DENVER'S WAITING PLACES

DESIGNING DATA RESPONSIVE AND MODULAR PUBLIC SPACE

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ABSTRACT

Well-designed public spaces have been shown to play an important role in addressing urban opportunities and the development of urban plans (Mehta 2013, 56). However, the average American city is comprised of 16.7% vacant land, and green space per capita in rapidly growing cities like Denver is decreasing at alarming rates (Newman et al. 2017, 425). Urban development of vacant lands and redevelopment of existing land occurs through two primary methods: temporary urbanism and long-term urbanism. However, neither method both effectively solves immediate needs and is flexible as the city continues to change over time. My research outlines a process for identifying site opportunities on vacant lots alongside a data-responsive modular design solution that balances short term impact with long term adaptability. Using GIS, all sites under development in Denver were ranked according to their opportunity for improvement. A series of modules were designed to respond to urban needs while providing programmatic life to under-served areas. While the site designs shown are specific to sites in Denver, the system has broad applications and could be translated to any available data set to create effective semi-permanent urban spaces in any city.

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01

INTRODUCTION: IMPACT AND ADAPTABILITY OF PUBLIC SPACE

As urbanization and population continue to increase throughout the 21st century, there has been a simultaneous rise in critiques of the quality and quantity of public spaces in major cities throughout the United States (Low & Smith 2006). Public spaces are increasingly neglected, placeless, and homogenized while the need for responsive and inventive public spaces is often overlooked. (Carmona 2015, 374, Tibbalds 2001, 9, Loukaitou-Sideris and Banerjee 1998). In Denver, green space per resident is shrinking at an alarming rate while the percentage of paved area has increased 29 percent in 44 years (Finley 2018). Additionally, public spaces are becoming increasingly privatized as urban areas continue to densify (Turner 2002, Nemeth and Schmidt 2011). Well-designed public spaces have been shown to play an important role in addressing urban opportunities and the development of urban plans (Mehta 2013, 56). Today's urban plans are developed for maximum long-term impact, leaving a surplus of under-used vacant lots and sacrificing their short-term flexibility. However, a constantly changing city necessitates flexibility in design for urban spaces (Friedman 1997, Schmidt and Nemeth 2010, Madanipour 2018, 1105). **The research described in this paper seeks out a data-responsive process and design solution which uses vacant lots to create public spaces that balance impact with flexibility.**

02

BACKGROUND: URBANISM AND PUBLIC SPACE CREATION

2.1 LONG TERM URBANISM

Developed from backlash against post-war policies in the 1950's and a desire for policy to reflect the complexity of urban life, the current paradigm of rational planning process has equally increased the complexity of zoning laws throughout the United States (Moroni et al 2018). The first zoning resolution passed in New York in 1916 contained fourteen pages, a document which now contains over four-thousand pages (Moroni et al 2018, 2). The increase of zoning complexity represents the "experts-based" model of urban planning which creates a public process that often does not align well with stakeholder interest, requires a more time-intensive process, and most importantly does not allow for flexibility between the creation of a plan and the built result (Carr and Dionisio 2017, 73-74).

After their acquisition many urban lots fall vacant, which Faraone and Sarti define as 'waiting spaces': "standing empty or unused, and therefore waiting, while their immediate surroundings are growing, evolving, and being used" (2008). The average American city is comprised of 16.7% vacant land, a number which has been increasing steadily since 2000 (Newman et al. 2017, 425). While at times left vacant due to economic conditions or urban expansion, many urban lots are left empty during the long process of design and permitting required by long-term planning and design (Ibid, 422). Unfortunately, traditional planning and public space design methods limit the potential of the urban realm by failing to recognize the potential for vacant lots to solve social, economic, and environmental issues (Pearsall and Lucas 2014, 123).

2.2 TEMPORARY URBANISM

POLICY

Temporary Urbanism is a new set of tools that have developed in recent decades to combat the inflexibility of long-term urbanism identified previously and bring life to underutilized and vacant land. Temporary urbanism distinguishes itself from long-term planning and other methods by its "explicit and intentional time limit" (Nemeth and Langhorst 2014). Common drivers of temporary urbanism often include political or economic uncertainty, intensity in spatial use, revolution in work space, counterculture activism, new technology, and most important to this research: urban vacancy (Bishop and Williams 2012). Tactical Urbanism, a distinct form of temporary urbanism, was developed in direct opposition to the urban development norm and encompasses a collection of "short-term, low-cost, and scalable interventions and policies" (Lydon & Garcia 2015, 2). Ranging in scale from guerilla-painted bike lanes to rethinking Times Square, the pioneers of Tactical Urbanism promote a user-executed method of improving public spaces, both sanctioned and unsanctioned (Tardiveau and Mallo 2014). Tactical Urbanism interventions can often occur overnight or within a week, meaning community needs are addressed on a more reasonable time scale (Salvo et al. 2017). While not all forms of temporary urbanism are Tactical, the groups acting on these short-term and low-cost principles are pointing towards a future where temporary urbanism is no longer seen as secondary to long term planning, but an equally valuable and utilitarian method.

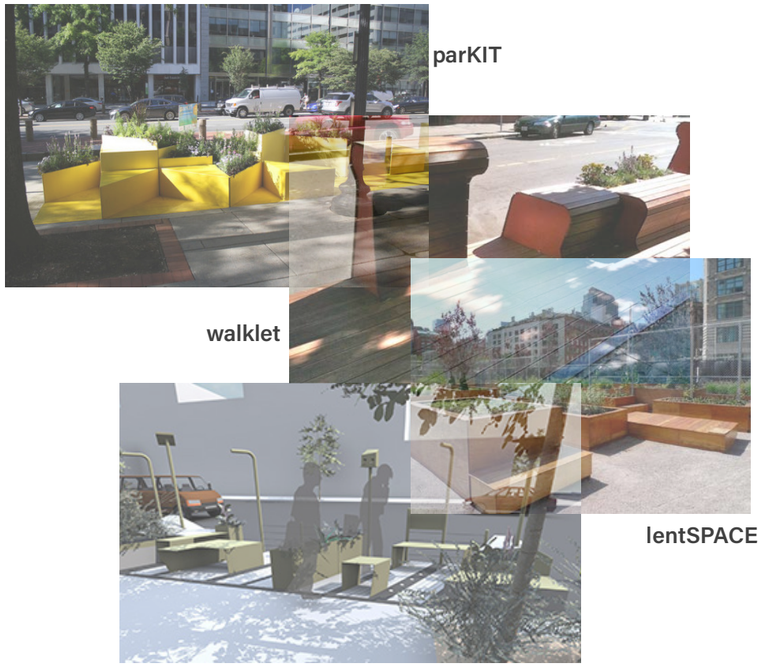
A temporary method for development of underutilized space not only bypasses the inflexibility and long time-scale of traditional long-term planning method, but also creates unique opportunities for urban intervention. Socially, activating unused spaces of the city can provide new life to communities and improve urban health. (Anderson and Minor 2017). Politically, temporary developments allow for incremental and reversible change to manage public opinion and push-back. (Nemeth and Langhorst 2014, 146). Economically, programmatic changes can shift with economic conditions while investments on development pose less risk to developers and property values increase (Heckert and Mennis 2012). Ecologically, a system of individual yet connected urban interventions aimed towards urban environmental issues can increase biodiversity, filter urban runoff, and create a system in which urban ecology acts in harmony with urban civic spaces (Kremer et all. 2013, Anderson and Minor 2017). Through these beneficial avenues, temporary urbanism can serve as a innovative and evolving central feature of urban public space (Carmona 2015, 399).

Temporary Urbanism methods, while demonstrably useful, are not without critique or drawbacks. The 'temporary city' paradigm that swept the urban development sector in the early 2000's was quick to employ low budget solutions as a welcomed alternative to profit seeking developments (Ferreri 2015, 182). However, lower budget projects often lead to a lack of large-scale impact, are unable to meet the necessary standards of management and continued oversight, and lack the support of important government entities (Bishop and Williams, 215). Funding for temporary projects is

often sponsored by local business, meaning economically successful areas have a disproportionate opportunity to capitalize on temporary urbanism (Littke 2016, 171). Additionally, temporary urbanism struggles with scalability as a small local intervention are less appropriate when viewing larger plots of unused land (Nemeth and Langhorst 2014, 147). Finally, temporary interventions are hampered by the disconnect between acting stakeholders as bottom-up activists fail to see eye to eye with governments or operate without consistent communication with developers (Moore-Cherry and McCarthy 2016, 352).

DESIGN

As a design method, temporary urbanism allows for a set of physical tools which are unique to their shorter life-span. Across the United States, designers are beginning to take advantage of innovative temporary design strategies to make an impact in underutilized spaces of the city. The four projects shown here each contribute significant design elements to the greater knowledge of temporary design and it's potential.



Case study collage - image citations on individual case study pages

parKIT by Gensler (Washington, D.C.)

Replacing two parking spaces on a crowded DC street, this parklet aims to bring seating, planting, and a vibrant character to otherwise an otherwise car-centered area. Integrating the design with existing surfaces invites users into the space while the bright yellow intervention **creates a sense of place**. The multiple-month tenure of the parklet elevates the level of impact and the triangular modules suggest an element of flexibility or a broader system of design. Funding for the project came from the local Business Improvement District, which could be considered for monetary assistance with the implementation of any public space (Melcher 2015).

parKIT - images from www.archpaper.com

Walklet by Morelab (San Francisco, CA)

Walklet is a modular system which extends the sidewalk into the parking lane. Using a 'kit of parts' approach, various modules link together along the curb including high tables, benches, planters, bike racks, and flat extensions. The **modular system** allows for **extreme flexibility** over time, but also allows the intervention to adapt to the surroundings as it may be implemented across the city (Bishop and Williams 2012).

Walklet - images from www.morelab.com

LentSpace by Interboro (New York, NY)

This temporary park was created with cooperation from the site's owner, Trinity Real Estate, and the Lower Manhattan Cultural Council. Designed as an art park and tree nursery, Lentspace opened in 2009 and remained for three years. The modular planters were moved to surrounding streets when the project was over, which show a greater level of **impact beyond the initial implementation**. A basic requirement of the project was for it to close at night, so Interboro designed a rotating wooden fence system which also acts as seating: during the day the fence components are rotated to create openings and locked in place at night which speaks to the potential importance of security and management. (Bishop and Williams 2012).

LentSpace - images from www.interboropartners.com

Open Field by Studio for Urban Projects (San Francisco, CA)

A modular parklet system which addresses the need for ecologically beneficial interventions in the city. Inspired by agricultural systems of land management which combined multiple uses of common land, the system is designed to counter the argument that cities and nature are separate. Basic strategies include native plantings to attract local pollinators, birdhouses for local species, and stormwater filtration planting. Bringing wildlife and humans closer together through public space while **fostering environmental consideration** allows Open Field to address many of the potential ecological benefits of temporary design. (Studio for Urban Projects 2018).

Open Field - images from Studio for Urban Projects

REVIEW

A primary common theme which can be pulled from each temporary design project is modularity -- being constructed of a system of smaller parts to create a larger whole. Responding to the need for constant flexibility in the built urban environment, a modular system can consist of a series of pre-built elements which reduce the need for on-site construction but still allow for customization. However, a modular system of connected components is only seen at the smaller scale, making projects like LentSpace feel like a series of placed objects rather than a cohesive intervention. A public space system which balances impact and flexibility on vacant lots can capitalize on a modular system but must also push for innovative solutions to large scale implementation and site conditions. Below is a shortened list of design takeaways to be learned from the temporary urbanism case studies.

MODULAR

FLEXIBLE

SMALL SCALE

PLACEMAKING

MOVABLE

ECOLOGICAL

2.3 PRIVATELY OWNED PUBIC SPACE

OVERVIEW

Power over public areas has shifted from public authority to private interests and investment over time (Turner 2002). If the network of public spaces we create through a temporary method is restricted to publicly owned lands, the potential impact of public space is greatly decreased. Vallance et. al. suggest a rethinking of public spaces to broaden the definition from "that which is owned by the state" to include the process of its making and the intended result (2017, 89). Through this, an entire category of physical sites is opened for consideration as "public space", including undeveloped private lots. The legal precedent for the development of public space on private land exists through "privately owned public spaces", or POPS. In 1961, New York city officials developed a zoning policy which provided floor bonuses to developers in exchange for creating public space on their private land (Kayden 2000). Many of these spaces occur between the building and the sidewalk, or even in large atriums just inside the building. One of the first wildly successful POPS can be seen at Paley Park in New York City. A small vacant lot between two existing buildings was developed as a public plaza, extending the life of the public right-of-way into an approachable and tranquil space and allowing the building owners extra floors in addition to their zoning allowance.

The creation of POPS benefits three primary stakeholders in the city: developers get breaks on zoning ordinances, the city gets a faster and more efficient source of public spaces at little cost, and the public gets access to a broader network of public spaces which increases the livability of the city. (Schindler et al. 2018). POPS, while often celebrated for their diversity of uses and users, must be carefully designed and sometimes monitored for functionality as they can easily become spaces of exclusivity rather than equal access (Huang and Franck 2018). Additionally, the fiscal motives of developers can limit social and political impacts and lead to misrepresentation of public interests (Nemeth 2011). However, the creation of a network of "private spaces open to the public" begins to blur the line between public and private ownership of the city to create a greater sense of connectedness in urban life (Jankovic 2012). While originally intended for long-term urban projects like Paley Park, the POPS method can provide temporary urbanism with a broader range of potential sites. By offering zoning or other incentives, land-owners and developers may be more inclined to provide temporary public spaces on their land, which can facilitate a semi-permanent intervention method.

DENVER INCENTIVES

On September 21st, 2016, Denver Mayor Michael B. Hancock signed a law which "dedicated affordable housing fund to help create or preserve thousands of affordable homes for low- to moderate-income families in Denver" (City and County of Denver, 2016). The affordable housing fee is collected in addition to standard permitting fees and charges developers a per -square-foot rate for various types of development (multi-

unit, single family, etc.). While this original fee only incentivizes affordable housing, the legislature has recently been expanded to include further incentives.

