

CAPSULE SUMMARY

**Glenn L. Martin Company Plant No. 2
(Middle River Depot)
BA-2824**

The Glenn L. Martin Company Plant No. 2 (now known as the Middle River Depot) was built in 1941 for the production of the B-26 Marauder bombers, and contained eight historic buildings, six of which connect to form one large structure. The buildings were one of the first factory expansions funded by the U.S. government under the Emergency Plant Facilities Act, and subsequently operated by the Army Air Corps and leased to the Martin Company. At the Martin Facility Plant #2 was known as "the Army Building." The architectural plan of the Plant #2 comprised two major sections, one for aircraft assembly and one for the manufacture of components, and repeated the design for the 1937 and 1939 additions to Plant #1, designed by Albert Kahn in 1929.

The buildings known as the Middle River Depot are located to the north of Martin Airport at 2800 Eastern Boulevard. Constructed in the 1940s, the buildings on the Depot property are low-lying horizontal blocks, 1-2 stories in height. The simple geometric shapes and massing reflect the utilitarian and industrial nature of these buildings. The use of brick and concrete block as a building material, the simple shapes and industrial aspects of the depot buildings do not necessarily limit their architectural importance. Utilitarian shapes and forms responding to the building's function were often sought out deliberately by architects and engineers to express the industrial nature of the building, as Albert Kahn did here.

MARYLAND HISTORICAL TRUST
MD INVENTORY OF HISTORIC PROPERTIES

Inventory No. BA-2824

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1. Name of Property

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historic name Glenn L. Martin Company Plant #2
common/other name Middle River Depot

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2. Location

=====

street & number 2800 Eastern Boulevard not for publication _____
city or town Baltimore vicinity _____ state Maryland code MD
county Baltimore code 005 zip code 21220

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3. State/Federal Agency Certification N/A

=====

4. National Park Service Certification N/A

=====

5. Classification

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Ownership of Property (Check all that 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

Contributing		Noncontributing		
<u>3</u>		<u>2</u>		buildings
<u>0</u>		<u>0</u>		sites
<u>0</u>		<u>0</u>		structures
<u>0</u>		<u>0</u>		objects
<u>3</u>		<u>2</u>		Total

Is this property listed in the National Register?

Yes _____ Name of Listing _____
No X

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6. Function or Use
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Historic Functions (Enter categories from instructions)

Cat: <u>DEFENSE</u>	Sub: <u>Air Facility</u>
<u>TRANSPORTATION</u>	<u>Air- & Rail-Related</u>
<u>INDUSTRY</u>	<u>Manufacturing Facility</u>

Current Functions (Enter categories from instructions)

Cat: <u>GOVERNMENT</u>	Sub: <u>Government Office</u>
_____	_____
_____	_____

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7. Description
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Architectural Classification (Enter categories from instructions)

Moderne

Materials (Enter categories from instructions)

foundation Solid: Concrete
roof Flat: Synthetic
walls Masonry: Concrete Block
other _____

Narrative Description (Describe the historic and current condition of the property.)

See Continuation Sheet No. 7-1

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8. Statement of Significance
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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.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a 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.

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Areas of Significance (Enter categories from instructions)

Architecture
Engineering
Transportation

Period of Significance 1941-present

Significant Dates 1941-42

Significant Person (Complete if Criterion B is marked above)
Glenn L. Martin

Cultural Affiliation Undefined

Architect/Builder Albert Kahn

Narrative Statement of Significance (Explain the significance of the property.)

See Continuation Sheet No. 8-1

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9. Major Bibliographical References
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(Cite the books, articles, legal records, and other sources used in preparing this form.)

Books:

Brooks, Neal and Parson, Richard. *Baltimore County Panorama*.
Baltimore County Public Library. Towson, Maryland: 1988.

Entry's for Glenn L. Martin in *Current Biography*, 1943.

Entry's for Albert Kahn in *The National Cyclopedia of American Biography*, V. 31, 1944.

Fitch, James Marston. *American Building: The Historical Forces That Shaped It*. Schocken Books, New York, 1973.

Handlin, David P. *American Architecture*. Thames and Hudson, London, 1985.

Hildebrand, Grant. *Designing for Industry: The Architecture of Albert Kahn*. The MIT Press, Cambridge, Massachusetts, 1974.

Jordy, William H. *American Building and Their Architects Volume 5: The Impact of European Modernism in the Mid-Twentieth Century*. Oxford University Press, New York, 1972.

Scully, Vincent. *American Architecture and Urbanism*. Praeger Publishers, New York, 1969.

Still, Henry. *To Ride the Wind: A Biography of Glenn L. Martin*. Julian Messner, In., New York, 1964.

Articles:

"Collier Trophy to Glenn L. Martin." *Popular Science*. June, 1933.

"Don't Ever Change (Coming Home)" Guroff, Margaret. *Baltimore Magazine*, October, 1996. p. 144.

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"From Barnstorming to Bombers." Burlingame, Roger. *Popular Science*, September, 1941. Volume 139, No. 3.

"Glenn L. Martin" entry in *Current Biography*, February 1943.

"Glenn L. Martin Awarded Trophy." *Baltimore Sun*. May 25, 1933.

"Glenn L. Martin To Be Buried in California." *Baltimore Sun and Evening Sun*. December 5, 1955.

"Martin Marietta: 60 Years in Baltimore." *The Star Martin Marietta Aero & Naval Systems*, October, 1989.

"Middle River As a 5-Family Town." *Baltimore Sun*, November 28, 1954.

"Rosie the Riveter: We Can Do It." *The Towson Times*, April 12, 1995.

"See You Tomorrow in London." Davis, Forrest. *Saturday Evening Post*. August 14, 1937.

"When Middle River was Mr. Glenn Martin's Territory." *Baltimore Evening Sun*, November 16, 1979.

Pamphlets and Brochures:

Martin Company. "Box Kites to Bombers, The Story of the Glenn L. Martin Company," Thomsen, Ellis, Hutton and Company: Baltimore, Maryland, 1960. Baltimore County Public Library, Essex Branch.

Martin Company. "Plane Facts," Martin Company, Baltimore, 1960. Baltimore County Public Library, Essex Branch.

Martin Company, Public Relations, Baltimore Division. "A Half Century of Flight: The Martin Company Story," 1965. Baltimore County Public Library, Essex Branch.

Martinak, George. "A Short History of Essex and Middle River," Essex Community College. Essex: May 1963. (Published pamphlet available at the Maryland Room, Enoch Pratt Library)

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Reports and Files:

Berger, Louis & Associates. *Archaeological Reconnaissance and Architectural Evaluation Middle River Depot, Middle River, Maryland.* U.S. General Services Administration, Region 3, 1993.

