

TORONTO COMPLETE STREETS GUIDELINES

STAKEHOLDER ADVISORY GROUP MEETING #2

2015-06-01



Presentation Outline

Part 1

- Process Overview
- Table of Contents
- Guiding Principles – update
- Street Context and Street Types – update

Part 2

- Overview: Design Priorities and Trade-offs
- Project Delivery Process

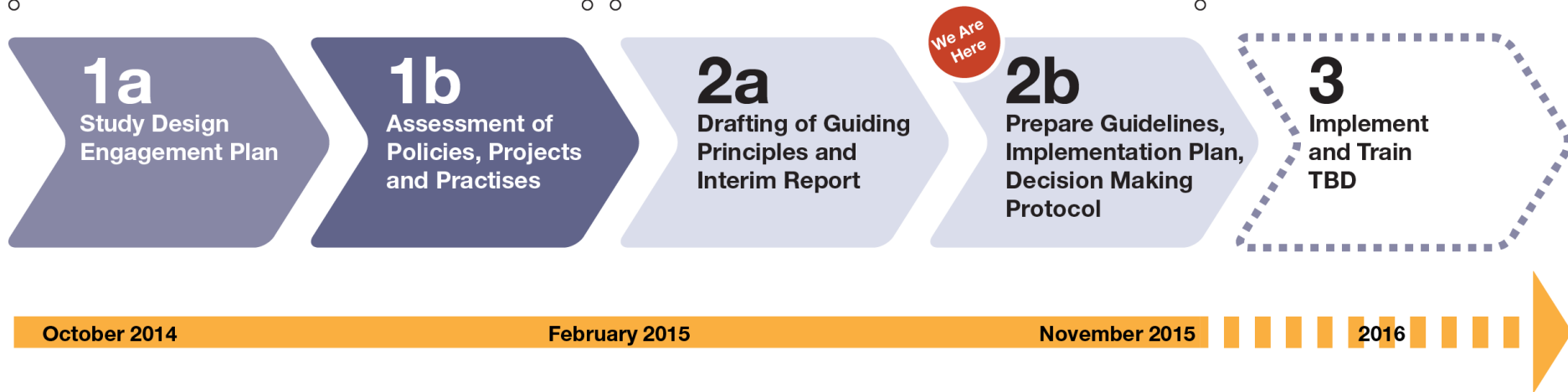
Part 3

- Oversight Committee
- Overview: Design Guidance by Street Section

Work Plan - Simplified

Phase 1: Scan Existing

Phase 2: Develop Guidelines



TCSG / SAG #2

Table Of Contents

Guide Outline

From SAG #1

Style	Section	Audience			
		Technical	Developers & Investors	Advocates / External Stakeholders	Elected Officials & Broader Public
Graphic	Vision & Goals	✓	✓	✓	✓
	Procedures & Engagement	✓	●	●	●
Technical	Street Contexts	✓	✓	✓	✓
	Decision Guidance	✓	●	✓	
Appendices	Implementation & Process with Checklist	✓		●	
	Performance Metrics	✓		●	



useful to the audience



some parts are useful to the audience

Guide Outline

SAG #1 Feedback

- The discussion of the format, sections, and audiences of the Guidelines requires more context.
- Elected Officials should be treated as a separate category.
- Performance metrics, procedures, and engagement are important to everyone
- There needs to be a balance between making the Guidelines accessible to everyone and not making the Guidelines everything to everyone

Guide: Table of Contents

- 1. Introduction**
- 2. Vision & Goals**
- 3. Street Types**
- 4. Steps to Designing Streets**
- 5. Design Guidance by Street Section**
- 6. Making it Happen / Implementation**

Guide: Table of Contents

Style	Section	Audience				
		Technical	Developers & Investors	Advocates / External Stakeholders	Elected Officials	Broader Public
Graphic	1. Introduction	✓	✓	✓	✓	✓
	2. Visions and Goals	✓	✓	✓	✓	✓
	3. Street Types	✓	✓	✓	✓	✓
Graphic & Technical	4. Steps to Designing Streets	✓	●	✓	✓	
	5. Design Guidance by Street Section	✓	●	✓	✓	
	6. Making it Happen / Implementation	✓		●	✓	



useful to the audience



some parts are useful to the audience

Guide: Table of Contents

1. Introduction

- How to use the Guide

2. Vision & Goals

- Guiding Principles and Benefits of CS

3. Street Types

- Introduction to Street Types and how to identify and use them
- Street Types Descriptions and Objectives