In February of 2018, the City Council of Denver adopted an expansion of the incentive zoning practice in the area surrounding the planned 38th and Blake Station development (City of Denver 2018)(Appendix A). The expansion allows developers to build to height limits larger than previous allowances in exchange for providing one of the following three services:

1. Building affordable units in the neighborhood based on square footage above a specific height
2. Paying five times the city's existing affordable housing fee for square footage above a specific height
3. Including uses that serve the community, such as day-cares, groceries or artists' spaces.

Denver has shown its willingness to provide incentives to developers to positively impact surrounding communities, and the existing system could be expanded both in boundary area and also in the services provided. Developers could be given height limit exemptions for providing temporary public space on their undeveloped land to create a network of semi-permanent public spaces on privately owned land.

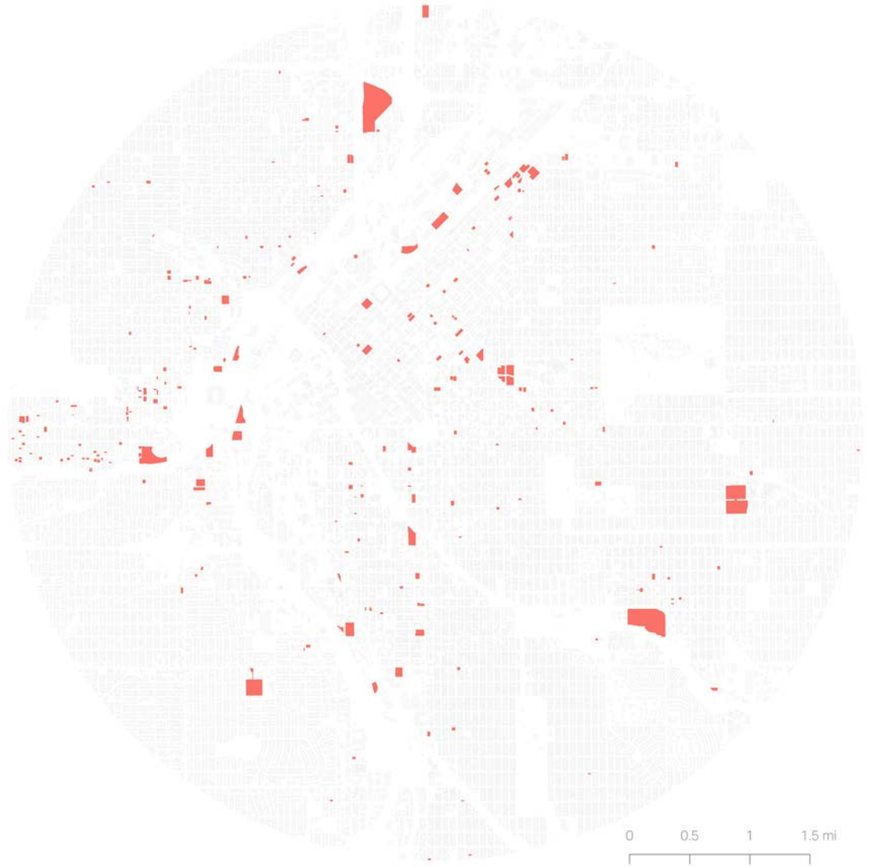
2.4 DENVER'S URBAN VISION

LONG TERM URBANISM

Since 2013 the city of Denver has poured $5 billion in investments to the Downtown Area, and an additional $2.3 billion are currently on the boards. (Downtown Denver Partnership 2018). Listed as the 3rd fastest growing city in the U.S., population in Denver has increased by over 10,000 annually since 2010 (Finley 2018). To accommodate rapid population growth, 6,236 residential units and almost 4 million square feet of office space were added to the Downtown core in 2017 and 2018 alone (Downtown Denver Partnership 2018). Such rapid developments contribute to shifting economic conditions and urban expansion, but also are led through experts-based planning projects which contribute to a lengthy design and permitting process as stated earlier. Unfortunately, these same factors are leading to a rapid decline in open space acres per resident leaving the city well below the national average (Finley 2018). The positive and negative effects of the city's rapid transformation alongside it's willingness to explore new methods of urbanism make it the perfect case study city for this research.

Denver is clearly undergoing a period of urban development and a new wave of properties throughout the city are in the process of being developed (Figure 1). Published in 2017, the Denver Outdoor Downtown Master Plan was created as a "20-year master plan to...make Downtown's parks and public spaces world class destinations" (Denver Parks and Recreation). The plan outlines ten major areas of

improvement, and categorizes sub-items of action into short-term, mid-term, and long-term. Short term developments are comprised of policy changes and further problem identification. The implementation of physical interventions such as the creation of new public space, however, fall under long-term development. While this is expected of a large master plan, the city's reliance on long term development and minimal use of temporary urban methods contribute to the gap between problem identification and solution implementation in Denver's development boom.



development site area

building outline

Figure 1. Map of Planned Development in Denver. Properties highlighted are currently under review with the City of Denver. (Data from Denver Open Data Catalog, map by author)

TEMPORARY URBANISM

In direct contrast to the Denver Outdoor Masterplan are temporary urbanism projects like the "The Square on 21st". During the summer of 2017, the block of 21st street in Downtown Denver between Larimer and Lawrence was closed for two months. The street was converted into a "pop-up park" featuring a performance stage, rotating vendors, lawn games, movable seating, public art, and a fenced dog park. The park drew more than 15,000 visitors during its lifetime. Designed as a response to the "park desert" within the neighborhood, the city is now analyzing the collected data to inform the future development of a 'signature street' along 21st which would remove vehicular traffic. While primarily focusing on long-term development, The Square on 21st shows Denver's willingness to use a temporary urban method to create vibrant and useful public spaces in the near future (Denver Community Planning and Development 2017).

The Square at 21st - images from denvergov.org

03

THE MIDDLE GROUND

Public space has continued to play a primary role in the urban lives of many major global cities, however it's function continually changes with urban evolution. People continue to depend on public spaces as social and cultural hubs of the city, even with the loss of many consumer-based functions of historical public spaces which have moved online (Mehta 2013, 55). As demonstrated, the nature of growing cities like Denver creates a complex set of issues which experts attempt to solve through design and intervention. However, many public spaces being created in major U.S. cities including Denver occur through the long-term urbanism and ignore temporary urbanism as a method. (Bishop and Williams 2012). When implemented, temporary urbanism has limited impact due to scale and lasting time. As urban vacancy continues to impact Denver, relying on temporary urbanism can only partially capitalize on these lots while long-term urbanism contributes to gaps between problems and solutions. This research seeks a middle ground between long-term and temporary urbanism as an exploratory space for new methods of data-responsive public space generation.

ADAPTABLE
SMALL SCALE
LOW IMPACT
SHORT TERM

RIGID
LARGE SCALE
HIGH IMPACT
LONG TERM

TEMPORARY URBANISM

MIDDLE GROUND

EXPERTS BASED PLANNING

Urbanism Spectrum and The Middle Ground - created by Author

04

DATA BASED SITE EVALUATION

4.1 DATA IN DESIGN

Geographical Information Systems (GIS) are a family of data processing tools which allow for spatial analysis of data through visual mapping and data tabulation components (Levine Landis and Klosterman, 2007). The rise of digital computing technology has dramatically altered the field of urban planning and design: in 1984 less than 5% of local U.S. governments were using a form of GIS, a number which rose above 85% by 1997 (Warnecke, Beatie, and Lyday 1998). While local site analysis has always been a part of urban design, GIS allows planners and designers to introduce analytical thinking and recognize large-scale patterns of the urban environment (Drummond & French, 2008).

GIS has an extremely broad range of applications including planning and property analysis, two topics of importance to this research. In planning, GIS can determine site locations by identifying areas which have higher opportunity for intervention. In property analysis, GIS can acquire detailed data on land value and surrounding urban influences (Batty 2000). The established GIS methods for site location and property analysis are referred to as "Interactive Data Modeling", where specific plots or regions (geometries) are evaluated based on their proximity to surrounding amenities (features) (Levine, Landis, and Klosterman 2007). For example, GIS could be used to ask queries such as "Show all sites in Denver which have access to X amount of bike racks but only 5% tree canopy coverage". While queries are useful, this research takes the Interactive Data Modeling approach one step further to create a univariate scoring system to quickly compare the opportunity level of each site and provide more evaluative specificity.

4.2 METHODS OVERVIEW

There are currently 257 private development projects under review in the city of Denver. As shown, the process of design and permitting will leave many of these lots vacant throughout the next decade. These potentially unused sites present the spatial opportunity to unite privately owned public space with the strengths of both temporary and long-term urbanism. However, not every development site faces the same set of challenges or creates the same set of opportunities. To maximize the impact of any temporary use of vacant lots, each planned development can be evaluated based on a set of predetermined urban elements to create a lot scoring system. Denver Open Data contains a catalog of maps that can not only inform the large-scale master plans for the city but can be used in GIS to evaluate the specific development sites under review for the surrounding urban elements which identify and highlight their opportunity. Additionally, these preexisting urban elements (or lack thereof) can be used in conjunction with a modular design method to ensure not only flexibility but responsiveness to the changing urban form. This process, then, can bring in new data sets as the city continually updates their map databases to ensure that future temporary developments are responding to the most current data.

For this research, the evaluative urban elements for the planned development sites are tree canopy coverage, impervious surface coverage, average household income, selected demographic data, access to public parks, access to bike racks, and access to public art. A distance of one-half mile was selected as a reasonable distance for defining a "surrounding area of access" while not creating unnecessary overlap between development sites. Two primary tools were used based on the site element: those evaluating percentage coverage on the developments (tree canopy) used intersection combined with field calculation, and those evaluating access within a distance from the site (all remaining elements) used spatial join.

4.3 DATA PROCESSING

Before any data processing could begin, the site development plans were loaded in from Denver Open Data, and all previously recorded / finished projects were removed from the dataset. Then all the site elements layers were loaded in as individual layers. The process of calculating access within a distance followed four primary steps in QGIS. The first step was to assign an ID for each lot so that new attributes can be joined back to their original location and to keep track of the lots through the following step. Next, the buffer tool was used to create boundaries of one-half mile around the sites to define their individual areas of access to the urban elements. These buffers carry the unique ID assigned to the site development plans which were used to compile the access data back into the lots. Third, the Join Attributes by Location tool was used to tabulate the urban elements which lie within the buffers of each site in the desired manner by selecting the geometric predicate. When using this tool, the input layer was always the buffers and the join layer was the desired urban element and only the desired attributes of the join layer are kept. For example, when calculating the number of bike racks within one-half mile of each site the bike racks are the join layer and

count (geometric predicate) was selected to count the number of bike racks within the one-half mile buffers. For parks, however, sum was used to add up the acreage of park within each one-half mile buffer in addition to counting the number of individual parks. Join Attributes by Location attaches the desired features and calculations to the buffer layer. However, the final step is to move the new tabulated data to the site developments layer to make sure the data relates back to the site locations using Join Attributes by Field Value. This tool transfers desired attributes between two attribute tables by matching the features with a matching attribute column, which were created with the Unique ID. With the site development plans layer as input layer 1 and the buffer layer as input layer 2 the Unique ID for each layer was selected as the table field. Then the desired site element attributes from the buffer layer were selected as the layer 2 fields to copy and will be joined to the site development plan layer using their matching Unique IDs.

Tree canopy coverage uses a different process as the desired statistic does not involve access within a surrounding area, but rather looks at coverage on the lot itself. The process for calculating a percentage and total tree canopy coverage for each site development plan follows five distinct steps in QGIS. First, the area of each site development plan and tree area were calculated using the Field Calculator to create a new attribute in both attribute tables and using the "$area" command to calculate the geometric area for each site and tree canopy shape. Second, the clip tool was used to evaluate only the tree canopy that exists on the site developments and ignore all other canopy during the process. When using the clip tool, the input layer was always the desired site element (tree canopy) while the clip layer was the site development plans. Next, the intersection tool was used to join the desired attributes of tree canopy to the site developments layer, which include the area of the tree canopy. Fourth, the field calculator was used again on the new intersected layer. A new field was created on the intersection layer and defined as "tree_canopy_area / site_development_area", resulting in the percentage tree canopy coverage for each site development plan. Finally, the total tree canopy area and the percentage attributes were joined back to the site developments plan using the same Join Attributes by Location as used above to move the data back to the original site development plans layer from the intersection layer.

The final process was for income and demographic data, which is a simplified version of the tree canopy data acquisition process. The site development plans were intersected with the census block data layer with the site development and only the census data attributes desired were selected to be kept (average household income, percentage of races, etc.). Using Join Attributes by Location, the resulting "intersection" layer data can be moved back to the site development plans layer as shown above in the tree canopy data process.

