

Site-Specific Transportation Demand Management in Seattle:
A review of transportation management programs in
Downtown and South Lake Union

Mairin McKnight-Slottee

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Committee:

Christine Bae

Edward McCormack

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Department of Urban Design and Planning

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Mairin McKnight-Slottee

University of Washington

Abstract

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Mairin McKnight-Slottee

Chair of the Supervisory Committee:

Christine Bae

Department of Urban Design and Planning

Transportation planning has shifted to focus on accessibility, sustainability, and the efficiency gained by strategic coordination with land use planning at the municipal level. In Seattle, the nexus of land use and transportation planning has produced an approach that incorporates negotiation of site-specific transportation demand management elements into the municipal process of permit and design review. The City requires by Director's Rule some elements, recommends others, and leaves to negotiation the rest. The result is an individualized transportation management program (TMP) process that is ultimately site-specific but reflective of both City policy and developer needs. This study is a qualitative analysis of the transportation management programs implemented in Downtown and South Lake Union since the start of the TMP program in 1988. A content analysis of the individual transportation management programs is supported by a review of the commercial development context in which each Director's Rule was written. The content analysis reveals limited consistency or patterned response regarding the major categories of transportation demand management strategies-- physical improvements, bicycle/walking programs, employer-based incentives, transit and car/van pooling, and parking management. The data do suggest, however, that there are opportunities for the program to structure the guidelines in Director's Rules to better leverage developer self-interest in transportation management to more closely align with City policy.

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GLOSSARY

Transportation Management Program. Transportation demand management program targeting new development managed by the City of Seattle. Abbreviated as “TMP program”.

Transportation management program. A contract tied to an individual site, required as part of the permit review process, and valid for the life of the building. Abbreviated as “TMP”.

INTRODUCTION

Transportation issues have long been part of daily household conversation among Seattle residents. Recently “Viadom,” the dreaded closure of the Alaskan Way Viaduct along the waterfront, and now the “Seattle Squeeze,” the expected impact on city travel from the massive construction and development projects over the next four years, have greatly raised the profile of transportation management. While the oil crisis in the 1970s first prompted transportation demand management (TDM) as a local government practice to maximize cost-effective and later environmentally favorable transportation strategies, the resultant shift in transportation planning policies toward multi-modal transportation has encouraged cities to question the core concept of car-centric design. For a city such as Seattle, with limited space to grow but an additional 500,000 new residents welcomed since 2010, increasingly efficient use of existing roadway is necessary to ensure the transportation system continues to provide serviceable levels of access and mobility.

Cities have traditionally focused on commute trip reduction as the main policy for managing local congestion and transportation demand. Seattle earned national praise for the effective local implementation of the 1991 Washington State Commute Trip Reduction Law, initiated by the federal Clean Air Act Amendments. More recently, studies focusing on the nexus of transportation with land use planning have produced a new arena for transportation strategies, concluding that site-specific TDM elements --end-of-trip facilities, parking management, and HOV programs, for example -- all contribute to single-occupancy vehicle trip reduction. As transportation planning shifts to include strategic coordination with land-use decisions, opportunity exists within the permitting and design review process for cities to advocate for site-specific TDM strategies. At this stage, developers are brought into the planning process through permit and design review.

However, the role and popularity of site-specific transportation demand management strategies in the municipal review process of proposed commercial real estate development have not been explored in depth. As transportation planning has shifted to focus on sustainability, accessibility, multi-modal

options, the role of developers and site design has likewise shifted, with tenant desires assuming an increased role in developer profits and thus developer motivation. Developer driven site-specific transportation demand management has a role in the future of transportation planning. How the City can use the Transportation Management Program to leverage this increased self-interest of developers, which aligns with the City's own policies, is one question this paper begs.

In Seattle, one TDM strategy attempts to mitigate the congestion impacts of new developments on a site by site basis. The Transportation Management Program (TMP program) requires new development sites of a certain size and expected impact to create a plan for how the site-specific transportation demand will be managed. Thus, a transportation management program is a contract including a series of elements that an individual site will provide or perform in order to manage the transportation impact generated by the operations of the new building. Through the Director's Rules that define the rules and standards of the Transportation Management Program, the City is able to make some requirements of developments but also to encourage developers to adopt additional TDM elements that promote the planned vision for the city. Because transportation management programs are the product of negotiation between developers and city officials, the elements included in the document represent a compromise of value to both parties. The TMP program, specifically developer requirements, allow city planners to shape on a site by site basis and define how buildings will contribute to the infrastructure assets of the city. Transportation management programs (TMPs) allow for the City to place on the commercial development market the responsibility to support multi-modal transportation options at the site-design level.

Currently, in Downtown alone, an area of approximately 4.5 million square feet of new office space was completed in 2019 and another 4.8 million square feet are expected to be completed over the next several years (Savransky, 2020). The purpose of the study is to better understand how the policy context has shaped or influenced the site-specific transportation demand management strategies implemented in Seattle, and potentially identify trends in developer's preferences or behaviors that can

help inform the next iteration of a Director's Rule. In order to understand how the tool may be better used in the future, one needs to understand the forces that shaped how it has been used in the past.

This thesis is a detailed and systematic examination of whether and, if so, to what extent the transportation demand management elements recorded within site-specific Transportation Management Programs for new office buildings under review by the City of Seattle in Downtown and South Lake Union neighborhoods between 1988 and 2015 meet, fall short, or even exceed the specific requirements outlined in the Director's Rule controlling at the time of review. In Chapter I, I review the relevant literature on the evolution of transportation planning, growth management, and the linkages between land use and transportation planning under the sustainability model. In Chapter II, I outline the rise of transportation demand management as a transportation planning tool, as well as advantages of site-specific transportation demand management strategies. Chapter II includes an introduction to the site-specific Transportation Management Program in Seattle as well as examples of similar programs from other three cities. In Chapter III, I describe my own research design, a qualitative analysis of Seattle's Transportation Management Program documents in order to examine to research questions: 1) How have the transportation demand management elements required by the City evolved over time from the first TMP Director's Rule in 1988 to the most recent in 2015, with consideration for the development context; and 2) For office development projects in South Lake Union and Downtown, how do the elements required and recommended by TMP Director's Rules compare with what was implemented? Chapter IV outlines significant events that shaped the development context in Seattle and maps the TMP Director's Rules and the transportation demand management elements included therein on this timeline. I present and discuss the results of coding individual transportation management programs from selected office sites in Chapter V and evaluate the contents according to my research questions. The final chapter concluded with future pathways for research and summary comments on findings.

Chapter I: Urban development and the evolution of sustainable transportation policy regulations

INTRODUCTION

In response to an increased public concern for environmental impacts, transportation planning has shifted focus from increasing the efficiency of vehicle travel to promoting sustainable, multi-modal transportation options. Under this model, vehicle miles traveled (VMT) and single-occupancy vehicle trips (SOV) became the main targets for mitigation strategies and demand management policies. Growth management strategies implemented through zoning and development review requirements further refined the relationship between land use development patterns and transportation behaviors. Expectations of sustainability in the transportation and development sector materialized in site design elements in the commercial development sector as well as municipal policies targeting development design and review.

SUSTAINABLE, MULTI-MODAL TRANSPORTATION PLANNING

Researchers and practicing urban transportation planners have noted a pronounced shift in transportation planning the last 30 years from car-centric strategies aimed at increasing mobility to a multimodal management approach considerate of a comprehensive view of personal health and community impacts. Prior to the first environmental concerns raised in the 1960s and 1970s, transportation planning focused on the “speed, convenience, and affordability of motor vehicle travel” and traffic impacts were effectively managed by the expansion of existing infrastructure (Litman, 2013, p. 20). Once environmental conservation became firmly rooted in both public values and federal government policies such as the Clean Air Act of 1963, the physical expansion of roadways to accommodate vehicular travel was no longer the prime imperative of transportation planning (Meyer & Miller, 2001, p. 7). In its place, a new transportation management strategy of promoting multimodal transportation options began to emerge. Appropriately, transportation planning evolves to reflect the existing policy concerns and social issues of the day (Meyer & Miller, 2001).

The “new paradigm” in transportation planning, as it is called by transportation planner and researcher Todd Litman, is grounded in the idea that the ultimate goal of transportation is not to increase mobility by way of reducing the cost and time it takes to travel progressively longer distances, but instead to increase the access individuals have to services and locations in an urban center (Litman, 2013, p. 21). In other words, the transportation planning has changed from building a system that meets the demand for travel in private vehicles to providing transportation alternatives that make the most efficient use of the existing infrastructure (Black & Schreffler, 2010; Litman, 2013). It follows transportation planning policies under this new paradigm include goals such as promoting accessibility, reducing the amount of single occupancy vehicle trips, and a more efficient management of the existing infrastructure. The passage of the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) supported the shift to focus on access at the federal transportation planning level. Under ISTEA, the ultimate goal was to ensure individuals had access to the goods and services they needed, “either by enabling them to reach these locations (by whatever means) easily and conveniently or by placing the goods and services in proximity to where they are” (Calthorpe & Fulton, 2001, p. 90). Some researchers argue that sustainability and social equity concerns have evolved the transportation planning practice even further -- “from issues of road capacity and congestion mitigation measures to traffic calming, neighborhood preservation, transport enhancements and social equity, among others” (Balsas, 2015, p. 5). The expanding scope of sustainable transportation planning resulting from the incorporation of broader values has elevated the plane of this decision making to a broader constituency – truly anyone impacted by community life.

LAND USE & TRANSPORTATION PLANNING

Proponents of sustainable transportation argue that because no single solution exists for transportation issues, an effective planning approach must have multiple components and targets (Litman, 2013; Meyer & Miller, 2001). Researchers Meyer and Miller posit that a sustainable, multimodal transportation planning strategy focuses on the management of the existing system through three components: supply management, demand management, and land use management (Meyer & Miller,

2001, p. 7). Under this strategy, supply management includes the assessment of new non-motorized vehicles facilities, services, or investments that influence overall transportation system performance (2001, p. 8). Next, demand management addresses efforts to influence the “intensity, timing, and spatial distribution of transportation demand for the purpose of reducing the impacts of traffic or enhancing mobility options” (2001, p. 11). Finally, land use management focuses on promoting a pattern of dense development that increases accessibility for services. The last, even more than demand management, is a future-oriented transportation planning strategy: land management requires effective coordination between land use decisions and desired transportation outcomes, determining long-term development patterns that are difficult to change after the fact.

A well-established compendium of research has explored the close relationship between transportation mode choice and land use development patterns concluding, in short, that densely developed mixed-land use patterns lead to less vehicular travel trips (Cervero, 2003; Cooper, Donegan, Ryley, Smyth, & Granzow, 2002; Ewing & Cervero, 2001; Kenworthy & Laube, 1999; Litman & Steele, 2019). Further studies have focused on the influence of land use patterns on transportation demand management, leading to the conclusion that as development planning and management determines the location of both jobs and housing, the relationship between these two land uses hold implications for future commuting patterns and other travel behaviors (Cervero & Kockelman, 1997; Zhao, Lu, & de Roo, 2011). However, far less research has been done on the type, effect, or role of demand management strategies required by land use regulations and implemented by individual building sites beyond employer focused commute trip reduction strategies. This thesis addresses a limited component of site-specific TDM as a land use policy gap -- whether and to what extent the transportation demand management elements recorded within site-specific Transportation Management Programs for new office buildings under review by the City of Seattle in the Downtown and South Lake Union neighborhoods have evolved due to the specific requirements outlined in the reigning Director’s Rule, the official, published interpretation of the contemporary city codes, at the time of review as well as the development context of the time. While the performance of site-specific transportation demand management strategies is not

explored, the relationship between the commercial real estate development context and demand management policy implementation in the rapidly developing City of Seattle may further the discussion of the growing role of private development in demand management.

GROWTH MANAGEMENT REGULATIONS & ENVIRONMENTAL IMPACT MITIGATION POLICIES

Growth management land use policies and environmental impact mitigation efforts have solidified the connection between new commercial development, transportation, and collective sustainability efforts. Beginning in the 1970s, planners and policy makers began implementing formal growth management land use policies as a means of managing population growth and influencing the location density of development within a limited physical space (Hepinstall-Cymerman et al., 2013). These land use strategies, such as zoning and building codes, place limits on the locations and patterns of development and include strategies aimed at directing and limiting the amount of growth that a community can absorb, with consideration for factors such as the potential impact on the existing or future transportation infrastructure (Cervero, 2000; Ferguson, 1990, p. 444).

Growth management strategies expressed through zoning regulations help to shape the market conditions for commercial real estate development. Local regulations are one part of the variable elements including “land supply, the availability and costs of building capacity and the supply of finance, as well as the demand for completed projects” that effect the design and characteristics of new development (Healey, Purdue, & Ennis, 1996, p. 147). Planning policy has historically served to reduce the amount of uncertainty and market variability for development, and the integration of transportation impact mitigation into the development review process supports an additional expectation of effective transportation management from the project proposal (Selmi, 2011, p. 597).

Guided by regulations such as the 1970 National Environmental Policy Act (NEPA) and the 1971 Washington State Environmental Policy Act (SEPA), cities require proposed new development to undergo a review of potential environmental impacts caused by the construction of and future of a proposed development. In the permit application and development review process, applicants are required

to report the expected impact on the transportation system caused by the increased demand associated with the new development. Environmental impact evaluations represent a shift in the permitting process away from heavy reliance on rules established by the zoning regulations to a model where each individual site is evaluated by the city for impacts on a case by case basis (Selmi, 2011). A case by case evaluation allows for the cities to consider the future “economic, social, or biospheric” impacts and develop site-specific mitigation strategies, formalized in a contract with developer, as part of the development review and permit approval process (Healey et al., 1996, p. 147; Selmi, 2011).

The standard permitting process, in which conditions for developers are placed on individual projects through the permitting process, reflects an underlying system of norms which guide the expectations of both the developer and the government and influence the result of the conditions (Selmi, 2011). The norms of transportation sustainability, understood as lowering vehicle miles traveled and promoting accessibility, influence the mitigation strategies implemented as a result of the impact review. If transportation demand management strategies are required of the site, the formal contract (example available in Appendix C) outlining the site-specific TDM strategies would outline the norms of behaviors and responsibilities in place at the time of development review. As stated earlier, effective transportation planning is now inextricably tied to effective land use planning, and as a result the decisions made by developers constitute some segment of a city’s overall transportation planning strategy.

SUSTAINABILITY AND DEVELOPMENT

In step with public and political appreciation for environmental conservation, the private sector has shown an increased focus sustainability. Companies develop and promote their corporate social responsibility efforts to potential customers as part of their branding and image, while the commercial real estate sectors integrate green building practices into the development and design process. Groups such as Sustainable Development Council (SDC) supporting projects that advance the triple-bottom line – a sustainability framework that asks the private sector to evaluate the environmental, social and economic impact of decisions and investments (“Sustainable Development Council (SDC),” 2020). Driven by

regulations, reputations, and financial benefits, environmental and social concerns have risen significantly in prominence in the decision-making process and calculation of the real estate industry (van de Wetering, 2017).

With the push for a stronger focus on sustainability in the transportation practice, an increase in the amount of effort and attention paid to sustainability has occurred at the individual site level of commercial development (Fuerst & McAllister, 2011; van de Wetering, 2017). Sustainability reports self-published by private organizations regarding their projects often include quantitative measures at the site level such as energy consumption, waste management, and CO2 emissions impacts of transportation (van de Wetering, 2017, p. 52). External standards and awards such as LEED¹ are recognized by the public as beacons of green, sustainable behaviors. Additionally, there is an increased demand for sustainable, environmentally efficient buildings and services from the professional firms that lease urban commercial real estate (van de Wetering, 2017, p. 51). For developers and tenants, transportation demand management strategies that are built into the design of the building signal value of sustainability and as well as provide the potential financial benefits of talent attraction.

Despite the financial and reputation impacts, establishing a new set of standards or requirements through regulatory and legislative means remains a major driver of change in sustainable real estate practices. National policy for environmental sustainability is focused energy consumption and greenhouse gas emissions, and at the municipal level these regulation manifest as development standards for demand management and resource efficiency. Under the coordination of the new transportation planning paradigm, sustainable development has expanded beyond the production of materials sourced for construction; it also includes the ongoing management of the associated transportation demand.

¹ Leadership in Energy & Environmental Design standards for the construction and operation of new buildings set by the U.S. Green Building Council.

SECTION A: RISE OF TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) is an umbrella term that refers to any variety of strategies to improve transportation system efficiency and achieve objectives such as reduced traffic congestion, increased safety, enhanced mobility options, and energy conservation and emission reductions (Litman & Steele, 2019). These policies and programs may be implemented by local, regional, or federal bodies, depending on the scale and desired scope of impact. Transportation demand management first emerged as federal policy in the 1970s as a direct response to the energy crisis and increasingly visible environmental conservation efforts which inspired the shift toward sustainable, multimodal transportation planning. Because of this history, transportation demand management is closely intertwined with sustainability efforts focused on reducing automobile trips and their associated greenhouse gas emissions. In practice in the United States, urban TDM programs have largely focused on the reduction of the single-occupancy vehicle (SOV) trips or total vehicle miles traveled (VMT) for office employees, specifically during the peak hours of the traditional 9 a.m.- 5 p.m. workday commute.

TDM & multimodal, sustainable transportation

According to transportation planner and researcher Todd Litman, transportation demand management is the most effective planning tool under the new transportation planning paradigm outlined in Chapter 1 because the concept prioritizes mode shift, accessibility, and sustainability -- three goals that require better management of the existing transportation system and coordination with land-use policies (Litman, 2013). With the passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and more recently Moving Ahead for Progress in the 21st Century (MAP-21) in 2012, transportation demand management and non-motorized transportation planning have been reaffirmed by the federal transportation authorities as key strategies to manage congestion and promote alternatives to

single-occupant vehicle (SOV) travel (U.S. Department of Transportation, Research and Innovative Technology Administration, & John A. Volpe National Transportation Systems Center, 2013).

At the local level, transportation demand management provides local municipalities with a tool to achieve broader planning objectives, such as growth management and environmental goals (Meyer, 1999). Demand management strategies have the benefit of being context-sensitive and adaptable, and local governments have the opportunity to tailor their policies based on their desired outcomes or regional goals. Under the new transportation planning paradigm, researcher and transportation planner Todd Litman argues transportation demand-management strategies have become one of the top planning tools precisely because they help achieve multiple objectives, such as improving available transportation options, more efficiently pricing vehicular travel, and creating more accessible communities (Litman, 2013). The shift in transportation planning that prioritizes infrastructural efficiency and an increased interest in transportation demand management is reflected in the goals of the transportation policy and planning tools used by city governments.

TDM Strategies

Most TDM strategies include the “implementation of short-term incentive and disincentive programs that incorporate, directly or indirectly, the external social and environmental costs of individual travel decisions” (Ferguson, 1990, p. 454). The exact mix of disincentives and incentives for influencing travel decisions depends on the explicit goals for the region or municipality outlined in planning documents such as their long-term growth plans. The policy context for TDM strategies depends on the scale of implementation – TDM at the regional scale includes coordinated efforts such as growth management strategies, HOV lanes, park-and-ride lots, and trip reduction ordinances, while TDM at the site-specific scale may include efforts such as ride share programs, transit subsidies, parking policies, and alternative working hours (Meyer, 1999, pp. 576–577). A successful TDM strategy for a growing urban center is one which allows for increasingly dense development without impeding the mobility options for

travelers, and without requiring the construction of additional transportation facilities to serve the increased demand (Ferguson, 1990, p. 444).

In practice, effective TDM implementation requires cooperation between developers, businesses, employees, planners, and other community stakeholders (Ferguson, 1990, p. 454). The scope and popularity of TDM strategies have evolved over time to include both public and private actors due to the increased focus on sustainability in daily activities and the cumulative benefits of TDM strategies at every scale. For example, bicycling becomes a more attractive and viable transportation option when there are supporting infrastructure investments from the government (such as protected biked lanes) as well as supporting design and programmatic efforts at the individual site level (such as showers or long-term bicycle parking lockers) (Pucher, Dill, & Handy, 2009).

TDM policies & Development

Private development has a stake in successful transportation demand management based on self-interest. As early as 1991, transportation planning scholars identified benefits for the development community in embracing TDM strategies into the design of their site, namely as a cost-effective alternative to impacts fees and other exactions placed on new development by governments to mitigate traffic impacts and maintain levels of service standards on existing infrastructure (Mierzejewski, 1991, p. 79). If the transportation system is not able to absorb adequately an increase in travel demand caused by the new development, local land use regulations may limit the scale of that development to a size that can be served by the existing transportation infrastructure (Ferguson, 1990, p. 444). Developer-driven upstream TDM that knowledgeably addresses new travel demand as part of the project's design avoids delay, re-design, and downsizing that government regulation will require downstream in the development review and permitting process. So, attention to improved demand management of the intersection between the new project and the existing infrastructure supports larger development – and larger profits. The marketability of private development is also subject to public opinion, and as the “social awareness of mobility management” increases, the expectation on private developers to engage in TDM strategies

increases in turn (Barcik & Bylinko, 2018, p. 126). Purely private transportation demand management efforts such as organized Transportation Management Associations exist, however, most cities with serious TDM goals and a well-established culture of sustainability rely on local ordinances and laws in order to enact effective change in the private sector. Historically, these regulations have been targeted employers via commute trip reduction ordinances (Ferguson, 1990, p. 444). Private development, especially office developments that host a workforce commuting during peak demand hours have a stake in successful transportation demand management based on the self-interest, although local regulations may push the needle of engagement even further.

With increased public awareness of the negative environmental impacts of automobile transportation, TDM agreements between public actors and private developers have emerged as one demand management and transportation mitigation strategy. These agreements provide planners an opportunity consider a comprehensive range of impacts when working with developers to create effective plans for individual sites. As part of the development review and permitting process, city officials review the details of the proposed project such as site design, land use, and submitted transportation impact analysis in order to gauge the expected impact on the existing infrastructure.² If determined necessary by the reviewer, transportation demand management elements are then attributed to the project as a condition for permit approval. Formal site-specific transportation demand management programs open up this process to negotiation between the developer and city officials in order to find a mutually beneficial solution.

Public actors set out in planning documents the long-range transportation goals for the region, sometimes in vague, principle-based terms, but the strategic direction of local TDM efforts is actually reflected through site-specific TDM practices adopted and promoted by the private sector. In other words, the planning documents set out desired outcomes but it is the mix of carrots and sticks of TDM practices

² Transportation impact analysis is a travel demand report which relies on models provided by the Institute of Traffic Engineers for forecasting the expected impact of a site based on the size, parking supply, land use, other site characteristics.

at the site level that directly influence individual travel mode choice (Meyer, 1999). These “microlevel land use changes” in the form of on-site amenities and services operate as an effective transportation demand management tool (Davidson, 1995). Typical site-specific TDM strategies include carpool requirements, parking pricing and management, on-site shower and locker facilities, and programmatic efforts such as the distribution of transportation option information and ongoing reporting. Site design elements considered transportation demand management strategies, such as enhanced pedestrian walkways, on-site bicycle facilities, or more pleasant streetscapes for connections to transit are desirable to tenants and an asset to developers.

Advantages of site-level strategies

Private development may include three types of transportation demand management strategies at the site level: on-site facilities, management of existing parking, and on-going municipal program requirements placed on tenants through lease terms such as ridesharing or vanpool programs. Each strategy contributes to trip reduction, encourages mode-shift, and increases overall accessibility.

As transportation planning has shifted to accommodate and promote non-vehicular or active transportation options, individuals have adopted these modes and are looking for services that reflect these choices and desires in their built environments (Davis & Parkin, 2015). Research supports the connection between the availability of on-site facilities and travel mode shift from personal vehicles to active transportation modes. (Davidson, 1995; Nelson & Allen, 1997; Pucher et al., 2009; Wardman, Tight, & Page, 2007). For individual sites, end of trip facilities such as bike rooms and adequate secure parking are attractive amenities for future tenants.

The availability of cheap parking at a destination is a significant influence on an individual’s decision to drive. Effectively managing the pricing structure of a site’s parking supply to reflect the true cost of personal vehicle travel allows for individual trip makers to make informed decisions and weigh alternative transportation modes for their commute (Litman, 2006; O’Fallon, Sullivan, & Hensher, 2004; Shoup, Willson, & Org, 1992). Additionally, limiting the amount of parking available to single-

occupancy vehicles encourages commuters to consider alternative HOV or active transportation mode (Mccahill, Garrick, Atkinson-Palombo, & Shoup, 2018).

Programmatic elements are supporting services and additional inducements to change transportation behavior. Employer-based incentives such as telecommuting or flexible schedule policies allow employees to work from home or travel outside of peak hours, reducing overall vehicle miles traveled and peak travel demand (Kitamura, Mokhtarian, Pendyala, & Goulias, 1991). On-site transportation representatives for office developments and information distribution such as central kiosks, transit maps, or a centralized webpage provide additional support to tenants in managing and planning for their commute. In Seattle, some buildings such as the Seattle Municipal Tower, have implemented a real-time transit stop and route display in the main lobby. Other sites rely on Building Transportation Coordinators, site-representatives deputized by building management, to collect and distribute commuter information to building tenants.

With the timeline of impact extended beyond construction, the responsibility for sustainable behaviors extends from the developer to the future tenants of the buildings as well. Whereas the City is responsible for the management land use and infrastructure by the government, the individual behaviors of tenants are better managed on site through programmatic efforts such as commuter benefit and active transportation amenities. Transportation management programs are one transportation planning tool which extend the responsibility for transportation impact mitigation to individual sites and establish precedent for ongoing management.