4. Steps to Designing Streets

- Design Process
- Key Considerations
- Assemblage and Trade-offs

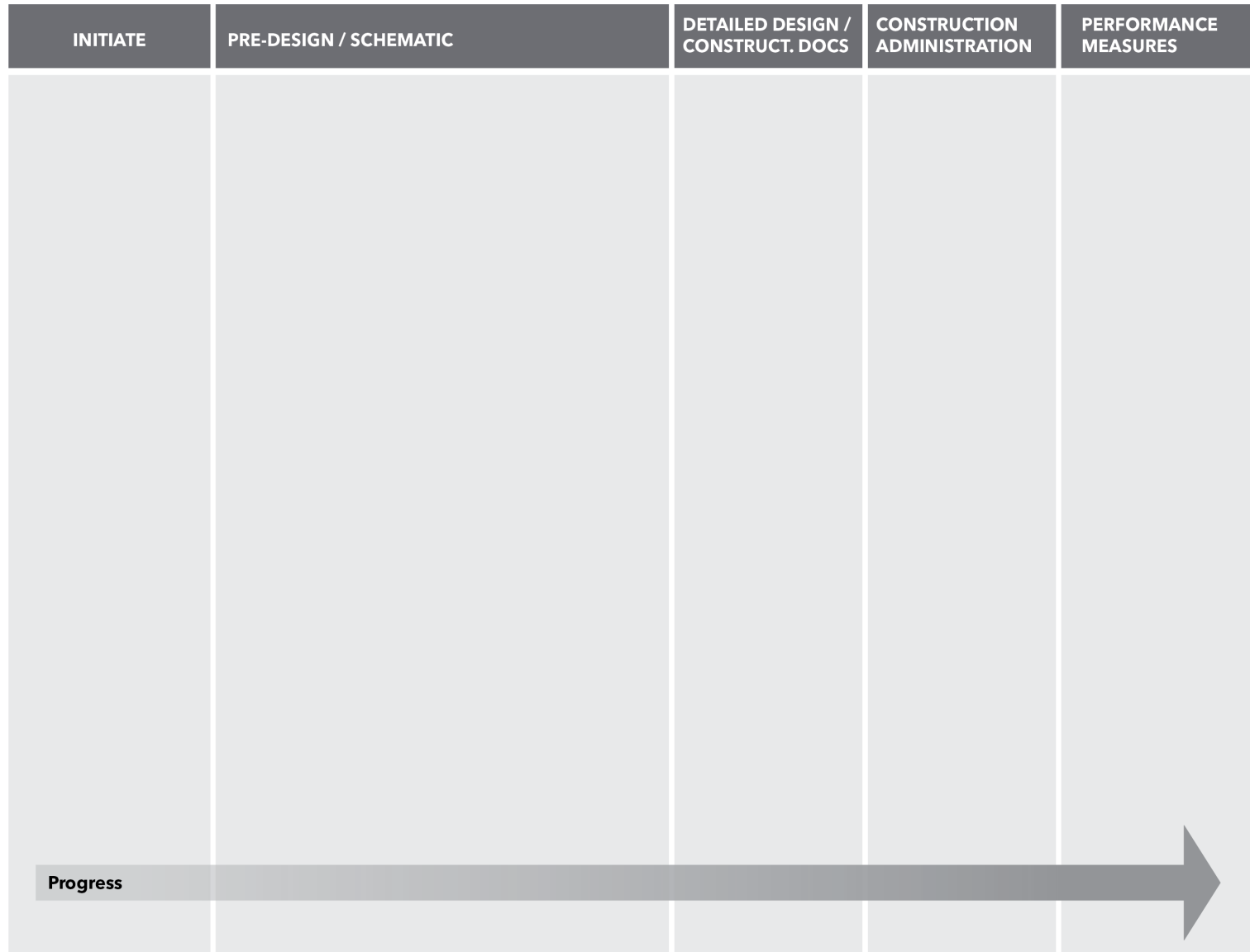
5. Design Guidance by Street Section

- Element Specific Objectives and Guidance

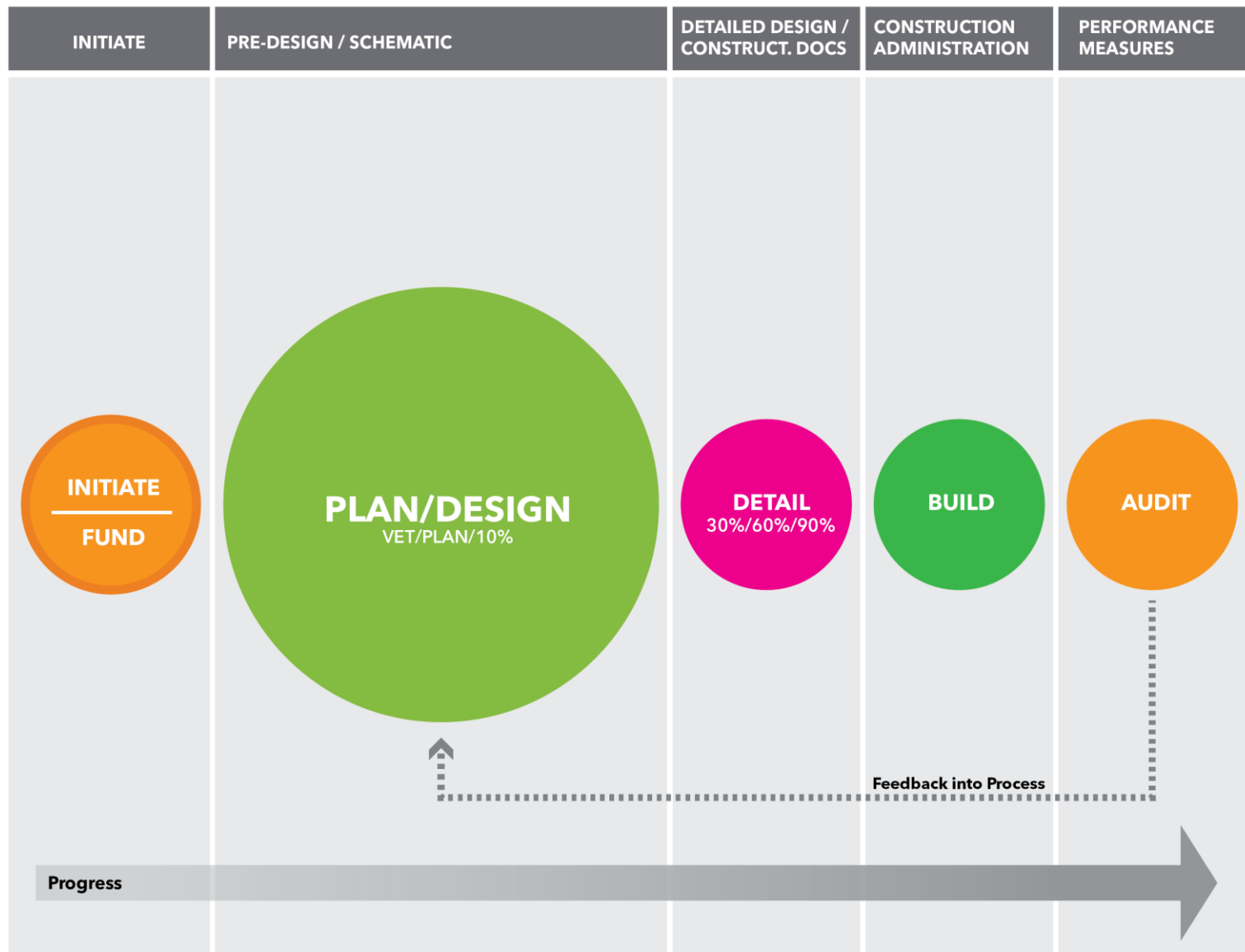
6. Making it Happen / Implementation

- Existing Project Delivery Process
- Compliance
- Performance & Monitoring

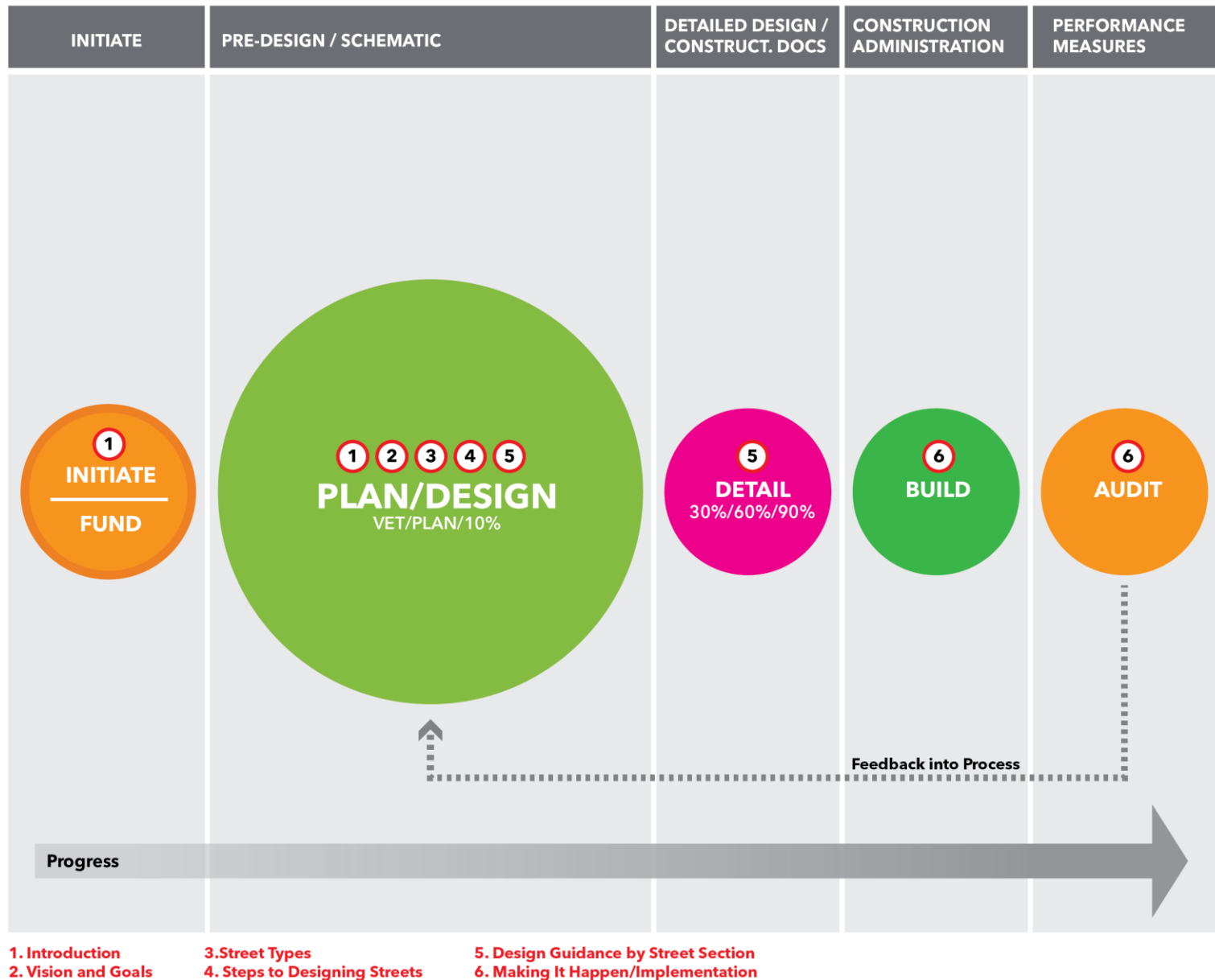
Project Delivery Process



Project Delivery Process



Project Delivery Process / Guide Chapters



TCSG / TAC #4

Guiding Principles - Update

What We Heard: Vision and Guiding Principles

TAC #3

- Address accessibility, equity, quality of design, and seasonality

Steering Committee

- Include 'active, healthy, sustainable' themes

SAG #1

- Clarify that “complete” means more than just all modes; it also means all ages and abilities, all times and seasons, every part of the city, and all types of uses
- Consider incorporating issues of maintenance, navigation and lingering

Guiding Principles

Updated based on feedback

Streets For People

Improve Safety &
Accessibility

Give People
Mobility Choices

Make Connected
Networks

Promote Healthy &
Active Living

Streets As Places

Create Beautiful &
Vibrant Public Spaces

Respond to Local
Area Context

Improve
Environmental
Sustainability

Streets For Prosperity

Support Economic
Vitality

Enhance Social
Equity

Balance Flexibility &
Cost-Effectiveness

For Discussion

- Do you have any suggested edits to the Guiding Principles?

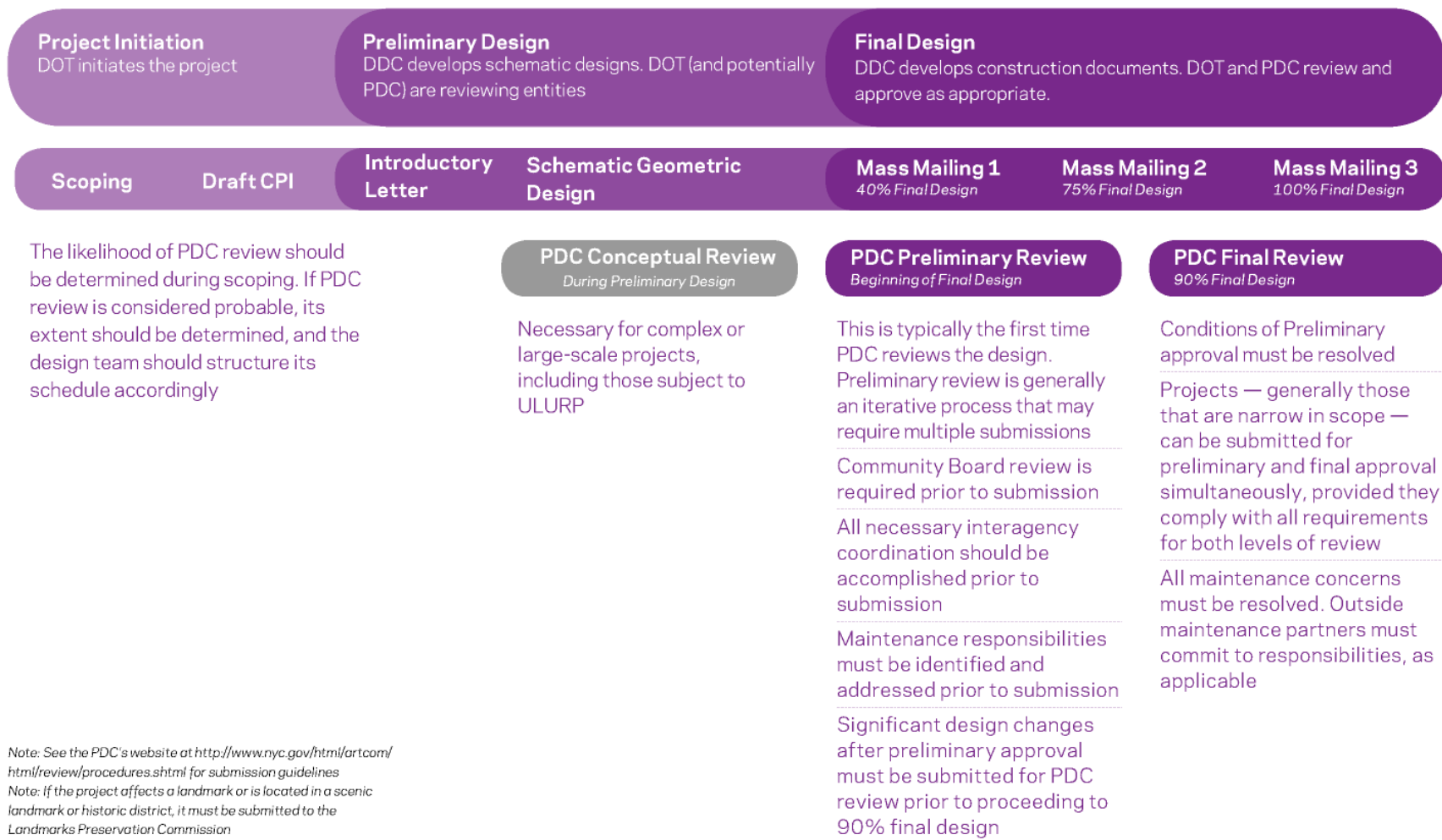
TCSG / SAG #2

Part 3:

Project Delivery Process

Project Delivery Process

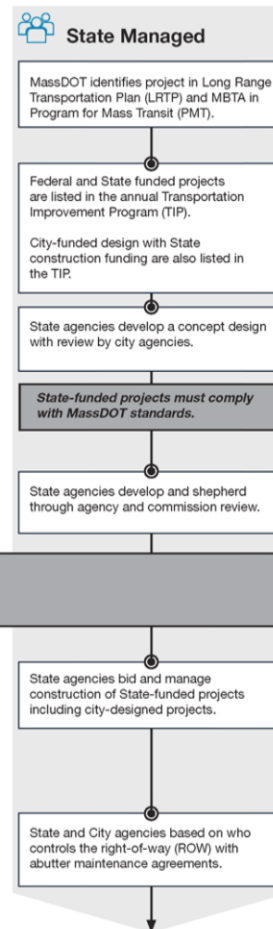
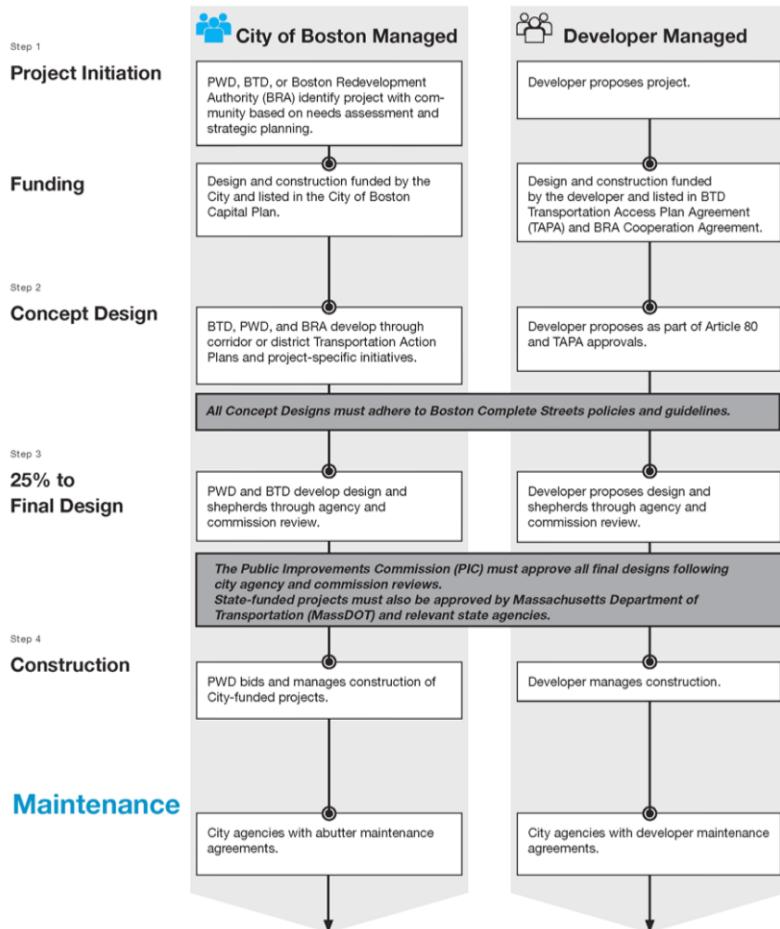
Example - NYC Capital Projects



Project Delivery Process

Example - Boston

Project Development and Review Process



Public Involvement



Community

Neighborhood, business and advocacy groups propose projects for consideration by the City, developers and State.

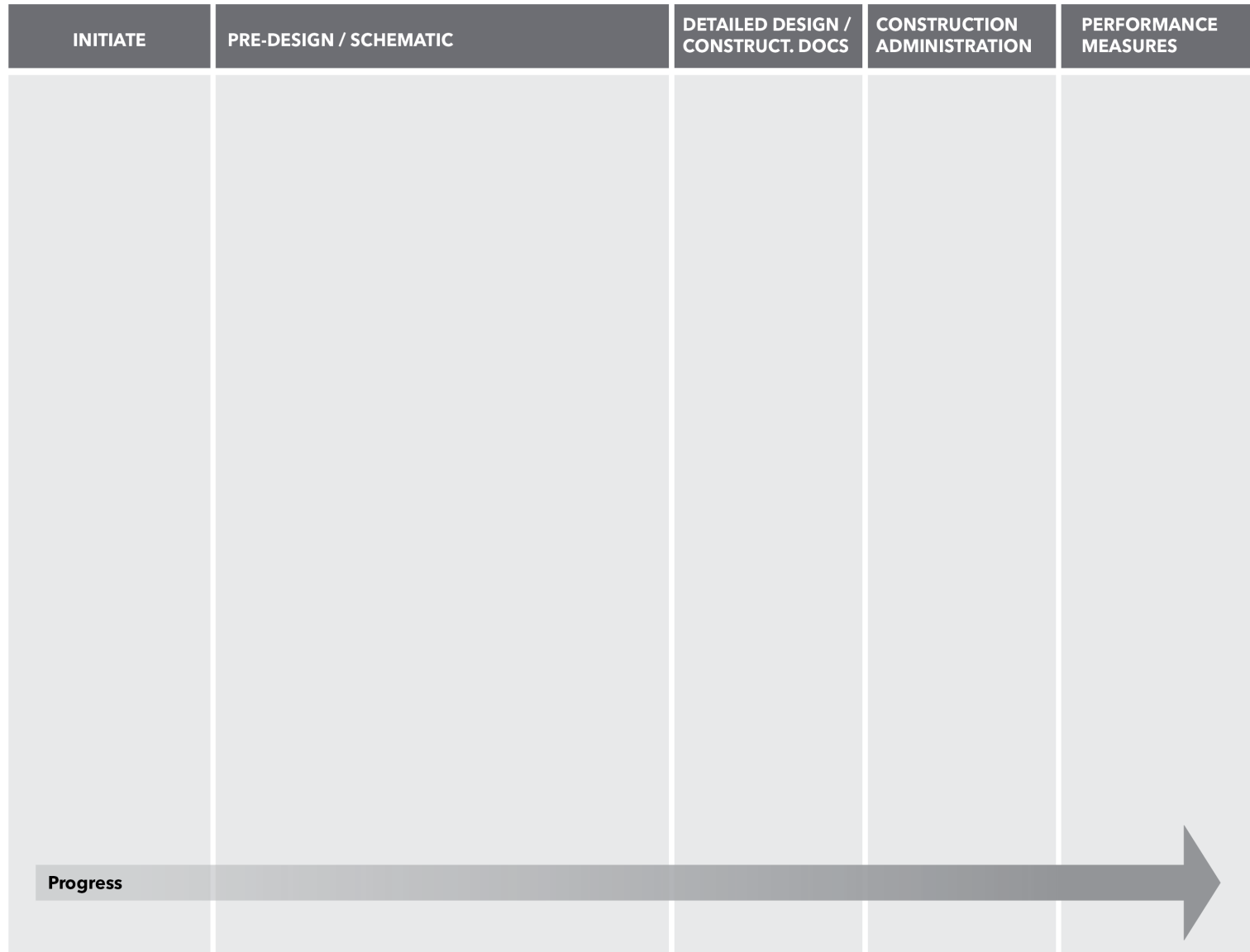
Extensive community and citizen advisory group meetings are held to inform the vision and review and select from concept design alternatives.

