May 25, 2023 Project No. 31406686.005

Ms. Maureen Hatfield
MC-127
VCP-CA Section, Team 1, Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

RESPONSE TO TEXAS COMMISSION ON ENVIRONMENTAL QUALITY LETTER DATED MAY 17, 2023 REGARDING THE NOTIFICATION OF SOIL SAMPLING ACTIVITIES AT THE UNION PACIFIC RAILROAD HOUSTON WOOD PRESERVING WORKS FACILITY, 4910 LIBERTY ROAD FACILITY, HOUSTON, TEXAS DATED MAY 1, 2023, POST-CLOSURE CARE PERMIT NO. HW-50343; INDUSTRIAL SWR NO. 31547 CN600131098;RN100674613; EPA ID NO. TXD000820266

Dear Ms. Hatfield,

WSP USA Inc. (WSP), on behalf of Union Pacific Railroad Company (UPRR), is providing this response to the Texas Commission on Environmental Quality (TCEQ) comments dated May 17, 2023 on the Notification of Sampling Activities at the Union Pacific Railroad Houston Wood Preserving Works Facility (the Site) (IHW Permit 50343) dated May 1, 2023. Responses to the TCEQ comments are provided on the following pages, structured in Comment-Response format for your review. As part of the response to TCEQ comments, an Updated Notification of Soil Sampling Activities dated May 25, 2023 is attached. If you have any questions or need additional information, please feel free to call me at (512) 671-3434 or Mr. Kevin Peterburs of UPRR at (414) 267-4164.

Sincerely,

WSP USA Inc.

Anthony Reid, P.G.
Senior Consultant, Hydrogeologist

Eric C. Matzner, P.G.
Vice-President, Director Hydrogeologist

CC: Waste Program Manager, TCEQ Region 12, Houston

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Response to TCEQ Comment Letter dated May 1, 2023 on the Notification of Soil Sampling Activities at the Union Pacific Railroad Houston Wood Preserving Works Facility

TCEQ Comment 1. Revise Figure 1 to show the proposed soil sample locations in relation to the NAPL seep areas that occurred between 2022 -2023 in the Railroad Ballast and Concrete Ballast capped areas.

Response: For clarification, no seep areas have been identified in the Railroad Ballast Cap area. The tar-like material seep areas identified in the Concrete Cap area are identified on Figure 1 provided in the Updated Notification of Soil Sampling Activities letter (attached with this response letter).

TCEQ Comment 2. If NAPL seeps are encountered during sampling and construction activities, clarify how seep areas will be sampled and addressed during construction activities.

Response: In the event NAPL is encountered in a soil boring, the interval where the NAPL is observed will be sampled for the analytical methods described in the Updated Notification of Soil Sampling Activities. Details of managing NAPL encountered during construction will be provided in the Soil Management Plan (SMP) developed following review of the soil data collected as part of the soil sampling activities.

TCEQ Comment 3. The sampling purpose is unclear. Is UPRR trying to identify what COCs are needed to classify soils for disposal?

Response: UPRR is conducting the sampling activities to support characterization and waste classification for disposal of soils anticipated to be generated during the proposed UPRR Engineering Englewood Yard Expansion Phase 3 Project (the Project).

TCEQ Comment 4. UPRR explains that soil samples will be collected and composited from the proposed soil borings across the 5-foot total depth. Is the 5-foot representative of the depth likely to be disturbed?

Response: Based on the preliminary design for the Project, the 5-foot interval is representative of the deepest area to be disturbed during construction. However, as detailed in the Updated Notification for Soil Sampling Activities, in the event WSP's field staff observe contamination in the soil core (i.e., petroleum staining, presence of NAPL, or elevated PID readings), that interval (no smaller than 1 foot) where the contamination is observed in the soil core will be sampled instead of the 5-foot composite.

TCEQ Comment 5. Compositing samples prior to (volatile organic compounds (VOC) analysis is problematic, and not acceptable. Discrete soil samples need to be collected for VOC analysis consistent with soil sampling activities associated with EPA's ASAOC.