"Glenn L. Martin Airport" Vertical File at Maryland Historical Trust, Crownsville, MD.

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10. Geographical Data
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Acreage of Property 50.93 Acres

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

The Middle River Depot is designated as Parcel 41 as indicated on Tax Map 91, Grid 8.

Boundary Justification (Explain why the boundaries were selected.)

The Middle River Depot has been historically associated with Parcel 41 since its construction in 1941-42.

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11. Form Prepared By
=====

name/title Andrea Bakewell Lowery, Architectural Historian
organization Traceries date August 20, 1997
street & number 5420 Western Avenue telephone 301/656-5283
city or town Chevy Chase state MD zip code 20815

=====
12. Property Owner
=====

name United States of America
street & number 2700 Eastern Ave. telephone _____
city or town Baltimore state MD zip code 21220
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The buildings known as the Middle River Depot are to the north of Martin Airport at 2800 Eastern Boulevard. Constructed in the 1940s, the buildings on the Depot property are low-lying horizontal blocks, 1-2 stories in height. The simple geometric shapes and massing reflect the utilitarian and industrial nature of these buildings. The use of brick and concrete block as a building material, the simple shapes and industrial aspects of the depot buildings do not necessarily limit their architectural importance.

Utilitarian shapes and forms responding to the building's function were often sought out deliberately by architects and engineers to express the industrial nature of the building, as Albert Kahn did here.

EXTERIOR:¹

OVERALL COMPLEX:

Plant #2, now known as the Middle River Depot property contains eight historic buildings, six of which connect to form one great structure. The original main section of the B-26 plant forms the core of the multi-building structure, covering at least half of the composite structure's ground space. All the buildings are constructed of steel frame on concrete foundations. All have exterior walls composed of concrete block, except the administration building and a storage facility which have walls laid in stretcher-bond brick.

¹ Architectural Description is based on Architectural Information in the: Berger, Louis & Associates. *Archaeological Reconnaissance and Architectural Evaluation Middle River Depot, Middle River, Maryland.* U.S. General Services Administration, Region 3, 1993.

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ADMINISTRATIVE BUILDING:

The Administrative office building is located in front of the main structure, and is the one free-standing building at the east of the complex. Located adjacent to the entry gate to the facility, the flat-roofed, two-story rectangular office building was constructed in 1941. The exterior walls are composed of buff-colored brick laid in stretcher-bond. Aside from a large, projecting, curved corner window of glass block at the first-story level, the windows are metal, one-over-one sash arranged in pairs and triples. A Moderne-styled marquee curves around the top of the glass block projection. Fabricated of pressed metal with three horizontal bands, the marquee's curvilinear form and horizontal emphasis strengthens the building's stream-lined architecture. Stone sills and slightly projecting stone lintels also accentuate the horizontal emphasis of the composition.

MAIN DEPOT BUILDING:

The original main building of Glenn L. Martin Plant #2, built in 1941, is a two-story, rectangular structure. It is divided into two rectangular sections to the southwest and northeast. The two sections differ in ground dimensions, height and roof shape. Both sections are constructed of steel frame on concrete foundations, and have exterior walls composed of concrete block. It is in the two sections of this building that Kahn and his associates continued the distinctive structural designs of the 1937 and 1939 additions to the Martin Plant #1.

The southwestern section, formerly the great open airplane assembly area, resembles Kahn's 1937 design for the addition to Plant #1. The ground dimensions are approximately three hundred feet by six hundred feet. It is somewhat taller than the northeastern section. The main structural element is a series of six great "simple span, parallel chord Pratt trusses, three hundred feet in length, thirty feet depth."² On the roof six blocked-shaped monitors of a half-story height, running atop each truss for its full length from southwest to northeast, alternate with spaces of flat roof. The

² Hildebrand, Grant. *Designing for Industry: The Architecture of Albert Kahn*. The MIT Press, Cambridge, Massachusetts, 1974, p. 183. This description applies to the identical building on Plant #1.

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northwest and southwest elevations of the monitors are composed of continuous 24-light metal sash. The open elevations of the southwestern section feature three vertically separated band windows, each window being a row of 12-light sash running the full width of the elevation. On the northwest elevation of the section was a 300-foot-wide, 45-foot-high door "divided into three sections horizontally and two vertically, and operable as separate sections or as a unit" to permit egress for completed planes.³ This door has been removed. The interior of the aircraft assembly section was originally one great open space.

The northeastern section, where aircraft components were manufactured, resembles Kahn's 1939 addition to Plant #1. Its ground plan is approximately 600 feet square. This section's main structural element is a system of six pairs of Warren trusses, "supported at their midpoints and cantilevering in either direction ... These trusses in turn rest on trusses running [the length of the section], spanning one hundred feet between columns."⁴ There are seven half-story monitors on its roof, running across the section from northwest to southeast, separated by relatively narrow spaces of flat roof. Each of the monitors has a flat roof with shed-roofed upturns (casing the Warren trusses) along both its southwest and northeast elevations, which are composed of continuous twenty-four-light sash windows. The south-westernmost and north-easternmost half-story structures have a shed roof only over the lateral elevation. The open elevations of the northeastern section feature two vertically separated band windows, similar to the elevations of the southwestern section.

NORTHEAST ADDITION TO MAIN DEPOT BUILDING:

This major addition to the northeast wall of the original plant building was constructed for the Naval Industrial Reserve in 1952 as warehouse space. Constructed of steel frame on concrete foundations, the exterior walls are composed of parged concrete block. The building is a two-story rectangular structure of the same breadth as the Main Depot Building. The ground dimensions measure approximately 450 x 600 feet. Fenestration, consisting of

³ Ibid., p. 193.

⁴ Ibid., p. 194.

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loading bays, doors, and small office windows, is sparse. The east elevation is essentially presented as a solid concrete block wall. The north elevation has a one-story loading dock addition, set on a concrete foundation and clad with aluminum siding.

THREE SOUTH ANNEXES TO MAIN DEPOT

The three annex buildings were elements of the 1941 plant, and adjoin the southeast elevation of the Main Depot Building. The South Loading Dock intervenes between the annex buildings and the original plant building. These structures originally housed the logistical services for the plant such as supervisory areas, toilets, lockers, cafeteria, and first aid station. All three buildings are constructed of steel frame on concrete foundations, with exterior walls of parged concrete block.

A free-standing cylindrical water tank is located immediately to the south of the northeastern annex building. Constructed of parged concrete block, the tank is slightly taller than the other annex structures.

Northeastern Annex Building: This relatively small, flat roofed, one-story rectangular building is the northeasternmost of the three. This building is slightly lower in height, than the other two annex buildings. Originally constructed as a separate slightly lower structure, it now joins the extension of the middle building. The twenty-light steel ribbon windows run along the entire width of the west and south elevations. The upper eight lights and four lower lights are fixed while the inner section of the window is an eight-light pivoting window.

