

February 14, 2018, Meeting Minutes
Plutonium Finishing Plant (PFP) Revised Radiological Stabilization Boundaries
Associated with Ecology/EPA/WDOH to EPA/Ecology letter dated January 9, 2018 re:
PFP Stop Work
Building 2430/Room 223 3:30-4:30pm

Date: 3/13/2018

Project Manager Representative, DOE-RL

Date: 3/13/18

Project Manager Representative, Ecology

- | | |
|------------------------------|-------|
| Administrative Record (M-83) | H6-08 |
| S. G. Austin, CHPRC | A6-01 |
| N. S. Cruz, CHPRC | A6-01 |
| W. G. Cox, CHPRC | T5-60 |
| L. J. Cusack, CHPRC | A6-01 |
| D. R. Einan, EPA | A3-46 |
| M. T. Hughey, CHPRC | T4-53 |
| G. R. Konzek, RL | A6-38 |
| E. Laija, EPA | A3-46 |
| C. Mathey, WDOH | B1-42 |
| S. N. Schleif, Ecology | H0-57 |
| B. J. Stickney, RL | H5-30 |
| T. K. Teynor, RL | A6-38 |
| T. Vaughn, CHPRC | T4-52 |
| K. A. Wooley, CHPRC | T5-60 |
| A. K. Wright, RL | H5-30 |



The purpose of this meeting was to present to EPA, Ecology, and Washington Department of Health the revised draft PFP Stabilization Radiological Boundaries (referred to PFP Access Control Boundary on the maps); and discuss RL's list of stabilization/risk reduction activities to be completed prior to implementation of the revised boundaries. Drafts of the maps were emailed in advance of the meeting. Tom Teynor cautioned that the revised boundaries are interim boundaries to stabilize the area and may not be the same boundaries that will be used to resume demolition. The revised demolition boundaries will be based on, for example, a revision to the PNNL air dispersion model, and corrective actions resulting from the root cause evaluation and subsequent review team input. An email with RL's list of 19 stabilization/risk reduction activities was distributed.

Kelly Wooley, CHPRC Acting PFP Closure Project Vice President, presented a series of maps, with versions of the PFP Access Control Boundary and walked through the evaluation process used prior to making recommendations to CHPRC Senior Management and RL. Isopleths from the most current (Rev. 4) PFP Air Dispersion Model were used as a conservative assumption to help formulate the size of the proposed contamination areas (CAs) and high contamination areas (HCAs). Additional modelling is being conducted based on the current status of demolition and remaining source term, and therefore future air modeling results are expected to be bounded by the previous isopleths.

The current PFP Access Control map (Version 1) was shown for comparison and Mr. Wooley pointed out that (1) access to U Plant doesn't need to be controlled as originally implemented, (2) access to T Farm radiological areas will be controlled by WRPS, and (3) a large CA has been established but will allow MSA access to the sewer line. Clarification was provided that a CA does not mean contamination has been found in the boundary area, but where contamination might be; and that personal protective equipment is required.

John Martell, WDOH, stated that their near field monitors saw elevated readings for plutonium and americium down near REDOX facility, and asked how that information as well as Doug Shoop's communication that stated nothing above background is acceptable factor into the revised boundaries. Mr. Teynor replied that the CHPRC/WDOH near field monitors were not part of the worker protection control set (referring to the controls in the Removal Action Work Plan). Additionally, Dr. Bruce Napier, Pacific Northwest National Laboratory (PNNL) is revisiting the air dispersion model with debris pile, meteorological data, and will take in far field and near field monitoring results.

Mr. Wooley addressed the need to revise the boundaries prior to the revised modeling being completed due to the timing of working through the logistics of getting workers in and out of the boundaries, and getting into a routine. Furthermore, in the revised CA/HCA boundaries, there will be no restrooms, and workers will not be able to eat or drink. Additionally, heat stress protocols required in hotter months necessitates the need for hydration, and these logistics need to be worked out. The map with PFP Access Control Boundary Version 3, Inset A (area with trailer village west of Bridgeport Avenue and north of 19th Street), was shown to facilitate a discussion of the plan for relocation of workers and equipment). A radiological buffer area is being set up around the trailers and a bus would be used for shuttling workers back and forth. To use the restrooms, workers would be shuttled back to the trailers, doff their personnel protective equipment, and be required to clear through a Personnel Contamination Monitor (PCM). The

sooner the access control boundaries can be expanded, the sooner we can work through these types of logistics.

Currently, two trailers on Dayton Avenue west of the PFP Complex are housing workers. No PCM is at this location and workers are using hand held detection equipment to survey out. Trailers on 19th are storing equipment. A new office complex will be installed on 20th Avenue. Mr. Teynor added that RL has requested CHPRC to consider establishing a green island within the CA for emergencies. Additionally, CHPRC is reviewing adding heating/cooling stations within the CA, and the Hanford Fire Department is revising their emergency plans. Stephanie Schleif, Ecology, questioned whether there was concern for not having a PCM at an exit point on the west side of the proposed boundary due to specks of contamination previously found. Mr. Wooley responded that use of those trailers on the west side is temporary and not used as an exit point; it may be used during emergencies only.

The revised Air Dispersion Model, rubble piles, and soil cap configuration was discussed. The revised analysis for 234-5Z is scheduled to be completed around the week of March 1st; and the 236-Z rubble pile is scheduled the week of April 1st, 2018. Due to the source term, the 236-Z rubble pile is the last material to be loaded out. The 234-5Z demolition will not be impacted by the 236-Z rubble pile. Currently, the 236-Z rubble pile is covered by a minimum of 18-24" of soil, and fixative. On December 15, 2018, fixative was applied to the rubble pile, and by December 18, 2018 soil was placed on the entire pile. Additional trucks of soil have been brought in and soil added to the piles since. Mr. Teynor showed a picture from January 30, 2018 of the pile and pointed out the soil. The 236-Z rubble piles will continue to be maintained and monitored until 234-5Z load out is complete, including the application of additional fixative.

Timing of the implementation of the revised boundaries was discussed. John Martell, WDOH indicated they were in agreement with the revised draft boundaries. Mr. Teynor stated that RL/CHPRC are going forward with planning and wanted Ecology/EPA/WDOH input. Therefore, he wanted to conclude this meeting with agreement on the items on RL's list of 19 activities related to stabilization/risk reduction. RL will be discussing these boundaries and implementation of the 19 activities with the Under Secretary of Science (S-4) tomorrow, and are seeking S-4's approval to provide CHPRC with direction to proceed by next Tuesday, February 20, 2018.

