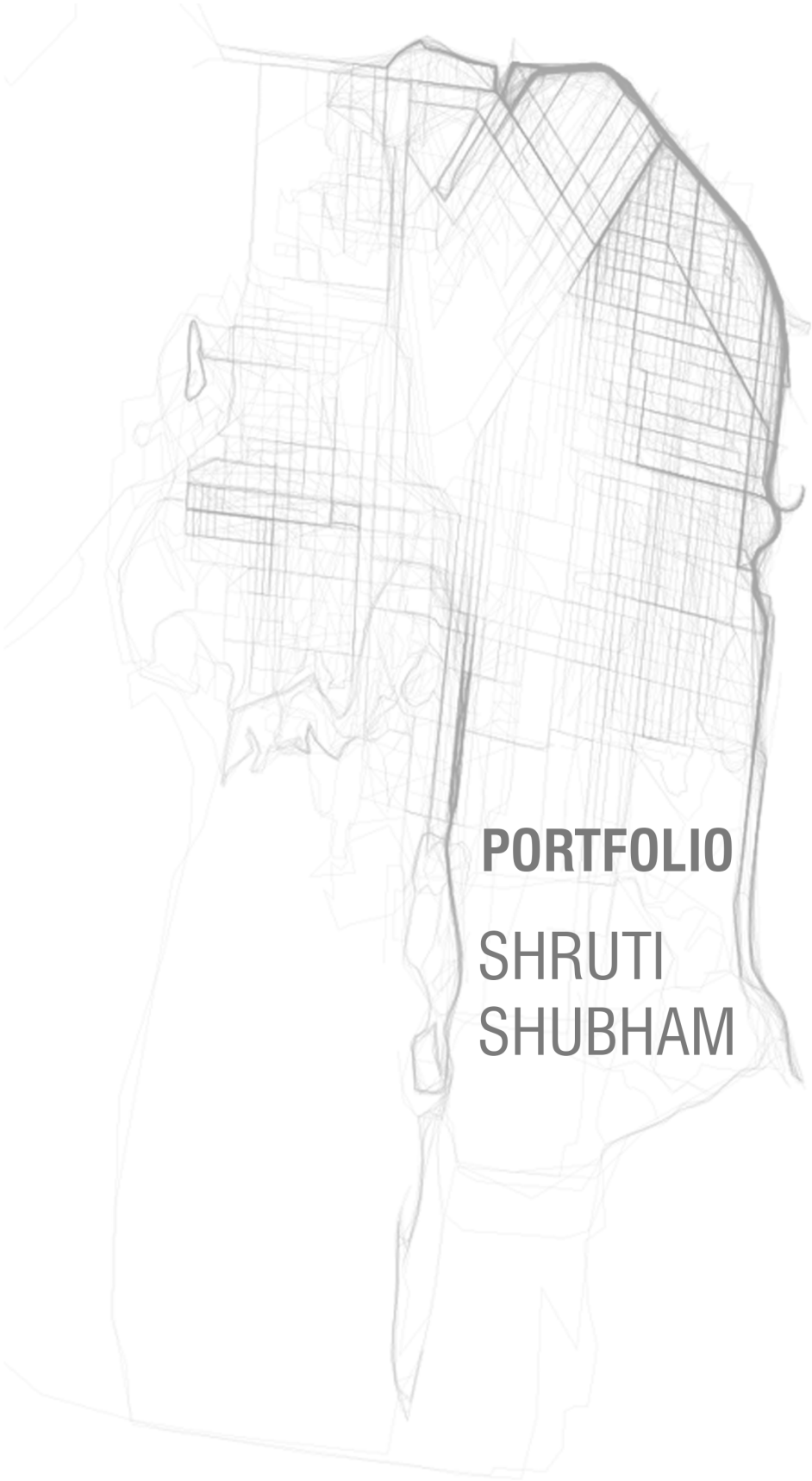


PORTFOLIO

SHRUTI
SHUBHAM

SHRUTI SHUBHAM

Contact Information
ss5127@columbia.edu
+1 917 849 9573

420 W 116th ST, APT 2F, New York

SOFTWARE

Spatial Analysis
ESRI-GIS
QGIS
CARTO
Tableau
Grasshopper Scripting
Quantitative Analysis
STATA
R
3-D & Rendering
Rhino
AutoCAD
Revit
Sketchup
V-Ray
Editing and Design
Adobe Creative Suite
Microsoft Office

LANGUAGES

Python
JavaScript
HTML
CSS
C++ (basic)

Hindi (Native)
English (Proficient)
Spanish(Basic)

POSITIONS

Member
Columbia University
Life Events Council
Program Coordinator
Place and Displacement Team,
IDeA (Competition), 2017-18
Waterfront Scholar
Arcadis, 2017
Assistant Editor
Urban Magazine, 2016-17

EDUCATIONAL QUALIFICATION

M.S. URBAN PLANNING
Graduate School of Architecture, Planning and Preservation, Columbia University | New York, Aug '16- May '18
Concentrations | Community and Economic Development & Urban Analytics

BACHELOR'S IN ARCHITECTURE
School of Planning and Architecture| New Delhi Aug '09- May '14
Concentrations | Design and Building Construction

RELEVANT EXPERIENCE

Center for Spatial Research | Teaching Assistant | New York, Jan '18- Present
The course is a part of an initiative hosted by CSR to teach courses the critical use of digital tools across fields in architecture, urbanism, and the humanities. The position includes facilitating tutorials, conducting discussions, providing critiques on design and code. http://agneschang.net/gsapp-dataviz-archhum/

Envelope City | Consultant | New York, Sep '17- Present
The company helps visualize practitioners involves in the real estate industry, the 3-dimensional building bulk possible on an identified piece of land within New York City. The role involves digitally cataloging the New York zoning regulations in the form of shapefiles & raster images. https://envelope.city

CUDRR+R | Research Intern| New York, Aug '17 - Nov '17
The role involved assisting Dr. Ebru Gencer, Adjunct Professor at Columbia University on a project delegated by UNISDR in investigating parameters and sub-parameters outlined in the 'Sendai Framework.' It also required re-evaluating the framework's priorities vis-à-vis *ten essentials* included in a disaster resiliency scorecard.

