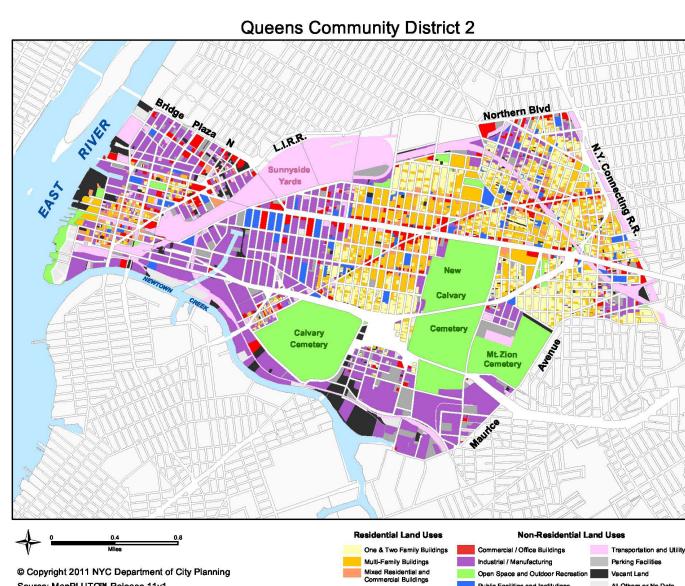
# MARINE BIOLOGY RESEARCH CENTER

NEW YORK CITY-HUNTER'S SOUTH POINT

### N.ALPER PEHLIVAN

# SITE ANALYSIS





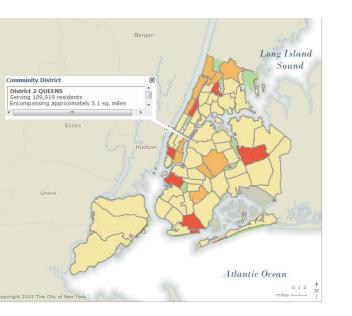
Open Space and Outdoor Recreation

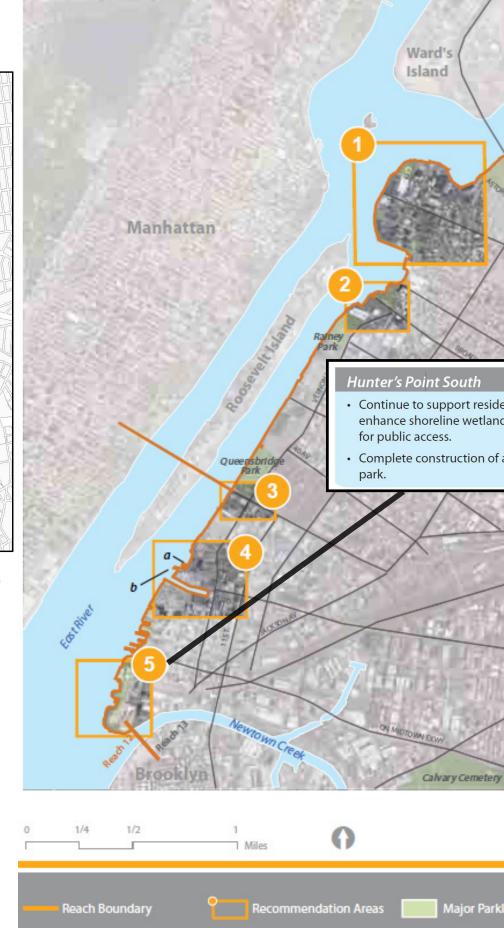
Public Facilities and Institutions

Vacant Land

All Others or No Data

© Copyright 2011 NYC Department of City Planning Source: MapPLUTO™ Release 11v1

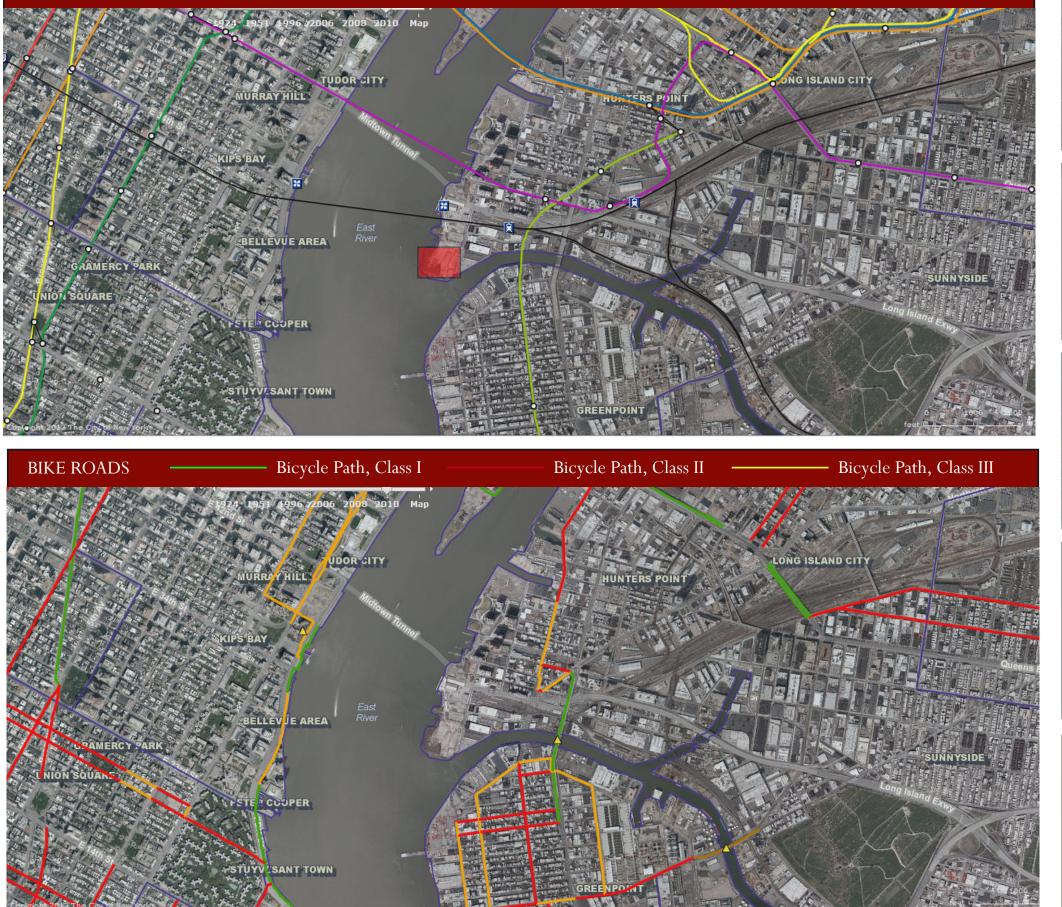






