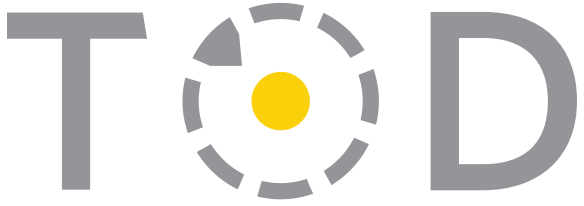


LIVING CONNECTED

UTA

Collaborative Process

The UTA TOD Strategic Plan has been created in collaboration with a variety of stakeholders along the Wasatch Front Region. The creative process has been led by a Project Team that involved Utah Transit Authority and the two Metropolitan Planning Organizations along the Wasatch Front. This team has been responsible for creating the basic framework and concept of the strategic plan, as well as organizing additional engagement events and activies, including focus groups with public and private stakeholders and a peer agency review.

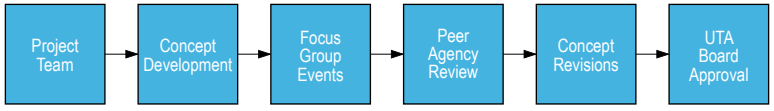


Fig 0.1 - Collaborative Process

Because of this collaborative process, the UTA TOD Strategic Plan represents a way in which various stakeholders from around the region can work collectively to bring the vision of transit-oriented development to fruition.

Project Team

UTA - Paul Drake, Jordan Swain, G.J. Lebonte, Levi Roberts, Ali Oliver

WFRC - Megan Townsend, Julia Collins

MAG - Chad Eccles

Acknowledgements

Regional Partners

WFRC - Ted Knowlton, Julie Bjornstad, Scott Hess, Jon Larsen, Andy Li, Callie New - MAG - Jim Price, Tim Hereth, Susan Hardy - Envision Utah - Shane Woods - University of Utah - Reid Ewing

Local Partners

Salt Lake County - Wilf Sommerkorn - Provo City - Bill Peperone - Bountiful City - Chad Wilkinson, Beth Holbrook - Farmington City - Dave Peterson, Eric Anderson - Weber County - James Ebert - Roy City - Steve Parkinson - Brigham City - Paul Larsen - West Valley City - Nicole Cottle

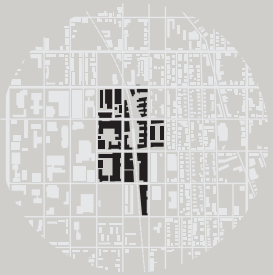
Development Community

Cowboy Partners - Dan Lofgren - Salt Development - Thomas Vegh - Form Development - Keith Smith, Chris Zarek - Daybreak - Stephen James - Hamilton Partners - Bruce Bingham - Boulder Ventures - Jeff Vitek, Sherry DeVoge - Giv Group - Chris Parker - Creasote - Bryce Baker

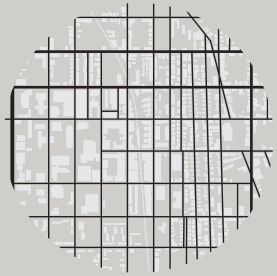
Table Of Contents

EXECUTIVE SUMMARY

The Wasatch Front is experiencing rapid growth and is considered one of the fastest growing regions in the United States. By the year 2050 the population along the Wasatch Front is expected to increase from 2.3 million to 4 million residents. The majority of this growth is expected to occur within a relatively small, linear area defined on either side by a series of mountains and lakes. If this growth continues without exploring alternate transportation and land use possibilities, traffic and congestion will increase, open and wilderness spaces used for recreation will be depleted, the quality of air and water will deteriorate, and families will be subject to serious health risks.



Compact



Accessible

Mixed

The Wasatch Choice 2040/50 Vision is a plan that accounts for and addresses projected changes along the Wasatch Front by identifying transportation corridors and preferred growth centers. It seeks to establish a vision, supported by the Regional Community, through scenario planning. Using baseline projections, Wasatch Front Regional Council and Mountainland Association of Governments work with their respective communities to understand how changes in growth patterns will affect the environment, public health, traffic, and other areas of interest. After assessing various growth scenarios, a preferred scenario is identified as the Regional Vision.

According to the Regional Vision, communities along the Wasatch Front prefer centered growth instead of low-density sprawl. Centered growth consists of areas that are more compact and intense than their surroundings. Because of the increase in compactness and intensity, centers tend to be more active, socially equitable, and accessed by a variety of transportation options. Transit-Oriented Development is centered growth that occurs near a transit station, and is designed to increase access to and from transit. UTA is sensitive to the regional priorities represented in the Wasatch Choice 2040/50 Vision and plays an important role in bringing the vision to fruition.

UTA manages 72 fixed stations along the Wasatch Front and operates Commuter Rail, Light Rail, and Streetcar services. Connecting to these stations are 111 bus routes that enable patrons to travel from stations to more specific locations. UTA owns a total of 442 acres of property within ½ mile of 36 of these stations, 14 of which are Commuter Rail stations and 22 of which are Light Rail Stations. The majority of property owned by UTA is currently being used as surface parking, bus loops, drop-off areas, and other uses that may be easily consolidated and incorporated into more active developments.

In order for UTA to develop properties that it owns, it is necessary for UTA to collaborate with regional partners, local municipalities and the development community. As a public entity, UTA is committed to remaining transparent throughout the development process. Through various planning and community engagement efforts, UTA is able to identify development scenarios that are preferred by their respective communities. Using these planning materials UTA is then able to work with its partners to ensure that individual developments are implemented in a way that is appropriate for the respective communities in which they occur.

The processes and procedures contained in this document are intended to strengthen the relationships between UTA, its regional and local partners, the private development community, and communities along the Wasatch Front. By adhering to the open processes contained herein, UTA is able to facilitate public-private partnerships. The process has been structured to allow both flexibility and consistency within each development project, and allow UTA to collaborate seamlessly with its development partners.

By encouraging and advocating for high-quality development near the regional transit system, UTA helps create environments that allow people to live, work, and recreate without the necessity of an automobile. As more of these environments are created, and stations are surrounded by vibrant, meaningful destinations, more of the population will choose to rely on transit. The effect of this will be a region with cleaner air, healthier people, access to jobs and opportunities, and a better standard of living.

SECTION 1

Regional Trends

Introduction

Although still in its infancy, the concept of Transit-Oriented Development ("TOD") is becoming widely accepted along the Wasatch Front. The purpose of this document is to establish the significance of multi-modal development centers around the region's transit hubs and define the role of the Utah Transit Authority ("UTA") in implementing TOD. This strategic plan is based upon projections and principles identified in the Wasatch Choice for 2040/50 regional vision, values of local municipalities, and regional transit objectives identified by the UTA Board of Trustees.

Addressing regional growth requires the dedication of a variety of stakeholders. This strategic plan is the result of a collaboration between the Wasatch Front Regional Council ("WFRC"), Mountainland Association of Governments ("MAG"), UTA Board of Trustees, UTA Planning and TOD Departments. Additionally, several workshops were held with representatives and officials from local municipalities, members of the real estate development community, and affordable housing advocates and administrators. These workshops were organized to promote the reformed TOD program and adapt the principles of this strategic plan according to the priorities of long range and regional planning, local and current planning, the regional development industry, and affordable housing.

This document outlines the trends facing Utah's decision-makers, how Utah has planned to address them in the Wasatch Front Region, the role of TOD in addressing those trends, and UTA's role in implementing TOD.

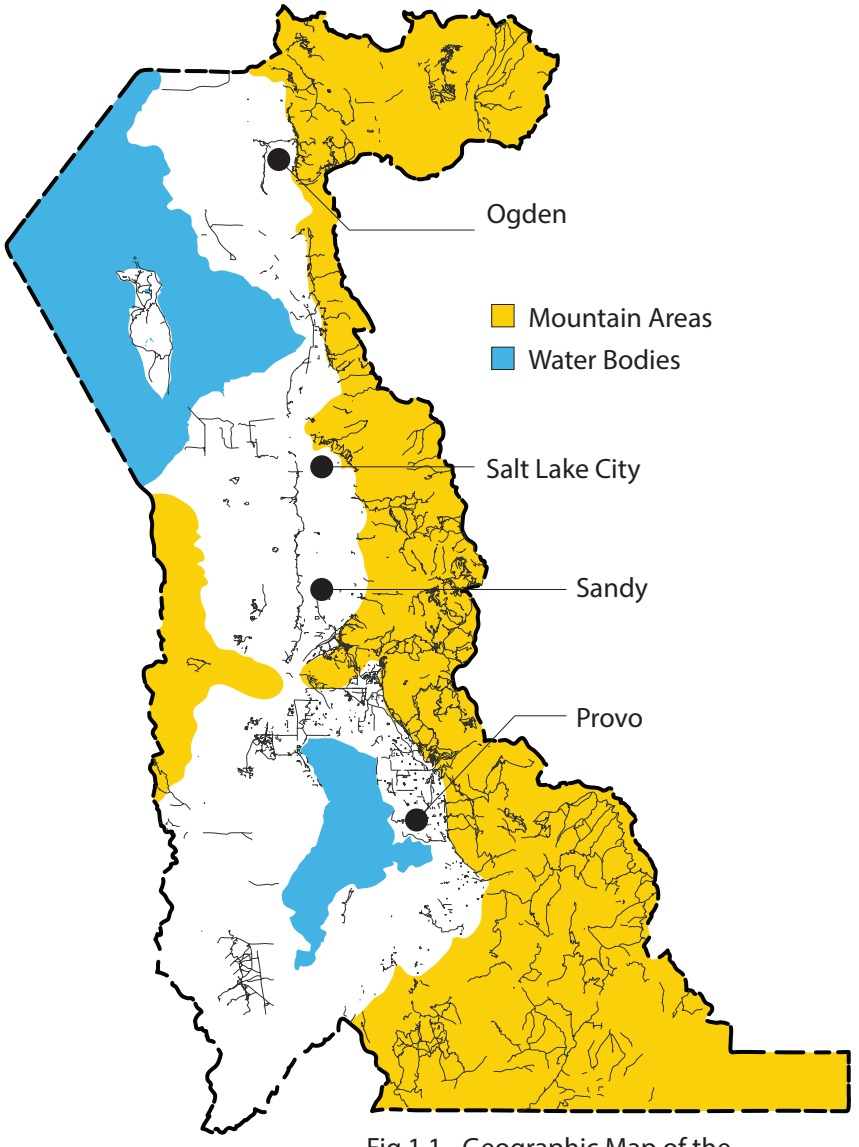


Fig 1.1 - Geographic Map of the Wasatch Front

Growth

Utah is rapidly growing. According to the US Census Bureau, Utah was ranked the fastest-growing state in the nation in 2016 [5]. The majority of this increase (75%) is occurring in the urbanized area along the Wasatch Front. Significant growth is projected to continue along this corridor into the foreseeable future as the population of the Wasatch Front is expected to double from 2.3 million to 4 million by 2050 [14].

Growth along the Wasatch Front is naturally constrained by mountainous ranges on both the east and the west, the Great Salt Lake, and Utah Lake. These unique geographical elements define the identity of our region, provide recreational opportunities, and attract new employers and residents. However, they also limit the availability of land for housing, employment, and the transportation network to sustain the growing population. If properly understood, these amenities may offer opportunities that inform how and where development should occur along the Wasatch Front. To this end, it is imperative that regional organizations and local governments continue to collaborate and plan to preserve the unique quality of life in the shadow of the Wasatch Mountains [19].

Generational Trends

In addition to unique geographic constraints in our region, demographic shifts and changes in generational preferences are affecting the concentration of growth and transportation demand. In recent years, millennials, born between 1980 and 2000, have fueled a resurgence of urban living. Studies have shown that this generation is drawn to communities that have a variety of transportation choices [22]. In our region, this has stimulated a building boom concentrated near transit. For example, since 2010, nearly 60% of new apartment units constructed in Salt Lake County have been within ½ mile of a fixed rail station (Envision Utah analysis).