The result of this method is a site development plans layer which contains all desired original site development plan data, along with a new set of features which define the access to surrounding urban elements and the economic and demographic status of the surrounding areas. Each attribute in the table (one of the selected site elements) can be sorted from least to greatest or filtered specifically to find the sites

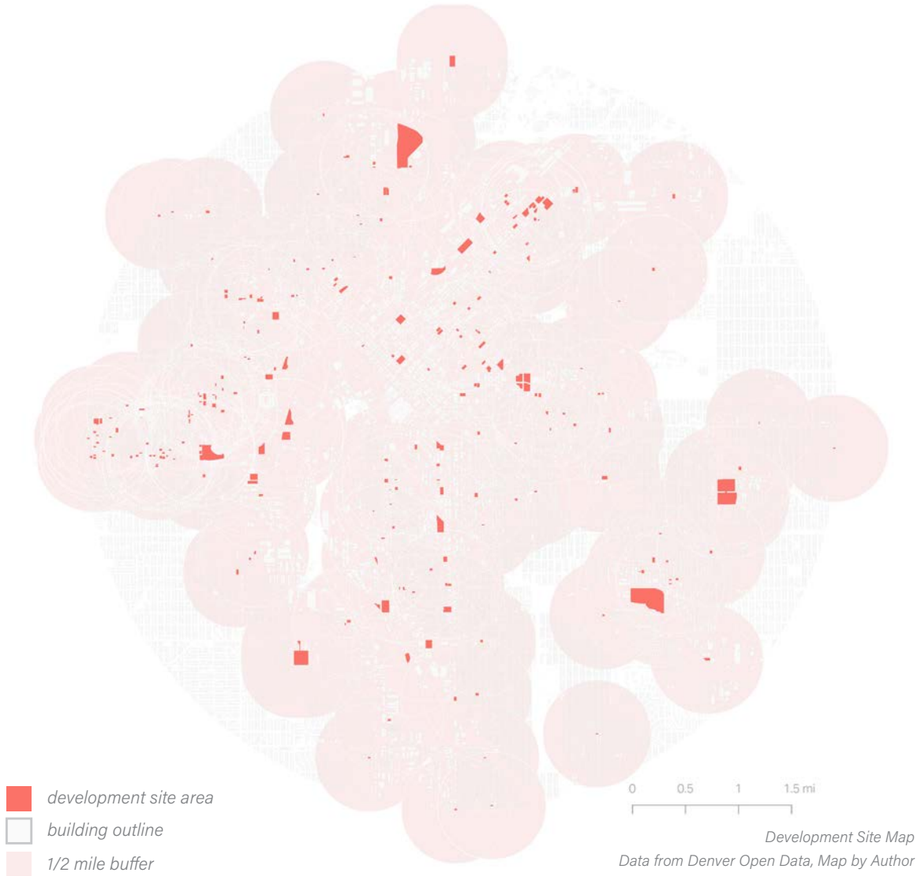
which display the least access to site elements. Not only is this data useful for site selection and evaluation intervention opportunities, but the design of the selected sites can also be informed by its specific set of data to cater each intervention towards the needs or opportunities of the site.

After data processing, a univariate scoring system was created to rank each site in terms of intervention opportunity. For this research, each site element was weighted equally but further research could include a studied weighting system to prioritize site elements deemed most important. To normalize the data, each value was divided by the maximum value in its site element category. The normalization process allows for each category to receive an individual score between 0 and 1, where 0 represents the minimum element amount (e.g. 0 bike racks) and 1 represents the maximum element amount (e.g. 316 bike racks). For each site the normalized values of canopy percentage, park acres accessible, public art, bike racks, percent minority population, average household income and impermeable surfaces were added. Thus, the total score for a lot falls between 0 and 7 where 0 represents the highest opportunity for improvement and 7 represents the lowest opportunity. For the full data table and ranked list, see appendix A.

05

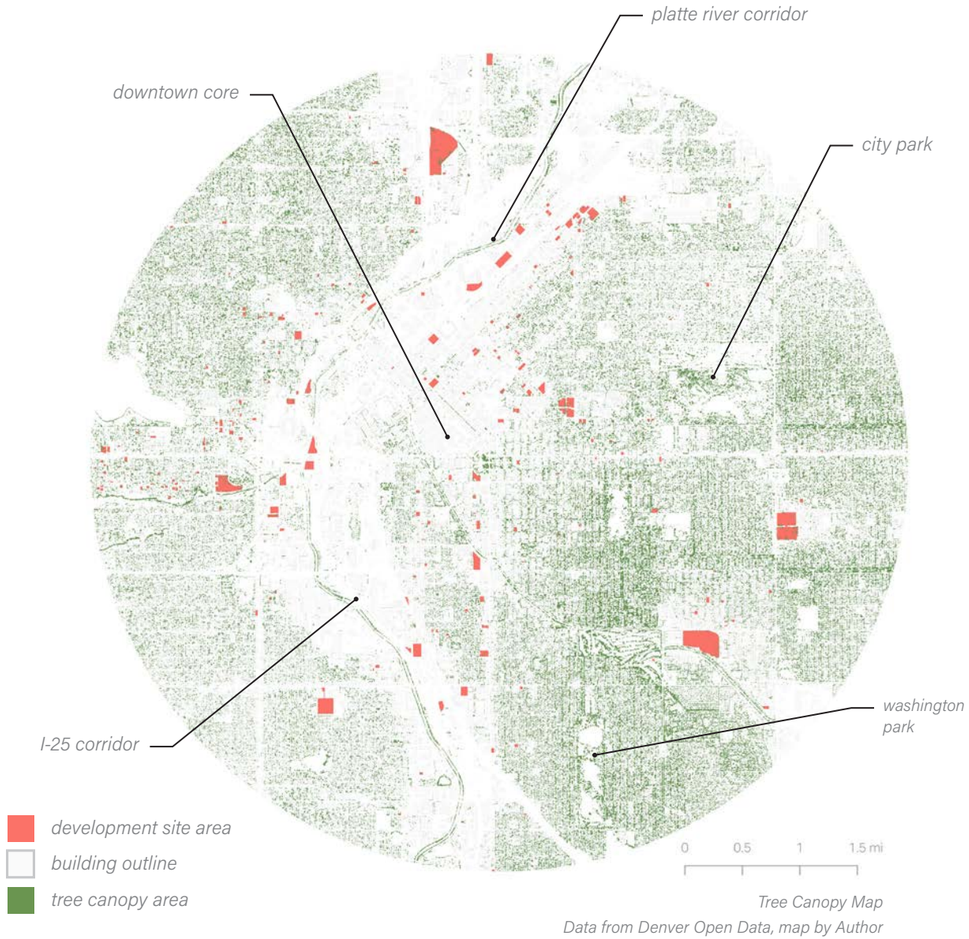
DATA FINDINGS

The development site map below shows all 257 development sites with their corresponding half-mile buffers. The following maps are for each determining site element which illustrate their relative distribution across the city and their relation to the potential development sites. Each map was created using the data method described with data from Denver Open Data and is accompanied by a brief description of the associated data. For a full table of data see Appendix C.



Development Site Map
Data from Denver Open Data, Map by Author

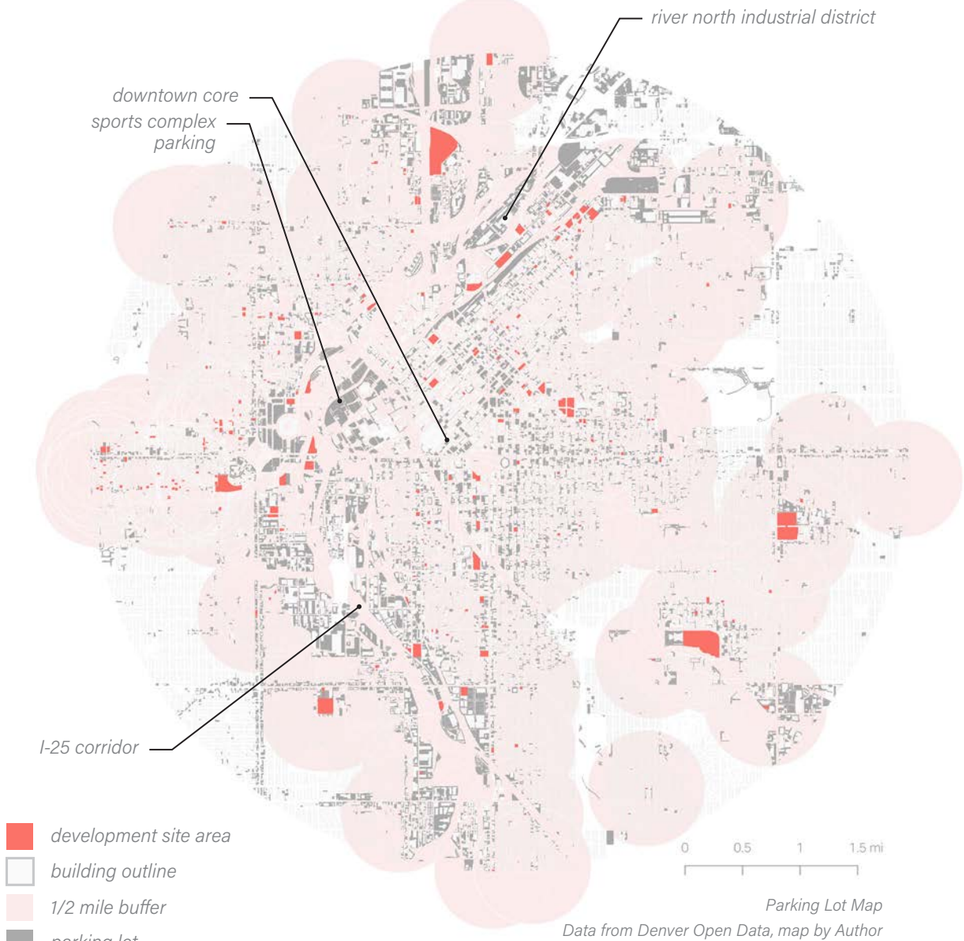
TREE CANOPY



Tree Canopy Map
Data from Denver Open Data, map by Author

Tree canopy is not evenly distributed across the development sites; however, lot size plays a significant role in the percentage coverage as some small sites in areas with little surrounding canopy have a larger coverage percentage than those in low tree density areas. There are 28 sites which have no tree canopy coverage, and an additional 144 sites with less than 10% coverage. The sites with no canopy coverage are clustered near the downtown area and northern industrial districts while those with less than 10% are found across Denver.

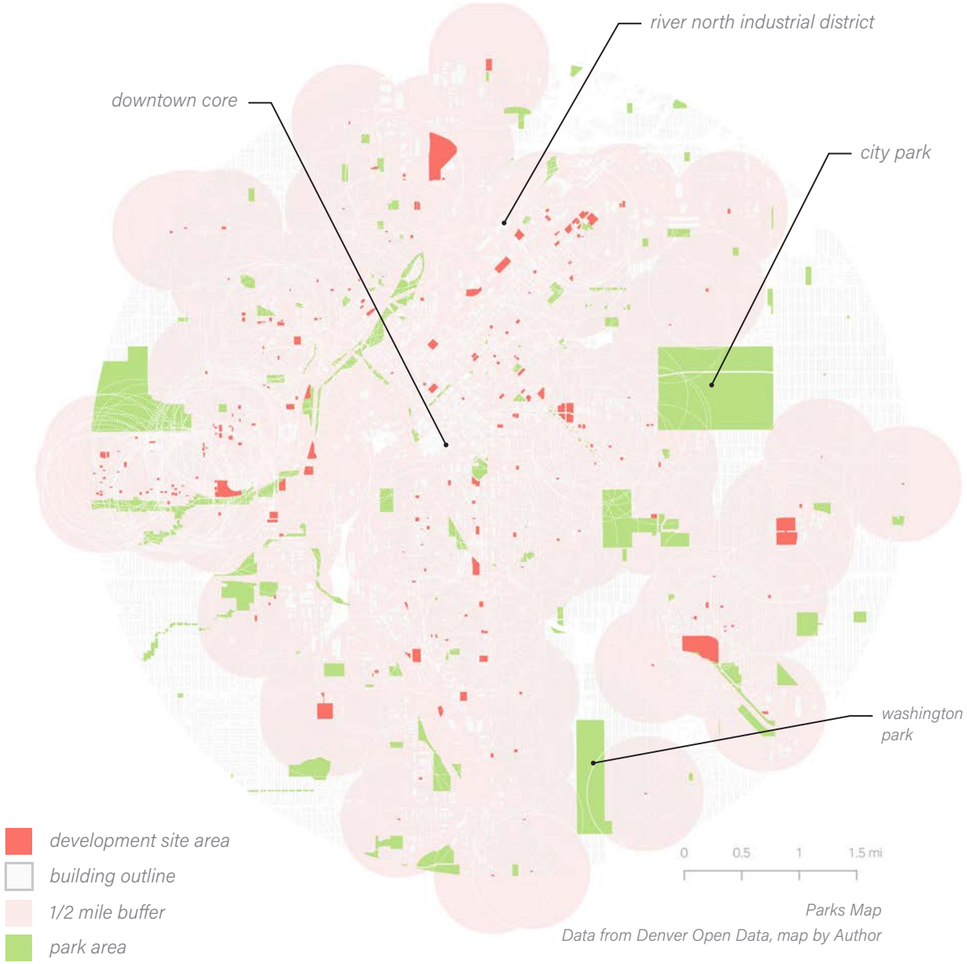
IMPERVIOUS SURFACES



Parking Lot Map
Data from Denver Open Data, map by Author

The city database of parking lots can be used to approximate the area of impervious surfaces within one-half mile of the sites. Parking lots can be found throughout all non-residential neighborhoods but are clustered along the I-25 highway corridor. There are no sites which are not within ½ mile of a parking lot, and the sites that lie within a half mile of over 900,000 square feet of parking lots are all clustered in the northern industrial area.