RL's list included cleaning up the PFP footprint, packaging waste items, placing a cover over the supersacks (e.g., a tarp), moving debris off 234-5Z, non-destructive assay of some containers and supersacks, access to trailers, etc. RL's list did not include moving Near Field Monitors, and Eric Faust would be working with John Martell on any issues for their collocated monitors. Alex Smith, Ecology stated her interest was on items that created a soil disturbance or required excavation and what controls would be in place to ensure containers/vehicles are not contaminated when leaving the footprint. Ms. Schleif was interested in knowing the number of containers involved for each item that involved waste. It was agreed that RL would update the list to explicitly state which ones required soil disturbance or not; which ones were outside of a contamination area; the number of waste containers involved and their location; and a new item (#20) to address removal of empty containers. The regulators requested to be informed when each item was completed. EPA/Ecology stated that they would provide a written response to RL's list of activities to be completed as stabilization/risk reduction once the updated list of activities reflecting the agreements above was received. Prior to implementing, workers

(including ERDF) will be briefed on this list and the revised boundaries. Additional questions were responded to as follows. With the revised boundaries, Ms. Schleif asked whether the Area of Contamination Map in the PFP Removal Action Work Plan would be updated. Mr. Konzek stated that RL/CHPRC are currently evaluating whether an update is needed. An action was taken to determine whether an update is needed. Mr. Einan asked whether the NDA was WIPP certifiable. Mr. Teynor stated that only WIPP can certify the waste, RL puts waste into WIPP certifiable containers. RL's recertification lapsed because we are not shipping.

Mr. Martell questioned whether the negative air machine on the connex container had been evaluated as a point source under NESHAPs, and whether the ARAR is applicable. Eric Faust and Bill Cox took an action to respond to the inquiry.

During the discussion, Mr. Teynor made the regulators aware of an emerging issue related to containers with supersacks potentially not having adequate spacing (e.g., 25 feet) required by an Administrative Control in the safety basis. Spacing between containers will be measured, and CHPRC plans to address this issue more thoroughly tomorrow (February 15, 2018). Information on this issue will be posted to the PFP Update website as well.

Action Items

1. Written response from EPA/Ecology documenting their agreement with RL's list of 19 work activities (now 20) discussed at the February 14, 2018 information meeting is allowable work related to stabilization/risk reduction activities. **Partially completed: On February 16, 2018, feedback/questions were received via emails from Alex Smith, Ecology, and John Martell, WDOH to Tom Teynor, RL. On February 19, 2018, an e-mail from Tom Teynor to Ecology and WDOH was sent giving an interim response with final responses given at the February 20, 2018 bi-weekly, where Ecology/WDOH/EPA acknowledged their questions were addressed. Stephanie Schleif, Ecology, commented that Ecology/EPA had the action to provide a written response.**
 - Update and send email with RL's list of 19 items to add/clarify the following (Kelly Wooley/Teynor) **(Completed – On February 16, 2018, Tom Teynor sent an email to Ecology/EPA/WDOH with updated list to address the items below).**
 - Add "Remove 26 empty ERDF RO/RO containers (need to verify this is correct number) from west side of PFP footprint" as Item 20.
 - Clarify Items 6 & 8 activities are in areas where no contamination has been found (i.e., not in a Contamination Area), and do not involve soil disturbance such as excavation.
 - Clarify Item 9 is above ground and in an area where no contamination has been found (i.e., not in a Contamination Area).
 - For items involving waste containers, update list to add the number of containers.
 - Add that Ecology/EPA will be notified when each item is completed.
 - Brief ERDF on waste containers coming over and what has been done to release/survey them, etc.

- Brief workers on radiological recovery boundaries and list of activities once approved by HQ.
- 2. Provide feedback to Ecology/WDOH on whether Negative Air Machine is a point source under NESHAPS and ARAR is applicable, and whether is it covered – Faust/Cox
(Completed by email from Tom Teynor on February 21, 2018)
- 3. Determine need to update RAWP with new Area of Contamination – Konzek/Cox/Schleif
- 4. Provide Revised Air Dispersion Model for 234-5Z to regulators - Teynor
- 5. Provide Revised Air Dispersion Model for 236-Z to regulators - Teynor
- 6. Minutes – Wright

Attachments

- 1. Attendance Roster
- 2. Email of RL's List of stabilization/risk reduction
- 3. PFP Boundary Discussion presentation.

Teynor, Thomas K

From: Teynor, Thomas K
Sent: Friday, February 9, 2018 10:05 AM
To: 'Schleif, Stephanie (ECY)'
Cc: Teynor, Thomas K
Subject: FW: List of requested activities to support implementation of new stabilization radiological boundaries

Stephanie,

These are the items to be completed prior to and needed in order to establish the new PFP radcon boundaries and work authorization zone. We consider this work to be within the already authorized scope as part of PFP stabilization and risk reduction. No renewed demolition is authorized. No new debris size reduction nor new waste packaging/containerization loadout is authorized.

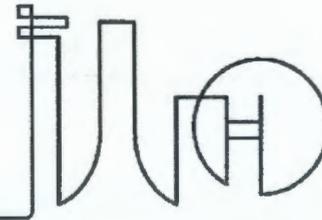
As discussed, please do not share this information until after the contractor has been able to inform the Hanford site employees of this work scope clarification. Our comms folks will be coordinating this announcement with your folks.

Activities required to support implementation of the New PFP Stabilization Radiological Boundary will include:

1. Shipping previously containerized waste to CWC. *(going to NSOSR - Survey plan)*
2. Placing covers over super sacs (containing PRF strongbacks and gallery GB sections) to ensure container integrity pending waste load out.
3. NDA of loaded waste containers (with specific focus on the 1800 TLs)
4. Perform visual inspection & repack of 5 loaded waste drums
5. Perform inspection of previously loaded RO/RO containers (<20 containers)
6. Perform hydrant tie in to location adjacent to Dayton & 19th to support water source outside of new proposed CA supplying PFP water loop.
 - a. Includes laying water line in and outside of current RBA/ PFP work control zone.
 - b. Tie into current water loop replacing connection to current hydrant.
7. Isolation of water connections inside the PFP boundary and facilities
8. Define and implement access control updates in conjunction with MSA to support sewer maintenance activities and security surveillances
9. Working with MSA coordinate Electrical Utilities configuration in the proposed PFP boundary's to minimize impacts to 200W power distribution.
10. Implementation of additional expanded boundary monitoring equipment and associated power supply.
11. Relocation of personal items from the PFP trailers
12. Move clean equipment out of the work zones (NDA , chemicals, supplies)
13. Installation of back-up generators and battery change outs for the communications trailers.
14. Update Primary and alternate staging areas designations and postings
15. Update Primary and alternate ICP designations, postings, and materials
16. Update emergency response documentation to support the increased boundaries
17. Perform baseline surveys of areas to be included in new work control zones
18. Establishment of warning/cooling areas/tents/buildings at exit/release points
19. Protect/cover/wrap equipment that must remain in the new boundary to support future use