Middle Annex: This flat roofed, one-story rectangular building is the middle building of the three structures. It is now physically attached to the northeastern and southwestern annex buildings. Its open elevations feature clerestories, the upper one composed of continuous twelve-light sash and the lower one of continuous sixteen-light sash.

Southwestern Annex Building: This flat roofed, 1-story rectangular building is the southernmost of the three annex buildings. Its open elevations each feature vertically separated clerestories, composed of glass blocks.

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NORTH ANNEX:

This flat roofed, one-story rectangular building was constructed sometime between 1941 and 1951. It adjoins the northwest elevation of the Main Depot Building, with the North Loading Dock intervening. Constructed of steel frame on a concrete foundation, the exterior walls are composed of stretcher-bond brick. The addition's open elevations feature twenty-light windows grouped in triples and pairs separated by vertical bands of brick. The railroad tracks run immediately to the north of the North Annex as they proceed to the Paint Hangar.

PAINT HANGAR:

The one-story, flat roofed rectangular Paint Hangar was constructed in 1941. Its three large openings on the northeastern elevation accommodated railroad cars transferring components from Plant #1 for painting in this painting facility. The parged concrete block walls, are relieved on the southeast and northwest elevations by continuous horizontal bands of eight-light metal sash windows.

The important identifying marks produced by the workers in the Paint Hangar were identifiable "by every neighborhood child old enough to read [who] could tell the markings on the short, yellow-brown wings of the aircraft [which] identified them as bound for French and British fields in a war that was then far away. Their camouflage blended with the desert sands of North Africa; they were to carry the names 'Baltimore' and 'Maryland,' and the handiwork of local men and women to such exotic places as El Alamein, Mersa Matruh, Derna, and Bengazi. The names 'Essex' and 'Middle River' were to reach the dark continent in the persons of men who joined the company's field service to help keep the war birds flying."⁵

⁵ Martinak, George J. *A Short history of Essex and Middle River.* Paper prepared, May 1963, p.29.

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NON-HISTORIC BUILDINGS:

Two non-historic buildings have been erected on the Depot property. Between the main depot building and the paint hangar is a smaller storage building. The storage facility is set on a concrete foundation, and the concrete block walls are parged. A flat roof caps the composition, and a metal overhead door provides access.

To the north of the north annex and railroad tracks is a non-historic garage. The one-story, concrete block garage is covered with a side gable roof. The four bays are marked on the south elevation by large unfilled openings.

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The former Martin Company Middle River Complex was in its heyday during World War II, a prime example of a functionally integrated industrial network. Airplanes were produced at the two plants and then tested at the company airport. The Complex represented a significant key war production installation during World War II, and was the chief facility for the manufacture of the B-26 Bomber.

Albert Kahn's and his design firm were innovators in American industrial architecture and his work at the Martin Complex is recognized as amongst his finest industrial design achievements.

The buildings known as the Middle River Depot to the north of Martin's Airport at 2800 Eastern Boulevard were constructed in the 1940s. The buildings on the Depot property are low-lying horizontal blocks, 1-2 stories in height. The simple geometric shapes and massing reflect the utilitarian and industrial nature of these buildings. The use of brick and concrete block as a building material, the simple shapes and industrial aspects of the depot buildings do not necessarily limit their architectural importance.

Utilitarian shapes and forms responding to the building's function were often sought out deliberately by architects and engineers to express the industrial nature of the building, as Albert Kahn did here.

The Glenn L. Martin Plant #2 (now known as the Middle River Depot) was built in 1941 for the production of the B-26 Marauder bombers, and contained seven buildings which connect to form one large structure. The buildings were one of the first factory expansions funded by the U.S. government under the Emergency Plant Facilities Act, and subsequently operated by the Army Air Corps and leased to the Martin Company. At the Martin Facility Plant #2 was known as "the Army Building." The architectural plan of the Plant #2 comprised two major sections, one for aircraft assembly and one for the manufacture of components, and repeated the design for the 1937 and 1939 additions to Plant #1.

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Architectural historian Grant Hildebrand, author of a comprehensive study of Albert Kahn's industrial projects, notes the significance of the designs by the Kahn firm for the Martin Middle River aircraft assembly buildings as representing an important innovation in American industrial architecture. Needing to design a huge building that could accommodate a 300-foot-wide door along one end wall, and that would also be the lightest possible structure, Kahn and his team borrowed from the engineering technology associated with bridge construction. They designed a system of 300-foot trusses to span and support the structure.

No building has been built with a flat span as great as three hundred feet. The largest was the two-hundred-and-forty-foot span of the Crucible Steel Company mill of 1919 at Harrison, New Jersey. On the other hand, much longer flat spans had been used in bridge technology for many decades. Logically Kahn turned to bridge techniques for the Martin trusses.

The total plant is one of Kahn's finest designs. Though smaller than many others, it deals with the making of machines at a scale unprecedented even in his own work. The principles behind every aspect of the design are conservative; the power of the solution lies in the exploitation of these principles at a scale and with a boldness normally found only in great works of civil engineering.⁶

Plant #2 was devoted solely to production of the B-26 Marauder Medium Bomber, a highly effective engine of destruction that won respect from Allied air force crews and commanders during World War II. The Martin Company built 3,572 Marauders at Plant No. 2 and another 1,585 in Omaha, Nebraska. The B-26 was employed in every theater of the war, serving the British Royal Air Force, the South African Air Force and the Free French Air Force, as well as the U.S. Army Air Force. The Martin engineers who designed the Marauder chalked up a number of firsts: the first aircraft to carry a power-operated gun turret, first to be fitted with an all-plexiglass bombardier's nose, first to employ an all-electrical

⁶ Hildebrand, Grant. *Designing for Industry: The Architecture of Albert Kahn*, The MIT Press, Cambridge, Massachusetts, 1974. pp 183-184 and 194, 197.

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bomb release mechanism, first with an aerodynamically perfect
fuselage.⁷

In 1942, during World War II, the Martin Company work force at Middle River peaked at 53,000, and that year the population of Essex and Middle River combined to reach 100,000, making the peninsula community the second largest urban concentration in Maryland. Workers migrated to the area from the rural south, from the West Virginia mountains, from coal towns in Pennsylvania, and from the Midwest. Housing developments created during this period for the rapid influx of workers included Aero Acres, Victory Villa, Stansbury Estates and a trailer park with innovative prefabricated housing units located immediately to the east of the Martin facility. According to Glenn L. Martin biographer Henry Still, the first women to work in heavy industry during World War II were hired by the Martin Company at Middle River in October 1941.⁸

In 1945, with the end of the war and the replacement of the B-26's mission by a new model of bomber, Glenn Martin Plant #2 became a redundant facility for the company. Plant #2 was released to the Army in 1946. Since that time the property has been used by the Army for a Signal Corps depot (1947-1952) and currently used for distribution of Government publications, by the Navy for a Naval Industrial Reserve Plant (1964-present). In 1952 the Navy constructed a large warehouse addition to the plant building.⁹

Two buildings have been demolished on the Martin complex over the years. The Strawberry Point Seaplane Hanger (a mile away from the existing complex); and D Building behind Plant #1 built on a different structural system in 1940-1941. The Administration Building, and Building B and Building C at Plant #1 are largely intact, although siding now covers their exterior walls.

