ann arbor downtown

STREET DESIGN MANUAL

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The project team thanks the Advisory Committee Members for their involvement, insights, and engagement in developing the Ann Arbor Downtown Street Design Manual

Advisory Committee Members

- Ingrid Ault  Parks Advisory Commission and Think Local First
- Ken Klein  Planning Commission and architect with Harley Ellis Deveraux
- Jim Curtis  Downtown property owner, Curtis Commercial
- Galaan Dafa  Ann Arbor resident, downtown employee at ArborMetrix
- Shannan Gibb-Randall Landscape architect with Insite Design Studio
- Sue Gott  University of Michigan, Planner
- Roger Hewitt  DDA Board and owner of Redhawk and Revive and Replenish
- Joe Malcoun  Ann Arbor resident, Founder & President CKM Capital
- John Mouat  DDA Board and architect with Mitchell and Mouat Architects
- Mae Sander  Ann Arbor resident
- Llyod Shelton  UM Student, A2 Commission on Disability Concerns
- Nancy Shore  getDowntown Program and AAATA, Business Services Director
- Maura Thomson  Main Street Area Association, Executive Director

Core Staff

- Amber Miller  DDA, Planner (project manager)
- Susan Pollay  DDA, Executive Director
- Connie Pulcipher  City of A2, Systems Planner (project manager)
- Cresson Slotten  City of A2, Systems Planning Unit Manager
- Nick Hutchinson  City of A2, Project Management Unit Manager
- Wendy Rampson  City of A2, Planning Unit Manager
- Matt Warba  City of A2, Assistant Field Operations Manager
- Chris White  AAATA, Manager of Service Development

Consultants

- SmithGroupJJR
- Nelson/Nygaard & Associates
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1.1 KEY TERMS & ORGANIZATIONS

STREET CHARACTERISTICS

The Ann Arbor Downtown Street Design Manual uses a number of terms throughout the document for describing the street environment and its qualities and functions.

• STREET: Streets are the entire public right-of-way outside of private property lines. Typically, this is from building face to building face in the downtown where buildings are constructed up to their front property line.

• STREET ZONES: A street is comprised of a number of zones that affect the uses and functions of the street. Refer to Section 3.1 - Street Typology for additional information. Street zones include the following:
  » Roadway Zone: The central portion of the street typically dedicated to travel lanes for vehicle, transit, and bicycle movement.
  » Curbside Zone: Area adjacent to the curb and commonly used for on-street parking and loading.
  » Pedestrian Area: This is the area between the curb and the outside edge of the public right-of-way and private property line. The Pedestrian Area encompasses the Amenity Zone, Walkway Zone, and Frontage Zone.
  » Amenity Zone: Area between the sidewalk and the curb. Commonly the location for street trees, light poles, road signs, and other street furnishings.
  » Walkway Zone: A clear, consistent, paved area dedicated to pedestrian movement.
  » Frontage Zone: Area between the sidewalk and the end of the public right-of-way.
  » Intersection Zone: The intersection zone occurs where two streets meet.

• SIDEWALK: Sidewalks are paved areas of the street, typically 5 feet or more in width and located within the Walkway Zone.

• RIGHT-OF-WAY: Publicly owned property where streets are located.

• STREET TYPOLOGY: Each street is assigned a typology based on its Frontage Context and Functional Emphasis. See Section 3.1- Street Typology for more information.

• FRONTAGE CONTEXT: Refers the mix of land uses (e.g. retail, commercial, residential, office) and level of intensity of land use along a street. See Section 3.2 - Frontage Context for full descriptions.

• FUNCTIONAL EMPHASIS: Refers to the transportation and street use mode (pedestrian, vehicle, bicycle, etc.) that is emphasized along a particular street. See Section 3.3 - Functional Emphasis for full descriptions.

• DESIGN ELEMENT: A design element is a specific built feature or other device that is located in the street. The applicability of design elements to downtown streets relate to the street’s typology.
ORGANIZATIONS

A number of public organizations and other entities have a role or interaction in the design and management of Downtown Streets and are referenced throughout the Downtown Street Design Manual.

