Jackson Square
Hyde Square
Sustainable Development Project

Existing Conditions Report
March 19, 2004

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Overview of Presentation

- Sustainability Framework

- Social/Community
  - JP Target Area Demographics
  - Transportation Assessment
  - Housing Demand

- Economics
  - Commercial Mix
  - Development of New Parcels

- Environment
  - Brownfields Assessment
  - Environment & Health Assessment

- Sustainability Opportunities

- Next Steps
Sustainability Framework
For Jackson Square Redevelopment

Principles
- Create Economically Viable Development
- Maintain or Improve Environmental Conditions & Public Health
- Respond to Community Needs & Desires

Goals
- Effective Remediation of Brownfield Parcels
- Appropriate Re-Use of Parcels
- Integration of Redevelopment with Surrounding Neighborhoods
Social/Community

Demographics
Transportation
Housing
JP Demographic Overview

- Population of JP: 38,215
- 48% male, 52% female
- 32% married; 51% never married
- Average household size: 2.5
- Unique demographic characteristics of JP:
  - Diverse ethnic mix
  - Large percent of family households
  - Young population
  - Large percent of recent immigrants
Diverse Ethnic Mix in JP

32% of individuals are of Hispanic/Latino origin

JP Racial/Ethnic Breakdown

- White alone: 48%
- Black or African American alone: 24%
- Asian alone: 5%
- American Indian and Alaska Native alone: 1%
- Some other race alone: 16%
- Two or more races: 6%
Lower Income Households in JP

JP has lower-income households than Boston or Massachusetts
• JP Median Household Income: $38,744
• Boston Median Household Income: $39,629
• Massachusetts Median Household Income: $50,502

Approximately 50% of the households in JP earn less than $40,000 annually
JP is a Young Community

Approximately 1/3 of the population is less than 24 years old.
JP is Family-Oriented

JP Household Types

- In family households: 65%
- In nonfamily households: 29%
- In group quarters: 6%
One-Quarter of Population is Foreign-Born

Place of Birth for Foreign-Born

- United Kingdom
- Nigeria
- Jamaica
- Japan
- Guatemala
- Cuba
- Colombia
- Haiti
- China
- Dominican Republic
Abundance of New Immigrants

As of the 2000 Census, 40% of the foreign-born population in JP had been in the US 10 years or less.
Auto Trips High
Considering transit coverage and neighborhood size

Trips and mode share

<table>
<thead>
<tr>
<th>Origin or Destination</th>
<th>% of Trip Sts</th>
<th>Auto</th>
<th>Transit</th>
<th>Walk/Bike</th>
<th>% of Walk/Bike</th>
<th>Auto</th>
<th>Transit</th>
<th>Walk/Bike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within neighborhood</td>
<td>34%</td>
<td>30%</td>
<td>7%</td>
<td>63%</td>
<td>30%</td>
<td>30%</td>
<td>3%</td>
<td>68%</td>
</tr>
<tr>
<td>Core area</td>
<td>8%</td>
<td>43%</td>
<td>57%</td>
<td>0%</td>
<td>8%</td>
<td>37%</td>
<td>63%</td>
<td>0%</td>
</tr>
<tr>
<td>Rest of Boston</td>
<td>33%</td>
<td>69%</td>
<td>23%</td>
<td>8%</td>
<td>32%</td>
<td>63%</td>
<td>29%</td>
<td>8%</td>
</tr>
<tr>
<td>Inner communities</td>
<td>17%</td>
<td>85%</td>
<td>15%</td>
<td>0%</td>
<td>19%</td>
<td>81%</td>
<td>18%</td>
<td>1%</td>
</tr>
<tr>
<td>Outer communities</td>
<td>8%</td>
<td>95%</td>
<td>5%</td>
<td>0%</td>
<td>11%</td>
<td>92%</td>
<td>8%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Central Transportation Planning Staff (CTPS) data as reported in *Boston Transportation Fact Book and Neighborhood Profiles* (Boston Transportation Department, 2002). The “core area” includes Downtown and Back Bay. “Rest of Boston” is the city limits, not including the neighborhood itself and the core area.
High % of households without vehicle