SECTION B: SITE-SPECIFIC TDM STRATEGIES IN OTHER CITIES

Introduction

As urban centers are under increasing pressure to absorb an increasing population amount within a limited physical boundary as defined by existing growth management policies, an increased amount of responsibility for transportation demand management needs to be given to new developments. Some cities have excelled in creating policies that require developments to submit site-specific transportation demand management programs as a requirement of the permitting process. These programs may be targeted to achieve VMT reduction or any additional planning goals as defined by the City.

Washington D.C.

In 2010, the Government of the District of Columbia (the District) and the District of Columbia Department of Transportation (DDOT) performed an evaluation of transportation demand management in the District's development review process in order to identify how they can better accommodate the growing amount of development occurring within the capital's limited physical boundaries. At the time, the District believed that their site-by-site process for implementing TDM strategies did not promote coordination between public agencies, and was based on a "one-size-fits-all framework to development, with limited differentiation across diverse geographic areas, development types, development sizes, or other aspects" (Michael Baker Jr. Inc., 2010, p. 1).

In 2019, DDOT released the newest edition of their progressive CTR guidelines that changed the relationship between TDM and the site review process. According to these new guidelines, low impact development is encouraged by a form-based design review that favors site elements associated with positive TDM impacts such as site access & connectivity, bike facilities, and curbside management. Under the DDOT model, the forecasted trip generation and other results of the Transportation Impact Analysis are less important than the physical amenities and TDM support elements built into the design of the buildings. Importantly, DDOT has included built parking supply as a key indicator of trip generation.

In this model of development review, mitigation requirements are determined by the joint impact of traffic and parking supply. Under the DDOT Hierarchy of Mitigation, an optimal site design and built parking supply reduction are the preferred options. Finally, transportation mitigation plans are based on the level of expected impact on the transportation system from the site. The District developed a standardized TDM plan for each land-use type that can be built upon with strategies that target specific users. The Performance Monitoring Plans implemented by DDOT to evaluate the performance of the site are term-limited and have a set expiration date, however the length of time can be extended if the goals are not being met. The District Department of Transportation 2019 CTR guidelines for TDM in development review prioritized early attention on-site design and parking supply and deemphasized the need for ongoing program management and monitoring for successful TDM strategy (Government of the District of Columbia Department of Transportation, 2019).

San Francisco, California

In 2016, the City of San Francisco passed a Transportation Demand Management Ordinance that placed requirements on new developments and held developers responsible for the transportation impacts of their sites. The Ordinance, which was updated in 2018, requires developments with more than 10 dwelling units or 10,000 square feet to develop and adopt a site-specific Transportation Demand Management program. These TDM programs are targeted at reducing the number of automobile trips generated by the site, but they also take into account the specific neighborhood goals of the development. For example, a developer that builds a mixed-use space that includes a grocer in a neighborhood that would be considered a food desert would be seen as promoting TDM measures (Bliss, 2016).

The City provides the TDM tool online for developers that outlines the specific requirements and TDM measures that can be included in the TDM plan for development. Each of these research backed TDM measures are able to reduce VMT and are able to be implemented by a property manager. Each measure is attributed a specific point amount based within a pre-established range based on the degree to which the measure is implemented and the expected impact at the site's location. Developments may

select up to 26 measures in order to meet a target point amount based on the location, size, and character of the development. Under the San Francisco Ordinance, each typical land use category is assigned a base point target that increases with the amount of proposed Accessory Parking spaces.

The following is an example provided by the City of Seattle in their Standards for Transportation Demand Management Programs Report:

“Example 1: A project proposes new construction that includes 25,000 square feet of retail space with five Accessory Parking spaces and 100 dwelling units with 50 Accessory Parking spaces.

Retail space is identified as land use category A. Land use category A has a base target of 13 points. For every additional two Accessory Parking spaces provided above four, rounding up, one additional point is required. Therefore, the land use category A target for this project is 14 points.

Dwelling units are identified as land use category C. Land use category C has a base target of 13 points. For every additional 10 Accessory Parking spaces provided above 20, rounding up, one additional point is required. Therefore, the land use category C target for this project is 16 points.” (City of San Francisco Planning Commission, 2018, p. 8).

The Transportation Demand Management Programs submitted by the developer must be approved by the land use reviewer before the site can receive necessary permitting to advance the project.

City/County Associations of Governments in San Mateo, California

In San Mateo County, immediately south of San Francisco county, less urbanized cities still experience significant amount of congestion due to intra county commuting patterns. The transportation demand management strategies for these cities, are guided by the San Mateo County Association of Governments (C/CAG) -- the Congestion Management Agency in San Mateo county, established a system of ‘Trip Credits’ for implementing TDM measures on new development. The Association maintains a list of transportation demand management measures and their associated ‘trip counts’ which can then be counted against the forecasted trip generation count in a development transportation impact analysis. During the development review process, city officials work with developers to determine a combination of these TDM measures that would be sufficient to reduce to total number of new trips generated by the project to an acceptable number. In practice, the purpose of the Trip Credit system is to

encourage developers to find creative ways to mitigate the impacts of new development based on the specific characteristics of the site. (Metropolitan Area Planning Council, 2015).

Each city approached transportation demand management at the proposal stage according to their unique needs and development context. San Francisco, a rapidly growing city with significant geographic constraints required mitigation strategies sensitive to neighborhood context, developed a point-based system which accounted for results that spoke to neighborhood goals. Washington D.C. was faced with the challenge of accommodating a growing amount of development occurring within limited physical boundaries and chose to intervene in the design review phase, leading to physical amenities and TDM supportive elements built into the physical design of the buildings as well as built parking reduction. For less densely developed but still growing communities in San Mateo County, guidelines were set that focused on trip generation calculations associated with proposed developments, the total of which must be mitigated by TDM measures that are weighted and scored weighted by their ability to reduce trips. The diversity in approaches show that recently designed site-specific TDM program cities value choice and flexibility, which sites in relief with Seattle's reiterative Director's Rules approach.

SECTION C: INTRODUCTION TO THE TRANSPORTATION MANAGEMENT PROGRAM IN SEATTLE

TRANSPORTATION DEMAND MANAGEMENT IN SEATTLE

As early as 1989, Seattle's emerging Transportation Management Program was identified by transportation researchers as a leading initiative in transportation demand management (Flynn & Glazer, 1989). Journal articles at the time noted Seattle's increased focus on transportation demand management and tied the development of a formal city program to the rapid growth of office development when the city experienced an increase of over 4.5 million square feet between 1986 and 1988 (Flynn & Glazer, 1989). But transportation management programs as a transportation demand management tool existed in Seattle prior to the establishment of the formal, standardized tool in 1988. At the time, cities such as Mont Co, Maryland, Dallas, Texas, and Bellevue, Washington has similar developer TDM requirement programs, implemented with varying degrees of success (Flynn & Glazer, 1989, p. 22).

PRE-FORMAL PROGRAM

In the late 1970s, transportation management programs in Seattle consisted in large part as single-occupancy vehicle trip reduction requirements included as part of a land use decision for new developments. These strategies were often generalized suggestions for promoting high-occupancy vehicles such as carpooling, and lacked explicitly defined responsibilities or requirements (Alvarez, 2009). The next stage in formalizing site-specific transportation demand management in the Seattle region centered on Memoranda of Agreement (MOA) between three parties: the developer, the City of Seattle, and METRO (King County Metro Transit) (Alvarez, 2009). Local government required downtown developers to enter into MOAs as part of the parking requirements defined by the land use code (City of Seattle 1986, SMC 23.49.016). These agreements differed from the earlier iterations of transportation management agreements in that they explicitly defined the responsibilities of each party as well as the reporting and monitoring requirements for the site. MOAs established the relationship of programmatic

elements and measured performance that would define the future formal Transportation Management Program.

The strategies included in transportation management programs were and remain heavily influenced by the existing land use code. In the late 1970s and much of the 1980s, carpool parking allocations and support of high occupancy vehicle (HOV) programs were the dominant mitigation strategy in downtown Seattle due to requirements previously written into the land use code as well the Director's Rules written to interpret that code (City of Seattle Department of Construction and Land Use, 1986). The TMP program as it exists today is a series of required and recommended elements included in a unique transportation management program document tied to a specific development project and active for the life of the site was first set up in the 1988 TMP Director's Rule - DR SED 1988-1/DCLU 24-1988.

Director's Rules

The current Transportation Management Program is built on a series of guidelines established by the Director of the Seattle Department of Construction and Inspections (SDCI) in partnership with the Seattle Department of Transportation (SDOT) and each department's institutional predecessors. The guidelines, known as Director's Rules, follow the Seattle Municipal Code Chapter 3.02 – Administrative Code and are currently authorized for the Director of the Seattle Department of Construction and Inspections under SMC 3.06.040 and the Director of the Seattle Department of Transportation by SMC 3.12.020. The Director's Rules provide an official interpretation of the contemporary city codes on land use and housing, among other areas of municipal interest, as well as prescribe rules and guidance for their application (City of Seattle, 2015). In Seattle, Director's Rules are binding decisions that can be issued from a single or joint office depending on the scope of the topic or responsibilities outlined in the document. The first Director Rule outlining requirements and procedures for the Transportation Management Program was published in 1988 as a joint decision between the Seattle Department of Construction and Land Use and the Seattle Engineering Department (City of Seattle Engineering Department and Department of Construction and Land Use, 1988).

In practice, a Director's Rule is periodically updated and replaced by a succeeding document on an ad hoc basis in response to changes in the underlying code or a perceived need to update the City's processes. The Director's Rules are prepared in collaboration with the departments who carry out the requirements of the underlying code – for the current TMP program, the Department of Transportation and the Department of Construction and Inspections. To date, there have been eight Transportation Management Program Director's Rules published by the City of Seattle. Each of these Director's Rules follow a similar format. The document outlines the purpose of the program, defines the authority of the decision and underlying code, details the processes and responsibilities of the parties involved, and finally, lists required, suggested, and/or conditional program elements. The program elements listed in the Director's Rules reflect changes in the City's developing understanding of transportation demand management, infrastructural resources, and development patterns. For example, provide designated parking spaces for car share programs was listed as a potential parking management strategy beginning with the 2008 TMP Director's Rule as car share companies such as ZipCar began establishing a presence in the City of Seattle and officials believed access to shared vehicles for daytime appointments would reduce the need for car ownership or single-occupancy vehicle commuting. Each of the supporting elements are aimed at mitigating the impacts of increased single-occupancy vehicle (SOV) travel generated by new development based on the characteristics of the development – each element is seen as necessary for the development to achieve a specific SOV rate goal determined during the land use review process based on the site's location.

Characteristics of a TMP

Because transportation management programs are often tied to a land use decision, the elements listed in the programs are dually generated: they reflect both the requirements written into the land use code for site-specific mitigation as well as the City's understanding of appropriate mitigation given the perceived or measured impact of a development. As a document, transportation management programs are structured as a list of standard transportation demand management elements required by the existing

Director's Rule and land use code, as well as supplementary measures that were defined and included according to the specific characteristics of the individual site. These supplementary measures may be selected in response to the location of the site, adjacent mass transportation resources, built infrastructure supporting non-motorized travel, or even the characteristics and behaviors of expected tenants. The City of Seattle has organized site-specific TDM elements into the following categories:

- Building and frontage features (physical improvements)
- Program management & encouragement activities
- Bicycle/walking programs
- Additional employer-based incentives
- Transit, carpool & vanpool programs
- Parking management

If a transportation management program is required of a development, the document must be finalized during the land use review and permitting process. The triggers for requiring a transportation management program as part of the permit application process are complicated -- the standards for development size, impact, and expected trip generation are based on the discretionary authority under SEPA as well as evolving requirements written into the land use code. In recent years, city officials have generalized by stating that "proposed new developments of 100,000 square feet of gross floor area or greater of commercial, office, or retail uses must complete a TMP" as written in the DPD Director's Rule 27-2015;SDOT Director's Rule 09-2015, although there is still potential for small sites to require a TMP if certain conditions are met (City of Seattle Department of Planning and Development and Department of Transportation, 2015).

Developers, transportation planners, and land use planners representing the city's interest negotiate a contract for future transportation management responsibilities that will be followed by the development for the life of the site. The demand management details included in the document represent both the city's officials' understanding of the transportation system and the individual developer's

perceptions of the market context at the time of the permit review. Because the sum of the transportation demand management elements included in the TMP must be considered by city staff to be sufficient in achieve a set single-occupancy vehicle goal, the contents of each transportation management program serve as a record of the cities' approach to transportation demand management at the time of signing.

In a 1989 article titled "Ten Cities' Strategies for Transportation Demand Management," two researchers examine the City of Seattle's Transportation Management Program as a case study for how the specific TDM strategy they identify as "developer requirements" compares with other strategies elsewhere in the United States (Flynn & Glazer, 1989). In the same report, the researchers conclude that site-specific developer requirements were difficult to implement as a policy due to their ad-hoc nature and that developers' perceptions of threats to marketability determine their willingness to adopt TDM elements (Flynn & Glazer, 1989). While Seattle's current TMP program attempts to standardize these requirements into a mention of mandatory or supplementary elements to lessen the uncertainty for developers, it is reasonable to suggest that shifting desires from tenants for on-site facilities and transportation amenities in response to diversifying transportation options help reframe on-site TDM elements as marketability enhancements rather than financial risks.

Chapter III: Methodology

METHODOLOGY

Purpose of the paper

The paper seeks to answer two questions related to the history of the Transportation Management Program in Seattle: 1) How have the transportation demand management elements required by the City evolved over time from the first TMP Director's Rule in 1988 to the most recent in 2015, with consideration for the development context; and 2) For office development projects in South Lake Union and Downtown, how do the elements required and recommended by TMP Director's Rules compare with what was implemented?

The research for this paper employs a qualitative analysis of Seattle's Transportation Management Program documents in order to develop a working theory for how site-specific Transportation Demand Management strategies have evolved overtime in Seattle factoring in the development context in the select neighborhoods. As an analysis, the study is a detailed and systematic examination of whether and, if so, to what extent the transportation demand management elements recorded within the site-specific transportation management programs (TMPs) for new office buildings under review by the City of Seattle in Downtown and South Lake Union neighborhoods between 1988 and 2015 meet, fall short, or even exceed the specific requirements outlined in the reigning Director's Rule at the time of review.

Merits of the design

As a historical record, transportation management programs demonstrate how demand management was practiced in Seattle within a specific planning period and regulatory context. The structure of the TMP documents lend themselves to historical review --the individual documents include a set of requirements that have been more or less consistent throughout the subject period, although their categorization as required or recommended has changed depending on the context of the time. As a form

of research design, document content review allows for written evidence to be used to systematically gather, record, and analyze data indicating how both transportation planners and developers have understood the role and design of transportation demand management in development. Mapping the key events of political and social change that have impacted the development in the two neighborhoods of study, Downtown and South Lake Union, aims to ground the working theory within perspective and context for the program under study.

Overview of the design

The methodology for the research is qualitative in design and involves three steps. First is an assessment of the development context key events that have shaped development in Downtown and South Lake Union in order to establish context and perspective to the contents of the eight Transportation Management Program Director's Rules. The second is a content analysis of the transportation demand management elements included in the eight City of Seattle TMP Director's Rules positioned in relief to the development context timeline. The final step of the research is a coding and analysis of the transportation demand management elements included in the transportation management programs of the relevant commercial sites in Downtown and South Lake Union.

The review of the development context in Seattle is based on news articles, municipal land use code ordinances, and long-range and mid-range planning documents. From these sources, key years and decisions that shaped development in Seattle and influenced the decisions made under the Transportation Management Program were identified and a timeline of market and development regulation changes was established. Eight Transportation Management Program Director's Rules were mapped onto a timeline within these established key years in order to set the context for the evolution of the program and the specific transportation demand management elements defined in the documents. As previously noted, Director's Rules determine how the Seattle Municipal Code is to be interpreted by the public and implemented by all city staff. Understanding the context to which these implementation rules are responding, as well as the planning objectives of the time is necessary for analysis.

The study is based on the categorization of transportation demand management elements as either required or recommended included in transportation management programs. Under the TMP Director's Rule, required elements are those which must be included in all TMP regardless of site's location or land use, while recommended elements are those which are up for negotiation between the developer and city official. The definition of elements as recommended rather than required offer a view into the transportation demand management strategy of the city of Seattle. The recommended elements adopted by individuals' sites illustrate how the commercial real estate market evaluate the value of transportation demand management. The study aims to identify potential trends in transportation demand management adoption in the commercial real estate market.

DATA COLLECTION

The data for the content analysis was collected from two types of land use and transportation planning documents: Director's Rules and transportation management programs. These documents are maintained by the Seattle Department of Transportation (SDOT) and are publicly available through a Public Records Request but were obtained directly from SDOT's file depository for the purpose of this study. As the land use review process for many of these sites date to a period before a system electronic records keeping was fully and comprehensively implemented department-wide, a number of these documents were missing and not available. As mentioned earlier, a transportation management program must be signed by all applicable parties, recorded by the King County Recorder's office, and submitted to the City for the project to be considered in compliance with the land use code and advance through the permitting process. For a transportation management program to be included in this paper, the document needed to be finalized with all appropriate signatures -- draft documents without the signatures of all applicable parties were not used in the analysis.

CODING AND ANALYSIS

Procedures, treatment and interpretation of the data

The contents individual transportation management programs were coded and digitally transcribed into a single data set. Fields included the year during which Director's Rule the element was signed under, signing parties, and additional element details. The TMP information was joined with existing SDOT data on site-specific details such as land use and construction date. With this data, 41 sites in Downtown Seattle (20 sites) and South Lake Union (21 sites) were selected based on the validity of the available documents, land use, and location.

For the 41 selected sites and the eight Director's Rules, the individual elements were further coded based on the six TDM categories first used by the City of Seattle in the 2008 TMP Director's Rule:

- Building and frontage features (Physical Improvements),
- Program management & encouragement activities,
- Bicycle/walking programs,
- Additional employer-based incentives,
- Transit, carpool & vanpool programs, and
- Parking management.

A seventh category of "Other" was added as a catchall for requirements at the start of the program that did not neatly fall under one of the six categories. Within these categories, TDM elements were then classified as required, recommended, or location dependent according to the directions outlined in the Director's Rule. For the purposes of the paper, location dependent elements are treated as recommended elements. The TDM elements included in each Director's Rule and their categories are included as Tables in Chapter IV.

Justification of site selection

Site selection was limited to office developments located in Downtown -- defined as the Commercial Core, Denny Triangle, and Belltown (see Figure 1)--- and South Lake Union. Both neighborhoods are designated Urban Centers adjacent to the commercial core of the city and have played

a key role in absorbing job growth and commercial development within the period of time under review.

Commercial development has long been the target of TDM efforts to reduce single-occupancy vehicle trips during the PM peak commute hours associated with employee trips to office developments.

Additionally, narrowing the selected transportation management programs to a single development type

and land use ensure the TDM element implemented share a standard purpose and valid comparison can be

made across TMPs. For example, vehicle parking for residential buildings operate as car storage and

effective parking management strategies would not include many of the elements implemented at

commercial sites, such as requiring that parking price prohibit hourly discounts such as early-bird

specials.

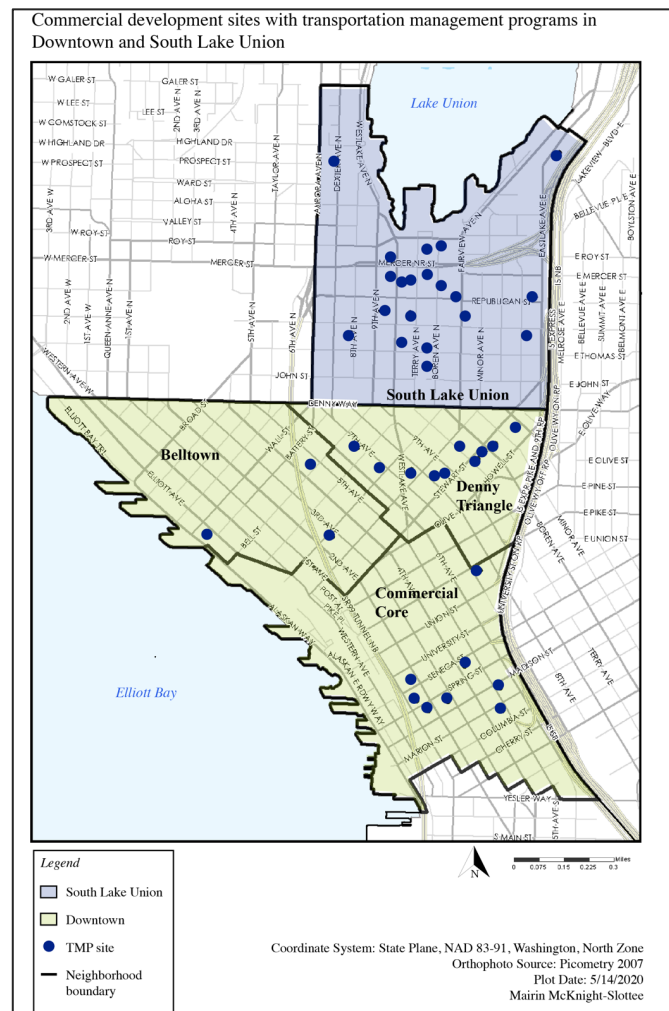


Figure 1. Map of commercial development sites with transportation management programs in Downtown and South Lake Union. For the study, the neighborhood of Downtown was defined at the Commercial Core, Denny Triangle, and Belltown sub-neighborhoods.

LIMITATIONS

Official records and documents

TMPs are considered valid and binding when signed by three parties, the City's Land Use Department, the Transportation/Engineering Department, and the Property Owner or their representative. The trio of signatures confirm a collective acknowledgment or agreement to the contents of the TMP. While the City requires signed documents to be recorded with the King County Recorder's Office in order to be considered valid, documents without the official recording stamp were still considered final for the purposes of the study as long as the three parties signed. Without the signatures of these three parties, the document was considered a draft document and not included in the research.

Land Use Review Process

As collaborative documents, transportation management programs are the end product of a negotiation process between multiple stakeholders involved in the permitting process of new developments roughly 100,000 sq. ft in size. Each party enters into the agreement with subjective beliefs and goals, and work to reach an agreement that maximizes their own interests. There is a limitation in using transportation management programs as documents of record in that the stages, details, and nuances of the negotiation process are not known. The elements in the Director's Rule outline the starting requirements, however the end result depend heavily on the discretion of the City officials in determining if the sum of the elements would be sufficient in achieving the stated SOV goal. For the purposes of this research, positioning the Director's Rules and TMPs within a development and planning timeline helps to ground each document in context and provide some clarity for the details of negotiation.