- **City of Ann Arbor (the City):** The City of Ann Arbor is the public municipality that owns the right-of-way in Downtown. A number of City Units are referenced in this document that have a relationship to the street:
  - **Engineering Services Unit:** Responsible for designing and constructing utility, roadway, and sidewalk projects; coordinating and inspecting utility and roadway work with development projects, and managing traffic flow throughout the city.
  - **Field Operations Services Unit:** Combination of field-oriented maintenance and operations. Relevant responsibilities include: Field Services (utility work) Forestry (street trees), Signs/Signals/Street Lighting, Solid Waste (trash, recycling, and compost), and Street Maintenance.
  - **Planning & Development Services Unit:** Responsible for construction and building permits, code enforcement, planning, zoning, and site plan review.
  - **Systems Planning Unit:** Multi-disciplinary unit responsible for asset management and planning related to built and natural infrastructure. Includes:
    - Transportation & Non-Motorized Planning
    - Urban Forestry & Natural Resources
    - Stormwater & Floodplain Coordination
    - Water Quality Management
    - Solid Waste & Recycling Coordination
    - Energy & Sustainability (Energy Office)
  - **Community Standards Unit:** Group within the Police Department responsible for enforcing city codes and ordinances.
  - **Customer Services:** Entity within the City responsible for issuing and managing many permits relevant to street use (e.g. sidewalk occupancy, street closures, special event permits, etc).

- **Ann Arbor Downtown Development Authority (DDA):** Coordinates and implements public improvements and infrastructure projects to increase the economic vitality and attractiveness of downtown.

- **Ann Arbor Area Transportation Authority (AAATA or “The Ride”):** Operates transit bus service in Ann Arbor and surrounding municipalities.

- **Street Design Team:** Cross-agency working group established through the Downtown Street Design Manual to oversee and coordinate significant street investments and infrastructure projects.

- **Michigan Department of Transportation (MDOT):** State transportation department with jurisdiction over certain streets in Downtown (Huron and North Main).

- **DTE Energy:** Provides electrical and gas service to Ann Arbor. DTE operates and maintains, and the City pays for, many of the street lights in Ann Arbor.

- **University of Michigan (UofM):** Major research institution and significant property owner downtown.

- **Boards & Commissions:** A number of local boards and commissions have a bearing on downtown streets:
  - **Historic District Commission:** Reviews and advises projects in historic districts and properties.
  - **Design Review Board:** Advises private development projects on meeting the spirit and intent of the Ann Arbor Downtown Design Guidelines.
  - **Planning Commission:** Advises and makes recommendations to City Council regarding continuance of the city’s Master Plan, zoning, ordinances, and other applicable codes.
THE PURPOSE OF THE DOWNTOWN STREET DESIGN MANUAL

Downtown streets, which include the public right-of-way, sidewalks, and roadways, serve the needs of residents and businesses of downtown as well as the broader community. The Downtown Street Design Manual is intended to provide the public and private sectors with design standards and best practices for building and managing downtown streets. It addresses the key roles of the street and the public right-of-way in supporting multiple modes of transportation, economic vitality, environmental health, and community character.

WHY HAVE A DOWNTOWN STREET DESIGN MANUAL?

Ann Arbor’s downtown streets each have their own personality and needs. The 67 blocks of the Downtown Development Authority (DDA) District host a variety of uses including shops, offices, and residences. There are over 100 sidewalk cafes and other areas for public seating or gathering. Downtown streets host many of the events for which Ann Arbor is known.

The streets serve many demands from different users. Pedestrian volumes are heavy in many parts of downtown and bicycles are common. Auto travel is a prominent demand on the streets as is on-street parking. Many bus routes converge on the transit center and transit ridership continues to grow.

The Downtown Street Design Manual recognizes the role that downtown streets play in transportation function and supporting land uses. The manual is intended to assist in developing designs that support and enhance these functions and deliver an overall system that provides for all modes of travel and uniquely responds to the local street context.

What are “Streets”

Streets, for purposes of this manual, are defined as the entire public right-of-way between buildings, not just the roadway. Streets includes the roadway and travel lanes, parking lanes, the amenity zone (between the curb and sidewalk) sidewalks, and public alleys.