Millennials are not the only demographics group spurring this trend. It is also being driven by the needs and preferences of older generations.

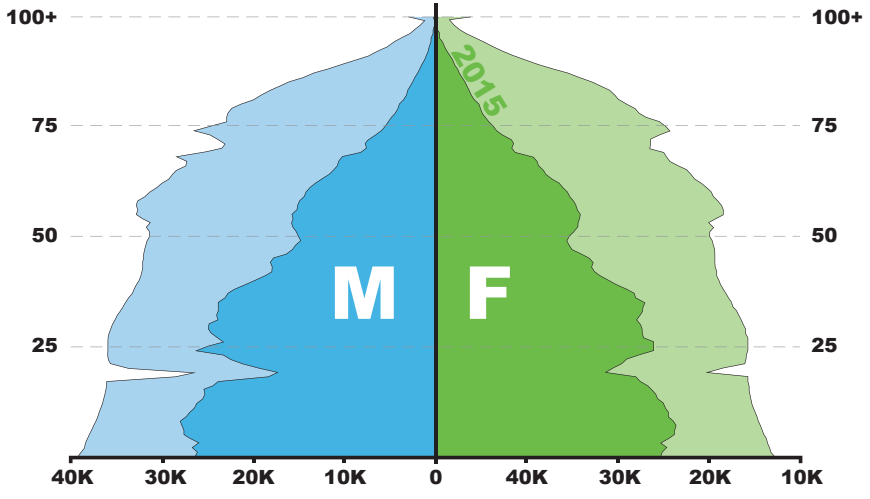


Fig 1.2 - 2065 Age Projections Per Sex

While Utah is projected to maintain a relatively young population with households larger than the national average, the median age is expected to increase from 30.8 in 2015 to 39.5 by 2065 [16]. The share of the senior population, aged 65 and older, is projected to double over the next 50 years to 21.3 percent. Currently, a swath of baby boomers, born between 1946 and 1964, are entering into retirement. While it is a high priority for baby boomers to age in place [1], this generation has high expectations for remaining active in retirement [23]. Seniors will increasingly seek a wider variety of transportation options to meet their daily needs, and preserve their quality of life and independence.

Regional Economic and Educational Opportunities

Effective transportation systems are designed to provide access to jobs, education, healthcare, and opportunities for social interaction. The level of economic opportunity can be summarized by the number of meaningful opportunities such as jobs and education that residents can access in a reasonable amount of time. According to estimates of WFRC, the average resident of the Wasatch Front can currently reach 28,000 jobs within a 30 minute commute on transit. With strategic transit investments and more centered growth patterns, that number can reasonably double by 2050 [30].

Access to a multi-modal transportation system is critical for high growth employment centers to thrive [3]. Providing employers access to a broader workforce allows Utah to remain competitive in courting and retaining new businesses. In our region, employers are increasingly making strategic decisions about locating near transit. Since 2010, 37% of all new office square footage in the Wasatch Front is located within ½ mile of a fixed rail station (Envision Utah). The recently opened Overstock Peace Coliseum in Midvale was designed with the building entrance closer to the Bingham Junction TRAX Station than its own parking lot to encourage employees to access their job via transit. As a result, Overstock has noted significant transit usage [21].

Advanced education is becoming increasingly critical to competing in the job market. Providing convenient transportation options for students throughout the region will enhance educational and economic opportunities for individuals and the region as a whole. In addition to the business sector, educational institutions in the state are seeing the benefits of improved access to transportation. Students commuting to college campuses make up 20% of UTA's total transit market. According to a recent travel survey, nearly ⅓of University of Utah ("U of U") students commute to campus via transit [30]. This has allowed U of U to convert tracks of land previously utilized as surface parking lots into usable classroom and research facilities. Enhancing these connections is imperative to maintaining a viable, growing regional economy.

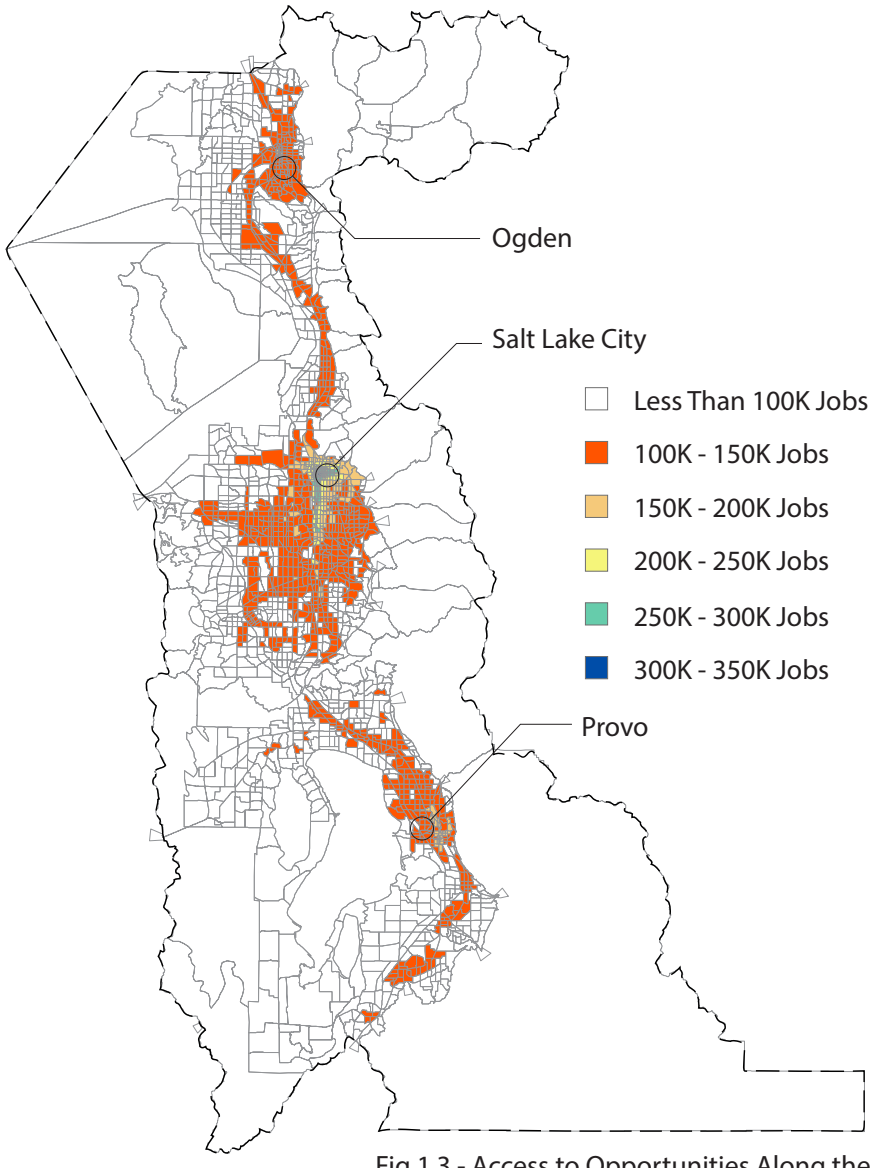


Fig 1.3 - Access to Opportunities Along the

Traffic

Population growth is almost always accompanied by an increase in Vehicle Miles Traveled ("VMT") as people seek to satisfy their essential needs, such as buying groceries, working, and so forth. Despite continuous investment in transportation infrastructure by the Utah Department of Transportation ("UDOT") and local municipalities, traffic congestion is anticipated to increase as the population grows. Increasing VMT is associated with traffic congestion, degraded air quality, escalated traffic fatalities, and other negative public health effects [13]. Vehicle Hours of Delay ("VHD") are also expected to increase as projected travel demand significantly outpaces the capacity existing roads and those currently being built. According to recent estimates (Wasatch Front Regional Council Travel Demand Model), total annual

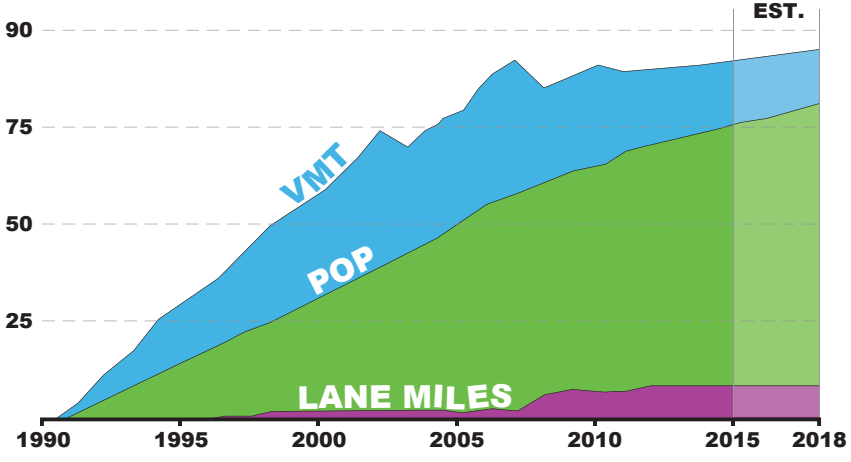


Fig 1.4 - % Change of VMT, Population, and Lane Miles

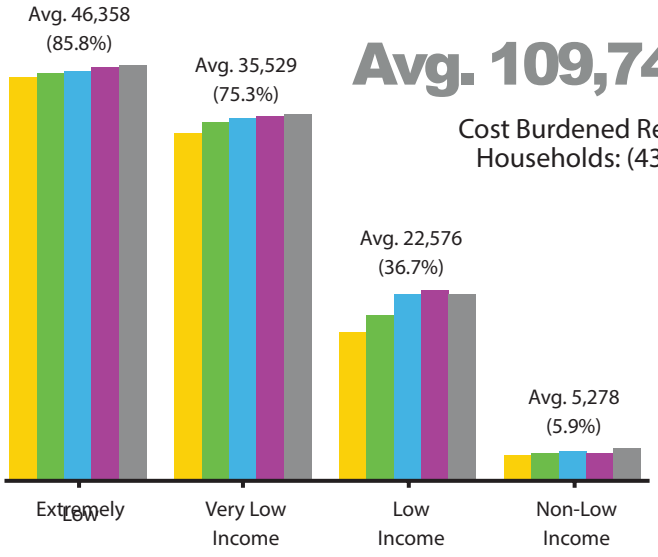


Fig 1.5 - Cost Burdened (30%-50% Income)

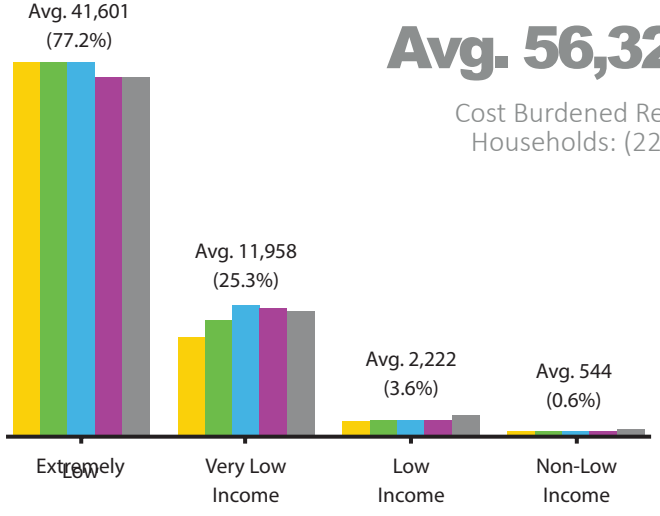


Fig 1.6 - Severely Cost Burdened (>50% Income)

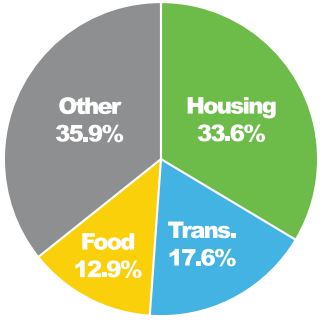
VHD is anticipated to increase from 1 million in 2014 to over 3.7 million in 2040. Increased VMT and VHD contribute to lower levels of productivity as people spend more time in traffic, negatively impacting the regional economy [20].