Number of vehicles by percentage of households

- 0 Vehicles: 36%
- 1 Vehicle: 44%
- 2 Vehicles: 15%
- 3 Vehicles: 3%
- 4 Vehicles: 1%
- 5 Vehicles: 1%

Within ½ mile of Jackson Sq.
Traffic Congestion

- Congestion on Columbus (30-45,000 veh/day) and Centre (~16,000)
- Cut-through traffic on neighborhood streets
- High demand for parking (a low intensity use of space)
Holes in transit service

- 13,000 pass/day at Jackson Sq Station
- Holes in service
  - Spatial
  - Frequency
  - Time of day
Pedestrian & Bicycle Issues

Assets
- Southwest corridor
- Short walking/biking distances

Liabilities
- Security and safety
- No road space for bikes on major roads
- Lack of secure bicycle parking
- Lack of bicycle system connectivity
- Poor walking environment and amenities near station
- Columbus Ave
Housing Vacancy Rates are Low

- Only 5% vacancy rate in Boston and JP

Status of Housing Units - Boston vs. JPNDC target area

- Total Housing Units: Boston City = 251,935, JPNDC = 239,528
- Vacant Housing Units: Boston City = 12,407, JPNDC = 15,532
- Occupied Housing Units: Boston City = 239,528, JPNDC = 14,694

Source: US Census 2000
Older Housing Units

- Over 50% of housing units in JPNDC Target Area were built in 1939 or earlier

![Graph showing the age distribution of housing units in JPNDC Target Area](chart.png)

**Age of Housing Units in JPNDC Target Area**
(Number and Percentage, 2000)

- **Number of Units**
- **Percentage of Units**

Source: US Census 2000
Small Household Size in JP

- 78% of households consist of 1, 2, or 3 persons
- 1 and 2 person households make up 62% of all households

Source: US Census 2000
Most Homebuyers in JP are from small households

- 77% of all homebuyer applications in JP and Roxbury are generated by 1, 2, and 3 person households

**No. of Homebuyer Applications in Jamaica Plain and Roxbury per HH Size and Target Income**

- **60% of Median Income**
- **70% of Median Income**

*Source: HUD 2003, JPNDC 2003*
51% of housing units are 1 BR and 25% are 2 BR

However, the waiting list indicates that demand for 2BR is greater: 39% demand for 1BR vs. 41% demand for 2 BR
Sustainability Challenges

- Older housing stock
- Not enough supply to meet demand
- Disconnect between supply and demand of 1, 2, 3 bedroom housing
Economics

Commercial Mix
Development of New Parcels
Heavily Retail Commercial Mix

- 444,000 square feet of commercial and institutional space
- District is 98% occupied
- Of the approximately 124 establishments, 78% are retail

Summary of Uses

- Retail & Services, 99, 78%
- Institutional, 20, 16%
- Other Service, 2, 2%
- Manufacturng, Construction, Misc., 3, 2%
- Vacant, 3, 2%
Large Concentration of Convenience Goods

Share of Retail & Service GLA

- Convenience Goods: 37%
- Food Service: 15%
- Comparison Goods: 24%
- Professional Service: 10%
- Personal Service: 14%
Strong Businesses, Industries/Clusters

- Food/food service – 35% of retail/service
- Personal care – 11% of retail/service
- Financial/insurance/real estate – 13% of retail/service
- Businesses serving Latino customer base
## Comparison to US Shopping Centers