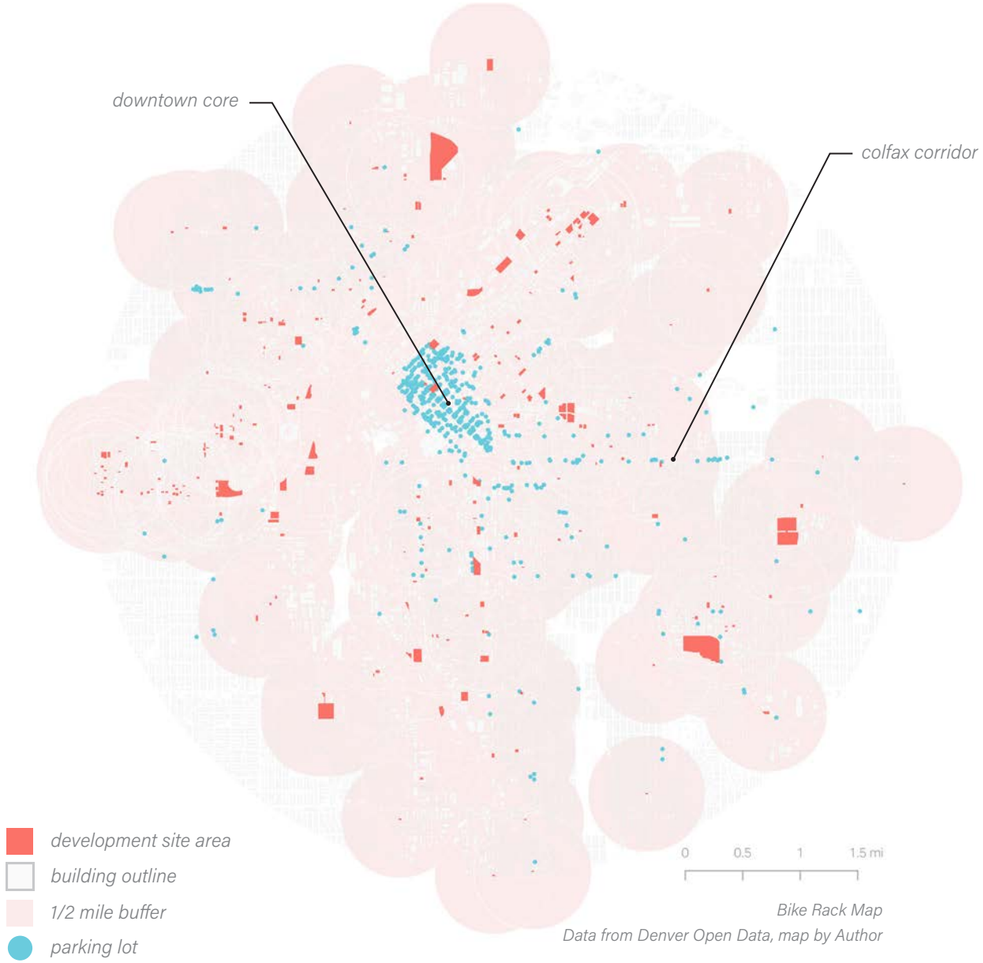
CITY PARKS



Parks Map
Data from Denver Open Data, map by Author

Major parks and green spaces exist East, South, and West of central Downtown but are lacking within the dense downtown area and to the North. The result is lots that have access to a great number of parks but smaller acreage totals in central areas, and lots that have access to fewer total parks but greater acreage in outer areas. Three lots having zero parks within a ½ mile radius are located south and northwest of Downtown.

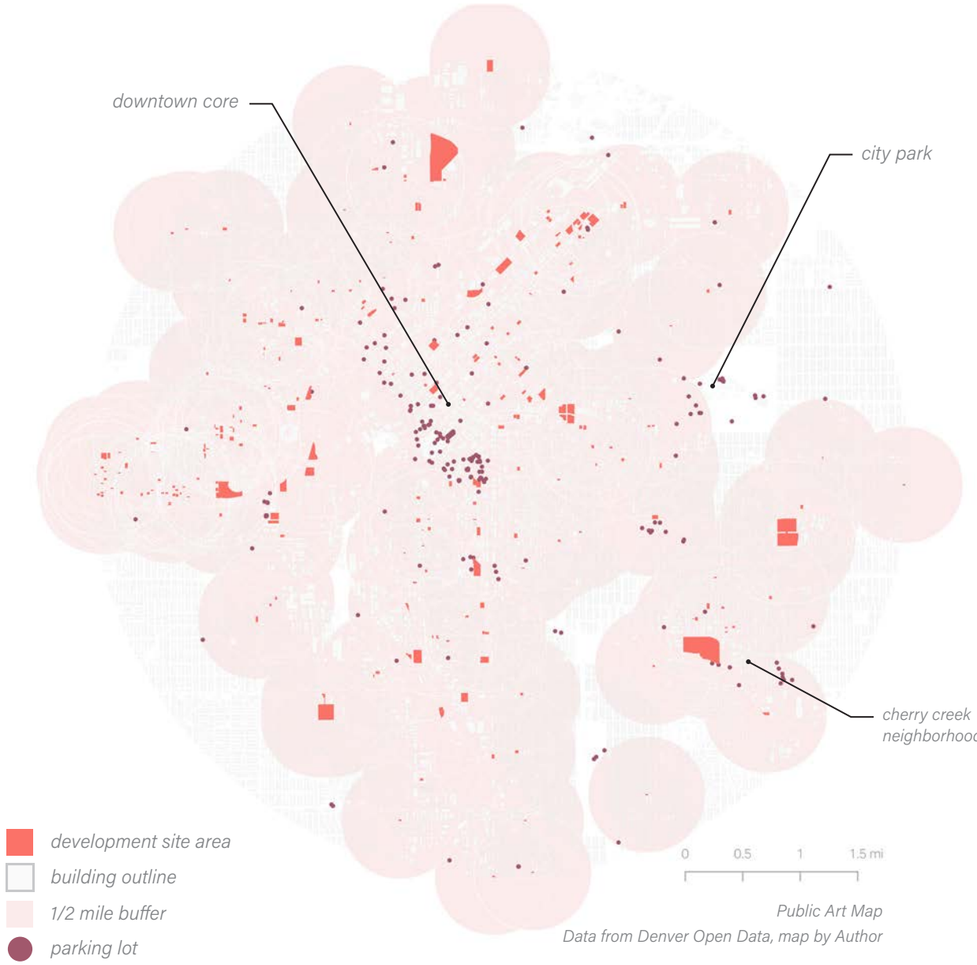
CITY BIKE RACKS



Bike Rack Map
Data from Denver Open Data, map by Author

Bike racks are clustered heavily in the central downtown area but can be seen along major roads and avenues as well as civic centers throughout other parts of the city. There are 50 sites without access to a bike rack within a half mile, and an additional 66 with access to only one or two bike racks. To illustrate the contrast, the central downtown sites with access to the highest numbers include 325, 316, and 293 bike racks respectively.

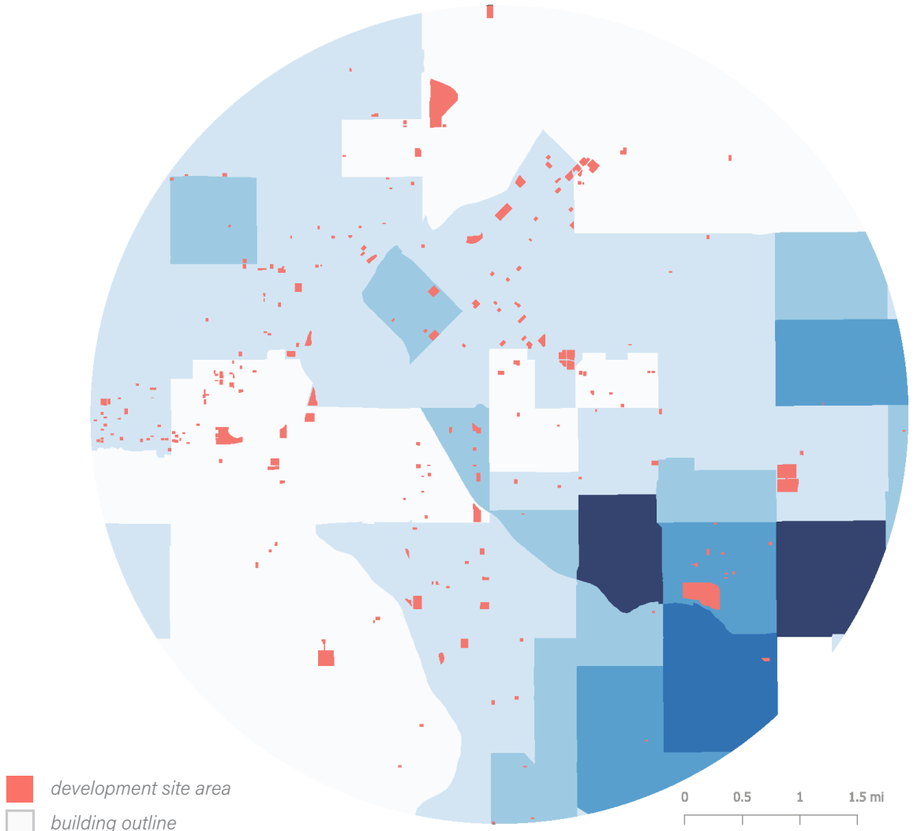
PUBLIC ART



Public Art Map
Data from Denver Open Data, map by Author

Public art shows a wide-reaching distribution of locations across the city but is clustered near the high-density areas in downtown and southeastern and western neighborhoods. There are 39 sites with no public art within a half mile, an additional 77 sites with access to only one instance of public art as opposed to the two sites with more than 85 instances. The sites with no access to public art are found throughout the city but are clustered to the west, east, and south of the high art density downtown areas.

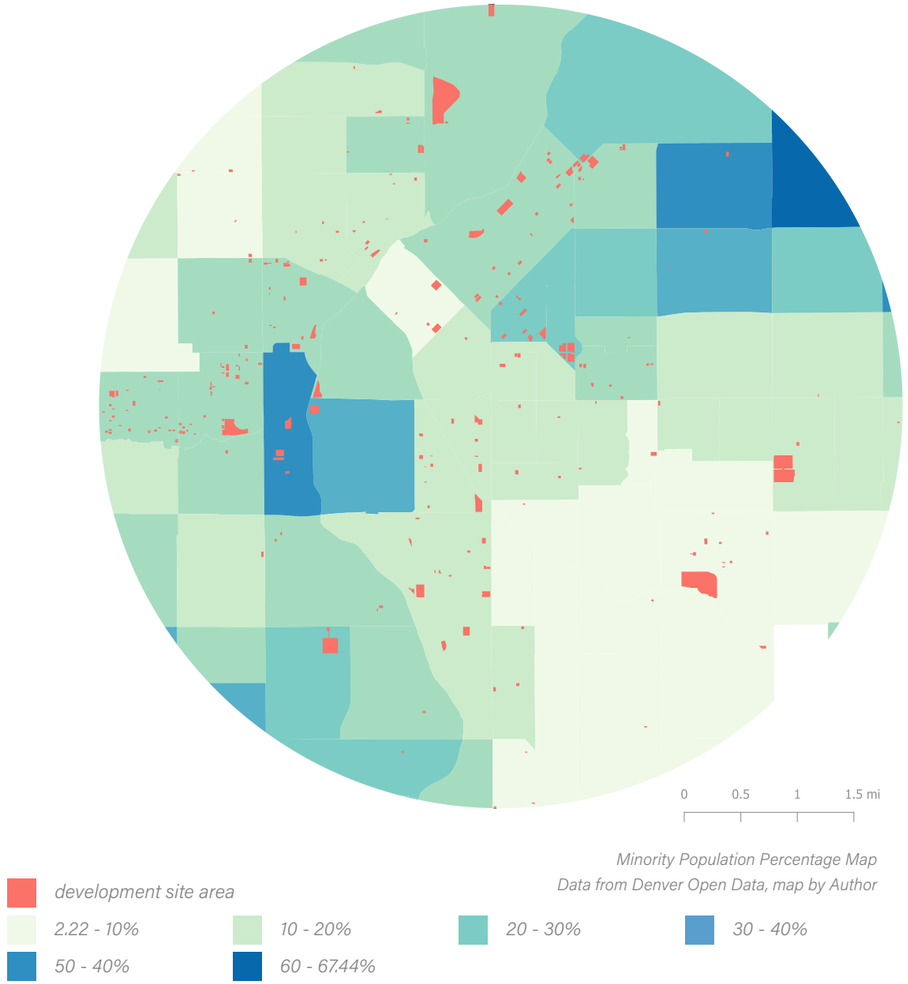
ANNUAL HOUSEHOLD INCOME



Public Art Average Household Income Map
Data from Denver Open Data, map by Author

Average annual household income in the Denver area varies from just under $13,000 to over $180,000. The three sites which lie in the lowest average household income area are southwest of the central downtown area and have the three highest percentages of minority population (55% minority as opposed to 4% in the highest income neighborhood). The highest total population per census tract exists north of downtown, while the lowest total population is just south of the central downtown core.

DEMOGRAPHICS



Minority Population Percentage Map
Data from Denver Open Data, map by Author

The map above of percentage of minority population across Denver shows that rather than being dispersed, minority populations are concentrated on the Western and North-Eastern side of the city. The highest minority population area contains 67.44%, while the lowest just 2.2%. While minority population is not the only demographic information available, it does show a contrasting distribution with income and can play an important role in providing amenities to under-served communities.

After raw data processing, the combined data set from all site elements is exported to create the univariate scoring system. Table 1 is a simplified version of the data table showing the 22 lowest scoring sites and all of the raw data inputs that created the total score. While the maps shown provide a visual aid and overall sense of sites and element distribution, this raw data allows for site opportunity to be quantified across all studied elements and can be used by any interested party or stakeholder to better understand a developing lot in the city of Denver.