The street is divided into a number of different zones, which are described in section 3.1 Street Framework.
WHAT IS THE DOWNTOWN STREET DESIGN MANUAL?

The Downtown Street Design Manual is a unified set of best management practices to govern how downtown streets are designed, built, and maintained for all people. The manual seeks to balance the needs of all street users and ensure that the multiple goals for the street space are met in coordination with one another – social, environmental, technical, and economic.

The manual places special importance on improving the pedestrian experience, recognizing that everyone is a pedestrian at some point in their downtown trip. Whether traveling to downtown by foot, bike, bus, or car, the pedestrian experience is critical to the success and vibrancy of downtown.

The Downtown Street Design Manual consists of the following chapters:

- **Chapter 1**: A set of overall planning goals and targets derived from established and adopted metrics identified in other city planning efforts. These goals and targets are utilized in the design development process as metrics to weigh street design decisions and as metrics to track over time.

- **Chapter 2**: A predictable and consistent process for street design and development to ensure that key agencies and partners are involved early and throughout the design process.

- **Chapter 3**: A framework that establishes a street typology unique to Ann Arbor streets. The typology reflects the existing and desired uses and activities along the street overlaid with the emphasized function of street corridors. The intent of the typology system is to design street segments to support the unique conditions and land use contexts along that street segment while still supporting the overall transportation function the corridor serves in the network.

- **Chapter 4**: Guidance on downtown street design and appropriate treatments to serve a menu of transportation needs and create a quality street environment for commerce and community life. The elements include maintenance considerations to enable them to perform well over the long-term and through all seasons of the year.

The Downtown Street Design Manual is intended to augment, supplement and tailor existing guidelines and standards for streets and sidewalks within the DDA District. It provides best practice recommendations and decision tools to assist the public and private sector in making informed street design decisions that supports a vibrant downtown and the needs of multi-modal transportation systems.
WHO SHOULD USE THE DOWNTOWN STREET DESIGN MANUAL?

The manual is laid out in an easy to understand format to enable predictable, consistent and collaborative design implementation by:

- Private developers or utilities with projects that impact the public right-of-way;
- City staff as they work on street construction, improvement, or maintenance projects;
- DDA staff and consultants as they design streetscape improvements;
- Others as they use the street for commerce, events, and more.

HOW DOES THE DOWNTOWN STREET DESIGN MANUAL FIT WITH OTHER PLANS AND STANDARDS?

City Plans

The Downtown Street Design Manual builds on and compliments the goals, objectives, and intent of many existing plans developed and adopted by the City of Ann Arbor. These include:

- The City Master Plan Elements
  - Downtown Plan (2009)
  - Non-Motorized Transportation Plan (2013 Update)
  - Sustainability Framework (2013)
- City Downtown Design Standards (2011)
- Downtown Development Authority Renewal Plan (2003)
- Urban & Community Forest Management Plan (2014)
- TheRide YourWay Five-Year Transit Improvement Plan (2015)

Design Standards

The Downtown Street Design Manual is a companion document to the City of Ann Arbor Public Services Standard Specifications (PSSS / “The Orange Book”) and shall be followed for all private and public projects that impact the public right-of-way.

The Downtown Street Design Manual serves as an additional resource to adopted street design standards:

- Michigan Manual on Uniform Traffic Control Devices (MMUTCD)
- City of Ann Arbor Public Services Standard Specifications (PSSS / “The Orange Book”)

City Policies

The Downtown Street Design Manual advances other policies, resolutions, and initiatives underway including the resolution proclaiming the City of Ann Arbor’s commitment to complete streets, the Green Streets Policy Statement, and the work of the Pedestrian Safety and Access Task Force, among others.
1.3 VISION & GOALS

The Downtown Street Design Manual is derived from a multitude of plans, standards, guidance and policy adopted or supported by the City of Ann Arbor and the Downtown Development Authority (DDA). The City Master Plan is the foundational planning document for Ann Arbor and includes not only the Downtown Plan, but also the City’s Sustainability Framework, Transportation Plan, Non-Motorized Transportation Plan, Parks and Recreation Open Space Plan, and overall Land Use vision.