Response: See response to Comment 4. Sampling of discrete intervals for VOCs will be conducted if WSP field staff observe contamination in the soil core. The sampling detailed in the Updated Notification of Soil Sampling Activities is to support characterization and waste classification for disposal of soils anticipated to be generated during the planned UPRR Engineering Project. Soil sampling activities detailed in the notification were not developed to satisfy the obligations of the U.S. Environmental Protection Agency (EPA) Administrative Settlement Agreement and Order on Consent (ASAOC) dated February 27, 2023, issued for the Site. UPRR is currently developing the Removal Site Evaluation Work Plan detailing soil sampling on-site and off-site to address the ASAOC requirements. UPRR has notified the EPA of this proposed sampling activities discussed in the Notification of Soil Sampling Activities.

TCEQ Comment 6. The proposed soil sampling analysis includes VOCs by SW-846 Method 8260; Semi-Volatile Organic Compounds (SVOCs) by SW-846 Method 8270; Total Petroleum Hydrocarbons (TPH) by Texas Method 1005; RCRA Metals by SW-846 Methods 6000/7000 series; Toxicity Characteristic Leaching Procedure (TCLP) EPA Method 1311, as needed; and pH by EPA Method 9045. Clarify if soils will be analyzed for Dioxin/Furans per EPA Method 8290A or 1613B to be consistent with soil sampling analysis associated with EPA's ASAOC.

Response: Soil samples will not be analyzed for dioxin/furans as part of these sampling activities. UPRR is addressing the evaluation for dioxins/furans in soils on-site separately through the Removal Site Evaluation Work Plan under the EPA ASAOC. Activities detailed in the Removal Site Evaluation Work Plan include collecting soil samples to be analyzed for dioxins/furans within the Site including the Englewood Intermodal Yard area but outside of the Concrete Cap area.

TCEQ Comment 7. Is UPRR submitting an air monitoring plan? Clarify if the sampling entails minimal disturbance that would not require air monitoring.

Response: The soil sampling activities will result in minimal disturbance and will not generate dust. Therefore, UPRR is not planning to prepare or submit a dust/air monitoring plan as part of the soil sampling activities. A dust/air monitoring plan will be submitted as part of the Construction Notification Package that will be submitted to the TCEQ prior to initiation of the planned UPRR Engineering construction project.

TCEQ Comment 8. Clarify why UPRR chose plugging holes that are punched through the synthetic liner and cap material and repairing potholes by simply using a quick patch with grout. Also, do larger holes need more deliberate pavement repair for long-term stability?

Response: None of the proposed locations will disturb the synthetic liner, which is only located under the Soil Cap. As detailed in the Notification of Soil Sampling Activities letter, filling the upper foot of the boreholes within the Concrete Cap area with Portland cement is appropriate to repair the concrete cap to meet its response action objective detailed in the Response Action Plan (RAP) Revision 5, of addressing soil pathways such as dermal contact/ingestion of soils, inhalation hazards (dust), and minimizing leaching of COCs to storm water or groundwater. In addition, the soil boring locations are within the areas that will be disturbed during the planned UPRR Engineering Project construction

activities. The construction will include removal of the concrete pavement in the areas to be disturbed and construction of the planned rail infrastructure. Therefore, the final cover constructed during those activities will serve as the long-term physical control response action for contaminated soils in this area.

9. For waste classification, UPRR should reference 30 TAC 335 Subchapter R in addition to the guidance cited.

Response: UPRR will follow 30 TAC 335 Subchapter R as well as RG-022 for determining the waste classification for investigation derived wastes (IDW) generated during the investigation. UPRR will evaluate the IDW to determine if the waste is characteristically hazardous through analytical testing as discussed under 30 TAC 335.504(a)(3). If the IDW is determined to be characteristically hazardous, the IDW will be managed as hazardous waste in accordance with TCEQ and EPA Rules and Regulations. UPRR does not anticipate evaluating the IDW under a "contained in" determination.