<table>
<thead>
<tr>
<th>Rank</th>
<th>Business Type</th>
<th>Hyde/Jackson Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Restaurant with liquor</td>
<td>7 full-service restaurants; 1&gt;5000 sq. ft.</td>
</tr>
<tr>
<td>2</td>
<td>Women’s ready-to-wear</td>
<td>Yes, 1 large includes men</td>
</tr>
<tr>
<td>3</td>
<td>Family wear</td>
<td>2 children’s and 2 men’s clothing</td>
</tr>
<tr>
<td>4</td>
<td>Supermarket</td>
<td>Yes, full-scale</td>
</tr>
<tr>
<td>5</td>
<td>Family shoes</td>
<td>Yes, 2</td>
</tr>
<tr>
<td>6</td>
<td>Medical and dental</td>
<td>Yes, health center, medical and dental offices</td>
</tr>
<tr>
<td>7</td>
<td>Discount department store</td>
<td>No, 1 small 99 cent store</td>
</tr>
<tr>
<td>8</td>
<td>Unisex hair salon</td>
<td>Yes, 2</td>
</tr>
<tr>
<td>9</td>
<td>Bank</td>
<td>Yes, 2 way</td>
</tr>
<tr>
<td>10</td>
<td>Furniture</td>
<td>Yes, 1 rental</td>
</tr>
<tr>
<td>11</td>
<td>Cards and gifts</td>
<td>Yes, 1 party goods store</td>
</tr>
<tr>
<td>12</td>
<td>Restaurant without liquor</td>
<td>Yes, several limited service/take-out</td>
</tr>
<tr>
<td>13</td>
<td>Women’s specialty</td>
<td>Yes, 1 bridal</td>
</tr>
<tr>
<td>14</td>
<td>Jewelry</td>
<td>No, 1 repair</td>
</tr>
<tr>
<td>15</td>
<td>Dry cleaner</td>
<td>Yes, 1</td>
</tr>
<tr>
<td>16</td>
<td>Women’s hair salon</td>
<td>Yes, several</td>
</tr>
<tr>
<td>17</td>
<td>Cosmetics/beauty supplies</td>
<td>Yes, 1</td>
</tr>
<tr>
<td>18</td>
<td>Drugstore/pharmacy</td>
<td>Yes, available at supermarket</td>
</tr>
<tr>
<td>19</td>
<td>Nail salon</td>
<td>Yes, 1</td>
</tr>
<tr>
<td>20</td>
<td>Sandwich shop</td>
<td>Yes, 3</td>
</tr>
</tbody>
</table>
Development of the New Parcels
Potentially Divergent Customer Markets

Current Shopper Profile
- Shop outside the district for comparison goods
- Price and quality conscious
- Latinos from surrounding neighborhoods

Target Shopper Profile
- Latinos from Boston and New England
- Mixed income, urban, educated, alternative, arts-oriented residents from Greater Boston
- Residents of surrounding neighborhoods
Diverse Business Development Values

- Support locally-owned independent businesses
- Support businesses that serve diversity of JP
- Create quality jobs for local residents
- Strengthen Latino businesses
- Support businesses that have history, reputation, and involvement in JP
Top Potential Uses for New Development Parcel

- Entertainment
- Restaurant
- Art supply/craft/hobby store
- Health club/fitness
- Ice cream parlor
- Photocopier/printer
- Department store/furniture store/home décor
Opportunities for New Uses

Comparison to US Shopping Centers:

- **Entertainment, fitness centers, function, social**
- **Hobby/special interest/sporting goods**
  - General merchandise stores
  - Building materials/hardware
  - Drugs, health & beauty
  - Jewelry
Typical Anchor Tenants

Potential economic engines for new development:

- Office supplies
- Cinema
- Restaurant with liquor
- Junior Department Store
  - Discount Department Store
  - Family wear
  - Sporting Goods
  - Books
  - Drugstore/pharmacy
Detailed Tenant Information

We currently have the following information for the top potential uses:

- Gross leasable area averages
- Sales per square foot averages
- Rent per square foot averages

<table>
<thead>
<tr>
<th>Gross Leasable Area</th>
<th>Sales Per Square Foot</th>
<th>Rent per Square Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Decile</td>
<td>Median</td>
</tr>
<tr>
<td>Entertainment (Cinema)</td>
<td>10,633</td>
<td>24,517</td>
</tr>
</tbody>
</table>
JP Total Purchasing Power

