Moving Beyond Functional Classifications
Street Typologies as a Systemic Approach to Complete Streets
Purdue Road School
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Complete Streets are streets designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Complete Streets are increasingly desired by communities:

- 16 jurisdictions in Indiana have adopted complete streets policies – Including INDOT
- Complete Streets introduce competing demands for public right-of-way
- Guidance catching up to help communities implement complete streets and navigate trade-offs
- **Need for systems-level approach**
Background

- Traditional design guidance based on functional classifications
Background

Figure 4.4 Illustration of a gradient of development patterns ranging from rural in Context Zone 1 (C-1) to the most urban in C-6. Source: Duany Plater-Zyberk and Company.
Background

Source: Idaho Department of Transportation
Street Typologies

- Framework for planning and implementing Complete Streets
- Establish modal, contextual, and character emphases and prioritizations
- Identify applicable tools from toolbox
- Integrate transportation with broader community goals
- Typologies can be uniquely-defined to respond to those goals and community input
Street Typologies
# Street Typologies

Table 1. Street Typology Summary

<table>
<thead>
<tr>
<th>Type of Street</th>
<th>Functional Class</th>
<th>Primary Elements</th>
<th>Secondary Elements</th>
<th>Traffic Management Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Collector, arterial</td>
<td>Sidewalks, Tree lawns, On-street parking, Landscaped medians, Bike lanes on designated bicycle routes</td>
<td>Number and width of travel lanes (especially collector and local streets)</td>
<td>Medians, On-street parking, Street trees, Narrower travel lanes, Traffic circles and roundabouts, Reduced pedestrian crossing distances at intersections, using curb extensions, traffic islands, and other measures</td>
</tr>
<tr>
<td>Commercial</td>
<td>Arterial</td>
<td>Number and width of travel lanes, Medians, Transit accommodations</td>
<td>Pedestrian facilities, Bicycle facilities, Tree lawns, Two-way center left-turn lanes, On-street parking</td>
<td>Medians, Consolidated driveways, Synchronization of traffic signals, Narrower travel lanes</td>
</tr>
<tr>
<td>Industrial</td>
<td>Collector, arterial</td>
<td>Wider travel lanes, Attached sidewalks, Wider turning radius at intersections</td>
<td>Medians, Bicycle lanes, On-street parking, Number of lanes, Tree lawns</td>
<td>Parking restrictions, Wider turn radius at intersections and access points, Acceleration and deceleration lanes</td>
</tr>
<tr>
<td>Main Streets</td>
<td>Collector, arterial</td>
<td>Wide sidewalks with transit access and pedestrian plazas, Bicycle facilities, Curb extensions, Tree lawns, On-street parking</td>
<td>Medians, Width and number of travel lanes (for collector and local streets)</td>
<td>Narrower travel lanes, Alternative paving material, Tree planters in parking lane, On-street parking, Reduced pedestrians crossing distances at intersections, using curb extensions, traffic islands, and other measures, Raised intersections, High-visibility crosswalks</td>
</tr>
</tbody>
</table>
Street Typologies

Source: City of Vancouver
NACTO
Case Study

St. Louis Downtown Multi-Modal Access Study
Case Study

St. Louis Downtown Multi-Modal Access Study

- Typologies
  - commercial
  - neighborhood connector
  - bike priority
  - transit priority
  - arterial

- Special Character Modifiers
  - image
  - historic
  - scenic
Case Study

**Commercial** – prioritizes pedestrians and on-street parking to foster commercial activity

- high-visibility crosswalks & curb bulb-outs
- traffic control prioritizes pedestrians
- target traffic speeds 20 to 25 mph
- turns on red prohibited & corner radii limited
Case Study

**Neighborhood Connector** – multimodal street penetrating neighborhoods

- balanced priorities emphasized
- generally low traffic so not more than 2 lanes
- dedicated turn lanes & signal phases discouraged
- target traffic speeds 25 to 30 mph
Case Study

**Bike Priority** – prioritizes cycling and incorporates supportive infrastructure, policies, regulations

- dedicated on-street bicycle facilities
- smooth pavement and priority maintenance
- vehicle and on-street parking conflicts minimized
Case Study

Transit Priority – prioritizes transit and incorporates supportive infrastructure, policies, regulations
- bus lanes and streetcars
- transit signal priority & vehicle conflict mitigation
- target vehicle speeds complement transit
- multiple traffic lanes
Case Study

**Arterial** – prioritizes vehicle traffic and mobility

- may have diminished land use context
- multiple traffic lanes per direction
- turn lanes & protected turn arrows where warranted
- traffic control prioritizes vehicles
- mid-block driveway/access conflicts minimized
- must accommodate other modes
Case Study

Character-based overlay typologies:

- Streetscape elements may shift the modal emphasis
- Ceremonial-Festival: widths dictated by event needs, overhead infrastructure restrictions
- Historic: special pavements, atypical configurations, narrow widths
- Scenic: prominent vista or landmark may restrict on-street parking, loading/unloading
Questions

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