

Technical Memorandum 10-25-2021

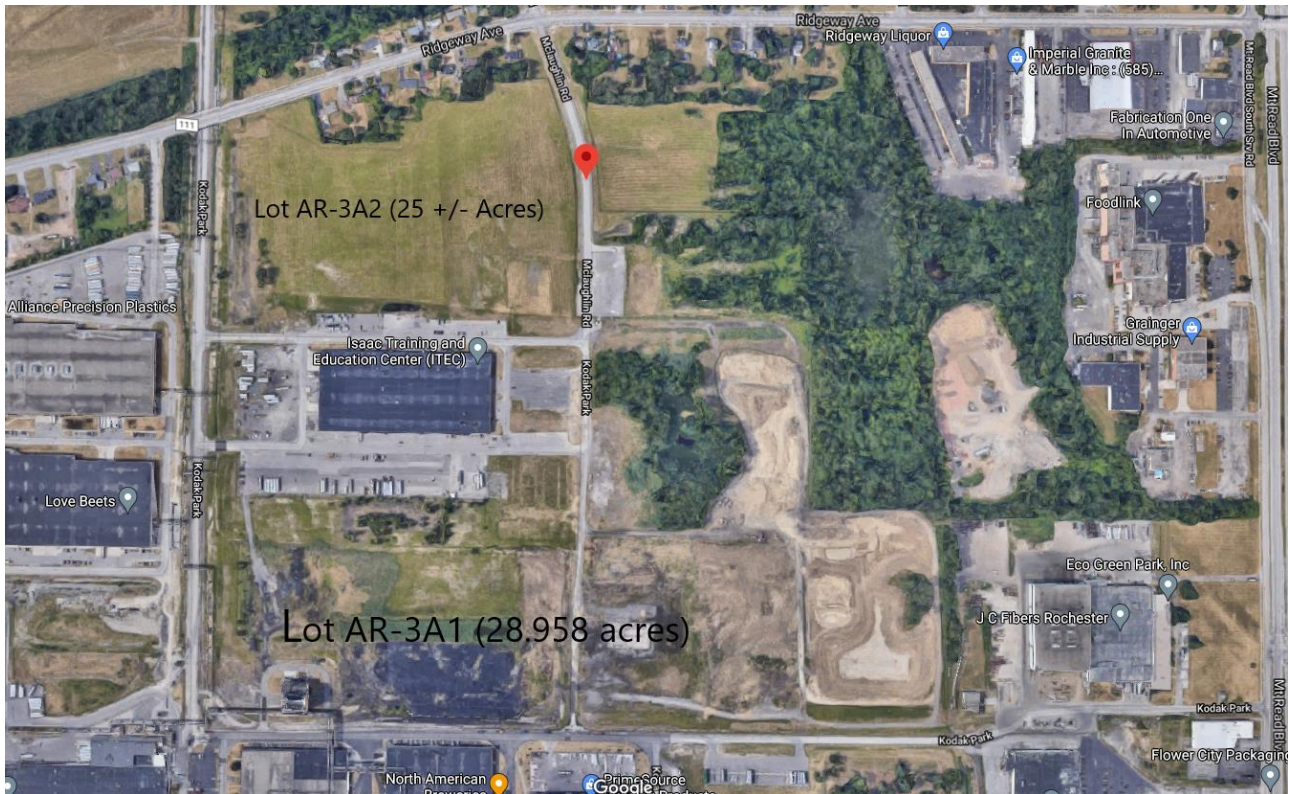
Transportation Impacts

Li-Cycle, Town of Greece, New York

Li-Cycle Facility Description

Li-Cycle plans to construct a hydrometallurgical manufacturing facility and an Administrative Building/Visitors Center/ Warehouse facility on two Lots consisting of approximately 65-acres on land in EBP-S owned by Ridgeway Properties I, LLC known as Lot AR-3A1 (28.958 acres @205 McLaughlin) and two parts of Lot AR-3A2 (11 +/- acres @205 McLaughlin and 25+/- acres @50 McLaughlin). As illustrated below, the Warehouse/Admin.Bldg/Visitor Center is located on the west side of McLaughlin Road (Private @50 McLaughlin) and the Hub Lot is located at the southern end of McLaughlin Road (Private @205 McLaughlin) both on currently undeveloped land. Lot AR-3A1 is adjoining the Main logistics Building (105 McLaughlin) to the north, a stormwater detention pond to the east, and existing private roads to the south and west. Lot AR-3A2 is adjoining several residential structures along Ridgeway Avenue to the north, a currently undeveloped parcel to the east, the Main logistics Building (105 McLaughlin) to the south, and an existing private road to the west. Internal truck traffic between the warehouse on the Warehouse Lot and the manufacturing areas on the Hub Lot will be via an existing private road to the west of the Lots and will not impact public roads. The current site plan is attached in Exhibit A.