⁷ Havener, J.K. *The Martin B-26 Marauder*. Tab Books, Inc., Blue Ridge Summit, PA, 1988. p. 5-9, 24. and Mendenhall, Charles A. *Deadly Duo: The B-25 and B-26 in World War II*. Specialty Press, Osceola, WI, 1981, Plates 1,2,3.

⁸ Still, Henry. *To Ride the Wind: A Biography of Glenn L. Martin*. Julian Messner, Inc., New York, 1964, p. 208.

⁹ General Services Administration, *Building Evaluation Report for Middle River Federal Depot*, 1962; U.S. Army Corps of Engineers, Baltimore District, *Defense Environmental Restoration Program Findings and Determination of Eligibility Report for Naval Industrial Plant, Bengies, Maryland*, 1991.

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**PIONEER AVIATOR AND FOUNDER OF GLENN L. MARTIN COMPANY:
GLENN L. MARTIN**

Aircraft pioneer and manufacturer Glenn L. Martin was born in Macksburg, Iowa in 1886. His interest in aviation was nurtured at an early age by his mother and mentor Minta Delong Martin. Martin once told newspaper interviewers that what influenced him most in his long career was "my mother who encouraged me to believe in myself."¹⁰ She had sufficient confidence in his pioneering inventions to fly with him in his airplanes when they were in design infancy. In 1943, in her late 70s she was regarded as "the Grand Old Lady of Aviation."

After his family's relocation to Liberal, Kansas, in 1888 Martin won a contest for the design of a box kite which he began fabricating and selling for 25 cents in his family's living room.

According to Alva Johnson of the *New Yorker*, Martin combined his talent for aerodynamics with a sound business talent. The kites were sold on an installment plan and in his living room factory he turned out three a day.

His family again relocated to Salina, Kansas, and after graduating from high school, he attended college for one year, but was restless with his courses in business. When the first automobile garage opened in the city he immediately gained employment, and quickly developed an expertise in motors. Soon after his family moved to Santa Ana, California in 1905, Martin opened his own garage. Working with automobile engines and motors formulated his deep understanding of motors and their capabilities, particularly as applied to airplanes and flight. Martin was aware of the major advances and experiments of the Wright Brothers at Kitty Hawk beginning in 1903, and began his own experiments with biplane gliders and push-type airplanes. In 1908, he constructed a motorized biplane with a whittled propeller and a Ford Model V fifteen horsepower automobile motor. "I don't know where all the fifteen horses were," he told Roger Burlingame years later. "I never seemed to be able to get them all into the engines at one time."¹¹ With this endeavor Glenn Martin was the third man in the United States to teach himself to fly in a self-made ship.

¹⁰ Entry for Glenn L. Martin, *Current Biography*, 1943 pg. 501.

¹¹ Entry for Glenn L. Martin, *Current Biography*, 1943 pg. 501.

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Subsequent years saw Martin balancing careers as an automobile salesman to finance his aviation experiments and fabrication of airplanes. In 1909, he established an airplane factory, one of the first in the country. By 1910, Martin was comparing himself with the Wright Brothers, and began flying airplanes in airshows, performing daredevil stunts, and exhibition flights. Not only was he the leading exhibition flyer but he was also the leading manufacturer of airplanes in the country. His earnings from his show flying went directly into his factory that he moved to Los Angeles in 1912. The ensuing years reflected major records and aviation first for Martin. Martin blazed the path for airmail when he transported a sack of mail from Dominquez to Compton, California in 1912. His seaplane trip from Newport Bay to Catalina Island proclaimed the first extended over-ocean flight, heralding a new era in aviation.

Many years before World War I, Martin and other famous flyers recognized the military potential and possibilities of airplane reconnaissance and observation. A few days before the commencement of the First World War on August 6, 1914, Martin stated in an interview: "The airplane will practically decide the War in Europe. Veritable flying death will smash armies, wreck mammoth battleships, and bring the whole world to a vivid realization of the awful possibilities of a few men and a few swift demons. For the old-time war tactics are no more. The generals who realize this quickest and fight first with flying death will win."¹²

The commencement of the War, resulted in the overwhelming success of Martin production. His factory produced the first armored planes and the famous model TT, a training plane built especially for the Army. In 1917, he briefly associated with the Wright Company under the name of Wright-Martin Aircraft Corporation, but quickly disassociated himself with this venture focusing all his efforts in 1918 on the newly reorganized Glenn L. Martin Company based in Cleveland, Ohio. The new biplane out of the Cleveland plant was called the Martin Bomber, equipped with 400 horsepower Liberty motors, carrying a bomb load of 1,500 pounds. The Cleveland plant continued Martin's success story producing bigger and better planes, and was subsequently credited with many aviation

¹² Entry for Glenn L. Martin, *Current Biography*, 1943 pg. 504.

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firsts. The first plane built specially for mail service, the first American metal monoplane, the first bomber with an alloy steel fuselage.

From 1925 to 1929 the firm focused on the design of seaplanes. This necessitated a factory located on ice-free water. Martin found the perfect location at Middle River near the Chesapeake Bay and Baltimore. Martin's representatives presented themselves as agents for a New York sportsmen's club and 40 parcels of land amounting to 1,234 acres was acquired from unsuspecting owners. The production of the B-10 Bomber from the Martin Airport in 1932 was Martin's most significant engineering achievement. The B-10 Bomber earned Martin the 1932 Collier Trophy which was presented to him by President Theodore Roosevelt in 1933. It was considered one of the greatest honors ever bestowed upon a Baltimore manufacturer.¹³ Martin continued with the development of the B-26 Bomber of which the office of War Information reported in October 1942: "No nation but the United States, so far as is known, has so efficient a plane in its class."¹⁴ The largest seaplane Mars became world-famous. Early in 1942, Martin's plants occupied a total floor area of 5,192,000 square feet, employing tens of thousands of workers and establishing the Glenn L. Martin Company as the largest airplane manufacturer in America.