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Ms. Maureen Hatfield
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UPDATED NOTIFICATION OF SOIL SAMPLING ACTIVITIES AT THE UNION PACIFIC RAILROAD HOUSTON WOOD PRESERVING WORKS FACILITY, 4910 LIBERTY ROAD FACILITY, HOUSTON, TEXAS POST-CLOSURE CARE PERMIT NO. HW-50343; INDUSTRIAL SWR NO. 31547

Dear Ms. Hatfield,

WSP USA Inc. (WSP), on behalf of Union Pacific Railroad Company (UPRR), is providing this notification of proposed soil sampling activities at the Houston Wood Preserving Works Facility (the Site) (IHW Permit 50343) in accordance with the RCRA Permit, Compliance Plan, Section XII. UPRR is conducting these sampling activities to support characterization and classification for disposal of soils anticipated to be generated during the proposed UPRR Engineering Englewood Yard Expansion - Phase 3 Project (the Project). Soil sampling activities detailed below were not developed to satisfy the obligations of the U.S. Environmental Protection Agency (EPA) Administrative Settlement Agreement and Order on Consent (ASAOC) dated February 27, 2023 issued for the Site. UPRR is currently developing the Removal Site Evaluation Work Plan detailing soil sampling on-site and off-site to address the ASAOC requirements.

A portion of the proposed construction area for the Project is located in the former Englewood Intermodal Yard within the boundary of the Site. The preliminary area within the Site to be disturbed include portions of the Railroad Ballast Cap Area and Concrete Cap Area, as shown on Figure 1. Soils and non-aqueous phase liquids (NAPL) generated during construction activities within the Project area will be managed depending on the analytical results of the soil sampling discussed below. The objective of the sampling activities is to evaluate the presence of chemicals of concern (COCs) for determining waste characterization and classification of soils and waste materials that will potentially be generated during the Project construction activities. Soil sampling results and waste characterization and classification will be detailed in the Soil Management Plan (SMP) for the Project.

Per the Response Action Plan (RAP) Revision No. 7 dated January 15, 2020, UPRR will provide notification to the Texas Commission on Environmental Quality (TCEQ) and inform the public of planned construction activities when those activities disturb the capped areas at the Site. UPRR will submit to the TCEQ, as part of the required construction notification, the SMP that will include the soil testing results from samples collected

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following the sampling plan detailed below. The construction notification will also include details of the conceptual design of the planned construction activities, details on how the disturbed caps will be repaired, schedule of planned construction activities, and environmental monitoring plans that will be submitted to the TCEQ as required per the RAP.

Sampling Plan

WSP proposes to collect soil samples at 65 proposed locations as shown on Figure 1. The total depth of each boring will be approximately 5 feet below ground surface (bgs) or below the bottom of the existing concrete slab, concrete cap, ballast cap, or asphalt, where applicable. Based on the preliminary Project design, the estimated excavation depth will be 5 feet bgs or less. Representative soil samples from the proposed soil borings will be collected and composited across the total depth of the boring (i.e., composited from ground surface (or base of concrete slab or cap) to 5 feet bgs) using hand auger or direct push sampling techniques. WSP's field staff will log soils from the borings to the extent practical to describe the lithology surrounding each location and will note if there are field indications of contamination. A portion of the soils sampled from each logging location will be placed in a re-sealable plastic bag, and field screened for headspace organic vapor concentrations using a photoionization detector (PID). In the event WSP's field staff observe contamination in the soil core (i.e., petroleum staining, presence of NAPL, or elevated PID readings), that interval (no smaller than 1 foot) where the contamination is observed in the soil core will be sampled instead of the 5-foot composite.

Soil samples will be submitted to a laboratory and analyzed for the following COCs:

- Volatile Organic Compounds (VOCs) by SW-846 Method 8260;
- Semi-Volatile Organic Compounds (SVOCs) by SW-846 Method 8270;
- Total Petroleum Hydrocarbons (TPH) by Texas Method 1005;
- RCRA Metals by SW-846 Methods 6000/7000 series;
- Toxicity Characteristic Leaching Procedure (TCLP) EPA Method 1311, as needed; and
- pH by EPA Method 9045.

