URBAN HABITAT COMPETITION

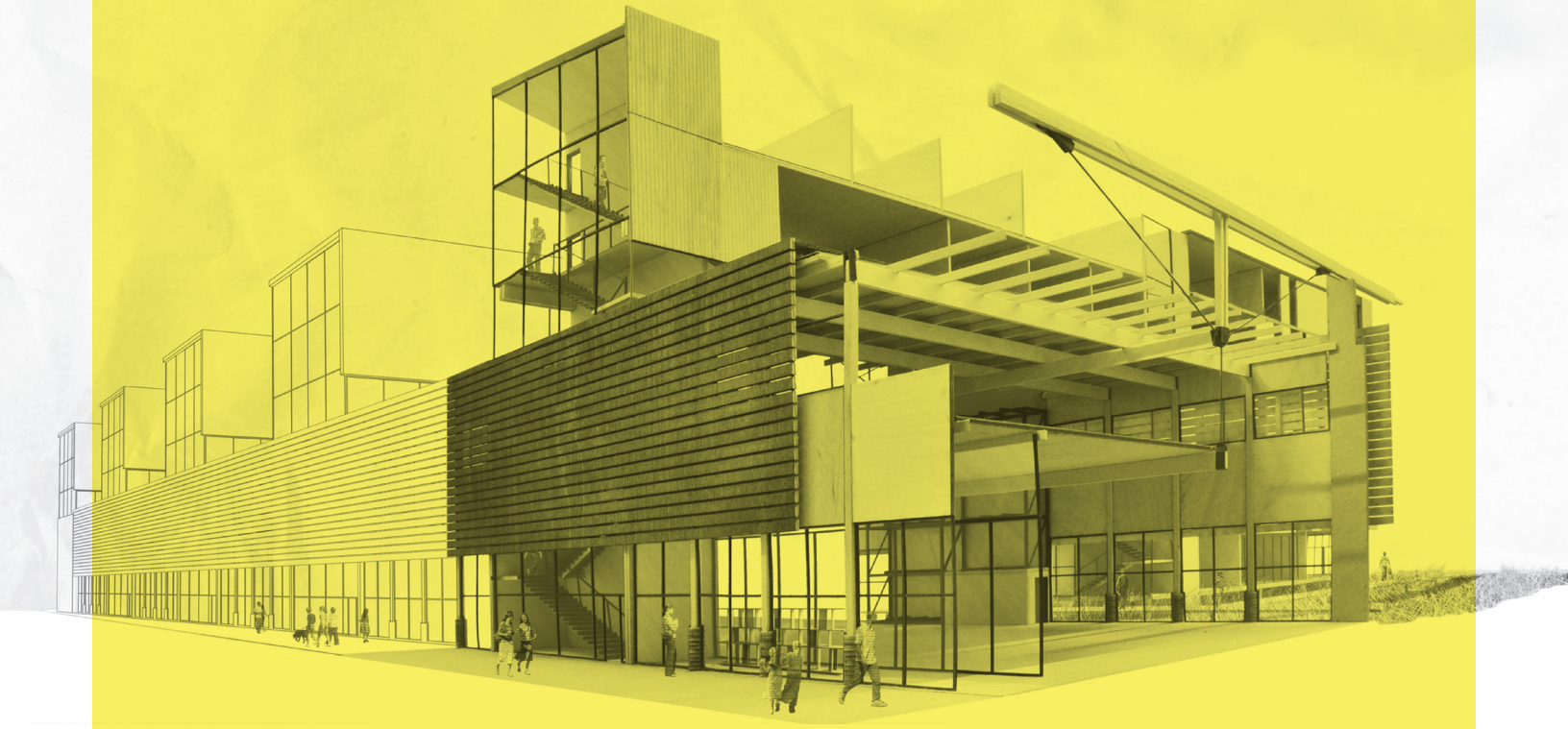


Image Credit: 2013 Timber in the City Competition
Students: Benjamin Ahearn, Kristin Karlsson & Carey Moran
Faculty: Richard Mohler & Elizabeth Golden, University of Washington

2015-2016 TIMBER IN CITY
Student Design Competition Program

reTHINK WOOD

THE NEW SCHOOL PARSONS

INTRODUCTION

The Association of Collegiate Schools of Architecture (ACSA) is pleased to announce TIMBER IN THE CITY: Urban Habitats Competition for the 2015-2016 academic year. The competition is a partnership between the Binational Softwood Lumber Council (BSLC), the Association of Collegiate Schools of Architecture (ACSA) and the School of Constructed Environments (SCE) at Parsons School of Design. The program is intended to engage students, working individually or in teams to imagine the repurposing of our existing cities with sustainable buildings from renewable resources, offering expedient affordable construction, innovating with new and old wooden materials, and designing healthy living and working environments.

THE CHALLENGE

The competition challenges participants to design a mid-rise, mixed-use complex with affordable housing units, a NYC outpost of the The Andy Warhol Museum and a new and expanded home for the historic Essex Street Market.

The project site is in Manhattan's lower east side in the former Seward Park Urban Redevelopment Area. In 1967, New York City leveled 20 acres on the southern side of Delancey Street and removed more than 1,800 low-income largely Puerto Rican families, with a promise that they would eventually return to new low-income apartments. Competing forces within the neighborhood and the development community long debated whether the area should be used to develop affordable or market rate housing, for commercial or cultural uses, or all of the above. This debate was waged in the community halls of local public school auditoriums and other city meeting places, in newspaper columns, coop board meetings, and at private strategy sessions in individual homes, and eventually a resolution was reached, leading to the currently planned Essex Crossing development.

The Essex Crossing development as currently planned, however, could be criticized for following a larger bulk zoning than ideal, as well as for not requiring the highest degree of innovative and environmentally proactive construction and energy use standards, this competition elicits responses to correct this critical lack, on at least part of the overall development area.

Entrants will be asked to design places for inhabitation, repose, recreation, and local small scale commercial exchange, as well as the creation of social and cultural exchanges, all while embracing new possibilities of wood. Entrants will be challenged to propose construction systems in scenarios that draw optimally on the performance characteristics of not one but a variety of wood technologies.

TIMBER

The competition will challenge participants to interpret, invent, and deploy numerous methods of building systems, with a focus on innovations in wood design on a real site. For thousands of years, solid wood has been used as a building material. Modern timber products and systems have greatly expanded the potential uses of this historic material. Timber is an ideal green building material: it is well suited for a broad range of structural and aesthetic applications, it offers economical construction and high performance characteristics; and wood is an economic driver to maintain forests and protect jobs in rural communities.

CRITERIA FOR JUDGING

Criteria for the judging of submissions will include: timber/wood as the primary structural material, creative and innovative use of timber/wood in the design solution, successful response of the design to its surrounding context, and successful response to basic architectural concepts such as human activity needs, structural integrity, and coherence of architectural vocabulary.

SCHEDULE

March 30, 2016	Registration Deadline
May 25, 2016	Submission Deadline
July 2016	Winners Announced

AWARDS

Winning students and their faculty sponsors, will receive cash prizes totaling $40,000. The design jury will meet in July of 2016, to select winning projects and honorable mentions. Winners and their faculty sponsors will be notified of the competition results directly. A list of winning projects will be posted on the ACSA website (www.acsa-arch.org). The projects will be presented in an exhibition at Parsons School of Design at The New School on the occasion of the opening of a conference on the socio-political and economic issues of the use of timber in urban environments, and this exhibition will travel to select venues.