Map of Ridgeway Properties



At present, most Lithium-ion (“Li-ion”) rechargeable batteries, which are increasingly powering our world in automotive, industrial, utility, residential energy storage, and consumer electronic applications critical materials, end up in landfills. Li-Cycle North America Hub, Inc. (“Li-Cycle”) is a clean technology company that uses the



blended slurry of reclaimed metal components from the recycling of Li-ion batteries as its feedstock to manufacture in a closed loop system lithium, nickel, cobalt and manganese.

The Facility's end-products are sold for use in new Li-ion battery production, or other applications in the broader economy.

The proposed project is expected to create approximately 600 construction jobs and 120 new permanent jobs, while generating increased tax revenue for the benefit of the surrounding communities. While 120 new permanent jobs are currently planned for the site, 160 were used as a conservative number for the traffic report

Transportation Impacts

The Transportation impacts of this project will be addressed in four parts.

1. Vehicle Impacts of completed facility
2. Construction impact of trucks and construction employees
3. Rail Impacts
4. Public Transportation and Public Access

1- Vehicle impact of completed facility

The completed facility is projected to employ 160 new employees working three shifts. These employees will generate approximately 78 vehicle trips during the morning peak and 96 vehicle trips during the afternoon peak site trip times during shift changes. Shift times are currently scheduled to be 7 am – 3 pm., 3 pm – 11 pm. and 11 pm – 7 am. The impact of these vehicle trips will be minimal as the adjacent roadway systems of Ridgeway Ave and NY 390 have been constructed with ample capacity to handle this traffic. The existing entrance at Ridgeway Ave and McLaughlin Road is signalized with a three-color signal, (red, yellow, green) and left turning lanes to accommodate turning vehicles without impeding traffic flow on Ridgeway Avenue.

In order to analyze the impact of this development, the approved 2016 Traffic Impact Report prepared for the proposed LiDestrie development was examined and the traffic volumes were projected for 2022. The roadway peak hour volumes were factored based on existing 24-hour counts to determine the peak site time periods. Exhibit B shows those volumes and factors. The trip generation was then determined based on the information above which was supplied by Li-Cycle staff. Synchro 11 was then used to analyze the impact of this development. The Synchro reports are attached in Exhibit C and the results are as follows:

The 2022 projected trips generated by the Li-Cycle Project along the Ridgeway Avenue corridor between the Lee/Latona Road Intersection and Mt. Read Blvd intersections indicates an increase of less than 9% in the morning peak traffic period and approximately 8% in the afternoon peak period. All the above intersections will operate at good Levels of Service (LOS) C or better during the operation of this development.

While operational, the facility is anticipating a total of 40 trucks per day to be delivering materials and shipping product to and from the site using the existing offsite road system. The planned material storage facility on site will add the movement of 30 trucks per day that will deliver materials between the two Li-Cycle facilities via the existing internal site roads. Therefore, there will be minimal impact by these trucks to the existing offsite road system.

2- Construction Impacts of employees and construction trucks



It is currently anticipated that during peak construction periods there may be 600 construction workers and 50 construction vehicles (Trucks) approaching the site.

Currently it is anticipated that construction workers will be working *two twelve-hour shifts including some weekends*.

Shift changes will be at 6 am and 6 pm. Peak shift arrival and dismissal times will occur during the 5:30 – 6:30 A.M. and P.M. periods

During peak construction activities it is anticipated that during the daytime shift 400 construction workers will be on site and up to 50 construction material delivery vehicles will be accessing the site. These delivery vehicles would be spread out throughout the day. All material delivery vehicle drivers will be instructed to approach the site from NY 390, and Ridgeway Ave.

