"THE SPACE BETWEEN"

ADAPTATIONS OF ALLEYS IN MIAMI BEACH

JAKE CROCIATI
KoDA
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KoDA Miami

KEAN OFFICE FOR DESIGN + ARCHITECTURE, P.A.

KoDA (Kean Office for Design and Architecture) is a research – and creativity – based practice with a focus and dedication to architecture and design. KoDA architects and designers are experts in connecting architecture with nature and finding radical solutions to sea-level rise and other environmental concerns. Led by Principal and Founder Wesley Kean, the award-winning KoDA uses analysis and research to inform the design of highly distinctive buildings, landscapes, interiors and experiences. KoDA designs without pre-conceived notions of style, form or materiality, but rather a careful evolution of a particular idea.

The firm thinks critically and examines the environmental, cultural and social context of each site. KoDA stands behind the fundamental belief that to practice architecture is to provide a service, in which their clients are the most important component of the process and for that, they invite them to become a part of it. KoDA designs with ambition for their clients and optimism for the world.

“A real-time research project”

The investigation into the alleyways had already begun by the time the Spring 2020 semester had started. What was interesting though, was the attention it was getting from city officials. With a goal of getting “The Space Between” on the city’s budget and a contract for design, one of my focus while at KoDA Miami will be to further develop this research and content.

This includes doing research, creating content, organizing submissions to city officials, coordinating meeting with commissioners, and looking at the future design potentials.

As this project is live and seeking funding, this booklet serves to document the research process as it occurred, changed and directed by new information and external consultation.
The Alley Network

Alleyways in Miami Beach are abundant, but underutilized. Today, they serve a critical service function. However, this network of sequestered, urban passageways can be further expanded upon to improve mobility, reduce flooding, enhance urban ecologies and maximize the cultural identity of the city.
THREE MAIN TYPOLOGIES

COMMERCIAL
Alleys that serve the blocks where commercial activities exist. This includes retail, restaurants, coffee shops, art galleries, movie theaters, etc.

CULTURAL
Alleys that serve the blocks between historic art-deco hotels, bars, restaurants, museums, etc.

RESIDENTIAL
Alleys that serve dense multi-family residential blocks. Each alley proposal is in dialogue with its district, enhancing engagement and restoring ecology.
The Opportunities...

“We alley ways can stitch together all the city’s most important places - becoming a pedestrian connector throughout the entire island”

We began to map out the city’s public assets, hotels, green spaces, transit lines, and heat island effect. This allows us to see how the alleys serve to connect and provide solutions to all of these.
A LOOK AT HOW OUR SELECTED ALLEYS FORM AN
"ALLEY LOOP" - CONNECTING SOME OF THE CITY’S
HOT SPOTS.
The Opportunities...

With most alleys running through areas with higher level of the "heat island effect" there is the opportunity to implement (LID) strategies to help reduce ground heat. These include, planting, trees, lighter pavers, alternate paving, shading devices, etc.

- Rain Garden
- Aromatic Flowers
- Planters
- Bench Seating
- Art Installation
- Raised Pedestrian Crossing
- Smaller Dumpsters
- Canopy
- Lighting
- Dumpster Storage
- In-Ground LED Lighting
- Concrete Pavement
- Permeable Pavers
Original land use by Collins was for a coconut plantation with coconut palms imported from Trinidad and Cuba. Due to native rabbits eating crop, planting efforts stopped. Later, Collins started planting avocados and mangoes brought over from Miami to develop business. Production did well and the movement of crops lead to the construction of the Collins Wooden Bridge in 1912.

The 1930s continued to see a tourist boom - developers began to construct small stucco hotels and rooming houses for seasonal travelers - these formed the famous Art Deco Historical District still prominent today.

