Better Streets, Better Places

• Transportation Planning

• Placemaking + Tactical Urbanism

• Architecture

• Public Outreach

• Training | Workshops
Visualizing Safe Streets

Existing

Automobile Space: 80%
People Space: 20%
Awesome! Now What?!

Proposed

Automobile Space: 50%
People Space: 50%
Real Change is Hard!
Lessons In Iterative Design

- **2009** – 3-day pop-up plaza, with lawn chairs
- **2010** – Pilot plaza with paint and temporary materials
- **2012** – Iterate design, evaluate outcomes, move forward with permanent design
- **2014** – Permanent plaza construction underway
- **2015** – Project Complete!
Public planning process broken

- (too) large scale aka. “Silver Bullet”
- Lack of transparency
- One way / static input
- Inflexible / Not results oriented
Expectation of progress + innovation

• We expect software + products will always get better.
• We are willing to tolerate imperfections; in fact these are expected.
Uncovering Tactical Urbanism

1. inexpensive
2. temporary
3. existing plans
4. Social capital
BUILD, MEASURE, LEARN

Test
Plan, Test Again
Plan, Invest

Learn
Ideas
Build
Project
Measure
Data

TACTICAL PROJECTS

Adapted from The Lean Startup by Eric Ries
Publications
550,000+ downloads / impressions across 150+ countries

Vol. 5 (Italy) Coming Soon!

Tacticalurbanismguide.com
TACTICAL URBANIST’S GUIDE
TO MATERIALS AND DESIGN

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Project Delivery Spectrum

- very low budget (< $10,000)
- short timeline (< 1 week)
- Citizen led

- low budget (< $100,000)
- Short timeline (6 mo – 1 yr)
- developer, non-profit, gov’t

- modest budget (> $200,000)
- extended timeline (1-3 yr)
- gov’t led
**ARMADILLOS**

**Typical Dimensions:** Available in 3 and 5” length sizes, requires 15ft of width for buffer area.

**Estimated Cost:** $40-50 per unit, depending on size and quantity ordered.

**Overview:** Low, mountable plastic bump that can be used to achieve a curb-like barrier effect.

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**CONCRETE “TURTLE” BUMPS**

**Typical Dimensions:** Require 15 ft. of width.

**Estimated Cost:** $3-5/ft. ($15k-$30k/ lane, per mile)

**Overview:** Often used as barrier near light rail tracks; these low, mountable bumps can be used to achieve a curb-like barrier effect.

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**Recommended Applications and Installation**

**Bike Lanes:** Place cones along edge of lane, 1 every 5-8 ft. Installation does not require specialized equipment. Simply drill holes and install. A team of three people can install about 100 meters in a day. The product’s pre-sunk bolt holes can accommodate anchors of various sizes.

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**Tips and Considerations**

- Easily installed and removed.
- Durable and mountable for emergency vehicles, city service vehicles, etc.
- Minimal/no stormwater obstruction.
- Set armadillos at an angle to allow cyclists to cross barrier if necessary.
- Low visual profile can lead to a decreased perception of safety for people walking or biking.
- Manufacturer recommends using mechanical anchors with chemical adhesives. Plastic mechanical anchors are not recommended.

**Potential Sources**

- Purchase from traffic control or construction equipment suppliers.

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**Recommended Applications and Installation**

**Bike Lanes:** Place cones along edge of lane, 1 every 5-8 ft. Affix to pavement using chemical adhesives such as epoxy.

**Curb Extensions and Plazas:** May be combined with planters or other barrier elements to define the edge of a plaza or curb extension. Affix to pavement using chemical adhesives such as epoxy.

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**Tips and Considerations**

- Note that installation/setup time will be impacted by weather and temperature. Buttons should be allowed to fully set before sustaining any impact.
- Durable and mountable for emergency vehicles, city service vehicles, etc.
- Minimal/no stormwater obstruction.
- Low visual profile can lead to a decreased perception of safety for people walking or biking.

**Potential Sources**

- Purchase from traffic control or construction equipment suppliers.
Why Tactical Urbanism?

✓ Expedite delivery of public benefits.

✓ Test a program, project or plan before investments are made.

✓ Allow people to physically experience alternative options.

✓ Widen public engagement from real-world users.
Bike Northwest
Arkansas Demo
Projects
Bike NWA

• 3 cities, 2 months!
• $30,000 material budget
• 1 month duration
• Project Goals
  • Test bikeway types + materials
  • Build protected bikeways
  • Bikeway education
  • Building relationships + local capacity
So you have an idea?
Assemble your Core Project Team

PRO Tips

✔ The core project team must include community partners. Cannot be exclusively consultants and city staff!

✔ Your team should have political cover; look for a high ranking champion.