1st Prize:	Student $10,000	Faculty Sponsor $6,500
2nd Prize:	Student $7,500	Faculty Sponsor $5,000
3rd Prize:	Student $5,000	Faculty Sponsor $3,500

Image Credit: 2013 Timber in the City Competition
Students: Benjamin Ahearn, Kristin Karlsson & Carey Moran
Faculty: Richard Mohler & Elizabeth Golden, University of Washington

PROGRAM

The diversified program proposes several spatial conditions, span distances, use and environmental criteria in order to elicit a diverse group of architectural compositions and technological solutions that incorporate the use of differing structural, framing, and detail-oriented components. Such conditions may be:

- Vertical mid-rise framing (i.e. Mass Timber Systems such as CLT)
- Interior partitioning (stud framing or modular panelized systems)
- Exterior cladding (modular assemblies)
- Long-span structure (glu-lam beams, mechanically laminated timber, and other composite members)

RESIDENCES

Residences in this project are a mix of small units for single or double occupancy and larger, family-based units with more than one bedroom. All apartments must have exposure to natural light and air, as well as rooms that meet minimum size requirements of the New York City Department of Housing Preservation and Development (HPD):
<http://www.nyc.gov/html/hpd/downloads/pdf/new-constr-guidelines.pdf>

THE WARHOL MUSEUM

The Andy Warhol Museum in Pittsburg, Warhol's birthplace, is a vital forum in which diverse audiences of artists, scholars, and the general public are galvanized through creative interaction with the art and life of Andy Warhol.

By its inclusion in this project, the Warhol Museum would contribute to New York City a constantly rotating selection of the fruits of one of the city's most celebrated creative progeny. Its collection includes works in all of Warhol's various media: Painting, Sculpture, Print, Drawing, Photography and Film, as well as archival source material. As an auditorium / film screening venue, the Warhol Museum can contribute a new multi-use cultural location to the local community.

ESSEX STREET MARKET

Essex Street Market has been an evolving fixture in Manhattan's Lower East Side for over 70 years, founded in 1940 as part an effort to find a new place for street merchants to do business. Local residents get personalized service from local vendors as they gather to browse an ethnically diverse collection of goods including flowers, meats, cheeses, clothing, prepared foods and fresh produce.

Beyond its intended function as a shopping destination, the Market developed into a social environment where residents come to connect and share ideas. Part of the accord reached between the city, developers, and the community was that an expanded Essex Market would provide a home for the existing vendors as well as encourage new business and means of exchange in any new development at Essex Crossing.

Image Credit: 2013 Timber in the City Competition
Students: Benjamin Bye, Alex Kenton & Jason Rood
Faculty: Judith Sheine, University of Oregon & Mikhail Gershfeld, Cal Poly Pomona

PROGRAM DISTRIBUTION

The Warhol Museum

Component		*Sq. Ft.*
Lobby / Tickets / Coat Check		2,500
Auditorium / Film Screening	200 seats	3,000
Open Gallery		40,000
Project Space		2,500
Administration / Curatorial		1,500
Restrooms		400
Subtotal		**49,900**
Mechanical	4% Museum GSF	1,996
Circulation	10% Museum GSF	4,990
Museum Total	**50,000-60,000 Acceptable**	**56,886**

Essex Street Market

Permanent Stalls		15,000
Flexible Stalls		15,000
Eating Area		5,000
Restrooms		400
Administration		500
Market Total	**30,000-40,000 Acceptable**	**35,900**

Residential

Apartment Types	*Individual Sq. Ft.*	*Quantity*	
Micro Units	325	150	48,750
1 Bedroom	650	80	52,000
2 Bedroom	850	60	51,000
3 Bedroom	1,000	20	20,000
Laundry			750
Recreation (Indoor)			2,500
Lobby / Mail			1,500
Restrooms			300
Bike Parking			1,500
Bike Maintenance / Storage			400
Subtotal			**178,700**
Mechanical	4% Residential GSF		7,148
Circulation	10% Residential GST		17,870
Residential Total	**190,000-210,000 Acceptable**		**203,718**

Total Gross Sq.Ft: 270,000-310,000 Acceptable	**296,504**

Note: any sublevel component not included in Gross Sq. Ft. (GSF)

SITE INFORMATION

In spite of the pressures of gentrification, the LES remains a diverse community. According to Census data, Community District 3 is 32% white, 34% Asian, 25% Latino, but just 7% black.

While the Seward Park urban renewal site was halted for years as neighborhood groups debated over the need for new affordable housing, racial politics was always a factor. When the community finally came together on a compromise plan, housing for both those displaced and for other local residents was a priority, and former site tenants, as well as other community residents won preference.

The site is identified in New York City records as Block 352 and part of Block 346, bounded to the north by Delancey Street, with Essex Street to the west, Broome to the south and Suffolk to the east. Sanborn Maps Plates 16 and 17 for Manhattan cover the area. The site is currently separated by Norfolk Street, but the two blocks may be combined, and part of adjacent road spur off Delancey can be included as indicated on the Site Plan and Site Axonometric. Below grade, for the purposes of this competition, the J,M,Z subway lines, as well as the abandoned trolley tracks proposed to be developed into the Lowline park are at 20' below sidewalk level. Although competition entries may follow the general planning guidelines being enacted in the current development proposals for Essex Crossing, completely different planning guidelines may be proposed as the lead project.

Delancey Street is a major auto, subway, pedestrian and bicycle corridor leading to the Williamsburg Bridge, a structure that innovatively pushed the limits of the construction technologies of its day.

Among the many media projects that have feature the area are the films "The Naked City", "Crossing Delancey", and the ethnographic documentary "The Lower East Side: An Endangered Place 2009". Refer to the resources on pg. 9 for more site information.

CODE INFORMATION

In general, please refer to the New York City code. Please note, however, that in reference to timber construction, one of the goals of this competition is to explore new construction opportunities enabled by contemporary timber technology that may not yet be anticipated or fully embraced by the current NYC code. Each entry is encouraged to understand the potential of contemporary timber systems, drawing from available resources and comparable code reviews from other jurisdictions and governmental agencies, as they pertain to new timber and wood systems, to inform the submitted design.

Also, please refer to the International Building Code. Accessibility guidelines need to be followed; refer to the Americans with Disabilities Act, along with the principals of Universal Design.

Do not follow the NYC Zoning Resolution for building setbacks, heights or massing, as the minimum and maximum building heights and massing square footage prescribed in this competition brief is very different than what the NYC Zoning Resolution calls for on this site. Buildings proposed for the site shall include a mid-rise portion of a height no less than 70' and no greater than 80', and programmed bulk shall not be less than 190,00 SF nor greater than 220,000 SF as outlined in the Program Distribution.

CONSTRUCTION TYPE

The design project must be conceived in structural timber. A strategy should be considered that evaluates a method for taking advantage of timber's properties and characteristics in order to conceptualize and propose a critical evaluation of the design solution.

ELIGIBILITY

Students from the U.S. and Canada are eligible to participate in the competition. All student entrants are required to work under the direction of a faculty sponsor from an ACSA member school. Entries will be accepted for individual as well as team solutions. Teams must be limited to a maximum of five individuals.

REGISTRATION

An online registration form must be completed for an entire team or for each individual participant. There is no registration fee to participate in the challenge. Each registered participant will receive a confirmation email that will include information for final online submission. Please add the email address competitions@acsa-arch.org to your address book to ensure that you receive all emails regarding your submission.

The competition is open for currently enrolled students, only, and will require a faculty sponsor from an ACSA member school to enroll students by completing an online registration form (available at www.acsa-arch.org) by March 30, 2016. Faculty sponsors must complete a form for the entire studio or for each individual student or team of students participating. Each student will receive a confirmation email that will include personal login information for final online submission. Students or teams wishing to enter the challenge on their own must have a faculty sponsor, who should complete the form.

During registration the faculty will have the ability to add students, add teams, assign students to teams, and add additional faculty. Registration is required by March 30, 2016, after which edits and additions can be made until a student starts a final submission, then the registration is not editable. Faculty may assign a "Faculty Representative" to a registered student, who will have access to change, edit, and make additions to the registration.

FACULTY RESPONSIBILITY

The administration of the competition at each institution is left to the discretion of the faculty within the guidelines set forth in this document. Research and design work on the competition should be structured over the course one or more semesters of the 2015-2016 academic year.

EVALUATION CRITERIA

Each faculty sponsor is expected to develop a system to evaluate the students' work using the criteria set forth in this program. The evaluation process should be an integral part of the design process, encouraging students to scrutinize their work in a manner similar to that of the jury. The final result of the design process will be a submission of up to four presentation boards describing the design solution. In addressing the specific issues of the design challenge, submissions must clearly demonstrate the design solution's response to the following requirements:

- An elegant expressive understanding of the material – Timber
- A strength of the argument and the proposal's ability to support the concept for the design
- An articulate mastery of formal concepts and aesthetic values
- A mature awareness and innovative approach to environmental issues, including energy consumption.
- A thorough appreciation of human needs and social responsibilities
- A capability to integrate functional aspects of the problem in an architectural manner
- A capacity to derive a design, using wood, with the maximum innovation and possibility

REQUIRED SUBMISSION MATERIALS

DRAWINGS

Each presentation must directly address the criteria outlined in the Design Challenge and Criteria for Judging and must include (but are not limited to) the following required drawings. All drawings should be presented at a scale appropriate to the design solution and include a graphic scale and north arrow.