Community and abutter meetings are held to review design details and ROW impacts at 25% and 75%; MassDOT holds hearings for state-funded projects.

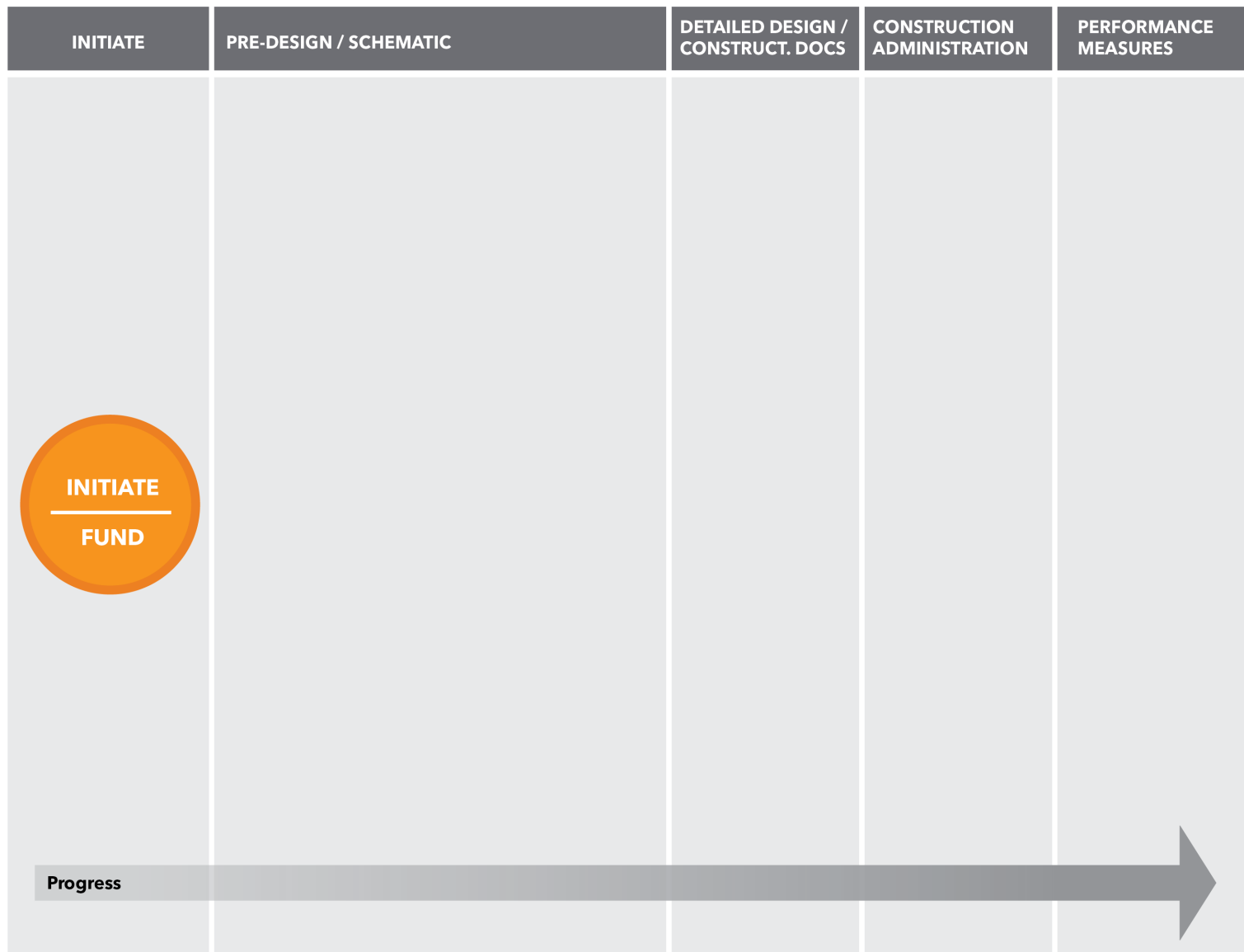
Project proponent appoints community liaison to address construction impacts.

Local residents and businesses participate in maintenance based on abutter agreements.

