

NYCTech

Final Presentation
Spring 2014

LEED ND

Final Presentation
Spring 2014

LEED ND THE TEAM



Yana Azova

Urban & Regional
Studies '15



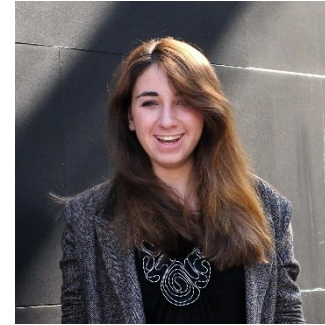
Rashmi Gajare

Historic
Preservation '15



Alice Wenglin

Systems
Engineering '15



Aylin Gucalp

Applied Economics
& Management '14



Leah Meyerholtz

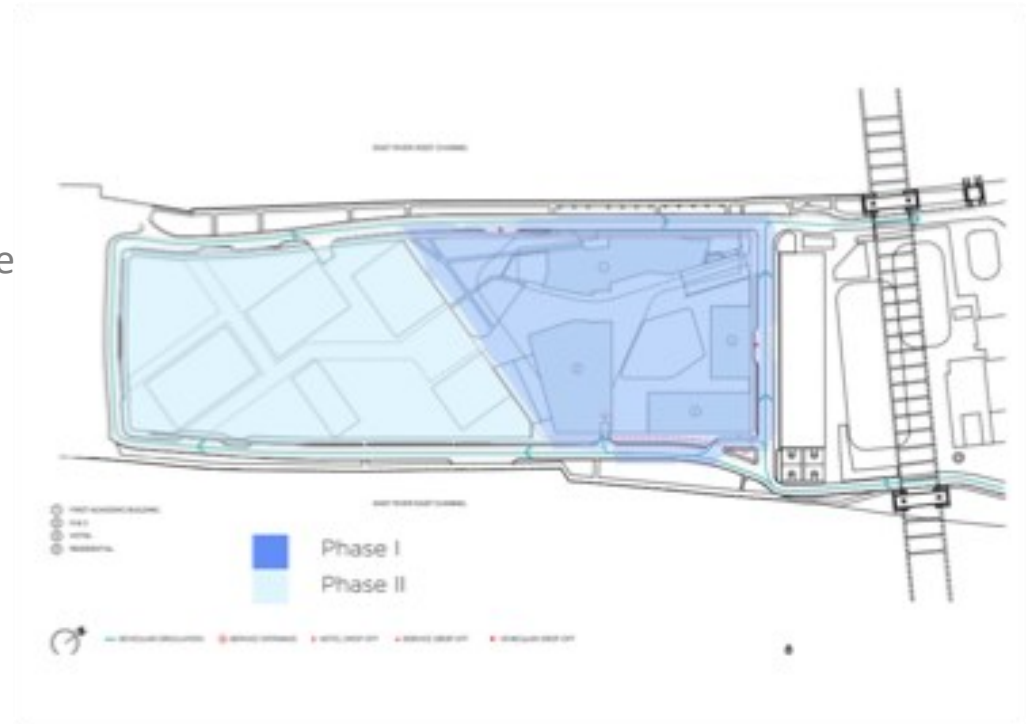
Urban & Regional
Studies '14

LEED ND

THE PROJECT

Project Name: Cornell Tech Campus, Roosevelt Island Campus

Location: (40.75442, -73.956356), Roosevelt Island (Manhattan), New York



LEED ND PROJECT VALUES

LEED ND

- Supports the Tech Campus' mission as outlined by the Six Guiding Principles
- Adds value for the Cornell and greater New York City community