Please call me to discuss these items as needed. Thank you

R/ Tom Teynor
PFP Closure Project
Federal Project Director
Ph: 509-376-6363



Plutonium Finishing Plant Boundary Discussion



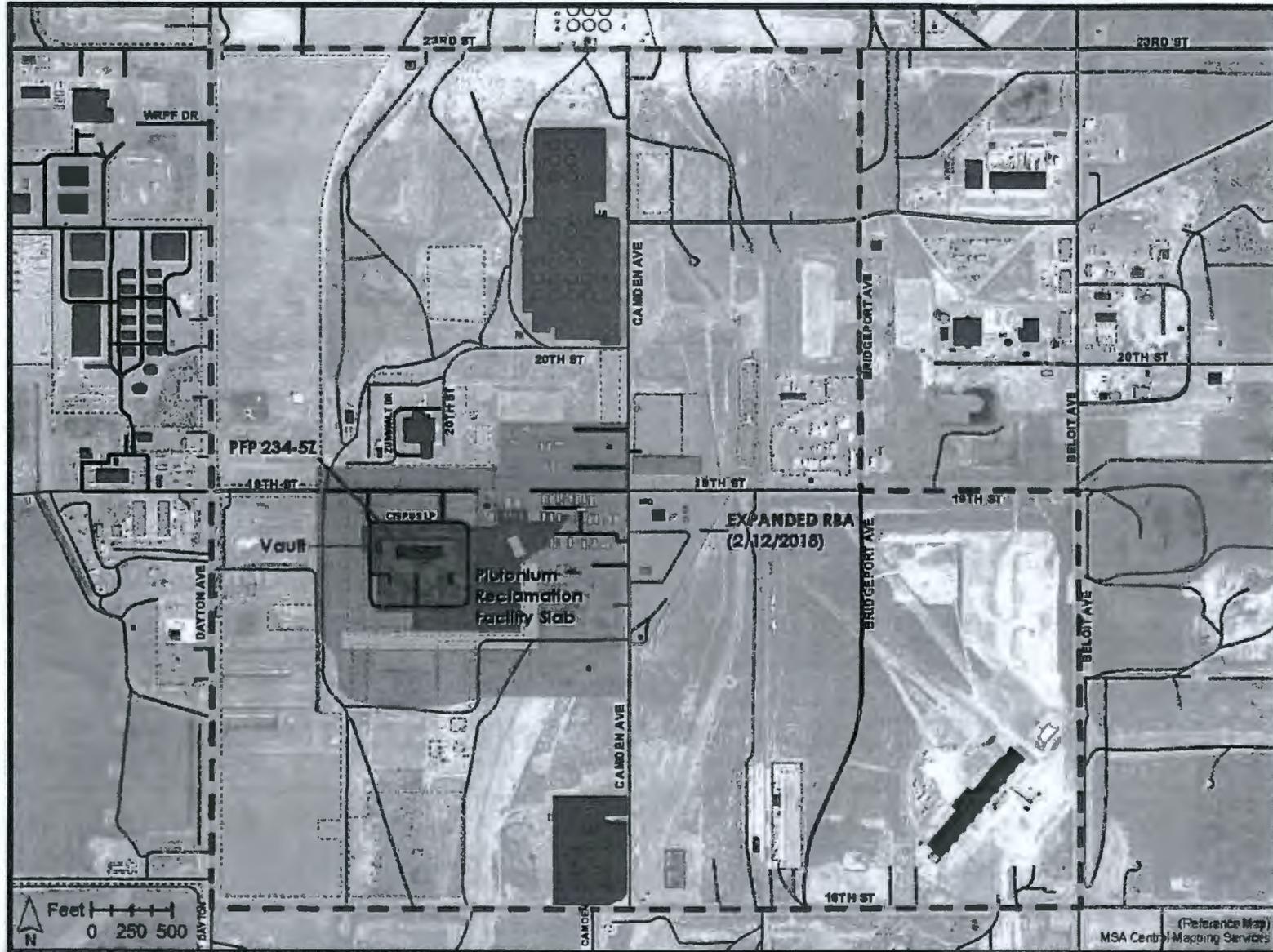
February 2018

November 2017 aerial view of the Plutonium Finishing Plant.



ch2mSM

PFP ACCESS CONTROL BOUNDARY CURRENT STATUS

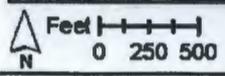
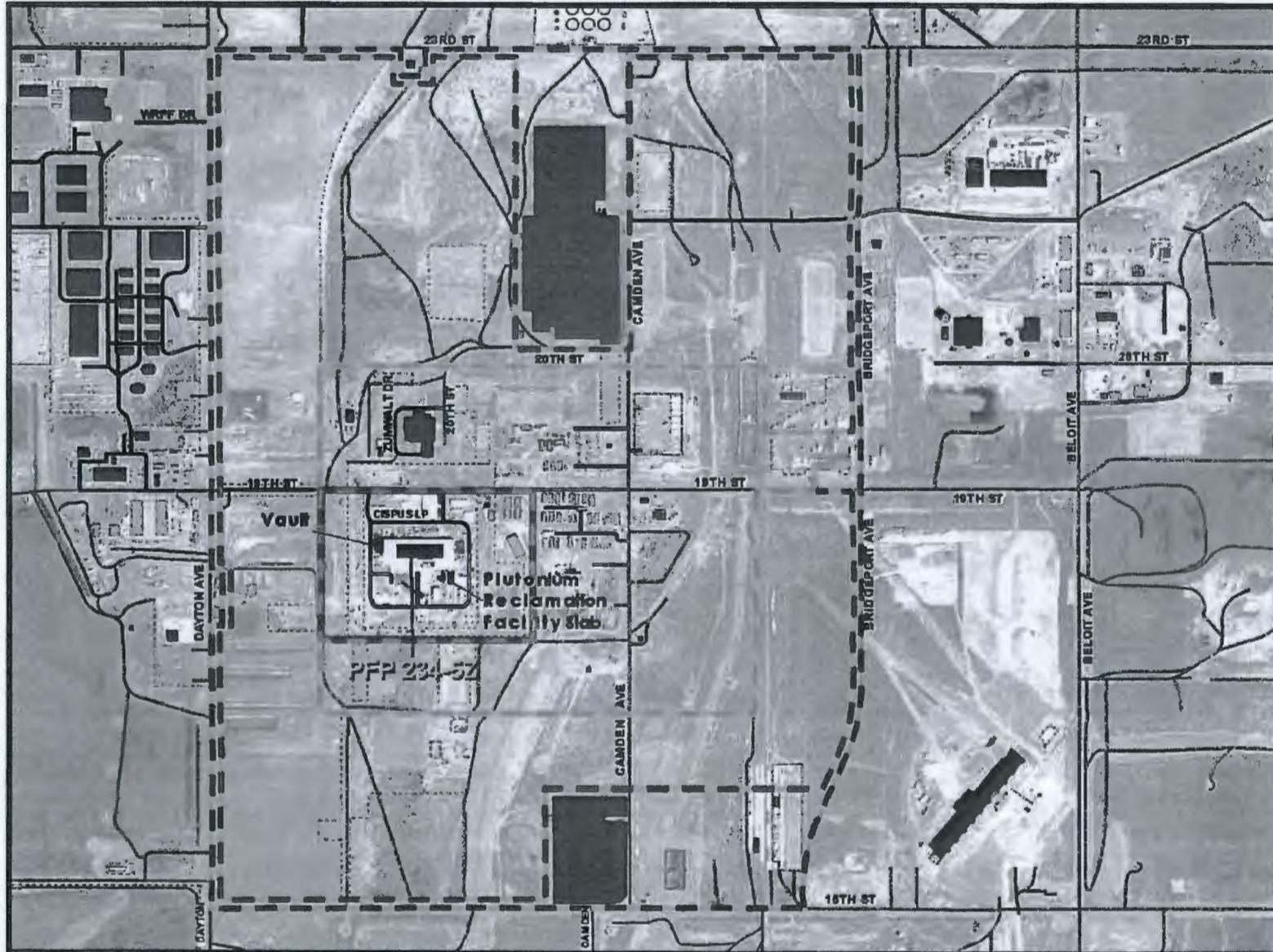


