CLARK COUNTY
PEDESTRIAN STUDY
Las Vegas Boulevard
Russell Road to Sahara Avenue
2015 UPDATE
Agenda

- Introduction
- Pedestrian LOS Overview
- 2012-2015 Resort Corridor Improvements
- 2015 Study Update
- Non-Permanent Obstructions
- Conclusions, Recommendations and Best Practices
Introduction

- Purpose: reevaluate walkway segments and time periods of pedestrian congestion on The Strip

- Pedestrian mobility is key to maintaining economic vitality and the visitor experience
Pedestrian LOS Overview

- Pedestrian LOS established by Highway Capacity Manual (HCM)

- Ordinance for Obstructive Uses of Public Sidewalks is based upon maintaining LOS of “C” or higher
17 Segments with Poor LOS in 2012
Resort Corridor Improvements 2012-2015

- County has completed projects to improve and enhance the walkway conditions which include 17 identified walkway segments with poor LOS per 2012 study. This has reduced the LOS<C frontage from 17% to 12%

- Improvements include:
  - removing permanent obstructions within walkways, such as fire hydrants, trash cans, sign posts, etc
  - improving capacity by widening sidewalks
  - pedestrian safety enhancements, such as containment fencing, LED lighting, ADA ramps, etc

- $5 million for design and construction
Completed Improvements

2012

2015

New York-New York Walkway
Completed Improvements

2012

Monte Carlo Bus Stop – Walkway Widening

2015
Completed Improvements

2012

Paris/Sugar Factory - Walkway

2015
Completed Improvements

2012

Harley Davidson Cafe Walkway Widening

2015
Completed Improvements

2012

Margaretaville - Removing Obstructions

2015
Completed Improvements

2012

Caesars Palace North - Widening Walkways

2015
Completed Improvements

2012

Casino Royale/Venetian – Removing Obstacles

2015
Completed Improvements

2012

Mirage/Treasure Island Bus Stop - Walkway Widening

2015
2015 Study Update

- Purpose: Evaluate walkways for LOS < C
- Data Collection
  - Time periods:
    - May 23, 2015 (Memorial Day Weekend)
    - June 20, 2015 (typical Summer weekend)
  - 2.65 Million pedestrians counted
    - 21 count locations
    - 840 hours video data collection
    - 288 hours in-field observation
- Identify types and locations of obstructions
- Summary of Restudy
Walkway Segments Exceeding LOS C
Tropicana to Flamingo

Legend
- Red: New Segment, LOS=C in 2015
- Orange: LOS < C
- Blue: Segment Reference Number
- Green: Segment No Longer Less than LOS C in 2015
Walkway Segments Exceeding LOS C

Flamingo to Spring Mountain

Legend
- Red: New Segment, LOS=C in 2015
- Orange: LOS < C
- R#: Segment Reference Number
- Green: Segment No Longer Less than LOS C in 2015
Non-Permanent Obstruction

The term “non-permanent obstruction”, is defined as an individual who could obstruct the pedestrian walkway while engaging in any of the following activities within the walkway:

- Hand billing
- Performing
- Soliciting
- Selling
Non-Permanent Obstruction

- Non-permanent obstructions observed:

<table>
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<tr>
<th>Time Period</th>
<th>West Side 2012</th>
<th>West Side 2015</th>
<th>East Side 2012</th>
<th>East Side 2015</th>
<th>Total 2012</th>
<th>Total 2015</th>
<th>% Change</th>
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<tr>
<td>1 PM - 4 PM</td>
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<td>5 PM - 8 PM</td>
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<td>126</td>
<td>156</td>
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Non-Permanent Obstructions Continued

Performers
Non-Permanent Obstructions Continued

Vendor
Non-Permanent Obstructions Continued

Handbiller
Non-Permanent Obstructions Continued

Handbiller/Sign-holder
Non-Permanent Obstructions Continued

Performers
Non-Permanent Obstructions Continued

Vendor
Non-Permanent Obstructions Continued

Illegal Street Gambling
Walkway Segments Exceeding LOS C with One NPO Present Tropicana to Flamingo
Walkway Segments Exceeding LOS C with One NPO Present Flamingo to Spring Mountain