Soil samples will be collected in laboratory-supplied containers and placed on wet ice in an insulated cooler to reduce and maintain sample temperature at 4 ± 2 degrees Celsius. A chain-of-custody record will accompany the samples through receipt at the Pace Analytical National Center for Testing & Innovation Laboratory located in Mount Juliet, Tennessee.

In addition to the soil sampling locations, a UPRR Engineering contractor will advance seven geotechnical borings (shown on Figure 1) within the Site to support the Project design. Geotechnical borings will be advanced utilizing a truck-mounted drill rig to a maximum depth of 30 feet bgs. Other disturbance activities may include potholing for utilities as part of the subsurface utility evaluation (SUE) for the design and utility coordination process; however, the SUE plans are currently being developed.

The soil sampling and geotech boreholes will be plugged from the bottom of the hole to ground surface using bentonite hole plug or Portland-bentonite grout. At the locations where the borings will penetrate through the Concrete Cap, bentonite hole plug or Portland-bentonite grout will be placed from the bottom of the borehole to within one foot of the concrete pavement surface. The upper foot of the borehole will then be filled with Portland cement to repair the Concrete Cap. In the event the Concrete Cap is disturbed during the SUE activities,

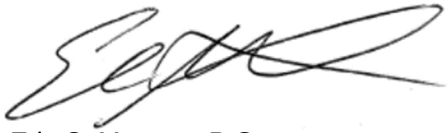
potholes will be backfilled, and the concrete surface will be repaired following the same method as the boreholes. This plugging procedure is appropriate to repair the Concrete Cap to meet the response action objective of addressing soil pathways such as dermal contact/ingestion of soils, inhalation hazards (dust), and minimizing leaching of COCs to storm water or groundwater as detailed in the RAP Revision No. 5 (August 2020).

Investigation-derived wastes (IDW) including soil cuttings and decontamination water generated from these activities will be containerized on Site pending waste classification. Representative sample of the IDW will be analyzed, classified, and profiled for disposal at a UPRR-approved TCEQ permitted landfill facility based on the comparison of the IDW analytical data to the hazardous characteristics and Class 1 Toxic Constituent's Maximum Leachable Concentrations (30 TAC Subchapter R (Appendix 1 Table)) detailed in the TCEQ *Guidance for the Classification and Coding of Industrial and Hazardous Wastes (RG-022, Revised 03/22)*. UPRR will evaluate the IDW to determine if the waste is characteristically hazardous through analytical testing as discussed under 30 TAC 335.504(a)(3). Pending waste classification, Texas Waste Codes (TWCs) listed on the current Notice of Registration (NOR) (Solid Waste Registration Number 31547) will be used for the wastes generated from the sampling activities.

If you have any questions or need additional information, please feel free to call me at (512) 671-3434 or Mr. Kevin Peterburs of UPRR at (414) 267-4164.
Sincerely,

WSP USA INC.

