Transit-Oriented

DEVELOPMENT





Parking Requirements for TOD Districts – A Case Study

Prepared by

TOD OVERLAY

Kimley » Horn

July 22, 2015







Presentation Overview

- ▲ Introduction and Project Purpose
- ▲ Project Background / Context
- ▲ Parking Requirements Reform The Scholarly Debate
- Best Practices Review / Peer City Reviews
- Public Involvement
- ▲ TOD Overlay Zone Development Projects Parking Utilization Analysis
- ▲ Triple Bottom Line and Alternatives Assessments
- ▲ Recommendations









Project Background

- ▲ As part of the planning for a new Bus-Rapid Transit Line along the Mason-Corridor in Fort Collins, CO, the City of Fort Collins created a Transit Oriented Development (TOD) Overlay Zone
 - ► The purpose of the TOD Overlay Zone was to:
 - ➤ Modify the underlying zone districts south of Prospect Road to encourage land uses, densities and design that enhance and support transit stations along the Mason Corridor.











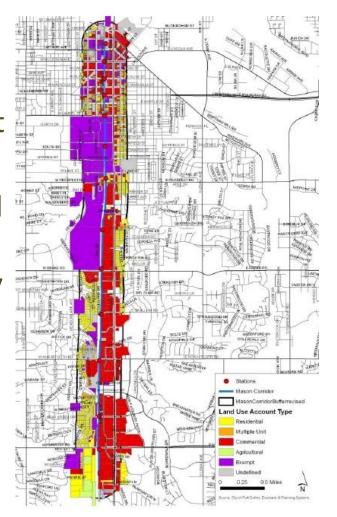




Project Background

▲ The TOD Overlay Zone allows for:

- ► A mix of goods and services within convenient walking distance of transit stations;
- ► Encourages the creation of stable and attractive residential and commercial environments within the TOD Overlay Zone and
- Provides for a desirable transition to the surrounding existing neighborhoods.





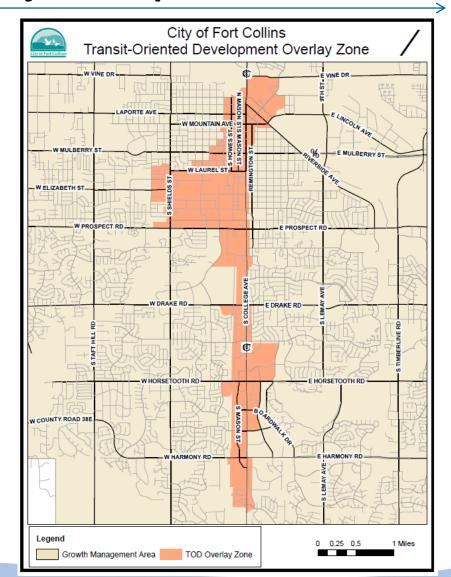




Introduction & Project Purpose

▲ Problem Statement:

► In 2013, as development activity increased in the **Transit Oriented Development** (TOD) Overlay Zone, the Planning and Zoning Board and the City Council expressed concerns associated with the increasing number of multi-family, and mixed-use housing projects (including many with a student-oriented housing emphasis).







Project Background

▲ Key Issues:

- Spillover parking from multi-family development
- ► Adoption of temporary ordinance for minimum parking requirements in the TOD Overlay Zone, expires in Sept. '14
- ► Concerns have also been expressed about the need for parking structures to accommodate the envisioned density.
- ▲ Directed by Council to conduct TOD Parking Study to create permanent parking requirements





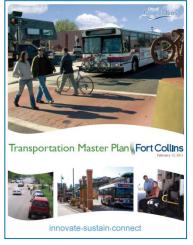
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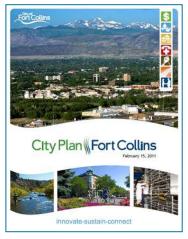
PARKING STUDY

