New Ways for Pittsburgh’s Historic Strip District

Presented by:
Patrick Roberts, City of Pittsburgh
Regina Koetters, Owner – Marty’s Market
Amy Staud, HDR

Moderated by:
David Taylor, HDR.

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Patrick Roberts
Principal Transportation Planner, PGH

- Broad base of planning and implementation
- Multi-department coordination
- PennDOT – Environmental Manager and Scenic Byways Coordinator
- Army veteran
- BS, Cell Biology/Biochemistry
Regina Koetters  
Owner, Marty’s Market  
- Specialist in riverfront redevelopment  
- Selected Pittsburgh for her focus on sustainable development and rail transit  
- Led her to launch Marty’s Market in the Strip  
- Navy veteran – Iraq and Africa  
- BS, Naval Architecture, MS, Real Estate
Panel Introduction

Amy Staud, PE, PTOE, ENV SP
HDR AVP, Planning Manager, PGH

- Strip District Project Manager
- Professional Associate at HDR
- Broad background in traffic and planning, NEPA, signal design, engineering and modeling
- Extensive experience in PA, WV, OH, MD and VA
- BS, Civil & Environmental Engineering; MS, Civil Engineering
A Place of Yesterday and Today

- Industrial roots in iron, steel, and glass
- Transformed into a wholesale produce and retail district
- Emerging as shopping, dining, and residential district
Change and Opportunity

- Mix of old and new
- Challenge of increasing trucks, cars, bicycles, and pedestrians – all vying for limited roadway and pedestrian options
PLANNING FOR THE STRIP
A Great Future
The Planning Area Studied
What is the Project?

Project Goals

- Move from Vision to implementation
- Collaboratively plan the Strip’s future
- Implement transportation improvements within public rights-of-way
- Identify selective land use opportunities that impact transportation investments
- Develop a complete transportation system including enhanced street connectivity, streetcars, cycle tracks, and a possible future incline

Study Products

- Program of transportation projects for implementation
- Market study
- Funding strategies
- Video visualizing the Strip’s future
What is in the Strip District Plan?

- Market-based development plan
  - Future land use
  - Urban design strategy
  - Development opportunities
- Multi-modal plan
  - Roads
  - Circulator/incline
  - Pedestrian and bicycle
- Finance plan and Implementation program
  - Revenue generation
  - Local finance plan
To Move from Vision to a Plan…

- Place value on the Strip’s heart and Penn Avenue
- Maintain its history, form and energy
- Balance its mobility needs
- Strengthen its internal + external connectivity
- Move to implementation
UNDERSTANDING THE STRIP

Nuances - Not Only Facts
It Starts with Known Issues

Allegheny Riverfront
GREEN BOULEVARD

STEERING COMMITTEE
5.17.2012

SPC REGIONAL TRAFFIC SIGNAL PROJECT
CITY OF PITTSBURGH
LIBERTY AVENUE INTERVENC PROJECT
Final Report
April 2011

Allegheny Valley Railroad and Norfolk Southern
COMMUTER RAIL INTERIM STUDY

Pennsylvania Department
of Transportation
District 11B
Bridgewater, Pennsylvania

Streetcar Funding Strategy Study
Westpax Song, Transit Policy Fellow
Jan 29, 2012

Allegheny Riverfront
vision plan
Discovered Issues in Plans

**Land Use/Design**
- Allegheny Riverfront Vision Plan (2010)
- Market Studies
- Greater Hill Master Plan (2011)
- Allegheny Riverfront Green Boulevard
- Pittsburgh Regional TOD Strategic Plan and Typology

**Transportation**
- Evaluation of Alternative Route Options for SR 28 (2007)
- Liberty Avenue RSA (2010)
- Liberty Avenue SINC Project (2011)
- Strip District Development TIS (2012)
Market and Economic Issues

• Broad real estate and development
  ✓ Need to link with neighboring districts
  ✓ Overcome inadequate infrastructure
  ✓ Lack of public incentives
  ✓ Not perceived as a place to invest

