900. June, 1937.
Newark Public Library Historic Photograph Collection.



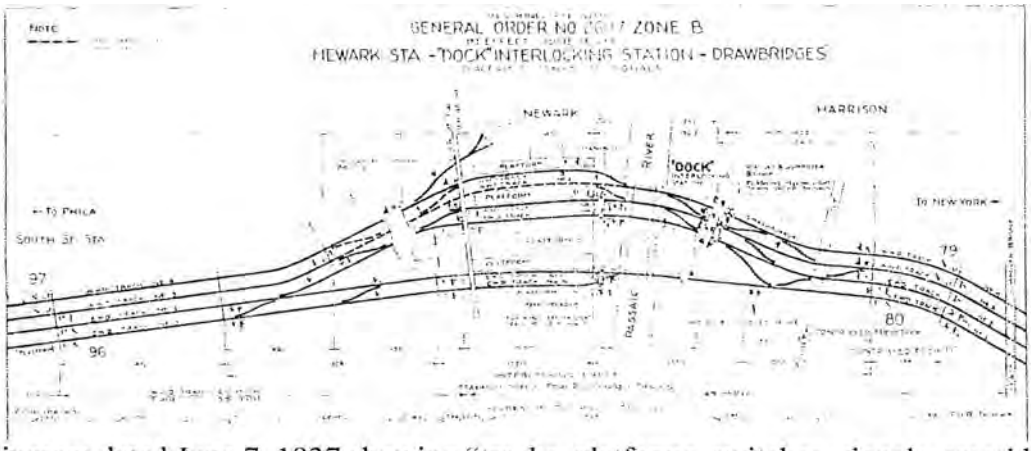
View looking northwest towards one of the platform shelters.
"Newark- Pennsylvania R.R. Island platform and waiting room" March 23, 1935. Newark Public Library Historic Photograph Collection.



Newark- Penn Station deserted during rail strike. Sept 1, 1960. #11,908.
Newark Public Library Historic Photograph Collection



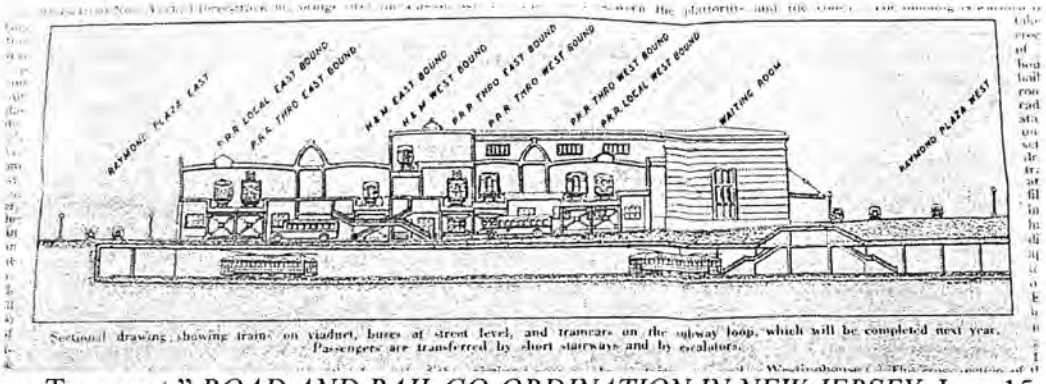
1971 Photograph of the main elevation of Newark Penn Station, prior to the introduction of the Gateway 1 elevated walkway into the north entrance. 1978 *National Register Nomination for Newark Penn Station.*



PRR diagram dated June 7, 1937 showing "tracks, platforms, switches, signals, smashboards, and drawbridges IN SERVICE in accordance with accompanying diagram." On file at Hagley Soda House Archives, Accession 1807/1810, Box 1526, Folder 17.