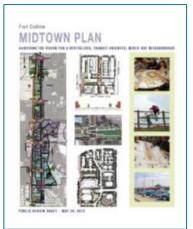


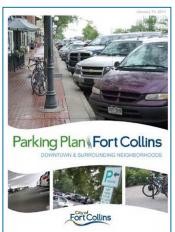
Planning Context

- ▲ It is important to put this planning effort into the context of the broader City planning context.
 - Other significant plans include:
 - ➤ City Plan
 - > Transportation Master Plan
 - ➤ Parking Strategic Plan
 - > Midtown Plan











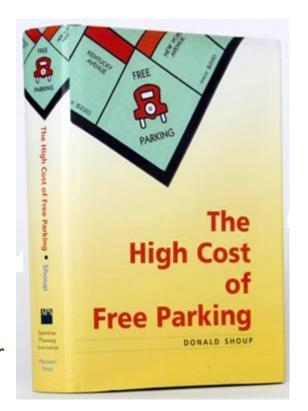




Parking Requirements Reform

▲ The Scholarly Debate

- ► There is in fact a serious and significant national discussion occurring related to benefits and problems associated with the ubiquitous use of minimum parking requirements across the US and the world.
- ► Professor Donald Shoup, author of the "High Cost of Free Parking" and a Distinguished Professor of Urban Planning at UCLA, has led the charge in this area; promoting how better parking policies can improve cities, the economy, and the environment.







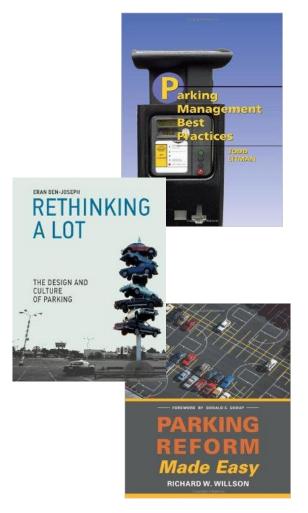




Parking Requirements Reform

▲ The Scholarly Debate

- ▶ Recently several other noted academicians and planners have weighed in on the discussion of the importance of parking in general, expanding the research related to minimum parking requirements and proposing new options for how cities should approach these issues.
 - ➤ Parking Management Todd Litman
 - ➤ Re-thinking A Lot Eran Ben-Joseph
 - Parking Reform Made Easy Richard Willson









Parking Requirements Reform

▲ The Scholarly Debate

- ▶ "There are approximately 250 million registered vehicles (2010) in the United States. When these vehicles are not in use, which accounts for more than 90 percent of their time, they must be parked. Because of this, off-street parking space availability is ubiquitous; its footprint is vast in scale.
- ► As MIT Professor of Landscape Architecture and Planning Eran Ben-Joseph recently noted, in some U.S. cities, parking lots cover more than a third of the land area, becoming the single most salient landscape feature of our built environment. This ubiquity is further compounded because cities require parking everywhere, yet ironically its absence is noticed most."



Structured Parking
New Development
New Green/Public Space

More efficient and being used as an economic development strategy







Parking Requirements Reform

▲ The Scholarly Debate

- ► "The ubiquity of parking is not accidental: Parking matters. It plays an important role in the success of cities, communities and places as well as in the development of mixed-use projects and sustainable transportation.
- Parking supply and pricing often have a direct impact on the ability to create compact, healthy communities.



Mark Gander, Principal Planner; Director of Urban Mobility and Development at AECOM and Board of Directors, Green Parking Council.









Parking Requirements Reform

- ▲ The Scholarly Debate
 - ► Too much parking at residential properties correlates with:
 - more automobile ownership
 - more vehicle miles traveled
 - > more congestion
 - > more carbon emissions and
 - higher housing costs.
 - ▶ It also results in lost development opportunity because excess parking area could have been used instead for residential or commercial development or public realm uses such as parks and plazas."