ADDRESS	AREA (SQ.FT)	ID	CANOPY %	PAKRS ACRES	PUBLIC ART	BIKE RACKS	PCT_WHITE	AVG_HH_INC	AREA_IMPRM	SCORE
3853 Walnut St & 3860 Blake St	123516.4737	214	0.013	12.611653	2	0	65.17	44442	880022	1.0521
3648-3560 Brighton Blvd	24192.57567	144	0.007	12.611653	2	0	79.67	40628	933539	1.1093
3750, 3760, 3770 Walnut St	19427.04193	106	0.013	12.611653	2	0	72.79	47477	798901	1.2331
3701-3713 N Marion St	24291.92646	233	0	16.853514	3	2	72.79	47477	774558	1.2574
3700 N Marion St	6241.619637	208	0.002	16.853514	3	2	72.79	47477	774369	1.262
14th Ave and Zuni St	195198.2782	113	0.009	70.627036	11	1	55.47	33099	730102	1.2757
N/A	221820.5998	138	0.046	14.889964	2	0	72.79	47477	826569	1.2814
2060 W Colfax Ave	172630.9546	141	0.012	70.627036	11	1	55.47	33099	728300	1.2842
Fox North	2337688.313	61	0.042	7.877551	2	1	72.73	40628	745733	1.3085
3601 Brighton Blvd	24652.59246	133	0.001	12.611653	2	0	79.67	76707	919554	1.3086
13th Ave and Decatur St	177006.2216	39	0.031	70.627036	11	1	45.29	12682	534497	1.3166
3724 Walnut St	31791.03872	188	0.044	21.134777	2	0	72.79	47477	800663	1.318
3501 Blake St	26051.46891	249	0	21.134777	3	1	79.67	76707	934255	1.324
3595 Wynkoop St	24499.01314	149	0.022	12.611653	2	0	79.67	76707	938933	1.3343
171-185 S Pecos St	8003.777706	157	0	19.454213	1	0	73.11	34501	595162	1.3566
38th and Blake St	53840.76947	193	0.015	12.611653	2	0	79.67	76707	867412	1.3951
3777 N Downing St & 3601 Walnut St	115282.6822	154	0.021	21.134777	3	1	79.67	76707	906411	1.4
38th Ave and Walnut St	29531.0718	194	0	12.611653	2	0	79.67	76707	817624	1.415
Legal Desc Only	164614.9276	153	0.006	18.679062	1	0	79.67	76707	816356	1.4309
50 S Kalamath St	331864.3735	115	0.004	18.348641	2	2	80.05	64989	768396	1.4344
1338 1st St	235678.6367	37	0.001	34.04294	2	0	71.36	84402	803886	1.4352
1370 W Maple	29589.85346	5	0.033	27.137559	1	1	73.11	34501	596970	1.4471

Table 1. Simplified data table - created by Author

06

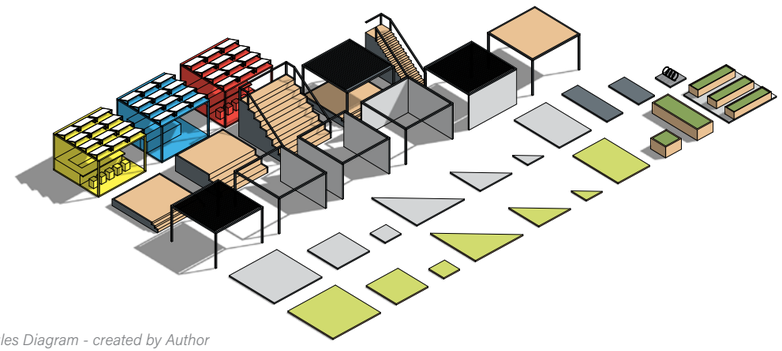
DESIGN METHODS

6.1 OVERVIEW

The process for designed urban opportunities through GIS analysis shown in the Data Methods section is procedural, using spatial data to draw out evaluative information about the potential development sites. Thus, a procedurally informed modular design solution complements the analysis method and can better address the urban opportunities of each potential development site. As mentioned earlier, long term urbanism developments focus on impact over time while short term urbanism public spaces focus on adaptability. Neither of these methods address both the needs of public space to be impactful in the short term and adaptable beyond the very short term. When designing for adaptability, public spaces designers have used modularity to ensure their designs can evolve alongside the needs of the surrounding areas. The modular system I have designed below, inspired by pre-existing modular public space solutions, can be deployed across these private development sites while they are vacant to create the adaptability desired and create greater impact on surrounding areas. The modules vary in size, shape, and program to accommodate the broad array of site conditions and are entirely transportable to increase temporary opportunities. To address the urban opportunities identified in the Analysis Methods section, each site would be designed with a unique combination of modules which best address the overall and local opportunities.

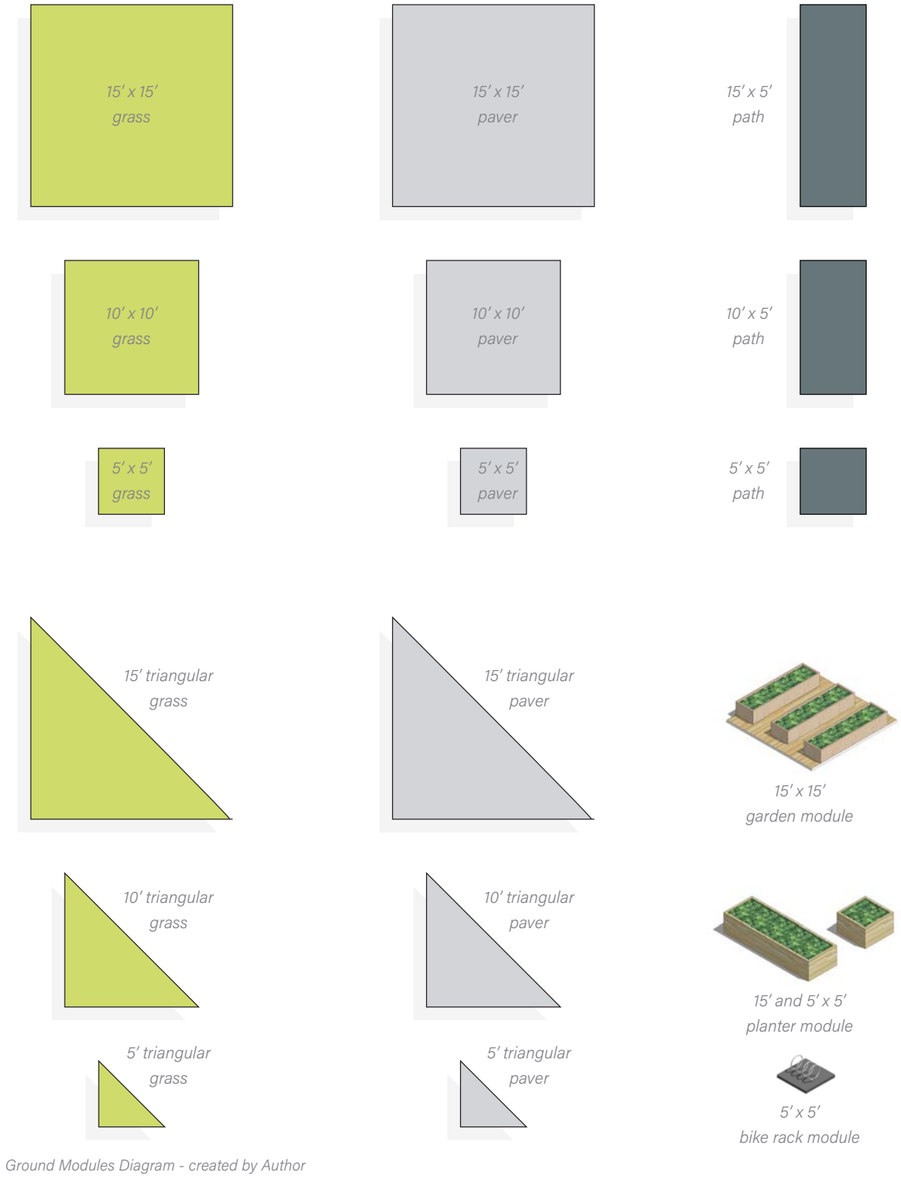
6.2 MODULE DESIGN

The collective suite of modules shown below fall into five categories and are derived from a basic square grid. Landscape and hardscape modules are designed in three sizes: large (15′ square), medium (10′ square) and small (5′ square) and are accompanied by triangular modules of the same sizes. Further landscape modules include a 5′ square planter box, a 5′x15′ planter box, and a 15′ square module with three smaller garden beds for community gardening projects. The third category of modules are canopy coverings which are all sized at 15′ square and 12′ in height. They include a louvered covering to control solar exposure, no covering, or full covering. Additionally, wall modules can be installed on the boundaries of the canopies to create interior spaces or allow for installation of public art. The fourth category are specialized seating and access modules which include performance platforms, step seating, and stairs for second level access. The final category are private vendor modules which could be built standard or customized by the private owner and deployed on site. The following pages contain full documentation of each module.



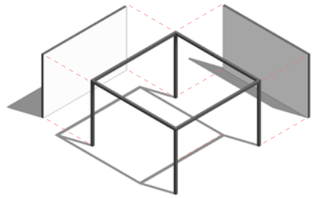
All Modules Diagram - created by Author

GROUND MODULES

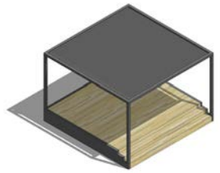


Ground Modules Diagram - created by Author

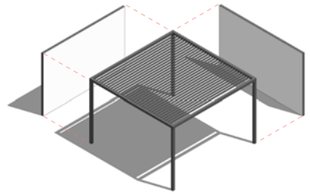
CANOPY / SPECIALTY MODULES



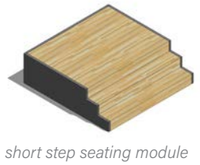
open top module with configurable wall options



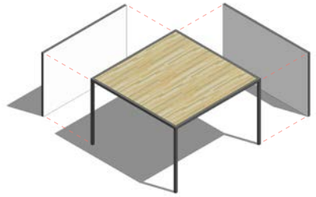
covered platform deck module



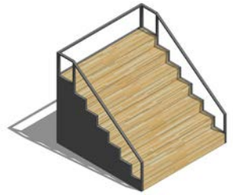
louver top module with configurable wall options



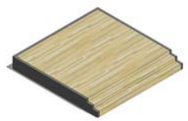
short step seating module



closed top module with configurable wall options



tall step seating module



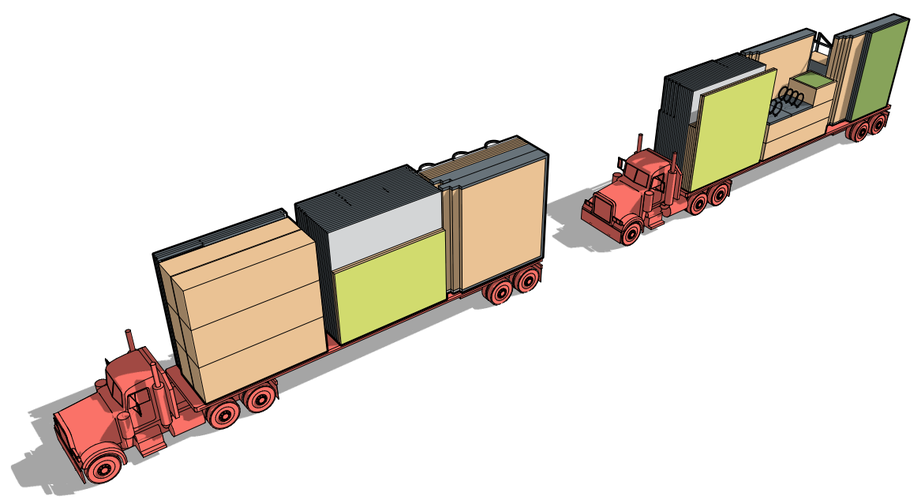
platform deck module

stair module

Canopy/Specialty Modules Diagram - created by Author

6.3 TRANSPORTABILITY

The modules are designed to encourage ease of deployment as well as transportability. The Transportability Diagram show 10,000 square feet of impactful and adaptable public space loaded on the back of two standard 8'x40' semi-truck trailers. Ground modules are turned vertically to save space while planters and bike racks are stacked. Canopy module vertical supports are foldable to enable vertical flat packing. Rather than designing single use interventions the modules can move throughout the city after their initial implementation promoting material sustainability and contributing to the lasting impact of the system.



Transportability Diagram - created by Author

07

DESIGN RESULT

7.1 OVERVIEW

To show the potential implementation of the designed modular system, three vacant lots were chosen to create prospective semi-permanent public space interventions. The three sites were selected based on two factors: score and size. Each site received a very low score through the data evaluation method (between 1.1 and 1.35) which shows great opportunity for site improvement. A small (8,000 square feet), medium (24,000 square feet), and large (173,000 square feet) lot were chosen to demonstrate how the system responds to varying lot sizes. For each site, plans were made for an initial "pre-development" deployment as well as a "post-development" retainment of selected modules. Sections and Perspectives are shown to give greater insight into the spatial organization, scale, and human experience of each site.

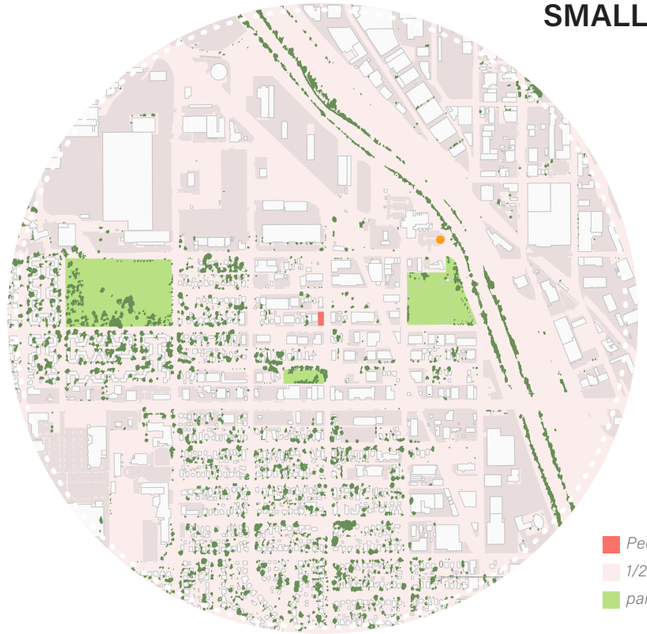
7.2 PECOS AND CEDAR

The site at the corner of Pecos Street and West Cedar Avenue, just west of the South Platte river, received a score of 1.35 through the lot scoring system described in this research. The property is currently home to a one-story building holding two residential units. The site is located at the edge of an industrial district with a large residential neighborhood to the south. Future development of the lot is planned for a two-story townhouse building to contain four units. While there are two small parks within the half mile buffer, the residential neighborhood is inundated with parking lots and severely lacking in amenities.

The Pecos and Cedar proposed development site

The vacancy at Pecos and Cedar, with the existing units to be replaced

SMALL SIZE: 8,000 SQ. FT.



(Left) Map showing the Pecos and Cedar site and it's 1/2 mile buffer, including all site factors present to show the lack of determining site elements within the area. Data from Denver Open Data and map created by Author.