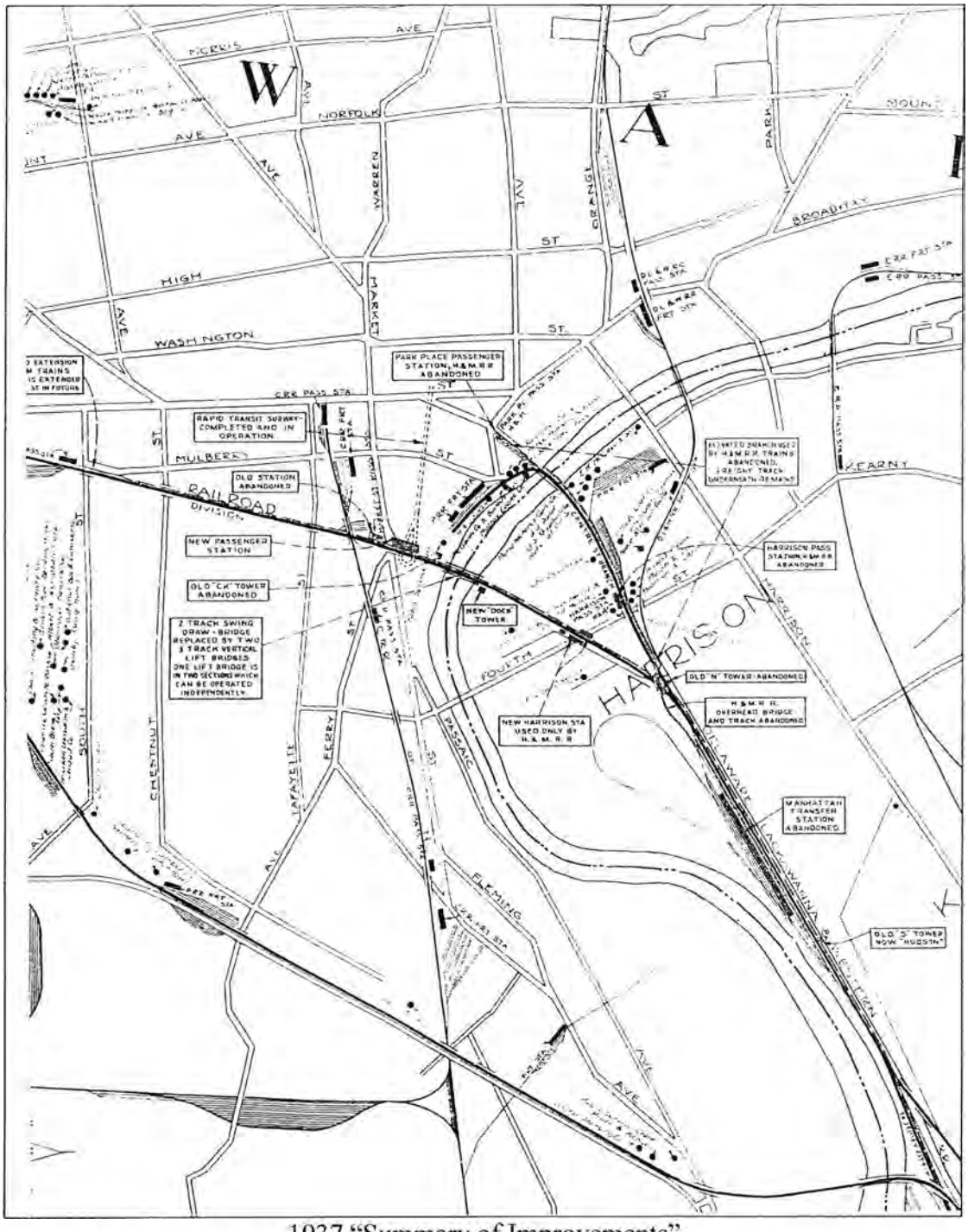
The new frontage on Raymond Plaza West of the Pennsylvania Railroad Market Street station, Newark, New Jersey, where tube trains of the Hudson and Manhattan Railroad and local buses and trainears are also accommodated

"Modern Transport," *ROAD AND RAIL CO-ORDINATION IN NEW JERSEY,* June 15, 1935. On file at Hagley Soda House Archives, Accession 1807/1810, Box 1526, Folder 21.