Parking Requirements Reform

▲ The Scholarly Debate

- ▶ Right sizing parking for TOD necessitates a multipronged approach to understanding the existing and projected parking utilization and available supply in and around a TOD project area as well as the projected demand for new parking once the project is completed.
- Conducting a diagnostic parking study that is comprehensive and aligned with mobility choices is essential to this effort.
- ▲ Appropriate strategies can be employed once the facts are known about:
 - Demand
 - Price
 - Utilization
 - Built form/development patterns and
 - ► Household characteristics.







Parking Requirements Reform

▲ The Scholarly Debate

- Key elements include understanding differences among:
 - > Markets
 - unbundling or separating the full cost of parking from the associated use, and
 - reducing (or eliminating)
 minimum parking requirements
 for certain land uses or certain
 areas.



- ▶ Understanding the parking uses by market and type then make it possible to look for opportunities for implementation of a wide range of measures from:
 - > new technology (e.g. smart parking) to
 - specific policies and physical design modifications to consolidate and locate parking more efficiently.
 Kimley » Horn





Parking Requirements Reform

▲ The Scholarly Debate

- ► To ensure that parking meets the needs of a TOD project, while not negatively impacting TOD's benefits, there are a number of strategies that municipalities can employ working in conjunction with developers to provide the appropriate amount of parking.
- ► These strategies can be grouped into several categories, including:
 - > Reduction
 - > Demand
 - > Design and
 - > Pricing

Table 5: Parking Location Shift in CBD due to Parking Pricing

	Preferred CBD	Less Preferred CBD	CBD Fringe
Car Trip, Preferred CBD	-0.541	0.205	0.035
Car Trip, Less Preferred CBD	0.837	-0.015	0.043
Car Trip, CBD Fringe	0.965	0.286	-0.476
Park & Ride	0.363	0.136	0.029
Ride Public Transit	0.291	0.104	0.023
Forego CBD Trip	0.469	0.150	0.029

(Source: Hensher and King, 2001)







Parking Requirements Reform

- ▲ Parking also has both direct and indirect environmental consequences:
 - ► Direct environmental impacts include:
 - excessive land consumption
 - > increased storm water flows
 - degraded water quality and
 - > exacerbated heat island effects
 - ► Additionally, parking structures themselves use substantial amounts of natural resources and energy to construct and require on-going maintenance to operate.
 - ▶ In many cases parking structures are seen as unsightly when they are not internalized in mixed-use buildings or wrapped by liner buildings.



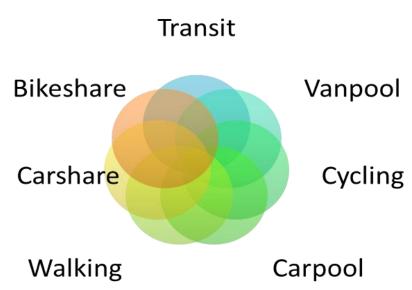






Parking Requirements Reform

- ▶ Parking also indirectly affects the environment because it influences how and where people choose to travel.
- ➤ Where free and ample parking is provided, people make the rational choice to drive almost everywhere and these areas register more vehicle miles of travel per capita with resulting increases in greenhouse gases and other pollutants.











Parking Requirements Reform

 ➤ Striking a balance between parking supply and development is a crucial challenge in developing the character of transit-oriented development (TOD).

▲ TOD Characteristics

- Residents in TOD projects are twice as likely not to own a car as other US households.
- ► They're also two to five times more likely to commute by transit than others in the region.
- ➤ On the other hand, residents will need access to cars even if not on a daily basis and commercial establishments require some amount of parking to service their non-walking clientele.
- ► In many cases, developers will be unable to secure financing unless parking is provided.











Parking Requirements Reform

- ▲ Unfortunately, many communities have simply applied conventional parking ratios to TOD projects.
 - ▶ Because such standards have a suburban bias and are based largely on low-density single land uses they limit the expected community benefits of TOD, and possibly, lead to project failure.











Parking Requirements Reform

- ▲ Transit Oriented Development includes four foundational elements:
 - Development around transit that is dense and compact, at least relative to its surroundings;
 - ▶ A rich mix of land uses—housing, work, and other destinations, creating a lively place and balancing peak transit flows;
 - ► A great public realm—sidewalks, plazas, bike paths, a street grid that fits, and buildings that address the street at ground level; and
 - ► A new deal on parking—less of it; shared wherever possible; energy efficient and designed properly.











