Initial Site Screening (ISS)

Site Name: Metals- Canadian Pacific Property

Project Manager: Matt Culp Date: 4/2/2021

☐ **3931 - Phase II Assessment Review – Brownfield Funded**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☒ **3837 - Phase II Assessment – Brownfield Grant Funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination, or

☐ **3321 - Phase II Assessment Review – CERCLA Pre-Remedial Funded**
Phase II submitted that is not part of a real estate transaction

Location: (Decimal Degree format)

Latitude: 41.8340 Longitude: 90.1907 **County**: Clinton

USGS Quadrant: Clinton

Site Size: 0.8 **Site Dimension:** ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): Chicago Milwaukee Corporation (CMC) and Milwaukee Road Inc.

Congressional District: Iowa 2nd

Grant Recipient Name: NA

Grant Recipient Address: NA

Grant Recipient Phone: NA **Grant Recipient Email:** NA

Current Owner(s): Canadian Pacific RR C/O Mr. Jeremy J. Coughlin

Current Owner Address: Canadian Pacific Plaza 120 South 6th Street, Suite 700 Minneapolis, MN 55402

If different from current owner:

Responsible Party Name(s): Same

Responsible Party Address: Same

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)

1112 - 1122 South 3rd Street and 310 - 330 12th Avenue South, Clinton, Iowa

Directions to site: From Des Moines travel east on Interstate 80 to Highway 61 north to Highway 30 east. Travel east to US highway 67 north. Turn right on South 4th Street in Clinton, Then left on 13th Avenue South and left on 12th Ave. South to South 3rd Street.

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, SW burial, etc.)

Site History:

The site consists of two parcels. The western parcel (on 12th Avenue), was previously owned by the former Milwaukee Road Inc., and the former Chicago Milwaukee Corporation (CMC) and the eastern parcel (3rd Street) was owned by the City of Clinton. However, the Canadian Pacific (CP) Railroad has purchased both parcels for redevelopment. Historically, the site had residential homes, an iron scrap yard, railroad, auto repair, and warehousing operations. The site transitioned from residential to commercial from 1890 through the 2010s. A railroad track that borders the western boundary of the dates from 1885. A scrap iron yard co-existed with residential housing circa 1909. From the 1950s until at least 1995, an auto shop and storage building operated in the southeast corner of the Site adjacent to remaining residential dwellings. Recently all buildings were removed and the site redeveloped with two railroad buildings (a yard office and a garage) along with an asphalt parking lot area.

Recognized Environmental Conditions (REC):

- Motor oil contamination of groundwater exceeding applicable regulatory standards for total extractable hydrocarbons (TEH) located off site and adjacent to and northwest of the Site at 325 11th Avenue.
- Numerous reports of soil and groundwater contamination for properties off site to the west of and up gradient of the site.
- Multiple active Leaking Underground Storage Tank (LUST) and Brownfields sites are located off site and up gradient along 11th Avenue South and South 4th Street. There is also general potential for impact to the site from nearby long-term industrial property.

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)

Initially, six soil borings (SB-1 through SB-6) were completed to depth of 5 feet to collect soil samples to determine the presence of contamination. Soil cover on the site is thin and soil borings encountered bedrock refusal at approximately 5.5 feet. Soil samples were collected at the 1.5–3 and 3.5–5 ft. depth intervals in each soil boring. Saturated soil conditions were encountered at approximately 4.5 to 5 ft. due to close proximity to the Mississippi River.

Soil samples were field screened for volatile organic compound vapors (VOCs) with a photoionization detector (PID) and examined for visual/olfactory evidence of potential chemical impacts. PID field screening results were relatively low, with the highest PID measurement (3.2 ppm) observed in the 1.5–3 ft. interval at soil boring SB-5. There was no soil visual staining or olfactory evidence of impacts observed. Soil was analyzed for the following compounds:

- VOCs using EPA Method 8260
- Semi Volatile Organic Compounds (SVOCs) used EPA Method 8270
- RCRA 8 Metals using EPA Method 6010B
- Total Petroleum Hydrocarbons (TPH) as Gas using OA1 (Iowa Method)
- TPH as Diesel using OA2 (Iowa Method).

Results of the soil analysis indicated non-detect for petroleum compounds but did detect metals (arsenic, lead, and chromium) in the 1.5–3 ft. depth interval at concentrations greater than Iowa Statewide Standards (SWS) for soil in each of the six borings.

Subsequently, twelve additional hand auger soil borings (HA-7 through HA-18) were competed to delineate the full extent of soil contamination by metals. The general focus of the soil sampling was in areas of the Site designated for (building) redevelopment that had previously contained the automobile repair shop and outdoor scrap iron yard. Eight of the additional soil borings (HA-11 through HA18) were advanced to depths ranging from 2.5 ft. (HA-11, HA-12) to 3 ft. (HA-13 through HA-18), down to bedrock. Rubble (brick, glass, and metal) was also encountered in boring locations throughout the Site starting at approximately 1 ft.

