

**Cultural
Resources**

APPENDIX C

CULTURAL APPENDIX LIST

1. CA-SBA-56: An "Oak Grove" and "Canaliño" Site on Goleta Lagoon, California
Jon M. Erlandson¹, Thomas Rockwell², Todd J. Braje¹, David Stone³, and Brent Leftwich
2. Supplemental Phase 2 Archaeological Significance Assessment Investigation for the North Willow Springs Project Goleta, California. November 2009
3. Results of Column Samples Taken from Trenched for Southern Boundary Definition at CA-SBA-56, Los Carneros Residential Community Development. November 1998
4. Willow Springs II Cultural Resources Meeting With EIR Consultant for
5. Willow Springs II Cultural Resources Meeting with EIR Consultant for Case Nos. 08-128-VTM, -DP,-SP,-CUP,-DP AM, Lot Merger. Camino Vista Road APNs 073-060-044, -045, -047, -048 (Phase II) June 2010
6. Historical Grading Activities on the Los Carneros Community Site, June 1997
7. A Preservation-in-place design for the intentional burial of archaeological site CA-SBA-56, Goleta California, May 1996
8. Archaeological Assessment of Unexpected Finds at CA-SBA-56 Goleta California, March 1996
9. Historical Grading Activities on the Los Carneros Community Site Goleta California, June 1997
10. Results of Column Samples take from Trenched for Southern Boundary Definition at CA-SBA-56, Los Carneros Residential Development, November 1998
11. ISERA Group letter regarding Los Carneros Project, June 16,1995
12. ISERA Group letter regarding response to Comments on the Report and Research Design for CA-SBA-56 Submitted by Loren J. Santoro of the ISERA Group, August 18, 1995
13. ISERA Group letter regarding brief report for burial found on the low density locus of CA-SBA-56, December 6,1995
14. Hutash Consultants Cultural Resource Management letter regarding Preliminary results of Southern Boundary Definition at SBA-56, Los Carneros Residential Community Development, August 27, 1996
15. Preliminary Results of a Boundary Definition Program for Los Carneros Community Development Project prepared by ISERA Group Inc, July 1995
16. ISERA Group letter regarding brief report for burial found on the low density locus of CA-SBA-56, December 6,1995
17. ISERA Group letter regarding preliminary results of southern boundary definition at SBA-56, Los Carneros Residential Community Development, August 27, 1998
18. Hutash Consultants Cultural Resource Management regarding results of column samples taken from trenches for southern Boundary Definition at CA-SBA-56, Los Carneros Residential Community Development, November 20, 1996
19. Native American Heritage Commission letter regarding SCH#2010031059 Willow Springs Phase II, Santa Barbara County, March 16,2010
20. Northwest-Atlantic Partners, Inc. letter regarding completion of work low density locus, CA-SBA-56, May 24, 1994
21. On-Site Sewer & Water Main Ext. Plans, April 15, 2010
22. US Corps of Engineers Environmental Planning Section letter regarding Cultural Resources Summary Proposed Los Carneros Community Development, February 14, 1990
23. CA-SBA-56 Site Record, 1981
24. UCSB SBA-56 Testing 1982
25. WS II Arch Resources Assessment Revised Dudek, April 28, 2010
26. WS II Arch Resources Phase 3 Mitigation Dudek, November 11,2009



Aerial Photo Date: 1995
Source: David Stone, RPA, Cultural Resources Manager, Dudek

**HISTORICAL GRADING ACTIVITIES
ON THE
LOS CARNEROS COMMUNITY SITE**

Goleta, California

Prepared For

**Los Carneros Community Associates
2300 East Imperial Highway, 7th Floor
El Segundo, CA 90245**

JUNE 1997

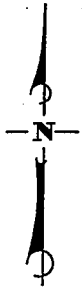
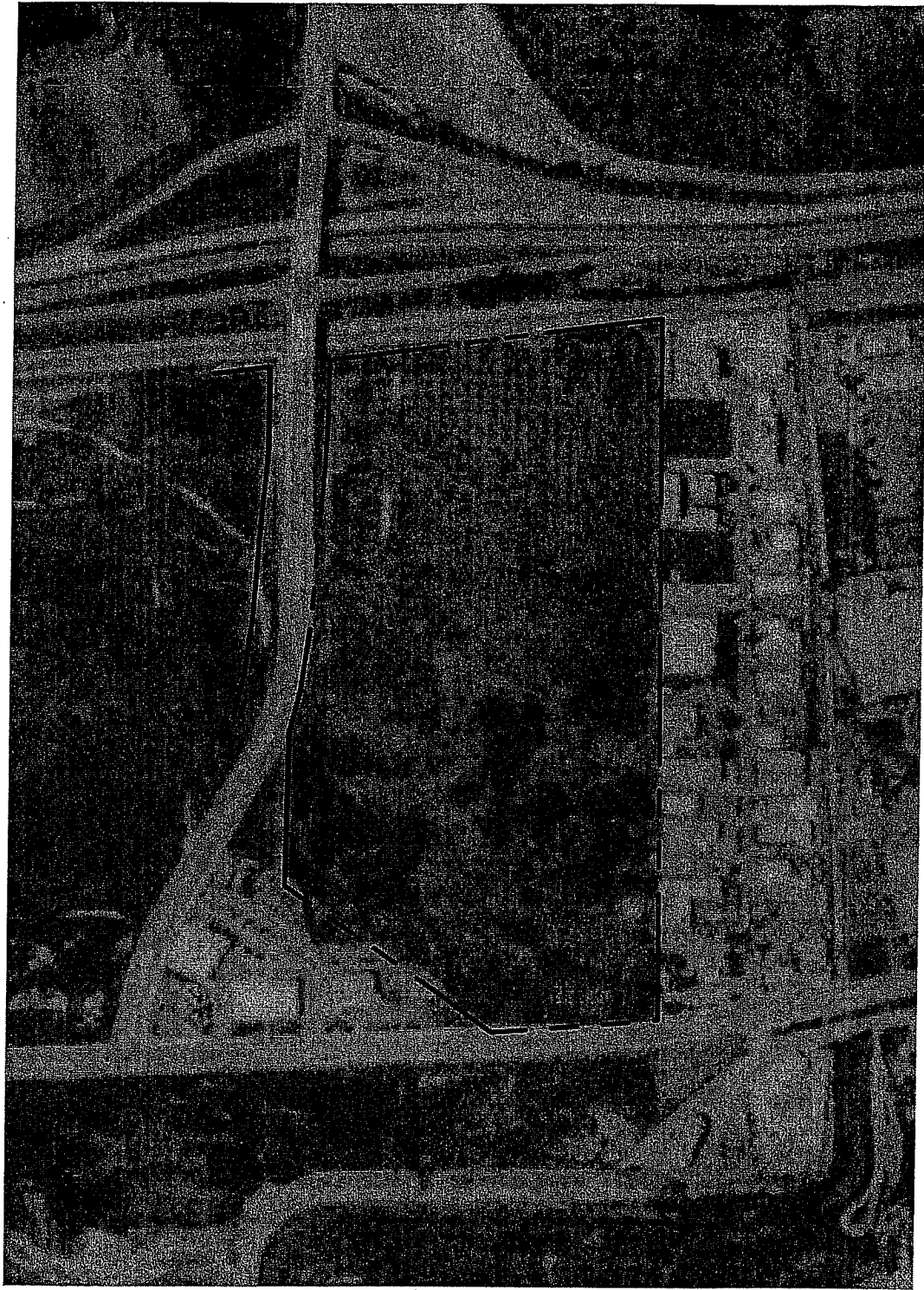
AND

**REVISED FOR
THE TOWBES GROUP, INC.**

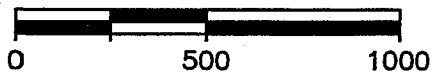
**JULY 2010
WITH AERIAL PHOTOGRAPHS**

MAC DESIGN ASSOCIATES

0219/HISTORICAL GRADING DWGS/0003AER23.DWG 06/28/10 08:50:21 AM PDT



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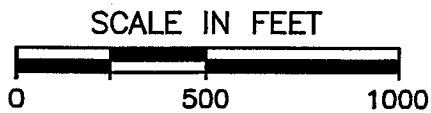
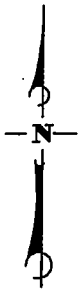
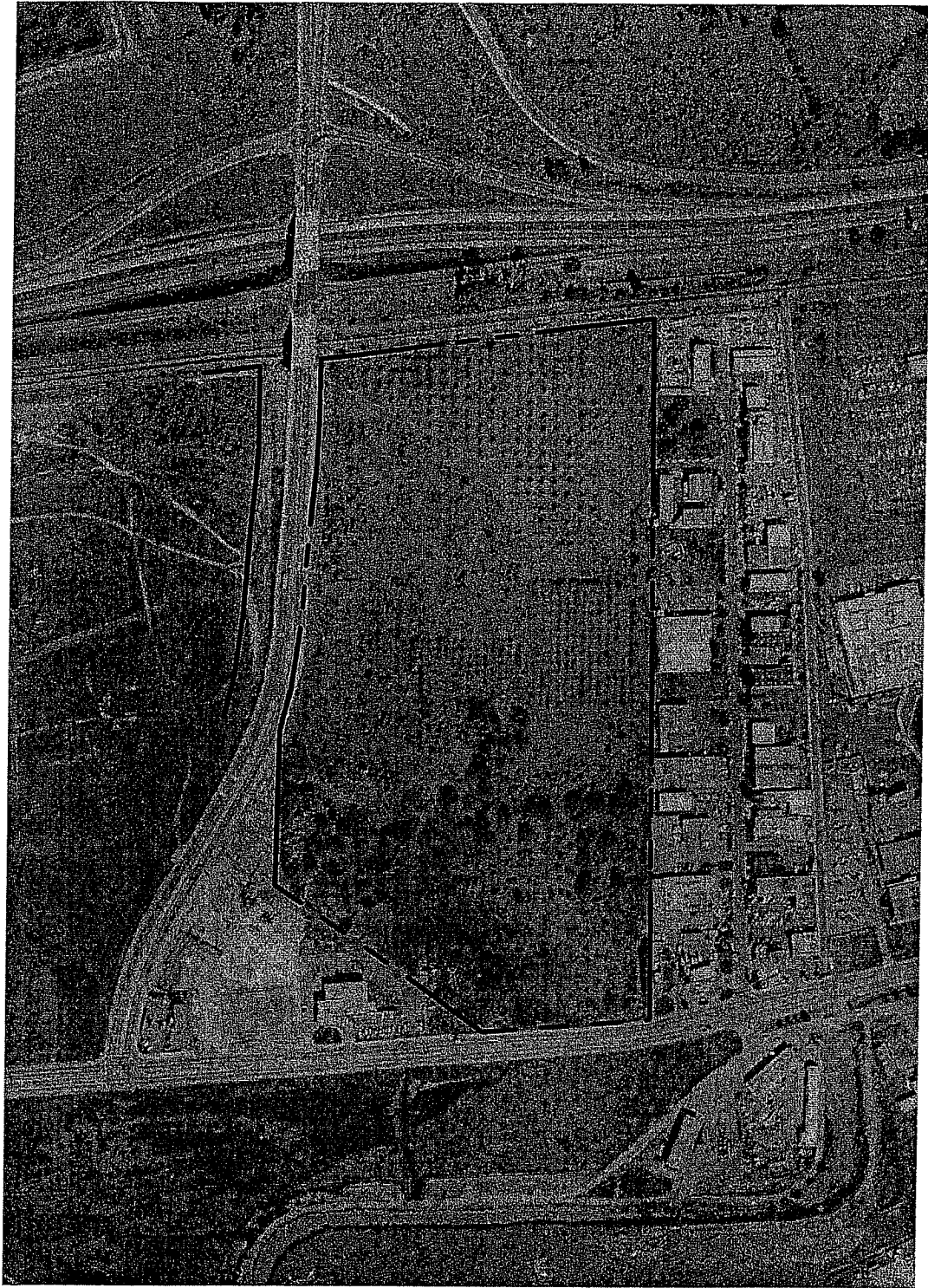