Katerra | Intern – Configurator | San Francisco, Jun '17-Sep '17
Katerra is a tech company committed to optimizing the design, development and construction process of a building. The position involved design and development of the Katerra configurator, an interface which allows the user to design, visualize and assess every step during the process of design and construction. https://katerra.com/

OTHER EXPERIENCE

Events and Communication Department - GSAPP| Events Assistant | New York, Aug '16 – May '17
Arthur Ross Architecture Gallery - GSAPP| Exhibitions Assistant | New York, Aug '16 – May '17
Industrial Design Dept. - S.P.A. New Delhi| Research Associate | New Delhi, Jan '16 – Jun '16
Mistry Architects | Junior Architect | Bengaluru, Aug '14 –Sep '15
Raj Rewal Associates | Architectural Intern | New Delhi, Jan '13 – Jun '13
S.W.B.I. | Architectural Intern | New Delhi, Jun '11 – Jul '11
Aishwarya Tipnis Architects | Architectural Intern | New Delhi, Jun 10 – Jul '10

ONGOING AND COMPLETED RESEARCH

- Watch them segregate: A comparative study of the distribution of Tech Jobs in commuter zones | 2017
- Determining affordable housing -Economic Opportunity index in NYC | 2017
- Effects of *last mile infrastructure* for e-commerce on the restructuring of the city fabric|2017
- Exploring integration of bikeshare and rideshare infrastructure to solve last mile transportation issues in Bengaluru| 2017
- Socio-economic benefits of a pub-private, not-for-profit business incubator such as the NYU poly incubator in its neighborhood|2017
- Effects of market regulated e-hail transportation (UBER) on the movement pattern of the city | 2017
- Merits and demerits of privatizing an industry: Case Study - Indian civil aviation industry | 2016

WORKS PUBLISHED

Compilation and Cover Design-Theory of Settlements, History, and Evolution of Selected Cities, 2017
Amazon.in: https://www.amazon.in/Theory-Settlements-History-Evolution-Selected/dp/9383419563
Designer and Editor- Repositioning Indian Waterfronts, 2016
Amazon.com: http://amzn.to/2jsdqni
Editor- Smart Cities Seminar Publication, 2013
Issuu.com: https://goo.gl/PQksLM

WATCH THEM SEGREGATE

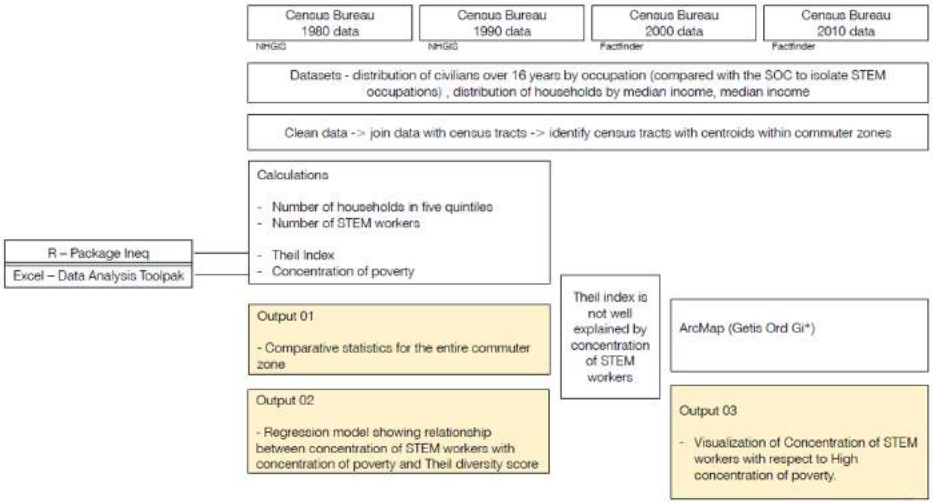
DO STEM JOBS EXACERBATE ECONOMIC SEGREGATION WITHIN COMMUTER ZONES?

| MAY 2018 | INDIVIDUAL |

ABSTRACT

STEM workers have been touted as the economic drivers at local and federal level (Langdon, McKittrick, Beede, Khan, & Doms, 2011), and urban planners often engineer policies for growth and economic development around their demand and supply. These individuals make 29 times more than their non-STEM counterparts (Langdon et al., 2011), and are consistently growing in number for the past 40 years (Watson, 2017). Therefore, it is essential to assess their impact on regional patterns. This thesis posits that STEM occupations drive patterns of economic segregation. To ascertain the validity of the phenomenon, the study assesses the relationship between the concentration of individuals involved in STEM occupations and two measures of economic segregation, economic diversity and concentration of poverty. Upon analyzing the statistics at regional and census tract level for the five commuter zones, Seattle (WA), Portland (OR), Denver (CO), Albuquerque (NM) and Fort Worth (TX), the study revealed mixed results. A secondary layer of spatial investigation was done to further explore the variability in the results.

METHODOLOGY



SUMARY OF FINDINGS

REGIONAL STATISTICS

The percentage of STEM workers did not decrease for any commuter zone across all time periods.
A growth in STEM workers did not simultaneously occur with a positive trend in the Theil index or the concentration of poverty.
An increase in STEM workers does not necessarily imply a decrease in diversity or increase in the concentration of poverty

CENSUS TRACT LVL STATISTICS

A regression model with concentration of STEM workers as the explanatory variable and Theil index as the dependent variable is statistically significant but not robust.
A regression model with concentration of STEM workers jobs as the explanatory variable and concentration of poverty as the dependent variable is statistically significant and more robust as compared to the model observed in the case of diversity index.
Theil index is directly proportionate to the concentration of STEM workers whereas the concentration of poverty is inversely proportionate to the concentration of STEM workers.

