

Presentation to DVAC Parking Feasibility Study Sub- Committee

December 18, 2012

Parking Planning Process

Parking Planning 101

The process of identifying, quantifying and planning for a community's parking requirements in the most efficient and cost effective manner

Parking Planning Study Objectives

- **Understand current and future parking needs and utilization**
- **Define current demand characteristics unique to Community**
- **Identify factors influencing current & future parking trends**
- **Quantify need for additional parking**
- **Understand how parking can serve as an economic development tool**
- **Be sensitive to community and neighbor concerns**

Parking Planning Study Phases

Phase 1 – Parking Demand vs. Supply Analysis

Phase 2 – Alternative Assessment

- Three sites established by Town Commission

- 1. Define Study Area (area influenced by demand & supply)**
 - 2. Determine evaluation period**
 - 3. Determine information sources**
 - a. *Field data***
 - b. *Past Studies***
 - c. *Routinely collected data***
 - d. *Master Plans***
 - 4. Collect any field data needed**
 - 5. Parking supply inventory**
 - 6. Land use inventory**
 - 7. Utilization data**
 - 8. Analysis of approved or pending projects**
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9. Analyze Collected Information

a. *Existing Conditions*

b. *Projected Period(s)*

10. Develop Parking Demand Model

11. Compare Parking Demand against Parking Supply

a. *Total Study Area*

b. *By Block*

c. *By Zone*

12. Evaluate Alternatives

- a.** *Magnitude, Frequency, Duration*
- b.** *If parking shortfall (Surface vs. Structure)*
- c.** *Amount of additional parking demand could support*

13. Economic Assessment

- a.** *Construction / Development Costs*
- b.** *Operating Costs*
- c.** *Effect on Parking Rates*
- d.** *Public / Private Partnerships*

Parking Planning Study Methodology

Parking Supply Qualified / Quantified

- ***Publicly Available***
 - ***Type (On-Street/Off-Street)***
 - ***Rates by Location***
- ***Privately Provided***
 - ***Commercial***
 - ***Residential***
 - ***Controlled / Uncontrolled***

Land-Use Classifications Assessed

(Typically follow municipal zoning classifications)

- ***Retail / Commercial***
- ***Food Service / Restaurant***
- ***General Office***
- ***Financial***
- ***Hotel / Motel***
- ***Residential***
- ***Professional Office***
- ***Medical / Dental Office***
- ***Religious***
- ***Community Oriented***
- **Square Footage / living units**

Parking Planning Study Methodology

Parking Generation Characteristics

- **Long-Term**

 - Business owners / staff*

 - Method of Arrival (drive and park rate)*

 - Where parked (public / private)*

 - Full-time vs. Part-time*

- **Short-term**

 - Customers / visitors to businesses in Surfside and nearby*

 - Other visitors*

 - Method of arrival (drive and park rate)*

 - Length of stay*

 - Locations parked*

Parking Planning Study Methodology

- **Surveys**
 - *Customers / Visitors*
 - *Staff*
 - *Business Owners / Managers*
- **Utilization Studies**
 - *Observed Parking occupancy by time of day*
 - *At a minimum several points throughout the day*
 - *On-street parking noted for turnover*
 - *Public and Private spaces*

Phase 1 – Study of Current Parking Demand

Participative Process

- Stakeholder meetings / interviews
- Surveys (paper/pencil & on-line)
 - *business owners*
 - *employees*
 - *customers / visitors*
 - *community*



Mandan Parking User Survey

1. Default Section

1. I am a (check all that apply):

<input type="checkbox"/> City of Mandan Resident (urban)	<input type="checkbox"/> Employee of the downtown
<input type="checkbox"/> City of Mandan Resident (rural)	<input type="checkbox"/> Out-of-Town Visitor
<input type="checkbox"/> Business Owner	<input type="checkbox"/> Other

2. If you checked "resident" do you reside in the downtown?

Yes
 No

3. My visits to the downtown occur mainly during (Please rank the following 1 - 4, with 1 being most often)

Monday - Thursday daytime (9am - 5pm)	One	Two	Three	Four
Monday - Thursday evening (after 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friday - Sunday daytime (9am - 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friday - Sunday evenings (after 5pm)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. What is the primary reason for most of your visits to downtown? (please rank the following 1 thru 4, with 1 being most often)

Dining	One	Two	Three	Four
Shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical appointment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to public transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation or exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How long do you generally stay in the downtown?

