MEMORANDUM OF AGREEMENT
BETWEEN THE
NATIONAL NUCLEAR SECURITY ADMINISTRATION NEVADA FIELD OFFICE
(NNSA/NFO)
AND THE
NEVADA STATE HISTORIC PRESERVATION OFFICER
REGARDING
WATER AND SEWER UPGRADES
AT MERCURY IN NYE COUNTY, NEVADA

WHEREAS, the NNSA/NFO plans to modernize the Mercury town site at the Nevada National Security Site to meet current and future National Weapons Science, Global and Homeland Security Programs, and Environmental Management mission requirements; and

WHEREAS, the NNSA/NFO considers the consolidation, replacement and upgrades of water and sewer utilities efforts at Mercury (the undertaking) 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 (NHPA), Title 54 U.S.C. §300101, et seq., and its implementing regulations, 36 C.F.R. Part 800; and

WHEREAS, the NNSA/NFO has determined the Mercury Historic District (MHD), described in Attachment A, to be eligible for listing in the National Register of Historic Places under Criteria A and C, for its national importance in supporting nuclear testing and scientific research from 1951-1992 during the Cold War era, and that the historic water and sewer systems are contributing elements of the MHD; and

WHEREAS, the NNSA/NFO, in consultation with the Nevada State Historic Preservation Officer (SHPO), has determined that the undertaking (as described in Attachment B), may have adverse effects on historic properties contributing to the eligibility of the MHD; and

WHEREAS, the NNSA/NFO has notified the Advisory Council on Historic Preservation (ACHP) pursuant to 36 C.F.R. § 800.6(a)(1) of its adverse effect determination providing the specified documentation, and the ACHP has chosen not to participate in the consultation pursuant to 36 C.F.R. § 800.6(a)(1)(iii); and

NOW, THEREFORE, the NNSA/NFO and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

I. ROLES AND RESPONSIBILITIES

The Signatories agree that the NNSA/NFO will be responsible for administering and implementing this MOA. This includes but is not limited to overseeing all cultural resources work; assembling all submissions to the SHPO including reports and treatment plans; and seeking SHPO concurrence with all agency compliance decisions. The NNSA/NFO will consult with Indian Tribes whose aboriginal territories include portions of the undertaking or who have previously expressed interest in undertakings within the MHD, and with other stakeholders having an interest in Mercury's history.

II. AREA OF POTENTIAL EFFECT

The Area of Potential Effect (APE) under this MOA encompasses the existing historic water, sewer, and steam/high temperature hot water (HTHW) utility lines in Mercury (shown in Attachment C), above and below-ground, that will be subject to exposure, upgrade and replacement activities as described in Attachment B.

III. MITIGATION OF ADVERSE EFFECTS

A. Monitoring of Undertaking Activities. The NNSA/NFO shall ensure that a cultural resource management (CRM) subject matter expert (SME) experienced in recording historic period utility systems will conduct or oversee, and review results of, periodic monitoring of trenches and other excavations during upgrade activities to examine, record, and photograph historic water, sewer, and steam/HTHW utility components before they are upgraded or replaced.

1. Monitoring and recordation will take place in phases corresponding to the tentative upgrade schedule based on federal fiscal year (FY), currently planned for FY 2017/2018, FY2019, and FY2020 (Attachment B).

B. Documentation of Exposed Elements

1. The NNSA/NFO shall ensure that the CRM SME updates an Architectural Resource Assessment (ARA) form for a representative sample of historic water, sewer, and steam/HTHW utility components as they are exposed during each upgrade phase.
2. The NNSA/NFO will take detailed digital photographs of a representative sample of historic water, sewer, and steam/HTHW utility components consistent with the Nevada Architectural Survey and Inventory Guidelines.
    a. The NNSA/NFO shall submit draft digital copies of the photographs to the SHPO.
    b. The SHPO will review the photographs for quality, variety, and representativeness within five (5) working days of receipt. The SHPO will send its comments to the NNSA/NFO for action, if needed.

c. The NNSA/NFO shall review and address any comments made by the SHPO.