- Original species:
  - Insects: Carpenter Ants, Termites, Americanized Bee, Grizzled Mantis
  - Animals: Rabbits, Sea Turtles, Manatees, Dolphins, Sea Birds, Armadillos, Opossum, Gopher Tortoise, Rattlesnakes, American Flamingo, White Ibis, Brown Pelicans, Cranes, Osprey

- Stakeholders:
  - Residents: Flamigo Park Association / So. Of 5th?
  - Visitors: Lincoln Rd. Bid / Ocean Dr. Bid / Flamingo Park Association / So. Of 5th?
  - Mayor + City Commission: Micky Steinberg, Michael Góngora, Mark Samuelian*, Steven Meiner, Ricky Arriola, David Richardson

- Map:
  - Original land use by Collins was for a coconut plantation with coconut palms imported from Trinidad and Cuba. Due to native rabbits eating crop, planting efforts stopped. Later, Collins started planting avocados and mangoes brought over from Miami to develop business. Production did well and the movement of crops lead to the construction of the Collins Wooden Bridge in 1912.

- Demographics (City of MB):
  - Population: 94,300
  - Elevation: 4 feet
  - Land area: 7.03 square miles.
  - Population density: 13,124 people per square mile (very high).
  - Est. Median household income (2017): $50,152 (was $27,322 in 2000)
  - Est. Median house/condo value (2017): $458,800 (was $138,700 in 2000)
  - Median resident age: 42.8 yrs

- Interviews:
  - Set up meetings with City Commissioners:
    - Micky Steinberg
    - Michael Góngora
    - Mark Samuelian*
    - Steven Meiner
    - Ricky Arriola
    - David Richardson
**Research Development**

**Flora + Fauna**

**Native Species**
- Non-Native Species
- Species for LID

**Low Impact Development (LID)**

**Implementation:**
- Bioremediation
- Sun Exposure
- Urban Agriculture
- Shading
- Irrigation
- Vegetative Barriers / Landscapes
- Grasslands
- Wetlands

**Waste Management**

**Waste Educators**
- What are the trash pick-up schedules?
- How long does each stop take?
- How can the trash pick-up process be streamlined to reduce the impact on alleyways?
- What are the truck routes? Where do they stop?

**Service**

**Trash Pick-Up**
- Recycling
- Demolition
- Motors
- DPW

**Defining Traits**

- Provides Shade
- Attracts Butterflies
- Flowering
- Berries/Fruits that Attract Wildlife
- Attracts Birds
- Water Absorption
- Attracts Hummingbirds
- Holistic Qualities

**Reception**

**City of Miami Beach DPW GIS Atlas to map utilities.**

**Large Scale Fact Sheet**

**Research**

**Usage**

**RESEARCH**

**ALLEY USAGE**

**Trash Pick-Up**

**Recycling**

**Demolition**

**Meters**

**DPW**

**Native Species**

**info**

**Service**

**Waste Contracts**
“A palette one can simply select species from for design implementation + optimization”
Current perceptions of Alleys?

- Dangerous
- Dark
- Smelly
- Uninviting
- Hot
- Loud
- Unused
- Parking
- Service
- Unwelcoming

Solutions?

- Limit vehicle access
- Examine parking in Alley
- Coordinate isolated bike and scooter rental in alleys.
- Create bike /scooter lanes/areas.
- Start by hosting Alley parties or movie screenings - to bring back public awareness and all residents to begin to take back the idea of the residential alley.

Bike / Scooter

- Limit vehicle access
- Examine parking in Alley
- Coordinate isolated bike and scooter rental in alleys.
- Create bike /scooter lanes/areas.

Current Regulations on Bikes / Scooters?

- Start with ample light - crime is attracted to places with low viability. Adding cameras and blue-phones for a sense of safety and connection to authorities. (An alley can feel long and confined when one feels nervous).

Crime

- Start with ample light - crime is attracted to places with low viability. Adding cameras and blue-phones for a sense of safety and connection to authorities. (An alley can feel long and confined when one feels nervous).

Tagging

- Allow street art and tagging in specific areas. Hold art events to bring awareness back to alleys and inspire local artists and youth.

- Organized street art installations have proved positive in many other cities around the world trying to activate their alley ways.

