

1641

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting 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 (NPA Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Crawlerway
other names/site number 8BR1689

2. Location

street & number NASA, John F. Kennedy Space Center not for publication
city or town Kennedy Space Center vicinity
state Florida code FL county Brevard code 009 zip code 32899

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X 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 X meets does not meet the National Register criteria. I recommend that this property be considered significant X nationally statewide locally. (See continuation sheet for additional comments.)

Kenneth M. Fumol, NASA FEDERAL PRESERVATION OFFICER; Nov. 19, 1999
Signature of certifying official/Title Date

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
State of Federal agency and bureau

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

George W. King, SR 12/20/99
Signature of certifying official/Title Date

Florida State Historic Preservation Office, Division of Historical Resources
State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:
 entered in the National Register. Paul R. J... Signature of the Keeper 1/21/2000 Date of Action
 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:)

Crawlerway
Name of Property

Brevard, FL
County and State

5. Classification

Ownership of Property (Check as many boxes as apply.)	Category of Property (Check only one box.)	Number of Resources within Property (Do not include previously listed resources in the count.)	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input type="checkbox"/> public-local	<input type="checkbox"/> district	<u>0</u>	<u>1</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u>0</u>	<u>0</u> sites
<input checked="" type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	<u>0</u> structures
	<input type="checkbox"/> object	<u>0</u>	<u>0</u> objects
		<u>1</u>	<u>1</u> Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)
John F. Kennedy Space Center

Number of contributing resources previously listed in the National Register
1

6. Function or Use

Historic Functions
(Enter categories from instructions.)
TRANSPORTATION: road-related
& air-related
DEFENSE: aerospace facility

Current Functions
(Enter categories from instructions.)
TRANSPORTATION: road-related
& air-related
DEFENSE: aerospace facility

7. Description

Architectural Classification
(Enter categories from instructions.)
N/A

Materials
(Enter categories from instructions.)
foundation N/A
walls N/A
roofs N/A
other STONE
other

Narrative Description

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

Crawlerway
Name of Property

Brevard, FL
County and State

8. Statement of Significance

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

Areas of Significance
(Enter categories from instructions.)

- 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.

TRANSPORTATION
OTHER: SPACE EXPLORATION
ENGINEERING

Period of Significance

1964-1975

Significant Dates

1964

Significant Person

(Complete if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

UNKNOWN

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 locations.
- 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.

Narrative Statement of Significance

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

9. Major Bibliographical References

Bibliography

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

Previous documentation on file (NPS):

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

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

NASA: Kennedy Space Center

Crawlerway

Brevard, FL

Name of Property

County and State

10. Geographical Data

Acreage of Property approximately 110 acres

UTM Reference

(Place additional UTM references on a continuation sheet.)

1	<u>See Continuation Sheet</u>	3	_____	_____	_____
	Zone Easting Northing		Zone Easting	_____	_____ Northing
2	_____	4	_____	_____	_____
	Zone Easting Northing		Zone Easting	_____	_____ Northing

Verbal Boundary Description

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

Boundary Justification

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

11. Form Prepared By

name/title Daniel Delahaye and Kimberly Hinder, Architectural Historians
 organization Archaeological Consultants, Inc. date August 1996
 street & number P.O. Box 5103 telephone (941) 925-9906
 city or town Sarasota state FL zip code 34277

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

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

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

Photographs

Representative black and white photographs of the property.

Additional items

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

Property Owner

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

name _____
 street & number _____ telephone _____
 city or town _____ state _____ zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as Amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instruction, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Service Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork reductions Projects (1024-0018), Washington, DC 20503.

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Narrative Description

Crawlerway

Crawlerway: Route taken by Crawler to bring the Launch Vehicle assembly to Pad and return the remaining assembly after launch.

Length: Vehicle Assembly Building (VAB) to Pad A - 3.4 mi; to Pad B - 4.2 mi.

Width: Overall, 130 ft - about the size of an 8-lane freeway. Consists of two 40-ft-wide gravel-topped lanes, separated by 50-ft-wide grassy median strip.

