Better for Planet
Better for People

Low Carbon Development Through Transit-oriented Communities.

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Why is this important?

Two approaches to lowering travel-related carbon in urban areas:
Why is this important?

Two approaches to lowering travel-related carbon in urban areas:

1. Apply technology to improve mobility
   - Electrification
   - Autonomy
   - Smart City Technology

Emphasis on mobility

Dubai EXPO 2020: China and DP World pavilions
Why is this important?

Two approaches to lowering travel-related carbon in urban areas:

2. Change the Urban Form
- Transit Oriented Communities (TOC)
- Complete (20 min) Communities
- Compact, Walkable
- Placemaking

**Emphasis on Place:**
- Enabling people to stay reduces the need to travel
- Mobility augments
- Social benefits
Transit-Oriented Communities: Travel and Land Use

Pedestrian: 400-800m

Bike/Micromobility: 2-5km+ (electric assist)

Transit: 50km+

Auto: 150km+
Transit-Oriented Communities: Travel and Land Use

- Office mode share drops about 1% every 30m
- Residential mode share 2x office 800m from station

Transforming Tysons, PB PlaceMaking
Conclusions:

Improving how we travel is not enough
- Vehicles: Embodied energy in steel production and manufacturing
- Batteries: Global mining of rare Earth minerals
- Driving: Tire and Brake pad detritus

Urban Form needs to change:
Low-density land-use = Increased physical capital
- More materials and increased surface area for: roads, infrastructure, buildings, landscape
- Higher embodied energy
- Increased heat island effect
- Increased stormwater runoff

Source: The Brookings Institution, 2021
Successful Transit-oriented Communities in 3 Parts

1. **Arrive:** Center Transit within the Community

2. **Stay:** Plan for Complete Communities

3. **Engage:** The Community as a Design Partner
1. **Arrive:** Center Transit within the Community
Downtown Dubai

Don’t do this.
Downtown Dubai
Downtown Dubai
West Bay Doha – A Different Approach
West Bay – A great skyline…
But really no there, there.
Convention Center
400m – 5 min. walk
City Center Mall
The Gate Mall
Mall Towers
Funduq
West Bay North
West Bay West
Towers Zone
Metro Station at the Center
Legend
Retail
Hotels
Parks
Metro
Central Plaza
A Hub of Connectivity

400m – 5 min. walk
Stakeholder Integration
Station Engineering Concept

- Station as architectural object
- Seen as drop-off, not walk-to
- No public space
- Off-street parking for modal transfer (bus/ taxi/ drop-off) isolates station
- Disengages neighbours
Global Precedent Scale Comparison

- West Bay Central, Doha
  105m x 175m

- Trafalgar Square, London
  110m x 110m

- Union Square, San Francisco
  80m x 120m
Urban Integration Plan

- Multiple station entry pavilions
- Pedestrian access emphasized
- Modal transfer on-street at periphery
- Significant public space created
- Engagement of neighbouring stakeholders key to integration
West Bay Central Square
West Bay Central Square
West Bay Central Square
Mode Transfer On-street - Bus
Mode Transfer On-street – Taxi & Drop-off
Public Plaza Links Surrounding Destinations and…
Provides Space for Civic Events
Public Realm Improvements
Expands the Reach of the Station
Takeaways for Centering Transit

1. **Visibility** of transit to riders
2. **Accessibility** between station and destination
3. **Connectivity** to system transfers
4. **Safety** and security at all hours
5. **Activity** generating uses that promote ridership
Process for Successful Integration

- **Start early** in design process
- **Get all stakeholders** at the table
- Create an **assessment tool** that can be applied to each project phase
2. **Stay**: Plan for Complete Communities

Isani Park, Tbilisi Georgia - ZGF
Isani Park, Tbilisi Georgia
The Building Blocks for a Complete Community
A WELCOMING “FRONT DOOR”

1. Link w/ Existing Park and Transit
2. Landscaped Neighborhood Entry
3. Active Main Retail Entry
4. Sustainable “Identity” Water Feature

Isani Park, Tbilisi Georgia - ZGF
Potential Kiosks and Market Stalls on Weekends

Concept Sketch for Water Feature

Water feature example

Isani Park, Tbilisi Georgia - ZGF
PARKS & CRESCENT FOCUS

5  Two Linked Central Parks
6  The Crescent and Green Streets
DISTINCT RESIDENTIAL BLOCKS

7  Midrise-Street Oriented Courtyard Blocks
8  Signature Mixed Use Blocks

Isani Park, Tbilisi Georgia - ZGF
3. **Engage**: The Community as Design Partner
Community Focused Design

I-5 Rose Quarter Improvement Project - ZGF

The Community...

Identifies Who's There
we worked with churches and community organizations to invite Black community members across a broad range of backgrounds and viewpoints, from youth to elders, that were respected voices within their community.

Facilitates the Discussion
our project facilitator was a member of the Historic Black Albina Community with personal relationships and a knack for connecting planning concepts to the interests of the people the project will serve.

Reviews the Findings
at each junctures of the project we asked "did we get this right?" so the community could correct course if the design team misunderstood what they had said or took their feedback in a direction they didn’t intend.
Sustain the Engagement

Public Vision
Public Input
Public Review
Public Confirmation

Alternative Plans
Refined Plans
Final Plan

Miami North Corridor TOD - PB PlaceMaking
Get Creative!

On-site activities
Get Creative!

Input and understanding through Gamification
"Let's make something amazing happen that will last for generations to come."
— BLACK COMMUNITY MEMBER

I appreciate all of you and the very special opportunity to have a say in what happens to my community and my future.
— BLACK COMMUNITY MEMBER

Thank you guys for listening to us and giving us an opportunity to speak our truth.
— BLACK COMMUNITY MEMBER

I-5 Rose Quarter Improvement Project - ZGF
Thank you.

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