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The Architecture of Mercury – Nevada's Atomic Boom Town

An Architectural Survey of Mercury, Area 23, Nevada National Security Site, Nye County, Nevada

Prepared by

Ron Reno, Cheryl Collins, and Maureen King

Cultural Resource Technical Report No. 115, Rev. 1
Division of Earth and Ecosystem Sciences
Desert Research Institute
Las Vegas, Nevada

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Prepared for

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National Nuclear Security Administration
Nevada Field Office, Las Vegas, Nevada

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EXECUTIVE SUMMARY

The U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office (NNSA/NFO) plans to modernize the Mercury town site at the Nevada National Security Site in Nye County, Nevada, to meet current and future National Weapons Science, Global and Homeland Security Programs, and Environmental Management mission requirements. These plans include anticipated demolitions, consolidations, and rebuilding at Mercury to be an undertaking subject to review under Title 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act, Title 54 U.S.C. §300101, et seq., and its implementing regulations, 36 C.F.R. Part 800. Prior to the present survey, Mercury had not yet been systematically recorded, and therefore an area of approximately 364 hectares (900 acres) was surveyed for architectural resources by the Desert Research Institute.

This effort resulted in the identification, recording, and evaluation of the Mercury Historic District (SHPO Resource No. D230), including the identification of its contributing components. This district is recommended eligible to the National Register of Historic Places under Criteria A and C. It is unevaluated under Criteria B and D at this time. The Mercury Historic District contains 154 individual landscapes, buildings, and structures. Of these resources, all except one are recommended as contributing elements of the historic district during its period of significance corresponding to nuclear testing from 1951 through 1992. During most of the Cold War, the land now called the Nevada National Security Site was named the Nevada Test Site.

ACKNOWLEDGEMENTS

Most architectural descriptions and the major portion of this report were completed by Ron Reno, PhD, RPA, who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian, Historian, and Archaeologist. Reno also has direct knowledge of Mercury during the Cold War from working there through most of the 1980s as an archaeologist with Desert Research Institute (DRI). Historical research, form preparation, and report preparation were done by DRI cultural resources staff, including Cheryl Collins, Susanne Rowe, Tatianna Menocal, Christina Callisto, Harold Drollinger, Carol Shimer, Levi Keach, and Camille Morris. Nicole Damon provided valuable editorial comments. We also thank Mona Reno, MLS, for additional historical research. Collins did GIS for the project and prepared the maps. Field photography was principally conducted by Menocal, with some supporting photography done by King and others. The historical background sections are revised versions of earlier work by King, who is also responsible for project administration and quality control.

Carrie Stewart, National Environmental Policy Act Compliance Officer for the NNSA/NFO served as the program manager overseeing this project. Jacob Huffines, Indirect Support, Facilities Program Manager with Mission Support and Testing Services LLC, administered the project for the NNSA/NFO.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY i
ACKNOWLEDGEMENTS i
I. INTRODUCTION 1
II. RESEARCH DESIGN 4
Objectives 4
Survey Methods 4
Expectations 10
Integration with Planning Process 10
III. HISTORIC CONTEXT 12
Natural Setting 12
Mercury, the Cold War, and Nuclear Testing at the NNSS 12
The Cold War 13
Nuclear Testing and the Continental Test Site 14
Camp Mercury: The Early Years (1951-1962) 15
Mercury Becomes a Permanent Base (1963-1977) 19
Redevelopment in the Final Cold War Years (1978-1992) 24
Mercury Since 1992 25
IV. RESULTS 27
Mercury Historic District (D230) 27
Individual Resources 27
Resource Dates 28
Architectural Styles 30
No Style 30
Mid-century Modern 36
Late Modern 42
A Sample of Architectural and Engineering Firms 44
Holmes & Narver (H&N) 44
Arthur Benedict Associates 45
Albert C. Martin and Associates 45
Selden and Stewart Architects and Planners 46
Ben Beckler and Associates 47
Gunny, Brizendine & Poggemeyer Engineers-Planners (GB&P) 47

JMA Architecture and Engineers (JMA) 48
Functional Architectural Types 48
Administration 53
General Maintenance 54
Motor Pool 55
Radiation Control 55
Science and Research 57
Security 58
Warehousing/Storage 60
Housing 62
Public Services 62
Recreation 64
Electrical Utilities 66
Heating/Cooling 69
Sewage 73
Solid Waste Disposal 75
Water 76
Air Transportation 84
Other Resources 86
Character-defining Features 86
Radiological Experimentation and Controls 86
Security 86
Modern Utilitarian Architecture 87
Horizontal Development 87
Automotive Culture 87
Color 87
Cleanliness 88
Impersonal 88
Aboveground Utilities 89
Lighting 89
Signage 89
Xeriscape 90
Subsurface Structures 92
V. RECOMMENDATIONS 94
National Register Eligibility 94

Criterion A 95
Criterion B 96
Criterion C 97
Criterion D 98
Integrity 100
V. REFERENCES 105

LIST OF FIGURES

Figure 1. Map showing the location of Mercury and the NNSS....2
Figure 2. Aerial view of the Mercury Historic District....3
Figure 3. Map showing the blocks assigned for recording purposes....11
Figure 4. Map of Mercury in December 1951....16
Figure 5. Mercury in the late 1950s....17
Figure 6. Generalized existing land use map....18
Figure 7. Mercury in 1968....22
Figure 8. Mercury from the air in 1968....23
Figure 9. Map of Mercury in 1992....25
Figure 10. Counter-terrorism Operations Support facility in Building 23-211....26
Figure 11. Map of Mercury resources by period of construction....29
Figure 12. Double Hutment with shed addition....31
Figure 13. Examples of prefabricated buildings at Mercury....32
Figure 14. The old Recreation Building (23-113)....33
Figure 15. Examples of portable buildings....35
Figure 16. A trailer repurposed for testing activities....35
Figure 17. Mid-century Modern Warehouse 23-160....36
Figure 18. Mid-century Modern Shop Building 23-751....37
Figure 19. Brutalist Crafts-Shops Building 23-710....38
Figure 20. Brutalist Maintenance Shop Building 23-700....38
Figure 21. Brutalist Materials Testing Laboratory Building 23-190....39
Figure 22. Contemporary Dispatch Building 23-752....39
Figure 23. Contemporary Health, Medicine, and Safety Building 23-650....40
Figure 24. Contemporary Equipment Maintenance and Service Building 23-750....40
Figure 25. Contemporary Mercury Cafeteria 23-300....41
Figure 26. The manipulation of massing, curtain walls, texture, and shading....41
Figure 27. The Bowling Alley (Building 23-517)....42
Figure 28. Late Modern 23-531 to 536 series dormitory complex....43
Figure 29. Map showing spatial distribution of functional types of resources....52
Figure 30. Administration Building 23-117....53
Figure 31. Siren (S1745) and a typical Evacuation Assembly Area....54

Figure 32. Maintenance supplies in the yard of Building 23-710 54
Figure 33. Panorama of the Motor Pool complex 55
Figure 34. RAMATROL 23-180 and Dosimetry Calibration Laboratory 23-610 56
Figure 35. The faded sign on this trailer 57
Figure 36. Blue Box Building 23-600 57
Figure 37. Lawrence Radiation Laboratory 23-600 and Ron Reno in his former office 58
Figure 38. Gate 100 59
Figure 39. Security force muster at what was then the Badging Office 60
Figure 40. The overcrowded loading dock on Warehouse Row 61
Figure 41. The extent of materials stored in Mercury 61
Figure 42. The 400 Series of dormitories 62
Figure 43. The Mercury Chapel 23-550 64
Figure 44. Overview of the core area of recreational facilities in Mercury 66
Figure 45. Map of aboveground power lines (S1707) 67
Figure 46. The Power Plant Building 23-116 and foundations of the Mercury Substation 69
Figure 47. The Gate 100 Switching Station 23-1010 69
Figure 48. The Mercury hot water and steam heating system 71
Figure 49. Steam Plant 23-115 in 1955 and its foundations 72
Figure 50. Map of the Mercury sewer system 74
Figure 51. The Mercury Sewer Plant 23-1200 75
Figure 52. Entry to the Mercury Landfill 23-800 with Quonset hut foundation 76
Figure 53. Map of the Mercury storm water drainage system 78
Figure 54. North Ditch between Mercury Highway and Mercury Bypass 79
Figure 55. Concrete 100,000 Gallon Water Tank 80
Figure 56 Map of the Mercury water system 82
Figure 57. The Mercury road system 83
Figure 58. Junction of the Mercury Highway and Bypass south of Mercury 84
Figure 59. Liaison Airstrip 85
Figure 60. North end of the Mercury Airfield (26NY15777) 85
Figure 61. Dormitory buildings 23-B through D retain their pastel coloring 88
Figure 62. A typical hand-painted REECo sign and a stained glass sign at dormitory 23-535 90
Figure 63. Transplanted Joshua trees and rock garden at entrance to the DOD compound 91
Figure 64. Xeriscape garden at the Cafeteria 91

Figure 65. Typical utility excavation along Ranger Avenue next to Building 23-109 92
Figure 66. A sample of underground utility access in Mercury 93
Figure 67. Signage for an underground telephone cable 93
Figure 68. Nevada State Historical Marker 165 adjacent to US 95 95
Figure 69. Selection of commemorative bricks at the National Atomic Testing Museum 96
Figure 70. Prefabricated Building 23-133 on the Mercury Highway being moved 101
Figure 71. Three generations of color at Mercury 102

LIST OF TABLES

Table 1. Mercury Historic District Recording Guidelines 6
Table 2. Previous Inventories within One Mile of the Mercury Historic District 7
Table 3. Previously Recorded Cultural Resources within the Mercury Historic District 8
Table 4. Functional Architectural Types at Mercury 49

APPENDICES

APPENDIX A: Resources Recorded as Part of the Mercury Historic District
Table A-1. Historic Resources in the Mercury Historic District A-1
Table A-2. Concordance of SHPO and NNSS Resource Numbers A-6
APPENDIX B: Maps Showing Locations of Historic Resources in Mercury
Table B-1. Resource Map Key B-1
Map A2 ..... B-2
Map A3 ..... B-4
Map A4 ..... B-5
Map A5 ..... B-6
Map B2 ..... B-7
Map B3 ..... B-8
Map B4 ..... B-9
Map B5 ..... B-10
Map C1 ..... B-11
Map C2 ..... B-12
Map D3 ..... B-13
APPENDIX C: Contributing Resources to the Mercury Historic District.
Table C-1. Contributing Resources to the Mercury Historic District C-1
APPENDIX D: Properties in Mercury Constructed Later than 1992 and not Formally Recorded
Buildings 23-151 and 23-163 ..... D-1
Buildings 23-23 and 23-302 ..... D-2
Buildings 23-426 and 23-640 ..... D-3
Building 23-699 and Bulk Fuel Station D-4
Building 23-1106 ..... D-5

I. INTRODUCTION

The U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office (NNSA/NFO) anticipates extensive demolitions and alterations of the base camp of Mercury on the Nevada National Security Site (NNSS) in Nye County, Nevada (Figure 1), to support the NNSS's changing role in national security and a variety of research projects. A resurgence in the use of the NNSS buildings and structures remaining from the 1950s through the early 1990s that are insufficient to meet new mission needs poses significant health and safety risks because of disuse, deterioration, and harmful building materials. As a result, many of the historic properties comprising the Mercury Historic District are scheduled for removal and/or rehabilitation. Mercury will be reconfigured to a more compact, efficient, modern base that is better suited to perform the evolving missions of the NNSS. This reconfiguration will require (1) the construction of a new, centrally located "campus" of administrative and mission-directed buildings with modern support infrastructure; (2) the repair, upgrade, maintenance, and ongoing custodial support and other improvements of existing infrastructure (where possible); and (3) the demolition of older structures and infrastructure where maintenance and upgrades are not practicable.

The NNSA/NFO has obligations under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 C.F.R. Part 800) to consider the effects of its actions and undertakings on historically important properties and to develop and implement strategies to minimize or mitigate adverse effects to historic values. The NNSA/NFO has determined that the Mercury Modernization undertaking will have adverse effects on historic structures that are part of the Mercury Historic District, a group of properties and the surrounding area that together are eligible for listing in the National Register of Historic Places (NRHP or National Register). The NNSA/NFO has consulted with the Nevada State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) regarding the Mercury Modernization undertaking, and intends to develop a programmatic agreement document with the SHPO that specifies the approach that NNSA/NFO will take to meet its statutory obligations toward historic preservation.

This Section 106 survey is directly related to this modernization undertaking. The area of potential effect (APE) is approximately 364-hectare (900-acre) area designated the Mercury Historic District (MHD), an area within which there are potential direct, indirect, and cumulative effects to historic properties that may result from the undertaking.

The MHD (SHPO Resource No. D230) is located in Sections 10-12, 14, and 15, T15S R53E MDBM (projected) in Area 23 of the NNSS. In 2010, the Nevada Test Site (NTS) name was changed to the NNSS, and will be referred to as such throughout this report as appropriate. The outlines of this district, which also are the limits of the survey area and APE, are shown on Figure 1 and on the aerial photograph in Figure 2.

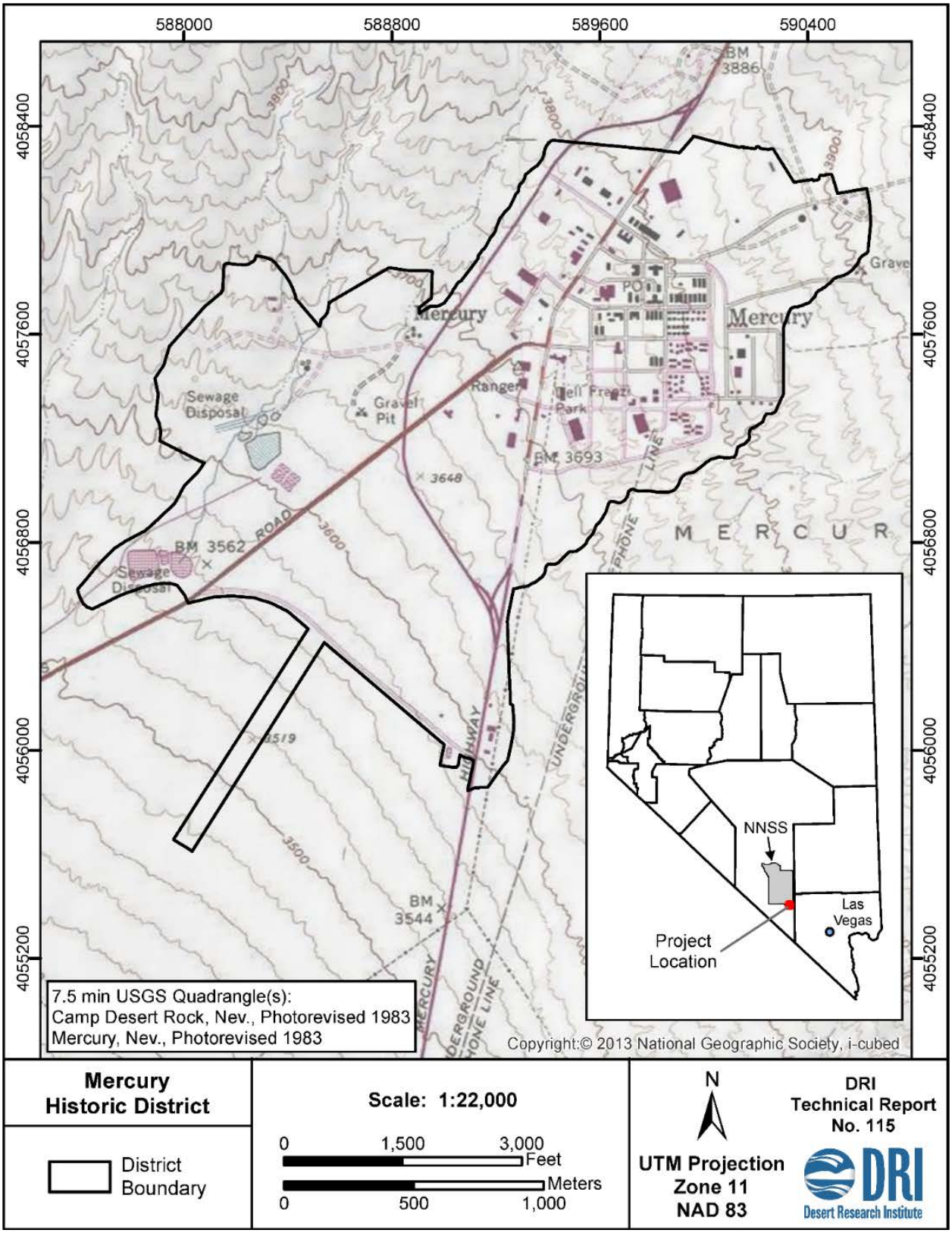

Figure 1. Map showing the location of Mercury and the NNSS.

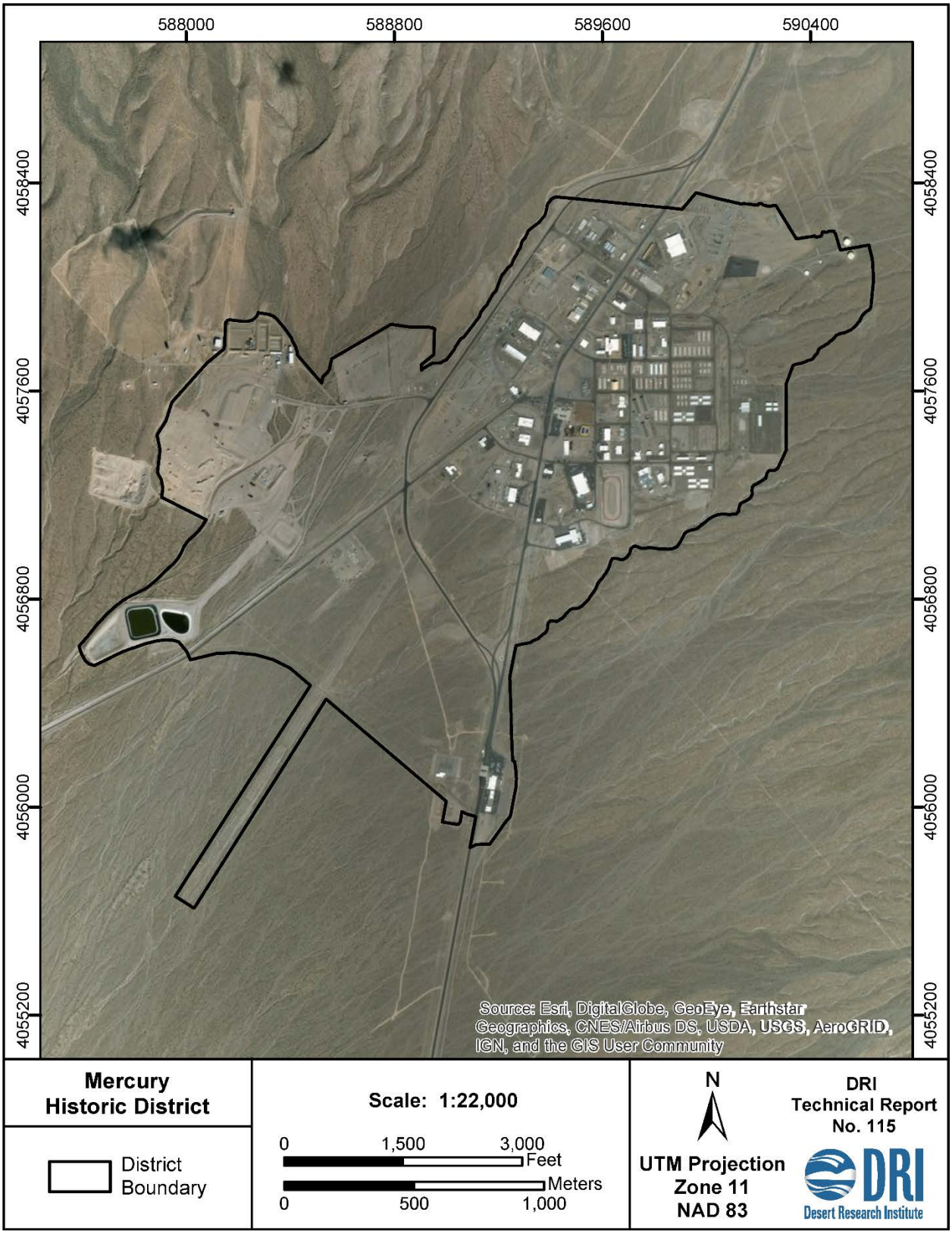

Figure 2. Aerial view of the Mercury Historic District.

II. RESEARCH DESIGN

Objectives

This survey was undertaken to comply with requirements of Section 106 of the National Historic Preservation Act of 1966, as amended for the NNSA/NFO to create an inventory of historic resources under its jurisdiction. It was done at this time to facilitate the planning process for anticipated changes in Mercury, which will occur in phases involving more intensive evaluation and mitigation efforts to comply with Section 106 of the National Historic Preservation Act. Prior to the present survey, no inventory of the Cold War resources in Mercury existed.

Survey Methods

The methods used for this survey were designed to comply with *Nevada Architectural Survey and Inventory Guidelines* (SHPO 2013). Because the District Form needed to stand alone as a document, much of the material in the report is duplicated there. Most resources are documented on ARA Forms included in Appendix E. All of these are newly recorded with three exceptions. The power and communications infrastructure (S1701) and underground utilities (S1763, S1764, and S1766) were recorded concurrently with the present project but reported upon separately. The Mercury Bowling Alley (23-517) was previously recorded and was also included in a separate report. The original ARA form for this resource is included along with an update reflecting its current condition and a revised eligibility discussion. The Mercury Airfield (26NY15777) was previously recorded as an archaeological resource. The original IMACS form along with an update reflecting its current condition and a revised eligibility discussion are in Appendix E.

Architectural recording was limited to resources dating to the Cold War (1951-1992). Architectural resources dating from 1993 to the present were not formally recorded on ARA forms. Instead, they are presented in Appendix D. This appendix includes the NNSS building identifier, common name, date of construction, and a photograph of each resource.

Ron Reno (DRI Architectural Historian/Archaeologist), Kristen Brown (SHPO Architectural Historian), and Jessica Axsom (SHPO Archaeologist) held an informal meeting at the SHPO in Carson City, Nevada, on May 23, 2017, to discuss methods appropriate to the unique nature of this project. The notes taken by Reno regarding this meeting and sent by email to all participants included the following:

Primary to the recording method suggested is that architectural resources predominate with archaeological resources in a secondary role. Recording will be done in such a way that archaeological artifacts and features will be connected with the architectural resources wherever appropriate. Hence they will be recorded as Accessory Resources.

Archaeological survey will not be done of outlying undisturbed areas or other undisturbed areas in Mercury outside probable direct impact APEs at this time.

Detailed discussion was guided by Resource Types and is summarized in the table below. Landscape ARAs will be heavily utilized. The Landscape roughly corresponds to the Site in National Register usage.

A few character-defining aspects of Mercury came up in discussion including lack of family housing (commuter culture) and short-term residence of most individuals who stayed in the dorms and trailers. It has a remarkable lack of display compared to that of military bases—everything about the place is understated and utilitarian.

Perhaps the most important point I got from the discussion is that we should use the documentation in such a way that makes the most sense from the point of view of this particular (and unique) resource. As long as it makes sense, the forms can be modified to make them maximally usable for this project. It is understood that such modifications do not imply that they are appropriate for other circumstances.

In addition, specific levels of recording for the various anticipated resources discussed in the meeting were summarized in the following table (Table 1), which was also sent to all participants by email. This table was constantly consulted during recording. The general history of the NNSS is very familiar to DRI personnel after many years of research at the facility. Much of this material is already in reports that were freely drawn upon for the present project. In addition, DRI maintains complete records of all cultural resources surveys and historic evaluations on the NNSS.

Prior to fieldwork, records from the NNSS cultural resources program archives at DRI and NVCRIS were reviewed for information on existing cultural resource inventories and previously identified cultural resources within one mile of the Mercury Historic District boundary. Satellite imagery (ESRI and images on file at the Nevada Bureau of Mines and Geology, Reno) was also examined to determine the spatial relationship of buildings and structures in the area. Additionally, archival data were reviewed for evidence of past activities associated with Mercury's role in nuclear testing.

Beck et al. (1996b) report on a number of buildings in Mercury dating between 1951 and 1964. Although many of these buildings are no longer standing, others retain their original function or have been repurposed to support NNSS's changing role in national security (NNSA/NFO 2013a).

In addition, the archival review found 26 previous cultural resources inventories within an area extending one mile beyond the boundary of the Mercury Historic District (Table 2). Previously recorded cultural resources within the Mercury Historic District are listed on (Table 3). The Mercury Airstrip, site 26NY15777, was revisited as part of the present project. Building B14451 (DOE Building #23-517) is the Mercury Bowling Alley and is a historic property eligible to the NRHP. The building was the subject of an individual Section 106 evaluation (Reno and King 2016) and was further addressed as part of the larger Mercury Historic District evaluation. A total of 43 Mercury buildings earlier than 1964 were recorded at a minimal reconnaissance level in Beck et al. (1996b), and those still extant are also evaluated as part of the present project.

Table 1. Mercury Historic District Recording Guidelines.

Resource Type	**Recording Level**
Mercury Historic District. Recording and evaluation to include all resources up to 1992	ARA DISTRICT FORM, which can be modified as needed to deal with any archaeological remains encountered. A recent recording of a historic district by Nick Pay (BLM) was cited as a possible model for this kind of approach.
Property boundaries (none)	Arbitrary to indicate what accessory resources are described with a particular resource. Based on field observation of usual usage and landscaping.
Building, premier (e.g., Cafeteria)	ARA Building. Supplemental research to ID architect.
Building	ARA Building
Foundation, identifiable building.	ARA Structure
Building foundation with extant Accessory Resources (e.g., CETO)	ARA Structure with Accessory Resources
Foundation cluster, identifiable	ARA Landscape with foundations as Accessory Resources. Most will be recorded as full or partial blocks in the Mercury street grid.
Foundation, unidentified	ARA Structure
Water tanks, etc.	ARA Structure
Boneyard with building	ARA Building with Accessory Resources
Boneyard, isolated	ARA Landscape
Park, Athletic Track, Training Facility, Airstrip, etc.	ARA Landscape with accessory minor buildings and structures.
Road remnant, pre-testing	IMACS (non-engineered)
Mercury Hwy., Jackass Flats Hwy.	Separate ARA Structure forms.
Improved roads – urban grid	Single ARA Structure form for complex.
Minor improved road – may extend beyond grid	Discuss in text of District Form as a background noncontributing scatter, if applicable.
Refuse Landfill	ARA Landscape
Sewage Treatment facility	Structure ARA (depending on character, Landscape may work better)
Sewage & Water lines, underground	Single Structure ARA for each separate utility.
Power & Communications lines, aboveground and belowground.	ARA Structure.
Siren Tower	ARA Structure. As a character-defining element, record separately even if in proximity to a building.
Pre-testing artifacts/features (not expected)	IMACS or tabulate isolates.
Testing-era artifact concentration not associated with an architectural resource	IMACS
Urban artifact scatter: Ubiquitous mixed testing and post-testing	Characterize and discuss in District form but no detailed recording. A character-defining feature of the central portion of Mercury is the relatively small numbers of such artifacts – a very clean environment compared with the usual town.

Table 2. Previous Inventories within One Mile of the Mercury Historic District.

Report	Reference	Inventory Type, Area Surveyed*	Cultural Resource
BLM 5-2635	Eskenazi and Harper 2010	Fiber Optic Line, 112.9 ha (279 acres)	None
SR032390-1	Rhode 1990	Improvements to Desert Rock Airstrip	26NY6080
SR032691-1	McLane 1991	Nevada Bell Fiber Optic Cable, 142 ha (350.8 acres)	None
SR110891-1	Holz 1991	Grenade Range, 28.1 ha (69.4 acres)	None
SR120192-1	Winslow 1992	Tortoise Overwintering Area, < 1 ha (< 1 acre)	None
SR030893-1	Holz 1993a	Borrow Pit, 2.2 ha (5.5 acres)	None
SR062993-4	Winslow and Beck 1993	Building 650 Leachfield, 1.5 ha (5.5 acres)	None
SR071393-4	Holz 1993b	Fire Training Facility, 2.2 ha (5.5 acres)	None
SR090993-2	Holz and Jones 1993	Parking Lot Expansion, 1 ha (2.5 acres)	None
SR101893-2	Holz 1993c	Proposed Fence and Sewer Line at Building 1010, 1.1 ha (2.7 acres)	None
SR022894-1	Holz 1994a	Water Tank, 1.5 ha (3.8 acres)	None
SR033094-1	Holz 1994b	Water Line Corridor, Army Well to Mercury. 14.7 ha (36.5 acres)	2 Isolates
SR061394-2	Winslow 1994	Storage Tank Removal, < 1 ha (< 1 acre)	None
SR080194-1	Young 1994	Storage Facilities, 4.7 ha (11.5 acres)	None
SR030295-1	Jones 1995a	Water Distribution System Revitalization Project 0.3 ha (0.08 acres)	None
SR042695-1	Jones 1995b	Monitoring Well, 4.3 ha (10.7 acres)	None
SR043096-4	Jones 1996	Landfill Storm Protection Channel, 14.2 ha (35.2 acres)	None
SR041227-1	Drollinger 2005	Borrow Pit and Access Rd, 1.3 ha (3.2 acres)	None
SR031008-1	Jones 2008	Firing Range, 3.8 ha (9.4 acres)	None
SR062110-1	Holz and Drollinger 2012	Fiber Optic Line, 100.6 ha (248.5 acres)	None
SR121712-1	Jones et al. 2013	Valley Electric Transmission Line, 104.3 ha (257.7 acres)	None
SR050715-1	Menocal 2016	Wildfire Training Area, 17.6 ha (43.4 acres)	26NY15777
SR041316-1	Reno and King 2016	Mercury Bowling Alley, 1.9 ha (4.6 acres)	B14451
SR052417-1	Collins and King 2017	Mercury Power and Communications Upgrade, 0.23 ha (0.57 acres)	S1707
SR100317-1	Collins 2017	Underground Utilities in Mercury	S1763, S1764, and S1766
TR 87	Beck et al. 1996b	Historic Structures Survey	18 Buildings

*Area surveyed refers to total area of that project.

Table 3. Previously Recorded Cultural Resources within the Mercury Historic District.

Resource	Type	NRHP Status*	Reference
26NY15777	Mercury Airstrip	Not Eligible	Menocal (2016)
B14451	Mercury Bowling Alley	Eligible	Reno and King (2016)
S1707	Power and Communications	Contributing	Collins and King (2017)
S1763	Potable Water Distribution System	Contributing	Collins (2017)
S1764	Sewage System	Contributing	Collins (2017)
S1766	Steam/Hot Water Distribution System	Contributing	Collins (2017)
23-21 to 23-26	6 Quonset Huts	Unevaluated #	Beck et al. (1996b)
23-31 to 23-36	6 Quonset Huts [Straight Walls]	Unevaluated #	Beck et al. (1996b)
23-113	Training Building [Rec. Center]	Unevaluated	Beck et al. (1996b)
23-115	Steam/Hot Water Plant	Unevaluated #	Beck et al. (1996b)
23-116	Core Storage [Power Plant]	Unevaluated	Beck et al. (1996b)
23-125	Theater	Unevaluated	Beck et al. (1996b)
23-138	Tool Crib Warehouse	Unevaluated #	Beck et al. (1996b)
23-152	Washeteria	Unevaluated	Beck et al. (1996b)
23-210	Maintenance Shop	Unevaluated #	Beck et al. (1996b)
23-211	Admin and Warehouse	Unevaluated	Beck et al. (1996b)
23-501to 23-508	8 Dormitories	Unevaluated #	Beck et al. (1996b)
23-517	Bowling Alley	Unevaluated	Beck et al. (1996b)
23-550	Los Alamos J-3 Office [Chapel]	Unevaluated	Beck et al. (1996b)
23-A, 23-B, 23-C, 23-D	4 Dormitories reconfigured as offices	Unevaluated # (Only 23-A destroyed)	Beck et al. (1996b)
23-W1 to 23-W6	6 Warehouses	Unevaluated #	Beck et al. (1996b)
23-W11	Warehouse	Unevaluated	Beck et al. (1996b)
0110A#	Surveyors' Shack	Unevaluated #	Beck et al. (1996b)
None#	Office Storage Building	Unevaluated #	Beck et al. (1996b)

*NRHP Status of all resources within the Mercury Historic District were reevaluated during the present survey.

#Building subsequently destroyed without consultation. All buildings in multiple-building series destroyed if so noted except the "Letter Dorms 23-A through 23-D," in which case only 23-A has been destroyed.

The specific history of Mercury was researched at the Engineering Records Library at the NNSS. Only a minimal sample of the multitude of available drawings was recovered from that facility, and a selection was made of those with sufficient informational content to warrant detailed examination. Because of the large number of properties involved, this process was very selective. Building construction dates for most of the properties were obtained from the NNSS realty database. In a few cases, these dates were modified based on evidence from other sources, as noted on the resource forms. Available copies of the *NTS News* were also reviewed for material of architectural interest. Material exists to generate much more detailed information about the individual buildings and possible associations with significant individuals from the available records. A selection of Mercury maps, aerial photos, and drawings are included in this report. All are unclassified.

The careers of a small sample of architectural firms that designed buildings in Mercury were investigated by checking repository holdings, including SHPO architectural files; a newspaper search; American Institute of Architects (AIA) directories; Ancestry.com; and supplementary sources regarding the principals. These firm biographies are only intended to give an indication of the kinds of expertise that went into the design of Mercury and none are definitive. A selection of renderings of Mercury buildings by these firms is included to demonstrate how the place was imagined by their creators compared with the actual constructed resources.

The boundary of the survey area was another key topic at prefield meetings with the SHPO staff. Ultimately, it was decided that the boundary should incorporate all of the outlying areas delimited on Figure 2, which include all major standing buildings and structures directly associated with Mercury such as the Gate 100 complex, facilities to the west of Mercury, water towers northeast of town, and the Mercury Airfield. The boundary does not include some buildings or structures along the perimeter that were constructed after 1992. It also does not include resources such as aggregate pits or linear structures such as roads, pipelines, or power lines that continue outward from the district. This inclusiveness will aid anticipated future Section 106 undertakings by including the entire potential area of indirect (visual) effects as well as direct effects to architectural resources.

It must be emphasized that although there is minimal chance of encountering intact, pre-testing artifacts or features within the major construction zones of Mercury, the Mercury Historic District boundary encloses some tracts of relatively undisturbed land that may have such resources. This survey was for architectural resources only and these undisturbed areas must be subject to an appropriate level of survey prior to any ground-disturbing activities.

Field survey of Mercury was conducted by Ron Reno, Tatianna Menocal, and Carol Shimer under the direction of Maureen King from June 18-29, 2017, and was supplemented by short visits to further inspect details, take additional photographs, and record one set of foundations missed during the main survey. No recording of building interiors was undertaken. The approximately 900-acre (1.4 square mile) survey area corresponds to the District boundaries shown in Figures 1 and 2, but only developed areas were recorded. Therefore, the actual area walked during field recording is considerably smaller than the total acreage of the district.

Buildings and major structures are identified on the NNSS by numbers or letters with the Area 23 prefix. These numbers were used as field identifiers and are also used when discussing resources in this report because they are tied to existing resources building and major structure documentation extending back through the entire Cold War period. Resources lacking NNSS numbers are referenced in the report by their SHPO numbers.

One difficulty that came up at the SHPO prefield meeting was the lack of addresses or formal lots for resources in Mercury. It was decided to define lot boundaries in the field based on landscaping, usage, and divisions such as fences or ditches. It was further decided to assign each block in town and each distinct surrounding area with a number from 1 to 28, as well as a descriptor that usually references the adjacent streets. These block numbers are shown in Figure 3 and are often referred to in this report to aid the reader in locating resources. The Blocks are particularly useful because the NNSS building numbers were gradually assigned over time, and therefore they are randomly scattered across Mercury, unlike the spatially organized addresses found in a normal town.

Expectations

Because this survey was aimed at a highly visible collection of resources within a fairly well-defined area, it was possible to anticipate an approximate number of resources in advance of recording and the appropriate boundaries for the Mercury Historic District prior to fieldwork activity. The degree of removal of historic buildings and structures during recent years was already known.

Because of the extremely aggressive blading that was typically done during the construction of Mercury, no prehistoric or pre-testing-era historic resources were anticipated.

Perfect June temperatures were expected for the fieldwork. However, this expectation was not met because Mercury had record high temperatures, ranging between 110 degrees F and 116 degrees F on most days.

Integration with Planning Process

Mercury is identified in the Nevada Comprehensive Preservation Plan as a potentially NRHP eligible property because of its significant role in nuclear testing in Nevada (Tlachac 1991: 25-15).

The listing of Nevada architects and builders in the *Nevada Historic Preservation Plan* (Adkins et al., 1990) prioritizes older firms. This survey provides summaries of several more recent firms and it is anticipated that future work regarding the architecture of Mercury will provide still more examples to add to this collation, which is presently maintained by the SHPO in the form of files but will likely be web based at some future date.