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FIGURE 23
HISTORICAL ACTIVITIES
PHOTO: NOS-82-EC, 0139 (MARCH 1982)

0219/HISTORICAL GRADING DWGS/0003AER22.DWG 06/28/10 08:50:21 AM PDT

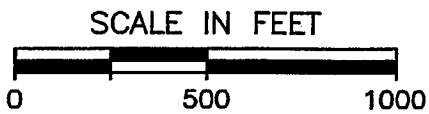
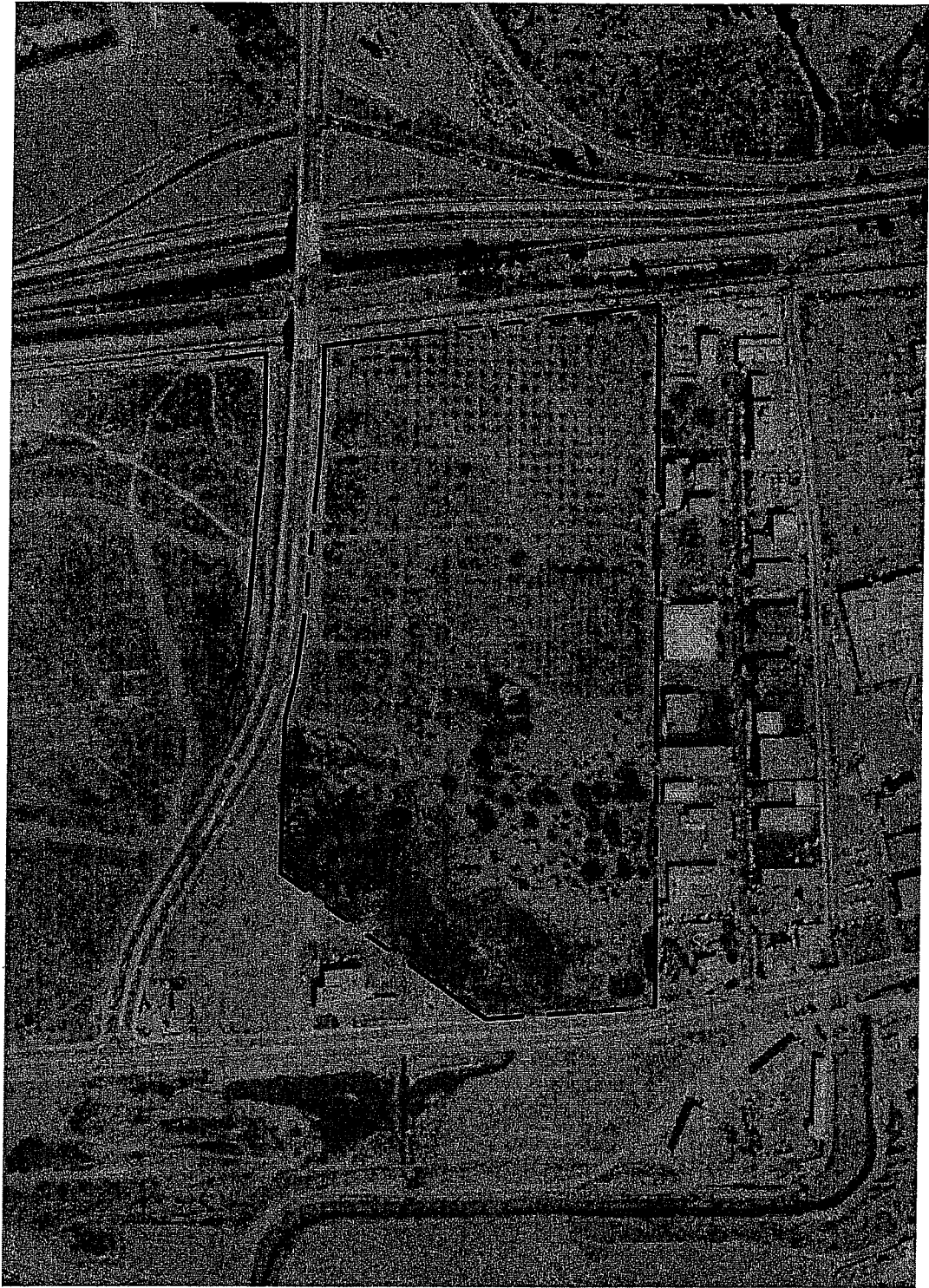


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FIGURE 22
HISTORICAL ACTIVITIES
PHOTO: USDA-24-615070, 678-72 (JAN. 1978)

0219/HISTORICAL GRADING DWGS/0003AER21.DWG 06/28/10 08:50:21 AM PDT

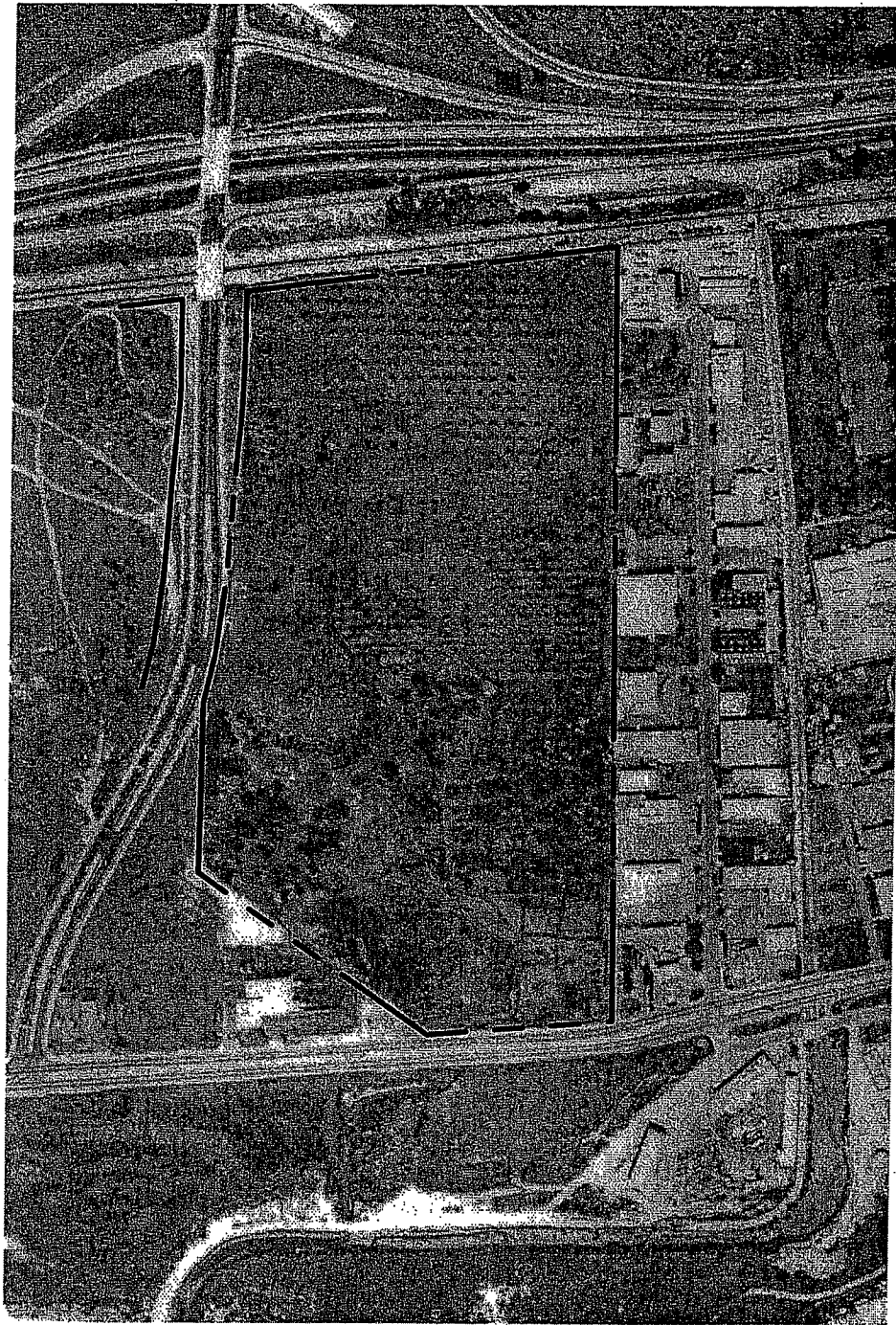


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FIGURE 21
HISTORICAL ACTIVITIES
PHOTO: NOS-76B, 2259 (JAN. 1976)

0219/HISTORICAL GRADING DWGS/0003AER20.DWG 06/28/10 08:50:21 AM PDT



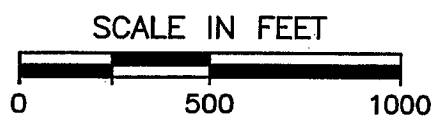
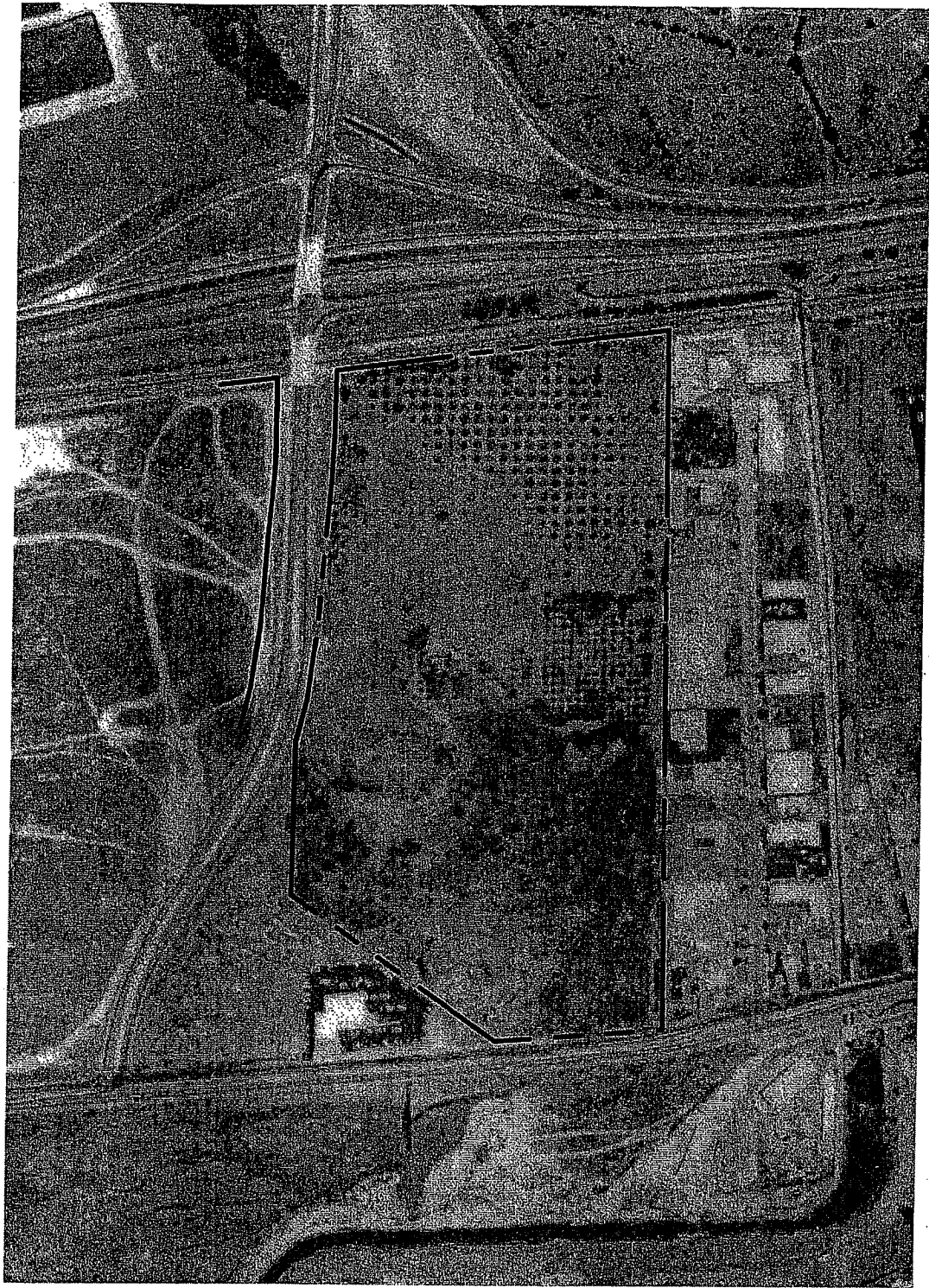
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FIGURE 20
HISTORICAL ACTIVITIES
PHOTO: HB-XQ, 65 (FEB. 1975)