Although World War II brought enormous success to Martin's company, it also saw the emergence and success of other American aircraft manufacturers. Other firms such as Boeing, North American, Lockheed, and especially Douglas, grew more rapidly. Martin's stand-alone policies and inability to comply with government bureaucracy and procurement regulations caused him to lose contracts. By the 1960s the company merged with Marietta Corporation, a conglomerate that produced cement, chemicals, and household items.

¹³ "Collier Trophy to Glenn L. Martin," *Popular Science*, June 1933, p. 54.

¹⁴ Entry for Glenn L. Martin in *Current Biography*, p. 504.

MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Section 8 Page 7

Glenn L. Martin Company Plant No.2
name of property
Baltimore County, MD
county and state

=====
Glenn Martin was president of Glenn L. Martin Company from 1907 to 1949, and chairman of the board from 1949 to 1952. He then served as honorary chairman of the board from that time until his death three years later.

ARCHITECT: ALBERT KAHN

Born in Rhaunen, Germany in 1869 Albert Kahn came to the United States in 1880. The Kahn family settled in Detroit, Michigan where Kahn had little early schooling but experienced the good fortune to learn drawing from Julius Theodor Melcher, a sculptor and father of Carl Melcher, the noted artist. In 1883, he began his architectural apprenticeship in the office of Mason & Rice in Detroit. Kahn's abilities developed quickly, and in 1890, he received a scholarship from the *American Architect* for a year's study abroad. Kahn's good fortune continued through his travels as his traveling partner was Henry Bacon (later the architect of the Lincoln Memorial). Kahn credits Bacon with his true architectural education. He returned to the firm of Mason & Rice upon completion of his travels, and in 1895 joined the firm of Nettleton, Kahn & Trowbridge. From 1900 until the time of his death he maintained a private practice in Detroit.

Kahn's greatness and most significant architectural achievements were in the field of commercial and industrial architecture. During his long career he also designed university and hospital buildings, clubhouses and private residences. Assisted by his brother Julius, Kahn was a pioneer in the use of reinforced concrete and metal sash windows. Throughout his career he was architect for the Packard, Ford, Chrysler, General Motors, Cadillac, Paige and Hudson motor car companies. He designed over 1000 structures for the Ford Motor Company including the River Rouge and Willow Run plants which embraced the "all under one roof" idea and the "all on one floor" factory. During World War I Kahn was commissioned as the official architect for the aircraft construction division of the U.S. Army Signal Corps. His firm was responsible for the design of camps, warehouses, airfields and hangars throughout the country and for portable structures for shipment to France to house units of the army and air corps. In 1928, he was chosen by the Soviet government to assist in the task of industrializing the nation, and his engineers built 521 factories and trained some 4000 Russian engineers to operate them.

Before World War II he was engaged by the U.S. Navy Bureau of Yards and Docks in the design of working drawings for naval bases

MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Section 8 Page 8

Glenn L. Martin Company Plant No.2
name of property
Baltimore County, MD
county and state

=====
at Midway Island, Honolulu, Alaska, Puerto Rico, and Jacksonville, Florida. The resultant buildings produced by Kahn set new world's records for speed in steel and concrete construction.

For the Glenn L. Martin Company Kahn design an airplane plant 300 feet wide and 700 feet long, with five acres of clear space, unbroken by columns, its roof supported by the longest flat spans, in the world, used in an industrial building.

Kahn's many achievements in industrial architecture were rewarded with recognition across the country. In 1942, he received a medal by the Philadelphia Chapter of the American Institute of Architects for his "outstanding achievement in industrial architecture," and a special award at the annual meeting of the American Institute of Architects. In the same year he was cited as an "exponent of organized efficiency, of disciplined energy, of broad visioned planning...a master of concrete and of steel, master of space and time." In 1937, he received a gold medal at the international Exposition of Arts and Sciences in Paris and was made a Chevalier of the Legion of Honor of France. He died in Detroit, Michigan December 8, 1942.

MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Section 8 Page 9

Glenn L. Martin Company Plant No. 2
name of property
Baltimore County, MD
county and state

=====
National Register Evaluation:

Constructed between 1941-1942, the Glenn L. Martin Company Plant No. 2 is eligible for the National Register of Historic Places.

The Glenn L. Martin Company Plant No. 2, now known as the Middle River Depot, is National Register-eligible as it meets Criteria A, B, and C. Criterion A, relating to the significant events in American history, is relevant due to the importance of the Martin Middle River complex, which it is a part, as a key war production installation during World War II, and the chief facility for the manufacture of the B-26 Bomber. Criterion B, pertaining to properties associated with significant persons is applicable because of the association, direction and personal involvement of aviator pioneer Glenn L. Martin in the design, development and manufacture of airplanes both commercially and for the military at the Martin Complex. Criterion C, pertaining to architectural significance and the work of a master, is applicable as an important example of the work of Albert Kahn and his design firm, who are recognized as America's premier industrial designers and innovators in the transformation of American industrial architecture. Architectural historian G. Hildebrand has referred to the design of the complex as "one of Kahn's finest." Therefore, according to criteria A, B, and C, the property is National Register-eligible.

MARYLAND HISTORICAL TRUST	
Eligibility recommended <u> X </u>	Not Recommended <u> </u>
Comments: _____ _____ _____	
Review, OPS: <u> C. E. Swisher </u>	Date: <u> 8/26/99 </u>
Reviewer, NR Program: <u> P. Stuntz </u>	Date: <u> 8/3/99 </u>

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MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Glenn L. Martin Company Plant No. 2
name of property
Baltimore County, MD
county and state

=====

HISTORIC CONTEXT:

Geographic Organization: Piedmont

Chronological/Development Period (s):

Industrial/Urban Dominance (1870-1930)
Modern Period (1930-present)

Prehistoric/Historic Period Theme (s):

Architecture, Landscape, and Community
Planning
Transportation
Military
Economic

RESOURCE TYPE(S)

Category: Building

Historic Environment: Rural

Historic Function (s): DEFENSE/Air Facility
TRANSPORTATION/Air- & Rail-Related
INDUSTRY/Manufacturing Facility

Known Design Source: Albert Kahn

MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Glenn L. Martin Company Plant No. 2
name of property
Baltimore County, MD
county and state

=====
Chain of Title:

Deed A: 11 acres

- March 17, 1897: George W. Yellott to Frederick Didier
Part of property
Land Records of Baltimore County
Liber LMB 223 Folio 182
- May 10, 1926: Andrew J. Young, executor to Dr. Frederick
Didier
Part of property
Land Records of Baltimore County
Liber WPC 634 Folio 537
- June 24, 1929: Frederick Didier to Lucy Didier
Land Records of Baltimore County
Liber LMCLM 828 Folio 284
- December 9, 1940: Frederick W. and Lucy C. Didier to Daniel B.
Allison
Land Records of Baltimore County
Liber 1143 Folio 2
- December 19, 1940: Daniel B. and Mary V. Allison to Glenn L.
Martin Company
11 acres
Land Records of Baltimore County
Liber RJS 1192 Folio 174