More Accurate Parking Standards

Conventional Standards are often excessive and can be significantly reduced.

Adjustment Factors:

- Residential and employment density
- > Land use mix
- Transit accessibility
- Carsharing
- > Population demographics (age, employment, income, etc.)
- > Walkability
- Cycling facilities
- > Pricing
- > Parking & mobility management
- > Proximity to overflow parking



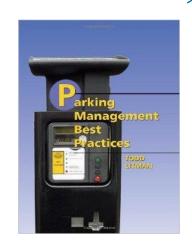






Parking Management Strategies

Factor	Typical Adjustments	
Residential Density	Reduce requirements 1% for each resident per acre; e.g., 15% where for 15 residents per acre, and 30% for 30 residents per acre.	
Employment Density	Reduce requirements 10-15% in areas with 50+ employees per gross acre.	
Land Use Mix	Reduce requirements 5-10% in mixed-use areas, and more if parking can be shared.	
Transit Accessibility	Reduce requirements 10% for housing and employment within ¼ mile of frequent bus service, and 20% within ¼ mile of a rail transit station.	
Carsharing	Reduce residential requirements 5-10% if a carsharing service is located nearby, or 4-8 spaces for each carshare vehicle in a residential building.	
Walkability	Reduce requirements 5-15% in walkable communities, and more if walkability allow more shared and off-site parking.	
Income	Reduce requirements 10-20% for the 20% lowest income households, and 20-30% for the lowest 10%.	
Pricing	Reduce requirements 10-30% for cost-recovery pricing (i.e. parking priced to pay the full cost of parking facilities).	
Parking & Mobility Management	Reduce requirements 10-40% at worksites with effective parking and mobility management programs.	
Design Hour	Reduce requirements 10-20% if a 10 th annual design hour is replaced by a 30 th annual peak hour. Requires overflow plan.	
Contingency-Based Planning	Reduce requirements 10-30%, and more if a comprehensive parking management program is implemented.	





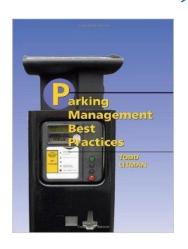






Parking Management Strategies

Strategy	Typical Parking Reduction	Traffic Reduction
Shared Parking	10-30%	
Parking Regulations	10-30%	
More Accurate Standards	10-30%	
Parking Maximums	10-30%	
Remote Parking	10-30%	
Smart Growth/TOD	10-30%	✓
Walking and cycling Improvements	5-15%	✓
Increase Existing Facility Capacity	5-15%	
Mobility Management	10-30%	✓
Parking Pricing	10-30%	✓
Financial Incentives	10-30%	✓
Unbundle Parking	10-30%	✓
Parking Tax Reform	5-15%	✓
Bicycle Facilities	5-15%	✓
Improve User Information	5-15%	✓
Improve Enforcement	Varies	
Parking Facility Design & Operation	Varies	
Contingency-Based Planning	Varies	









Social

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Triple Bottom Line Analysis

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Triple Bottom Line Analysis Map (TBLAM)

Project or Decision: TOD Parking Study - Minimums Evaluated by: FC Moves, Planning, TBL Team