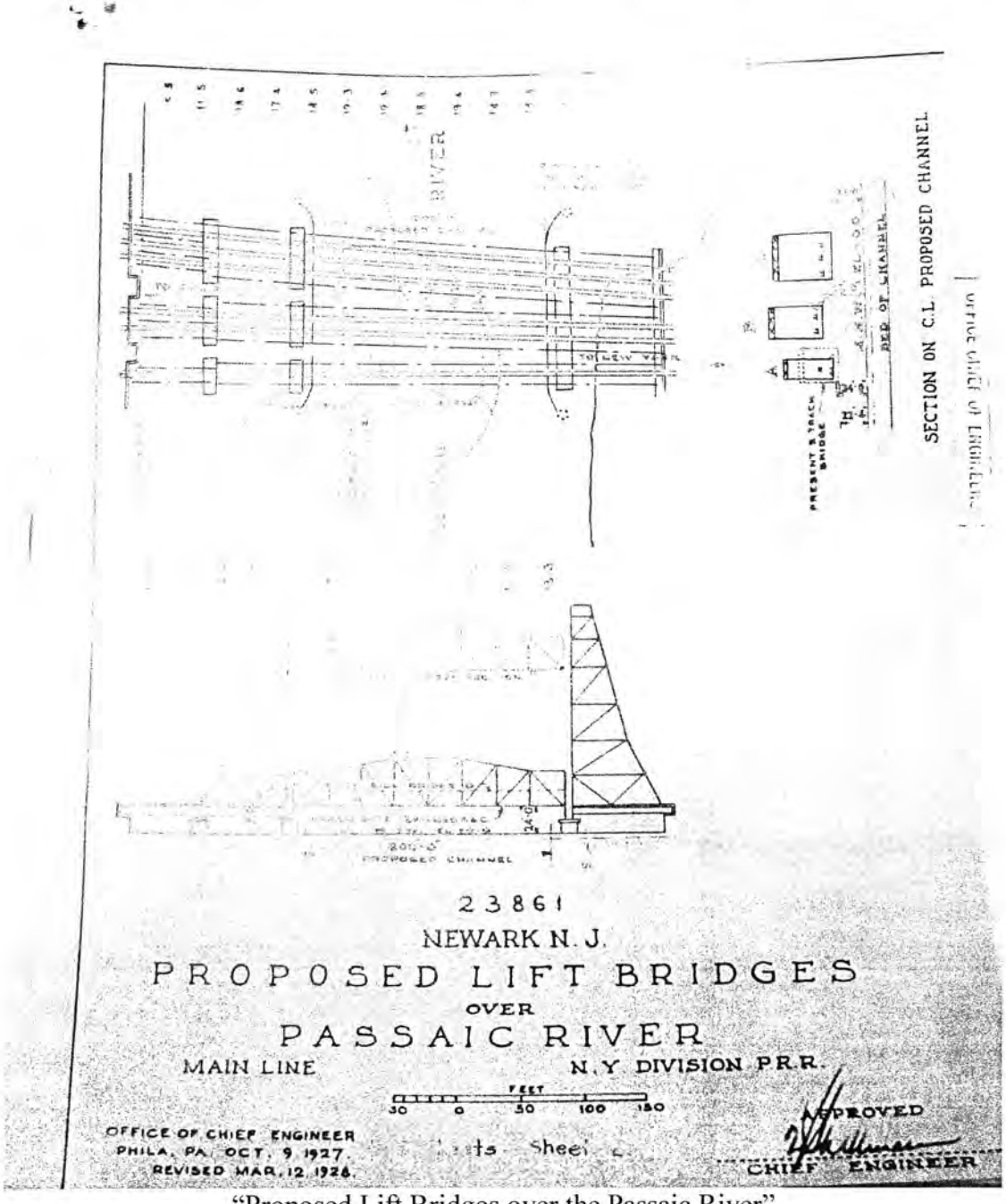


Sectional drawing, showing trains on viaduct, buses at street level, and trainears on the subway loop, which will be completed next year. Passengers are transferred by short stairways and by escalators.

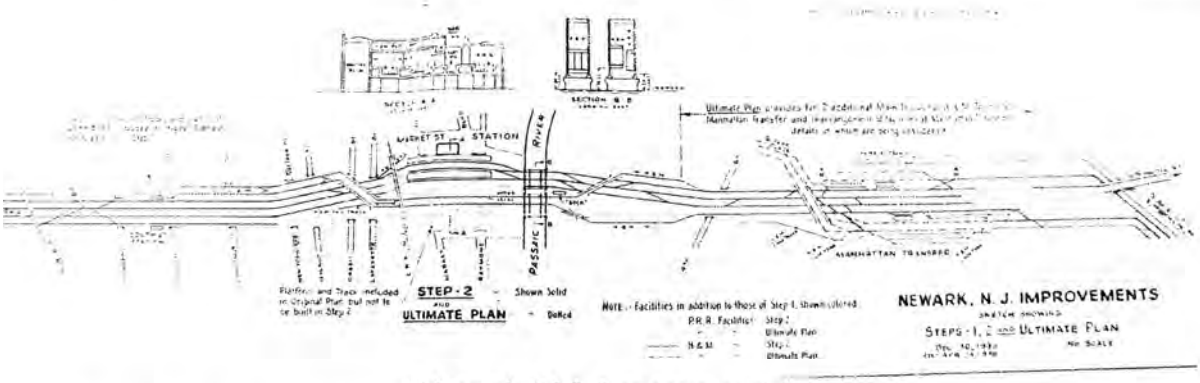
"Modern Transport," *ROAD AND RAIL CO-ORDINATION IN NEW JERSEY,* June 15, 1935. On file at Hagley Soda House Archives, Accession 1807/1810, Box 1526, Folder 21.



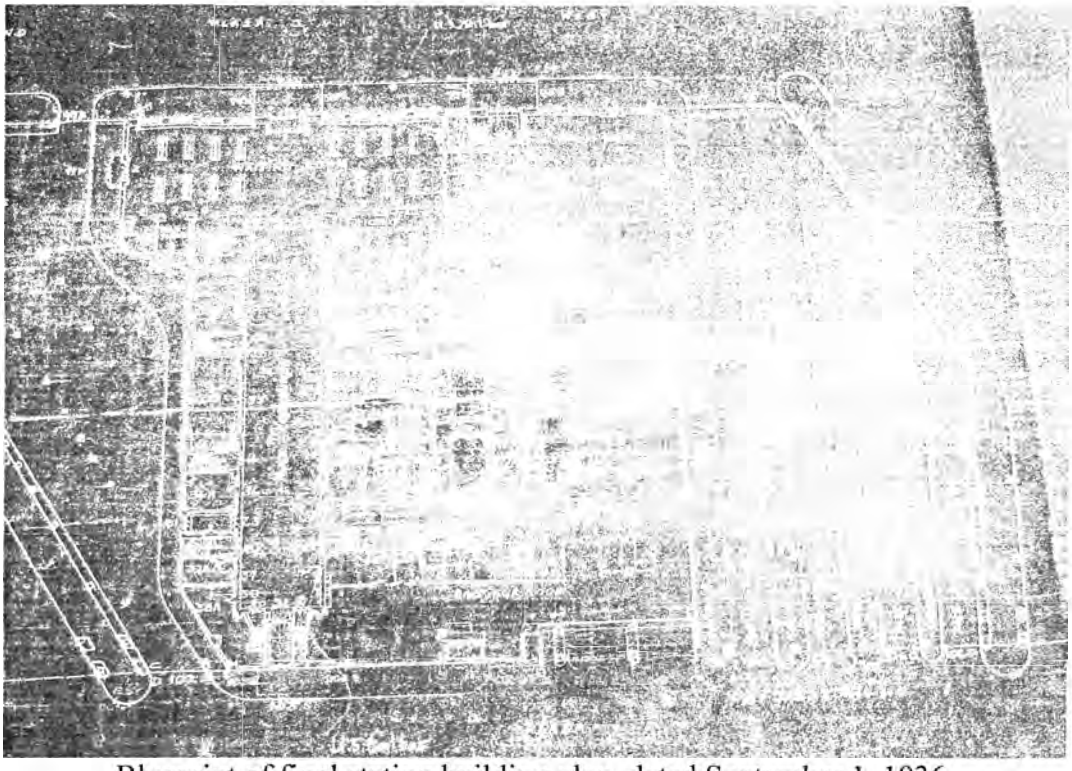
1937 "Summary of Improvements"
On file at Hagley Soda House Archives, Accession 1807/1810, Box 1526, Folder 17.