PROJECT TIMELINE

09.2012

**Project
Starts**

12.2012

**Project is
determined
feasible**

05.2013

**Registered:
Stage 2 LEED
ND v2009**

10.2013

**Call with
USGBC**

5.2014

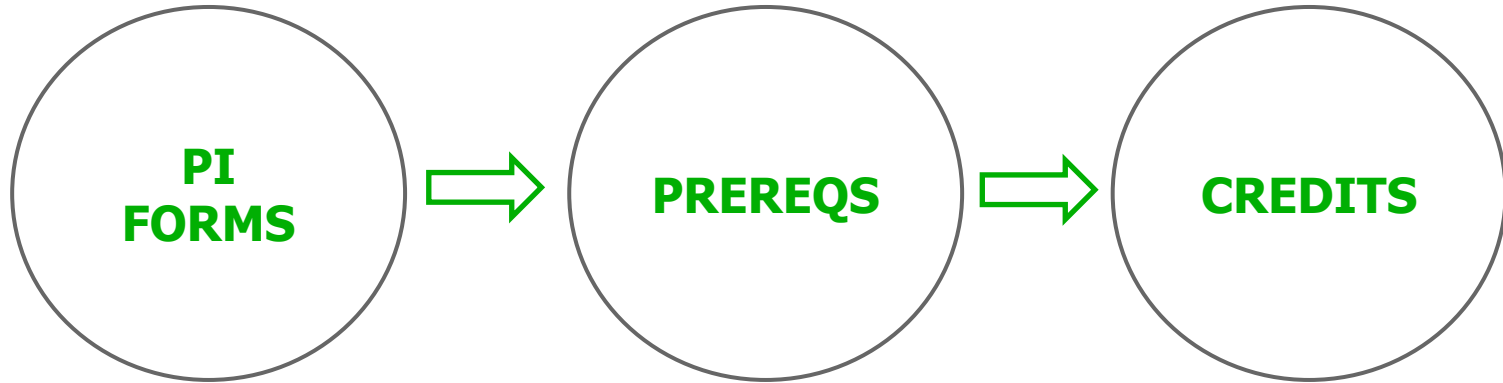
**Completed PI &
prereq mapping
and forms**

Next?

Credits

LEED ND

THE ND PIPELINE



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PROGRESS OVERVIEW

**UPDATE
4 MAPS**

**COMPLETE
3 PI
FORMS**

**REVIEW
12
PREREQS**

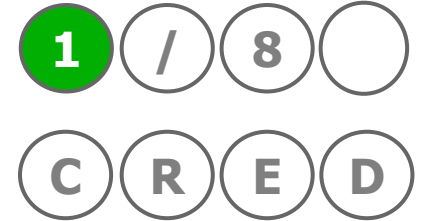
**REVIEW
8/35
CREDITS**

LEED ND

PROGRESS OVERVIEW

**UPDATE
4 MAPS**

**COMPLETE
3 PI
FORMS**



LEED ND

UPDATING MAPS

CORNELL
NYCTECH



UPD
E
4
MAPS

LEED ND

PI FORMS

Total land area within ½ mile of the project boundary

928.32 acres

Eligible intersections per square mile within ½ mile of adjacent portion of project boundary:

141 intersections / sq mi.

Select one of the following:

☐ Condition A. Infill site adjacent to previous development

SURROUNDING AREA CONNECTIVITY

☒ Upload P1f1-7. The project team has uploaded a vicinity base map with eligible pre-project intersections within ½ mile of adjacent portion of project boundary.

☐ None of the above



3 PI
FORMS

LEED ND PREREQUISITES



LEED 2009 for Neighborhood Development GIB PREREQUISITE 1: CERTIFIED GREEN BUILDING

Stage 2: LEED-ND Pre-Certified Plan

Project # 1000031894 Cornell NYC Tech Campus

All fields and uploads are required unless otherwise noted

ALL PROJECTS

Select one of the following:

- ☐ Stage 2A. No change since Stage 1
- ☐ Stage 2B. Change since Stage 1
- ☒ Stage 2C. Did not submit at Stage 1

STAGE 2C

Building identifier:
(e.g., name, ID number, address)

First Academic Building - #1000036644; Phase 1 Co-Location - #1000036645

Select certification program:

- ☒ LEED
- ☐ ISO/IEC 17021-, Guide 65-, or 17065-compliant

☒ Upload GIBp1-2. The project team has uploaded confirmation that the building indicated above has been registered under a LEED rating system.

☐ Upload GIBp1-5. The project team has uploaded confirmation that the building indicated above has been certified under a LEED rating system. (Optional)

SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

All four of the project's buildings are subject to Local Law 86, which requires that each building be LEED NC Silver at a minimum. Two buildings - the first academic building and the co-location building have been registered, see Project #'s above. The other two buildings on the project site are not yet designed or registered as such, but will be as soon as they are designed.

☒ Upload GIBp1-SC. Provide any additional documentation that supports the claim to special circumstances. (Optional)

10/12
PREREQ
S

LEED ND

PREREQUISITES



LEED 2009 for Neighborhood Development GIB PREREQUISITE 1: CERTIFIED GREEN BUILDING

Stage 2: LEED-ND Pre-Certified Plan

Project # 1000031894 Cornell NYC Tech Campus
All fields and uploads are required unless otherwise noted

SPECIAL CIRCUMSTANCES

Describe the circumstances arising from the project that require the project team to provide the additional documentation required for this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

All four of the project's buildings are buildings - the first academic building and the first academic building on the project site are not yet designed or constructed. The project is subject to Local Law 86, which requires that each building be LEED NC Silver at a minimum. Two of the buildings are LEED NC Silver at a minimum, but the other two buildings are not yet designed or constructed.