Environmental

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STRENGTHS: Easier to find a parking place More predictability for surrounding neighborhoods - Minimums are more palatable and easier to understand Less likelihood of spillover parking onto surrounding neighborhoods	More predictability for the development community Less expensive to build surface parking	Having a guaranteed parking space reduces cruising and potential increase of air emissions
LIMITATIONS: Could result in decreased densities Encourages automobile travel over other modes Inhibits affordable housing projects Projects with more parking are generally less attractive (urban design) Lack of flexibility with a prescriptive minimum standards does not allow for a context-based solution Historically, parking minimums tend to over park sites	LIMITATIONS Parking minimums could result in decreased densities Minimums may be so high that it discourages development and redevelopment in targeted infill areas Inhibits affordable housing projects and Makes infill developments on more challenging sites difficult to develop	LIMITATIONS: Having a guaranteed parking space will likely increase automobile use and increase emissions Parking minimums could result in decreased densities Parking minimums encourages automobile travel over other modes
OPPORTUNITIES: Could establish a minimum that does not over-park the site Sites where we over-parked could serve as a future site for parking sharing or redevelopment	OPPORTUNITIES: Sites where we over-parked could serve as a future site for parking sharing or redevelopment	OPPORTUNITIES: Sites where we over-parked could serve as a future site for parking sharing or redevelopment .
THREAT S: • MAX may not be successful because there is not enough ridership (everyone is driving) • Less efficient land use patterns	THREAT S: • Makes infill developments on more challenging sites difficult to develop • MAX may not be successful because there is not enough ridership (everyone is driving) • Less efficient land use patterns	THREATS: • MAX may not be successful because there is not enough ridership (everyone is driving) • Less efficient land use patterns







Best Practices Review

- ▲ Innovative Alternatives or Supplements to Minimum Parking Requirements
 - ► Increasing Availability From Existing Supply Or Limited Expansion
 - Context-specific Minimum Requirements
 - Transit Zoning Overlays
 - ➤ New Zoning Districts or Specific Plans
 - > Parking Freezes
 - > Reductions for Affordable and Senior Housing
 - ➤ Case-By-Case Evaluation
 - ➤ Land Banking and Landscape Reserves







Best Practices Review

- ▲ Innovative Alternatives or Supplements to Minimum Parking Requirements
 - Maximum Limits and Transferable Parking Entitlements
 - ▶ Shared Parking
 - ► In-Lieu Parking Fees and Centralized Parking
 - Increasing Availability by Decreasing Demand
 - > Car sharing
 - > Subsidies for transit, transit improvements
 - > Pedestrian and bicycle amenities
 - > Vehicle trip reduction programs
 - » When employers allow telecommuting and/or flexible work schedules that reduce commuting, demand is also reduced.







Best Practices Review

- ▲ Innovative Alternatives or Supplements to Minimum Parking Requirements
 - ▶ Car Sharing
 - ► Improvements to Transit Service, Pricing, and Information
 - ► Improvements to Pedestrian and Bicycle Service
 - Vehicle Trip Reduction Programs
 - ▶ Parking Pricing
 - ► Cash-Out Programs
 - ► Residential Parking Pricing
 - ▶ Unbundled Parking
 - Parking Benefit Districts









Peer City Reviews

- Key Policies and Initiatives
 - ► GetDowntown Program This is a commuter service and assistance program. It offers commuting programs and services to employees and employers in downtown Ann Arbor.
 - ▶ Go! Pass Program An employee benefit which offers unlimited rides on the City buses within Downtown Development Authority's (DDA) boundaries.
 - ► Commuter Challenge Offers prizes for trying alternative modes of transportation.
 - ► To encourage alternative modes of transportation, the parking demand for office buildings were dropped from 4 to 3 per 1,000sf.
 - Maximum parking demand ratio was implemented for many land uses.
 - Bicycle parking is required for many land uses.









Peer City Reviews

- ▲ Arlington County, Virginia (Mobility Lab: http://mobilitylab.org/)
- Key Policies and Initiatives
 - Office parking requirement is 1 space per 580sf
 - ▶ Hotel parking requirement is 0.7 per room. Underground parking is encouraged.
 - Parking requirements are reduced if approved shared parking programs are implemented.
 - ▶ Parking is not required for the first 5,000sf of development (some land uses are excluded).
 - > For grocery stores, first 15,000sf is exempt, if the grocery store is not the principal land use.
 - ▶ 100% of required parking could be provided up to ¼-mile away.
 - Reduced parking demand with approved TDM programs.
 - Maximum parking requirements for many land uses.
 - ► Parking near metro stations is not required if the development is located within 1,000 feet (with
 - some exemptions).
 - ► Mobility Lab is one of the most aggressive and successful transportation alternative programs in the country