0219/HISTORICAL GRADING DWGS/0003AER19.DWG 06/28/10 08:50:21 AM PDT

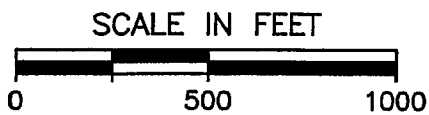
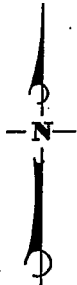
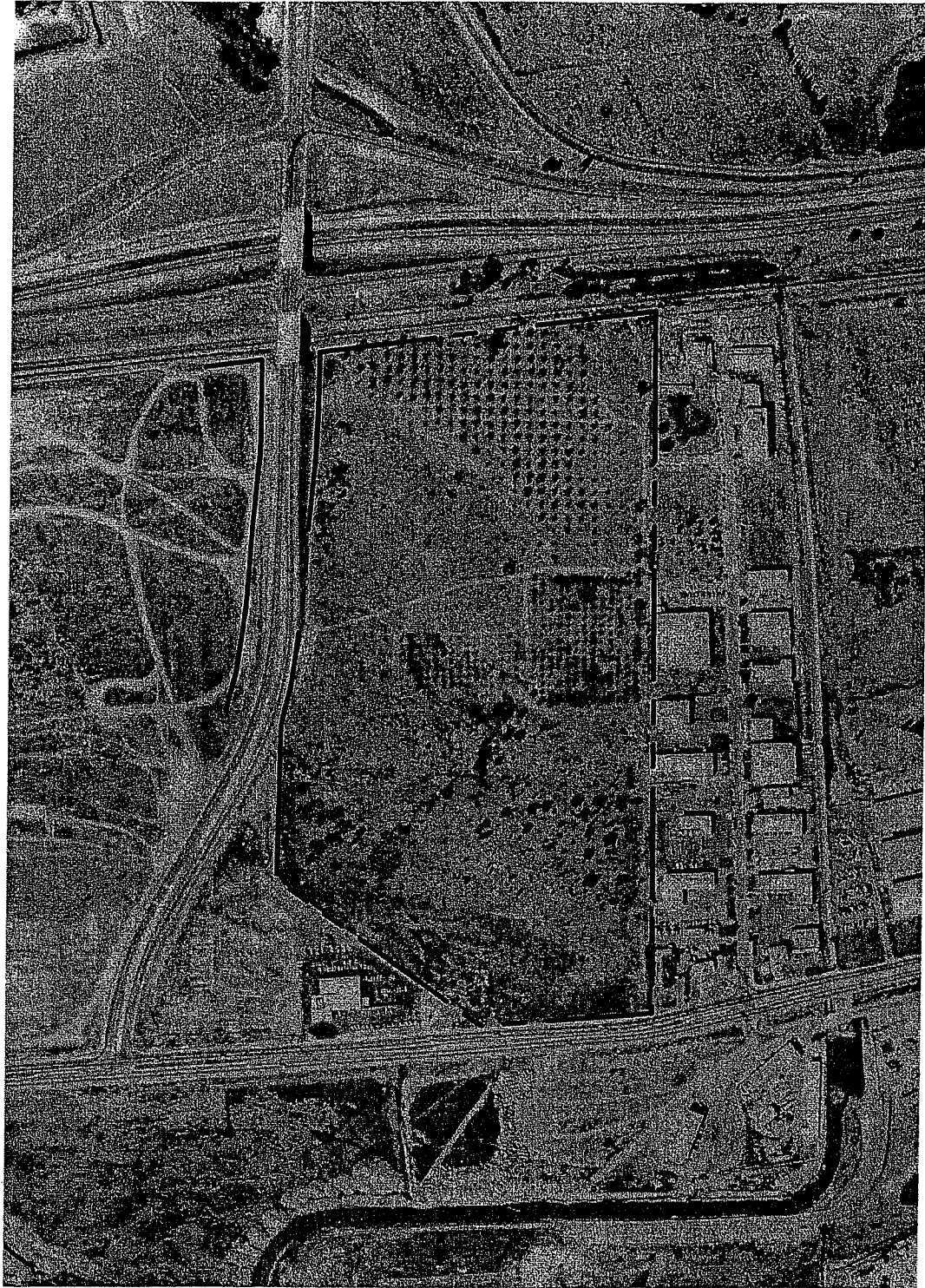


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FIGURE 19
HISTORICAL ACTIVITIES
PHOTO: HB-SJ, 1 (JUNE 1971)

0219/HISTORICAL GRADING DWGS/0003AER18.DWG 06/28/10 08:50:21 AM PDT

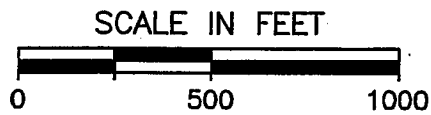
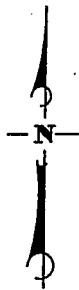
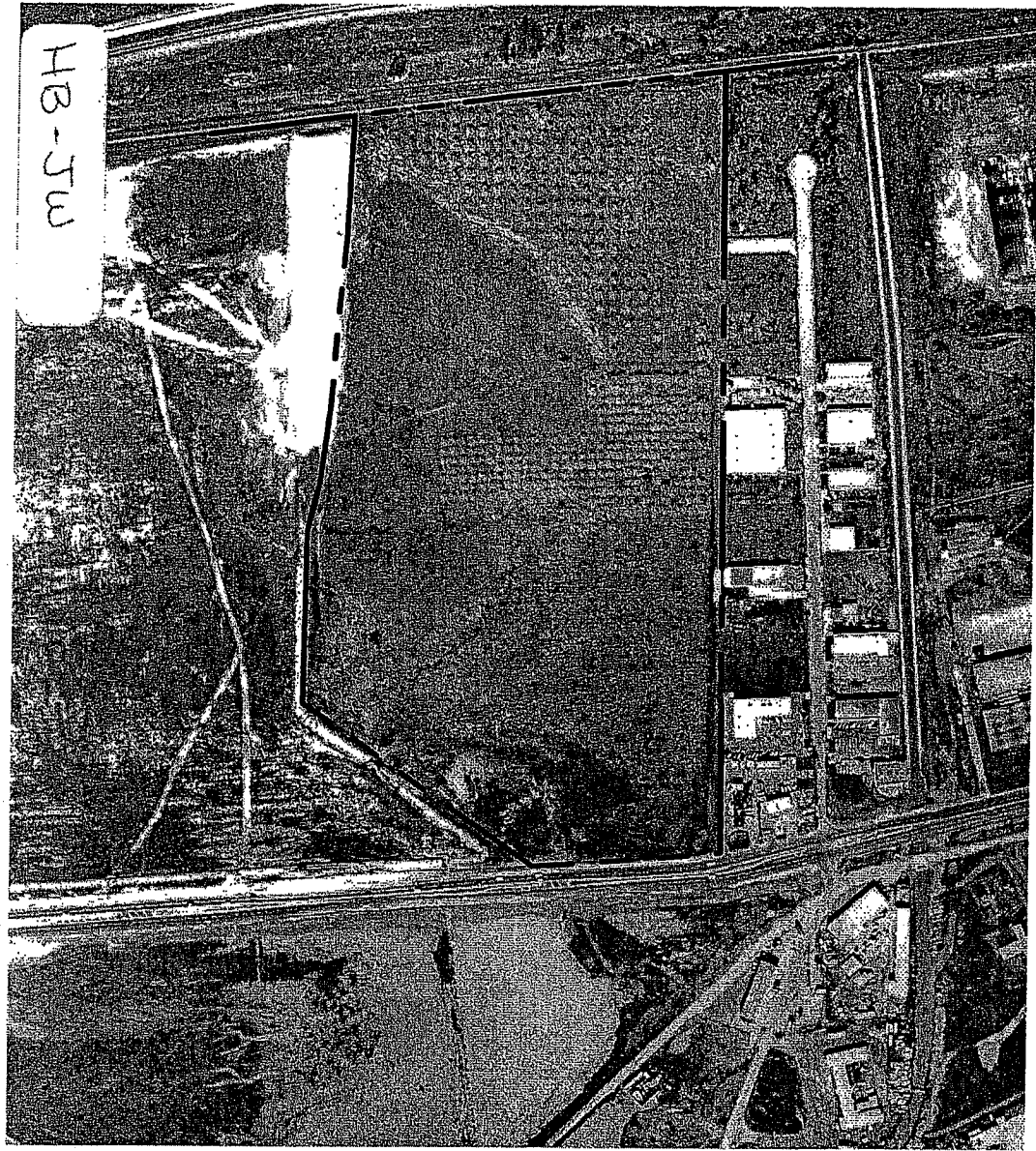


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FIGURE 18
HISTORICAL ACTIVITIES
PHOTO: HB-QD, 95 (OCT. 1969)

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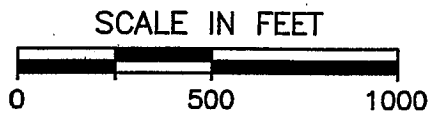
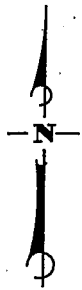
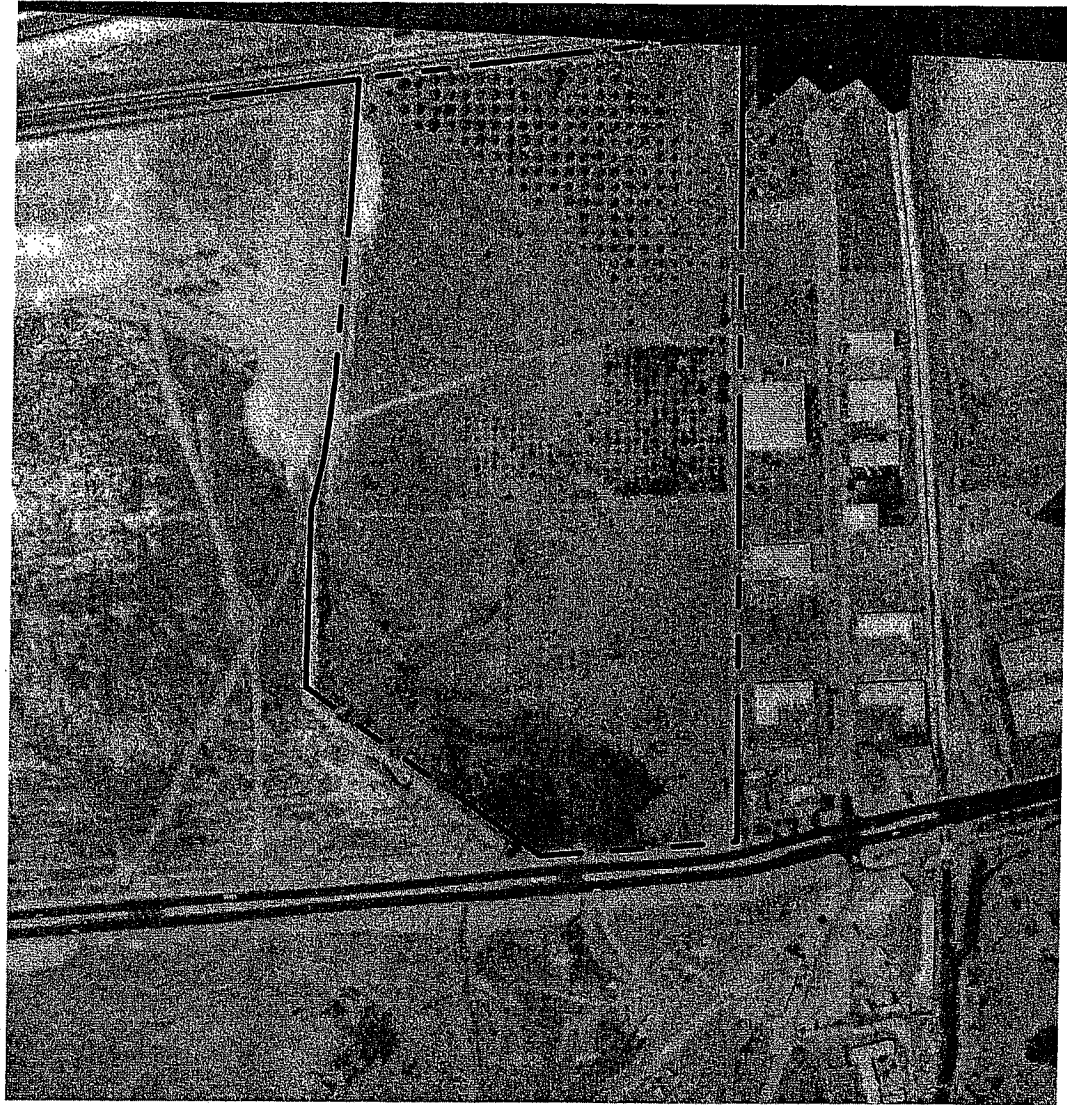


