



September 26, 2016

Ms. Ann Hartnell  
Executive Director  
Marinette County Association for Business & Industry  
1926 Hall Avenue  
Marinette, WI 54143

**SUBJECT: Management of Contaminated Soil per § NR718 Plan Approved, MCABI-Tyco  
Redevelopment Site, 1310-1330 Main Street (Parcel Number 251-4268), Marinette, Wisconsin  
BRRS #02-38-564236**

Dear Ms. Hartnell:

On September 12, 2016, the Department of Natural Resources (department) received a submittal entitled "Materials Management Plan" for the "MCABI-Tyco Redevelopment Site" prepared by Stantec Consulting Services Inc. (Stantec).

### **Background**

As part of a Phase I Environmental Assessment (ESA) conducted in June 2015, Stantec identified environmental conditions. The environmental conditions identified are:

- A former coal yard occupying central portions of the property.
- A former service station with underground storage tanks in the southeastern portion of the property.
- Buried solid waste on adjacent properties and undocumented fill in a former log run on the property.
- Prior use of the southwestern portion of the property for an auto repair business, battery services and machine shop and tool works.
- A former print shop with associated underground storage tank up-gradient from the property.

In August 2015, Stantec conducted a Phase II ESA on the property. The Phase II ESA involved advancing ten soil probes and four hollow-stem auger borings, from which fourteen soil samples were collected for laboratory analysis of volatile organic compounds (VOC), Resource Conservation Recovery Act (RCRA) metals, polycyclic aromatic hydrocarbons (PAH) and polychlorinated biphenyls (PCB). The four hollow-stem auger borings were completed as groundwater monitoring wells.

On-site soils consist of several inches of sandy topsoil underlain by eight to sixteen feet of sandy fill overlying native silty sands. The sandy fill contained discontinuous layers or intermixing of solid waste (wood chips, metal, slag, paper, glass, rubber and plastic). Groundwater was encountered from 4 to 11 feet below ground surface (bgs). Groundwater flow is to the northeast.

Results of the Phase II ESA identified widespread polycyclic aromatic hydrocarbons (PAH), lead and/or arsenic impacted soil on the property that exceed Wis. Admin. § NR 720 non-industrial direct contact residual contaminant levels (RCLs). Furthermore, isolated tetrachloroethene (PCE) and benzene impacted soils were detected near the north central and east central portions of the property, respectively. Additionally, isolated PCB soil contamination was detected in the north western portion of the property.

Results of groundwater sampling, conducted in August 2015 (as part of the Phase II ESA) and in August 2016, identified arsenic at concentrations in excess of the Wis. Admin. § NR 140 preventative action limit (PAL). No other groundwater analyte was detected above the PAL.

**Wis. Admin. § NR 718.12 (1) and (2)**

Stantec requested, under Wis. Admin. § NR718.12 (1) and (2), permission to excavate and relocate 3,525 cubic yards of contaminated soil on the property and to cap remaining contaminated soil in-place. Generally, components for this approach consist of the following:

- Approximately 8,275 cubic yards of soil is to be excavated during construction with approximately 3,525 cubic yards to be reused on-site as construction fill.
- The soil is primarily to be excavated to a maximum depth of five feet bgs along the southern property boundary adjacent to Main Street and from a small triangular extension along the northwestern corner of the property.
- Excavated soil from the above-two locations will be used to raise the site grade in the north portion of the property.
- Excavated soil that cannot be reused on-site will be loaded directly onto trucks and transported to Waste Management's Menominee, Michigan landfill for disposal.

Enclosed Figure 2 presents the excavation/fill locations.

After soil relocation has been completed, the following engineering controls will be implemented:

- Capping the entire site with a building, pavement (parking lot and sidewalks), a storm water retention pond and landscaping.
- Landscaped areas will be completed as follows:
  - Placement of filter fabric over contaminated soil.
  - Placement of 12-inches of clean soil on top of the fabric.
  - Placement of 6-inches of clean topsoil on top of the clean clay.
  - Planting or seeding.
- The storm water retention pond will be completed as follows:
  - Placement of two feet of clean clay.
  - Placement of 40 mil high density polyethylene on top of the clean clay.
  - Placement of a 30 mil polyethylene pond liner on top of the polyethylene.

Enclosed Figure 3 presents the locations of the proposed building, parking lot, retention pond and landscaping.

**The Department approves the soil management plan.**

**Grant of exemption to § NR718.12 (1) (c) 2 and 3**

The materials management plan included a request to be exempted from a locational requirement listed in Wis. Admin. § NR718.12 (1) (c) 2. The requirement involves the relocating of 3,525 cubic yards of contaminated soil within 100 feet of a wetland.

**The Department approves the exemption to § NR718.12 (1) (c) 2, thereby, allowing contaminated soil to be relocated within 100 feet of a wetland.**

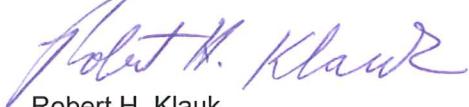
The exemption is based on the following:

- The department and the Army Corps of Engineers permitted the partial filling of an on-site wetland; although not delineated, the wetland is thought to extend off-site.
- On-site contaminated soils include the wetland.
- Relocating on-site contaminated soils to areas on-site with similar contamination will not further adversely impact the wetland thought to extend off-site.