Deed B:

- June 28, 1939: Glenn L. Martin Company to Stansbury Manor,
Inc.
Land Records of Baltimore County
Liber CWB Jr. 1056 Folio 531
- September 26, 1944: Stansbury Manor, Inc. to Glenn L. Martin
Company
Land Records of Baltimore County
Liber RJS 1366 Folio 279

MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Glenn L. Martin Company Plant No.2
name of property
Baltimore County, MD
county and state

=====

Deed C/Parcel 1: 332 acres

- April 19, 1929: Robert Holzknacht to Martin Company
Land Records of Baltimore County
Liber LMCLM 620 Folio 170
- May 10, 1929: L. Vernon Miller to Martin Company
Land Records of Baltimore County
Liber LMCLM 827 Folio 27
- May 15, 1929: William A. Crenning to Martin Company
Land Records of Baltimore County
Liber LMCLM 827 Folio 26
- May 17, 1929: The Title Guarantee and Trust Company to Martin
Company
Land Records of Baltimore County
Liber LMCLM 827 Folio 24
- June 13, 1933: Royal Realty Corporation to Martin Company
Land Records of Baltimore County
LiberCWB Jr. 916 Folio 50
- June 30, 1931: Glenn L. Martin to Martin Company
Land Records of Baltimore County
Liber LMCLM 885 Folio 51

Deed C/Parcel 2: 68.5 acres

- May 10, 1929: L. Vernon Miller to Martin Company
Land Records of Baltimore County
Liber LMCLM 827 Folio 27
- May 15, 1929: William A. Crenning to Martin Company
Land Records of Baltimore County
Liber LMCLM 827 Folio 26
- May 17, 1929: The Title Guarantee and Trust Company to Martin
Company
Land Records of Baltimore County
Liber LMCLM 827 Folio 24

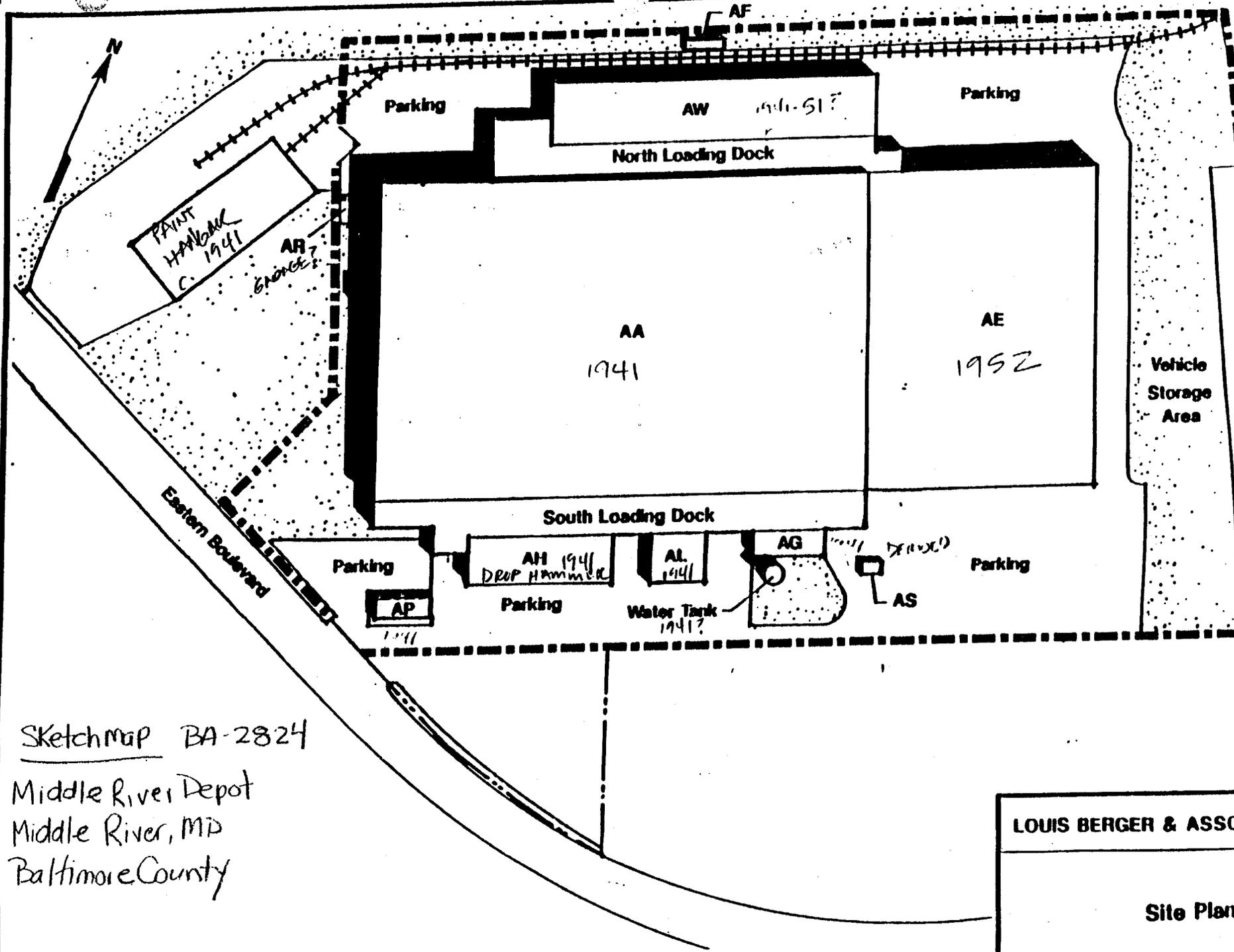
MARYLAND INVENTORY OF HISTORIC PROPERTIES
CONTINUATION SHEET

Inventory No. BA-2824

Glenn L. Martin Company Plant No. 2
name of property
Baltimore County, MD
county and state