Peer City Reviews

- → City of Berkeley, California (<u>www.ci.berkeley.ca.us/commute</u>)
- ▲ Key Policies and Initiatives
 - The Tax Relief Action to Cut Commuter Carbon (TRACC)
 - ► Commuter Benefit Services for Employers
 - > The City requires that employers with ten or more employees provide a commute program to encourage employees to use public transit, vanpools or bicycles.
 - Commute Programs
 - > Guaranteed Ride Home Program
 - > Ride matching for carpools and vanpools
 - Transit Information Services
 - Car Sharing
 - ▶ Parking can be provided up to 300 feet away from the development.
 - Joint-use, off-street parking is allowed if there are no substantial conflicts.
 - ► Transit Service Fee (TSF) is collected to provide paratranist passes and promote ride sharing.
 - ► Parking requirements are reduced if the development is located within 1/3-mile from a BART station.
 - Subsidies available for approved TDM programs.









Development Projects

▲ Parking Utilization Analysis

- Parking utilization surveys were conducted around seven recent development projects within the TOD Overlay Zone, including the Summit.
- ► Parking utilization surveys were conducted at various times of day including: mid-week early AM counts, mid-week mid-day counts, evening counts and weekend counts.

			Public	Private			Percent
Property Name	Date	Time	Occupancy	Occupancy	Public Capacity	Private Capacity	Occupied
318 W. Myrtle	4/9/2014	6:20 AM	78	0	135	0	57.78%
318 W. Myrtle	4/9/2014	2:15 PM	115	0	135	0	85.19%
Flats at the Oval	4/9/2014	6:20 AM	154	41	452	57	38.31%
Flats at the Oval	4/9/2014	2:50 PM	345	35	452	57	74.66%
Penny Flats	4/9/2014	6:40 AM	95	0	382	0	24.87%
Penny Flats	4/9/2014	3:15 PM	214	0	382	0	56.02%
Pura Vida	4/9/2014	6:20 AM	216	35	383	49	58.10%
Pura Vida	4/9/2014	2:50 PM	293	29	383	49	74.54%
Ram's Crossing	4/9/2014	5:40 AM	78	254	137	495	52.53%
Ram's Crossing	4/9/2014	2:00 PM	137	269	137	495	64.24%
Summit on College	4/9/2014	5:50 AM	176	261	341	834	37.19%
Summit on College	4/9/2014	2:25 PM	118	308	341	834	36.26%
Willow St. Lofts/Legacy Apartments	4/9/2014	7:00 AM	62	72	411	142	24.23%
Willow St. Lofts/Legacy Apartments	4/9/2014	3:15 PM	191	111	411	142	54.61%





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Development Projects

▲ Parking Utilization Analysis

- ► The bottom line was that parking utilization rates were within acceptable ranges (none would have met the minimum standard required to initiate the City's residential parking permit process)
- While acknowledging that some residents still express concerns regarding parking spillover, the problem, based on the collected data, did not appear to be as bad as initially thought.







Multi-Family Residential Developments in the TOD Overlay Zone









Public Involvement

▲ Goals

- ► Educate stakeholders about the process, goals and desired outcomes of the TOD Parking Study
- ► Engage individuals, groups and organizations impacted by existing parking requirements and future policy decisions
- ▶ Provide residents with a forum to share concerns

▲ Key Challenge:

 Develop a strategy to educate and engage audiences of widely different levels of knowledge about a technical subject









Public Involvement

- Public Involvement Strategy
 - ► Targeted focus groups developers, property owners, realtors
 - ► Frequent engagement of City Boards
 - ▶ Transportation Open House
 - Board of Realtors survey
 - Online outreach
 - Project webpage with survey
 - > Social media
 - Mason Corridor Connection E-newsletter
 - > Development Review listserv
 - Neighborhood Meetings
 - Media involvement







