Go WESTMAIN
A Schematic Design Presentation to City Council
The West Main Street Streetscape **Option 1** Plan was adopted by the Charlottesville City Council, as the guiding document for executing streetscape improvements to the West Main Street corridor, on **May 21, 2016**.

- Create “a safe, active, pleasant and useable space for all users”.
- Encourage “physical activity by creating a safe and welcoming place to walk or bike”.
- Design “a 400% increase in street trees along the corridor in a variety of sizes”.
- Develop “areas for Low Impact Development where green infrastructure can be utilized”.
- “Underground overhead utilities”.

**THE CITY COUNCIL RESOLUTION**
The project to date has spanned 11 months; from June 2016 through April 2017. The project team has hosted monthly progress meetings with City staff and provided updates to City Council and BAR, during which design feedback and direction was given.
Great streets - as public places - bring people into restaurants, shops, offices, and housing along them. A great street is a place where people want to be - to live, to work, to visit with friends, to shop, and to spend time. Throughout the world, walkable and bikeable streets provide the economic engines for successful communities.
WEST MAIN STREET EXISTING CONDITIONS

STREETSCAPE ISSUES
1. unsafe bike lanes
2. narrow sidewalks
3. heaving, uneven pavement
4. unsightly utilities
5. monoculture of trees
6. deteriorating furnishings
This is West Main Street - the heartbeat of Charlottesville - a place for everyone.
The Downtown Mall is a great place - an identifiable community space and proud City amenity. The Downtown Mall is “a durable mall”, “a flexible mall”, “an interactive mall”. West Main Street shouldn’t be a duplication of the Downtown Mall but an extensive of its principles.
Schematic Design
THE SCHEMATIC DESIGN PRINCIPLES

CONNECTIVITY
unite people and City via a safe, multimodal street

LIVABILITY
create an economically viable and socially comfortable ‘family room’

TECHNOLOGY
modernize critical infrastructure & stormwater management

BEAUTIFICATION
contextually enhance the visual character of the street

HISTORY
celebrate the history, culture, & identity of Charlottesville

STEWARDSHIP
enable long-term maintenance feasibility
WEST MAIN STREET IS...

A PLACE TO GATHER AND DINE
WEST MAIN STREET IS...

A PLACE TO STROLL AND SHOP

[Image of a busy street with pedestrians and cyclists]
WEST MAIN STREET IS...

A PLACE OF LIGHT AND SAFETY
THE SCHEMATIC DESIGN PLAN

1. SUSTAINABLE STREET TREE PLANTING
   seasonal | diverse | native

2. UTILITY BETTERMENTS
   overhead to underground

3. NEW SIDEWALKS
   widened paving & fresh furnishings

4. STREET CROSSINGS & CONNECTIONS
   pedestrian-oriented | safe | visible

5. ROADWAY & PARKING REALIGNMENT
   multimodal | safety-oriented | dedicated bike lanes

6. GATEWAYS & GATHERING SPACES
   flexible | technological | historical
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West of Bridge
THE TYPICAL LAYOUT
MIDWAY PARK IS...
A PLACE FOR HISTORY AND LEARNING
MIDWAY PARK

DESIGN HIGHLIGHTS
- A major community space along WMS
- Mix of fixed and moveable tables & chairs
- Expresses regional geological formations
- Utilizes local Catoctin stone boulders
- Relocated “Lewis & Clark” Statue in central, prominent location.
- Native, rugged plant palette
WHAT IS WEST MAIN STREET?
A SPIRITED, CULTURED PLACE.
A CORRIDOR WITH RICH HISTORY.
A NEIGHBORHOOD FOCAL POINT.

HOW ACTIVITY IMPACTS DESIGN
• determines community spaces
• determines anticipated users
• determines expected uses
• guides proposed experiences
• guides spatial layout
ACTIVITY ZONE GUIDELINES

1. complements adjacent land-use
2. organizes furnishing type and location
3. defined spatially by tree planting
A CURATED SELECTION OF HISTORICAL FRAGMENTS, QUOTES, WAYFINDING STRATEGIES, AND CULTURAL ARTIFACTS.

INTERPRETIVE FEATURES
1 topographic map orientation
2 directory or message board
3 street corner markers
4 transit art & history
5 bridge builders walk
6 memory markers
STREET TREE PLANTING

EXISTING CONDITIONS

- **80** existing public r.o.w trees
- **26** excellent or good condition
- **32,907** existing ft² of tree canopy
- **4** existing types of tree species

PROPOSED CONDITIONS

- **131** new public r.o.w trees
- **14** existing trees to remain
- **164,586** additional ft² of tree canopy
- **500%** increase in tree canopy area
- **8+** new types of tree species
STREET TREE PLANTING CONCEPT
1. create streetscape ‘rooms’
2. expose historically significant buildings
3. diversity → sustainability
STREET TREE PLANTING GUIDELINES

1. Maximize soil volume (>400 cu ft)
2. Store soil & water via Silva cells
3. Minimal tree opening = > ped. space
GENERAL SPECIES SELECTION CRITERIA

1. bio-retention suitable
2. tough, rugged, drought tolerant
3. tolerant of salt & roadway pollution
4. not shallow rooted
5. provide year-round seasonal interest
A WARM CONTEXTUAL PALETTE. DEEP, RICH COLORS WITH SUBTLE CHANGES OF TONE, TEXTURE, AND PATTERN.