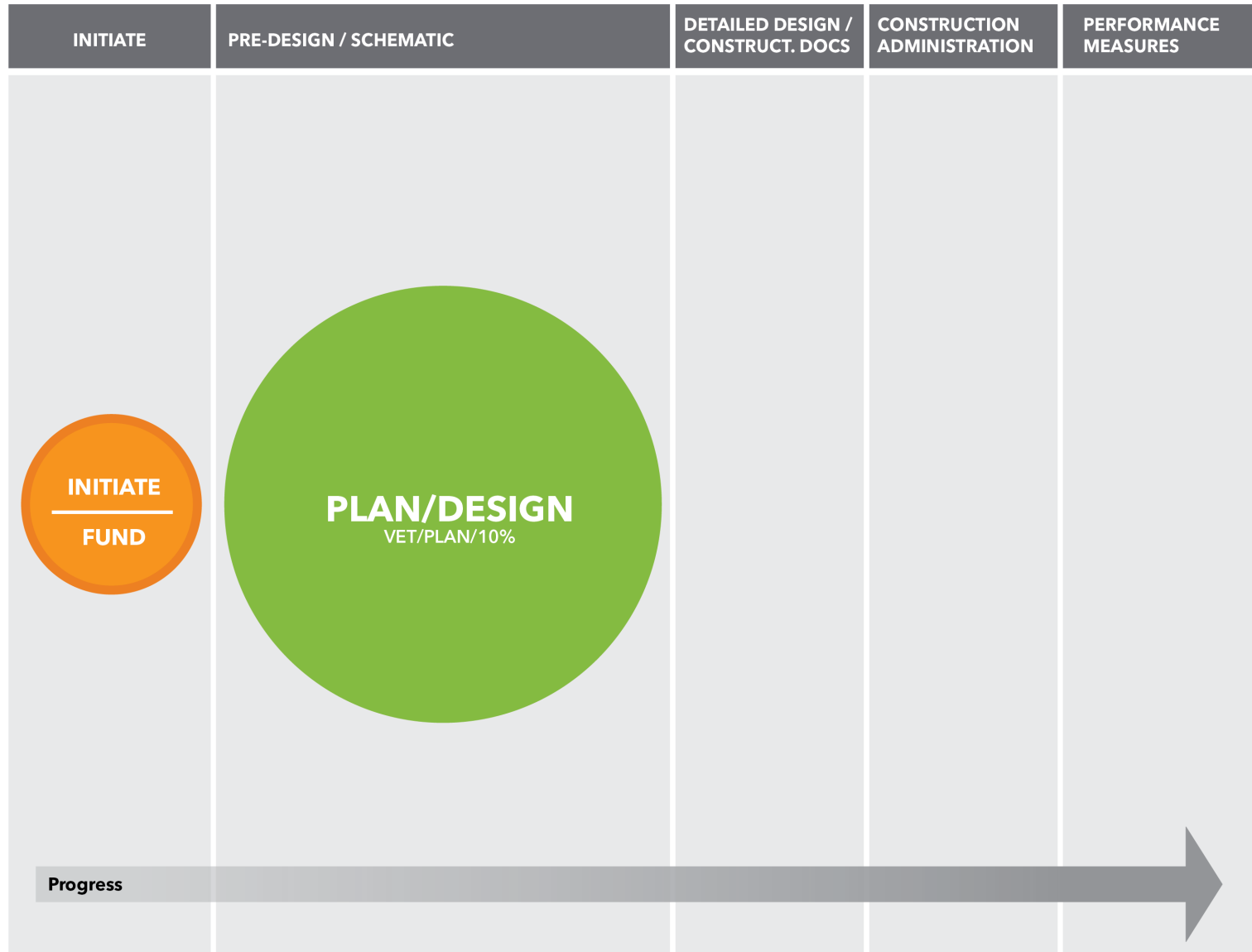
Project Delivery Process: 5 Main Phases



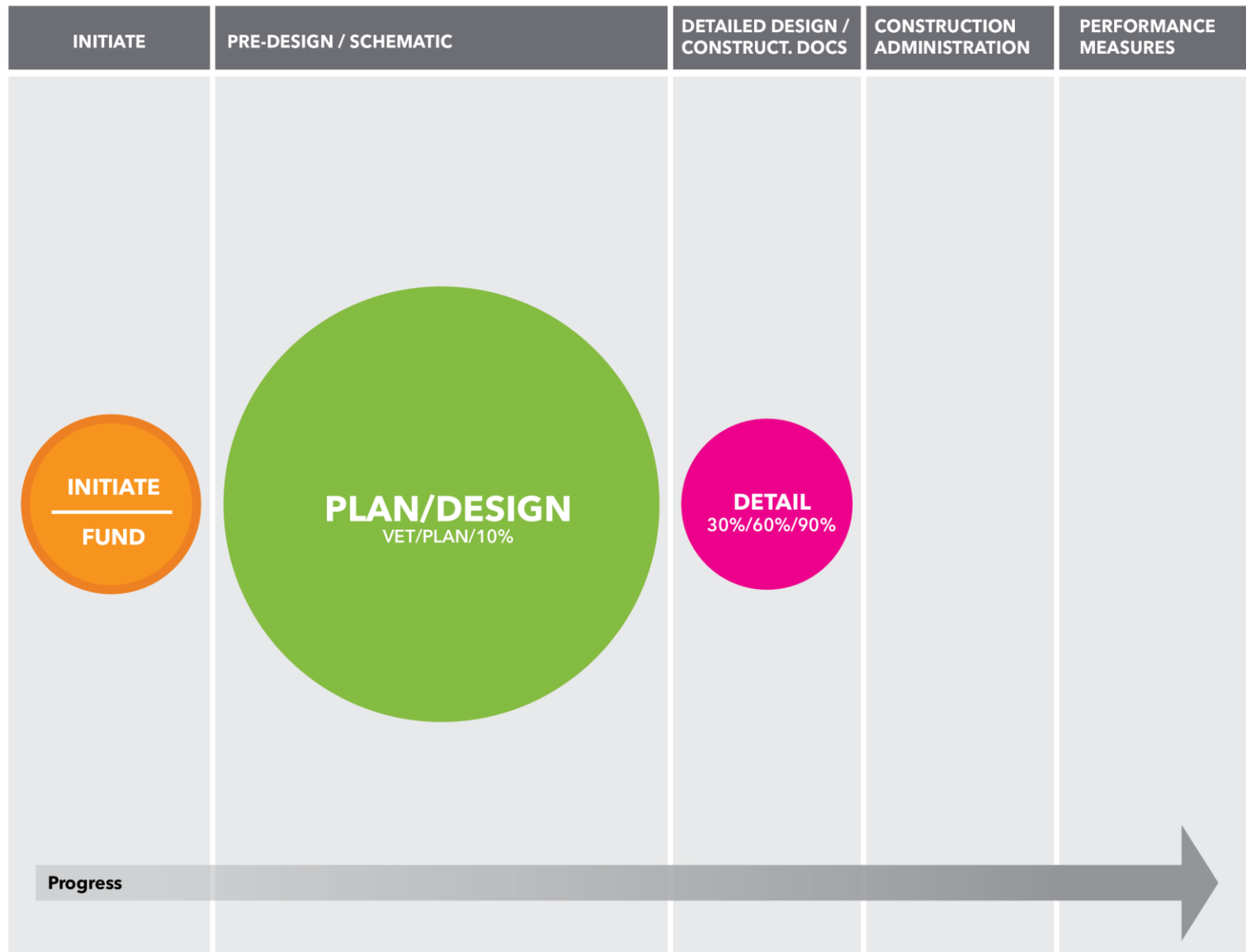
Project Delivery Process: Initiate/Fund



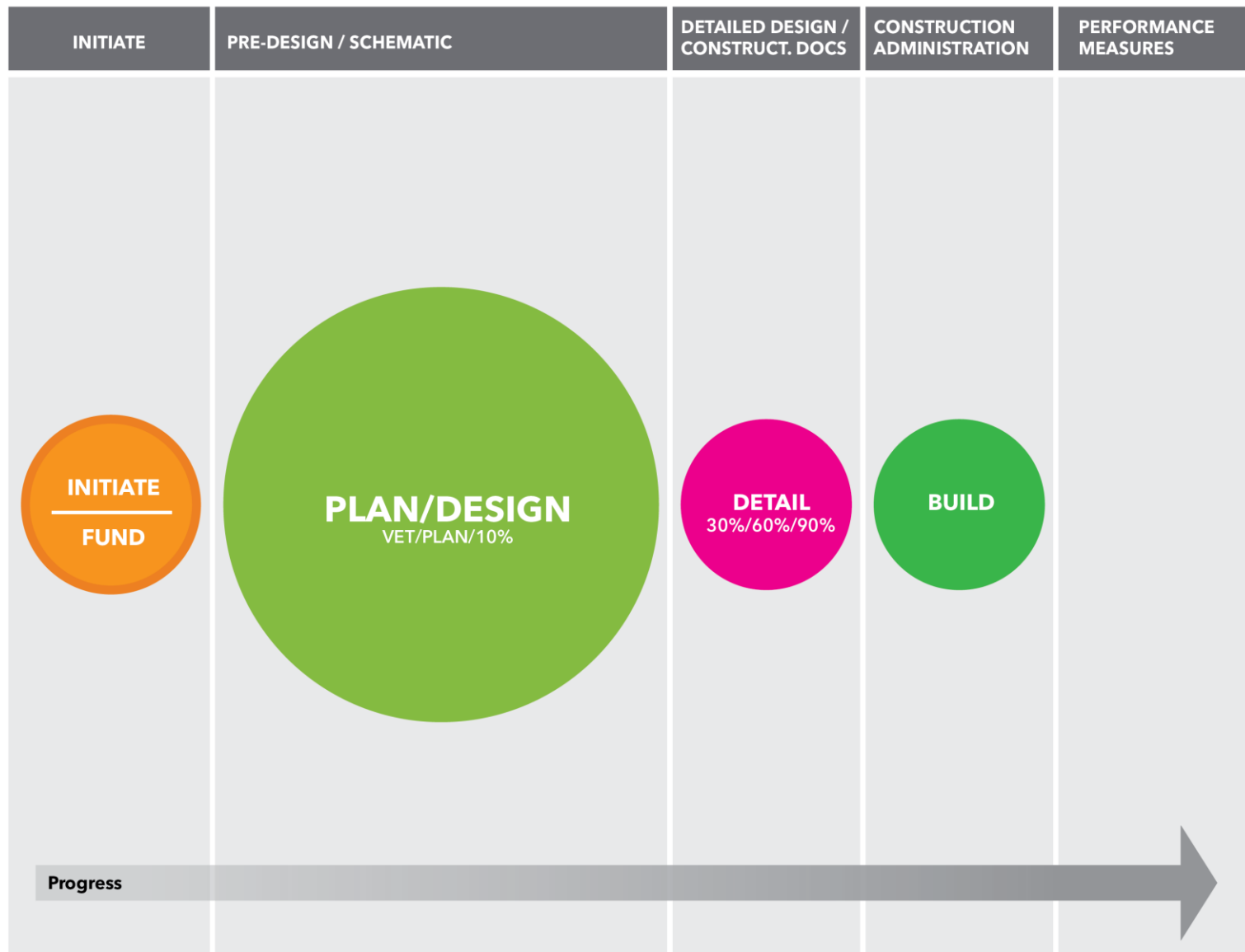
Project Delivery Process: Plan/Design



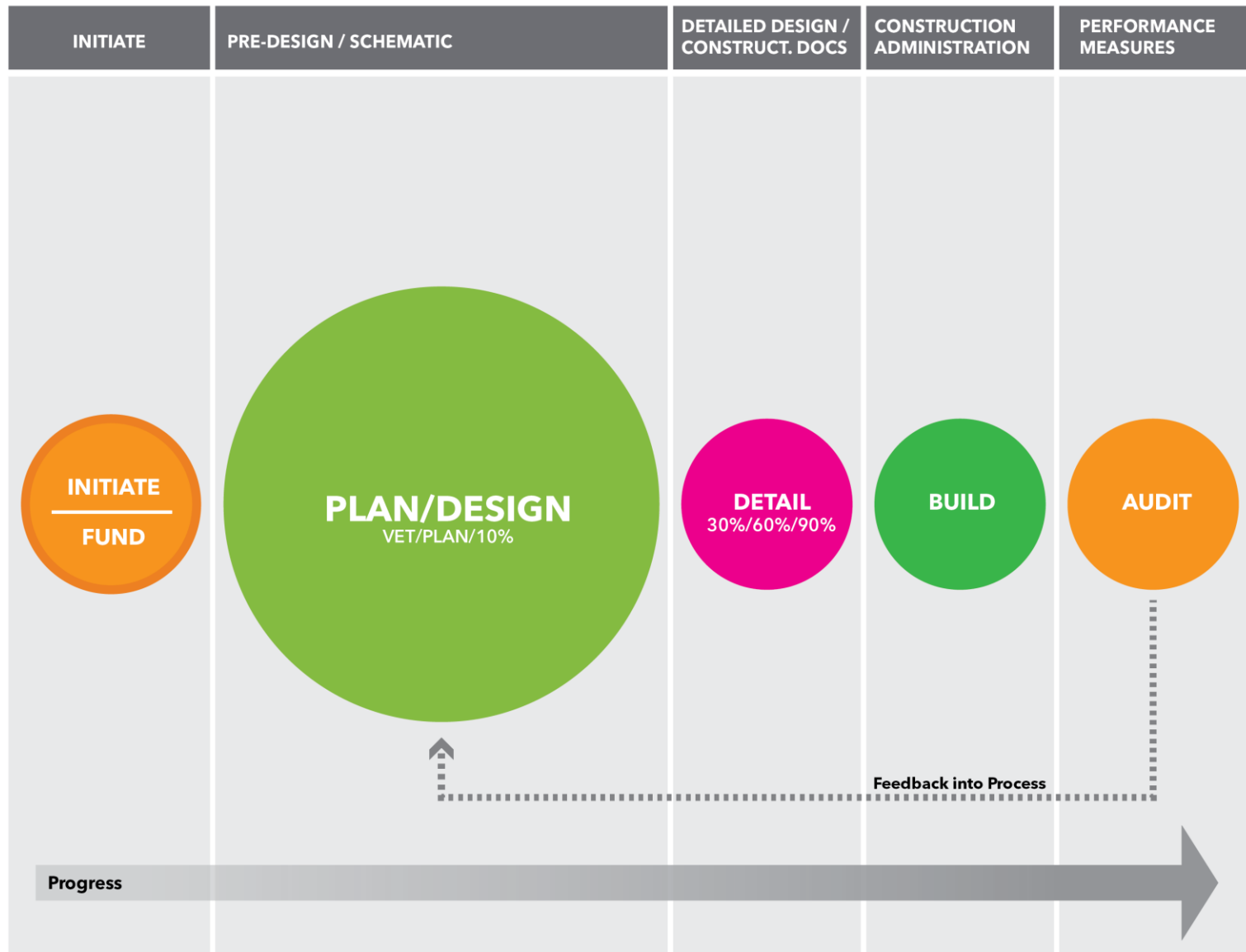
Project Delivery Process: Detailed Design



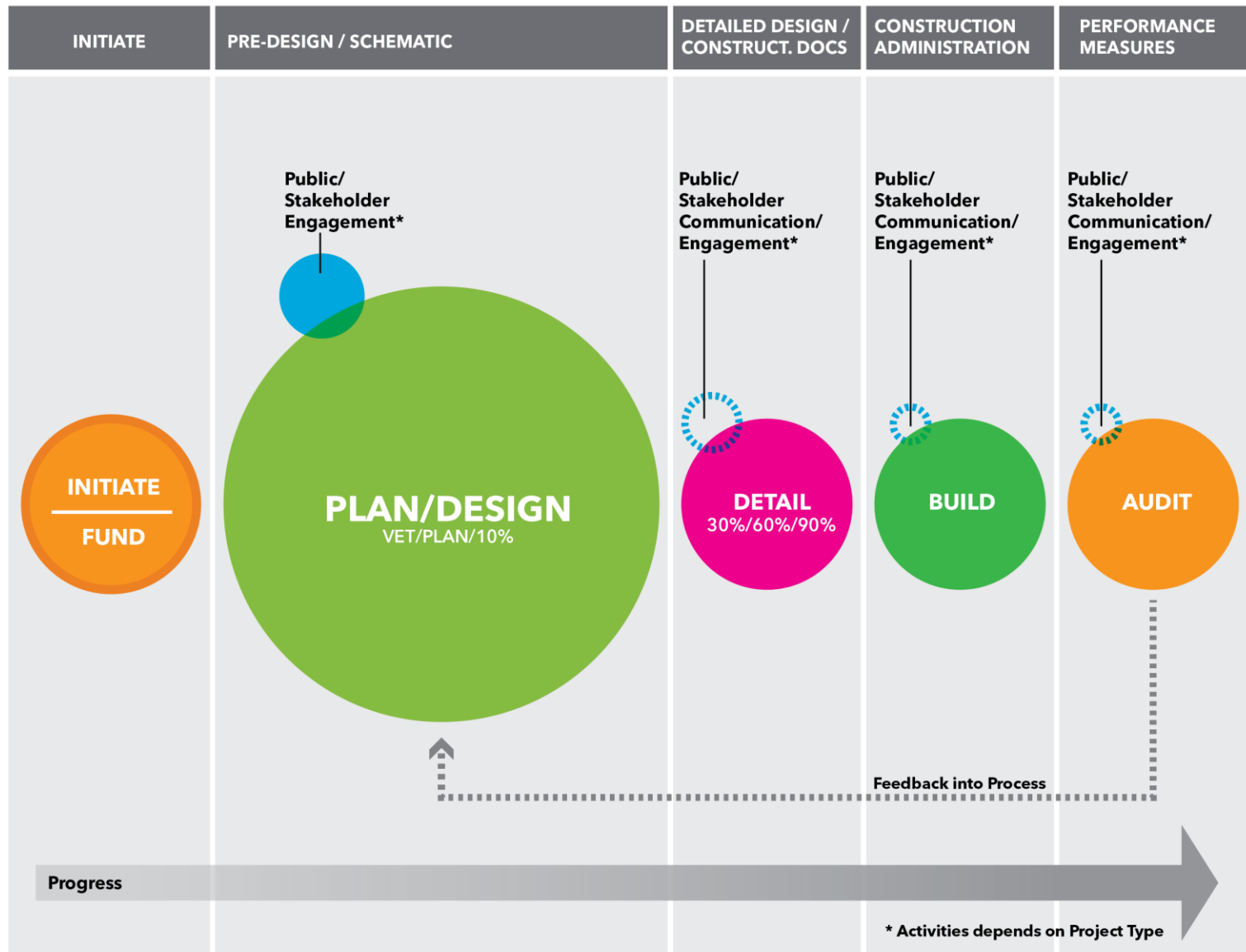
Project Delivery Process: Build



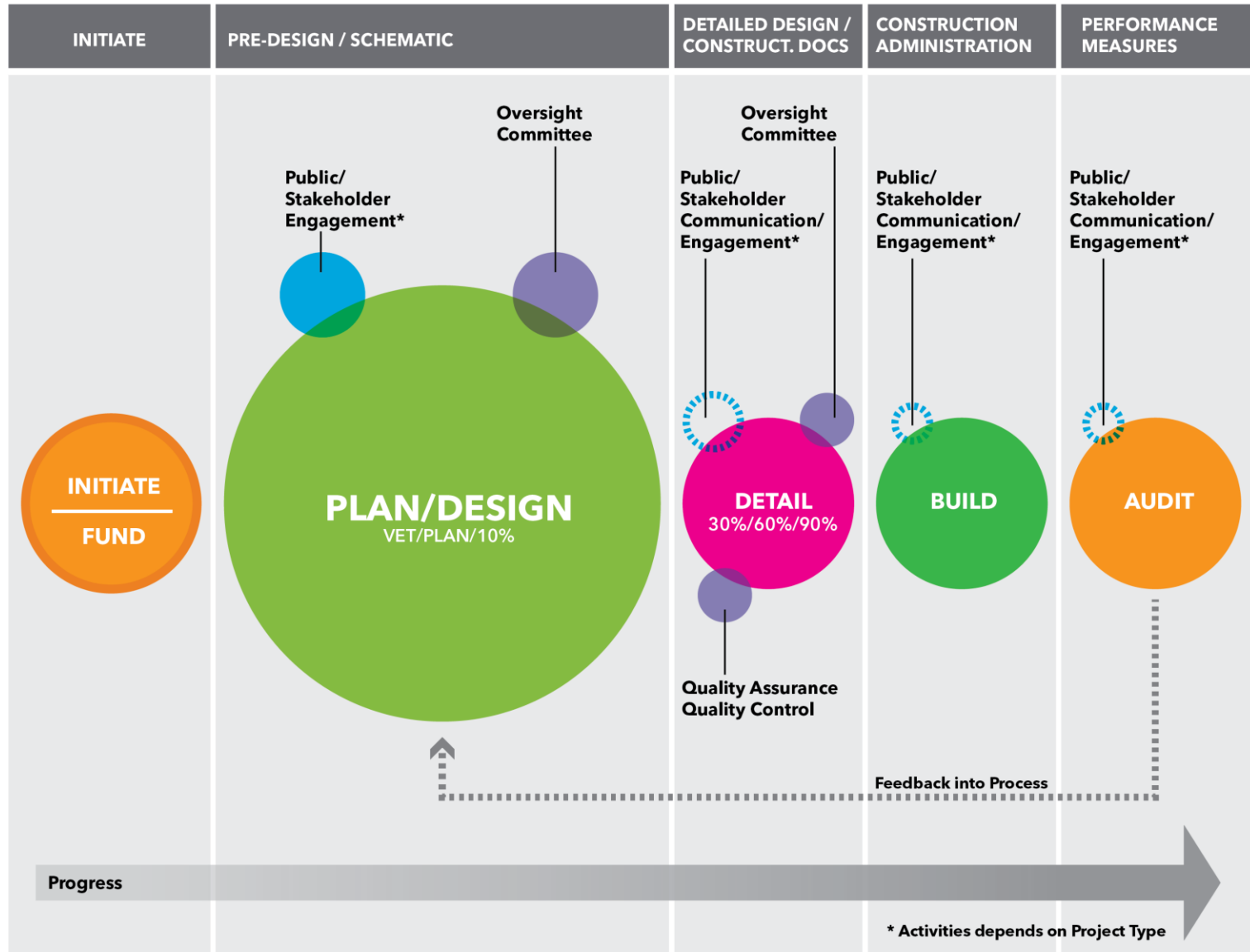
Project Delivery Process: Audit and Learn from Project