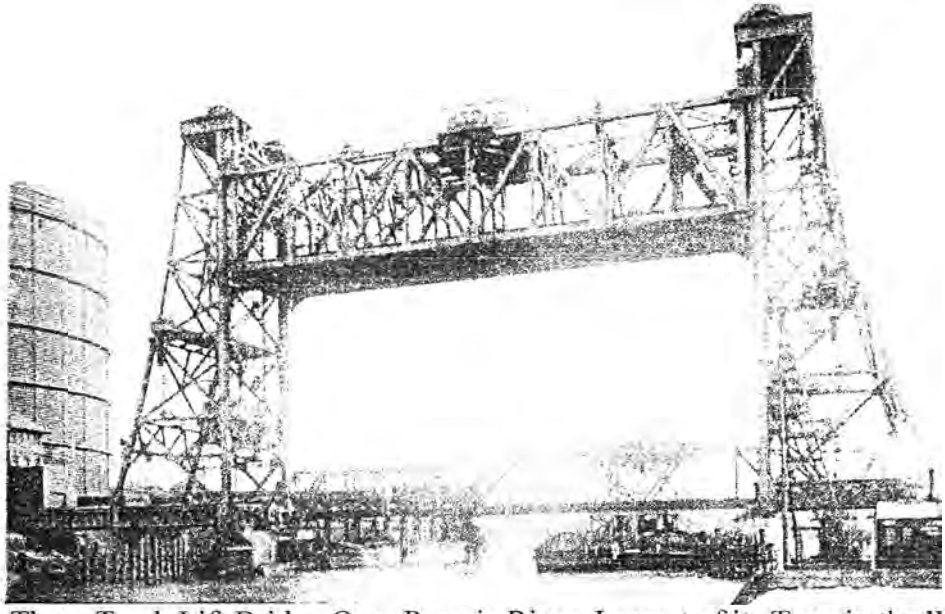
"Proposed Lift Bridges over the Passaic River"
On file at Hagley Soda House Archives, Accession 1807/1810, Box 1527, Folder 7.



"Newark, N.J. Improvements"
On file at Hagley Soda House Archives, Accession 1807/1810, Box 1526, Folder 17.