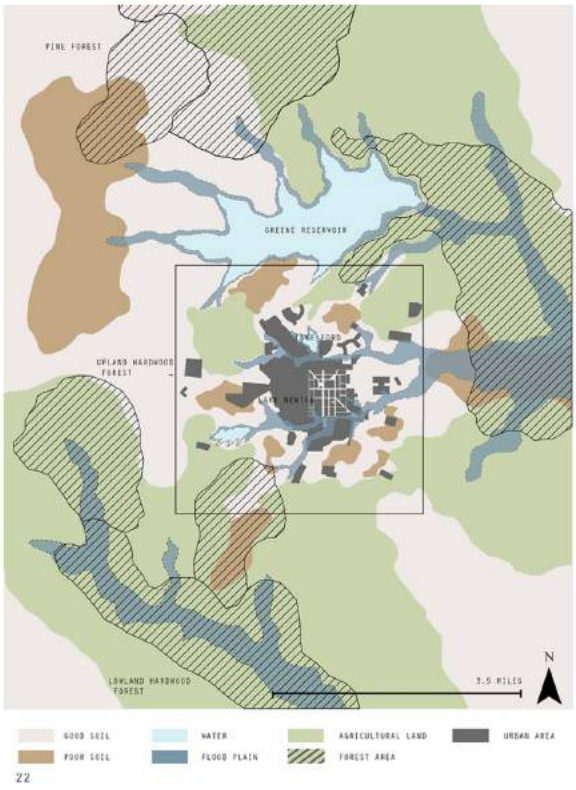
SPATIAL EXPLORATION

STEM workers live in wealthy neighborhoods across the five cities and timelines observed. This is despite sharp increases observed from time to time in concentrations of STEM workers in very-low, low and middle-income census tracts.
The percentage change is not constant and seems to be driven by factors beyond the scope of this research.
There is clear suburbanization of STEM workers. They do not tend to reside in city