- Within ½ mile of Jackson Square T
  - Median Household Income: $29,955
  - Number of Households: 6,299
  - *Purchasing Power: $188,686,545

- Within one mile of Jackson Square T
  - Median Household Income: $32,845
  - Number of Households: 33,875
  - *Purchasing Power: $1,112,624,375

* Capture rate of JP businesses will adjust this number
## Capture Rate within ½ Mile of Jackson

**Purchasing Power:** $188,686,545

<table>
<thead>
<tr>
<th>Estimated Expenditures by JP</th>
<th>25% Capture Rate</th>
<th>50% Capture Rate</th>
<th>75% Capture Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food at home</strong></td>
<td>$22,008,706</td>
<td>$5,502,177</td>
<td>$11,004,353</td>
</tr>
<tr>
<td><strong>Food away from home</strong></td>
<td>$15,923,872</td>
<td>$3,980,968</td>
<td>$7,961,936</td>
</tr>
<tr>
<td><strong>Apparel &amp; services</strong></td>
<td>$13,694,026</td>
<td>$3,423,507</td>
<td>$6,847,013</td>
</tr>
<tr>
<td><strong>Entertainment</strong></td>
<td>$3,892,782</td>
<td>$973,196</td>
<td>$1,946,391</td>
</tr>
<tr>
<td><strong>Personal care products &amp; services</strong></td>
<td>$3,306,975</td>
<td>$826,744</td>
<td>$1,653,488</td>
</tr>
<tr>
<td><strong>Household furnishings &amp; equipment</strong></td>
<td>$9,813,842</td>
<td>$2,453,461</td>
<td>$4,906,921</td>
</tr>
</tbody>
</table>
Capture Rate within 1 Mile of Jackson
Purchasing Power: $1,112,624,375

<table>
<thead>
<tr>
<th></th>
<th>Estimated Expenditures by JP</th>
<th>5% Capture Rate</th>
<th>10% Capture Rate</th>
<th>15% Capture Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food at home</td>
<td>$22,008,706</td>
<td>$1,100,435</td>
<td>$2,200,871</td>
<td>$3,301,306</td>
</tr>
<tr>
<td>Food away from home</td>
<td>$15,923,872</td>
<td>$796,194</td>
<td>$1,592,387</td>
<td>$2,388,581</td>
</tr>
<tr>
<td>Apparel &amp; services</td>
<td>$13,694,026</td>
<td>$684,701</td>
<td>$1,369,403</td>
<td>$2,054,104</td>
</tr>
<tr>
<td>Entertainment</td>
<td>$3,892,782</td>
<td>$194,639</td>
<td>$389,278</td>
<td>$583,917</td>
</tr>
<tr>
<td>Personal care products &amp; services</td>
<td>$3,306,975</td>
<td>$165,349</td>
<td>$330,698</td>
<td>$496,046</td>
</tr>
<tr>
<td>Household furnishings &amp; equipment</td>
<td>$9,813,842</td>
<td>$490,692</td>
<td>$981,384</td>
<td>$1,472,076</td>
</tr>
</tbody>
</table>
## Sales Leakage within ½ Mile

*Total estimated sales leakage = $11,661,047*

<table>
<thead>
<tr>
<th>Retail Type</th>
<th>Estimated Expenditures by JP Residents</th>
<th>Estimated Sales in JP</th>
<th>Estimated Sales Surplus/(Leakage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food at home (supermarkets)</td>
<td>$22,008,706</td>
<td>$29,991,599</td>
<td>$7,982,893</td>
</tr>
<tr>
<td>Food away from home (restaurant w liquor)</td>
<td>$15,923,872</td>
<td>$9,883,505</td>
<td>($6,040,367)</td>
</tr>
<tr>
<td>Apparel &amp; Services</td>
<td>$13,694,026</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Entertainment fees &amp; admissions</td>
<td>$3,892,782</td>
<td>$0</td>
<td>($3,892,782)</td>
</tr>
<tr>
<td>Personal care products &amp; services</td>
<td>$3,306,975</td>
<td>$2,156,865</td>
<td>($1,150,109)</td>
</tr>
<tr>
<td>Household furnishings &amp; equipment</td>
<td>$9,813,842</td>
<td>$1,849,767</td>
<td>($7,964,075)</td>
</tr>
</tbody>
</table>