Anthony Reid, P.G.
Senior Consultant, Hydrogeologist



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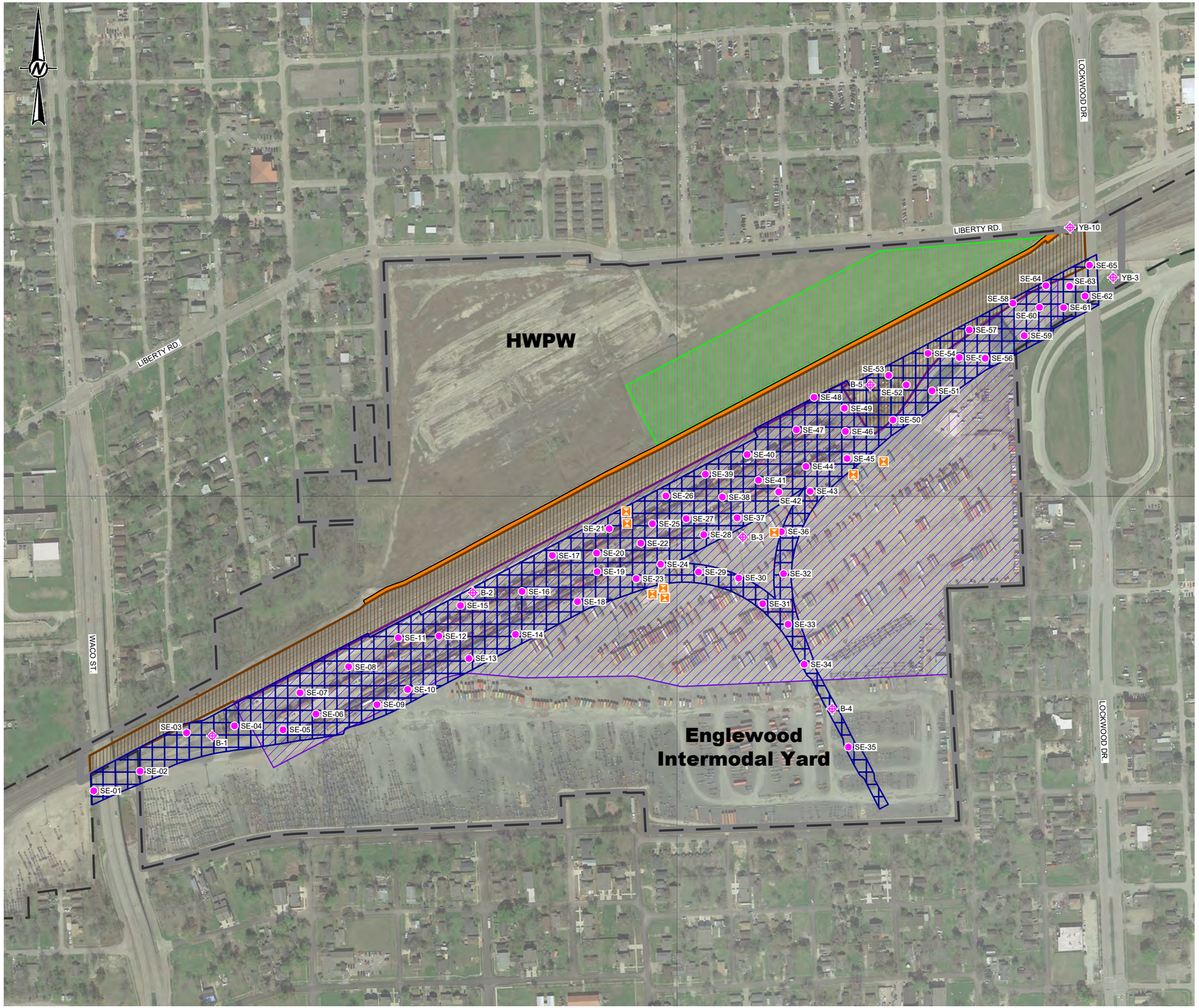

LEGEND

- UPRR PROPERTY BOUNDARY
- RAILROAD BALLAST CAP AREA
- ASPHALT CAP AREA
- SOIL CAP
- CONCRETE CAP AREA
- APPROXIMATE PROJECT AREA
- PROPOSED SAMPLE LOCATION
- PROPOSED GEOTECH BORING LOCATION
- NAPL SEEP LOCATION

REFERENCE(S)

AERIAL: GOOGLE EARTH, IMAGERY DATED 2/23/19.

0 175 350
1" = 350' FEET

CLIENT
UNION PACIFIC RAILROAD CO.

PROJECT
HOUSTON WOOD PRESERVING WORKS

TITLE
PROPOSED SAMPLE LOCATION MAP

CONSULTANT

YYYY-MM-DD	2023-05-23
DESIGNED	AJD
PREPARED	AJD
REVIEWED	AR
APPROVED	ECM

PROJECT NO. 31404514.014 | REV. 0 | FIGURE 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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Path: \\golder.gds\complexdata\office\Texas\Iana\Projects - Round Rock\ 20223\1404514 - UPRR HWPW\PRODUCTION\2022-7\ | File Name: 1 - Sample Location Map.dwg | Last Edited By: adiamond Date: 2023-05-23 Time:11:24:52 AM | Printed By: adiamond Date: 2023-05-24 Time:1:52:00 PM