Ms. Ann Hartnell  
Soil Management Plan Approval  
BRRS #02-38-564236  
September 26, 2016

If you have questions, you may contact me by phone at 920-662-5164 or email at [Robert.Klauk@wisconsin.gov](mailto:Robert.Klauk@wisconsin.gov).

Sincerely,

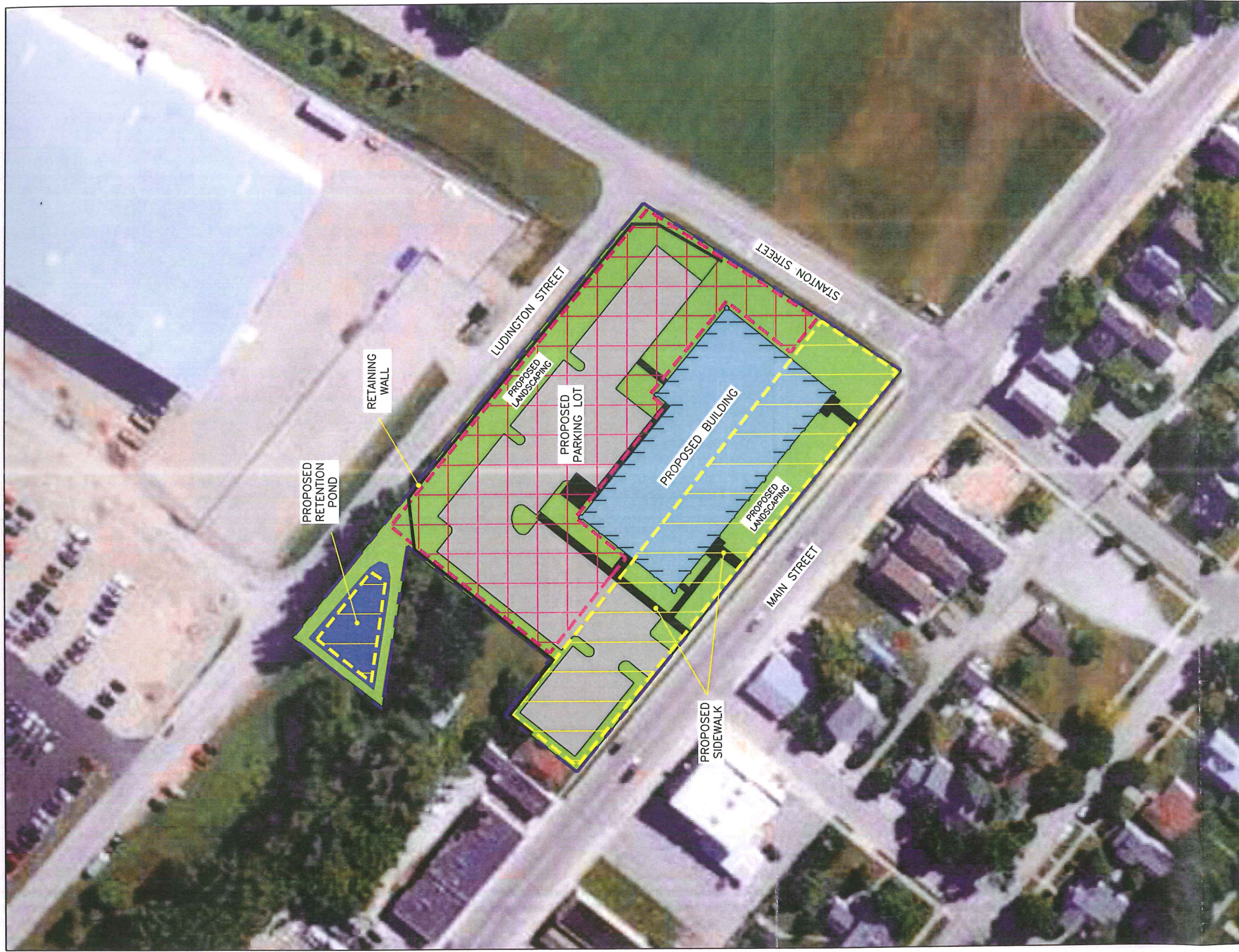


Robert H. Klauk  
Hydrogeologist  
Remediation & Redevelopment Program

Enclosures: Figure 2 – Proposed Building with Estimated Excavation/Fill Locations  
Figure 3 – Proposed Building and Cap Locations

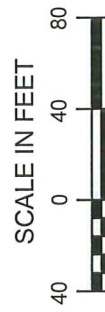
cc: Lynelle Caine – Stantec (electronic)





**LEGEND**

-  APPROXIMATE PROPERTY LINE
-  APPROXIMATE SOIL TO BE EXCAVATED
-  APPROXIMATE LOCATION OF ON-SITE PLACEMENT OF EXCAVATED IMPACTED MATERIAL