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|--|--|---|--------------------------------|-----------|
| Access Control Boundary Current | Contamination Area | WRPS Managed RBA | Building | Structure |
| Existing High Contamination Area HCA ARA | Contamination Area and Airborne Radioactivity Area | WRPS Managed CA | Trailer | Fence |
| Expanded High Contamination Area | Radioactive Material and Radiological Buffer Area | Expanded Radiological Buffer Area 2/12/2018 | Map As of 6:15:36 AM 2/14/2018 | |

180207_PFP_Access_Control_CurrentStatus_Ver0_11x85_Rev3

(Reference Map)
MSA Central Mapping Services

PFP ACCESS CONTROL BOUNDARY VERSION 1



ACCESS CONTROL BOUNDARY
 Access Control Boundary After 2/1/2019
 CA (ALT-1)

HCA/ARA (ALT-1)
 RBA

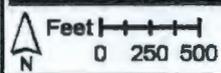
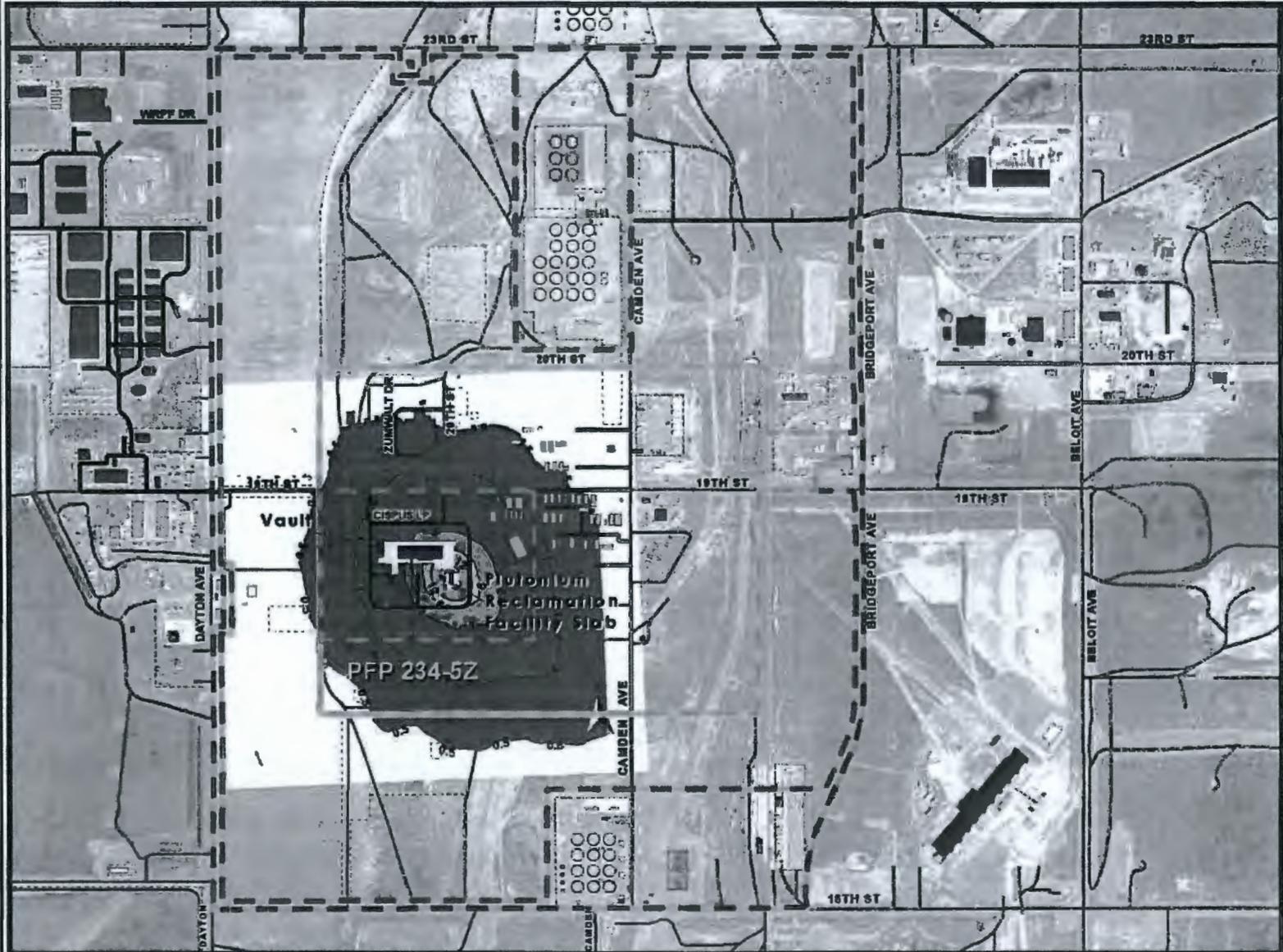
WRPS Managed RBA
 WRPS Managed CA

Building
 Structure
 Trailer
 Fence

Map As of 8:13:42 AM 2/9/2019
 MSA Central Mapping Services
 (Reference Map)

180201_CHPRC_Access_Control_and_RAD_Boundaries_Ver1_11x65_Rev3

WEEKLY AIR EXPOSURE 95TH PERCENTILE VALUES VERSION 1



ACCESS CONTROL BOUNDARY
 Access Control Boundary After 2/1/2018
 CA (ALT-1)

