Advance Stop Lines

Definition Stop lines are used to indicate the point behind which vehicles should stop for a Stop sign, a Stop Here for Pedestrians sign, or some other traffic-control device that requires vehicles to stop.

Benefits

- Improves safety and visibility of crossing pedestrians
- A Canadian Research on Pedestrian Safety report found that a "Stop Here for Pedestrians" sign reduces conflicts between drivers and pedestrians by 67%. Adding an advanced stop line reduces conflicts by 90% compared with baseline levels[1]

Considerations

- Not appropriate at crosswalks approaching or departing roundabouts[2]
- When drivers stop too close to crosswalks that cross uncontrolled multilane approaches, they might block other drivers' views of pedestrians and pedestrians' views of vehicles[3]
- Drivers may ignore the line if it's placed too far in advance of the crosswalk

Appropriate Contexts

- In front of all stop-controlled crosswalks

Guidance

- Stop lines should not be used where drivers are supposed to yield
- Lines should be solid white lines extending across approach lanes
- Stop lines should be 12"–24" wide[4]
- Stop lines should be placed a minimum of 4' before the crosswalk at controlled intersections—ideally 10' before the crosswalk[5]
- In the absence of a marked crosswalk, the stop line should be placed at the desired stopping point, 4'–30' from the nearest edge of the intersecting road[6]
- On multilane approaches, stop lines may be staggered longitudinally on a lane-by-lane basis to improve the driver's view of pedestrians, provide better sight distance for turning vehicles, and increase the turning radius for left-turning vehicles

Professional Consensus

- Standard in Section 3B.16 2009 MUTCD

Examples

- Widespread in U.S. cities

Advance stop line in Brookyn, NY. *Source: Gerard Soffian*

1. Van Houten, Ron and Malenfant, J.E. Louis. Canadian Research on Pedestrian Safety, Report No. FHWA/RD-99/090, Federal Highway Administration, Washington, DC, 1999. http://www.walkinginfo.org/pedsafe/pedsafe_curb1.cfm?CM_NUM=42
2. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. Section 3B.16. December 2009. 381. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf
3. Ibid.
4. Ibid.
5. Ibid.
6. Ibid.

In-Road **Pedestrian Signs**

Definition These are flexible signs placed in the median or centerline at unsignalized crossings announcing that drivers must yield or stop for crossing pedestrians.

Benefits

- Reminds drivers that pedestrians have the right-of-way in unsignalized crosswalks
- Increases driver yield-to-pedestrian rates[1]

Considerations

- States or municipalities might be liable for property damage resulting from the presence of these signs in the roadway

Appropriate Contexts

- Unsignalized pedestrian crossings with a marked crosswalk
- Most effective on narrow or two-lane roads
- Not permitted at signalized intersections[2]
- Village centers or retail areas along two-lane (often rural) roads

Guidance

- Install in a location where it does not conflict with traffic patterns or encroach into a travel lane: at the crosswalk on the centerline, on a lane line, or on a median island, but not post-mounted on the left-hand or right-hand side of the roadway
- Install in a location where it does block pedestrian traffic in the crosswalk
- Install in areas with low volumes of turning-truck traffic or in medians
- Install in narrower roadways to maximize visibility of the signs
- Design the sign support to bend over and then bounce back to its normal vertical position when struck by a vehicle
- Be consistent with state regulations, whether drivers must yield or stop to pedestrians in unsignalized crossings
- Make the sign reflective if it's left in place 24 hours a day

Professional Consensus

- Allowed within MUTCD[3]

Examples

- Widespread across the U.S. including:
  - » New York
  - » Massachusetts
  - » Maine

A Stop for Pedestrians in-road sign in Georgia. *Source: PEDS.org, Flickr*

A Stop for Pedestrians in-road sign in Georgia. *Source: PEDS.org, Flickr*

A Yield to Pedestrians in-road sign in California. *Source: Russell James Smith, Flickr*

1. Redmon, Tamara. Evaluating Pedestrian Safety Countermeasures. Public Roads. March/April 2011. http://www.fhwa.dot.gov/publications/publicroads/11marapr/03.cfm
2. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. Section 2B.12. December 2009. 55. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf
3. Ibid.

Leading **Pedestrian Interval**

Definition A leading pedestrian interval (LPI) is a 3- to 10-second pedestrian-only phase within a signalized intersection timing schedule that gives pedestrians a "head start" over cars going in the same direction or turning across the pedestrians' paths. It is displayed by an advance walk indication for the crosswalk during which parallel and turning traffic continue to face a red signal.

Benefits

- Allows pedestrians to establish themselves in the crosswalk before right-turning traffic can begin moving[1]

Considerations

- Reduces the time allotted to vehicles in the signal cycle, potentially reducing vehicular flow
- Could slow down transit-bus running times

Appropriate Contexts

- Intersections with combinations of heavy pedestrian traffic and significant right- and left-turning vehicles crossing the crosswalk

Guidance

- The LPI should be at least 3 seconds long (NYC standard is 6 seconds) and timed to allow pedestrians to cross at least one lane of traffic before turning traffic is given the green signal[2]
- Prohibit turns across the crosswalk during the leading pedestrian interval
- Install accessible pedestrian signals[3]

Professional Consensus

- Specifically allowed by Section 4E.06 of the 2009 MUTCD
- Endorsed by a TRB report that found a decrease in pedestrian/vehicle conflicts and an increase in the percentage of drivers who yielded to pedestrians[4]

Examples

- New York, NY
- Toronto, ON
- Washington, DC

A leading pedestrian interval allows pedestrians to get a head start crossing the street before cars are permitted to go. *Source: Federal Highway Administration, United States Department of Transportation*

1. Federal Highway Administration. Pedestrian Safety – Report to Congress. August 2008. http://safety.fhwa.dot.gov/ped_bike/legis_guide/rpts_cngs/pedrpt_0808/chap_3.cfm#s41
2. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. Section 4E.06. December 2009. 499 http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf
3. Ibid.
4. Van Houten, R., Retting, R.A., Farmer, C.M., Van Houten, R. & Malenfant, J.E.L. Field evaluation of a leading pedestrian interval signal phase at three suburban intersections. Transportation Research Record. No 1734. 2000. 86–91.

Accessible Pedestrian Signals

Definition Accessible pedestrian signals (APS) and detectors are designed to accommodate the needs of all pedestrians, including those with vision and mobility impairments. They provide information in nonvisual formats such as audible tones, speech messages, and vibrating surfaces to indicate the appropriate time for pedestrians to cross the street.

Benefits

- Makes it easier for visually impaired pedestrians to cross the street
- Reduces crossings during the don't-walk phase
- Allows more crossings in each signal interval
- Improves crossing speeds for sighted pedestrians[1]

Considerations

- Noise pollution
- Potential pedestrian confusion of the audible locator tone and the walk indication

Appropriate Contexts

- The proposed draft guidelines for the design, construction, and alteration of pedestrian facilities in the public right-of-way (PROWAG) require accessible pedestrian signals and push buttons whenever pedestrian signals are installed or replaced at signalized intersections

Guidance

- Integrate the addition or upgrades of accessible pedestrian signals into routine signal maintenance and streetscape projects
- At locations with lots of foot traffic, time pedestrian phases to come up automatically and keep signal cycles short (ideally 90 seconds maximum)
- Follow the location, design, and maintenance requirements of accessible pedestrian signals as detailed in the proposed PROWAG guidelines and APS Guide to Best Practices, which include some of the following:
  - » Accessible pedestrian signal shall provide both audible and vibrotactile indications of the walk interval
  - » Preferred locations are on two separated poles located within 5' of the crosswalk line farthest from the center of the intersection
  - » Preferred audible walk indication is a rapid ticking sound
  - » If two accessible pedestrian push buttons are placed less than 10' apart or on the same pole, accessible pedestrian push button shall be provided with the following
    - A push button locator tone
    - A tactile arrow
    - A speech walk message for the walk indication
    - A speech push button information message
  - » The accessible walk indication shall have the same duration as the pedestrian walk signal except if the pedestrian signal rests in walk
  - » In areas with large numbers of senior citizens, post a high-contrast raised-print or large-print sign of the street name that the push button controls
  - » Push buttons should confirm that a pressed button/request for crossing has been received with a "wait" message and a light