Safety

Traffic fatalities remain the leading cause of death among Americans aged 1 to 34 years old [11]. Despite steadily declining between 2001 and 2012, the number of traffic fatalities in Utah has increased each year since that time. In 2016, 280 Utahns lost their lives in traffic-related crashes. Forty-four of these fatalities were people walking and bicycling. Studies indicate that more compact communities are associated with significantly lower rates of traffic fatalities, particularly for those involving a bicycle or pedestrian [4]. This is largely due to compact and more active streets, both of which result in drivers being more aware.

Cost of Living

While unprecedented population growth in Utah has contributed to a booming economy, the supply of affordable housing has been dwindling. More specifically, housing options with access to quality transportation and goods and services have become increasingly unaffordable.



According to the State of Utah Affordable Housing Assessment and Plan, completed in June 2016, the rate of cost-burdened renter households (those spending more than 30% of income on housing) in every income bracket has grown steadily since 2005. There are only two affordable and available housing units for every three low and moderate-income households. In 2017, the average renter in Utah would need an additional $4.10 more per hour, working full-time, to afford a 2-bedroom apartment at Fair Market Value [28].

Urban Expansion

The preservation of agricultural lands and wilderness is paramount to preserving the quality of life that residents enjoy on the Wasatch Front. Although there are natural barriers that channel growth in the valleys of the Wasatch Front, wilderness and agricultural land continue to be consumed at alarming rates. In 2014, Utah was ranked as the second most sprawling state in the nation, consuming 203 square miles of undeveloped land between 2002 and 2010 with nearly 90% being attributed to the state's population growth [18]. This pattern of growth contributes to a host of other impacts to the community including, but not limited to, increased energy consumption, decreased local agricultural land, increased flood potential, groundwater depletion and contamination, and worsening air quality [8].

Air quality

Air quality along the Wasatch Front is among the worst in the country. Recently, the American Lung Association ranked this region to have the 6th worst 24-hour particle pollution among 186 metro areas [2]. As mentioned earlier, as the population grows, the total number of trips made per day will also continue to grow, as well as the number of vehicle miles traveled. Along the Wasatch Front, the most egregious and dangerous emissions come from automobiles. Particulate matter (PM2.5 and PM10) is made of very small dust and soot particles, about one-fortieth the width of a human hair, and can easily become trapped in the lungs and exacerbate or cause negative health conditions.

Utah's poor air quality has profound impacts upon public health, including heart conditions, biologic and anatomic brain issues, and premature death [29]. Because nearly half of fine particulate matter along the Wasatch Front comes from mobile sources or vehicular emission [27], there have been several initiatives to successfully reduce the number of trips and vehicle miles traveled. In addition to the Utah Division of Air Quality emission reduction programs, other local initiatives along the Wasatch Front include but are not limited to air quality alerts, idle-free campaigns, public challenges and partnerships with UTA to provide subsidized pass programs during inversions[26].

While some pollution reduction measures may seem costly to both individuals and local economies, the EPA predicts that the reduction in health care costs and pollution-related premature deaths outweigh such costs by a wide margin. For instance, by the year 2020, the programs and measures developed in response to the Clean Air Act of 1990 may prevent over 230,000 early deaths across the nation [9].

Public Health

Along with the issues of public health related to air quality, rising obesity rates pose another disturbing trend across the nation as well as along the Wasatch Front. This trend has been cited as an epidemic and a public health crisis [15]. In 1990, 15% of American adults were considered obese. Today, this rate has more than doubled to 36%. While Utah's active, relatively young population contributes to the 7th lowest obesity rate in the country, obesity rates in Utah are still climbing at an alarming rate (from 9% in 1990 to the current rate of 25% [24].

Obesity has been shown to lead to a number of negative health-related impacts including heart disease, cardiovascular disease, high blood pressure, high cholesterol, and high blood sugar. One solution that has been shown to help obesity is physical activity. This is not limited to thirty minutes a day of intense cardiovascular workouts. "Activity" also refers to the habitual frequency with which a person moves throughout the day. Studies have shown that the design of neighborhood environments has been correlated to increased physical activity as well as variations in Body Mass Indices (BMI) [12 17].

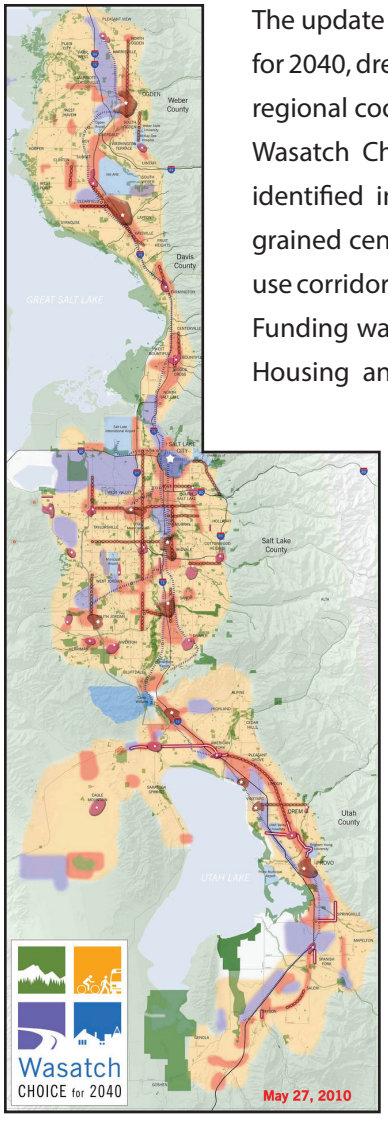
SECTION 2

The Regional Response

Wasatch Choice 2040/50

In light of the challenges identified in the previous section, the Wasatch Front Region has a culture of regional planning to maintain a high quality of life. In the late 1990's, a then newly-formed non-profit called Envision Utah worked with 130 government agencies to develop a baseline for projected growth in the region. Scenarios for alternatives to the baseline growth pattern were then created. Through a series of public workshops and broadly-distributed questionnaires, the preferred pattern for growth was derived based on community values, known as The Vision. The Vision identified the community values as:

- livable and healthy communities;
- access to economic and educational opportunities;
- manageable and reliable traffic conditions;
- quality transportation choices;
- safe, user friendly streets;
- clean air;
- housing choices and affordable living expenses;
- fiscally responsible communities and infrastructure;
- sustainable environment, including water, agricultural, and other natural resources; and
- ample parks, open spaces, and recreational opportunities.



The update of the Vision in 2010, Wasatch Choice for 2040, drew upon the successes of the original's regional coordination in consensus building. The Wasatch Choice for 2040 translates the values identified in the original Vision into more fine grained centers for growth, connected by mixed use corridors and regional greenways (see image). Funding was provided by the US Department of Housing and Urban Development and the US Department of Transportation.

Fig 2.1 - Wasatch Choice 2040 Regional Vision Map

Benefits of Centered Growth

The Wasatch Choice for 2040 is a regional acknowledgment that making informed decisions about the way we grow impacts our resulting travel behavior and land use patterns and can, in turn, improve our economy and the health of the community.

The case for the benefits of centered growth are well documented in the scholastic world. Regarding its implications on land use, centered growth tends to reduce per capita land consumption, allowing preservation of open space and prime agricultural areas. Centered growth tends to be a higher density than traditional suburban growth, therefore providing more diverse housing choices. This can lead to improved housing affordability.

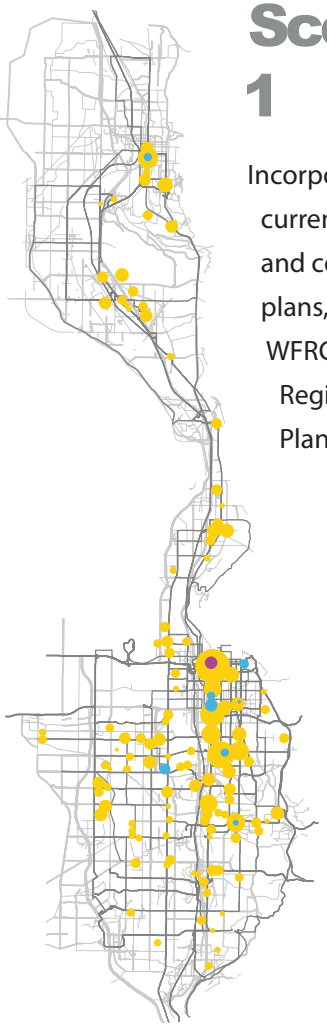
As proximity to goods and services improves, dependence on automobiles reduces, as do trip lengths and roadway capacity needs. This represents a cost savings to both the user as well as the municipality in infrastructure costs. More compact development patterns tend to result in per capita service cost savings for municipalities.

When served by quality transportation alternatives such as high-frequency transit, household transportation costs are reduced, freeing up valuable resources and contributing positively to the local economy. Research indicates that more compact development increases economic opportunities for disadvantaged residents. The probability that a child born to a family in the bottom quintile of the national income distribution reaches the top quintile by age 30 is increased by 4.1 percent for every 10 percent in the index score. The region has already attracted quality employers because of its workforce and the opportunity to locate proximally to the transit network.

Implementing the Wasatch Choice for 2040, with emphasis on centered growth well-served by transportation alternatives, results in the following measurable improvements:

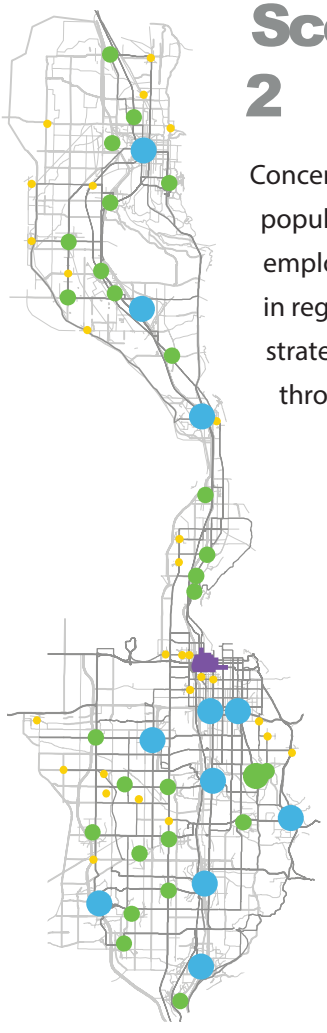
- 9% more homes with walking access to high-capacity transit
- 8% more jobs within walking access to high-capacity transit
- conservation of 23 square miles of open space
- reduction of traffic congestion by 18%
- 12% more transit use
- Infrastructure, housing, and transportation cost savings totaling $4.5 billion

In furthering the effort, both MPOs in the region are currently working on updating the 2040 vision, and extending it to 2050. Through a series of small area meetings engaging staff and local elected officials, the updated Wasatch Choice will be further integrated into the long range transportation plans.