(Below) Statistics drawn from the Data Table (Appendix C) about the Pecos and Cedar development site

0% lot canopy coverage

19 acres of park

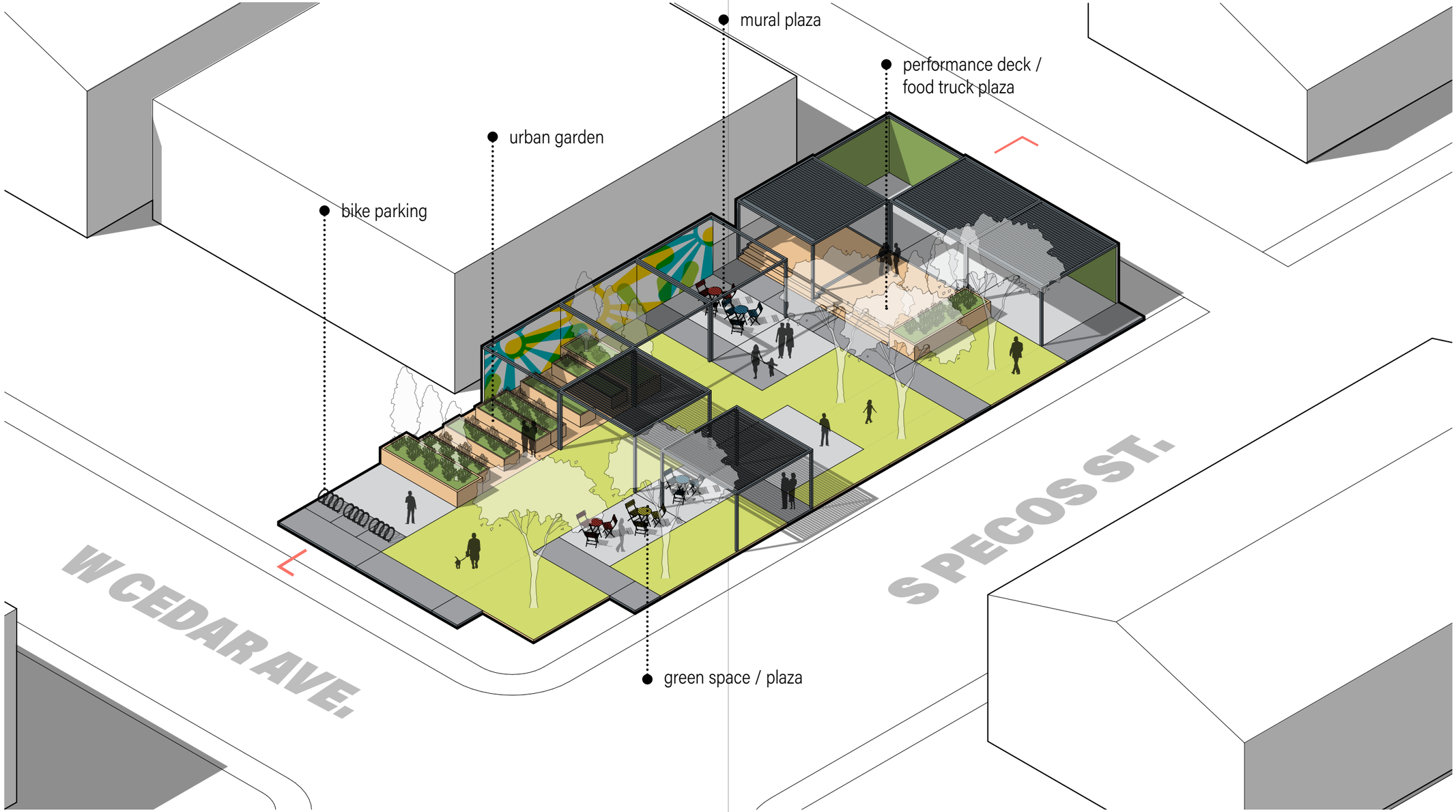
1 public art

0 bike racks

27 percent minority

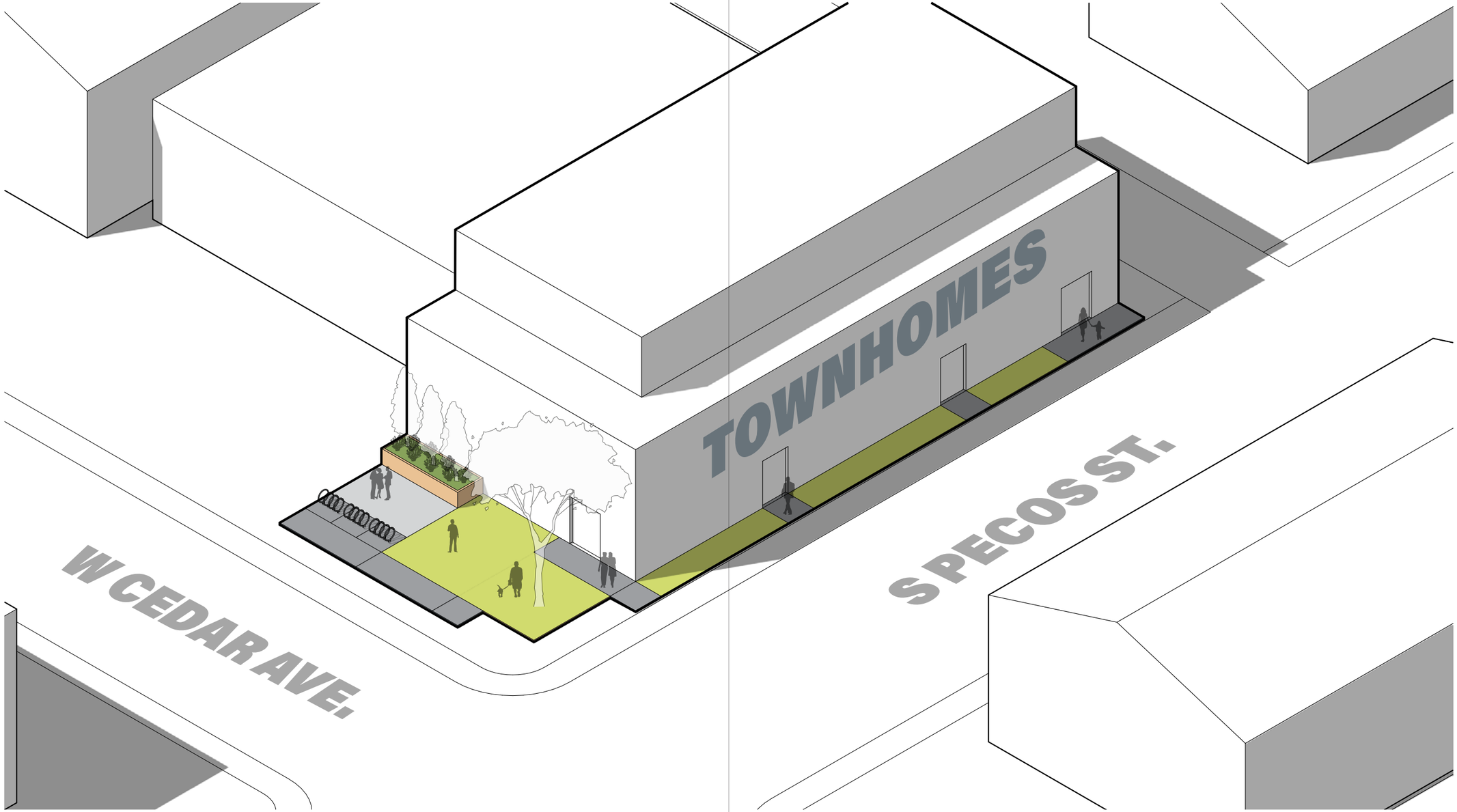
35k average household income

SCORE: 1.35



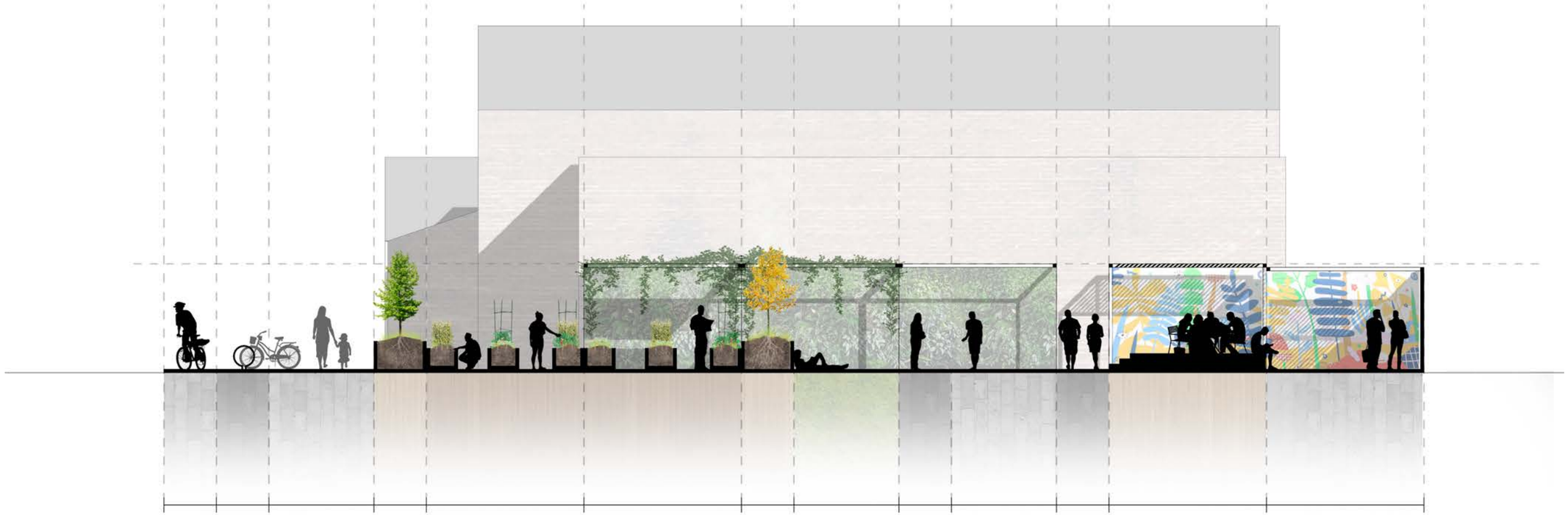
PHASE 1: INITIAL DEPLOYMENT

The future vacancy at West Cedar and Pecos is the smallest of the three selected sites. Because of the space limitation, the site is designed to create smaller experiences rather than large continuous spaces. Additionally, there are few sources of fresh food for the surrounding neighborhoods as they are bordered on all sides by industrial use, so the intervention is centered around an urban garden and green spaces. The site also creatively combines program areas through modules that serve multiple purposes. For example, the raised platforms function as both a performance stage at night and a food truck plaza during lunch time. A green wall on the western edge of the site provides a barrier between the site and adjacent industrial buildings and helps filter the lower quality air. Small green spaces are apt for community gathering or passive recreation. Shade is provided through louvered shade modules as well as trees which remain beyond initial implementation.



PHASE 2: FUTURE RETAINMENT

The site is planned for a two-story townhouse building which will contain four units. The modules that remain, while no longer creating a large public space, can still serve as an effective street scape for the building. The modules facing Cedar Ave remain to provide an entry garden and patio, while along Pecos the grass and planting will become a mature streetscape by the time the project is completed.



PECOS AND CEDAR SECTION

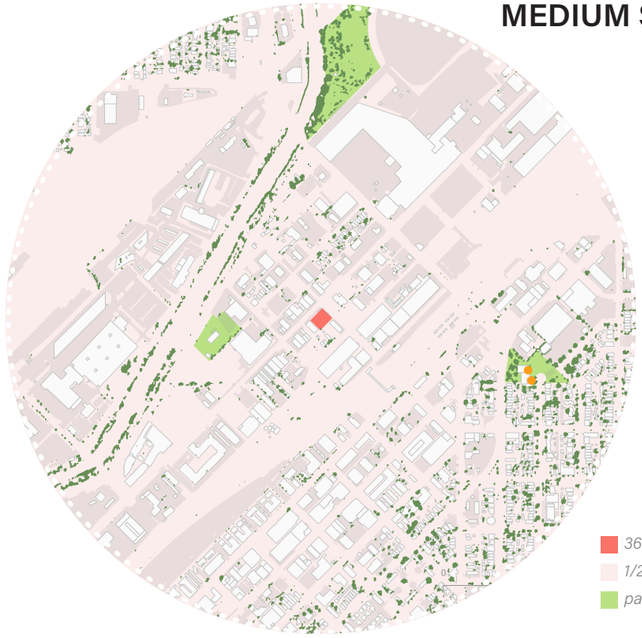
PECOS GARDEN PERSPECTIVE

7.2 36TH AND BRIGHTON

The site at 36th and Brighton, in the heart of the River North Arts District, received the low score of 1.1 through the lot scoring system. The property currently holds two abandoned one-story industrial buildings with a large vacancy between. The site is surrounded with a combination of old industrial manufacturing buildings and mixed-used housing and retail projects. The site is planned for a six-story hotel which is currently working through the permitting process. Additionally, the River North neighborhood is under rapid transformation which provides further basis for a modular and adaptable method of public space creation.

The 36th and Brighton proposed development site shows close proximity to 12 other potential sites, revealing the change of the surrounding area

The vacancy at 36th and Brighton, with two empty industrial buildings and a vacancy between



MEDIUM SIZE: 24,000 SQ. FT.

