OVERVIEW

• Differences from conventional transit planning
• Unique opportunities and challenges
• Lessons from large event venues in San Francisco
  – Giants / AT&T Park
  – 34th America’s Cup
  – Warriors Planning
DIFFERENCES

• Not usual rush-hour characteristics
• Trip-makers less familiar with transit, city
• More families & large groups
• Difference in arrival and departure patterns
• More pre-disposed to have fun
• More sensitivity in nighttime trip home
UNIQUE OPPORTUNITIES AND CHALLENGES

• Traffic management intensified at venue site
• Greater sensitivity for venues in residential areas
• Greater need for humans to manage safety, flows
• Incentivizing transit use to varied, irregular group
• Marketing more easily coordinated, managed
• Economic development implications
LESSONS LEARNED

• Giants / AT&T Park
• 34th America’s Cup
• Warriors Planning
LESSONS LEARNED: Giants / AT &T Park

• Giants sustain among highest transit mode-split of any ballpark in US
• Scheduling minimizes rush-hour conflicts
• Robust use of PCOs, SFPD, Muni staff
• Appreciable, marketable positive economic impact
• Transit use is nearly equally distributed:
  - Muni
  - BART
  - Ferry
  - Caltrain
LESSONS LEARNED: Giants / AT &T Park

• Concerns about “Quality of Life” impacts
• Demands on fleet use citywide on Game night
• Crowding and comfort on trains, buses
LESSONS LEARNED: 34th America’s Cup

- Temporary event, but with sustained implementation
- Unknown appeal in SF, America
- Extensive community anxiety
- Extensive press = high-bar aspirations
LESSONS LEARNED: 34th America’s Cup

- Extensive local/regional planning staved off gridlock
- Marketing key to success
- Regular, sustained SET staffing
- Pilot for legacy opportunities
- Value in Piloting new ideas
  - E line  - Wayfinding  - Special Events Team  - Clipper Card
LESSONS LEARNED: Warriors Planning

• Waterfront Transportation Assessment Strategy: how to manage major new venue on already high-demand corridor?
  – Inventory of planned projects already underway
  – Applying lessons from Giants, AC34
  – Review with local community to identify additional gaps, solutions
• “Transit First” is critical
LESSONS LEARNED: Warriors Planning

Five Main Challenges to “Transit First” Large Events

- Travel Time
- Cost
- Reliability
- Marketing
- Crowding
Transit First Event Access Priorities:

**TRAVEL TIME**

Advantages

- Rapid Corridors serve site (Metro, BART, Caltrain, Ferry)
- Extended local in pipeline (BRT, Central Subway)
- Extended regional in pipeline (BART, WETA, SMART, ferry)
- TEP speeds/makes more frequent key bus lines (5, 14, etc.)
- Bikeshare speeds up last ½ mile
- Increased transfer, fare connectivity = reduces transfer time
Transit First Event Access Priorities:

**TRAVEL TIME**

Challenges

- Limited ROW widths make future rapid corridors difficult
- Costs of extending rapid corridors
- Weeknight nature of events tough on kids, workers
- Coordination between new corridors and new development
- Limits on last ½ mile bike (valet, secure parking, bikeshare)
Transit First Event Access Priorities:

**TRAVEL TIME**

Possible Solutions

- Special Events Team extends BART, Caltrain, ferry event service
- Advance TEP on key lines
- On-site fare mechanisms to reduce dwells
- Pilot limiteds, rapids
- Water taxi/water transit landings on site
Transit First Event Access Priorities:

**COST**

Advantages

- Transit already relatively inexpensive
- Clipper evolving to better facilitate savings, easier to confirm
- Bay Area events tradition for validations, discounts
- Phoenix Suns experience incentivizing transit use
Transit First Event Access Priorities:  

**COST**

Challenges

- Regional transit expensive for groups, families
- Many youth & senior discounts require advance purchase
- Cheap nearby parking in some locations
- Clipper not easy mechanism to integrate, adjust
- Lack of mechanism to link discounts to tickets
- Clipper not used by all riders
- Clipper card itself not cheap
Transit First Event Access Priorities:

COST

Possible Solutions

• Broker Clipper account contributions for ticketholders
• Link transit use to discounts on goods
• Manage area parking consistently
• Offer transit rebates
• Use of shuttles from hubs
• Pre-verify youths and seniors ticketholders
Transit First Event Access Priorities:

**RELIABILITY**

**Advantages**

- Many Exclusive Right of Ways serve area
- SET experience; AC34, Giants, concerts
- Real Time info and apps network
- BART reliability record
Transit First Event Access Priorities: RELIABILITY

Challenges

• Muni operating context: still needs more exclusive ROW
• Muni State of Good Repair and labor availability
• PCO costs
• Transit service impacted by traffic, crowds
• Space to store Muni event trains out of way
• Events impacts on base level of service
• Multiple-events SET burnout
Transit First Event Access Priorities: **RELIABILITY**