Depth: Specially constructed with four layers to support millions of pounds or kilograms. In descending order, the top layer is composed of river gravel, 8 in thick on curves and 4 in on straightaway sections; 4 ft of graded, crushed stone; 2.5 ft of select fill; and 1 ft of compact fill (Anon, 1994:31).

The Crawlerway is a unique dual-lane roadway designed for carrying Crawlers and their loads from the VAB to Launch Complex 39 (LC-39) Pads A and B. These roadways are 130 ft wide with twin 40 ft wide river rock-covered lanes called trackways. Trackways are separated by a grass median 50 ft wide. The Crawlerway stretches 3.4 mi from the VAB to Pad 39A, and 4.2 mi to Pad 39B (NASA 1992:9.1).

Short branching trackways lead to the service and parking areas for the Crawlers. The maintenance area is called the Mobile Launcher Platform Refurbishment Area. Originally, each Mobile Launcher Platform Refurbishment Area contained six piers called Facility Support Pedestals which were used to service the Launch Umbilical Towers. In 1966, three Mobile Launcher Platform Refurbishment Areas were built approximately 170 ft north of the VAB and about 1200 ft apart. The pedestals in the middle bay have been demolished, but the two bays on the outside remain intact. The area retains its initial use as a service and parking area for the Mobile Launcher Platforms (MLPs) formerly part of the LUT) and Crawlers. Within the confines of the middle former Mobile Launcher Platform Refurbishment Area, a storage shelter entitled Clamshell #1 was constructed in 1991. The portion of the Crawlerway west of the VAB was altered ca. 1985, at the onset of the Space Shuttle program. Modular office buildings, trailers, and a parking lot were placed on top of the Crawlerway at that location. According to the stipulations of a Memorandum of Agreement (MOA) prepared prior to the alterations, the original engineering and materials would remain under the temporary buildings and parking lot, and that portion of the Crawlerway would be recoverable. The Mobile Service Structure Park Site lies at the fork in the road leading to the Launch Pads and is presently an alternate crawler maintenance area (NASA 1992:9.1).

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The Crawlerway was constructed in 1964 for moving Saturn rockets and support equipment weighing 18.5 million pounds to Launch Pads A and B. The Crawlerway presently supports the Space Shuttle vehicles and other equipment weighing 17 million pounds (NASA 1992:9.1).

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Narrative Statement of Significance Crawlerway

Summary

The Crawlerway contributes to the Historic Cultural Resources of the John F. Kennedy Space Center, Florida, under the historical context of Apollo program 1961-1975 and each of its subcontexts under property type F.1, Resources Associated with Transportation. It is significant at the national level under NRHP Criterion A in the area of space exploration and transportation. The Crawlerway is also significant under Criterion C under engineering. Because this structure has achieved significance within the past 50 years and is of exceptional importance in the areas of space exploration, transportation, and engineering, Criteria Consideration G applies.

Significance

The Crawlerway, built in 1964 by NASA for use in the Apollo missions, is an exceptionally important transportation resource. The Crawlerway serves as a unique road on which the Crawler transported the Mobile Service Structure and the combined Launch Umbilical Tower/Launch Vehicle. It currently transports the Space Shuttle from the VAB to the Launch Pad. The Crawlerway is an indispensable tool in the efforts of the United States to explore space.

The Crawlerway is also significant due to its engineering and design. Because the Saturn family of rockets was so much heavier than previous space vessels, a special vehicle, the Crawler, was required to transport the new rockets along with the LUT. The weight of this vehicle combined with the space vessels required a special type of road to withstand the pressure. Thus the Crawlerway's engineering and design is unique and is integral to the success of the lunar missions and the present use of the Space Shuttle in the exploration of space (NASA 1992:9.1).

The Crawlerway extends into the Mobile Service Structure Park Site and the Mobile Launcher Platform Refurbishment Areas. The storage shelter entitled Clamshell #1 was constructed within the confines of the center bay of the Mobile Launcher Platform Refurbishment Area after the completion of the Apollo program. It did not contribute to the significance of the Crawlerway and, therefore, is not considered significant.