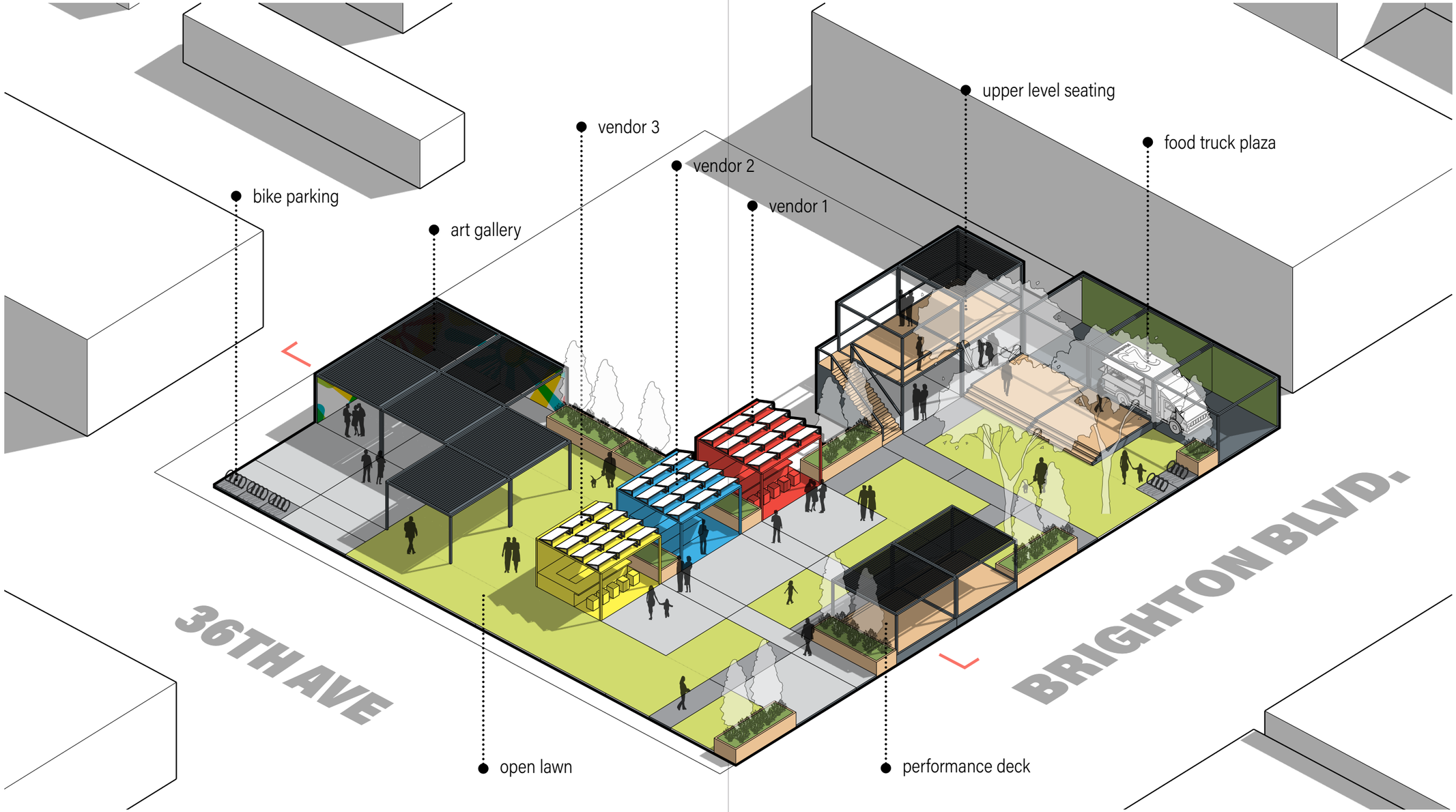
(Left) Map showing the 36th and Brighton site and it's 1/2 mile buffer, including all site factors present to show the lack of determining site elements within the area. Data from Denver Open Data and map created by Author.

(Below) Statistics drawn from the Data Table (Appendix C) about the 36th and Brighton development site

36th and Brighton
1/2 mile buffer
parks
tree canopy
public art
bike racks

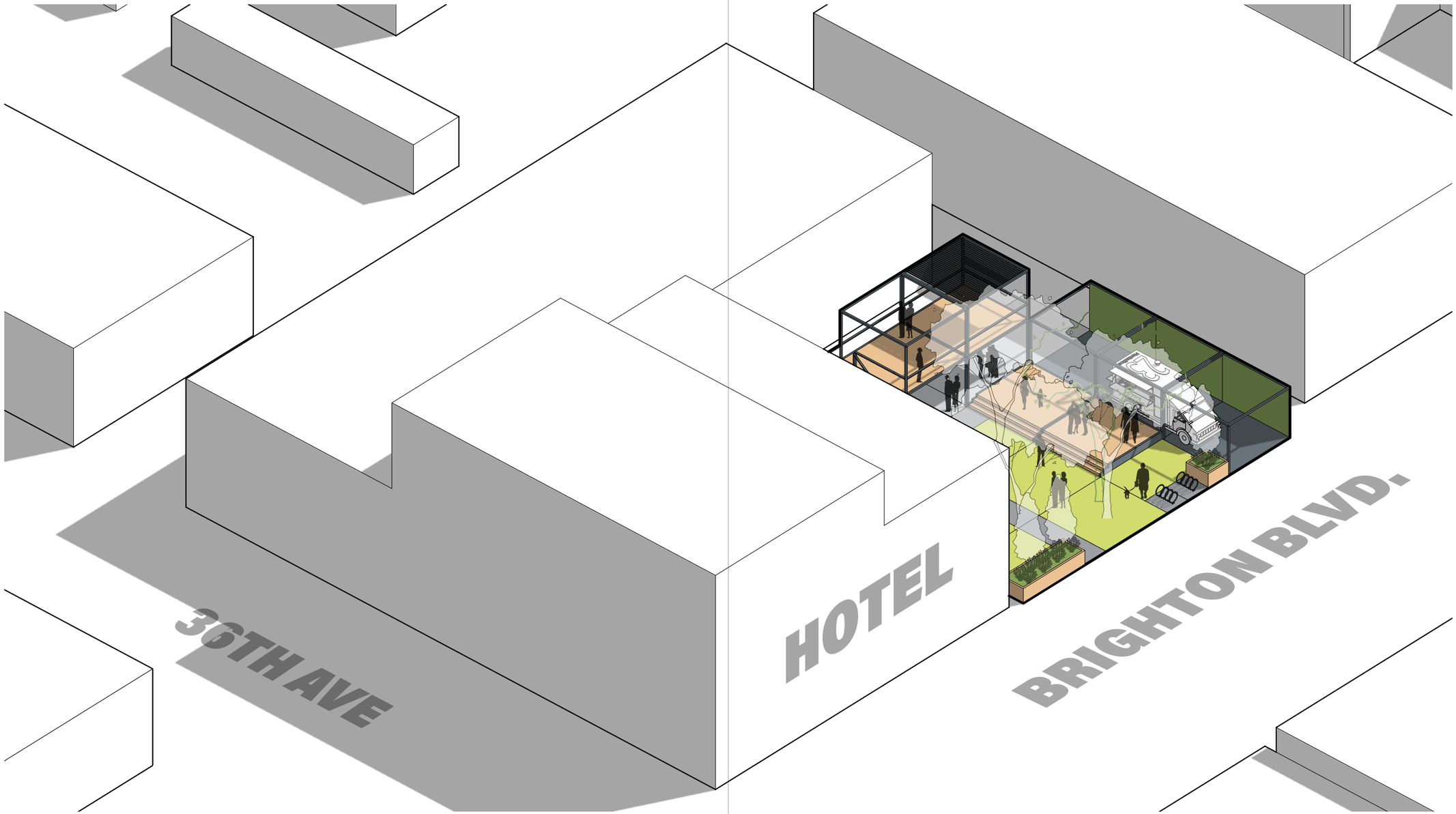
.7%	12	2
tree canopy coverage	acres of park	public art
0	21	47k
bike racks	percent minority	average household income

SCORE: 1.1



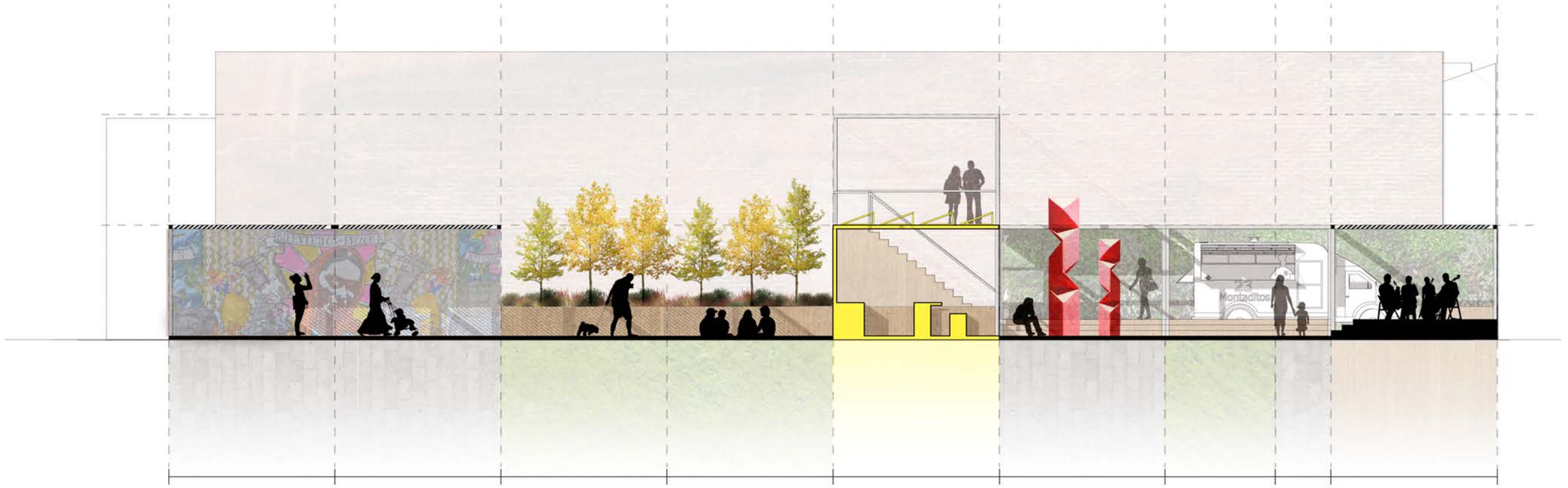
PHASE 1: INITIAL DEPLOYMENT

The data collected about 36th and Brighton showed clear opportunity in every site element category. The site design above, which addresses all of these factors and more, shows a high distribution across all module categories. The River North Arts district, as expected, is a hub for local artist galleries in the city of Denver. Thus, the site incorporates a gallery space for rotating exhibition or permanent mural painting to support the local artist community and respond to the lack of public art. Shade structures provide space for local gathering and performance while creating more shade in a heavily industrialized area lacking tree canopy. Upper level seating could be expanded to accommodate a high volume of users. Open lawn areas respond to the lack of parks and provide space for active and passive recreation. A semi-enclosed food truck plaza doubles as an informal event space or sculpture garden when not in use.



PHASE 2: FUTURE RETAINMENT

As the hotel is built, modules can be removed to accommodate the building footprint during construction, but remaining modules ensure a lasting impact on the surrounding community. While the hotel was originally planned for 4 stories, a one-story height incentives would be given for providing public space. Trees planted outside the footprint could remain to ensure a strong outdoor space exists at the opening of the hotel, giving further incentive to the hotel developers for adopting the system.



36TH AND BRIGHTON SECTION

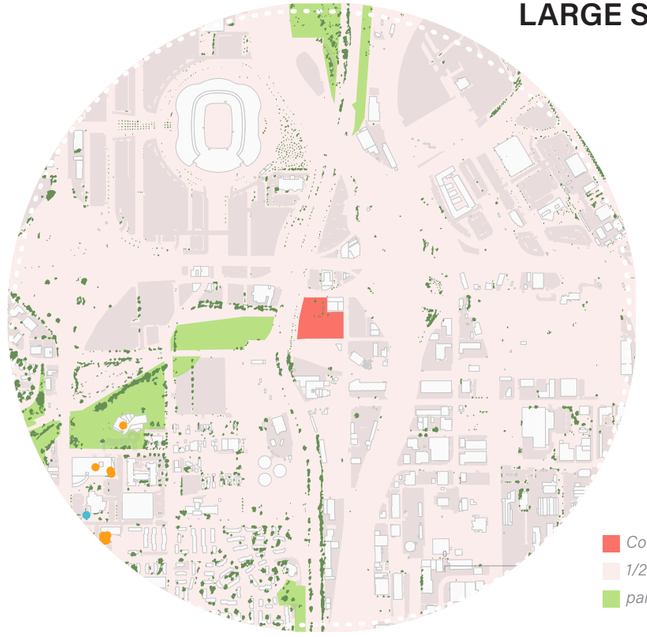
BRIGHTON MARKET PERSPECTIVE

7.4 COLFAX AND ZUNI

The site at the corner of Colfax Ave and Zuni St is being developed as "Steam on the Platte", a 3.2 acre mixed-use project in the Sun Valley neighborhood of Denver (Appendix B). Phase 1 of the project has been completed including the renovation of a 20,000 square foot warehouse into offices and a one-story brewpub. The remainder of the site remains vacant as Phase 2 has not begin a permitted design process. However, the master plan shows future building locations and allows for an informed temporary use during the interim between the two phases of development.

The Colfax and Zuni proposed development site

The vacancy at Colfax and Zuni on the South end of the site, with existing buildings surrounding



LARGE SIZE: 173,000 SQ. FT.

(Left) Map showing the Colfax and Zuni site and it's 1/2 mile buffer, including all site factors present to show the lack of determining site elements within the area. Data from Denver Open Data and map created by Author.