VISION

The vision for the Downtown Street Design Manual is to guide street design to deliver a network of downtown streets that:

- Support and strengthen the uses and activities unique to the diverse blocks and areas of downtown
- Accommodate all modes of travel through and around the downtown

GOALS & PRINCIPLES

The goal is to establish downtown street guidelines, policies, and maintenance practices that comprehensively work to:

- Enhance mobility, accessibility and safety in downtown; prioritizing an engaging and attractive pedestrian experience
- Reinforce downtown’s identity, unique sense of place and community stewardship
- Strengthen commerce and economic vitality downtown
- Demonstrate environmental practices, and sustainability
- Create streets that are well planned, managed, adaptable, and readily maintained
Goal 1: Mobility, Accessibility & Safety

Streets serve a number of needs and a range of physical abilities. Street design must meet the needs of and provide safe access to persons with disabilities, people pushing carts or strollers, and people of all different ages. Streets should promote physical activity and thereby support a healthy lifestyle for Ann Arbor. They should be engaging and inviting at a scale appropriate to pedestrians.

Streets accommodate a variety of modes of travel – people traveling on foot, bicycle and in mass transit or private vehicles. Every street needs to balance safety for every mode, but not every street can accommodate these modes to the same degree. For instance, dense commercial main streets may emphasize pedestrians over automobile. Less commercial streets may be ideal for bicycle travel. Streets with concentrations of bus stops may cater to transit riders, while other streets may facilitate necessary auto movements and services.

Streets provide access to businesses, residences and other destinations. This means that on-street parking, alleys and driveways must be appropriately located, well managed, and sensitively designed.

Criteria for evaluating mobility, accessibility and safety

- Manages and normalizes vehicle speed
- Improves pedestrian environment: ground floor activity, lighting, shade
- Enhances comfort and accommodation for non-motorized transit: Clear Walk Zone, slope(s) and curb ramps, bicycle and facilities, transit passenger information and amenities
- Reduces pedestrian risk: crossing distance, unprotected crossings, crossing time and signal operations
- Enhances access: bicycle and vehicle parking, number and design of curb cuts, alley design reinforces management
- Improves predictability for all street users: turn lanes, driveway design, yielding behavior, visibility

Goal 2: Identity, Sense of Place & Stewardship

“Keep Ann Arbor funky!” Ann Arbor is distinctive and eclectic. The nine character districts in the downtown are each distinct. Street design promotes and enhances these character areas, integrates with adjacent land uses, and reflects the neighborhoods of which they are a part.

Street design should appear natural and authentic, but also benefit from some degree of standardization. Standard materials and dimensions facilitate cohesion and maintenance. Adapting common building blocks in a variety of ways will keep the uniqueness and funkiness that Ann Arborites know and love.

Character is largely defined where public space meets private use — at the juncture of private property and public right-of-way. Street walls that are active and engaging — with windows, entrances, balconies and seating — make a street feel comfortable, safe and alive. Lawn extensions with trees and landscaping contribute peace and beauty to a streetscape. Street design should complement and enhance private uses and activities just beyond the right-of-way.

Flexible street spaces allow for seasonal programming and use of public spaces for active use (e.g. cafes, parklets, and festivals). They contribute to a memorable experience of the city and leave a lasting impression on visitors. Streets should appropriately embrace and enable fun and whimsy in design and use.

Importantly, street design reflects and encourages pride in ownership through meaningful public and stakeholder engagement in design, operation, and programming.

Criteria for evaluating identity, sense of place and stewardship

- Appropriate to character district: accommodates anticipated/desired levels of activity
- Authentic: relates to adjacent buildings or landscaping, material selection
- Maintainable: uses typical or standard materials and fixtures
- Flexible: appropriate to every season, adaptable to varying demands and activities
- Allows funkiness: embraces unique application of standard materials, integrated public art, interesting landscaping
Goal 3: Commerce & Economic Vitality

Downtown is a critical economic generator for Ann Arbor. Although non-commercial uses such as residences, park spaces, and public institutions are also vital elements of downtown, it is the density, diversity, and vitality of businesses that make downtown a destination.

Quality street design promotes and advances commerce and economic vitality. Accommodating outdoor dining, retail and public seating appropriately facilitates more engaging streets.