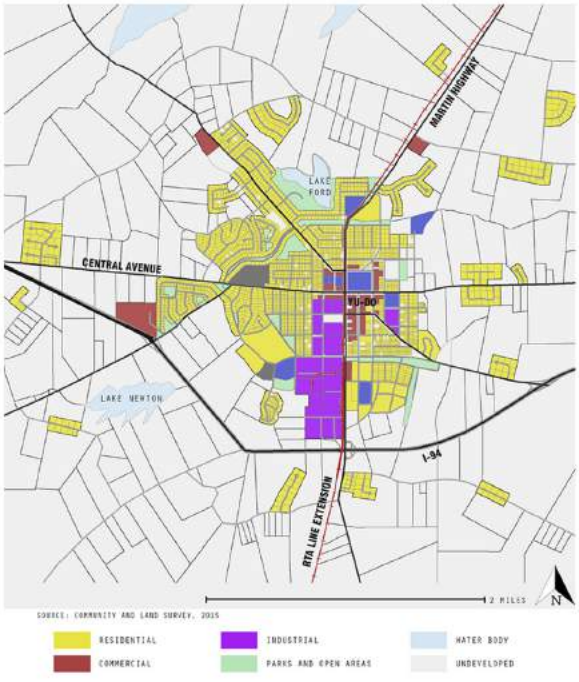
Yuccie 2038

EXISTING DEVELOPED AREA- 2018

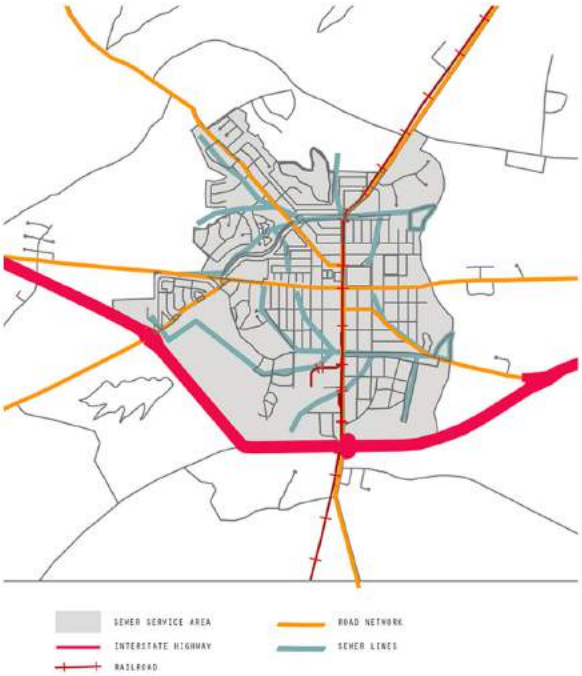
NATURAL ENVIRONMENT



EXISTING LAND-USE MAP



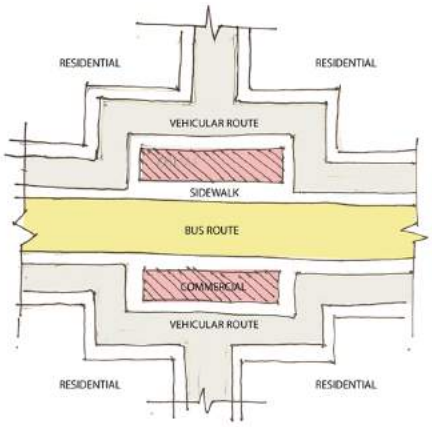
INFRASTRUCTURE LAYOUT



YUCCIE VALLEY COMPREHENSIVE PLAN

| MAY 2018 | TEAM |

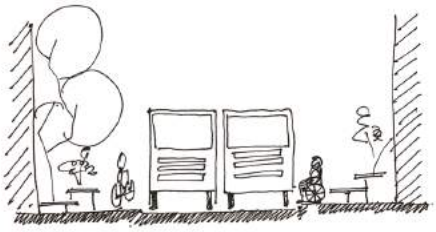
CONCEPTUAL PLAN



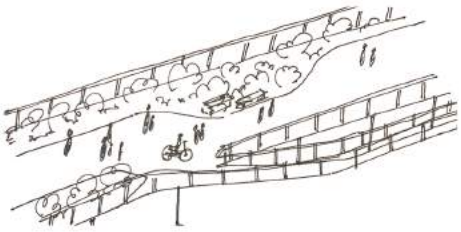
SHEMATIC FOR NODES

PROPOSED TRANSIT AND AREA FOR TARGETED GROWTH

PROPOSED PLAN FOR DOWNTOWN YUCCIE



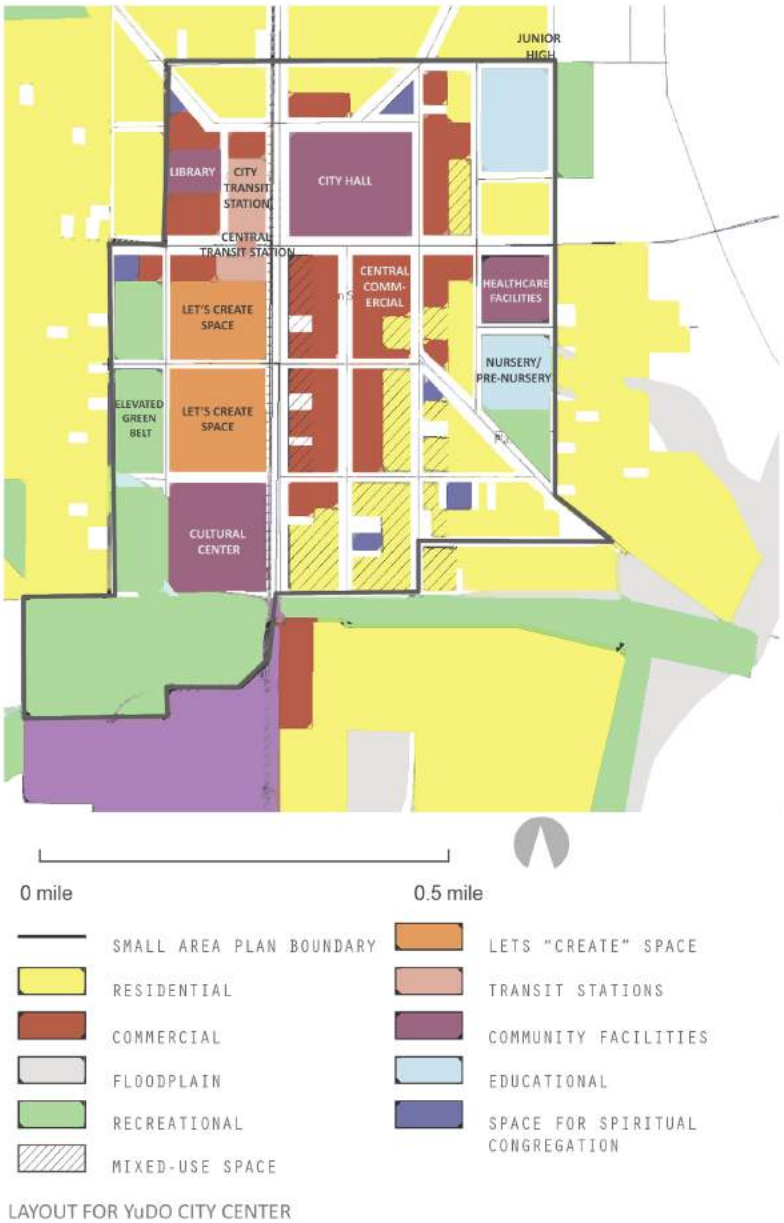
MAIN STREET (CENTRAL SPINE)