• Market Issues
  ✓ Limited residential market
  ✓ Higher income tax rate for City residents
  ✓ Domination by industrial use, little residential in some areas
  ✓ Need diverse mix of uses and complementary retail
Market and Economic Issues

• Non-residential issues
  ✔ Conflict between existing commercial enterprises and pressure for residential uses
  ✔ Limited residential population unlikely to generate demand for future development
  ✔ Limited daytime weekday market
  ✔ New development could mean loss of parking tax revenue
Urban Design Issues

- Preserve the heritage of the Strip but keep the grit
- Retain vitality and unique quality
- Too few safe places to walk and enjoy
- Parking is overpowering – treat it as a “land use”
Urban Design Issues

- Underutilized and disconnected riverfront
- Poor cross-district movement and connectivity
- Lack of transit-supportive development
- Unfriendly pedestrian environment
Transportation Issues

• Broad mobility issues
  ✓ Over-reliance on single-occupancy vehicle
  ✓ Weak or missing connections to other areas
  ✓ Growing interest in streetcar and commuter rail
  ✓ Trucks are vital to area’s future
  ✓ Building a system of complete streets

• Parking
  ✓ Parking maneuvers impact traffic flow
  ✓ Vehicles parking on sidewalks
  ✓ Bus and truck loading in travel lanes
  ✓ Parking close to intersections
Transportation Issues

• Pedestrian and Bicycle
  ✓ Missing crosswalks, ADA ramps, signal heads
  ✓ Poor sidewalk conditions
  ✓ Lack of sidewalk continuity
  ✓ Parking on sidewalks
  ✓ Difficult to see around parked cars
  ✓ Mid-block crossings/dart-outs
  ✓ Lack of walking/cycling amenities
  ✓ Speeding
Transportation Issues

• Traffic operations and safety
  ✓ Narrow travel lanes
  ✓ Difficulty turning intersections
  ✓ Missing/faded pavement markings
  ✓ Trucks have difficulty negotiating turns
  ✓ Conflict between truck traffic and other modes/vehicles
  ✓ Congestion and speeding
  ✓ Consistently high crash rates
  ✓ Sign and billboard clutter
From Issues to Specifics

- Be unique to the Strip – **Context sensitive**
- Create a future place – **Market-based**
- Unify the land use plan – **Coordinated**
- Broaden transportation choices – **Multimodal**
- Upgrade aging infrastructure – **Support systems**
- Strengthen the Strip’s linkage – **Connected**
- Manage and finance solutions – **Collaborative**
- Employ Best Practices – **Consistent**
SEIZING OPPORTUNITY
Investing in the Strip
Address issues facing our nation

- Chronic disease and obesity
- Stagnant economy
- Dwindling non-renewable resources
- Social disconnectedness
- Increasing demand for water and energy
Regina’s Mission: A Catalyst for Change

- How to address these issues and invest for the future?

Real Estate (re) Development
Why invest in the Strip District?

• The MBA version
  ✓ Economic indicators
  ✓ Social context
  ✓ Phase of region’s redevelopment

• The non-MBA version
  ✓ Pittsburgh is within a 1-day drive of 70% of the U.S.
  ✓ The people
Planes, Trains, and…

- Major Factors in Our Work
  - Economy
  - Policy
  - Infrastructure
  - Relationships
  - Serendipity
Same Mission, Different Tool

- Address pressing issues facing our nation
The Power of Food

- “Chicken or the Egg”: the Urban Grocery Store
- Breaking Rules to Bridge the Gaps
  - Catalyze private investment
  - Strengthen the region’s food system
  - Build community
HOW DID WE PLAN?
Noisy, Messy, Bipolar – and Fun
Developing the Strip Plan

- Public + Technical Issues
- Land Use and Urban Design
- Market and Economic Potentials
- Multi-modal Transportation Choices
How Do We Plan for Tomorrow?