3. The NNSA/NFO may determine that sufficient representative samples of historic water, sewer, and steam/HTHW utility components exposed during each upgrade phase have been adequately recorded (taking into consideration the age and materials of the historic water, sewer, and steam/HTHW utility components).
    a. The NNSA/NFO shall submit their determination that the sample documentation completed in accord with Stipulation III.B.1-2 is sufficient for each upgrade phase to the SHPO.
    b. The SHPO will review this determination within fifteen (15) calendar days of receipt. If the SHPO concurs with this determination or does not respond within fifteen (15) calendar days, NNSA/NFO shall assume concurrence and cease the monitoring required in accord with Stipulation III.A for that phase of the undertaking.

4. The NNSA/NFO may determine that sufficient representative samples of recorded water, sewer, and steam/HTHW utility components in one upgrade phase are also representative of such components likely to be exposed in a subsequent upgrade phase (taking into consideration the age and materials of the historic water, sewer, and steam/HTHW utility components).
    a. The NNSA/NFO shall submit this determination to the SHPO.
    b. The SHPO will review this determination within fifteen (15) calendar days of receipt. If the SHPO concurs with this determination or does not respond within fifteen (15) calendar days of receipt, the NNSA/NFO shall assume concurrence and cease the monitoring required in accord with Stipulation III.A for that subsequent phase of the undertaking.

C. Historic Context Update. Using the results of activities in Stipulation III.A and III.B during this undertaking, the NNSA/NFO shall prepare an updated historic context document describing the development and functioning of the historic Mercury water, sewer and steam/HTHW utility system (following Attachment C) to address the historic significance of the Mercury community as a whole.
    1. The NNSA/NFO shall submit a draft version of this report to the SHPO for review and comment within one year of completion of all undertaking activities specific to this MOA.
    2. The SHPO will review and comment on this historic context report within thirty (30) days of receipt. If the SHPO concurs with this determination or does not respond within thirty (30) calendar days of receipt, the NNSA/NFO shall assume concurrence and finalize the document.
    3. The NNSA/NFO will complete a final report addressing the SHPO's comments within sixty (60) days of receipt of SHPO comments.

IV. REPORTING

A. The NNSA/NFO will ensure that an annual report detailing the results of recordation of historic water, sewer, and steam/HTHW utilities while upgrades are under way will be prepared and submitted to the SHPO for review and comment.

B. The NNSA/NFO shall submit final reports, ARA forms, photographs and other documentation regarding the historic water and sewer system to the Nevada Testing Archive in Las Vegas, for inclusion in its archival collections.

V. DURATION

This MOA will expire if its stipulations are not carried out within five (5) years from the date of its execution. At such time, and prior to work continuing on the undertaking, the NNSA/NFO shall either (a) execute a MOA pursuant to 36 C.F.R. § 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 C.F.R. § 800.7. Prior to such time, the NNSA/NFO may consult with the SHPO to reconsider the terms of the MOA and amend it in accordance with Stipulation IX below. The NNSA/NFO shall notify the SHPO as to the course of action it will pursue.

VI. POST-REVIEW DISCOVERIES

If historic properties, other than water, sewer, steam/HTHW or other buried utilities, are discovered or unanticipated effects on historic properties occur within the APE after the upgrade activities have been initiated, NNSA/NFO personnel shall implement the following procedure:

A. The Activity Manager shall immediately cease all operations for the portion of the activity (with a buffer nominally ten [10] feet surrounding the discovery or affected historic property) that has the potential to affect an historic property, and notify the NNSA/NFO of the discovery or effect.

B. The NNSA/NFO shall ensure that the CRM SME assesses the National Register eligibility of the property and the potential of the activity to affect its qualifying characteristics. The CRM SME shall report to the NNSA/NFO of its findings and develop a treatment plan to avoid or mitigate the effect, as appropriate.

C. The NNSA/NFO shall consult with the SHPO on the discovery and the treatment plan within five (5) days of the discovery. The SHPO shall have five (5) working days to provide comment on the discovery and the NNSA/NFO determination of National Register eligibility. If the SHPO concurs with this determination or does not respond within five (5) working days of receipt, the NNSA/NFO shall assume concurrence and proceed with the proposed treatment plan developed in accord with Stipulation VI.B above.

D. The NNSA/NFO shall notify Indian Tribes of discoveries that have the potential to adversely affect properties of religious or cultural significance to them, or that meet the criteria of the Native American Graves Protection and Repatriation Act (NAGPRA). After reviewing such discoveries, the Indian Tribes can request further consultation on the undertaking by notifying the NNSA/NFO and the SHPO in writing.

E. Once the CRM SME completes the fieldwork portion of the treatment plan, the CRM SME shall submit a fieldwork summary of the activities to the NNSA/NFO.