Unsafe

- Adding street lighting to remove the “dark” idea of an alley. Lighting should be more thought out and inviting rather than typical street lamps.

Trash + Odor

- Implement localized trash holding units that have ample space to avoid overflows.
- Liquid run-off from trash will be collected and filtered through LID implementations. Adding potent aromatic plants to alleys.

Crime

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Tagging

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ALLEY USAGE

- Shredded newspaper, receipts, paper bags, etc (any non-glossy paper)
- Tissues, paper toweling, and cotton balls — unless soaked with bacon fat, kerosene, makeup, or other stuff that doesn’t belong in the pile!
- Cardboard, egg cartons, toilet rolls
- Used clothes, towels, and sheets made from natural fabrics — cotton, linen, silk, wool, bamboo
- Old string & twine made of natural fabrics
- Pine needles
- Pine cones
- Saw dust
- Wood chips
- Nut shell
- Twigs

Perceptions

- Dangerous
- Dark
- Smelly
- Uninviting
- Hot
- Loud
- Unused
- Parking
- Service
- Unwelcoming

Precedent

- Seattle, WA
- Melbourne, AUS
- Tokyo, Japan
- Seattle, WA
- Melbourne, AUS
- Tokyo, Japan
**Research Development**

### Alley Implementation Strategies

#### Low Impact Development (LID)

- Bioswales
- Rain Water Collection
- Sun Exposure
- Low Maintenance Planting
- Urban Agriculture
- Xeriscape Lawn / Landscape
- Shading
- Water Run-Off Filtration
- Planting
- Alternative Pavers
- Gardens
- Pervious Pavers
- Rain Garden
- Grass
- Shrub
- Flowers
- Palms
- Trees

### Alley Opportunities

- Shading
- Public Enhancement
- Dinning
- Retail
- Lighting
- Planting
- Pedestrian Access
- Urban Agriculture
- Elevated Walkways
- Art Activation
- Refresh Spaces
- Scooters
- Solar Energy

### Existing Conditions

- Evapotranspiration
- Placemaking
- Parking
- Cars
- Trash Collection
- High Flood Probability
- Utilities
As a part of our research process we knew that we would need to lobby and meet with City of Miami Beach Commissioners. Not only to raise awareness and get support but learn what they would like to see and how to go about presenting our ideas.

Our first meeting occurred on:
February 14, 2020
Commissioner Samuelian’s Office, Miami Beach City Hall

Meeting with COMMISSIONER SAMUELIAN

“Select 3 Alleys for a ‘Pilot Program’”
“No more pretty pictures”
“We need real cost estimates (design + Construction)”

COMMISSION / STAFF FEEDBACK
2020.02.14

6 key Points:
Research points to focus on for the next city meeting with the goal of getting the project in the CMB budget.

1. Looking at Jacobs Engineering Scope for overlap.
2. Looking at precedent in the city/around the world.
3. Before and after photos of the alleys.
4. Design Budget.
5. Construction Budget.
6. Timing - How long will this take?
1. JACOBS + FIELD OPS. PRECEDENT

Principles + Objectives:

**Jacobs Engineering**
- Bioretention/Bioswales/Rain Gardens
- Blue and Green Roofs
- Constructed Wetlands/Floating Wetland Islands
- Detention Basins/Surface Storage
- Enhanced Tree Pits/Trenches
- Injection Wells (Pumped)
- Permeable Pavement
- Rainwater Harvesting (Cisterns, Rain Barrels)
- Stormwater Planters
- Subsurface Infiltration and Storage
- Tree Canopy
- Wet Ponds

**James Corner Field Operations**
- Transform from mall to district
- Showcase historic Lapidus work
- Enhance the shopping and dining experience
- Reorganize to prioritize public space and program
- Integrate access streets
- Create a connected bike network & loop
- Urbanize Lincoln Lane North / South
- Leverage under-utilized lots
- Emphasize gateways
- Organize the line
- Create civic anchors
- Develop a cohesive design vocabulary.
Principles + Objectives:

**Jacobs Engineering**
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- Develop a cohesive design vocabulary.

**KoDA**
- Bioretention/Bioswales/Rain Gardens
- Permeable Pavement
- Tree Canopy
- Enhance the shopping and dining experience
- Detention Basins/Surface Storage
- Reorganize to prioritize public space + program
- Create a connected bike network & loop
- Urban Agriculture
- Rainwater Harvesting (Cisterns, Rain Barrels)
- Stormwater Planters
- Create civic anchors
- Solar Activation
- New Retail Opportunity
- Urbanize Lincoln Lane North / South
- Community Garden
- Benches
- Aromatic Planting
- Develop a cohesive design vocabulary
- Native Planting
- Elevated Walkways
- Art Activation
- Lighting
- Leverage under-utilized lots
- Placemaking
## 2. ALLEYWAY PRECEDENT

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle, WA</td>
<td>Activating alleys could offer 50% more public space across the city. Seattle decided to clear its alleys of dumpsters, moving instead to a trash-bag collection model of waste management. Seattle’s downtown has approximately 217,500 square ft of public-space alleys, of which 85% were underutilized.</td>
</tr>
<tr>
<td>Baltimore, MD</td>
<td>Seeking &quot;small, cheap improvements that reset people’s expectations of what an alleyway can be” Through a $30,000 grant from the Rauch Foundation, 20 alleyways in six neighborhoods are now covered in murals and artwork; they’re filled with block parties and cleared of trash.</td>
</tr>
<tr>
<td>Los Angeles, CA</td>
<td>Green alleyways will help the city meet its goal of increasing stormwater capture to 50 billion gallons by 2035; currently, the city saves 8.8 billion gallons annually. Of the roughly 300,000 acres in the city of Los Angeles, more than 2,000 are alleyways that cut through city blocks. An alley, between East 51st and 52nd Streets of South Avalon Boulevard, is expected to capture more than 700,000 gallons of water a year.</td>
</tr>
<tr>
<td>Chicago, IL</td>
<td>Chicago Green Alley Program, among the first in the United States adapted over 100 of the city’s alleys with permeable surfaces that redirect stormwater into the ground and away from Chicago’s “overtaxed” sewer system, reducing flooding and recharging the surrounding soil. 13,000 alleys = 3,500 acres were paved with impermeable material, leading to flooding. If all of the alleys became permeable - Up to 80% of the rainwater falling on these surfaces per year could filtered into the soil or harvested - reducing flooding, filtering groundwater and saving taxpayer money that would otherwise be spent treating stormwater.</td>
</tr>
<tr>
<td>Kyoto, Japan</td>
<td>&quot;The alley and canal edges of Gion, the old entertainment district of Kyoto, where retail has compacted the storefront into a four-foot deep experience that would typically require twelve in the west. Shades, screening, gardens, drainage, and displays are integrated in a tight unison&quot; - Daniel Toole</td>
</tr>
</tbody>
</table>

KoDA
2. ALLEYWAY PRECEDENT

San Francisco, CA

Annie Alley - temporarily closing the alley to cars. The alley hosts on-going weekly programming, such as picnics, film screenings and dance/music performances. The alley was designed to include trellises with hanging plants, benches, and cafe tables. The cost of capital and construction for the temporary improvements was roughly $128,000.

Jack Kerouac Alley: a short, 18’ wide, one-way alley in Chinatown was a common place for illegal dumping and as a short cut for vehicles. Completed in 2007, hard costs were approximately $350,000. Creating a pedestrian only right-of-way with unit pavers, pedestrian scale lighting, and bronze cast plaques inscribed with poetry. The City also negotiated a “Quit Claim” with property owners, which forfeit vehicular access to their property in exchange for making the right-of-way pedestrian only.

Alleys are open for services in the early morning hours - then close vehicular traffic during the day.

Belden Place, one of the city’s most famous alleys, has multiple restaurants w/ outdoor seating—the alley has become a magnet for residents and visitors.