Streets are the front door for businesses. The quality design of streets strongly influences perception of commercial activities along them. The presence of trees, parking, and/or bicycle facilities bolsters economic exchange and access. Businesses and other ground floor occupants engage the street through displays, signage, and windows into activity. Inviting and encouraging businesses to take ownership of the street in front of their establishment through sweeping, snow and leaf clearing, planting and tree box care and minor maintenance or repairs also fosters more engaging streets.

Ann Arbor is proud of its small and independent businesses. Street design should recognize and accommodate the needs for loading, deliveries, quick transactional exchanges, and reliable access for patrons and workers alike.

Criteria for evaluating support to commerce and economic vitality

- Provides adequate space for outdoor dining and retail: sidewalk width on target blocks
- Supports deliveries and quick transactions: alleys, loading zones, short-term parking
- Increases access: bicycle parking, inviting transit facilities
- Adds vitality: public seating, integrated public art

Goal 4: Environmental Practices & Sustainability

Ann Arbor is a city that looks to the future and cares for future generations. Sustainability is a core ethic of the City and the community.

Streets, roughly one-third of the land area of downtown, substantially influence the environment of the city and area watersheds. The design of the streets influences how people choose to move and, by extension, how much fuel they consume, and what emissions they discharge.

Well designed streets are linear parks providing social and environmental benefits. Street design should use low-maintenance, resilient, and environmentally appropriate trees and plants. Trees are users of the public space and require adequate soil capacity and space to grow. Well-maintained street trees cool the city, define the street, and capture rainwater. Additionally, stormwater best management practices should be incorporated into street design to retain and/or filter stormwater runoff from the street.

As streets are maintained or rebuilt, materials such as brick, metals, furnishings and aggregates should be retained and reused to the extent practical. Materials should be selected in part for energy efficiency in construction, maintenance and function.

Criteria for environmental stewardship and sustainability

- Manages stormwater runoff: incorporation of best management practices, soil space for trees, overall amount of pavement/impervious surface
- Sustainable travel modes: inviting pedestrian environment, efficient and safe bicycle facilities, and accessible transit accommodations
- Uses environmentally preferable materials: locally sourced, low maintenance, low energy consumption in production, reclaimed and reused
Goal 5:  
Well Managed & Readily Maintained

For streets to balance the abundant demand of uses, function efficiently, and positively contribute to the image of the city they must be well managed and maintained.

Prioritizing maintenance as a very early consideration of street design creates more successful streets. Materials, landscaping and the configuration of the street should lend themselves to ease of maintenance. This means facility dimensions and curvatures that respect existing street cleaning and maintenance equipment. It means using durable materials that are readily sourced and simply replaced, standard fixtures and interchangeable parts. It means quality workmanship during installation and repair.

Management of the streets should strike a balance among demands for use and provide predictable decision-making about where and how much of an activity is acceptable, such as cafe dining, outdoor retail, public art, conversions of on-street parking spaces, and street closures for festivals and events. Effective management ensures streets are vital and lively in all seasons of the year and encourages property owners to participate as partners in sidewalk clearance and mobility. Coordinated management of streets helps organize activities, such as waste removal and deliveries, and facilitate enforcement when appropriate.

Criteria for evaluating maintenance and management assistance

• Supports ease of maintenance: fits existing equipment, durable materials, standard fixtures
• Advance maintenance plan: landscaping and stormwater best management practices, partner maintenance agreements
• Predictable management: non-typical uses determined according to policy, program for seasonal management and transition, partners in snow and leaf removal
2.0 USER GUIDE

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2.1 STREET DESIGN PROCESS

OVERVIEW

Regardless of origin and whether public or private, every project that impacts the street is required to follow the Downtown Street Design Manual. Small- and large-scale projects should be examined and considered for opportunities to advance the vision and goals of the Downtown Street Design Manual.

The Street Design Team

Central to ensuring that street projects are designed, constructed, and maintained in accordance with the Downtown Street Design Manual is the Street Design Team. The Street Design Team is an interdisciplinary group comprised of DDA staff and City staff from multiple city units, including: Systems Planning Unit, Engineering Unit, Field Operations, Planning and Development, and AAATA (TheRide).