✔ Core project team members should be in regular contact (these are your new best friends).
4 Main elements of TU Project Planning

• Communication (Branding + Public Outreach)
• Planning (Site Plan + Install Plan)
• Build (Procurement + Equipment)
• Evaluation (Data collection + Surveys)
Start With Existing Plans + Studies

PRO Tips

✔ Identifying right project is key
✔ Don’t get detailed yet
✔ Look for existing plans/studies that merit testing
✔ Identify the widest number of alternatives from the start
✔ Keep an eye on constructability + red flags. Some projects are easier to implement than others. Identify criteria for team and public to use to decide (supportive businesses, ease of construction, politics...etc.)
Share plans early + often with Public

**PRO Tips**

- Hash out site plan ideas IRL
- Identify champions, volunteers, sponsors
- Leave meetings with homework – for you and public
Ideate: Skill-Sharing

Skills/Resources Inventory

I have or can get access to...
- Plants/trees
- Tools (drills, hammers, etc.)
- Wheelbarrow
- Shovel
- Wood pallets/crates
- A truck (pick-up or larger)
- Paint
- Safety vests
- Cinder blocks
- Something else

I want to VOLUNTEER!
Have any skills or passions you could translate into programming for the event?

I can help lead...(and/or recruit someone to help lead...)
- Volunteer coordination
- Distribute postcards
- Photos/video of event
- Business outreach (at site)
- Neighbor outreach (at site)
- Food/Drink vendors
- Supply procurement
- Supply transport
- Partnership with local clubs
- Something else

I can help the group spread the word via...
We'll need everyone to help promote the event! Please note the listers or channels you have access to for promoting the event. (e.g. parents' groups, classes you attend, clubs, etc.)

Want to be part of the Action Team?
Name: __________________________
Phone: _________________________
Email: _________________________
For more information: www.bikenwa.org

Help us make a more bikeable Rogers!

PRO Tips

- Follow up with folks 1 on 1.
- Go door to door. The best way to communicate is still face to face.
- Make changes to the site plan based on what you hear and what resources start to pop up.
Develop a site plan...

PRO Tips

- Include typical dimensions
- Note materials + install notes
- MUTCD Sign locations
- More clarity here means a smooth procurement process.
Setting the Date

**PRO Tips**

- Set a date early and stick with it! (Blackmail yourself)
- Look at the event calendar and leverage existing events (i.e., opening of trail, IMBA).
- Be aware of events that may impact your build.
- Pay attention to the weather. Have a contingency plan.
### 3-4 weeks out - Detailed Budget

#### PRO Tips
- Identify materials storage location early.
- Make sure you have access to storage for build day.
- Include a removal plan for everything.
- Identify stewardship of materials after project. Who will take care of removal and storage of items post-build?

<table>
<thead>
<tr>
<th>Category</th>
<th>Item</th>
<th>Quantity/Amount</th>
<th>Est. Total Cost</th>
<th>Source/Link</th>
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<tbody>
<tr>
<td>Traffic Control</td>
<td>Cones</td>
<td>160+ cones</td>
<td></td>
<td></td>
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<tr>
<td>Traffic Control</td>
<td>Safety Vests</td>
<td>25 each</td>
<td></td>
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<tr>
<td>Preparation</td>
<td>Industrial Trash Bags</td>
<td>1 box</td>
<td>23.99</td>
<td>eBay [Link]</td>
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<tr>
<td>Preparation</td>
<td>Push broom + dust pan</td>
<td>2-3 each</td>
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<td>Preparation</td>
<td>Disposable respirator mask</td>
<td>1 each</td>
<td>15.99</td>
<td>Home Depot [Link]</td>
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<tr>
<td>Painting</td>
<td>Bike Signs</td>
<td>24 each</td>
<td></td>
<td></td>
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<tr>
<td>Painting</td>
<td>Zip ties for sign attachment (6&quot;)</td>
<td>3 packs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc Materials</td>
<td>Diversion Planters</td>
<td>4 barrels, 10 - 9&quot; Trough</td>
<td>21.29</td>
<td>Home Depot [Link]</td>
</tr>
<tr>
<td>Bike Path, Buffer, + Parking Striping</td>
<td>WHITE PAINT</td>
<td>34 cases</td>
<td>$111</td>
<td>Home Depot [Link]</td>
</tr>
<tr>
<td>Bike Line Marking</td>
<td>BLACK OUT TAPE for existing markings</td>
<td>3 rolls of 8&quot; x 12&quot;</td>
<td>$97.99</td>
<td></td>
</tr>
<tr>
<td>Conflict Zone + Diversion Paint</td>
<td>GREEN PAINT</td>
<td>26 cases Green</td>
<td>$896</td>
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<td>Center Line Striping</td>
<td>#1 YELLOW TAPE</td>
<td>796 SF, 3 rolls</td>
<td>$1,642</td>
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<tr>
<td>Center Line Striping</td>
<td>#5 WHITE TAPE</td>
<td>796 SF, 3 rolls</td>
<td>$1,642</td>
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<tr>
<td>Bike Lane Protection</td>
<td>Armadillo</td>
<td>42 each @ $5.99 each</td>
<td>$238.82</td>
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<tr>
<td>Bike Lane Protection</td>
<td>Surface Mount Plastic Delineators</td>
<td>80 for Rogers</td>
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<td></td>
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<tr>
<td>Bike Lane Protection</td>
<td>Cycle lane delineator</td>
<td>45 for Rogers</td>
<td>$2.65</td>
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<tr>
<td>Diversion Planters</td>
<td></td>
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</tr>
</tbody>
</table>