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The Crawlerway largely retains its integrity of design, materials, workmanship, feeling, setting, location, and association. However, a disturbed portion of the Crawlerway west of the VAB is not considered significant. Despite the conditions of the MOA which state that the engineering would remain intact below ground, it appears that the parking lot and the non-historic buildings could not be removed **in** the future without physically destroying the original material. Additionally, the historic appearance of that portion of the Crawlerway no longer exists and, therefore, its integrity has been compromised by the placement of the non-historic buildings and a parking lot over its surface layer. Thus, the loss of integrity prohibits that portion of the Crawlerway from meeting registration requirements at this time. The proposed western boundary of the NRHP Crawlerway Site is illustrated in the Site Plan on Page 4 of Section 11.

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Bibliography Crawlerway

- Advisory Council on Historic Preservation
1991 Balancing Historic Preservation Needs With the Operation of Highly Technical or Scientific Facilities. Washington, D.C. February.
- Anon.
1994 Facts: John F. Kennedy Space Center.
- National Aeronautics and Space Administration
1965 Master Plan: John F. Kennedy Space Center. October.
1966 Master Plan: John F. Kennedy Space Center.
1967 Technical Facilities Catalog Volume II [NHB 8800.5 (II)]. March.
1974 Technical Facilities Catalog Volume II [NHB 8800.5A (II)].
October.
1992 Master Plan: John F. Kennedy Space Center (Volume I). October.

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UTM Reference Crawlerway

1	<u>17</u>	<u>534180</u>	<u>3162000</u>	6	<u>17</u>	<u>538690</u>	<u>3164320</u>
2	<u>17</u>	<u>534400</u>	<u>3162060</u>	7	<u>17</u>	<u>533600</u>	<u>3162220</u>
3	<u>17</u>	<u>534940</u>	<u>3162170</u>	8	<u>17</u>	<u>534260</u>	<u>3162380</u>
4	<u>17</u>	<u>537460</u>	<u>3163260</u>	9	<u>17</u>	<u>537030</u>	<u>3164170</u>
5	<u>17</u>	<u>538680</u>	<u>3163780</u>	10	<u>17</u>	<u>537040</u>	<u>3166330</u>

Verbal Boundary Description Crawlerway

The boundary includes the length and width of the existing Crawlerway, roughly defined by an approximately 10 ft buffer zone along the outer extent of the surface aggregate, and expands to include the Facility Support Pedestals at each Mobile Launcher Platform Refurbishment Area.

Boundary Justification

The boundary encompasses that portion of the existing Crawlerway historically associated with the Apollo program at the Kennedy Space Center.