- SITE PLAN showing the surrounding buildings, topography, and circulation patterns
- DETAILED RENDERINGS of the building, clearly showing the timber structural system.
- FLOOR PLANS
- VERTICAL SECTION of the whole building/site sufficient to show site context and major program elements
- LARGE SCALE DRAWING(S), either orthographic or three dimensional, illustrating the innovative use of timber and associated components, at 1" - 1'-0".
- 3-DIMENSIONAL REPRESENTATION(S), either in the form of an axonometrics, perspectives, and/or model photographs – one of which should illustrate the overall character of the project. At least one of these views must be of a significant interior space, and one view must be of the building shown within the neighborhood context.

DESIGN ESSAY OR ABSTRACT

A brief essay, 500 words maximum, in English, is required as part of the submission describing the most important concepts of the design project. Keep in mind that the presentation should graphically convey the design solution and context as much as possible, and not rely on the design essay to convey a basic understanding of the project. The names of student participants, their schools or faculty sponsors, must NOT appear in the design essay. This abstract is included in the final online submission, completed by the student(s) in a simple copy/paste text box.

DIGITAL PRESENTATION FORMAT

Submissions must be designed on no more than four 20" x 30" (portrait format) digital boards. **The names of student participants, their schools, or faculty sponsors, must NOT appear on the boards.**

All boards are required to be uploaded through the ACSA website in Portable Document Format (PDF) or image (JPEG) files. Participants should keep in mind that, due to the large number of entries, preliminary review does not allow for the hanging end-to-end display of presentation boards. Accordingly, participants should not use text or graphics that cross over from board to board.

ONLINE PROJECT SUBMISSION

The entrant is required to submit the final project. It must be uploaded through the ACSA Competition website at www.acsa-arch.org by 5:00 pm, Eastern Time, on May 25, 2016. If the submission is from a team, all team members will have the ability to upload the digital files. Once the final submit button is pressed, no additional edits, uploads, or changes can be made. Once the final submission is uploaded and submitted, each student will receive a confirmation email notification. You may "save" your submission and return to complete. Please note: the submission is not complete until the "complete this submission" button has been pressed.

A final submission upload must contain the following:

- Completed online registration including all team members and faculty sponsors
- Four 20" x 30" (portrait format) boards uploaded individually as a high resolution Portable Document Format (PDF) or image (JPEG) files
- A design essay or abstract, 500 words maximum (copy/pasted into the text box during submission)

Incomplete or undocumented entries will be disqualified. Winning projects will be required to submit high resolution original files/images for use in competition publications and exhibit materials.

By uploading your files, you agree ACSA has the rights to use your winning submission, images and materials in a summary publication, online and in promotional and exhibition resources. ACSA will contribute authorship of the winning design to you, your team, faculty and affiliation. Additionally, you hereby warrant that the submission is original and that you are the author(s) of the submission.

RESOURCES

Entrants are encouraged to research references that are related to both the topic of the competition and precedent projects that demonstrate innovative use of timber such as those listed below. An intention of all ACSA competitions is to make students aware that research is a fundamental element of any design solution.

SITE

- Site ID: see pages 12-22

WOOD TECHNOLOGY

- Timber in the City – Andrew Bernheimer <http://www.oroeditions.com/book/timber-city>
- reThink Wood – Tall Wood/Mass Timber (products, codes, building types etc) <http://www.rethinkwood.com/masstimber>
- Solid Timber Construction – Process, Practice, Performance <http://itac.utah.edu/ST_Perform.html>
- Skidmore, Owings & Merrill – Timber Tower Research <http://www.som.com/ideas/research/timber_tower_research_project>
- Perkins & Will – Lessons from Tall Wood Buildings <https://perkinswill.com/sites/default/files/ID%202_PWRJ_Vol0602_01_Lessons%20from%20Tall%20Wood%20Buildings.pdf>
- CTBUH Research Paper – Tall Timber Buildings <http://global.ctbuh.org/resources/papers/download/319-tall-timber-buildings-applications-of-solid-timber-construction-in-multistory-buildings.pdf>
- Solid Wood: Case Studies in Mass Timber Architecture – Joe Mayo <http://www.archdaily.com/600021/solid-wood-the-rise-of-mass-timber-architecture>
- US Forest Products Laboratory - Product and Building Systems Research <http://www.fpl.fs.fed.us/>
- FPInnovations - Product and Building Systems Research <https://fpinnovations.ca/Pages/home.aspx>
- American Wood Council - Codes and Standards Support <http://awc.org/>
- US WoodWorks – Project, Design and Construction Support <http://www.woodworks.org/>
- CLT Handbook < http://www.rethinkwood.com/masstimber/products/cross-laminated-timber-clt/handbook/modules>
- Fountain, Henry. “Wood That Reaches New Heights.” The New YorkTimes. The New York Times, 05 June 2012. Web. 01 Aug. 2012. <http://www.nytimes.com/2012/06/05/science/lofty-ambitions-for-cross-laminat- ed-timber-panels.html?_r=1>

THE LOWER EAST SIDE

- General Lower East Side information <https://en.wikipedia.org/wiki/Lower_East_Side>
- Community Board 3 <http://www.nyc.gov/html/dcp/html/neigh_info/mn03_info.shtml>
- “The Lowline” information <http://www.thelodownny.com/leslog/2014/10/oped-is-the-lowline-a-community-driven-park-or-a-trojan-horse.html> <http://www.thelowline.org>
- Williamsburg Bridge information <http://www.nyc.gov/html/dot/html/infrastructure/williamsburg-bridge.shtml>
- Essex Street Market information <http://www.essexstreetmarket.com/#welcome>
- Two Bridges Neighborhood Council <http://www.twobridges.org>
- Seward Park Urban Renewal Site to Essex Crossing information <https://en.wikipedia.org/wiki/Essex_Crossing>
- Henry Street Settlement <http://www.henrystreet.org/?gclid=COzZ_aawiLACFfERNAodyCN9OA>
- NYC Economic Development Corporation Essex Crossing website <http://www.nycedc.com/project/essex-crossing-development-seward-park>
- Lower East Side Tenement Museum <http://www.tenement.org ABC No Rio, http://www.abcnorio.org>

NEW YORK CITY HOUSING INFORMATION

- Citizens Housing & Planning Council - NYC. Citizens Housing & Planning Council, n.d. Web. 01 Aug. 2012. <http://www.chpcny.org/>
- A CHPC initiative exploring innovative ways to increase housing choices in NYC: Making Room. Citizens Housing & Planning Council, n.d. Web. 01 Aug. 2012. <http://makingroomnyc.com/>
- New York City Department of City Planning, n.d. Web. 27 July 2012. <http://www.nyc.gov/html/dcp/home.html>
- New York City Department of Housing, Preservation, and Development – New Construction Guidelines <http://www.nyc.gov/html/hpd/downloads/pdf/new-constr-guidelines.pdf>
- HPD Design Guidelines for New Construction <http://www.nyc.gov/html/hpd/downloads/pdf/new-constr-guidelines.pdf>
- NYC Micro-Housing Program <http://www1.nyc.gov/site/hpd/developers/adapt-nyc-rfp.page>

NEW YORK CITY GENERAL INFORMATION

- 2010 Census Interactive Population Map. U.S. Census Bureau, n.d. Web. 27 July 2012. <http://www.census.gov/dataviz/>
- NYC Open Accessible Space Information System (OASIS). N.p., n.d. Web. 01 Aug. 2012. <http://www.oasisnyc.net/>

COMPETITION ORGANIZERS

Administrative Organization

The Association of Collegiate Schools of Architecture (ACSA) is a nonprofit, membership association founded in 1912 to advance the quality of architectural education. The school membership in ACSA has grown from 10 charter members to over 250 schools in several membership categories. These include full membership for all accredited programs in the United States and government-sanctioned schools in Canada, candidate membership for schools seeking accreditation, and affiliate membership for schools for two-year and international programs. Through these schools, over 5,000 architecture faculty members are represented. In addition, over 500 supporting members composed of architecture firms, product associations and individuals add to the breadth of interest and support of ACSA goals. ACSA provides a major forum for ideas on the leading edge of architectural thought. Issues that will affect the architectural profession in the future are being examined today in ACSA member schools.