F. The NNSA/NFO shall submit this fieldwork summary to the SHPO.

G. The SHPO will have five (5) working days to provide comment on the fieldwork summary. If the SHPO concurs with this determination or does not respond within five (5) working days of receipt, the NNSA/NFO shall assume concurrence and advise the Activity Manager to resume the activities that were halted to address the discovery situation.

H. The NNSA/NFO shall complete fieldwork activities to address the SHPO's comments and resubmit the final updated fieldwork summary to the SHPO.

I. The NNSA/NFO will then advise the Activity Manager to resume the activities that were halted to address the discovery situation.

VII. QUALIFICATIONS

The NNSA/NFO shall ensure that all actions prescribed by this MOA that involve the identification, evaluation, analysis, recordation, treatment, monitoring, and disposition of historic properties and that involve the reporting and documentation of such actions in the form of reports, forms, or other records, shall be carried out by or under the supervision of a person or persons meeting, at a minimum, the Secretary of the Interior's Professional Qualifications Standards for archaeology, history, or architectural history, as appropriate (48 F.R. 44738-44739).

VIII. DISPUTE RESOLUTION

Should any Signatory party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the NNSA/NFO and the SHPO shall consult to resolve the objection. If the NNSA/NFO determines that such objection cannot be resolved, the NNSA/NFO will:

A. Forward all documentation relevant to the dispute, including the NNSA/NFO's proposed resolution, to the ACHP. The ACHP shall provide the NNSA/NFO with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the NNSA/NFO shall prepare a written

response that takes into account any timely advice or comments regarding the dispute from the ACHP and the SHPO, and provide them with a copy of this written response. The NNSA/NFO will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the NNSA/NFO may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the NNSA/NFO shall prepare a written response that takes into account any timely comments regarding the dispute from the SHPO and provide the SHPO and the ACHP with a copy of such written response.

C. The NNSA/NFO's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

IX. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all Signatories. The amendment will be effective on the date a copy signed by all of the Signatories is filed with the ACHP.

X. TERMINATION

If any Signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation IX, above. If within thirty (30) days (or another time period agreed to by all Signatories) an amendment cannot be reached, any Signatory may terminate the MOA upon written notification to the other Signatory.

Once the MOA is terminated, and prior to work continuing on the undertaking, the NNSA/NFO must either (a) execute an MOA pursuant to 36 C.F.R. § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 C.F.R. § 800.7. The NNSA/NFO shall notify the SHPO as to the course of action it will pursue.

EXECUTION of this MOA by the NNSA/NFO and the SHPO and implementation of its terms evidence that the NNSA/NFO has taken into account the effects of this undertaking on historic properties and has provided the ACHP the opportunity to comment.

SIGNATORIES:

National Nuclear Security Administration Nevada Field Office, US Department of Energy

_____ Date: 1-30-18

Steven J. Lawrence
Nevada Field Office Manager

Nevada State Historic Preservation Officer

_____ Date: 01/30/18

Rebecca Lynn Palmer
State Historic Preservation Officer

ATTACHMENT A. MERCURY HISTORIC DISTRICT.

Mercury's historic legacy as the headquarters of a major Cold War battlefield (Fehner and Gosling 2000) is captured in the designation of the Mercury Historic District (MHD). The MHD encompasses an area that includes the built environment associated with the contiguous town site of Mercury, Nevada; outlying facilities that supported the town or the nuclear testing mission from 1950 - 1992; and artificial and natural water control drainage features that define the district boundary (Figure A-1).

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. Like other government installations, Mercury resembles a typical company town. It was established partly as a basecamp to provide facilities, services, and amenities for personnel working on the NNSS so that not all workers would have to commute daily from Las Vegas and other nearby towns. Mercury has also served as a central hub for the management of agency and contractor activities throughout the NNSS. Unlike most other small government towns, the origin and history of Mercury are inexorably linked to developments during the Cold War and the NNSS nuclear testing program from 1951 to 1992. Over this time span, the town expanded and diversified to accommodate a growing workforce and a year-round testing schedule.