Professional Consensus

- Section 4E.09 - 4E.13 of the 2009 MUTCD details APS guidance
- Proposed PROWAG requires accessible pedestrian signals and push buttons when pedestrian signals are installed or replaced at signalized intersections (R209); these guidelines are typically adopted by MUTCD once they become final

Examples

The Accessible Pedestrian Signals: A Guide to Best Practices (http://www.apsguide.org) provides case studies for 12 U.S. cities and jurisdictions that have implemented APS as of 2007, including:

- Newton, MA
- Atlanta, GA
- Ann Arbor, MI
- Waukesha, WI
- Dunedin, FL

An accessible pedestrian signal with audible tones in Roseville, MN. *Source: David R. Gonzalez, MnDOT*

1. Accessible Pedestrian Signals: A Guide to Best Practices. Optimal APS Locations. http://www.apsguide.org/chapter6_location.cfm
2. Accessible Pedestrian Signals: A Guide to Best Practices. Features of APS. http://www.apsguide.org/chapter4.cfm

Ban **Right Turns on Red**

Definition Right turn on red (RTOR) is a policy that permits drivers to turn right during a red light after coming to a complete stop, except where specifically prohibited by a posted sign. This nationwide policy (with the exception of New York City) was adopted by the Federal Highway Administration and Department of Energy in the 1970s. Research summarizing multiple studies concludes that the number of pedestrian and bicycle crashes at signalized intersections increased after adoption of the RTOR policy, mainly because a right-turning driver would look left for a gap in traffic and not see pedestrians or cyclists approaching from his or her right side.[1] A no-right-turn-on-red (NRTOR) policy reverses that policy, prohibiting RTOR unless otherwise permitted at specific locations by posted signs. NRTOR policies could ban right turns in urban or high-pedestrian-density areas at all times or only during daytime hours, which is the time most pedestrian crashes occur.[2]

Benefits

- Reduces conflicts between drivers and pedestrians
- A citywide or neighborhood NRTOR policy eliminates the cost of creating, installing, maintaining, and replacing RTOR prohibition signs at each intersection

Considerations

- Needs regular enforcement
- Motorists will need to be consistently alerted to RTOR policy changes when entering and leaving NRTOR areas
- Prohibiting RTOR may lead to higher right-turn-on-green conflicts
- Prohibiting RTOR may cause congestion with high volumes of right turns
- RTOR policies provide small fuel and time savings

Appropriate Contexts

- Central business districts and dense urban areas where there are significant variation in traffic volumes and pedestrian activity
- Intersections:
  - » With inadequate sight distance
  - » With unusual geometry
  - » With high traffic speeds on the intersecting street
  - » Where there are high volumes of seniors
  - » Where there are heavy volumes of pedestrian crossings
  - » Where disabled pedestrians request it
  - » Adjacent to parks and hospitals
  - » At school crossings
  - » At railroad crossings
  - » At traffic signals with three or more phases[3]

Guidance

- Reach out to community stakeholders to discuss pedestrian-safety concerns and potential ways to address them, including NRTOR
- With the community's support, clearly sign the entrance and exits to NRTOR zones to clarify expected behaviors of drivers and pedestrians

Professional Consensus

- Not included in MUTCD or AASHTO
- In the absence of national guidance, cities are turning to best practices employed by other municipalities
- A 1980 study sponsored by the Insurance Institute for Highway Safety found that, once right turns on red were permitted, the number of crashes involving right turns at traffic signals increased by 20% and pedestrian crashes resulting from right-turn maneuvers at traffic signals increased by 57%[4]

Examples

- Two cities in North America have citywide NRTOR polices:
  - » New York, NY
  - » Montreal, QC

Road signs alert drivers approaching the Island of Montreal that they are entering a zone where no right turns on red are permitted. *Source: Vincent Paul Escanlar, betterfredericton.org*

1. Retting, Richard A., Nitzburg, Marsha S., Farmer, Charles M., Knoblauch, Richard L. Field Evaluation of Two Methods for Restricting Right Turn on Red to Promote Pedestrian Safety. *ITE Journal.* January 2002. 32.
2. Ibid. 35.
3. San Francisco Planning Department. The Better Streets Plan. December 2010. 5–11. http://www.sf-planning.org/ftp/BetterStreets/docs/FINAL_5_Street_Designs.pdf
4. Insurance Institute for Highway Safety. Right-Turn-On-Red Laws Raise Intersection Toll. *The Highway Loss Reduction Status Report.* Vol. 15, No. 18. December 9, 1980. http://www.iihs.org/externaldata/srdata/docs/sr1518.pdf

Split Phasing

Definition Split phasing divides the green light of a traffic signal into separate phases: one for turning vehicles and another for through-traffic and pedestrians.

Benefits

- Allows pedestrians to cross the street free of conflicts with turning vehicles

Considerations

- Potentially increases wait times for pedestrians and the possibility of pedestrians crossing against the signal
- Split phasing may not extend to vision-impaired pedestrians unless an accessible pedestrian signal is installed

Appropriate Contexts

- Intersections with dedicated turning lanes where heavy pedestrian volumes and turning vehicles conflict, resulting in crashes or congestion

Guidance

- Use a five-section signal head with a combination of circular and arrow indications[1]
- For permissive-only right-turn modes (where pedestrians continue to cross while car are permitted to turn), program the turn arrow to flash yellow to indicate to drivers that they must yield to pedestrians in the crosswalk[2]
- For protected-only right-turn modes (where pedestrians and turning cars have separate signal phases), program the turn arrow to a steady green arrow

Professional Consensus

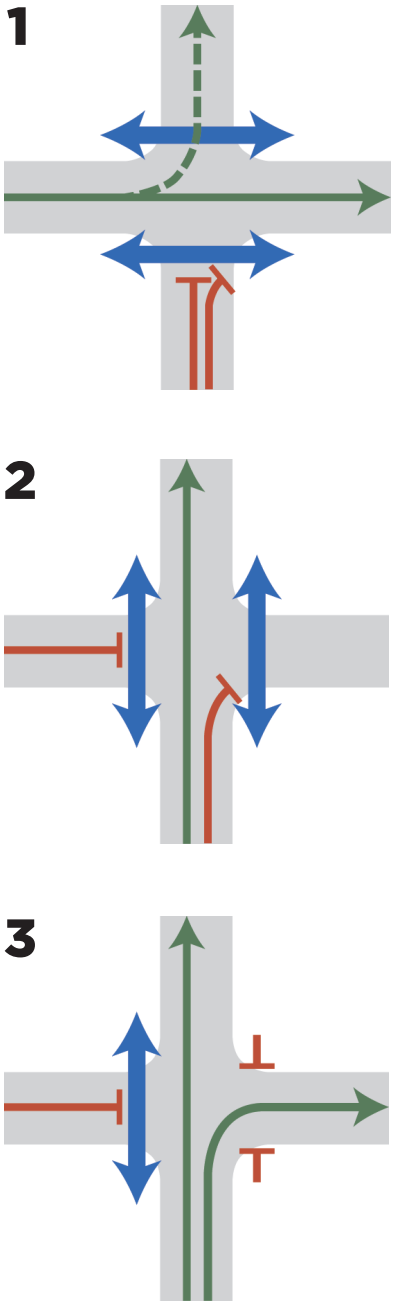
- Sections 4D.21 - 4D.24 in the Manual on Uniform Traffic Control Devices contain specific engineering guidance

Examples

- Widespread in U.S. cities

Split-phase signal timing in New York, NY. In this phase, pedestrians cross the street free of conflicts with turning vehicles. *Source: Sam Schwartz Engineering*

Split-phase signal timing in New York, NY. In this phase, drivers turn right free of conflicts with crossing pedestrians. *Source: Sam Schwartz Engineering*



In this split-phase signal-phase diagram, pedestrians wait to cross during phase 1, cross free of conflicts during phase two, and wait on one side of the street to allow cars to turn during phase 3. *Source: Zeke Mermell, Sam Schwartz Engineering*

1. Federal Highway Administration. Signalized Intersections. 2004. 67. http://www.fhwa.dot.gov/publications/research/safety/04091/04.cfm#chp424
2. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. Section 4D.04. December 2009. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf

Pedestrian Scramble or Barnes Dance

Definition A pedestrian scramble, or Barnes Dance, is an exclusive pedestrian interval that stops all vehicular movement to allow pedestrians access to cross in any direction at the intersection, including diagonally. During a Barnes Dance, pedestrians can cross at all four crosswalks; during a pedestrian or signal scramble, pedestrians are encouraged to cross the intersections diagonally as well.