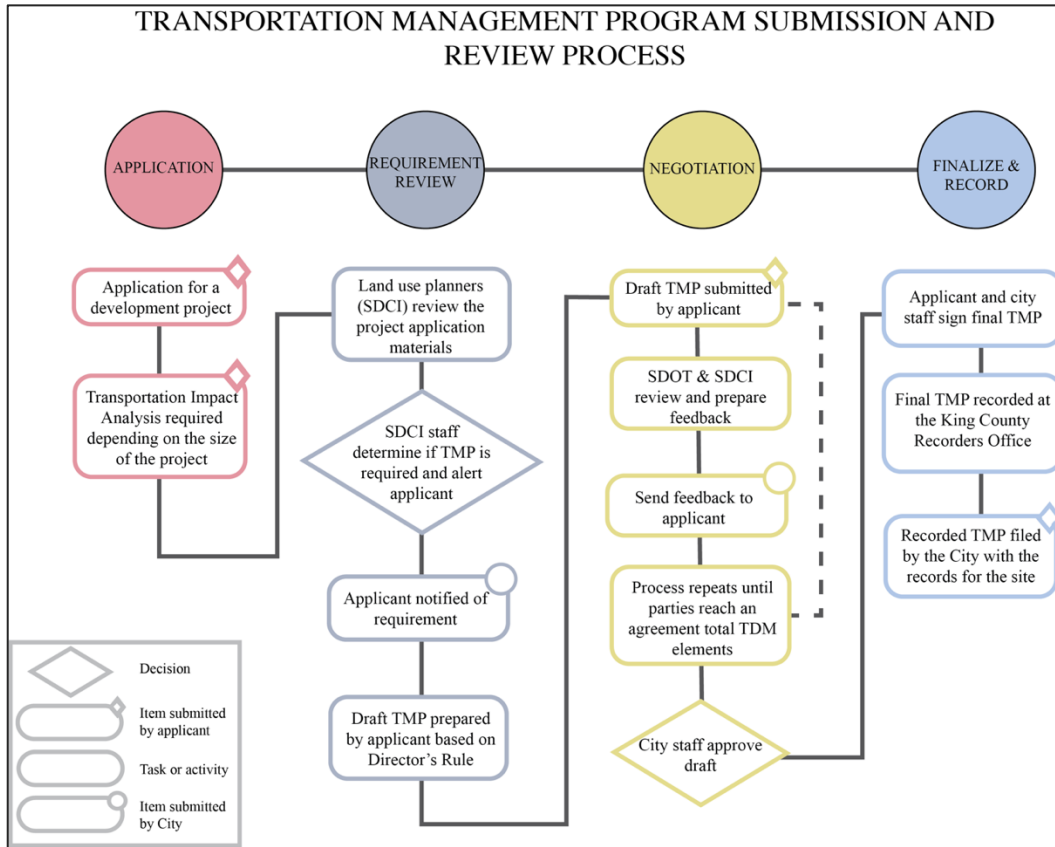
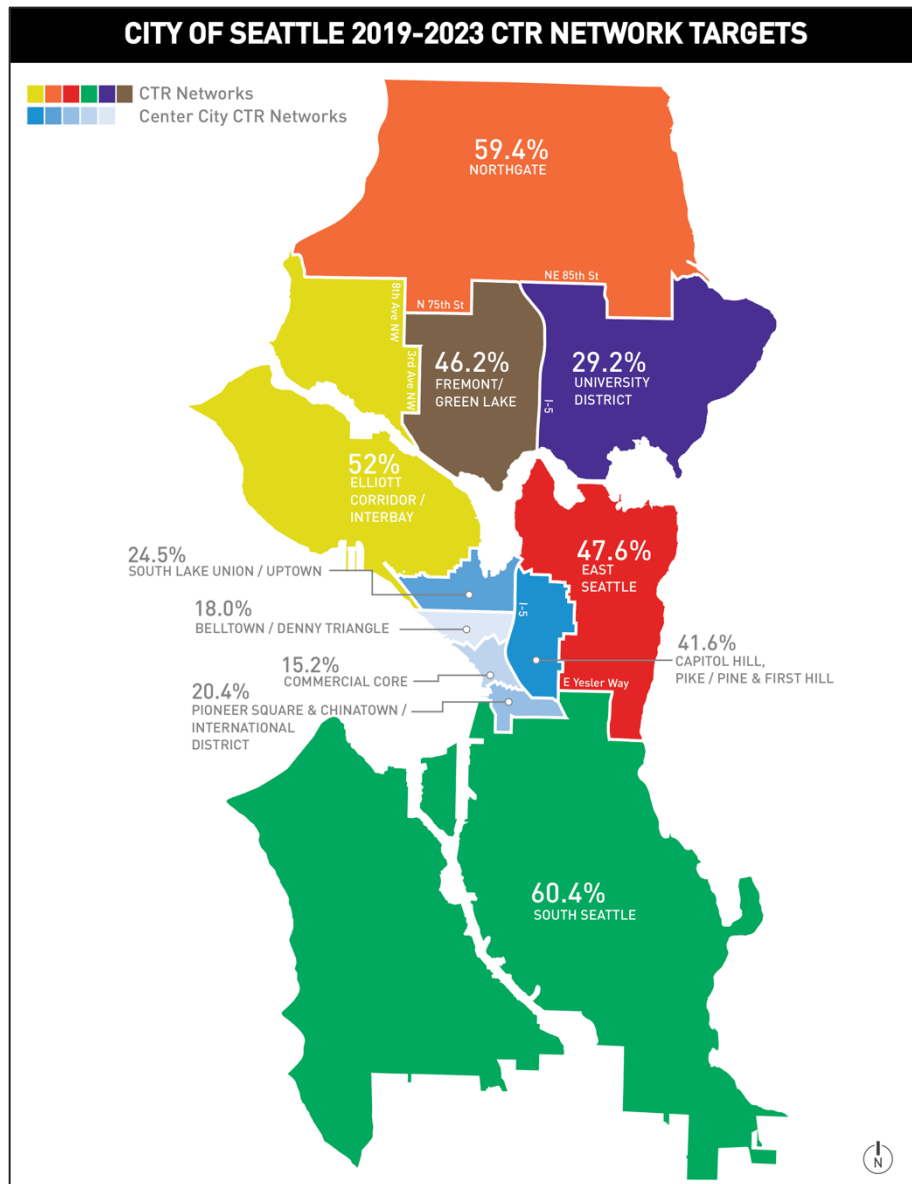


Figure 2. Diagram of the Transportation Management Program submission and review process.

Single-Occupancy Vehicle Goals

Transportation management programs most often include a single-occupancy vehicle rate goal that sites are expected to achieve throughout the life of the building – the contents of a transportation management programs are meant to support the achievement of this goal. The SOV goals are approved at the discretion of city officials but are often set to support preexisting neighborhood network targets set in the Commute Trip Reduction Program or the Comprehensive Plan.

Figure 3. City of Seattle CTR network targets. Seattle Department of Transportation. (2019). Seattle's 2019 - 2023 CTR Strategic Plan. Retrieved June 7, 2020, from <https://www.seattle.gov/transportation/projects-and-programs/programs/transportation-options-program/commute-trip-reduction-program/seattles-2019-2023-networks-and-targets>



Due to increasing congestion and other development factors in the City of Seattle, developments in the 1980s have higher SOV target rates than developments from the 2010s. These SOV rates react to the same development and transportation context that shape the Director’s Rules and do not dictate or prescribe the elements included in the transportation management programs.

A historical review of the transportation management programs, and the transportation demand management elements included there in will provide answers to what TDM strategy was approached by the city, as well as what TDM strategies were adopted by developers within the development context. Though the findings will not be generalizable to other cities or contexts, they lead to insights for understanding how the TMP program developed in Seattle and what TDM strategies may be best implemented in the future to better engage the commercial development sector in site-specific TDM efforts.

Chapter IV: Development of the Transportation Management Program in Seattle

BACKGROUND

From the mid-1980s, commercial development in Seattle has been guided by both local and regional planning policies and regulations that have concentrated new growth in the urban core of Downtown Seattle and the adjacent South Lake Union neighborhood. In order to manage the increase congestion and associated impacts caused by the new growth, City officials developed the Transportation Management Program as a condition of permit approval review process for sites above a specific threshold of impact. During the permit review process, city officials and the developer negotiate to reach an agreement over the details of the proposed project in exchange for the permit approval.

The Director's Rules for the Transportation Management Program implemented by the City of Seattle are the backdrop for one part of this negotiation. They not only set the standards for interpreting and implementing the associated requirements in the municipal code but more importantly also define expectations for developers' TMP discussions with the City. With Transportation Management Programs, the guidelines in the Director's Rule determine the options available to both parties during negotiation process. The elements provide an some consistently and clarity for all parties, given that the success of the final product is subject to the discretion of the city official and the prevalent understanding of transportation demand management of the time. An evaluation of the eight Transportation Management Programs Director's Rules adopted between 1988 and 2015 illustrates how both city officials and developers' understanding of site-specific transportation demand management evolved in step with the pace and scope of commercial development from a limited program with that promoted HOV policies to a 36 item menu of options including physical site design elements, end of trip facilities for bicycling, and additional employer based incentives.

KEY PLANNING/URBAN DEVELOPMENT EVENTS IN SEATTLE & EVOLUTION OF THE TMP PROGRAM REQUIREMENTS

1980s: DEVELOPMENT BOOM

Throughout the 1980s, downtown Seattle experienced a significant amount of development and the City's demand management policy concentrated on mitigating transportation impacts by promoting HOV parking and rides sharing programs. A boom in skyscrapers and office developments in downtown Seattle drastically changed the scale of the downtown neighborhood. In contrast, South Lake Union was primarily a commercial and light industrial space throughout the 1980s. Additionally, the development of suburban office parks outpaced those being built in the urban core, placing pressure on the residential suburbs to become increasingly commercial and pushing residential development further from the urban core. Urbanist Peter Calthorpe characterized the pattern of development during this period as "up and out" (Calthorpe & Fulton, 2001, p. 160). These development patterns set the region up for ongoing transportation and congestion issues for residents commuting to these concentrated centers of employment. "Seattle's population grew by 22 percent during the 1980s, but the total number of vehicle miles traveled in automobiles doubled" (Calthorpe & Fulton, 2001, p. 160).

The 1980s office development boom in the Downtown neighborhood increased the demand pressure on the existing transportation infrastructure during peak commute hours for commuters traveling from other neighborhoods into the urban core. In 1982, it was the policy of the Seattle Department of Construction and Land Use that permits for all major downtown developments include a condition requiring establishment of a ridesharing program and significant incentives for carpooling (City of Seattle Department of Construction and Land Use, 1982). The City's early efforts in transportation demand management included heavily promoting these HOV parking and ride sharing programs for new developments. The City also invested in expanding the existing infrastructure supporting mass transportation and transit options to better accommodate the increased demand placed on the existing transportation system. In 1987, the City broke ground on a downtown transit tunnel that allowed regional and local buses to make stops in downtown Seattle while avoiding the street-level congestion during the

evening peak commuting hours. The tunnel project was half funded by the U.S. Urban Mass Transportation Administration as part of the federal government’s increased focus on managing congestion to mitigation energy and environmental impacts (Demoro, 1988). The City’s choice to target the increase in vehicle congestion caused by the downtown development through HOV parking and ride sharing program requirements placed new development was the precursor to the Transportation Management Program.

Table 1. Development Context for the 1988 TMP Director's Rule (DCLU 24-88; SED 88-1)

Development Context for the 1988 TMP Director’s Rule DCLU 24-88/SED 88-1	
1980s:	<ul style="list-style-type: none"> • Boom in commercial development in Downtown Seattle, both in the number of building and the size of buildings • City policies encouraged the “up” and “out” development of Seattle, leading to the further bifurcation of commercial development in the urban core and residential on the periphery • HOV management required by code (City of Seattle 1986, 23.49.016 SMC) in downtown sites and the main TDM strategy of the City
1987:	<ul style="list-style-type: none"> • Construction for a downtown transit tunnel to aid with vehicle congestion during the evening commute begins

1988 TMP DIRECTOR’S RULE (DCLU DR24-88; SED DR88-1)

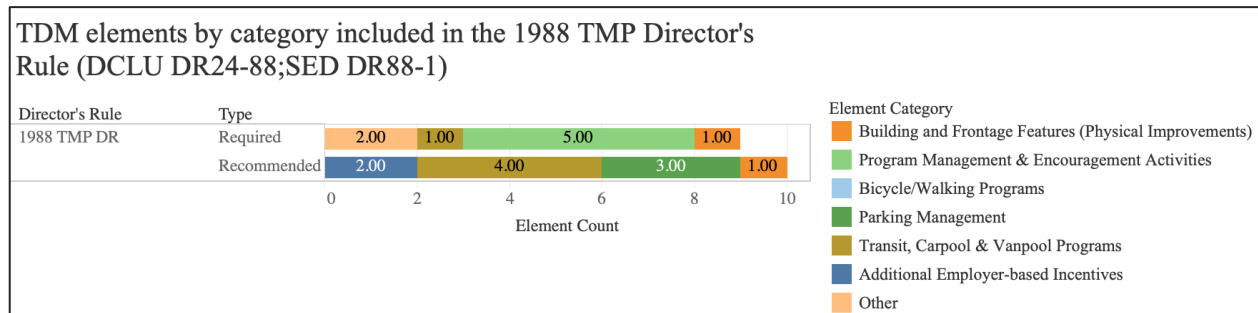
The 1998 TMP Director’s Rule (DCLU DR24-88; SED DR88-1) was the first Transportation Management Program rule issued by the City of Seattle and effectively set up the formal standards and processes for implementing TMPs. The 1998 TMP DR was written to allow for flexibility in the negotiation with between developers and city officials in determining the appropriate amount of mitigation based on the location and proposed use of the building. Seven demand management elements are required, but developers must include at least one additional “strategy to reduce peak period single occupancy vehicle use”. The final combination of required program elements and strategies to reduce peak would be approved as a site’s transportation management program by City officials so long as the implementation of said strategies would lead to the desired single-occupancy vehicle rate or reduction target. The strategies recommended by the city include parking management techniques that target SOV

use as well as HOV programs consistent with the City’s TDM policies of the time, however the 1998 TMP DR allows for developers to submit additional strategies not included on the recommended list.

Table 2. TDM Elements included in the 1988 TMP Director’s Rule (DCLU 24-88; SED 88-1) by category

1988 TMP Director’s Rule (DCLU 24-88; SED 88-1)		
	Required Elements	Recommended/Discretionary Elements
Building and Frontage Features (Physical Improvements)	A commuter information center	Street and site improvements
Program Management & Encouragement Activities	BTC Periodic promotional events Building tenant participation Employee/tenants surveys Reporting requirements	
Bicycle/Walking Programs		
Additional Employer-based Incentives		Subscription bus service Flex-time work schedules
Transit, Carpool & Vanpool Programs	Ridematch opportunities	Transit pass subsidies Vanpool sponsorship
Parking Management		Higher parking fees for SOVs Parking management techniques Reduced parking costs for HOVs
Other	One or more of the discretionary elements Strategies to reduce peak period SOV use	

Figure 4. TDM elements by category included in the 1998 TMP Director's Rule (DCLU DR24-88; SED DR88-1).



1989: CITIZEN’S ALTERNATIVE PLAN INITIATIVE

By the end of the decade, the boom of development in Downtown Seattle exacerbated existing socio-economic issues in the city and led to conflicts between citizens, the city, and developers. “City Hall and the downtown business community refused to acknowledge the city-wide impact and city-wide interest in downtown development” (Bello, 1993, p. 336). Residents in Seattle’s residential

neighborhoods considered the development boom to be the “root cause of housing price inflation, housing displacement and the deteriorating quality of life and an increasing population commuting to downtown Seattle” (Bello, 1993, p. 338). The construction impacts of projects such as the Washington Mutual Tower (construction begun in 1986, 55 stories) and the Columbia Seafirst Center (construction begun in 1982, 76 stories) were so significant in size and concerns over pollution and expected impacts on congestion were so high that citizens organized in order to limit the size of future new development. The Citizens Alternative Plan to Downtown Development (CAP), also known as Initiative 31, was approved by the citizens of Seattle in 1989, as a rejection of the increasing "Manhattanization" of Seattle's skyline perceived by residents as well as a reaction to the 1985 Downtown Seattle Land Use Plan that allowed for extra height in exchange for public amenities (Bowermaster, 1991). Although the 1985 plan was a small step in the direction of encouraging developers to accept more “liberal notions of quality urban environments” and adopting more responsibility in creating those environments, Seattle residents pushed for increased restrictions on development (Bello, 1993, p. 338). The Citizens’ Alternative Plan Initiative capped the height of new development at 500,000 square feet per year through 1994 and at 1,000,000 square feet per year from 1994 through 1999. It also required the City to prepare a study regarding the future management of Downtown growth, with the Initiative sunseting in 2006 when a new Downtown zoning plan would be adopted (Ord. 114315, 1989). By the end of the decade, the amount of office development in downtown Seattle had skyrocketed, and anxiety about the associated transportation and congestion issues had encouraged citizens to organize and create limits to the scale of future development.

1990s: DOWNTOWN REVITALIZATION

In the 1990s, planning policies that courted development to rapidly revitalize downtown retail cores were common in most metropolitan cities in the United States, including Seattle. By 1993, the city's downtown development outlook had significantly shifted from the building boom of the 1980s; downtown office vacancies were high and continued existence of a downtown retail core was threatened by a weak commercial real estate market (Curtis, 1997). The political effort to revitalize the Downtown neighborhood in Seattle was encapsulated by the Rhodes Project, a 1994 development project targeting

bringing retail back to the downtown core, which proposal was put forward and managed by the administration of Seattle Mayor Norman Rice (Gibson, 2003, p. 431). The Rhodes Project involved the City creating a package of “financial subsidies, zoning waivers, and historic landmark tax breaks” as an incentive for the major retailer Nordstrom to relocate into the vacant Frederick & Nelson building in downtown Seattle with the goal of creating a concentration of retail activity in the urban core that could compete with the region’s suburban malls and revitalize downtown (Gibson, 2003, p. 433). Additionally, the opening of the downtown METRO tunnel in 1990 was the investment in the mass transit needed to support the increase in workers in the downtown area. By the end of the decade, the downtown vacancy rate would be closer to 6% after planning policies that attracted a mix of retail, commercial, and cultural development were combined with increased investment in mass transit in the downtown core (Curtis, 1997).

1990: GROWTH MANAGEMENT ACT (SHB 2929)

In Seattle, increased investment in downtown real estate coincided with the State’s Growth Management Act (GMA) that would further encourage the densification of development within existing urban areas. The GMA was approved by the Washington State Legislature in 1990 with the goal of requiring the most populous counties to prepare for long-term population growth by concentrating new development into existing urban areas in order to manage both state and local land and services.

The GMA mandated the creation of both development regulations and coordination of long-range, 20-year comprehensive plans for managing growth, consistent with thirteen stated goals. Three of these goals include land management strategies such as concentrated urban growth, sprawl reduction, and regional transportation (Chapter 36.70a RCW: Growth Management -- Planning by selected counties and cities, 2020). In practice, the GMA applied to only the most populous, urban counties and required local land use planning to adopt policies that led to the most efficient use of existing land and services.

The Growth Management Act had a significant impact on the shape of development in Seattle in that it provided guidance on combining transportation planning goals with land-use decisions. The GMA outlined specific requirements to be included in the comprehensive elements developed by each

municipality, which would then be submitted to the state for review for consistency with state goals and approval prior to adoption. This process had two significant impacts on local land use planning in the City of Seattle: 1) the city was required to consider local land use and development in tandem with regional transportation impacts and 2) local development regulations needed to advance the goals set forth in the comprehensive plan. Under the guidance of the GMA, the City of Seattle began developing its long-range comprehensive plan in the early 1990s.

1991: WASHINGTON'S COMMUTE TRIP REDUCTION LAW

Under continued direction from the Federal Government to focus on transportation demand management as a means of mitigating energy and environmental impacts, the State of Washington identified single occupancy vehicle traffic as a significant polluter and began developing legislation for a statewide program. As stated in Washington's 1991 Transportation Systems Management & Transportation Demand Management Report, "the construction of new freeway systems to meet current traffic demands is no longer a primary desirable option" for the state (Washington State Department of Transportation & Planning Research and Public Transportation Office, 1991, p. iii). In order to accommodate the expected increase in population and employment in the region, the State of Washington instead promoted transportation demand management strategies. One such measure introduced at this time was Washington's Commute Trip Reduction Law.

Passed by the state legislature in 1991, the Commute Trip Reduction (CTR) Law was part of the Washington Clean Air Act, passed to reduce consumption of petroleum gas, improve air quality, and reduce overall traffic congestion. The CTR law requires employers with more than 100 employees at a single site to create a transportation program designed to reduce the single-occupied-vehicle (SOV) commuter rate and subsequent vehicle emissions of employees who begin work between the hours of 6:00 AM and 9:00 AM. The program was to encourage employees to use alternative modes of transportation, such as mass transit, flexible-work hours, and active transportation such as walking and biking. The law established CTR zones based on "employment density, level of transit service, parking availability, access

to HOV facilities and other factors determined to affect the level of SOV commuting”, and created statewide, staggered single occupant vehicle (SOV) commute trips and vehicle miles traveled (VMT) reduction targets based on a base year (Kadesh & Roach, 1997, p. 1219). In general, the law was targeted at major employers in densely populated parts of the state, such as the Seattle Metropolitan area, experiencing significant congestion and environmental issues related to peak commute travel.

In 1993, the City of Seattle adopted local Ordinance No. 116657 into its Municipal Code. This ordinance added a new chapter to the Seattle Municipal Code and outlined Seattle’s Commute Trip Reduction plan, containing specific operations and efforts the municipality would require from employers for to comply with the state law (“Ordinance 116657,” 1993). According to the local ordinance, City and State agencies would provide assistance to employers for program evaluation and monitoring but the details of the specific strategies for SOV trip reduction remained up to the discretion and judgment of each employer. The city established CTR zones within the city limits and set up SOV and VMT reduction targets for each zone; employers with CTR affected worksites with each zone were expected to implement transportation demand management measures in order to achieve the stated goal. These SOV targets would inform the SOV goals set in transportation management programs. The main location of office development, the Central Business District located within the Downtown neighborhood of Seattle, was geographically the smallest of the seven Seattle CTR zones but it had the most restrictive SOV and VMT targets.

In the mid 1990s, the CTR program was one of Seattle’s key transportation demand management strategies encouraged by a federal government increasingly focused on environmental impacts and congestion issues. TDM policies were promoted in Washington State for their ability to reduce pollution as well as their contribution to what was called “personal mobility” (TSM & TDM, 2). The passage of the CTR law in Washington and its implementation in Seattle required employers to consider and become invested in the transportation habits of their employees. By setting standard programmatic requirements with the expectation of continued performance monitoring, the law encouraged employers to invest in alternative transportation options.

Table 3. Development Context for the 1991 TMP Director's Rule (DCLU DR4-91; SED DR91-5)

Development Context for the 1991 TMP Director's Rule (DCLU DR4-91; SED DR91-5)	
1989	<ul style="list-style-type: none"> • Citizen's Alternative Plan reigns in Downtown development through strict height limits
1990s	<ul style="list-style-type: none"> • The "up" and "out" development patterns of the 1980s lead to anxiety about transportation demand management • Downtown retail development is courted by the City through financial subsidies and zoning waivers
1990	<ul style="list-style-type: none"> • Washington State Growth Management Act sets growth targets for various Urban Centers
1991	<ul style="list-style-type: none"> • The Commute Trip Reduction Law directs policy action at mitigating in environmental impacts of commuting

1991 TMP DIRECTOR'S RULE (DCLU DR4-91; SED DR91-5)

The 1991 TMP Director's Rule (DCLU DR4-91; SED DR91-5) was influenced by the Commute Trip Reduction Law, passed in the very same year. The second TMP Director's Rule included transportation demand management elements that would later be included in the 1993 CTR Ordinance locally implementing the state CTR law as required program elements for employers. The 1991 TMP Director's Rule expanded the required program elements to include demand management measures that could be best carried out by employers as incentives for employees, such as shuttle services, telecommuting programs, and coordination of ridesharing programs with other employers. Some employer-based incentives were categorized as discretionary program requirements, leaving their implementation up to the discretion of the developer and city official depending on the expected tenants. Employer-based incentives can be written into leasing requirements, these elements are more attractive to office developments with single tenants or owner-occupied sites.

Table 4. TDM elements in the 1991 TMP Director's Rule (DCLU DR4-91; SED DR91-5) by category

1991 TMP Director's Rule (DCLU DR4-91; SED DR91-5)		
	Required Elements	Recommended/Discretionary Elements
Building and Frontage Features (Physical Improvements)	A commuter information center(s) Site Improvements (carpool/vanpool parking, bicycle parking, etc.) as required by LUC	Additional site improvements Off-site mitigation
Program Management & Encouragement Activities	BTC Periodic promotional events Tenant participation Employee Mode Split Surveys Building Occupancy Surveys Reporting	

Bicycle/Walking Programs		One-site bicycle training programs (including bicycle education, etc) to reduce SOV trips
Additional Employer-based Incentives		Alternative working schedules Telecommuting programs Fleet pools
Transit, Carpool & Vanpool Programs		Guaranteed Ride home programs Discount carpool/vanpool parking Transit subsidy or discount Rideshare bonuses Vanpool sponsorship and subsidies Shuttle services Subscription bus service Coordination of ridesharing programs with other employers Other similar programs to reduce SOV trips
Parking Management		Increased SOV parking rates Preferential parking location for HOVs Reduction of SOV parking supply Residential parking zones
Other	One or more of the discretionary elements	

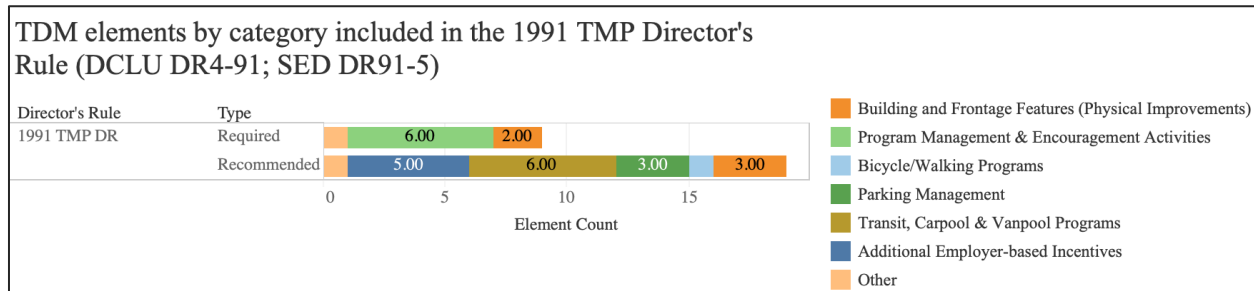


Figure 5. TDM elements by category included in the 1991 TMP Director's Rule (DCLU DR4-91; SED DR 91-5)

1994: COMPREHENSIVE PLAN & URBAN VILLAGE STRATEGY

As a result of the Growth Management Act, the City of Seattle developed a long-range comprehensive plan outlining the growth targets and planning strategies that continue today to shape urban development patterns in the municipality. The 1994 Comprehensive Plan, titled “Towards a Sustainable Seattle: A Plan for Managing Growth,” created guidelines that would determine how Seattle would direct growth and successfully absorb an expected population increase of 72,000 residents by concentrating new development in specific areas under what is called the urban village strategy (Hepinstall-Cymerman et al., 2013, p. 114). The urban village strategy categorized neighborhoods in Seattle according to existing land use and development patterns, and attributed residential and employment targets to the neighborhoods adequately situated with the infrastructure and services capable of absorbing new growth. Each neighborhood would then develop its own plans and strategies to increase

density in the manner that was best suited to its existing character and conditions (Seattle Planning Commission, 2001, p. 10).