To address the traffic impact of the construction employees an analysis of traffic flow was completed at the Intersections of

- Ridgeway Avenue/Lee, Latona Rd.,
- Ridgeway Avenue/McLaughlin Rd.
- Ridgeway Avenue/ Mt. Read Blvd northbound and southbound ramps

The results indicate that all of the above intersections will operate at good levels of service, Level D or better during the construction phase of this project. Exhibit D shows the results of the Synchro 11 analysis for this construction traffic.

3- Rail Impacts

This Li-Cycle project will make significant changes and use of the (former) Kodak Park Railroad, also known as the KPRR.

The KPRR was privately owned by Kodak, comprising 19 miles of track and 100 switches on its 3.4 total route miles. At its peak, circa 1970's, Kodak received approximately 15,000 carloads of inbound raw materials of: plastics, wood pulp, chemicals and coal, for interplant delivery.

After Kodak's 2012 bankruptcy, the KPRR assets and operations transitioned to the Rochester Switching Services. The Li-Cycle plant buildout will take place on two (2) former Kodak parcels as described in the Introduction.

Railroad Interchange Points Serving KPRR

Southeast of the Kodak Park is the major CSX interchange point, known as Goodman Street Yard, along CSX's east/west Chicago Line. Goodman Street Yard is located at Atlantic and University Avenues in Rochester, NY Proceeding approximately 7.82 miles to the northwest is the CSX and Rochester Southern Railroad, interchange point, known as West Ridge Road Yard, From there, it is approximately 1.54 miles from the West Ridge Yard to the KPRR yard, which is located at Kodak 31 Road Yard Road, just north of the proposed LI-Cycle sites. It is anticipated that any inbound shipments to Li-Cycle would be set off, for delivery to Li-Cycle, at the KPRR Yard at KODAK 31 Road.

The Li-Cycle build out will utilize the Yard lead that, is immediately to the east of Kodak31 Road and generally runs north to south, from the KPRR Yard, referenced above. The approximate distance from the KPRR yard to the end if the proposed new siding at the HUB lot is .97 miles or 5136 feet. The proposed new spur consists of 836 LF of new track and along with the existing spurs will serve Li-Cycle and will be located entirely on Li-Cycle controlled parcels as previously described.



Upon completion of this project, Li-Cycle is predicting approximately 50 weekly inbound cars and 20 weekly outbound cars of product. This would result in 3640 annual carloads. The only other rail service service, in this area is to LiDestri foods which consists of 2-3 car loads per week or an average of 750 shipments per year. The total annual rail service shipments for LiCycle and LiDestri will be approximately 4640.

The post construction railroad negative impacts, resulting from this project, will be insignificant as all the majority of the rail car switching of 3640 car loads in and out, will take place at one of the aforementioned railroad yards or the former Kodak property, or on the HUB lot which is classified, as industrial. Additionally, the total projected level of Li-Cycle railroad service considers 3640 annual carloads and is not beyond what the system was designed for. This projected car loading is one quarter of the annual car loadings previously handled by Kodak.

Positive impacts of constructing these new railroad yard tracks, switches, storage and unloading track will result in more efficient and safe handling, loading and shipping of the chemical raw materials and products, directly from the plant to the waiting rail cars. Without the added track features, the chemical raw materials and products would require multiple transport moves entirely by truck. Rail is more desirable when considering transportation safety, cost, scheduling and efficiency.

4- Public Transportation and Public Access Impacts

Public transit to the site can currently be accessed via Rochester Regional Transit Service (RTS) Route 98 operating weekdays in the A.M. period 5:45 AM to 7:40 AM. There is a stop at Ridgeway Avenue and McLaughlin Rd. during this time.

Throughout the remaining hours the site can be accessed via the RTS on Demand Service in the Lexington Zone. This service is available Monday – Friday 5:00 A.M. to 10:00 P.M.

Sidewalks are in place along both sides of Ridgeway Avenue from Mt. Read Blvd. to Mc Laughlin Road. Pedestrian cross walks and pedestrian signals are provided at the Intersection of Ridgeway Avenue and McLaughlin Road.

In addition, shoulders are provided along both sides of Ridgeway Avenue from the intersection of Lee/Latona Roads to Mt. Read Bld. This will allow for bicycling along this area.