Pedestrian-scale lighting improves walkability and safety for pedestrians, and can provide exposure to businesses by lighting up signage. Typical lighting costs for SF alleys range from $2,000 - $20,000.

Linden Alley: Became a pedestrian-friendly, “green” street that creates an intimate social space for people to walk and relax. The new, raised roadway slows traffic and puts people on the same footing as cars. The pedestrian and vehicle areas are defined by above-ground planters and changing pavers. A coffee shop and several stores brings people and life to the alley. The surrounding property owners pool together $5,000 annually for maintenance costs.

Melbourne, AUS

Since the 1980s as a part of the Melbourne City Plan, alleyways have been transformed/activated as a way to improve livability in downtown through engagement of public spaces.

Since then, dozens of alleys in the city have been revitalized into an urban network of alleys with art installations, small cafes, residences, and retail.

Now, alleys, covering 3.5 (2.2 miles), are a vital part of the city’s urban landscape and attract hundreds of thousands of visitors each year.

To support the alley transformation, the City operates a “Love your Laneway” project, which partners with local stakeholders to improve and revitalize alleys through waste management, amenities and access, public lighting and road surfacing, and artistic and cultural uses. The City has adopted a number of planning policies to support the transformation of the alleys.

Miami Beach, FL

The Betsy-Carlton Orb, Shulman + Associates - 2016: This revitalization and reuse of the alley became an example of placemaking within the city. Conceived as a bridge connecting the historic Carlton and Betsy boutique hotels, the space has taken on new cultural life within the alley, including expanding the Betsy’s poetry program from inside their Writer’s Room to the public thoroughfare of the alley.

Miami Beach has about 22.3 Acres of alleyways. To compare...Flamingo Park: 36.53 acres & Lummus Park: 26.34 acres.

Miami Beach alleyways make up about 10% of roadways, spanning 9.17 miles.
3. BEFORE + AFTER EXAMPLES

Commercial Alley
3. BEFORE + AFTER EXAMPLES

Commercial Alley
3. BEFORE + AFTER EXAMPLES

Cultural Alley
3. BEFORE + AFTER EXAMPLES

Cultural Alley
Residential Alley
3. BEFORE + AFTER EXAMPLES

Residential Alley
SCOPE OF WORK

The scope of design services described herein includes the services to be provided by Kean Office for Design & Architecture, P. A. (KoDA), and its affiliated offices.

- Research (waste management, composting, recycling, existing uses, public works infrastructure, etc.)
- Documentation of existing conditions.
- Community outreach including meeting with the Flamingo Park Association, Lincoln Rd. BID and Ocean Dr. BID in order to receive input on design direction.
- Proposed designs for three specific case studies (listed below) including plan drawings, section drawings, renderings and other presentation materials.
- Landscape architect/Arborist recommendations on planting.
- Civil engineering.
- Construction Budget based on proposed design.

4. DESIGN BUDGET

COMMERCIAL

CULTURAL

RESIDENTIAL
4. DESIGN BUDGET

THE SITE / PILOT LOCATIONS

The scope of work enumerated above will be applied to 3 specific locations, noted below. Each specific site was selected as a part of 3 unique alley typologies; Commercial, Cultural and Residential.

Commercial Alley: **Lincoln Lane South**
(Between Meridian Avenue and Euclid Avenue)
- Approximate Dimensions: 300’ x 20’ [+/- 6,000sf]
- Crossing Approximate Dimensions: (2x) 70’ x 30’ [+/- 4,050sf]

Cultural Alley: **Ocean Ct.**
(Between 10th Street and 11th Street)
- Approximate Dimensions: 400’ x 20’ [+/- 8,000sf]
- Crossing Approximate Dimensions: (2x) 50’ x 50’ [+/- 5,000sf]

Residential Alley: **Meridian Ct.**
(Between 10th Street and 11th Street)
- Approximate Dimensions: 400’ x 20’ [+/- 8,000sf]
- Crossing Approximate Dimensions: (2x) 50’ x 50’ [+/- 5,000sf]
Lincoln Lane South would be a compliment to Lincoln Road. Projects to revive the “Lincoln District” have already begun, however their impact thus far has been low. The intention of this case study is to have an alley highly activated, where the stores from Lincoln Road would open up to the alley, creating a more dynamic network.