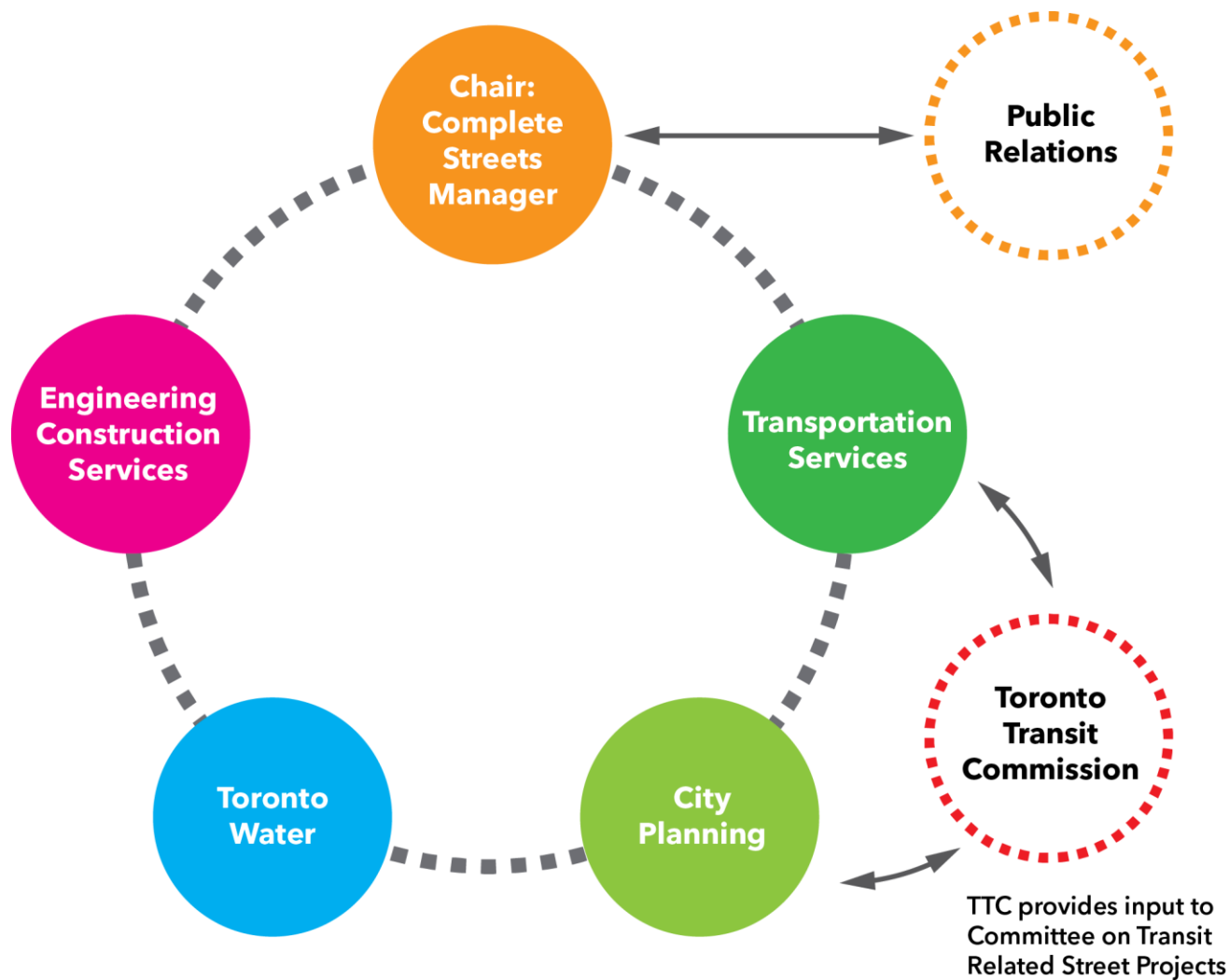
Project Delivery Process: Public/Stakeholder Communication and Engagement



Project Delivery Process: Quality Assurance + Control, Compliance Review



Project Delivery Process: Oversight Committee



Project Delivery Process: Types of Projects in Toronto

- Reconstructions
- Resurfacings
- Water/Sewer/Stormwater Management
- Utility Cut Rehabilitations
- Safety/Local Improvements
- New Sidewalk Construction
- Bikeway Construction/Markings
- Street Furniture Installations
- Street Tree Planting/Operations
- BIA Work
- TTC/Metrolinx Projects
- Waterfront TO/PanAm Initiatives
- Private/Developer Sidewalk and Boulevard Improvements
- Environmental Assessments, Avenue Studies, etc.

Project Delivery Process: Levels of Oversight

Level of Oversight	Toronto Project Type
High	<ul style="list-style-type: none">• New Streets• Full Reconstruction• Resurfacing• Intersection Improvements• EAs• City-Wide or Local TMPs• Secondary Plans• Official Plan
Medium	<ul style="list-style-type: none">• Traffic Impact Studies• Site Plan Reviews• Structural Rehabilitation Projects (ie. bridges, tunnels)
Low	<ul style="list-style-type: none">• Maintenance• Restoration

For Discussion

- What do you think about the way we've illustrated the project delivery process?
- Do you have any suggestions on how it could be more clear?
- Name a street project you or your organization were involved in (or a street project that you know of).
 - What worked (or didn't) about the stakeholder/public engagement process in that project?
 - Do you have any suggestions on how and when to engage in street design projects?

TCSG / SAG #2

Street Context and Street Types - Update

Street Types: What We Heard

TAC #3

- More guidance on how and when to use
- Clarify if used for existing conditions or future
- Clarify when and how to make priority decisions
- Provide expanded street type descriptions that include criteria on how to identify streets in both place + link categories
- Suggested new types or refinements

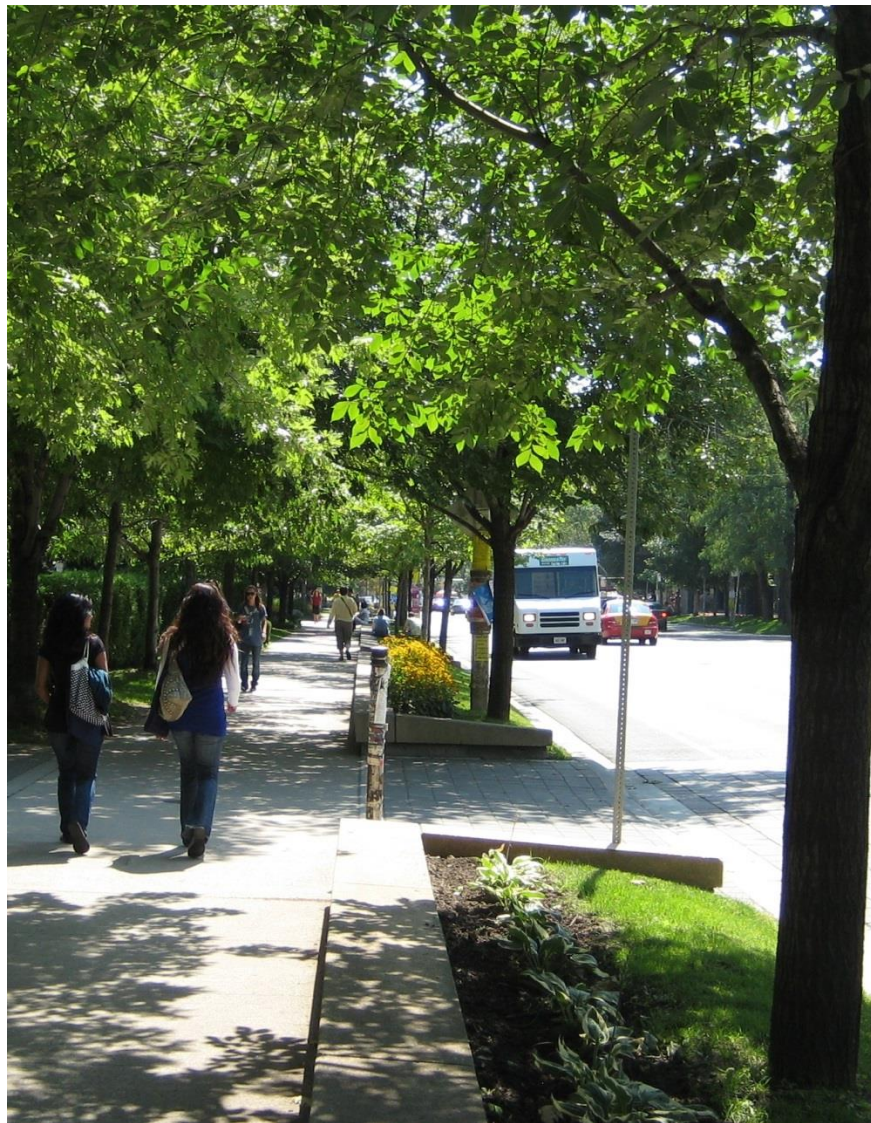
Steering Committee

- Clarify purpose
- Refine street types
- Support for mapping

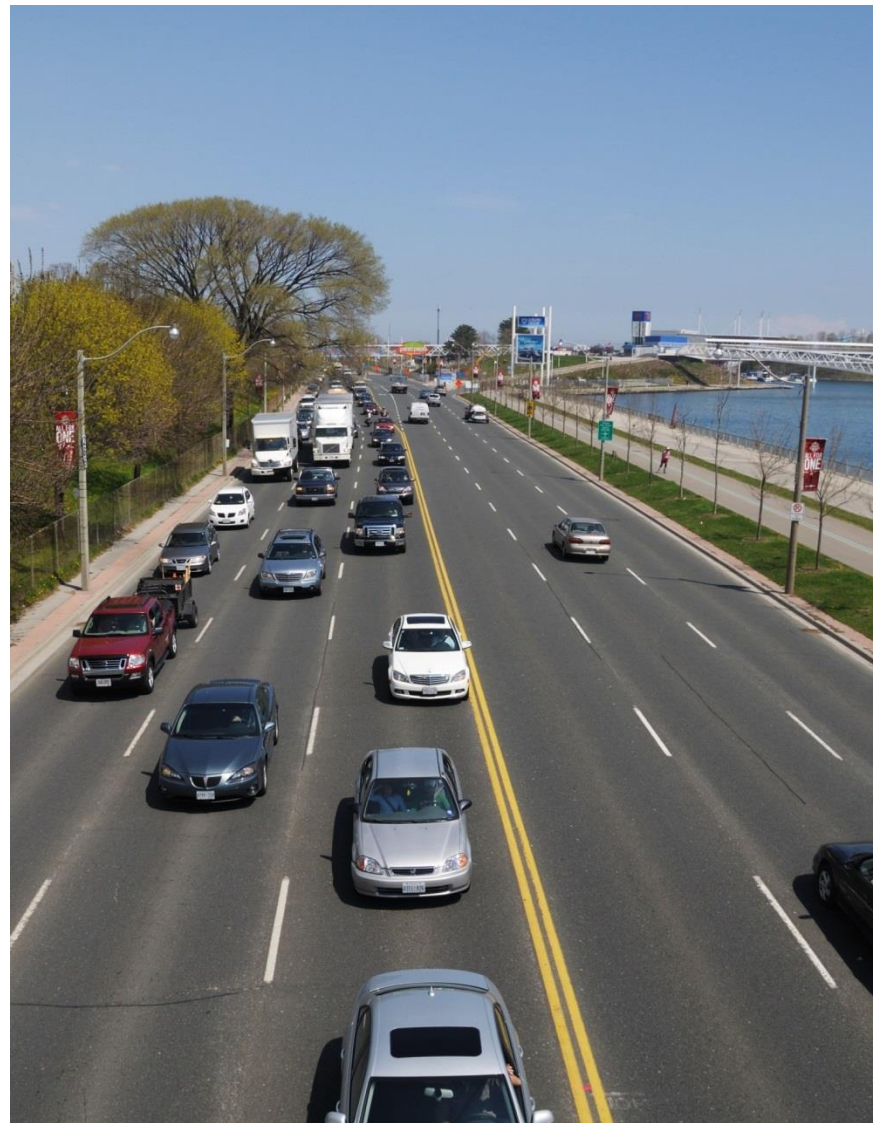
SAG #1

- Place-link approach is innovative and interesting
- Include laneways as separate type
- Clarify how to address streets that change in character along its length