Benefits

- Improves pedestrian safety by removing conflicting traffic from the pedestrian crossing phase
- Provides better separation between cars and pedestrians[1]

Considerations

- Potentially increases wait times for pedestrians and the possibility of pedestrians crossing against the signal
- Potentially confuses visually impaired pedestrians who rely on traffic sounds to decide when and where to cross[2]
- Potentially hampers ability to synchronize timing at adjacent traffic signals[3]

Appropriate Contexts

- Areas with high pedestrian volumes (e.g., more than 1,200 pedestrian crossings per day)[4]
- Areas with high-volume and high-speed turning vehicles that threaten pedestrians[5]
- Areas with heavy conflicts between crossing pedestrians and turning vehicles

Guidance

- Install accessible pedestrian signals

Professional Consensus

- Recognized as a pedestrian-signal-timing option in the 2009 MUTCD

Examples

- Newark, DE
- New York, NY
- Pasadena, CA
- Toronto, ON

People crossing Battery Place during a pedestrian-exclusive crossing phase, New York, NY. *Source: Sam Schwartz Engineering*

People crossing Yonge and Dundas streets during the pedestrian scramble phase, Toronto, ON. Note the diagonal crosswalk in the left corner of the image. *Source: Neal Jennings, Flickr*

1. Pedestrian and Bicycle Information Center. Signals and Signs. http://www.walkinginfo.org/engineering/crossings-signals.cfm#traffic-signal-enhancements
2. Federal Highway Administration. Pedestrian Safety – Report to Congress. August 2008. http://safety.fhwa.dot.gov/ped_bike/legis_guide/rpts_cngs/pedrpt_0808/chap_3.cfm#s41
3. Federal Highway Administration. Pedestrian Signal Timing. PEDSAFE Pedestrian Safey Guide and Countermeasure Selection System. n.d. http://www.walkinginfo.org/pedsafe/pedsafe_curb1.cfm?CM_NUM=39
4. Federal Highway Administration. A Review of Pedestrian Safety Research in the United States and Abroad. 2003. http://www.fhwa.dot.gov/publications/research/safety/pedbike/03042/part3.cfm
5. Federal Highway Administration. Pedestrian Signal Timing. PedSafe. n.d. http://www.walkinginfo.org/pedsafe/pedsafe_curb1.cfm?CM_NUM=39#casestudy

Pedestrian-Detecting Traffic Signals

Definition Pedestrian detectors can activate a pedestrian traffic control device, extend the crossing time for pedestrians already in the crosswalk, and shorten the crossing time if pedestrians have already cleared the crosswalk. Detectors can be pressure mats at the waiting area, infrared or microwave detectors mounted on the signal pole, or video cameras using remote sensor software at the waiting and crosswalk areas.[1]

Benefits

- Increases pedestrian visibility at night through automatically activated lighting
- Stops vehicles only when pedestrians approach the crosswalk
- Activates the pedestrian phase with the presence of every pedestrian
- Extends the clearance interval to give pedestrians already crossing the street more time to get to the other side

Considerations

- Funding for pedestrian-passive sensors systems
- Experts don't know the comparative safety effectiveness of passive pedestrian systems versus manual push button systems[2]
- Pedestrians may not wait for the signal to change before crossing
- Pedestrians who are blind may not stand or walk in the necessary location to trigger the walk signal or extend the crossing interval

Appropriate Contexts

- Signalized intersections in areas with seniors, children, or pedestrians with mobility challenges
- Unsignalized intersections with light pedestrian volumes
- Mid-block crossings

Guidance

- Use Livewire or Bluetooth technology to set up and adjust the detection area without having to physically create or adjust zone boundaries[3]
- Integrate ADA/PROWAG requirements into design elements, including ramp grades
- Provide adequate passing space around the waiting detection area on the sidewalk
- Clearly indicate the waiting and crossing detection zones for pedestrians
- Install accessible pedestrian signals to provide the signal information to pedestrians who are blind or visually impaired
- Provide nighttime lighting to increase pedestrian visibility and detector accuracy
- Encourage pedestrian compliance through signals that respond within a matter of seconds to a pressed button or detected pedestrian, especially in school zones[4]

Professional Consensus

- Passive detection devices are allowed in Section 4E.08 of the 2009 MUTCD[5]

Examples

- The Puffin crossing system, which includes passive pedestrian detection in waiting and crossing zones, is now the U.K. standard for intersections and mid-block crossings[6]
- Puffin facilities incorporating passive pedestrian detection in waiting areas and crossings are in trial in Australia and New Zealand[7]

Automated pedestrian sensors for adapting signal timing for pedestrians, Bristol, U.K. *Source: Federal Highway Administration, United States Department of Transportation*

Case Study: United Kingdom

The United Kingdom had two main types of pedestrian signal treatments: Puffin signals and Pelican signals. A Pelican signal treatment consisted of a nearside push button to trigger the walk phase, a standard timed walk phase based on the street length and average walking pace, and a farside pedestrian signal that beamed a green light for pedestrians to cross and flashed orange when it was no longer safe for pedestrians to start crossing. Puffin signals consisted of nearside pedestrian signals, crosswalk pedestrian detectors to extend the crossing period if pedestrians are still on the crosswalk, and curbside detectors to cancel the pedestrian phase if there are no waiting pedestrians. The nearside signal also included sound and tactile indicators for pedestrians with disabilities.[8]

The U.K. Department for Transport compared accident frequencies at intersections with Puffin signals with those using Pelican signals. The study reviewed 40 mid-block crossing and 10 intersection crossings where no other significant changes were made except for converting the crossing facility to Puffin signal treatment. The study found that injury-causing accident rates fell by 17% at mid-block sites and by 19% at all studied sites. It also found that pedestrian accidents fell by 24% and vehicle accidents fell by 16% at those locations.[9] The U.K. Department for Transport has since made the Puffin signal treatment standard for intersections and mid-block crossings.[10]

1. Harkey, David L.; Carter, Daniel; Bentzen, Billie L.; Barlow, Janet M. Accessible Pedestrian Signals: A Guide to Best Practices. NCHRP. 2010. 76. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w150.pdf
2. Federal Highway Administration Office of Safety. Pedestrian Safety – A Report to Congress. August 2008. http://safety.fhwa.dot.gov/ped_bike/legis_guide/rpts_cngs/pedrpt_0808/chap_3.cfm
3. Traffic Technology International. August/September 2011. 94.
4. Federal Highway Administration Office of Safety. Safer Journey: Interactive Pedestrian Safety Awareness Library. 1998. http://safety.fhwa.dot.gov/saferjourney/library/countermeasures/41.htm
5. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. Section 4E.08. December 2009. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf
6. Department for Transport. Puffin Crossings Good Practice Guide – Release 1. July 2006. 2. http://assets.dft.gov.uk/publications/puffin-good-practice/puffin-good-practice-guide.pdf
7. Traffic Technology International August/September 2011. 94.
8. Routledge, Ian; Knight, Philip; Kennedy, Janet. Road Safety Benefits of Puffin Facilities. 2011 http://www.ukroads.org/ukroadsignals/articlespapers/20090923_Ian_Routledge-Road_safety_benefits_of_Puffin_facilities.pdf
9. Ibid.
10. Department for Transport. Puffin Crossings Good Practice Guide – Release 1. July 2006. 2. http://assets.dft.gov.uk/publications/puffin-good-practice/puffin-good-practice-guide.pdf

Rectangular
Rapid-Flashing Beacons

Definition Rectangular rapid-flashing beacons typically consists of two light-emitting-diode (LED) beacons on either side of a roadside pedestrian-warning sign that flash in a left-to-right pattern when pedestrians cross the street. The flashers, which use an irregular pattern like those on police vehicles, are turned on either when a pedestrian pushes a manual push button or when a pedestrian automatically triggers a pedestrian-detection system. Rectangular rapid-flashing beacons can also be called Rapid-Flash System, Stutter Flash, or LED Beacons.