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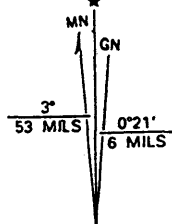
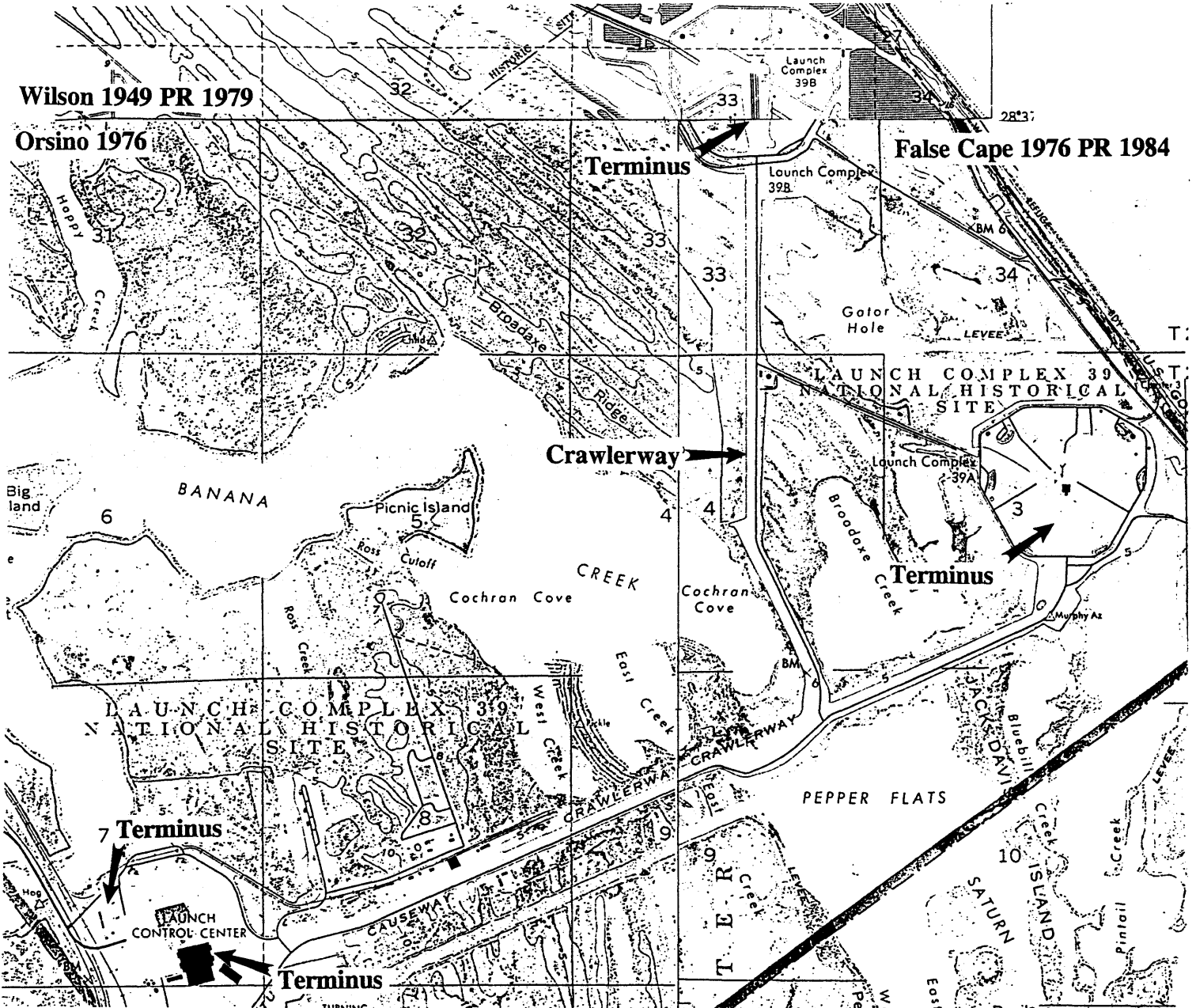
USGS Map