Sponsor

The Binational Softwood Lumber Council (BSLC) was established by the Canadian and U.S. Federal governments as part of the 2006 Softwood Lumber Agreement. The Council's mandate, as outlined in annex 13 of the agreement, is "to promote increased cooperation between the U.S. and Canadian softwood lumber industries and to strengthen and expand the market for softwood lumber products in both countries."

The BSLC benefits from the leadership and expertise of its 12 member board which consists of Canadian and U.S. senior industry representatives and stakeholders. The construct of this board is unique within the industry and offers an influential and powerful vehicle to establish strategic direction for market development programs, direct broad industry initiatives, and facilitate collaboration among organizations serving the North American softwood lumber industry.

Underpinning the BSLC's efforts is a firm belief that the relationship between the Canadian and American industries can only improve when the lumber market is sufficiently robust for both industries to first stabilize, and then to prosper. We also believe that this will only come about through increased demand for new and previous uses of lumber products. Since its inception, the BSLC has actively supported initiatives by a variety of industry organizations that meet the mandate. Funds have been directed into programs in which immediate opportunities can be quickly exploited for a fast turnaround in identifiable demand. Clear benefits have already been achieved for the North American softwood lumber industry as the result of some of these programs.

Host

The School of Constructed Environments (SCE) at Parsons School for Design, The New School, located in New York City, challenges students to grapple with forces shaping the world today: shifts in global and local ecological flows, changes in living patterns, growing economic disparities, excessive consumption, and increasing ethnic diversity. Architecture, interior, lighting, and product design students at both the undergraduate and graduate levels work with faculty and citizens of global communities to learn the skills of design engagement, integrated thinking, and material invention in a collective effort to reimagine the constructed environment.

SCE offers a Bachelor of Fine Arts in Architectural Design and a Professional Master of Architecture Degree program, with opportunities for cross-disciplinary work and a dual degree with the Master of Fine Arts in Lighting Design. SCE draws on the vibrant design culture of New York City, bringing together over 200 engaged faculty and professionals to work with students in addressing the pressing questions of today, transforming them into design opportunities for a better future.

FOR MORE INFORMATION

Program updates, including information on jury members as they are confirmed, may be found on the ACSA web site at www.acsa-arch.org. Additional questions on the competition program and submissions should be addressed to:

Eric W. Ellis, Director of Operations and Programs
Association of Collegiate Schools of Architecture
1735 New York Avenue NW
Washington, DC 20006
Tel: 202.785.2324
email: eellis@acsa-arch.org

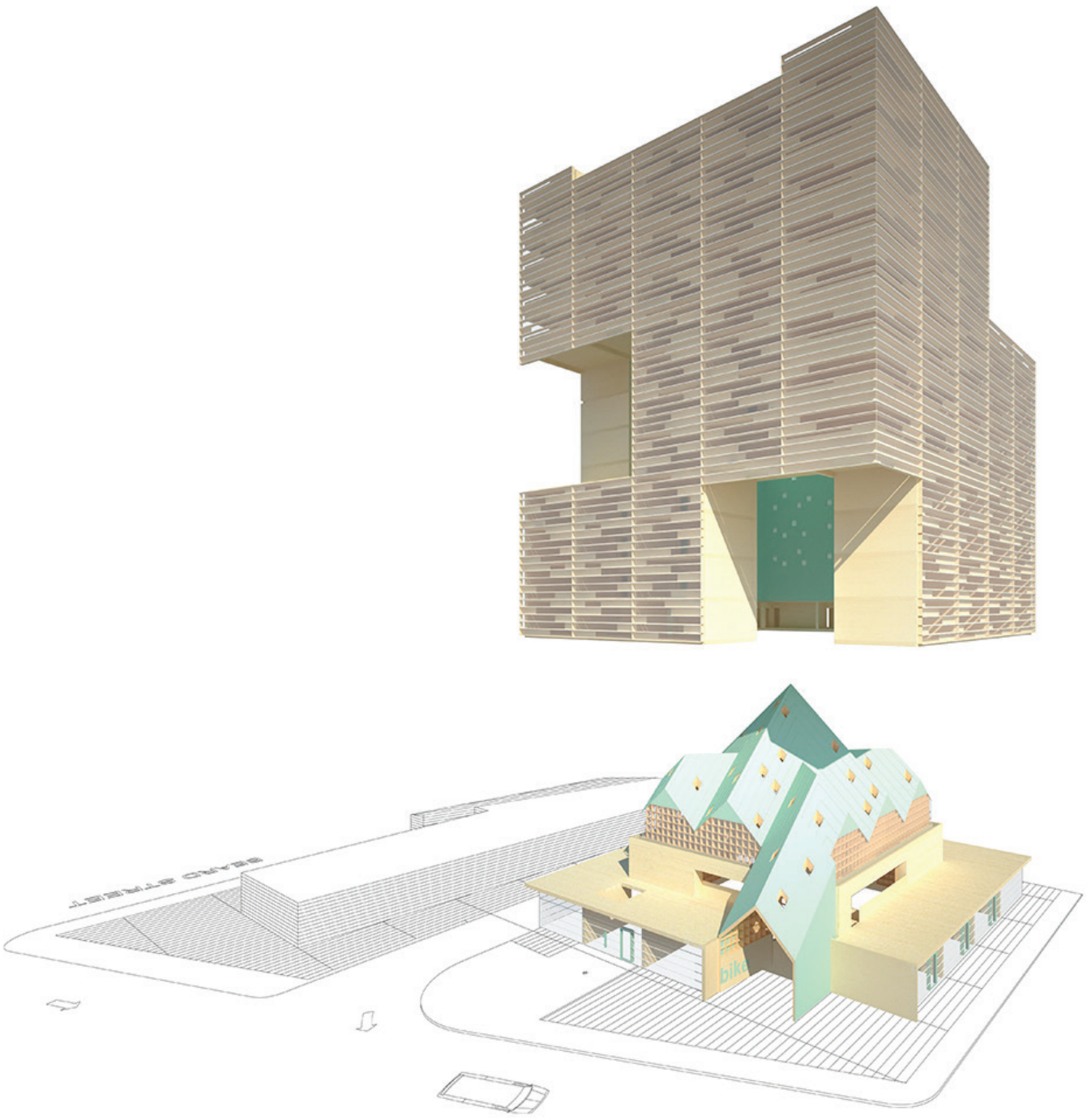
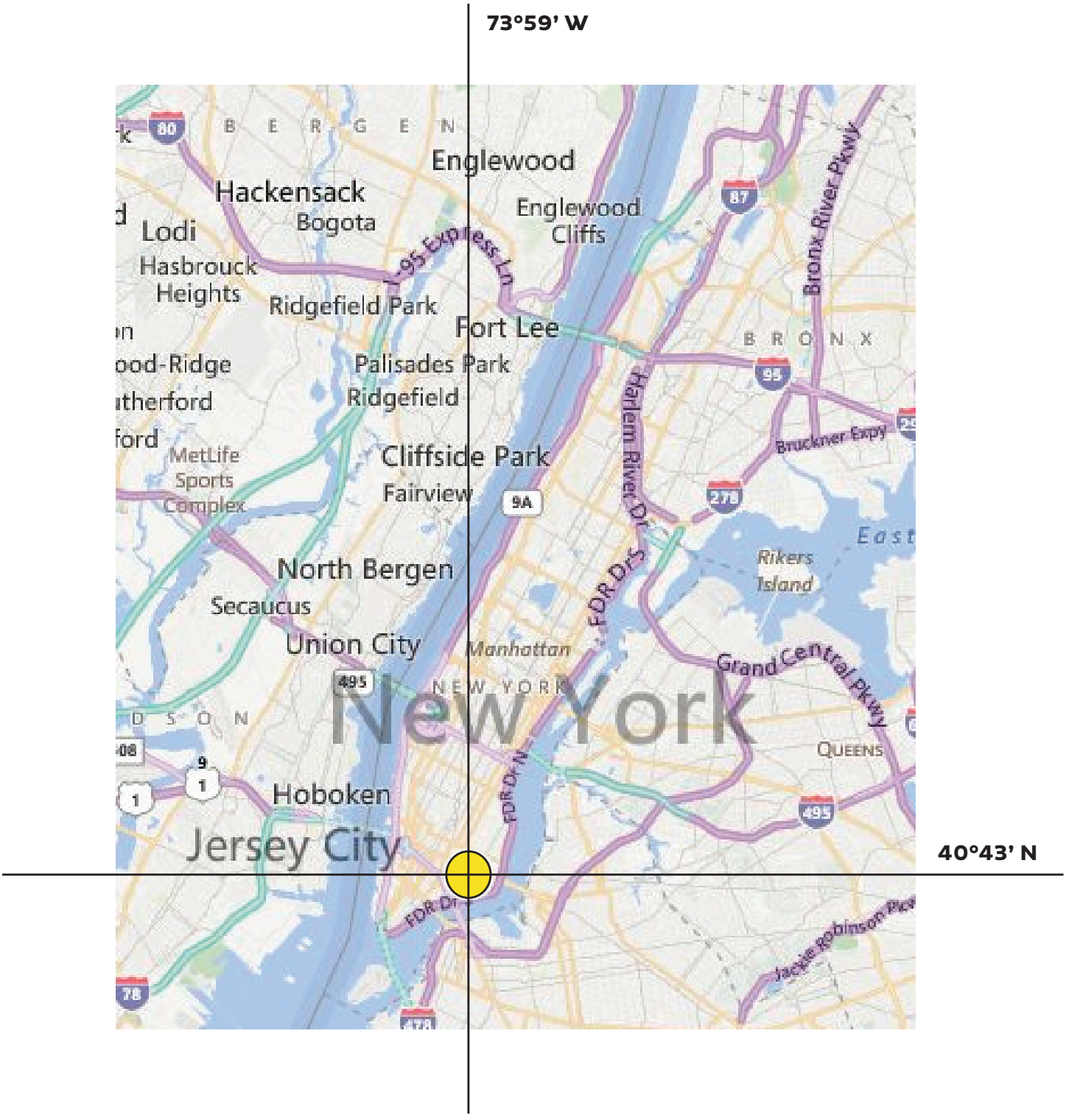