Mercury was initially established in 1950 as Base Camp Mercury, a "minimal needs" base camp and staging area to provide basic facilities for personnel conducting early atomic tests on what was then known as the Nevada Proving Grounds. With the formal designation of the Atomic Energy Commission's Nevada Test Site in December 1950, Camp Mercury expanded to provide a greater range of necessary services for a larger administrative and research staff, military personnel, and construction crews. As nuclear and other test activities increased and became year-round activities in the 1950s and 1960s, Mercury grew to become a permanent civilian-style residential community as well as administrative and research center, with a population numbering in the thousands – one of the largest communities in southern Nevada. Many of Mercury's structures and utilities date to this period of expansion and community development. In the 1970s-1980s, the town's residential population declined substantially as testing programs were reduced or curtailed and workers commuted from Las Vegas. In 1992, nuclear testing was suspended and the community underwent significant downsizing: most service facilities were shut down, the resident population was limited to a 'skeleton crew' of security personnel, and the structural footprint was reduced.

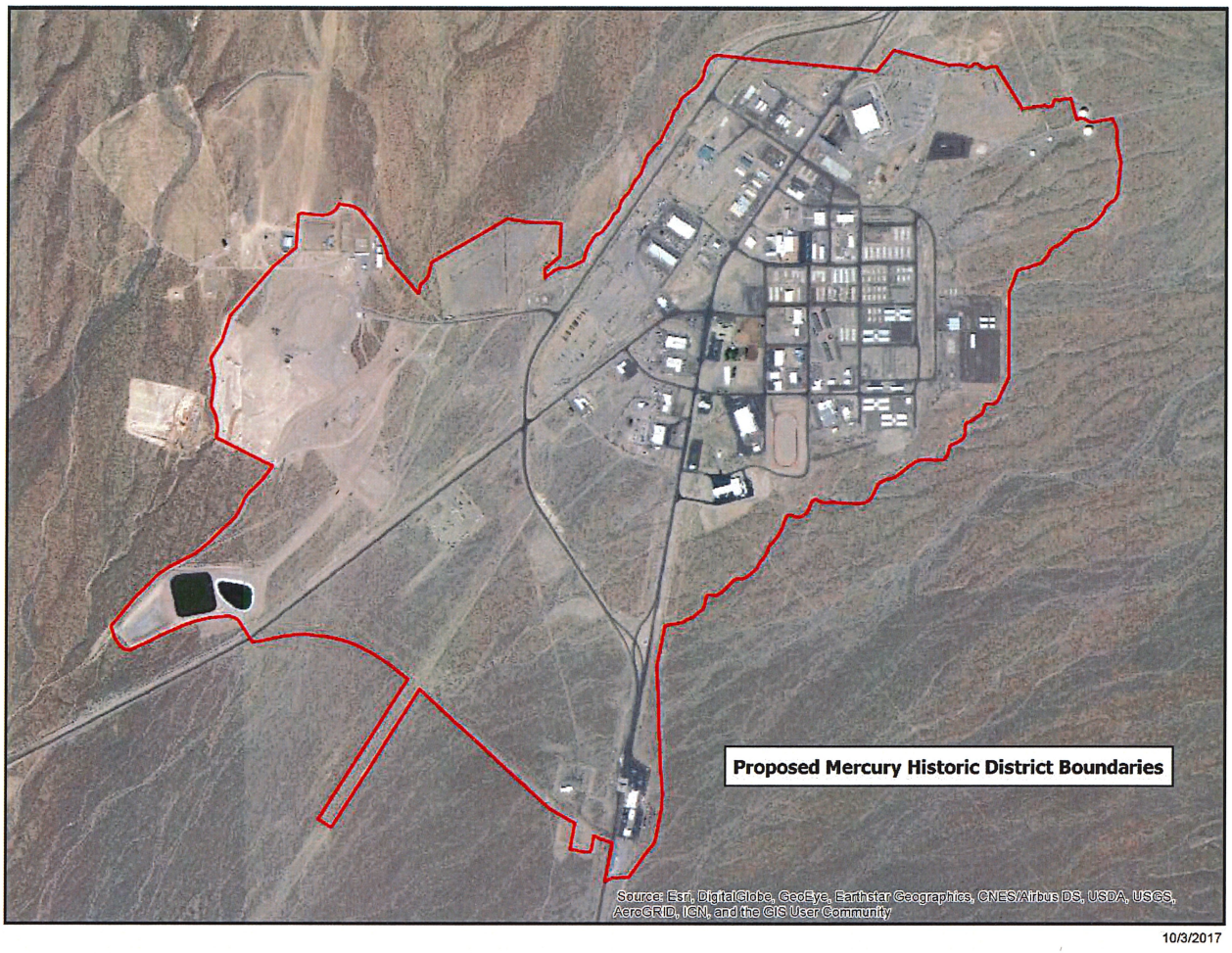


Figure A-1. MHD boundary based on water control drainage features.