Crawlerway

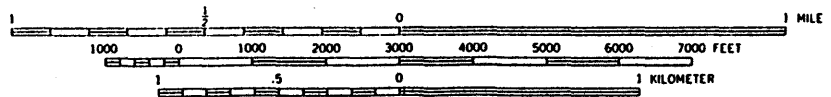
Wilson 1949 PR 1979

Orsino 1976

False Cape 1976 PR 1984



SCALE 1:24000 Reduced 25%



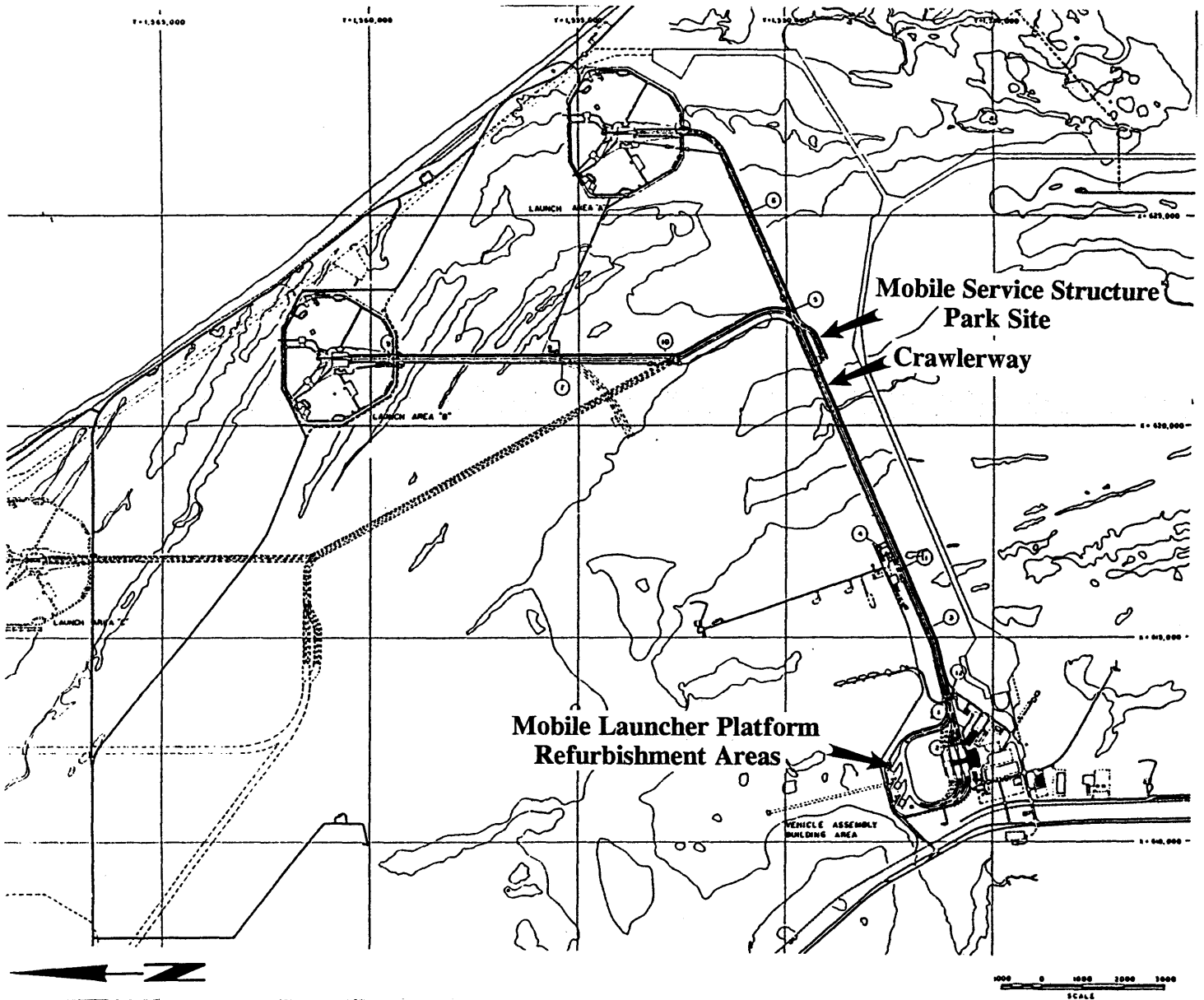
UTM GRID AND 1988 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

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Site Plan Crawlerway (1965)