Benefits

- Provides a less expensive alternative to traffic signals
- Increases driver yield-to-pedestrian rates at crosswalks compared with standard pedestrian-crossing warning signs and markings
- Increases driver yield-to-pedestrian rates at crosswalks compared with traditional overhead beacons

Considerations

- May need a public-outreach campaign to educate drivers unfamiliar with the concept

Appropriate Contexts

- Mid-block crosswalks on two-lane or multilane roadways
- A pedestrian or school crossing
- Crosswalks not controlled by a yield sign, stop sign, or traffic-control signal on two-lane or multilane roadways
- A crosswalk at a roundabout

Guidance

- Install RRFBs in conjunction with regulatory/ warning signs and markers except for Stop, Do Not Enter, Wrong Way, and Speed Limit signs[1]
- Keep RRFBs unlit when there are no pedestrians present
- Install an accompanying regulatory sign that says "when flashing"
- Activate RRFBs by manual push buttons or automated passive-pedestrian detection
- Use solar panel units to power RRFBs
- Install devices with push button locator tones and an audible message that states "yellow lights are flashing" to meet ADA / PROWAG guidelines
- Install RRFBs at medians as well as roadside locations for increased driver visibility and yielding

Professional Consensus

- MUTCD[2] permits and provides guidance on warning beacons
- FHWA Safety program publishes guidance[3] and reports[4] on RRFB
- FHWA gave Interim Approval to allow RRFBs as warning beacons to supplement standard pedestrian crossing and school crossing warning signs at crossings across uncontrolled approaches[5]

Examples

- Miami Beach, FL
- St. Petersburg, FL
- Washington DC

Rectangular rapid flashing beacons. *Source: Federal Highway Administration, United States Department of Transportation*

1. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. December 2009. 523. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf
2. Ibid.
3. Federal Highway Administration. Office of Safety. Rectangular Rapid Flashing Beacon. 2009. http://safety.fhwa.dot.gov/intersection/resources/techsum/fhwasa09009/
4. Furst, Tony. Federal Highway Administration. Memorandum: Promoting the Implementation of Proven Safety Countermeasures. January 12, 2012. http://safety.fhwa.dot.gov/provencountermeasures/pc_memo.htm
5. Federal Highway Administration. Memorandum: Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11). July 16, 2008. http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm

Pedestrian Hybrid or HAWK Beacon

Definition The pedestrian hybrid beacon, or High intensity Activated crosswalk, (HAWK), is a pedestrian-activated warning device for mid-block pedestrian crossings. The beacon, mounted above or beside the road, consists of two red lenses above a single yellow lens. The beacon head is unlit until a pedestrian pushes a button, which causes the beacon to illuminate a brief flashing and steady yellow interval, then a steady red indication to drivers. A pedestrian signal then indicates it is safe for pedestrians to cross while traffic is stopped. When the pedestrian signal starts flashing at the end of the crossing interval, the beacon displays alternating flashing red lights to drivers, letting them know their red light is about to end.

Benefits

- Provides stop control at crossings that typically don't meet signal-warrant requirements
- Improves vehicle traffic flow through the alternating red signal heads, which signals vehicles to proceed once the pedestrian has cleared the travel lane
- Reduces pedestrian crashes by up to 69%[1]
- Reduces total roadway crashes up to 29%

Considerations

- Drivers may be unfamiliar with the new signal treatment

Appropriate Contexts

- Marked crosswalks at mid-block locations where:
  - » Gaps in traffic are not adequate to permit pedestrians to cross
  - » Vehicle speeds are too high to permit pedestrians to safely cross
  - » Pedestrian wait times are excessive
  - » There are nearby transit stops or schools

Guidance

- Conduct public-outreach campaigns to teach pedestrians and drivers how to use and react to the signal
- Install accessible pedestrian signals so the crossing is accessible to pedestrians who are blind or visually impaired

Professional Consensus

- Listed as one of the Federal Highway Administration's Office of Safety Proven Safety Countermeasures[2]
- Included in the MUTCD[3]

Examples

The FHWA is promoting widespread integration of median and pedestrian crossing islands into state practices. States that have adopted the countermeasure include:[4]

- Juneau, AK
- Tucson, AZ
- Washington DC

HAWK beacon on Third Street Bicycle Boulevard at Swan Road, Tucson, AZ.
Source: Tucson Bicycle & Pedestrian Program, City of Tucson

HAWK beacon along Fontana Bike Boulevard at Fort Lowell Road, Tucson, AZ.
Source: Tucson Bicycle & Pedestrian Program, City of Tucson

1. Federal Highway Administration. Proven Safety Countermeasures. Pedestrian Hybrid Beacon. 2012. http://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_012.htm
2. Federal Highway Administration Office of Safety. Memorandum: Promoting the Implementation of Proven Safety Countermeasures. January 12, 2012. http://safety.fhwa.dot.gov/provencountermeasures/pc_memo.htm
3. Federal Highway Administration. Manual on Uniform Traffic Control Devices on Streets and Highways. December 2009. http://mutcd.fhwa.dot.gov/pdfs/2009/mutcd2009edition.pdf
4. Federal Highway Administration Office of Safety. Pedestrian Countermeasure Policy Best Practice Report. http://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa11017/

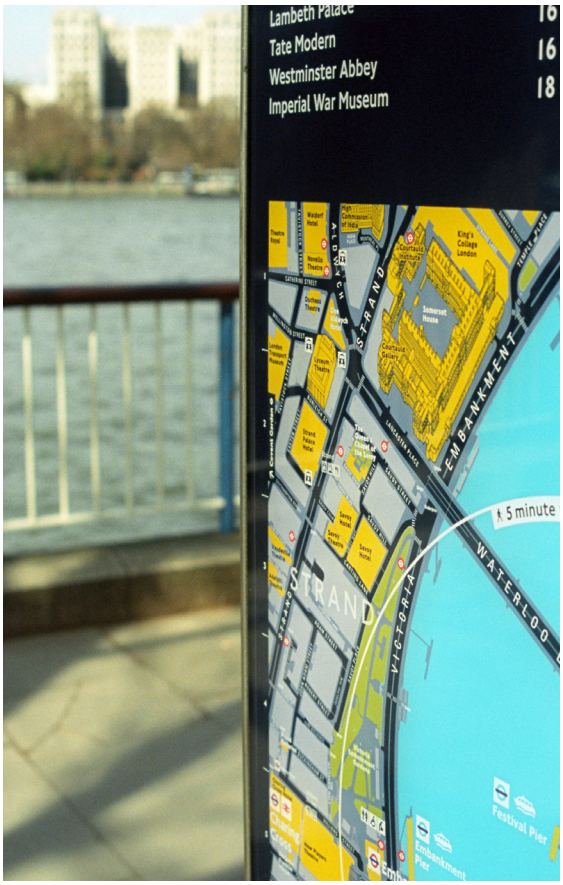
Encouragement & Education Tactics

Introduction

Walking is more than a mode of transportation—it can also be a form of recreation, exercise, or exploration; a habit; or simply a pleasure. These tactics are for use by government agencies, walking advocates, and regular citizens who all contribute toward making walking a feasible, safe, and fun option in our communities.