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FIGURE 17
HISTORICAL ACTIVITIES
PHOTO: HB-JW, 178 (JAN. 1967)

0219/HISTORICAL GRADING DWGS/0003AER16.DWG 06/28/10 08:50:21 AM PDT

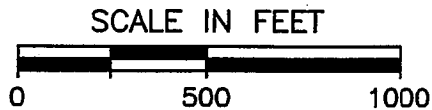
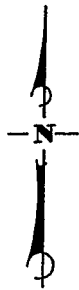
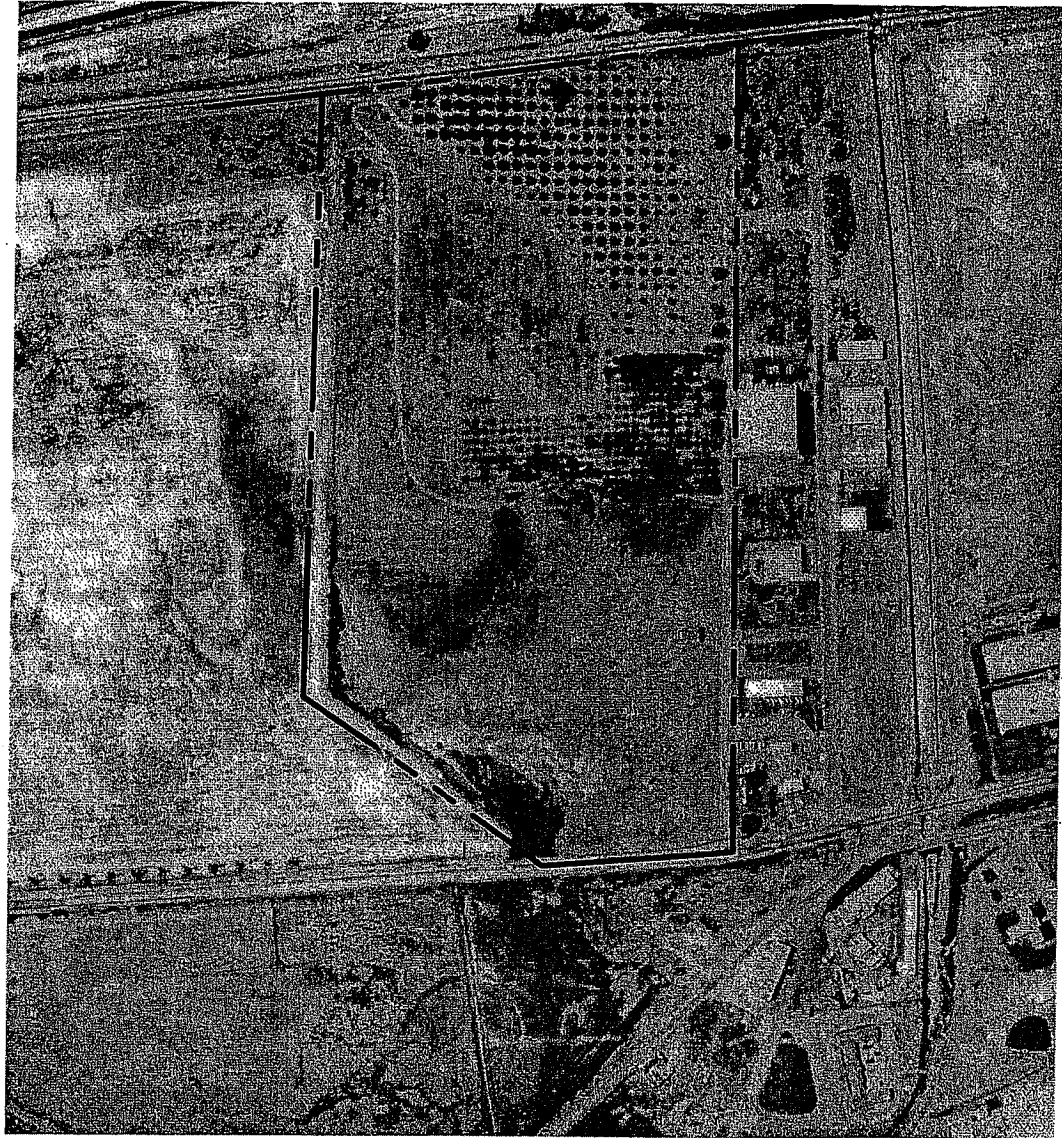


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FIGURE 16
HISTORICAL ACTIVITIES
PHOTO: HB-IU, 141 (SEPT. 1966)

0219/HISTORICAL GRADING DWGS/0003AER15.DWG 06/28/10 08:50:21 AM PDT

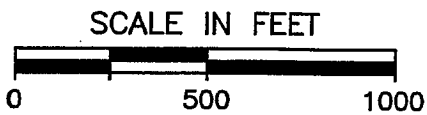
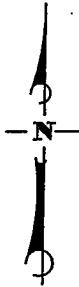
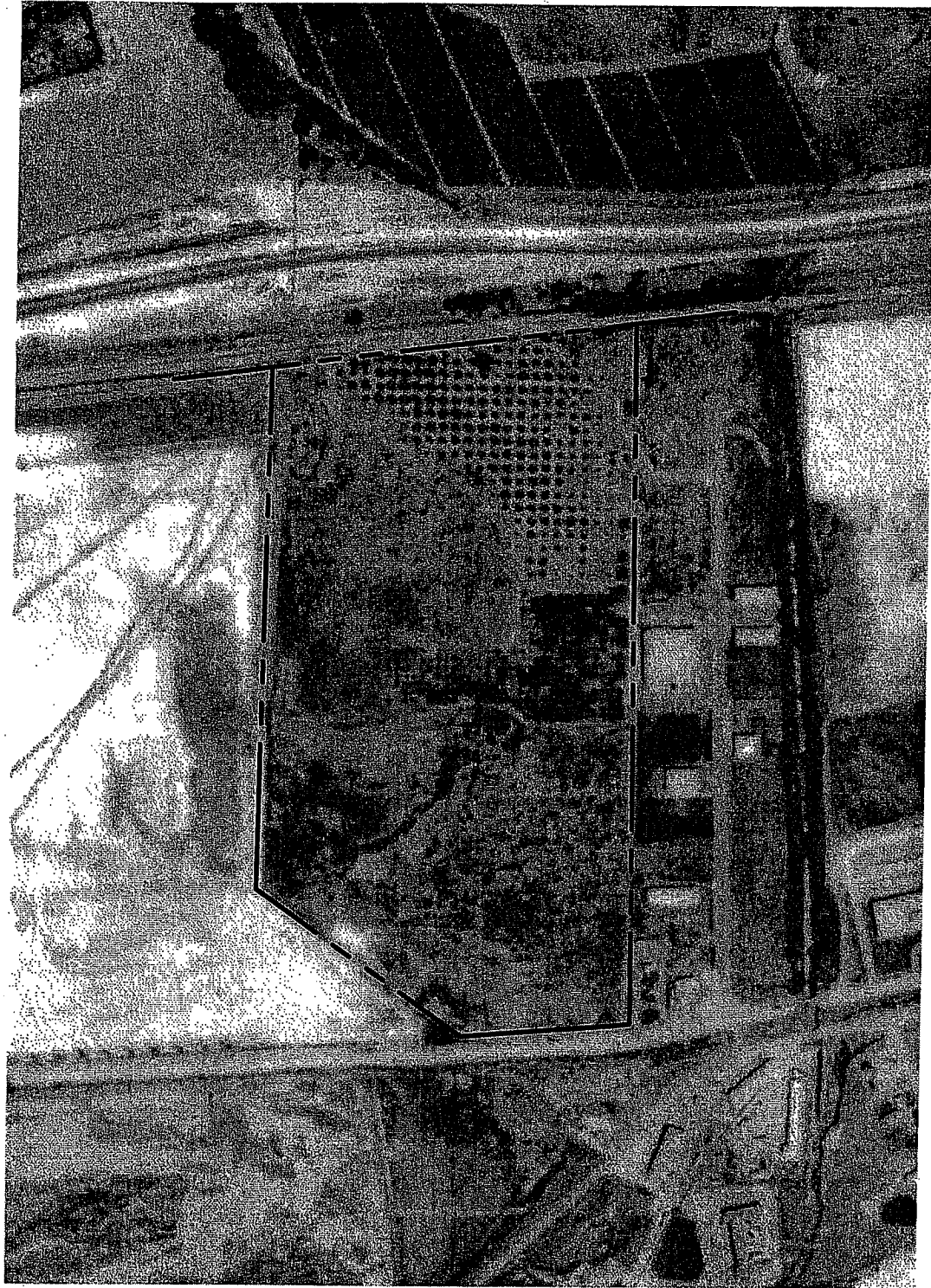


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FIGURE 15
HISTORICAL ACTIVITIES
PHOTO: HA-YD, 7 (AUG. 1964)

0219/HISTORICAL GRADING. DWGS/0003AER14.DWG 06/28/10 08:50:21 AM PDT.