The Street Design Team is responsible for coordinating and assisting with street design and planning decisions for major street projects as well as significant maintenance activities on an as needed basis. The Street Design Team can assist project designers and engineering to verify that design decisions and allocation of uses within the right-of-way fit with the vision and goals of the Downtown Street Design Manual.

Public Projects

Public Street projects typically proceed through a three step process with ongoing maintenance, operation, and monitoring as a continuing step (Figure 2.1.1).

1. Project identification and programming
2. Project design phases
3. Project approval and implementation
4. Operations, maintenance and monitoring

Private, UofM, or Utility Projects

Private, University of Michigan, or utility projects proceed through a similar but alternative process (Figure 2.1.2) when projects will impact the street.

1. Project identification and conversation with city staff.
2. Site plan submittal
3. Project approval
4. Operations, maintenance, and monitoring
**2.1 STREET DESIGN PROCESS**

### Figure 2.1.1 - PUBLIC Project Street Design Process

1. **Project Identification**
   - City CIP Process or
   - Street Design Team to assist with Project Identification and Definition

2. **Project Design Phases**
   - City Project Designer/Engineer or DDA Staff Consultants
   - Preliminary design / schematic design

3. **STREET DESIGN TEAM**
   - DDA
   - City: Systems Planning
   - City: Engineering (Project Management)
   - City: Field Operations
   - City: Planning & Development
   - AAATA / TheRide
   - Street Design Team works collaboratively to review & approve street projects

4. **Maintenance Projects**
   - Engage Street Design Team on an as-needed basis
   - Re-striping
   - Furnishings / receptacles
   - Grinding crosswalks
   - Bus Stops / Shelters
   - Traffic Control Orders
   - Street trees / landscape
   - Street lights
   - Sidewalk repair

### Figure 2.1.2 - PRIVATE Project Street Design Process

1. **Project Identification**
   - Developer, UofM, or utility initiated project
   - Preliminary meetings with Planning & Development Staff to review anticipated impacts and needs on streets

2. **Site Plan Submittal**
   - Design Phases
   - Creates site plan review submittal for Planning & Development staff.

3. **Site Plan Review Process**
   - (Planning & Development Staff)
   - Street Design team engaged on an as needed basis

4. **Project Maintenance**
   - Street related maintenance per project agreements
   - Furnishings (benches, etc.)
   - Bike Parking
   - Landscaping / Street Trees
   - Special Pavements
   - Lighting

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STEP 1
PROJECT IDENTIFICATION

Street design projects typically initiate from one of three project types: maintenance and operations projects; capital improvement projects, or private development projects. Each of these project types has a different set of needs and opportunities that informs physical changes in the street design.

• Maintenance and Operations Projects:
  » These projects arise from routine maintenance needs, safety interventions and/or operational changes. Maintenance and operations projects are the majority of street work done in any city.
  » These projects are generally limited in scale, have relatively small budgets, and generally do not involve major construction.
  » Despite these limitations, simple street improvements, such as pavement markings, can often be incorporated at relatively little additional cost.
  » Projects of this type may include, but are not limited to: street resurfacing, pavement markings/re-stripping, landscaping, street tree plantings, signalization changes, street furnishings, sidewalk repairs, curb repairs.

• Capital Improvement Projects:
  » Capital projects typically provide the most profound change in street environment and function, but are also less frequent. Unlike maintenance or operations projects, capital improvements projects typically encompass a large segment of the street or district.
  » Designs evolve through an intensive public engagement process and broad coordination across city units. Given the typically higher cost and greater complexity of these projects, capital projects may take several months to years to be fully planned, designed, and implemented. Whenever possible, capital projects should be phased to coincide with maintenance needs.
  » Projects of this type may include, but are not limited to: full street reconstruction, major utility improvements, comprehensive streetscaping, lane and/or curb reconfigurations.