ELEVATED GREEN BELT

CONSERVATION OF LANDMARKS

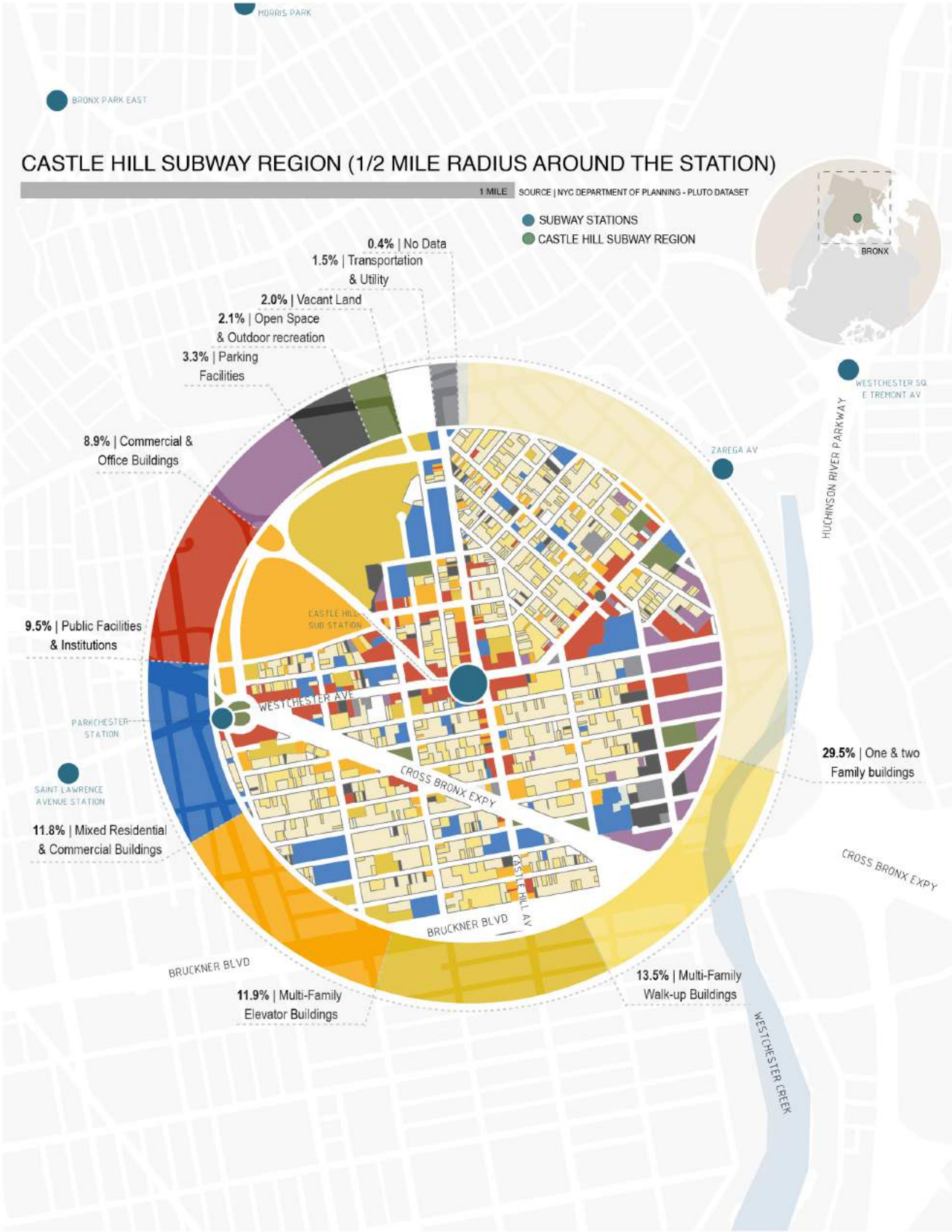
EQUITABLE SPACES / MIXED DEVELOPMENT



LAYOUT FOR YuDO CITY CENTER

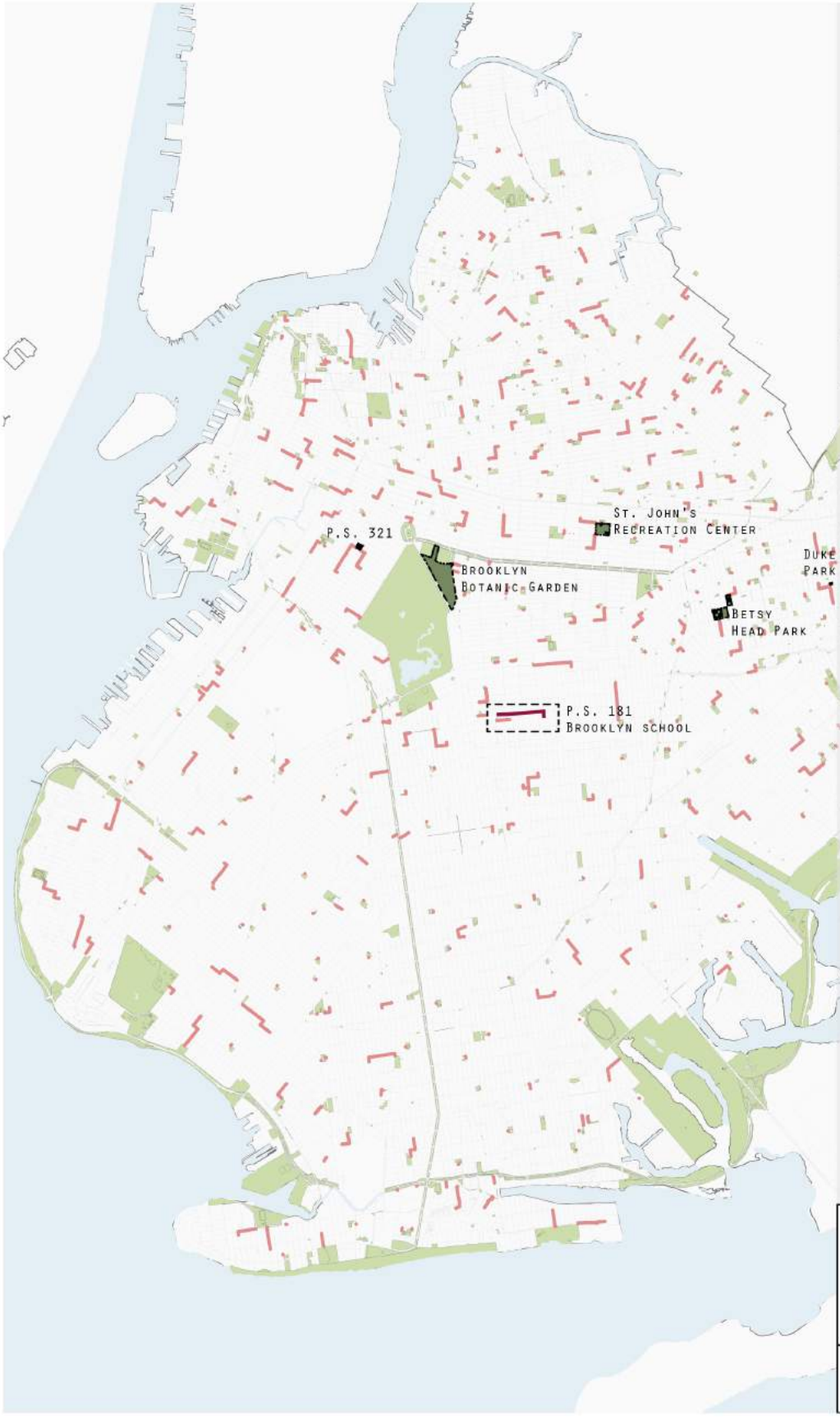
LAND USE DISTRIBUTION AROUND THE CASTLE HILL SUBWAY STATION

| MAY 2017 | INDIVIDUAL |



NETWORK ANALYSIS

| MAY 2018 | INDIVIDUAL |



WHERE IS THE PARK, I WANT TO PLAY

The aim of the spatial analysis was to conduct a Closest Facility analysis by using the Network Analyst tool in ArcGIS in order to understand the closest park to each school , and the distance between them n Brooklyn, New York City.