“Towards a Sustainable Seattle” identified Downtown Seattle as an Urban Center, the urban village category with the highest expectations for job and development growth. To support and redirect growth to these neighborhoods, the comprehensive plan outlined policies that would reduce the restrictions place on new development such maximum building height, floor area ratio, or even required parking amounts, depending on the neighborhood’s development goals. South Lake Union was designated as an urban hub village and had distinctly lower growth targets.

Immediately after the 1994 Comprehensive Plan, Downtown Seattle was poised to absorb a significant amount of the city’s expected future growth. The urban hub village of South Lake Union remained primarily light industrial.

Table 5. Development context for the 1995 TMP Director's Rule (DR2-94; SED DR94-3)

Development context for the 1994 TMP Director’s Rule (DR2-94; SED DR94-3)
<p>1993:</p> <ul style="list-style-type: none"> • Local implementation of state CTR law <p>1994:</p> <ul style="list-style-type: none"> • “Toward a Sustainable Seattle” finalized, which designated Downtown as an urban center and South Lake Union as an urban hub village. • Urban village strategy: Lower development restrictions such as height limits and floor area ratio in order to encourage build up in desired neighborhoods leads to increase demand on existing infrastructure.

1994 TMP DIRECTOR’S RULE (DCLU DR2-94; SED DR94-3)

The transportation demand management elements included in the 1994 Director’s Rule continued to focus on employer-based incentives. The guidelines in the updated Director’s Rule substantially expanded the city’s official definitions of each TDM element, narrowing the scope of interpretation but also providing additional information to developers going into the negotiation process. These definitions continue to provide further clarity and expectations for developers entering into the negotiation process. As projects court tenants that would be CTR affected, definitions by city officials for these management elements became increasingly necessary for the coordinated implementation of the two programs.

Table 6. TDM elements included in the 1994 TMP Director's Rule (DR2-94; SED DR94-3) by category

1994 TMP Director's Rule (DR2-94; SED DR94-3)		
	Required Elements	Recommended/Discretionary Elements
Building and Frontage Features (Physical Improvements)	A commuter information center(s) Site and access Improvements (carpool/vanpool parking, bicycle parking, bicycle trail and site improvements etc.) as required by LUC or environmental impact mitigation. Additional site and access improvements. Off-site mitigation	Reduction of SOV parking supply Shower/locker room facilities
Program Management & Encouragement Activities	BTC Periodic promotional events Tenant participation Annual Program Performance Reports	Annual building occupancy surveys
Bicycle/Walking Programs		On-site bicycle training program
Additional Employer-based Incentives		Alternative working schedules Telecommuting programs Fleetpools Coordination of ridesharing programs with other employers;
Transit, Carpool & Vanpool Programs	Ridematch opportunities	Transit subsidy or discount Vanpool sponsorship and subsidies Subscription bus service Shuttle services Guaranteed Ride Home program
Parking Management		Increased SOV parking rates-rideshare bonuses Preferential parking locations for HOVs Residential parking zones Discounted carpool/vanpool parking
Other	One of the Supplement Requirements	Other similar programs to reduce SOV trips

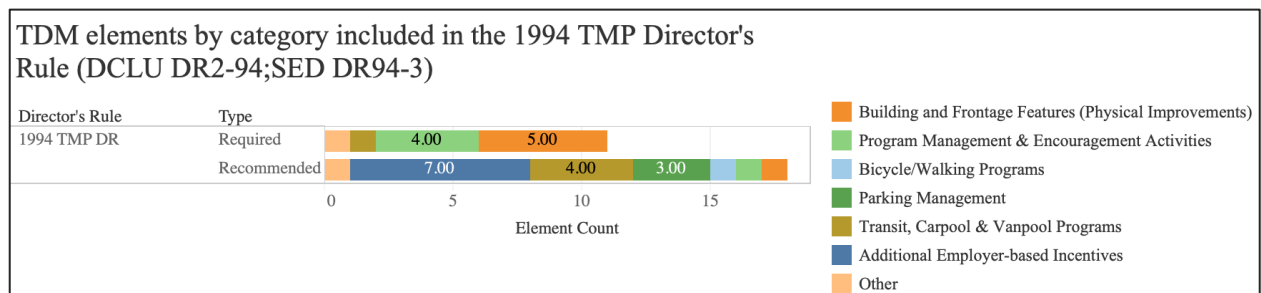


Figure 6. TDM elements by category included in the 1994 TMP Director's Rule (DCLU DR2-94; SED DR94-3)

1990s: ECONOMIC GROWTH AND INCREASED DEVELOPMENT

In the 1990s, Seattle benefitted from an expanding regional economy. This era saw a 22% growth rate in jobs and the median household income in the city grew by 16% due to an increase in high-salary, managerial jobs. While Seattle's total population grew by 9%, population in the greater region grew by

22% (Watrus & Haavig, 2007, p. 113). Jobs and development were concentrated both in Seattle’s urban core and in regional employment hubs surrounding major company campuses such as Boeing and Microsoft. During the 1990s, over \$1 billion funded construction projects, including such landmarks as “the Seattle Art Museum, Benaroya Symphony Hall, Washington Trade and Convention Center” (Watrus & Haavig, 2007, p. 121). During this period of significant growth and development, the influence of business in local government grew along with the economy (Watrus & Haavig, 2007, p. 116). At the end of the decade, Vulcan began acquiring land in South Lake Union and would continue to do so until the early 2000s. At its peak, Vulcan controlled roughly 60 acres of land, close half of all developable land in the area. With the increased control of a single developer, Vulcan and the City would be able to begin coordinating rapid development for the neighborhood as a biomedical and technology hub through a series of formal and informal partnerships (BERK Consulting & Heart Land LLC, 2012). Major development projects such as the Fred Hutchinson Cancer Research Center campus, ZymoGenetics building, and the REI headquarters signaled that commercial development market’s perception of that South Lake Union had changed.

EARLY 2000S: DOT-COM CRASH

By the early 2000s, the dot-com bubble burst and Seattle felt a significant economic impact due to the prominence of two industries that had come define the region – technology and airline manufacturing. But prior to the economic explosion, commercial office space in Seattle was being constructed at a high rate in order to meet the inflated demand. Between 1999 and 2004, new office construction “swelled the supply of office space by about 19 percent” (Jones, 2008). The increase in development meant an increase in permit review as well as increase demand placed on the transportation system.

Table 7. Development context for the 2002 TMP Director’s Rule (DCLU DR14-2002)

Development context for the 2002 TMP Director’s Rule (DCLU DR14-2002)
<p>Early 2000s</p> <ul style="list-style-type: none"> Economic growth throughout the 1990s led to a commercial office development boom in Seattle, GMA policies targeted this growth through zoning in the urban core

- Dot-com bubble led to a boom in the construction of commercial office space
- Vulcan controls nearly half of the developable land in South Lake Union with the vision of creating a biomedical and technology hub

2002 TMP DIRECTOR’S RULE (DCLU DR14-2002)

After the growth of the 1990s and the uncertainty of the early 2000s, the 2002 TMP Director’s Rule (DCLU DR14-2002) was written to make the TMP process less burdensome to developers. The 2002 TMP DR included break in form from previous rules by listing only required elements and stating that an applicant may have certain elements waived by the Director in the approved document. The general “strategies to reduce peak hour single occupancy vehicle trips” was removed from the set menu of options and in place developers were to request waiver of required elements based on the characteristics of their projects. Additionally, alternative commute mode (non-SOV) incentives and subsidies were introduced as a required TDM, paving the way for transit subsidies to be included in TMPs for tenant’s employees.

Table 8. TDM elements included in the 2002 TMP Director’s Rule (DCLU DR14-2002) by category

2002 TMP Director’s Rule (DCLU DR14-2002)		
	Required Elements	Recommended Elements
Building and Frontage Features (Physical Improvements)	A commuter information center(s); site and access improvements required by the Land Use Code, Traffic Code, Commute Trip Reduction Law, and similar ordinances intended to mitigate traffic and environmental impacts.; Marked and paved pedestrian and bicycle links to nearby public and private bicycle lanes and trails; Additional site improvements Off-site mitigation Reduction of SOV parking supplies; increase HOV supply;	
Program Management & Encouragement Activities	Building or Institution Transportation Coordinator; Biannual promotions of TMP and related programs; Tenant participation in building or institution’s TMP; Development of and participation in a transportation management association (TMA) or other trip-reduction networking group. Annual or more frequent program reports; Biennial (once every two years) trip reduction surveys and reports of survey results.	
Bicycle/Walking Programs		
Additional Employer-based Incentives	Alternative commute mode (non-SOV) incentives and subsidies; Alternative work schedules and flexible	

	arrival/departure times to meet HOV schedules; Telecommuting programs Fleet pools Car-sharing programs;	
Transit, Carpool & Vanpool Programs	Adequate height clearance and turning radii for vanpool parking; Secure preferential parking for carpools and vanpools; Subscription bus service Shuttle services Participation in Ridematch programs; Guaranteed Ride home programs	
Parking Management	Parking fees and operations structured and managed to promote and assure priority access to customers and visitors over employees and to high occupancy vehicles over single occupant vehicles. Unbundling of parking charges from tenant leases; Residential parking zones;	
Other	Multifamily building requirements: The TMP program description shall be written into the lease or sales agreement(s) and shall include the following: (1) complete or partial subsidies of tenant participation in HOV use, and (2) dissemination to tenants of information and notice of promotional events sponsored by public transportation agencies.1	

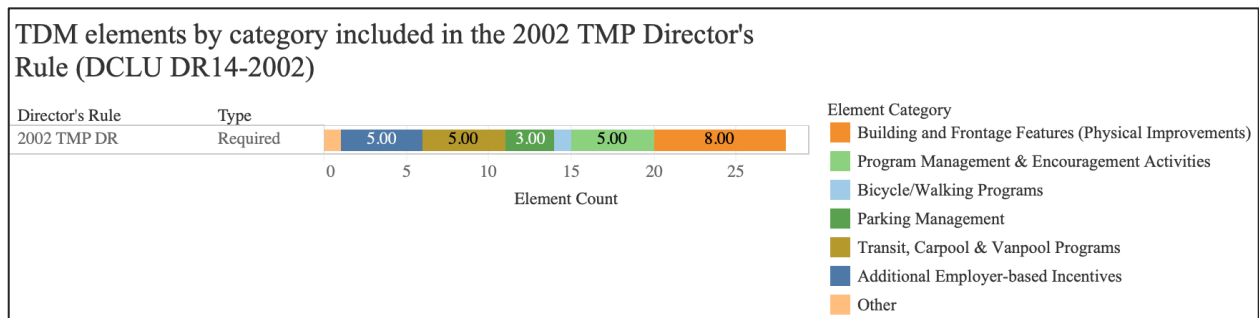


Figure 7. TDM elements by category included in the 2002 TMP Director's Rule (DCLU DR14-2002).

EARLY TO LATE 2000S: SOUTH LAKE UNION PREPARES FOR GROWTH & RESTRICTIONS ON DOWNTOWN DEVELOPMENT LIFTED

With the commercial real estate market recovery, Seattle City Council approved Resolution 30610 in 2003, affirming the City's commitment to "making the South Lake Union area the region's most competitive location for biotech research and manufacturing and other innovative entrepreneurial high-tech industries" (*Resolution 30610*, 2003). This event was shortly followed by the 2004 Comprehensive Plan update which designated South Lake Union as an urban center and set considerably higher growth targets for the neighborhood. By the mid-2000s, South Lake Union was experiencing a

significant increase in investment from the commercial real estate market ushering in the neighborhood transformation from light industrial to regional biotechnical hub.

In 2006, the administration of Mayor Nichols continued to advance the growth targets of the comprehensive plan by implementing Ordinance 122054 -- a new downtown zoning plan to Seattle's City Council that would remove the downtown development height restrictions introduced by the Citizens' Alternative Plan Initiative in 1989. At the time, the maximum height for a new development in Downtown Seattle was 540 feet; in the new zoning code, the maximum height was unlimited (Young, 2006). Within the same proposal, the zoning in the Denny Triangle, the section of Downtown adjacent to South Lake Union, would be updated to allow for mixed-use, dense development. The repeal of the height limitation signaled the City's support and market demand for building "up" the urban core.

In 2007, Amazon announced their intention to consolidate all of their Seattle operations into the South Lake Union neighborhood in an 11-office complex, marking a milestone in the transformation of the neighborhood from light industrial to densely developed commercial core (Day, 2017). As part of a deal to support the relocation of Amazon into the urban center of Seattle, the Seattle City council approved a land use code change that would allow for taller buildings for select properties on Amazon's proposed campus (Pryne, 2007). In exchange, the city received benefits from the development, including energy-efficient buildings and "a plan to keep most Amazon.com workers from driving to work by themselves" (Young, 2007). The 1.3-mile South Lake Union line of the Seattle streetcar opened to the public in the same year, touted as a transportation alternative to personal vehicles that would better connect the South Lake Union neighborhood with Downtown.

2008: MARKET CRASH

The 2008 housing market crash was followed by an economic recession with employment and development challenges in Seattle. Vulcan's control of and coordinated vision for properties in South Lake Union in addition to Amazon's 2007 decision to relocate its workforce to South Lake Union would help bolster the commercial real estate market in the urban core, bring economic opportunity and

increased investment to services in back as technology companies were drawn to locate in the previously light-industrial neighborhood.

Table 9. Development context for the 2008 TMP Director’s Rule (DPD DR19-2008; DCLU DR14-2008)

Development context for the 2008 TMP Director’s Rule (DPD DR19-2008; DCLU DR14-2008)	
2003	<ul style="list-style-type: none"> • Biotech Resolution 30610
2004	<ul style="list-style-type: none"> • South Lake Union designated an urban center
Mid 2000s	<ul style="list-style-type: none"> • Vulcan’s ongoing development project in South Lake Union redefine the neighborhood and build demand in the commercial real estate market
2006	<ul style="list-style-type: none"> • Downtown height restrictions removed, and congestion in Downtown Seattle continues to get worse
2007	<ul style="list-style-type: none"> • South Lake Union line of the Seattle Streetcar opens • Amazon announces relocation to South Lake Union
2008	<ul style="list-style-type: none"> • Housing market collapse and economic recession
2009	<ul style="list-style-type: none"> • Oversupply of commercial real estate space in Downtown Seattle due to the economic recession following the housing market collapse.

2008 TMP DIRECTOR’S RULE (DPD DR19-2008; DCLU DR14-2002)

The 2008 TMP Director’s Rule (DPD DR19-2008; DCLU DR14-2002) created three tiers of TDM elements that could be included in a transportation management program: required for all projects, highly recommended, and location dependent. The required elements included the programmatic elements that have been required of sites since the first TMP director’s rule in 1988 and the highly recommended category included additional TDM elements that would support reductions in SOV travel. Due to imbalanced development between the urban core and surrounding areas, the location dependent category was particularly important for mitigation new congestion impacts – the new category included parking management strategies and employer incentives needed to successfully manage the amount of single occupancy vehicle travel.

Table 10. TDM elements included in the 2008 TMP Director's Rule (DPD DR19-2008; DCLU DR14-2008) by category

2008 TMP Director's Rule (DPD DR19-2008; DCLU DR14-2008)			
	Required Elements	Highly recommended	Location Dependent
Building and Frontage Features (Physical Improvements)	Install commuter information center in appropriate location	Construct infrastructure improvements that are consistent with the City's Design Guidelines related to the transit and pedestrian environment. Provide on-site shower and locker facility	Install pedestrian wayfinding signs Provide more bicycle parking than required by code Provide bicycle storage and amenities that meet City performance standards. Reduce parking supply below market demand rate for the type of land use and location
Program Management & Encouragement Activities	Appoint Building Transportation Coordinator Produce and distribute a commuter information packet Require tenant participation in the TMP Submit regular reports about TMP elements as required by the City Conduct biennial survey of TMP effectiveness		Participate in a transportation management association, where available Participate in promotional programs
Bicycle/Walking Programs		Offer incentive for commuters who bicycle or walk to work Offer programs for bicyclists such as safety training and bicycle maintenance	
Additional Employer-based Incentives			Offer telecommuting program for employees (used at least once per week) Allow flexible working hours Provide subsidy to residents or employees for car-sharing program Provide subscription bus service or shuttle to site
Transit, Carpool & Vanpool Programs		Provide or require tenant to offer transit pass subsidy to employees who work at the site. Provide free parking for vanpools registered with a public agency.	Provide reserved spaces for registered vanpools in convenient area that has adequate clearance and maneuvering space Provide information about ridematch opportunities Provide parking discount for carpools Offer guaranteed ride home program
Parking Management		Charge for parking at market rate for the site's vicinity Set parking fee structure so that cost per hour for short-term parking does not exceed cost per hour for long-term parking Prohibit price reductions for all-day parking (e.g., "Early Bird" specials) Unbundle parking from building leases	Provide designated parking spaces for car share programs Create flex-use parking passes that provide fewer days of parking than a monthly pass.
Other			

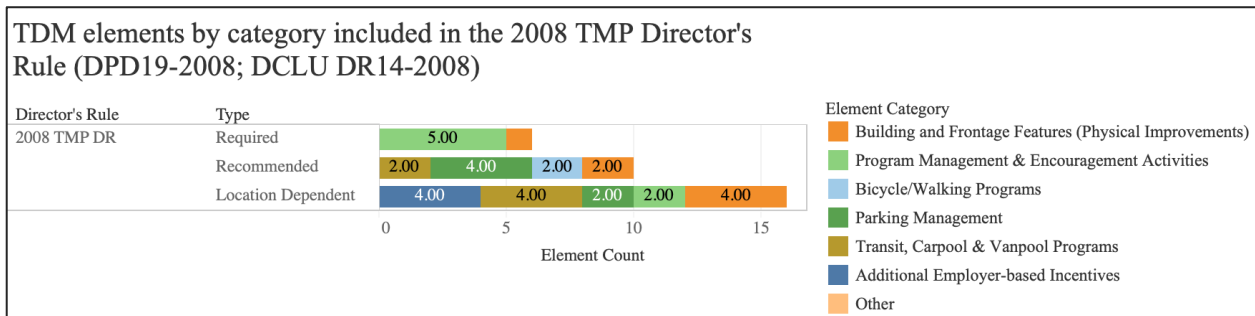


Figure 8. TDM elements by category included in the 2008 TMP Director's Rule (DPD19-2008; DCLU DR14-2008).

2009: ECONOMIC RECESSION AND AMAZON IN SOUTH LAKE UNION

The 2008 housing market crash led to a stall in the amount of new development projects in downtown Seattle. There was an oversupply of available office space in the commercial real-estate market than existed for the then-current demand. In 2009 alone, over 2.57 million square feet of new construction that had begun in earlier years opened in Seattle (Jones, 2008)

Despite the recession that followed the housing market collapse, Amazon broke ground in 2009 on the planned 11-building, 11.7 million-square-foot office complex in South Lake Union. The development was welcomed by both the city and the commercial real estate market as a positive omen for the future of both South Lake Union and Downtown Seattle (Pryne, 2007).

Table 11. Development context for the 2010 TMP Director's Rule (DPD DR9-2010)

Development context for the 2010 TMP Director's Rule (DPD DR9-2010)	
2009	<ul style="list-style-type: none"> Oversupply of commercial real estate space in Downtown Seattle due to the economic recession following the housing market collapse. Amazon broke ground on 11-office complex development despite the 2008 recession.

2010 TMP DIRECTOR'S RULE (DPD DR9-2010)

The 2010 TMP Director's Rule (DPD DR9-2010) does not include any significant updates or edits to the transportation demand management elements included in the prior 2008 TMP Director's Rule. The 2010 DPD DR9-2010 does include one policy update that requires applicants to submit an TMP acknowledgement letter as part of the TMP negotiation process, which would require bring city officials and developers into the negotiations earlier in the permit review process.

Table 12. TDM elements included in the 2010 TMP Director's Rule (DPD DR9-2010) by category

2010 TMP Director's Rule (DPD DR9-2010)			
	Required Elements	Highly recommended	Location Dependent
Building and Frontage Features (Physical Improvements)	Install commuter information center in appropriate location	Construct infrastructure improvements that are consistent with the City's Design Guidelines related to the transit and pedestrian environment. Provide on-site shower and locker facility	Install pedestrian wayfinding signs Provide more bicycle parking than required by code Provide bicycle storage and amenities that meet City performance standards. Reduce parking supply below market demand rate for the type of land use and location
Program Management & Encouragement Activities	Appoint Building Transportation Coordinator Produce and distribute a commuter information packet Require tenant participation in the TMP Submit regular reports about TMP elements as required by the City Conduct biennial survey of TMP effectiveness		Participate in a transportation management association, where available Participate in promotional programs
Bicycle/Walking Programs		Offer incentive for commuters who bicycle or walk to work Offer programs for bicyclists such as safety training and bicycle maintenance	
Additional Employer-based Incentives			Offer telecommuting program for employees (used at least once per week) Allow flexible working hours Provide subsidy to residents or employees for car-sharing program Provide subscription bus service or shuttle to site
Transit, Carpool & Vanpool Programs		Provide or require tenant to offer transit pass subsidy to employees who work at the site. Provide free parking for vanpools registered with a public agency.	Provide reserved spaces for registered vanpools in convenient area that has adequate clearance and maneuvering space Provide information about ridematch opportunities Provide parking discount for carpools Offer guaranteed ride home program
Parking Management		Charge for parking at market rate for the site's vicinity Set parking fee structure so that cost per hour for short-term parking does not exceed cost per hour for long-term parking Prohibit price reductions for all-day parking (e.g., "Early Bird" specials) Unbundle parking from building leases	Provide designated parking spaces for car share programs Create flex-use parking passes that provide fewer days of parking than a monthly pass.
Other			

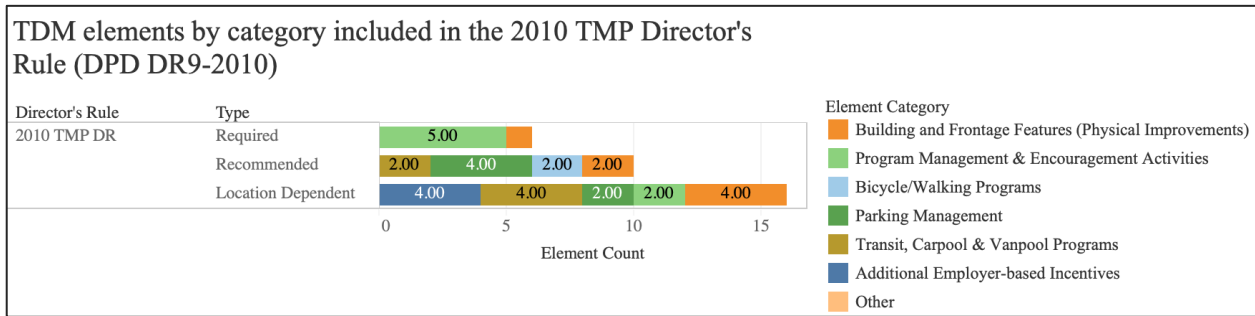


Figure 9. TDM elements by category included in the 2010 TMP Director's Rule (DPD DR9-2010).

2012: PARKING REFORM AND TRANSPORTATION IMPACT MITIGATION

A 2012 parking reform effort by the City of Seattle targeted the supply of parking attached to new development in Urban Centers identified by the comprehensive plan. Through Ordinance 123939, the City of Seattle reduced by 50% the minimum amount of parking required for developments in multifamily and commercial zones located within a quarter mile of frequent transit service (Ord. 123939 § 16, 2012) Seattle defines such "frequent transit" areas as those as receiving regular transit service at intervals of 15-minutes or less. In an interview at the time, Seattle Council Member Richard Conlin noted that his goal for the reform was to “encourage developers to be able to use creativity in project design and development” in pursuit of meeting the standards required by the City (Madrid, 2020).

Transportation Impact Mitigation requirements for new development were also included in local Ordinance 123939 (Ord. 123939 § 13, 2012). Transportation Impact Mitigation allows for the Director to impose transportation management conditions on new developments of a certain size dependent on the proposed project’s impact. These conditions are distinct from transportation management programs; however, the conditions can be similar to the TDM elements included in a TMP. The codification of Transportation Impact Mitigation illustrates an expansion of TDM policies in Seattle.

Table 13. Development context for the 2012 TMP Director's Rule (DPD DR10-2012)

Development context for the 2012 TMP Director's Rule (DPD DR10-2012)	
2012	<ul style="list-style-type: none"> • Parking reform that reduced parking minimums for developments in neighborhoods and areas with supporting transit services. • Transportation Impact Mitigation written into the Land Use Code signaling that TDM strategies are becoming increasingly necessary for more than just major developments in Seattle

2012 TMP DIRECTOR'S RULE (DPD DR10-2012)

The TDM elements included in the 2012 TMP Director's Rule (DPD DR10-2012) did not change from the previous 2010 TMP Director's Rule (DPD DR9-2010). The 2012 DR set out corrected code references for the updated parking requirements and other applicable land use changes.