1. Determine purpose of the credit:

ALL PROJECTS

Select one of the following:

☐ Stage 1C. Did not submit at Stage 1

☐ Stage 1D. Did not submit at Stage 1

☒ Stage 2C. Did not submit at Stage 1

STAGE 2C

3. How do we prove it:

Building #1: Academic Building - #1000036644; Phase 1 Co-Location - #1000036645
(e.g., name, ID number, address)

Select certification program:

☒ LEED

☐ ISO/IEC 17021-, Guide 65-, or 17065-compliant

☒ Upload GIBp1-2. The project team has uploaded confirmation that the building indicated above has been registered under a LEED rating system.

☐ Upload GIBp1-5. The project team has uploaded confirmation that the building indicated above has been certified under a LEED rating system. (Optional)

Energy Efficient Buildings

LEED New Construction Silver

Registrations' Numbers for our Projects
Proof of Registrations
Excerpt from our Contract
Legal Opinion

10/12
PREREQ
S

LEED ND CREDITS



Total :- Credits Attempted : 49 Points Possible : 84 Points Attempted : 5 Points Awarded : 0 Points Denied : 0 Points Pending : 0 [Legend](#)

Category	#	Stage	RP	Credit Name	Attempted	Awarded	Pending	Denied	Status	Changed	Assignee	Form Version
PI	f1			Development Program and Site Type	Y	-	-	-	✓	N	Alice Wenglin	V04
PI	f2			Project Timeline	Y	-	-	-	✓	N	Alice Wenglin	V01
PI	f3			Project Location and Base Mapping	Y	-	-	-	✓	N	Alice Wenglin	V04
SLL	p1	S2		Smart Location	Y	-	-	-	✓	N	Rashmi Gajare	V04
SLL	p2	S2		Imperiled Species and Ecological Co...	Y	-	-	-	✓	N	Rashmi Gajare	V04
SLL	p3	S2		Wetland and Water Body Conservation	Y	-	-	-	✓	N	Yana Azova	V01
SLL	p4	S2		Agricultural Land Conservation	Y	-	-	-	✓	N	Yana Azova	V02
SLL	p5	S2		Floodplain Avoidance	Y	-	-	-	✓	N	Yana Azova	V01
SLL	c1	S2		Preferred Locations	5/1-10				✓	N	Rashmi Gajare	V01
SLL	c3	S2		Reduced Automobile Dependence	0/1-7				✓	N	Rashmi Gajare	V01
SLL	c4	S2		Bicycle Network and Storage	0/1				✓	N	Rashmi Gajare	V01
SLL	c5	S2		Housing and Jobs Proximity	0/1-3				✓	N	Rashmi Gajare	V01
SLL	c6	S2		Steep Slope Protection	0/1				✓	N	Rashmi Gajare	V01
SLL	c7	S2		Site Design for Habitat or Wetland ...	0/1				✓	N	Rashmi Gajare	V04
NPD	p1	S2		Walkable Streets	Y	-	-	-	✓	N	Matthew Kozlowski	V01
NPD	p2	S2		Compact Development	Y	-	-	-	✓	N	Matthew Kozlowski	V04
NPD	p3	S2		Connected and Open Community	Y	-	-	-	✓	N	Yana Azova	V04
NPD	c1	S2		Walkable Streets	0/1-12				✓	N	Yana Azova	V01
NPD	c2	S2		Compact Development	0/1-6				✓	N	Matthew Kozlowski	V04
NPD	c3	S2		Mixed-Use Neighborhood Centers	0/1-4				✓	N	Yana Azova	V01

1/8
CREDIT
S

SLLc1: PREFERRED LOCATIONS

SLL Credit 1: Preferred Locations

1–10 points

Intent

To encourage development within *existing* cities, suburbs, and towns to reduce adverse environmental and public health effects associated with sprawl. To reduce development pressure beyond the limits of existing development. To conserve natural and financial resources required for construction and maintenance of infrastructure.

Requirements

Achieve any combination of requirements in the following three options:

OPTION 1. Location Type

Locate the *project* in one of the following locations:

- A *previously developed site* that is not an *adjacent site* or *infill site* (1 point).
- An *adjacent site* that is also a previously developed site (2 points).
- An *infill site* that is not a previously developed site (3 points).
- An *infill site* that is also a previously developed site (5 points).

AND/OR

OPTION 2. Connectivity

Locate the project in an area that has existing *connectivity* within 1/2 mile of the *project boundary*, as listed to Table 1.