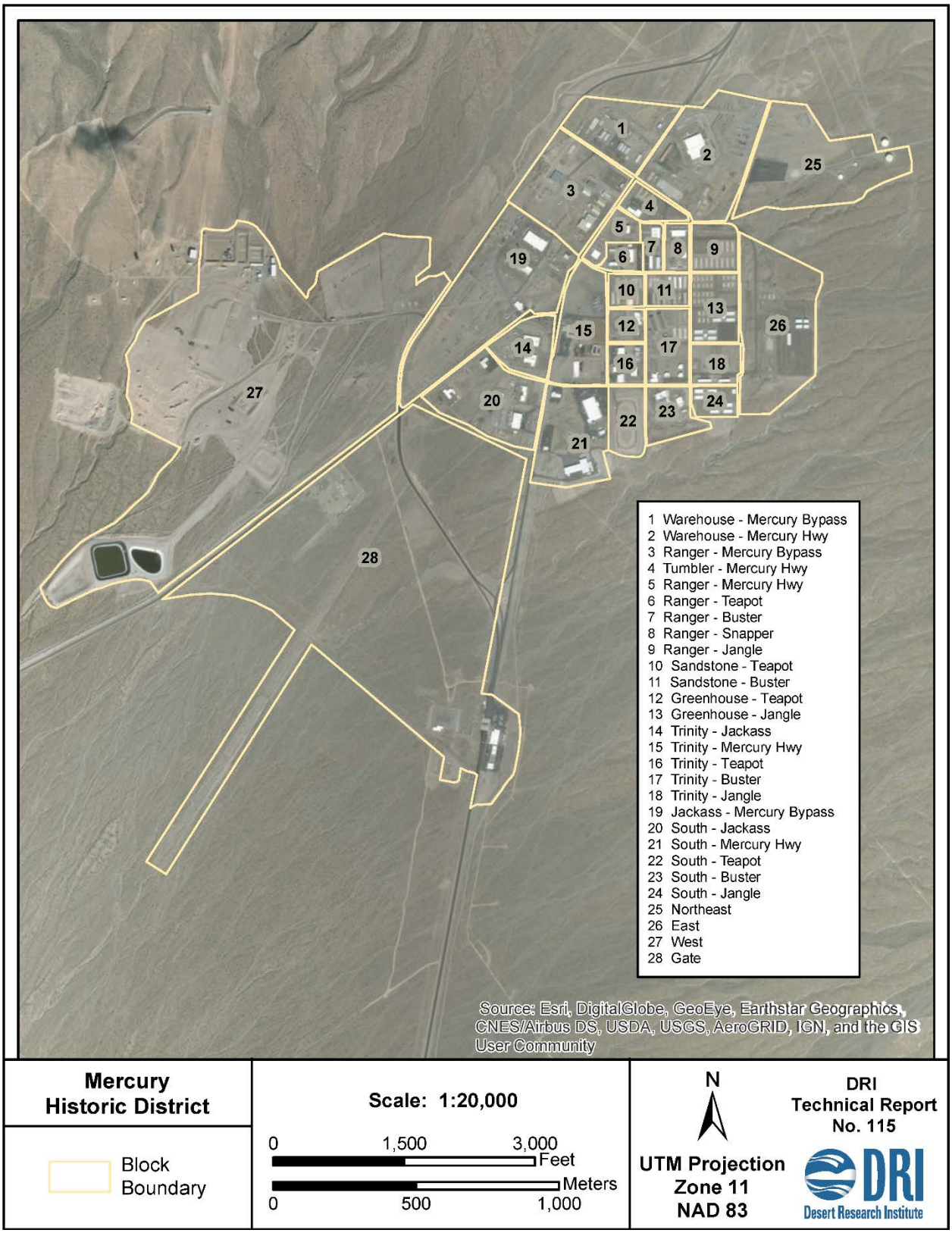

Figure 3. Map showing the blocks assigned for recording purposes.

III. HISTORIC CONTEXT

Mercury … "the atomic 'boom town' that boasts (like its sister cities of the old West) an exciting past and an unpredictable future." – Judy Golwyn 1963 (quoted in *NTS News* March 12, 1965 p. 8).

Natural Setting

Mercury is located on a southwest-facing bajada below the Spotted Range in the northeast corner of Mercury Valley. The center of Mercury is at an elevation of approximately 3,700 feet. Red Mountain towers over Mercury to the north, and the valley is bounded by the Specter Range to the southwest. The Spring Mountains lie to the south. To the northeast is the Mercury Ridge, which shields Mercury from Frenchman Flat. The winter light brings out the subtle banding of the limestone mountain ranges surrounding the town, which are a drab, uniform gray in the summer.

Mercury, the Cold War, and Nuclear Testing at the NNSS

This historic context addresses the relationship between the town of Mercury to the national pattern of historic events known as the Cold War and nuclear testing. Mercury has long been regarded as a potentially NRHP-eligible property because of its significant role in nuclear testing in Nevada (Tlachac 1991:25-19). Therefore, the Cold War and Nuclear Testing at what is now the NNSS (NNSA/NFO 2010) are the principal applicable thematic contexts for significance evaluations of the buildings in Mercury. A supplementary theme is the relation of this unique town to the general process of Town Site Development in the American West. This summary of thematic contexts is not comprehensive, but rather attempts to relate the overall development of Mercury to nuclear testing on the land currently administered by the NNSS. Numerous works may be consulted for greater detail concerning the research domains associated with this project (e.g., Barth (1975); Gaddis (2005); Walker (1995); Loeber (2002); Titus (1986); and Fehner and Gosling (2000, 2006).

Studies of historic properties relating to nuclear testing activities on the NNSS have been presented by Drollinger and Edwards (1996), Drollinger et al. (2003, 2005, 2007, 2009, 2011, 2014), Edwards and Goldenberg (2007), Edwards and Johnson (1995), Goldenberg and Beck (1991a, 1991b), Johnson (1994, 2002), Johnson and Edwards (1996, 2000), Johnson and Goldenberg (1998), Johnson et al. (2000), Jones (2003, 2004, 2005), Jones and Goldenberg (2004), Jones et al. (2005, 2006, 2013, 2014), King (2015), Reno et al. (2016), and Reno and King (2016). Edwards (1997) researched Camp Desert Rock, a facility used to train U.S. military personnel for tactical atomic warfare. In addition, early research on the development of nuclear rocket and missile propulsion is reported by Beck et al. (1995, 1996a, 2000, 2001), Drollinger (2004), Drollinger et al. (1997, 2000 a-d), and Jones et al. (1996). A total of 11 areas on the NNSS associated with NNSS activities are managed as Historic Districts. These are the Frenchman Flat Historic District (Johnson et al. 2000), the Apple-2 Historic District (Johnson and Edwards 2000), Yucca Lake Historic District (Jones et al. 2005), the Pluto Control Facility Historic District (Drollinger et al. 2005), Smoky Historic District (Jones et al. 2014), Shasta Historic District (King 2015), and five historic districts associated with

underground nuclear testing tunnel complexes (Drollinger et al. 2007, 2009, 2011, 2014; Jones et al. 2006). Finally, the Sedan crater in Yucca Flat, which was the result of a Plowshare cratering detonation, is an NRHP-listed property.

Mercury is one of two permanent bases established on the NNSS to support nuclear testing. The Area 12 Camp was established near the north end of the NNSS to support tunnel operations in Rainier Mesa and other testing-related activities on Pahute Mesa and Yucca Flat. The much larger base is Mercury, which is a town 65 miles northwest of Las Vegas, Nevada, toward the southern end of the NNSS. Mercury serves as the principal entrance to the NNSS. It is a distinct town center that has always provided a wide range of support activities, including an extensive administrative role. There are various other facilities throughout the NNSS, but they all lack the long-term residential components and the related social and recreational facilities that are found only at Mercury and the Area 12 Camp.

Like many other government installations, Mercury resembles a typical company town. It is self-contained and established to provide facilities, services, and amenities for personnel working on the site. Architecturally, there are elements similar to other small towns in the United States: administration buildings, infrastructure (airstrip, roads, power, communications, and sewer), residential buildings, community support (post office, church, healthcare, and recreation), and transportation corridors. However, unlike any other town, the origin and history of Mercury are inexorably linked to developments during the Cold War and the nuclear testing program from 1951 to 1992. Several other communities scattered around the United States provided support for the development and production of weapons, but Mercury was the only location in the continental United States where a long series of nuclear explosive tests were undertaken. Over this time span, the town expanded and diversified to accommodate a growing workforce and a year-round testing schedule. Although most of the buildings in Mercury were not integral to nuclear testing mission requirements, support facilities were critical for operational support and the well-being of the workforce.

The Cold War

The Cold War was a global conflict pivoting around themes of ideology, imperialism, strategic issues, and the nuclear arms race (Puzio 2013). It was a war fought via economic and cultural means, as well as a series of proxy wars by the United States and the former Soviet Union and their allies from 1947 to 1991 (Walker 1995; Gaddis 2005). After World War II, the United States and the former Soviet Union emerged as the only superpowers possessing intact heavy industry, large populations, and low international debt, as well as conflicting ideological outlooks (Gaddis 2005; Fink 2014). However, the United States was the only nuclear power in the world. This changed in August 1949 when the Soviets tested their first fission bomb. The U.S. response to the perceived Soviet threat was to expand production facilities and to accelerate the development of nuclear weapons. On June 29, 1950, President Truman approved the development of a thermonuclear weapon, and then a plan for a test series in the Pacific (named Greenhouse) was initiated. However, while this plan was underway, the onset of the conflict in the Korean Peninsula began.

The U.S. military involvement in Korea created technical and logistical problems for continuing with the Pacific test location. This led the Atomic Energy Commission (AEC) Chair Gordon Dean to declare that it was "wise to reexamine the question of a continental site with the objective of having available a definite and specific site which could be recommended for use" (Fehner and Gosling 2000). In December 1950, the U.S. Air Force approved a plan to allow the AEC to use the Las Vegas Bombing and Gunnery Range, a federal facility established in 1940 by President Roosevelt, for a proposed series of continental tests named Ranger (NNSA/NFO 2013a). On December 18, 1950, President Truman approved the choice and construction began the following month. The new facility went through a series of name changes: Las Vegas Test Site in spring 1951; Nevada Test Site (NTS) on June 22, 1951; Nevada Proving Ground (NPG) on February 25, 1952; and finally reverting to the NTS on January 1, 1954. It remained the NTS throughout the rest of the Cold War and for convenience, this term will be used to reference the Cold War site despite the early name variations. Additional land parcels were obtained under public orders and memorandums of agreement. A critical acquisition was made in August 1965, when Mercury and the nearby Camp Desert Rock were finally included in the NTS. Until then, they were still technically on land borrowed from the U.S. Air Force. This odd land acquisition accounts for the peculiar southeastern boundary of the site, which bumps out just enough to include these two facilities that are essential for site operations. Currently, the NNSS encompasses an area of approximately 1,360 square miles, which spans an area approximately 55 miles north-south and 30 miles east-west.

Nuclear Testing and the Continental Test Site

The NTS played a crucial role in the U.S. nuclear testing program during the Cold War with the former Soviet Union. An escalating arms race for nuclear weapons superiority led to numerous nuclear explosions worldwide by the United States, the former Soviet Union, and other foreign nuclear powers. The AEC, now the U.S. Department of Energy (DOE) and the U.S. Department of Defense (DOD), conducted these tests for the United States. Most of the tests occurred at the NNSS, where the operations included both atmospheric and underground tests. The major purposes of nuclear testing were weapons related (i.e., testing a device intended for a specific weapon system), weapons effects (i.e., evaluating the civil or military effects of a detonation), safety experiments (i.e., confirming a nuclear detonation would not occur from an accidental detonation of the high explosive associated with the device), joint United States–United Kingdom testing (e.g., storage-transportation), Plowshare Program (e.g., application of nuclear explosions to peaceful uses), and Vela Uniform (improving the ability to detect, identify, and locate underground nuclear detonations) (NNSA/NFO 2015). In all, a total of 928 nuclear tests were conducted at the site, with 120 performed in the 1950s, and 808 after 1961 following a short moratorium between 1958 and 1961 agreed to by both the United States and the former Soviet Union (Friesen 1995:6, 10). On August 5, 1963, the United States and former Soviet Union signed the Limited Test Ban Treaty. This treaty effectively banned testing of nuclear weapons in the atmosphere, ocean, or space, and atmospheric testing drew to an end, although there is evidence that some Soviet testing actually occurred after the treaty. In 1992, the United States established a second self-imposed moratorium on nuclear testing. In 1995, President Clinton announced a total ban on all critical U.S. nuclear weapons testing. In

September 1996, the United Nations approved the Comprehensive Test Ban Treaty, which prohibited any nuclear explosion. However, the U.S. Senate failed to ratify this treaty.

Camp Mercury: The Early Years (1951-1962)

Nuclear Testing at what is now the NNSS began with the Ranger Series (January-February 1951) of five airdrop atmospheric tests over Frenchman Flat (NNSA/NFO 2015). This testing program was instituted in so great a hurry that adequate base facilities could not be constructed on the site. Instead, temporary facilities were borrowed or built at Nellis Air Force Base near Las Vegas and at Indian Springs (now Creech) Air Force Base. Contractors established offices in Las Vegas (Fehner and Gosling 2000:52). Following the Ranger Series, the AEC moved to establish the area as a permanent proving ground for nuclear weapons testing. The nuclear testing target area was expanded northward from Frenchman Flat to Yucca Flat, and a control point facility was established on a pass over the ridge between the two basins. Originally, a base camp to support the test operations and house personnel was planned for a site eight miles south of the temporary control point in Frenchman Flat. However, because of DOD proposals for additional tests, Frenchman Flat was retained as an operational test area (Fehner and Gosling 2000) and the base camp was built in the present-day location of Mercury. Mercury is protected from testing at Frenchman Flat by an intervening ridge, upwind of all potential testing areas, and on the most direct route from Las Vegas to the testing areas, and only a few miles from the main road from Las Vegas to Tonopah (now US 95).

Mercury's initial design followed a classic Roman military outpost or *castrum*. The design's usual gridiron street pattern aligned arbitrarily on the cardinal points of the compass was not suited to the local topography, which warranted a northwest to southeast orientation. This resulted in the construction of an array of cut-and-fill terraces that were either at ground level or somewhat sunken below grade at the northeast corners and berms, and sometimes quite tall at the southwest corners. The principal east-west street with the main administrative buildings came to be named Ranger Avenue. The simplicity of this plan is in contrast with the sensitivity shown to local topographic conditions in arranging the different use areas in the plan for the massive Manhattan Project development at Oak Ridge, Tennessee, which was created by Skidmore, Owings & Merrill during the war (reproduced in Cohen 2011:306-307).

Initially, the base camp, named Base Camp Mercury, was planned to provide minimum facilities for two or three test series a year, with a six-week time frame for each test. The base camp would include barracks, a mess hall, and administrative buildings. It was designed to accommodate 412 persons at peak periods of use for only 18 weeks a year. By late 1951, these expectations were already obsolete because the camp overflowed with 1,100 residents (Fehner and Gosling 2000:81). During the Operation Buster series of five atmospheric tests (October-November 1951) followed by the Operation Jangle crater and surface tests (November 1951), it quickly became apparent that the minimal facilities were insufficient. In 1951, a $6.7 million construction project was approved to meet the needs of the growing testing program and population (NNSA/NFO 2013b). The AEC expanded the base camp, adding more barracks, a second mess hall, a recreational facility, a

warehouse, offices, and laboratory space (Fehner and Gosling 2000). Figure 4 shows a map of Mercury during this early period. On this map, the Mercury Highway is at the upper left and the streets have not yet been named.

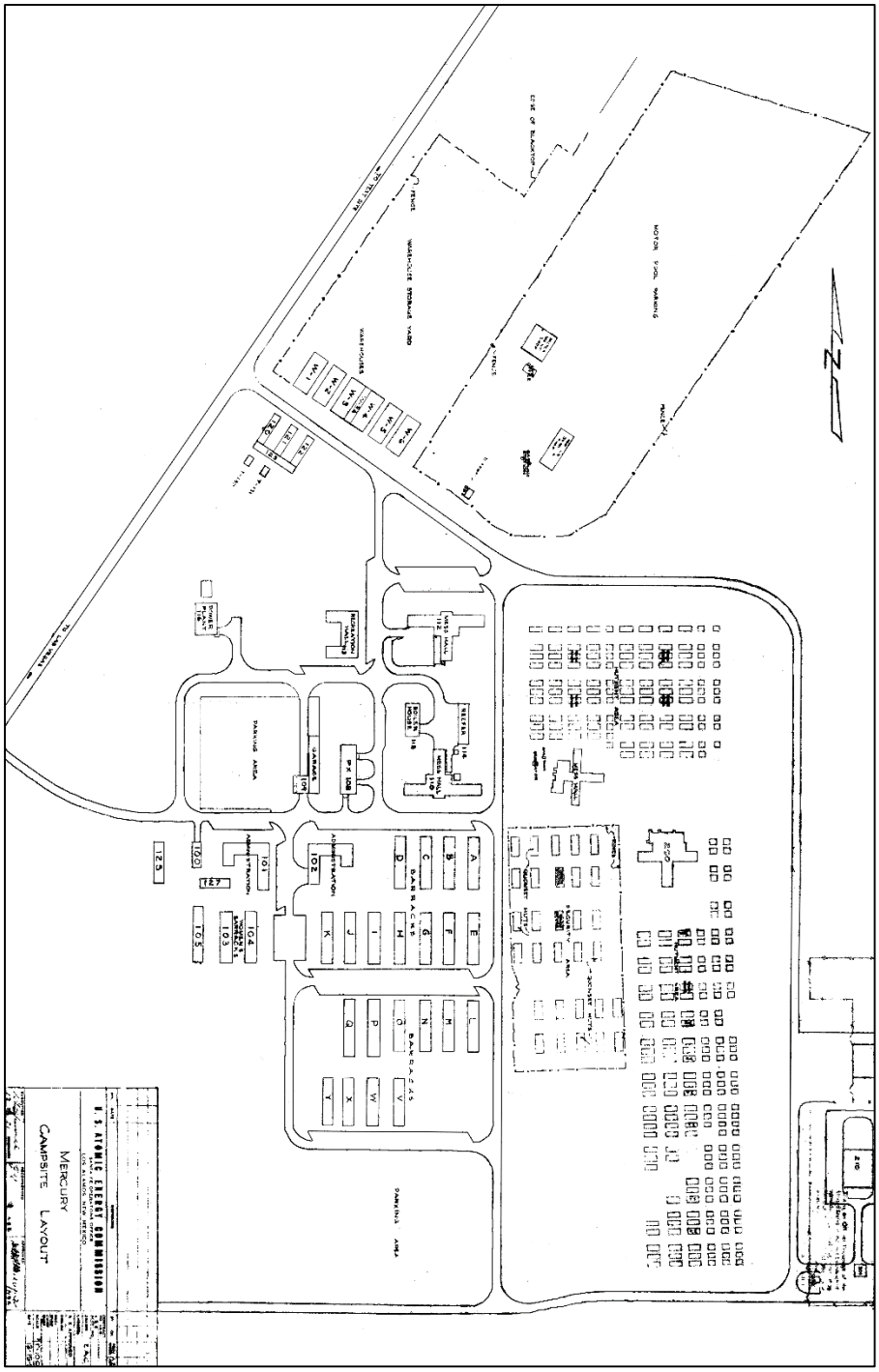

Figure 4. Map of Mercury in December 1951 (AEC Drawing NTS-187-C Sheet 1) (best available copy).

Harold Cunningham (ca 2014:25) recalls living conditions on the base at that time:

We then checked into the housing office at Mercury to arrange for our sleeping quarters, and found that the entire camp was very primitive. It had been constructed by Haddock in 1951 [contemporary sources credit Lembke along with Clough and King for this so Cunningham may be in error—Haddock built the Control Point complex in Area 6 and facilities on Frenchman Flat], and practically everything was built of plywood. … The bath facility was down a gravel path and contained showers, toilets, and lavatories. We all lived in these hutments [see below under resource types] whether we were engineers, supervisors, or top managers like Joe Lopez and Frank Rogers. I believe there were a couple of wooden barracks available for female employees.

Over the decade, testing-related activities steadily increased and testing occurred on a year-round basis. This required additional construction to accommodate personnel and support facilities. On March 1, 1952, the Post Office was established with the official designation of Mercury, Nye County, Nevada (Gamett and Paher 1983:92). Over the first 11 years, Mercury grew to keep pace with a larger population, but there was no master plan and most structures were temporary constructions.

As shown in Figure 5, by the end of the decade Mercury, had expanded well to the west of the Mercury Highway. Extensive storage yards were packed with materials needed to conduct testing in the forward areas and the parking lots were jammed with cars. Mercury had also acquired major outdoor recreational facilities by that time.

Figure 5. Mercury in the late 1950s (courtesy of Chuck Costa).

Arthur Benedict Associates analyzed the functional layout of Mercury at the end of this period (Figure 6). Housing was concentrated in the southeast end of Mercury. Administrative buildings were scattered all around despite some concentration on Ranger Avenue. Fabrication and repair shops were concentrated on the northwest end of Warehouse Road. The motor pool with its support buildings were in the northeast end of town. The DOD compound at the southeast corner of Mercury was also mainly motor pool support, although it is not shown in the figure. Warehousing, including large outside storage areas, was in the north end of town on both sides of the Mercury Highway. Recreational facilities were somewhat scattered, but the large outside facilities were in the southwest corner of Mercury. Laboratory and research facilities were minimal at that time and were dispersed. Initially, the Mercury Highway was on the western edge of Mercury, but by the end of the decade, the base had expanded to the point that all traffic to the forward areas on the Mercury Highway had to pass directly through the developed part of Mercury.

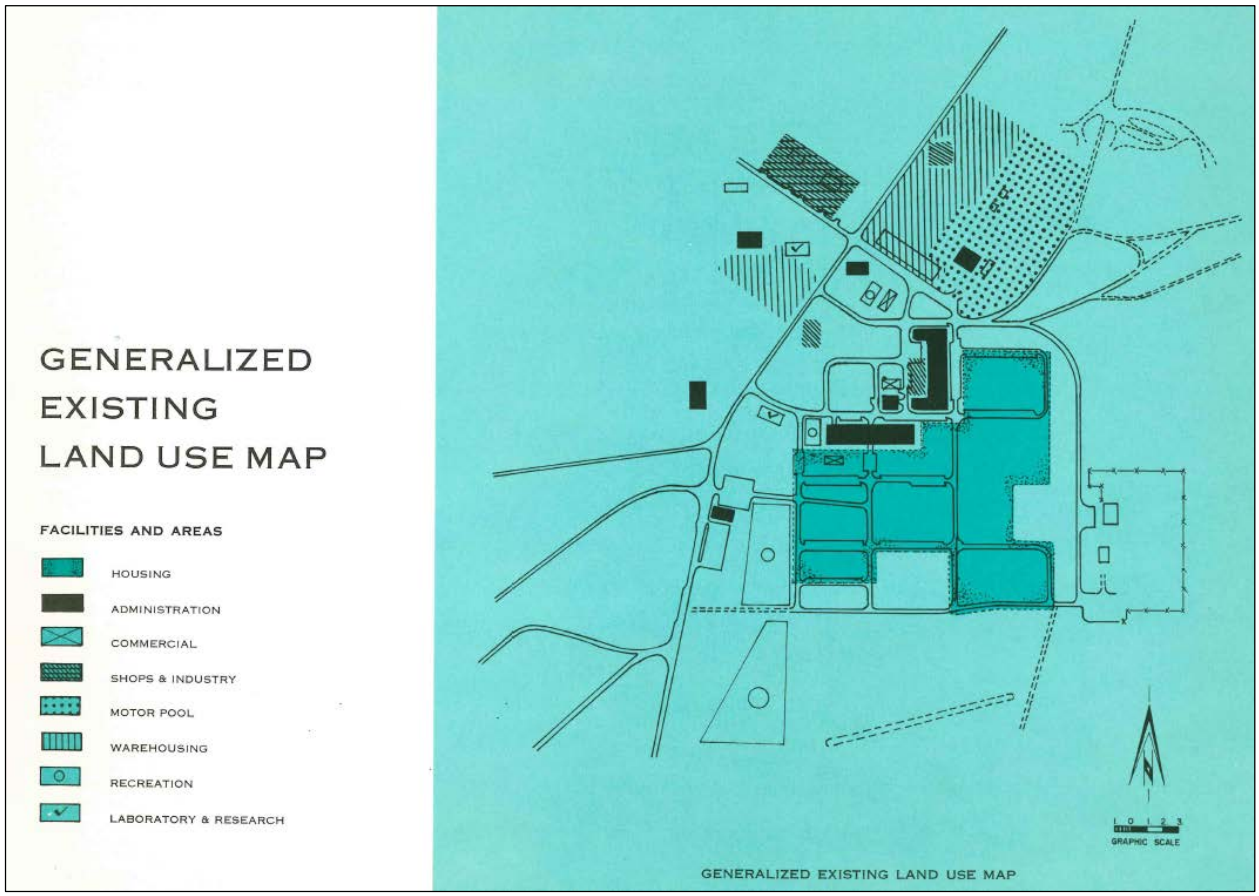

Figure 6. Generalized existing land use map (ABA 1962:11).

Architecturally, this was a period with no stylistic pretentions at all. It was dominated by designs perfected during World War II. It appears that Holmes & Narver (H&N) did all of the architectural design work at the onset of this period, although other firms may have contributed designs later on. If so, they have not yet been identified by the level of research done for this survey. C.H. Leavell & Co. of El Paso, Texas, did most of the initial construction of Mercury (Las Vegas Review-Journal

1963; *NTS News* 5/26/1963). Dodge Construction of Fallon, Nevada, worked on paving and other infrastructure projects, as did Pipe Line Construction Co. of Riverside, California. Haddock Construction may also have done some early work in Mercury, although its major efforts were in Frenchman Flat and at the new Control Point (CP) farther to the north. Claremont Construction Co. of Claremont, California, built the Power House (23-116).

Mercury Becomes a Permanent Base (1963-1977)

With the signing of the Limited Test Ban Treaty in August 1963, atmospheric testing ended. The last atmospheric test at what is now the NNSS was a surface test on July 7, 1962, named Little Feller II. Since then, all nuclear tests conducted in the United States have been underground and the majority of these tests were at the NNSS (some tests were conducted at what is now the Nevada Test and Training Range, as well as in central and northwestern Nevada, Colorado, New Mexico, Mississippi, and Amchitka-one of the Aleutian Islands). Although atmospheric testing ended, underground testing activities at the site steadily expanded and testing occurred on a year-round basis. In addition, the Plowshare Program and the Nuclear Rocket Development Station brought increased activity to Mercury (Fehner and Gosling 2000:83; NNSA/NFO 2013b). This required additional construction to meet demands for a wide range of facilities in Mercury. In 1962, an AEC supplemental appropriations bill provided funds to add to or replace most of the earlier temporary buildings and included a $15 million request for permanent NNSS construction (NNSA/NFO 2013b). By June 1962, the AEC requested Arthur Benedict Associates of Los Angeles, California, to develop a long-range comprehensive Master Plan for the coordinated development of Mercury.

The Mercury Master Plan (ABA 1962) proposed an expansion of all facilities for a permanent site, including residential facilities for permanent and transient personnel. Facilities programmed for construction during fiscal years 1963 and 1964 were support facilities (the cafeteria and food handling area, administrative buildings, laboratories, maintenance shops, warehouses, communications, and the Civil Effects Test Organization building), resident-oriented facilities (the dormitories, recreation hall, swimming pool, bowling alley, chapel, and health, medical, and safety building), circulation (the Camp Desert Rock airstrip, Highway 95 improvements, bypass highway, and primary and secondary streets), and utilities (a new power transmission line and sewage treatment plant). In contrast with so many master planning efforts, this one was largely executed even in its smaller details. Therefore, the early 1960s represented a major building boom in Mercury. By the mid-1960s, Mercury was a developed town and contained facilities essential for supporting the nuclear testing effort.

In 1964, Judy Golwyn, editor of the Lawrence Radiation Laboratory's magazine *The Magnet*, described Mercury when many of these new facilities were being constructed. Excerpts were reprinted in the *NTS News* (March 12, 1965, pp. 5-6):

> It has a post office of its very own, a movie theater, a bowling alley, even a laundromat—but only the most dedicated civic booster could call Mercury, Nevada, a town.

> Against its serene background of desert, hills, and bright blue sky, the little jumble of Quonset huts, warehouses, and office buildings seems both glaringly conspicuous and, at the same time, curiously insignificant. A high-flying airplane would be unlikely even to spot Mercury in the vast desert surrounding it, and the earthbound motorist, speeding north on his way into the test site's forward area, finds himself wondering (as soon as the last Quonset hut has been swallowed up in the distance) whether that really *was* a human settlement back there, or just another trick of the desert landscape.
>
> Here [are] weather-beaten "temporary" buildings that huddle together with a growing number of sleek, modern, permanent ones.
>
> Most NTS employees live in Las Vegas and suffer the long 130-mile daily commute to their jobs and back. A considerable number, however, (mainly young unmarried) have thrown in the sponge and have moved out to the site. They live, if you can call it that, in dormitories or trailers, spend their evenings at Mercury's movie house or recreation hall, and take off for Las Vegas each weekend.

Shortly afterward, Dave Sundberg, editor of the Los Alamos Scientific Laboratory's magazine *The Atom* set down his own perceptions of Mercury, which supplement quite well those of Golwyn quite well. The following are selections reprinted in the *NTS News*, March 12, 1965:

> From a distance, when the brilliant desert sun is reflected off the roofs of its buildings, Mercury, Nevada, looks like a silvery island in a sea of rocks and yucca. As you get closer, the illusion quickly fades and Mercury becomes, for the most part, an austere collection of steel warehouses, wooden "temporary" buildings and trailers of every size.
>
> In some ways Mercury is like a town. It has a post office, movie theater, paved streets, even a steak house. Nevertheless, Mercury is not a town. It's a camp, a sort of center of operations for the Atomic Energy Commission's almost unbelievably big Nevada Test Site…. The camp has been called "loneliness with a fence around it."
>
> Of the several thousand scientists, secretaries, technicians and tradesmen who work in Mercury and the rest of the Test Site, most live in the Las Vegas vicinity and commute to work an hour and a half each way by car or in one of the 54 buses, which provide transportation to and from Las Vegas.
>
> There is no family housing in Mercury, thus no families. Only a few hundred men and women, nearly all of them single, call Mercury their home. They live in small trailers or dormitory rooms and leave the Test Site only on weekends or holidays.
>
> The handful of people who can be found in Mercury on a Saturday or Sunday are almost exclusively transient personnel like Los Alamos Rover [nuclear rocket] or

> weapons men who fly out to spend days or weeks at a time during peaks of activity. The weekends at Mercury are the most dreaded part of their life at the Site….
>
> The most welcome new buildings are two dormitory complexes of 48 rooms each [23-531 and 23-532]…. The new dorm rooms are single occupancy, have curtains on the windows, rugs on the floor. They aren't the Holiday Inn, but they are far better than the old army-style gloomy wood frame dorms they supplement but don't replace. [Sundberg was fortunate to experience these dorms. My own crews were always assigned the old trailers or wooden dorms with their pale green multiple-occupancy rooms, TV only in the tiny communal day room, and what were called "group-grope showers" (Reno 2018)].
>
> So far, neither the Government construction program, nor the Mercury Boosters Association has done much to quench Mercury's quasi-military atmosphere. Beds are "bunks" and come equipped with army blankets. The cafeteria is still better known as the "mess hall" and the dormitories are invariably called "the barracks."
>
> The PX is simply the PX—it has no equivalent civilian name. The general store of Mercury [located in a partitioned corner of the Cafeteria 23-300], it's the place to go to buy everything from toothpaste to Seagram's Seven to the vast amount of reading material, which is consumed during the long evening hours at Mercury.
>
> If you ask ten people for their opinions on Mercury, you will get ten very different replies…. Wiley Williams, a 15-year LASL employee who had worked at Mercury permanently for the past three years, expresses a common opinion, "You get sort of numb to it after a while."

Regardless of Sundberg's feelings about the camp itself, one must concede to a certain charm in Mercury's quiet remoteness and wide-open view of both desert expanse and several near and distant ranges.

It should be added here that most site workers had to enjoy those views from a distance because travel around the site for recreational purposes was not officially condoned. As time went on, it became increasingly difficult to do without encountering unsympathetic security patrols.

Mercury is shown as it appeared at the height of this period in 1968 on the map in Figure 7 and the aerial photo in Figure 8. Most of the major new buildings were in existence at this time. It can be seen that several of the larger buildings broke from the original town alignment and were oriented on contour instead. The bypass has been constructed and the area between the Mercury Highway and the bypass has been filled. Shops, the motor pool, and major laboratory buildings were shifted to the southwest end of Mercury and the new Main Gate facility was constructed south of town. Figure 7 also shows the complete projected buildup of Warehouse 23-160 at the north end of town. Only the two highlighted modules were actually constructed, leaving much of the materials storage in Mercury in open lots as before. Frenchman and Yucca Flats are visible at the top of Figure 8.

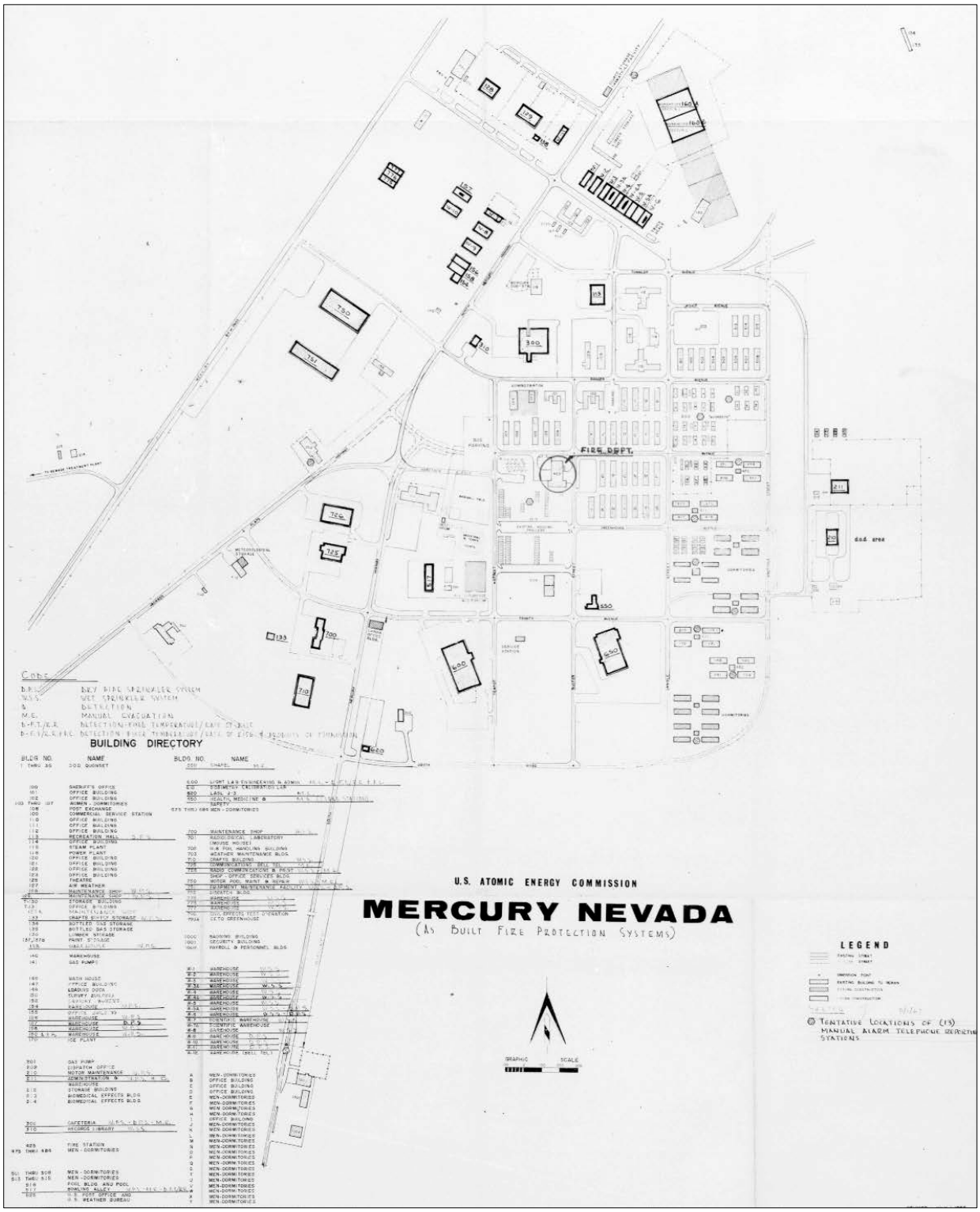

Figure 7. Mercury in 1968 (AEC 1969).

Figure 8. Mercury from the air in 1968
(NNSA/NSO Nuclear Testing Archive, Accession No. NV0174481).

Architecturally, this is the period when various types of Mid-century Modern architecture entirely changed the character of Mercury. The new buildings were designed by a number of architectural firms from around the West, including several firms of national prominence. The use of a variety of firms is reflected by the corresponding variety of the buildings. It does not have the regimented similarity of research campuses designed by a single firm. Although the designs were fairly conservative, they experimented in the use of details and surface treatments that went well beyond mere functionalism.

Some of the architectural and engineering firms of this period are Ben Bechler & Associates of North Hollywood, California; William Fairhall & Associates; Guirey, Srnka & Arnold of Phoenix and Flagstaff, Arizona; Edward B. Hendricks Associates of Las Vegas, Nevada; H&N; Langhart, McGuire, and Hastings Architects and Engineers of Denver, Colorado; Lockard, Casazza & Parsons and Associates, Architects & Engineers of Reno, Nevada; Albert C. Martin and Associates of Los Angeles, California; Moffitt and Hendricks Architects of Las Vegas, Nevada; Reynolds Electrical and Engineering Co. (REECo); Robert Guy Riddle & Associates of Albuquerque, New Mexico; Selden and Stewart Architects and Planners of Reno, Nevada; George S. Wright and Thomas A. Welby of Albuquerque, New Mexico; and Walter Zick & Harris Sharp Architects-Engineers of Las Vegas, Nevada. All of these firms were proficient in Modernist designs and several had extensive experience designing base architecture of various kinds.

A sample of builders in this period includes Ceko Inc. of Arlington, California; H&N; Ralph Englested Construction Co., Las Vegas, Nevada; Jen-Mar Construction Co. of San Diego, California; and C.H. Leavell & Co. of El Paso, Texas.

Redevelopment in the Final Cold War Years (1978-1992)

The Master Plan envisioned Mercury transitioning to a permanent suburban community tied to Las Vegas, which would have a large permanent residential area supporting family housing as well as more transient types of housing. An increase of the kinds of amenities that would make such long-term occupation livable was also envisioned. This vision would ultimately have created a community rather similar to that of Los Alamos, New Mexico. This kind of community development never took place, although living arrangements built in this period did allow for much greater privacy and personal space in dormitory arrangements.

Continued underground testing in the 1980s, along with the major activities such as MX development and the Northern Nevada Waste Storage Investigations at Yucca Mountain created a need for increased infrastructure that created the last major building boom in Mercury. This intense activity coincided with the final great American offensive in the Cold War arms race during the Reagan administration, which surprisingly led to the end of the Cold War. Mercury was one of the key theaters of the closing of the Cold War as it hosted Soviet delegations engaged in mutually observed "Trust but Verify" test operations, notably Kearsarge. The Mercury Steak House in the Cafeteria (23-300) was the principal place where ordinary site workers could interact at least to a limited extent with the Soviet delegation.