• Private Development Projects:
  » All private development projects that undergo site plan review must conform to the Downtown Street Design Manual. The exception to this is a remodel/addition that does not impact the public ROW through construction or equipment staging. In some cases, staff may waive requirements if a near-term, budgeted capital project will subsequently damage the ROW.
  » When planned, coordinated and reviewed properly, these provide yet another opportunity to ensure that improvements are made in alignment with community goals. While improvements may occur in only segments of a block, they contribute to the incremental transformation of the street.
  » Projects of this type may include, but are not limited to: repair or reconstruction of the sidewalk and amenity zones, changes to curbs or curbs-cuts, utility infrastructure, landscaping, lighting, street furnishings, repair or reconstruction of the roadway, sidewalk, parking and/or lane closures for construction.
  » Table 2.1.1 lists Design Elements most commonly related to private development projects. Refer to Table 3.1.1 in Section 3.1 - Street Typologies, for the full listing of design elements and their priority.

Table 2.1.1 - Street Design Elements Common to Private Projects

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**STEP 2**
**PRELIMINARY DESIGN**

Urban street design is an exercise in priorities and trade-offs. The high activity paired with the constrained right-of-way width make it nearly impossible to include every element, every time, everywhere. The street typology approach, presented in Chapter 3, recognizes that all street user needs must be met by the system and district as whole, but individual streets may emphasize certain uses over others as a necessary design balance. Examples of trade-offs include: choices between wider sidewalks or a dedicated turn lane; meeting the needs of trees or the need of transit; parklets or parking; bicycles or bus ways; vehicle volumes or sidewalk vitality.

This manual strives to ensure that street improvements serve the context of adjacent uses and improve access in alignment with city goals. The guidelines of this manual will increase predictability for all users such as: public agencies, private developers, utilities, or members of the public.

To use this manual in street design and decision making, use the following steps:

1. Determine the applicable street type for the project (see Street Framework - Section 3.1).
   - Understanding the context of the street and its critical role in both the transportation system and development plan of Ann Arbor.

2. Identify required and appropriate street design elements for the project (see Design Element prioritization in Section 3.1).

3. Locate design elements in appropriate street zone (see Section 3.1 for street zones and design element table).
   - Identifying conflicts between elements and street dimensions.
   - Exploring modifications to sidewalk width, space allocation, and other alternatives to meet the greatest number of needs.
   - Evaluate against the performance criteria for both location and function based on the street’s typology (see Frontage Context - Section 3.2, and Functional Emphasis - Section 3.3).
   - Selecting a preferred alternative through the review process outlined in section 2.1.

4. Design and locate specific individual design elements as detailed in Chapter 4.

**STEP 3**
**REVIEW & COORDINATION**

Projects will be reviewed to ensure they are both compliant with all city standards and advancing the objectives of this manual. The origin of project identification determines the method of project review.

- **Projects originating from a maintenance, safety or operational need** will generally be identified and prioritized by maintenance and operations staff, which will coordinate with the Street Design Team for opportunities to further align with the manual/meet the goals of the manual.

- **Capital projects** will be reviewed and refined through the Street Design Team which includes both City and DDA staff who consult with maintenance and operations units.

- **Private development projects**:
  - Project will be reviewed by the City’s site plan review staff.
  - City staff will consult with the Street Design Team as needed.
  - Project owners are responsible for identifying and following the Downtown Street Design Manual requirements as part of the site plan review process.
STEP 4
MONITORING & PERFORMANCE MEASUREMENT

Monitoring and measurement are critical components of street design. Follow-up monitoring is important not only for verifying that street designs function consistent with their design but also as a basis for informing future design and planning decisions.

Performance metrics should be identified during the initial project definition process and should relate to the purpose of the project and specific desired outcomes. Methods for measurement should be clearly defined. Some metrics may be quantitative (e.g. number of cyclists, valuation of building permits, etc.) while others may be qualitative (e.g. consumer preference surveys, intercept surveys, etc.). Baseline data should be recorded prior to implementation and an appropriate period(s) for post-assessment defined.

This data is invaluable in estimating the value of improvements and guiding future similar projects.

Common challenges faced in measurement and monitoring can be overcome by:

- **Establish a system for data management.** Even if data is collected, it may be retained by individual project managers or units without institutional knowledge or the ability to access for future projects. Create a standard set of spreadsheets for projects that can be tailored to fit specific project needs but still allow for equivalent comparisons. Ensure that data is distributed back to City and/or DDA staff for collection.