This chapter contains large-scale projects, such as mobility education and pedestrian wayfinding systems, as well as small-scale initiatives that individuals could undertake, such as incorporating walking in the workplace, or leading a public group walk through a neighborhood.

These are certainly not the only encouragement and education tactics, but they are some of the most dynamic and successful in changing community attitudes and increasing people's inclination to walk.



Wayfinding signage. *Source: Rob Brewer, Flickr*

Open Streets. *Source: Bradley P Johnson, Flickr*

Create a **SmartTrips** Program

Definition A SmartTrips program is a direct, individualized marketing program that encourages neighborhood residents to switch from car-based transportation to transit, biking, and walking. Programs use various approaches, such as direct mailings, email and website outreach, text messages, blogs, social media, bike delivery of materials, and free events to educate and encourage residents to change their travel behavior.

Benefits

- Encourages walking and an active lifestyle
- Reduces car dependency

Considerations

- Program funding (In Portland, OR, a typical 20,000-household program costs $570,000.)[1]
- Obtaining or outsourcing needed technical skills and software tools

Appropriate Contexts

- Neighborhoods with amenities and demographics that suggest the potential for behavior change, such as areas with street connectivity, sidewalks, bike-friendly streets, good bus service, trails, shops, and parks as well as high car ownership[2]
- Neighborhoods with interested and motivated community organizations

Guidance

- Use an established planning process to create the SmartTrips outreach program. Social marketing guidance[3] created by the Centers for Disease Control and Prevention recommends that a program include:[4]
  - » Problem description
  - » Formative research
  - » Strategy development
  - » Intervention design
  - » Evaluation
  - » Implementation
- Schedule at least six months to plan the program and five months to run it. St. Paul's Smart Trips Neighborhoods recommends planning in the fall for a May–November program[5]; a five-month program better engages residents through more events, newsletters, and emails, and encourages them to walk and cycle in cold weather
- Use software tools to help track and organize program elements, such as ConstantContact, MailChimp, EventBrite, Woofoo, Qualtrics, and SurveyMonkey
- Partner with:
  - » Advocacy organizations for in-kind support
  - » Public-health agencies for program planning and evaluation
  - » Community groups for outreach assistance
  - » Businesses in planning events and activities
- Allow participants to customize their information packets and travel-behavior goals within trackable parameters (e.g., which mode and how many trips per week)
- Make program events and materials accessible, including providing materials to those who use screen-reading or screen-enlargement software
- Create a neighborhood-wide goal with a reward to encourage peer pressure to meet it
- Document the program:
  - » Encourage staff to photograph outreach efforts and events
  - » Encourage participants to contribute their perspectives
- Evaluate the program, including effectiveness of outreach materials. Portland[6] and St. Paul[7] have published reports detailing survey methodology and results

Professional Consensus

- The Psychology of Sustainable Behavior provides guidance for sustainable-behavior campaigns based on studies from academic, peer-reviewed journals

Examples

- Northern Colorado
- Portland, OR
- St. Paul, MN
- Whatcom County, WA

Case Study: Portland

In 2002, the Portland Bureau of Transportation (PBOT) created an individualized marketing program to reduce drive-alone trips and increase walking, bicycling, transit, and carpool trips in targeted areas. Portland modeled its program after those found in Australia and Europe. After two pilot programs in 2003 and 2004, Portland added activities and extended its outreach to eight months. Every year, the Transportation Options Division of the PBOT selects an area with about 20,000 households. Areas are chosen based on land use patterns, transit availability, bike and walking infrastructure, and investments, such as light rail service. In late March, each household in a SmartTrips area receives a newsletter with a calendar of organized walks, bike clinics, and bicycle rides. The newsletter highlights SmartTrips programs, including the Ten Toe Express Walking Campaign, Portland By Cycle Campaign, Senior Strolls, and Women on Bikes. The newsletter also includes a notice about the SmartTrips Order Form that residents will soon receive to order maps, brochures, tips, and event schedules for walking, bicycling, transit, carpool, car sharing, and driving.

Order forms are sent in weekly waves of 2,500 households. Employees typically deliver the materials and incentives within a week of receiving an order. Three weeks after receiving the first order form, employees send households a reminder postcard with the order-form website and a phone number to request an order form by mail. Residents receive their requested materials in a tote bag with a personalized luggage tag. Every delivery includes a thank-you letter, SmartTrips events calendar, and a walking map. Residents can order walking materials such as a free pedometer donated by Kaiser Permanente and a schedule of walking tours; bicycling materials such as a bike map, guides with tips and rules of the road, and a personalized bicycle-trip-planning request postcard; and transit materials, such as a transit guide for seniors and the disabled, and a personalized transit tracker card with ID numbers of two nearby bus stops so the resident can get real-time bus-arrival data. Brochures about car sharing, carpooling, and safety guidelines for older drivers are also available for order. Every package comes with an incentive, either a SmartTrips umbrella, bandana, bike map, or T-shirt.

On May 1, residents receive a second newsletter reminding them to order materials and listing events and activities. Everyone who orders materials or attends an event gets newsletters in July, September, and November. All SmartTrips area residents receive SmartTrips messages at least seven times through mailers, media coverage, and outreach events.[8]

Residents in the 2010 SmartTrips Green Line program reduced drive-alone trips by 18% and increased environmentally friendly modes by 30%. Approximately 25% of those in the target area, or 8,200 SmartTrips Green Line households, ordered materials or participated in at least one of 95 Transportation Options events. As with past programs, Portland evaluated its success using survey data collected before and after the SmartTrips program. A data-collection firm conducted panel-style, pre- and post-program phone surveys of six hundred residents living in the SmartTrips Green Line target area.[9]

1. Pedestrian and Bicycle Information Center. Portland SmartTrips. http://www.walkinginfo.org/library/details.cfm?id=3961
2. Smart Trips Highland Park Final Report. St. Paul Smart Trips. 2010. http://www.smart-trips.org/downloads/Highland_Final_Report.pdf
3. The Centers for Disease Control and Prevention. Social Marketing: Nutrition and Physical Activity. http://www.cdc.gov/nccdphp/dnpa/socialmarketing/training/index.htm
4. Smart Trips Neighborhoods: Lessons Learned. St. Paul Smart Trips. October 2011.
5. Smart Trips Neighborhoods: Lessons Learned. St. Paul Smart Trips. October 2011.
6. City of Portland Bureau of Transportation. SmartTrips Green Line Final Report. December 2010. http://www.portlandonline.com/transportation/index.cfm?c=52160&a=331242
7. Smart Trips Highland Park Final Report. St. Paul Smart Trips. 2010. http://www.smart-trips.org/downloads/Highland_Final_Report.pdf
8. Pedestrian and Bicycle Information Center. Portland SmartTrips. http://www.walkinginfo.org/library/details.cfm?id=3961
9. City of Portland Bureau of Transportation. SmartTrips Green Line Final Report. December 2010. http://www.portlandonline.com/transportation/index.cfm?c=52160&a=331242

Seek **Recognition**

Definition Applying for a Walk Friendly Communities (WFC) designation, managed by the Pedestrian and Bicycle Information Center, provides national recognition for your city's efforts to encourage and improve walking.