MATERIALS PALETTE INFO
- simple, consistent pattern
- pedestrian-scaled units
- long-term durability
UNIT PAVERS
SIDEWALK PEDESTRIAN PAVING
25% Granite / 50% Warm Grey / 25% Almond Grove

ASPHALT
ROADWAY PAVING
Drive Lanes and Parking Lanes

P.I.P CONCRETE
EXPOSED AGGREGATE
6” Curb, Flex Zone, and Driveway Aprons

ROADWAY PAINTING
BIKE BOXES ONLY
High Visibility Green
FURNISHINGS

ARTFUL, MULTI-FUNCTIONAL FURNITURE, DIVERSE IN SIZE AND USE, AND BUILT OF LASTING MATERIALS.

FURNISHINGS PALETTE INFO
- coated hardwood
- powdercoated aluminum + steel
- reinforced cast stone or concrete
FURNISHING LAYOUT GUIDELINES
1 promotes social activity
2 complements adjacent land-use
3 provides for varied experiences

- relax
- watch
- gather
- engage
The simple two-post design, and integrated cantilever bench, minimizes the bus shelter footprint to maximize pedestrian space.
A recessed linear fixture and translucent glass canopy open to moonlight, provides for optimal night-time lighting and safety.
A DYNAMIC LIGHTING SCHEME TO AMPLIFY THE NIGHT-TIME VISUAL APPEAL, AND PROVIDE A SENSE OF SAFETY.

LIGHTING OPPORTUNITIES
• pedestrian poles + bollards
• recessed seat lighting
• catenary lighting

ROADWAY LIGHTING GUIDELINES
• fixture as architectural statement
• maximize spacing to minimize conflicts
• remote monitoring capabilities
Utilities & Traffic
EXISTING UTILITIES

1. electric
2. communications
3. water main
4. sanitary sewer
5. storm sewer main
6. low pressure gas overhead (not shown)
UTILITY + SWM INFRASTRUCTURE PROPOSED

BIORETENTION TREE PIT
4’W X 8’L

PROPOSED UTILITIES
1. storm sewer main
2. high pressure gas
3. sanitary sewer
4. water main
5. private utility ductbank
6. bioretention underdrain

SILVA CELLS (2X)
ONE UNIT = 2’W X 4’L X 40’H

ADDITIONAL TREE SOIL VOLUME VIA ROOT PATHS

SENSIBLE UTILITIES
1. storm sewer main
2. high pressure gas
3. sanitary sewer
4. water main
5. private utility ductbank
6. bioretention underdrain

ROADWAY COLLECTS ~70% STORMWATER RUNOFF

SIDEWALKS COLLECT ~30% STORMWATER RUNOFF

BIoretention
IMPERMEABLE ZONE

ROADWAY COLLECTS ~70% STORMWATER RUNOFF

SIDEWALKS COLLECT ~30% STORMWATER RUNOFF

BIoretention
IMPERMEABLE ZONE
A traffic analysis was completed by Nelson Nygaard in order to further detail the potential impacts and mitigations of the proposed streetscape recommendations. The Traffic Evaluation included: new traffic counts during Fall 2016, incorporated approved development and growth rates, and utilized the latest Synchro software capabilities.

- Traffic counts taken for all intersections at AM and PM peak hours.
- Existing intersections operate at Level of Service designation D or better.
- Analysis included a 1% traffic growth rate and 3% pedestrian growth rate.
- Analysis included bicycle boxes and optimized signal timing at intersections.
- Analysis included current and anticipated development.
- Proposed recommendations maintain roadway operation at LOS D or better.
Cost Estimation & Construction Phasing
### THE CONSTRUCTION COSTS & PHASING PLAN

#### Scope of Work

<table>
<thead>
<tr>
<th></th>
<th>Phase 4</th>
<th>Phase 3</th>
<th>Phase 2</th>
<th>Phase 1</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>Streetscape Surface Improvements</td>
<td>$4,421,740</td>
<td>$4,601,266</td>
<td>$4,025,951</td>
<td>$5,813,270</td>
<td>$18,862,227</td>
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<td>Utility Improvements (Stormwater)</td>
<td>$110,945</td>
<td>$177,374</td>
<td>$122,200</td>
<td>$138,377</td>
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<td>Undergrounding Overhead Utilities</td>
<td>$1,775,708</td>
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<td>$4,475,436</td>
<td>$5,375,437</td>
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<td><strong>Total</strong></td>
<td>$6,308,393</td>
<td>$4,778,640</td>
<td>$8,623,587</td>
<td>$11,327,084</td>
<td><strong>$31,037,704</strong></td>
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*Totals exclude Design & Engineering Fees

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<tr>
<td>Routine Improvements (Water + Gas)</td>
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<td>$3,076,000</td>
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<tr>
<td><strong>Total</strong></td>
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