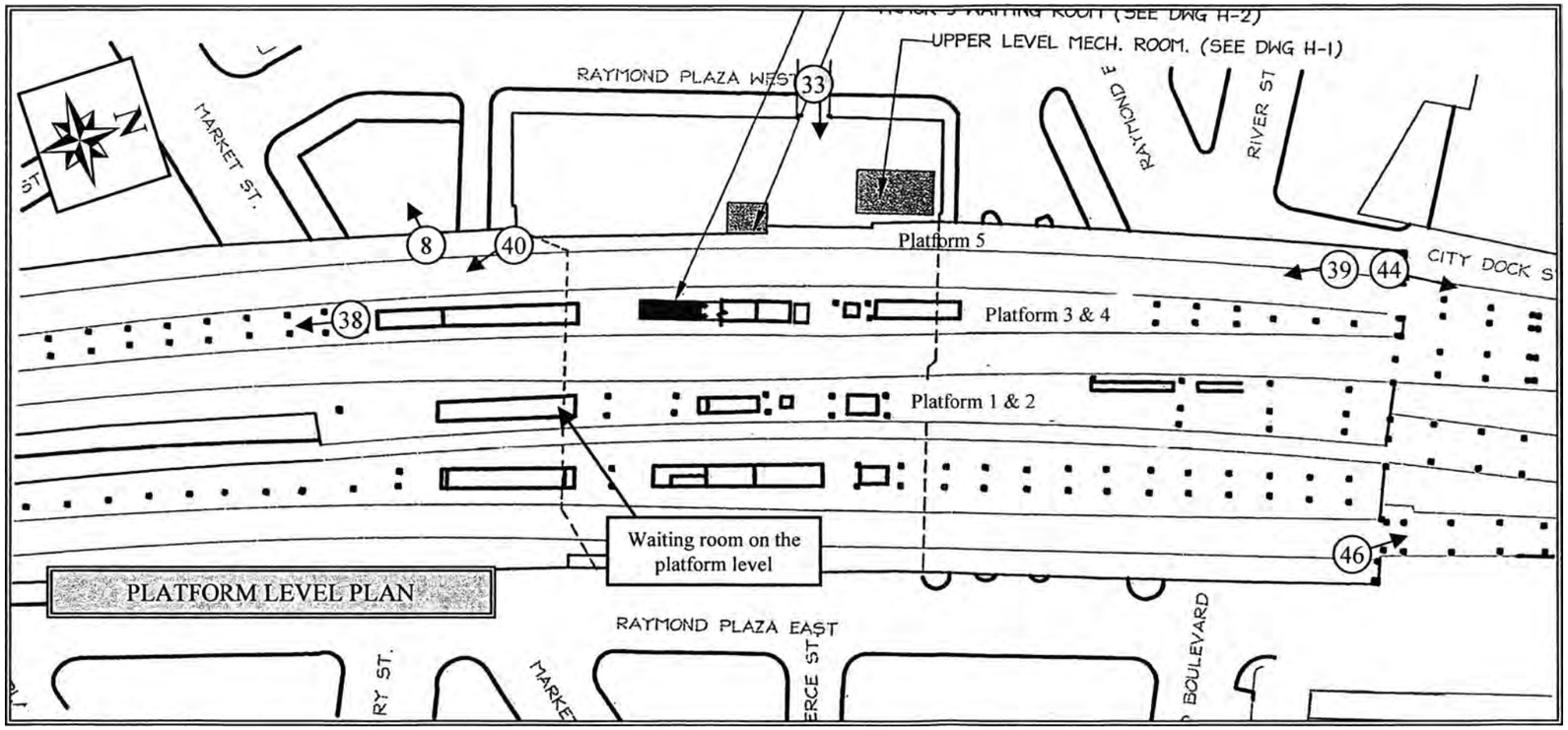


Blueprint of final station building plan, dated September 1, 1936.
On file at Hagley Soda House Archives, Accession 1810, Drawer 17, Folder 2.



"New Three-Track Lift Bridge Over Passaic River, Largest of its Type in the World"
Commemorating the Opening of Pennsylvania Station, Newark, New Jersey, March 23, 1935.
On file at Rutgers University Special Collections and University Archives.

Historic American Engineering Record (Library of Congress) for the Northeast Railroad Corridor, Amtrak Route between Pennsylvania/New Jersey & New, Newark, Essex County, NJ. HAER NJ,7-NEARK,19-. On file at the Library of Congress, Prints and Photograph Division, Washington, D.C.



Key

◯ Photograph from upper level

NPS Form 10-900a
(8-86)

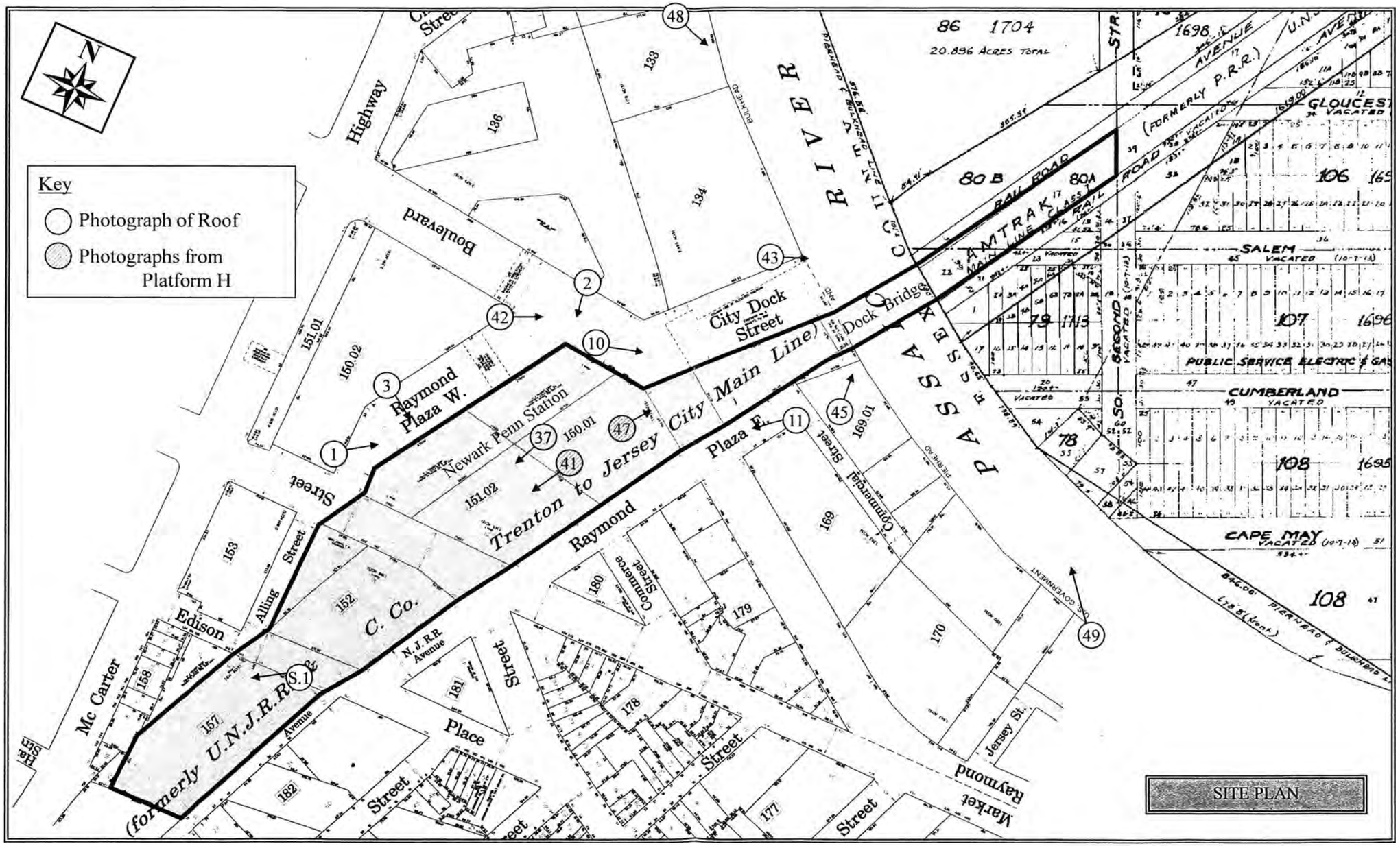
OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Site Plan and
Section number Photograph Key **Page** 1