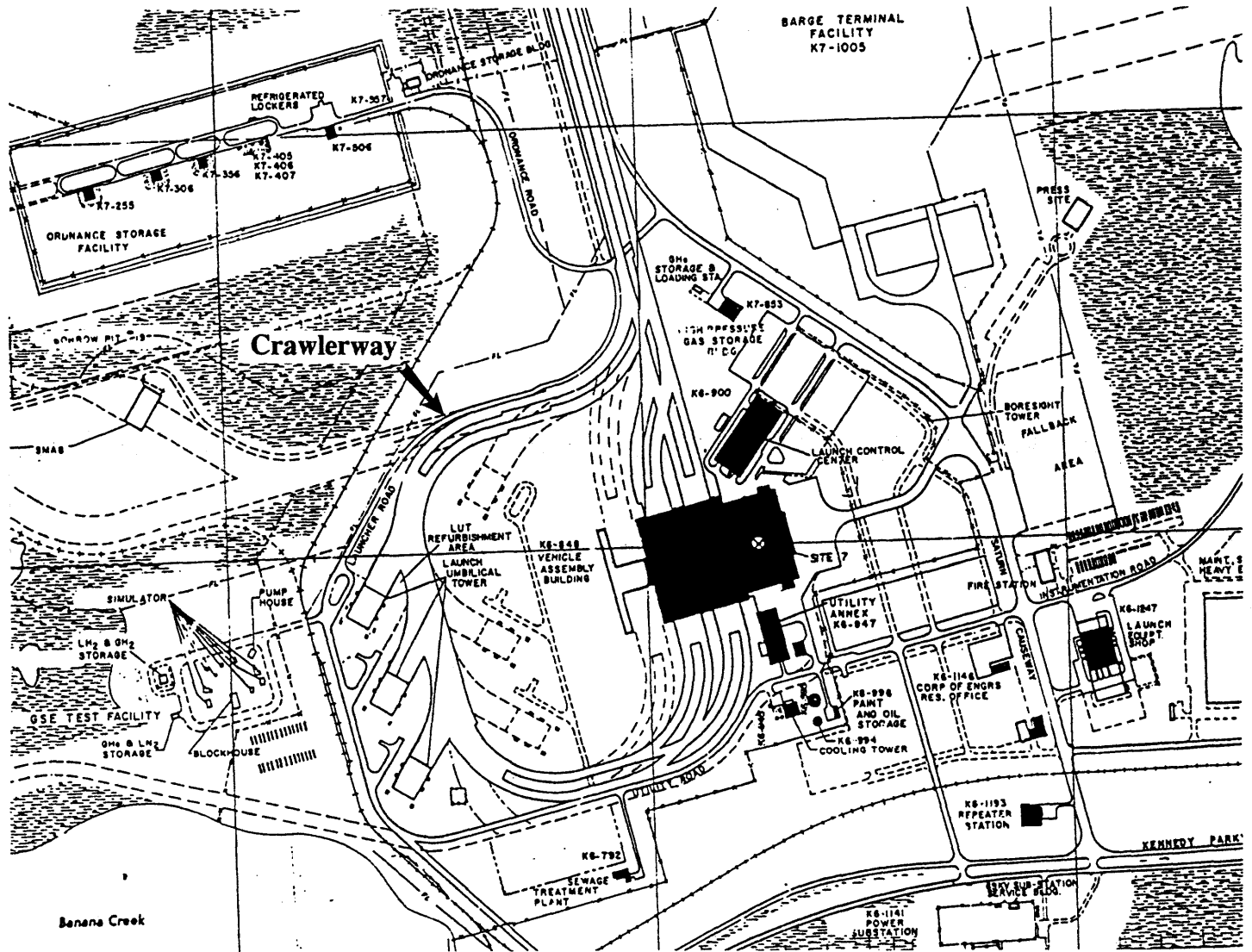
Source: NASA Master Plan, October 25, 1965.

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Site Plan Western Terminus of Crawlerway (1966)



Source: NASA Master Plan, Sheet No. E3, 1966.

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List of Photographs Crawlerway

1. Crawlerway
2. Brevard County, Florida
3. Kennedy Space Center
4. September 1965
5. Kennedy Space Center
6. Aerial view of Launch Complex 39 depicting Crawlerway from west of the VAB towards Pads A and B, looking east (KSC-65C-6147)
7. 1 of 4

The information for items 1 through 3 is the same for the following photographs:

4. September 1969
5. Kennedy Space Center
6. Aerial view of the VAB area depicting the original western terminus of the Crawlerway, looking south (KSC-69C-7188)
7. 2 of 4

4. August 1991
5. Kennedy Space Center
6. Aerial view of Launch Complex 39 depicting Crawlerway from west of the VAB towards Pads A and B, looking east (KSC-391C-5022.16)
7. 3 of 4

1. Crawlerway
2. Brevard County, Florida
3. Daniel Delahaye & Kimberly Hinder
4. September 1996
5. Archaeological Consultants, Inc.
6. Mobile Launcher Platform Refurbishment Area with Facility Support Pedestals, northwest elevation, looking southeast
7. 4 of 4