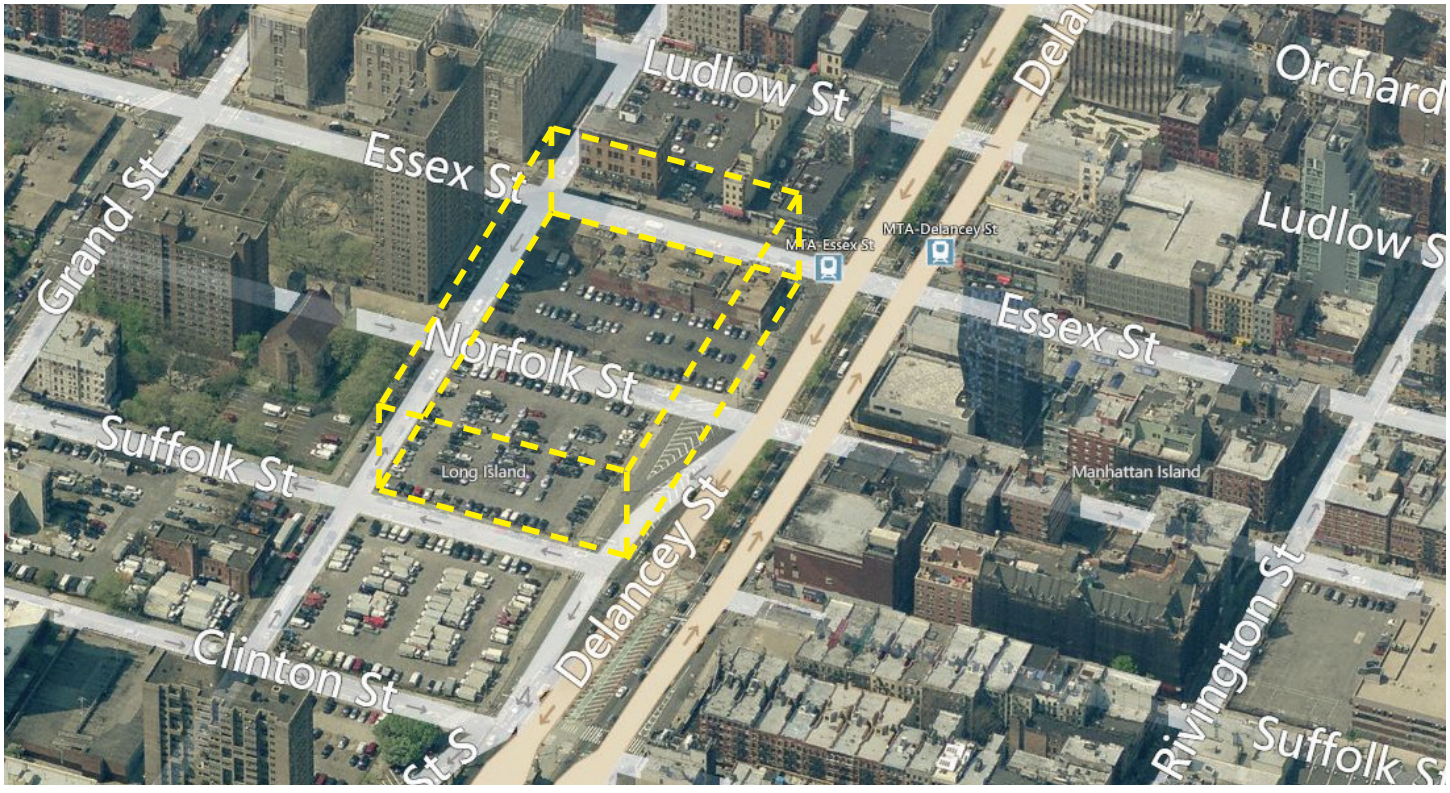
Image Credit: 2013 Timber in the City Competition
Recent Graduate: Timothy Olson, MIT 2012