TO PLACE



THROUGH place



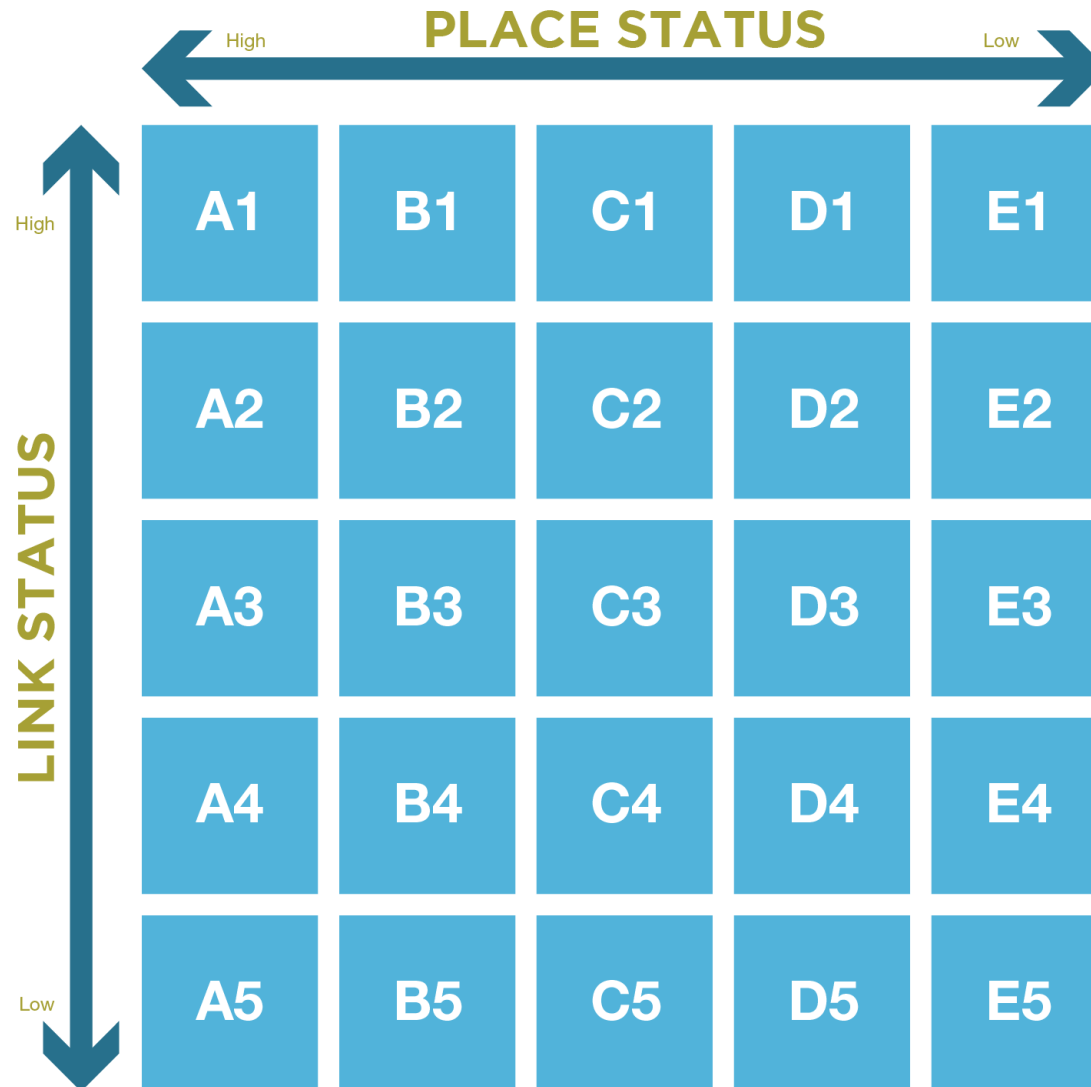
ROAD



STREET



Link + Place Model



Link (Functional Classification Only)



Link and Place (Example)



Link Alone: Arterial

Example: Dufferin Street - Past



Link Alone: Arterial

Example: Dufferin Street - Existing



Link + Place: Neighbourhood Main Street

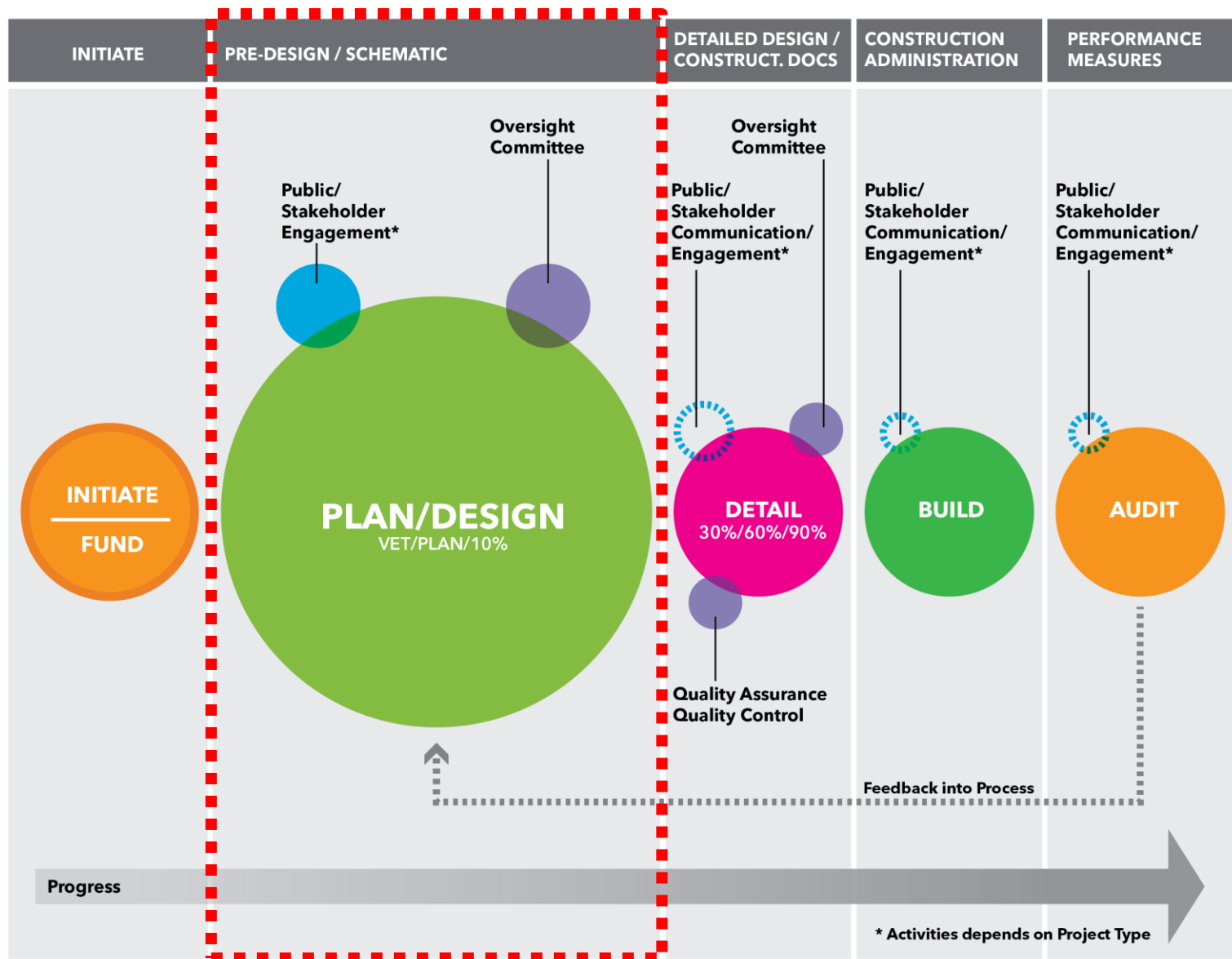
Example: Dufferin Street - Aspiration



Street Types: What They Are

- As a tool to provide guidance during street visioning and design stages (Pre-Design/Schematic)
- Move beyond Functional Classification alone to define streets
- Aspirational: What You Want The Street To Be
- Inform priorities

Street Types: When to Use



Street Types: How to Use 3 Major Steps

PREDESIGN / SCHEMATIC

IDENTIFY STREET TYPE / WHAT YOU WANT THE STREET TO BE

Existing and Future Conditions

Design Objectives

Decision Making

The diagram consists of three dashed rectangular boxes arranged horizontally. Above the first box is the header 'Existing and Future Conditions'. Above the second box is the header 'Design Objectives'. Above the third box is the header 'Decision Making'. A horizontal line with small circles at its ends spans the width of the three boxes, positioned just below the main section header 'IDENTIFY STREET TYPE / WHAT YOU WANT THE STREET TO BE'.

Street Types: How to Use

What Do You Want the Street to Be?

PREDESIGN / SCHEMATIC

IDENTIFY STREET TYPE / WHAT YOU WANT THE STREET TO BE

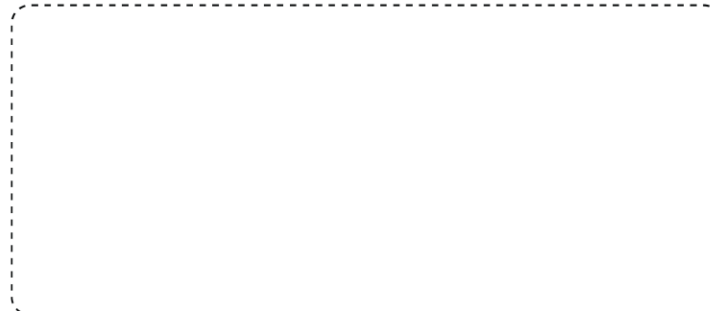
Existing and Future Conditions



Design Objectives

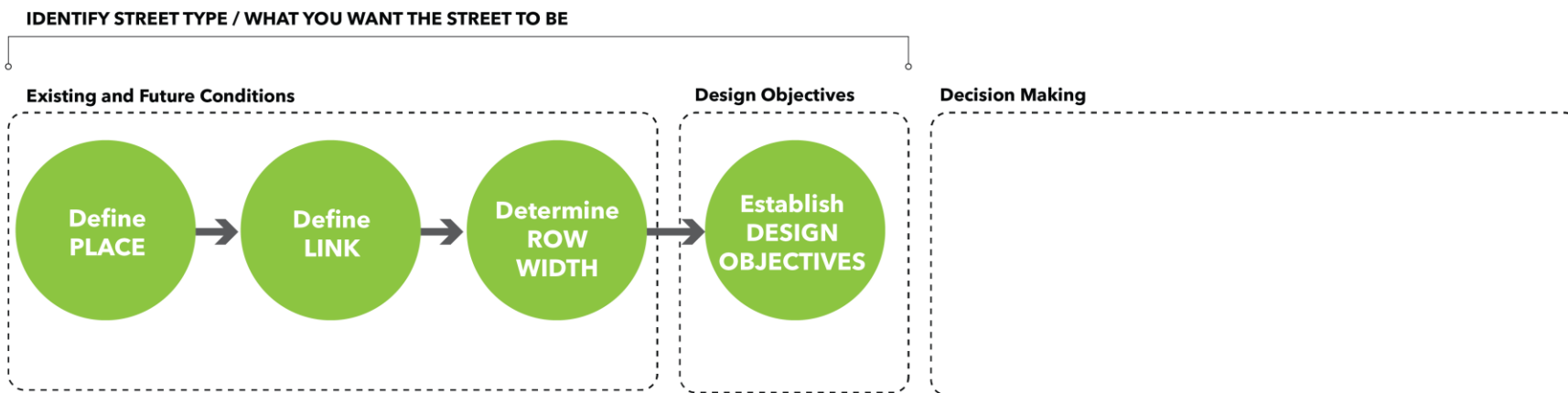


Decision Making



Street Types: How to Use Establish Design Objectives

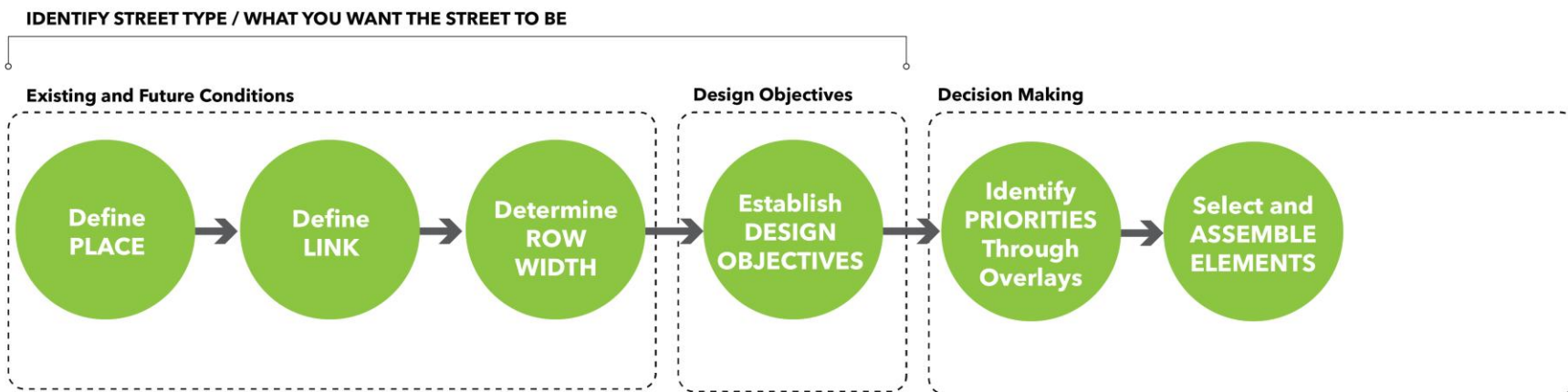
PREDESIGN / SCHEMATIC



Street Types: How to Use

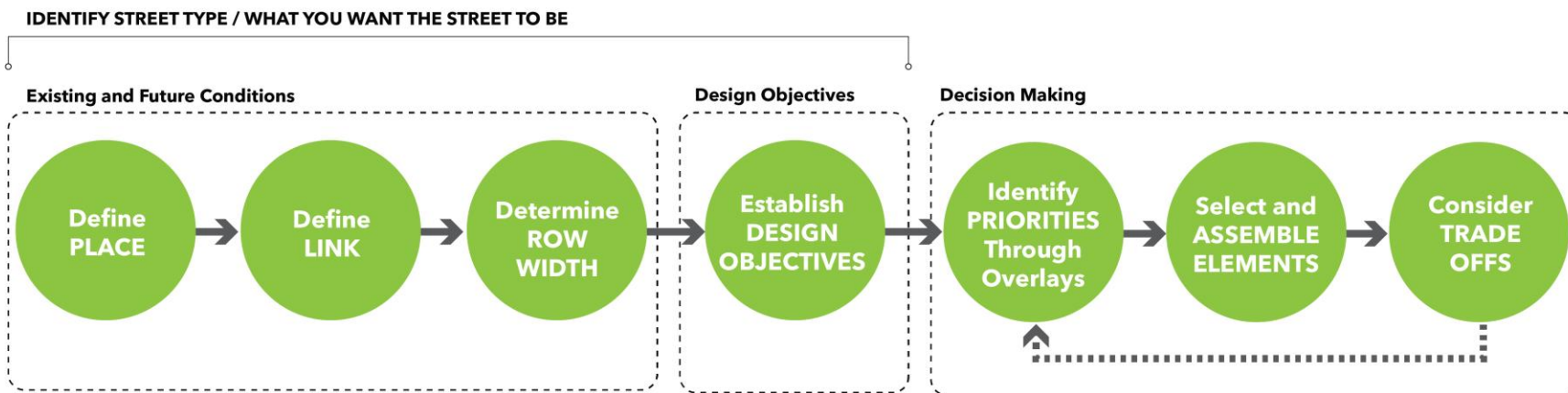
Identify Priorities, Select and Assemble Elements