Table 14. TDM elements included in the 2012 TMP Director's Rule (DPD DR10-2012) by category

2012 TMP Director's Rule (DPD DR10-2012)			
	Required Elements	Highly recommended	Location Dependent
Building and Frontage Features (Physical Improvements)	Install commuter information center in appropriate location	Construct infrastructure improvements that are consistent with the City's Design Guidelines related to the transit and pedestrian environment. Provide on-site shower and locker facility	Install pedestrian wayfinding signs Provide more bicycle parking than required by code Provide bicycle storage and amenities that meet City performance standards. Reduce parking supply below market demand rate for the type of land use and location
Program Management & Encouragement Activities	Appoint Building Transportation Coordinator Produce and distribute a commuter information packet Require tenant participation in the TMP Submit regular reports about TMP elements as required by the City Conduct biennial survey of TMP effectiveness		Participate in a transportation management association, where available Participate in promotional programs
Bicycle/Walking Programs		Offer incentive for commuters who bicycle or walk to work Offer programs for bicyclists such as safety training and bicycle maintenance	
Additional Employer-based Incentives			Offer telecommuting program for employees (used at least once per week) Allow flexible working hours Provide subsidy to residents or employees for car-sharing program Provide subscription bus service or shuttle to site
Transit, Carpool & Vanpool Programs		Provide or require tenant to offer transit pass subsidy to employees who work at the site. Provide free parking for vanpools registered with a public agency.	Provide reserved spaces for registered vanpools in convenient area that has adequate clearance and maneuvering space Provide information about ridematch opportunities Provide parking discount for carpools Offer guaranteed ride home program

Parking Management	Charge for parking at market rate for the site's vicinity Set parking fee structure so that cost per hour for short-term parking does not exceed cost per hour for long-term parking Prohibit price reductions for all-day parking (e.g., "Early Bird" specials) Unbundle parking from building leases	Provide designated parking spaces for car share programs Create flex-use parking passes that provide fewer days of parking than a monthly pass.
Other		

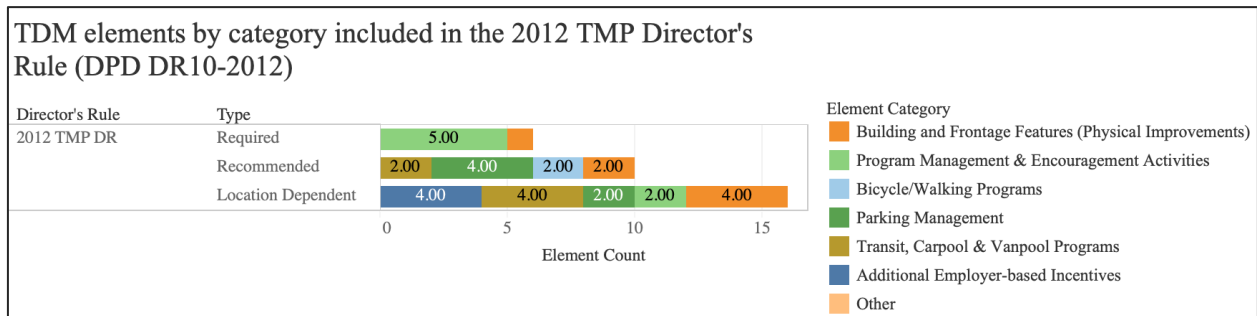


Figure 10. TDM elements by category included in the 2012 TMP Director's Rule (DPD DR10-2012).

2013: REZONING FOR GREATER HEIGHTS AND DENSITIES

Multiple rezoning ordinances taking effect in 2013 allowed for greater heights and densities for new development in both Downtown and South Lake Union. The standard of the new regulations were written in response to updated growth targets, and were a continuation of the implementation of the Urban Center categorization first applied to both Downtown and South Lake Union in the 1994 comprehensive plan as well as a response to the market demand for development (City of Seattle Department of Planning and Development, 2007).

In South Lake Union, the ordinance rezoned the primarily Industrial Commercial land use to Seattle Mixed (which allows residential and commercial development) and created an incentive zoning program that allows for further increased height and density limits through developer contribution to public amenities such as open space (Ord. 124172 §1, 2013; Ord. 124172 §14, 2013). The 2013 ordinance implemented the zoning and development regulations required to position the South Lake Union neighborhood as an area capable of absorbing a significant proportion of Seattle's projected growth.

However, supporting transportation resources in the area did not receive a comparable scale of investment. Other than the Seattle Streetcar, transit options were limited due to the geography of the area and the proximity to Lake Union. The 2013 rezone would pave the way for major employers to build up development office spaces in the spatially confined Downtown and South Lake Union neighborhoods, increasing the number of commuters to the area and making effective transportation demand management a growing necessity.

Table 15. Development context for the 2015 TMP Director’s Rule (DPD DR27-2015; SDOT DR09-2015)

Development context for the 2015 TMP Director’s Rule (DPD DR27-2015; SDOT DR09-2015)	
2010s	<ul style="list-style-type: none"> • Downtown and South Lake Union continue a trend increased density and scale of development.
2013	<ul style="list-style-type: none"> • District rezoning ordinance that took effect in 2013 allowed for greater heights and densities in both South Lake Union and the Downtown neighborhood

2015 DIRECTOR’S RULE (DPD DR27-2015; SDOT DR09-2015)

The 2015 Director’s Rule (DPD DR27-2015; SDOT DR09-2015) returned to the original format of listing both a set of required elements applicable to all TMP building sites and a list of recommended elements which would be included in the TMP contract at the discretion of the city official in negotiation with the developer. The required elements include programmatic efforts that would aid the city in reviewing TMP performance, as well as TDM elements required by the land use code. Notably, a transit pass subsidy remains a required element applicable to all buildings and their tenants, signaling the city’s continued investment in mass transportation as a TDM strategy. Recommended elements outnumber required elements, providing the opportunity for developers to self-select the options best suited for their development location, proposed use, and scale of projected impact.

Table 16. TDM elements included in the 2015 Director’s Rule (DPD27-2015; SDOT DR09-2015) by category

2015 Director’s Rule (DPD27-2015; SDOT DR09-2015)		
	Required Elements	Recommended Elements
Building and Frontage Features (Physical Improvements)	Install commuter information center in appropriate location	Construct infrastructure improvements that are consistent with the City’s Design Guidelines related to the transit and pedestrian environment. Provide on-site shower and locker facility

Program Management & Encouragement Activities	Appoint Building Transportation Coordinator Produce and distribute a commuter information packet Require tenant participation in the TMP Submit regular reports about TMP elements as required by the City Conduct biennial survey of TMP effectiveness	Participate in promotional and encouragement programs
Bicycle/Walking Programs		Offer incentive for commuters who bicycle or walk to work Offer programs for bicyclists such as safety training and bicycle maintenance
Additional Employer-based Incentives		
Transit, Carpool & Vanpool Programs		Provide or require tenant to offer transit pass subsidy to employees who work at the site. Provide free parking for vanpools registered with a public agency.
Parking Management		Charge for parking at market rate for the site's vicinity Set parking fee structure so that cost per hour for short-term parking does not exceed cost per hour for long-term parking Prohibit price reductions for all-day parking (e.g., "Early Bird" specials) Unbundle parking from building leases
Other		

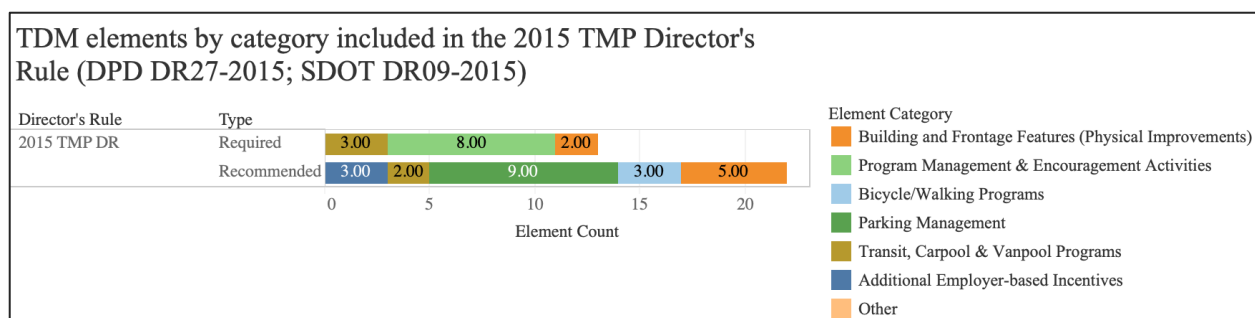


Figure 11. TDM elements by category included in the 2015 TMP Director's rule (DPD27-2015; SDOT DR09-2015).

2016: COMPREHENSIVE PLAN UPDATE TO LEVEL-OF-SERVICE STANDARDS

The Washington State Growth Management Act requires that cities include level-of-service (LOS) target standards for neighborhood in order to evaluate the transportation and development impacts on the existing network. In 2016, the City of Seattle updated the paradigm for calculating the LOS, shifting from a calculation of capacity impacts on individual street using a screenline method and establishing targets for reducing single occupant vehicle (SOV) mode share by geographic area. The new LOS system focused on increasing overall accessibility and mobility by promoting more efficient use of the existing infrastructure, following the guideline of the sustainable transportation paradigm. Within the

2035 Comprehensive Plan, target for SOV use and non-SOV (bicycling, transit, vanpool, walking, etc.) were adopted at the Comprehensive Plan geographic sector level (Seattle Office of Planning and Community Development, 2016). In 2019, these targets and new multi-modal LOS standards were adopted in the Land Use Code as the City's standards for LOS evaluation and impact mitigation review (Ord.125757 § 3, 2019). The codification of single-occupancy vehicle trip reduction targets demonstrates that aims of the Transportation Management Program were now fully in line with the transportation impact mitigation analysis and aims of Seattle's transportation planning strategy.

2017: HALA REZONES AND UPDATING OF THE URBAN VILLAGE FRAMEWORK

By 2017, Downtown Seattle was leading the nation in the total amount of office space under development (Spearing-Bowen, 2018). According to an annual report published by the Downtown Seattle Association, 20 percent of all central business district office construction nationwide in 2017 was located in Seattle (Spearing-Bowen, 2018). At the same time, the City was facing the pressing need to address affordable housing shortages. In 2017 as part of the City of Seattle's Housing Affordability and Livability Agenda (HALA), the Seattle City Council passed legislation under the Mandatory Housing Affordability (MHA) that included significant increases to the development capacity of Urban Centers such as Downtown Seattle and South Lake Union. For commercial office developments, the HALA rezones significantly increased the scale, density, and pace of development in key urban center neighborhoods, placing increasing stress on existing transportation facilities.

Although the HALA rezones were not codified during the time the 2015 TMP DR was being written, the legislation led to an increase in number and scale of commercial developments in the Downtown and South Lake Union neighborhood, thus creating more sites that would require a transportation management program due to their size and impact and creating a new context for the interpretation of impacts and appropriate mitigation after 2017.

CONCLUSION

By 2019, the Transportation Management Program had been part of the land review and permitting process in the City of Seattle for over 30 years. The program had evolved from a small number of program requirements with space for optional additional strategies to reduce single occupancy vehicle use at the prepossession of the applicant to to a list of 36 required and recommended elements all supporting alternatives to single-occupancy vehicle trips. The categorization of these elements as required or recommended speak to the TDM strategies of the City, while the pattern of implementation of elements in transportation management programs suggests some TDM strategies are more attractive to developers than others.

Chapter V: Implementation of the Transportation Management Program

INTRODUCTION

As a transportation demand management policy, the Transportation Management Program at the City of Seattle allows for the City to enter into negotiation with developers and create a plan for how the site will work with the City to manage their own transportation impacts. The resulting document of that negotiation, also called a transportation management program (TMP), is the product of both parties' goals and objectives: for the City, reduction in the overall amount of single occupancy vehicle trips and promotion of alternative transportation options at the individual site-level; for developers, minimization of their total cost and maintenance of a positive reputation that will attract potential tenants.

Six categories for transportation demand management (TDM) elements are outlined in Director's Rules and included in TMPs:

- Building and frontage features (physical improvements),
- Program management & encouragement activities,
- Bicycle/walking programs,
- Additional employer-based incentives,
- Transit, carpool & vanpool programs, and
- Parking management

Implemented TDM elements are those selected during the negotiation process and included in the final transportation management program for an individual site. The first categorical review of the transportation demand management elements implemented by office developments in Downtown and South Lake Union illustrates how the invested parties have understood transportation demand management throughout the history of the program. For the city, the elements included in Director's Rules and their categorization as required or recommended communicate the City's strategy for mitigation of congestion impacts of single-occupancy vehicles through site-specific strategies. For developers, the elements adopted from the recommended list indicate their preferences for transportation

demand management based on factors such as cost, reputation, and the ability to maintain and attract tenants.

ANALYSIS OF THE IMPLEMENTATION OF THE TMP DIRECTOR'S RULES ISSUED FROM 1988 TO 2015

Required, Recommended, and Location Dependent TDM elements

Within Seattle's Transportation Management Program, certain TDM elements are required of all sites regardless of land use, size, or location and are categorized as such within the TMP Director's Rules. Throughout the life of the program, excluding the 2002 TMP Director's Rule which redefined all elements as required, these required elements fell almost exclusively within the program management & encouragement, building and frontage features, and transit, carpool & vanpool programs categories. The categorization of these elements as required as opposed to recommended illustrate that, from the perspective of city officials, HOV transportation options, built design elements that support non-SOV transportation, and program elements to encourage and support desired behaviors and the success of the program constitute the most effective site-specific transportation demand management policies.

A comparison of the required elements listed in TMP Director's Rules with what was ultimately implemented by individual sites reveals that, the average TMP does not commit to implementing the full roster of required elements. Developers are able to have required elements waived by city officials if the elements are considered inapplicable or unnecessary for the site to achieve SOV-trip reduction success. While required elements have been waived to some degree throughout the program, it appears city officials were more likely to waive these requirements for developers at the very start of the program. The results show that categorizing an element as required does not guarantee the element will be included in the final transportation management program. The Director's Rules allows city officials to maintain the discretion to waive required elements if they are perceived as unnecessary or unsuitable based on the use and design of the proposed project. Based on the available sample sites, the average TMP did not implement the full rose of requirements elements until the 2012 TMP Director's Rule. In more recent

years, the average TMP implement less program management elements than those required by the 2015 TMP Director’s Rule. The City’s decision to waive these requirements at a higher rate early in program demonstrates a flexibility with developers that became more rigid with the increasing congestion and density of development.

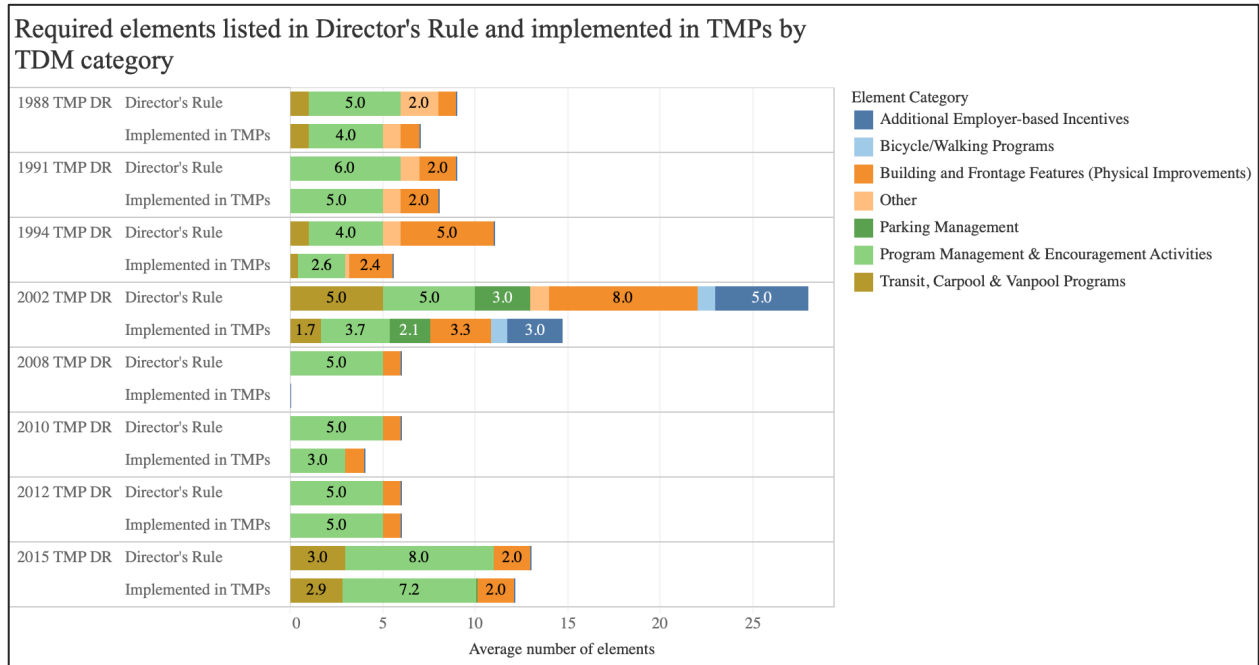


Figure 12. Elements required by the TMP Director's Rule compared with the average amount of required elements implemented in a TMP by TDM element category.

Excluding the 2002 TMP DR, building and frontage features peaked as TDM element required by the City under the 1994 TMP DR. During this period, the City was focused on intensifying the concentration of development in urban centers such as Downtown and South Lake Union via the Urban Village strategy and adapting to the construction boom of the early dot-com era. The ability to encourage site access-improvements beyond existing urban design requirements in the land use code and influence the design of structure to better support desired transportation behaviors is a success of the TMP program that is not replicable in the other major TDM regulation in Seattle. Some of these additional required physical improvements include site improvements beyond those required by code, off-site mitigation, and shower and locker facilities (Table 17).

Table 17. Building and Frontage Features (Physical Improvements) listed in TMP Director's Rules.

Building and Frontage Features (Physical Improvements) Elements in TMP Director's Rules								
Director's Rule	1988 TMP DR	1991 TMP DR	1994 TMP DR	2002 TMP DR	2008 TMP DR	2010 TMP DR	2012 TMP DR	2015 TMP DR
Comuter information center	Required	Required	Required	Required	Required	Required	Required	Required
Street or site improvements (LUC)	Required	Required	Required	Required				
Street or site improvements (other)			Required	Required	Recommended	Recommended	Recommended	Recommended
Off-site mitigation		Recommended	Required	Required				
Reduction of SOV parking supply			Recommended	Required	Location Dependent	Location Dependent	Location Dependent	Recommended
Increase HOV supply				Required				Required
Shower/locker room facilities			Required	Required	Recommended	Recommended	Recommended	Recommended
Marked and paved pedestrian and bicycle lane/traill links				Required				
Secure bicycle parking				Required	Location Dependent	Location Dependent	Location Dependent	Required
Provide more bicycle parking than required by code					Location Dependent	Location Dependent	Location Dependent	Recommended
Install pedestrian wayfinding signs					Location Dependent	Location Dependent	Location Dependent	
Contribtue to cost of providing on-site bike share stations								Recommended
Secure bicycle parking				Required	Location Dependent	Location Dependent	Location Dependent	Required
Provide more bicycle parking than required by code					Location Dependent	Location Dependent	Location Dependent	Recommended
Install pedestrian wayfinding signs					Location Dependent	Location Dependent	Location Dependent	
Contribtue to cost of providing on-site bike share stations								Recommended

In 2002, when all elements were listed as required until waived by a city official, additional physical features as TDM elements included marked and paved pedestrian and bicycle links to nearby public and private bicycle lanes and trails and reduction of SOV parking supplies. After the 2002 TMP DR, the role of building features as a TDM element waned although similar booms in development would occur in response to relaxed height and density restrictions in 2013. Because these elements involve the physical design of the building, they require coordination with the developer early on in this permit review process as well as a willingness from developers to incorporate permanent transportation demand management features into their site designs. Due to level of involvement required of these TDM elements,

it is possible that after the market crash in 2008 and subsequent lull in development, the ability or desire of the city to require physical elements under a demand management program fell. Not only would requiring additional physical design elements would further delay the permitting process, and it is reasonable to assume applicants are more resistant to physical elements that may interfere with their building cost calculations

Between 2008 and 2012, the categorization of certain TDM elements as location dependent allowed for the City mitigation new congestion impacts by targeting development based on neighborhood needs, similar to the development focused TDM method used in the City of San Francisco. The location dependent elements included parking management strategies and employer incentives that would be best applied in dense neighborhoods in specific need of reducing single occupancy vehicle travel – specifically the employment hubs of South Lake Union and Downtown.

An analysis of the location dependent elements implemented compared with the Director’s Rule demonstrates transit, carpool, and vanpool programs as well as physical improvements were the preferred location dependent elements of the City under the 2010 and 2012 TMP Director’s Rules (Figure 13). It is important to note that there is no available data for implemented transportation management programs that met the criteria of the study under the 2008 Director’s Rule. The lack of potential TMP sites under the 2008 TMP Director’s rule is likely due in part to the oversupply of commercial office space that began construction immediately prior to the 2008 housing market crises and subsequent recession.

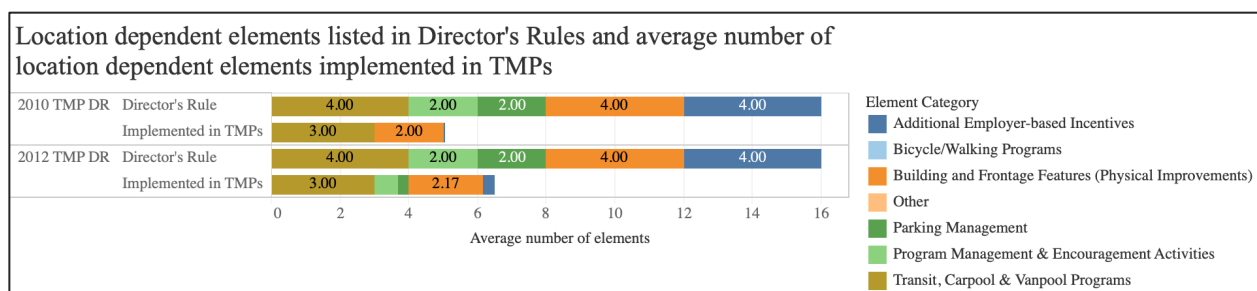


Figure 13. Location dependent elements listed in Director's rule compared with average number of location elements implemented in TMPs by TDM element category.

The promotion of transit and other HOV modes as a demand management strategy adheres to the City’s policy focus on parking management and the removal of parking minimums for developments near

frequent transit service in 2012. Under 2015 TMP Director’s Rule, transit, carpool & vanpool programs were reclassified required elements and therefore more necessary to the success of the program. At the time, the city was preparing strategies to accommodate the vehicle congestion associated with in increased in height and density limits in both Downtown and South Lake Union. Site-specific efforts to support most efficient transportation options such as HOV and transit would help reduce demand on the existing infrastructure during the peak commuting hours.

Implementation of the Transportation Management Program

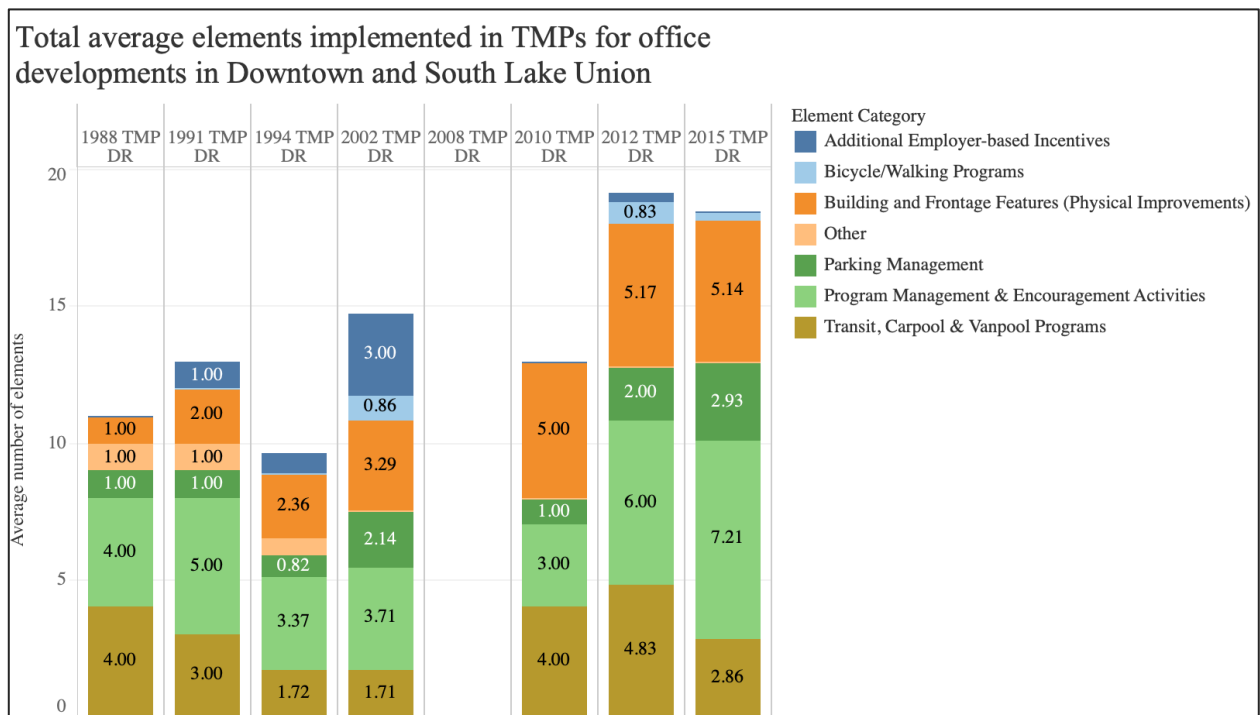


Figure 14. Total average elements implemented in TMPs for office developments in Downtown and South Lake Union.