SITE ID



Regional map of 'Essex Crossing' site in Lower East Side of Manhattan

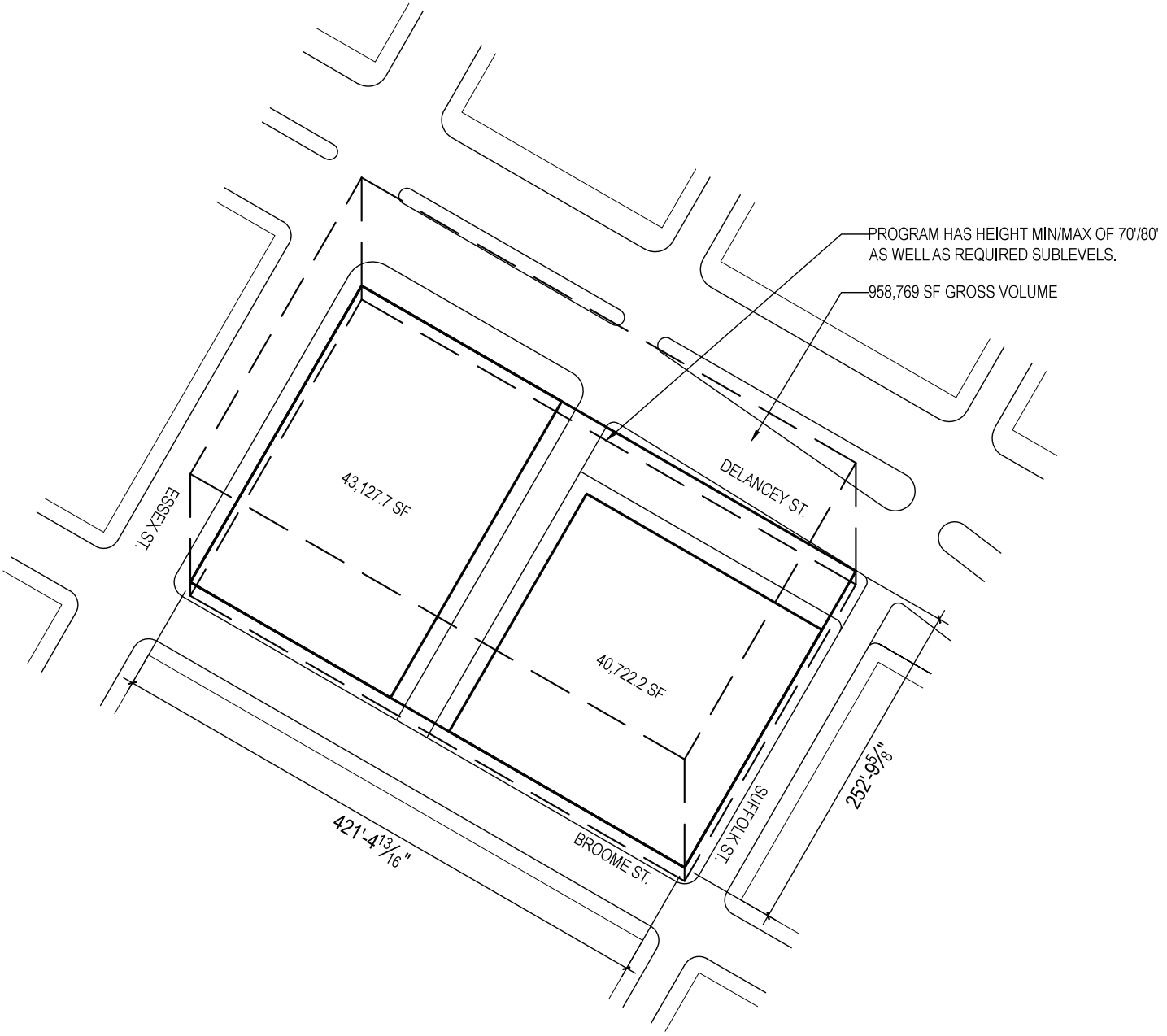
Aerial view of the site from the south



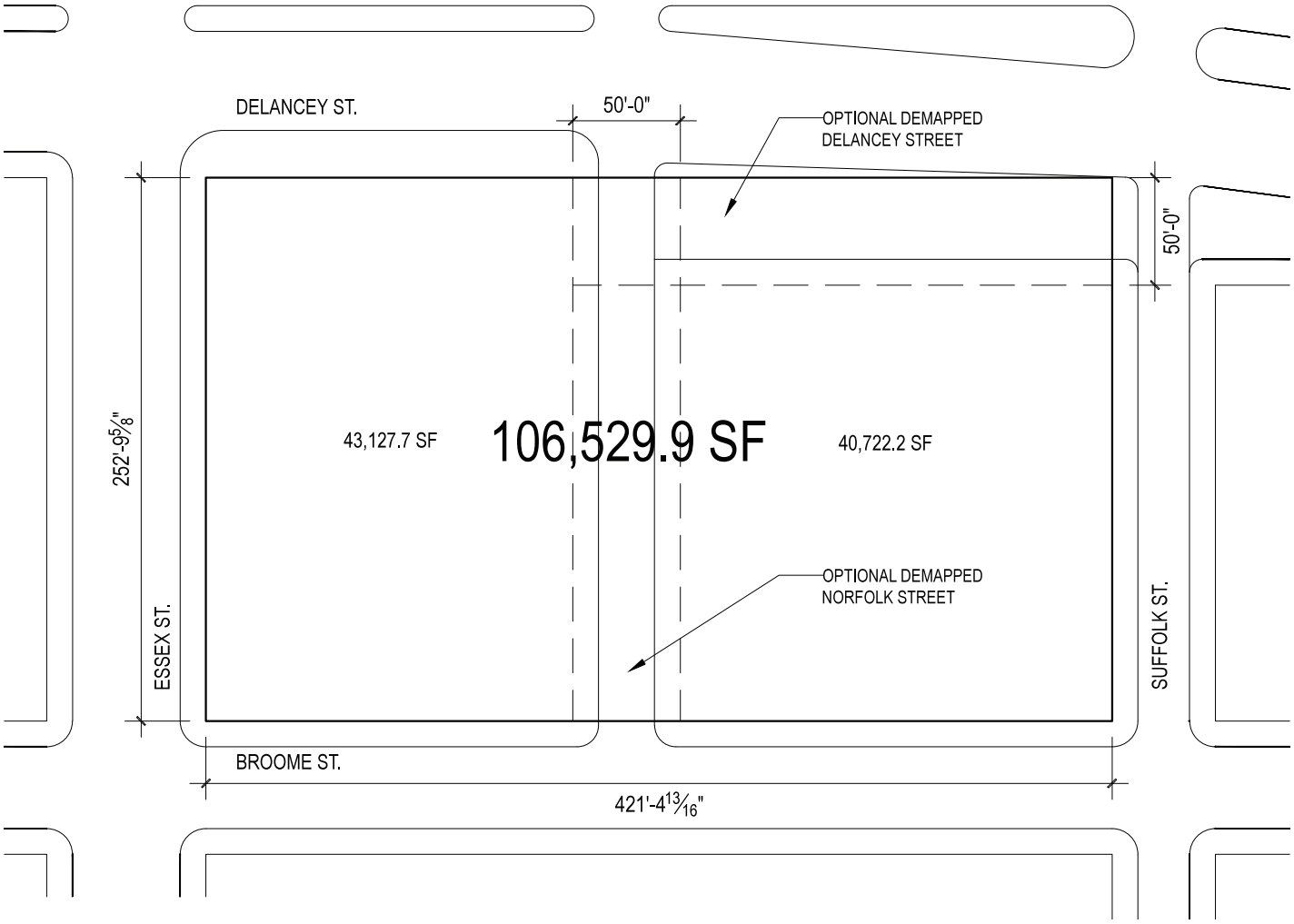
Aerial view of the site from the east

View towards the east from the corner of Broome and Essex

View towards the west from the corner of Suffolk and Delancy