Major Parklands

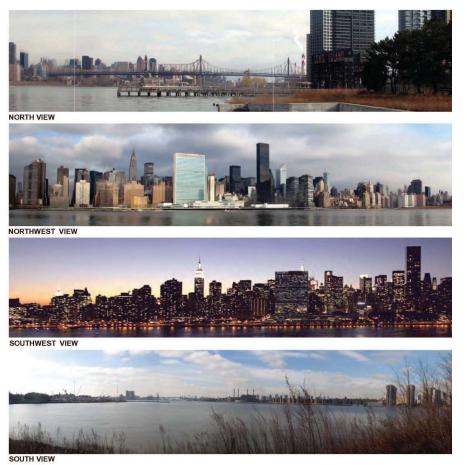
### SUBWAY - FERRY TERMINAL



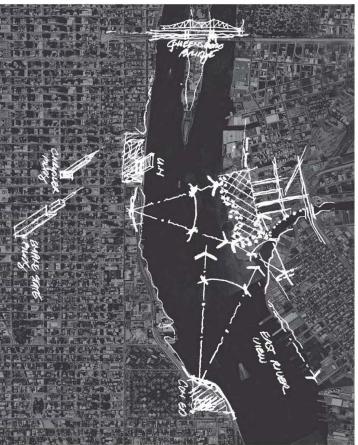


## VIEWS FROM SITE





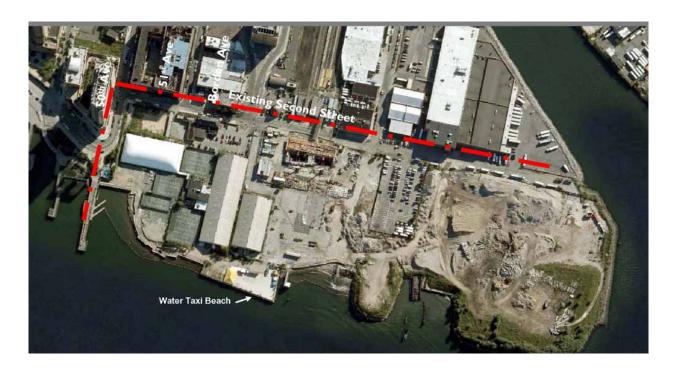
## SITE VIEWS FROM NEARBY CONTEXT





# EXISTING CONDITION

+LARGELY VACANT WATERFRONT SITE +WITHIN WALKING DISTANCE 7 SUBWAY LINE WITH ONE STOP TO MANHATTAN AND ACCESS TO FERRY +Adjacent to dynamic Queens West & LIC Com-MERCIAL CORRIDOR