A review of the full transportation management programs illustrates that the average total number of elements did not increase at a standard rate over time (Figure 14). In fact, more transportation demand management elements were implemented on average under the 1988 and 1991 TMP Director’ Rules (11 and 13 average elements per TMP, respectively) than the preceding 1994 TMP Director’s Rule (9.63 average elements). Although the total number of elements implemented does not necessarily correlate with a stronger TMP, the count of elements corresponds to individual commitments from developers

which must be solidified during negotiation process. Around 1991, two major planning laws passed in Washington State, the Growth Management Act in 1990 and the Commute Trip Reduction Law in 1991, which was implemented locally as an ordinance in 1994. The high element count in TMPs at the very start of the program time reflects a policy focus from the city in implementing demand management at the site-specific level in support the goals of these two recently passed laws or in pursuit of using the land use process to regulate development in pursuit of similar objectives.

Although Seattle's CTR Ordinance was implemented in 1994, employer-based incentives would not reach their peak in popularity as implemented elements until the 2002 TMP DR, with an average of 3.20 elements per program. Under the 2015 TMP Director's Rule, only three elements are listed as required --- the lowest count since the passage of the 1991 CTR Law and 1994 CTR Implementation Ordinance in Seattle (Table 18). One may speculate that the subsequent decline in popularity is attributable in part to the perception by some developers that requirements such as alternative work schedules, flexible arrival/departure times, and fleet pools would limit their appeal to future tenants. Although some of these TDM strategies would continue to be required of tenants with over 100 employees under the CTR Ordinance, the City's promotion of employer incentives as a TDM strategy under the Transportation Management Program was restricted under the 2008 TMP Director's Rule as recommended elements for sites that would be owner-occupied projects. There is an opportunity for the City to set the elements as required and further shift the standard expectation for transportation demand management responsibilities of private firms in the urban core.

Table 18. Additional Employer-based incentives by TMP Director's Rule.

Additional Employer-based Incentives in TMP Director's Rules								
Director's Rule	Flex-time work schedules / Allow flexible working hours / Alternative working schedules	Provide subscription bus service or shuttle to site	Telecommuting programs / Offer telecommuting program for employees (used at least once per week)	Fleet pools	Coordination of ridesharing programs with other employers	Provide subsidy to residents or employees for car-sharing program	Rideshare bonuses	Alternative commute mode (non-SOV) incentives and subsidies
1988 TMP DR	Recommended	Recommended						
1991 TMP DR	Recommended	Recommended	Recommended				Recommended	
1994 TMP DR	Recommended	Recommended	Recommended	Recommended			Recommended	
2002 TMP DR	Required	Required	Required	Required				Required
2008 TMP DR	Location Dependent		Location Dependent			Location Dependent		
2010 TMP DR	Location Dependent		Location Dependent			Location Dependent		
2012 TMP DR	Location Dependent		Location Dependent			Location Dependent		
2015 TMP DR	Recommended	Recommended	Recommended					

On site-facilities such as bike rooms and shower and locker facilities, classified under the building and frontage features category, became increasingly popular beginning with the 1994 TMP DR. This growth aligned with an increased interest in active transportation as a commuting option. Supporting additional bicycle and walking programs were briefly popular in 2002 when they were listed as a required element under the 2002 TMP Director's Rule, however their popularity as a recommended element waned again until the 2012 TMP DR. By this time, Seattle had fully adopted active transportation and modal shift as a TDM strategy, and the popularity of active transportation meant developers had increased incentive to appeal to tenants who employees desired end-of-trip facilities and on-site amenities for their active commute. The bump in implemented bicycle and walking programs under the 2012 TMP DR included elements such as financial incentives for commuters who bicycle or walk to work and programs for safety training and bicycle maintenance.

Although the TMP program began with a strong connection to transit, carpool, and vanpool programs, the popularity of such elements have waxed and waned in popularity throughout the years for

both the City and for developers. There was a peak in the average number of HOV and transit elements implemented under the 2012 TMP DR (4.83 on average) which may have been aided by the city's parking reform efforts and increased investment in frequent transit services. By the 2015 TMP Director's Rule, parking management had met and just surpassed transit and HOV programs as a demand management strategy. By this time, as a result of the comprehensive plan and urban village strategy, both neighborhoods were significantly developed, hosting an increasing number of jobs and commuters -- it follows that effective management of existing parking would become a popular demand management strategy for the new sites constructed.

DOWNTOWN VS. SOUTH LAKE UNION

A comparison of the implemented elements included in the TMPs for office sites in Downtown Seattle with those implemented in South Lake Union illustrates a difference in transportation context as well as developer motivation. To start, no transportation management programs were available for office development sites in South Lake Union until the 1994 TMP Director's rule – after the neighborhood had first obtained its urban village categorization. At that time, the average elements implemented in a TMP for an office development in South Lake Union were significantly less than those implemented for a similar site in Downtown, reflecting the city's willingness to waive program requirements based on the location of the project and low amount expected congestion at the time.

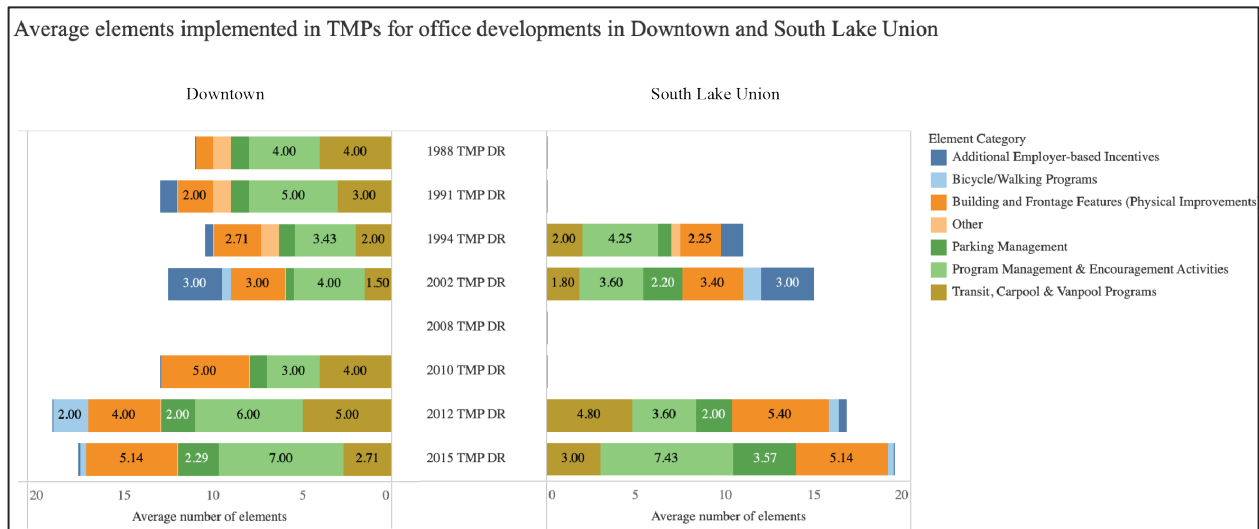


Figure 15. Average TDM elements implemented in TMPs at office sites in Downtown and South Lake Union by Director's Rule and element category.

Under operation of the 2002 TMP Director's Rule, however, the average TMP for South Lake Union was similar in total detail and average elements to TMPs for contemporary Downtown sites. During the early 2000s, South Lake Union developed rapidly due to the increased investment from Vulcan, Inc., and other firms moving to the neighborhood. Given the spatial constraints of the neighborhood in its location between Lake Union and Downtown and the lack of available transit, the preference for parking management elements implemented in South Lake Union tracks as an appropriate demand management strategy for both developers and the City. In under the 2002 TMP Director's rule, when all TDM elements were considered required, more than three times as many parking elements were implemented in South Lake Union per TMP average as compared to Downtown. At the time, South Lake Union had not fully emerged as a commercial hub, although it was on track to become a biomedical and technology hub. Parking management strategies including secure and preferential parking for carpools and vanpools and the unbundling of parking charges from tenants' leases were to two most popular parking management strategies during this period and were readily adopted by developers designing single tenant buildings and urban campuses that would house thousands of new workers.

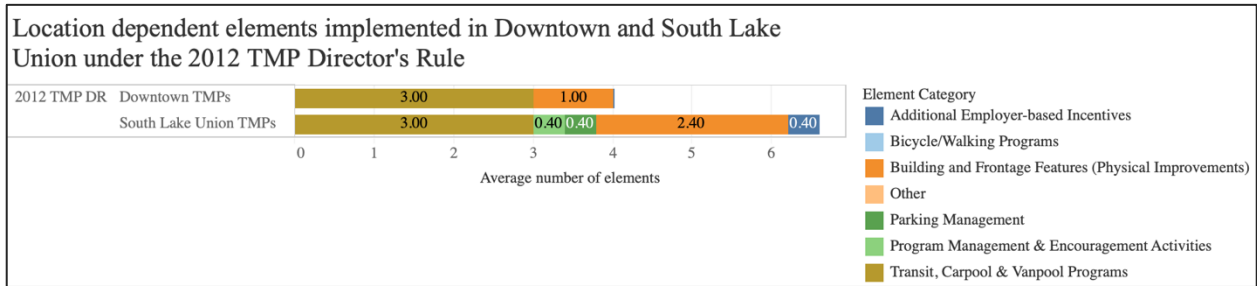


Figure 16. Location dependent elements implemented in Downtown and South Lake Union under the 2012 TMP Director's Rule. The 2012 TMP DR was the only Director's Rule that included location dependent elements and had sample sites from both neighborhoods.

Under the 2012 TMP Director’s Rule, the total number of elements implemented by projects in both neighborhoods significantly increased. Additional biking and walking incentives were more popular in Downtown sites, while South Lake Union sites largely favored building and frontage features. A review of the location dependent elements by neighborhood in 2012 highlights suggests some elements were implemented according to neighborhood context. By 2015, the average total number of elements included in a transportation management program for an office development in South Lake Union was higher than those implemented for a similar site in Downtown Seattle. On average, a South Lake Union TMP included more parking management strategies to reduce single-occupancy vehicle use as well as transit, carpool, and vanpool programs. Because of the scale and pace of development in the neighborhood, the city relied on site-specific strategies to mitigation the growing congestion issues there.

Chapter VI: Conclusions

The growth of Seattle's Transportation Management Program mirrors the evolution of transportation demand management as a transportation and land use planning tool in the city. The program began with a focus on high-occupancy vehicle programs and additional employer-based incentives associated with local legislation. During development boom years when the commercial real estate market introduced and substantially increased the number of projects participating in the development review process, the program showed a clear preference for TDM elements expressed as physical elements in the design of the project. As land in the commercial core becomes even more limited, the most recently finalized transportation management programs suggest a trend for implementing an increased number of parking management strategies. Overall, the development of the program was gradual, an apparent melding of public policy with private gain for developers.

The average number of transportation demand management elements implemented through the history of the TMP program by commercial development projects in Downtown and South Lake Union falls short of expectations set by the reigning Director's Rule of the time. While the relationship between the number of elements implemented and the strength of the individual TMP is not known nor identified by this research, the distribution of elements across the TDM categories conveys both the strategies of city as well as the perception of the cost and value of transportation demand management in the eyes of developers. An early period of strength in the program after the Commute Trip Reduction Law and Growth Management Acts in the early 1990s was weakened by a struggling commercial real estate market in the commercial core throughout the rest of the decade. Strict requirements under the 2002 TMP Director's Rule helped the program regain its strength and set firm expectations for developers and their role in transportation demand management. After a lull in the pace of office development following the 2008 recession, the number of TDM elements required of what few developments there were Downtown fell below 1988 standards. The increase in the number of recommended parking management, transit, carpool, and vanpool programs, and building and frontage features elements beginning in 2012

demonstrates a willingness of developers incorporate TDM into their sites designs motivated in part by their own benefit.

Despite differences in development patterns and transportation resources, the transportation demand management elements implemented in the two neighborhoods did not significantly differ. There is not an obvious distinction between the TDM element categories implemented between the two neighborhoods, despite their unique development patterns and contexts. The location dependent element category under the 2008, 2010, and 2012 TMP Director's Rules did not reveal significant differences due to a lack of available sample sites. However, the location dependent elements implemented under the 2012 TMP Director's Rules (Figure 16) suggests that South Lake Union had implemented the zoning required to support the creation of a biomedical and technology hub, office developments in that neighborhood implemented more parking management efforts on average than developments in Downtown. One possible explanation for this distinction includes the perceived value from developers in promoting non-vehicle transportation through parking management strategies in order to appeal to the sustainability and image-focused biomedical and technology industry tenants.

FUTURE RESEARCH

This research aimed at creating connections between the development context in Seattle and the implementation pattern of site-specific transportation demand management strategies under the Transportation Management Program. From the findings, it is clear that a connection exists between the category of transportation demand management element implemented at the site, public policy, and developer gain. However, the research does not delve deeper into the cost-benefit analysis or value-based decision-making done by developers during the TMP negotiation or site design process. It would be inappropriate to assign causation to trends between an increase in TDM elements and developer decision making that would need further investigation to verify.

One avenue for future research would be to build on the existing study by evaluating a site's relationship to the built environment and existing infrastructure to evaluate if a correlation exists between

access to features such as bike paths or transit routes and a developer's independent willingness to implement those elements without policy directive or rule. The financial value of such elements to developers would be of interest to future research. Another avenue would be to analyze if there is a clustering effect for certain amenities – do TDM elements required under the TMP program influence expected amenities in non-TMP buildings.

This study would have improved by taking into account the performance of the individual transportation management program sites, as recorded through the biennial performance survey required by the program. An ideal study would be structured to evaluate which physical features are connected to stronger reductions in SOV travel as reported by the biennial survey. Because a transportation management program is valid for the life of the site, the opportunity to influence the built form during the permitting process is a valuable transportation demand management asset for the City. The City would also likely find value in future research able to apply a quantitative value for developers associated with the implementation of any of the transportation demand management options.

DISCUSSION

In order to better manage the increasing demands on transportation infrastructure and mitigate the negative impacts associated with congestion and single-occupancy vehicle trips, land use and transportation planners must increase the coordination and application of planning objectives at the site-specific level. The Transportation Management Program emerged in step with similar national and state transportation demand management efforts focused on reducing single-occupancy vehicle trips and congestion impacts, however the TMP program is unique in that the decisions made during the permit review process apply for the life of the building. This long lifetime of TMP decisions underscores the potential inherent in the program for city officials to make permanent decisions that will supporting transportation mode-shift in the long-term. A categorical review of the transportation demand management elements included in TMP Director's Rules reveals a significant amount of variability between rules based on the development context and consequently variability between individual TMPs,

even among those in the same neighborhoods. In order to decrease the degree of variability and ensure that transportation management programs support transportation planning efforts decades after they were written, TMP Director's Rules should require design and construction elements in favor of programmatic efforts. Developers can rely on consistent expectations for their projects, leading to less time wasted for both parties during the negotiation process. The Transportation Management Program may intact this type of arrangement by installing a program similar to that currently used in Washington, D.C, which emphasizes built-parking reduction as the preferred TDM measure of the City. Physical TDM elements require significant buy-in on behalf of the developer, due to cost calculations and variance in appeal to potential tenants. By weighing physical TDM elements more significantly than other TDM categories in the evaluation of transportation management program prior to approval, the Seattle TMP program can help encourage developers to make significant investments in the success of future multi-modal transportation options.

From a regulatory lens, the research suggests that individual sites implement more robust transportation management programs when all elements are understood to be required unless waived by a city official. The 2002 TMP Directors Rule followed this model and the average TMP at the time was more robust than those that followed the guidance of immediately preceding and following rules. However, in order to provide certainty and clarity for developers, Director's Rules may also outline the specific "Location Dependent" TDM elements that will likely be required of a site based on its location, size, and land use. The 2018 update to San Francisco's Transportation Demand Management Ordinance succeeds in balancing developer flexibility with promoting context specific TDM goals. The review of the individual TMP elements implemented in office sites in Downtown and South Lake Union reveal little consistency in the site-specific TDM strategy on the part of the city. While the flexibility and variety of TDM elements leads to more tailored transportation management programs, the transportation goals and needs of individuals neighborhoods should be reflected in Location Dependent required elements. Recommended elements should include support for disruptive transportation modes such as micro-

mobility, which have an uncertain lifespan and can be recommended based on the needs and context of the site.

The research focused on office sites in South Lake Union and Downtown due to the history of rapid and consistent development in these two neighborhoods. Looking beyond these neighborhoods and into the future of the City of Seattle highlights the importance of implementing strong transportation demand management programs in new developments before density or neighborhood congestion reaches a certain threshold. Transportation management programs are valid for the life of the building. A great opportunity exists to position recently up-zoned or developing neighborhoods for transportation success by using the TMP as a way of increasing engagement with developers and increasing transportation access and resources to tenants and employees in the long term.

The recent trend in advocating for stronger parking management strategies suggests a promising area of emphasis outlook for future transportation management programs in the city. Cost-perception is a well-studied influence in transportation mode choice. The ability of the city to influence not only the price of newly constructed parking, but also how it is managed (prohibiting monthly passes, requiring that daily rates remain higher than comparable short-term rate, unbundling from leases, etc.) is a valuable but currently underutilized TDM tool. Furthermore, the Transportation Management Program provides city officials with the ability to advocate for reducing the total amount of built parking supply on a site by site basis in the permitting review process. According to a 2018 analysis of Seattle's total parking inventory, 5.2 parking spaces exist per household in Seattle (Scharnhorst, 2018, p. 21). Off-street parking such as private lots makes up one-third of Seattle's total parking supply and the majority of the off-street inventory is located in Downtown. According to the 2018 parking analysis, the cost per household to replace the valuable land current allocated is 18 times great in Seattle than New York (Scharnhorst, 2018, p. 1). Trends that show parking utilization has fallen in Seattle over the past decade are encouraging for those hopeful of a wide-spread mode shift away from private vehicles (Scharnhorst, 2018, p. 3). However,

there is room for transportation management programs to further support this shift by reducing the total amount of parking built with new developments under review. The TMP Director's Rule can set an expectation for Developers that reduced or limited built parking would be a requirement to develop in Seattle.

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APPENDIX A

OFFICE DEVELOPMENTS IN DOWNTOWN AND SOUTH LAKE UNION WITH TRANSPORTATION

MANAGEMENT PROGRAMS

Office developments in Downtown and South Lake Union with transportation management programs							
Director's Rule	Neighborhood	T/E Code	T/E Code	Address	Site Name	Year TMP Signed	Goal
DR-1988	Commerical Core	T42000	T42000	1101 2ND AVE	Second and Seneca Building	1989	
DR-1991	Commerical Core	T42001	T42001	1091 2ND AVE	Second and Seneca Tower	1993	
DR-1994	Belltown & Denny Triangle	2000	T86433	2001 8TH AVE	Union Station Development	2000	30% max SOV commute trip rate within 12 years of occupancy.
DR-1994	Belltown & Denny Triangle	1999	T89715	1120 HOWELL		1999	
DR-1994	Belltown & Denny Triangle	2002	T80540	2301 5TH AVENUE	Fifth & Bell Building	2002	Achieve a 40% SOV commute rate within two years and to maintain throughout the life of the project
DR-1994	Belltown & Denny Triangle	2002	T89717	2415 ELLIOTT	Wall Street Project	2002	57
DR-1994	Commerical Core	1999	T80532	1112 4TH AVE	W Seattle Hotel	1999	
DR-1994	Commerical Core	1998	E87049	1015 3RD AVE	1001 Third Avenue	1998	
DR-1994	Commerical Core	2000	T80178	701 PIKE ST	One Convention Place	2000	50
DR-1994	South Lake Union	2001	T80781	501 EASTLAKE AVE E		2001	SOV goal of 62% to be achieved within 3 years after building occupancy. If after 8 years the TMP goal has not been achieved, the City can require additional TMP elements to enhance alternative SOV commutes by the building's tenants until the goal is achic.
DR-1994	South Lake Union	2002	E89201	401 TERRY AVE N	West 8th	2002	50
DR-1994	South Lake Union	2002	E81535	535 TERRY AVE N	Second & Wall Building	2002	50
DR-1994	South Lake Union	2000	E87108	1144 EASTLAKE AVE E	SGA Corporate Center	2000	80% SOV
DR-2002	Belltown & Denny Triangle	2007	T86300	1918 8th Ave	Eighth & Virginia Office Building	2007	30
DR-2003	Belltown & Denny Triangle	2007	T86300	918 Stewart Ave	Ninth & Stewart Development	2007	30
DR-2004	South Lake Union	2009	E81535	1001- 1021 MERCER ST	Amazon Phase III	2009	50
DR-2005	South Lake Union	2008	T80755	1101 Dexter Ave	1101 Dexter Office	2008	45
DR-2006	South Lake Union	2006	T86424	318 WESTLAKE AVE N - 970 THOMAS ST	Westlake Terry Project	2006	50
DR-2007	South Lake Union	2008	E81535	301 BOREN AVE N	Amazon Phase IV	2008	40
DR-2008	South Lake Union	2009	E81535	1100 REPUBLICAN ST	Amazon Phase II	2009	65% maximum SOV commute trip rate within 2 years after site's initial survey; 50% maximum SOV commute trip rate within 7 years or at the conclusion of the Mercer Corridor Project, whichever is longer, to be maintained for the life of the project.
DR-2010	South Lake Union	2013	T80783/E81535	515 WESTLAKE AVE N 7 500 9TH AVE N	Amazon Phase V	2013	40
DR-2012	Belltown & Denny Triangle	2014	T80766	1821 BOREN AVE N	1821 Boren Avenue	2014	41
DR-2012	South Lake Union	2015	T90033	501 FAIRVIEW AVE N		2015	40
DR-2012	South Lake Union		T80785	601 WESTLAKE AVENUE N	Allen Institute for Brain Science, (Block 43)	2015	53
DR-2012	South Lake Union	2013	T80778	400 FAIRVIEW AVE N	SLU Research and Administrative Office Space	2013	40
DR-2012	South Lake Union	2016	E86199	2101 7TH AVE	AMAZON - DAY 1 TOWER & SPHERES	2016	21
DR-2012	South Lake Union	2013	E86199	400 9TH AVE N		2013	40
DR-2015	Belltown & Denny Triangle	2016	T90032	1812 Boren Ave N	Tilt 49	2016	25
DR-2015	Belltown & Denny Triangle	2016	T90030	1007 Stewart St		2016	25
DR-2015	Commerical Core	2018	No code	1015 2nd Ave		2018	20
DR-2015	Commerical Core	2017	No code	1201 2nd Ave	2+U Building	2017	15
DR-2015	Commerical Core	2018	No code	2031 3rd Ave	THIRD AND LENORA	2018	20
DR-2015	Commerical Core	2017	Requested	505 Madison St / 920 5th Avenue	Madison Centre / 920 5th Avenue	2017	20
DR-2015	Commerical Core	2018	No Code	811 5th Avenue	The Mark/F5 Tower	2018	20
DR-2015	South Lake Union	2019	No Code	333 8th Ave N	LAKEFRONT BLOCK 25	2019	40
DR-2015	South Lake Union	2017	No Code	625 Boren Ave N	LAKEFRONT BLOCK 31	2017	28
DR-2015	South Lake Union	2017	No Code	630 Boren Ave N	Lakefront Blocks	2017	28
DR-2015	South Lake Union	2019	No Code	520 Westlake Ave N		2019	40
DR-2015	South Lake Union	2019	No Code	330 Yale Ave N		2019	20
DR-2015	South Lake Union	2017	No code	1920 Terry Ave	BUILDING CURE	2017	20
DR-2015	South Lake Union	2019	No code	2207 7th Ave	Amazon Block 18	2019	21

APPENDIX B

TDM ELEMENTS INCLUDED IN THE TRANSPORTATION DEMAND MANAGEMENT PROGRAMS FOR OFFICE DEVELOPMENTS IN DOWNTOWN AND SOUTH LAKE UNION