Possible Solutions

- SET and use of pilots
- Muni MMX pocket tracks to avoid service obstruction
- Expand apps, real-time info at key decision points
- Expand exclusive ROWs for transit (e.g., per TEP)
Transit First Event Access Priorities:

MARKETING

Advantages

- Bay Areans are willing transit users
- Many transit corridors more appealing than driving, parking
- Giants, AC34 success
- Fans can drink
- “Green” thing to do
- Local/Regional coordination improving
- Trains, ferries and streetcars fun to ride
Transit First Event Access Priorities: MARKETING

Challenges

• Outreach tough for first-time Event goers
• Transit is uncertain experience for many
• Risk of bad “first impression” of fellow riders, drivers
• Transit seems inflexible to drivers
• Differing, uncoordinated transit networks and fares
Transit First Event Access Priorities: MARKETING

Possible Solutions

- Promote transit as attractive, less stressful alternative
- Market green, economic advantages of transit
- Specially-brand Clipper
- Use real time more expansively
- Market special discounts and perks for transit users
- “Ambassador” training for drivers, PCOs
- Build relationship with season ticketholders
Transit First Event Access Priorities: CROWDING

Advantages

• Reverse Commute Capacity
• Multiple Regional Hubs
• Major Investments already underway
• Muni Metro has train/station reserve capacity
• BART Station Capacity Study advancing
Transit First Event Access Priorities: CROWDING

Challenges

- Muni already crowded, need more vehicles, drivers
- Need regional partners coordination and concurrence
- Funding and implementation strategy
- Embarcadero BART Station concerns
Transit First Event Access Priorities: CROWDING

Possible Solutions

• Rollout pipeline projects
  • Advance key TEP strategies
  • Pilot special corridor enhancements
• “Special Event Team” strategies on Muni, at BART stations
• Increase event service frequency, length of trains
• Mitigate impact: encourage patronizing local business
• Preserve integrity of Embarcadero to encourage ½ mile walk
Capacity Planning: Embarcadero & Montgomery Stations
5 Counties
Job Growth
• ~ 1,000,000
• > 38% of growth near BART

Household Growth
• ~ 625,000
• San Francisco 100,000
• Alameda 160,000
• Contra Costa 90,000
• San Mateo 60,000
• Santa Clara 215,000
• > 34% of growth near BART
2025 AM Peak Hour Line Demand

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<th>Location</th>
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<th>2025</th>
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<tr>
<td>West Oakland to Embarcadero</td>
<td>19,200</td>
<td>25,400</td>
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<tr>
<td>Embarcadero to West Oakland</td>
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<tr>
<td>Civic Center to 16th Street Mission</td>
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<tr>
<td>16th Street Mission to Civic Center</td>
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BART Ridership

- Average weekday ridership over 400,000 per day on a regular basis now.
- Special events are everyday for BART.
  - In June 2014, only June 30 does not have a baseball game, a convention, or both.
- BART has had a preview of the higher ridership future
  - Giants Victory Parades – 568,000 (2012) and 522,000 (2010)
  - Bay Bridge Closures – 450,000 to 475,000
Two Concerns: AM Escalator Queues & PM Platform Crowding

• Recent BART capacity analysis (2014) had the following conclusions:
  • **Embarcadero**
    • PM Peak – close to reaching platform capacity now
    • AM Peak – close to capacity on vertical circulation now
  • **Montgomery**
    • Without interim measures, will be close to capacity by 2025
Potential Interim Measures to Address Station Capacity

Simple (relatively)
- Removal of under-utilized station furniture: pay phones
- In station crowd management: Giants parade day
- Increased up-escalator speeds
- Additional high-capacity elevators

Less simple
- Metering measures: real time platform headcount system
- Peak pricing

More complicated/more expensive
- Skip stop service: Montgomery has more capacity than Embarcadero
- Platform Screen Doors: Gain 1,400 sq. ft. of usable net space per platform (EM current is 7,500, MT current is 12,000)
Objective: To flatten out peak demand without negatively impacting overall ridership levels

**Demand Management**

- Peak of the peak period, peak direction fare surcharges
- Embarcadero & Montgomery Station peak premium fares

**Station Access (reduce the AM rush to find parking)**

- Expanding the market-based reserved parking program
- Transit Oriented Development, increasing walk-access
- Bicycle facilities improvements and operating rule changes
- Making feeder bus work: operating speed improvements & joint fares
BART and the Region will need to look at the trade-offs between two more expensive options:

- Side platforms at Embarcadero & Montgomery
  - 500,000 to 750,000 riders

- Second Transbay Tube
  - Over 750,000 riders
Questions?