Site Axonometric

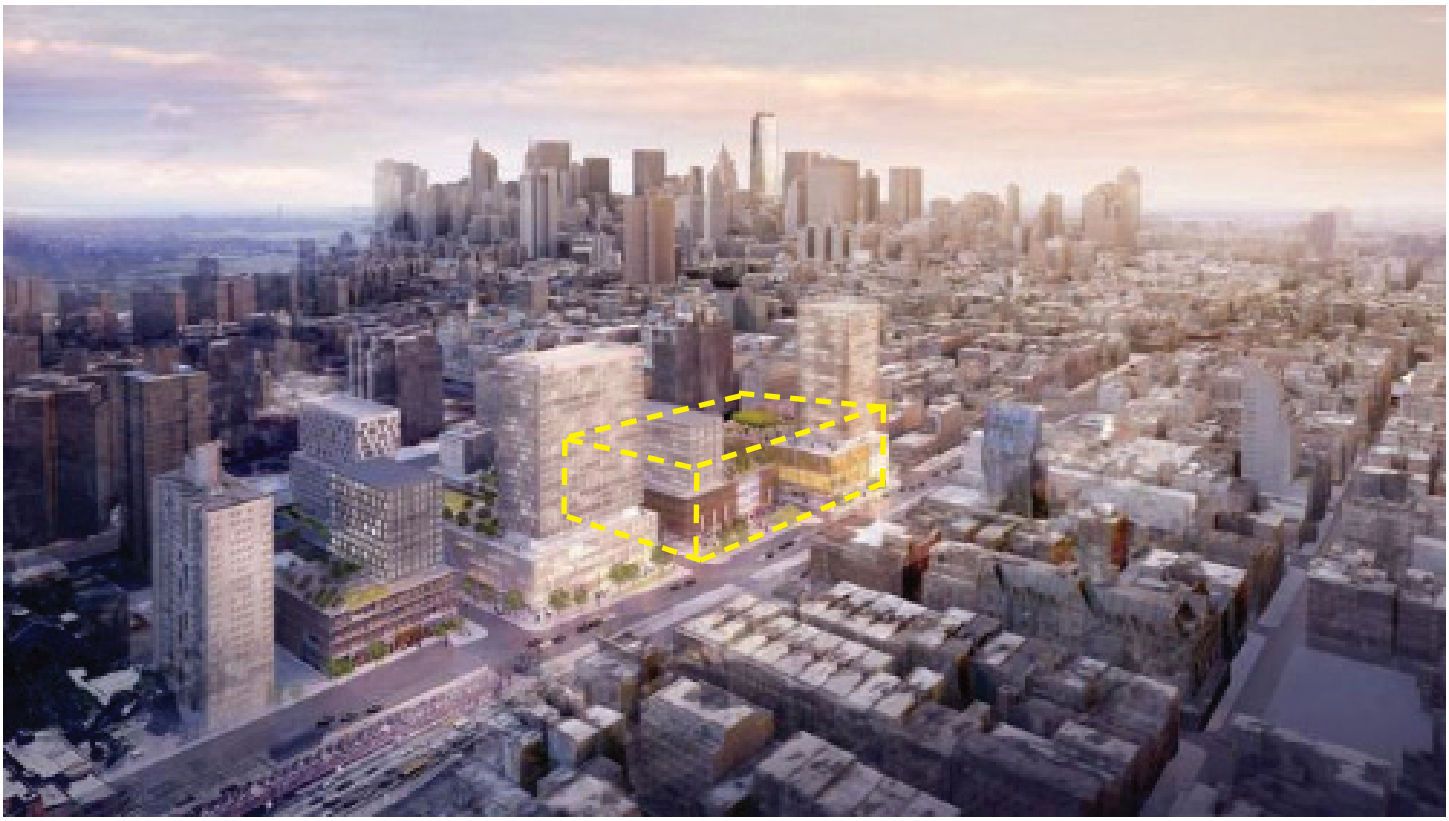


01 SITE PLAN DIAGRAM

SCALE: 1/64" = 1'-0"

FEET

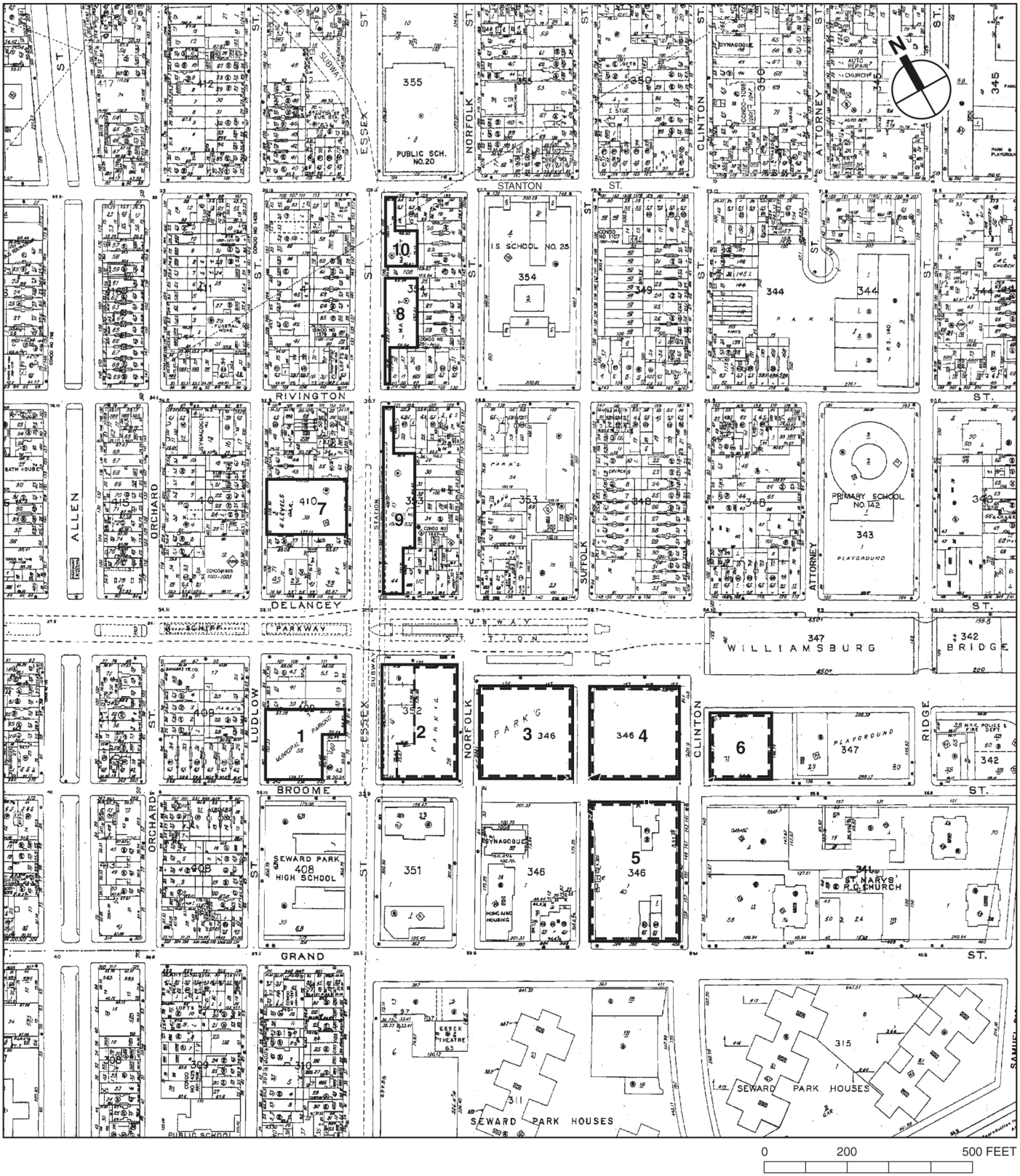
0 50 100 200



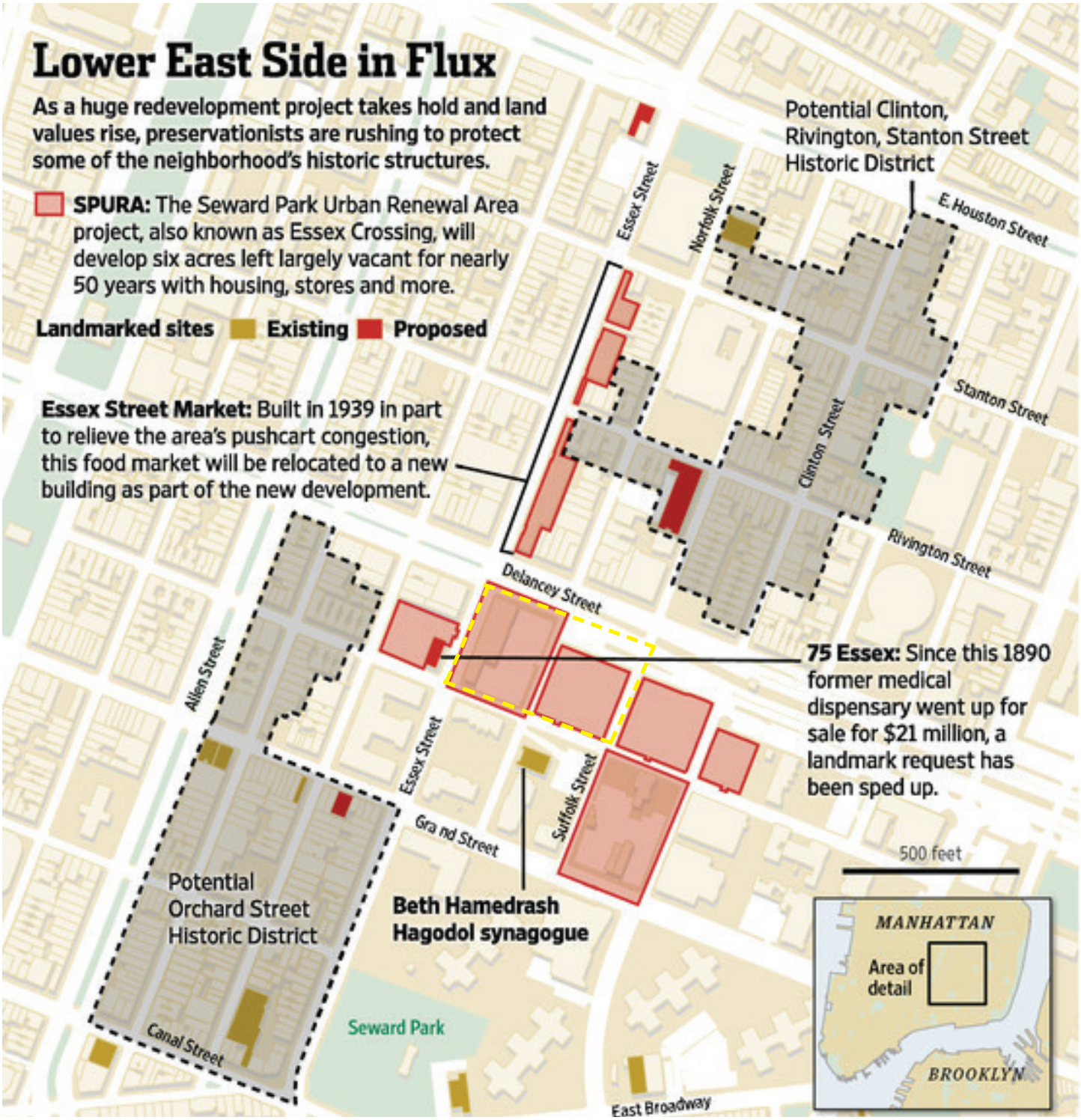
The site within the proposed 'Essex Crossing' development section (multiple firms, no timber).