Less than 1 hour 1-2 hours 2-3 hours 4 or more hours



Phase 1 – Study of Current Parking Demand

Determine appropriate parking generation rates using unique characteristics to community, codes and national standards

Determine parking needs by user groups

Develop current parking demand model

Analyze shared-use

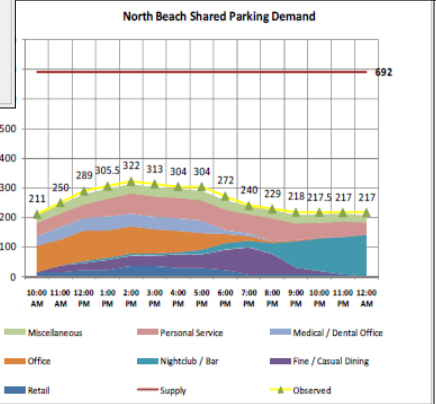
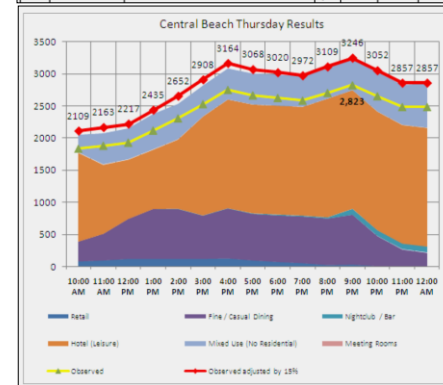
Project future parking needs based on changes in land-use, new developments, re-occupancy, etc.

Determine how much parking is needed and timing

Factor in seasonal impacts

Table C-1
Barrier Island, Ft. Lauderdale, Florida
Occupancy Saturday, January 22, 2011 - (Central Beach)

Block	Lot Designation	Description	PUB or PVT	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 6:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
47	HI	Sans Souci Hotel	pvt	2	1	50%	0	0%	1	50%	1	50%	1	50%	1	50%	1	50%
47	HK	Sans Souci Hotel	pvt	6	3	50%	2	33%	3	50%	2	33%	2	33%	2	33%	2	33%
47	HL	Tropi Rock	pvt	8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
47	HM	Tropi Rock	pvt	14	6	43%	5	36%	2	14%	3	21%	8	57%	9	64%	9	64%
48	HO	The Robindale	pvt	15	2	13%	3	20%	5	33%	1	7%	3	20%	3	20%	3	20%
48	HP	Princess Ann	pvt	14	4	29%	2	14%	5	36%	3	21%	7	50%	7	50%	7	50%
48	HR	Three Palms Resort	pvt	9	1	11%	1	11%	2	22%	1	11%	1	11%	2	22%	2	22%
49	49C	On-street	pub	8	1	13%	1	13%	3	38%	1	13%	0	0%	0	0%	0	0%
50	HU	Covenant House lot	pvt	20	12	60%	8	40%	8	40%	9	45%	5	25%	5	25%	6	30%
51	HV	Covenant House spaces in front along Vistamar	pvt	24	6	25%	6	25%	5	21%	7	29%	3	13%	3	13%	3	13%
51	HXHW	Covenant House lots off of Birch	pvt	35	6	17%	6	17%	9	26%	13	37%	8	23%	8	23%	7	20%
52	IA	Vistamar Villa	pvt	27	4	15%	2	7%	3	11%	1	4%	4	15%	6	22%	5	19%
52	IB	Cocabelle Resort	pvt	10	7	70%	3	30%	5	50%	8	80%	6	60%	6	60%	9	90%



Phase 2 – Recommendations

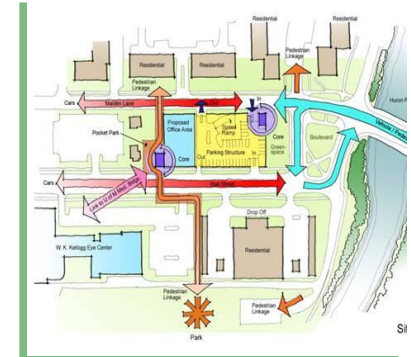
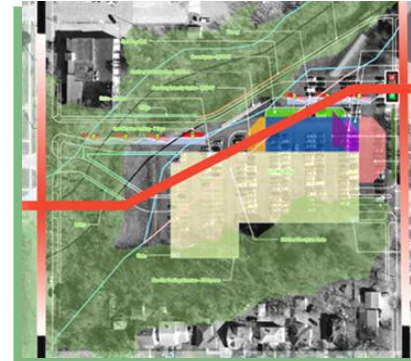
New Parking Analysis

Programming

- Define user groups
- Identify mixed-use opportunities
- Identify community amenities
- Locate pedestrian connections
- Define vehicular circulation and traffic
- Operating plans (attended or non-attended)
- Establish budget