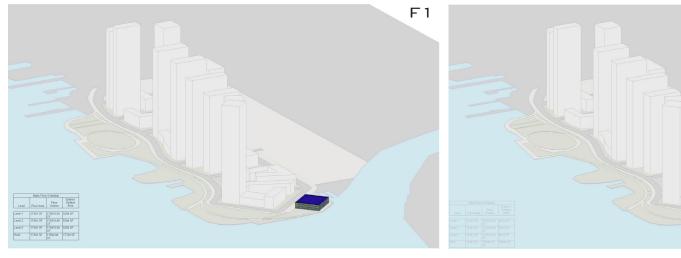
# PROPOSED PROJECT TO NYCEDC



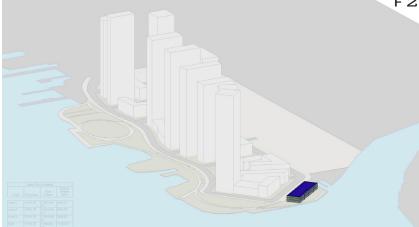
THIS IS PROPOSED PROJECT FOR HUNTER'S POINT SOUTH. IT IS MIXED-USED, MIDDLE-INCOME HOUSING DEVELOPMENT SITUATED ON APPROXIMATELY 30 ACRES OF PRIME WATERFRONT PROPERTY IN LONG ISLAND CITY, QUEENS 2007. MY RESEARCH BIOLOGY CENTER IS GOING TO BE PART OF THIS MASTER PLAN. THE BEST LOCATION IS ON THE SOUTH POINT OF THE SITE HIGHLIGHTED.

# ENERGY CONSIDERATIONS - SOLAR ORIENTATION

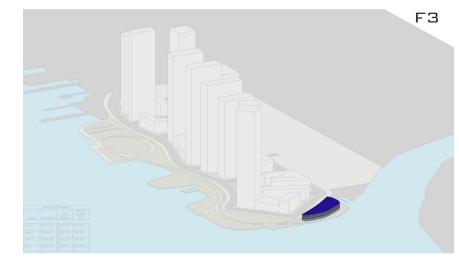
INITIALLY 5 DIFFERENT FORMS DECIDED TO ANALYSE INTERMS OF SOLAR RADIATION AND ENERGY EFFICIENCY OF FORM. FORM 4 WAS DECIDED SINCE THE MOST IT IS EFFICIENT ONE.