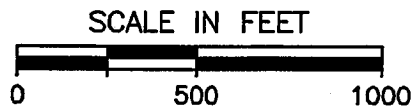
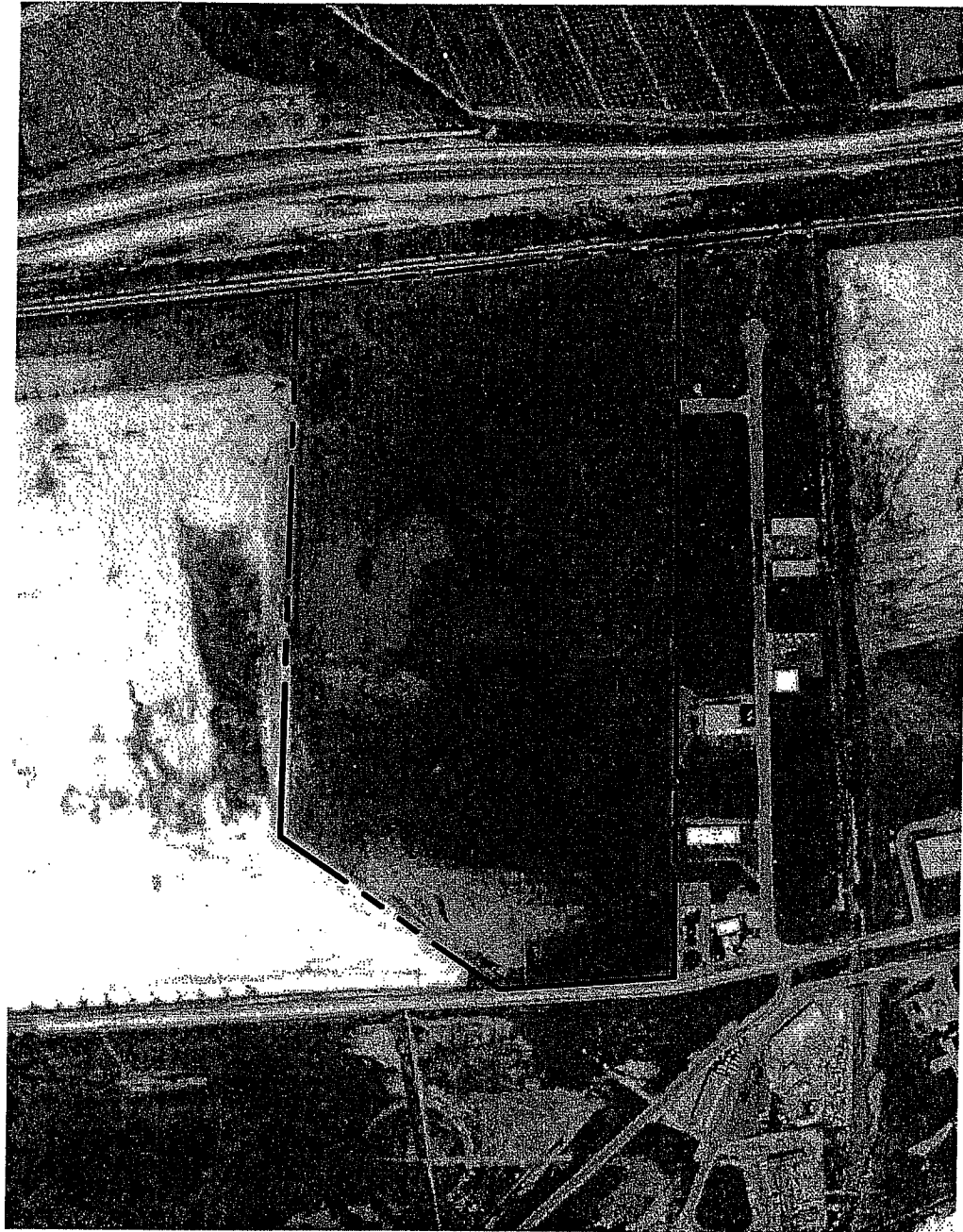


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FIGURE 14
HISTORICAL ACTIVITIES
PHOTO: HA-TZ, 5 (AUG. 1963)

0219/HISTORICAL GRADING DWGS/0003AER13.DWG 06/28/10 08:50:21 AM PDT

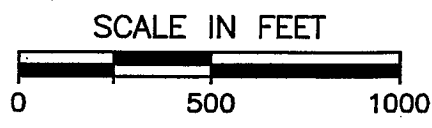
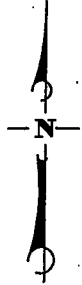
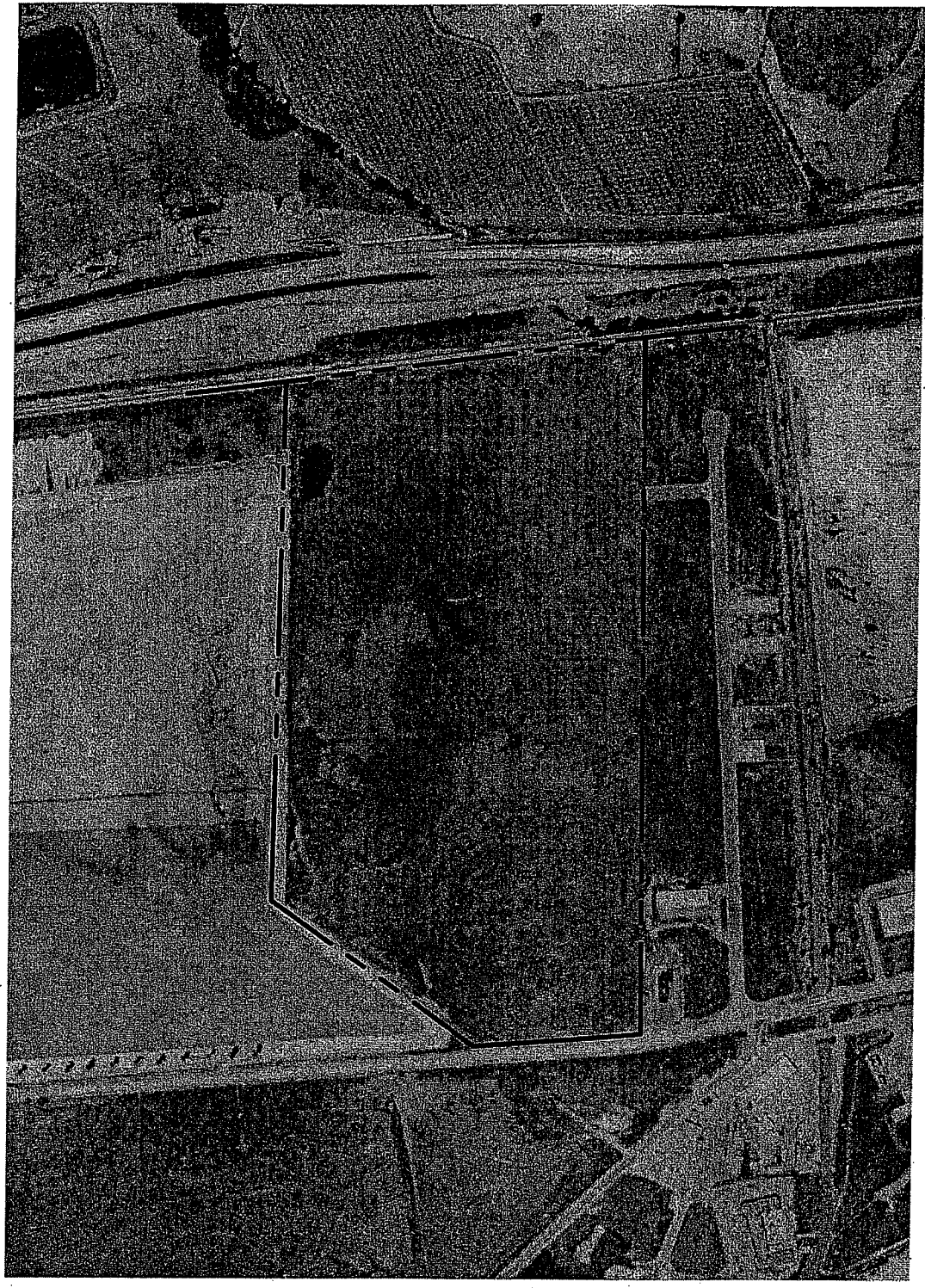


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FIGURE 13
HISTORICAL ACTIVITIES
PHOTO: HA-SK, 6 (MARCH 1963)

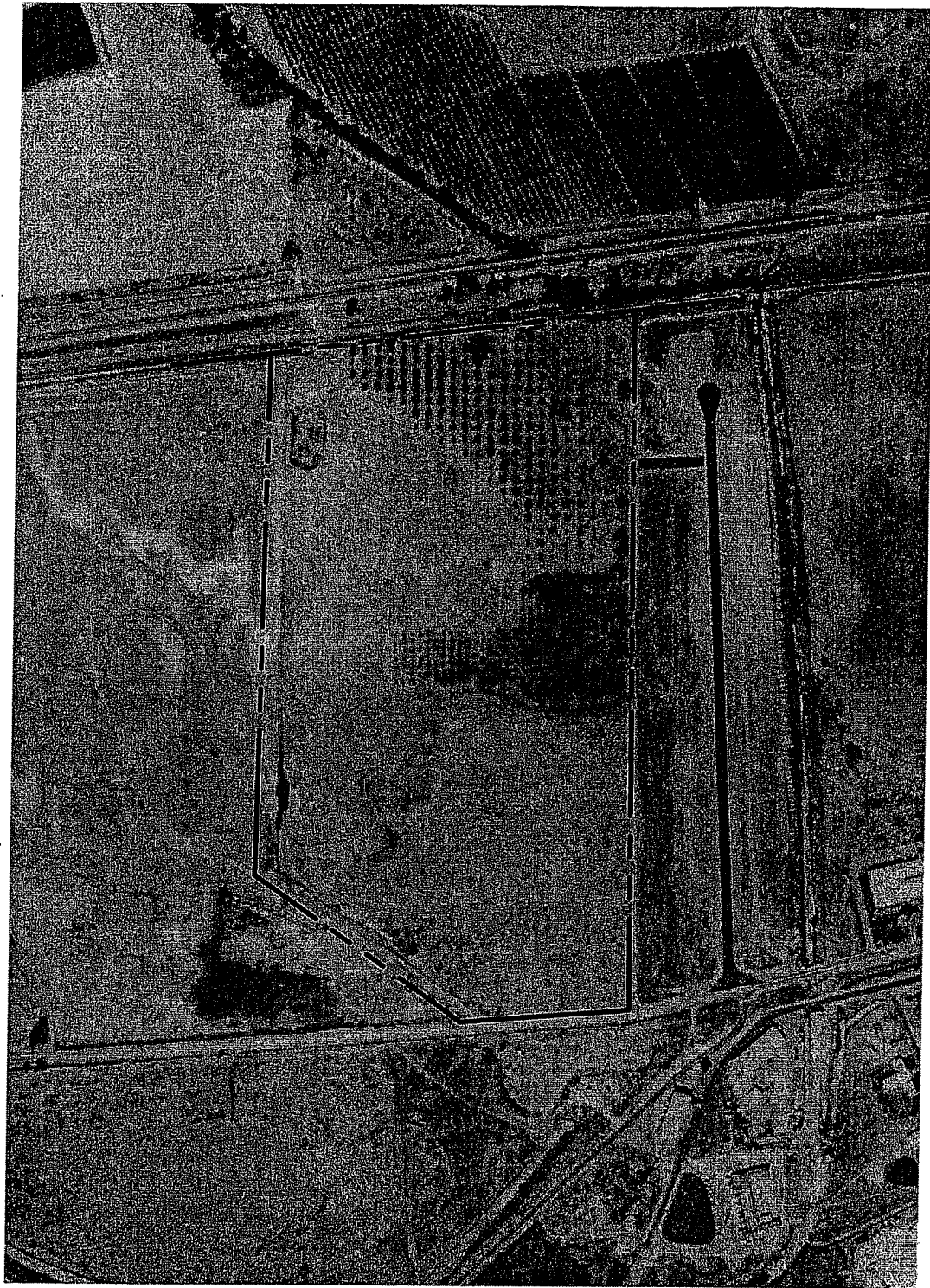
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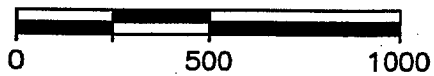
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FIGURE 12
HISTORICAL ACTIVITIES
PHOTO: HA-OI, 91 (1962)