*This computation is in progress*
Sustainability Challenges

- Finding the balance between strengthening existing clusters and diversifying the commercial district
- Meeting the needs of the current customer profile and appealing to the target customer profile
- Compromising between the identified uses for the new development and the economically viable uses
- Achieving the business development values while creating economically sustainable uses
- Ensuring the new uses are environmentally sustainable
Environment

Brownfields Assessment
Environment & Health Assessment
Brownfields
Brownfields: Existing Conditions Analysis for Relevant Parcels

- Nature and extent of contaminants (known or potential)
- Public health risks from contaminants
- Status of any assessment and/or remediation efforts
- Remediation options/costs; reuse limitations
- Information gaps
MBTA Parcels 69, 70, 71, A

- High levels of petroleum hydrocarbons in soil and groundwater
- Tetra- and tri- chloroethylene in groundwater
- 8 tanks underground tanks still on property
- Phase I complete, Phase II to be completed before RFP for property
- Remediation estimate: $1M - $3.3M
MBTA Parcel “Grassy Knoll”

- No record of environmental issues
- Concern: Pre-1962 auto repair use

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NSTAR Parcel

- 2002: 150 gallon oil spill, remediation complete
- Concern: Possible pre-1962 auto use
City of Boston Parcels 1540/1542 Columbus Avenue

- No record of environmental issues
- Concern: Extensive history of automobile use

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Urban Edge Parcel 1542 Columbus Avenue

- 2002: Oil, petroleum and arsenic spill
- Phase II assessment completed
City of Boston Parcel DPW Yard
282 Highland Avenue

- 2003: Petroleum spill
- In default of DEP assessment/remediation timelines
- Concern: groundwater flows toward Columbus Avenue
Urban Edge Parcel 41 Amory Street

- 2002: Hazardous material spill (BenzA etc.)
- Phase II assessment complete
- Concern: abuts MBTA parcels, high petroleum levels found along property line, groundwater flows toward MBTA parcels
Mordy Levin Parcels 55-75
Amory Street

- 1995: Oil spill, remediation complete
- 2000: Oil spill, Phase II complete
- Use limitation: Maintain pavement
- Concern: Parcel abuts MBTA properties, high levels of petroleum found along property line, groundwater flows toward MBTA parcels
Brownfields - Potential Health Risks

- **Limited Phase I Assessments**
  - Oil/Petroleum
  - Tetrachloroethylene
  - Trichloroethylene (TCE)
  - Polycyclic Aromatic Hydrocarbons
  - Arsenic
  - Lead

- **Potential Health Risks**
  - Cancer, Birth Defects, Nerve, Liver & Kidney Damage, Auto-Immune Disorders

- Better estimate from Phase II Assessments
Tree Cover / Urban Forestry

- Trees in the Urban Environment
  - Mitigate air quality problems
  - Shade & heat regulation in summer
  - Energy efficiency for surrounding buildings
  - Provide “Sense of Place”

- Jackson Square is barren
  - Missing link between “green” neighborhoods
Open Space & Built Environment

- Greater JP & Roxbury well endowed with Public Open Space
  - Southwest Corridor
  - Small neighborhood parks
- Most significant OS resources ~1 mile from Jackson Square
  - Franklin Park, Jamaica Pond, Arnold Arboretum
Open Space & Built Environment

- 50% of Jamaica Plain, 72% of Roxbury adult residents at risk for health problems due to lack of exercise
- Top 3 Causes of death – all have physical inactivity as a risk factor
  - Heart Disease
  - Cancer
  - Stroke

Leading Causes of Death Age-Adjusted Rates
Jamaica Plain, 2000-2001

Average Annual Rates

Deaths per 100,000 Population

*Deaths due to all injuries combined include unintentional deaths (accidents, motor vehicle related), intentional deaths (homicide and suicide), and injuries with intent unknown at the time the death certificate was issued.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health. Rates are calculated using the U.S. Census 2000 for resident population.