Newark Penn Station and Dock Bridge (Boundary Increase and Additional Documentation), City of Newark, Essex County and Town of Harrison, Hudson County, New Jersey



NPS Form 10-900a
(8-86)

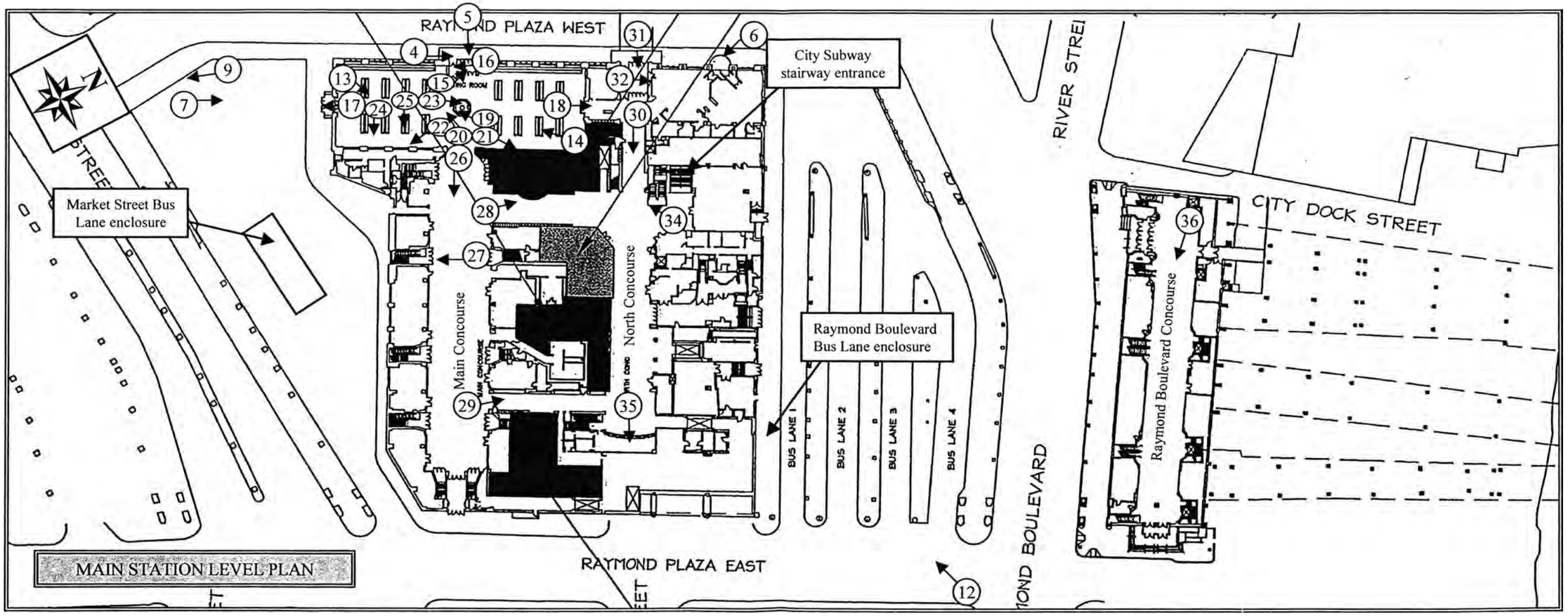
OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Newark Penn Station and Dock Bridge (Boundary Increase and Additional Documentation), City of Newark, Essex County and Town of Harrison, Hudson County, New Jersey

Section number Photograph Key **Page** 2



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Newark Penn Station and Dock Bridge (Boundary Increase)

MULTIPLE NAME:

STATE & COUNTY: NEW JERSEY, Essex

DATE RECEIVED: 10/05/12 DATE OF PENDING LIST: 11/07/12
DATE OF 16TH DAY: 11/22/12 DATE OF 45TH DAY: 11/21/12
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 12000951

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___ RETURN ___ REJECT 11.30.12 DATE

ABSTRACT/SUMMARY COMMENTS:

Entered in
The National Register
of
Historic Places

RECOM./CRITERIA_____

REVIEWER_____ DISCIPLINE_____

TELEPHONE_____ DATE_____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: ADDITIONAL DOCUMENTATION

PROPERTY NAME: Dock Bridge

MULTIPLE NAME:

STATE & COUNTY: NEW JERSEY, Essex

DATE RECEIVED: 10/05/12 DATE OF PENDING LIST:
DATE OF 16TH DAY: DATE OF 45TH DAY: 11/21/12
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 80002484

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

___ACCEPT ___RETURN ___REJECT _____DATE

ABSTRACT/SUMMARY COMMENTS:

Additional Documentation Approved

RECOM./CRITERIA Accept

REVIEWER Edson Beall DISCIPLINE Historian

TELEPHONE _____ DATE 11-21-12

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: ADDITIONAL DOCUMENTATION

PROPERTY NAME: Pennsylvania Station

MULTIPLE NAME:

STATE & COUNTY: NEW JERSEY, Essex

DATE RECEIVED: 10/05/12 DATE OF PENDING LIST:
DATE OF 16TH DAY: DATE OF 45TH DAY: 11/21/12
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 78001760

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

___ACCEPT ___RETURN ___REJECT _____DATE

ABSTRACT/SUMMARY COMMENTS:

Additional Documentation Approved

RECOM./CRITERIA Accept

REVIEWER Edson Beall DISCIPLINE Historian

TELEPHONE _____ DATE 11-21-12

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

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AILROAD


PENNSYLVANIA


NEWARK PENN STATION


NEWARK PENN STATION
BUSES ONLY
3755
MAJORSKA
Premium Vodka


AMTRAK AMM STATION


NEWAR


1935
CAFE 1935


CAFE
EXIT
RAYMOND PLAZA WEST

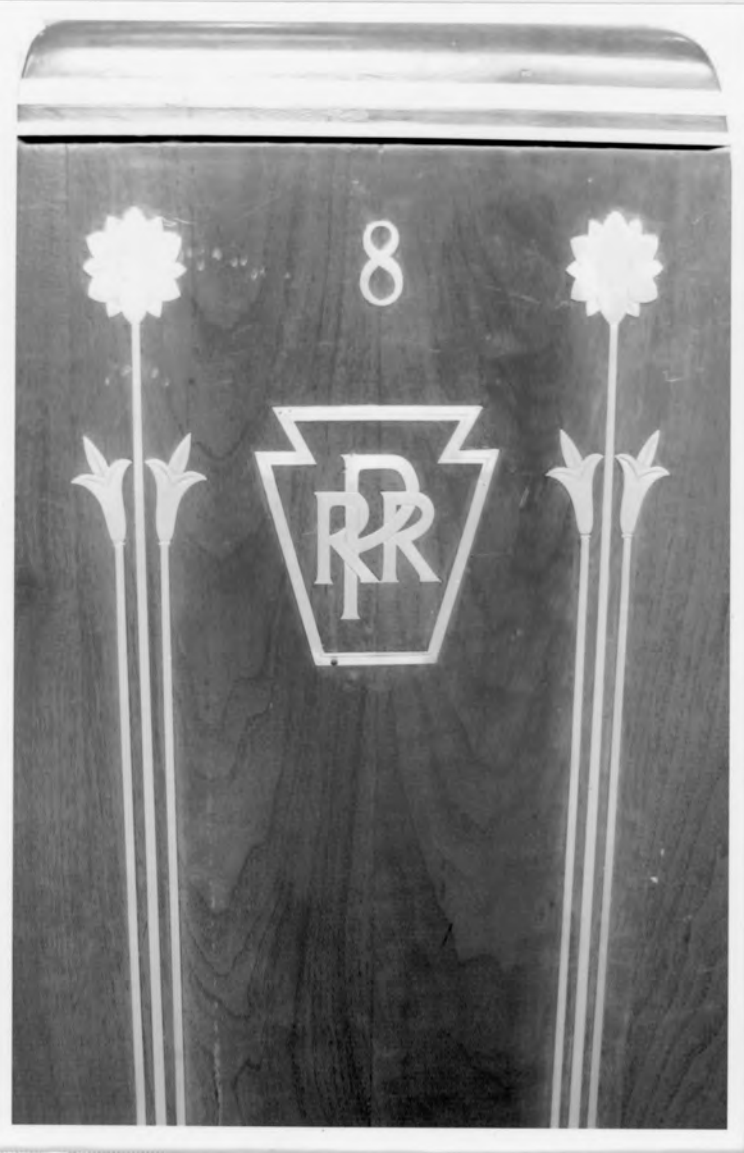

MARKET STREET


NO EXIT


AMTRAK TICKETS


NJ TRANSIT TICKETS
NJ TRANSIT TICKETS


INFORMATION
TRAIN


8
PRR


GREYHOUND, BUS LANES, LIGHT RAIL
ELEVATORS, TO TRACKS 1–5, PATH
EXIT – RAYMOND PLAZA EAST
MARKET STREET BUSES
POLICE, CUSTOMER SERVICE
1-888-TIPS-NJT


