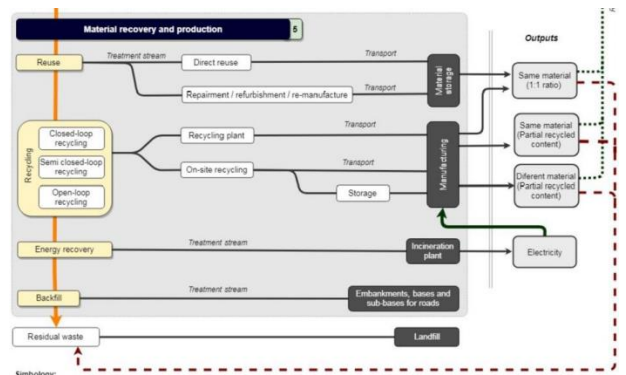
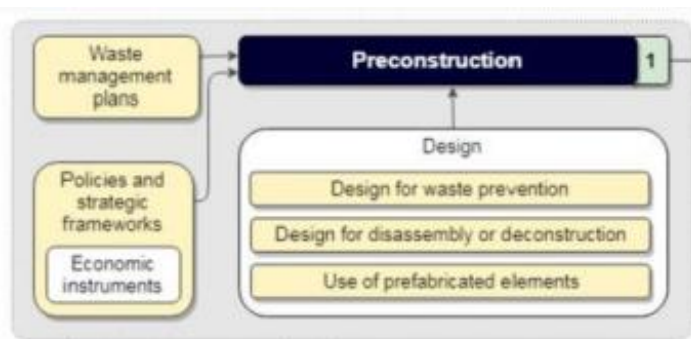


On Tuesday, December 13, 2022, Town+Gown hosted its 9th Urban Resource Recovery (URR) event. This event brought the Town+Gown community and the URR Working Group (URR WG) together on the topic of closing construction + demolition waste (CDW) material loops for the first time since October 13, 2021, when we revealed the URR WG’s Closing Loops City Program Initiative (CLCPI) (see <https://www1.nyc.gov/assets/ddc/downloads/town-and-gown/AgendaandPrecis.Final10-12-21.pdf>). The CLCPI outlines public policy and operational steps necessary for NYC to “lead by example” and leverage its capital projects to transform CDW from a “waste” to a resource by increasing CDW recovery and re-use and closing CDW material loops.

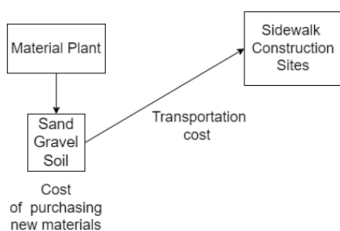
Prof. Thanos Bourtsalas of Columbia open the event by connecting “big picture” concepts of urban mining and circular CDW economy to NYC construction projects. Of particular importance for the CLCPI are the pre-construction design phase, which can include prefabricated elements, and the logistics of material recovery and production. Full presentation at https://www.nyc.gov/assets/ddc/downloads/town-and-gown/ProfBourtsalas_urbanminingpresentation_12132022.pdf



The Fall 2022 NYU/Tandon-MOT capstone team presented on a two-part conceptual Cost-Benefit Model for the recovery and re-use of concrete, as recycled concrete aggregate, in both direct and indirect manners envisioned by the CLCPI, with NYC DOT’s crusher operations for sidewalk projects as the case study. Full presentation at <https://www.nyc.gov/assets/ddc/downloads/town-and-gown/TandonMOTCapstonepresentation-Dec132022.pdf>

Cost-Benefit Model - Elements for Case Study

Case 1 Process Map

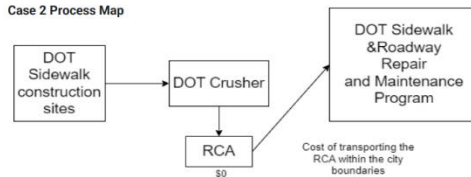


Purchase natural building materials

- Cost of purchasing new materials
- Transportation cost includes transportation cost from out-of-city factory and in-city transportation cost

Cost-Benefit Model - Elements for Case Study

Case 2 Process Map



Processed at NYC DOT's crusher generating recycled concrete aggregate (RCA)

- Assume the costs to construct and operate the crusher as sunk costs.
- Costs modeled only for transporting RCA within the city boundaries

There were lively discussions among “in person” participants and the presenters (with an information exchange party going on among the remote participants), which will lead to future research and symposium events.