Public Involvement

What We Learned

- Primary
 - Where parking was actually an issue, and what type of parking was lacking
 - "TOD without the T"
 - > Tale of Two Cities
 - > Case by case approach was desired
- ▶ Secondary
 - > On-street paid parking
 - ➤ Additional structured parking / P3's
 - ➤ Off-site car storage







Public Involvement

- Keys to Success
 - ► Clear division of roles with City Staff
 - > Consultant: Develop strategy, create presentations, train staff, collect and analyze data
 - > **Staff:** Coordinate meetings, manage web presence, give presentations, direct connection with boards
 - Multi-step engagement strategy
 - > Public given multiple opportunities and ways to provide feedback
 - ► Leveraging complementary efforts
 - ➤ Board of Realtors survey
 - > Transportation Open House









Alternatives Assessment

- ▲ A range of options were considered at the beginning of the project, including:
 - ▶ No Changes
 - ► Minimum Requirement with Alternative Compliance
 - Parking Impact Study
 - Dynamic Parking Requirement
 - Parking Fees
 - Structured Parking
 - Other Strategies





Transit-Oriented Development

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Recommendations

- Recommendation #1:
 Minimum Parking
 Requirements that Vary Based on Land Use
 - ► Multi-family dwellings and mixed-use dwellings within the Transit-Oriented Development (TOD) Overlay Zone shall provide a minimum number of parking spaces as shown in the following table; the maximum number of parking spaces provided per use shall not exceed 115% of the minimum required with the exception of parking spaces provided in parking structures

Land Use	Minimum Parking Requirement (+)
Rent-by-the-Bedroom Multi-family Dwellings	Parking spaces/bedroom
All Bedrooms	0.75
Multi-family Senior Dwellings	Parking spaces/bedroom
All Bedrooms	0.3
Multifamily Dwellings # Bedrooms/Unit	Parking spaces/unit
One or less	0.75
Two	1
Three	1.25
Four and above	1.5
Demand Mitigation Strategy	Parking Requirement Reduction (-)
Affordable Housing (< 50% AMI)	50% ^{1.}
Transit Passes	10% ^{2.}
Car Share	5 spaces/1 car share ³









Recommendations

- ▲ Recommendation #2: Alternative Compliance Based on TDM or a Parking Impact Study
 - Built into the Minimum Parking Requirements Matrix is a section that allows for reduction of the requirement based on providing additional parking demand mitigation strategies
 - ► Two other options which are included on the Minimum Parking Requirements Matrix are to provide a Parking Impact Study or utilize the Transportation Demand Management (TDM) program.







Recommendations

▲ Recommendation #3: On-street Paid Parking

- ► The direction from the Planning and Zoning Board to support on-street paid parking as a primary strategy is also strongly supported by the consultant team.
- ▶ Implementing paid on-street parking in targeted areas and eventually in other areas of the TOD Overlay Zone as the corridor matures has several benefits. Charging for parking is the most direct way to both reduce parking demand and helps ensure the availability and turnover of on-street and improve the utilization of off-street spaces.
- ► This strategy also begins to develop an on-going funding mechanism to support parking infrastructure investment.







Recommendations

- ▲ Recommendation #4: Public/Private Partnerships for Parking Structures
 - ➤ This recommendation encourages the City to develop a comprehensive approach that emphasizes leveraging parking infrastructure investment as a key element of community and economic development.
 - ▶ Parking investments, made as part of an overall TOD business development strategy, should carry an expectation of a 5 to1 return on public funds invested.
 - ► To achieve this level of return, projects that offer significant shared parking benefits are strongly encouraged.









Appendices

- ▲ Appendix A Land Use Code Revision Ordinance
- ▲ Appendix B Parking Impact Study Guidelines
- ▲ Appendix C Community Engagement Questionnaire Results Summary
- ▲ Appendix D On-Street Parking Technology White Paper
- ▲ Appendix E Parking as an Economic Development Strategy White Paper
- ▲ Appendix F Sample Transportation Demand Management (TDM) Checklist









THANK YOU!

QUESTIONS?