DATA ANALYSIS: Boston Public Health Commission Research Office
Air Quality

Asthma

- JP & Roxbury Childhood Asthma rates and rising
- Risk factors and spatial distribution indicate an Environmental Justice issue
- Indicator of general air quality and EJ issues

Asthma Hospitalization Average Annual Rates
Children Under Age 5 by Neighborhood,* Boston, 1998-2001

*North End data have been incorporated with that of Back Bay.
DATA ANALYSIS: Boston Public Health Commission Research Office
Air Quality
Outdoor

- Primary local source: Vehicular emissions (diesel exhaust)
- Jackson Square AQ monitoring reveals no “red flags”
  - MBTA buses converted to CNG
  - 100/400 school buses retrofitted
  - No major trucking hubs
- However, there is plenty of traffic, and no amount of pollution is “good”
Air Quality
Indoor

- Primary local source: Housing stock
- Asthma triggers
  - Mold & moisture
  - Pets & pests
  - Inadequate ventilation
  - Tobacco smoke
- Existing programs
  - Construction & maintenance guidelines
Environment & Health Sustainability

Priority Challenges

- Brownfields Risks
- Air Quality and Asthma
- Access to Open Space / Physical Activity
- Tree Cover / Linking the neighborhoods
Sustainability Opportunities
For Jackson Square Redevelopment

**Principles**
- Create Economically Viable Development
- Maintain or Improve Environmental Conditions & Public Health
- Respond to Community Needs & Desires

**Goals**
- Effective Remediation of Brownfield Parcels
- Appropriate Re-Use of Parcels
- Integration of Redevelopment with Surrounding Neighborhoods

**Opportunities**
- Green and Healthy Building
- Housing focus on 1/2/3 BR units
- Capitalize on transit & bike/ped resources
- Minimize contribution to vehicular emissions and traffic
- Improvements to transportation system to accommodate new development and decrease auto mode-share
- Identify business types that will succeed financially
- Identify economic engine(s) or economic draws
- Target diverse markets
- Ensure addition of quality jobs to the community
- Integrate business development values into business recruitment strategy
- Industrial ecology practice – cooperative sourcing and waste management among the clusters of similar businesses
- “Connect” JP & Roxbury
- Provide Quality Open Space and Recreational Facilities
- Integrate Urban Forestry Values into Redevelopment
Next Steps

- **Transportation**
  - Further data collection (police reports)
  - Determine transportation and parking requirements/regulations
  - Explore MBTA service change process
  - Determine transportation facility/amenities options, best practices, and feasibility for new development

- **Housing**
  - Explore Green Building options
  - Investigate best practices in terms of sustainable housing

- **Economic**
  - Complete retail demand and sales leakage analysis
  - Determine requirements for sales, rent, square footage, demographics, parking, etc. for each use type
  - Interview leasing agents
  - Map competition of potential new uses
  - Create potential/recommended business mix
  - Create roadmap for business recruitment strategies
  - Identify environmentally-friendly business practices
Next Steps

- **Brownfields**
  - Investigate funding sources for remediation (Including for green remediation, other public and private sources, potentially responsible parties)
  - Provide best practice options for remediation effort

- **Environment & Health**
  - Further data collection, analysis
  - Continue to identify existing resources and programs
  - Identify and refine opportunities for improving sustainability
  - Develop proposals in response to sustainability opportunities
  - Estimate quantitative and qualitative benefits of proposals