The site within the proposed 'Essex Crossing' development section (multiple firms, no timber). The dashed lines in the diagram above got shifted down. They should start at below grade and go up approx 6 stories.

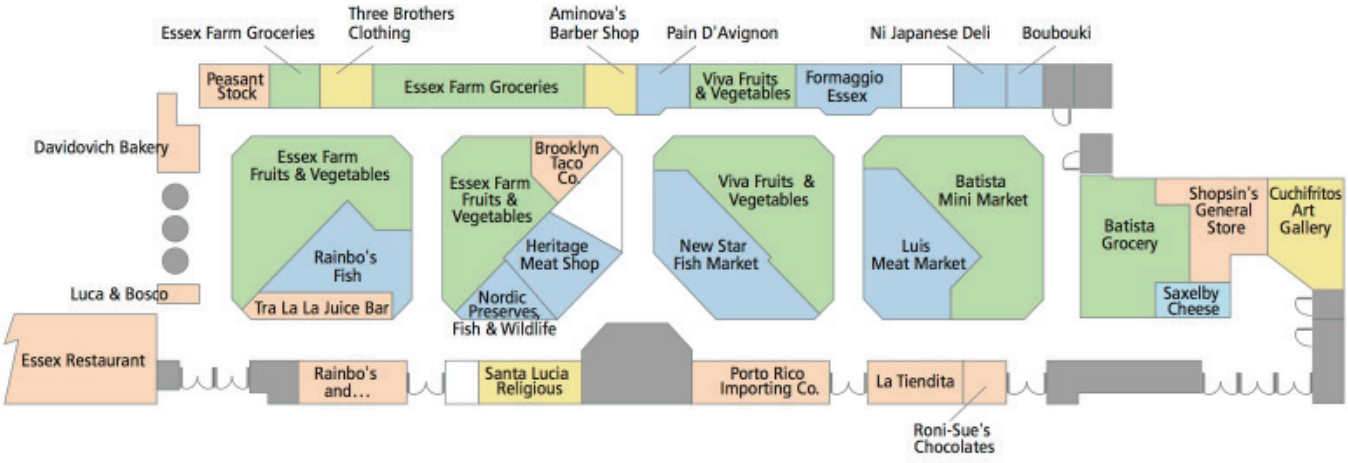
Overall current planning of 'Essex Crossing' development (aka 'Seward Park').
This competition replaces the proposals for sites 2 and 3, which can be combined.
The Essex Street Market, currently in site 9, is moving to our competition site.



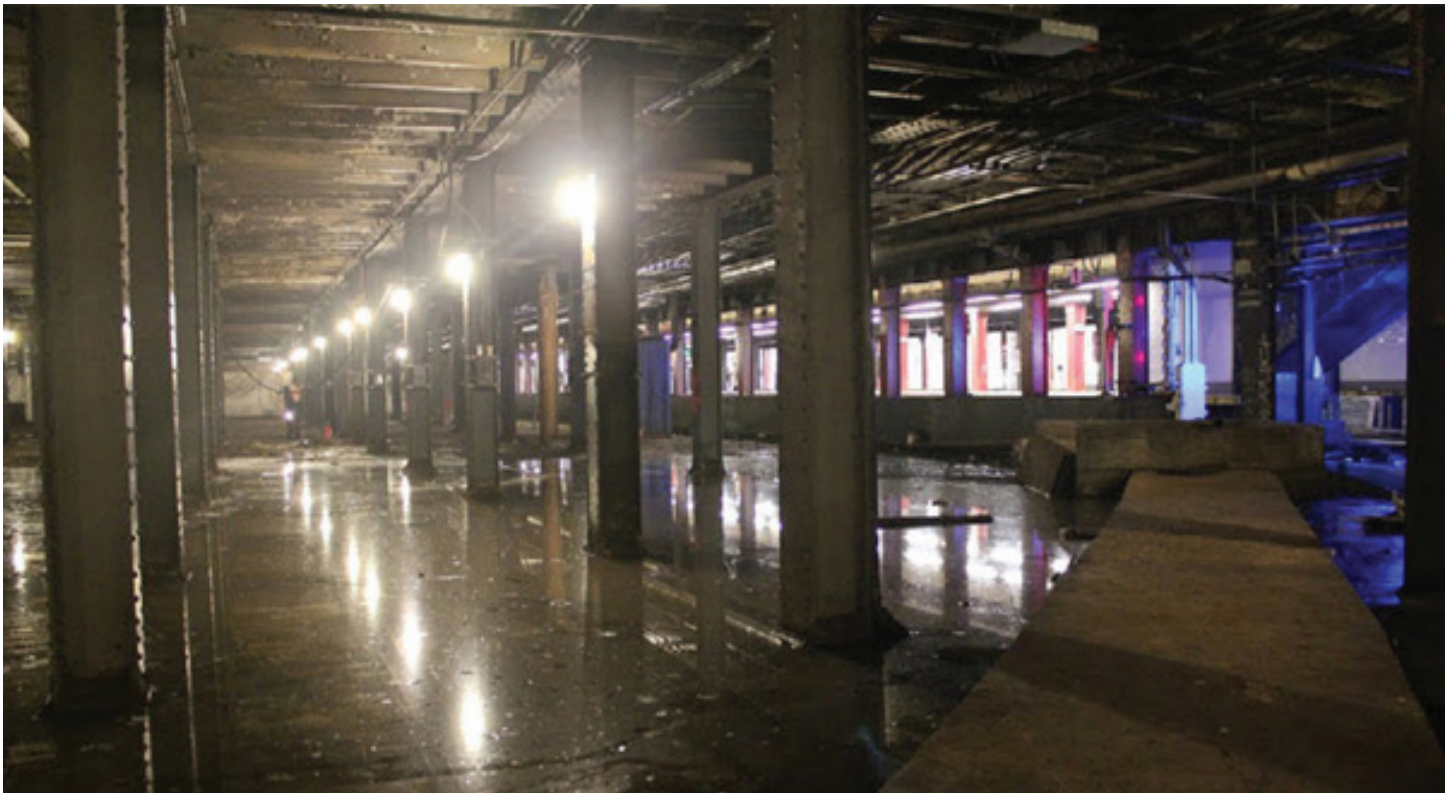
Sanborn Map of overall development site



Site context information



Existing Essex Street Market (photo and plan diagram)



Existing state of proposed ‘Lowline Park’ adjacent to site under Delancy Street

Proposed ‘Lowline Park’ adjacent to site, by RAAD Studio