ATTACHMENT B. DESCRIPTION OF PLANNED WATER AND SEWER UPGRADES

Funding has been secured to begin upgrades to the aging utility infrastructure in Mercury. Existing systems were installed in the 1950s and 1960s and have been in continual use for more than 50 years with minimal maintenance and modernization. Upgrades are required to sustain the daily resident Mercury workforce supporting site wide mission operations. Utility modernization will eliminate risks associated with potential failures that would render facilities inoperable. Generally speaking, upgrades will consist of replacing, rerouting, and consolidating water and sewer lines to bypass large segments that are in poor condition and/or are no longer needed. An undertaking description by year provides an overview of the scope of work associated with the presently defined plans for known deficiencies. A map representing the phased upgrades is also provided for reference.

FY2018 (October 1, 2017 – September 30, 2018)
FY18 scope will include installation of new 10-inch water main, manholes and service lateral connections of various sizes to buildings 23-300, 23-109, 23-132, 23-114, 23-531 and 23-532. New pipe will be polyvinyl chloride (PVC) pressure pipe as specified in engineering drawings. New waterline work requires the installation of approximately 2,700 linear feet of main waterlines including new valves and fittings. Line replacements will include installations of new fire hydrants per design drawings with all associated valves and fittings. Existing facility service connections will be replaced as needed to tie building water service into the new water main. Waterline installation will include excavation and backfilling of waterline trenches. Trenches will be cut into the roadways along sections of Mercury Highway, Ranger Avenue, Jangle Street and Sandstone Avenue. Trenches along existing facility service connections will also be excavated. Potholing activities at the intersection points between the new piping systems and existing utilities will be conducted to expose and identify known underground systems and obstructions associated with legacy out-of-service systems (water, sewer, steam, hot water, power, etc.). Potholing will be conducted to the depth of the existing utility systems and to the extent needed to properly identify and facilitate the installation of new lines. As required to support the installation of new water lines, sections of old lines will be removed. The majority of this work will be at the intersection points between the new and old systems, at tie in points where the new system will be connected to the old systems and along service connections to existing facilities. Legacy systems that are not required to be removed will be abandoned in place. Restoration to paved surfaces, sidewalks, and landscaping from trenching activities will be conducted.

FY2019 (October 1, 2018 – September 30, 2019)
FY19 scope will include installation of new 10-inch water main and manholes, and maintain/service lateral connections of various sizes to buildings 23-118 and 23-117 and a new section of sewer line. New pipe will be polyvinyl chloride (PVC) pressure pipe as specified in engineering drawings. New waterline work requires the installation of approximately 2,000 linear feet of main waterlines including new valves and fittings. Line replacements will include installations of new fire hydrants per design drawings with all associated valves and fittings.

Existing facility service connections will be replaced as needed to tie building water service into the new water main. Waterline installation will include excavation and backfilling of waterline trenches. Trenches will be cut into the roadways along sections of Mercury Highway, Buster Street, Greenhouse Avenue and Hardtack Avenue. Trenches along existing facility service connections will also be excavated. A new 8 inch PVC sewer line will be installed along a section of Buster Avenue between Sandstone Avenue and Trinity Avenue. Potholing activities at the intersection points between the new piping systems and existing utilities will be conducted to expose and identify known underground systems and obstructions associated with legacy out of service systems (water, sewer, steam, hot water, power, etc.). Potholing will be conducted to the depth of the existing utility systems and to the extent needed to properly identify and facilitate the installation of new lines. As required to support the installation of new water lines, sections of old lines will be removed. The majority of this work will be at the intersection points between the new and old systems, at tie in points where the new system will be connected to the old systems and along service connections to existing facilities. Legacy systems that are not required to be removed will be abandoned in place. Restoration to paved surfaces, sidewalks, and landscaping from trenching activities will be conducted.