=====

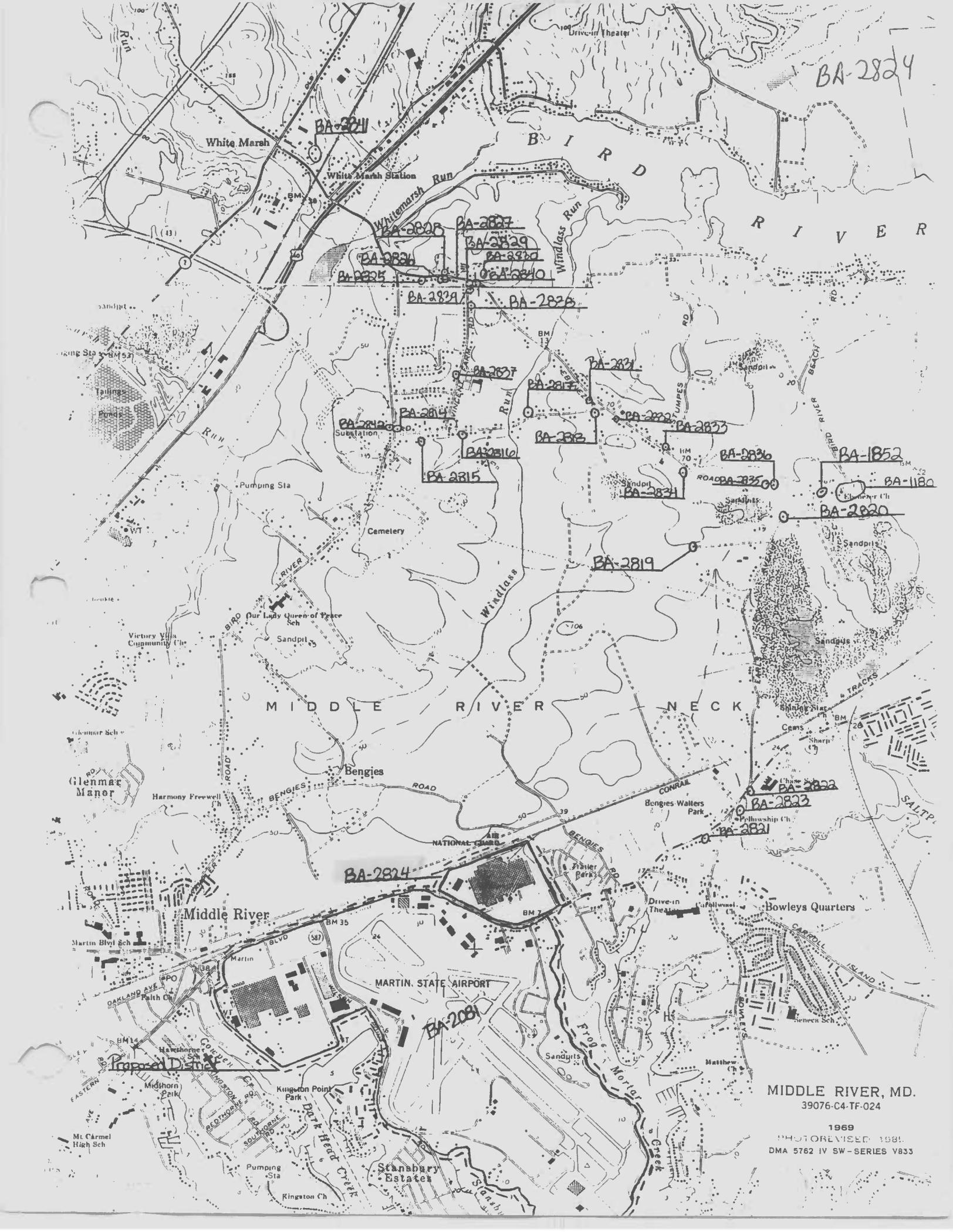
December 22, 1947: Property of Glenn L. Martin Company, et al.
taken for public use by the United States of
America
78.9 acres for the sum of \$63,000.00
Land Records of Baltimore County
Liber 1600 Folio 476



Sketchmap BA-2824

Middle River Depot
 Middle River, MD
 Baltimore County

LOUIS BERGER & ASSOCIATES	
Site Plan	
	FIGURE



BA-2824

BA-2821

BA-2826

BA-2827

BA-2829

BA-2830

BA-2831

BA-2832

BA-2833

BA-2834

BA-2835

BA-2836

BA-2837

BA-2838

BA-2839

BA-2840

BA-1852

BA-1180

BA-2820

BA-2819

BA-2824

BA-2081

MIDDLE RIVER, MD.
39076-C4-TF-024

1969
PHOTOREVISED 1981
DMA 5762 IV SW - SERIES V833

ADDENDUM

BA-2824

GLENN L. MARTIN COMPANY PLANT NO. 2 (MIDDLE RIVER DEPOT)

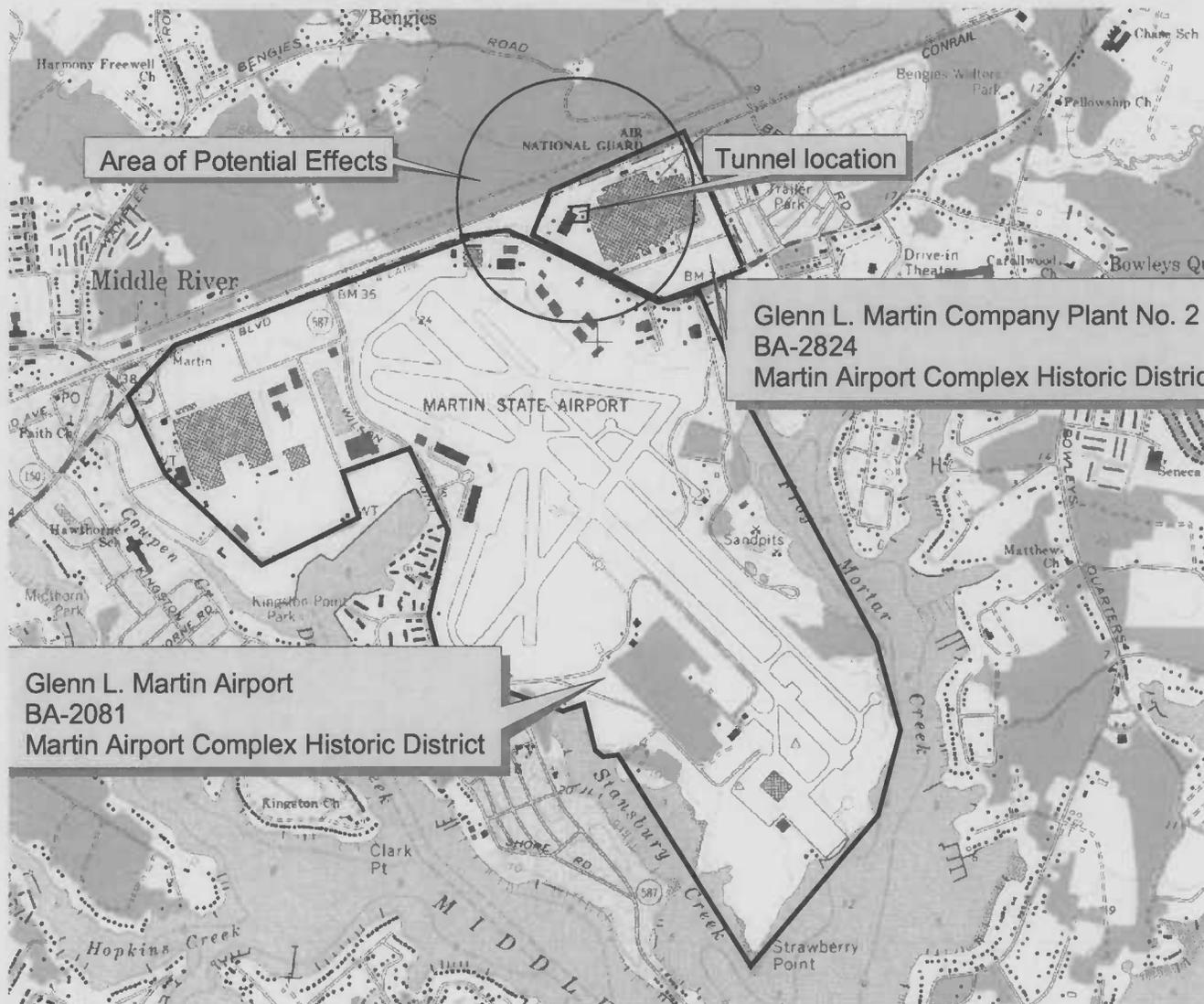
A tunnel connecting the 1941 Paint Hangar basement to the southwest section of the Airplane Assembly area basement has recently been identified. The tunnel is an integral part of the plant complex, and was completed during the 1941 building campaign. On the exterior, there are concrete slabs over the tunnel, which support railroad tracks and consequently trains entering the plant complex. The tunnel is made of 10" thick concrete slabs and is 6 feet wide, 8 feet high and 130 feet long. The walls were made in sections, as were the floor and the ceiling. Utility conduits run the length of the ceiling. At the northeast entrance, a framed metal door has been blocked up with concrete blocks. From the paint hangar, the tunnel can be entered either from the outside by way of an exterior stair, or from the interior of the building. From the Assembly area, the tunnel can be entered only from the basement. There is a small complex of rooms beneath the main floor of the Hangar. Although the tunnel is big enough to allow a small forklift to move through it, because of the raised doorsills, the tunnel was used primarily to allow people to move from one part of the plant complex to the other.