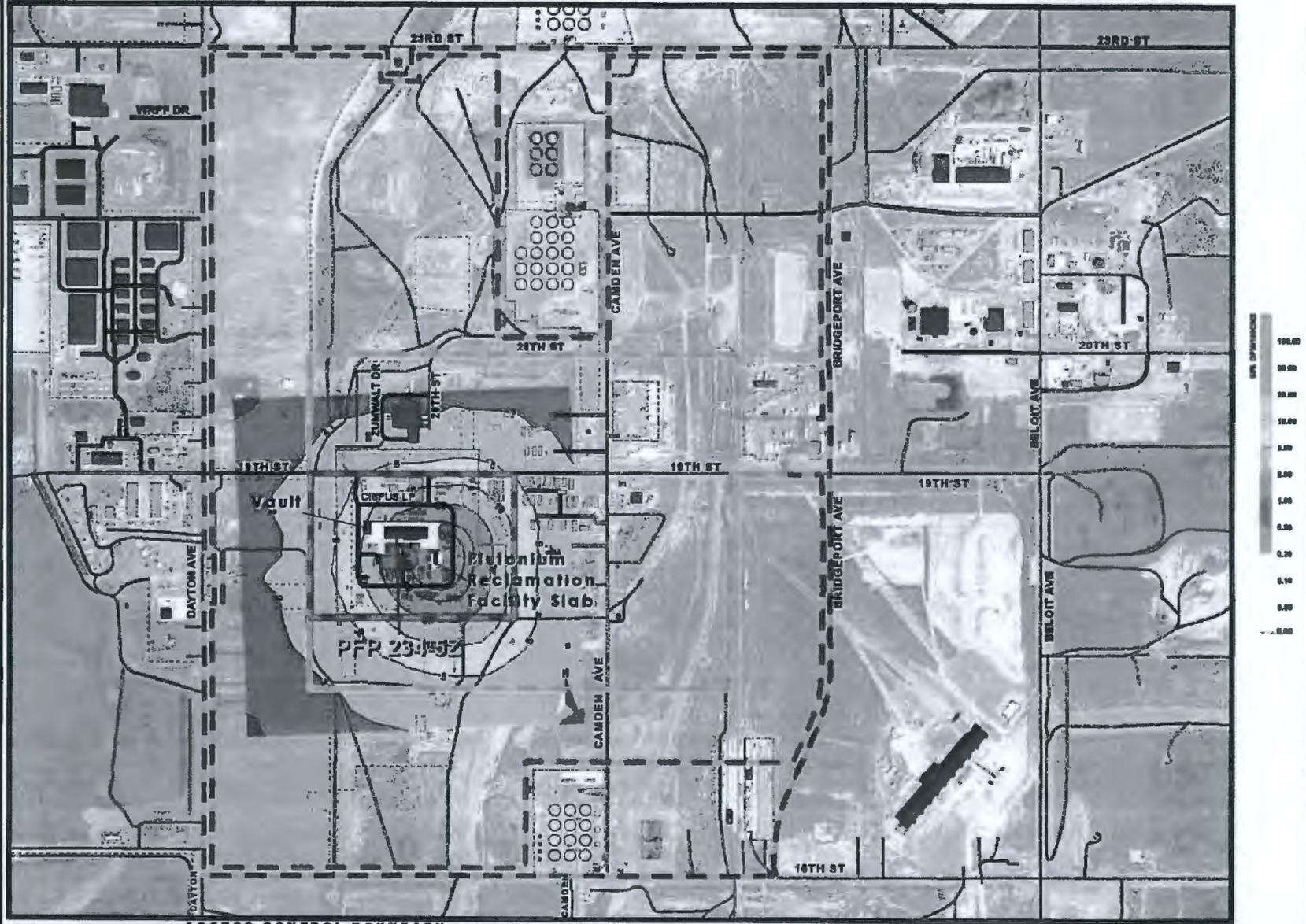
HCA/ARA (ALT-1)
 RBA

Building Structure
 Trailer Fence

DRAFT

Map As of 4:25:44 PM 2/1/2018
 MSA Central Mapping Services: Reference Map
 180201_CHPRC_AIR_EXP_11x95_Ver1_Rev0

PREDICTED 95TH PERCENTILE SURFACE DEPOSITION VERSION 1



Feet 0 250 500
N

ACCESS CONTROL BOUNDARY
 Access Control Boundary After 2/1/2018
 CA (ALT-1)

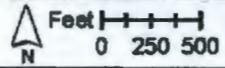
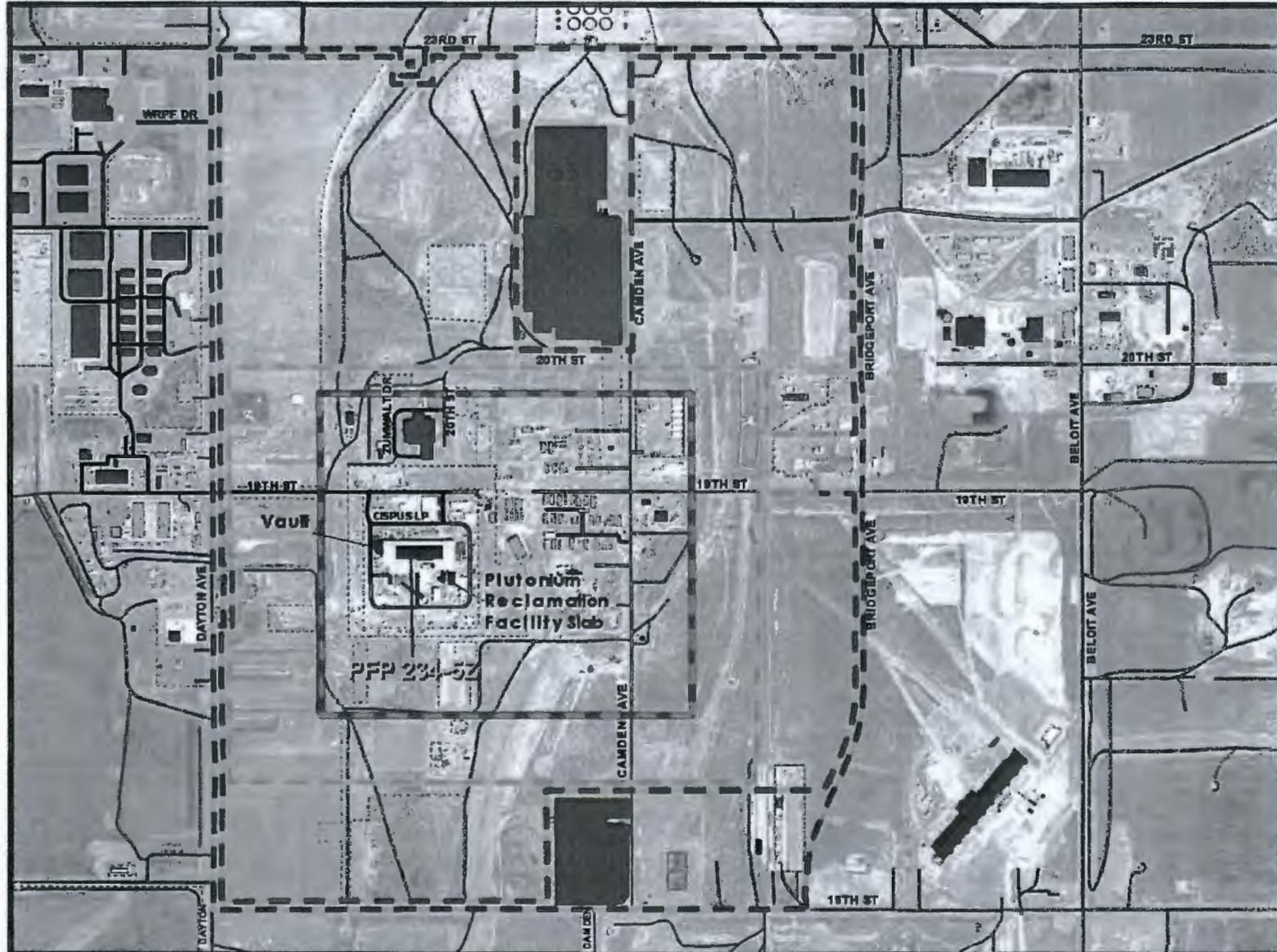
HCA/ARA (ALT-1)
 RBA