Mercury at the conclusion of the Cold War is depicted in Figure 9. Architecturally, this period is easy to spot on the landscape of Mercury because it is exemplified by the construction of new and distinctive buildings, including the construction of buildings with two stories for the first time. Although this period began with the construction of three large prefabricated metal dormitories (23-526, 527, 529), it is dominated by buildings incorporating varying amounts of earth-tone split face concrete masonry. This architectural phase is so distinctive that it is convenient to regard it as a Late Modern development of the Modernist movement, which is discussed further below.

Because of the nature of the sources consulted for this survey, only two of the responsible architectural firms were identified. The Las Vegas firms of Dobrusky, Kittrell, Garlock Architects of Las Vegas with the assistance of Gunny, Brizendine & Poggemeyer, Engineers-Planners and JMA Architecture and Engineers contributed several of the most distinguished buildings of the period. No builders could be confidently identified at the present stage of research.

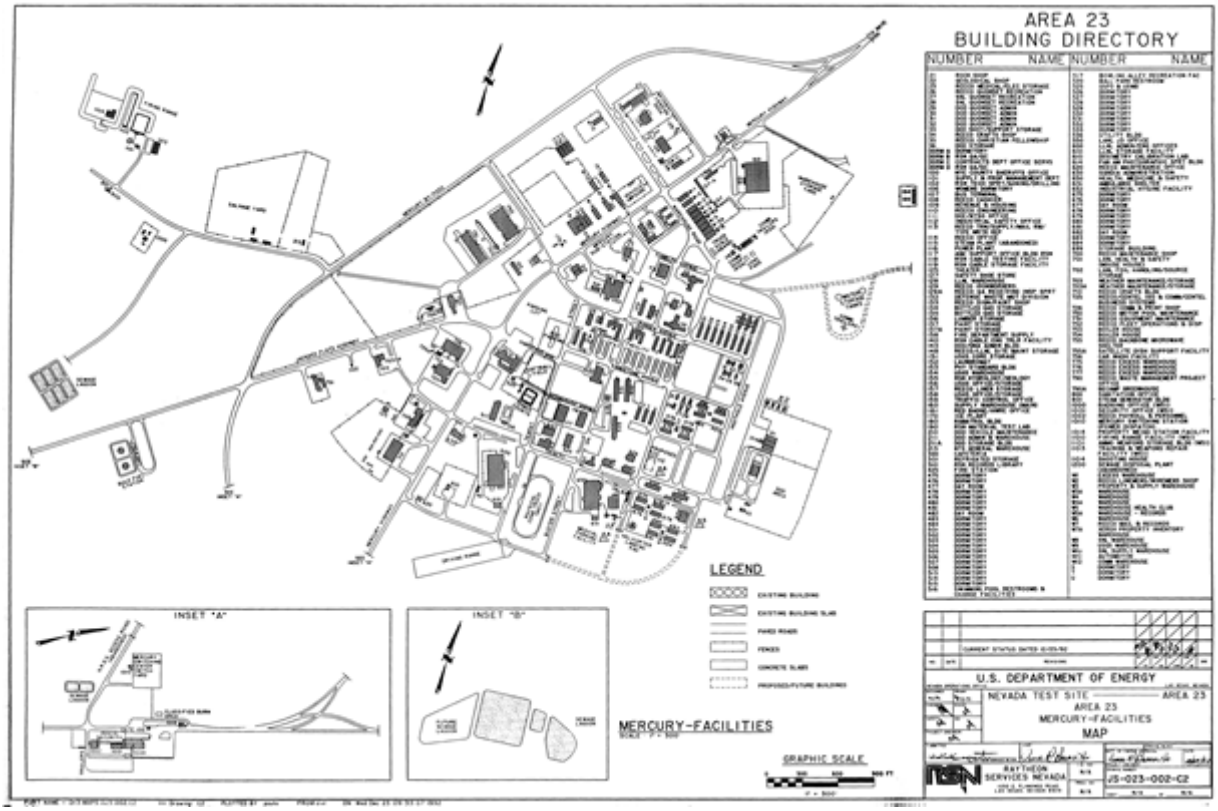

Figure 9. Map of Mercury in 1992.

Mercury Since 1992

With the cessation of nuclear testing and at least a pause in the controversial Nevada Nuclear Waste Storage Investigations (NNWSI) at Yucca Mountain, Mercury's vital role as a base rapidly dwindled. This resulted in a great reduction of personnel and downsizing. Most service facilities were shut down, much of the resident population was security forces, and the structural footprint was reduced.

Much of the testing infrastructure was maintained in a mothballed state by a skeleton crew of site workers because of Presidential Decision Directive 15 (1993), which mandated that the site be prepared to resume nuclear testing within 24-36 months (Hopkins 2016:9). Subcritical nuclear experiments and experiments with large amounts of conventional explosives were continued.

During the mid-1990s, an attempt was made to rebrand the site. A new sign over the front guard gate now reads "Nevada Test Site/An Environmental Research Park" (Center for Land Use Interpretation 1996:12). A number of environmental research projects were initiated, but they had nowhere near the scope and funding of Cold War environmental projects coordinated through the Civil Effects Test Organization (CETO). Mercury still retained the aspect of a ghost town.

Under the administration of Bechtel, the labs finally lost their paramount importance on the site. Long-term contractors such as Wackenhut Security, Incorporated (WSI); REECo; Edgerton, Germeshausen, and Grier, Inc. (EG&G); and H&N finally disappeared from the NNSS.

Almost no new construction appeared in Mercury during these years. The aging buildings continued to be used while facilities maintenance personnel had to make do with fewer and fewer resources to keep the place operating. As buildings were abandoned, money did not exist to pay for routine maintenance, so they decayed at varying rates depending on their construction and the occurrence of accidents, such as roof or plumbing leaks. Many buildings and structures were removed during this period while vehicles, furnishings, and any number of other objects were sold or junked, a process that has continued to the present.

This trend appears to be reversing again as the global threat of terrorism calls once again upon resources for testing and training, which can be developed at what is now the NNSS. Considering the importance of these missions, it would not be at all surprising if at some future date, the resources now being constructed or reconfigured to serve these needs ultimately achieve national significance in their own right. Figure 10 shows how one of the old buildings has been repurposed for new training missions. It also shows the new tan color scheme and new signage for the buildings in Mercury.

Figure 10. Counter-terrorism Operations Support facility in Building 23-211.

IV. RESULTS

Mercury Historic District (D230)

Mercury is a planned development with most buildings, streets, and other structures constructed on a grid within an area that is approximately a half-mile square. The town road system was recorded as S1762. Most of the grid is oriented on the cardinal directions, but the northern part of town and developments on the west side of the Mercury Highway (S1760) are oriented to the northeast to conform with the direction of the highway as it heads north into the NNSS where the actual work areas were primarily located. A second principal road, the Jackass Flats Road (S1761), heads west from Mercury to access the southwestern portion of the NNSS, including the nuclear ramjet and rocket development facilities at Jackass Flats and more recently at Yucca Mountain.

As shown on Figure 2, the uphill (north and east) boundaries of the Mercury Historic District follow the series of major ditches and dikes created to protect Mercury from storm water flooding. The western boundary is defined by extensive land alterations related to solid and liquid waste disposal. The southern boundary follows the cutoff from the Main Gate to the Jackass Flats Highway and includes the Mercury Airfield (26NY15777). As noted earlier, the resulting district comprises 900 acres (1.4 square miles/364 hectares).

Individual Resources

A total of 154 individual Principal Resources—including landscapes, buildings, and structures—along with 346 Accessory Resources have been recorded in the Mercury Historic District. Of this number, the Mercury Airfield was previously recorded by DRI in 2016 (Menocal 2016). The Mercury Bowling Alley was recorded by DRI in the same year (Reno and King 2016). Finally, a portion of the power and communications system and the underground utilities were recorded by DRI in 2017 (Collins and King 2017; Collins 2017). These, along with the remaining resources recorded during the present survey, are summarized in NNSS facility number order in Appendix A. For convenience, a concordance table listed in SHPO number order is also found in Appendix A. Maps providing the locations of all resources with point locations are in Appendix B.

Mercury also has a number of linear resources, several of which extend beyond the district boundaries. Detailed recording was done only within the district. These linear systems, each of which was recorded as one or more separate structures, include the street system and highways, the water system, sewer system, storm water drainage system, steam heating and hot water system, and the power and communications system.

Resource Dates

It is worth mentioning here that the construction dates are in most cases taken from the facilities database. In the course of research for this project, it was noted from dated historic photographs that some of these dates were in error. It appears that the most common source of error may have been accepting drawing dates as construction dates, even though buildings may have not actually been built until a year or more later. Most of the construction dates appear to be accurate, or perhaps only a year or so off. Such errors cannot be corrected without resource-specific research and some construction dates will likely remain a little uncertain because of a lack of conclusive evidence.

The dates of the resources recorded in the Mercury Historic District (excluding linear resources) are plotted on Figure 11 based on to the four periods identified in the context above. It is astounding how well represented the earliest period of development, from 1951 through 1962, is on this map. Approximately half of the developments of this period have survived in one form or another. A major reason for this survival is the incredible longevity of the "temporary" wartime designs, many of which are still in active use over seven decades after they were built, often to the chagrin of users anxious to move into more modern facilities and to facilities managers responsible for keeping the old buildings livable, which does not come close to complying with modern building codes.

The second period was one of great expansion to the west and southwest. It also involved redeveloping the large warehousing area at the north end of town as the 1950s motor pool operations were shifted to new land between the Mercury Highway and the new Mercury Bypass.

Architectural development during the third period, from 1978 through the end of the Cold War in 1992, is highly concentrated in the southern end of Mercury. This gives a cohesiveness to the distinctive Split face and two-story architecture of the period. The buildings complement each other as a cluster, which gives them much higher visual impact than they would have if they were scattered around Mercury. However, this effect is reduced by the fact that they were not designed as a campus, but rather as isolated buildings or small sets of related buildings that had to conform to the existing street grid and its constraints regarding which directions buildings could face, orientations within blocks, parking, and traffic flow.

The very small number of post-Cold War resources are widely scattered around Mercury. They do not dominate any area, with the exception of the large new Fire Station, but that facility is located outside the earlier built-up area (on the former golf driving range), which greatly reduces its intrusive impact on the older resources.

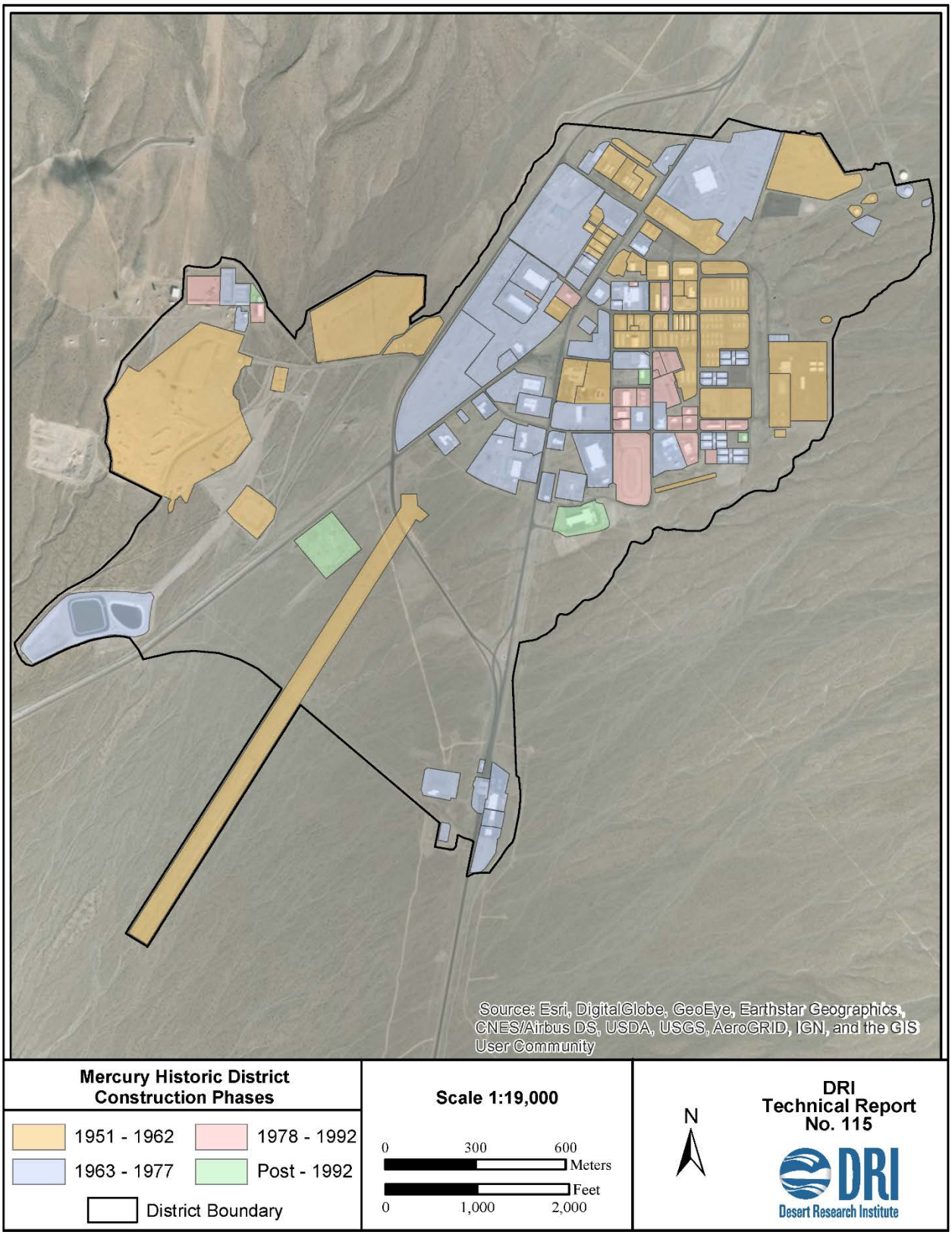

Figure 11. Map of Mercury resources by period of construction.

Architectural Styles

Mercury exhibits a very narrow range of architectural styles. In the following discussion it is important to keep in mind that scholarship has not quite caught up with resources that are so recent, and therefore many competing stylist categories exist. This matter is complicated by the fact that many of the best architects try to create work that cannot be categorized as a style, that many of the worst developer-architects create "styles" for marketing purposes, and that so much of the past historical interpretation of styles has been unconsciously linked to a certain implied trajectory without due regard to counter movements and facts that don't fit in well. After the deconstruction of static styles, particularly by analysts such as Charles Jencks (1985), it is prudent to always be aware that when using styles that have stood the test of time to a certain degree, the constructs are imposed for purposes of study and communication and, unlike the actual buildings, have no intrinsic reality. The bewildering crosscurrents lurking behind the seemingly simple architecture of the last half of the twentieth century is well summarized in Jencks (1982:16-20). With this said, the styles selected here were done so to organize the specific kinds of architecture present in Mercury, in particular in regard to how they naturally fall into the construction periods defined above.

No Style

Most of the buildings that once stood in Mercury were utilitarian, temporary in nature, and corresponded to no established architectural style. Many of these were direct derivatives of designs developed during the World War II (Garner 1993). Michael and Smith (2011:67) regard the frame buildings developed during this period as "World War II Style." When discussing these buildings, it useful to categorize them by construction types that resulted in common visual characteristics.

Some scholars have regarded many of the utilitarian styles, such as those seen at Mercury, as "Industrial Vernacular" as used by Harvey (2003:2-1.14) at Hanford and by Travisano et al. (2007) at Nellis Air Force Base. Others have regarded standardized company town housing as a form of vernacular architecture. Originally, vernacular architecture was folk architecture that had extremely long indigenous development. Over the last half century, this usage has been expanded to include common or ordinary architecture to the point that it has lost much of its useful focus, particularly when extended to architecture that was designed by professional architects or engineers. For these reasons, any architecture at Mercury that lacks characteristics that make it useful to discuss in terms of a formal style is simply regarded as having no stylistic pretentions at all. The appearances of these buildings are the result of building materials and construction techniques as well as habitual building practices that are well established in this country.

HUTMENT

When Mercury was first established, much of the camp (now Blocks 9, 13, and 18) was made up of temporary housing units built entirely of plywood "hutments." Although it would perhaps be better to use this term (which resembles cantonment) for the entire collection of huts, the individual buildings were universally referred to as hutments in relation to Mercury. Because no foundation

work was required for these hutments and they were installed without terracing, no evidence of their existence remains in Mercury today (Figure 12). Harold Cunningham (ca. 2014:25) notes that there were two types that housed four or eight men. The hutments were heated using an oil-fired heater "and occupants either froze or burned up."

All hutments were 14 feet wide. Singles were 16 feet long, whereas doubles and bath houses were 32 feet in length. In all, there were 12 bath houses, 120 singles, and 116 doubles. This provided housing for 1,408 people if bunk beds were used (REECo 1955).

Figure 12. Double Hutment with shed addition (REECo 1955).

PREFABRICATED

Prefabricated metal buildings such as Quonset huts, straight-sided Quonset huts, and Butler Buildings comprised much of the built environment of Mercury in the 1950s. A sample of Quonsets and Butlers remains but no examples of the straight-sided Quonset huts have survived other than their foundations. Prefabricated buildings by Butler and other manufacturers continued to be erected in smaller numbers throughout the Cold War years and beyond for various purposes, even including major office buildings (Figure 13). Once constructed, the smaller buildings were demountable and could be moved intact. Larger ones had to be disassembled to be moved. The Quonsets were developed in 1941 at the navy base at Quonset Point, Rhode Island, by a team led by Otto Brandenberger with the George Fuller Co. Most Quonsets were prefabricated by the George Fuller Co. and later by Stran-Steel Corporation, but there were other manufacturers as well (Cohen 2011-258-259). Of the many Quonset huts that once dominated much of Mercury, only four remain.

Gabled, prefabricated metal buildings have survived better at Mercury, with 17 still standing, including early (1950s and possibly wartime) products of Butler and Stran-Steel as well as a few products by later companies such as American.

Figure 13. Examples of prefabricated buildings at Mercury. Top: Quonset hut 23-W10; Middle: Butler building 23-129; Bottom: Office 23-132, built the year before the end of the Cold War.

DEMOUNTABLE

One-story, hip or gabled wood-frame buildings with horizontal wood siding comprised the more elaborate 1950s buildings at Mercury. Only seven survive today and all have been considerably altered through time, although most of the alterations occurred during the Cold War. Derived from various World War II mobilization designs (Cohen 2011:250; Garner 1993; REECo 1955), all were composed of rectangular elements narrow enough to be transported by road should they be needed elsewhere. For this reason, buildings such as these are classified as demountable. Normally not prefabricated, they were built in place. The rectangular modules were combined into more elaborate floor plans as needed. The long, narrow, sometimes maze-like design of these composite buildings allowed for abundant natural light and ventilation. This modular nature was expressed best in Mercury by the large E-plan building, which had separate building numbers (23-120, 121, 122, and 123) for every wing. The old Recreation Building (23-113, Block 7) is one of the best examples of a demountable wood-frame building that is still in use at the NNSS. Originally with a U-shaped plan, the courtyard was enclosed in the 1960s (Figure 14). Figure 14 also provides a good example of the inconvenient berms that were sometimes required for construction of the cut and fill terraces in Mercury.

Figure 14. The old Recreation Building (23-113) is one of the best examples of a demountable wood-frame building still in use at the NNSS (DRI 2017). The protruding beams are from the 1960s modification that enclosed the courtyard.

Harold Cunningham (ca. 2014:25) describes how a demountable building was moved to Mercury in 1951 to serve as a barracks for female employees:

One of these barracks came from White Rock, New Mexico, and had been built to house Los Alamos construction workers. It had been sawed in shapes that were the largest permissible to travel over the highways. The AEC decided that this was not a cost-effective way to make housing available and only one barracks was moved from White Rock.

PORTABLE

Portable buildings and structures were extremely common at Mercury during the Cold War and many still remain. They were often also called trailers on the NPG/NTS because they were used in the same way. The smaller ones were often called "Brock Houses" on the site. The origin of that name could not be determined. Purpose-built portable buildings normally were constructed on wood or steel skids and often had lifting rings in the corners of the roof as well so that they could be hoisted by a crane.

Many kinds of structures were repurposed as portable buildings, including truck-mounted caravans with the cabs cut off and even a modified walk-in refrigerator. Starting in the 1970s, metal cargo containers began to be repurposed as portable buildings that were usually used for storage, but could be used for other purposes as well. These containers were often fitted with air ventilation devices or coolers, extra doors, windows, and other fixtures. They were not noted during this survey unless they were clearly used as a semipermanent building rather than simply as a movable storage container. Such use was often indicated by the presence of fairly solid cribbing or foundation materials, or the installation of steps. The use of surplus steel railroad boxcars as storage buildings began in 1981 when the first 18 were moved to the site (*NTS News* April-May 1981). They proved so useful that additional ones were acquired and many remain in use today. In all cases the axles were removed and they were hauled to the site on trailers (Figure 15).

TRAILER

Unlike portable buildings, trailers were equipped with their own wheels. At the height of operations during the Cold War, large numbers of trailers were used throughout the site for specific testing purposes and often exhibited extensive retrofitting done by the REECo shops (Figure 16). Most exhibit some degree of painted or attached signage unless they have been recently repainted the ubiquitous NNSS tan. A group of 16 unmodified travel trailers was used by the few female workers housed at Mercury in the mid-1950s (Merlin 2016:14). The multitude of residential trailers that were used at Mercury throughout almost the entire Cold War period had two bunk beds at each end and a shared room in the center with a sink, toilet, and shower. If housing demands were low, the upper bunks could be removed (Reno 2018). None of the many residential trailers have survived in Mercury.

Figure 15. Examples of portable buildings. Clockwise from upper left: brock house, cargo container, and railroad car.

Figure 16. A trailer repurposed for testing activities.

Mid-century Modern

Mid-century Modern is a cover category with many subtypes. By this time in its development, Modern architecture had diversified from its initial austerity to allow considerable room for decorative elements in some varieties, only a few of which were built in Mercury. The 52 Mid-century Modern buildings dominate the Cold War architecture of Mercury both in quantity and in size. Mid-century Modern styles were most commonly chosen for new construction in Mercury from 1963 through 1977. Many different architects competed for contracts during this period, which is reflected in the considerable variability among buildings, although all are within the parameters of this style. It is known for its emphasis on simplicity, usually with the form of the building following its function, the use of curtain walls and exposed structural elements as decoration, and a preference for roofs that are either flat or of such low pitch that they appear at first glance to be flat or nearly so (Michael and Smith 2011). The construction material of choice is concrete masonry units (CMU or concrete block). Buildings are devoid of window and door surrounds or moldings.

Four buildings express this style in a generic way, of which the Fire Station 23-425 (Block 12) is an example. The most imposing example is Warehouse 23-160 (Figure 17, Block 2), whereas Shop 23-751 in Block 19 is a classic exhibit of outside form reflecting interior functional arrangements (Figure 18). Considering the conservative nature of Mercury's architecture, it is not surprising that Expressionist buildings, with the sole exception of the Googie variant Bowling Alley (23-517, Block 15) and Pool House, were never built here. Similarly, Formalism with its preoccupation with external appearance regardless of internal function is not found in a complete design, although some buildings, such as the front façade of the Bell Telephone Building 23-726 (Block 14), exhibit Formalist elements, particularly at entrances.

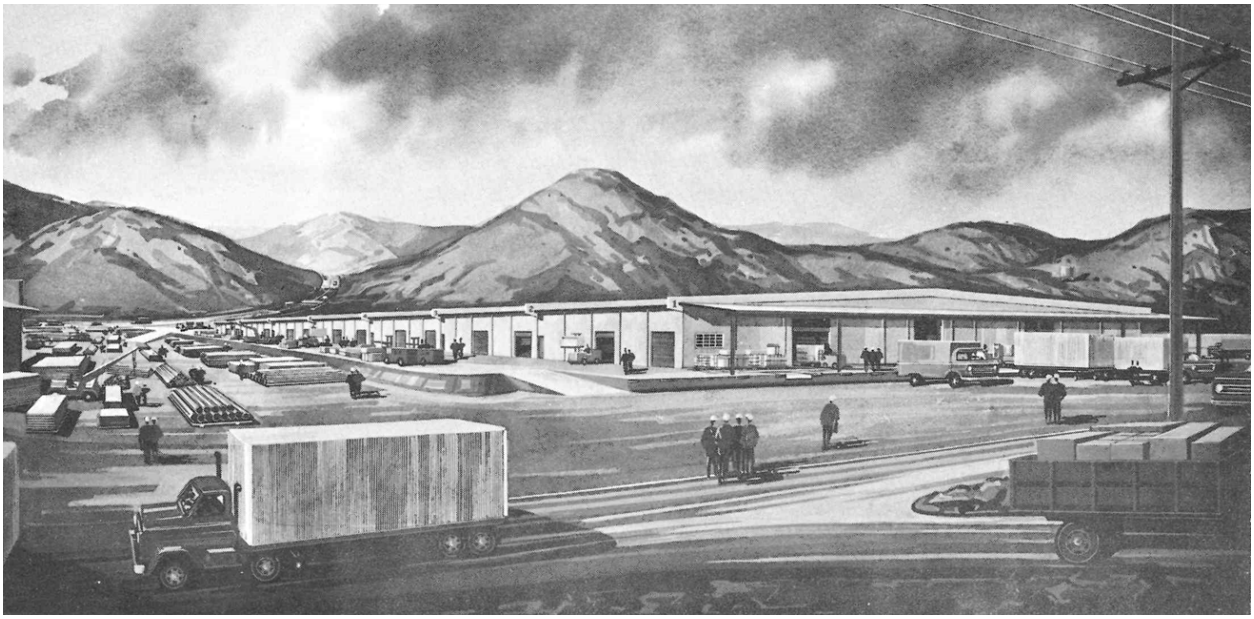

Figure 17. Mid-century Modern Warehouse 23-160, Ben Beckler and Associates (*NTS News* 5/7/1965).

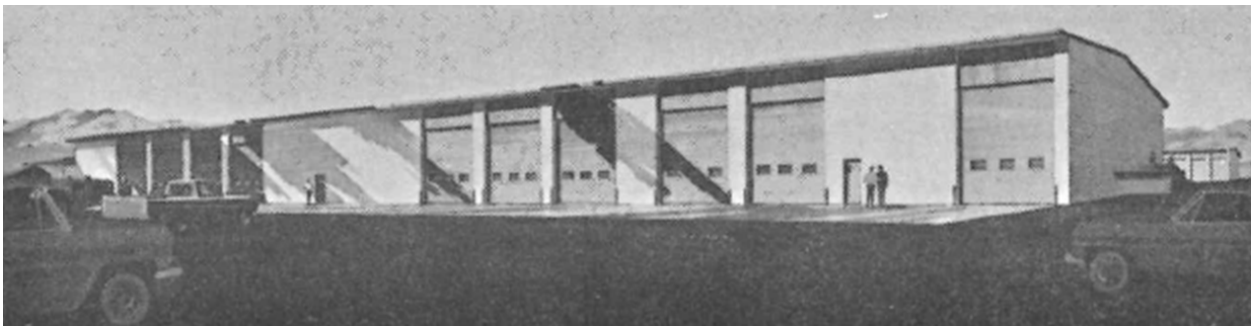

Figure 18. Mid-century Modern Shop Building 23-751 (*NTS News* 9/25/1964).

BRUTALIST

Developed in the postwar period in the United States, Brutalist-style buildings have a flat roof with little or no roof overhang, cubic elements, bold recesses, often asymmetrical massing, no formal entrance, and exposed undecorated concrete or concrete masonry (Harvey 2003:2-1.21; Michael and Smith 2011: Robinson and Foell 2003:15). Ten of the buildings at Mercury were identified as Brutalist, but elements of this style can easily be discerned in many of the other stylistic variations at Mercury. Brutalism is most evident in the underlying massing of the other varieties, which are further distinguished by elaborations that are often decorative or relatively minor in nature. Because of the extreme austerity of its basic concept, it does not take much to de-Brutalize a building. Several of the Brutalist buildings in Mercury, such as the Lowery Complex 23-1104 (Block 27) and the Dosimetry Calibration Laboratory 23-610 (Block 21), are the simplest concept possible, consisting only of single cubic parallelepiped, whereas others make use of the variations of massing and other elements noted above. Both the Crafts-Shops Building 23-710 and the Maintenance Shop 23-700 in Block 20 display contrasting massing and extremely simple exteriors with the planes of the outside walls unbroken by any trace of ornamentation or texture (Figures 19, 20). The stark Brutalist design of the Materials Testing Laboratory 23-190 (Block 4) would have been even more pronounced when originally built. At that time, there would be no attached fence, no metal cap on the top of the walls, no rooftop pipe railings, and no ladder to the roof (Figure 21). Although Brutalism is often out of place and dehumanizing in the wrong context (e.g., Scully 1991:352-353), it works very well in expressing Mercury's ethic of total concentration on mission requirements with as few distractions or elaborations as possibly, an attitude taken to architectural extremes by buildings such as this one. It is perhaps to emphasize that this is an architectural style that architects used to make serious statements about the proper use of architecture and implicitly critique what had gone before. This aspect of the style was expressed by the staff of *Architectural Design* in April 1957:

Any discussion of Brutalism will miss the point if it does not take into account Brutalism's attempt to be objective about "reality"— the cultural objectives of society, its urges, its techniques and so on. Brutalism tries to face up to a mass-production society, and drag a rough poetry out of the confused and powerful forces which are at work. (Quoted in Jencks 1985:257)

In this regard, it is important to remember that the style received its first extensive postwar elaboration in Britain, which was trying to meet the need for an extensive new building program with extremely scarce resources.

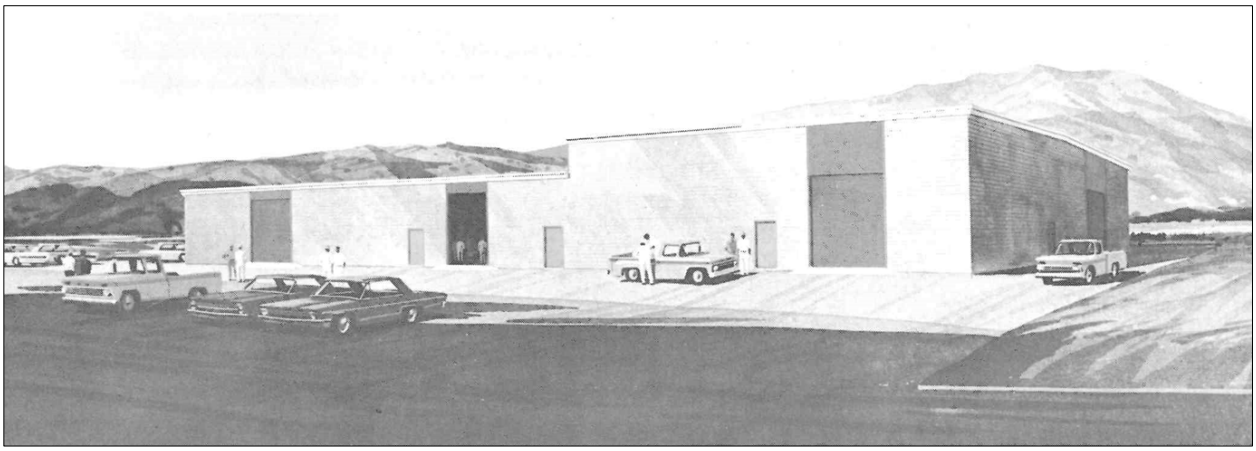

Figure 19. Brutalist Crafts-Shops Building 23-710. Rendering by Edward B. Hendricks Associates, Las Vegas (*NTS News* 2/26/1965).

Figure 20. Brutalist Maintenance Shop Building 23-700. Rendering by Lockard, Casazza & Parsons, Architects & Engineers (*NTS News* 7/19/1963).

Figure 21. Brutalist Materials Testing Laboratory Building 23-190 (DRI 2017).

CONTEMPORARY

Contemporary style architecture is characterized by prominent roof overhangs, a preference for flat roofs or low-pitch sheds, and the frequent use of decorative concrete masonry such as perforated or shadow-block screens and panels (McAlester p. 629). This was by far the most popular style of the early 1960s reconstruction of Mercury. Many excellent examples could be selected from the 38 buildings in this style. Figures 22 through 26 demonstrate the variety of effects that were achieved while working within the parameters of this vibrant style during its peak creative years. The Health, Medicine, and Safety Building 23-650 (Block 23) does not present as interesting an aspect as shown in the rendering in Figure 23 because the free-standing exposed pillars, roof beam extension, and wall sconces were deleted from the final design. The building does retain the characteristic perforated shadow-block screen for the entry lobby.

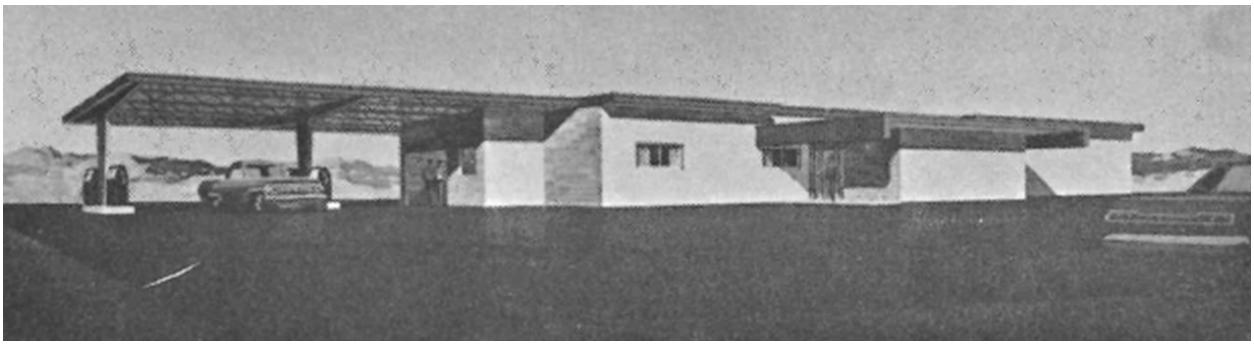

Figure 22. Contemporary Dispatch Building 23-752 (*NTS News* 9/25/1964).

Figure 23. Contemporary Health, Medicine, and Safety Building 23-650. Rendering by Walter Zick and Harris Sharp Architects-Engineers (*NTS News* 2/1/1963).

Figure 24. Contemporary Equipment Maintenance and Service Building 23-750. Rendering by Robert Guy Riddle & Associates (*NTS News* 3/1/1963).

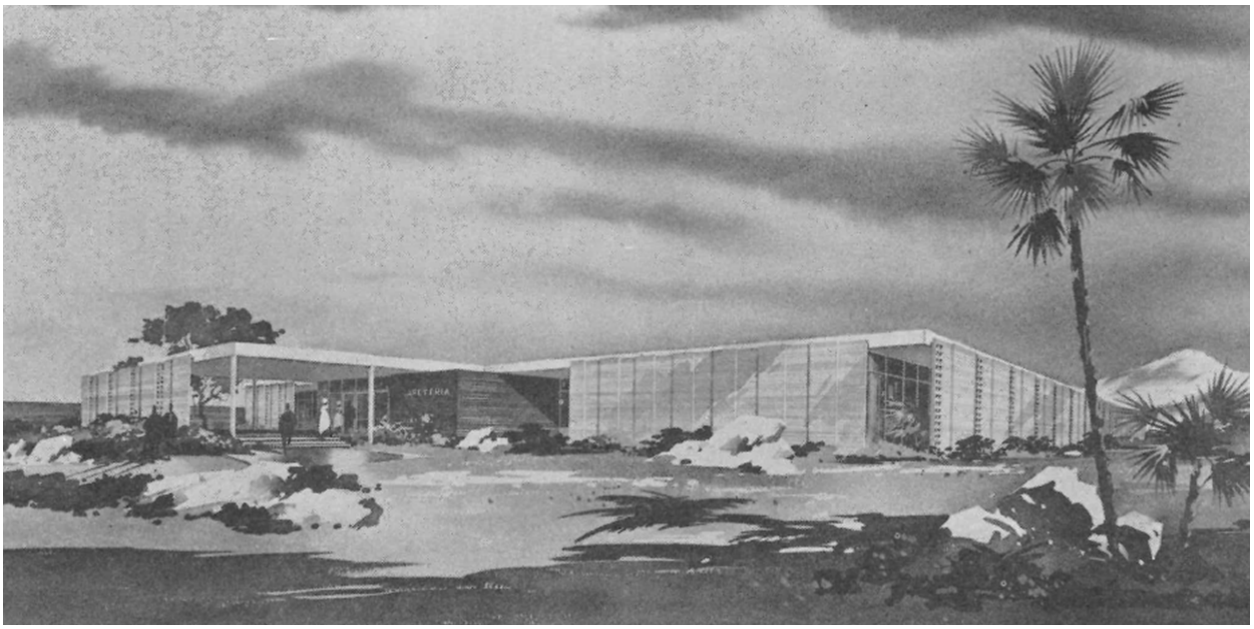

Figure 25. Contemporary Mercury Cafeteria 23-300. Rendering by Albert C. Martin and Associates (*NTS News* 3/13/1964).

Figure 26. The manipulation of massing, curtain walls, texture, and shading create striking effects typical of well-executed Contemporary style architecture is evident at the Cafeteria (23-300) (DRI 2017).

GOOGIE

Googie may be seen as a popular version of Expressionism aimed at a stunning, and possibly futuristic, visual effect (Hess 2004). Not surprisingly, the only examples at Mercury are the recreational facilities: the Bowling Alley and Pool House (Figure 27, Block 15). The architecture clearly states that serious mission-related activities are not going on in these buildings.

Figure 27. The Bowling Alley (Building 23-517) is Mercury's sole surviving example of flamboyant Googie architecture. Also shown are some of the few trees planted in Mercury. The Pool House, which was Mercury's only other Googie style building, formerly stood in the lot in the foreground (DRI 2016).

Late Modern

In the late 1970s, Charles Jencks rejuvenated the terms Late Modernism and Post-modernism to capture the evolution of Modern architecture late in the twentieth century:

Since about 1960, Modern architecture, or the International Style and its related models, has changed dramatically. It has evolved into a new style, a "Late" version of its former self, and at the same time, has undergone a mutation to become a new species—"Post"-Modern….