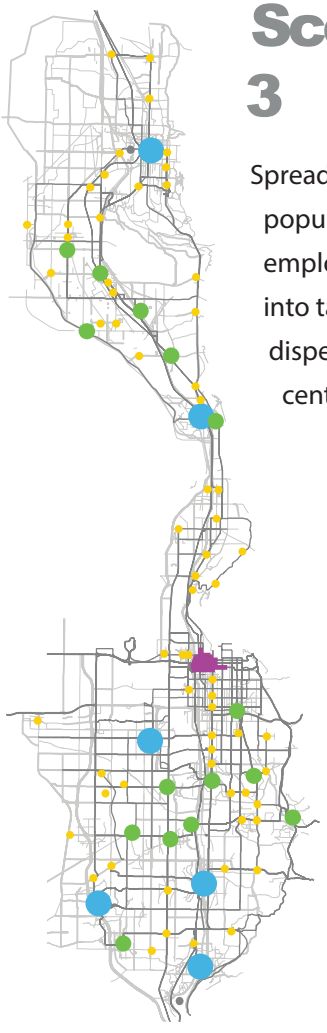
Scenario 1

Incorporates all currently adopted city and county general plans, as well as the WFRC 2015-2040 Regional transportation Plan



Scenario 2

Concentrates future population and employment growth in regional centers strategically placed throughout the region



Scenario 3

Spreads future population and employment growth into targeted, dispersed, and smaller centers

Fig2.2 - Wasatch Choice 2050 Scenario Plans

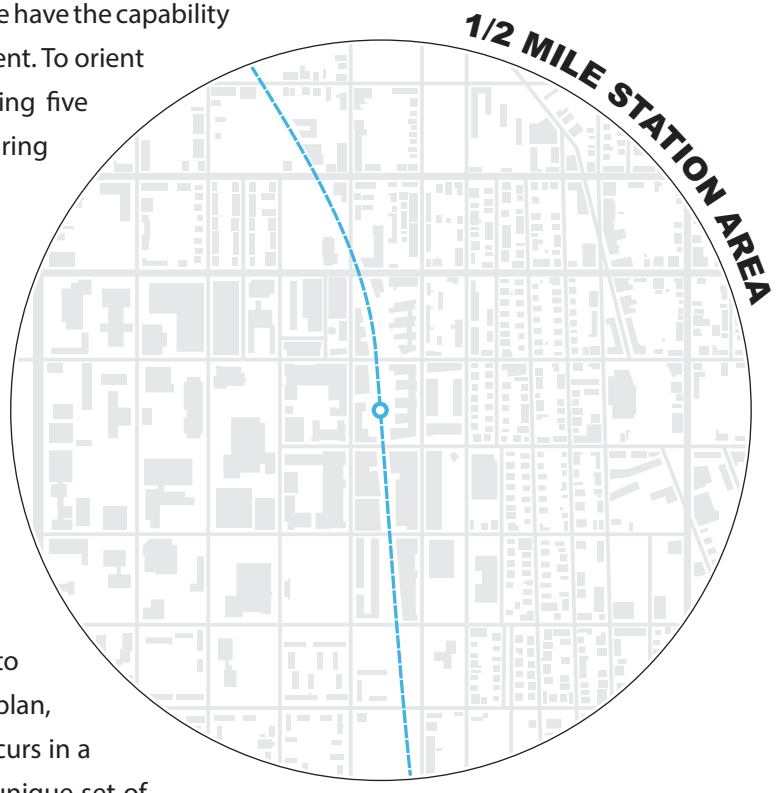
SECTION 3

Transit-Oriented Development

Transit Stations as Centers

In its most seminal form, Transit-Oriented Development is the centered growth described in Wasatch Choice 2040/50. Compact, intense centers that surround transit infrastructure have the capability of becoming Transit-Oriented Development. To orient development around transit, the following five qualities are typically considered during planning and implementation:

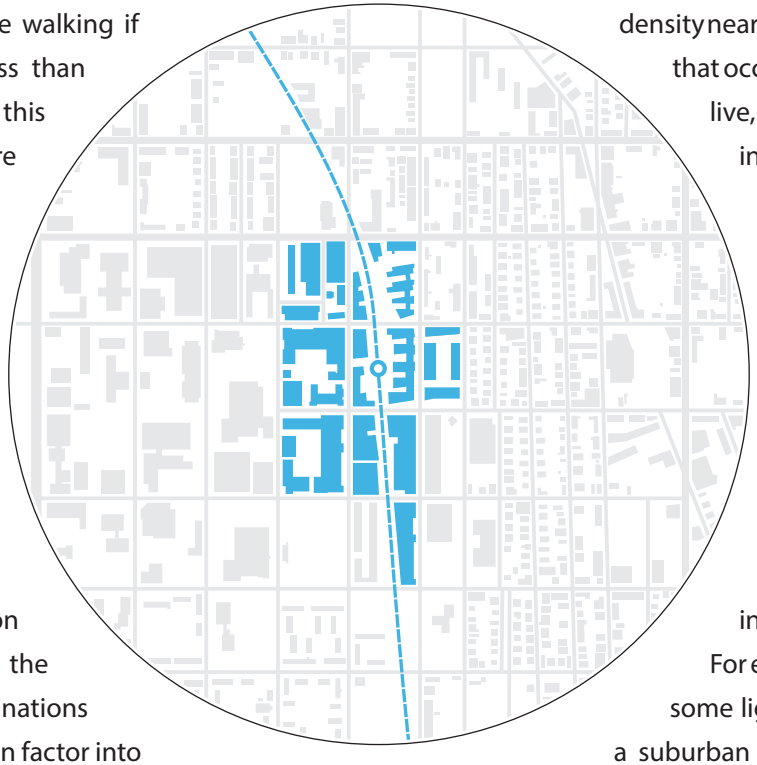
- Proximity to transit
- Compactness
- Accessibility
- Mixture of choices
- Sense of place



These five characteristics are interrelated to one another and are often considered in combination when planning and developing real estate within a station area. It is important to clarify that there is not a one size fits all plan, configuration, or design. Each station occurs in a unique context and is surrounded by a unique set of circumstances that affect the integration of transit and land use. This context is often referred to as the "station area". By focusing on these five key characteristics, clear, accessible connections between transit services and origins/destinations will be established.

Proximity to Transit

The most important characteristic of Transit-Oriented Development is that development occurs near enough to transit facilities that people are able to comfortably walk to and from their houses, offices, and shops. Most people feel comfortable walking if their destination may be reached in less than 10 minutes. In terms of linear distance, this equates to approximately ½ mile. Therefore station area plans and other Transit-Oriented Development planning is appropriate within approximately ½ mile from a fixed station.



Unique site features and characteristics often affect how individuals perceive their surroundings, and should be considered when determining a station area. Such factors may include; types and frequency of transit service, elevation changes, common weather patterns, and the standard operating times of origins/destinations near the station. These characteristics often factor into the decision of what mode is most convenient. Because of this, proximity is defined as the conditions in which a pedestrian is willing to traverse the distance between an origin or destination and a transit station.

Compactness

The amount of opportunities available to transit riders within walking distance increases as land uses surrounding the station become more compact. Because of this, there is a clear correlation between density near transit stations and the amount of ridership that occurs at these stations. The more people that live, work, and recreate near transit stations increases the probability that they will rely on transit instead of an automobile.

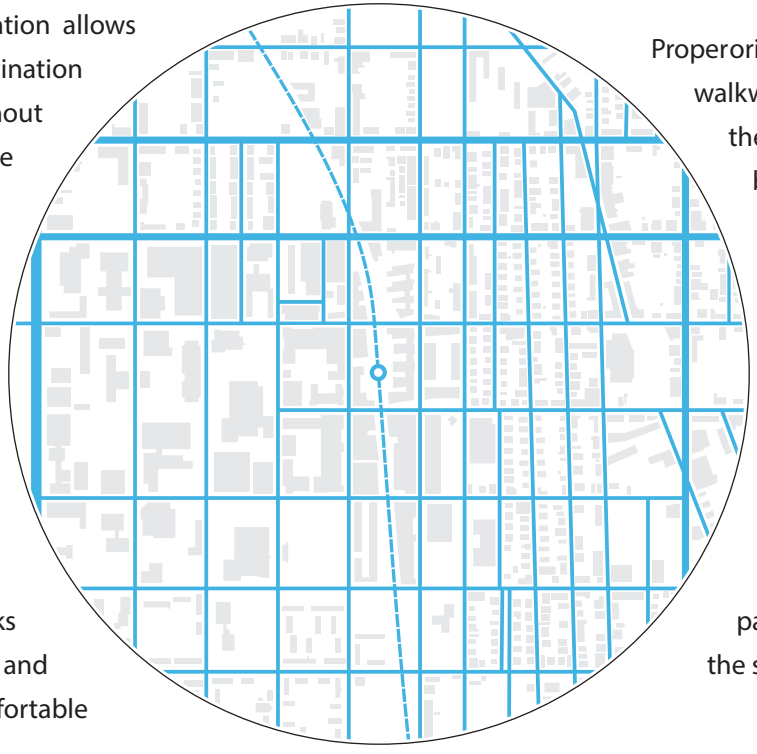
The compactness of an area may be calibrated to meet the needs of the community and complement neighborhoods immediately adjacent to the station area. Just as the Wasatch Choice 2040/50 relates varying types of centers to different areas of the region, each station is in a unique context that informs how much density is appropriate. For example, a medium-density residential and some light commercial would likely complement a suburban station in West Jordan, whereas a large mixture of uses arranged in a very dense form would likely be compatible around an urban station in the Central Business District of Salt Lake City [7].


GRN-AIRPORT
1137B
UTA
City Center
55 S. Main St.

Accessibility

Transit trips typically begin and end with walking or bicycling. Because of this, Transit-Oriented Development offers pedestrian environments that are comfortable, convenient, and safe. Creating strong connections for all modes of transportation allows people to reach either their origin or destination with convenience and comfort. Without designs in place that facilitate these connections, the value of compactness and proximity is diminished.

A grid-like street system is the simplest and most effective design schema to facilitate fluid movement and connect origins and destinations within a station area. Grids naturally form intersections, increasing the variety of routes from one point to another. Within a street grid, it is imperative that streets and sidewalks are designed to accommodate cyclists and pedestrians so that people feel comfortable moving to and from stations.



Accommodating safe connections for all transportation modes includes ensuring that facilities are compliant with ADA design requirements and that intersections are adequately signaled and striped. Additional street improvements often include street trees, lights, and other design features that create an inviting environment for pedestrians [6].

Proper orientation of buildings adjacent to streets and walkways can greatly improve how people reach their origins and destinations. By locating buildings and entrances near sidewalks and bicycle facilities, pedestrians and cyclists are able to access origins and destinations without traversing parking lots or other unnecessary barriers. Because parking remains a necessary component of most all development, it is sometimes difficult to optimize the accessibility of a building. However in most cases it is still possible to 'hide' parking by orienting buildings up front, along the street and sidewalk.

Mixture of Choices

One characteristic that great neighborhoods share is a robust mixture of places to shop and play, to live and work, and modes to get from one place to another. In the context of Transit-Oriented Development, mixture of choices relates to the variety of origins and destinations, variety of transportation options, and socioeconomic variety within a station area. Increased variety in the station area offers more abundant opportunities to satisfy daily needs and makes the transit system more effective.

A variety of origins and destinations is optimally achieved by planning for vertical, mixed-use buildings that contain ground-floor commercial space with ancillary uses above including office and residential space. This development form has been very common throughout the history of various cities, including Salt Lake City. During the mid-late 19th Century, and through the first half of the 20th Century, many communities along the Wasatch Front established thriving downtowns that contained a variety of commercial and residential land uses. Many of these areas now occur around or near transit stations, and are projected by the Wasatch Choice 2040/50 as mixed-use areas, offering a variety of origins and destinations.