Based on the soil analysis results, four of the additional soil borings (HA-7 through HA-10) were completed and sampled for the purpose of waste characterization at sample locations adjacent to four of the initial sample locations that exhibited the highest metals concentrations (SB-2, SB-3, SB-4, SB-5). These samples were analyzed for;

- Polychlorinated Biphenyls (PCBs) using EPA Method 8082A
- Flashpoint using ASTM Method D92;
- RCRA Metals using EPA Method 6010D – Toxicity Characteristic Leaching Procedure (TCLP);
- Mercury using Method SW7470A - TCLP;
- Total Extractable Petroleum Hydrocarbons using OA2 (Iowa Method).

Groundwater samples were not collected.

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as statewide standards, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.

Soil Findings

A general area wide sampling of the site was completed. Within this general area, two smaller discrete areas were identified that contained concentrations of lead in excess of the SWS and/or EPA Industrial Regional Screening Levels (RSL). The first of the smaller areas was located within the footprint of the two proposed buildings (yard office and garage), and the second area is located at soil boring location HA-11 in the northern portion of the proposed asphalt parking area. Individual contaminant results are summarized below.

VOCs:

Methylene chloride was detected at a concentration greater than the method detection limit (MDL) at three soil boring locations (SB-2, SB-3, and SB-5). The detected concentrations were less than the EPA Industrial Regional Screening Level (RSL) and Iowa DNR (SWS) for methylene chloride.

SVOCs:

SVOCs were not detected above laboratory MDL for any of the analyzed samples.

Metals:
Multiple metals were detected with some exceeding RSLs and SWS. Specific contaminant detections are discussed below.

- Arsenic was detected above the SWS of 1.9mg/kg at soil borings SB-1 through SB-6 and the RSL for borings SB-2, SB-3, SB-4, and SB-5. The maximum arsenic concentration was 8.8 mg/kg.

- Chromium was detected above the SWS of 210 mg/kg in one soil boring (SB-5/HA-10). The maximum chromium detection was 246 mg/kg.

- Lead was detected above the SWS of 400 mg/kg at ten soil borings and hand auger locations (SB-2, SB-3, SB-4, HA7, HA8, HA9, HA11, HA-12, and HA-16) and above the RSL for borings SB-4, HA-11, and HA-16. The maximum lead concentration was 1,800 mg/kg.

- TPH (OA1 Method) and TPH (as gasoline) were not detected in any of the analyzed samples.

- TPH (OA2 Method) as was detected in soil borings (SB-1 through SB-6) at concentrations that ranged from 32.3 to 156 mg/kg. In the hand auger delineation samples (HA-11 through HA-16) TPH was detected as waste oil at concentrations ranging from 11 to 3,820 mg/kg. The maximum concentration was did not exceed highest detection was in HA-16 (3,820 mg/kg). The SWS for waste oil in soil is 9.400 mg/kg.

Waste Characterization

- Waste characterization analytical results indicated that PCBs were not detected, and TCLP metals and the flashpoint results did not exceed the RCRA hazardous waste characteristic criteria.

Groundwater Findings:

Groundwater samples were not collected.

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.

There are no on-site receptors. There are no wells of any kind near the site. There are three leaking fuel tank sites located up gradient of the site just across the railroad tracks to the west that represent potential off site sources of contamination as mentioned in the section on RECs. The closest potential sensitive receptor is the Mississippi River located several blocks to the east. There is no viable threat to the river.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.

Priority 3: Numerous locations of lead in soil were detected on the site but have been mitigated by a removal action

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.

Post Assessment Soil Removal Action

The soil analytical results collected during the Phase II activities defined and area of metals contamination exceeding Iowa SWS for soil. Within this area, two subareas of lead contamination were identified with levels greater than the EPA Industrial RSL. These results initiated a plan for a source (soil) removal action. Subsequently, in December 2020, during the redevelopment of the site by CP, excavation activities in accordance with the Soil Management Contingency Plan (SMCP) were implemented. As part of the construction plan, soil that exceeded the regulatory standards was removed down to bedrock, with off-site transport and disposal as a non-hazardous material at Waste Management's Prairie Hill Landfill in Morrison, Illinois. For the remainder of the Site, non-impacted soil was transported for disposed at the Clinton County Area Solid Waste Agency in Clinton, Iowa.

As part of the removal action an additional 11 confirmation soil samples were collected from the sidewalls of the excavated areas down to bedrock to determine if the soil exhibiting high concentrations of arsenic and lead was fully removed. The samples included three samples from the footprint of the future garage (FG-NW, FG-EW, and FG-WW), four samples from the yard office building footprint (OB-NW, OB-EW, OB-SW, and OB-WW), and four samples from the excavation around boring HA-11 (HA-11 N, HA-11 E, HA-11 S, and HA-11 W). The sidewall samples were analyzed for RCRA 8 Metals. After the removal action, all confirmation samples were below SWS. A total of approximately 2,618 tons of contaminated soil was excavated and transported to Waste Management's Prairie Hill Landfill in Morrison, Illinois

Soil Vapor Intrusion:

Iowa DNR did not conduct a risk calculation for exposure to indoor air because no groundwater samples were collected for testing.

Site recommended for:

- ☒ No further action under CERCLA Pre-Remedial
- ☐ Additional investigation under state program (activity code 2824)
- ☐ Additional investigation under CERCLA (Extended Site Screening)
- ☐ Transfer to LUST/UST

Form Reviewed: Matt Culp Digitally signed by Matt Culp Date: 2021.05.06 08:17:54 -05'00' **Date Reviewed:** _____