PREDESIGN / SCHEMATIC



Street Types: How to Use Decision Making

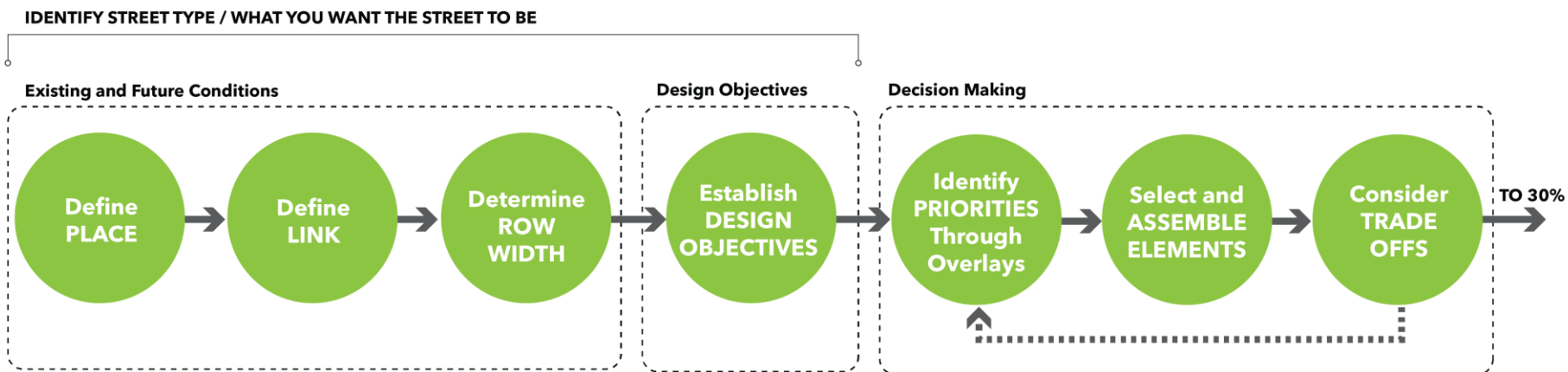
PREDESIGN / SCHEMATIC



Street Types: How to Use

Finalize Schematic Design, Move to Detailed Design

PREDESIGN / SCHEMATIC



Street Types: How to Use Inputs - 4 Questions

Place

- **Where in the city is the street?**
- **What are the uses and built form along the street?**
- **What civic role does the street play in the city?**

Link

- **What is the transportation role of the street?**
 - How many people does this street need to move?
 - What is the network role of the street?
 - Active transportation needs?
 - Transit needs?
 - Operational needs?
 - Goods delivery?
 - Emergency service?

Street Types: How to Use Inputs + Sources

Place			Link	
Where in the city is the street?	What are the land uses along the street?	What civic role does the street play in the city?	What is the volume of people the street must serve?	What is the network role of the street?
<i>source:</i> <i>OP Urban Structure Area Plans</i> <i>Secondary Plans</i>	<i>source:</i> <i>OP Land Use Maps Area Plans</i> <i>Secondary Plans</i>	<i>source:</i> <i>Streetscape Manual Area Plans</i> <i>Secondary Plans</i> <i>Demographics Mapping</i> <i>Community Consultation Plans</i>	<i>source:</i> <i>Road Classification - Redefined</i> <i>Transportation Policies / Network Plans</i>	<i>source:</i> <i>Road Classification</i> <i>OP Streets Map</i>
<ul style="list-style-type: none"> • Downtown/Core • Centres • Avenues • Employment Areas • Green Spaces 	<ul style="list-style-type: none"> • Mixed Use • Residential (Neighbourhoods, Apt.) • Green Spaces (Parks, Natural Areas) • Institutional • Commercial 	<ul style="list-style-type: none"> • High • Medium • Low • None 	Volume of People: <ul style="list-style-type: none"> • High • Medium • Low 	Network Connectivity: <ul style="list-style-type: none"> • High • Medium • Low

Toronto Street Types: Revised

Proposed Street Type	Place			Link		
	Where in the city is the street?	What are the land uses along the street?	What civic role does the street play in the city?	What is the volume of people the street must serve?	What is the network role of the street?	What is the vehicular volume expected for the street?
1. Civic (Ceremonial) Street	<ul style="list-style-type: none"> Downtown/Core Centres 	<ul style="list-style-type: none"> Institutional Civic Cultural 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Major Arterial Minor Arterial
2. Main Street, Core and Centres	<ul style="list-style-type: none"> Downtown/Core Centres 	<ul style="list-style-type: none"> Mixed Use Commercial 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Major Arterial Minor Arterial
3. Shared Street	<ul style="list-style-type: none"> Downtown/Core Centres 	<ul style="list-style-type: none"> Commercial Institutional 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Local
4. Neighbourhood Main Street	<ul style="list-style-type: none"> Avenues 	<ul style="list-style-type: none"> Mixed Use Commercial 	<ul style="list-style-type: none"> Medium 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Major Arterial Minor Arterial
5. Neighbourhood Residential Street	<ul style="list-style-type: none"> Throughout city 	<ul style="list-style-type: none"> Residential 	<ul style="list-style-type: none"> Medium 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Local
6. Scenic Street	<ul style="list-style-type: none"> Green Spaces 	<ul style="list-style-type: none"> Green Spaces 	<ul style="list-style-type: none"> Medium 	<ul style="list-style-type: none"> Medium to High at peak hours 	<ul style="list-style-type: none"> Medium to High 	<ul style="list-style-type: none"> Major Arterial Minor Arterial
7. Park Street	<ul style="list-style-type: none"> Green Spaces 	<ul style="list-style-type: none"> Green Spaces 	<ul style="list-style-type: none"> Medium 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Park Road
8. Connector	<ul style="list-style-type: none"> Throughout city 	<ul style="list-style-type: none"> Mixed Use Residential Open spaces 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Medium to High 	<ul style="list-style-type: none"> Medium to High 	<ul style="list-style-type: none"> Major Arterial Minor Arterial Collector
9. Employment Street	<ul style="list-style-type: none"> Employment Areas 	<ul style="list-style-type: none"> Commercial 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Medium 	<ul style="list-style-type: none"> Medium 	<ul style="list-style-type: none"> Minor Arterial Collector
10. Urban Local Street	<ul style="list-style-type: none"> Downtown/Core 	<ul style="list-style-type: none"> Mixed Use Commercial 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Collector Local
11. Commercial Lane	<ul style="list-style-type: none"> Downtown/Core Centres Avenues 	<ul style="list-style-type: none"> Mixed Use Commercial 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Laneway
12. Residential Lane	<ul style="list-style-type: none"> Throughout city 	<ul style="list-style-type: none"> Residential 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Laneway

Toronto Street Types: Revised

Proposed Street Type	Examples by ROW Width				
	35 to 45m+	25 to 34m	20 to 24m	15 to 19m	12 to 15m
1. Civic (Ceremonial) Street	University	Queens Quay	Yonge		
2. Main Street, Core and Centres	Spadina	Bay	King		
3. Shared Street	John	Front / Union	Market	West Donlands	
4. Neighbourhood Main Street	Eglinton East	Danforth	Roncesvalles		
5. Neighbourhood Residential Street	High Park Blvd	Avenue Road	Westminster	Ashdale	
6. Scenic Street	Eglinton West	Keele / York U	Rosedale Valley Rd		
7. Park Street			Humber Bay Park Rd	Colborne Lodge Rd	
8. Connector	Warden	Bayview South	Doris / Beecroft		
9. Employment Street	Caledonia	Milner	Orfus		
10. Urban Local Street			Victoria	Asquith	
11. Commercial Lane					St. Nicholas
12. Residential Lane					June Callwood Way

IN DEVELOPMENT

Toronto Street Types in Relation to RCS

Proposed Street Type	Road Classification					
	Major Arterial	Minor Arterial	Collector	Local	Laneway	Park Road
1. Civic (Ceremonial) Street						
2. Main Street, Core and Centres						
3. Shared Street						
4. Neighbourhood Main Street						
5. Neighbourhood Residential Street						
6. Scenic Street						
7. Park Street						
8. Connector						
9. Employment Street						
10. Urban Local Street						
11. Commercial Lane						
12. Residential Lane						

IN DEVELOPMENT

Toronto Street Types: Typical Detail

Description

- Answers the 4 questions to establish what you want the street to be: Where is it? What are the uses and built form? What is its civic role? What is its transportation role?

Objectives

- Design
- Functional
- Uses the imperative form

Desired Activities

Other Details

- Local examples for each ROW width
- Aspirational images

For Discussion

- Have we clarified why, when, and how to use street types?
- Do you have any suggestions on how we could make it clearer?

TCSG / SAG #2

Overview: Design Priorities and Decision Making

Overview: Design Priorities

Key Considerations

Safety

- Prioritize most vulnerable user
- Speed, exposure risk, predictability
- Self-regulating design