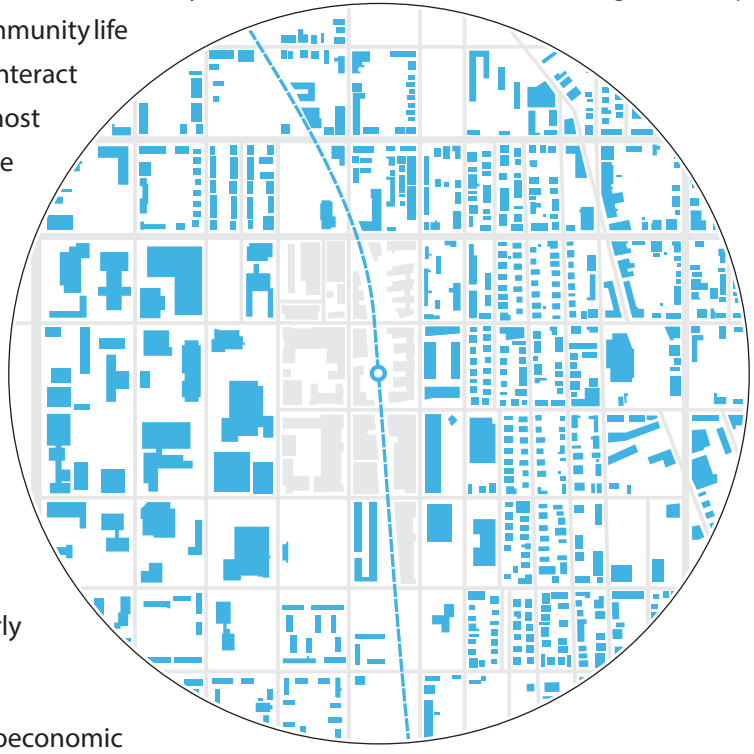
The most successful Transit-Oriented Developments are those that are able to adapt to economic and demographic fluctuation. Development that is unable to do so lacks resilience and has a lifespan that is dictated by external forces. On the flip side, development that is valued by the community because of its various qualities and uses will often endure changes in economy and changes in social values. This resilience is cultivated by planning for people of varying age, sex, income level, ethnicity, and other socioeconomic qualities [7].


STATION
15
WWW.TOPGEARBICY


BOSS
BOSS
ELEVATORS
MICHAEL
RS
BROTHERS
ELEVATORS
TUMI
SWAROVSKI
BOSE

Sense of Place

Origins and destinations should be considered more than simple coordinates. The built environment of each community is the habitat where its individuals live and cope. As such, certain areas naturally intensify, reflecting the complexities of community life and allowing a diversity of inhabitants to interact and satisfy their everyday needs. The most successful of these areas exhibit a cohesive arrangement of streets, buildings, plazas and promenades that organize the space in a human dimension and provide it with a distinct sense of place.



Fixed and high frequency transit hubs are prime locations for the cultivation of great places. By planning station areas as cohesive places, municipalities can leverage innovative zoning ordinances and strategic public investments to properly steer the development of these areas.

A sense of place often results in greater socioeconomic strength. This is largely due to the fact that a strong sense of place is intrinsically related to a community's cultural identity [25]. Inhabitants of New York relate to Time Square, just as inhabitants of Salt Lake City relate to Temple Square. These places have developed into iconic places, both of which have increased the economic value of the areas surrounding them. In the same fashion, communities can use Transit-Oriented Development to cultivate iconic locations that have a strong sense of place around transit stations.

Benefits of Transit-Oriented Development

When these five characteristics are considered during the planning and design of a station area, the result is a place that feels authentic, rich with opportunity, and conveniently accessible by many transportation modes. Of course, these benefits are largely contingent upon the social values of the local population and how they perceive the place. Along the Wasatch Front, it has been found that the general consensus of the population is in favor of these characteristics.

A common critique of the Wasatch Front is that cities within the region lack a sense of identity, and that the built environment feels homogeneous. Including the community in visioning, planning, and design efforts makes Transit-Oriented Developments unique and disrupts this feeling of homogeneity. This allows communities that already exist around and within station areas to provide feedback that helps shape what the area becomes. Over time, this feedback may have a substantial impact, transforming mere spaces into places that authentically reflect the unique values and aesthetic preferences of the community.

The ability for people to access jobs, education, and essential goods and services is imperative for a high quality of living and sustainable economy. Because Transit-Oriented Development is compact and provides a mixture of choices near public transit service, it is a great way to provide the population with access to areas of opportunity. As the variety of housing, work, and shopping choices increases around transit, they will become more accessible to a larger percentage of the population, and doing so allows greater participation in the overall regional economy.

Access to opportunities is particularly important to households and individuals who either cannot afford the cost of transportation or are incapable of operating a vehicle. Transit-Oriented Development that includes a mixture of housing allows these individuals to locate near transit service, therefore making it possible to access educational facilities, employment, medical facilities, and other essential destinations.

Centered development that includes a variety of uses and access to public transit has a substantial impact on regional vehicle miles traveled. This benefits a region in myriad ways such as reducing infrastructure costs, improving air and water quality, as well as preserving remaining agricultural space. By reducing infrastructure costs, public funds can be reallocated to more productive uses such as funding redevelopment and revitalization programs and enhancing first-last mile connections. Most importantly, reducing regional dependency on the automobile will result in a healthier lifestyle for individuals and families [10].


LEASE NOW
SUBWAY
Salt Lake Roasting Co.
300 EAST

SECTION 4

UTA's Role

The UTA System

UTA manages rail service within four counties and 20 cities along the Wasatch Front. Combined, UTA maintains over 135 miles of rail. A large amount of variation is exhibited by these individual cities, ranging from rural landscapes around the periphery, to more urbanized environments along the central corridor, in Ogden, Provo, Sandy, and Salt Lake City. Rail services includes a commuter rail line, three light rail lines, and a streetcar line. Along these lines are 16 commuter rail stations, 50 light rail stations, and six streetcar stations. Many of these stations are currently used as park-&-rides, and transfer hubs, allowing modal changes between automobile, bus, and rail service. 111 Bus routes weave to and from rail stations, allowing patrons to reach more specific destinations and creating a first-last mile connection.

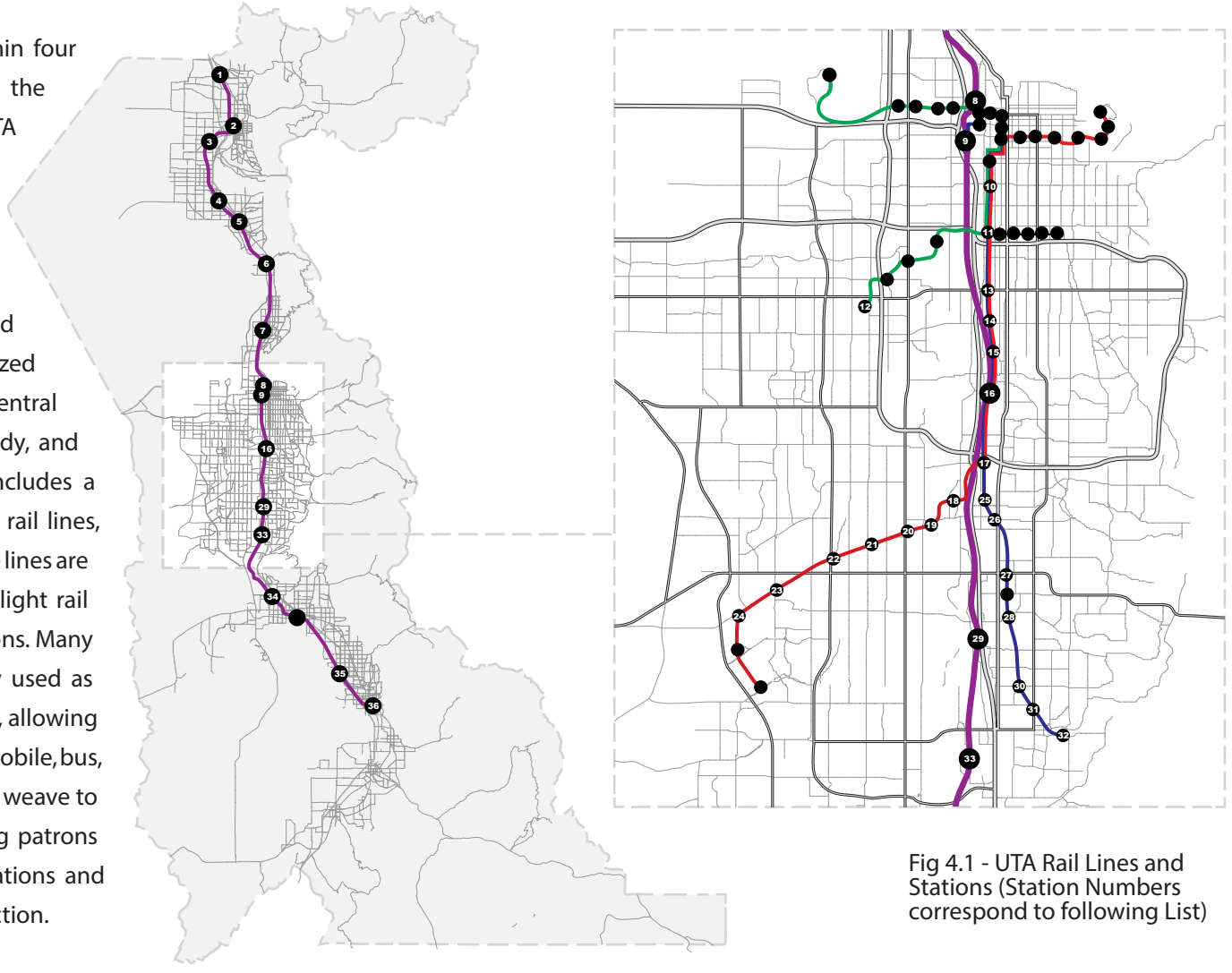


Fig 4.1 - UTA Rail Lines and Stations (Station Numbers correspond to following List)

UTA has acquired a total of 452 acres of property (excluding corridor) around its stations to make transit more accessible to its patrons. Currently this property is being used for bus loops, surface parking, and drop-off areas. Within the UTA system, 36 station areas contain UTA property; 14 of which are located near commuter rail and 22 of which are located near light rail. The average amount of contiguous property within these 36 station areas is 12.55 acres.

Establishing Successful TOD Precedents

The real estate development industry involves a high level of risk. The longevity of design and construction during constant market variability and fluctuating political dynamics can foil the success of even well-planned projects. Lending institutions quantify the probability of a development's success with underwriting criteria based on precedents in the region. Without successful precedents, it is difficult for developers to 'break the mold' and raise the amount of necessary capital from conventional financing institutions. Based on their determined risk, lenders may require a higher interest rate, larger portions of equity, or other prohibitive concessions from the developer.

Along the Wasatch Front, Transit-Oriented Development is a relatively new concept. Since 1999 UTA has been making great strides in connecting communities via light rail, commuter rail, streetcar, bus rapid transit, and traditional bus service in a regional transit system. Because much of this transit infrastructure is less than ten years old, only a handful of developments have been completed near transit stations. The Wasatch Front has yet to see the full potential of Transit-Oriented Development. Because of this, standard underwriting criteria used by financial institutions continue to perceive reductions in parking, vertical mixtures of uses, and compact designs with skepticism. This creates difficulty for those who would like to develop transit-oriented projects.

UTA plays a critical role in establishing positive TOD precedents. UTA controls a substantial amount of property along the Wasatch Front, much of which is located near transit stations and is prime for TOD. Further, as a tax-exempt entity, UTA can land bank its property, which is generally utilized as surface parking lots, until market and political conditions are ripe for the appropriate development. By making its property available for TOD projects, UTA partners with communities and private industry to implement high-quality, high-intensity developments that spur further economic development and return the property back to the tax rolls. Thus, UTA's involvement assists in managing the risk to communities, lenders, and its development partners.