The alley connects Drexel to Alton Road, terminating at the Miami Beach Community Church. We determined that the block between Euclid and Pennsylvania is best situated to capitalize on alley improvements. This location has a unique opportunity to tie directly into Lincoln Road given the mall’s southern extension. In terms of mobility, the alley has a direct connection to Euclid Ave, a road with a well-established bicycle thoroughfare. This block also presents a variety of challenges and opportunities: Retail, office, residential and empty parking lot all have frontage on the alley within this small area. Through an abundance of native planting and permeable surfaces, stormwater management can also enhance well-being for retail patrons.
COMMERCIAL ALLEY

Commercial Alley  Lincoln Road South

STORM WATER

SANITATION
The activation of Ocean Court would certainly be a compliment to the diverse and vibrant Ocean Drive Historic District. With many new cultural and hospitality projects underway in the area, there is certainly a lot of positive transformation happening, however, the alleyways in this district have continued to be overlooked. Spanning from 1st - 14th Ave, the alleys offer a unique opportunity to create a new pedestrian corridor running through some of the most popular spots on Miami Beach.

The intention of this case study is to determine the best methods to activate the Ocean Court Alley between 10th and 11th Ave. We have determined that this Alley offers great potential given its central location on Ocean Drive and between several popular and historic places enjoyed by both visitors and residents. We understand that with a high presence of commercial activity in the alley, whether it's deliveries or trash collection, these operations cannot be totally removed. Our goal is create a multi-modal condition allowing for pedestrians, cars, and trucks to simultaneously operate within the Alley.

With the addition of raised pedestrian crosswalks, artwork, planters, bench seating, and aromatic flowers, our goal is to make the Ocean Court alley a welcoming and vibrant corridor. The separation of vehicle and pedestrian spaces will be defined with ground lighting and planting, providing a sense of separation, but allowing for overlap in certain situations. Flowers with potent fragrances with help mask the smell of trash while bringing an aesthetic quality to the new planters.
Meridian Ave. is the main residential corridor for Miami Beach, this Beauty Leaf Tree-lined street can be pleasant for pedestrians because of the dappled light and substantial shade provided by these trees. The network of alley's within this residential district can be used to compliment a very active pedestrian area around Flamingo Park. By creating new raised pedestrian crosswalks, vegetable gardens, and shade canopies, Meridian Court can become an active and enjoyable pedestrian connection for both visitors and local residents. Extending from the vibrant South of 5th District all the way to the historic Flamingo park district, Meridian Court offers great potential to create a new pedestrian friendly corridor in Miami Beach.
5. CONSTRUCTION BUDGET

COST ESTIMATE:

Date of Estimation: March 13, 2020

Design Architect: KoDA Miami
350 Lincoln Road
Miami Beach, Florida 33139

Prepared For: City of Miami Beach
Miami Beach, Florida 33139

<table>
<thead>
<tr>
<th></th>
<th>COMMERCIAL</th>
<th>CULTURAL</th>
<th>RESIDENTIAL</th>
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<tbody>
<tr>
<td>Project Grand Total ($)</td>
<td>$1,024,000</td>
<td>$1,503,000</td>
<td>$1,550,000</td>
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<tr>
<td>Cost per Lineal Foot ($/LF)</td>
<td>$12,800</td>
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<td>$12,920</td>
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<tr>
<td>Total Lineal Footage (LF)</td>
<td>80</td>
<td>120</td>
<td>120</td>
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<tr>
<td>Cost per Square Foot ($/SF)</td>
<td>$110</td>
<td>$116</td>
<td>$119</td>
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<tr>
<td>Gross Square Foot Area (SF)</td>
<td>10,500</td>
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<tr>
<td>Cumulative Mark-Ups (%)</td>
<td>61.7%</td>
<td>61.7%</td>
<td>61.7%</td>
</tr>
</tbody>
</table>