The differences between Late- and Post-Modernism are simple to define as long as we focus on broad categories. Late-Modern architecture takes the ideas and forms of the Modern Movement to an extreme, exaggerating the nature and technological image of a building in an attempt to provide amusement or aesthetic pleasure. It tries to breathe new life into the Modern language, a language which many people find monotonous and alienating. Post-modernists also react against the visual dullness of Modernism, but their solution involves combining the Modern language with another one. Thus a Post-Modern building is double coded, one-half Modern and one-half something else…. (Jencks 1982:12)

From the discussion in the previous section, it can be seen that the more adventurous Contemporary style buildings are already on the road to Late Modern. Not surprisingly, Post-modernism was a road not taken at Mercury. Regardless of personal inclination, it is difficult to imagine a Post-modern design, with the inherent doubts and confusions deliberately sowed by such a building, ever being accepted at the time by as conservative a client as the DOE. In a period when it became widely acknowledged that much of architecture was about conveying messages, the messages of Post-modernism were wildly out of place on a government reservation where serious work was being done to save the people of the United States from their Cold War opponents.

The 1980s saw a different look sweep Mercury and military bases in the region, including the Tonopah Test Range, Indian Springs Air Force Base, and Nellis Air Force Base. This new look was based on the prominent use of a relatively new building material: split face concrete block.

At Mercury, design of all 11 Late Modern style buildings involved invoking elements of the various Modern variants along with a specific form of surface decoration that connects them. This common element is split face concrete masonry, which is nearly always a pale "desert rose" but sometimes light pink or light tan. This material is normally set off with concrete or stucco pilasters and borders, and sometimes includes contrasting panels of flush or patterned concrete masonry. At Mercury, the split face is almost entirely limited to buildings, which is in contrast with Nellis, where extensive fences and minor structures are made of the same material. This building material became common in the civilian sector as well during this period, but what sets the bases, and to a lesser extent Mercury, apart is the uniformity of the color selection and lack of buildings constructed of any other material. The three Late Modern buildings in the 23-531, 532, 535, 536 series dormitory complex in Block 17 demonstrate the eclectic collection of Modernist elements that have been brought together to create a composition that well represents the culmination of Modern architectural styles at Mercury (Figure 28).

Figure. 28. Late Modern 23-531 to 536 series dormitory complex (DRI 2017).

It is not unprecedented to use a distinctive type of surface treatment to define a style that is otherwise made up of any number of building forms and functions. The Victorian Shingle style (McAlester 2013; Scully 1978) is comparable in this regard to the split face variant of Late Modern architecture, which changed the character of the built environment of Mercury and other bases in the region.

Split face block has a doubly dual character when considered against some of the basic tenets of Modern design. These ambiguities add interest to buildings using this material. The first contradiction is that split face block (and ordinary concrete block as well) looks like an exposed load-bearing wall in the Brutalist tradition. However, in most cases at Mercury, it is actually a non-load-bearing curtain wall with the steel structural framework concealed from view. An analysis of this kind of design at Mercury is in Reno and King (2016:24-26). This puts it more into the direct International style of design, except for occlusion of the structure that supports the curtain walls.

The second contradiction is that it is fully in the Modernist/Brutalist tradition of exposing an unadorned building material. However, it is nearly Mannerist in the way it emphasizes rusticated texture and often color as well, particularly if fluted split face block is used for additional elements such as pilasters or friezes, as it is in several of the buildings. The most extreme cases of emphasizing wall texturing in this way are at the 23-531 to 536 dormitory complex mentioned above, in which vast areas of wall are fluted split face with intervening bands that are faced with variously colored, faux sandstone tiles. Despite these innovations, the 1980s buildings manage to blend in remarkably well with their predecessors because they share so many Modern design principles. Another new characteristic shared by nine of the Late Modern buildings is the first departure from the strict horizontality of Mercury by adding a second story.

A Sample of Architectural and Engineering Firms

As discussed in the opening historical discussion, a great many architectural firms have had a role in designing the built environment of Mercury. To provide a working impression of some of the architectural expertise that is represented here, a sample of the identified firms is briefly discussed for each of the three periods of the Cold War. All of the firms selected designed some of the most distinguished buildings in Mercury, with H&N continually available for routine design tasks such as building modifications. H&N is uniquely ubiquitous, starting in 1951 and continuing to be involved all the way through the Cold War. Arthur Benedict Associates is the most important of all of the firms because of its vision in creating the overall design for Mercury in 1962, whereas the other firms were confined to designing individual buildings. The great period of permanent expansion from 1963 through 1977 is represented by three firms: Albert C. Martin and Associates of Los Angeles, Ben Beckler and Associates of North Hollywood, and Selden and Stewart Architects and Planners of Reno. Design during the final years of the Cold War is represented by Gunny, Brizendine & Poggemeyer Engineers-Planners of Las Vegas and by JMA Architecture and Engineers of Las Vegas. The firms are described in the order in which they began working at Mercury.

Holmes & Narver (H&N)

H&N was active from the initial construction of what is now the NNSS through the end of the Cold War. This work was part of Contract 20, which was the longest running single contract ever administered by the U.S. government. James T. Holmes and D. Lee Narver started the firm in 1933 in Los Angeles to repair earthquake damage to a large number of buildings. The firm entered the realm of government-base design in 1940 with the designs of Camp Roberts and Camp Nacimiento for the Army, followed by a number of wartime military bases. Design of the nuclear test facility at Enewetak in 1947 foreshadowed its role in designing the new base camp of Mercury in 1951. The firm was extremely active during the Cold War with projects including facilities at Naval Air Weapons Station China Lake, Douglas Aircraft, and overseas military bases. An example of 1960 design on the NTS is the Records Library (23-310, Block 5). In 1985, the DOE contract for NTS facilities reached 400 million dollars. During this period, the firm designed the striking 23-531 to 536 series of dormitories and Photographic Support Building 23-614 (Block 16) at Mercury. Much of the work H&N did at Mercury and at the rest of the test site was the unglamorous job of perpetually

altering buildings to keep pace with changing mission requirements (Reno et al. 2016). In Mercury, this kind of work also included the unfortunate modifications to the Chapel (23-550, Block 550).

Although the military-related contracts were central to the work performed by H&N, the firm also had significant civilian commissions, such as the 1958 TWA terminal at Los Angeles International Airport. H&N ceased to exist as an independent firm in 2001. It was acquired by DMJM, which was in turn acquired by AECOM (Moore et al. 2010:189-190; *NTS News* August 19, 1983).

Arthur Benedict Associates

Arthur Benedict Associates is responsible for the 1962 Master Plan, which guided most of the subsequent development of Mercury through the rest of the Cold War. Arthur Harold Benedict was born in South Dakota in 1901 according to the California Death Index, or in North Dakota around 1894 according to the 1940 Federal Census. Before the war, he worked for the Public Roads Administration. By 1940, he resided in Los Angeles and worked as a civil engineer specializing in asphalt paving. He became an assistant chief engineer at Pan American Airways and was involved with the construction of 52 airfields in South America and Africa during the war. These developments included housing and utilities. During this time, he was division engineer, editor, and technologist for Asphalt Institute of America. He was responsible for several significant innovations in paving, such as jet-fuel resistant asphalt. While Benedict was at the institute, he worked with the Highway Research Board, U.S. Reclamation Service, and the Federal Bureau of Investigation. During the war, he was also on the U.S. Army Engineer's Board of Consultants. He established his own engineering consulting office in Los Angeles in 1946. In 1950, he was one of the original partners in the extremely prolific engineering firm of Kewell, Kocher & Benedict. The firm was responsible for extremely Modern housing units at Naval Station China Lake as part of the Wherry and Capehart housing projects, as well as housing units at Edwards Air Force Base and Camp Irwin in California, Fort Shafter in Honolulu, Vandenberg Air Force Base, and Naval Air Station Barbers Point in Hawaii. The firm also had several nonresidential military commissions at Mojave and Edwards. In 1953, he became the senior principal in the company, which became known as Benedict, Beckler & Kocher. By 1954, the firm had a satellite office in San Francisco.

Benedict left the firm, then known as Benedict, Beckler, & Associates, in 1962 to organize Arthur Benedict Associates. With the loss of Benedict, Beckler then reorganized as Ben Beckler and Associates (see below). Considering the principal's predilection for paving, it is not surprising that the firm's artist portrayed Mercury as a vast expanse of asphalt interspersed with buildings in the color rendering for the Master Plan. Benedict was a member of the American Society of Civil Engineers until his death in 1972 (American Society of Civil Engineers 1974:61, *California Death Index* 2018*; Engineering News-Record* v. 136, 1946:10; *L.A. Times* Apr 8, 1946:14, Feb 21, 1954:106; Moore et al. 2010:49-50; U.S. Find A Grave Index 2018).

Albert C. Martin and Associates

The new Mercury Cafeteria (23-300), built in 1963, is a typically superb design from one of the most important and prolific architectural firms in the western United States. Unlike most large modern

firms, this one maintained a core principal group of family members. Albert C. Martin Sr. founded the firm in 1906 in Los Angeles. It met with much success, including the design of Los Angeles City Hall (1928). His sons Albert Jr. and J. Edward Martin, who specialized in engineering, joined their father at the firm during the Depression.

Albert C. Martin Jr. and J. Edward Martin formed a partnership and changed the name of the firm to Albert C. Martin and Associates in 1945 while Albert C. Martin Sr. maintained an active role. They were at the heart of the explosive growth of the greater Los Angeles area after the war to the extent that (with a bit of hyperbole) they have been credited with designing half of the Modern designs in the region during this period. They also expanded into Cold War work at Edwards Air Force Base starting in 1951, Coronado Naval Base in 1953, International Marine Center at Long Beach in the late 1960s, and Vandenberg Air Force Base. The firm's designs at research campuses for TRW, Aerospace Corporation, and North American Aviation from 1958 through 1964 were spectacular and may hint at the style of campus designers may have in mind for a redeveloped Mercury (Gebhard and Winter 1977; Leslie 2017; Longstreth 1997; Moore et al. 2010:257-258).

Selden and Stewart Architects and Planners

This Reno firm has the distinction of designing the flamboyant Bowling Alley (23-517) and Pool buildings at Mercury in 1963.

Theodore Emmett (Ted) Selden, the principal architect of the firm, was registered to practice in six western states (Bowker 1962, 1970; RGJ Feb 26, 1997 5C:6). He was admitted to the Reno (Northern Nevada) Chapter of the AIA in 1960, the same year he formed the firm of Selden and Stewart in Reno (REG Sep 1, 1960 10:2). Selden immediately took up an active role in the organization, serving variously as Treasurer, Director, Vice President, and President from 1961 through 1970 (NSJ Jan 21, 1961 35:4, Jan 25, 1967 9:6; REG Jan 23, 1961 5:1). Selden served as Assistant Manager of the State of Nevada Planning Board from 1959-1960 and was Secretary Treasurer of the Nevada Association of Architects in 1970.

Allen J. Stewart, A.I.P., served principally as the planner for the firm, which evenly divided its commissions between planning and architectural design projects. Stewart also participated in the architectural end of the business, joining the AIA Reno Chapter in 1961 (Bowker 1962, 1970). It was Stewart who signed the design drawings for the Mercury Bowling Alley. The firm designed the Googie style Starlite Bowl bowling alley in Reno in 1961. That same year, the firm also began designs for expansions of the Nevada State Minimum Security Prison near Carson City (Bowker 1970; NSJ Sep 15, 1961 13:1, Nov 16, 1962 18:5; REG July 20, 1962 18:1). In 1962-1963, they collaborated with DeLongchamps and O'Brien in designing the Tom Sawyer Village, an extensive senior citizen housing project in Reno (NSJ Nov 16, 1962 18:5; Aug 23, 1963). From 1964 to 1965, Raymond Hellmann (designer of the Fleischmann Planetarium) briefly joined the group to collaborate in designing the Sparks Branch of the Washoe County Library (NSJ Feb 25, 1965 8:4; REG June 3, 1964 29:4).

In 1965-1966, the group designed the Nevada Air National Guard Headquarters Group O&T Building and Nye Hall at the University of Nevada, both in Reno, along with the Carson Mall Shopping Center in Carson City (NSJ Dec 12, 1965 47:2, Sep 25, 1966 19:6; REG Apr 22, 1965 19:5). They designed the Elges Chateau Convalescent Hospital in Reno in 1969 (NSJ Dec 14, 1969 3:1).

The group designed Carson High School in 1970, won a competition to design elementary school classroom facilities in Washoe County in 1971, and continued educational design in 1972 with their Metropolitan High School No. 5, again for the Washoe County School District (Bowker 1970; NSJ June 21, 1972 6:2; REG Mar 10, 1971 32:2).

By 1976, Stewart had left the firm with Nespor and Dolven Larson taking his place as partners. In that year, the firm was sold to Larson and continued with the new name of Dolven Larson Daniels. Selden continued to work as a consultant with this and other firms, as well as in a small independent practice until his death in 1997 at the age of 66 (NSJ Jan 25, 1976 20:1; RGJ Feb 26, 1997 5C:6).

With the exception of the bowling alleys, the later work of Selden and Stewart was strongly in the mode of International Modernism with a tendency toward Formalism.

Ben Beckler and Associates

This Los Angeles firm has the distinction of designing Warehouse 23-160 (Block 2), the largest building in Mercury in 1965. Other designs at Mercury include sewer improvements, a major addition to the LASL Lab 23-701(Block 20) in 1967, and the LASL J-3 Division Office 23-620 (Block 21), which finally ended that division's need to occupy various temporary spaces throughout Mercury. Other projects on the test site included a lab and warehouse at CP in 1965 and a major remodel of CP-1 in 1971.

Originally established in 1950 as Kewell, Kocher & Benedict, the firm went through a rapid series of name changes as principals came and went. Ben Beckler joined the firm in 1953 and by approximately 1962, the firm acquired its final name of Ben Beckler and Associates.

The firm designed many Wherry and Capehart housing complexes for the Air Force and Navy in California and Hawaii along with nonresidential base buildings at Auxiliary Air Station Mojave in 1954. Their Modern residential designs and community plans compared favorably with the best of civilian suburban development of the time. They also designed many commercial buildings and created master plans (Moore et al. 2010:49-50; Reno et al. 2016).

Gunny, Brizendine & Poggemeyer Engineers-Planners (GB&P)

In 1987, GB&P of Las Vegas participated in the design of two similar split face buildings at Mercury: Administration Building 23-143 (Block 16) and Industrial Hygiene 23-652 (Block 23). The distinctive buildings are some of the more interesting designs of the period. No architects were on the firm staff in 1987, which appears to have contributed engineering expertise to the projects. The firm of Dobrusky, Kittrell, Garlock Architects, also of Las Vegas, contributed the architectural

design team. To date, little has been found regarding the architects except that Thomas A. Dobrusky and Associates was in business in Las Vegas by 1980. He was a member of the Las Vegas AIA chapter since at least 1965.

The earliest reference found of this firm was in 1974, when it was known as Gunny & Brizendine. Robert R. Gunny was the principal architect and George A. Brizendine, who served as the president of the Nevada Society of Professional Engineers in 1983, was the engineer for the firm. By 1984, engineer Lester H. Poggemeyer was added to the firm as the third principal and a satellite office was established in Reno. Poggemeyer prospered, creating Poggemeyer Design Group, which by 1989 acquired GB&P as a division that retained its name (Bowker 1962, 1970; *Nevada Business Journal* Feb 1987:33; RGJ Apr 29, 1974:21; Aug 26, 1980:30; Sep 28, 1983:1; Nov 18, 1984:78; Sep 1, 1985; Jul 17, 1989).

JMA Architecture and Engineers (JMA)

The deceptively simple Cable Testing Building 23-118 (Block 16), built in 1988, is a Modernist classic designed by one of the principle Nevada design firms of the postwar period. JMA had offices in Las Vegas and Reno. It was established in 1945 as Jack Miller & Associates and by 2011, when it was acquired by Michael Baker Corporation, it was the largest architectural firm in Nevada.

In 1982, the firm received an award from the AIA Western Mountain Region for the Dickinson Library at UNLV, as well as another AIA award in 1988 for the Hughes Airport Distribution Facility in Las Vegas. The Reno office opened in 1989 and occasionally collaborated with established Reno architect Edward Parsons to design a number of projects in that area, including an expansion of the Centennial Coliseum. Other prominent buildings include the Atomic Testing Museum, World Market Center, DRI Northern Nevada Science Center, Ivana (now Trump) Las Vegas, Las Vegas Art Museum, MGM Grand Hotel Casino, the Nevada State Legislative Building, and dozens of others. Many of the firm's records are now maintained at UNLV Special Collections and Archives (Illia 2011; RGJ May 26, 1982:32; Oct 27, 1988:30).

Functional Architectural Types

The architectural type for traditional residential architecture can usually be identified by a combination of building form and plan (Carter 2015; Carter and Goss 1988; Hubka 2013; Wyatt 1987). Such an approach works best when interiors are available for analysis, as was done by Zeier and Reno (2010) at the Nevada mining town of Ione. In the case of Mercury, almost all of the buildings would have been classified as "Other" from this perspective. This is particularly the case since so many of the buildings were constructed in such a way as to allow free movement of interior partitions to accommodate a variety of different uses and changes through time. Therefore, it was considered more useful to develop a functional typology specific to the collection of buildings and structures at this location. These types are identified at both general and specific levels in Table 4.

Table 4. Functional Architectural Types at Mercury.

General Type	Specific Type	Examples
SUPPORT FACILITIES		
Administration	Administration Building	23-111, 23-117
	Records Building	23-310
Evacuation	Assembly Area	Accessory Resources
	Siren	S1745
General Maintenance	Shop	23-154, 23-700, 23-710
Motor Pool	Car Wash	23-756
	Dispatch Building	23-752
	Fuel/Lubricant Storage Tank	Accessory Resources
	Fuel Pumps	23-210 (foundations)
	Vehicle Maintenance Building	23-750, 23-751
	Vehicle Scales	23-1014
Radiation Control	Radiation Safety	23-155, 23-650
	Radioactive Storage	23-180
	Radiological Trailer	23-170 AR1
Science and Research	Lab/Office	23-600, 23-701, 23-790, 23-127
	Lab Trailer	Accessory Resources
	Research Facility	23-213, 23-790 AR1
	Research Materials Storage	USGS Core Storage 23-154
Security	Security Gate	23-GS100 (Gate 100)
	Security Office	Sheriff's Office 23-525, Contractor Administrative Office 23-1001
Warehousing/Storage	Storage Building	Railroad Boxcars, Trailers, converted Cargo Containers recorded as Accessory Resources
	Storage Structure	Bottled Gas Storage 23-134
	Storage Yard	C304
	Warehouse Building	23-129, 23-160, 23-W10

Continued

Table 4. Functional Architectural Types at Mercury (continued).

General Type	Specific Type	Examples
RESIDENTIAL FACILITIES		
Housing	Dormitory	Quonset Huts (foundations), 23-B, 23-480, 23-531
	Hutment	(no longer exists)
	Trailer Park**	(landscaping and electrical hookups only)
Public Services	Cafeteria	23-300
	Chapel	23-550
	Fire Department	23-425
	Food Storage	23-114, 23-301
	Hospital	23-100 (foundations), 23-650
	Ice House	(no longer exists)
	Ice Plant	23-170 (foundations)
	Industrial Hygiene	23-652
	Laundry	23-152 (23-103 AR5)
	Post Office	23-525
	Wash House	Quonset Hut (foundations)
Recreation	Archery Range	Quonset Hut (foundations)
	Break Patio	Accessory Resources
	Day Room	23-477
	Golf Driving Range	(no longer exists)
	Gym	23-W4 (foundations)
	Park	Track, Softball Field (no longer exists), Tennis Courts
	Pool	(no longer exists)
	Recreation Center	23-113, 23-517 (Bowling Alley)
	Theater	23-125
UTILITIES		
Electrical Utilities (Power, Communication, Lighting)	Aboveground Line	Power & Communication
	Communications Building	23-725, 23-726
	Communications Trailer	S1749
	Electrical Storage Yard	C303
	Line Installation Equipment	C303
	Power Plant	23-116
	Substation	Mercury Substation C315
	Switching Station	23-1010
	Communications Tower	S1755, S1749
	Underground Line	Power & Communications

Continued

Table 4. Functional Architectural Types at Mercury (continued).

General Type	Specific Type	Examples
Heating/Cooling	Boiler Building	23-115, 23-753
	Mechanical/Utility Building	23-536
	Underground Heating Pipeline	S1766
Sewage	Plant	23-1200
	Lagoon	S1756, S1757
	Underground Pipeline	S1764
Waste Disposal	Landfill	23-800
	Office	23-800
Water	Storm Water Drainage	S1765
	Tank	S1751, S1752, S1753
	Underground Pipeline	S1763
CIRCULATION		
Ground Transportation	Highway	Mercury Highway S1760, Jackass Flats Highway S1761
	Urban Roads	S1762
	Minor Roads	Ubiquitous, not formally recorded
	Bus Parking	C301
	General Parking	C296
Air Transportation	Airfield	S1747, 26NY15777
	Heliport	S1748
OTHER		
Other	Flagpole	S1754
	Trailer Park ** (nonresidential)	C294
	Unknown	C326

* Underground systems include a variety of standpipes, sweeps, cellars, and manholes to surface, including signage.

** As used on the test site, "trailers" also refers to single-wide portable buildings on wheels, with wheels removed, or built on skids and transported on flatbed trailers.

With extensive enhancements and some changes, these types are based on those presented in *Master Plan Mercury, Nevada* (ABA 1962). These types include examples of buildings, structures, and landscapes. The general resource type was used with slight modifications to generate the land use map in Figure 29. This figure can be compared with Figure 6 to see how land use has changed since the 1950s. It shows several successes of the master planning effort along with a lot of failures.

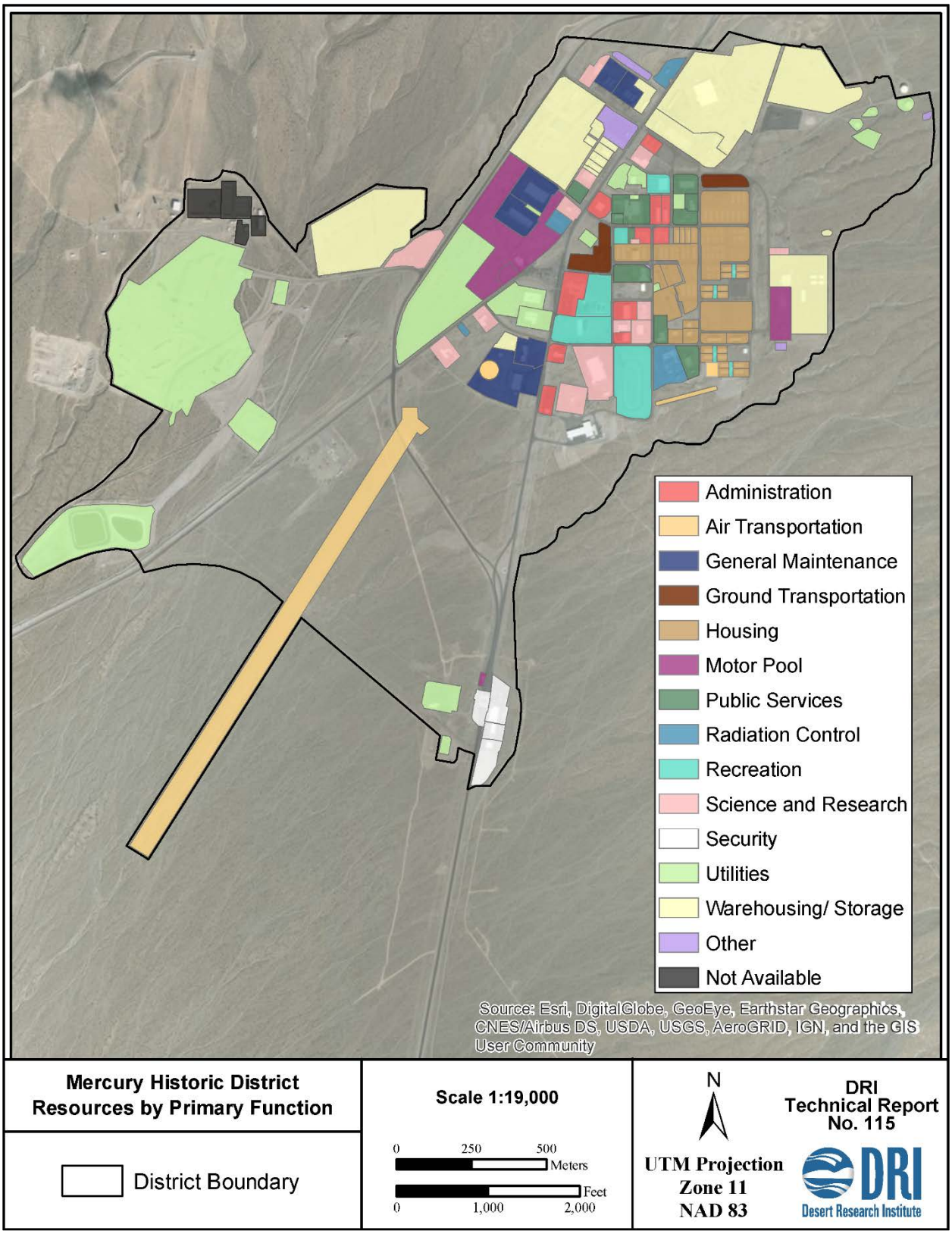

Figure 29. Map showing spatial distribution of functional types of resources in Mercury.

Warehousing is concentrated in the north end of town as a result of successful relocation of ground transportation facilities. The shape of the large western area of expansion is because of construction of the Mercury Bypass. Housing continues to be concentrated in the southwest portion of Mercury, although most of the active housing, including the high-occupancy, two-story dorms, is near the center of town rather than the far southeast corner, as envisioned in the Master Plan. Administrative buildings and labs resisted the planned concentration and are spread all over town, as are recreational facilities and public services. As planned, the airport shifted to Camp Desert Rock, leaving the nearly abandoned heliport as the only active air facility in Mercury. The other aviation facilities on the map have long been abandoned. Utilities are spread around the outskirts of Mercury, as are the security-related facilities.

Administration

Mercury is the principal administrative center for the entire NNSS, a role that it also had throughout the Cold War. In this regard, it worked closely with administrative staff based in Las Vegas. Almost every architectural style is represented by the 11 administrative buildings in Mercury. They range from the venerable Housing Office (23-109, Block 7), which is one of the original buildings at Mercury, to the imposing Late Modern Building 23-117 (Block 16, Figure 30). The Facilities Building 23-132 (Block 7), which formerly housed the REECo cashier, is the last major Cold War building to be erected in Mercury and continues the long tradition of metal prefabricated construction (Figure 13). Three of the original administrative buildings are represented by foundations only.

Figure 30. Administration Building 23-117 was an immense improvement over its predecessors (DRI 2017).

Evacuation

During the Cold War, rapid evacuation of Mercury was an ever-present possibility. Evacuation signals and plans figured prominently in briefings for new employees and the immense siren (S1745, Figure 31), located near the center of Mercury in Block 12, was tested on weekends (Reno 2018). One possible response to danger was to shelter in place, but if that was not appropriate, prominently marked assembly areas are dispersed throughout Mercury to enable rapid boarding of buses. At the

larger assembly areas near the Commuter Bus Parking Lot (C301, Block 15) and by the Hospital (23-650, Block 23), color-coded signs organize people into groups for rapid boarding of buses. The evacuation system is still in place, but it does not receive the attention it did formerly.

Figure 31. Siren (S1745) and a typical Evacuation Assembly Area.

General Maintenance

Although a certain amount of maintenance was done in the forward areas, most general maintenance tasks were either done in four shops in Mercury (23-128 and 23-129 Block 1; 23-700 and 23-710 Block 20) or by staff based in those facilities (Figures 19, 20). These buildings included general maintenance, crafts, and equipment maintenance, along with warehousing and storage yards for maintenance supplies (Figure 32). In addition to maintenance, the shops fabricated many of the specialized items constantly needed to support ever-changing experimental programs. Vehicular maintenance was done in Shops 23-750 and 23-751 in Block 19 (Figure 18).

Figure 32. Maintenance supplies in the yard of Building 23-710.

Motor Pool

At its height of operations, approximately 2,400 vehicles were managed on the site by the REECo Operations and Maintenance Division. This made the NTS Motor Pool the largest collection of light-duty vehicles operated by any government facility in the country (Center for Land Use Interpretation 1996:13). Carothers and Knipes (2003:16) provide a more detailed breakdown of the vehicles, which included 1,345 light vehicles, 331 heavy-duty vehicles, 193 trailers, and 1,758 units of heavy equipment. Although many of these vehicles were based in forward areas, most spent at least some time in Mercury for repairs or modifications at the shops there.

This fleet of vehicles was supported by an extensive complex of buildings and related facilities, including a large maintenance shop, dispatch building, car wash, undercarriage washing area, fuel pumps, and parking areas that occupied much of Block 19 (Figures 22, 23, 33). A vehicle scale (23-1014) is by the main gate. Remnants of the original motor pool and vehicle maintenance area at the north end of town (Block 2) include foundations, a scale that is no longer in use, and underground fuel tanks. A vehicle maintenance shop from this area (23-133) was moved into the lot of the general maintenance compound at 23-710 (Block 20), making it the sole surviving building from the early motor pool complex. In addition, there is the extensive DOD motor pool complex (23-210) at the southeast corner of Mercury with its own repair shop and fuel station. The amazingly adaptive Building 23-109 (Block 7) once housed another fuel station.

Figure 33. Panorama of the Motor Pool complex. From left to right are the Car Wash (23-756), Dispatch and Gas Station (23-752), Shop (23-751), Boiler Building (23-753), and Shop (23-750) (Photo: RSL 2013).

Radiation Control

Several buildings in Mercury are devoted to radiation control, including RAMATROL 23-180 (Block 1), the Dosimetry Calibration Laboratory 23-610 isolated behind its fence in Block 21, and the former RAD-SAFE building 23-155 now represented only by a foundation (Block 19, Figure 34). In addition, some buildings such as W-11 (Block 1) had occasional RAD-SAFE roles (Reno 2018). Much of the large Health Building 23-650 (Block 23) is devoted to RAD-SAFE or care of contaminated patients. Most of the science research facilities mentioned below had some role in radiation control so that radiation-related research could be safely conducted there. In addition, there were portable facilities such as mobile radiological services (Figure 35).

Figure 34. RAMATROL 23-180 and
Dosimetry Calibration Laboratory 23-610 (DRI 2017).

Figure 35. The faded sign on this trailer reads "MOBILE RADIOLOGICAL SERVICES/U.S. ATOMIC ENERGY COMMISSION" (DRI 2017).

Science and Research

Visually, the most arresting building in Mercury today is 23-600 (Block 21), the Lawrence Radiation Laboratories facility known universally as the "Blue Box" for obvious reasons (Figure 36). Other laboratories and related facilities, such as sample storage facilities, run the gamut from smaller high-style buildings such as the LASL Radiation Laboratory (23-701, Block 20) to the prefabricated Physical Standards Calibration Lab (23-153, Block 19). Several science and research buildings, including Quonset huts and demountable wood buildings, no longer exist. The CETO office and laboratory building with its unique mission is also gone (Block 1, Figure 37).

Figure 36. Blue Box Building 23-600.

Figure 37. Lawrence Radiation Laboratory 23-600 and Ron Reno in his former office at the DRI archaeology lab in CETO, 23-790 (DRI 2017).

Security

Upon approaching the NNSS on the Mercury Highway, a prospective visitor to the site passes through a security checkpoint and temporary detention yard at the site boundary near US 95. During the height of antinuclear and anti-NTS demonstrations during the late 1980s to early 1990s, this was an extremely busy place of normally nonviolent civil disobedience and some intricate interactions between the folks on both sides of the white line across the highway (Reno 2018). This interesting spot, which is near the National Register-eligible Peace Camp, is not part of the Mercury Historic District because of its low visibility and distance from Mercury, but it serves as a reminder that something unusual is just up the road, even though now this security checkpoint is normally not occupied by security forces.

The Gate 100 complex, with its tight collection of buildings and security hut blocking the highway, makes a strong impression (cover photo). All of these buildings (23-1000 to 23-1002) were built at the same time in 1965. They are surrounded by specialized compounds and abundant signage. The canopy over the guard hut (23-GS100) is new. It is higher and wider than the old canopy and has new NNSS signage (Figure 38). Fortunately, the old canopy with its distinctive signage has been preserved and reused in a forward area. Once through the gate, security within Mercury generally has a low profile, except for a few yards and building entrances that require special clearance for entry.

Figure 38. Gate 100, view northwest (DRI 2017).

The original Badge Office and Security Headquarters was in Building 23-111, which is now used as offices (Block 15, Figure 39). The old main gate was at the Mercury Highway next to this building and served as a theater for demonstrations as well, but in that case it was occasional demonstrations by striking site workers, providing another parallel between Mercury and any other company town.

The Nye County Sheriff's substation occupies half of 23-143 (Block 16), sharing it with the Post Office, in a space that was once used by the Weather Service. A post-1992 trailer provides sleeping quarters to the deputies in their off hours.

Figure 39. Security force muster at what was then the Badging Office in Building 23-111 (REECo 1627-11).

Warehousing/Storage

When looking over the nearly vacant storage lots, foundations of vanished warehouses, and the sedate pace of operations at the remaining warehouses or other storage facilities, it is hard to imagine the hectic pace of these places during the height of the Cold War and the massive amounts of material heaped upon them (Figures 40 and 41). Mercury's collection of warehouses is dominated by 23-160 (Block 2, Figure 17), but also includes Quonset huts (Figure 13) and prefabricated buildings along with quantities of smaller structures (Figure 16). The yards are not entirely empty and among the newer items there are still many relics and materials from the Cold War era.

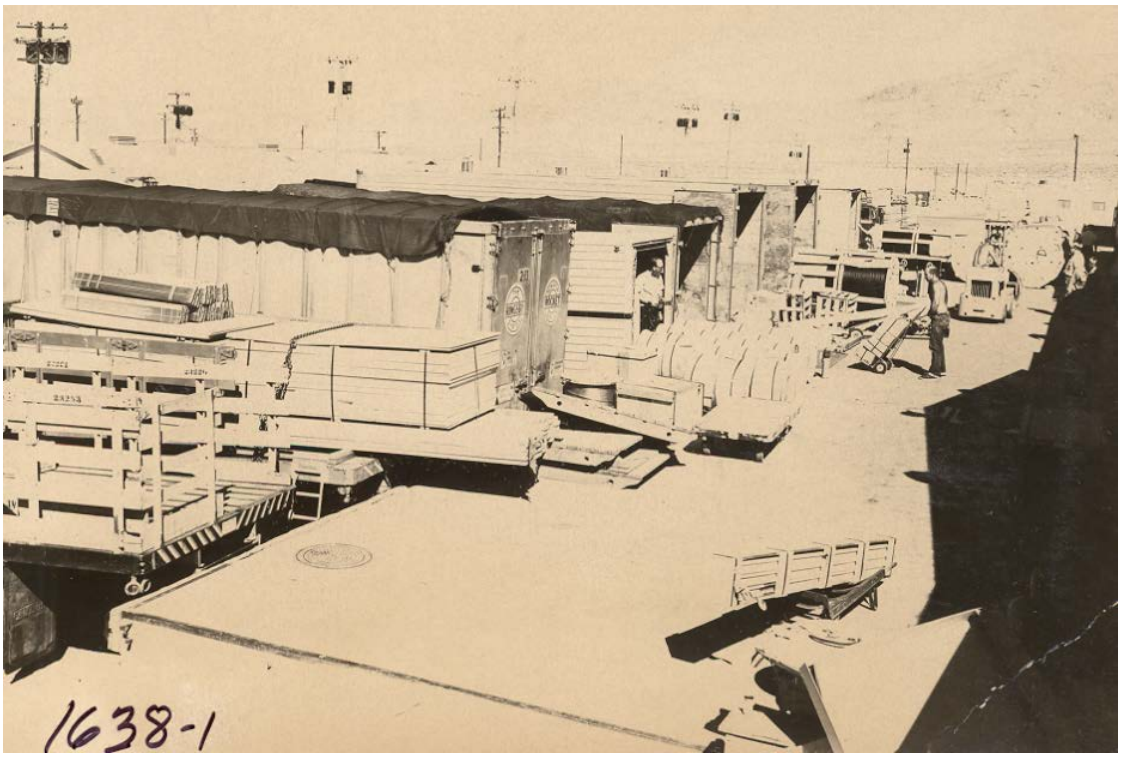

Figure 40. The overcrowded loading dock on Warehouse Row (Warehouses 23-1 to 23-6) was photographed in 1963 to help justify building the massive 23-160 warehouse. Although the warehouses are gone, this dock still exists (REECo 1638-1).

Figure 41. The extent of materials stored in Mercury is indicated in this 1962 photo. The Quonset hut at the left appears to be Warehouse 23-W10, which still exists in superb condition (REECo 1381-11).

Housing

Most of Mercury's early housing, much of which was used through the entire Cold War, is visible today only in the form of foundations. A few relics of this early period remain in demountable wooden dormitories 23-B, C, and D (Block 11). Life in the trailers (formerly on Block 18) or the older dormitories was a truly Spartan existence in which the only personal space was a single bunk (sometimes with another person above or below) in a room shared with one to three other people. Bathroom and shower facilities were shared by two to four in trailers, or too many to count in the dorms. In the summer, inadequate insulation in the trailers required an air conditioner to be kept running the entire time, which in addition to the ubiquitous crickets made ear plugs a requirement for sleeping. Some trailers occupied by long-term residents could be identified by the presence of potted plants, which were the only markings of individualism among any of the housing units (Reno 2018).

The 400 and 600 series dormitories, which represented the height of 1960s base housing design (Blocks 13 and 24, Figure 42), were generally for people from the labs or high in government circles and well beyond the reach of other site workers during the press for housing at the time (Reno 2018). The same situation applied with construction of more dormitories in the late 1970s and 1980s, which finally had private rooms and bathrooms (Figure 28). With the recent reduced demand for base housing and the demolition or removal of the old dorms and trailers, use of the higher-class dorms, which are now decades old, has finally become more democratic.

Figure 42. The 400 Series of dormitories represented the ultimate luxury housing in Mercury during the 1960s through early 1970s (DRI 2017).

Public Services

Mercury has had five mess halls through time. Two of the 1951 demountable mess halls were in the hutment area (Blocks 9 and 13), and were so temporary that they were probably set on wood piles rather than concrete foundations. No evidence of these remains. Also dating to this early period was another pair: 23-110 and 23-112. Concrete foundations for these two buildings are still intact in Block 8. The only mess hall in Mercury today is Cafeteria 23-300 (Figures 26, 27), which is operating far below its capacity with the present reduced work force. Cafeteria fare was of good quality and very inexpensive, although the selection became much reduced on weekends. Food at the Steak House in the Cafeteria compared favorably to any fine restaurant and drinks were served as well,

including margaritas from a slush machine. Prices were kept extremely low, which ensured that the place was always crowded (Reno 2018).