Discussions with representatives of Martin State Airport and Lockheed Martin provided some anecdotal evidence that such structures like the tunnel are part of Albert Kahn's original plan. There is also a tunnel at the Lockheed Martin site which connects Building C to Building D on Dark Head Cove Road. Like the Paint Hangar tunnel, it is about 6' wide and 8' high. In addition, there were conduit chases and tunnels under the runways at the main terminal and also at Strawberry Point. The tunnels allowed personnel to move from one side of the runway to the other. Most of them have been demolished as a result of the continuous runway reconfigurations.

Because the tunnel is an integral part of the plant, it is not considered an individual structure. It is a contributing resource to the Glenn L. Martin Company Plant No. 2 which is a portion of the Glenn L. Martin Airport Complex Historic District. The Martin Historic District is National Register-eligible under Criteria A, B and C, as was determined in 1999.

Prepared by Anne E. Bruder, Architectural Historian, Maryland State Highway Administration, August 28, 2002

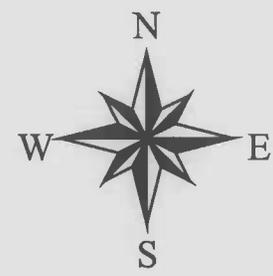
Middle River USGS Quad



Glenn L. Martin Company Plant No. 2
BA-2824
Martin Airport Complex Historic District

Glenn L. Martin Airport
BA-2081
Martin Airport Complex Historic District

- Mihp.shp
- USGS Topo Quad Index
- County



BA-2824



BA-2824

MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

GENERAL VIEW - LOOKING NORTH

1 OF 23



BA-2824

MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

GENERAL VIEW - LOOKING NE

2 OF 23



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MIDDLE RIVER DEPOT
MIDDLE RIVER, MD
TRACERIES
AUGUST 1997
MARYLAND SHPO
GENERAL VIEW - LOOKING NE
3 OF 23



2800

BA-2824

MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

OFFICE BUILDING - WEST ELEVATION

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MIDDLE RIVER, MD
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AUGUST 1997
MARYLAND SHPO
OFFICE BUILDING - SOUTH ELEVATION
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MIDDLE RIVER DEPOT
MIDDLE RIVER, MD
TRACERIES
AUGUST 1997
MARYLAND SHPO
OFFICE BUILDING-NORTH ELEVATION
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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

OFFICE BUILDING - EAST ELEVATION

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BA-2824

MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

OFFICE BLDG & DEPOT - LOOKING NORTH

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

DEPOT - SOUTH ELEVATION - CENTRAL SECTION

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

DEPOT - SOUTH ELEVATION - CENTRAL SECTION

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MIDDLE RIVER, MD

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DEPOT - SOUTH ELEVATION - EASTERN SECTION

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DEPOT - EAST ELEVATION
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MIDDLE RIVER, MD

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DEPOT - EAST ELEVATION - NORTHERN SECTION

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MARYLAND SHPO
DEPOT - NORTH ELEVATION
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MIDDLE RIVER, MD
TRACERIES
AUGUST 1997
MARYLAND SHPO
DEPOT - NE CORNER

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

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AUGUST 1997

MARYLAND SHPO

DEPOT - NORTH ELEVATION - WESTERN SECTION

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MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

DEPOT - NORTHWEST CORNER

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

DEPOT - WEST ELEVATION

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

DEPOT - DETAIL OF WINDOW BAYS

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

PAINT HANGAR/STORAGE BUILDING - LOOKING SOUTH

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MIDDLE RIVER DEPOT

MIDDLE RIVER, MD

TRACERIES

AUGUST 1997

MARYLAND SHPO

PAINT HANGAR - SE ELEVATION

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MIDDLE RIVER DEPOT
MIDDLE RIVER, MD
TRACERIES
AUGUST 1997
MARYLAND SHPO
GARAGE - SW CORNER
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AUTHORIZED
PERSONNEL
ONLY



EA-2824

PAINT HANDS GREAT GREAT PAINTS
CO. PAINTS

PALTIMORE CO. MD

APR 2002 CAL

APR 2002 CAL

APR 2002 CAL

4-2002, ME-XX.

PAINTS, PAINTS, PAINTS
LOOKING SOUTH

1/30



1. The ... of ...
General ...
...
Tunnel ...
...
March 300:

At ...
CONNECTOR TUNNEL
LOOKING EAST
#2/3.

APR 20 1961

APR 20 1961



FA-2024

Green Hill, North, E.

Part 102, Fresno

K. Bauder

Ref. 200

MD-10

Case No. VANCE FRENCH

3/3

APR 20 2024 CAI

APR 20 2024 CAI