Building Structure
 Trailer Fence

DRAFT

Map As of 4:26:22 PM 2/1/2018
 MSA Central Mapping Services: Reference Map
 180201_CHPRC_SURF_DEP_11x85_Ver1_Rev0

PFP ACCESS CONTROL BOUNDARY VERSION 2



ACCESS CONTROL BOUNDARY

Access Control Boundary After 2/1/2018
CA (ALT 2)

HCAIARA (ALT 2)
RBA

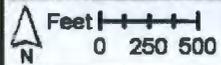
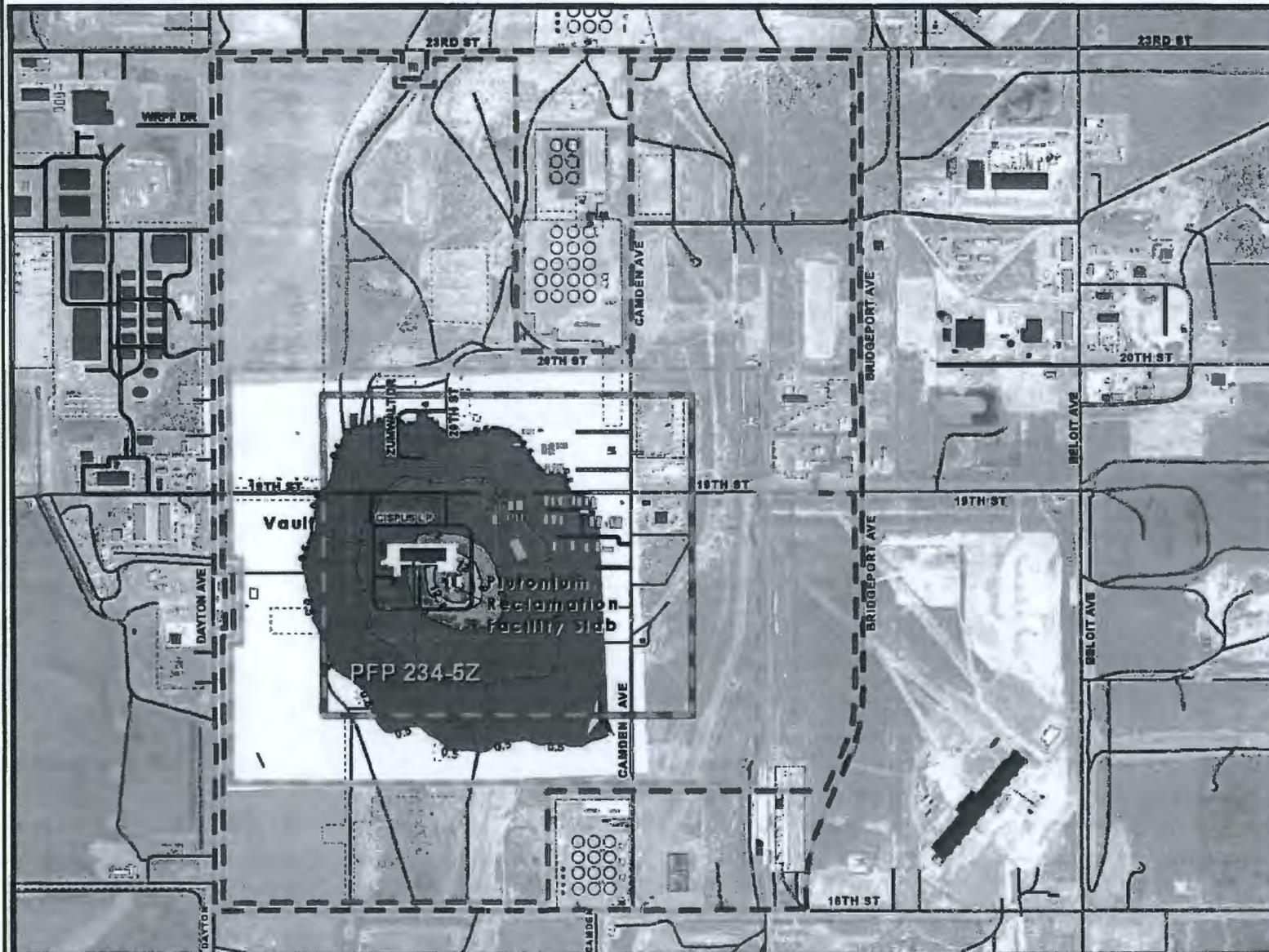
WRPS Managed RBA
WRPS Managed CA

Building
Structure
Trailer
Fence

Map As of 8:13:26 AM 2/8/2018
MSA Central Mapping Services
(Reference Map)

180201_C+PRC_Access_Control_and_RAD_Boundaries_Ver2_11-65_Rev3

WEEKLY AIR EXPOSURE 95TH PERCENTILE VALUES VERSION 2



ACCESS CONTROL BOUNDARY
 Access Control Boundary After 2/1/2018
 CA (ALT 2)

