VENDORS

CARDINAL TRACKING INC.

SKIDATA 4.0
DRIVING YOUR DIGITAL FUTURE

Associated Time Instruments

AIMS PARKING MANAGEMENT SOFTWARE
by EDC Corporation

FlashParking

FLOWBIRD Urban Intelligence

North Central Texas Council of Governments
Encourage livable communities
Support efficient use of limited transportation resources
Preserve natural environment and improve air quality
Improve transportation options
North Texas – Estimate home to 11.2 million by 2045

12-County Region Population Growth

Source: NCTCOG 2019 Annual Population Estimates
Why manage parking?

**Subsidizes** driving, reducing the economic incentive to use other modes or carpool

**Increases** the cost of development

**Expands** geometry to unwalkable scale

**Exacerbates** flash flooding due to fast runoff of paved areas

Image source: Graphing Parking - https://graphingparking.com/
NCTCOG Parking Management Program

Change will be incremental. 80.7% drove to work alone (2017 Census estimate)

Data: Parking use and cases of implementing various strategies

Regional data collection and best practice sharing
TOD Parking Study Goals

Data to inform and guide policy such as **TOD-appropriate parking ratios** and development practices.

**Best practices and recommendations for parking management** in transit station areas.

**Strategies via parking management** to increase **ridership** and **dense development**.
Background

2016 FTA Pilot Program Grant for TOD Planning

Partnership: NCTCOG, DART, Dallas, Richardson, Plano, Garland

FTA Capital Investment Grant (CIG) - DART Red and Blue Line Platform Extensions

Consultants: Nelson Nygaard
Methodology

16 sites, at 11 stations, in 4 cities

Data collection period - July, August, and October 2018

For each site:

1. Initial inventory counts and site details
2. Automated utilization counts for 72 hours, Thursday 12:00 AM to Saturday 11:59 PM
3. Property manager questionnaire on site policies, building occupancy, and other details

City zoning code requirement research
## Methodology

<table>
<thead>
<tr>
<th>Office-Dominant</th>
<th>Office-Mixed</th>
<th>Residential-Dominant</th>
<th>Residential-Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sites built in the 1980’s – pre-dating DART – automobile oriented but with sidewalks connecting to station</td>
<td>Office and retail all within walking distance promote a “park once” environment</td>
<td>Parking is predominantly exclusive for residents and their guests</td>
<td>Parking facilities are shared with other uses, some residential spaces are exclusive/separate</td>
</tr>
</tbody>
</table>
Land Use and Management

Sites per land use category
- Office-Dominant: 2
- Office-Mixed: 1
- Residential-Dominant: 8
- Residential-Mixed: 5

Free parking at all sites

12 sites gated, 4 only signage reserved parking
Most have unrestricted visitor parking
Supply

Minimum required vs. spaces built
- 3 sites provided *less than code required*
- 3 sites provided *close to required amount* (less than 5% over minimum)
- 10 sites provided *over the minimum requirement* (10 to 69% over minimum)

Sites vary in age, some city codes have changed over time

No maximum limit in how much parking may be built in parking structures
Parking Occupancy

More than 15% of spaces available at peak times.

13 of 16 sites never peaked above 80% utilization.

Highest peak occupancy was 93%.
  • Modena apartments, Walnut Hill Station

Lowest peak occupancy was 38%.
  (ignores weekend office-dominant occupancy)
  • 5th Street Crossing City Station, Downtown Garland
Building Occupancy

Building Occupancy Ranges

• Residential Building Occupancy: 85% to 100%
• Office and Retail Building: 78% to 99%
• Retail (in mixed-use): 0% to 100%

Average Percent Building Use is Higher than Parking Use

• 24% - Office-dominant and office-mixed properties
• 13% - Residential-only properties
• 32% - Mixed-use with 12 AM – 5 AM Peaks
• 39% - Mixed-use with 9 AM – 7 PM Peaks
## Initial Findings – Aggregate Ratios

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Number of Sites</th>
<th>Average Weekday Peak Parking Use</th>
<th>Range of Facility Peak Parking Times</th>
<th>Observed Peak Parking Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office-Dominant</td>
<td>2</td>
<td>59%</td>
<td>Weekdays, 10:15 to 11:00 AM</td>
<td>1.93 per 1K SF</td>
</tr>
<tr>
<td>Office-Mixed</td>
<td>1</td>
<td>56%</td>
<td>Weekdays, 1:00 PM</td>
<td>3.13 per 1K SF</td>
</tr>
<tr>
<td>Residential-Dominant</td>
<td>8</td>
<td>70%</td>
<td>All Days, 2:30 – 5:45 AM</td>
<td>1.03 per Dwelling Unit</td>
</tr>
<tr>
<td>Residential-Mixed</td>
<td>5</td>
<td>61%</td>
<td>Weekdays, 9:40 AM – 7:00 PM</td>
<td>1.25 per Dwelling Unit</td>
</tr>
</tbody>
</table>
What’s Next?

Publish final report online: www.NCTCOG.org/TOD

Integrate into larger FTA planning pilot TOD recommendations
NCTCOG Parking Management Program

Regional data collection and best practice sharing

Future studies of parking

Online database of local parking studies

www.NCTCOG.org/parking
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