FY2020 (October 1, 2019 – September 30, 2020)

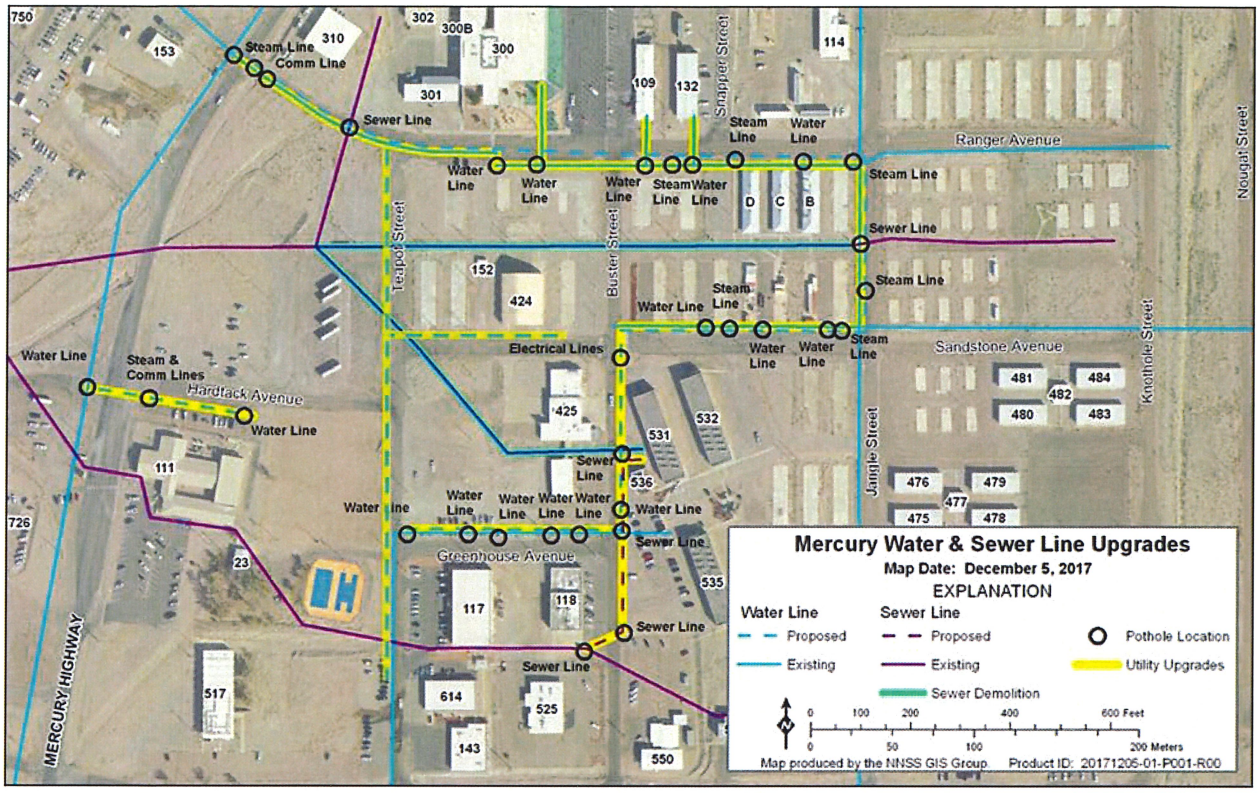
FY20 scope will include installation of a new utility corridor from Ranger Avenue south along what is currently Teapot Street. While this new utility corridor is conceptually envisioned, detailed design has not been completed. The new corridor will include elements of Water, Power and Sewer to service the new campus of facilities that will be constructed in the area. Trenching and potholing activities similar to those described for the FY2018/2019 work scope will be conducted to support this work in accordance with applicable designs.

Miscellaneous Execution Notes

Road restoration will initially be performed with cold patch asphalt and/or concrete. Upon total completion of the utility system upgrades, road systems impacted by construction activities will be resurfaced and have a new layer of hot asphalt installed. The timing for this activity remains undefined at present time and will be based on completion of utility upgrades and availability of funding to perform the work.

While the above plans provide a breakout of scope by fiscal year it should be understood that this is strictly a planning assumption and that actual execution of the defined scope is not bound by fiscal year. Actual field conditions, the availability of funding and speed of execution will determine the actual pace of modernization and completion of the defined work scope. These factors, and others unknown at the present time, may result in the acceleration or delay of execution to suit specific needs and circumstances.

Water/Sewer Map:



ATTACHMENT C. COPY OF COLLINS 2017, DRI SHORT REPORT SR100317-1

This attachment contains information that may be exempt from Freedom of Information Act Requests.

Please consult the appropriate federal agency to obtain this information.