Benefits

- Provides suggestions and resources to improve pedestrian safety
- Helps identify areas of needed improvements
- Helps create a framework for future pedestrian improvements
- Allows cities to share successful tactics and programs
- Provides competition and inspiration for walking improvements
- Gives cities a marketing advantage over other tourist destinations
- Potentially supports further municipal and private investment in walking improvements

Considerations

- Investing time and staff in the 20- to 60-hour application process

Appropriate Contexts

- Individual cities and towns, or counties where the county and city government are the same entity, as per WFC application requirements

Guidance

- Create an application committee with members from multiple agencies and backgrounds, including planners, engineers, law-enforcement officials, and advocates
- To find information requested by the application, reach out to and coordinate among municipal, county, and school district agencies and departments including the police, planning, public works, and engineering departments, and local transit. Other information may come from local nonprofits, advocacy groups, or elected officials
- Mention any state or national programs that have had a positive impact in your community, or any programs from local departments, private organizations, or advocacy groups that have improved the walking environment—also include any specific efforts to create a culture of walking[1]

Professional Consensus

- The Walk Friendly Communities program is sponsored by FedEx and the Federal Highway Administration. It is maintained by the UNC Highway Safety Research Center's Pedestrian and Bicycle Information Center with support from national partners, including: Association of Pedestrian and Bicycle Professionals, League of American Bicyclists, National Highway Transportation Safety Administration, U.S. Environmental Protection Agency, National Center for Bicycling & Walking, Centers for Disease Control and Prevention, America Walk, The Walkable and Livable Communities Institute, Institute of Transportation Engineers, Accessible Design for the Blind, National Center for Safe Routes to School, Access Board, and AARP[2]

From top to bottom:

The Walk Friendly Communities of Ann Arbor, MI; Charlottesville, VA; and New Orleans, LA.

Sources: Michigan Municipal League, Flickr; Mr. T, Flickr; and Linda Rae Duchaine, Flickr

Examples

More than 38 cities and towns have received Walk Friendly Communities designations, including:

- Seattle, WA
- Ann Arbor, MI
- Hoboken, NJ
- Arlington, VA
- Santa Barbara, CA
- Decatur, GA
- Flagstaff, AZ
- Cedarburg, WI
- Oxford, MS
- Sparks, NV
- Franklin, TN
- Dayton, OH[3]

1. Walk Friendly Communities Assessment Tool. http://www.walkfriendly.org/WalkFriendlyCommunitiesAssessmentTool.pdf
2. Walk Friendly Communities. http://www.walkfriendly.org/sponsors.cfm
3. Walk Friendly Communities. http://www.walkfriendly.org/communities/list.cfm

Create a Pedestrian **Wayfinding System**

Definition Pedestrian wayfinding systems are navigational systems that help pedestrians determine where they are and where they need to go to reach a destination. Traditionally consisting of signs, wayfinding systems can now also involve GPS systems, web connectivity, and mobile technology. Wayfinding systems can be designed and implemented formally by municipalities and business improvement districts, or informally by walking advocates.

Benefits

- Helps pedestrians overcome the hurdle of distance perception
- Increases foot traffic
- Increases tourism
- Increases commerce
- Helps encourage different transportation choices

Considerations

- Potential to create visual clutter for pedestrians and/or drivers
- Significant investment of resources and time

Appropriate Contexts

- Central business districts
- Tourist districts
- Office and academic campuses
- Retail districts and shopping malls
- In-between areas outside defined districts

Guidance

- Create distinct, visible, consistent design for wayfinding signage
- Post signs on both sides of the street or trail along major walking routes
- Orient maps so that whatever direction the pedestrian is facing is at the top; indicate the orientation with the underlined phrase "You Are Here" where the pedestrian is within the map, and place an upward arrow under it
- Define distances by the time needed to reach them (e.g., "It's a 15-minute walk away" or circles encompassing destinations within a 5-, 10-, or 15-minute walk)
- On signs with maps, create a standard prioritization system to limit the number of landmarks identified
- Illustrate the facades of important landmarks on maps to help orient pedestrians
- Include indexes of major landmarks[1]
- Make public data available to private organizations to develop smartphone applications ("apps") at no cost to governmental agencies. QR codes can be incorporated to improve information delivery and reduce visual clutter

Professional Consensus

- 2009 MUTCD Section 2D.50 contains specific provisions about Community Wayfinding guide signs
- Multiple states have created community wayfinding guidelines and standards, including:
  - » Florida
  - » California
  - » North Carolina

Examples

- Charlotte, NC
- London, UK
- New York, NY

Legible London wayfinding signage in South Bank, London, U.K. *Source: Rob Brewer, Flickr*

Case Study: London

In 2006, Transport for London, the integrated organization responsible for London's transport system, launched the Legible London wayfinding program. Legible London's goal was to increase walking trips and help relieve congestion on the city's transit system and roads. Legible London found that residents relied too much on the London Tube map to navigate through the city. This proved to be a problem because the Tube map unintentionally makes walking distances between downtown stations appear greater than they are: Of surveyed passengers exiting Leicester Square station, 5% had started from a station less than a half-mile away.[2]

Legible London aimed to create a coherent pedestrian navigational system to help pedestrians navigate the city at street level as well as provide a common and constantly updated central information system for maps, signs, and websites.[3] An evaluation of Legible London's pilot programs found that the number of surveyed pedestrians getting lost decreased by 65%, more than three-quarters felt more confident exploring an area on foot, and those who had used the system felt it encouraged them to walk more often, walk farther, and walk rather than use other means of transport.[4]

By February 2012, Legible London had completed the base maps of the whole of Greater London. The collaborative project included input from London Boroughs, landowners, and business improvement districts. The completed base map is now on sidewalk kiosks, in London Underground stations and bus shelters, at bike share stations, and along bike paths. The wayfinding system is expanding to walking and cycling routes for Olympics events and town centers across London.

1. Turner, Julia. Legible London: Can better signs help people understand an extremely disorienting city? Slate. March 4, 2010. http://www.slate.com/articles/life/signs/2010/03/legible_london.html
2. Legible London: A Wayfinding Study. AIG and Central London Partnership. March 2006. 6.
3. Ibid. 30.
4. Transport for London. About Legible London. Research. Pilot evaluation results. http://www.tfl.gov.uk/microsites/legible-london/12.aspx#Pilot_evaluation_results

Demonstrate
Street Improvements

Definition Spearheaded by the Better Block Project, this strategy is a collaborative effort to design and install a one-day demonstration of pedestrian-oriented streetscape improvements along an urban block. Typical demonstrations set up temporary pedestrian plazas, pop-up businesses in vacant storefronts, street trees and greenery in planters, bike lanes, additional street lighting, and (rented) sidewalk benches, tables, and chairs.[1]

Benefits

- Builds community consensus around proposed streetscape improvements
- Gives residents and city officials a preview of the benefits of streetscape improvements
- Illustrates how relatively small investments in urban spaces can revitalize a community and make it more appealing for walking and cycling
- Highlights outdated and overly restrictive existing city ordinances that might ordinarily prohibit such streetscape improvements

Considerations

- Funding for event needs, including organizers, amenities, permit fees, volunteer coordinators, event insurance, and marketing expenses
- Allotting enough time for permitting processes
- Allotting enough time for community involvement and marketing outreach
- Ensuring that adequate litter/trash-removal services exist

Appropriate Contexts

- A block with a cluster of buildings along an automobile-oriented street
- Former streetcar intersections
- Locations with strong community partners
- Blocks in close proximity to a residential neighborhood

Guidance

- Address safety when planning the demonstration:
  - » Does it feel safe to cross the street, walk on the sidewalk, or linger in the area?
  - » Does the area have obstacles that reduce sight lines?
  - » Is the area filled with debris, graffiti, overgrown landscaping, etc.?
  - » Do businesses have window bars or opaque windows?
- Address accessibility when planning the demonstration:
  - » Do pedestrians have easy and clear access to the area?
  - » Do bicycles feel welcome in the area?
  - » Is the area easily accessible from neighborhoods?
  - » Is the area inviting to children, seniors, those with mobility impairments, and dog owners?
- What would make the block attractive?
  - » Are there wayfinding signs?
  - » Are there amenities that encourage people to linger, such as seating and tables?
  - » Are there food options and/or places to eat outdoors?
  - » Are there maps, bulletin boards, or games that encourage people to linger?
- Create a broad-based implementation team including community activists, nonprofits, artists, businesses, students, and planning/architect associations
- Coordinate the demonstration with an existing event, such as an art crawl or fun run, to raise awareness of the upcoming demonstration
- Work with property owners to allow access to vacant spaces
- Develop pop-up stores in vacant spaces and reach out to existing businesses for retail ideas and/or products
- Apply for a street-closure permit that still allows one lane of vehicle traffic. This helps residents see that a street design that better accommodates cyclists and walkers is a feasible everyday option