- **Define time-lines and methods for data collection.** For two data points to be compared, they must be collected in the same way both times. However, given the long lag time between project identification (when baseline measurement should occur) and project delivery (when post assessment should occur) it is common for staff to change or methods to be overlooked. As part of creating a system for data management, create details time lines and procedures for monitoring.

  » The DDA’s Downtown Benchmarking project could be used as a model for monitoring and measurement.

- **Building capacity data collection.** Public agencies do a lot with limited resources. Post-project data collection is often a task that is sacrificed among other needs and demands. When data must be collected from multiple sources (e.g. sales tax information, crash data, and consumer preferences) it makes the task of data collection even more complicated and subject to delay. Create a role for project data collection among City and/or DDA staff to help alleviate these challenges.
Designing streets is a complicated process and must balance the needs of many different street users, across a diversity of land use contexts. As public or private development projects are identified, designed, and reviewed, a number of key strategies can be used to aid the design process and make informed, holistic decisions regarding the future of downtown streets.

1. **Be honest about trade-offs.** We are so used to thinking about streets as places to move cars that we often fail to notice when the trade-offs we are negotiating are only between the non-auto elements. We often make tough choices between quality pedestrian facilities, trees, parking, bicycle facilities or transit accommodation while failing to scrutinize vehicle demands to the same extent. While vehicles are an important and even vital user of downtown streets, giving equal consideration to each street user type will lead to a more balanced network and better streets overall.

2. **Integrate street and urban design.** The best streets compliment what is on the pavement and what is along the block. High vehicle volume is kept out of quiet neighborhoods, adequate lighting is provided on heavy pedestrian streets, large canopy trees are provided on high speed streets, crosswalks are on all streets, on-street parking is available for storefront commercial, driveways are restricted along destination commercial streets. Street and urban design must compliment one another.

3. **Strive for consistency.** Consistency in facility design increases the legibility of a street and makes it more predictable and inviting for travelers. However, the context of a street commonly changes as it transitions from one area of downtown to another. The street design may also change along the corridor. If implementation is incremental, as through maintenance or development projects, ensure transitions are logical and intuitive.

4. **Understand the circulation network.** Streets do not exist in isolation. They are part of networks, such as stormwater drainage, bus routes, Shopping District, bicycle routes. If a particular element does not “fit” on a particular street, perhaps it can be moved to another. Conversely, some elements are necessary to complete a network. Working in multiple scales helps to understand a street and its network.

5. **Consider maintenance.** Each of the elements includes consideration of maintenance, but good street design must consider the maintenance of the total street design as a whole. Does it introduce any complications for snow removal? Will it add additional cost when the street must be repaved? How many pavement markings, signs, signals and lights are there that must be kept up? Are there opportunities for efficiencies? Are there partnerships in place to maintain landscaping, art or other unique elements?
6. **Phase in funding.** Streets are expensive and budgets are limited, but with strategic phasing, collaboration, and creative approaches to design, budget constraints do not have to preclude street improvements. Pavement markings and non-permanent fixtures (e.g. bike corrals, planters, and rubber curbing) dramatically change the character of a street quickly and at relatively low cost. More permanent improvements can be phased over time as development projects come on line, utility upgrades are conducted, or routine maintenance projects advance.

7. **Try before you buy.** Pilots, temporary installations, are a great way to test street concepts and evaluate the trade-offs empirically rather than theoretically. Most pilots can be safely and attractively implemented with minimal cost. Additionally, pilots can generate and engender positive public outreach. Keys to a successful pilot include:

- **Clear communication.** Make sure all stakeholders and the public know about the pilot, its objectives, its duration, and who to contact with any comments or concerns. Provide stakeholders and the public with the post-pilot findings and recommendations.

- **Defined measures for evaluation.** A pilot is a test of a concept and as such requires evaluation. Relate evaluation measure to the objectives for the street as defined in the Street Type section. Establish clear methodology and accountability for data collection prior to the pilot.

- **Finite duration.** Pilots are temporary and may only last for a couple of days over a single weekend or for months. Communicate to all stakeholders the duration of the pilot and ensure the pilot does not exceed this period, unless it is made permanent.