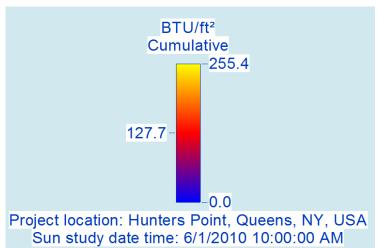








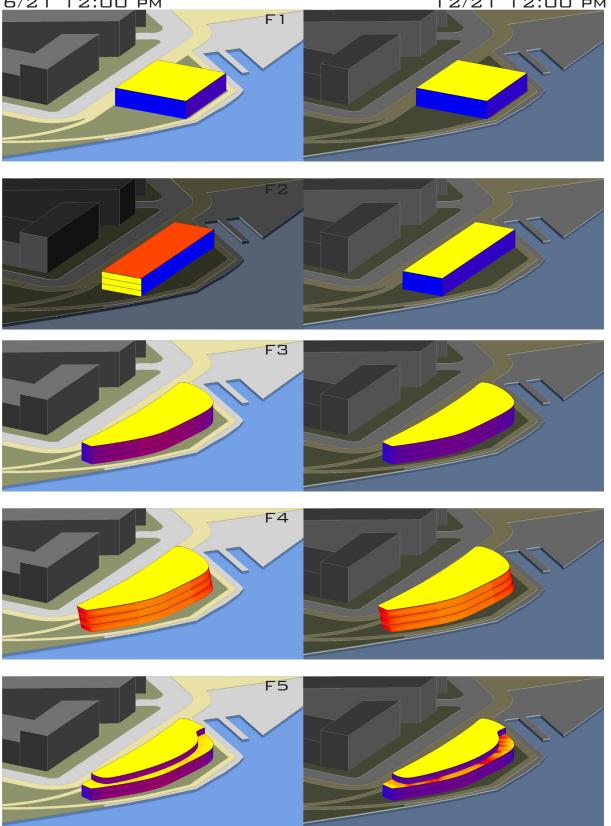


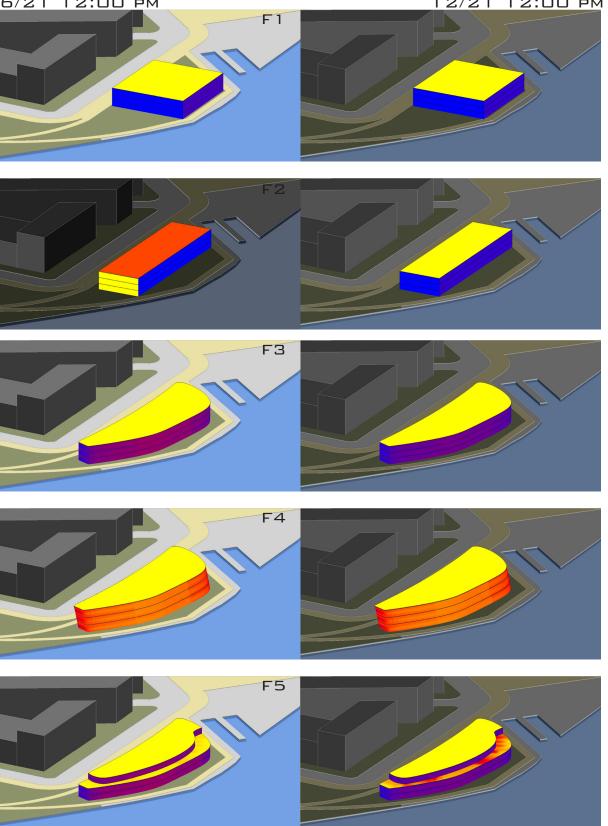


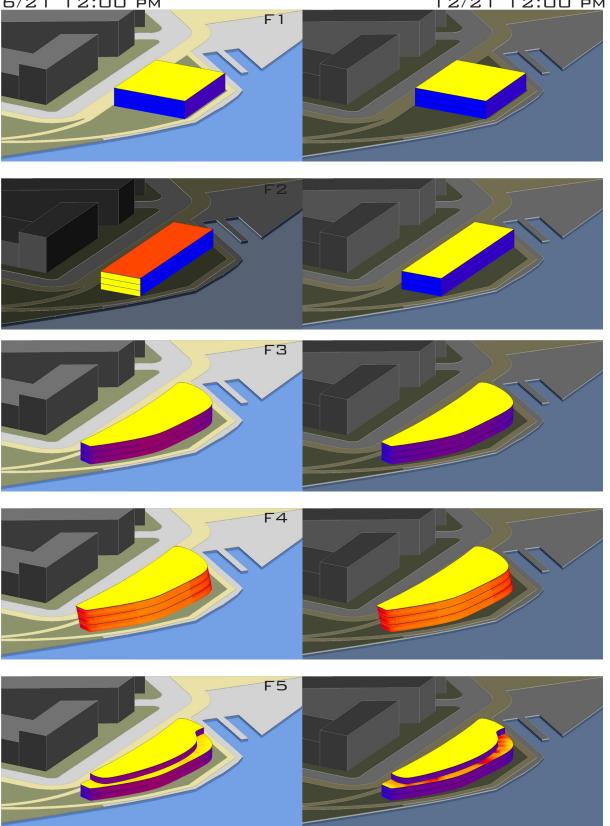
6/21 12:00 PM

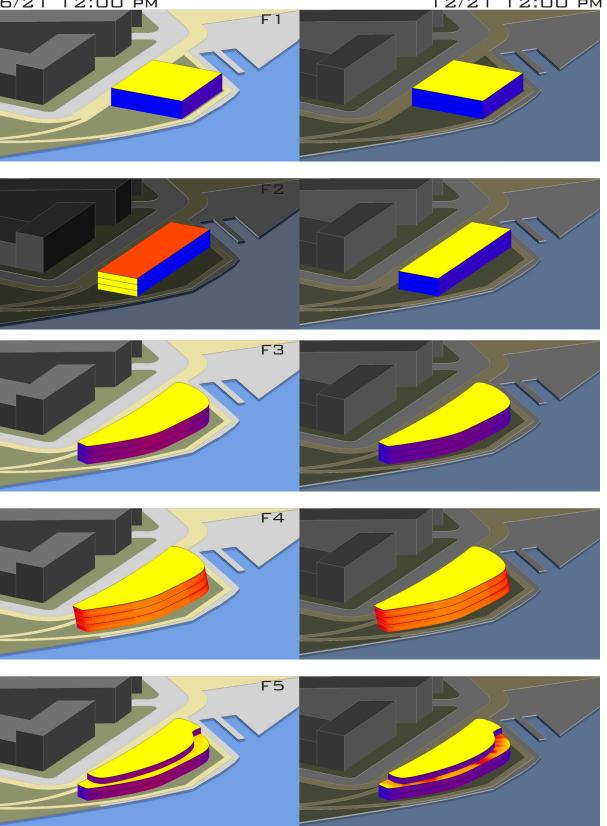
F4

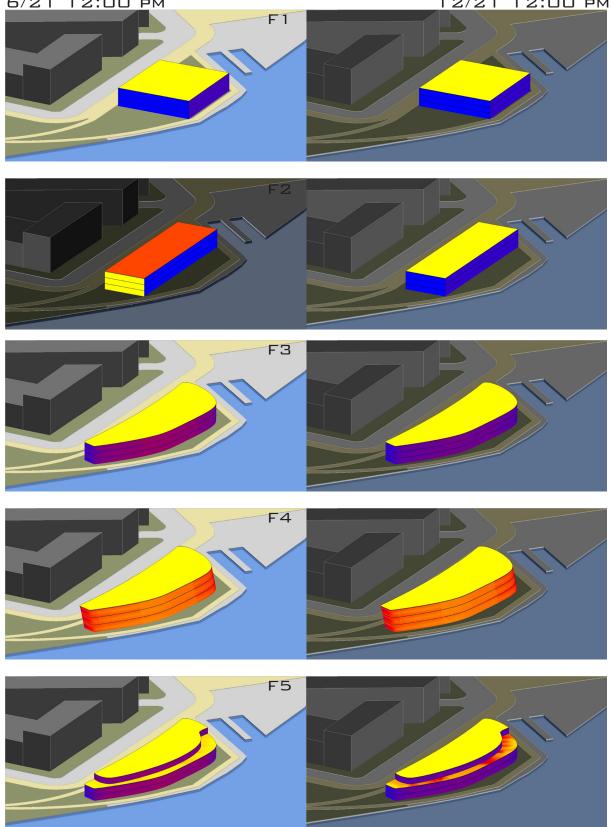
F5











### 12/21 12:00 PM

# ENERGY ANALYSIS COMPARISON

#### FORM-01

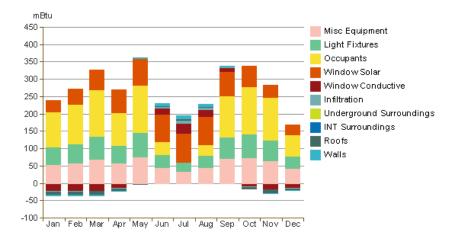
#### FORM-02

Electricity EUI:

Electricity EUI:	12 kWh / sf / yr	
Fuel EUI:	24 kBtu / sf / yr	ENERGY USE INTENSIT
Total EUI:	64 kBtu / sf / yr	
Roof Mounted PV System (Low efficiency):	147,932 kWh / yr	ENEWABLE ENERGY
Roof Mounted PV System (Medium efficiency):	295,863 kWh / yr	
Roof Mounted PV System (High efficiency):	443,795 kWh / yr	POTENTIAL
Single 15' Wind Turbine Potential:	4,145 kWh / yr	
*PV efficiencies are assumed to be 5%, 10% a systems		high efficiency

-2

#### tons / yr 800 -600 -Energy Use 400 Net CO<sub>2</sub> Energy 200-Generation Potential 0--200 --400 -(tons / yr) Electricity Consumption 416 Fuel Consumption 102 Roof PV Potential (High Efficiency) -237 Single 15' Wind Turbine Potential Net CO₂ 279



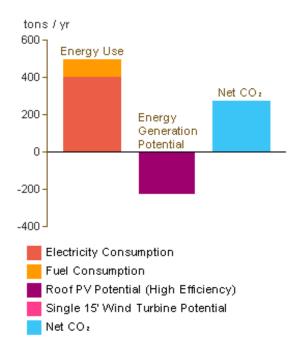
# EMISSIONS

MONTHLY COOLING LOAD

ANNUAL CARBON

### Fuel EUI: Total EUI: Roof Mounted PV System (Low efficiency):

Roof Mounted PV System (Medium efficiency):	- 3
Roof Mounted PV System (High efficiency):	4
Single 15' Wind Turbine Potential:	4
*PV efficiencies are assumed to be 5%, 10% a systems	and