(The Executive Summary's Project Grand totals are rounded up to the next $1,000)
5. CONSTRUCTION BUDGET

OVERVIEW

AREA ANALYSIS:

<table>
<thead>
<tr>
<th>Width</th>
<th>Length</th>
<th>Area</th>
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<tbody>
<tr>
<td>Commercial Alley</td>
<td>465 ft</td>
<td>100 ft</td>
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<tr>
<td>Mergent Street Crossing</td>
<td>50 ft</td>
<td>50 ft</td>
</tr>
<tr>
<td>Michaud Street Crossing</td>
<td>55 ft</td>
<td>50 ft</td>
</tr>
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Commercial Alley Total Area: 10,050 sf

<table>
<thead>
<tr>
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<th>Length</th>
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<tbody>
<tr>
<td>Cultural Alley</td>
<td>465 ft</td>
<td>300 ft</td>
</tr>
<tr>
<td>10th Street Crossing</td>
<td>50 ft</td>
<td>50 ft</td>
</tr>
<tr>
<td>11th Street Crossing</td>
<td>30 ft</td>
<td>400 ft</td>
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</table>

Cultural Alley Total Area: 13,000 sf

<table>
<thead>
<tr>
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<th>Length</th>
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</thead>
<tbody>
<tr>
<td>Residential Alley</td>
<td>465 ft</td>
<td>300 ft</td>
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<tr>
<td>10th Street Crossing</td>
<td>50 ft</td>
<td>50 ft</td>
</tr>
<tr>
<td>11th Street Crossing</td>
<td>30 ft</td>
<td>400 ft</td>
</tr>
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</table>

Residential Alley Total Area: 13,000 sf

Cost per Square Foot:
- Commercial: $12.80
- Cultural: $11.16
- Residential: $5.00

Cumulative Mark-Ups:
- Commercial: 61.7%
- Cultural: 61.7%
- Residential: 61.7%

Date of Estimation: 03.13.2020

Grand Summary - Residential

Project Grand Total: $1,023,328

Cost per Linear Foot:
- Commercial: $12,800
- Cultural: $12,350
- Residential: $12,920

Total Linel Footage:
- Commercial: 50,000
- Cultural: 20,000
- Residential: 20,000

Cost per Square Foot:
- Commercial: $110
- Cultural: $116
- Residential: $119

Gross Square Foot Area:
- Commercial: 10,050
- Cultural: 13,000
- Residential: 13,000

Cumulative Mark-Ups:
- Commercial: 61.7%
- Cultural: 61.7%
- Residential: 61.7%

5. CONSTRUCTION BUDGET

OVERVIEW

AREA ANALYSIS:

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Residential Alley Total Area: 13,000 sf

Cost per Square Foot:
- Commercial: $12.80
- Cultural: $11.16
- Residential: $5.00

Cumulative Mark-Ups:
- Commercial: 61.7%
- Cultural: 61.7%
- Residential: 61.7%

Date of Estimation: 03.13.2020

Grand Summary - Residential

Project Grand Total: $1,023,328

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QUALIFICATIONS & ASSUMPTIONS

The estimate is based on Master Plan Documents as prepared by KODA dated February 28, 2020.

The project is to renovate various alleys to improve mobility, reduce flooding, enhance urban ecologies and maximize the culture identity of the city. These alleys are located in Miami Beach, Florida.

A separate estimate included here isolates the a section of commercial alley, cultural alley and residential alley to provide a square foot and a linear foot master planning cost budget all the Miami Beach alleys.

A start date of April 2021 and a completion date of April 2023 equating to a 24 month construction period. Escalation prediction is base on a 3.5% rate per year.

STUART-LYNN COMPANY DISCLAIMER

This SLC report was derived from the information provided to our office by others along with the most accurate and responsible understanding of constructability, market conditions, schedule and resource availability by the combined efforts of professionals associated with this work; manipulation of a live document may result in unintended and misleading reporting.