0219/HISTORICAL GRADING DWGS/0003AER7.DWG 06/28/10 08:50:21 AM PDT



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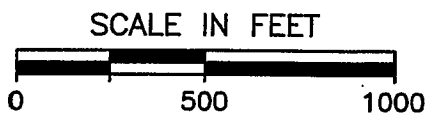
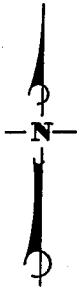
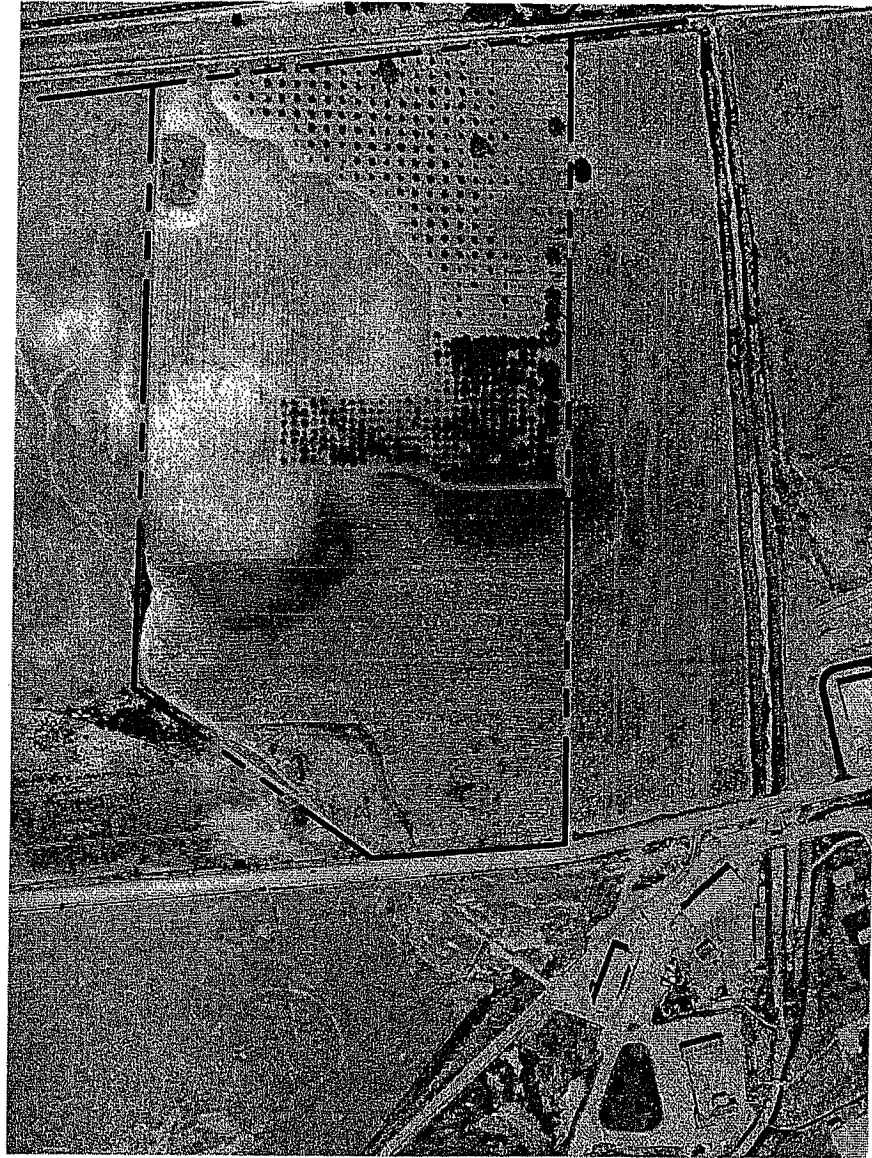


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FIGURE 11
HISTORICAL ACTIVITIES
PHOTO: HA-GN, 53 (NOV. 1959)

0219/HISTORICAL GRADING DWGS/0003AER10.DWG 06/28/10 08:50:21 AM PDT

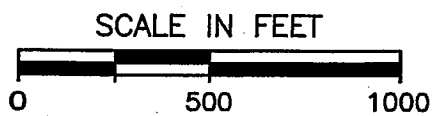
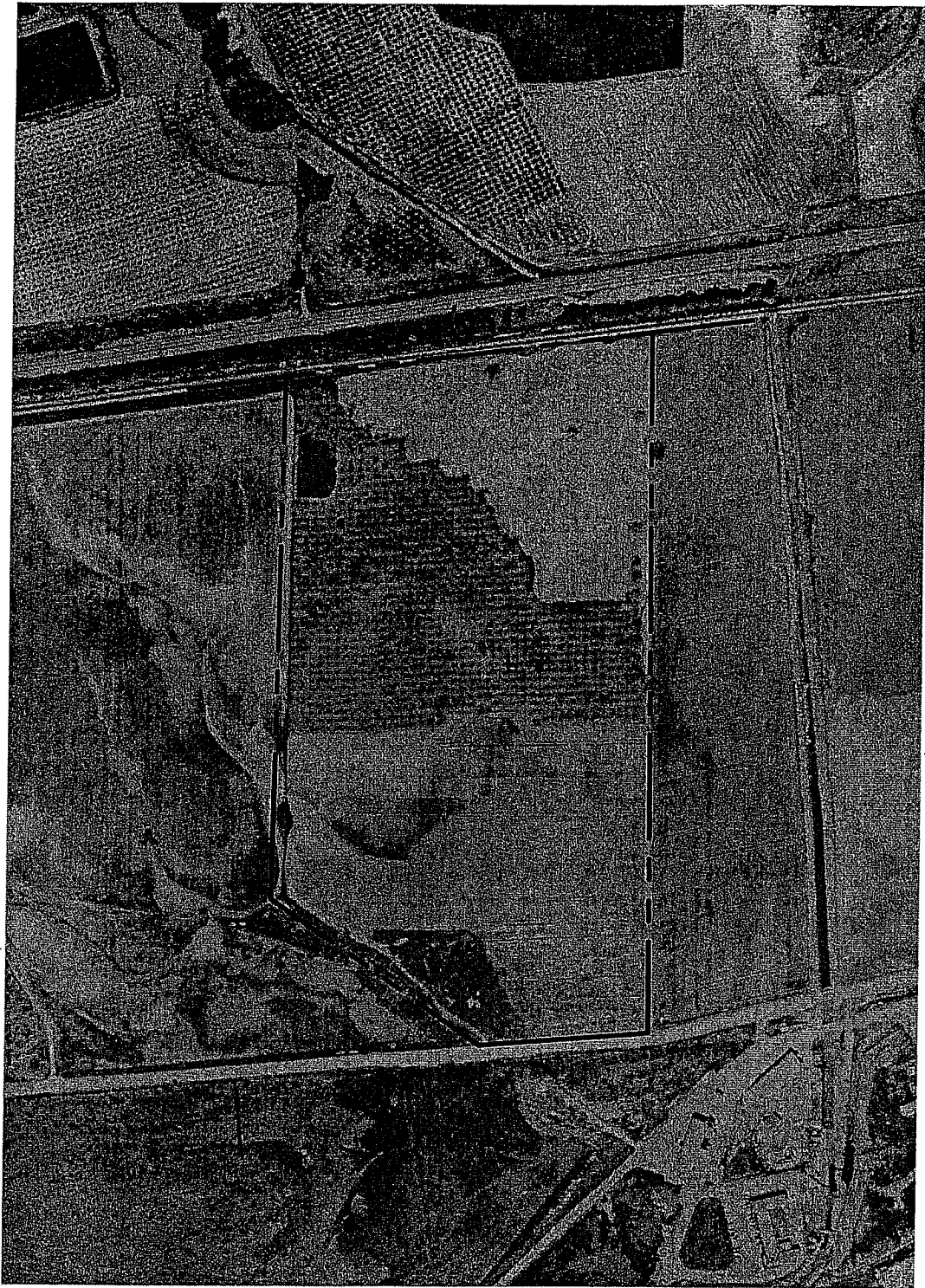


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FIGURE 10
HISTORICAL ACTIVITIES
PHOTO: HA-BY, 26 (OCT. 1957)

0219/HISTORICAL GRADING DWGS/0003AER9.DWG 06/28/10 08:50:21 AM PDT

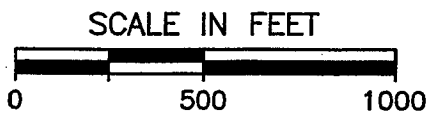
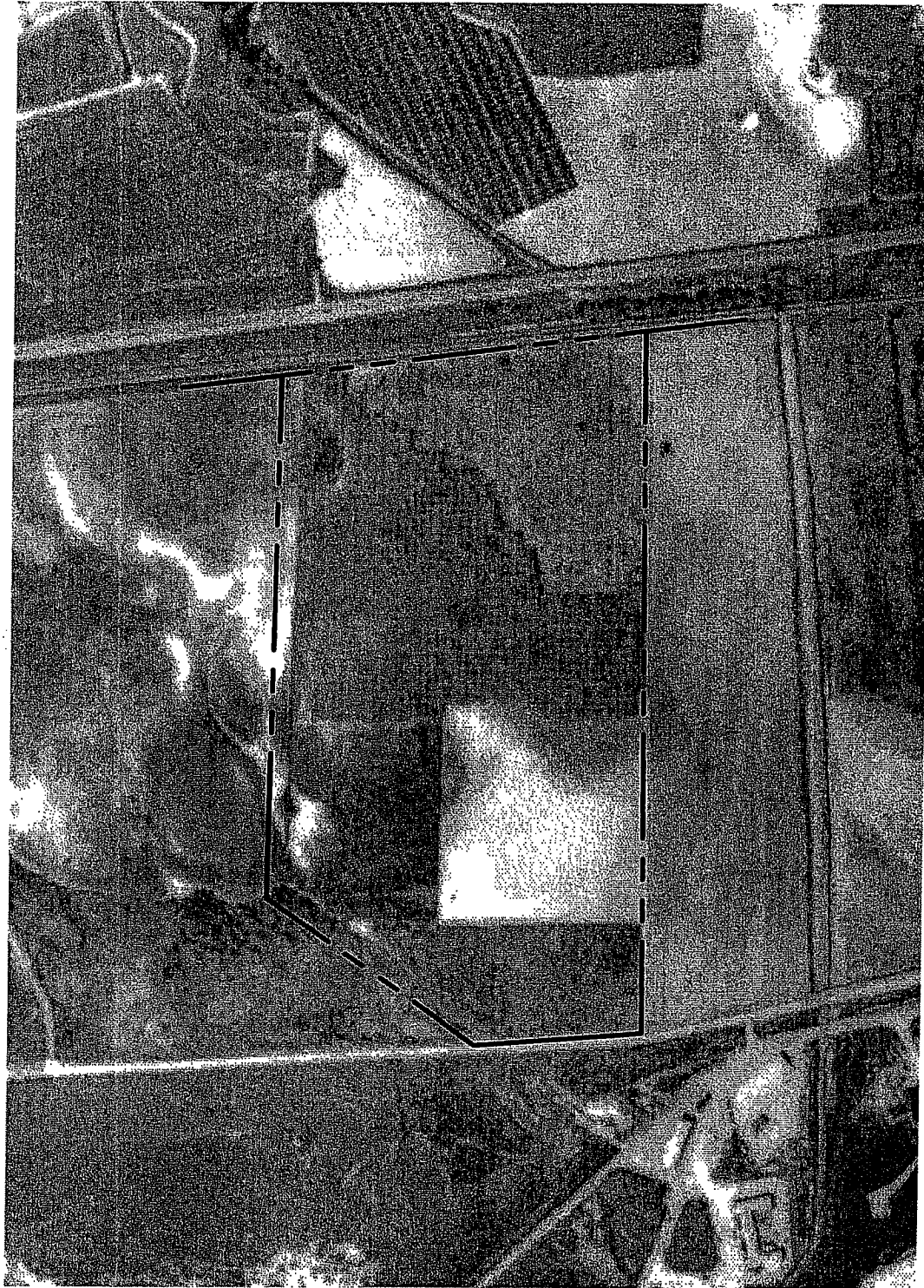


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FIGURE 9
HISTORICAL ACTIVITIES
PHOTO: HA-AN, 1-130 (FEB. 1956)