Networks

- Multi-modal networks – providing choice
- Prioritization of modes

Placemaking

- Using a 'building-in' approach

Sustainability

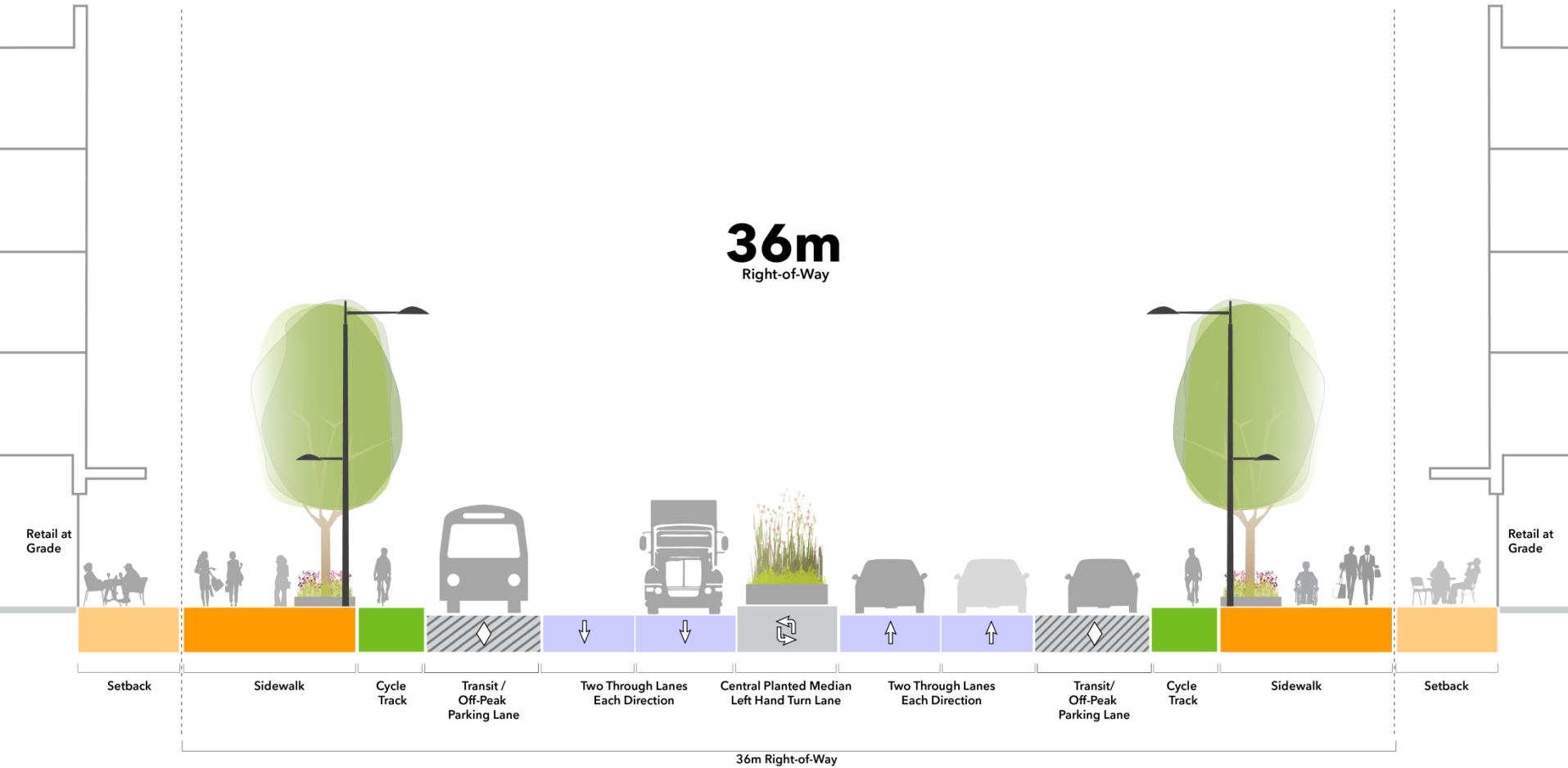
- Street trees
- Stormwater management

Lifecycle Considerations

- Maintenance and seasonality
- Operational requirements

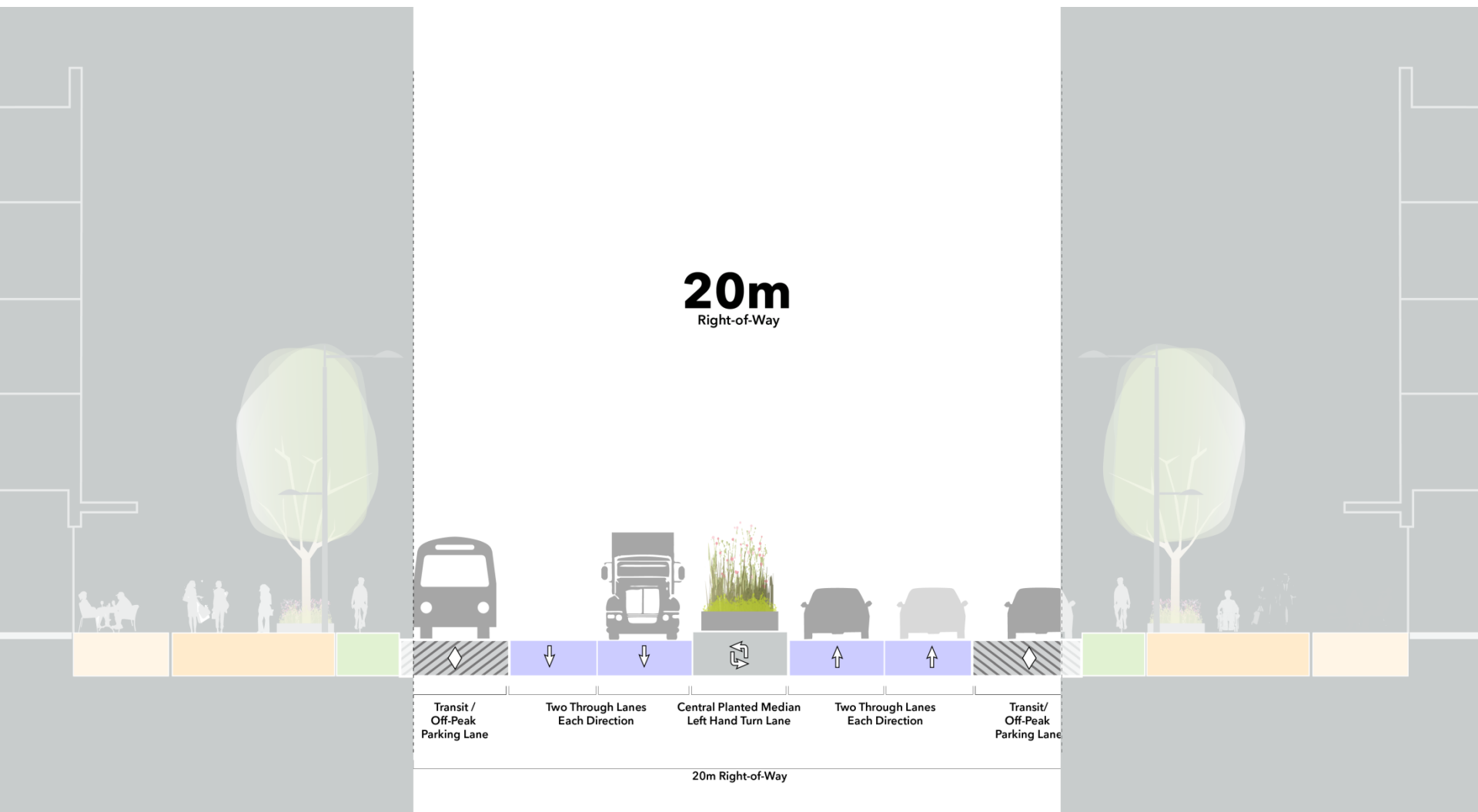
When Everyone Gets Their Space

Thru-Lanes/Bike Lanes/Transit Lanes/Sidewalks/Trees



Our Common Reality

What To Do With Limited Space?



Overview: Design Priorities and Trade-Offs

Examples for Too Little Right-of-Way

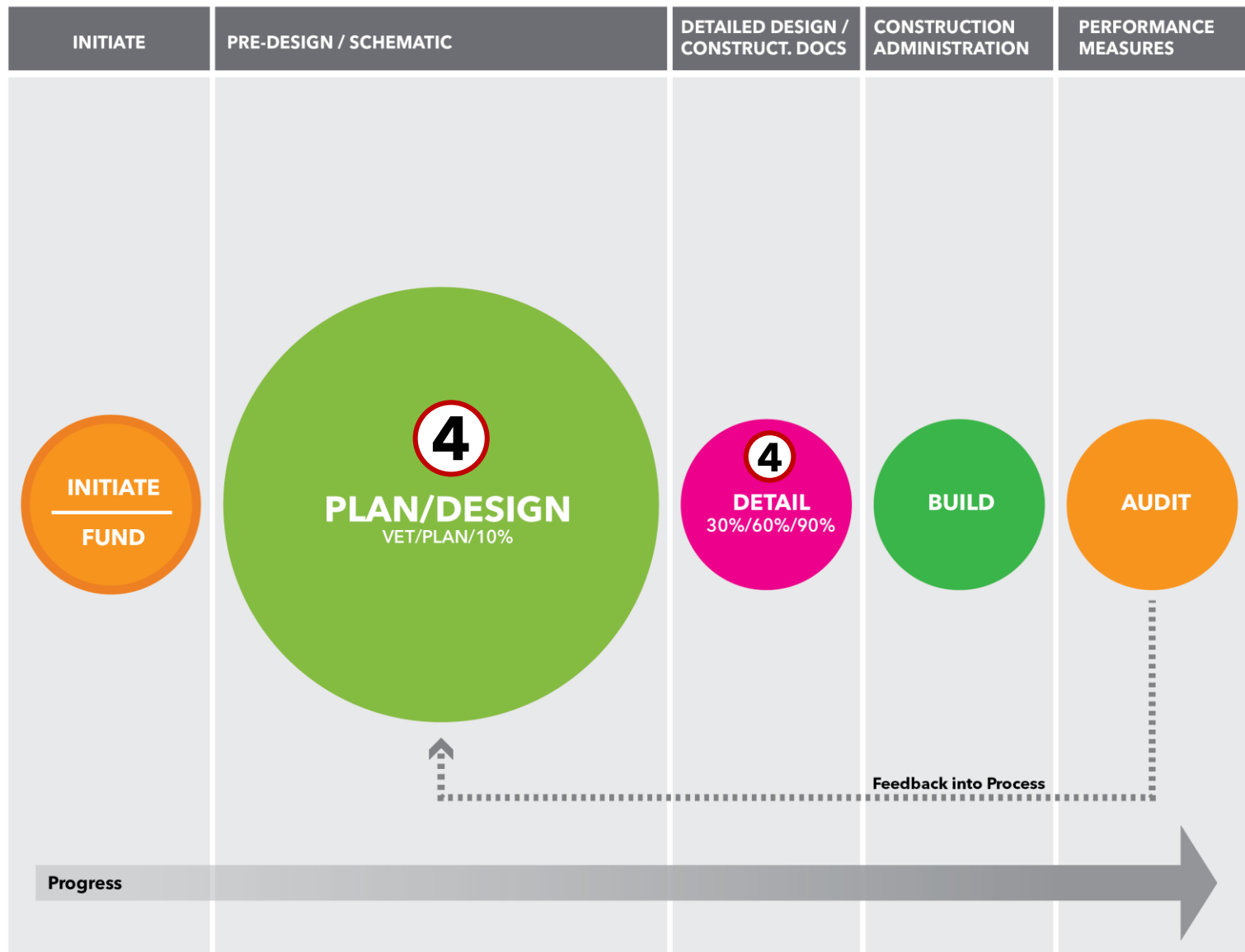
- Reduce median widths
- Reduce edge zone
- Reduce furnishing zone at taxi lay-bys and transit stops
- Reduce frontage zone, except at outdoor seating
- Reduce furnishing zone via tree grates and relocating or eliminating street furniture
- Reduce on-street parking
- Replace protected with shared bike lanes
- Reduce transit stop width
- Eliminate a travel lane

Overview: Design Priorities and Decision Making

Examples for Too Much Right-of-Way

- Add on-street parking
- Widen furnishing zone and add streetscaping
- Widen walkway
- Widen edge zone
- Widen frontage zone
- Upgrade transit stops
- Upgrade bike lanes
- Increase median widths
- Add more on-street parking

Overview: Design Priorities and Decision Making



Examples of Trade Offs

Eglinton Connects Interview

- Trees vs. street furniture at intersections
- Pedestrian islands/refuges vs. wider sidewalk
- Queue jump lanes vs. more sidewalk or street crossing

How they resolved them:

- Interdivisional cross-section workshop
- Public and stakeholder consultation
- A multi-modal evaluation matrix

Six Points Interview

- Wider boulevards vs. roadway in a high volume traffic context
- Killstrip – balancing cyclist safety and how and where to store snow

How they resolved them:

- Multi-modal evaluation criteria
- Interdivisional meetings and good relationships between divisions
- An assumption table that described what designs should be based on
- A council champion
- Support from residents

For Discussion

- In addition to the trade-offs we presented, what are some of the challenging decisions and trade-offs that we should keep in mind as we develop the Guidelines?

TCSG / SAG #2

Overview: Design Guidance by Street Section

Overview: Design Guidance by Street Section

Midblock Section

- Sidewalks
 - Frontage
 - Pedestrian
 - Furnishing
- In-Between Zone/
Curbside
 - Furnishing
 - Parking
 - Bike Lanes
 - Waste/Loading
- Roadway
 - Through Lanes
 - Transit
 - Bike Lanes

Intersections

- Geometry
- Crosswalks, desire lines / jaywalking, max. crosswalk distance
- Corners, Turns, Speed, Effective Radius, Design and Control Vehicle

Operational

- Signals
- Maintenance
- Wayfinding

Overview: Design Guidance by Street Section

Sample Structure for Design Element

- Description
- Benefits
- Applicability
- Critical
- Recommended
- Optional
- More info

Overview: Design Guidance by Street Section

Best Practices Example - NACTO Guide

INTERIM DESIGN STRATEGIES

APPLICATION

Interim public plazas are most commonly applied under the following circumstances:

- A dedicated partner, typically a business or neighborhood association, or a community with unmet demand for public space, wants to activate, program, and take ownership of an underutilized road space and can maintain it throughout the year.
- An underutilized street segment has low vehicle traffic, pedestrian demand is unmet, and foot traffic is overflowing into the roadway.
- Safety or operational issues with existing traffic call for a temporary reconfiguration of the intersection.
- Funds have been allocated to the permanent installation of a plaza, but capital implementation remains several years away.



SAN FRANCISCO, CA

BENEFITS & CONSIDERATIONS

Public plazas have the potential to:

- Make intersections safer, more compact, and easier to cross for pedestrians.
- Slow traffic speeds and mitigate potentially dangerous intersection conflicts.
- Activate a public place by reclaiming space unused or underused by motorists.
- Energize surrounding streets and public spaces, creating foot traffic that can boost business and invigorate street life in a neighborhood.¹

CRITICAL

1 Parking shall not be allowed or permitted within the public plaza. Parking may be maintained adjacent or parallel to the plaza, but should be designed along the footprint of the future capital implementation.

2 Interim public plazas shall be constructed with ADA-compliant tactile warning strips at the crosswalks. Extra attention should be paid to how sight-impaired individuals will navigate these spaces.

Stripe a double white line along the edge of the plaza to legally prohibit vehicles from entering the space.

RECOMMENDED

Plazas should be defined using low-cost, durable materials, such as epoxied gravel, paint, and thermoplastic.² Climate factors into the selection of specific materials and their long-term durability.



NEW YORK, NY

Coordinated designs using flexible chairs, tables, and planters define interim public spaces throughout New York City's five boroughs.



3 Plazas should be designed with a strong edge and defined using a combination of striping, bollards, and larger fixed objects, such as granite rocks and/or planters.

Prior to implementation of a public plaza, cities are advised to post an informational placard advertising the plaza to ensure that local stakeholders are aware of the installation.



Tables and seating may be movable to permit flexible use of the space and to limit costs. Whether or not to secure seating at night should be determined by the maintenance partner.³

Corners and other areas of a plaza subject to encroachment by errant or turning vehicles should be reinforced using heavy objects and bollards that alert drivers of the new curb line.

Adequate lighting should be provided at plazas at all times of day.

OPTIONAL

4 Heavy planters, granite blocks, moveable seating, and other street furniture elements may be incorporated into the interim design.



BROOKLYN, NY

Granite blocks help define the edge of a new plaza.

INTERIM PUBLIC PLAZAS



LOS ANGELES, CA

Bicycle parking may be installed in coordination with the installation of a temporary plaza.

Art installations, performances, vendors, and markets can improve the quality and identification of a public plaza, while engaging local artists, communities, and business owners.

Plazas should be designed to accommodate freight loading and unloading where access to the curb is required at early morning hours for adjacent businesses.

Drainage should be considered in the design of the pilot plaza. Sites should have minimal cross slope or be designed using edge treatments that mitigate the overall slope.

Overview: Design Guidance by Street Section

Sample Structure for Design Element

1-Way Protected Cycle Track

Required

- Bike symbols
- 1.2m + 0.5m buffer

Recommended

- 1.5m + 1.0m buffer
- Driveway treatment

Optional

- 1.8m + 1.5m buffer
- Colour
- Bollards
- Raised
- Route behind transit stops
- Bend in at intersections
- Wheelchair access

Key References

- Toronto Cycling Facility Design Guidelines
- Ontario Traffic Manual Book 18: Cycling Facilities

For Discussion

- What do you think of the proposed categories for the street sections?
- Would the proposed structure for a street element be useful to you? Do you have any suggested changes or additions?

Upcoming Engagement Activities

June 2015: Round 1 of 2

- Public Open House (18th)
- Moving Conversations (20th)
- Design Review Panel (22nd)
- Disabilities Issues Committee (TBD)
- On-Line Survey (June 18 - July 2)
www.toronto.ca/completestreets

September/October 2015: Round 2 of 2

Thank you.
End