Total Transportation Demand Management Elements Implemented										
Director's Rules	TMP or DR	Type	Building and Frontage Features (Physical Improvements)	Program Management & Encouragement Activities	Bicycle/Walking Programs	Additional Employer-based Incentives	Transit, Carpool & Vanpool Programs	Parking Management	Other	Number of Sites
1988 TMP DR	DR	Required	1	5	0	0	1	0	2	
1988 TMP DR	DR	Discretionary	1	0	0	2	4	3	0	
1988 TMP DR	TMP	Required	1	4	0	0	1	0	1	1
1988 TMP DR	TMP	Discretionary	0	0	0	0	3	1	0	1
1988 TMP DR	TMP-DT	Required	1	4	0	0	1	0	1	1
1988 TMP DR	TMP-DT	Discretionary	0	0	0	0	3	1	0	1
1988 TMP DR	TMP-SLU	Required	0	0	0	0	0	0	0	0
1988 TMP DR	TMP-SLU	Discretionary	0	0	0	0	0	0	0	0
1991 TMP DR	DR	Required	2	6	0	0	0	0	1	0
1991 TMP DR	DR	Discretionary	3	0	1	5	6	3	1	
1991 TMP DR	TMP	Required	2	5	0	0	0	0	1	1
1991 TMP DR	TMP	Discretionary	0	0	0	1	3	1	0	1
1991 TMP DR	TMP-DT	Required	2	5	0	0	0	0	1	1
1991 TMP DR	TMP-DT	Discretionary	0	0	0	1	3	1	0	1
1991 TMP DR	TMP-SLU	Required	0	0	0	0	0	0	0	0
1991 TMP DR	TMP-SLU	Discretionary	0	0	0	0	0	0	0	0
1994 TMP DR	DR	Required	5	4	0	0	1	0	1	
1994 TMP DR	DR	Recommended	1	1	1	7	4	3	1	
1994 TMP DR	TMP	Required	26	28	0	0	5	0	2	11
1994 TMP DR	TMP	Recommended	0	9	0	8	14	9	5	11
1994 TMP DR	TMP-DT	Required	18	18	0	0	3	0	2	7
1994 TMP DR	TMP-DT	Discretionary	1	6	0	3	11	6	5	7
1994 TMP DR	TMP-SLU	Required	8	13	0	0	2	0	1	4
1994 TMP DR	TMP-SLU	Discretionary	1	4	0	5	6	3	1	4
2002 TMP DR	DR	Required	8	5	1	5	5	3	1	
2002 TMP DR	TMP	Required	23	26	6	21	12	15	0	7
2002 TMP DR	TMP-DT	Required	6	8	1	6	3	1	0	2
2002 TMP DR	TMP-SLU	Required	17	18	5	15	9	11	0	5
2008 TMP DR	DR	Required	1	5	0	0	0	0	0	
2008 TMP DR	DR	Recommended	2	0	2	0	2	4	0	
2008 TMP DR	DR	Location Dependent	4	2	0	4	4	2	0	
2008 TMP DR	TMP	Required	0	0	0	0	0	0	0	0
2008 TMP DR	TMP	Recommended	0	0	0	0	0	0	0	0
2008 TMP DR	TMP	Location Dependent	0	0	0	0	0	0	0	0
2008 TMP DR	TMP-DT	Required	0	0	0	0	0	0	0	0
2008 TMP DR	TMP-DT	Recommended	0	0	0	0	0	0	0	0
2008 TMP DR	TMP-DT	Location Dependent	0	0	0	0	0	0	0	0
2008 TMP DR	TMP-SLU	Required	0	0	0	0	0	0	0	0
2008 TMP DR	TMP-SLU	Recommended	0	0	0	0	0	0	0	0
2008 TMP DR	TMP-SLU	Location Dependent	0	0	0	0	0	0	0	0
2010 TMP DR	DR	Required	1	5	0	0	0	0	0	
2010 TMP DR	DR	Recommended	2	0	2	0	2	4	0	
2010 TMP DR	DR	Location Dependent	4	2	0	4	4	2	0	
2010 TMP DR	TMP	Required	1	3	0	0	0	0	0	1
2010 TMP DR	TMP	Recommended	2	0	0	0	1	1	0	1
2010 TMP DR	TMP	Location Dependent	2	0	0	0	3	0	0	1
2010 TMP DR	TMP-DT	Required	1	3	0	0	0	0	0	1
2010 TMP DR	TMP-DT	Recommended	2	0	0	0	1	1	0	1
2010 TMP DR	TMP-DT	Location Dependent	2	0	0	0	3	0	0	1
2010 TMP DR	TMP-SLU	Required	0	0	0	0	0	0	0	0
2010 TMP DR	TMP-SLU	Recommended	0	0	0	0	0	0	0	0
2010 TMP DR	TMP-SLU	Location Dependent	0	0	0	0	0	0	0	0
2012 TMP DR	DR	Required	1	5	0	0	0	0	0	
2012 TMP DR	DR	Recommended	2	0	2	0	2	4	0	
2012 TMP DR	DR	Location Dependent	4	2	0	4	4	2	0	
2012 TMP DR	TMP	Required	6	30	0	0	0	0	0	6
2012 TMP DR	TMP	Recommended	12	2	5	0	11	10	0	6
2012 TMP DR	TMP	Location Dependent	13	4	0	2	18	2	0	6
2012 TMP DR	TMP-DT	Required	1	5	0	0	0	0	0	1
2012 TMP DR	TMP-DT	Recommended	2	1	2	0	2	2	0	1
2012 TMP DR	TMP-DT	Location Dependent	1	0	0	0	3	0	0	1
2012 TMP DR	TMP-SLU	Required	5	15	0	0	0	0	0	5
2012 TMP DR	TMP-SLU	Recommended	10	1	3	0	9	8	0	5
2012 TMP DR	TMP-SLU	Location Dependent	12	2	0	2	15	2	0	5
2015 TMP DR	DR	Required	2	8	0	0	3	0	0	
2015 TMP DR	DR	Recommended	5	0	3	3	2	9	0	
2015 TMP DR	TMP	Required	28	101	0	0	40	1	0	14
2015 TMP DR	TMP	Recommended	44	0	4	1	0	40	0	14
2015 TMP DR	TMP-DT	Required	14	49	0	0	19	0	0	7
2015 TMP DR	TMP-DT	Recommended	22	0	2	1	0	16	0	7
2015 TMP DR	TMP-SLU	Required	14	52	0	0	21	1	0	7
2015 TMP DR	TMP-SLU	Recommended	22	0	2	0	0	24	0	7
										41

APPENDIX C

TRANSPORTATION MANAGEMENT PROGRAM FOR 520 WESTLAKE AVENUE N.

Return Address:

City Investors IX LLC
 505 Fifth Ave S
 Suite 900
 Seattle, WA 98104



20191010000817

MISCELLANEOUS Rec: \$132.50
 10/10/2019 12:45 PM
 KING COUNTY, WA

Please print or type information WASHINGTON STATE RECORDER'S Cover Sheet (RCW 65.04)

Document Title(s) (or transactions contained therein): (all areas applicable to your document must be filled in)

1. TMP Acknowledgement Form 2. _____
 3. _____ 4. _____

Reference Number(s) of Documents assigned or released:

Additional reference #'s on page _____ of document

Grantor(s) Exactly as name(s) appear on document

1. City Investors IX, LLC _____
 2. _____

Additional names on page _____ of document.

Grantee(s) Exactly as name(s) appear on document

1. City of Seattle SOCI _____
 2. _____

Additional names on page _____ of document.

Legal description (abbreviated: i.e. lot, block, plat or section, township, range)

Lots 8-14, Block 94, David T Denny's First
 Addition to North Seattle

Additional legal is on page 3 of document.

Assessor's Property Tax Parcel/Account Number

Assessor Tax # not yet assigned

198320-0180 198320-0170 198320-0196

The Auditor/Recorder will rely on the information provided on this form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

"I am signing below and paying an additional \$50 recording fee (as provided in RCW 36.18.010 and referred to as an emergency nonstandard document), because this document does not meet margin and formatting requirements. Furthermore, I hereby understand that the recording process may cover up or otherwise obscure some part of the text of the original document as a result of this request."

 Signature of Requesting Party

Note to submitter: Do not sign above nor pay additional \$50 fee if the document meets margin/formatting requirements

Transportation Management Program
Acknowledgement Form

September 25, 2019

Nathan Torgelson, Director
Seattle Department of Construction & Inspections
700 Fifth Avenue, Suite 2000
P.O. Box 34019
Seattle, Washington 98104-5070

**Re: TMP Acknowledgment Letter for
520 Westlake Avenue N (Block 38)
Master Use Permit No. 3017466**

Transmitted herewith is a fully executed Transportation Management Program (TMP) approved in writing by the Seattle Department of Construction and Inspections (SCDI) and Seattle Department of Transportation (SDOT).

Property owner's contact information:

City Investors IX LLC
505 Fifth Avenue S, Suite 900
Seattle, WA 98104

Applicant or agent's name and contact information:

Mike Woo
Vulcan Inc.
Phone: (206) 342-2251
MikeW@vulcan.com

Property Description:

PARCEL A:

LOTS 10, 11, 12 AND 13, BLOCK 94, DAVID T. DENNY'S FIRST ADDITION TO NORTH SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
EXCEPT THE NORTH 7.36 FEET OF SAID LOT 13;
AND EXCEPT THE WEST 12 FEET THEREOF HERETOFORE CONDEMNED IN KING COUNTY SUPERIOR COURT CAUSE NO. 47549 FOR WIDENING OF WESTLAKE AVENUE NORTH, AS PROVIDED BY ORDINANCE NO. 12023 OF THE CITY OF SEATTLE.

PARCEL B:

LOTS 8 AND 9, BLOCK 94, DAVID T. DENNY'S FIRST ADDITION TO NORTH SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
EXCEPT THE WEST 12 FEET THEREOF HERETOFORE CONDEMNED IN KING COUNTY SUPERIOR COURT CAUSE NO. 47549 FOR WIDENING OF WESTLAKE AVENUE NORTH, AS PROVIDED BY ORDINANCE NO. 12023 OF THE CITY OF SEATTLE.

PARCEL C:

THE NORTH 7.36 FEET OF LOT 13 AND ALL OF LOT 14, BLOCK 94, DAVID T. DENNY'S FIRST ADDITION TO NORTH SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
EXCEPT THE NORTH 11.36 FEET OF SAID LOT 14;
ALSO EXCEPT THE WEST 12 FEET OF SAID LOTS 13 AND 14, AS CONDEMNED IN KING COUNTY SUPERIOR COURT CAUSE NO. 47549, FOR WIDENING OF WESTLAKE AVENUE NORTH, AS PROVIDED BY ORDINANCE NO. 12023 OF CITY OF SEATTLE.

EXCEPT APPROXIMATELY THE EASTERN TWO FEET OF LOTS 8, 9, 10, 11, 12, 13, AND 14 ADJACENT TO THE MIDBLOCK ALLEY TO BE DEDICATED TO THE CITY OF SEATTLE.

Acknowledgement:

I, Ada M. Healey, the authorized representative for owner of the property described above, understand that I am required to implement a Transportation Management Program (TMP) imposed on Master Use Permit (MUP) number 3017466. Other MUP conditions unrelated to the TMP may apply to the proposal as specified by the Director's decision.

The attached TMP defines the goal and program elements that will be implemented to achieve the goal. I understand that these condition(s) by which the City has approved the project are effective for the life of the project and apply my company, and/or to future property owners.

Property Description:

PARCEL A:

LOTS 10, 11, 12 AND 13, BLOCK 94, DAVID T. DENNY'S FIRST ADDITION TO NORTH SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
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EXCEPT APPROXIMATELY THE EASTERN TWO FEET OF LOTS 8, 9, 10, 11, 12, 13, AND 14 ADJACENT TO THE MIDBLOCK ALLEY TO BE DEDICATED TO THE CITY OF SEATTLE.

Acknowledgement:

I, Ada M. Healey, the authorized representative for owner of the property described above, understand that I am required to implement a Transportation Management Program (TMP) imposed on Master Use Permit (MUP) number 3017466. Other MUP conditions unrelated to the TMP may apply to the proposal as specified by the Director's decision.

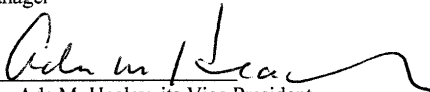
The attached TMP defines the goal and program elements that will be implemented to achieve the goal. I understand that these condition(s) by which the City has approved the project are effective for the life of the project and apply my company, and/or to future property owners.

TMP Acknowledgment Letter for
520 Westlake Avenue N (Block 38)
Master Use Permit No. 3017466
Page 3

I further understand that failure to achieve the goal(s) specified in the TMP and/or to comply with the requirements of the TMP shall be a violation of the permit condition(s) and will result in enforcement pursuant to the Seattle Land Use Code (SMC 23.90).

CITY INVESTORS IX LLC,
a Washington limited liability company

By: City Investors LLC,
a Washington limited liability company,
its Manager

By: 
Ada M. Healey, its Vice President

Attachments: Transportation Management Program
Director's Rule 27-2015

**Transportation Management Program (TMP)
for
520 Westlake Avenue N (Block 38)
Master Use Permit No. 3017466**

TMP Goal

Trips by employees, including all permanent, temporary and contract employees who work at least 20 hours per week on the site, and trips of office tenants who lease space in the building will achieve a single-occupancy-vehicle (SOV) goal of not more than **30% of all trips** by such employees. These will be measured as the percentage of trips that occur during the “AM Peak Period”, defined as the period between 6:00 A.M. and 9:00 A.M. on weekdays, consistent with the State of Washington’s Commute Trip Reduction (CTR) Act. This TMP applies to performance and programming of office space in the building; it does not apply to the retail and residential portions of this development.

Program Elements to be implemented to achieve goal

The TMP elements that will apply to this project are noted in the table below. Definitions for these elements, unless otherwise detailed by notes, are defined in the City of Seattle’s Director’s Rule 27-2015 (effective October 26, 2015).

	TMP Elements	Check all that apply	Notes
A. Program Management & Encouragement Activities			
1	Appoint Building Transportation Coordinator (BTC)	√	
2	BTC will attend at least 1 training per year	√	
3	Produce and distribute up-to-date commuter information	√	
4	Require tenant participation in the TMP	√	
5	Conduct periodic survey of TMP effectiveness, as established by SCDI and SDOT	√	
6	Submit regular reports about TMP elements as required by the City	√	
7	Participate in a transportation management association, where available	√	
8	Participate in transportation promotional and encouragement programs	√	
B. Building and Frontage Features (Physical Improvements)			
9	Install commuter information center in appropriate location	√	See detail below
10	Provide bicycle storage and amenities that meet City standards	√	See detail below

	TMP Elements	Check all that apply	Notes
11	Construct infrastructure improvements that are consistent with the City's <i>Design Guidelines</i> and <i>Design Review Process</i> , related to transit, bike, and pedestrian environment.		
12	Reduce parking supply below market demand rate for the type of land use and location		
13	Provide more bicycle parking than required by code	√	
14	Provide on-site commuter shower and locker facility	√	See detail below
15	Contribute to cost of providing on-site bike share stations		
C. Parking Management			
16	Charge for parking at market rate for the site's vicinity		
17	Set parking fee structure so that cost per hour for short-term parking does not exceed cost per hour for long-term parking		
18	Prohibit price reductions for all-day parking, for example "early bird" specials		
19	Unbundle parking from building leases	√	See detail below
20	Create flex-use parking passes that provide fewer days of parking than a monthly pass.	√	See detail below
21	Provide free parking for vanpools registered with a public agency.	√	See detail below
22	Provide reserved spaces for registered vanpools in convenient area that has adequate clearance and maneuvering space	√	See detail below
23	Provide parking discount for carpools		
24	Provide designated parking spaces for car share programs		
25	Participate in e-Park or other low-rate parking programs		
D. Transit, Carpool & Vanpool Programs			
26	Provide or require tenant to offer transit pass subsidy to employees who commute to the site by transit.	√	See detail below
27	Provide information about ride-match opportunities	√	See detail below
28	Offer guaranteed ride home program	√	See detail below
29	Provide subsidy to residents or employees for car-sharing program		
30	Provide shared vehicle/bicycle fleets for tenant use		
E. Bicycle/Walking Programs			
31	Offer incentive for commuters who bicycle or walk to work		
32	Offer programs for bicyclists such as safety training and bicycle maintenance	√	

	TMP Elements	Check all that apply	Notes
33	Provide or require tenants to offer bike share membership to all employees who work at the site		
F. Additional Incentives for Owner-Occupied Buildings			
34	Offer telecommuting program for employees (used at least once per week)		
35	Allow flexible working hours		
36	Provide subscription bus service or shuttle to site		

Program Details:

Element 9: Commuter Information Center (CIC)

Commuter information will be provided in the lobby of the building, and will include at a minimum, information about nearby transit routes (e.g., stop locations and schedules); vanpool program; on-site bicycle amenities; off-site bicycle facilities that connect to the site; and other TMP program services. The format and mechanism to distribute information will change over time, and could include displays, electronic kiosks, on-site staff, or alternative electronic formats such as intranet and/or smart phones. The information provided should be updated at least twice per year. The CIC shall display the name, telephone number, and office location of the Building Transportation Coordinator (BTC). The mechanism used to distribute commuter information and the information shall be described in the TMP reports to the City.

Element 10: Bicycle storage

The project shall provide 417 bicycle parking stalls (395 long-term stalls plus 22 short-term stalls). This exceeds the 121 bicycle parking stalls required by the Land Use Code (109 long-term plus 22 short-term). The long-term stalls will be located in the parking garage, and the short-term stalls will be located within the property.

Element 14: Commuter Shower and Locker Facility

The project shall provide at least 5 men's and 5 women's showers. Associated lockers and other bike-commuter amenities will be provided by the tenant or landlord as necessary. Stenciled signs will be provided directing bicyclists to the bike parking area within the garage.

Element 19: Unbundled parking lease

Vehicle parking stalls for commercial use will be unbundled from building leases except in the instance when the entire office space in the building is occupied by a single tenant.

Element 20: Flex-Use Parking Passes

Property manager and/or office tenant will charge a daily parking fee for all employees who park in the garage. Parking use will be monitored and peak pricing may be implemented to further promote the use of alternative transportation modes.

Element 21 and 22: Vanpool parking

Free parking shall be provided on site for employee vanpools formed through a transit agency. Vanpool parking will be provided in a convenient location within the garage.

Element 26: Transit subsidy

Office tenants that lease space in the building will be required to offer a transit subsidy equivalent to at least 50% of the cost of a King County Metro regional one-zone monthly pass to all permanent, temporary and contract employees who work a minimum of 20 hours per week at the site, commute at least three times per week during the AM Peak Period, and commute via transit, ferry (walk-on passengers only), and/or vanpools.

Element 27: Ride match opportunities. Office tenants that lease space in the building will utilize a commute management hub that allows employees to view and connect with each other for carpooling and vanpooling opportunities.

Element 28: Guaranteed Ride Home

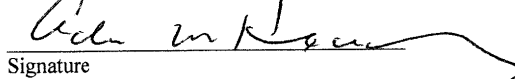
Office tenants will be required to offer reimbursement for emergency transportation home to all permanent, temporary, and contract employees who work a minimum of 20 hours per week at the site, on days they commute via transit, ferry (walk-on passengers only), and/or vanpools when they are required by their employer to work after available transit service has stopped or in an emergency.

This Agreement shall be valid only when signed and dated by all parties.

For Applicant:

Ada M. Healey

Name



Signature

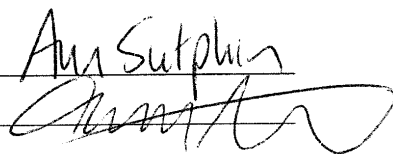
Vice President

Title

For SDOT

Name

Signature

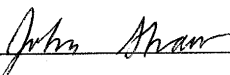


For SDCI

Name

Signature





APPENDIX D

2015 TRANSPORTATION MANAGEMENT PROGRAM DIRECTOR’S RULE (DPD27-2015; SDOT DR09-2015)

DPD	Director’s Rule 27-2015
SDOT	Director’s Rule 09-2015

Applicant: City of Seattle Department of Planning and Development Department of Transportation	Page 1 of 24	Supersedes: 10-2012
	Publication:	Effective:
Object: Transportation Management Programs	Code and Section Reference: Seattle Municipal Code (SMC) Chapters 23.04.040, 23.47A.012, 23.48.011, 23.48.017, 23.49.019, 23.52.008, 23.54.015, 23.54.016, 23.69.030, 23.69.034, 23.69.035, 23.71.018, 23.90, 25.05.675	
	Type of rule: Code Interpretation	
	Ordinance Authority: SMC 3.06.040	
Index: Land Use Codes/Environmental	Approved	Date
	(Signature on file) <u>10/26/15</u> Diane M. Sugimura, Director, DPD	
Index: Land Use Codes/Environmental	Approved	Date
	(Signature on file) <u>10/26/15</u> Scott Kubly, Director, DOT	

I. Purpose of this Rule

This Rule establishes the responsibilities of property owners, applicants, and proponents of projects (the “applicant”) subject to the Land Use Code or State Environmental Policy Act (“SEPA”) requirements to develop a Transportation Management Program (“TMP”).

City of Seattle Department of Planning and Development
 700 Fifth Avenue, Suite 2000, PO Box 34019, Seattle, WA 98124-4019

Diane M. Sugimura, Director

This Rule also identifies the ordinance authority and establishes the content, procedures, compliance, and reporting requirements of TMPs.

II. Background: Objective of TMPs and Connection to City Policy Goals

To enable sustainable economic growth, new development may be required to mitigate anticipated transportation or parking impacts by reducing peak-time single-occupant vehicle (“SOV”) trips. Alternative transportation modes to the SOV include transit, bicycling, walking, and high occupant vehicle (“HOV”) trips. Flex-time and telework can also be implemented to eliminate trips or move trips to off-peak periods.

Each approved TMP applies to a specific building or group of buildings. It includes a goal and program elements, to either reduce vehicle trips or parking impacts, or both vehicle trip and parking impacts, of a development for the building’s life-time.

III. Applicability

In general, proposed new developments of 100,000 square feet of gross floor area or greater of commercial, office, or retail uses must complete a TMP. Developments containing different uses or with less than 100,000 square feet of gross floor area may also be subject to a TMP if needed to mitigate impacts identified through SEPA review or through Land Use Code requirements.

IV. Authority

Seattle’s Environmental Policies and Procedures in Seattle Municipal Code (“SMC”) Chapter 25.05, which implement SEPA, authorize the Department of Planning and Development (“DPD”) to grant, condition, or deny land use permit applications that are subject to environmental review. In addition, the Seattle Land Use and Zoning Code (“Title 23 SMC”) contains requirements for certain projects to have a TMP. These include:

- Major Institutions, see SMC 23.69
- Certain SM-zoned areas, see SMC 23.48.017.F;
- Northgate Overlay District, see SMC 23.71; and
- Transportation Impact Mitigation for certain proposals not subject to SEPA environmental review, see SMC 23.52.008.

When a TMP is not required by the Land Use Code, DPD may exercise its discretionary authority to grant a permit subject to TMP conditions. The purpose of these conditions is to mitigate adverse traffic impacts, or parking impacts, or both, identified in the SEPA review or other Land Use Code-required reviews. The published Master Use Permit (MUP) decision or other permit decision will specify the TMP goal. Some decisions may also specify TMP elements, like a minimum transit subsidy or the maximum number of long-term parking spaces. Failure to comply with TMP conditions or to achieve the goals established by the TMP shall be a violation of this rule and the SMC. Violations may

subject the property owner or other responsible party to an enforcement action including civil penalties as provided by the SMC 23.90.018.

V. Coordination with Other Requirements and Processes

DPD and the Seattle Department of Transportation (“SDOT”) coordinate TMP requirements.

SDOT is also responsible for implementing the Washington State Commute Trip Reduction (“CTR”) requirements. Under SMC 25.02, employers with 100 or more employees commuting to a single worksite during the A.M. peak must comply with CTR requirements. Businesses affected by CTR requirements are not exempt from implementing a TMP if they occupy a building subject to TMP requirements. In this case, both CTR and TMP requirements apply.

TMP Elements that provide physical building or frontage improvements (infrastructure) should be coordinated with the City’s Design Review process according to SMC 23.41.

The City will review TMP Elements considering applicable studies and plans, such as the City of Seattle Comprehensive Plan, and adopted modal plans (Bicycle, Pedestrian, and Transit Master Plans).

VI. TMP Process and Responsibilities

Table 1 outlines typical steps and responsibilities associated with all parties’ actions to establish and monitor compliance with the conditions listed in a TMP and the applicant’s responsibility for establishing and maintaining the TMP. Some steps and their related ongoing responsibilities are further discussed in later sections of this rule.

Table 1. Steps for Establishing and Implementing a TMP

Steps	Responsible Party
Prior to Permit Issuance (one-time actions)	
1. Before DPD issues a MUP or other permit for any project requiring a TMP, the property owner shall record an acknowledgment of the permit conditions in the manner prescribed by the City. See Attachment A.	Applicant
2. DPD publishes a Director’s Decision or other permit with conditions requiring a TMP to mitigate traffic and parking impacts. DPD with input from SDOT will specify the TMP goal. See Section VII-A for further guidance on TMP goal structure.	DPD
3. In consultation with the City, the applicant prepares a TMP stating the goal and detailing the elements that will be implemented to achieve the goal. A standard form for the TMP will be provided by DPD. Physical elements required by the Director’s Decision should be both listed in the TMP and included on plans for the project’s building permit. The applicant submits this draft TMP to DPD and SDOT. See Section VII-B for further guidance on TMP elements.	Applicant
4. DPD and SDOT review the draft TMP and building permit plans to determine compliance with the Director’s Decision. The City may request additional elements or modification of proposed elements to determine the TMP goal can be met. Following any necessary revisions, DPD and SDOT will make a decision on the applicant’s TMP.	DPD and SDOT
5. After the TMP has been approved by DPD, the applicant shall record the TMP with King County Records and Elections Division, and submit a copy of the recorded TMP to DPD and SDOT. Typically, the building permit cannot be issued until the TMP is recorded, as provided in the MUP Decision. See Section IX for further guidance on TMP recording requirements.	Applicant
Post-Occupancy (ongoing responsibilities)	
6. The applicant/responsible party shall provide tenants, agents, and representatives with a copy of the TMP as part of leasing documents and building management procedures, and require tenants to comply with its conditions.	Applicant/Responsible Party
7. The City shall establish a reporting schedule, and communicate it to the applicant/responsible party. The applicant/responsible party shall conduct TMP-required surveys and produce regular reports at the applicant’s expense in a manner and form prescribed by the City. See Section X for further guidance on TMP Reporting and Compliance monitoring.	DPD, SDOT and Applicant/Responsible Party

<p>8. SDOT is responsible for monitoring compliance with the TMP requirements established by the Director's Decision. The applicant/responsible party shall facilitate the City's inspections of the site and program materials. See Section X for further guidance on TMP Reporting and Compliance monitoring.</p>	<p>DPD, SDOT and Applicant/Responsible Party</p>
<p>9. If the TMP goal is not being met, DPD may require revisions to the TMP in order to meet the TMP goal. DPD may also pursue enforcement actions as provided by the SMC. Whenever the City requires changes to a TMP the applicant shall: (1) submit a letter acknowledging the changes, (2) record copies of the new documents with the King County Records and Elections Division, and (3) file copies of the letter and revised TMP or Memorandum of Agreement with SDOT and DPD. See Section XI for further guidance on TMP revisions.</p>	<p>DPD, SDOT and Applicant/Responsible Party</p>

VII. TMP Composition

TMPs typically include a SOV goal and a list of program elements to be employed in the building by the owner and tenants to achieve that goal. The applicant/responsible party is expected to implement all program elements that are necessary to meet the TMP goal and have been identified in the recorded TMP.

