# *Thank you for your commitment to green initiatives at the University of Illinois. One of the final steps in completing the terms of the funding agreement for your project is the submission of a Final Report with key information about your project. You will also need to submit a detailed report of expenses (if you don't list it within this document) as well as supporting photos to showcase your project.*

# *Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at* [*sustainability-committee@illinois.edu*](mailto:sustainability-committee@illinois.edu)*.*

**Project Name:** Baler Conceptualization

**Date of Report Submission:** 1/30/2020

**Project Purpose:**

This project funded an engineering study to create conceptual design drawings, specifications, and a project estimate of probable cost for a new baler at the Waste Transfer Station (WTS). The new baler would allow F&S to expand collection of recyclable plastic materials to include plastics 3-7, rather than just #1-2 plastics shaped like bottles.

**Detailed Accounting of Expenditures to Date:**

The cost of the feasibility study was confirmed as $15,500.00, and an encumbrance was placed on the SSC account. At project close out, the final actual cost was $14,945.41. Therefore, we herein relinquish $5,054.59.

**Project Progress to Date:**

On March 1, 2018, Morgan White, Pete Varney, and Shawn Patterson met with capital planner Trent Beane, a representative of the engineering firm, and a manufacturer’s rep from Dehart Recycling. We discussed the project needs, and the current status of the WTS equipment. Some notable points are listed below:

* The existing baler was installed in 1996
* Design of balers has changed a lot, with lower labor costs and alternatives to the perforator currently used at WTS.
* The power supply is probably similar to the existing power demand.

After the meeting, the engineering firm was asked to provide a formal proposal to F&S to approve and begin the design work. Unfortunately, this process was delayed due to emergency family medical issues for Mr. Beane.

In August 2018, a new planner was assigned, Chris Anzelmo. Anzelmo finalized the agreement with the engineering firm and arranged a kick-off meeting. In November 2018, the engineer visited the Illinois Sustainable Technology Center (ISTC) to examine the Styrofoam densifier and gathered additional information from the WTS.

Then on December 13, 2018, preliminary drawings were shared with F&S. At that meeting, discussions included the needs for modifying the “pit” at the base of the baler entry system, adjusting the pathway width between the baler and the north wall, and recognition that locating the Styrofoam densifier at the WTS would require a building addition. Information about the HVAC system and required code updates were also reviewed.

On January 2, 2019, a baler vendor representative met with us at the WTS. They are going to look at an alternative baler that could provide the needed walkway space on the north end and use the existing pit.

On January 31, 2019 the Final Report was completed and submitted to F&S. The estimated construction cost was $1.2M. This does not represent total project cost, which would be notably more. Additionally, options for HVAC improvements in the building were considered, with construction costs ranging from $300K to $1.2M.

The Final Report also included a construction cost for installing the EPS densifier within the Waste Transfer Station facility. The cost was significant at approximately $790K for construction, so it was determined that a different location should be found. The densifier was reviewed by staff in the Art and Design department, but it was not a good fit for their facility. Staff at the Illinois Sustainability Technology Center (ISTC) worked with F&S to find a useful home for the densifier, and it was eventually transferred off campus. It is now in use at Menards Correctional Facility in Chester, Illinois.

**Student Involvement and Outreach to Date:**

The meeting on March 1 included a student intern working with Morgan White, Leah Berti.

**Marketing and Promotion Efforts to Date:**

None beyond the SSC website and iCAP Portal.

**Additional Comments:**

The conceptualization study details are found in Capital Project #U18073 - UIUC Waster Transfer & Material recovery Facility - Baler and Densifier Feasibility Study. Next steps involve identifying a large funding source for actual implementation.

In addition to the above fields, please provide a detailed accounting of how the funding was spent as well as pictures of the final project in an email to [sustainability-committee@illinois.edu](mailto:sustainability-committee@illinois.edu). Thank you again for your commitment to sustainability.