Best Practices help us identify opportunities to address and meet the project goals

Transit

Best Practices
- Community Circulators
- Streetcar Capital Cost Estimation
- Streetcar Operating Costs
- Inclines
- Transit Stop Consolidation
- Universal Design for Transit

Bicycle/Pedestrian

Best Practices
- Bicycle and Pedestrian Accommodations
- Cycle Tracks
- Community and Individual Health Benefits

Roadway/Parking

Best Practices
- Complete Streets
- Network Connectivity
- Enforcement Programs
- Intelligent Transportation Systems
- Sustainable Urban Design
- Satellite Parking
- Universal Design for Roadway/Sidewalk Facilities

Economic/Market

Best Practices
- Public Tax Increment Financing
- Private Special Assessment District
- Joint Development
- Development Impact Fees
- Limited Partnership Arrangements
- Transit Revitalization Investment District

Check out our project website for more details

Well designed pedestrian facilities like this sidewalk in Raleigh, NC can encourage active transportation

Portland’s Pearl District before and after the streetcar

Level boarding achieves Universal Design.

Mid-block pedestrian crossing with overhead signals at a transit station
Worked in the Heart of the Strip
The Charrette – Promoting Interaction
Charrette – See Results Immediately
How Did We Proceed?

- Developed ideas for improvement alternatives
- Presented alternatives to affected stakeholders
- Talked with - and listened to – the stakeholders
- Field-checked, tried and tested alternatives
- Prepared a set of revised recommendations
What Do We Recommend?

- A coordinated Transportation and Land Use Framework
- A “Complete System of Streets”
  - Through Way - Liberty
  - Pedestrian Way - Penn
  - Transit Way – Smallman
  - Cycle Way – Railroad
  - Green Way – River
Through Way

Features
- Reduce Liberty Avenue to three lanes from 16th Street to Herron Avenue
- Widen Liberty Avenue travel lanes
- Modify lane configurations at key side roads
- Add side road vehicle detection
- Provide enhanced bus stops at key locations
- Add pedestrian push buttons and countdown signal heads
- Remove fixed objects

Benefits
- Provides traffic calming which can reduce the number of crashes
- Increases traffic operations
- Reduces conflict points
- Provides positive guidance for pedestrians crossing Liberty Avenue
Operations & Safety Improvements

Project-wide Recommendations
- Add pedestrian push buttons and count-down signal heads at signalized intersections
- Efficient signalization with coordination and vehicle detection
- Implement smart-phone applications for parking

Enhanced Pedestrian Treatments?
- Used at unsignalized intersections or mid-block crossings
- Highly visible crosswalk markings
- Push-button actuated rapid flashing beacons

Back-in Parking
- Reduces conflicts between vehicles, pedestrians, and bicycles
- Drivers are eye-to-eye when leaving parking spot
- Vehicles can be loaded from the sidewalk
Pedestrian Way

Features

- Penn Ave (16th St to 31st St) proposed to stay two-lane, one-way roadway with parking on both sides
- Pedestrian enhancements:
  - Count-down pedestrian signals
  - High-visibility crosswalks
  - Curb extensions
  - Enhanced shared lane bicycle markings

Benefits

- Pedestrians know when to cross & how much time is left to cross
- Crossing locations better defined, more visible
- Shorter crossing distances
- Better definition & control of on-street parking
- More space on intersection corners for street furniture, landscaping, & pedestrian storage
- Better recognition of lane sharing with bikes
General Pedestrian Improvements

- Fill in sidewalk gaps & repair damaged sidewalks
- Provide ADA features & universal design
- High-visibility crosswalks
- Pedestrian signal heads (countdown timers)
- Yield to Peds/No Right Turn on Red blank out signs
- Curb extensions (with on-street parking)
- Sufficient lighting
- Pedestrian wayfinding kiosks/signage
- Public art & streetscape
- Enhanced crossing treatments at difficult unsignalized pedestrian crossing locations

Benefits

- Continuous network of facilities
- Welcoming environment for all users
- Improved pedestrian safety
- Encourage more trips by walking
Cycle Way