Site Analysis

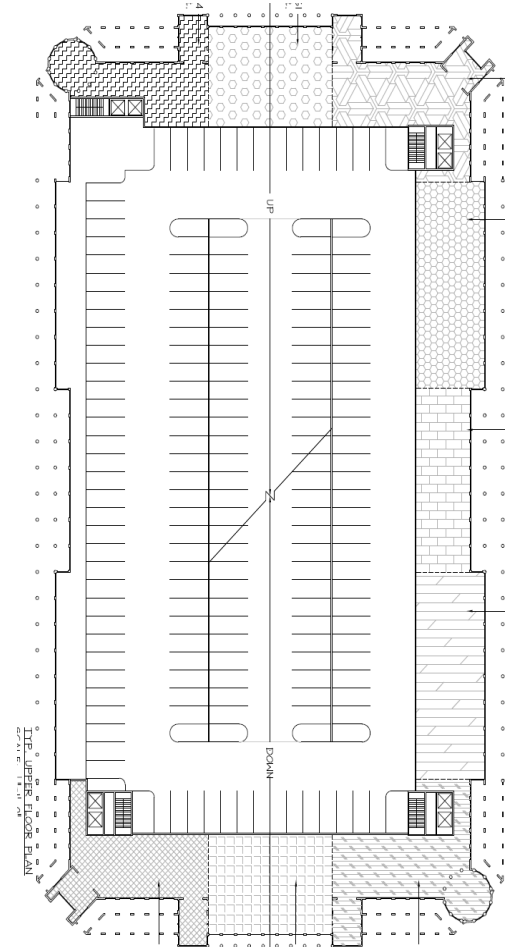
- Review existing conditions
- Site limitations
- Traffic circulation
- Adjacencies and pedestrian flows
- Scale and massing of adjacent buildings
- Service to adjacent businesses



Parking Study Objectives

Design

- Determine if available sites for structured parking are suitable to meet future needs and are consistent with the master plan
- Build consensus within the community on overall parking issues and for proposed new parking
- Can the available sites attract redevelopment / private investment
- Project the capital and operational costs of new parking
- Develop business / implementation plan for new parking and for improvements to the overall parking system
- Effect on parking rates



Recommendations

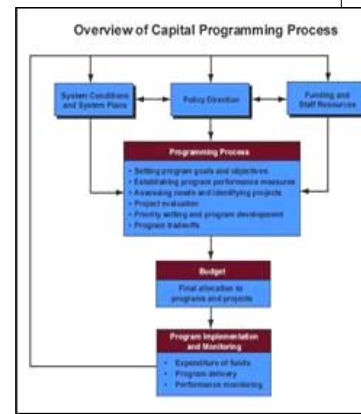
Example – Project Cost Calculation

CULTURAL CENTER PARKING PROJECT AND FINANCE COSTS 800 SPACES ABOVE GRADE NO EQUITY			
1	Construction Cost	800 x \$18,000	\$14,400,000
2	Professional Fees (Architectural/Engineering & Reimbursed)		\$792,000
3	Insurance		\$60,000
4	Legal and Accounting		\$30,000
5	Geotech and Survey		\$60,000
6	Plaza/Landscaping		\$486,000
7	Contingency		\$1,489,000
8	Equity		\$0
9 Project Cost to be Financed			\$17,317,000
10	Financing Term		20 Years
11	Interest Rate		4.75 %
12	Term of Construction		12 Months
<i>Financing Costs</i>			
13	Interest During Construction		\$975,000
14	Interest Income	40% @ 1%	(\$103,000)
15	Legal & Accounting Fees	@ 1.00%	\$205,000
16	Debt Service Reserve		\$1,612,000
17	Financing Fees (Points)	@ 2.00%	\$410,000
18	Cost of Issuance	@ 0.50%	\$103,000
19	Total Financing Costs		\$3,202,000
20	+ Project Cost to Be Financed		\$17,317,000
21	Total Amount of Bonds		\$20,519,000
22	Debt Service		\$1,612,000

Phase 2 – Recommendations

Business Plan – Implementation Plan

- Parking management program
- Parking access and management control systems recommendations
- Construction and operating costs analysis
- Pricing schedule and revenue model
- Funding strategies
- Public / Private Partnership Potential
- Pro forma analysis
- Bidding / construction strategies



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**CULTURAL CENTER PARKING
PROJECT AND FINANCE COSTS
800 SPACES ABOVE GRADE NO EQUITY**