### 450 <del>-</del> 400 350 300 250 200 150 100 50 -50

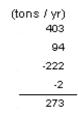
mBtu

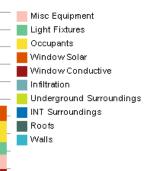
-100 - Jan 'Feb 'Mar' Apr'May 'Jun' Jul' Aug 'Sep 'Oct'Nov'Dec'

12 kWh / sf / yr
26 kBtu / sf / yr
67 kBtu / sf / yr
157,696 kWh / yr
315,392 kWh / yr
473,088 kWh / yr

4,145 kWh / yr

d 15% for low, medium and high efficiency





# ACTIVITIES

SEA WORLD

FISH CATCHING

SCUBA DIVING

OBSERVATION

SEA FOOD

### PUBLIC

DISPLAY

ACADEMIC

Conferences

COLLECTION/LIBRARY OF LOCAL FLORA AND FAUNA RESEARCHES FISH BIOLOGY MARINE ENVIRONMENT ECOLOGY OF ENDANGERED SPECIES Molecular Biology and Genetic UNDERWATER COMMUNICATION AQUACULTURE

ENVIRONMENTAL MONITORING

REMOTE OPERATION CONTROL

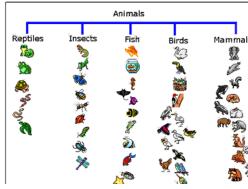
MEDIA PRODUCTION CENTER



COLLECT



Research







ARCHIVE

### LIBRARY OF LOCAL FAUNA AND FLORA



SITE PLAN 60' 30' 60'





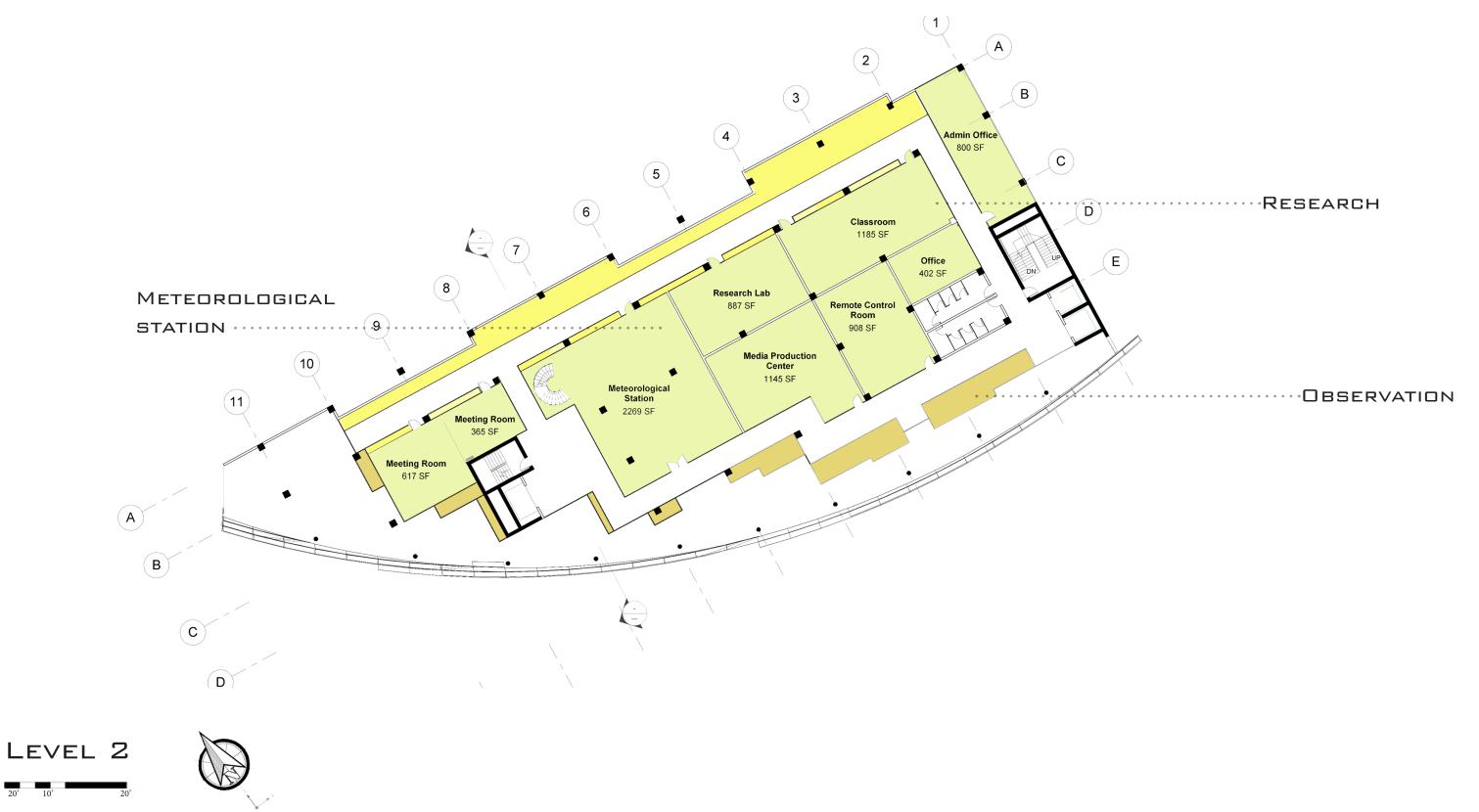
20' 10' 20'