As a result of the analysis, the routes from school and the nearest park to it is mapped, the results are shown below.

Furthermore, a secondary investigation was done to understand which is the park closest to the maximum number of schools and which school is the farthest from a park.

The methodology for selecting pakrs with proxmity to the greatest number of schools is described below.

DISSOLVE - BUFFER - SPATIAL JOIN

The parks shapefile was dissolved based on the park-name to get one boundary for every park there is in Brooklyn.

The greatest distance between the parks and the schools cannot be more than the street width. Just to be sure that the process accounts for all the cases, a buffer was created for double the length, i.e. 75 feet.

Lastly, a spatial join was done between the dissolved park shapefile and the routes previously constructed as a result of the closest facility analysis.

The count received as a result of the spatial join indicated the parks with proximity to the maximum number of schools. These parks are labeled in the map.

To identify the school farthest from a park, the length of all the routes were sorted by descending order and the longest path was identified. The distance between school and park is 2720.52 feet. The school is P.S. 181 Brooklyn, as indicated in the map. Although the distance is walkable for adults, the school is a kindergarten, and therefore, it is far for kids to walk.

MEASURING GENTRIFICATION NYC

| MAY 2018 | TEAM |

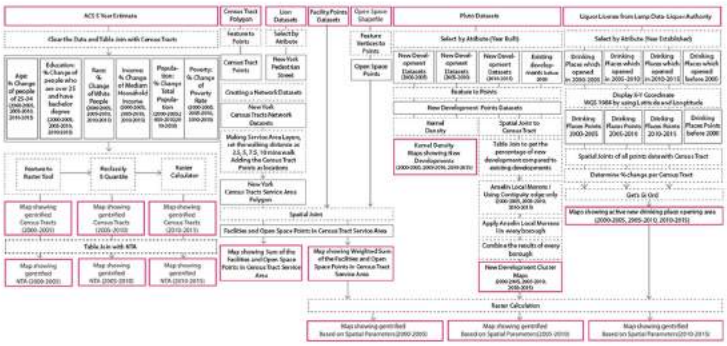
Assessing the patterns in gentrification based on demographic and spatial measures in New York City for the year 2000-2015.

Reserch questions:

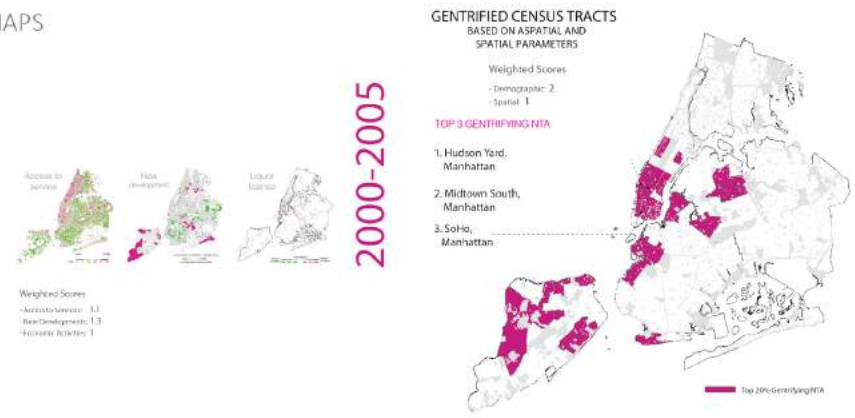
- How the results are different by using demographic and spatial measures?

- Which neighborhoods have gentrified during 2000-2015?