Table 1. Points for connectivity within 1/2 mile of project

Intersections per square mile	Points
≥ 200 and < 250	1
≥ 250 and < 300	2
≥ 300 and < 350	3
≥ 350 and < 400	4
≥ 400	5

Intersections within the site may be counted if the intersections were not constructed or funded by the *developer* within the past ten years.

AND/OR

OPTION 3. Designated High-Priority Locations

Achieve the following (3 points):

- Earn at least 2 points under NPD Credit 4, Mixed-Income Diverse Communities, Option 2, Affordable Housing.

1. Choose the Option/s

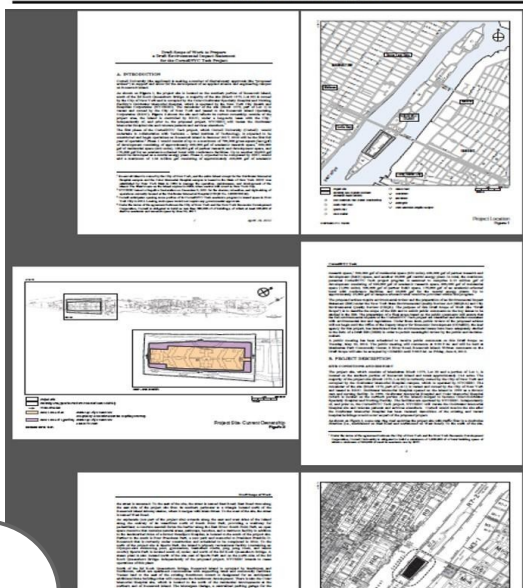
2. Figure out what they need

d. An infill site that is also previously developed site (5 points)

SLLc1: PREFERRED LOCATIONS

d. An infill site that is also **previously developed site**

Draft Scope of Work to Prepare
a Draft Environmental Impact Statement
for the CornellNYC Tech Project



1. Choose the Option/s

2. Figure out what they need

3. Find the documents

4. Create documents e.g. maps

F1-9: Previously Developed Areas



Previously Developed Land

- 1 Mile Radius of Project Boundary
- Project Boundary
- Parks
- Built Features
- Water Bodies

100% land within boundary is previously developed



0 0.25 0.5 1 Miles

Cornell NYCTech
December 7, 2013
Map PI F1-9

SLLc1: PREFERRED LOCATIONS

d. An **infill site** that is also previously developed site

connectivity the number of publicly accessible *street* intersections per square mile, including intersections of streets with dedicated *alleys* and transit rights-of-way, and intersections of streets with nonmotorized rights-of-way (up to 20% of total intersections). If one must both enter and exit an area through the same intersection, such an intersection and any intersections beyond that point are not counted; intersections leading only to *culs-de-sac* are also not counted. The calculation of square mileage excludes *water bodies*, *parks* larger than 1/2 acre, public facility campuses, airports, rail yards, slopes over 15%, and areas nonbuildable under codified law or the rating system. Street rights-of-way may not be excluded.

infill site a site that meets any of the following four conditions:

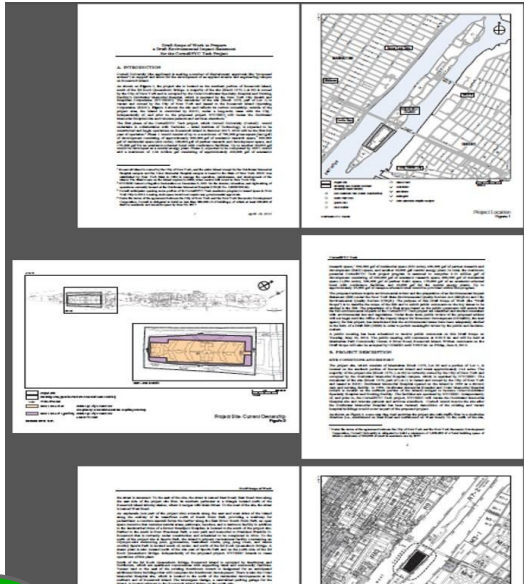
- At least 75% of its boundary borders parcels that individually are at least 50% *previously developed*, and that in aggregate are at least 75% previously developed.
- The site, in combination with bordering parcels, forms an aggregate parcel whose boundary is 75% bounded by parcels that individually are at least 50% previously developed, and that in aggregate are at least 75% previously developed.
- At least 75% of the land area, exclusive of rights-of-way, within a 1/2 mile distance from the *project boundary* is previously developed.
- The lands within a 1/2 mile distance from the project boundary have a *preproject connectivity* of at least 140 intersections per square mile.