Legend
- \( \text{LOS} < C \)
- Segment where \( \text{LOS} < C \) when 1 NPO is present
- \( R# \)
- Segment Reference Number
- \( R# \)
- Segment No Longer Less than LOS C in 2015
Walkway Segments Exceeding LOS C with Two NPO’s Present Tropicana to Flamingo
Walkway Segments Exceeding LOS C with Two NPO’s Present Flamingo to Spring Mountain

Legend

- Orange: LOS < C
- Red: LOS < C when 2 NPOs are present
- Blue: Segment No Longer Less than LOS C in 2015
- Green: Segment Reference Number

2015 – 2 NPO’s Present

2015 – NPO Absent
Non-Permanent Obstruction

- LOS impact of:
  - 1 NPO on the side of the walkway
  - 2 NPO's on opposite sides of the walkway
Conclusions, Recommendations and Best Practices

- Conclusions
- Recommended Infrastructure Improvements
- Updates to No-Obstructive Use Zones
- Suggested Resort Corridor Best Practices
General Conclusions

- Restudy continues to support the no-obstruction zone recommendations of the 1994 Lee Engineering Pedestrian Study and 2012 study by KHA as incorporated into Clark County Code Chapter 16.11

- Continue to require pedestrian walks to be designed for a minimum effective walkway width of 15’ or a pedestrian walkway LOS of C or better
General Conclusions Continued

- Developers of Resort Corridor construction projects should incorporate the removal, replacement, and/or installation of no-obstructive use zone signs and markings as appropriate.

- Pedestrian bridges should be maintained free of any obstructions, as well as escalator and elevator approach, and departure landing zones. It is appropriate at times to designate pedestrian bridges as no-obstruction zones.

- Bus stops should be reserved for bus patrons by restricting non-permanent obstructions.
General Conclusions Continued

- Pedestrian crossings should be constructed to:
  - Accommodate existing and future pedestrian volumes at grade with additional pedestrian bridges
  - Be perpendicular at street crossings
  - At-grade crosswalks should be at least 25’ wide with consideration for center median refuge islands
Recommended Infrastructure Improvements

- **Short-Term:**
  - Enforce the no-obstructive use ordinance within the Resort Corridor
  - Update the Transportation Element of the Clark County Master Plan to provide additional pedestrian bridge systems within the Resort Corridor

- **Intermediate/Long-Term:**
  - Development to relocate and/or construct utility infrastructure facilities outside of adjacent pedestrian walkways
  - Construct pedestrian bridge systems to eliminate at-grade pedestrian crossings at locations with high demand
Recommended Infrastructure Improvements Continued

Venetian

Paris

MGM/Showcase

North of Circus Circus
Recommended Updates to No-Obstructive Use Zones

- No-obstruction zone criteria should be applied to:
  - Construction zones affecting pedestrian walkways
  - Bus stops
  - Elevators, escalators and stairs
Recommended Updates to No-Obstructive Use Zones
Continued

Bus Stops

- **35'**
- **15'**
- **Bus Stop Route Sign**

- 180' (Typical Single Bus Stop)
- 220' (Typical Double Bus Stop)
- **15'**
- **Shelter**
Recommended Updates to No-Obstructive Use Zones Continued

Elevator

Escalator and Stairs
Resort Corridor Best Practices

- Sidewalks should be kept clear of obstructions

- Signs should be visibly placed out of pedestrian walkways in landscaping areas

- Pedestrian ramps should face toward the direction of travel

- Abandoned driveways should be replaced with curb, gutter, and sidewalk along with the removal of the associated driveway from the no-obstructive use zone
Resort Corridor Best Practices Continued

- Construction work zones should be planned so as to not negatively impact pedestrian flow on adjacent sidewalk.

- Mature tree canopies for walkway shading should be encouraged while maintaining LOS C or better.

- Walkways should have paving distinctions between private property and the public walkway.
Complete Report:

Clark County Pedestrian Study: Las Vegas Boulevard – Russell Road to Sahara Avenue, 2015 Update

Available at:

http://www.clarkcountynv.gov/Depts/public_works/Pages/LasVegasBlvd.aspx