Refrigerated Food Storage was in Building 23-114, which was conveniently located between the two old Mess Halls 23-110 and 23-112 in Block 8. With construction of the new Cafeteria, this location became inconvenient, so a new refrigerated food storage building (23-301) was built behind it.

Foundations remain of the old demountable Hospital (23-100) in Block 10. The "new" Health, Medicine and Safety Building 23-650 is still in use (Block 23, Figure 23). Radiation Safety is located in the hospital building as well. The closely related Industrial Hygiene Building 23-652 is adjacent to the hospital. There is so much foot traffic and cart-pushing between the two buildings that it seems they should have been combined into a single structure.

Large amounts of ice were needed to keep the many field-workers healthy and productive in the hot summer months. Initially, ice was hauled from Las Vegas. This practice was ended with the construction of the Ice Plant (23-170, Block 3) that was centrally located at the intersection of Ranger and the Mercury Highway. The concrete foundation for this plant still exists. Ice from this plant was used to stock a subsidiary Ice House on Warehouse Road for convenience in the northern end of Mercury. CETO crews obtained ice from this house weekly and stored it in refrigerators (along with frozen animal specimens) for use in the field (Reno 2018).

There have been three fire stations through time, all of which are still standing. The oldest station occupied portions of Building 23-109 (Block 7). It moved to a far superior facility at Building 23-425 (Block 12) where it remained throughout the Cold War. This building is visible in the background of Figure 32. Although it is still standing, it is no longer in use because of recent construction of an even larger fire station at the south end of Mercury in Block 21 (23-640, Appendix D).

The Post Office received its permanent home in half of Building 23-525 (Block 16) where it still operates.

Two small laundry buildings have been identified. One is only present as a foundation (23-146) among the foundations of the demountable dormitories in Block 9. The other is what is known as the "Washateria" (23-152), which still stands and was part of the Women's Dormitories (23-103) complex in Block 10.

The early hutment and Quonset hut complexes had communal Wash Houses with shower and restroom facilities. Foundations for some of these Wash Houses are in Block 9 (23-146) and Block 13 (23-1), surrounded by Quonset hut dormitory foundations.

The Mercury Chapel of All Faiths (23-550) was built on Block 17 opposite the Rad-Safe addition to the Health and Safety Building (Figure 43). It was assigned a chaplain borrowed from the DOD. The building was underutilized and converted to office space, destroying most of the character of one of Mercury's more interesting buildings. After that, the small congregations that wished to meet had to make do with facilities such as abandoned Quonset huts.

Figure 43. The Mercury Chapel 23-550 (DRI 2017).

Recreation

In the 1950s, there was no development of any kind south of Trinity Avenue, where the Bowling Alley would later be located. The Tennis Court and Ball Park were already in their present locations in Block 15. Vacant lots were set aside for separate women's and men's recreation areas. A U-plan building (23-113, Block 7) that is slightly larger than the typical dormitories of the time served as a recreation hall, and the Theater in its Quonset hut was popular (23-125, Block 10).

The Master Plan developed by Arthur Benedict Associates noted that facilities in Mercury were very limited and did not provide for "a wide range of diverting interests" (ABA 1962). Their plan recommended outdoor and indoor facilities that would offer recreational opportunities. Recreational facilities programmed for fiscal year 1963 included an Olympic-sized swimming pool and dressing room, and an adjacent bowling alley. The Bowling Alley was to be a noncombustible, permanent structure that would house the bowling lanes and snack bar (ABA 1962).

The Bowling Alley and the Swimming Pool and associated Changing Room were part of the same contract (Figure 27). A gym was under consideration on the same block just east of the pool, but it, along with a proposed Library and Museum, were never built. By this time, buildings were constructed south of Trinity Avenue (Koebig & Koebig Drawings 69267 & 69268, 1963). The eight lane bowling alley and full-service snack bar opened on February 1, 1964 (NNSA/NFO 2013b).

A 1965 overview (Figure 44) shows the core of recreational facilities at Mercury. By the mid-1960s the Recreation Hall was expanded by filling in the wings to form a rectangular building. The only formal outdoor recreational areas continued to be the Ball Park and Tennis Court. The Tennis Court is now also used as a Basketball Court (USAEC Drawing 105, 1966).

Judy Golwyn interviewed a young secretary who lived on site at this time:

It's not a bad life. We have picnics out in the desert, ballgames in our very well-kept sports field, new movies every night at the theatre. Besides, the men out here outnumber us girls about ten to one, and we don't object to that. (*NTS News* March 12, 1965 p. 6)

Test Director Ron Cosimi recalls:

I think all who spent time at the site will remember the raucous poker games in the dorms, the wild softball games, the exploring of the nearby canyons and mountains, the beer drinking at the bowling alley, and the long nights at the Mercury Steak House, and the innumerable pranks. (*National Security Science* Dec 2016:7)

By 1986, Mercury had reached its peak in recreational facilities, which remained essentially the same through the end of the Cold War. Facilities at this time included the Bowling Alley (23-517), Pool and Change Building (23-516), Rock [Lapidary] Shop (Quonset Hut 23-21), Theater (23-125), Gymnasium (23-W4), Physical Condition Track (C305), Golf Driving Range (previously demolished), and the Softball Field, Picnic Area, Tennis Courts, and Basketball Courts at Dell Frenzi Park (C300). The old Recreation Hall (C-113) is now an office and training facility. Mercury had an outdoor Archery Range, which was moved into a vacated Quonset hut near the east side of town by the 1980s. Of these facilities, only the old Recreation Hall, Bowling Alley, Track, and Dell Frenzi Park (minus the Softball Field) still exist.

A 1992 map shows few changes at the end of the Cold War. The Gymnasium had become a Warehouse and the old Recreation Hall was reused by REECo as a support facility.

At present, the only interior recreational facility other than dormitory day rooms is at the Cafeteria, where it is usually available during weekday lunch hours only. The Tennis/Basketball Courts and the Track are still maintained.

Of all of these recreational facilities, only the Bowling Alley and the associated Pool Changing Room were of a design that made them appear different from all of the other utilitarian buildings in Mercury.

Figure 44. Overview of the core area of recreational facilities in Mercury facing south. The well-tended Ball Park is in the foreground. Behind it are the enclosed Basketball/Tennis Courts with the small incipient park to its right with a small trailer. Just beyond are the Pool and Bowling Alley. At upper left is the relatively undeveloped block where the Fitness Track would be located. The large cleared area at the edge of town just beyond Building 23-600 is the golf driving range. Mercury Highway continues to the south where it intersects with U.S. Route 95 (REECo Photo 3028-13, 1965).

Electrical Utilities

One of the most highly visible aspects of Mercury is the forest of wood and steel poles supporting wires for power and communications (Figure 45). The power system for the NNSS is delivered through a primary 138-kV supply line that was originally built by the Nevada Power Company (now NV Energy). The transmission line was sized to accommodate any future load increases to the area and designed to handle increased transformer capacity (Koebig & Koebig, Inc. 1963). A second 138-kV power line connects the Jackass Flats substation in Area 25 to the Mercury switching center (DOE/NOO 1996), and there is an extensive network of power lines covering locations where nuclear testing and other activities have occurred on the NNSS over the years. All power is managed via a switching center located in Mercury.

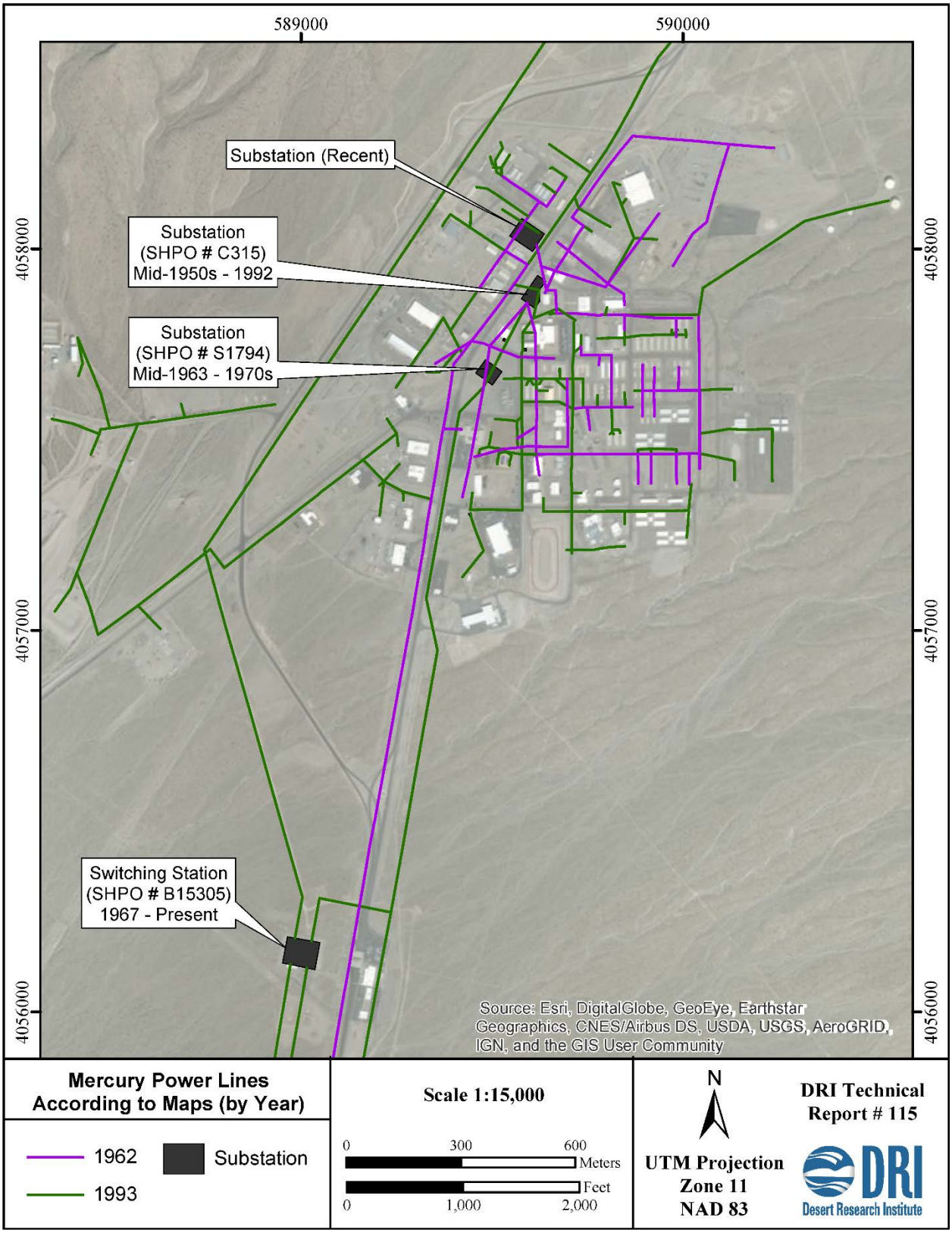

Figure 45. Map of aboveground power lines (S1707). Sources: ABA 1962, REECo 1993.

Initially, the electricity for the camp would be supplied by a power house with diesel engine generator sets with transmission and distribution facilities (AEC 1951a). As of 1955, buildings in Mercury that required electricity included two administration buildings, a services building (housing office, post office, etc.), a fire station, a cafeteria and detached food warehouse, a recreation building, a steam plant, a power plant, four buildings for contractor use, an assembly building (theater), an air weather station, a vehicle maintenance shop, several warehouses, and numerous dormitories (REECo 1955).

The 1962 Master Plan describes the electrical system in Mercury at that time in some detail. The main electrical hub in Mercury was a substation with two transformer banks: one for the forward test areas and one for Mercury. There were two underground feeders from the Mercury transformer, protected by oil circuit breakers, which were routed through a generator switchboard at the Power Plant. One feeder supported higher amperage wiring for equipment that required more electricity to operate, likely located in the Steam Plant and other shops and warehouses, and the other feeder presumably supported offices, dormitories, and other similar buildings. The outdoor distribution center contained seven circuit breakers, one of which provided service to the station at the Power Plant. The remaining circuit breakers were attached to the overhead power line distribution system. At the time, the electrical system in Mercury was highly reliable, with very few power outages occurring (ABA 1962).

Proposed changes to the line in Mercury in 1963 included the addition of new poles, changing the direction of one alignment using different pole types, modifying equipment on several poles to accommodate the electrical needs of new buildings, relocating and removing some poles, and the removal of two existing lines. Provisions were made to ensure the system could be readily expanded as well (Koebig & Koebig, Inc. 1963).

The Power Plant (23-116, Block 5) remained in operation as a supplementary power source even after outside power lines were extended to the site (Figure 46). Its equipment has been removed and the building serves as a warehouse. Mercury has four major switching stations or substations. The equipment from the two historic ones in Mercury has been removed (Figure 46), but the Switching Station (23-1010) at Gate 100 has been modernized and continues to operate (Figure 47). The present Mercury Substation in Block 3 postdates the Cold War era. In addition, small substations are associated with most of the buildings in town.

Principal nodes in the communications system are the Telecommunications Building 23-725 and the Radio Communications Building 23-726 (Figure 21, Block 14). There are yards, particularly C303 (Block 19), with large amounts of equipment and supplies for installation and maintenance of above- and belowground communications. A number of communications trailers and portable towers are also present in the yards.

Figure 46. The Power Plant 23-116 and foundations of the Mercury Substation (C315) (DRI 2017).

Figure 47. The Gate 100 Switching Station 23-1010 (DRI 2017).

Heating/Cooling

The initial steam and heating distribution system originated at the Steam Plant (23-115), also referred to as the Boiler House, was built in 1951 and located on the southeast corner of Snapper Street and Crossroad Avenue. Pipes carried steam to buildings south of the plant to offices and dorms down to Sandstone Avenue. A map produced the following year (Silas Mason 1952a) shows the system to have been extended to dorms south of Sandstone Avenue, to buildings and dorms on the west side of Buster Street, and north to new buildings and warehouses. As of 1955, the buildings that had steam heating in Mercury were two administration buildings, a services building (housing office, post office, etc.), a fire station, a cafeteria (which also used steam for cooking), a recreation building, an assembly building (theater), an air weather station, several warehouses, and numerous dormitories (REECo 1955). By 1962, pipes for the heating system had been installed to reach new buildings north of the warehouses, and additional dorms southeast of Sandstone Avenue and Buster Street.

According to the Master Plan for Mercury produced in the early 1960s (ABA 1962), buildings and water were being heated through the Steam Plant with four boilers that were capable of producing 45,000 pounds of steam per hour at a rated working pressure of 125 PSIG (pounds per square inch gauge). The boilers were butane-started and operated, and ran on number 5 fuel oil. Steam was sent underground through prefabricated, insulated, black steel lines to a utility room in each building on the grid, where it was attached to a domestic hot water storage tank. A converter supplied 180° water for heating the building. Condensate was collected in traps in the utility rooms and flowed via a gravity system through return pipes to the boiler plant. Buildings that could not return condensate through the gravity system depended on pumps to move water through the pipes. This system required multiple pipes to and from buildings, multiple condensate traps, and several pumps, all of which needed aggressive maintenance to operate properly. By 1962, many of the original pipes used to return condensate had become so highly corroded, as much as 2,000 gallons of water per day had to be pulled from the potable water system to make up the loss. The boiler system was also very expensive to operate for half of the year because it had to be maintained throughout the summer despite its minimal usage.

Because of the multiple problems with the steam distribution system, it was recommended by an engineering group in 1963 that the pipes and equipment be modified to use a High Temperature Hot Water (HTHW) system. The four boilers were to be refitted to operate with HTHW, and three would be kept in operation with the fourth maintained on stand-by in case of occasional high demand. The new system would generate hot water in a closed heat exchanger with an integral sub-cooled zone and be pressurized with inert gas. Equipment in the steam plant would be shifted, replaced, or adjusted to accommodate the new system, and additional fuel oil pumping capability would be installed. The designed output of the modified plant would be around 35 million BTU per hour. The distribution system would use the existing steam pipes where possible, with hardware upgrades and the installation of new piping as needed. New trenching would be placed in road shoulders where feasible. The capacity of the four-boiler system was expected to be exceeded in the near future, and therefore it was also suggested that provisions be made to easily accommodate additional HTHW generators as demand increased, most likely by adding on to the boiler plant on the south side (Koebig and Koebig 1963).

By 1965, the HTHW system had been added and substantially expanded (Koebig and Koebig 1965). The short section of the steam system on Ranger Avenue was bypassed, and the new pipes extended to Jangle Street to the east and across Mercury Highway to the new motor pool building. Pipes were also added south along Jangle Street and along Mercury Highway to Trinity Avenue to reach several buildings that were part of the new Master Plan layout. The expansion of the heating system up to 1965 is shown in Figure 48.

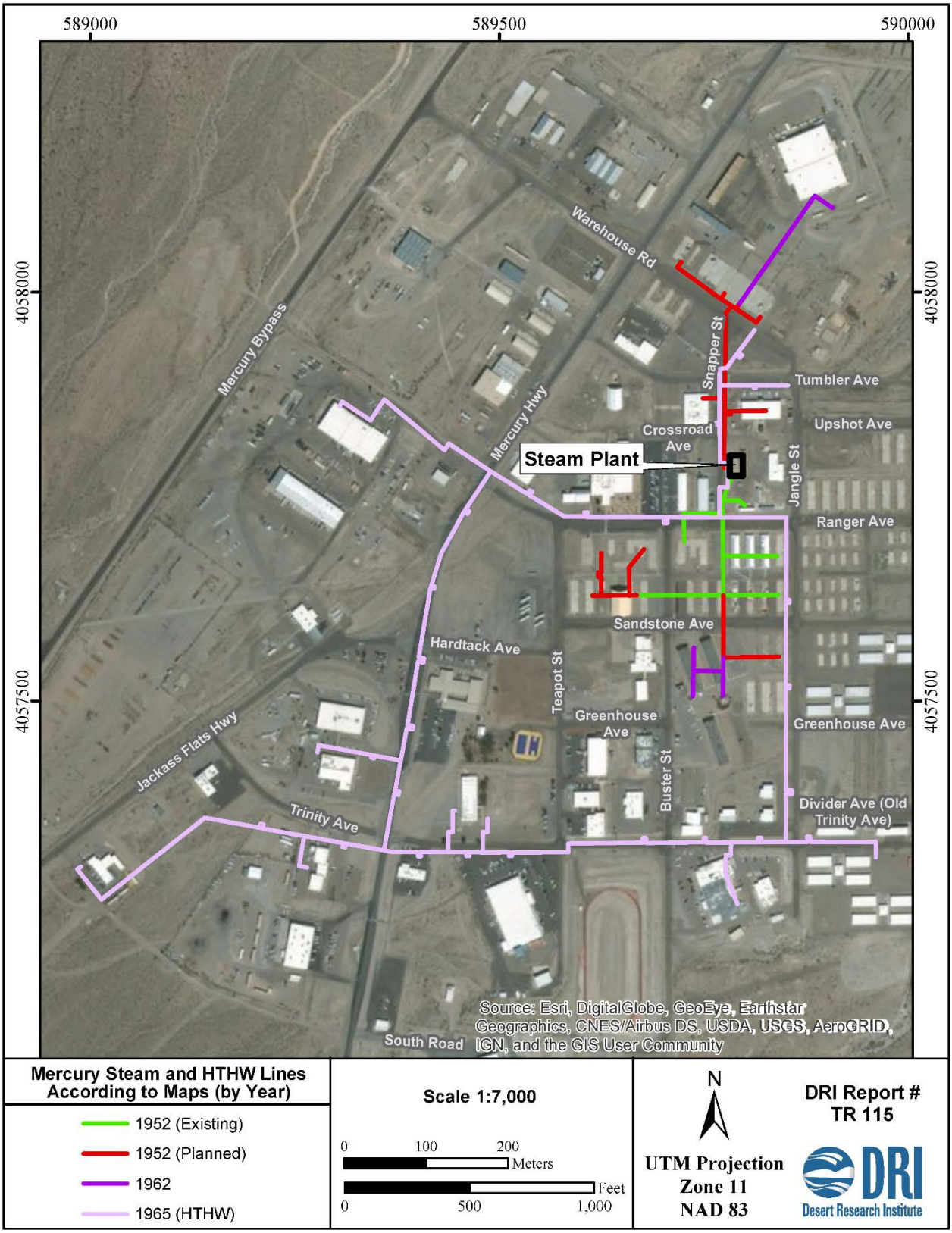

Figure 48. The Mercury hot water and steam heating system (S1766) based on maps and engineering drawings. Sources: Silas Mason (1952a); ABA (1962), Koebig and Koebig (1965).

Only foundations remain of the Steam Plant (23-115, Block 8) that initially made the steam for the community heating system. It was converted to generating hot water instead in the 1960s (Figure 49). The extent to which the HTHW system was fully expanded and still being used as of 1992 cannot be determined without additional archival review. Most buildings now have their own heating systems, but there are two stand-alone boiler buildings. Building 23-753 provides hot water to the two large Vehicle Maintenance Shops 23-750 and 23-751 (Block 19). Building 23-754 supplies the Cafeteria 23-300.

In contrast to the communal heating system, cooling has been accomplished by means of large numbers of room or building air conditioning units of various sizes and designs, including evaporative swamp coolers, chillers, and more recent combined heating and cooling units. Other than rooftop units hidden by parapets, most of the units are quite obvious and many were added after construction, to the detriment of the overall integrity of the architecture. A further impact on the architecture is the multitude of bright-yellow pipe railings recently tacked on the roofs of most buildings in Mercury to protect workers servicing rooftop mechanical devices, many of which are cooling systems.

Figure 49. Steam Plant 23-115 in 1955 and its foundations (REECo 1955 [upper photo]; DRI 2017 [lower photo]).

Sewage

The original sewage system built in 1951, which used gravity as the primary means of transportation, connected the buildings south of Warehouse Avenue, west of Jangle Street, and north of Sandstone Avenue to a small sewage treatment plant west of the town. Lembke Construction Company and Clough and King Construction Company were jointly awarded a contract in July of 1951 to build several facilities, including the sewage treatment plant (AEC 1951b). In 1952, the buildings north of Warehouse Avenue and north of Greenhouse Avenue were added to the system.

As of 1962, pipes connected all Mercury buildings, except 23-128 and 23-129, to a junction west of Mercury Highway. By this time, buildings south of Greenhouse Avenue had been added, as well as facilities eastward as far as the DOE buildings east of Nougat Street and to the current northern extent of Mercury on both sides of the Mercury Highway.

The main collecting system within town had pipes with an 8-inch diameter, but they were buried at a relatively shallow depth of approximately 3 ft. At the junction west of the highway, the flow was split into two sewers, one 8-inch and one 12-inch, that ran to six adjacent sewage lagoons approximately a half mile to the southwest. The outlying sewer pipes were buried 4-6 ft deep. A gradient of 2.5 percent between Mercury and the treatment plant ensured the sewers could reach an appropriate cleansing velocity. The sewage lagoons had been built to handle overflow, but, according to the Master Plan, they were insufficient to handle the amount of waste that was being produced. Alternately, Koebig & Koebig reported there were no operational problems with the existing system. Waste from Buildings 23-128 and 23-129 was separately collected at a septic tank and leach field. (ABA 1962, Koebig & Koebig, Inc. 1963)

Koebing and Koebing (1963) recommended that the new collecting pipes in Mercury have an 8-inch diameter and that the new sewer pipe leading to the lagoons from a manhole at the intersection of the new Mercury Bypass and Jackass Flats Highway have a 12-inch diameter. Trenches to install new pipes would be excavated to an average of 8 ft. The new system would be constructed of vitrified clay material and pipes assembled with mechanical compression joints using plastic gaskets. Manholes would be placed at the surface with precast concrete rings and cast iron frames and covers.

In May of 1963, the AEC announced the award of a contract to C. H. Leavell & Co. of El Paso, Texas, to undertake a number of construction projects, including work for sewage collection (Las Vegas Review-Journal 1963). Between 1962 and 1967, additional warehouses and buildings west of the highway were connected to the existing sewage lines, as well as new buildings constructed between the Mercury Highway and Jackass Flats Highway, and south of Trinity Avenue. A small self-contained sewage system was built to accommodate buildings near the new Main Gate in 1965. The only expansion after 1967 was to connect the entire system to a larger sewage lagoon southwest of the older one (Figure 50).

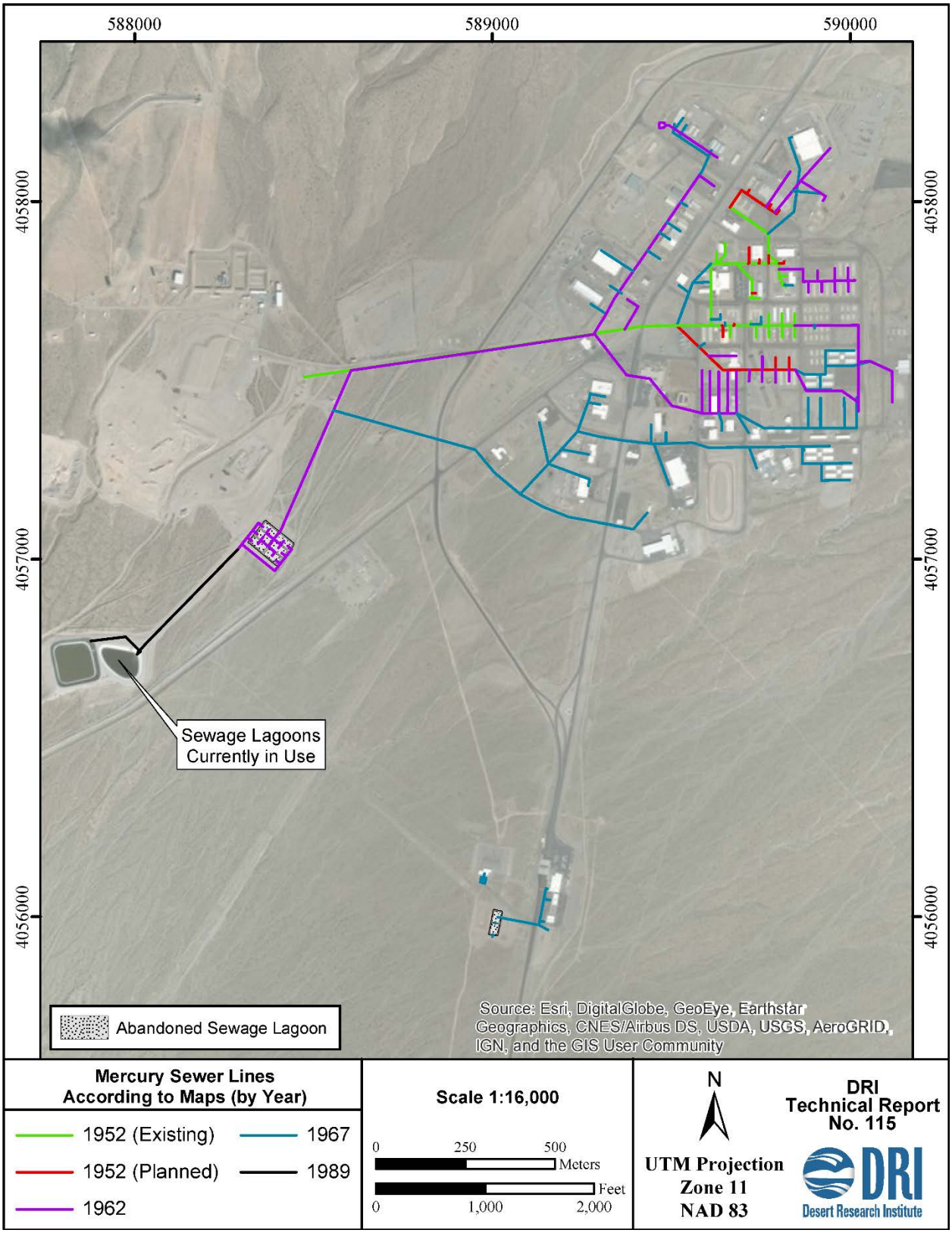

Figure 50. Map of the Mercury sewer system (S1764).
Sources: Silas Mason 1952b; ABA 1962; Holmes & Narver 1967, 1989.

Initially most sewage was processed in the Sewer Plant 23-1200, west of Mercury. This plant represented the state of the art in small town systems at the time and served the community throughout the Cold War. Recent improvements in technology have allowed sewage processing at the lagoons, so the old plant has been dismantled, leaving foundations (Figure 51). The two major lagoons are southwest of Mercury and a third smaller one is at Gate 100.

Figure 51. The Mercury Sewer Plant 23-1200.

Solid Waste Disposal

The burning area and original Landfill were likely among the first facilities constructed in 1951. It started as a series of trenches in which waste debris was placed and covered. Over time, the facility expanded southward to the edges of the extensive complex of sewage lagoons and is continuing to expand today.

The entry to the Landfill is marked by foundations for a small collection of buildings that have been present at this location from at least 1952 and more likely 1951 (Figure 52). Building 23-800 was known as the "Sanitary Quonset" at least as early as 1963. It appears to have been a straight-sided Quonset. The building was removed sometime after 1992. The foundation for a small steam generating plant is beside the Quonset hut. Also present is a small portable building that now serves as the Landfill office.

Figure 52. Entry to the Mercury Landfill 23-800 with Quonset hut foundation in foreground (DRI 2017).

Water

Like a Medieval fortified town, Mercury is protected by a major moat to guard it from sudden attack, but in this case the enemy is the elements. With its location on a bajada, Mercury is subject to major episodes of flash flooding, even though average rainfall is low. A complex system of earthen ditches has been constructed to protect Mercury and the associated facilities from storm water damage. The entire system of drainage controls in the district was recorded as a structure (S1765), as shown on Figure 53. Some of the ditches were quite large, such as the ditch which protected the northern edge of Mercury (Figure 54).

Most of the ditches were constructed in 1951. Primary ditches provide protection from runoff reaching developed areas from watersheds outside Mercury. Interior ditches channel runoff that accumulated within the borders of the primary perimeter system. In all, 21 separate ditches were identified as parts of this drainage system. Most surface drainage within the primary ditch perimeter is handled by simply allowing the water to flow over the paved and gravel surfaces to eventually be gathered by one of the ditches for removal from the protected area. Minimal grading and shallow local ditches serve to protect individual facilities.

The primary protective ditches on the north and east sides of Mercury were excavated concurrent with initial camp development in 1951, and were fully operational at least by 1952. Most culverts are corrugated galvanized steel with a protective tar coating. Some culverts are concrete. In some instances, the ends of the culverts are equipped with retaining walls, wing walls, aprons, flared metal end sections, or riprap. A few ditch segments are protected with stone or recycled concrete riprap.

The ditch system was expanded in 1965 to accommodate growth of the community and construction of the Mercury Bypass and Gate 100 complex. Additional changes were made in 1973 with ditching to protect the Landfill area and additional facilities constructed west of Mercury. Aside from these changes, the ditch system has continually been maintained and upgraded to gradually handle storm water events, which routinely overwhelmed the capacity of the system at least into the mid-1960s (ABA 1962:40).

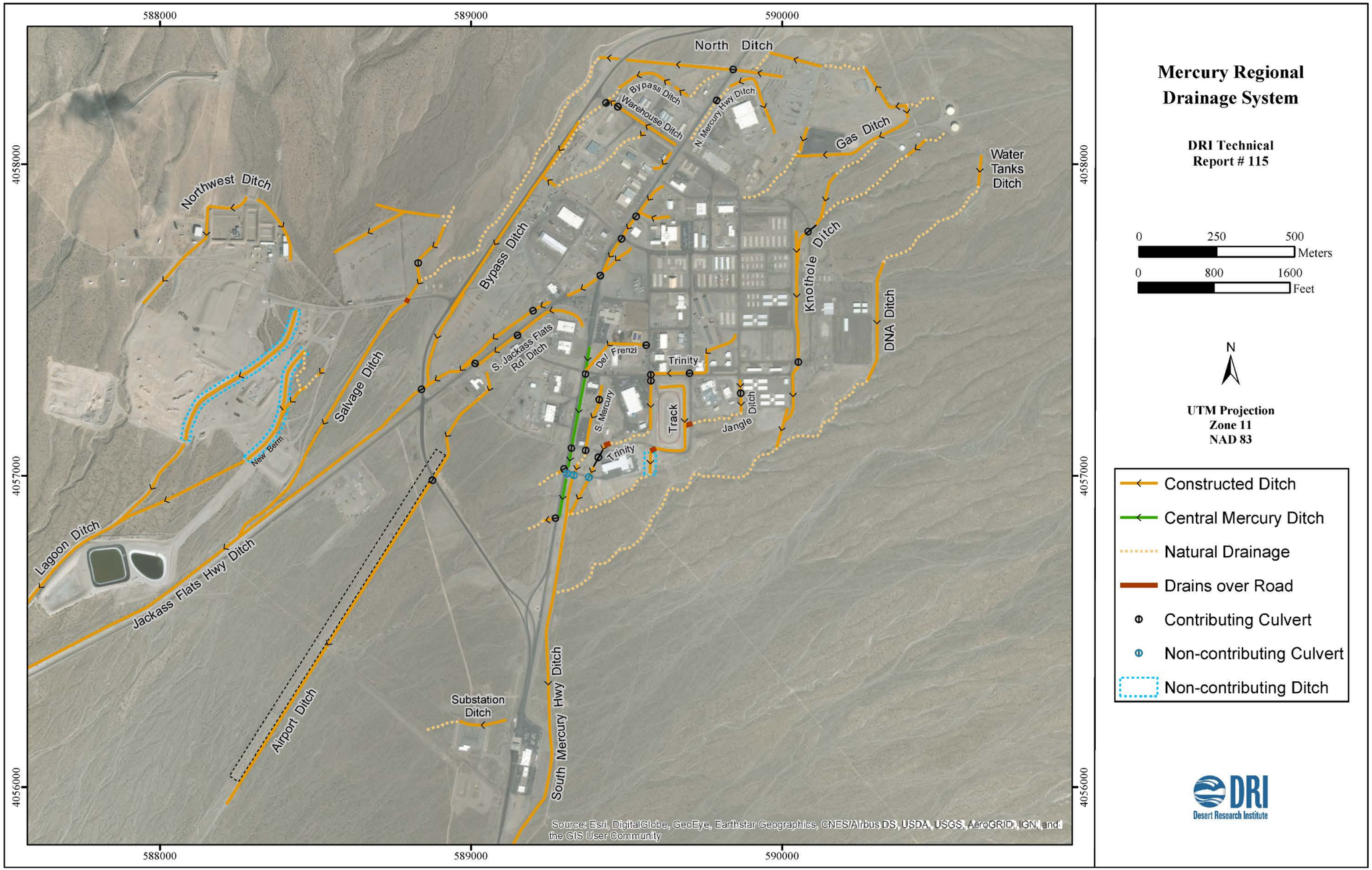

Figure 53. Map of the Mercury storm water drainage system (S1765).

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Figure 54. North Ditch between Mercury Highway and Mercury Bypass (DRI 2017).

Access to potable water became a high priority in 1951. The AEC announced in November of that year that Pipe Line Construction Company of Riverside, California, had been awarded the contract to build approximately ten miles of pipeline to carry water to Camp Mercury from wells in Frenchman Flat, as well as installing pumps and building pump houses and reservoirs. Holmes and Narver served as architect-engineer (AEC 1951c).

The initial water distribution system at Camp Mercury connected approximately 20 buildings to a single concrete tank on the hillside northeast of town (Figure 55). The main water line through the camp was made of 8 in cast iron pipe, and the system included eight fire hydrants. The buildings were within a square that roughly corresponds to the current boundaries of Tumbler Avenue to the north, Jangle Street to the east, Sandstone Avenue to the south, and a north-south line on the west side that runs through the middle of the current cafeteria building. An expansion being planned in 1952 would extend the water line north to where Warehouse 1 once stood near the east corner of Warehouse Road and Mercury Highway, and eastward to beyond current Knothole Avenue.

As of 1955, buildings in Mercury that had water and sewer connections were two administration buildings, a services building (housing office, post office, etc.), a fire station, a cafeteria, a recreation building, a steam plant, a power plant, four buildings for contractor use, an assembly building (theater), an air weather station, a vehicle maintenance shop, several warehouses, and numerous dormitories (REECo 1955).

Figure 55. Concrete 100,000 Gallon Water Tank (S1751).

According to the 1962 Master Plan, water was being supplied to Mercury from three wells in Frenchman Flat via 8-inch and 6-inch cast iron pipes. The system also required four booster pump and storage reservoir stations. Two water tanks, which could hold 250,000 and 100,000 gallons, were rarely filled to capacity because of pipe friction and elevation differentials. At that time, the water provided by the system was narrowly meeting the needs of the camp and provided no surplus in case of a fire. (ABA 1962).

Proposed changes to the water system in Mercury in 1963 included construction of a new covered welded steel tank with a 1.5 million-gallon capacity, adding new supply mains and dry barrel fire hydrants, reinforcing existing mains, and adding looped (two-way) systems for the new warehouse and motor pool areas. Pipes used for the distribution system would be either asbestos-cement with cast iron fittings or cement-lined cast iron. A booster pump station would send additional water from Army Well No. 1 near the southern boundary of the NNSS through an 8-inch diameter pipe along the east side of Mercury Highway to a distribution system on Trinity Avenue. The pipe to be used for water transmission from the well would be cement-lined and cement-mortar-coated steel with welded joints that was capable of handling working pressures from 150 to 350 psi based on reach (Koebig & Koebig, Inc. 1963). C. H. Leavell & Co. of El Paso, Texas, was awarded a contract in May 1963 to construct facilities related to water pumping and distribution (Las Vegas Review-Journal 1963).

The only information available for this project regarding the water system after 1963 comes from maps. These show the system was expanded to reach all new permanent buildings in Mercury, as well as out to the Main Gate to the south and to the Sewer Plant and additional facilities constructed to the west by 1979, and to the Bulk Fuel Station to the southwest by 1992 (Figure 56). According to the 1979 map, the types of pipes throughout the system included asbestos cement, steel, cement-lined or coated steel, cast iron, galvanized iron, and PVC.

Although potable, the water was not very palatable. As a result, immense numbers of glass five-gallon jugs of drinking water in plastic crates were imported and stacks of them were to be found everywhere. The lab and administrative workers at CETO refused to use the tap water for any drinking purpose, using water from the lab water filtration machine or bottled water even for making coffee (Reno 2018).