#1 in Customer
seven straight
World
WACHOVIA
TRACK 1
& PATH
1 PATH
1 PATH


LOVE
YOU


- CITY SUBWAY - BUSES
↑ BUS LANES, PLATFORM H
↑ ELEVATORS ♿ TO TRACKS
CUSTOMER SERVICES ↑
AMTRAK BAGGAGE ↱


LIGHT RAIL
BUS LANES
INFORMATION, TICKETS, TAXIS
EXIT


The New
Greyhound


TO: ALL TRAINS
EXIT - BUS LANES, LIGHT RAIL
TRACK 5
TRACKS 1 - 4, PATH


TRACK 5 – GATEWAY CENTER – PLATFORM H

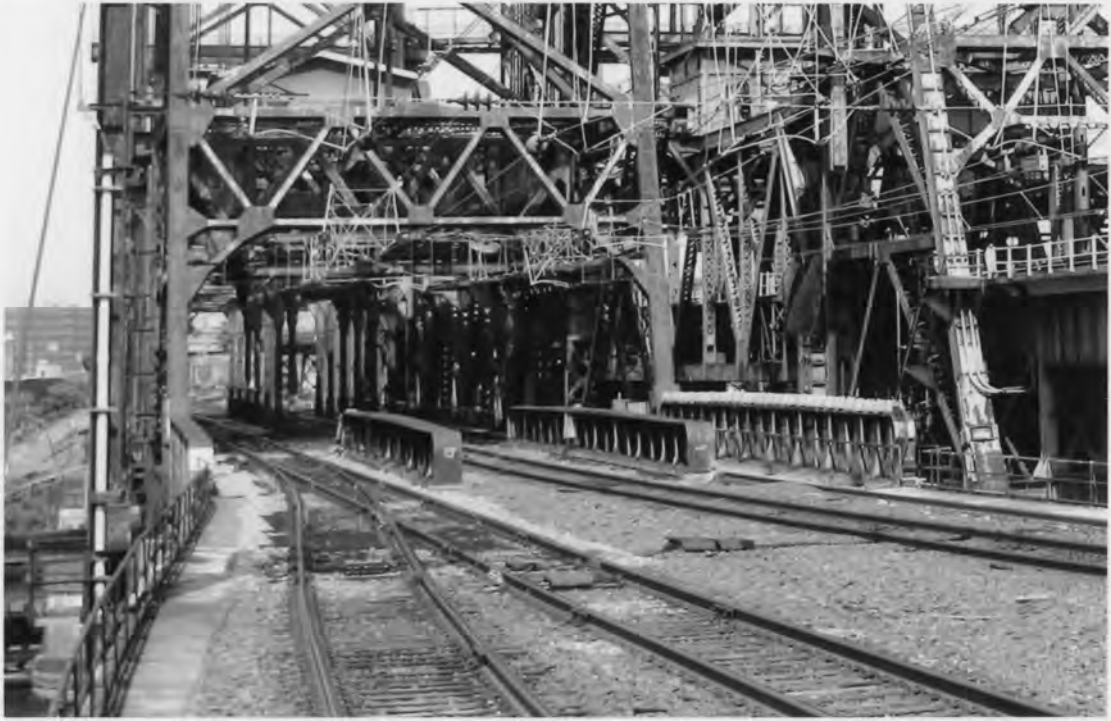

EXIT


TRACK 4


TO STATION
AND STREET


Platform H
WESTWARD
CONNECTING
TRAINS


NEWARK P




ONE WAY
DO NOT ENTER

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

ELIZABETH QUADRANGLE
NEW JERSEY-NEW YORK
7.5-MINUTE SERIES (TOPOGRAPHIC)

Newark Penn Station and Dock Bridge (Boundary Increase and Additional Documentation) City of Newark, Essex County and Town of Harrison, Hudson County, NJ

18T 570380 EA4509332 N
18T 570340 EA4509360 N
18T 570954 EA4509944 N
18T 570959 EA4509875 N

Produced by the United States Geological Survey

Topography compiled 1955. Planimetry derived from imagery taken 1995. Survey control current as of 1967

Selected hydrographic data compiled from NOS Charts 285 (1966), 287 (1966), and 369 (1967). This information is not intended for navigational purposes

North American Datum of 1983 (NAD 83). Projection and 1 000-meter grid: Universal Transverse Mercator, zone 18
2 500-meter ticks: New Jersey Coordinate System of 1983 and New York Coordinate System of 1983 (Long Island zone)

North American Datum of 1927 (NAD 27) is shown by dashed corner ticks. The values of the shift between NAD 83 and NAD 27 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

Landmark buildings verified 1967

MN GN
13½° 240 MILS
0°32′ 9 MILS
UTM GRID AND 1998 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
TO CONVERT FROM FEET TO METERS, MULTIPLY BY 0.3048
DEPTH CURVES AND SOUNDINGS IN FEET, DATUM IS MEAN LOWER LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS 4.8 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

NEW JERSEY
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Caldwell
2 Orange
3 Weehawken
4 Roselle
5 Jersey City
6 Perth Amboy
7 Arthur Kill
8 The Narrows

ADJOINING 7.5' QUADRANGLE NAMES

ROAD CLASSIFICATION

Primary highway hard surface
Secondary highway hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U.S. Route
State Route

INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 1998

ELIZABETH, NJ-NY
1995
NIMA 6165 II NW-SERIES V822

ISBN 0-607-48948-8

HPO Review # 09-1276-7
HPO-J2012-081

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NATURAL AND HISTORIC RESOURCES
Office of the Assistant Commissioner
MAIL CODE 501-03A
PO Box 420
Trenton, New Jersey 08625
609-292-3541/Fax: 609-984-0836

CHRIS CHRISTIE
GOVERNOR

KIM GUADAGNO
Lt. Governor

BOB MARTIN
COMMISSIONER

September 17, 2012

Mr. Paul Loether, Chief
National Register of Historic Places
National Park Service
Department of the Interior
Washington, D.C. 20240

Dear Mr. Loether:

I am pleased to submit the nomination for the Newark Penn Station and Dock Bridge (Boundary Increase and Additional Documentation), City of Newark, Essex County, New Jersey, for National Register of Historic Places consideration.

This nomination received unanimous approval from the New Jersey State Review Board for Historic Sites. All procedures were followed in accordance with the regulations published in the Federal Register.

Should you want any further information concerning this application, please feel free to contact Daniel D. Saunders, Administrator, New Jersey Historic Preservation Office, Mail Code 501-04B, P.O. Box 420, Trenton, New Jersey 08625-0420 or call him at (609) 633-2397.

Sincerely,

Rich Boornazian
Deputy State Historic
Preservation Officer