1165 Scheuring Road, De Pere, Wisconsin, 54115  
 Phone: 920-592-8400 Fax: 920-592-8444

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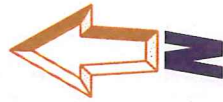
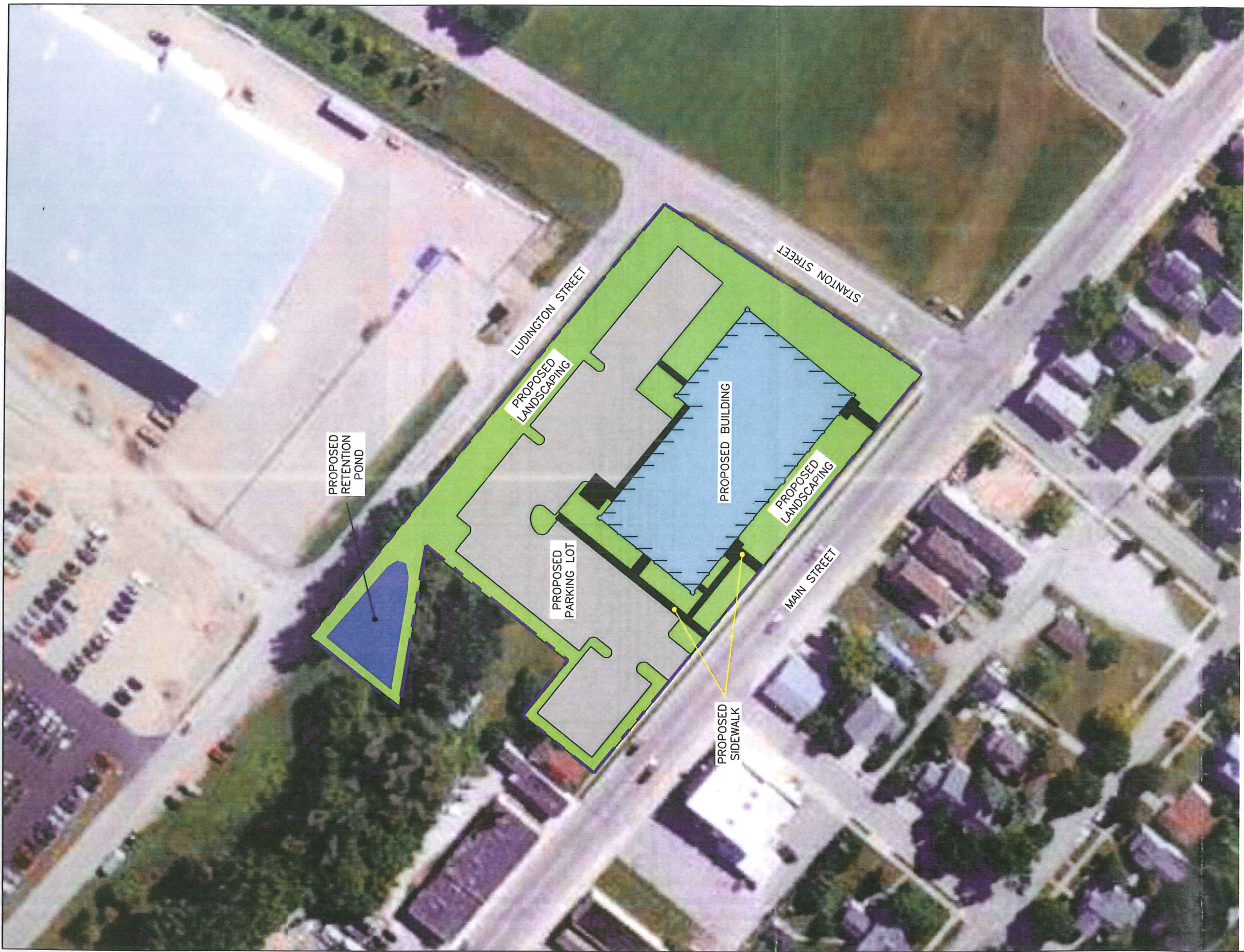
DATE: 09/06/16 DRAWN BY: JRB TASK NUMBER: 3.0.1

**PROPOSED BUILDING WITH ESTIMATED EXCAVATION/FILL LOCATIONS**

MCABI - MARINETTE COUNTY  
 ASSOCIATION FOR BUSINESS &  
 INDUSTRY, INC.  
 MARITIME CENTER OF EXCELLENCE  
 MARINETTE, WISCONSIN

PROJECT NUMBER: 1937033365 FIGURE 2





LEGEND  
 - - - - - APPROXIMATE PROPERTY LINE



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DATE: 07/26/16 DRAWN BY: JRB TASK NUMBER: 3.0.1

**PROPOSED BUILDING AND  
 CAP LOCATIONS**

MCABI - MARINETTE COUNTY  
 ASSOCIATION FOR BUSINESS &  
 INDUSTRY, INC.  
 MARITIME CENTER OF EXCELLENCE  
 MARINETTE, WISCONSIN

PROJECT NUMBER: 1937033365