**Features:**
- Railroad St (Allegheny River Green Boulevard) proposed as the primary north-south bikeway in the Strip
- Corridor includes 12’ wide paved pathway
- Corridor traffic control favors bicycles
- Longer term potential to remove rail on corridor
- Supplementing facilities provide connections to other key bicycle routes/corridors in the district
- District bicycle wayfinding signage

**Benefits:**
- Separate facility decreases conflicts
- Priority allows for faster north-south travel
- Easy navigation through the district for regular bicyclists & visitors
Key Bicycle Connections & Improvements:

- 32nd Street: contraflow bike lane & bike boulevard
- 21st Street: contraflow cycletrack & bike boulevard
- Penn Ave, north of 31st St: uphill bike lane; downhill shared lane markings
- Liberty Ave, north of 32nd St: bike lanes, buffered bike lanes
- Liberty Ave, north of 40th St: uphill bike lane; downhill shared lane markings
- Bike corrals along roadway corridors & clustered at key destinations

Benefits:

- Facilities cater to a variety of bicycle users & abilities
- Improved connectivity between designated facilities & to primary north-south bikeway
- More & enhanced facilities & provision of bike racks encourage bicycling – reduces negative impacts of auto trips
Role of the Streetcar

- **A District Circulator** – Providing easy, convenient service for residents, shoppers, tourists and workers
- **A Pedestrian Accelerator** – Offering people quicker access to all parts of the Strip
- **A Development Generator** - Helping accelerate and realize development potential
- **A Parking Optimizer** – Allowing access to future satellite parking to support the Strip’s future

Goal of the Streetcar

- Make the Strip’s pedestrians the first class passengers
- Link destinations for visitors and locals within Strip and with downtown
- Serve as short-trip urban circulator
- Make it fun and frequent
- Support retail and active Strip uses
- Create great people places
Why a Streetcar on Smallman?

Geometrically Suitable
- Manageable traffic issues
- No major street width, curve or intersection issues
- No railroad operation interference

Geographically centered
- Maximize accessibility, minimum 5-minute walk
- Best located to accommodate growth

Ready for Streetcar - today and tomorrow
Smallman St Transformation

1. Existing Street Conditions, at 26th St, looking at Downtown
2. Renovation and improvement to existing buildings
3. New streetscape, parking, and trees bring dining and life to the street
4. New tall buildings on vacant lots complete urban fabric
5. Buses at supports and station improvements to the Strip District
What are Streetcar Features?

- Connecting the Strip, Convention Center, Cultural District and the Wood Street T Stop
- Runs in the street with automobiles and saves on-street parking
- Accesses existing and future parking facilities
- Has potential for future extension to Lawrenceville
How Are Streetcars Installed?

- There is a shallow, reinforced track slab
  - 8’ wide
  - 12” deep
  - Designed to avoid utilities
- Quick installation: 3-4 week per 700’ length
How does the Streetcar Operate?

- Approximately 4 miles round trip
- 10-12 stops each way
- Stops every 2-3 blocks on average
- 4-6 trips per hour every 10-15 minutes
- Approximately 30-35 minutes round trip
- 10-15 minutes from Downtown to most of the Strip (suitable for “lunch hour” excursions)
- Carries up to 110 passengers per vehicle
- Potential market 1,000-3,500 riders per day
### Who Rides the Streetcar?

<table>
<thead>
<tr>
<th>Trip Market</th>
<th>Potential For Trips</th>
<th>Potential to Reduce Auto trips</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Strip District Trip-makers:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Transit Users</td>
<td>Low</td>
<td>None</td>
</tr>
<tr>
<td>Downtown “Fringe” Parkers</td>
<td>High</td>
<td>Some</td>
</tr>
<tr>
<td>Strip District employees and business owners</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Downtown Workers at Lunchtime</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Visitors/Conventioneers</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Future Strip District Trip-makers:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Strip District residents</td>
<td>High</td>
<td>Low, although no NEW trips added.</td>
</tr>
<tr>
<td>New Strip District workers</td>
<td>High</td>
<td>Low, although no NEW trips added</td>
</tr>
</tbody>
</table>
Land Use & Transit Related