Markets hinge upon product perception and demand. As more TOD projects are successfully implemented and operated along the Wasatch Front, and it is demonstrated that a strong demand for TOD exists, the underwriting requirements of lending institutions will respond accordingly. Over time, this has the potential of lowering financial

#	Station Area	Rail Service	UTA Property (Acres)
1	Pleasant View	FR	8
2	Ogden	FR	15
3	Roy	FR	18
4	Clearfield	FR	70
5	Layton	FR	4
6	Farmington	FR	9
7	Woods Cross	FR	9
8	North Temple	FR / G	16
9	Salt Lake Central	FR / B	39
10	Ballpark	G / B / R	3
11	Central Pointe	G / B / R / ST	2
12	West Valley Central	G	5
13	Millcreek	B / R	2
14	Meadowbrook	B / R	8
15	Murray North	B / R	8
16	Murray Central	FR / B / R	16
17	Fashion Place	B / R	7
18	Bingham Junction	R	3
19	Historic Gardner	R	2
20	West Jordan City Center	R	8
21	2700 W Sugar Factory	R	6
22	Jordan Valley	R	34
23	4773 W Old Bingham Hwy	R	3
24	5651 W Old Bingham Hwy	R	23
25	Midvale Fort Union	B	7
26	Midvale Center	B	8
27	Historic Sandy	B	8
28	Sandy Civic Center	B	35
29	South Jordan	FR	14
30	Crescent View	B	5
31	Kimballs Lane	B	4
32	Draper Town Center	B	11
33	Draper Frontrunner	FR	6
34	Lehi	FR	11
35	Orem Central	FR	11
36	Provo Central	FR	14

Fig 4.2 - List of UTA Stations and Nearby Properties

hurdles for others to participate in the creation of TOD, creating a more competitive and healthier market.


248
248 To-480
Little Caesars
HOT-N-READY
PIZZA

Stewarding Public Investments

It is UTA's mission to strengthen and connect communities, enabling individuals to pursue a fuller life with greater ease and convenience. UTA's primary purpose is to provide safe, accessible, and convenient transit options. The more successful UTA is at accomplishing this high-quality service, the more people will value and utilize this critical investment, and the more the Wasatch Front will realize the associated benefits.

By collaborating with other organizations, governments, and communities, UTA collectively forms a nexus between transportation and land use. This is clearly reflected in the ethos of UTA's True North, a policy that revolves around service, people, environment, community, and stewardship. Properties that UTA controls are public investments acquired through a combination of federal, state, and local funds. UTA is committed to stewarding these properties and ensuring a maximum benefit to the general public. This is primarily accomplished as UTA works closely with its development partners and local leaders to ensure that plans and designs stay true to the regional and local community's vision.

UTA recognizes that the utility of its transit infrastructure and operations is determined by the intensity and accessibility of households, shops, services, and job opportunities near its stations. As UTA converts its vacant land and surface park and ride facilities, and more origins and destinations are located near transit stations, a larger portion of the population is able to satisfy everyday needs without an automobile, therefore increasing transit ridership. As ridership increases, and transit is better integrated into the community fabric, property near transit stations is perceived as more valuable by the private development community. As this cycle continues, real estate markets surrounding stations are strengthened, becoming more resilient and beneficial to their respective communities, neighboring landowners, as well as UTA.

TOD does not merely improve the built environment, it enhances opportunities and social equity. UTA and its partnering entities strive to create balanced environments that open opportunities for individuals to work, live well, and remain self-reliant. As individuals along the Wasatch Front continue to witness and experience the benefits of living and working near transit, communities will increasingly see transit as an essential asset.

Supporting the Regional Vision

Another way UTA is able to accomplish its True North policy and act as a good steward of public investment is to assist with the creation and execution of the Regional Vision. As was described in section two, the Regional Vision provides a long range perspective for future development along the Wasatch Front. It encourages practices that strengthen the regional economy, integrate transportation modes, and improve social equity. These practices are supported by UTA and are integral to the Transit-Oriented Development Program.

Supporting the Regional Vision requires consistent collaboration with Metropolitan Planning Organizations, WFRC and MAG, and local governments. UTA works closely with regional partners by participating in small area meetings, regional growth committees, and other community engagement activities that relate to long range planning. The result of this collaborative method is a Regional Vision and Long Range Transportation Plan that are built upon the priorities and values of our region.


DRINKS

SECTION 5

Processes & Procedures

Framework Overview

UTA has developed a comprehensive development process to facilitate collaboration between public and private interests (the "Framework"). It is understood that the motivations of public and private sectors can be very different. As stated in the previous section, UTA's mission is to provide the public with a socially equitable and comprehensive transportation system. To satisfy this mission, UTA is required to comply with federal, state, and local requirements, all of which can be perceived by private entities as slow-moving and bureaucratic. In contrast, private processes are typically motivated by maximizing revenue as quickly as possible. In order to account for these differences, the Framework allows flexibility so that external requirements can be satisfied and projects can move forward at a reasonable pace.

Each project is organized using a standardized role map, project checklist, and approval matrix. By creating such standards, it is possible for any interested party to understand where a project is within the Framework, and what tasks, approvals, and timelines may be anticipated. This becomes increasingly important as a project transitions from the Planning Stage into the Implementation Stage, as timeframes become financially relevant.

To ensure that the process is performed in a systematic and transparent manner, a series of standard operating procedures (SOP's) have been developed and are maintained under the direction of the Executive Director of UTA. These SOP's comply with all other corporate policies and will be updated on an as-needed basis. For a complete list of these SOP's, please visit the official UTA TOD webpage at www.rideuta.com/tod.

Standard Operating Procedures

The TOD Framework consists of three basic stages: Planning, Implementation, and Management. This organization allows projects to be organized and effective partnerships to form relevant to each stage. Within each of these stages, individual plans and processes provide direction for specific tasks to progress projects openly and systematically. Collaborative relationships between regional organizations, local municipalities, communities, development partners, and UTA are established. Stakeholders come together to share ideas and visions, solve problems, and ensure that each project is completed in a manner consistent with the objectives of all parties.

Development Framework
https://bit.ly/2QmK7SE

TOD System Analysis
https://bit.ly/2TqTrXv

Station Area Plan
https://bit.ly/2SzqGrm

Conceptual Layout & Procurement
https://bit.ly/2F3SrFx

Master Plan
https://bit.ly/2AnMxuU

Site Design
https://bit.ly/2CJyOQK

Financial Analysis
https://bit.ly/2LLGDrY

Construction Management
https://bit.ly/2selEFv

Property Management
https://bit.ly/2CK3dhV

Planning

Time: 12-18 Months

Allows UTA to coordinate planning efforts with regional organizations, local governments, and communities.

Implementation

Time: 8-12 Months / Phase

Facilitates a collaborative design and review process between UTA and its development partners.

Management

Time: Ongoing

Ensures that projects are constructed without negatively impacting UTA facilities or services.

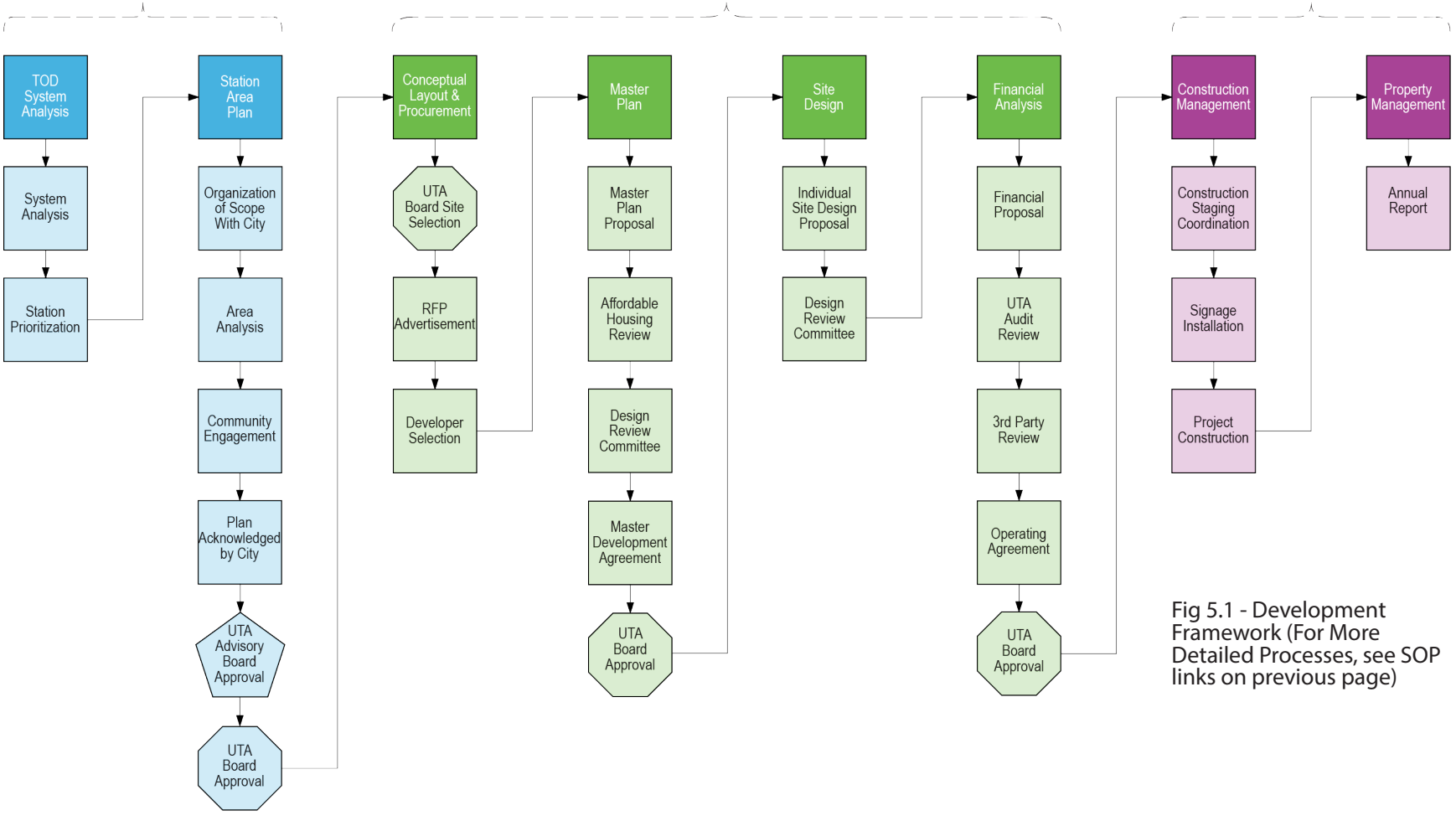


Fig 5.1 - Development Framework (For More Detailed Processes, see SOP links on previous page)

Planning Stage

UTA begins planning for TOD by identifying which station areas are most ripe for development and determining which types of development are most compatible with particular station areas. This is accomplished by analyzing each station within the transit system, based on objective criteria and in collaboration with the MPOs, and prioritizing stations according to their readiness. Findings and recommendations from this assessment are documented in a TOD System Analysis (or the "System Analysis"). The System Analysis provides a holistic analysis to inform subsequent Station Area Plans and future development efforts around each respective station.

The readiness of a station area is determined by measuring the accessibility, market strength, and municipal regulations/zoning surrounding each station. Affordable housing need is also assessed in this analysis and included as an output for policy makers. An overall TOD score is produced, which represents an objective assessment of all rail stations at a given point in time, and is used to help identify and prioritize stations that are most conducive to development. Additionally lenses of growth opportunity and affordable housing are output as well. Growth opportunity rankings focuses on identifying sites where UTA could catalyze development to be more transit-oriented in a place where this wouldn't happen as quickly or at all. Affordable housing rankings focus on identifying sites where there is high need for more affordable products and great connectivity to the system. Depending on UTA's priorities, any of these metrics could be used to select a site.

The TOD System Analysis is intended for use by a diverse audience for a variety of purposes. Local municipalities are able to use this information to understand what factors may be adjusted to improve the feasibility of TOD within their respective station areas. The development community is able to use this information while considering site selection and project planning. UTA uses this information in order to identify which station areas are ready for development, so that it may begin the Station Area Planning Process with respective communities.