The potable water distribution system (S1763) is in need of extensive upgrades in the older parts of Mercury. The system has been expanded, including another water tank constructed after 1992 to meet the needs of new construction activities. Pipes to buildings that are no longer in use have been closed off and left in place.

Ground Transportation

It is important to keep in mind that Mercury is the major node in a sitewide road system that includes 400 miles of paved and 300 miles of unpaved roads (Carothers and Knipes 2003:16). The main road into the NNSS is Mercury Highway. Its southern extent begins at the intersection with US 95 in Mercury Valley. It continues, generally northward, for over 34 miles, ending roughly in the northern portion of Yucca Flat.

Access roads to the camp (now Mercury) and the Frenchman Flat forward area were hastily constructed in early 1951 to accommodate the first series of tests, which occurred in late January and early February (AEC 1951a). Figure 57 shows the expansion of the Mercury system over time. By the early 1960s, Mercury Highway was especially congested in the area of Mercury because it was the only thoroughfare connecting US 95 to the test areas and was also a main transportation route within the town. Engineering evaluations (ABA 1962; Koebig & Koebig 1963) recommended the construction of a bypass to divert traffic around the campsite. When the Bypass was constructed in 1965, Warehouse Road was extended to meet it, allowing trucks to circumvent the town to reach the warehouses (Figure 58). The Bypass continues north and merges back into the Mercury Highway to accommodate traffic headed directly to the northern forward areas. The highway to Jackass Flats is over 19 miles long. It begins in Mercury and ends near the center of the Flats. Originally named Road "A," its construction began in 1957 and was completed by May 1958 (Burns & McDonnell Engineering 1958). Three segments of the highway in the District are abandoned. The longest is a portion that used to provide a shortcut from the Lower Sewage Lagoon to just south of the Main Gate. Only a short segment of this road, which provides access to the electrical substation near the Main Gate, is still maintained. The pavement along the rest of the road is cracked and eroding. A barricade prevents access to the remaining segment, which forces traffic coming from the direction of Jackass Flats to use the Mercury Bypass and approach the Main Gate from the north.

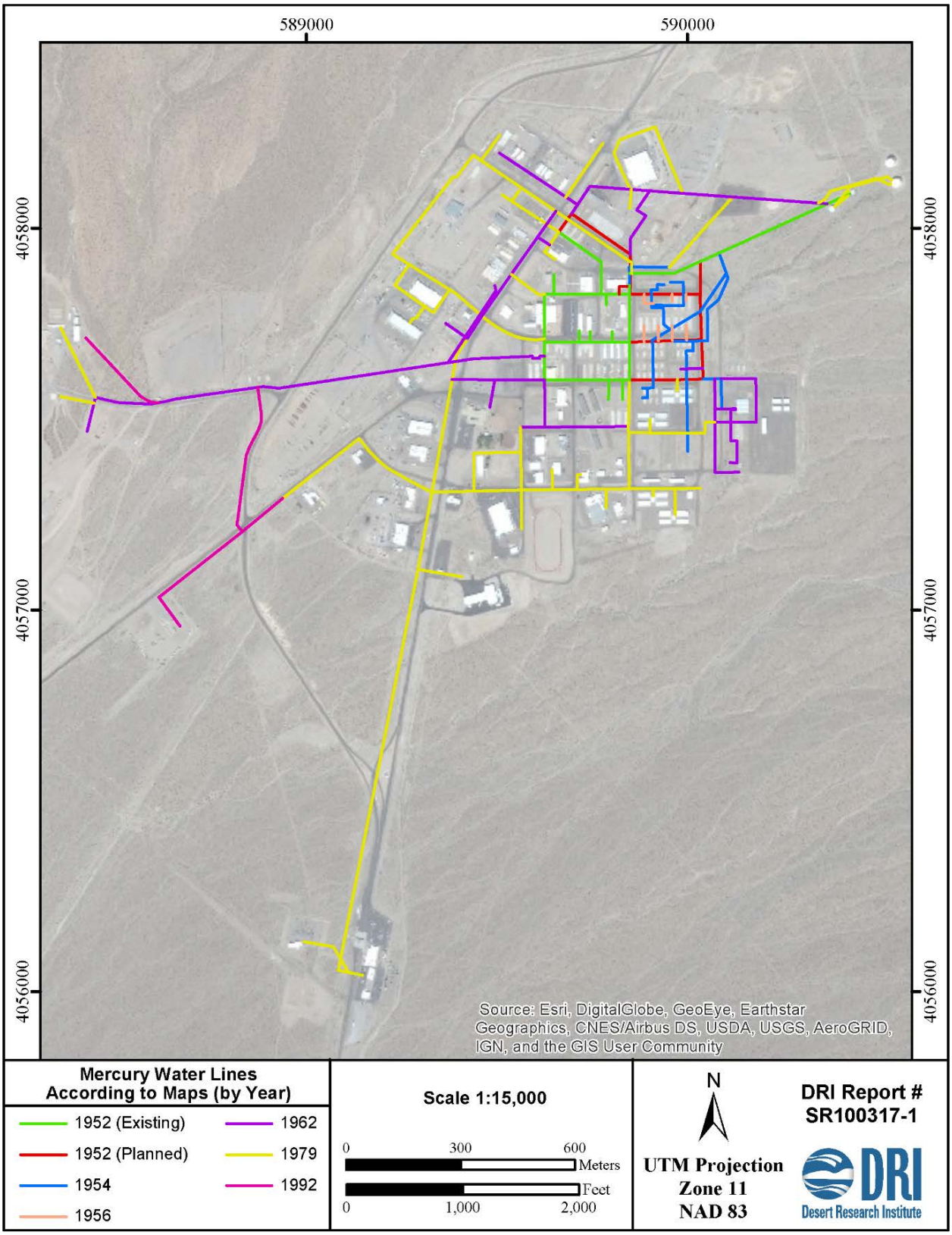

Figure 56. Map of the Mercury water system (S1763). Sources: Silas Mason 1952c, 1954; Reynolds Electrical 1956; ABA 1962; Holmes & Narver 1979; Raytheon 1992.

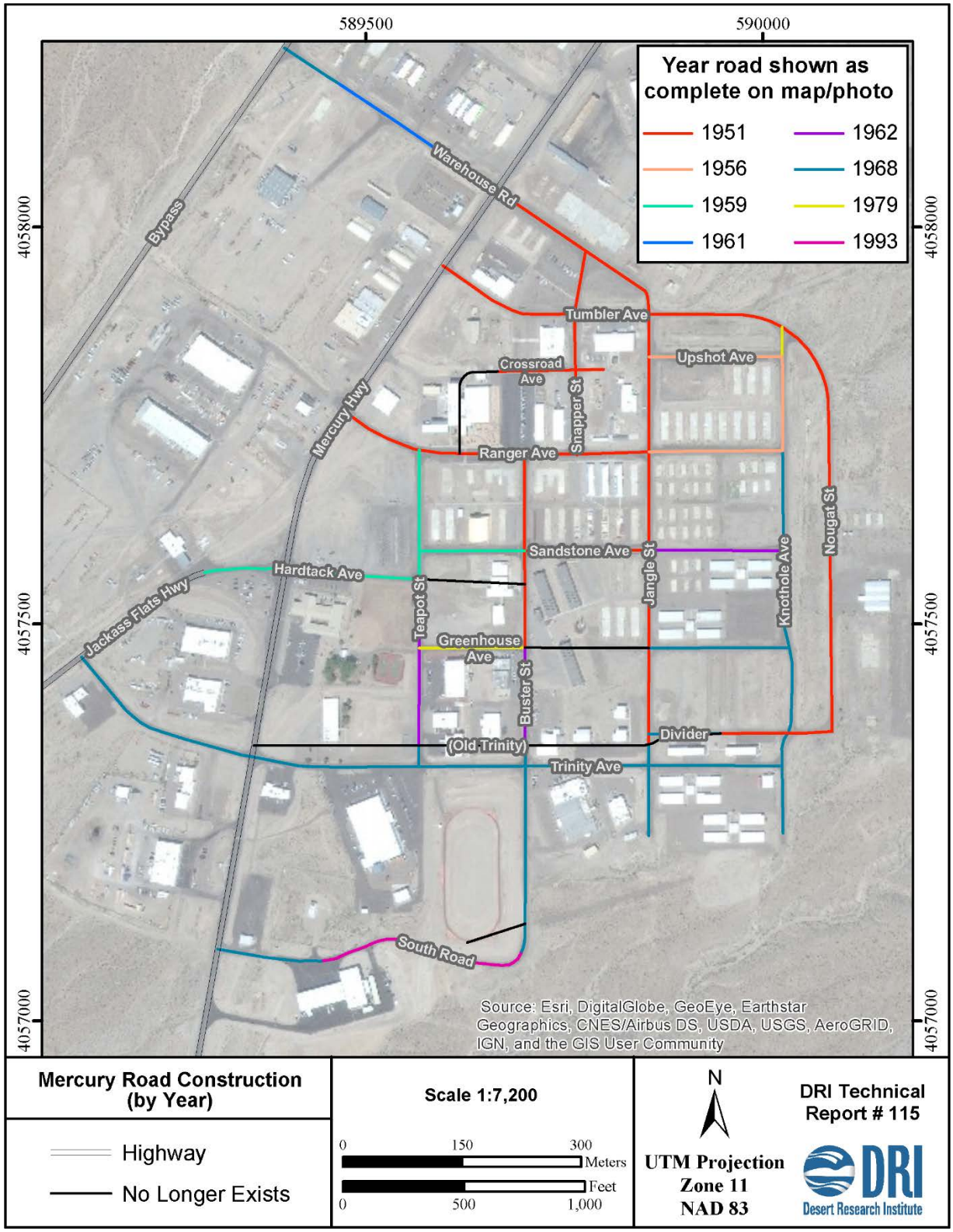

Figure 57. The Mercury road system. Sources: ABA 1962; AEC 1968; Holmes & Narver 1979; REECo 1951, 1956, 1982, 1993.

Figure 58. Junction of the Mercury Highway and Bypass south of Mercury (DRI 2017).

The two shorter abandoned segments occur in Mercury where the northeastern extent of Jackass Flats Highway meets Hardtack Avenue. Prior to the abandonment of these segments, southbound traffic on the Mercury Highway used a gradual curve to turn on to Jackass Flats, and traffic turning from Jackass Flats Highway to go south on the Mercury Highway could use a wide-arcing right turn (located north of Building 23-726). Only the highway segment that meets Hardtack Avenue is maintained. The shorter abandoned segments have been blocked on one or both ends.

In almost all cases, the roads within Mercury are two-lane asphalt with abundant turnouts for bus stops or parking. They lack medians, landscaping, or other efforts to improve their aesthetic quality and in most areas they do not have sidewalks or cement curbs. There are no stop lights, but there is a limited amount of area lighting from utility poles generally mounting cobra fixtures. Most streets are named after nuclear tests. In some areas of Mercury, surface drainage is allowed to flow right over the roads. In areas of higher storm water volume, there are ditches, some of which are improved with riprap. In most places, culverts pass under the roads for storm water. Additional parts of the ground transportation system in Mercury are the Commuter Bus Parking Lot (C301, Block 15) and many parking lots throughout town are paved in asphalt or gravel. Paving on some of the older lots, such as C296 (Block 9), has nearly disappeared.

Air Transportation

Presently, the only active air transportation in Mercury is the nearly abandoned heliport at the southeast end of town (S1748). Remnants of the older heliport are now mostly covered by a pile of asphalt in a materials yard. It was only after considerable research that we were finally convinced that the Liaison Airstrip (S1747) was not actually an extension of the South Road (Figure 59). After its

abandonment, but before more recent road cuts and other disturbances, there is little doubt that it did indeed serve as an extension of this never-completed portion of what could have been Mercury's ring road. The Mercury Airfield (26NY15777) was not much more elaborate than the Liaison Airstrip. It too was paved with the poor-quality asphalt used throughout most of Mercury during the 1950s and 1960s, which by now has allowed nearly all of its bitumen content to leach out. It appears to have lacked amenities such as a tower and landing lights. Aircraft tie-down anchors, a wind-sock pole, and a fueling area were identified alongside the runway (Figure 60).

Figure 59. Liaison Airstrip (S1747) (DRI 2017).

Figure 60. North end of the Mercury Airfield (26NY15777) (REECo 1296-11).

Other Resources

Few resources fail to fit into one of the functional categories. Research to date has not identified the function of one foundation for a small gabled building (C326). A flagpole and associated bladed lot (S1754) could likewise have been used for a number of functions. Similarly, a trailer park (C294) could have served a great many functions through time, none of which have been identified from available documentation.

Character-defining Features

Radiological Experimentation and Controls

Throughout the Cold War, site workers were constantly aware of the presence of radiological materials in the vicinity. Mercury's architecture reflects this in various ways, such as the presence of shelters, facilities for storing radiological materials, facilities for testing for contamination, decontamination facilities, radiological effects experimentation facilities, and medical facilities equipped to cope with radiological accidents. Of these specialized facilities, one of the most imposing is the Radioactive Material Control Facility (RAMATROL), Building 23-180 (Block 1). Facilities were also available for processing the ubiquitous personal dosimeters worn by most site workers. Although they are also related to other threats, the siren tower and the various evacuation marshalling areas are closely related to the potential radiological hazards. All of the laboratory buildings in Mercury were directly involved in experiments regarding radiological materials in various forms.

Security

Concern over the security of operations has always been important at the site, and Mercury has always been the center for security at what is now the NNSS. The security force resembled a small-town sheriff's department until the 1980s (Figure 14). At that time, infiltrators onto the site and increasing domestic threat levels led to the change to camouflage uniforms, as well as much more capable vehicles and weapons systems. Security systems at Mercury include several layers of fences, gates, and checkpoints to gain access to various areas, the badging office, and administrative and training buildings. In addition to the security contractor, which initially was Federal Services Inc. and later was Wackenhut Security Inc. (WSI) during the Cold War period, additional security was and continues to be provided by the Nye County Sheriff's office, which has long maintained an office in Mercury. Another layer of security was provided by Air Force security, because much of the NNSS borders the testing ranges of Nellis Air Force Base, which are currently part of the Nevada Test and Training Range (NTTR).

Modern Utilitarian Architecture

Starting from nothing in 1951, Mercury was built at the height of the postwar Modernist movement in architecture. Its ethos of functional simplicity was a perfect match for the requirements of the base, so it was used without exception (Center for Land Use Interpretations 13). There have been no attempts to introduce other styles of architecture onto Mercury, making it an exceptionally pure collection of Modernist architecture.

Horizontal Development

Mercury is located on a vast tract of unimproved land and this land has been developed in a manner that has emphasized horizontal, low-density growth rather than intensive nucleation. Most of the buildings are one story and they are provided with extensive surrounding lots for parking and for materials storage. Basements are almost nonexistent. This pattern of dispersed development extends far beyond the town itself to include extensive landfills and liquid waste disposal areas, which cover an expanse of land approximately a fifth the size of the main developed part of Mercury.

Automotive Culture

Mercury is like many suburban light-industrial or commercial areas in that it is composed mainly of isolated buildings surrounded by on-grade parking lots and streets. Its urban planning completely lacks any intent of creating centers for public interaction, which would be seen in a normal town development. It was also and continues to be a commuter culture that has made extensive use of buses both between Mercury and Las Vegas and between Mercury and the forward areas. In the 1960s, a total of 56 full-size buses were employed on the daily run between Las Vegas and the test site (*NTS News* March 12, 1965).

Color

Camp Mercury's buildings were originally pale green or unpainted metal. From the 1960s on, the buildings gradually took on other colors in a deliberate attempt to get rid of the universally disliked green as part of the implementation of the 1962 Master Plan. The paint changes took place gradually as the maintenance schedule required, but by mid-1964, the wooden Cafeteria was lemon yellow, 23-108 was white, 23-123 was beige, Rad-Safe was light buff, Women's Dormitory 23-103 was lemon yellow, and Women's dormitory 23-104 was lime green (*NTS News* 7/3/1964). A series of photos taken by DRI in 1999 shows many of the buildings still either as unpainted metal or polychrome. Now most of the buildings and structures are coated a uniform tan (Figures 10 and 61).

Figure 61. Dormitory buildings 23-B through D retain their pastel coloring (DRI 2017).

Cleanliness

In common with military bases and other controlled communities, Mercury has almost no litter and no graffiti. This cleanliness extends to a complete lack of the pet waste, which is so common in normal communities. It almost lacks the ring of casual dumping that is common around other Nevada communities. From the very beginning, it had an engineered landfill. Materials stored in outside areas are organized carefully in rows. There are no haphazard junk piles on any of the lots.

Impersonal

Throughout most of the Cold War, the only architectural element in Mercury to be associated with a person was the Dell Frenzi Park. That name was accorded by a popular action of the residents to honor the person most responsible for development of the park rather than formally by the DOE. Streets were named after testing events. In nearly all cases, buildings only had numbers (only a few also had signs proclaiming function as well). The only examples of buildings named after persons were some of the later laboratory dormitories (23-526 Campbell Hall; 23-527 Randy Cooper Hall; 23-529 Viney Hall; 23-532 Guido Hall), which exemplify the special status that the labs held during the Cold War. The names now associated with several other buildings were assigned after the Cold War.

Despite the impersonal built environment, accounts by people who worked at the site during the Cold War universally note the sense of community, comradeship, and intense purpose shared by site workers at all levels, which is common in military situations. In general, the work was seen as urgent

and extremely important for national defense. This made for the kinds of bonds found on other battlefields, which is no accident, because as DOE historians Terrence Fehner and F. G. Gosling (2006) noted, the NTS was a "battlefield of the Cold War." For many that worked there, particularly in the early years before many radiation controls were put into place, the risks could be as high as on any other battlefield, even if the effects could take years to make themselves known (Carothers and Knipes 2003).

Aboveground Utilities

From a distance, Mercury is covered by a forest of utility poles forming an extensive complex of power and communications systems through and within the town (S1707). These poles are supplemented by major electrical stations with their mazes of galvanized steel towers. Dave Sundberg has provided a vivid description of their visual impact: "The whole works seems hopelessly tangled in telephone wires and power lines, strung from a jungle of ugly poles" (*NTS News* March 12, 1965).

Lighting

Seen from a distance at night, Mercury is a brightly lit spot on the desert. A tour of the town at night shows that this impression is somewhat misleading. It is actually a remarkably dark town. The reason for this is that Mercury is nearly abandoned at night after most of the workforce departs. In many of the outlying areas of Mercury, there is barely enough light to see to walk at night. The cobra lighting along the Mercury Highway and main streets does not conform to normal city illumination standards. Light fixtures are spaced so far apart that the ground is barely illuminated when halfway between them. Lighting is further muted by the use of amber lights on many buildings and on the pole-mounted fixtures in some of the dormitory parking areas.

The light that is so prominent from a distance is concentrated in the few areas that need to function 24 hours a day, including the Main Gate complex, the Motor Pool entrance with its gas station, bus stops, the fuel station, the Operations Control Center (OCC) that monitors all NNSS activity at all times, the Hospital, and the front entrance of the Cafeteria where the vending machines are located.

This general lack of illumination extends to signage. A few critical signs, such as for OCC, are minimally lit by floodlights. Ordinary building signs are not illuminated. The only backlit signs are the small ones installed at six of the dorms, as discussed below.

Signage

A hallmark of the entire test site during the Cold War was the distinctive signage. These metal signs had black lettering on white background and were produced by the REECo shops in Mercury. They are a fast-dwindling resource because they are being replaced by modern signs (Figure 62). The sole peculiarity in signage is that the labs created small backlit stained glass signs for their dormitories. Creation of handmade, stained glass signs on the site was initiated by Robert Brownlee (2016).

Figure 62. A typical hand-painted REECo sign and a stained glass sign at dormitory 23-535 (DRI 2017).

Xeriscape

Unlike Nellis Air Force Base, which formerly had fairly extensive green space and only recently has switched to a comprehensive xeric landscaping plan to conserve water, Mercury has always been characterized by a lack of plantings. Aside from asphalt, the place has expanses either of gravel-rich alluvium or gravel-covered areas. Because the gravel was mined from alluvial sources near Mercury, it is often difficult to distinguish where gravel has been applied, particularly if it has not been replenished recently. Very small garden plots are adjacent to selected buildings, some of which have formal planter boxes. In even fewer cases, red cinders or contrasting color gravel and cobbles have been laid into these formal garden areas. The oldest surviving garden is at the entrance to the DOD compound (23-210, Figure 63). Not surprisingly, similar Joshua tree plantings and rock alignments were constructed in nearby Camp Desert Rock as well (Edwards 1997:163). By far, the most extensive desert garden is the one adjacent to the Cafeteria (Building 23-300), which is carefully maintained (Figure 64). One of the most striking xeriscapes is the brilliant green park, which shows up very well in aerial photos in the Quonset hut complex 23-1. Upon inspection, it proves to be an expanse of green gravel interspersed among concrete walkways without a living plant anywhere. The only major exception to the extreme desert landscaping was the ball park with its lawn outfield and the adjacent picnic area with lawn and deciduous trees, some of which were also planted in the small plaza between the Bowling Alley and Pool House. At present, many of the plantings throughout Mercury, which were formerly watered by drip systems, are slowly dying because the water has been shut off in recent years.

Figure 63. Transplanted Joshua trees and rock garden at entrance to the DOD compound 23-210 (DRI 2017).

Figure 64. Xeriscape garden at the Cafeteria (DRI 2017).

Subsurface Structures

Although less obvious than the aboveground utilities, the community is crisscrossed with a large number of underground utilities, including potable water (S1763), sewer (S1764), steam/hot water heating (S1766), and various communications systems such as telephone and fiber optic lines that were not recorded at this time. Much of the final power distribution in individual lots is also routed underground. Sweeps leading from the ground to transformers, electrical boxes, and trailer hookups are common throughout Mercury. A typical utility excavation in Mercury is shown in Figure 65. Each subterranean system has its own distinctive access points, including sweeps, standpipes, manholes, and cellars of various types and sizes (Figure 66). Distinctive signs, particularly for fiber optic and telephone systems, are also associated with these utilities (Figure 67). Several underground fuel tanks are also located throughout Mercury.

Figure 65. Typical utility excavation along Ranger Avenue next to Building 23-109 (REECo 3262-4).

Figure 66. A sample of underground utility access in Mercury.

Figure 67. Signage for an underground telephone cable.

V. RECOMMENDATIONS

National Register Eligibility

The Mercury Historic District (D230) is recommended eligible to the National Register under Criteria A and C at the national level of significance for the period from 1951 through 1992, inclusive. This period encompasses the era of nuclear testing at what is now the NNSS. The district is made up of 154 resources and 348 Associated Resources. The specific eligibility recommendations regarding all of these resources are in (Appendix E). All of the recorded Principal Resources are recommended as contributing to the significance of the district under these two criteria with the exception of Trailer Park C294 because of extreme problems with its integrity.

Because of the extensive resource level of research required beyond the scale of the present survey—including recording and evaluations of building interiors—to make justifiable eligibility recommendations regarding association with significant persons under Criterion B or research potential under Criterion D, the resources remain unevaluated under these criteria. It is anticipated that such enhanced recording and evaluation will occur in the future as redevelopment plans mature to the point that individual phased undertakings are considered.

For purposes of the present survey, individual resources were evaluated only as they relate to the Mercury Historic District as contributing versus non-contributing elements. Extensive additional research is required for these resources to enable evaluation at the individual resource level. It is anticipated that with completion of such research that several of the resources in Mercury would be considered significant enough to warrant individual eligibility. It is the nature of most of the individual elements of the district; however, that they would not be individually eligible. Rather, in the aggregate, they combine to create the unique significance of the district as a whole.

Mercury's significance is mainly under two of the themes identified in the *Nevada Comprehensive Preservation Plan* (White et al. 1991). The principal theme is *Nuclear Testing* and an important subsidiary theme is *Town Site Development*. Mercury is significant in relation to Nuclear Testing at the national level of significance. Its significance under Town Site Development is largely at the regional and local levels.

Since so many elements of the district have already been lost, those remaining elements from the period of significance have more comparative importance than they would have had otherwise. They are now, in many cases, the rare survivors of what were formerly fairly common property types at Mercury. With this in mind, the requirements for being considered contributing elements to the district are fairly low. If a resource still retains visible elements that date to the period of significance, it is considered contributing to the significance of the district both for its historic importance in relation to nuclear testing under Criterion A and as a part of the distinctive physical makeup of the district under Criterion C. The companion question asked of these resources was if that resource were removed, would the district lose some of its overall significance. In nearly all cases, there is sufficient integrity to answer that question in the affirmative.

Criterion A

The Mercury Historic District is eligible to the NRHP under Criterion A at the national level of significance from 1951 through the end of nuclear testing in 1992. Although there were temporary base camps established for testing programs outside of what is now the NNSS, Mercury is unique as the only base camp that was used for extensive periods during the Cold War. All of the extensive operations at what was then the NTS were staged throughout Mercury (Figure 68).

Figure 68. Nevada State Historical Marker 165 adjacent to US 95 notes that "Today, the Nevada Test Site is one of the nation's most important expressions of the Cold War." Mercury, in the background (right), is virtually the only visible evidence of testing activity from this or any other public vantage point, and therefore represents the entire test site, now the NNSS (DRI 2017).

A contemporary assessment of the importance of Mercury was made by Judith Golwyn, whose descriptions of Mercury were cited earlier:

Mercury is no mirage. It is the brains and the heat, the vital center, of the whole 1300-square-mile giant that is the AEC's Nevada Test Site. Here … are local headquarters for all the many agencies and companies who share in the operation and use of the test site. (*NTS News* March 12, 1965:5)

In addition to its role in support of nuclear testing, Mercury is significant in its role as a visible target for citizens who have wished to demonstrate their opposition to the nuclear policies of the

government. Although outside the boundaries of the Mercury Historic District, it is important in this respect to recall that the National Register eligible protestor's camp is located on the edge of the NNSS at the start of the Mercury Highway and in full view of Mercury.

Criterion B

Most of the individuals important at the national level to the nation's nuclear programs or other programs that were tested or developed at what is now the NNSS had far more important ties elsewhere, such as at the Los Alamos or Lawrence Livermore National Laboratories. Although many of these individuals spent time at Mercury, it was often for short visits to monitor test results. It is likely that individuals of importance, particularly at the more local level, could be identified with further research. Such research was not undertaken as part of the present project but would be warranted as further phases of investigation continue in the future. A glimpse of a few of the individuals who all had some degree of involvement with Mercury is indicated by commemorative bricks installed at the National Atomic Testing Museum in Las Vegas (Figure 69).

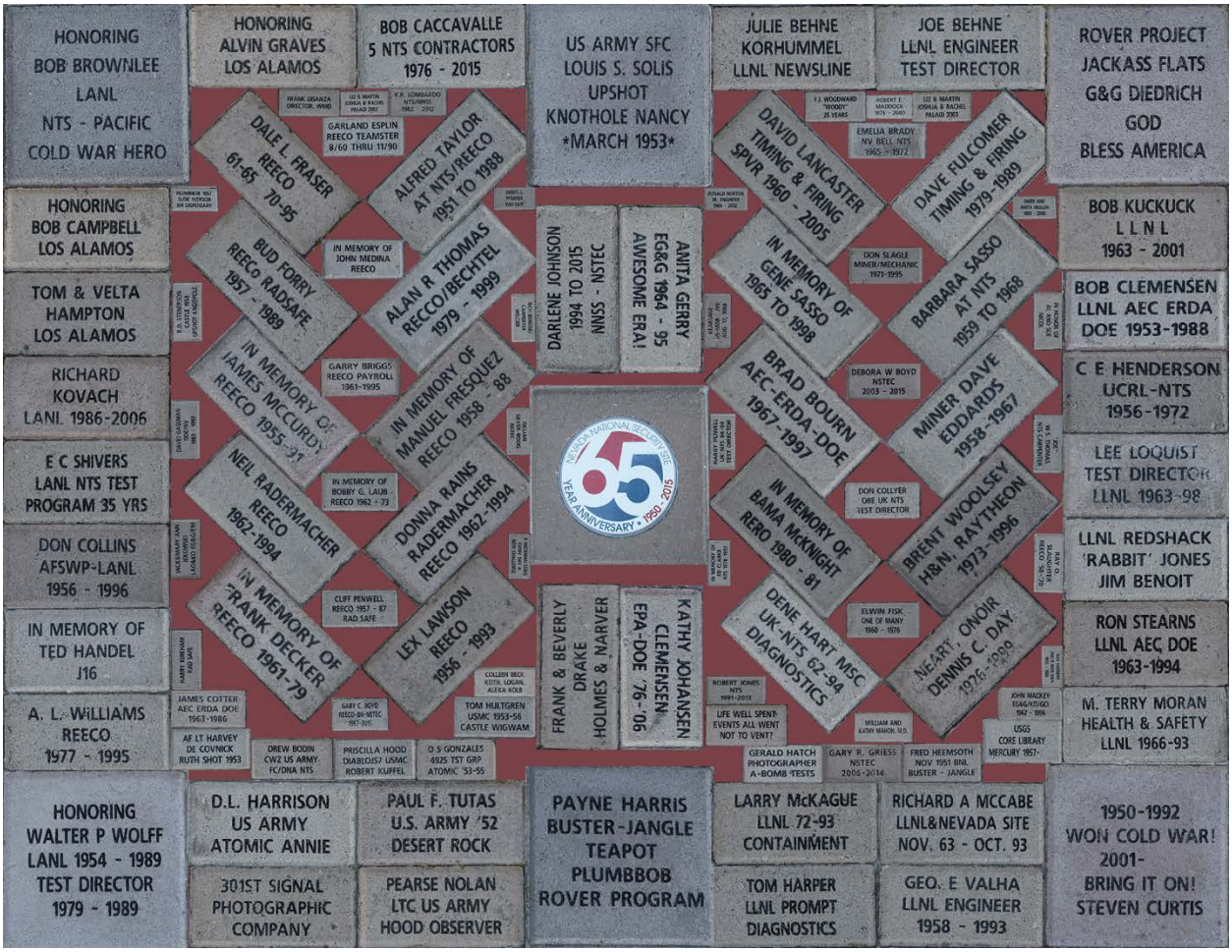

Figure 69. Selection of commemorative bricks at National Atomic Testing Museum in Las Vegas (DRI 2018).

Criterion C

The Mercury Historic District embodies the distinctive characteristics of a type (nuclear testing base camp) during a specific period (Cold War). Mercury is the only example of a designed major base camp for nuclear testing in the United States. Therefore, by default Mercury constitutes the single type specimen of this resource, enhancing its importance under the theme of Town Site Development. Design of both major construction phases that determined the character of Mercury were by major design firms—the first phase by Holmes and Narver and the 1960s expansion in conformance with the Arthur Benedict Associates Master Plan (1962). Mercury possesses a fine collection of wartime and Modern architectural styles dating from 1951 through 1992, all of which were used for this single purpose, which gives the community an extreme thematic focus.

A characteristic of Mercury is its singular lack of ostentation. With the sole exception of the Bowling Alley and Pool recreational facility, all of the architecture is simple and utilitarian to the point that, in most cases, it appears to make more sense to regard it as contributing to the whole fabric of the community rather than searching for individual significance. With further research, it is likely that some resources would be identified that warrant individual eligibility to the National Register under this criterion, but such resources will probably be in the minority and will likely be eligible at a state or local level of significance—such as the Bowling Alley—rather than at the national level. However, it is entirely possible that additional research into hidden design aspects related to the science and technology of nuclear testing and radiation control may result in some buildings being individually eligible at the national level of significance because of their interior architecture and equipment.

When dealing with architecture that is so recent, a general lack of presence of well-known design firms in surveys of architectural history in the United States is not evidence that they lack national importance. An exception is the firm of Albert C. Martin and Associates, whose work is featured in Reyner Banham's seminal analysis of Modern architecture (1975:59). Mercury's architects were not the subjects of major works on architecture at the time, but that appears largely because they continued to work on elaborations of the Modern architectural movement rather than departing into the more exciting world of Post-modernism, which tended to get much better coverage at the time (e.g., Jencks 1982; Russell 1989). The whole notion that the often-maligned Mid-century Modern architecture and its successors is significant and worthy of serious consideration by preservationists is a developing one as the architecture grows older and perceptions regarding it mellow out a bit. A major problem with trying to manage such architecture is that it is often destroyed before it can make it into the critical literature.

Adding to the importance of the Cold War architecture in Mercury is the present lack of any analysis or serious discussion of government architecture from this period in the few published architectural histories of Nevada, such as James and Harvey (2009) or Nicoletta (2000). This is a crucial gap considering the extreme importance of government developments in the state at this time, which included the construction of large numbers of sometimes esoteric buildings and structures related to national defense.

Only a few of the architectural firms involved in designing Mercury have been identified, but from the sample thus far, some provisional comments can be made. Contracts to build in Mercury attracted a wide variety of architectural firms, ranging from those with national and regional prominence, to those that were widely successful in Nevada, to other firms who confined themselves to local practice. In reviewing their promotional listings, the work on what is now the NNSS is seldom, if ever, mentioned. Contracts at Mercury represented bread-and-butter work that did not receive awards and was not among the most impressive, nor normally among the most progressive work done by the firms. Instead, the architecture at Mercury represents competent work by firms well qualified to carry it out. Regarding the design process at Mercury, many of the buildings and structures were designed or modified by crafts and maintenance people on staff. In common with most of the built environment, the design is by ordinary people (Hubka 1979: 426-428). Since so much unique and important equipment and related structures were created on site, it is likely that at least some of these resources will acquire further definition and significance with additional research. Although all of the major buildings were designed by architectural firms carrying the names of one or only a few principals, almost all of this designing was done by large teams as well, rather than being the creation of a single master (Cuff 1992; Upton 1998:272).

It should be noted that the Town Site Development theme in the *Nevada Comprehensive Preservation Plan* (White et al. 1991) has not yet been completed, making comparative evaluations of town sites in the states somewhat more difficult than it is for themes that have established contexts.

Criterion D

The Mercury Historic District is presently unevaluated in terms of its information potential under Criterion D.

During the architectural inventory, field personnel, all of whom are cross-trained as archaeologists, failed to note any pre-testing era artifacts or features within the disturbed areas traversed.

Large portions of the district have yet to be inventoried. In these mid-bajada areas, although it is possible that remains are present, there is a low expectation of finding substantial prehistoric remains either on the surface or subsurface. Isolated historic or prehistoric materials or small scatters may be present.

NUCLEAR TESTING

At this time no research potential regarding the architecture was identified in relation to any of the specific resources. This does not preclude the possibility that such research potential may not be identified with future study. For example, the means of coping with radiological monitoring and control within the various buildings could easily be developed as a research topic.

A major factor regarding research potential of Mercury is the state of its Cold War archives. There are extensive collections of records related to its history and architecture that, like all Cold War records, are in danger of loss to future researchers if the important items are not identified and

curated. In the middle of normal work pressures, it is all too easy for such records to be discarded. In addition to loss of government records, there is the likelihood of loss of records from the major contracting firms, such as EG&G and REECo, as they either weed their archives or simply go out of business (Hopkins 2016:15). Similarly, a loss of potential information from oral sources is ongoing despite programs to conserve some of this information, such as the National Atomic Testing Museum's Legacy Project.

The effectiveness of radiological engineering in Mercury over the long term is an important research domain and would include topics such as the kinds of problems that have been addressed, the effectiveness of the solutions, and the application of those solutions in future planning.

TOWN SITE DEVELOPMENT

What Gunther Barth (1975) has called "instant cities" is a major element in the development of the American West. These cities range from mining boom towns to major urban areas, such as San Francisco, Los Angeles, or Denver. Larger military bases in the West also have their own varieties of instant cities. Mercury is a very special case within this larger pattern. It also presents an interesting example in the study of controlled urban development that is most often seen in company towns, which are highly comparable to Mercury in many ways, but also with the significant differences that can make for useful research topics.

Future research domains regarding Mercury's built environment in relation to this theme could include:

How does Mercury's development compare with the other "nuclear cities" such as Oak Ridge and Los Alamos?

How does Mercury's development relate to various types of boom towns and instant cities in Nevada and the West?

The long-term effects of the assumptions of 1960s-era master planning and how they relate to matters such as widespread sprawl. How does Mercury compare with other horizontally expansive, automobile-oriented communities? These questions relate directly to the long tradition in architectural history of the study of ideal cities and how the realities relate to conceptions that often went unrealized and nearly as often led to unexpected, and sometimes lamentable, consequences.

How does Mercury compare with the development of various kinds of military bases? Many, such as Nellis AFB, have extensive family housing facilities, whereas others, such as the Tonopah Test Range, have a demographic much closer to that of Mercury.

A comparison between master plan enforcement like that found at Mercury and "planning by exemption" that is so often seen in developer-friendly, growth-oriented communities.

How can theoretically temporary buildings actually continue to be of use? Particularly in the desert environment of Mercury, many have long since exceeded their supposed use lives. A

related question is how the notion of "anticipated mobility" has shaped the Mercury urban landscape (Brooks 1995).

How does the architecture tie into the formalized social and economic structure of the place? The hierarchy was especially well-developed because all of the major agencies and contractors in all fields—including labs, survey, engineering, construction, maintenance, and security—were remarkably stable throughout most of the Cold War. Many people spent their entire careers working at the test site. People of all levels worked well together, but there were divisions that were expressed architecturally, such as dorms dedicated to certain labs that had their own recreation rooms equipped with bars, far roomier and more comfortable common rooms, and so on. The extent of the Balkanization between the labs and people who were detailed to support one or the other of them is highlighted by an anecdote related by Dr. James E. Carothers, a principal researcher at Lawrence Livermore National Laboratory: "I remember at Livermore, we used to tell new people coming on, 'just remember the Soviet Union is the competition. Those are the guys you've got to beat. Los Alamos is the enemy'" (Carothers and Knipes: 241).

Integrity

The Mercury Historic District has extremely high thematic focus and visibility, which are obvious to the visitor. It remains as it always has been, the principal base of operations for activities at what is now the NNSS. It retains to an exceptional degree all aspects of integrity largely because major development and usage ended at the end of the Cold War. Although many resources have been lost or are only preserved as relics, such as foundations, they still manage to convey their Cold War integrity to a surprising extent because there is hardly any post-Cold War overlay of more recent competing construction.

Integrity of Location is ensured by the fact that Mercury still occupies the same site it was originally platted upon in 1951. Although many individual resources—such as prefabricated or demountable buildings, portable buildings, or trailers—were moved around in Mercury and to and from the forward areas as needed, this movement was integral to the original designs and in no way decreases their integrity of Location (Figure 70). Similarly, removal of the original Gate 100 security entrance canopy complete with its distinctive signage to be reused in the Forward Area Support Facility in Area 6 diminished, but did not eliminate, its integrity of location because it is still an integral part of the NNSS (NNSA-NFO 2001:40).