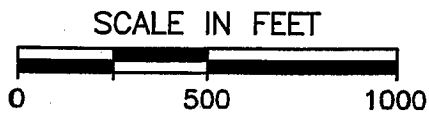
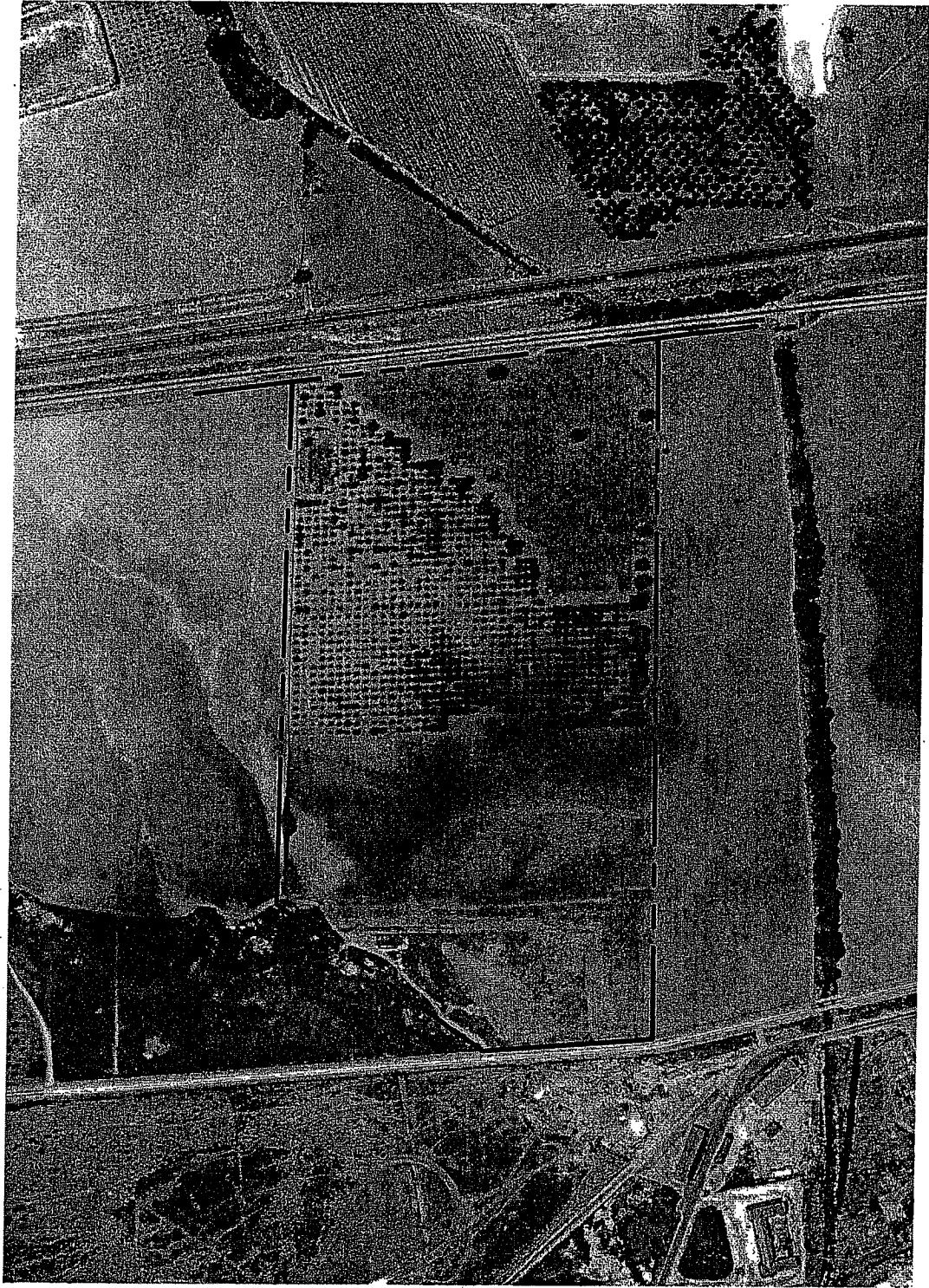
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FIGURE 8
HISTORICAL ACTIVITIES
PHOTO: BTM-6K, 115 (FEB. 1954)

0219/HISTORICAL GRADING DWGS/0003AER7.DWG 06/28/10 08:50:21 AM PDT

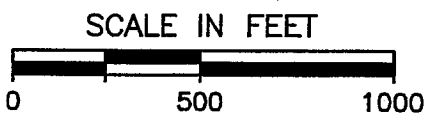
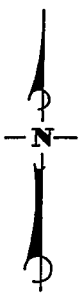
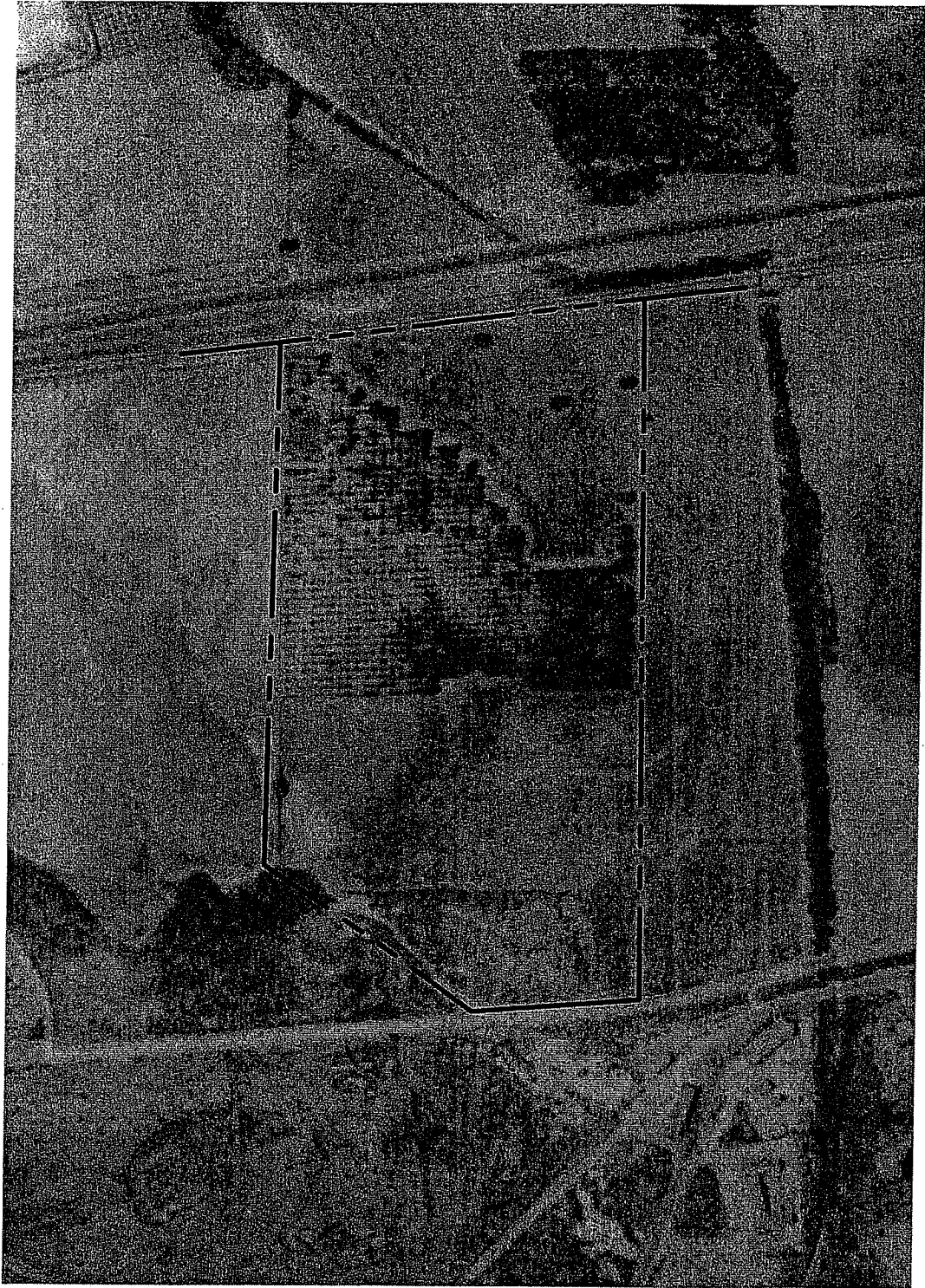


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FIGURE 7
HISTORICAL ACTIVITIES
PHOTO: C-12790, 180 (JULY 1948)

0219/HISTORICAL GRADING DWGS/0003AER6.DWG 06/28/10 08:50:21 AM PDT

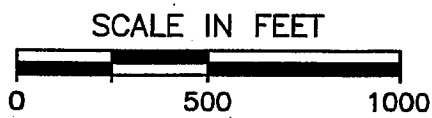
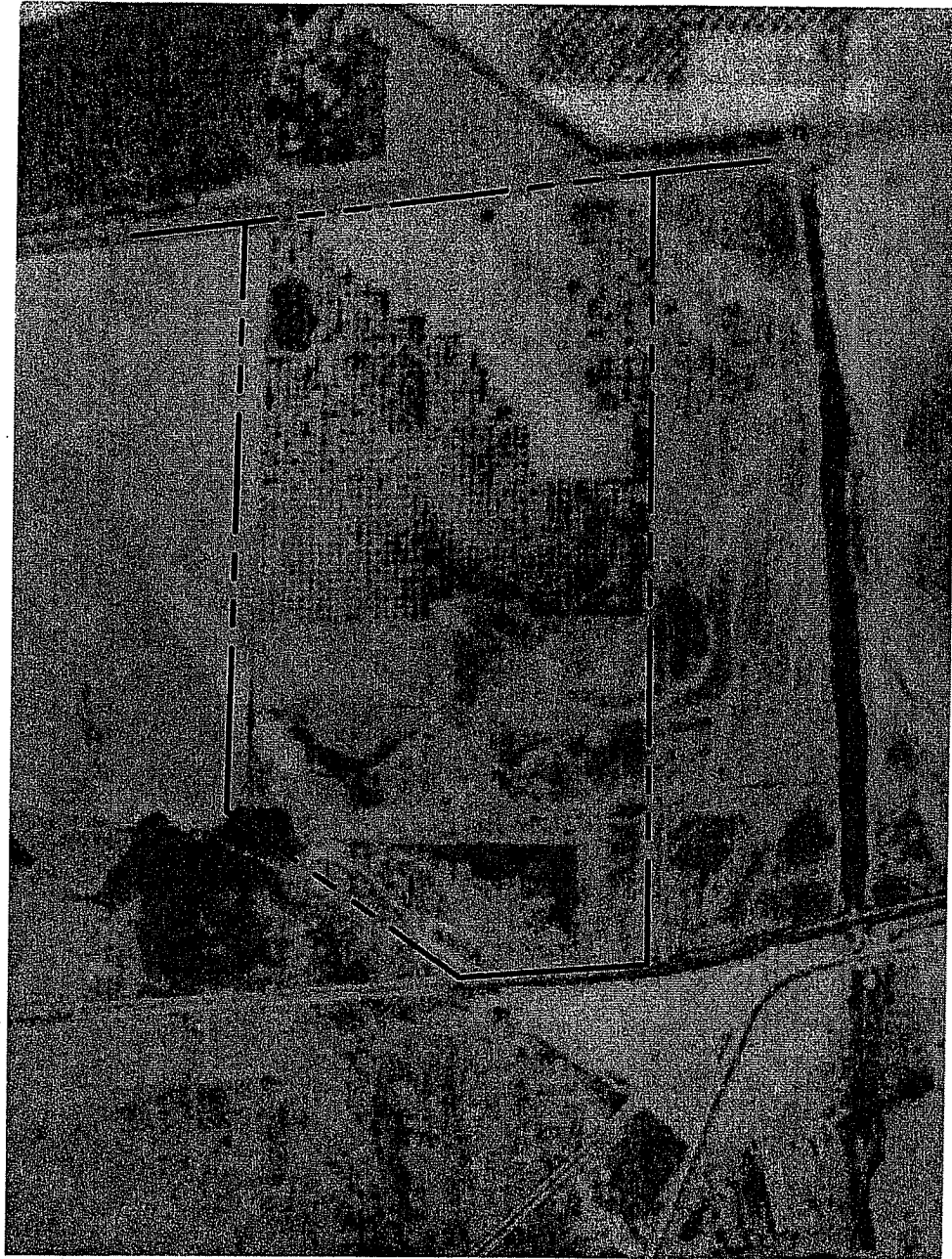


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FIGURE 6
HISTORICAL ACTIVITIES
PHOTO: GS-EM, 6-106 (AUG. 1947)

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FIGURE 5
HISTORICAL ACTIVITIES
PHOTO: BTM-5B, 03 (SEPT. 1943)