Station areas vary in size and land uses, in a similar way to centers described in the Wasatch Choice 2040/50. Metropolitan and urban centers, where a large variety of transit options are present, are described as covering a large area containing high-intensity mixtures of uses. While in the more suburban and rural areas, centers are described as covering smaller areas containing less intense land uses. Station areas are identified and planned so that development around

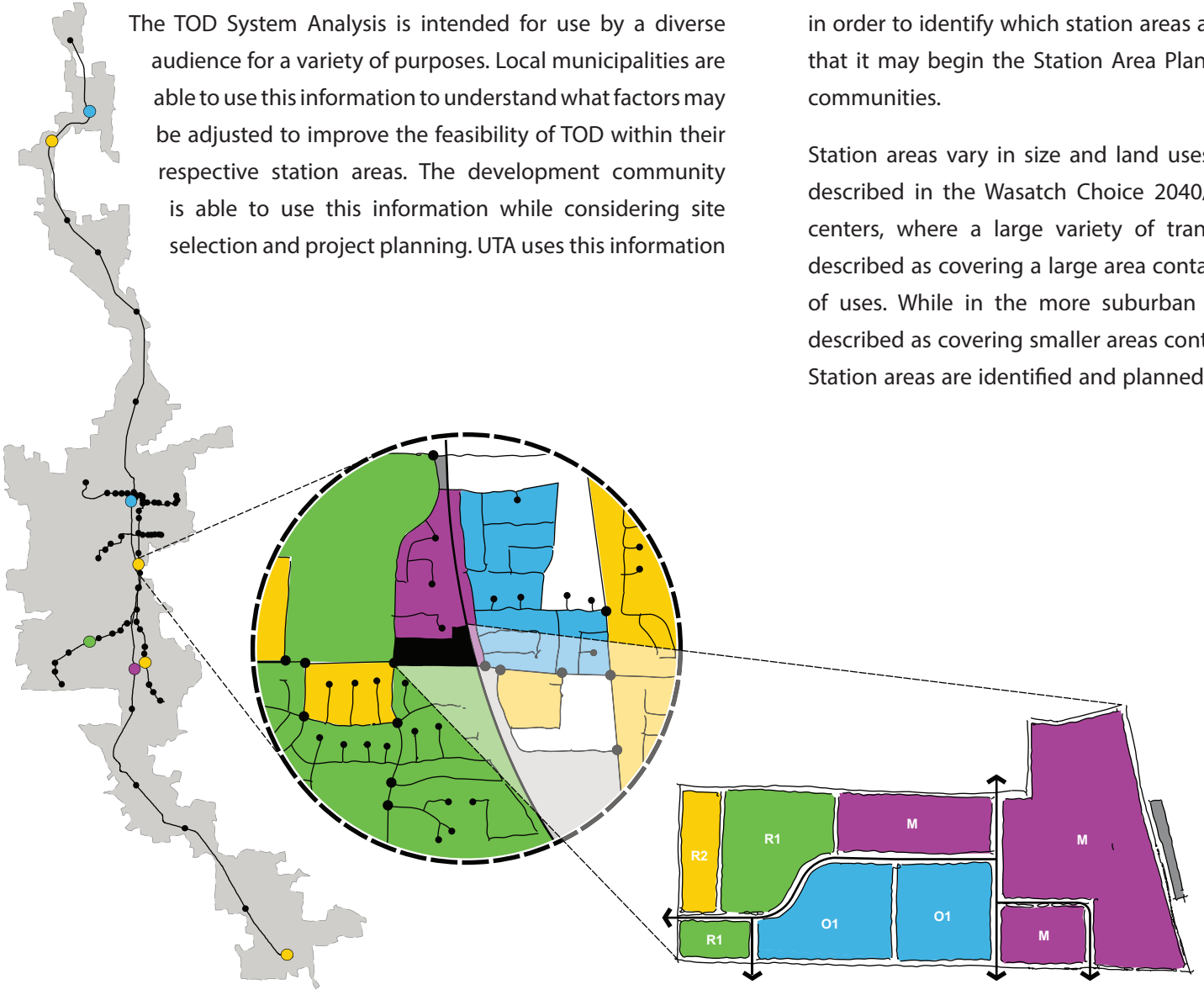


Fig 5.2 - Illustration of Planning Processes (From Right to Left: TOD System Analysis, Station Area Plan, Concepual Layout)

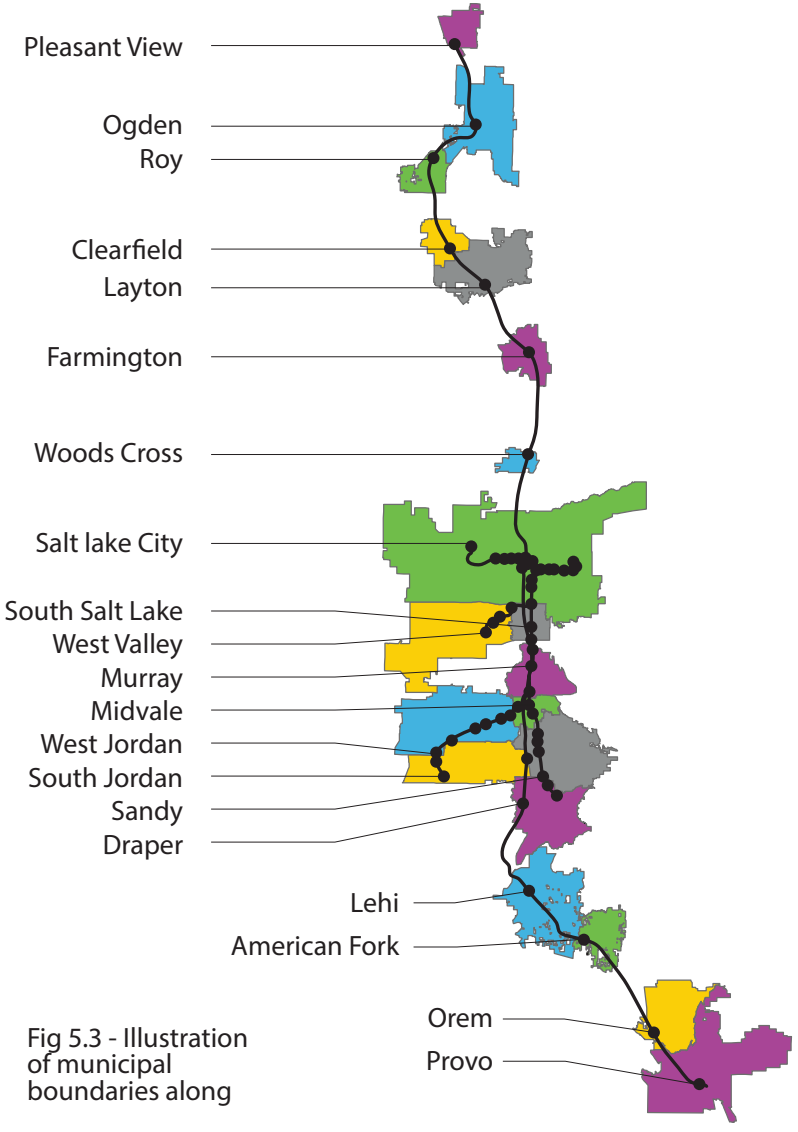


Fig 5.3 - Illustration of municipal boundaries along

the station may be easily managed by its respective municipality and community.

For those areas that appear ready for TOD, UTA works closely with the respective municipalities and local communities to create Station Area Plans. The purpose of these plans is to formulate a vision for the area that is informed by an assessment of existing conditions, as well as community feedback. Station Area Plans are used to form a baseline upon which the municipality and UTA may plan and implement, infrastructural improvements, affordable housing, ordinance amendments, and design guidelines. With the Station Area Plan completed and acknowledged by the respective municipality, policies and public investments encouraging the appropriate type of development may be put into place.

During the Station Area Plan phase, the Authority and the applicable community shall discuss affordable housing needs within the station area. Recommendations may be included in the Station Area Plan. Implementation of affordable housing, if applicable, shall be addressed during the Master Plan phase.

Strategic Recommendations are included in Station Area Plans with the intention of identifying critical steps to progressing a TOD project consistent with regional, local, and transit objectives. These recommendations may involve things such as; amendments to zoning ordinances or maps, the establishment of Community Development

or Redevelopment Areas, or modifications to the municipal Capital Improvement Program. It is imperative that these recommendations are compatible with a municipality's priorities and values, especially those that relate to the neighborhoods directly adjacent to a station area. Upon completion of these Strategic Recommendations, it is generally expected that the Station Area Plan will be acknowledged by its respective municipality.

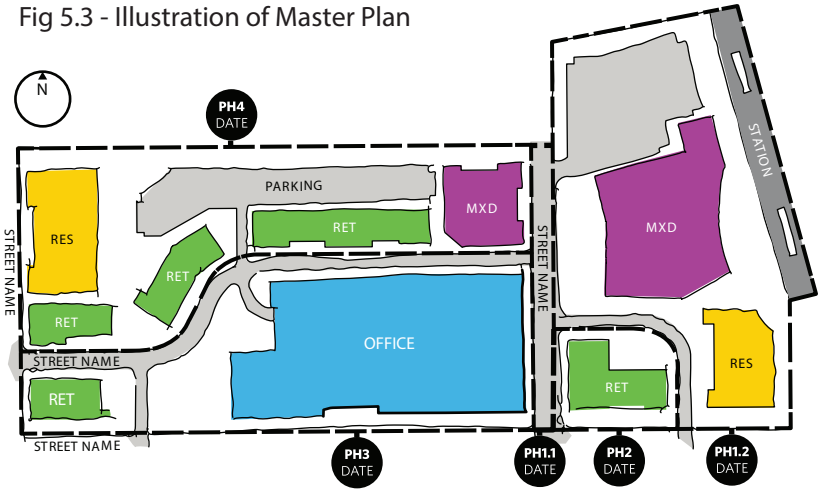
The final step of the Planning Stage is to compile and document all findings from both the TOD System Analysis and Station Area Planning Processes. These findings are used to inform the procurement process selection criteria, as well as material for Master Plan and Site Design Reviews.

Implementation Stage

The primary purpose of the Implementation Stage is to provide a uniform method for UTA and its partners to realize plans and objectives established during the Planning Stage. This is accomplished by collaborating with private developers and local communities. If UTA controls property within a Station Area Plan, a development partner will be selected through a rigorous and open procurement process. Prospective partners will be evaluated according to qualifications and expertise necessary to achieve the outcomes identified in the Planning Stage. With its development partners, UTA ensures that master planning and site design is done with public interests in mind and that the final product offers the maximum regional and community benefit.