A temporary buffered bike lane next to pop up retail at the first Better Block demonstration in Dallas, TX. *Source: Jason Roberts, Better Block*

- Provide insurance. One option is to take out "block party" event policy and add property owners as "additional insured" for the demonstration
- Install welcoming streetscape amenities. Techniques include:
  - » Renting movable seats and tables
  - » Renting planters and plants from local prop houses or nurseries
  - » Installing temporary street lighting
  - » Stringing bailing wire across the street (15' or higher for truck clearance) and attaching holiday lights
  - » Booking street musicians
  - » Providing things to read, like maps, on kiosk
  - » Providing food/drink, whether through existing businesses or food cart vendors
  - » Providing activities like chess or hopscotch
- Stripe a bike lane, either instead of or next to the curbside parking lane. Lanes are ideally at least 5' wide; white duct tape is a good substitute for paint. To paint the lane green, make washable paint by adding food coloring to equal parts flour, cornstarch, and water
- Promote the event by sending fliers to local businesses, universities, and schools; sending press releases to local TV, newspapers, and blogs; and announcing the event through partner organizations and social networks
- Invite the people who influence long-term city policies, such as the mayor, council members, city staff, and the media

Case Study: Dallas

In April 2010, a group of community organizers, neighbors, and property owners gathered together to revitalize a single commercial block in the Dallas neighborhood of Oak Cliff. The area had many vacant properties and wide streets, and few amenities for residents who lived within a walking distance of the commercial corridor. The Better Block coalition created an "urban intervention," using temporary tools—bike lanes, cafe seating, trees, plants, pop-up businesses, and lighting—to transform the block into a walkable, bikeable neighborhood destination for people of all ages.

The coalition built upon that April urban intervention in September, 2010, when it collaborated with the landscape architects SWA Group and Methany Landscaping to build a temporary green median and place (potted) street trees along the same block. Volunteers painted cross walks, striped bike lanes, and installed (temporary) bike parking, and food-stall vendors set up shop in vacant lots between buildings. The installation took one day to set up on site, lasted one day, attracted hundreds of visitors. Based on the enthusiastic public response to the two one-day temporary demonstration projects, the City of Dallas funded $500,000 worth of improvements in the area.

Professional Consensus

- National Society of Landscape Architects 2011 Communications Honor award for September 2010 Oak Cliff Better Block project
- North Central Texas Council of Governments 2011 Celebrating Leadership in Development Excellence award

Examples

As mapped on betterblock.org, more than 23 communities have installed demonstrations, including:

- Dallas, TX
- Tulsa, OK
- Denver, CO
- Wichita, KS
- Cleveland, OH
- Waco, TX
- McComb, MS
- Las Vegas, NV
- Memphis, TN
- Mt. Rainer, MD
- Oyster Bay, NY

1. Better Block Project. http://betterblock.org/

Create **Open Streets**

Definition Temporarily closing streets to automobiles and organizing public activities to encourage healthier transportation and living habits.

Benefits

- Increases walking and cycling
- Promotes physical activity
- Supports local businesses
- Creates a tourist attraction
- Creates momentum for improvements in walking and cycling infrastructure

Considerations

- Funding event needs, including activity organizers, traffic managers/police, street closure permits, volunteer coordinators, event insurance, marketing and outreach
- Mitigating impacts of rerouted traffic, if any
- Ensuring emergency access
- Ensuring public safety of participants

Appropriate Contexts

- Central thoroughfare
- Existing walking and biking routes
- Corridors near tourist, cultural, recreational, or commercial destinations

Guidance

- Build political, financial, and community support early on. Chicago's Active Transportation Alliance used foundation funding to take local officials to cities with Open Streets initiatives. Once they experienced the event firsthand, Chicago officials started championing a car-free event of their own
- Create a coalition of stakeholders and coordinate regularly with city, community, and law-enforcement partners
- Identify a lead project manager
- Allow enough time for the permitting process (deadlines vary by jurisdiction)
- Frame open streets as an economic engine, cultural event, and means to promote healthy lifestyles
- Brand and promote the program. Market it as a continuous program rather than a one-off event[1]
- Partner with local groups to establish uniquely local events and bring in attendees
- Seek nontraditional partners, such as medical foundations, in addition to transportation organizations
- Hold a follow-up meeting to debrief after each event

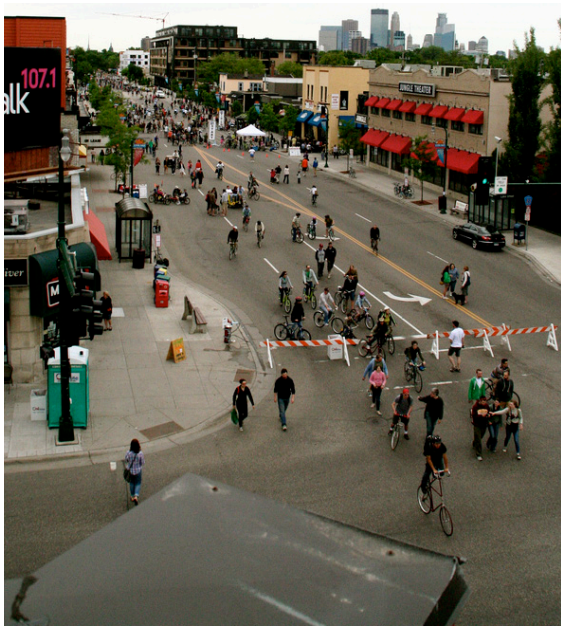
Professional Consensus

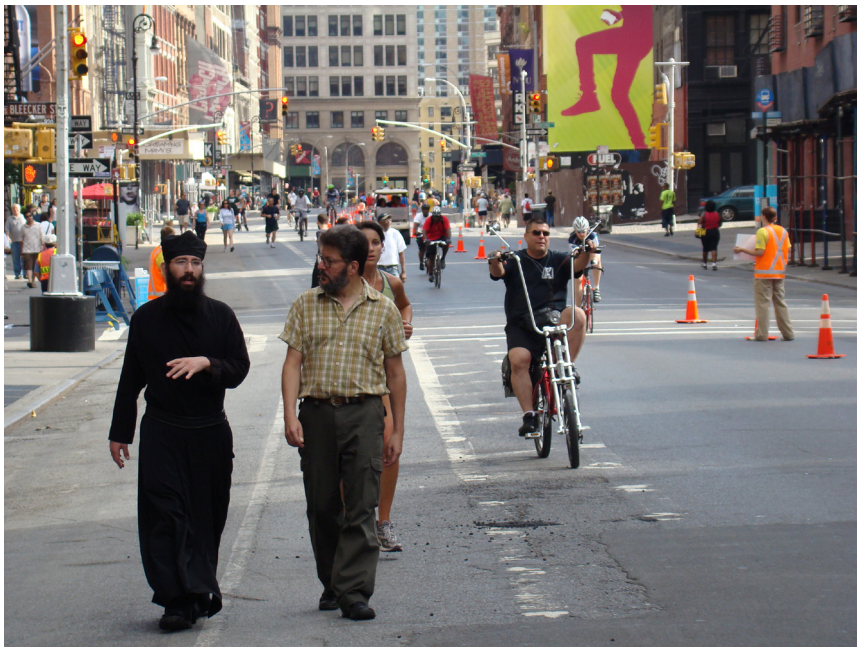
- The Pedestrian and Bicycle Information Center lists Car Free Days and provides guidance
- Open Streets Project lists reports and evaluations of programs, including studies from:
  - » Portland, OR: Sunday Parkways
  - » Missoula, MT
  - » Los Angeles, CA

Examples

More than 70 cities in North and Central America organize versions of Open Streets, including:

- Atlanta, GA
- Durham, NC
- Fargo, ND
- Lincoln, NE
- Los Angeles, CA
- Minneapolis, MN
- New York, NY
- Pensacola, FL
- San Antonio, TX





Top left: A free yoga class during Open Streets Minneapolis. *Source: Bradley P Johnson, Flickr*

Top right: An overview of Open Streets Minneapolis. *Source: Rachel Jackson, Flickr*

Bottom left: Summer Streets, New York, NY. *Source: istolethetv, Flickr*

Bottom right: Summer Streets on Vanderbilt Avenue, Brooklyn, NY. *Source: New York City Department of Transportation*

1. Pedestrian and Bicycle Information Center. http://www.walkinginfo.org/promote/car-free-days.cfm

Create **Play Streets**

Definition Play Streets programs temporarily close a section of a street off to cars, typically for a morning or a day on a regular, but seasonal, basis, for use as a public playground. Activities are often organized and supervised by volunteers or city workers.