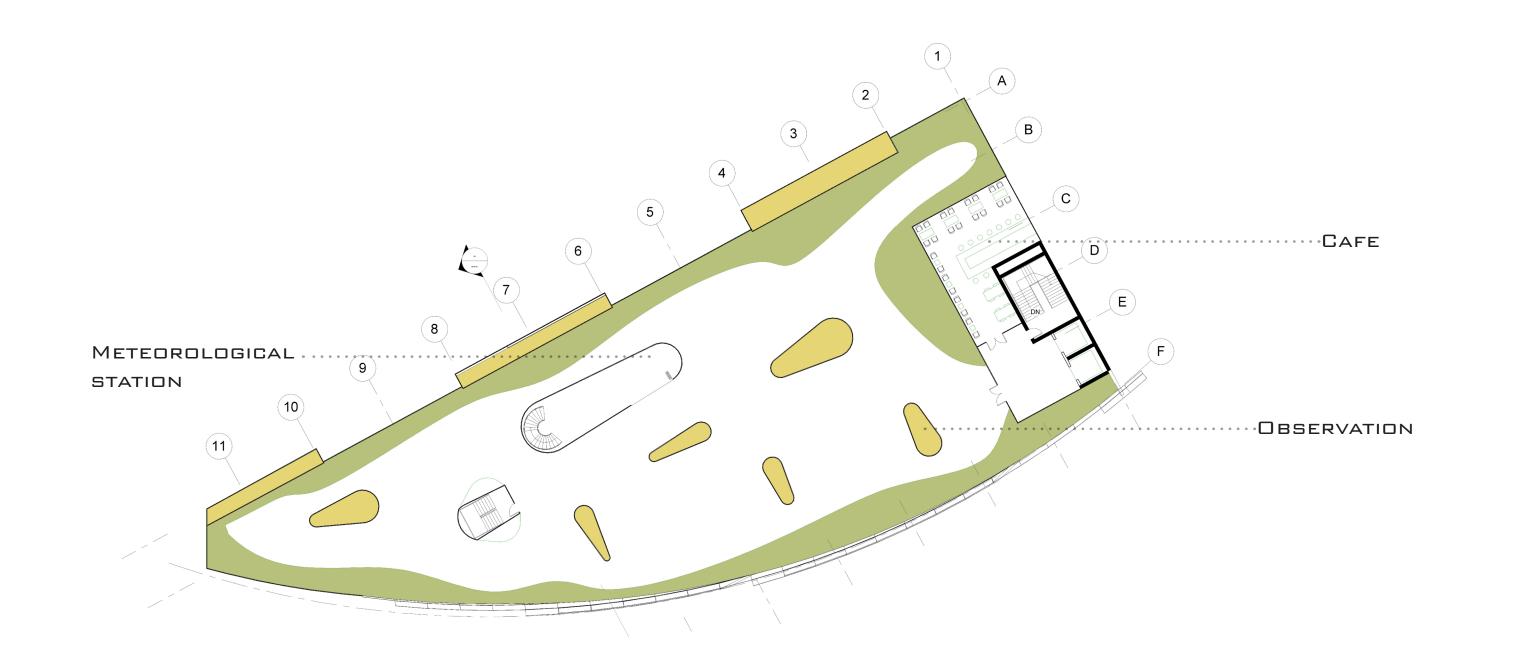




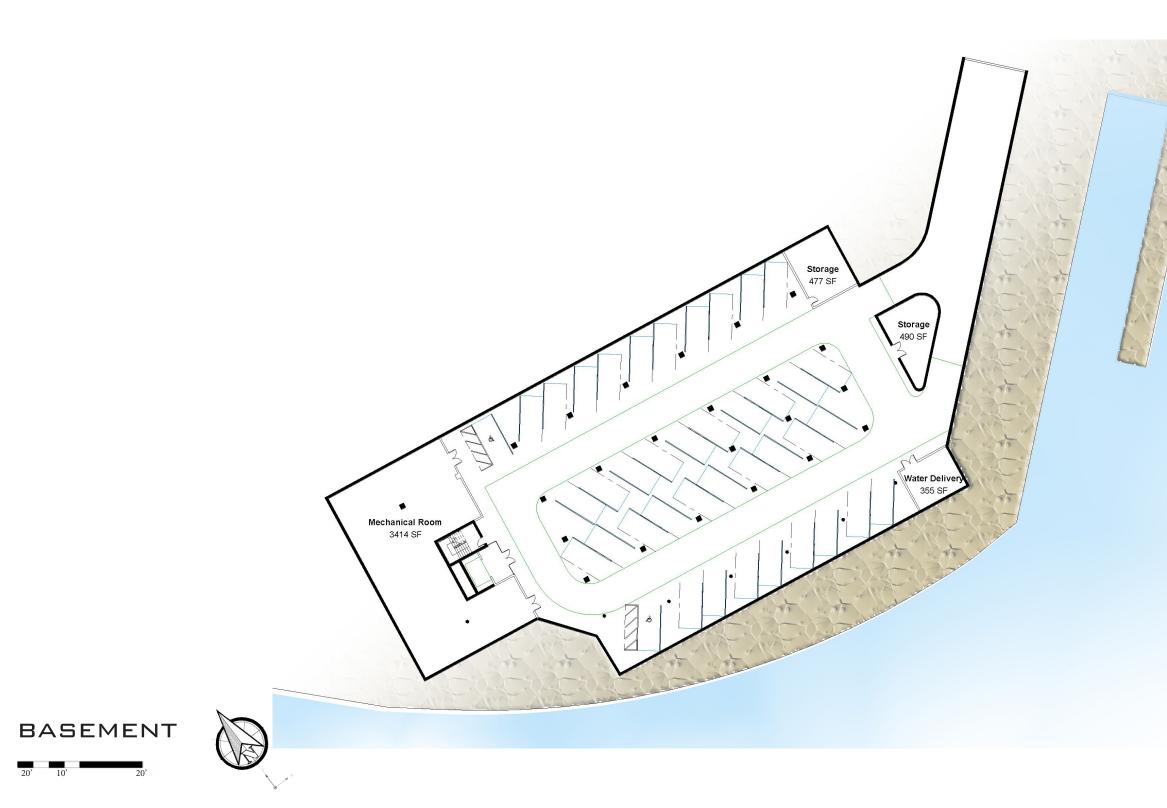
### PUBLIC

OBSERVATION



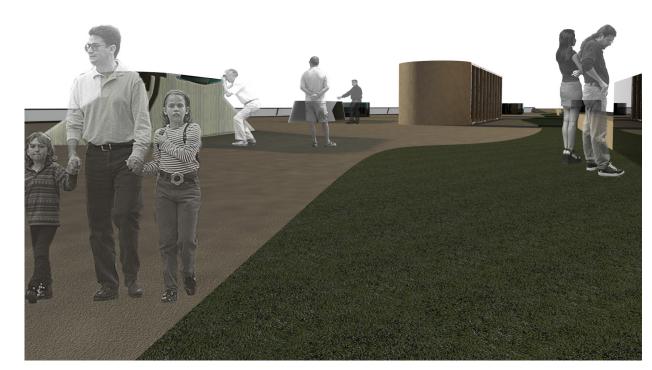








# SOUTH FACADE





SECTION LEFT TO RIGHT ORGANIZATION IS PUBLIC TO PRIVATE OBSERVATION/RESEARCH/ARCHIVE



## GENERAL VIEW



SITE INTEGRATION CONTINUATION OF PARKING SYSTEM OBSERVATION/DESTINATION/ACTIVITIES