MARK-UPS (Mark-ups are cumulative)

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Design Contingency 20.0%

The Design Contingency mark-up is added to account for minor design changes that may occur during the designing of the project. At the Pre-bid or Final phase estimate, this mark-up is eliminated.

General Conditions 8.5%

The General Conditions mark-up accounts for the legal requirements and costs of the project.

Construction Management Fees 3.0%

The Construction Management Fee accounts for the cost of having a management firm coordinate the project and act as the owner’s representative in all aspects of the construction project.

Insurance; General Liability 1.5%

This mark-up covers the required General Liability Insurance that will have to be carried during the construction period.

Bidding/Construction Contingency 7.5%

The Bidding/Construction Contingency mark-up accounts for unforeseen emergencies or design shortfalls identified after the construction project commences.

Completion Bond 3.0%

The Completion Bond is a guarantee given to the owner to assure that the contractor will complete the project. If the contractor completes the project, the bond amount is refunded to the contractor. If the contractor fails to complete the project, the owner is within his/her rights to keep the bond to help complete the project.

Escalation (April 2022) 7.29%

The Escalation Mark-up is added to account for the increases in cost that may occur between the date when the final cost is estimated and the mid-point of the construction of the project.

Total Cumulative Mark-up: 51.7%
The estimate is based on Master Plan Documents as prepared by KODA dated February 28, 2020.

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ESTIMATE LABOR RATES
This estimate has been created using Union Labor

AREA CALCULATIONS
GSF measured from exterior face of structure in accordance with American Institute of
Commercial Alley Total Area = 10,050 sf
Cultural alley Total Area = 13,000 sf
Residential Alley Total Areas = 13,000 sf

EXCLUSIONS
Mock up allowance is intended for performance evaluation
- Hazardous material remediation, asbestos abatement, lead paint abatement, etc.
- Monitoring of any adjacent structures.
- Cultural art sculptures. (Supports are included).
- Renovation cost of adjacent buildings.
- Renovation costs of existing dining restaurants and retail spaces.
- Proposed adjacent parking lots and parking garages.
- FF&E (Furniture, Fixtures & Equipment) such as movable furniture, desks, outdoor tables & chairs, etc. unless otherwise noted.
- Phasing, swing space, mobilization, etc.
- Soft costs such as land costs, financing, etc.
- Building permit
6. TIMING

DESIGN SCHEDULE

Design scope is currently scheduled to commence upon approval of submitted proposal. The design process is estimated to require 4-6 months.

<table>
<thead>
<tr>
<th>Month: 1</th>
<th>Month: 2</th>
<th>Month: 3</th>
<th>Month: 4</th>
<th>Month: 5</th>
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<tbody>
<tr>
<td>Research + Documentation</td>
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<tr>
<td>Community Outreach</td>
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<tr>
<td>Concept Design</td>
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CONSTRUCTION SCHEDULE (per Alley)

<table>
<thead>
<tr>
<th>Month: 1</th>
<th>Month: 16-24</th>
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<tbody>
<tr>
<td>Construction</td>
<td></td>
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</table>
What have we done?

RESEARCH & MASTER PLAN / OVERVIEW
- City of MB History
- Early Economic Drivers
- Current Economic Drivers
- Demographics
- DPW Meetings
- Public Transportation Mapping
- Meeting with City Commissioners
- Trash Routes + City Contracts
- DPW City Atlas
- Discussions with Industry Professionals

DESIGN GUIDELINES
- Developing a Design Toolkit
- Native Plant Species
- Non-Native Plant Species
- Aromatic Flowers
- Low Impact Development (LID) Methods
- Trash Solutions
- Lighting
- Art Walls
- Cost Estimation Package

What are we doing now?

MEETING WITH THE CITY / COMMISSIONERS
+ GETTING FEEDBACK

What's next?

SPECIFIC INTERVENTIONS
- Residential - MERIDIAN COURT
- Commercial - LINCOLN LANE SOUTH
- Cultural - OCEAN COURT
Works cited