Land Use Support of Transit
- Higher densities and intensities generate ridership
- Mixed uses promote walkability
- Decide what are working today
- The streetcar is known to induce new development opportunities
- Increased growth can contribute to funding the streetcar

Form can reinforce the Strip’s heritage
- Support the food and market with similar uses
- Create urban buildings with fronting blocks and realistic parking strategies
- Keep buildings in - 4 to 8 stories with brick and warehouse and loft architecture.
- Connect pedestrian through blocks to help unite people with the river
- Provide open spaces, gardens and parks within the Strip as it grows
Green Way

Features:
• Allegheny Riverfront Trail proposed to be connected/completed between 25th St & 36th St
• New sections may be a natural surface, at least initially
• “Green” east-west street connections provide numerous opportunities for access to trail across the district
• Trail to be well lit

Benefits:
• Direct connection to Pittsburgh’s extensive riverfront trail network & downtown
• No conflicts with auto traffic
• Recreation opportunity
• Significant community amenity
• Restores the riverfront as an asset for the Strip District
• Lighting improves safety during dark conditions
WHERE IS IT HEADED? NEXT STEPS
## Program of Projects

<table>
<thead>
<tr>
<th>Category</th>
<th>Short-term (&lt;3 years)</th>
<th>Mid-term (3-7 years)</th>
<th>Long-term (&gt;7 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through Way</td>
<td>• Liberty Avenue reconfiguration</td>
<td>• Enhanced bus stops on Liberty Avenue</td>
<td></td>
</tr>
<tr>
<td>Pedestrian Way</td>
<td>• Penn Avenue (16th Street to 23rd Street) pedestrian improvements</td>
<td>• Penn Avenue (23rd to 31st Street) pedestrian improvements</td>
<td></td>
</tr>
<tr>
<td>Transit Way</td>
<td>• Streetcar planning</td>
<td>• Streetcar design</td>
<td>• Streetcar operations</td>
</tr>
<tr>
<td>Cycle Way</td>
<td>• Bike corrals</td>
<td>• 21st Street bike boulevard/contraflow cycletrack</td>
<td>• Penn Avenue bike lane/shared lane markings</td>
</tr>
<tr>
<td></td>
<td>• Liberty Avenue bike lanes/improved bike lanes (north of 32nd Street)</td>
<td>• Railroad Street trail (Phase 1)</td>
<td>• Railroad Street trail (Phase 2)</td>
</tr>
<tr>
<td></td>
<td>• 32nd Street bike boulevard/contraflow bike lane</td>
<td></td>
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</tr>
<tr>
<td>Green Way</td>
<td></td>
<td></td>
<td>• Riverfront trail completion</td>
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<tr>
<td>Other Improvements</td>
<td>• Signal system improvements</td>
<td></td>
<td>• Incline to Hill District</td>
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<tr>
<td></td>
<td>• Enhanced pedestrian crossings</td>
<td></td>
<td>• 21st Street transit center</td>
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<tr>
<td></td>
<td>• Back-in angled parking</td>
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<td></td>
<td>• Smart phone parking applications</td>
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What Are Funding Options?

Federal Funding Options
- FTA
- EPA
- HUD

State Funding Options
- Toll revenues from PA Turnpike
- General fund operating subsidies
- Various tax and fee options (gas tax, hotel tax, rental car tax, vehicle registration fees)

Local Funding Options
- Joint development agreements
- Public-private partnerships
- Advertisement and sponsorships programs
- Density bonuses
- Developer agreements
- Parking revenues
- Local tax options
- Benefit Districts
  - Transit Revitalization Investment District (TRID)
  - Special Assessment District
TELLING THE STORY
Visualizing the Future (VIDEO)
Project Website and Video:

HTTP://PITTSBURGHPA.GOV/DCP/SDTLUP
THANK YOU!!
QUESTIONS?