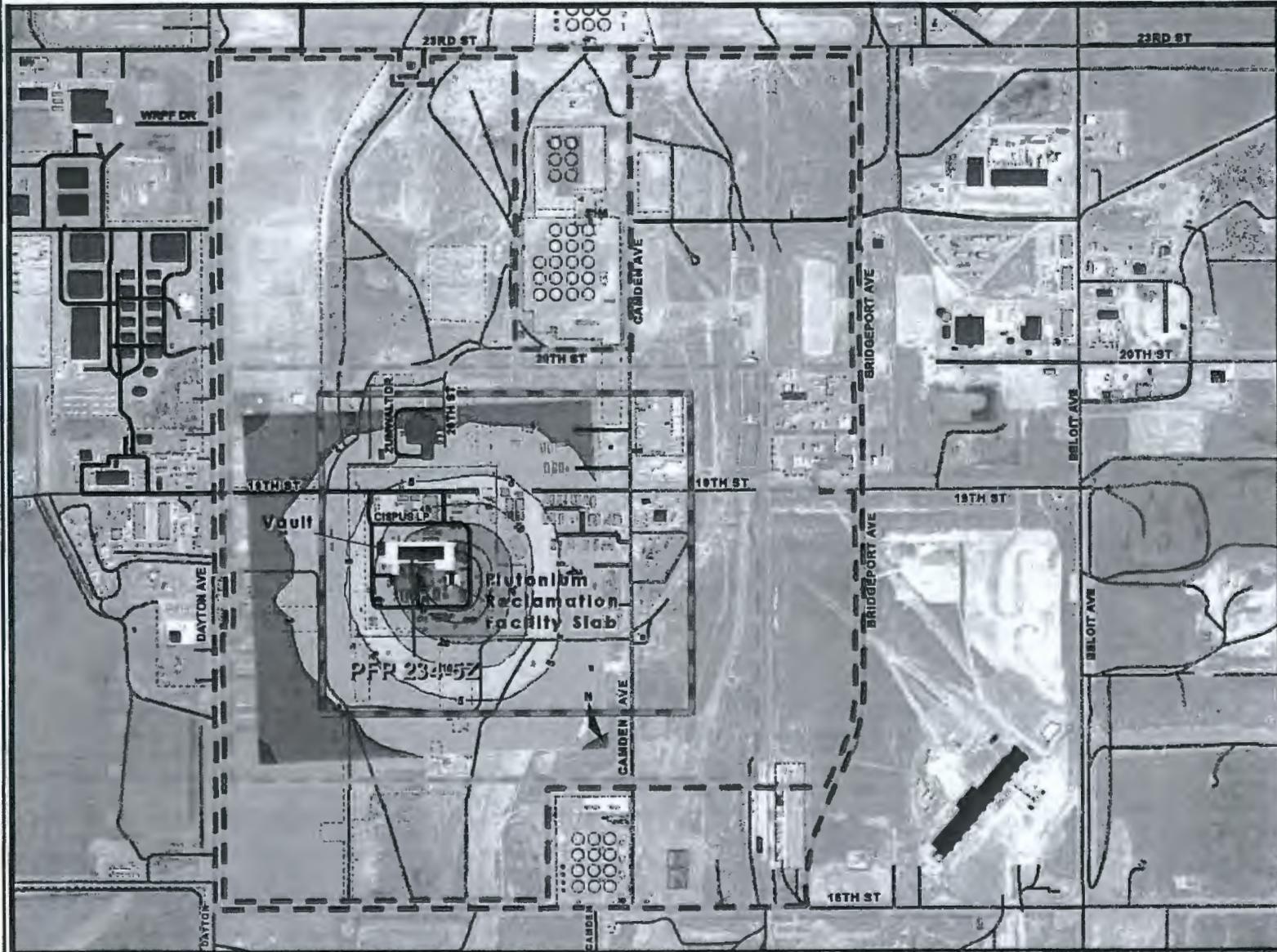
HCA/ARA (ALT 2)
 RBA

Building Structure
 Trailer Fence

DRAFT

Map As of 4:25:59 PM 2/1/2018
 MSA Central Mapping Services: Reference Map
 180201_CHPRC_AIR_EXP_11x06_Ver2_Rev0

PREDICTED 95TH PERCENTILE SURFACE DEPOSITION VERSION 2



ACCESS CONTROL BOUNDARY
 Access Control Boundary After 2/1/2018
 CA (ALT 2)

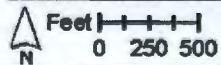
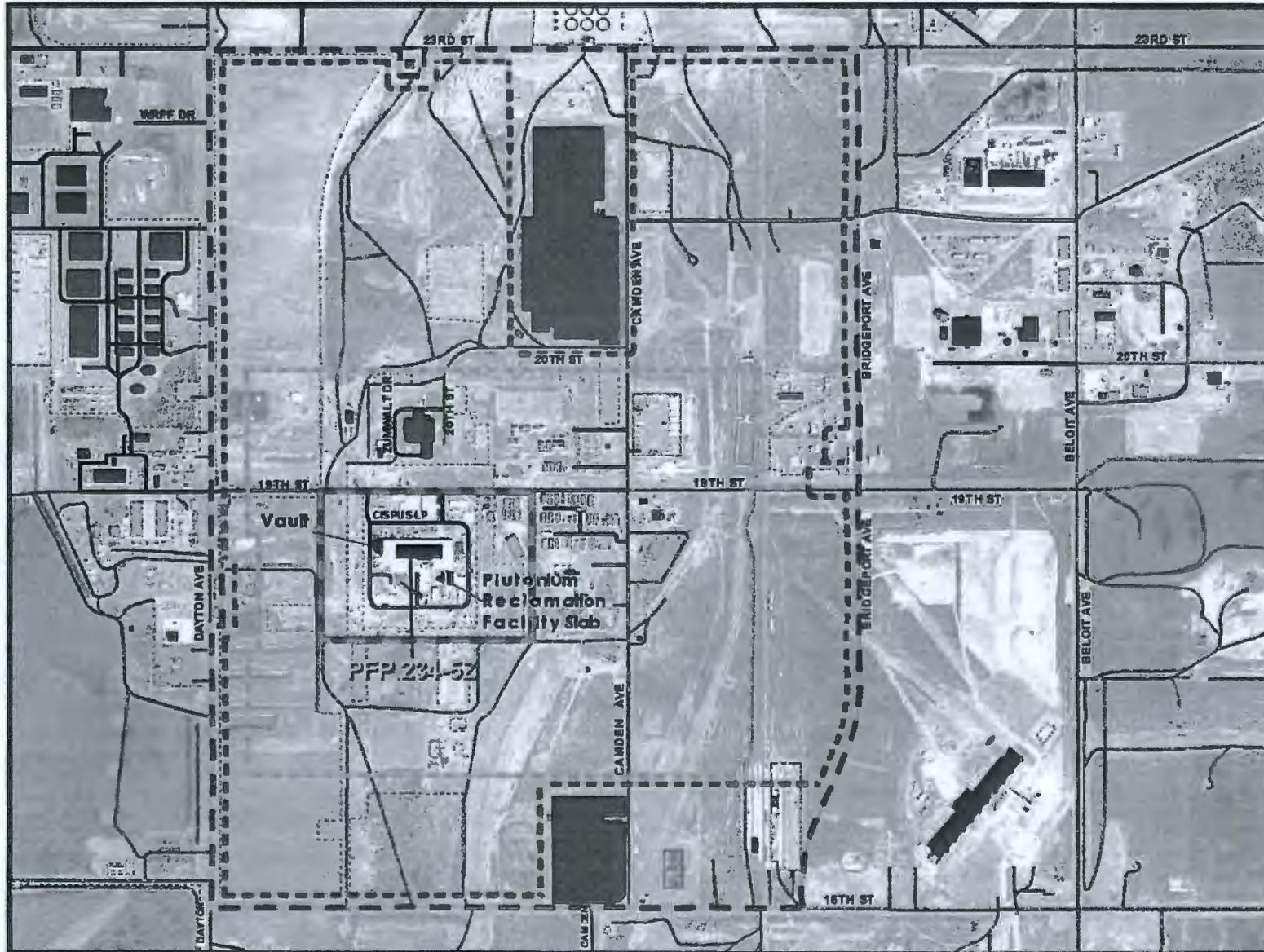
HCA/ARA (ALT 2)
 RBA