A. TMP Goal

The City establishes a TMP goal that a building shall meet and maintain for the life of the project to mitigate traffic and parking impacts of the project. Impacts of other planned projects, existing transportation conditions in the vicinity, and TMP goals identified in the Land Use Code where applicable, shall be considered in establishing a goal. A TMP goal is typically a target maximum percentage of regular SOV trips to or from the work-site during the peak period. The goal measures employee, and student trips if relevant.

Additional considerations in setting a TMP SOV goal may include:

- Range of available transportation options in the vicinity;
- Related goals set by the City through the Seattle Department of Transportation's Commute Trip Reduction program;
- SOV goals adopted in the City's Comprehensive Plan; and
- Current SOV rates of nearby TMP conditioned buildings.

B. Program Elements

TMP elements are listed in Table 2 and defined more fully in Section VIII. Further TMP elements not described here may be necessary to meet the TMP goal and are identified on a project-by-project basis through negotiation between the applicant and the City.

All TMP elements, whether listed in this rule or not, must be described in sufficient detail in the approved TMP to define the responsibility of the applicant/responsible party and clarify the intent and exact components of the element.

C. Project-Level Applicability of Program Elements

Table 2 provides a template that categorizes TMP elements as required or recommended for a project. After the TMP is approved, all elements in the TMP become required elements.

- **Required for all projects:** Unless modified in the Director's Decision, these TMP elements shall be included in all TMPs.
- **May be recommended:** These elements may be recommended, based on site-specific conditions and geographic context, to meet the TMP goal. Further guidance about the conditions that may cause an element to be recommended for a particular project is provided in Section VIII.

Table 2. TMP Elements

	TMP Elements	Project-Level Applicability	
		Required for All Projects	Recommended
A. Program Management & Encouragement Activities			
1	Appoint Building Transportation Coordinator (“BTC”)	√	
2	BTC will attend at least 1 training per year	√	
3	Produce and distribute up-to-date commuter information	√	
4	Require all tenants to participate in the TMP	√	
5	Conduct periodic surveys of TMP effectiveness, as established by DPD and SDOT	√	
6	Submit regular reports about TMP elements as required by the City	√	
7	Participate in a Transportation Management Association, where available	√	
8	Participate in transportation promotion and encouragement programs	√	
B. Building and Frontage Features (Physical Improvements)			
9	Install commuter information center in an appropriate and central location	√	
10	Provide bicycle storage and amenities that meet City standards	√	
11	Construct infrastructure improvements that are consistent with the City’s <i>Design Guidelines and Design Review Process</i> , related to the transit, bike and pedestrian environment		√
12	Reduce parking supply below market demand for the type of land use and location		√
13	Provide more bicycle parking than required by code		√

	TMP Elements	Project-Level Applicability	
		Required for All Projects	Recommended
14	Provide on-site commuter shower and locker facility		√
15	Contribute to cost of providing on-site bike share stations		√
C. Parking Management			
16	Charge for parking at or above market rate for the site's vicinity		√
17	Set parking fee structure so that cost-per-hour for short-term parking does not exceed cost-per-hour for long-term parking		√
18	Prohibit price reductions for all-day parking, for example "early bird" specials		√
19	Unbundle parking from building-space leases		√
20	Create flex-use parking passes that provide fewer days of parking than a monthly pass		√
21	Provide free parking for vanpools registered with a public agency		√
22	Provide reserved spaces for registered vanpools in convenient area that has adequate clearance and maneuvering space		√
23	Provide parking discount for carpools		√
24	Designate car share parking, and allow public access where possible		√
25	Participate in e-Park or other low-rate parking programs		√
D. Transit, Carpool & Vanpool Programs			
26	Provide or require tenants to offer transit pass subsidy to employees who work at the site	√	
27	Provide information about ride-match opportunities	√	
28	Offer a guaranteed ride home program	√	
29	Provide subsidy to employees for car-sharing program		√
30	Provide shared vehicle/bicycle fleets for tenant use		√

	TMP Elements	Project-Level Applicability	
		Required for All Projects	Recommended
E. Bicycle/Walking Programs			
31	Offer incentive for commuters who bicycle or walk to work		√
32	Offer programs for bicyclists such as safety training and bicycle maintenance		√
33	Provide or require tenants to offer bike share membership to all employees who work at the site		√
F. Additional Employer-based Incentives for Owner-Occupied Buildings			
34	Offer telecommuting program for employees (used at least once per week)		√
35	Allow flexible working hours		√
36	Provide subscription bus service or shuttle to site		√

VIII. TMP Program Elements: Intended Purpose and Description

The objectives, implementation expectations, and further description of all TMP Elements listed in Table 2 are outlined in this section. All of the elements are aimed at providing building tenants and their employees with incentives to use options other than driving alone to work during peak-periods.

A. Program Management & Encouragement Activities

Communicating effectively to building tenants and implementing encouragement strategies are critical to the success of every TMP. Sharing information is essential in helping individuals know what transportation options are available and how they can use them to influence people's choices about how to travel to and from work, and to conduct workday errands.

1. The Building Transportation Coordinator (BTC) required by the TMP is responsible for sharing commute options information with building tenants, and surveying building occupants and reporting TMP effectiveness to the City. The BTC is a permanent staff position assigned to administer the requirements of the TMP. The BTC should receive support and direction from building management, and attend any training that enables the BTC to carry

out these responsibilities effectively. The BTC must attend at least one formal training annually. The BTC may delegate tasks required to administer the TMP to a third party, such as a Transportation Management Association, but shall remain responsible for coordinating TMP compliance. As part of TMP reporting requirements, the name, phone number, fax number, and email address of the BTC shall be filed with the City and updated if the designated BTC changes.

Applicability: Required for all projects.

2. BTC will attend one training per year. Approved BTC trainings are hosted by SDOT or its agents. Trainings provide BTCs with practical tools to maximize employee, tenant, and management value of on-site and nearby transportation amenities, and to perform effective tenant surveying and TMP effectiveness reporting. See above for further details on the role of a BTC.

Applicability: Required for all projects.

3. Produce and distribute up-to-date commuter information. Information shall include a description of all TMP program elements available to individuals commuting to the building, and how to access them, including:
 - Transportation options available close to the building;
 - Current transportation benefits offered to building tenant employees, such as transportation subsidies;
 - Available HOV programs and discounts;
 - Bicycling amenities; and
 - Other elements of the TMP, as applicable.

Commuter information shall be accessible to all building tenants and their employees at any time through the building website/web-based portal and in paper form. The same information shall also be available in the building's Commuter Information Center (see element B-9). New tenants and new employees of all tenants shall receive commuter information prior to or upon occupancy, as part of the building and employee on-boarding process, and again for a total of twice per year. Published information shall be updated as conditions change, with notification provided to all tenants and their employees. A copy of the current commuter information materials shall be included with the TMP in reports to the City.

Applicability: Required for all projects.

4. Require tenant participation in TMP. The TMP requirements apply to the entire building. Tenants are required to meet the TMP goal and implement the TMP requirements for the life of the project, and should work cooperatively with the BTC so that the building is able to meet these requirements.

Applicability: Required for all projects.

5. Conduct a regular periodic commuter survey. The survey, conducted at least every two years, is used to evaluate whether the building is achieving its TMP goal. The survey shall be conducted at the building owner or responsible party's cost. The survey questionnaire shall be provided by the City. The building owner or responsible party is responsible for distributing the survey to the building tenants. A survey response rate of at least 50% is expected. The City shall process and share the survey results and analysis with the BTC. The City shall evaluate report and survey results to determine if the goal has been achieved, and in what way the responsible party may improve the TMP or other trip reduction programs at the site in order to meet the TMP goal. More frequent reporting may be required for sites that fail to meet the TMP goals.

Applicability: Required for all projects.

6. Submit regular TMP program element reports to the City. The City shall define the reporting period. Each report will describe the current TMP and include copies of TMP program related information distributed at the site during the year immediately preceding the report.

Applicability: Required for all projects.

7. Participate in a Transportation Management Association ("TMA") or similar organization, formed for the purpose of promoting trip reduction and improving transportation choices, where such associations are available. A TMA may provide services that assist the BTC with TMP responsibilities like coordinating tenants' participation, preparing and disseminating commuter information packets, surveying employees and customers, managing transit pass subsidies, and hosting promotional events.

Applicability: Required for all projects in locations where a TMA is active. SDOT maintains a list of active TMAs on its TMP webpage.

8. Participate in promotional programs associated with the City's current CTR programming, which provides additional information or incentives related to alternative modes of travel. The City's CTR program is managed by SDOT.

Applicability: Required for all projects.

B. Building and Frontage Features (Physical Improvements)

Physical improvements enhance tenant access to a full range of transportation options and reduce reliance on SOV travel to and from work. Improvements include amenities that allow for easier use of transportation alternatives, seamlessly connect the building and the public transportation system, and information-sharing amenities.

9. Install a Commuter Information Center (“CIC”) to provide up to date information about the nearby commute options, and a building’s transportation program. A CIC can be a bulletin board or electronic kiosk that is located in a highly-visible and accessible area of a building. The CIC shall include regularly updated information on:
- Nearby travel modes, including schedules for public transportation options that serve the location, including transit, bike share, and car share services;
 - Ride-match programs and services;
 - Location of cycling and pedestrian amenities;
 - Price and availability of HOV parking;
 - Web links to or detailed information of the buildings’ transportation program;
 - Name, telephone number, and office location of the BTC; and
 - Other materials and information that enhances access and mobility to the site.

Applicability: Required for all projects.

10. Provide bicycle storage and associated amenities that meet City standards and that are attractive for tenants to use by being easy to access, protected from the elements, safe to use, and secure from theft. Consider the following:
- Accessibility:
 - Locate bicycle parking so that it is at least as accessible as the most conveniently located vehicle parking (if provided);
 - Provide wayfinding to, and tenant information about, parking location; and
 - Provide parking access that is separate from vehicular entry and egress points.
 - Protection from the elements: covered from weather, on all sides; and
 - Safety:
 - Provide a well-lit parking area and approach;
 - Provide parking in a locked room or cage, or in bike lockers; and
 - Provide a high quality rack type that can be used to effectively lock bicycles to.

Other amenities to encourage bicycle use can include maintenance facilities such as a work bench, tools, air pumps for tires, and a bike share program.

Applicability: Required for all projects.

11. Construct infrastructure improvements that increase pedestrian, bike and transit accessibility. Improvements must be consistent with the Design Review Board recommendations, and approved in the MUP. Potential improvements include but are not limited to the following:
- Enhanced transit shelters

- Integrated shelters as part of building façade;
- Covered passenger waiting areas;
- Benches or lean rails in passenger waiting areas;
- Enhanced sidewalk areas;
- Pedestrian and bicycle connections to transit;
- Safe bicycle access routes;
- Illumination; and
- Wayfinding features, including for bicycle parking, and pedestrian, bike, or transit route access. In neighborhoods where wayfinding master plans have been adopted, signs should be designed to match.

Applicability: These improvements are location-dependent, and based on City Design Review and zoning review processes. For example, buildings that abut roads served by transit or that are in close proximity to Seattle's bicycle or pedestrian network should include appropriate mode-supportive infrastructure. Any site infrastructure associated with the MUP that is meant to achieve the TMP goal should be included in the TMP.

12. Reduce vehicle parking supply below market demand for the type of land use and location, to help achieve TMP goals. TMP elements can reduce the need for parking by reducing demand. Parking supply is a key determinant of whether an employee will drive alone to work; an over-supply of parking may work against achieving a TMP goal.

Applicability: May be recommended to meet TMP goal, particularly for buildings located in high-density areas, or in close proximity to high-frequency transit service, or that are projected to create a high number of recurring trips to the building, or any combination of the above.

13. Provide bicycle parking above the amount required by the Land Use Code to ensure that there is adequate bicycle parking for all tenants who would like to ride their personal bike to work. The applicant may increase the amount of bicycle parking required by the code in order to meet projected demand.

Applicability: May be recommended to meet TMP goal for buildings located in high-density areas, in close proximity to public cycling infrastructure, that plan to rely on cycling to meet non-SOV trip goals, or any combination of the above.

14. Provide shower and locker facilities to support tenant's use of active transportation. Provide at least one shower and changing facility, and at least four mid- to full-size lockers, either for short-term daily storage, long-term overnight storage, or both; for every 50,000 square feet of building floor space. Shower, locker, and changing facility requirements may be met by providing access to shower facilities at an adjacent health club or similar facility within 600 feet of the property. The showers shall meet any applicable requirements specified in the Land Use Code.

Applicability: May be recommended to meet TMP goal, particularly for buildings located close to public cycling infrastructure or buildings over 100,000 square feet.

15. Contribute to the cost of providing on-site public bike sharing stations, which will provide a further commute alternative to building tenants, and improve first- and last-mile connectivity to transit. Seattle’s public bike share system is based around a network of bicycles located at static docking stations. Members can rent and return bicycles to any dock within the City network, which has numerous locations close to transit stops.

Applicability: May be recommended to meet TMP goal for buildings within the current or planned bike share service area.

C. Parking Management

An oversupply of low cost all day parking may induce demand for driving, and thus contribute to congestion. Vehicles circling and looking for parking also contribute to congestion. The following elements are parking management strategies that use pricing and wayfinding in order to create disincentives for commuter parking and reduce circling for parking, while also maximizing the value and capacity of a building’s off-street parking.

16. Charge market rate or above for all parking in the building. Fees for parking a single-occupant vehicle should be at current market rates, or above, for the site’s vicinity and should not be offered at a discount for building tenants. Cost perception is a significant decision factor in commute choice; making the cost of parking visible to the user enables cost comparisons among all transportation options.

Applicability: May be recommended to meet TMP goal for buildings located in high-density areas.

17. Set parking fees to encourage short-term parking. The hourly rate charged for short-term parking, customers, visitors, or patients who park for four hours or less, should be less than or equal to the equivalent hourly rate charged for long-term parking, those who park for six or more hours.

Applicability: May be recommended to meet TMP goal for buildings located in areas with high levels of traffic congestion where there are limited on-street parking options.

18. Prohibit price reductions for all-day parking. There should be no discounted or favorable pricing for long-term parking, for example “early bird specials.”

Applicability: May be recommended to meet TMP goal, particularly in areas served by high-capacity transit and cycling infrastructure.

19. Unbundle parking from building-space leases. The applicant should not “bundle” the price of parking spaces into the price paid by the lessee for building space. The cost should be a separate, optional, line-item in the lease.

Applicability: May be recommended to meet TMP goal, particularly in areas with high levels of traffic congestion.

20. Create “flex-use” parking passes. Full-month parking passes give people a financial incentive to drive to work every day, and may work against achieving a TMP goal. By offering a flexible half-month pass, pay-as-you-go parking debit accounts, ticket books, or other on-demand parking options, commuters can drive on the days they need to, but have the option of taking transit, carpooling, walking or biking when convenient through the month. Daily in-and-out parking privileges should be equivalent to monthly-priced commuters.

Applicability: May be recommended to meet TMP goal in buildings where monthly parking is being considered.

21. Provide free parking for registered vanpools. Vanpools registered with a public transit agency should park off-street free of charge.

Applicability: May be recommended to meet TMP goal, particularly for TMP buildings not located close to high-capacity transit service and will therefore rely heavily on rideshare options to meet the TMP goal.

22. Provide reserved parking spaces for registered vanpools in preferred locations. Preferred parking spaces are those considered the most desirable, including those closest to elevators, the building's lobby or main entrance, or garage exits. Reserved spaces should be marked and signed, and should have adequate clearance and maneuvering spaces along the access and egress routes.

Applicability: May be recommended to meet TMP goal, particularly for TMP buildings not located close to high-capacity transit service and therefore relying heavily on rideshare options to meet the TMP goal.

23. Provide parking discount for carpools. Parking operators may offer lower prices as short-term promotions or introductory rates for newly-formed carpools. Discounts should be structured so that carpools of three or more people receive a higher discount than two-person carpools.

Applicability: May be recommended to meet TMP goal, particularly for TMP buildings not located close to high-capacity transit service and therefore relying heavily on rideshare options to meet the TMP goal.

24. Provide designated space for car share programs. Provide one or more parking spaces for car-sharing vehicles like Zipcar. Allow public access where possible.

Applicability: May be recommended to meet TMP goal, particularly in areas with high-demand for car share vehicles.

25. Participate in e-Park parking guidance system and low-rate visitor parking programs, where available, to maximize visibility of off-street parking to short-term visitors and reduce congestion caused by motorists circling while looking for a parking space.

Applicability: May be recommended to meet TMP goal in either current or planned e-Park guidance system service areas, with high levels of traffic congestion, or with limited on-street parking options, or both.

D. Transit, Carpool & Vanpool Programs

Transit incentives like providing transit pass subsidies and participating in transit promotions can support the building meeting its TMP goal by leveraging its proximity to transit service. Fostering connections between potential rideshare candidates, providing preferential HOV parking, and participating in ride-share promotions are ways to leverage City car and vanpool services to contribute to meeting the buildings' TMP goal.

26. Provide or require tenants to offer a transit pass subsidy to employees who work at the site. A range of subsidy levels are possible through the ORCA card system. TMP buildings shall provide a minimum subsidy of 50%.

Applicability: Required for all projects.

27. Provide ride-match information to building tenants. Information is available through King County Metro and other transit agencies. The BTC is responsible for assisting tenants and their employees with implementing ride-match programs. These programs match employees with potential carpool, vanpool, and vanshare mates who live in close proximity. Ride-match information may be posted through a building's internet page or by promoting employee use of Rideshare Online.com.

Applicability: Required for all projects.

28. Offer a guaranteed ride home program, which serves commuters who use alternative forms of transportation but need to get home quickly in an emergency or after available transit service has stopped. The ride home can be

by taxi, company-owned vehicle, or car-sharing vehicle, or could be offered through an ORCA contract. The number of rides available per month or year may be limited.

Applicability: Required for all projects.

29. Provide subsidy to employees for car-sharing program to encourage employees to try a service.

Applicability: May be recommended to meet TMP goal.

30. Provide shared vehicle/bicycle fleets for tenant use. A car or bike share program involves providing on site at least one general purpose vehicle or bicycle either for free, or at low cost, for employees to use for work or personal purposes during work hours. The programs support non-SOV commuting by providing an alternative to using personal vehicle for errands during the work day.

Applicability: May be recommended to meet TMP goal.

E. Bicycle/Walking Programs and Amenities

Commuting by active transportation is growing. Biking and walking-related TMP elements should be packaged and reported in a manner that demonstrates how they contribute to meeting the building TMP goal.

Participating in bicycle promotions, providing bicycle-supportive infrastructure, and implementing other commute-by-bike incentives can help bicycle commuting contribute to meeting a building TMP goal, especially for buildings in close proximity to public bicycling infrastructure, or planned improvements, as discussed in Seattle's Bicycle Master Plan. Promoting walking through on-site programming and providing shower and locker infrastructure can help promote walking to work and first- and last-mile on-foot connectivity to transit, and contribute to meeting a building TMP goal. Walking program elements are particularly important for buildings that abut designated pedestrian zones, or that are within Seattle Pedestrian Master Plan designated high priority areas.

31. Offer financial or other incentives for commuters who bicycle or walk to work. This could take many forms, including reimbursing employees who walk or bike to work up to the value of the monthly transit subsidy. This type of incentive program can be easily managed through third-party software.

Applicability: May be recommended to meet TMP goal, particularly for buildings located in close proximity to public cycling infrastructure, that abut designated pedestrian zones, or that expect to meet their TMP goal in part through employee use of non-motorized commute alternatives.

32. Offer programs for bicyclists such as safety training and bicycle maintenance.

A bike maintenance program may include vouchers for employees for yearly bike tune-ups, having supplies on site for basic self-repairs like bike pump, patch kit, hex wrenches, or sponsoring bike safety and maintenance workshops.

Applicability: May be recommended to meet TMP goal, particularly for buildings located in close proximity to public cycling infrastructure, or expect to meet their TMP goal in part through employee use of non-motorized commute alternatives.

33. Provide or require tenants to offer bike share membership to employees.

Seattle's public bike share system enables members to rent and return bicycles to any docking station within the City network. Bike share is an alternative to owning and maintaining a personal bicycle, and a way to augment a transit trip by providing first- and last-mile connectivity between mass-transit hubs and workplace destinations.

Applicability: May be recommended to meet TMP goal, particularly for buildings within the bike share service area.

F. Additional Incentives for Owner-Occupied Buildings

Other elements that can reduce commuter reliance on SOV travel, and contribute to meeting a building TMP goal, like the ones listed below, are generally most successful when implemented in owner-occupied buildings or in buildings where all employers are required to participate.

34. Offer telecommuting program by allowing employees the ability to work from home at least once per week.

Applicability: May be recommended to meet TMP goal for commercial office buildings, in which telework is appropriate to the types of job functions performed in the building.

35. Allow flexible working hours. Flexible start/end times enable employees to meet transit and ride-share schedules.

Applicability: May be recommended to meet TMP goal for commercial office buildings, in which flexible schedules are appropriate to the types of job functions performed in the building.

36. Provide subscription bus or shuttle service that employees can use to reach transit hubs, major destinations, and/or run midday errands.

Applicability: May be recommended to meet TMP goal, particularly for

owner-occupied buildings with other Seattle or Puget Sound area business locations that will generate regular inter-building employee traffic.

IX. TMP Recording Requirement

Unless otherwise specified in the Conditions of Approval, the TMP must be recorded against the property before DPD issues a building permit. The TMP is recorded with the King County Records and Elections Division. Copies of the recorded TMP must be sent to DPD and SDOT.

X. TMP Reporting & Compliance Monitoring

Periodic and preferably biennial surveying of the TMP Goal achievements and Element implementation is required for all TMP-conditioned buildings. SDOT is responsible for determining that surveys are properly conducted. A response rate of 50% is expected.

XI. TMP Revisions

The formal process for revising a TMP depends on how the original TMP was established. For a TMP where the Director's Decision (establishing the TMP requirements) specifies only the TMP goal, and no program elements, any elements may be modified by written agreement between the applicant and the City.

Some TMPs have elements that are specific conditions in the Director's Decision. The elements specified in the original Decision are a component of that Decision. Thus, if the elements in the original permit are sought to be modified by the City or applicant, City Land Use Code requirements would apply and the Decision would need to be republished. If a Director's Decision is republished, the code typically requires public notice and an opportunity to appeal the decision. This would not be an issue for elements that were subsequently added to the original list of elements because these later elements are not components of the Director's MUP decision.

An applicant may seek changes to a TMP goal or elements at any time following initial implementation of the TMP. In addition to any notice and appeal requirements that may apply, DPD and SDOT must approve in writing any modifications to the TMP. The revised TMP must be submitted to DPD and SDOT for approval and re-recorded before it is implemented.

Modifications to TMPs developed as part of Major Institution Master Plans (MIMPs) must follow the processes required in SMC Chapter 23.69 for general revisions to the master plan.

XII. Documentation for a new Transportation Management Association (TMA)

A new TMA must submit documentation to DPD and SDOT describing: its staff experience; affiliation with other organizations; mission statement, goals, and objectives; a strategic plan describing proposed service area and services offered; and a financial plan. The DPD and SDOT Directors will evaluate TMA submittals for approval using the following criteria: suitability of TMA goals and objectives with regard to the purpose of a TMP; support of the TMA's mission from member employers; progress toward the development and successful deployment of the TMA's strategic plan; and financial management systems including financial stability.

XIII. Definitions and Acronyms

“BTC” means a Building (or Institution) Transportation Coordinator.

“Carpool” means a motor vehicle occupied by two or more adults that commute together on a regular basis with a common origination and destination.

“CIC” means a Commuter Information Center.

“CTR” means the Commute Trip Reduction Law, RCW 70.94.521-555 and SMC 25.02 that requires major employers to develop and implement a commute trip reduction program, and regularly report to the City.

“Employee” means all permanent, temporary and contract employees who work a minimum of 20 hours per week at the site, commute at least three times per week during the AM Peak Period (measured as the percentage of trips that occur between 6:00 a.m. and 9:00 a.m., consistent with the State of Washington’s Commute Trip Reduction [CTR] Act).

“e-Park” means a real-time parking guidance system that provides wayfinding and parking availability information to motorists via dynamic message signs and on the web.

“HOV” means a high-occupancy vehicle and includes any modes of travel carrying two or more people, including but not limited to carpools, vanpools, transit, and custom bus service.

“Land Use Code” means Section 23 of the Seattle Municipal Code.

“Low-rate visitor parking programs” means programs that offer special rates, generally less than on-street or a flat-rate, for either short-term stays or nights and weekends, and may be marketed through a partnership between participating buildings and a neighborhood association.

“Major Institution” means an institution, which, by nature of its function and size, dominates and has the potential to change the character of the surrounding area or create