Figure 70. Prefabricated Building 23-133 on the Mercury Highway being moved from the old motor pool area at the north end of town to its present location in the south end of town (REECo 2260-4).

Integrity of Design is evident at both the level of the historic district and of its various component elements. Mercury retains most of its original street pattern. Its character as a series of cut and fill terraces, which are largely paved for parking and circulation, remains. It is very much a horizontally-oriented community with generally large spaces between buildings, nearly all of which are of a single story. Design focus is enhanced by its lack of non-Cold War antecedents, resulting in a perfect collection of Modern architecture, although much of it has no stylistic aspirations. Because of its government sponsorship, there is no overlay of Post-modern architecture to detract from its basic Modernism.

Integrity of Materials is largely intact. The major change for the modern visitor to the district is the new tan NNSS color scheme. Most of the historic buildings have been repainted with this material, sometimes over a thin layer of stucco (Figure 71). This creates an ambiance much more similar to a modern military base than the overtly civilian laboratory-controlled setting of the NTS years when, as a result of the Master Plan, a variety of colors with an emphasis on pastels was chosen for the buildings. This color change could be reversed if desired without difficulty on formerly painted buildings. It would be much harder to reverse on metal buildings and structures, which were formerly left as unpainted aluminum or galvanized steel. A serious effect resulting from painting that cannot be reversed is the loss of historic signage, some dating back to the 1950s and 1960s. Material changes such as the repainting of buildings in the 1960s or widespread application of insulated metal siding in the 1970s over the existing wood siding of the original buildings that took place during the period of significance do not reduce integrity of materials.

Figure 71. Three generations of color at Mercury. Top: 1950s green shows through later paint at 23-152 (DRI 2017). Middle: Original 1980s turquoise at 23-153 (NSTEC 2001). Bottom: Same building repainted tan (DRI 2017).

Integrity of Workmanship in the district is high, but it is largely an impersonal thing because the buildings are either mass-produced or make extensive use of materials such as concrete masonry, which defy a personal touch. In this regard, the various products of the on-site REECo shops and their skilled craftsmen are of particular importance because these specific creations not only display individual design and workmanship, but they were also meant to satisfy the often unique requirements of nuclear testing. This kind of workmanship is evident in portable buildings and instrumentation structures and in the modification of trailers for various purposes.

Integrity of Setting is ensured by a relative lack of development in this entire valley after the testing era. From even a short distance away, Mercury looks just like it did in the 1980s. It still retains the same access roads and powerline corridors. It is only upon entering the town that it becomes obvious that many of the blocks are inhabited by foundations rather than the buildings or other resources that formerly stood there. But those same foundations contribute to the integrity of setting for the remaining buildings because it is so easy to visualize the earlier buildings that stood on those foundations. This is the kind of visualization that would be infinitely more difficult if the foundations were gone.

Integrity of Feeling is a rather subjective aspect of integrity, but within the district it is very easy to sense its operations during the Cold War. To some extent, this is sort of a ghost town ambiance, but the presence of the entire town grid and the patterns of foundations and terraces that serve as immediate reminders of missing elements contribute heavily to the feeling that this is a place that once bustled with its intent on providing support for the various pressing missions entrusted to it. This feeling is enhanced by so many things that remain the same as the Cold War years, such as site security, necessity of wearing a badge at all times, continued commuter culture, and continued use of many of the existing buildings.

Despite the recent name change, this place has an indelible integrity of association with nuclear testing and to a lesser degree with other missions that depended on Mercury as a base. Assisting this is the street grid with names recalling nuclear tests, the presence of several buildings that were constructed entirely for radiological control purposes, and a culture of security that is unchanged despite the change of contractors. Finally, this place has not been privatized, which would have allowed non-mission-related people or institutions to intrude. Although the missions of the NNSS are not, at least at present, related to critical nuclear testing, the people who work there continue to work toward missions such as the war on terror that is regarded by the United States as having a paramount importance to the survival of the country. Conversely, this same strength of association is equally indelible to those who have viewed the nuclear policies of the United States during the Cold War with extreme disfavor. This resource has abundant strong and conflicting meanings because of its association with such a primal force. This alone makes it one of the most significant historical properties in the United States, and indeed in the world.

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V. REFERENCES

Engineering drawings are on file at the NNSS in Mercury either in digital format or as aperture cards.

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APPENDIX A

Resources Recorded as Part of the Mercury Historic District

Table A-1. Historic Resources in the Mercury Historic District..... A-1
Table A-2. Concordance of SHPO and NNSS Resource Numbers..... A-6

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Table A-1. List of Resources

NNSS/Other #	SHPO Resource#	AR*	Name (historic)	Year Built	General Style	Architectural Style	General Property Use	Specific Property Use	Property Type
	26NY15777	0	Mercury Airfield	1957	N/A	N/A	Air Transportation	Airfield	Structure
	S1707	0	Power and Communications	1951 - Present	N/A	N/A	Electrical Utilities	Power & Communications Infrastructure	Structure
23-1	C299	32	Dormitory Complex Foundations 23-1 - 23; 23-26 - 28; 23-31 - 36	1951, 1954	Prefabricated	Quonset	Housing	Dormitory	Landscape
23-24	C306	3	Foundations for Quonset Huts 23-24/25/29/30	1965-1967	Prefabricated	Quonset	Science and Research	Lab/Office	Landscape
23-100	C319	0	Hospital, Sheriff's Office Foundation	1951	Demountable	Wood Frame	Public Services	Hospital	Structure
23-101	C320	0	Administration Building Foundation	1951	Demountable	Wood Frame	Administration	Administration Bldg.	Structure
23-102	C323	0	Administration Building Foundation	1951	Demountable	Wood Frame	Administration	Administration Bldg.	Structure
23-103	C297	5	Women's Dormitory Complex Foundations 23-103 - 107; 23-152 Laundry	1951, 1956	Demountable	Wood Frame	Housing	Dormitory/ Laundry	Landscape
23-109	B15235	1	Fire Station/ Maintenance/Housing Office	1951	Demountable	Wood Frame	Administration/Public Services	Fire Dept/Administration	Building
23-110	C316	0	Cafeteria/Engineering Office Foundation	1952	Demountable	Wood Frame	Public Services	Cafeteria	Structure
23-111	B15255	2	Security/Administration Bldg	1957	Demountable	Wood Frame	Administration/Security	Security Office/Administration	Building
23-112	C317	0	Cafeteria/Office Foundation	1951	Demountable	Wood Frame	Public Services	Cafeteria	Structure
23-113	B15236	0	Recreation Center	1952	Demountable	Wood Frame	Recreation	Recreation Center	Building
23-114	B15238	2	Food Storage	1951	Demountable	Wood Frame	Public Services	Food Storage	Building
23-115	C318	0	Boiler Building Foundation	1951	None	Wood Frame	Heating/Cooling	Boiler Bldg.	Structure
23-116	B15230	2	Power Plant	1951	None	Steel Frame	Electrical Utilities	Power Plant	Building
23-117	B15256	3	Administration Building	1983	Late Modern	Splitface Masonry	Administration	Administration Bldg.	Building
23-118	B15257	0	Cable Testing Building	1988	Late Modern	Splitface Masonry	Science and Research	Lab/Office	Building
23-120	C314	0	Office Foundations 23-120, 121, 122, and 123	1951	Demountable	Wood Frame	Administration	Administration Bldg.	Structure
23-125	C321	0	Theater Foundation	1951	Prefabricated	Quonset	Recreation	Theater	Structure
23-127	C322	0	Weather Service Foundation	1951	Demountable	Wood Frame	Science and Research	Lab/Office	Structure
23-128	B15215	4	Certified Packaging Center	1957	Prefabricated	Butler	General Maintenance	Shop	Building
23-129	B15216	6	Shop/Warehouse	1957	Prefabricated	Butler	General Maintenance	Shop	Building
23-132	B15237	2	REECo Cashier	1991	Prefabricated	Metal	Administration	Administration Bldg.	Building
23-134	S1750	2	Bottled Gas Storage (includes 23-135)	1957	None	None	Warehousing/Storage	Storage Structure	Structure
23-143	B15258	0	Administration	1987	Late Modern	Splitface Masonry	Administration	Administration Bldg.	Building
23-146	C295	11	Foundations for Wash House and Dormitories 23-501 - 508 and 23-513 - 515	1956	Demountable	Wood Frame	Housing, Public Services	Dormitory, Wash House	Landscape
23-153	B15271	2	Physical Standards/Calibration	1982	Prefabricated	Metal	Science and Research	Lab/Office	Building
23-154	B15220	0	Shop/Warehouse	1964-1967	Prefabricated	Metal	Science and Research	Research Materials Storage	Building
23-155	C325	1	RAD-SAFE Foundation	c 1955-1959	Unknown	Unknown	Radiation Control	Radiation Safety	Structure

*The number is the quantity of Accessory Resources recorded with this Primary Resource

Note: General and Architectural Styles were developed specifically for Mercury. See text for explanation.

Table A-1. List of Resources - Continued

NNSS/Other #	SHPO Resource #	AR*	Name (historic)	Year Built	General Style	Architectural Style	General Property Use	Specific Property Use	Property Type
23-156	B15221	2	Warehouse	1960	Prefabricated	Metal	Warehousing/Storage	Warehouse Bldg.	Building
23-157	B15222	2	Warehouse/Linen Storage	1960	Prefabricated	Metal	Warehousing/Storage	Warehouse Bldg.	Building
23-158	B15223	0	USGS Warehouse	1965	Prefabricated	Metal	Warehousing/Storage	Warehouse Bldg.	Building
23-160	B15219	19	Warehouse	1965	Mid-Century Modern	Mid-Century Modern	Warehousing/Storage	Warehouse Bldg.	Building
23-170	C313	1	Ice Plant Foundation	1965	Unknown	Unknown	Public Services	Ice Plant	Structure
23-180	B15217	1	RAMATROL	1970	Mid-Century Modern	Brutalist	Radiation Control	Radioactive Storage	Building
23-190	B15229	2	Materials Testing Laboratory	1975	Mid-Century Modern	Brutalist	Science and Research	Lab/Office	Building
23-210	C307	3	DOD Motor Pool Maintenance Foundation	1951	None	Wood Frame	Motor Pool	Vehicle Maintenance Bldg.	Landscape
23-211	B15297	6	DOD Warehouse	1958	Prefabricated	Metal	Warehousing/Storage	Warehouse Bldg.	Building
23-213	C309	11	Biomedical Effects, Mouse House (23-214) and Other Foundations	1951-1952	Prefabricated	Quonset	Science and Research	Reseach Facility	Landscape
23-300	B15232	0	Cafeteria	1963	Mid-Century Modern	Contemporary	Public Services	Cafeteria	Building
23-301	B15233	0	Refrigerated Food Storage	1971	None	None	Public Services	Food Storage	Building
23-310	B15231	0	Records Library	1968	Mid-Century Modern	Contemporary	Administration	Records	Building
23-425	B15242	0	Fire Station	1966	Mid-Century Modern	Mid-Century Modern	Public Services	Fire Dept.	Building
23-475	B15243	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-476	B15244	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-477	B15245	1	Day Room for Dormitory Complex 23-475 - 479	1965	Mid-Century Modern	Contemporary	Recreation	Day Room	Building
23-478	B15246	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-479	B15247	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-480	B15248	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-481	B15249	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-482	B15250	0	Day Room for Dormitory Complex 23-480 - 23-484	1965	Mid-Century Modern	Contemporary	Recreation	Day Room	Building
23-483	B15251	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-484	B15252	0	Dormitory	1965	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-517	B14451	1	Bowling Alley	1963-1964	Mid-Century Modern	Googie	Recreation	Recreation Center	Building
23-525	B15259	0	Weather Service/Post Office	1964	Mid-Century Modern	Contemporary	Public Services/Science and Research	Lab/Office	Building
23-526	B15261	2	Dormitory	1978	Prefabricated	Metal	Housing	Dormitory	Building
23-527	B15262	1	Dormitory	1980	Prefabricated	Metal	Housing	Dormitory	Building
23-528	B15269	1	Dormitory	1982	Late Modern	Splitface Masonry	Housing	Dormitory	Building
23-529	B15263	1	Dormitory	1980	Prefabricated	Metal	Housing	Dormitory	Building
23-530	B15270	2	Dormitory	1982	Late Modern	Splitface Masonry	Housing	Dormitory	Building

*The number is the quantity of Accessory Resources recorded with this Primary Resource

Note: General and Architectural Styles were developed specifically for Mercury. See text for explanation.

Table A-1. List of Resources - Continued

NNSS/Other #	SHPO Resource #	AR*	Name (historic)	Year Built	General Style	Architectural Style	General Property Use	Specific Property Use	Property Type
23-531	B15264	0	Dormitory	1986	Late Modern	Splitface Masonry	Housing	Dormitory	Building
23-532	B15265	0	Dormitory	1986	Late Modern	Splitface Masonry	Housing	Dormitory	Building
23-535	B15266	1	Dormitory	1986	Late Modern	Splitface Masonry	Housing	Dormitory	Building
23-536	B15267	0	Mechanical Building for Dormitory Complex 23-531, 532, and 535	1986	Late Modern	Splitface Masonry	Heating/Cooling	Mechanical Bldg.	Building
23-550	B15268	2	Chapel	1963	Mid-Century Modern	Contemporary	Public Services	Chapel	Building
23-600	B15281	6	LRL Laboratory	1963	Mid-Century Modern	Contemporary	Science and Research	Lab/Office	Building
23-610	B15282	1	Dosimetry Calibration Laboratory	1968	Mid-Century Modern	Brutalist	Science and Research	Lab/Office	Building
23-614	B15260	1	Photographic Support	1984	Late Modern	Splitface Masonry	Science and Research	Lab/Office	Building
23-620	B15283	0	LASL J-3 Office	1968	Mid-Century Modern	Contemporary	Administration	Administration Bldg.	Building
23-630	B15284	0	Sandia Admin	1970	Mid-Century Modern	Contemporary	Administration	Administration Bldg.	Building
23-650	B15285	3	Health, Medicine, and Safety	1964	Mid-Century Modern	Contemporary	Public Services/Radiation Control	Hospital/ Radiation Safety	Building
23-652	B15286	2	Industrial Hygiene	1987	Late Modern	Splitface Masonry	Public Services	Industrial Hygiene	Building
23-675	B15287	1	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-676	B15288	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-677	B15289	1	Day Room	1964	Mid-Century Modern	Contemporary	Recreation	Day Room	Building
23-678	B15290	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-679	B15291	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-680	B15292	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-681	B15293	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-682	B15294	1	Day Room	1964	Mid-Century Modern	Contemporary	Recreation	Day Room	Building
23-683	B15295	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-684	B15296	0	Dormitory	1964	Mid-Century Modern	Contemporary	Housing	Dormitory	Building
23-700	B15276	1	Maint. Shop	1964	Mid-Century Modern	Brutalist	General Maintenance	Shop	Building
23-701	B15277	1	LASL Radiation Laboratory	1964	Mid-Century Modern	Brutalist	Science and Research	Lab/Office	Building
23-702	B15278	0	Foil Handling	1965	Mid-Century Modern	Contemporary	Radiation Control	Radioactive Storage	Building
23-703	B15279	1	Weather Maint/Dosimetery Lab	1965	Mid-Century Modern	Brutalist	Science and Research	Lab (Radioactive Materials)	Building
23-710	B15280	16	Crafts Building	1965	Mid-Century Modern	Brutalist	General Maintenance	Shop	Building
23-725	B15253	0	Bell Telephone Computer	1963	Mid-Century Modern	Contemporary	Electrical Utilities	Communications Bldg.	Building
23-726	B15254	13	Print Plant/Radio Communication	1966	Mid-Century Modern	Contemporary	Electrical Utilities	Communications Bldg.	Building
23-750	B15272	4	Vehicle Maintenance Shop	1963	Mid-Century Modern	Contemporary	General Maintenance	Shop	Building
23-751	B15273	5	Equipment Maintenance Shop	1965	Mid-Century Modern	Mid-Century Modern	General Maintenance	Shop	Building

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Table A-1. List of Resources - Continued

NNSS/Other #	SHPO Resource #	AR*	Name (historic)	Year Built	General Style	Architectural Style	General Property Use	Specific Property Use	Property Type
23-752	B15274	9	Motor Pool Fleet Operations	1965	Mid-Century Modern347	Contemporary	Motor Pool	Dispatch	Building
23-753	B15275	1	Boiler Building	1986	Prefabricated	Metal	Heating/Cooling	Boiler Bldg.	Building
23-754	B15234	1	Cafeteria Boiler Building	1983	Prefabricated	Metal	Heating/Cooling	Boiler Bldg.	Building
23-756	S1746	2	Car Wash	1972	N/A	N/A	Motor Pool	Car Wash	Structure
23-775	B15224	13	Warehouses (includes 23-776 and 23-777)	1963	Prefabricated	Metal	Warehousing/Storage	Warehouse Bldg.	Building
23-790	C312	5	CETO Foundation	1963-1964	Prefabricated	Metal	Science and Research	Lab/Office	Structure
23-800	C327	3	Disposal Entrance Foundation (includes 23-801 and 23-810A)	1951	Prefabricated	Quonset	Waste Disposal	Office/Landfill	Structure
23-1000	B15302	2	Information not Available	1965	Mid-Century Modern	Contemporary	Information not Available	Information not Available	Building
23-1001	B15303	0	Security Administrative Office	1965	Mid-Century Modern	Contemporary	Security	Security Office	Building
23-1002	B15304	1	Security Office	1965	Mid-Century Modern	Contemporary	Security	Security Office	Building
23-1010	B15305	2	Switching Station	1967	Mid-Century Modern	Brutalist	Electrical Utilities	Switching Station	Building
23-1014	B15306	1	Vehicle Scales	1971	Mid-Century Modern	Contemporary	Motor Pool	Vehicle Scales	Building
23-1100	B15298	0	Information not Available	1973	Mid-Century Modern	Contemporary	Information not Available	Information not Available	Building
23-1101	B15299	0	Information not Available	1976	Mid-Century Modern	Brutalist	Information not Available	Information not Available	Building
23-1103	B15300	2	Information not Available	1987	Prefabricated	Metal	Information not Available	Information not Available	Building
23-1104	B15301	2	Lowery Complex	1987	Mid-Century Modern	Brutalist	Training	Training	Building
23-1200	C310	8	Sewage Disposal Plant	1951	N/A	N/A	Sewage	Sewage Plant	Landscape
23-A	C324	0	Dormitory Foundation	1951	Demountable	Wood Frame	Housing	Dormitory	Structure
23-B	B15239	0	Dormitory	1951	Demountable	Wood Frame	Housing	Dormitory	Building
23-C	B15240	0	Dormitory	1951	Demountable	Wood Frame	Housing	Dormitory	Building
23-D	B15241	0	Dormitory	1951	Demountable	Wood Frame	Housing	Dormitory	Building
23-E	C298	11	Dormitory Foundations (includes 23-E - M; 23-S - U)	1951	Demountable	Wood Frame	Housing	Dormitory	Landscape
23-GS100	S1758	1	Main Gate	1965	None	None	Security	Security Gate	Structure
23-W1	C293	21	Warehouses W1-W6, etc. Foundations	1950s	Prefabricated	Butler	Warehousing/Storage	Warehouse Bldg.	Landscape
23-W7	B15225	1	Warehouse	1957	Prefabricated	Metal	Warehousing/Storage	Warehouse Bldg.	Building
23-W8	B15226	1	Warehouse	1962	Prefabricated	Quonset	Warehousing/Storage	Warehouse Bldg.	Building
23-W9	B15227	1	Warehouse	1962	Prefabricated	Quonset	Warehousing/Storage	Warehouse Bldg.	Building
23-W10	B15228	0	Warehouse; probably moved from Camp DR	1962	Prefabricated	Quonset	Warehousing/Storage	Warehouse Bldg.	Building
23-W11	B15218	3	Warehouse; probably moved from Camp DR	1962	Prefabricated	Quonset	Warehousing/Storage	Warehouse Bldg.	Building
M1	S1760	1	Mercury Highway	1951	N/A	N/A	Ground Transportation	Highway	Structure
M2	S1761	1	Jackass Flats Highway	1957	N/A	N/A	Ground Transportation	Highway	Structure

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Table A-1. List of Resources - Continued

NNSS/Other #	SHPO Resource #	AR*	Name (historic)	Year Built	General Style	Architectural Style	General Property Use	Specific Property Use	Property Type
M3	S1762	0	Mercury Street System	1951-1964	N/A	N/A	Ground Transportation	Road, Asphalt	Structure
M4	S1763	0	Mercury Water System	1951	N/A	N/A	Water	Potable Water System	Structure
M5	S1764	0	Mercury Sewer System	1951	N/A	N/A	Sewage	Municipal Sewer System	Structure
M6	S1765	21	Mercury Storm Water Drainage System	1951	N/A	N/A	Water	Stormwater Drainage	Structure
M7	S1745	0	Siren Tower	c 1960s	N/A	N/A	Evacuation	Siren Tower	Structure
M8	S1748	0	Helicopter Landing Pad	1979-1985	N/A	N/A	Air Transportation	Heliport	Structure
M9	C305	1	Mercury Track	1986	N/A	N/A	Recreation	Park	Landscape
M10	C300	3	Dell Frenzi Park	1957-1958	N/A	N/A	Recreation	Park	Landscape
M11	C302	1	Men's Trailer Park Terraces	1959	Portable	None	Housing	Trailer Park	Landscape
M12	C301	1	Bus Parking	c 1968	N/A	N/A	Ground Transportation	Bus Parking	Landscape
M13	C296	0	Parking	c 1956	N/A	N/A	Ground Transportation	General Parking	Landscape
M14	C315	0	Mercury Substation Foundations	c 1959	N/A	N/A	Electrical Utilities	Substation	Structure
M15	S1747	0	Liaison Airstrip	1961	N/A	N/A	Air Transportation	Airfield	Structure
M16	C308	0	Tree Target Remnants	1953	N/A	N/A	Warehousing/Storage	Storage Yard	Landscape
M17	S1754	0	Flagpole	c 1951	N/A	N/A	Other	Flagpole	Structure
M18	S1755	0	Communications Tower	1977 or later	N/A	N/A	Electrical Utilities	Communications Tower	Structure
M19	C292	6	Unknown Building Foundations	Unknown	Unknown	Unknown	Unknown	Unknown	Landscape
M20	C304	2	Storage Yard	1965	N/A	N/A	Warehousing/Storage	Storage Yard	Landscape
M21	C303	4	Electrical/Communications Storage	1966	N/A	N/A	Electrical Utilities	Electrical Storage Yard	Landscape
M22	C294	4	Trailer Park	Unknown	Portable or Trailers	None	Other	Trailer Park (non-residential)	Landscape
M23	S1759	0	Gate 100 Sewage Lagoon	1965	N/A	N/A	Sewage	Sewage Lagoon	Structure
M24	S1751	0	100,000 Gallon Water Tank #993491	1951	N/A	N/A	Water	Water Tank	Structure
M25	S1752	0	250,000 Gallon Water Tank #701008	1954	N/A	N/A	Water	Water Tank	Structure
M26	S1753	1	1.5 Million Gallon Water Tank #700852	1965	N/A	N/A	Water	Water Tank	Structure
M27	S1749	5	Ham Radio Facility	1965	Portable	None	Electrical Utilities	Communications Trailer and Antennae	Building
M28	C326	0	Unknown Building Foundation	c 1960s	Unknown	Unknown	Other	Unknown	Structure
M29	C311	8	Salvage Yard	1952	N/A	N/A	Warehousing/Storage	Salvage Yard	Landscape
M30	S1766	0	Mercury Steam/HTHW System	1951	N/A	N/A	Heating/Cooling	Municipal Heating System	Structure
M31	S1756	2	Upper Sewage Lagoons	1962	N/A	N/A	Sewage	Sewage Lagoon	Structure
M32	S1757	0	Lower Sewage Lagoons	1965	N/A	N/A	Sewage	Sewage Lagoon	Structure
M33	S1794	0	Tap and Meter Substation Foundations	1963	N/A	N/A	Electrical Utilities	Substation	Structure

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Note: General and Architectural Styles were developed specifically for Mercury. See text for explanation.

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Table A-2. Concordance of SHPO and NNSS Resource Numbers

SHPO Resource #	NNSS/Other #	Name (historic)
26NY15777		Mercury Airfield
B14451	23-517	Bowling Alley
B15215	23-128	Certified Packaging Center
B15216	23-129	Shop/Warehouse
B15217	23-180	RAMATROL
B15218	23-W11	Warehouse
B15219	23-160	Warehouse
B15220	23-154	Shop/Warehouse
B15221	23-156	Warehouse
B15222	23-157	Warehouse/Linen Storage
B15223	23-158	USGS Warehouse
B15224	23-775	Warehouses (includes 23-776 and 23-777)
B15225	23-W7	Warehouse
B15226	23-W8	Warehouse
B15227	23-W9	Warehouse
B15228	23-W10	Warehouse
B15229	23-190	Materials Testing Laboratory
B15230	23-116	Power Plant
B15231	23-310	Records Library
B15232	23-300	Cafeteria
B15233	23-301	Refrigerated Food Storage
B15234	23-754	Cafeteria Boiler Building
B15235	23-109	Fire Station/ Maintenance/Housing Office
B15236	23-113	Recreation Center
B15237	23-132	REECo Cashier
B15238	23-114	Food Storage
B15239	23-B	Dormitory
B15240	23-C	Dormitory
B15241	23-D	Dormitory
B15242	23-425	Fire Station
B15243	23-475	Dormitory
B15244	23-476	Dormitory
B15245	23-477	Day Room for Dormitory Complex 23-475 - 479
B15246	23-478	Dormitory

Table A-2. Concordance of SHPO and NNSS Resource Numbers (continued).

SHPO #	NNSS/Other #	Name (historic)
B15247	23-479	Dormitory
B15248	23-480	Dormitory
B15249	23-481	Dormitory
B15250	23-482	Day Room for Dormitory Complex 23-480 - 23-484
B15251	23-483	Dormitory
B15252	23-484	Dormitory
B15253	23-725	Bell Telephone Computer
B15254	23-726	Print Plant/Radio Communications
B15255	23-111	Security/Administration Bldg
B15256	23-117	Administration Building
B15257	23-118	Cable Testing Building
B15258	23-143	Administration
B15259	23-525	Weather Service/Post Office
B15260	23-614	Photographic Support
B15261	23-526	Dormitory
B15262	23-527	Dormitory
B15263	23-529	Dormitory
B15264	23-531	Dormitory
B15265	23-532	Dormitory
B15266	23-535	Dormitory
B15267	23-536	Mechanical Building for Dormitory Complex 23-531, 532, and 535
B15268	23-550	Chapel
B15269	23-528	Dormitory
B15270	23-530	Dormitory
B15271	23-153	Physical Standards/Calibration
B15272	23-750	Vehicle Maintenance Shop
B15273	23-751	Equipment Maintenance Shop
B15274	23-752	Motor Pool Fleet Operations
B15275	23-753	Boiler Building
B15276	23-700	Maintenance Shop
B15277	23-701	LASL Radiation Laboratory
B15278	23-702	Foil Handling
B15279	23-703	Weather Maint/Dosimetery Lab

Table A-2. Concordance of SHPO and NNSS Resource Numbers (continued).

SHPO #	NNSS/Other #	Name (historic)
B15280	23-710	Crafts Building
B15281	23-600	LRL Laboratory
B15282	23-610	Dosimetry Calibration Laboratory
B15283	23-620	LASL J-3 Office
B15284	23-630	Sandia Admin
B15285	23-650	Health, Medicine, and Safety
B15286	23-652	Industrial Hygiene
B15287	23-675	Dormitory
B15288	23-676	Dormitory
B15289	23-677	Day Room
B15290	23-678	Dormitory
B15291	23-679	Dormitory
B15292	23-680	Dormitory
B15293	23-681	Dormitory
B15294	23-682	Day Room
B15295	23-683	Dormitory
B15296	23-684	Dormitory
B15297	23-211	DOD Warehouse
B15298	23-1100	Information not Available
B15299	23-1101	Information not Available
B15300	23-1103	Information not Available
B15301	23-1104	Lowery Complex
B15302	23-1000	Information not Available
B15303	23-1001	Security Administrative Office
B15304	23-1002	Security Office
B15305	23-1010	Switching Station
B15306	23-1014	Vehicle Scales
C292	M19	Unknown Building Foundations
C293	23-W1	Warehouses W1-W6, etc.
C294	M22	Trailer Park
C295	23-146	Foundations for Wash House and Dormitories 23-501 - 508 and 23-513 - 515
C296	M13	Parking
C297	23-103	Women's Dormitory Complex Foundations 23-103 - 107; 23-152 Laundry

Table A-2. Concordance of SHPO and NNSS Resource Numbers (continued).

SHPO #	NNSS/Other #	Name (historic)
C298	23-E	Dormitory Foundations (includes 23-E - M; 23-S - U)
C299	23-1	Dormitory Complex Foundations 23-1 - 23; 23-26 - 28; 23-31 - 36
C300	M10	Dell Frenzi Park
C301	M12	Bus Parking
C302	M11	Men's Trailer Park Terraces
C303	M21	Electrical/Communications Storage
C304	M20	Storage Yard
C305	M9	Mercury Track
C306	23-24	Foundations for Quonset Huts 23-24/25/29/30
C307	23-210	DOD Motor Pool Maintenance Foundation
C308	M16	Tree Target Remnants
C309	23-213	Biomedical Effects, Mouse House (23-214) and Other Foundations
C310	23-1200	Sewage Disposal Plant
C311	M29	Salvage Yard
C312	23-790	CETO Foundation
C313	23-170	Ice Plant Foundation
C314	23-120	Office Foundations 23-120, 121, 122, and 123
C315	M14	Mercury Substation Foundations
C316	23-110	Cafeteria/Engineering Office Foundation
C317	23-112	Cafeteria/Office Foundation
C318	23-115	Boiler Building Foundation
C319	23-100	Hospital, Sheriff's Office Foundation
C320	23-101	Administration Building Foundation
C321	23-125	Theater Foundation
C322	23-127	Weather Service Foundation
C323	23-102	Administration Building Foundation
C324	23-A	Dormitory Foundation
C325	23-155	RAD-SAFE Foundation
C326	M28	Unknown Building Foundation
C327	23-800	Disposal Entrance Foundation (includes 23-801 and 23-810A)
S1707	Power & Comm Structure	Power and Communications
S1745	M7	Siren Tower

Table A-2. Concordance of SHPO and NNSS Resource Numbers (continued).

SHPO #	NNSS/Other #	Name (historic)
S1746	23-756	Car Wash
S1747	M15	Liaison Airstrip
S1748	M8	Helicopter Landing Pad
S1749	M27	Ham Radio Facility
S1750	23-134	Bottled Gas Storage (includes 23-135)
S1751	M24	100,000 Gallon Water Tank #993491
S1752	M25	250,000 Gallon Water Tank #701008
S1753	M26	1.5 Million Gallon Water Tank #700852
S1754	M17	Flagpole
S1755	M18	Communications Tower
S1756	M31	Upper Sewage Lagoons
S1757	M32	Lower Sewage Lagoons
S1758	23-GS100	Main Gate
S1759	M23	Gate 100 Sewage Lagoon
S1760	M1	Mercury Highway
S1761	M2	Jackass Flats Highway
S1762	M3	Mercury Street System
S1763	M4	Mercury Water System
S1764	M5	Mercury Sewer System
S1765	M6	Mercury Storm Water Drainage System
S1766	M30	Mercury Steam/HTHW System
S1794	M33	Tap and Meter Substation Foundations

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APPENDIX B

Maps Showing Locations of Historic Resources in Mercury

Table B-1. Resource Map Key....B-1
Map A2....B-2
Map A3....B-4
Map A4....B-5
Map A5....B-6
Map B2....B-7
Map B3....B-8
Map B4....B-9
Map B5....B-10
Map C1....B-11
Map C2....B-12
Map D3....B-13

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Table B-1. Resource Map Key.

Resource	Map Page
26NY15777	C2
23-1	A4
23-24	B5
23-100	A4
23-101	A4
23-102	A4
23-103	B4
23-109	A4
23-110	A4
23-111	B4
23-112	A4
23-113	A4
23-114	A4
23-115	A4
23-116	A4
23-117	B4
23-118	B4
23-120	A4
23-125	A4
23-127	B4
23-128	A4
23-129	A4
23-132	A4
23-134	A5
23-143	B4
23-146	A4
23-153	A4
23-154	A4
23-155	A3
23-156	A4
23-157	A4
23-158	A4
23-160	A4
23-170	A4
23-180	A4
23-190	A4
23-210	B5
23-211	B5
23-213	B3
23-300	A4
23-301	A4
23-310	A4
23-425	B4
23-475	B4
23-476	B4
23-477	B4
23-478	B4
23-479	B4
23-480	B4

Resource	Map Page
23-481	B4
23-482	B4
23-483	B4
23-484	B4
23-517	B4
23-525	B4
23-526	B4
23-527	B4
23-528	B4
23-529	B4
23-530	B4
23-531	B4
23-532	B4
23-535	B4
23-536	B4
23-550	B4
23-600	B4
23-610	B4
23-614	B4
23-620	B3
23-630	B3
23-650	B4
23-652	B4
23-675	B4
23-676	B4
23-677	B4
23-678	B4
23-679	B4
23-680	B4
23-681	B4
23-682	B4
23-683	B4
23-684	B4
23-700	B3
23-701	B3
23-702	B3
23-703	B3
23-710	B3
23-725	B3
23-726	B3
23-750	A3
23-751	A3
23-752	B3
23-753	A3
23-754	A4
23-756	B3
23-775	A3
23-790	A4
23-800	B2

Resource	Map Page
23-1000	D3
23-1001	D3
23-1002	D3
23-1010	D3
23-1014	D3
23-1100	A2
23-1101	A2
23-1103	A2
23-1104	A2
23-1200	B2
23-A	A4
23-B	A4
23-C	A4
23-D	A4
23-E	B4
23-GS100	D3
23-W1	A4
23-W7	A4
23-W8	A4
23-W9	A4
23-W10	A4
23-W11	A4
C292	A4
C294	A4
C296	A4
C300	B4
C301	B4
C302	B4
C303	B3
C304	B3
C305	B4
C308	A5
C311	A3
C315	A4
C326	A5
S1745	B4
S1747	B4
S1748	B4
S1749	A5
S1751	A5
S1752	A5
S1753	A5
S1754	B5
S1755	A5
S1756	B2
S1757	C1
S1759	D3
S1794	A4

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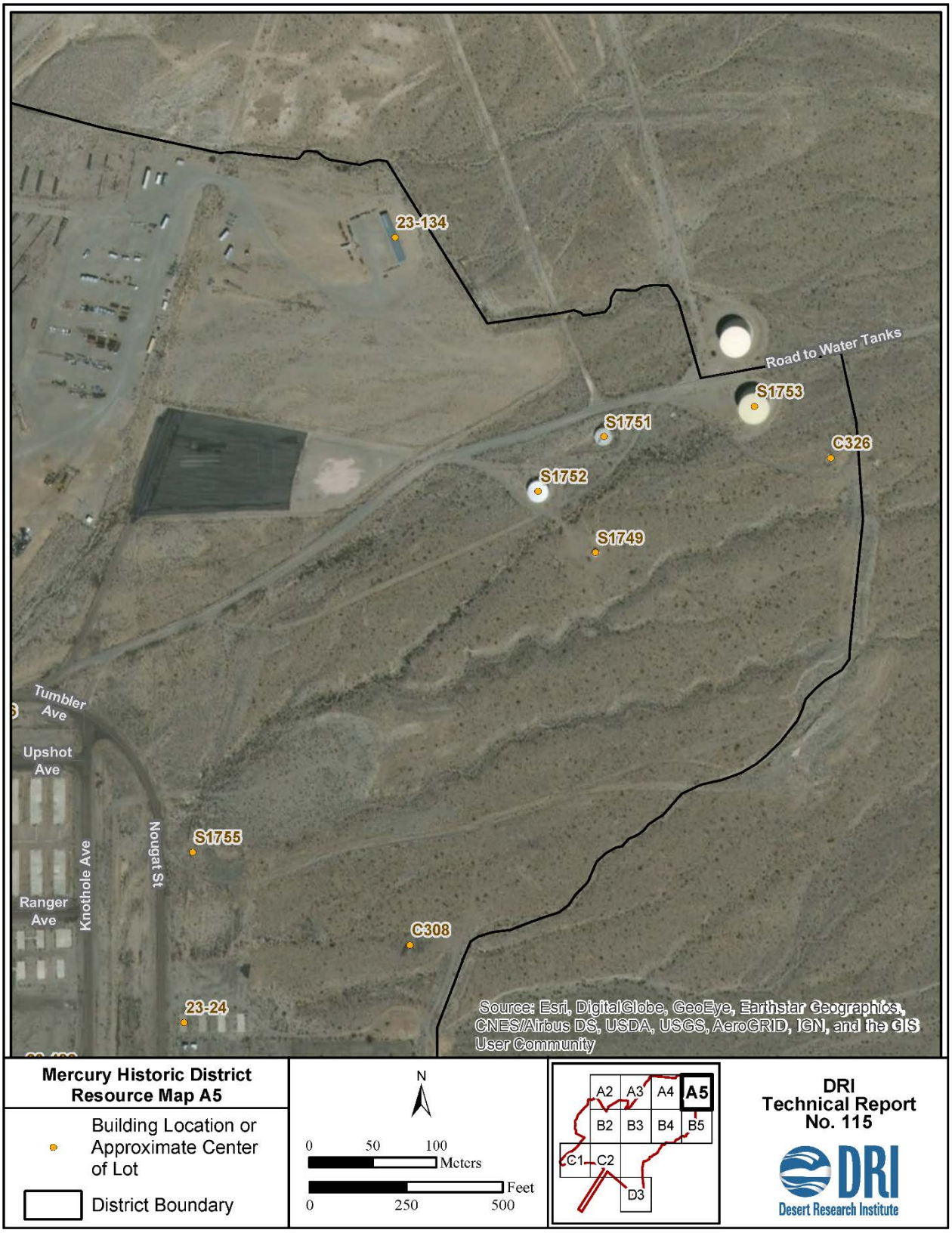
23-1104
23-1100
23-1101
23-1103
C311
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map A2
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute

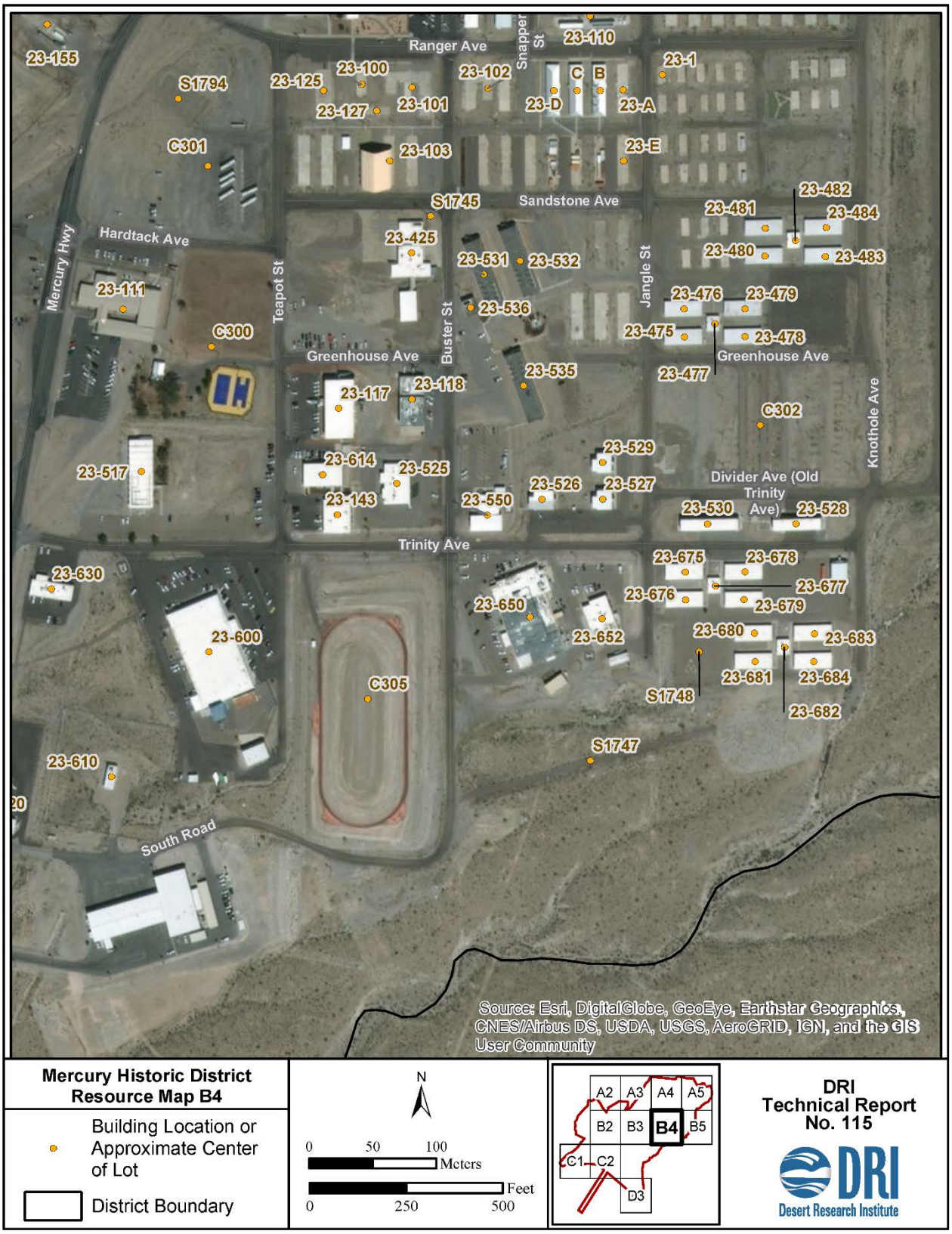
Warehouse Rd
Mercury Bypass
Mercury Hwy
23-775
23-750
23-170
23-153
23-753
23-751
23-155
C311
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map A3
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute

Mercury Bypass
C292
23-790
23-180
23-128
23-160
23-129
23-W11
Warehouse Rd
23-W1
23-775
C294
23-157
Mercury Hwy
23-W7
23-120
23-W10
23-W8
23-W9
23-190
Snapper St
23-156
23-158
C315
Tumbler Ave
Road to Water Tanks
23-116
C296
23-154
23-113
23-112
23-170
Upshot Ave
23-754
Crossroad Ave
23-146
23-115
23-310
23-300
23-153
23-114
23-301
23-109
23-132
Jangle St
Knothole Ave
Nugget St
23-110
Ranger Ave
23-155
23-1
23-100
23-102
C
B
S1794
23-125
23-D
23-A
23-127
23-101
Teapot St
C301
23-103
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map A4
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute


23-134
Road to Water Tanks
S1753
S1751
C326
S1752
S1749
Tumbler Ave
Upshot Ave
S1755
Nougat St
Knothole Ave
Ranger Ave
C308
23-24
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map A5
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute

23-1101
23-1103
C311
23-213
23-800
Road to West Facilities
23-1200
Mercury Bypass
Jackass Flats Hwy
S1756
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map B2
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute

C311
23-751
23-155
23-752
23-213
Road to West Facilities
Hardtack Ave
23-756
23-111
C303
23-726
23-725
23-703
23-702
23-517
Jackass Flats Hwy
Trinity Ave
Mercury Hwy
Mercury Bypass
C304
23-630
23-700
23-701
23-710
23-610
23-620
South Road
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map B3
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute



Mercury Historic District Resource Map B4

Building Location or Approximate Center of Lot

District Boundary

N

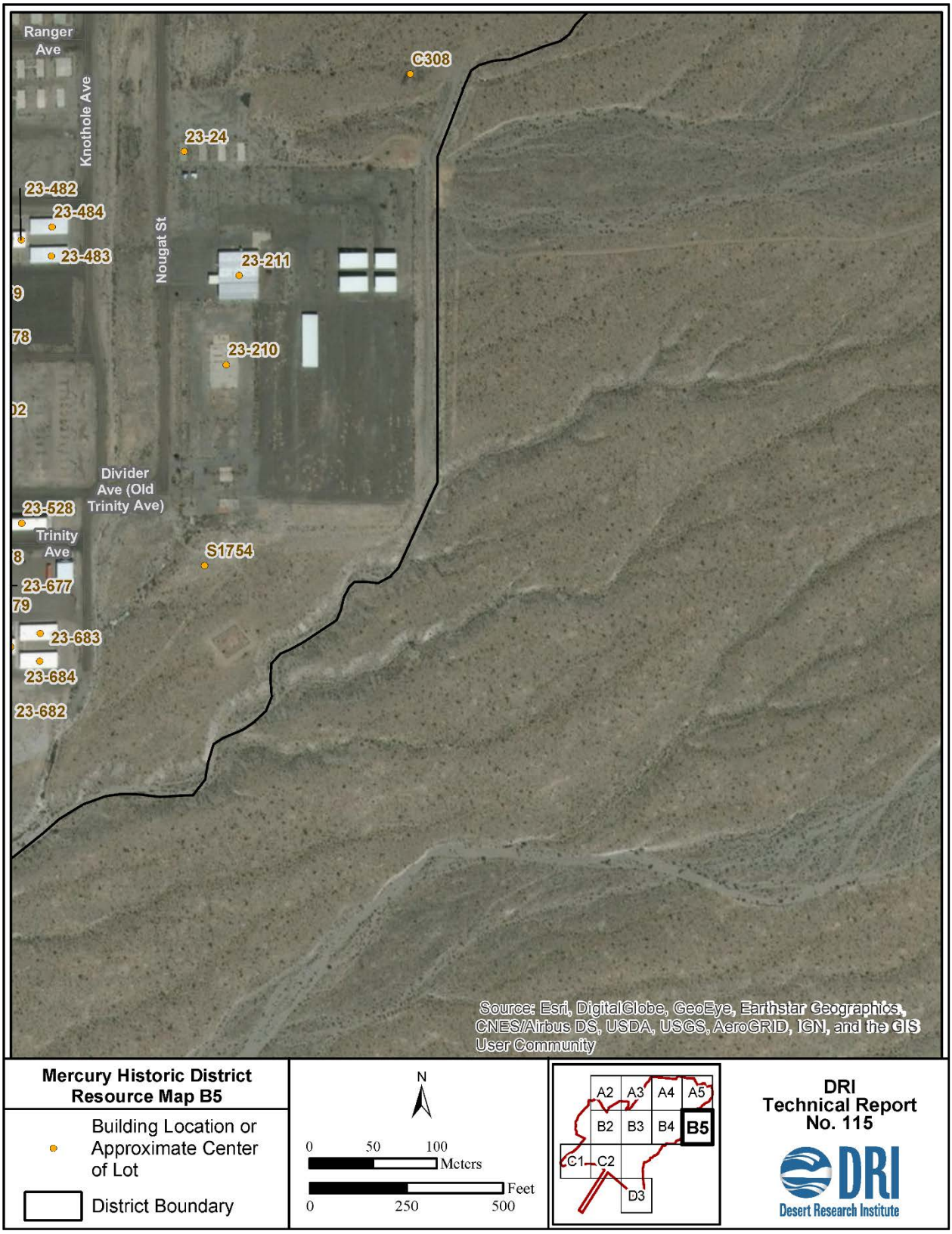
0 50 100 Meters

0 250 500 Feet

A2 A3 A4 A5 B2 B3 B4 B5 C1 C2 D3

DRI Technical Report No. 115

DRI Desert Research Institute



Mercury Historic District Resource Map B5

Building Location or Approximate Center of Lot

District Boundary

N

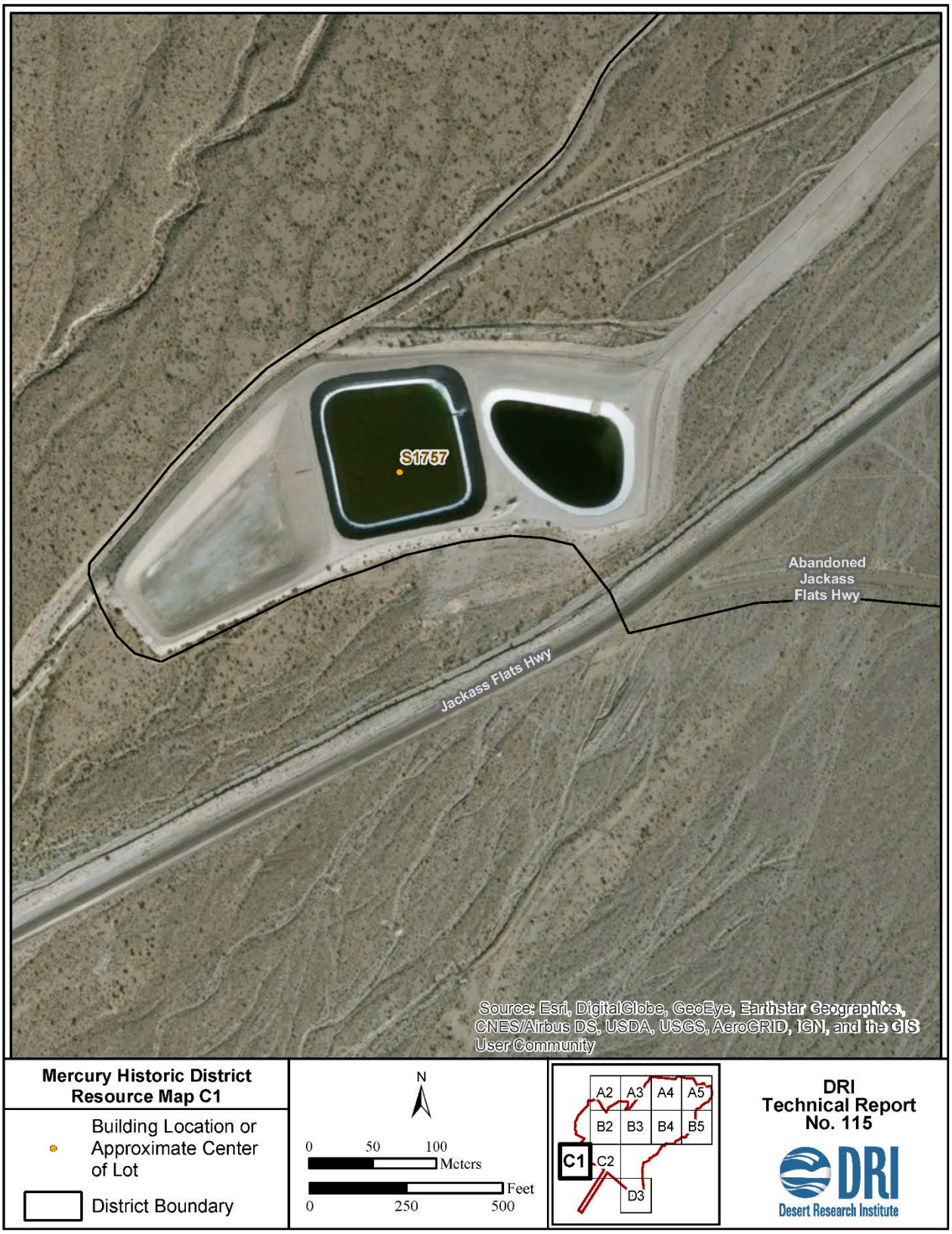
0 50 100 Meters

0 250 500 Feet

A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3

DRI Technical Report No. 115

Desert Research Institute


S1757
Abandoned
Jackass
Flats Hwy
Jackass Flats Hwy
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map C1
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1
C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute

Jackass Flats Hwy
26NY15777
Abandoned Jackass Flats Hwy
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map C2
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
DRI
Desert Research Institute

23-1014
Abandoned Jackass Flats Hwy
23-1010
23-GS100
23-1000
23-1001
S1759
23-1002
Mercury Hwy
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Mercury Historic District
Resource Map D3
Building Location or Approximate Center of Lot
District Boundary
N
0 50 100
Meters
Feet
0 250 500
A2 A3 A4 A5
B2 B3 B4 B5
C1 C2
D3
DRI
Technical Report
No. 115
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APPENDIX C

Contributing Resources to the Mercury Historic District

Table C-1. Contributing Resources to the Mercury Historic District C-1

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Table C-1. Contributing Resources to the Mercury Historic District.

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
26NY15777		**Mercury Airfield**		x	
B14451	**23-517**	**Bowling Alley**		x	
		Garbage Enclosure	AR1		x
B15215	**23-128**	**Certified Packaging Center**		x	
		Loading Dock	AR1	x	
		Storage Shelter	AR2	x	
		Boxcar	AR3	x	
		Retention Basin	AR4	x	
B15216	**23-129**	**Shop/Warehouse**		x	
		Foundation Slab for Tool Crib Warehouse	23-138	x	
		Portable Building	AR1	x	
		Concrete Slab	AR2	x	
		Shed	AR3	x	
		Foundation Slab	AR4	x	
		Foundation Slab for Welding Shop	AR5	x	
B15217	**23-180**	**RAMATROL**		x	
		Containment Pad	AR1	x	
B15218	**23-W11**	**Warehouse**		x	
		Storage	AR1	x	
		Shelter	AR2	x	
		Shelter	AR3	x	
B15219	**23-160**	**Warehouse**		x	
		Storage Shed	AR1	x	
		Storage Shed	AR2	x	
		Railroad Car	AR3	x	
		Railroad Car	AR4	x	
		Cargo Container	AR5	x	
		Refrigerator	AR6	x	
		Semi-Trailer	AR7	x	
		Semi-Trailer	AR8	x	
		Semi-Trailer	AR9	x	
		Trailer	AR10	x	
		Pump	AR11	x	
		Cargo Container Office	AR12	x	
		Cargo Container Building	AR13	x	
		Electronics/Communications Cellar	AR14	x	
		Portable Building	AR15	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Semi-Trailer	AR16	x	
		Semi-Trailer	AR17	x	
		Semi-Trailer	AR18	x	
		Portable Building	AR19	x	
B15220	**23-154**	**Shop/Warehouse**		x	
B15221	**23-156**	**Warehouse**		x	
		Lab Trailer	AR1	x	
		Lab Trailer	AR2	x	
B15222	**23-157**	**Warehouse/Linen Storage**		x	
		Boxcar	AR1	x	
		Boxcar	AR2	x	
B15223	**23-158**	**USGS Warehouse**		x	
B15224	**23-775**	**Warehouses (includes 23-776 and 23-777)**		x	
		Warehouse Foundation	AR1	x	
		Foundation	AR2	x	
		Incinerator	AR3	x	
		Propane Tank	AR4	x	
		Loading Ramp	AR5	x	
		Concrete Slab	AR6		x
		Utility Cellar	AR7	x	
		Filling Station	AR8	x	
		Foundation	AR9	x	
		Foundation	AR10	x	
		Cargo Container Building	AR11	x	
		Cargo Container Building	AR12	x	
		Cargo Container Building	AR13	x	
B15225	**23-W7**	**Warehouse**		x	
		Storage Building	AR1	x	
B15226	**23-W8**	**Warehouse**		x	
		Transformer	AR1	x	
B15227	**23-W9**	**Warehouse**		x	
		Portable Building	AR1	x	
B15228	**23-W10**	**Warehouse**		x	
B15229	**23-190**	**Materials Testing Laboratory**		x	
		Sample Bins	AR1	x	
		Portable Building	AR2	x	
B15230	**23-116**	**Power Plant**		x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Equipment Foundations	AR1	x	
		Substation	AR2	x	
B15231	**23-310**	**Records Library**		x	
B15232	**23-300**	**Cafeteria**		x	
B15233	**23-301**	**Refrigerated Food Storage**		x	
B15234	**23-754**	**Cafeteria Boiler Building**		x	
		Electrical Boxes	AR1	x	
B15235	**23-109**	**Fire Station/ Maintenance/Housing Office**		x	
		Concrete Pad	AR1	x	
B15236	**23-113**	**Recreation Center**		x	
B15237	**23-132**	**REECo Cashier**		x	
		Tank or Bin Foundation	AR1	x	
		Sidewalk	AR2	x	
B15238	**23-114**	**Food Storage**		x	
		Storage Container	AR1	x	
		Storage Container	AR2	x	
B15239	**23-B**	**Dormitory**		x	
B15240	**23-C**	**Dormitory**		x	
B15241	**23-D**	**Dormitory**		x	
B15242	**23-425**	**Fire Station**		x	
B15243	**23-475**	**Dormitory**		x	
B15244	**23-476**	**Dormitory**		x	
B15245	**23-477**	**Day Room for Dormitory Complex 23-475 through 23-479**		x	
		Hot Water System	AR1	x	
B15246	**23-478**	**Dormitory**		x	
B15247	**23-479**	**Dormitory**		x	
B15248	**23-480**	**Dormitory**		x	
B15249	**23-481**	**Dormitory**		x	
B15250	**23-482**	**Day Room for Dormitory Complex 23-480 - 23-484**		x	
B15251	**23-483**	**Dormitory**		x	
B15252	**23-484**	**Dormitory**		x	
B15253	**23-725**	**Bell Telephone Computer**		x	
B15254	**23-726**	**Print Plant/Radio Communications**		x	
		Communications Tower	AR1	x	
		Communication Tower	AR2	x	
		Communications Tower	AR3	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Communication Tower	AR4	x	
		Portable Communications Building	AR5	x	
		Portable Communications Building	AR6	x	
		Dish Antenna	AR7	x	
		Dish Antenna	AR8	x	
		Dish Antenna	AR9	x	
		Electrical Boxes and Utility Pole	AR10	x	
		Flammable Materials Lockers	AR11	x	
		Trailer	AR12	x	
		Posts	AR13	x	
B15255	**23-111**	**Security/Administration Building**		x	
		Flagpole	AR1		x
		Mechanical Area	AR2	x	
B15256	**23-117**	**Administration Building**		x	
		Mechanical Building	AR1	x	
		HVAC Unit	AR2	x	
		Transformer	AR3	x	
B15257	**23-118**	**Cable Testing Building**		x	
B15258	**23-143**	**Administration**		x	
B15259	**23-525**	**Weather Service/Post Office**		x	
B15260	**23-614**	**Photographic Support**		x	
		Pergola	AR1	x	
B15261	**23-526**	**Dormitory**		x	
		Storage Container	AR1	x	
		Electrical Box	AR2	x	
B15262	**23-527**	**Dormitory**		x	
		Electrical Box	AR1	x	
B15263	**23-529**	**Dormitory**		x	
		Electrical Box	AR1	x	
B15264	**23-531**	**Dormitory**		x	
B15265	**23-532**	**Dormitory**		x	
B15266	**23-535**	**Dormitory**		x	
		Pergola	AR1	x	
B15267	**23-536**	**Mechanical Building for Dormitory Complex 23-531, 532, and 535**		x	
B15268	**23-550**	**Chapel**		x	
		Portable Building	AR1	x	
		Canopy	AR2	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
B15269	**23-528**	**Dormitory**		x	
		Transformer	AR1	x	
B15270	**23-530**	**Dormitory**		x	
		Gazebo	AR1	x	
		Transformer	AR2	x	
B15271	**23-153**	**Physical Standards/Calibration**		x	
		Shed	AR1	x	
		Modular Building	AR2		x
B15272	**23-750**	**Vehicle Maintenance Shop**		x	
		Substation	AR1	x	
		Used Oil Tank	AR2	x	
		Used Fuel and Liquids Storage	AR3	x	
		New Oil Tank	AR4	x	
B15273	**23-751**	**Equipment Maintenance Shop**		x	
		Substation	AR1	x	
		Railroad Car	AR2	x	
		Propane Enclosure	AR3	x	
		Containment Basin	AR4	x	
		Portable Building	AR5	x	
B15274	**23-752**	**Motor Pool Fleet Operations**		x	
		Fuel Tanks	AR1	x	
		Substation	AR2	x	
		GPR Training Facility	AR3		x
		Wash Platform	AR4	x	
		Propane and Underground Tanks	AR5	x	
		Shed	AR6	x	
		Loading Ramp	AR7	x	
		Trailer Parking	AR8	x	
		NDT Test Pad	AR9	x	
B15275	**23-753**	**Boiler Building**		x	
		Buried Tanks	AR1	x	
B15276	**23-700**	**Maintenance Shop**		x	
		Substation	AR1	x	
B15277	**23-701**	**LASL Radiation Laboratory**		x	
		Hot Water Heating Valves	AR1	x	
B15278	**23-702**	**Foil Handling**		x	
B15279	**23-703**	**Weather Maintenance/Dosimetry Lab**		x	
		Trailer Hookups	AR1	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
B15280	**23-710**	**Crafts Building**		x	
		Shop	23-133	x	
		Refrigerator	AR1	x	
		Heliport	AR2	x	
		Substation	AR3	x	
		Gas Storage	AR4	x	
		Railroad Car Storage Building	AR5	x	
		Railroad Car Storage Building	AR6	x	
		Railroad Car Storage Building	AR7	x	
		Railroad Car Storage Building	AR8	x	
		Railroad Car Storage Building	AR9	x	
		Railroad Car Storage Building	AR10	x	
		Cargo Container Building	AR11	x	
		Cargo Container Building	AR12	x	
		Cargo Container Building	AR13	x	
		Portable Building	AR14	x	
		Sign Stockpile	AR15	x	
B15281	**23-600**	**LRL Laboratory**		x	
		Garage	AR1	x	
		Overhead Shelter	AR2	x	
		Substation	AR3	x	
		Substation	AR4	x	
		Overhead Shelter	AR5	x	
		Overhead Shelter	AR6		x
B15282	**23-610**	**Dosimetry Calibration Laboratory**		x	
		Enclosure	AR1	x	
B15283	**23-620**	**LASL J-3 Office**		x	
B15284	**23-630**	**Sandia Administration**		x	
B15285	**23-650**	**Health, Medicine, and Safety**		x	
		Ambulance Garage	AR1	x	
		Evacuation Assembly Area	AR2	x	
		Communications Tower	AR3	x	
B15286	**23-652**	**Industrial Hygiene**		x	
		Storage Shed	AR1	x	
		Substation	AR2	x	
B15287	**23-675**	**Dormitory**		x	
		Electrical Box	AR1	x	
B15288	**23-676**	**Dormitory**		x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
B15289	**23-677**	**Day Room**		x	
		Utility Box	AR1	x	
B15290	**23-678**	**Dormitory**		x	
B15291	**23-679**	**Dormitory**		x	
B15292	**23-680**	**Dormitory**		x	
B15293	**23-681**	**Dormitory**		x	
B15294	**23-682**	**Day Room**		x	
		Utility Box	AR1	x	
B15295	**23-683**	**Dormitory**		x	
B15296	**23-684**	**Dormitory**		x	
B15297	**23-211**	**DOD Warehouse**		x	
		Shop	AR1	x	
		Loading Dock	AR2	x	
		Basketball Court	AR3	x	
		Foundation	AR4	x	
		Portable Building	AR5	x	
		Portable Building	AR6	x	
B15298	**23-1100**	**Information not Available**		x	
B15299	**23-1101**	**Information not Available**		x	
B15300	**23-1103**	**Information not Available**		x	
		Transformer	AR1	x	
		Transformer	AR2	x	
B15301	**23-1104**	**Lowery Complex**		x	
		Rappel Wall	AR1		x
		Portable Building	AR2	x	
B15302	**23-1000**	**Information not Available**		x	
		Electrical Boxes	AR1	x	
		Generator	AR2	x	
B15303	**23-1001**	**Security Administrative Office**		x	
B15304	**23-1002**	**Security Office**		x	
		Enclosure	AR1	x	
B15305	**23-1010**	**Switching Station**		x	
		Switching Towers	AR1	x	
		Electrical Box	AR2	x	
B15306	**23-1014**	**Vehicle Scales**		x	
		Scale	AR1	x	
C292	**M19**	**Unknown Building Foundations**		x	
		Loading Dock	AR1	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Equipment Foundation	AR2	x	
		Equipment Foundation	AR3	x	
		Equipment Foundation	AR4	x	
		Electrical Boxes	AR5	x	
		Slab Foundation	AR6	x	
C293	**23-W1**	**Warehouses W1-W6, etc.**		x	
		Warehouse Foundation	23-W1	x	
		Warehouse Foundation	23-W2	x	
		Warehouse Foundation	23-W3	x	
		Warehouse Foundation	23-W3A	x	
		Warehouse Foundation	23-W4	x	
		Warehouse Foundation	23-W4A	x	
		Warehouse Foundation	23-W5	x	
		Warehouse Foundation	23-W5A	x	
		Warehouse Foundation	23-W6	x	
		Storage Building	23-119	x	
		Vehicle Maintenance Shop Foundation	23-140	x	
		Loading Ramp	AR1	x	
		Substation	AR2	x	
		Loading Dock	AR3	x	
		Scales	AR4	x	
		Foundation	AR5	x	
		Foundation	AR6	x	
		Foundation	AR7	x	
		Foundation	AR8	x	
		Gas Station	AR9	x	
		Pressure Testing Device	AR10	x	
		Substation	AR11	x	
C294	**M22**	**Trailer Park**			x
		Foundations	AR1		x
		Electrical Panel	AR2		x
		Electrical Panel	AR3		x
		Standpipe	AR4		x
C295	**23-146**	**Foundations for Wash House and Dormitory Complex 23-501 - 508 and 23-513 - 515**		x	
		Dormitory Foundation	23-501	x	
		Dormitory Foundation	23-502	x	
		Dormitory Foundation	23-503	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Dormitory Foundation	23-504	x	
		Dormitory Foundation	23-505	x	
		Dormitory Foundation	23-506	x	
		Dormitory Foundation	23-507	x	
		Dormitory Foundation	23-508	x	
		Dormitory Foundation	23-513	x	
		Dormitory Foundation	23-514	x	
		Dormitory Foundation	23-515	x	
C296	**M13**	**Parking**		x	
C297	**23-103**	**Women's Dormitory Complex Foundations23-103 - 107; 23-152 Laundry**		x	
		Foundation	23-104	x	
		Foundation	23-105	x	
		Foundation	23-106	x	
		Foundation	23-107	x	
		Wash House	23-152	x	
C298	**23-E**	**Dormitory Foundations (includes 23-E - M; 23-S - U)**		x	
		Dormitory Foundation	23-F	x	
		Dormitory Foundation	23-G	x	
		Dormitory Foundation	23-H	x	
		Dormitory Foundation	23-I	x	
		Dormitory Foundation	23-J	x	
		Dormitory Foundation	23-K	x	
		Dormitory Foundation	23-L	x	
		Dormitory Foundation	23-M	x	
		Dormitory Foundation	23-S	x	
		Dormitory Foundation	23-T	x	
		Dormitory Foundation	23-U	x	
C299	**23-1**	**Dormitory Complex Foundations 23-1 - 23; 23-26 - 28; 23-31 - 36**		x	
		Plaza with central flag pole	AR1	x	
		Quonset Hut Foundations 23-2 to 23-23 and 23-26 to 23-28	AR2 to AR26	x	
		Quonset Hut Foundations 23-31 to 23-36	AR27 to AR32	x	
C300	**M10**	**Dell Frenzi Park**		x	
		Tennis/Basketball Court	AR1	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Picnic Area	AR2	x	
		Ball Field	AR3		x
C301	**M12**	**Bus Parking**		x	
		Commuter Waiting Area	AR1	x	
C302	**M11**	**Men's Trailer Park Terraces**		x	
		Foundation	AR1		x
C303	**M21**	**Electrical/Communications Storage**		x	
		Equipment Cluster	AR1	x	
		Equipment Cluster	AR2	x	
		Portable Tank	AR3	x	
		Cable Reel Unit	AR4	x	
C304	**M20**	**Storage Yard**		x	
		Trailer	AR1	x	
		Portable Tower	AR2	x	
C305	**M9**	**Mercury Track**		x	
		Shed	AR1	x	
C306	**23-24**	**Foundations for Quonset Huts23-24/25/29/30**		x	
		Foundation 23-25	AR1	x	
		Foundation 23-29	AR2	x	
		Foundation 23-30	AR3	x	
C307	**23-210**	**DOD Motor Pool Maintenance Foundation**		x	
		Filling Station	AR1	x	
		Dispatch	AR2	x	
		Entry Landscaping	AR3	x	
C308	**M16**	**Tree Target Remnants**		x	
C309	**23-213**	**Biomedical Effects, Mouse House (23-214) and Other Foundations**		x	
		Radiological Laboratory	23-214	x	
		Power Pole	AR1	x	
		Terrace	AR2	x	
		Concrete Slab	AR3	x	
		Concrete Slabs	AR4	x	
		Concrete Slab Building Foundation	AR5	x	
		Concrete Slab Building Foundation	AR6	x	
		Tank Foundation	AR7	x	
		Concrete Slab Building Foundation	AR8	x	
		Loading Ramp	AR9	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
		Terrace	AR10	x	
C310	**23-1200**	**Sewage Disposal Plant**		x	
		Screen and Comminutor	AR1	x	
		Imhoff Tank	AR2	x	
		Filter	AR3	x	
		Settling Tank	AR4	x	
		Sludge Beds	AR5	x	
		Loading Platform	AR6	x	
		Electrical Panel	AR7	x	
		Utility Cellar	AR8	x	
C311	**M29**	**Salvage Yard**		x	
		Storage Building	AR1	x	
		Portable Building Foundation	AR2	x	
		Portable Building Terrace	AR3	x	
		Utility Pole	AR4	x	
		Utility Pole	AR5	x	
		Loading Dock	AR6	x	
		Stickers	AR7	x	
		Weights	AR8	x	
C312	**23-790**	**CETO Foundation**		x	
		CETO Greenhouse Foundation	AR1	x	
		Storage	AR2	x	
		Storage	AR3	x	
		Propane Tank Enclosure	AR4	x	
		Substation	AR5	x	
C313	**23-170**	**Ice Plant Foundation**		x	
		Semi-Trailer	AR1	x	
C314	**23-120**	**Office Foundations 23-120, 121, 122, and 123**		x	
C315	**M14**	**Mercury Substation Foundations**		x	
C316	**23-110**	**Cafeteria/Engineering Office Foundation**		x	
C317	**23-112**	**Cafeteria/Office Foundation**		x	
C318	**23-115**	**Boiler Building Foundation**		x	
C319	**23-100**	**Hospital, Sheriff's Office Foundation**		x	
C320	**23-101**	**Administration Building Foundation**		x	
C321	**23-125**	**Theater Foundation**		x	
C322	**23-127**	**Weather Service Foundation**		x	
C323	**23-102**	**Administration Building Foundation**		x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
C324	**23-A**	**Dormitory Foundation**		x	
C325	**23-155**	**RAD-SAFE Foundation**		x	
		Transformer	AR1	x	
C326	**M28**	**Unknown Building Foundation**		x	
C327	**23-800**	**Disposal Entrance Foundation (includes 23-801 and 23-810A)**		x	
		Building Foundation	23-801	x	
		Portable Building 810A	AR1	x	
		Concrete Slab	AR2		x
S1707		**Power and Communications**		x	
S1745	**M7**	**Siren Tower**		x	
S1746	**23-756**	**Car Wash**		x	
		Vacuum	AR1	x	
		Slab	AR2	x	
S1747	**M15**	**Liaison Airstrip**		x	
S1748	**M8**	**Helicopter Landing Pad**		x	
S1749	**M27**	**Ham Radio Facility**		x	
		Aerial Pole	AR1	x	
		Aerial Pole	AR2	x	
		Aerial Pole	AR3	x	
		Aerial Pole	AR4	x	
		Pole	AR5	x	
S1750	**23-134**	**Bottled Gas Storage (includes 23-135)**		x	
		Trailer	AR1	x	
		Trailer	AR2	x	
S1751	**M24**	**100,000 Gallon Water Tank #993491**		x	
S1752	**M25**	**250,000 Gallon Water Tank #701008**		x	
S1753	**M26**	**1.5 Million Gallon Water Tank #700852**		x	
		Cellar	AR1	x	
S1754	**M17**	**Flagpole**		x	
S1755	**M18**	**Communications Tower**		x	
S1756	**M31**	**Upper Sewage Lagoons**		x	
		Shed	AR1		x
		Shed	AR2		x
S1757	**M32**	**Lower Sewage Lagoons**		x	
S1758	**23-GS100**	**Main Gate**		x	
		Portable Building	AR1	x	

Table C-1. Contributing Resources to the Mercury Historic District (continued).

SHPO #	NNSS or Other #	NAME (HISTORIC)	AR*	ELIGIBILITY CRITERIA A & C*	
				Contributing	Non-Contributing
S1759	**M23**	**Gate 100 Sewage Lagoon**		x	
S1760	**M1**	**Mercury Highway**		x	
		Mercury Bypass	AR1	x	
S1761	**M2**	**Jackass Flats Road**		x	
		Abandoned Jackass Flats Highway Shortcut	AR1	x	
S1762	**M3**	**Mercury Street System**		x	
S1763	**M4**	**Mercury Water System**		x	
S1764	**M5**	**Mercury Sewer System**		x	
S1765	**M6**	**Mercury Stormwater Drainage System**		x	
		Airport Ditch	AR1	x	
		Bypass Ditch	AR2	x	
		Central Mercury Highway Ditch	AR3	x	
		Del Frenzi Ditch	AR4	x	
		DNA Ditch	AR5	x	
		Northwest Ditch	AR6	x	
		Gas Ditch	AR7	x	
		Jackass Flats Hwy. Ditch	AR8	x	
		Jangle Ditch	AR9	x	
		Knothole Ditch	AR10	x	
		Lagoon Ditch	AR11	x	
		North Ditch	AR12	x	
		North Mercury Highway Ditch	AR13	x	
		Salvage Ditch	AR14	x	
		South Jackass Flats Rd. Ditch	AR15	x	
		South Mercury Hwy. Ditch	AR16	x	
		Substation Ditch	AR17	x	
		Track Ditch	AR18	x	
		Trinity Ditch	AR19	x	
		Warehouse Ditch	AR20	x	
		Water Tanks Ditch	AR21	x	
S1766	**M30**	**Mercury Steam/HTHW System**		x	
S1794	**M33**	**Tap & Meter Substation Foundations**		x	

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APPENDIX D

Properties in Mercury Constructed Later than 1992 and not Formally Recorded

Buildings 23-151 and 23-163 ..... D-1
Buildings 23-23 and 23-302 ..... D-2
Buildings 23-426 and 23-640 ..... D-3
Building 23-699 and Bulk Fuel Station D-4
Building 23-1106 ..... D-5

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Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-151 Core Storage			
Construction Date	1995	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589484		Northing: 4057885	

Elevation: Southeast Direction facing: Northwest Photographer: NNSS
Date: 2003

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-163 Counterterrorism Training Complex (located on the old foundation of 23-112)			
Construction Date	ca. 2003	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589817		Northing: 4057856	

Elevation: North Direction facing: Southwest Photographer: NNSS
Date: 2004

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-23 (Not to be confused with former Quonset Hut 23-23, which is recorded as part of 23-1.) Nye County Sheriff Trailer			
Construction Date	2003	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589475		Northing: 4057463	

Elevation: North Direction facing: South Photographer: NNSS Date: 2003

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-302 Mercury Garbage Facility			
Construction Date	1997	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589586		Northing: 4057797	

Elevation: South Direction facing: North-northeast Photographer: NNSS Date: 1999

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-426 Fire Station #1 Dormitory			
Construction Date	2004	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589672		Northing: 4057513	

Elevation: East, North Direction facing: Southwest Photographer: NNSS Date: 2005

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-640 Fire Station #1			
Construction Date	2010	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589478		Northing: 4057039	

Elevation: South-southeast Direction facing: west (left), north (right) Photographer: NNSA
Date: 2010

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-699 Fire Department Warehouse			
Construction Date	1992	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 589672		Northing: 4057513	

Elevation: West, South Direction facing: Northeast Photographer: Menocal
Date: 2017

Property Type

Building ☐	Structure ☐	Object ☐	Landscape (non-archaeological site) ☒

Resource Overview

Resource Name	Bulk Fuel Station - demolished			
Construction Date	N/A	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 588630		Northing: 4056942	

Photo not available. Plan view source: NSTec Mercury Vicinity map, Product ID: 20170223-02-P003-R00, Acquisition Date: 10/10/2016.

Property Type

Building ☒	Structure ☐	Object ☐	Landscape (non-archaeological site) ☐

Resource Overview

Resource Name	23-1106 CNV Classroom Annex			
Construction Date	2006	Contributing?	Yes ☐	No ☒
UTM (NAD 83, UTM Zone 11 North)	Easting: 588390		Northing: 4057763	

Elevation: West, South Direction facing: Northeast Photographer: Menocal
Date: 2017