Building Structure
 Trailer Fence

DRAFT

Map As of 4:28:40 PM 2/1/2018
 MSA Central Mapping Services: Reference Map
 180201_CHPRC_SURF_DEP_11x06_Ver2_Rev0

PFPP ACCESS CONTROL BOUNDARY VERSION 3

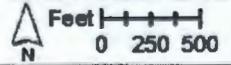
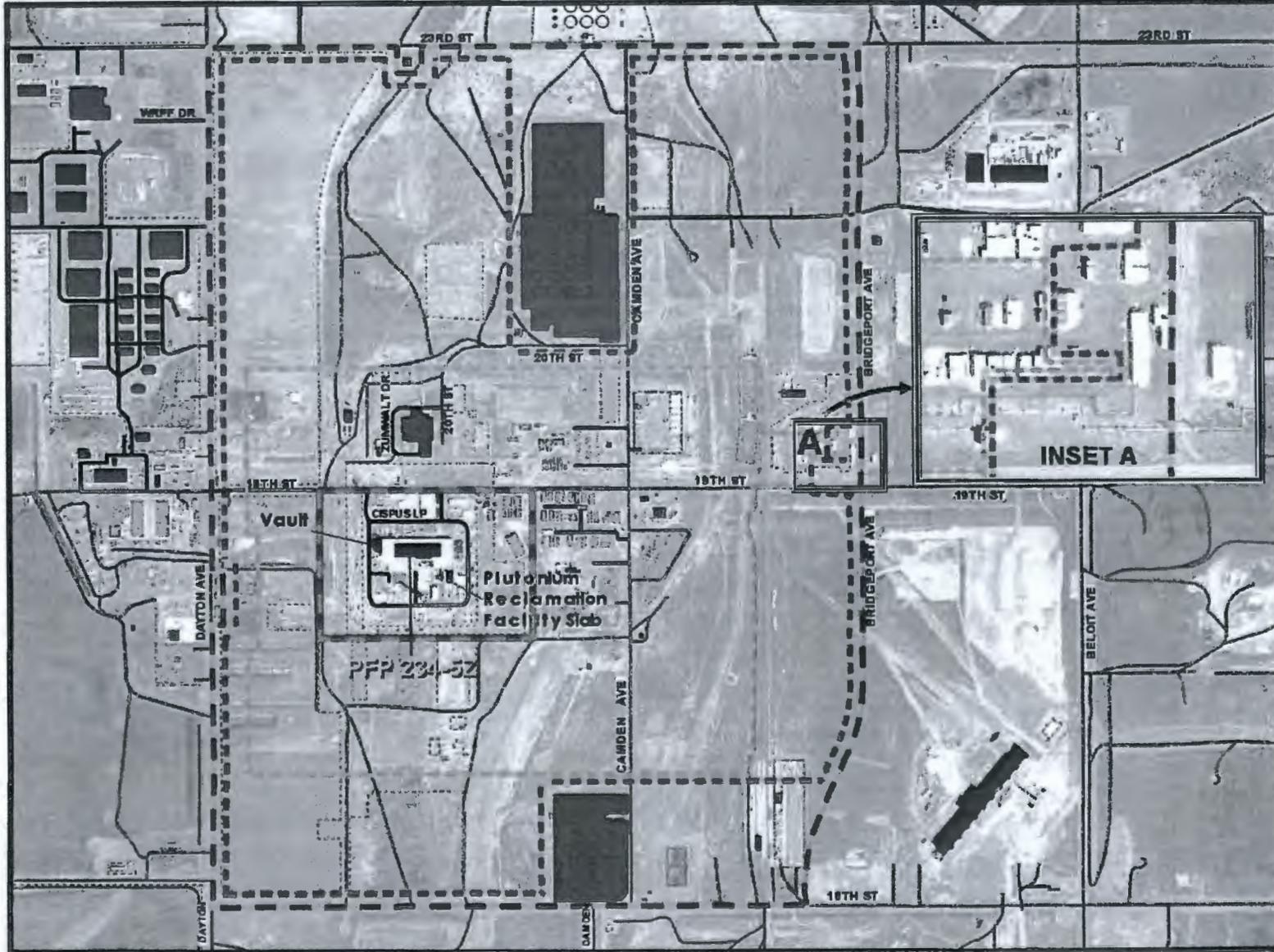


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|-------------------------|--------------------------|------------------|----------|-----------|
| Access Control Boundary | HCA/ARA Boundary (ALT-3) | WRPB Managed RBA | Building | Structure |
| CA Boundary (ALT-2) | RBA Boundary (ALT 1) | WRPB Managed CA | Trailer | Fence |

Map As of 8:13:10 AM 2/8/2018
MSA Central Mapping Services
(Reference Map)

190201_CHIFRC_Access_Control_and_PAD_Boundaries_Ver3_11x85_Rev6

PFP ACCESS CONTROL BOUNDARY VERSION 3



- | | | | | |
|-------------------------|--------------------------|------------------|----------|-----------|
| Access Control Boundary | HCA/ARA Boundary (ALT-3) | WRPS Managed RBA | Building | Structure |
| CA Boundary (ALT-2) | RBA Boundary (ALT 1) | WRPS Managed CA | Trailer | Fence |

Map As of 8:12:50 AM 2/9/2018
MSA Central Mapping Services
(Reference Map)

180201_CHPRC_Access_Control_and_RAD_Boundaries_Ver_11x85_Rev0