Construction Cost	800 @ \$18,000	\$14,400,000
Professional Fees (Architectural/Engineering & Reinsurance)		\$792,000
Insurance		\$80,000
Legal and Accounting		\$30,000
Geotech and Survey		\$60,000
Grass/Landscaping		\$498,000
Contingency		\$1,489,000
Equity		\$0
Project Cost to be Financed		\$17,317,000

Financing Term	20 Years
Interest Rate	4.75 %
Term of Construction	12 Months

Costs		
Interest During Construction		\$975,000
Interest Income	40% @ 1%	(\$103,000)
Legal & Accounting Fees	@ 1.00%	\$205,000
Debt Service Reserve		\$1,612,000
Financing Fees (Points)	@ 2.00%	\$410,000
Cost of Issuance	@ 0.50%	\$103,000

19	Total Financing Costs	\$3,292,000	662
20	+ Project Cost to be Financed	\$17,317,000	727
21	Total Amount of Bonds	\$20,619,000	389
22	Debt Service	\$1,612,000	

	FY 2003	FY 2004						
Revenues:								
<u>Annual Gross (Existing)</u>								
Garages and Lots	\$12,232,917	\$15,834,100						
Meters	\$2,166,134	\$2,199,000						
Sum	\$14,399,051	\$18,033,100						
<u>Other Income (Existing)</u>								
Interest Income (1.5%)	\$398,321	\$228,909	\$176,074	\$165,373	\$163,767	\$130,460	\$142,047	\$142,895
Arena Rentals	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$0	\$0	\$0
Ticket Surcharge	\$3,626,545	\$3,807,872	\$3,998,266	\$4,198,179	\$4,408,088	\$0	\$0	\$0
Concessions and Suite Lease	\$2,888,734	\$3,033,171	\$3,184,830	\$3,344,071	\$3,511,275	\$3,686,838	\$3,686,838	\$3,686,838
Sum	\$7,363,601	\$7,519,952	\$7,811,169	\$8,160,823	\$8,533,150	\$8,825,298	\$8,831,886	\$8,832,734
<u>New Income (Proposed)</u>								
New Structure	\$0	\$0	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$900,000
Total Annual Revenue:	\$21,762,652	\$25,554,379	\$26,565,509	\$27,281,556	\$27,857,728	\$23,355,956	\$25,119,165	\$25,346,123
Expenses:								
<u>Existing Facility O&M</u>								
(3% Annual Inc.)	\$10,097,423	\$10,911,846	\$11,239,201	\$11,576,377	\$11,923,669	\$12,281,379	\$12,649,820	\$13,029,315
<u>Proposed New Facility O&M</u>								
(3% Annual Inc.)	\$0	\$0	\$500,000	\$515,000	\$530,450	\$546,364	\$562,754	\$579,637
Total Annual Expenses:	\$10,097,423	\$10,911,846	\$11,739,201	\$12,091,377	\$12,454,119	\$12,827,742	\$13,212,575	\$13,608,952
Net Available For Debt Serv:	\$11,665,229	\$14,642,533	\$14,826,308	\$15,190,179	\$15,403,609	\$10,528,214	\$11,906,590	\$11,737,171
Debt Service:								
Existing Debt Service	\$10,806,630	\$10,554,419	\$10,741,080	\$10,604,875	\$5,223,573	\$4,606,973	\$4,668,418	\$4,820,322
New Debt Service	\$10,858	\$941,250	\$1,763,243	\$1,761,984	\$1,759,622	\$1,761,150	\$1,756,306	\$1,755,353
Total Debt Service:	\$10,817,488	\$11,495,669	\$12,504,323	\$12,366,859	\$6,983,195	\$6,368,123	\$6,424,724	\$6,575,675
Surplus/Deficit:	\$847,741	\$3,146,864	\$2,321,985	\$2,823,320	\$8,420,414	\$4,160,091	\$5,481,866	\$5,161,497
Debt Coverage Ratio (Gross)	2.01	2.22	2.12	2.21	3.99	3.67	3.91	3.85
Debt Coverage Ratio (Net)	1.08	1.27	1.19	1.23	2.21	1.65	1.85	1.78

Phase 2 – Recommendations

Parking System Improvements

Parking management and operation strategies including:

Policies and procedures

Allocation (permits for designated locations)

Time restrictions

Pricing

Enforcement

Signage

Marketing

Evaluate improved use of existing parking



Parking Planning Study Results

- Should be able to meet both current **and** future needs
- Parking can be a tool for downtown improvement
- Parking requirements are unique to the community
- Solutions should be in the best interest of the community and fit the community
- Economics as important as the demand assessment

Questions ?