Benefits

- Quickly and cheaply expands the amount of recreation space in an area
- Creates a local walking destination
- Reduces potential pedestrian-vehicle conflicts

Considerations

- Temporarily reduces available curbside car parking

Appropriate Contexts

- Locations with strong community partners
- Areas in close proximity to a residential neighborhood
- Discrete road sections or blocks with detour routes available for local vehicular traffic
- Underused roadways adjacent to schools or parks
- Areas underserved by parks and open space

Guidance

- Plan ahead: Contact potential partners and brainstorm activities in winter or early spring
- Reach out to community partners early and often, from the permit application process onward
- Organize community-outreach meetings, recruit volunteers, and brainstorm ideas and partnerships
- Recruit supervisors and activity coordinators from community groups, local police athletic leagues, municipal parks department employees, or summer youth-employment programs
- Schedule regular, consistent activities
- Publicize your play street: Create an activity schedule and share it with local blogs, newsletters, community meetings; post it in grocery stores, community centers, and other activity hubs; spread the word through social media[1]

Professional Consensus

- In the absence of endorsements or guidance from national associations or governmental departments, cities are turning to best practices employed by other municipalities

Examples

- New York, NY
- London, UK

78th Street Play Street, Queens, NY. *Source: The Jackson Heights Green Alliance, jhgreen.org*

Case Study: New York

In 2008, neighbors in the Jackson Heights neighborhood in Queens, New York City, wanted to turn a wide, underused street next to Travers Park into a weekend play street. Ron Hayduk, a member of the Jackson Heights Green Alliance, reached out to the NYC Department of Transportation (DOT) and discovered that the original play-street applications, dating back to 1910, were obsolete. With the support of the Community Board and the local advocacy organization, Transportation Alternatives, community groups and the city developed an agreement to resolve liability and insurance concerns: DOT would be liable for safety and maintenance while the neighbors would be responsible for opening and closing the street and maintaining a volunteer presence throughout the closure.[2]

This pilot program was such a resounding success that the City simplified its Play Streets permitting process to make it easier for more neighborhoods to do the same. The New York City Department of Health and Mental Hygiene (DOHMH) now administers the program. The permitting process consists of the following: If 51% of residents living on a one-way residential block sign a petition, they can submit the petition to local police and transportation officials, who submit it to the local community board for review. If approved, the City parks department provides youth workers to organize the seasonal program.

Transportation Alternatives, alongside the NYC Strategic Alliance for Health and DOHMH documented play streets best practices and recommendations for existing and future community organizers.[3]

1. Transportation Alternatives. Play Streets Program Partner Resource Guide. 2011. http://transalt.org/files/campaigns/pedestrian/playstreets/PlayStreets_ProgramResourceGuide.pdf
2. Play Matters: A Study of Best Practices to Inform Local Policy and Process in Support of Children's Play. Kaboom. 2009. http://kaboom.org/docs/documents/pdf/playmatters/Play_Matters_New_York.pdf
3. Transportation Alternatives. Play Streets Program Partner Resource Guide. 2011. http://transalt.org/files/campaigns/pedestrian/playstreets/PlayStreets_ProgramResourceGuide.pdf

Activate Streetscapes through **Temporary Uses** of Vacant Buildings and Sites

Definition Organizing temporary uses of vacant buildings or land for socially beneficial purposes, which helps create safe dynamic streetscapes and walking destinations.

Benefits

- Creates a dynamic and safer street space for pedestrians
- Maintains street activity, including the number of pedestrians, which benefits nearby shops and offices
- Creates new economic development and cultural opportunities
- Temporary installations can provide an opportunity to build communities and establish a community hub
- Helps business owners try out retail concepts and transition to permanent spaces
- Discourages vandalism and illegal occupation of a vacant space
- Improves appearance of the formerly vacant space, improving the quality of life for local residents
- Potentially attracts new visitors and investors to the site and general area
- Creates a potential business incubator for start-up businesses or new community organizations and nonprofit groups
- Potentially provides accessible community services to a neighborhood. Temporary tenants can be groups providing services such as business start-up support within the communities that need it most, allowing more residents to learn about and take advantage of the opportunity

Considerations

- Allotting adequate time for the permitting process
- May need exemptions from outdated building codes
- May need to develop appropriate language in landlord-tenant leases for flexible circumstances
- Renovation costs and potential safety concerns of the site
- Funding insurance, possibly offset by groups' existing umbrella coverage
- Logistics and costs of utilities

Appropriate Contexts

- Vacant retail space
- Empty lots
- Unrented office space
- Abandoned warehouses or factories
- Sites with transit access

Guidance

- Collaborate with local organizations to determine the temporary use
- The following elements are suggested for a community garden or urban farm:
  - » Water source
  - » Covered area
  - » Seating
  - » Bathroom
  - » Compost or worm bins
  - » Art installations[1]
- Organize regular and frequent programming at the space
- Co-produce temporary programming with local groups to reflect the local context and widen community outreach
- Require written proposals from programming partners articulating exactly when and what will be occurring at the space
- Collaborate with local organizations and municipalities to procure general liability insurance for the temporary use
- Approach potential property owners with a proposal of what would take place, general liability insurance, and a contract template

- Build relationships with local businesses for mutual support strategies, such as distributing neighborhood maps with local discounts, and distributing materials about the temporary use in nearby stores
- Reach out to neighborhood associations to inform them of the temporary programming and gain their approval
- Create a multifaceted marketing strategy to let the public know where and when the temporary installation will be open. The strategy should reach out to local organizations and their memberships, as well as traditional and social media outlets, and include wayfinding signage
- Track how many people visit the site during its temporary use for property owners and use in future proposals

Professional Consensus

- In the absence of endorsements from national associations or governmental departments, cities are turning to best practices employed by other municipalities

Examples

- Boston, MA
- Cleveland, OH
- New York, NY
- Omaha, NE
- Philadelphia, PA
- Portland, OR
- Washington DC

Case Study: New York

Founded in 2009, the nonprofit group No Longer Empty produces curatorial-driven, site-specific temporary art installations and programming in vacant sites around New York City. The installations serve as a catalyst for community building and economic development. While No Longer Empty has canvassed neighborhoods looking for suitable vacant spaces, thanks to its growing reputation, property owners now approach the organization with potential sites for consideration. No Longer Empty looks for sites that are close to transit and provide a neighborhood narrative to inspire art exhibitions and community programming. The nonprofit works on the timeline of its available real estate: Three to four months for the preparation of the installation and its associated programming, and one to three months for the exhibition itself.

No Longer Empty's current exhibition at the Andrew Freeman mansion in the Bronx has single-handedly created a cultural hub out of a former void: More than 2,500 visitors appeared for its opening, and, thanks to ongoing programming, the project averages about 200 visitors a day. Pedestrians who used to have to walk down a long, grim stretch of the mansion's perimeter fencing now have more company on the sidewalk—and a friendly art installation of flowers woven into the iron fences poles—to make the walk more appealing.

Sidewalk art from This Side of Paradise, a 2012 temporary exhibition in the Grand Concourse, the Bronx, New York, NY. *Source: No Longer Empty*

1. Platt Dwyer, Andrea. Seattle Tilth Executive Director. American Institute of Architects FIt City 7 Presentation. May 21, 2012.