METHODOLOGY



FINAL ANALYSIS MAPS

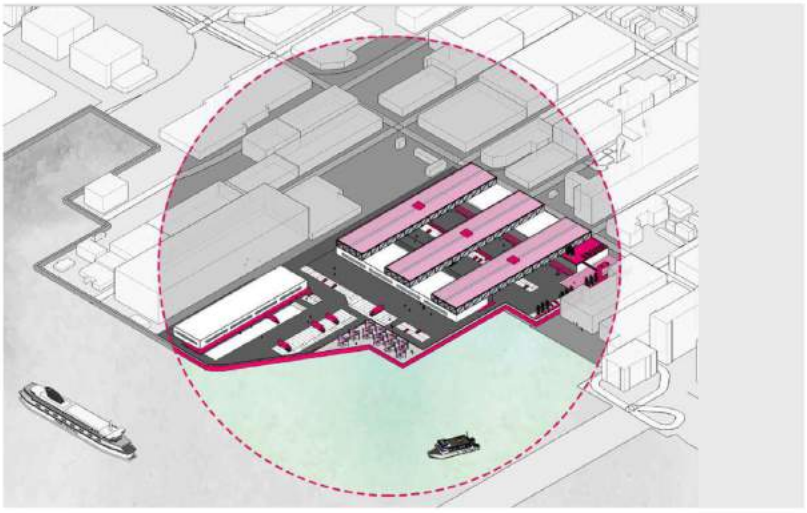


BROOKLYN WHOLESALE MEAT MARKET

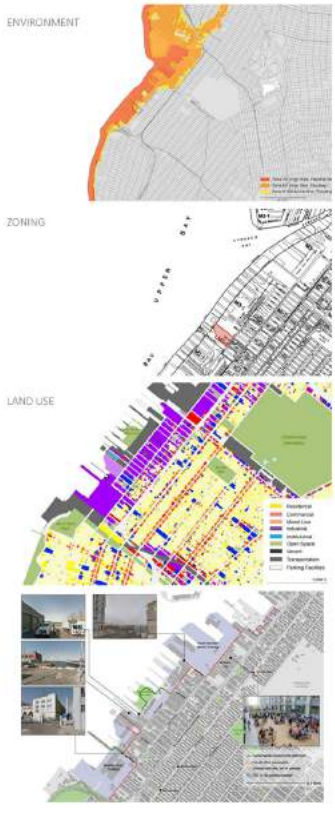
| MAY 2017 | TEAM |

This document is a proposal for redeveloping the site of the Brooklyn Wholesale Meat Market. The BWMM is an industrial property owned by the city and managed by the New York City Economic Development Corporation (NYCEDC), located along the Sunset Park's waterfront in Brooklyn, New York. It is a site NYCEDC intends to leverage the site for strategic redevelopment. The recommendations proposed here considers the needs of our client and the community. The proposal intends to reposition the Brooklyn Wholesale Meat Market into a food distribution and manufacturing hub called the Sunset Park Food Terminal. The Sunset Park Food Terminal will be a vibrant food manufacturing ecosystem that houses the existing wholesale tenants. It will also be the site for many new uses such as the co-packing, food incubator, step-up spaces, and a workforce training center. The idea is to build an environment where food businesses can thrive. The interventions will have a large positive impact with new food manufacturing and distribution jobs, additional open space, public access to the waterfront and permanent food manufacturing and distribution space.

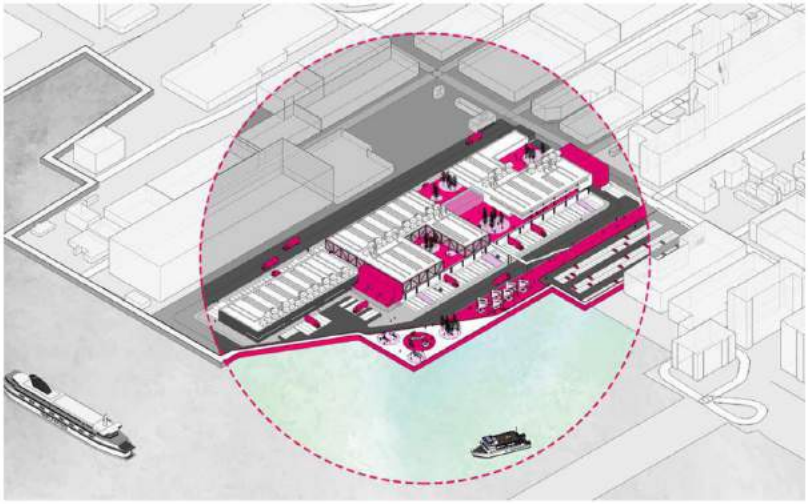
DESIGN SCENARIO-1

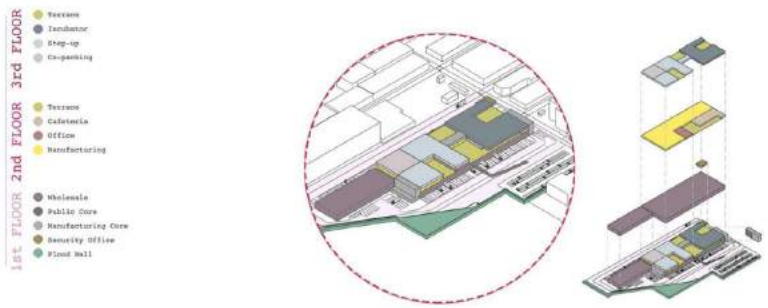


FEASIBILITY ANALYSIS



DESIGN SCENARIO-2





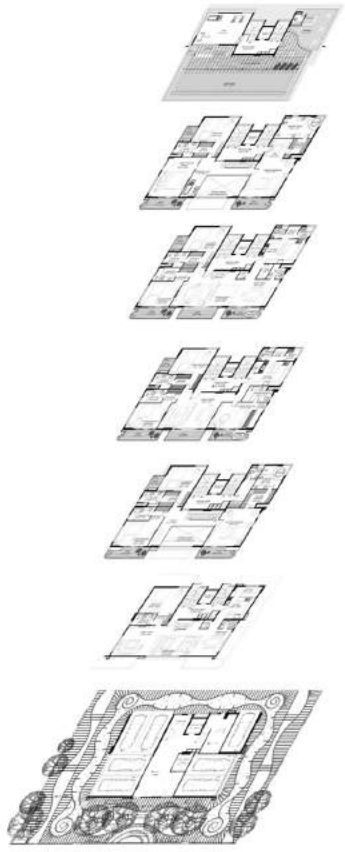
MISTRY ARCHITECTS + RAJ REWAL ASSOCIATES

MULTIFAMILY HOUSING AT SADASHIVNAGAR, BENGALURU

|2014-2015
|PROFESSIONAL WORK

.