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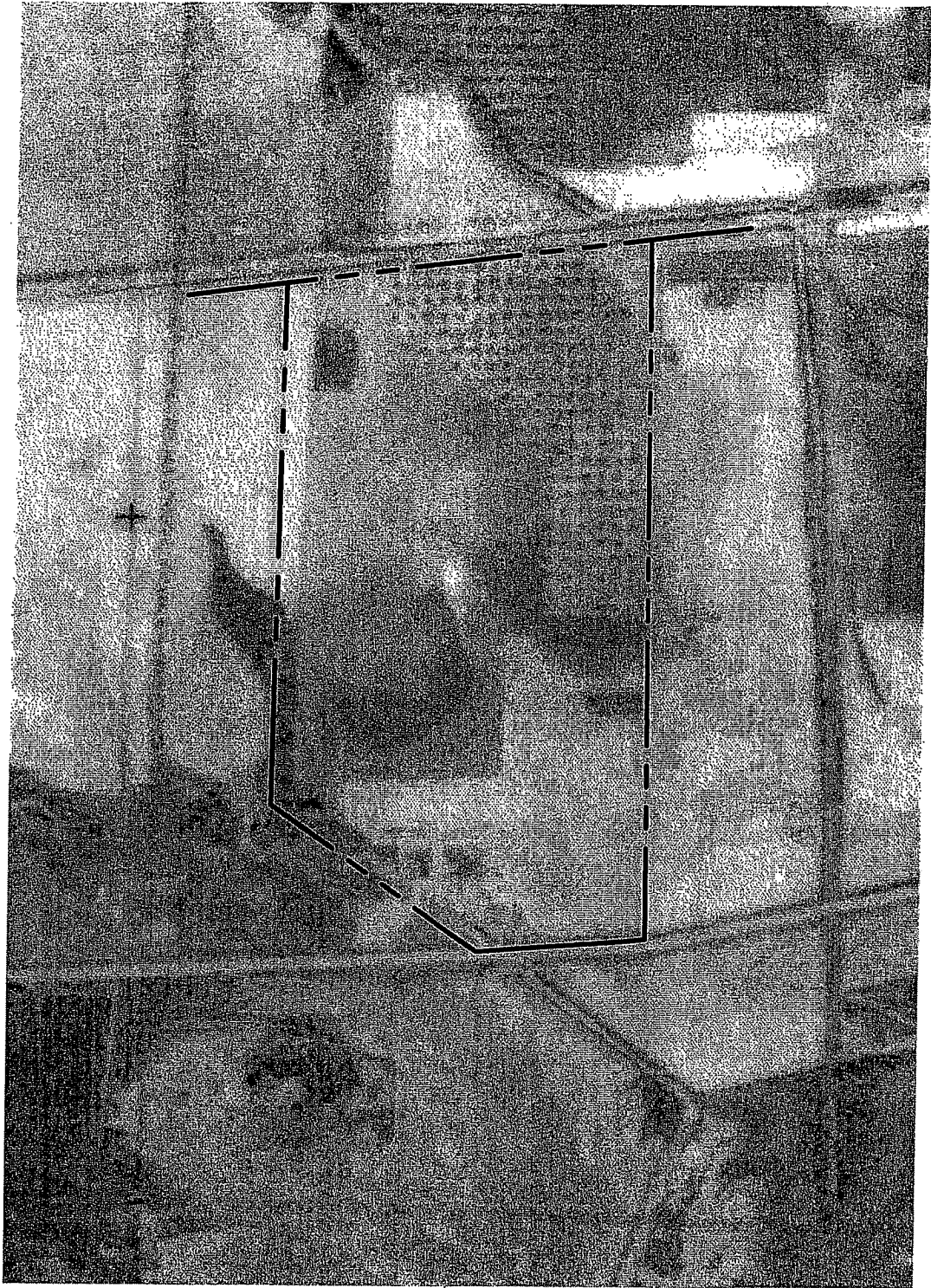
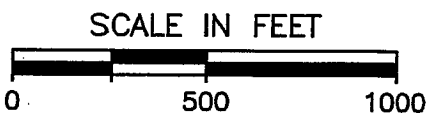


FIGURE 4
HISTORICAL ACTIVITIES
PHOTO: C-430, B-24 (1929)

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0219/HISTORICAL GRADING DWGS/0003AER3.DWG 06/28/10 08:50:21 AM PDT



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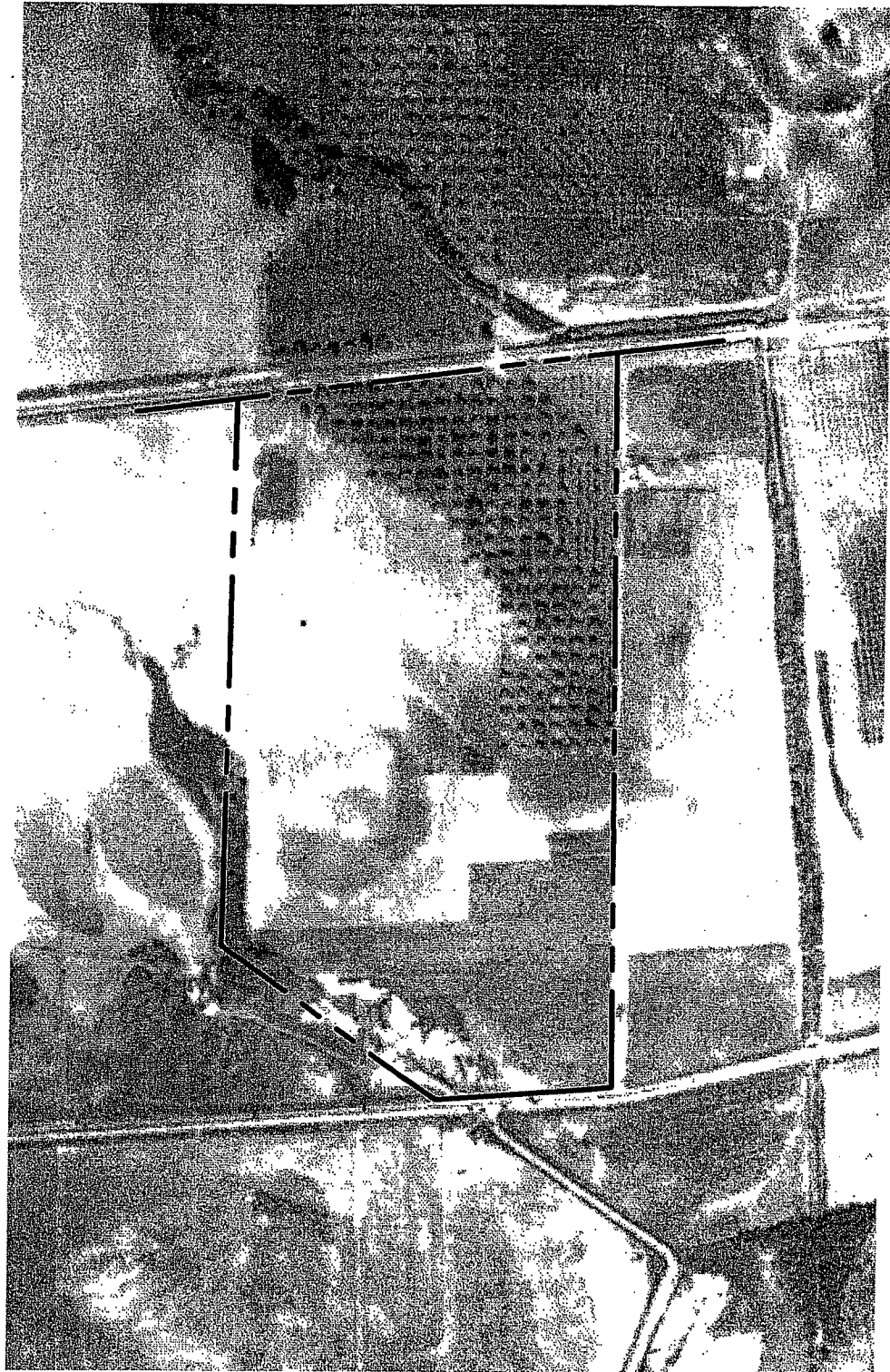
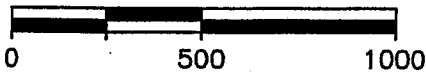


FIGURE 3
HISTORICAL ACTIVITIES
PHOTO: C-311, A-1 (1928)

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March 7, 2012

FILE NO.: SL-15702-SA

Mr. Courtney L. Seepie
The Towbes Group, Inc.
21 East Victoria Street, Suite 200
Santa Barbara, California 93101

PROJECT: WILLOW SPRINGS PHASE 2 APARTMENTS
NORTHEAST OF CALLE KORAL AND CAMINO VISTA
GOLETA, CALIFORNIA

SUBJECT: Comments Concerning the Fill Soil and Building Foundation Loads on the
Soils Within the Archaeological Area

REF: Soils Engineering Report Update, Willow Springs Phase 2 Apartments,
Northeast of Calle Koral and Camino Vista, Goleta, California, by Earth
Systems Pacific, dated May 11, 2011, Doc. No. 1105-026.SER

Dear Mr. Seepie:

This letter presents our comments concerning the fill soil and building foundation loads on the soils within the archaeological area at the Willow Springs Phase 2 Apartments project located northeast of Calle Koral and Camino Vista in the City of Goleta, California.

One of the main directives to the design team from the Towbes Group was to produce a suitable approach that would reduce the impact of site development on the archaeological area to the degree practicable. To accomplish this, the environmental, architecture, and engineering groups produced a plan to raise final surface gradients such that all building and improvement construction operations above and below the final ground surfaces would not create a situation to physically disturb the existing soils within the archaeological area.

From a geotechnical perspective, we recognized that initial grading operations to develop the final site gradients had the potential to cause disturbance of the upper soils in the archaeological area. Additionally, placing the fill soils on the top of the archaeological area



soils would induce a relatively minor level of stress within those soils which in turn creates a potential for a minor amount of settlement. To eliminate the potential for soil disturbance during the initial grading operations and to further reduce the level of soil stress and potential for settlement within the archaeological area soils, we recommended placing a newer technology, triaxial geogrid on the top of the archaeological area soils. The geogrid provides a positive separation between the fill soils and archaeological area soils, and more evenly and broadly distributes the loads from the fill soils. This in turn would reduce the soil stress and the potential for settlement of the archaeological area soils. The amount of settlement of the archaeological area soils would likely be quantitatively insignificant to non-existent as those upper soils subject to the stress already possess a medium dense to dense consistency in their native state.

The use of the geogrid has another benefit in that it allows the grading contractor to compact the fill soils to 90 percent of the laboratory maximum density or above. In essence, the geogrid provides the grading contractor with a stable platform to place and compact the fill soils to provide appropriate support characteristics for the residential structure foundations and the surface improvements without physically disturbing the archeological soils.

The loads from the building foundations will induce stress in the underlying fill soils depending on the thickness of the fill soil placed. The weight of the proposed structures also has the potential to induce stress in the upper surface archaeological area soils. To reduce the archeological soil stress from foundation loads, we restricted the allowable bearing capacity of the foundations to a relatively conservative value. The proposed fill soils will be compacted to a minimum of 90 percent of the laboratory maximum density. The depth of fill to be placed within the archaeological area generally exceeds 4 feet: Building 27-E, 4 feet; 29-A, 5 feet; 30-E, 6 feet; 32-G, 6 feet. Fill is at 3 feet only in the northwest corner of Building 28-A, the southwest corner of 33-H, and the southwest corner of 36-F.



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Considering that the fill soil is further underlain by the triaxial geogrid, any induced stress in the upper surface archaeological area soils from building foundation loads would be very minimal where the fill soil depth is near 3 feet. The amount of additional compaction on the underlying archaeological soils from structural loads would also be quantitatively insignificant (i.e. less than 2 percent) when compared to the placement and compaction of the fill soils to 90 percent or more previously placed above the geogrid. Where fill soils are 4 feet or more, additional structural loads and resulting compaction on the archaeological soils would be non-existent.

If there are any questions concerning this letter, please do not hesitate to contact me.

Sincerely,

Earth Systems Pacific

Doug Dunham

Doug Dunham, G.E.

Copy to: Dudek, Mr. David Stone

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