| TOTAL | |  | $17,620 |  

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*Note: All links are placeholders and should be replaced with actual product links.*
Choosing the right materials

**PRO Tips**

- Consider durability - How long can the materials stay in the ground?
- Donated materials work for some items.
- Be mindful of long lead times for bulk/special orders.
- Expect things to go wrong.
- Use this as an opportunity to test materials.
2-3 weeks out - Build Day Schedule

**PRO Tips**

- The team should have one captain. The person who is directing work and knows all.
- Designate activity captains. Practice makes perfect!
- Set up should happen in the days before. Blocking lanes, parking, prelim install can all happen prior.
- Know when to hold ‘em and when to fold ‘em. Be realistic about resources.
Surveys

PRO Tips

✓ Get data early on for:
  ✓ Traffic volumes + speeds
  ✓ Bike/Ped Counts

✓ Use Intercept surveys – both digital + paper to get more info

✓ Make sure you get actual users, and not trolls.
Documenting the Project

PRO Tips

✓ Get creative with locations!

✓ Look for aerial shots from local buildings, cranes.

✓ Don’t forget about time lapse photography and drone footage.

✓ Think about how the photos with build out plan when positioning shots.
The Build!
Putting it all together
Draw + measure first

PRO Tips

✓ Critical first step - measure + chalk out lines – this time saver will make everything else move smoothly.

✓ Expect variations from the site plan.
Installing protective barriers

PRO Tips

✓ Some devices will need to be drilled, others can be glued. Gorilla Glue works wonders!
Lay down tape and striping

PRO Tips

✓ Use a striping machine for easy, straight lines.

✓ Depending on project duration, you may want to change the type of paint used. Some are more permanent than others.
Pavement Marking Stencils
Signs = wayfinding, educational, MUTCD
There will be adjustments and follow-up...

Tim’s Car!
Five Lessons For Getting Things Done NOW!

1. Small steps, short timelines
2. Be frugal + efficient
3. Expect things to go wrong!
4. Don’t ask for permission
5. Look at existing plans
Go Human Demonstration Projects
Southern California Association of Governments

6-County Jurisdiction:

- Ventura County
- Los Angeles County
- San Bernardino County
- Riverside County
- Orange County
- Imperial County
a region-wide community outreach and advertising campaign with the goals of reducing traffic collisions in Southern California and encouraging people to walk and bike more.

**Goal:** to create safer and healthier cities through education, advocacy, information sharing and **events** that help residents re-envision their neighborhoods.

*Source: Southern California Association of Governments (gohumansocal.org)*
Events with 9 Cities in the Region

Events Typically Include:

- Demonstration Projects (1-7 days)
- Programming (a la Open Streets)
How we work together

**SCAG team**
- Demonstration Project
- Branding/Promotion
- Community Advisory Committee Facilitation
- Signage
- Programming (Active Transportation + Passport)
- Volunteer management
- Supply procurement
- Evaluation

**Cities**
- Traffic Control
- Permitting
- Site prep and clean-up
- Programming (General entertainment)
- Staffing (Support)
- Promotion (Support)

**Community**
- Context and need
- Input on Demonstration, Branding, Programming
- Promotion
- Supply procurement (Support)
- Volunteer recruitment
The Pods: A traveling palette of materials

• Street furniture/seating
• Umbrellas
• Feedback kiosks
• Stencils
• Jumbo Games
• Signs and Banners
• Parklets (2 types!)
• Rental bikes (kids + adults)
Bike Lanes

Key Materials

- Stencil
- Tape or spray chalk (white line)
- Supplies
  - Tape Measure
  - Chalk Line
  - Striping Machine!
Bike Lanes

PRO TIPS

Measure Twice, Stripe Once

Beat Chalk Dust!
Traffic Circles

Design Cheat Sheet

• Min. 15 ft of clearance between edge of circle and curb
• Integrate barrier elements to define circle: temporary curbing and greenery

Source: CNU California Chapter
Pedestrian Crossings
Pedestrian Crossings
Pedestrian Crossings

Before

After
Curb Extensions