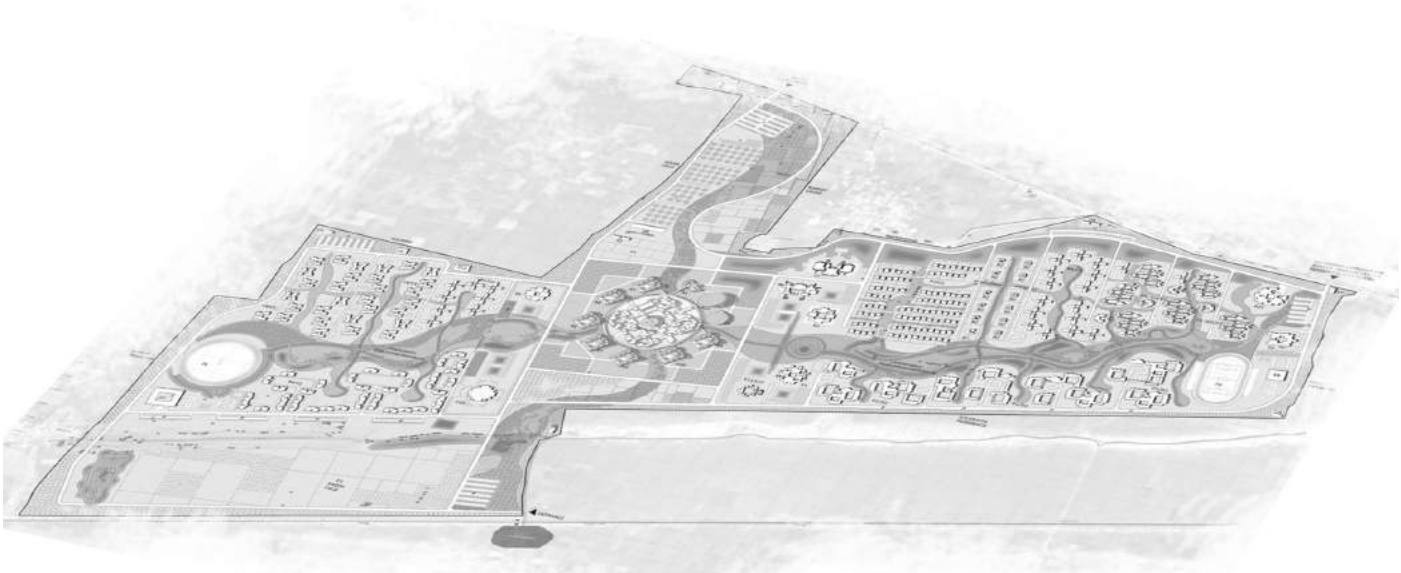
P.T. BEAM BEING LAID DOWN ON THE SECOND FLOOR SLAB



NALANDA UNIVERSITY

|2013
|PROFESSIONAL WORK

.



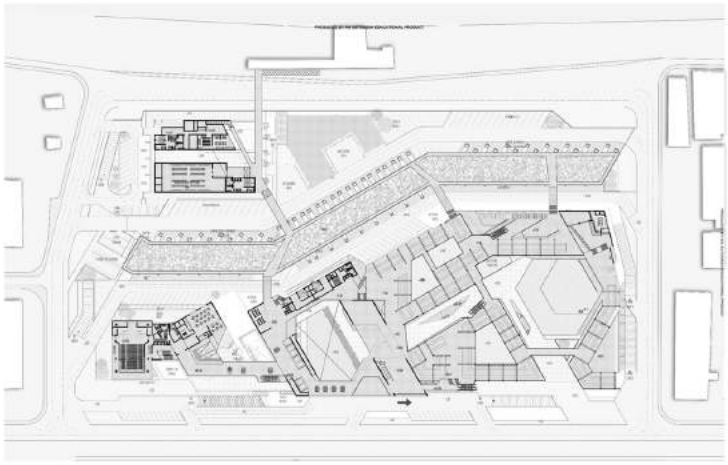
OKHLA MANDI FOOD AND LEISURE CENTER

| MAY 2014
| INDIVIDUAL

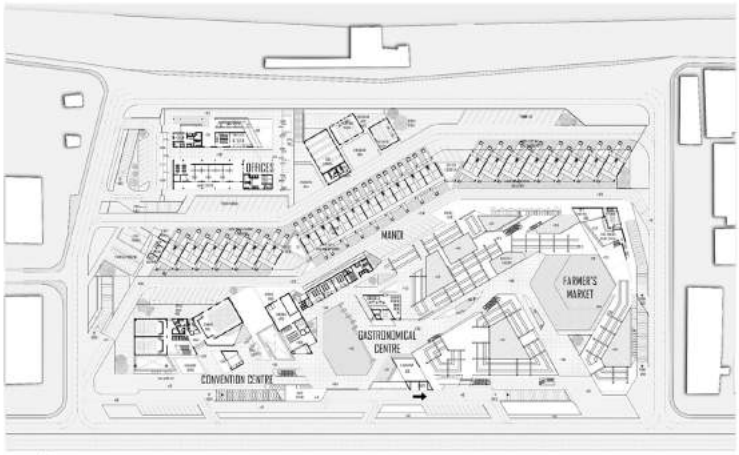
Consumption of food is essential to sustain life and to meet our body's basic needs for growth, development, and function. In addition, eating also have symbolic meanings associated with love, sensuality, comfort, stress reduction, security, reward, and power.

This project replaces an existing functional vegetable market into a space for economic and social confluence.

FLOOR PLANS

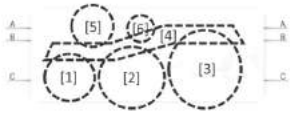


FIRST FLOOR

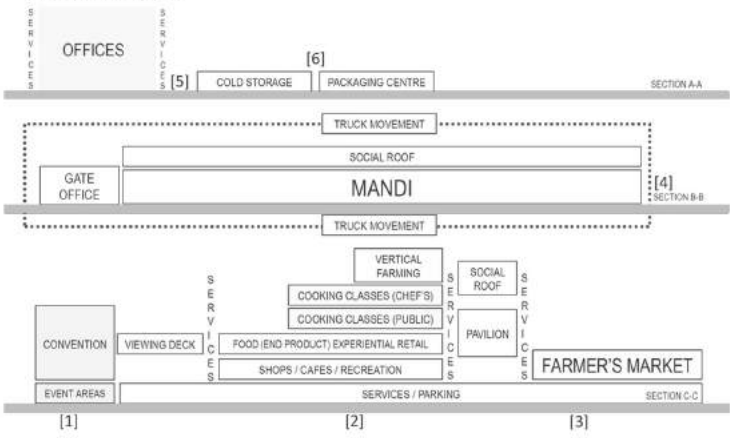


GROUND FLOOR

SCHEMATIC SECTION



Function diagram through Programmatic sections



GASTRONOMY
& **RESEARCH**

CONVENTION **CENTRE**