The TOD Procurement Process allows UTA to identify and select development partners who are best-suited for specific development projects. This is done publicly through Request for Qualifications and Proposals ("RFQ-P"). Using information from the Station Area Planning Process, UTA identifies site-specific considerations, land uses, community needs, and design standards that have been discovered through the Station Area Planning Process. These standards are then included in RFQ-P documents in order to attract developers whose skills and expertise align with the community's vision. Responses to RFQ-Ps are evaluated by a selection committee made up of UTA and city personnel, as well as other stakeholders as deemed necessary during the Station Area Planning process, in order to identify the best-suited

Fig 5.3 - Illustration of Master Plan

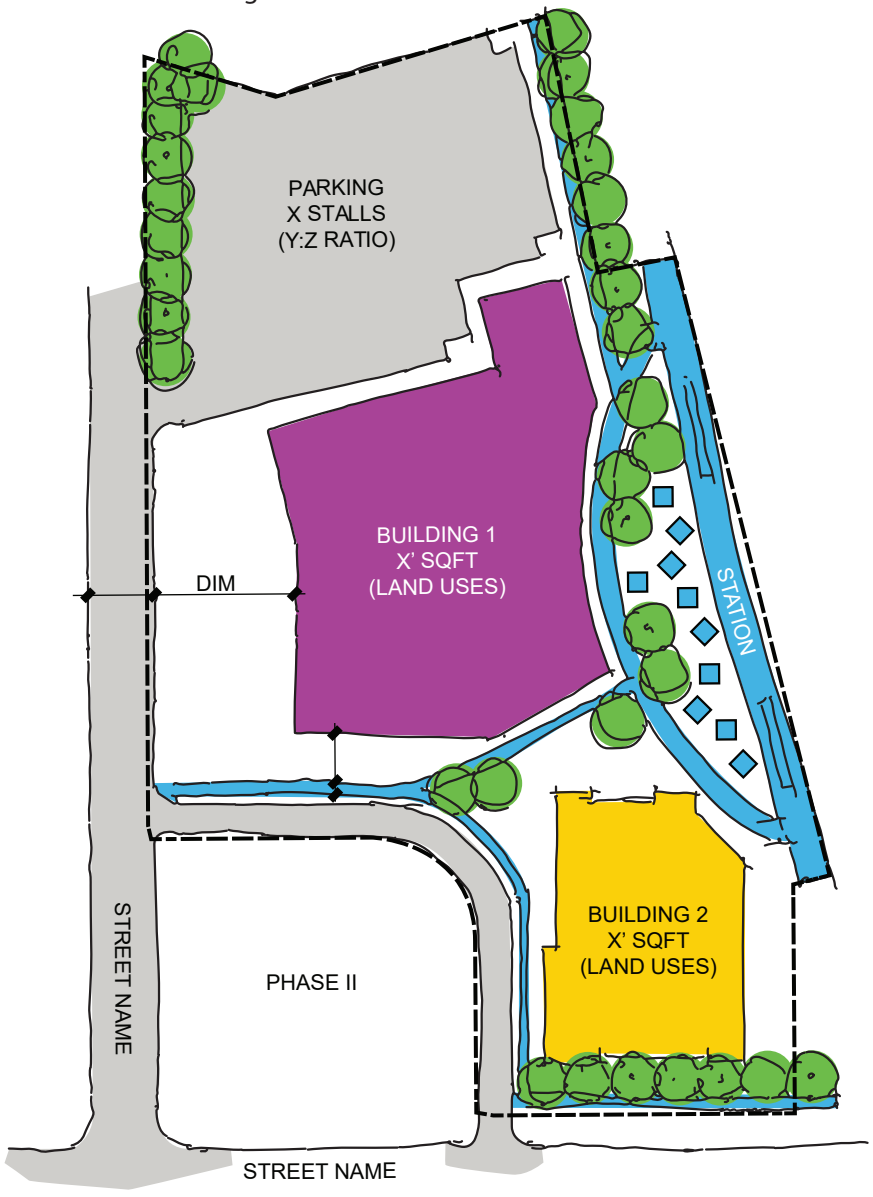


developer for the project. The selected development partners have the prerogative to proceed with master planning and design efforts per the terms, milestones, and deadlines identified in an Exclusive Negotiations Agreement.

In multi-phased developments, Master Plans are created in collaboration with city staff, UTA personnel, its development partners, consultants, and contractors (the "Development Team") to ensure that the ultimate build-out of the site is consistent with the Regional Growth Vision and Station Area Planning efforts. The Master Plan provides a general description of the development program for all phases of development, site layout, development phasing, and projected schedule.

If the Station Area Plan recommends residential uses for UTA property, the Development Team shall meet with an Affordable Housing Group,

Fig 5.4 - Illustration of Site Design



organized appropriate to the needs of the applicable community, to discuss opportunities to incorporate affordable housing.

The Master Plan is accompanied by a corresponding Master Development Agreement which establishes general terms between UTA and its development partner and governs all phases of development.

Site Plans are generated by the Development Team as individual phases of development are identified and readied for construction. Site Plans include the final footprint and orientation of buildings, streets, plazas, amenities, landscaping, and other features to be constructed within the scope of that phase. Site Plans are accompanied by an Operating Agreement, Ground Lease Agreement, or other applicable instrument between UTA, its development partner, and other investors as necessary. The Operating Agreement defines the terms and conditions for development and management of the assets to be constructed during that phase. It also defines ownership interests as well as calculation and sequencing of cash distributions.

UTA has organized a multi-disciplinary Design Review Committee ("DRC") to review and approve Master Plans, Site Design, and concepts proposed by development partners. The DRC ensures that proposals adhere to UTA's general TOD Design Guidelines, meets requirements set forth in the RFQ-P, reflects the community's interests, and protects the transit-critical functions of the site. The DRC consists of representatives from various departments within UTA, as well as other stakeholders as

necessary. DRC reviews are intended to complement and augment the existing city review process. Development partners have the obligation to shepherd the project through all required entitlement processes.

Financial Analysis

The Financial Analysis is produced by UTA's development partners for individual development phases. Its purpose is to formalize the financial terms of the proposed phase of development. They include the applicable legal instrument (Operating Agreement, Ground Lease Agreement, or other), development pro formas, loan terms, and other relevant documentation. Financial Analyses are reviewed by UTA TOD, legal and executive staff, as well as a third-party expert consultant, to ensure that the terms are market feasible, ethical, and an efficient use of public investment. All reviews are made available to the UTA Board of Trustees, who ultimately decide if the proposed phase of development meets UTA criteria and warrants approval.

Certain properties that were purchased with federal grant funds, typically from the Federal Transit Administration ("FTA"), require additional review and approval prior to development. The Development Team seeks to create a project that meets the requirements and intent of the FTA's Joint Development program, and UTA staff works with the FTA to obtain approval for the proposals at these sites.

Management Stage

As TOD construction often occurs at active transit stations, construction efforts must be well-orchestrated. It is imperative that transit patrons, parking, or operations are not unduly impacted. Prior to beginning construction, coordination efforts between UTA, its development partner, general contractor, and city staff mitigate potential impacts and safety hazards. Throughout the construction process, UTA staff works directly with the development manager, project engineers, and contractors, meeting at least once a week, to identify and resolve conflicts. UTA staff also addresses customer comments related to concerns that arise due to construction.

Once completed, individual properties are managed and maintained per the terms of a Property Management Agreement, often by a third-party management company. UTA monitors its rights and obligations defined in the associated agreements. These include the receipt of cash flows from the project and the right to perform periodic audits. This is done until the asset is sold or the associated agreements otherwise expire. At such time, subject to the terms of the associated agreements, UTA and its partners liquidate the assets of the company, distribute the proceeds per the agreement terms, and dissolve their relationship.

#	Author	Date	Work Cited
1	AARP Livable Communities	2014	Livable Communities Baby Boomer Facts and Figures. Retrieved May 15, 2017, from http://www.aarp.org/livable-communities/info-2014/livable-communities-facts-and-figures.html
2	American Lung Association	2017	Retrieved May 15, 2017, from http://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/msas/salt-lake-city-provo-orem-ut.html#pm24
3	American Public Transportation Association	2017	The Role of Transit in Support of High Growth Business Clusters in the U.S. Retrieved from https://www.apta.com/resources/reportsandpublications/Documents/TransitHighGrowthClustersUS-Final2013-1124.pdf
4	American Public Transportation Association	2016	The Hidden Traffic Safety Solution: Public Transportation. Retrieved May 15, 2017, from https://www.apta.com/resources/reportsandpublications/Documents/APTA-Hidden-Traffic-Safety-Solution-Public-Transportation.pdf
5	Bureau, U. C.	2016	Utah is Nation's Fastest-Growing State, Census Bureau Reports. Retrieved May 15, 2017, from http://www.census.gov/newsroom/press-releases/2016/cb16-214.html
6	DeCoursey, W. J., & Athey, L.	2008	Transit-oriented design: Illustration of TOD characteristics
7	Dittmar, H., & Ohland, G.	2004	The new transit town: best practices in transit-oriented development, pg 39-42, pg 42-45. Washington, DC: Island Press.
8	Eberhard, W. T., AIA.	2009	Sprawl 101: How Sprawl Hurts Us All. Retrieved May 15, 2009, from http://www.eberhardarchitects.com/pdfs/Sprawl%20101.pdf
9	Envrionmental Protection Agency	2011	The Benefits and Costs of the Clean Air Act from 1990 to 2020. Retrieved May 15, 2017, from https://www.epa.gov/sites/production/files/2015-07/documents/fullreport_rev_a.pdf
10	Ewing, R. H., Bartholomew, K., Winkelman, S., Walters, J., & Chen, D.	2007	Growing cooler: The evidence on urban development and climate change, Section 3.3.6. Smart Growth America.
11	Ewing, R., Schieber, R. A., & Zegeer, C. V.	2003	Urban Sprawl as a risk factor in motor vehicle occupant and pedestrian fatalities. American Journal of Public Health, 93(9), 1541-1545.
12	Ewing, R., Schmid, T., Killingsworth, R., Zlot, A., & Raudenbush, S.	2003	Relationship between urban sprawl and physical activity, obesity, and morbidity. American journal of health promotion, 18(1), 47-57.

#	Author	Date	Work Cited
13	Federal Highway Administration	2015	Traffic Volume Trends. Retrieved from https://www.fhwa.dot.gov/policyinformation/travel_monitoring/15dectvt/15dectvt.pdf
14	Governor's Office of Management & Budget	2016	Retrieved May 15, 2017, from https://gomb.utah.gov/budget-policy/demographic-economic-analysis/
15	Harvard School of Public Health	2017	An Epidemic of Obestiy: U.S. Obestiy Trends. Retrieved May 15, 2017, from https://www.hsph.harvard.edu/nutritionsource/an-epidemic-of-obesity/
16	Hollinghaus, M., Ph.D., Jeppsen, C., Ph.D., & Perlich, P. S., Ph.D.	2016	The Beehive Shape. Retrieved May 05, 2017, from http://gardner.utah.edu/wp-content/uploads/2016/10/2016_10_07_StateProjections-Final-for-Print.pdf
17	Huang, R., Moudon, A. V., Cook, A. J., & Drewnowski, A.	2015	The spatial clustering of obesity: does the built environment matter?. Journal of Human Nutrition and Dietetics, 28(6), 604-612.
18	Kolankiewicz, Leon, Roy Beck, and Anne Manetas	2014	Vanishing Open Spaces: Population Growth and Sprawl in America. Arlington, VA: NumbersUSA. April. Available online at: www. numbersusa. com/resource-download/vanishing-open-spaces.
19	Lilieholm, R. J., Toth, R. E., & Edwards, T. C	1970	Alternative future growth scenarios for Utah's Wasatch Front: identifying future conflicts between development and the protection of environmental quality and public health. WIT Transactions on Ecology and the Environment, 84.
21	Overstock	2017	Retrieved from https://www.overstock.com/peacecoliseum
22	Sakaria, N., & Stehfest, N.	2013	Millennials and mobility: understanding the millennial mindset and new opportunities for transit providers (No. Task 17, TCRP Project J-11).
23	Transportation for America	2015	Aging in Place, Stuck Without Options. Retrieved May 15, 2017, from http://t4america.org/docs/SeniorsMobilityCrisis.pdf##Transportation for America
24	Trust For American's Health	2016	The State of Obesity 2016. Retrieved May 15, 2017, from http://stateofobesity.org/files/stateofobesity2016.pdf
25	Tuan, Y. F.	2013	Topophilia: A study of environmental perceptions, attitudes, and values, pg 59-65. Columbia University Press.
26	Utah Clean Air	2017	Retrieved May 15, 2017, from http://www.ucair.org/fact-sheets/

#	Author	Date	Work Cited
27	Utah Department of Environmental Quality	2017	Retrieved May 15, 2017, from http://www.deq.utah.gov/ProgramsServices/programs/air/mobilesource/
20	Utah Department of Transportation	2016	Retrieved May 15, 2017, from http://www.utahunifiedplan.org/mobility-and-accessibility/
28	Utah Housing and Community Development Division	2017	Retrieved May 15, 2017, from http://http://www.jobs.utah.gov/housing/publications/documents/hcdannualactionplan.pdf
29	Utah Physicians for a Healthy Environment	2017	Retrieved May 15, 2017, from http://uphe.org/
30	Wasatch Front Regional Council	2017	Retrieved from http://wfrcgis.maps.arcgis.com/apps/Cascade/index.html?appid=ec107977bd2744e99d3988314f4e7b4c