A *street* or other right-of-way does not constitute previously developed land; it is the status of property on the other side or right-of-way of the street that matters. For conditions (a) and (b) above, any fraction of the perimeter that borders waterfront other than a stream is excluded from the calculation.

F1-7: Intersections



SLLc1: PREFERRED LOCATIONS



F1-9: Previously Developed Areas



Previously Developed Land

- 1 Mile Radius of Project Boundary
- Project Boundary
- Parks
- Built Features
- Water Bodies

100% land within boundary is previously developed



0 0.75 0.5 1 Miles

Cornell NYCTech
December 7, 2013
Map P1 F1-9

F1-7: Intersections



- 1/2 mile boundary
- Eligible pre-project intersections
- Project boundary

141 intersections per sq. mile
205 intersections in total



0 0.5 1 Miles

Cornell NYCTech
May 12, 2014
Map L-7

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CHALLENGES + SOLUTIONS

1. Properly scaled base maps
2. Data overload

THE SCALE SEARCH

PROBLEM:

- 1" =/= 429'
- Time consuming process

SOLUTION:

- Compared to design documents from Sharepoint
- Communicate with advisors (Abena, Matt)
- Received CAD map from SOM

FUTURE:

- Organize a CAD workshop for team members

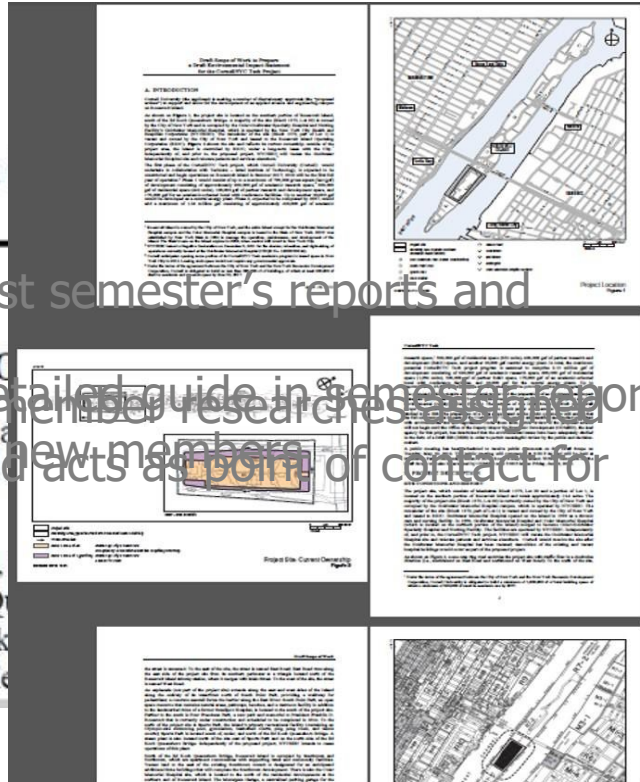
DATA OVERLOAD

PROBLEM:

SOLUTION:

- FUTURE:
- Examine past semester's reports and deliverables
 - Include detailed guide in semester report
 - Each team member researches assigned case for likely new members
 - Case file acts as point of contact for that topic

As shown on **Figure 1**, south of the Ed Koch Queensboro Bridge, the City of New York City's Goldwater Memorial



accessible *street* intersections per square mile, including intersections of sit rights-of-way, and intersections of streets with nonmotorized rights-of-way. If one must both enter and exit an area through the same intersection, such as beyond that point are not counted; intersections leading only to *culs-de-sac* of square mileage excludes *water bodies*, *parks* larger than 1/2 acre, public slopes over 15%, and areas nonbuildable under codified law or the rating be excluded.

following four conditions:

orders parcels that individually are at least 50% *previously developed*, and that previously developed.

bordering parcels, forms an aggregate parcel whose boundary is 75% bounded by at least 50% previously developed, and that in aggregate are at least 75%

exclusive of rights-of-way, within a 1/2 mile distance from the *project boundary*

distance from the project boundary have a *preproject connectivity* of at least 140

to constitute previously developed land; it is the status of property on the other matters. For conditions (a) and (b) above, any fraction of the perimeter that is excluded from the calculation.

1575, Lot 20) is owned by Hospital and Nursing Home, New York City Health and

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NEXT SEMESTER



- Complete final 2 prerequisites
- Work on credits
 - Review the other 35 credits
 - Complete credits deemed feasible this semester
 - Work on new credits
- Make changes to past work as new information comes in

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A BIG THANK YOU TO



Our wonderful advisers Abena, Matt, and Dave
Our valiant project leaders Courtney and Robert
And CUSD for making this project possible!