(Below) Statistics drawn from the Data Table (Appendix C) about the Colfax and Zuni development site

Colfax and Zuni
1/2 mile buffer
parks
tree canopy
public art
bike racks

2% lot canopy coverage

70 acres of park

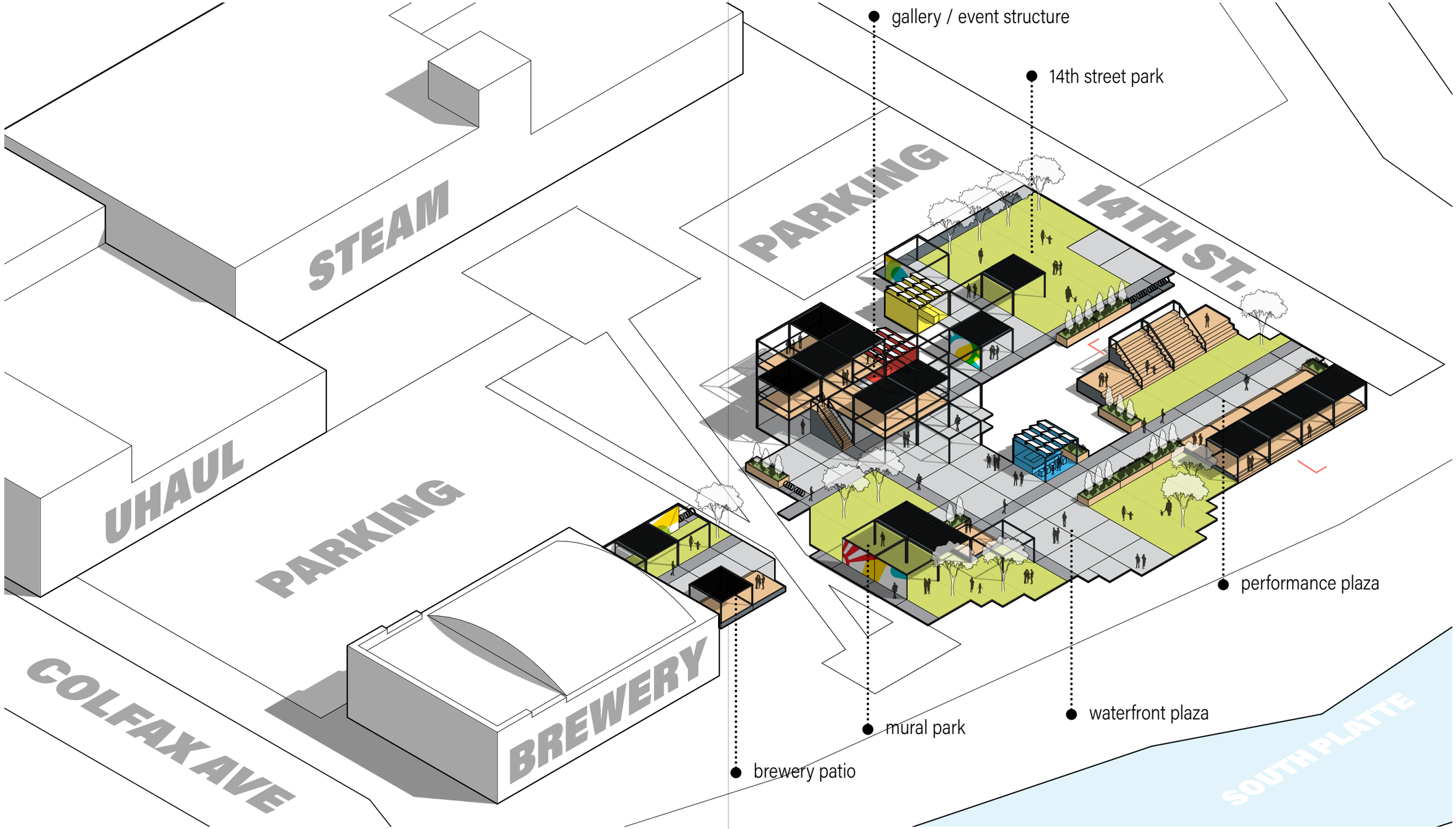
11 public art

1 bike racks

45 percent minority

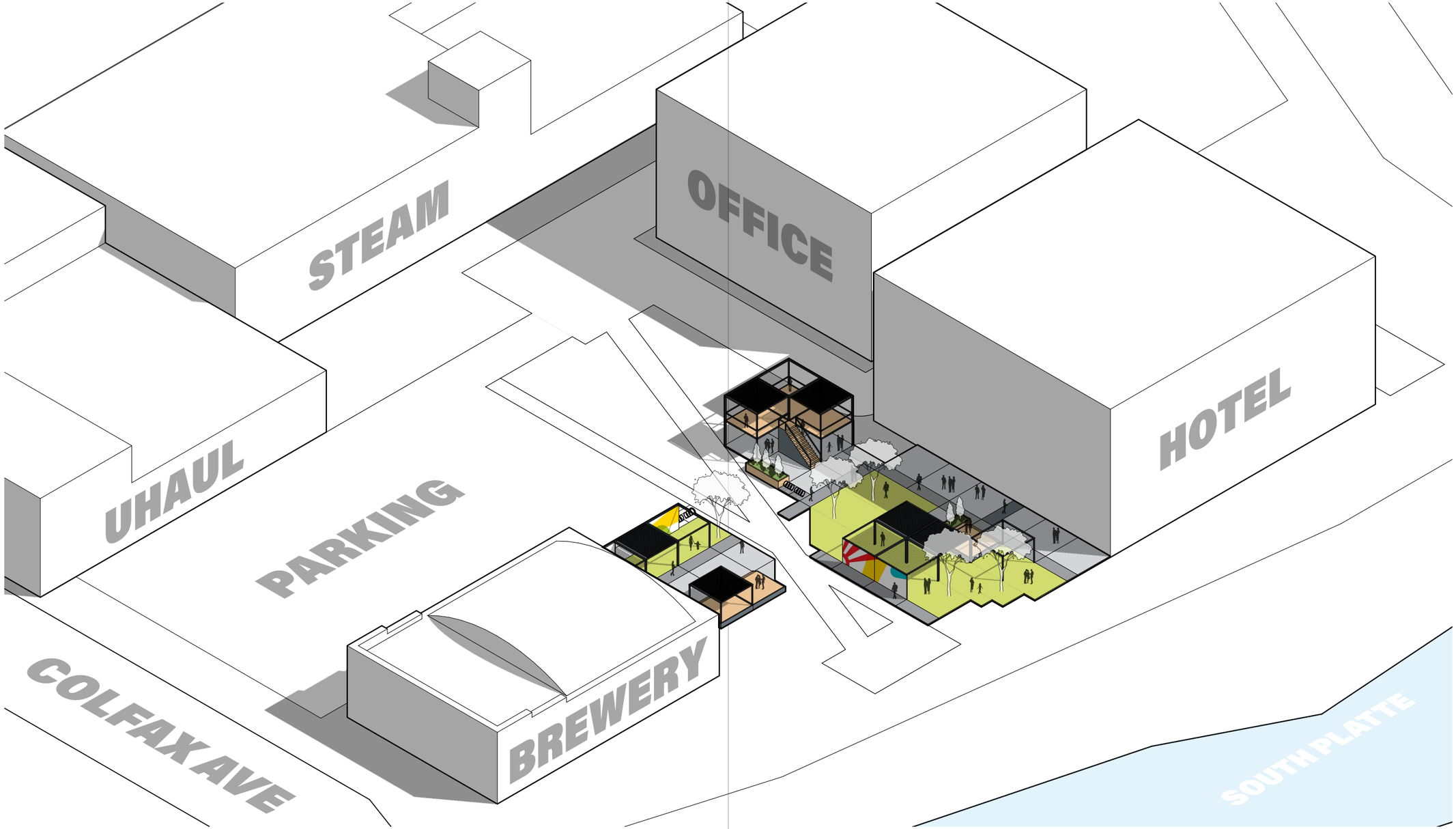
33k average household income

SCORE: 1.28



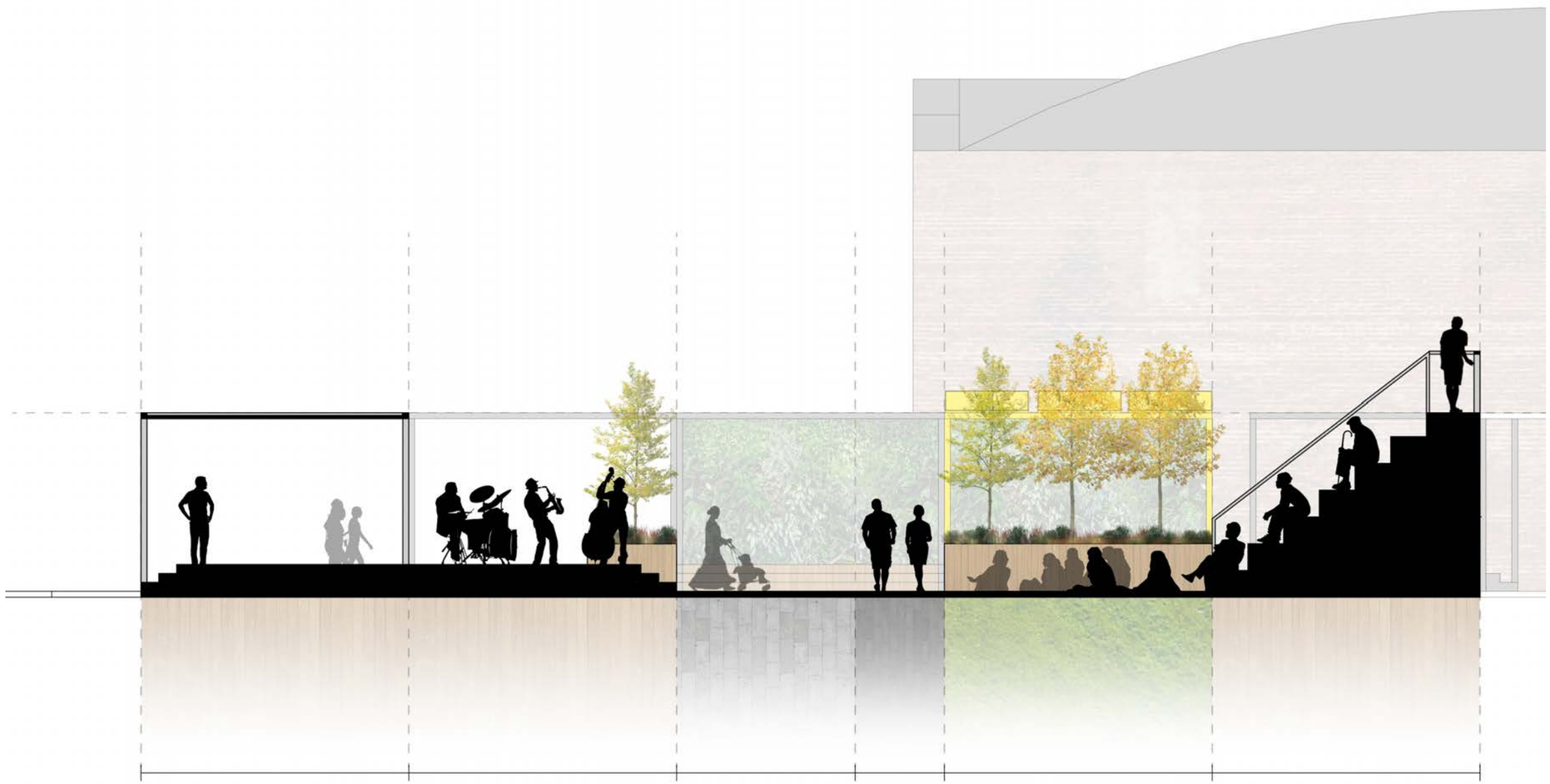
PHASE 1: INITIAL DEPLOYMENT

The lot at Colfax and Zuni is the largest site selected at 173,000 square feet. However, over 2/3 of the site area is already allocated to the completed Phase 1 of the project. Remaining vacancy on the North-West corner, however, will not be developed until Phase 2 begins. When deployed on large sites, the modules begin to create hierarchies of space where circulation paths are defined between concentrated program areas. Defining features of this design are the large performance deck and step seating "amphitheater", a large open plaza and green spaces overlooking the South Platte, the 14th street park and market, and the central "architectural" structure to be used for outdoor events and gallery exhibition. A patio is included for the existing brewery to create an outdoor space that draws users into the larger network of program. The modules are integrated with pre-existing circulation paths created for the development and interfaces with existing parking lots.



PHASE 2: FUTURE RETAINMENT

Phase 2 of the "Steam on the Platte" development includes a five story hotel building replacing the northern parking lot and a five story hotel building adjacent to the river bank. The modules that remain allow for the continued use of the outdoor brewery patio, a smaller green space and plaza to be used by hotel guests and office workers, as well as a small portion of the elevated event space / gallery for more occasional use.



COLFAX AND ZUNI PERFORMANCE SPACE SECTION

COLFAX ART STRUCTURE PERSPECTIVE

08

DISCUSSION

8.1 LIMITATIONS

DATA

This research uses development vacancies as a framework to explore data-driven, modular, temporary public spaces in under-served areas of the city. The GIS data available through Denver Open Data was a limiting factor to the implementation of the method described. However, the method was designed to be flexible to new data that may become available or other areas of research. If the City of Denver were to release GIS data for preexisting urban vacancies the same method could be applied to evaluate these vacancies and determine their intervention opportunity. Another researcher could use the data method to evaluate the percentage of single-family homes with limited access to urban amenities. Additionally, the seven evaluative factors were chosen based on availability of data but could be expanded to include as many factors as desired. Future research could involve the inclusion of additional factors (e.g. seating, transportation networks, food deserts, etc) as the data catalog expands.

To bring more accuracy to the data method, more specificity could be added to the univariate scoring system. Currently all site elements are weighted equally, but a careful study of amenity value could provide a weighting system to prioritize elements which have greater impact. Additionally, the system assumes that equal sized increases between small numbers have the same impact as those between larger numbers (e.g. impact of 0 -> 5 acres of park = impact of 100 -> 105 acres.

The square root of the raw data could be taken to reduce the impact of larger values and increase the impact of smaller values. However, to include this a more detailed evaluation of each element's relative value is warranted.

STAKEHOLDERS

The creation of public space in the city relies on the coordination and cooperation of multiple stakeholders. Below is a description of potential stakeholders involving the development of vacant private lots in Denver and their potential contribution / limitations to the project.

Residential Developer
A height-based incentive system is more applicable to multifamily housing development than a single family home. Additionally, single-family neighborhoods tend to have more access to tree canopy and parks based on data collected and do not stand to gain from height-based incentives. Multi-famliy development, particularly in rezoned areas, benefit greatly from height-based incentives and could use modules after development to provide outdoor space for residents.

Commercial Developer
Development of commercial property have the opportunity for private investment where future tenants may have market stall modules in the site intervention and can cultivate a "pre-user" group of customers before their development becomes permanent. Unfortunately, commercial developers already face very complex zoning laws which may make them resistant to additional complications.

Industrial Developer
Properties in industrially zoned areas showed great improvement potential, and their redevelopment often involves rezoning which contributes to vacancy time. However, the development of true industrial areas are often low-height, meaning other incentives may be necessary.

Private Investors
A non-developer private investor can lease a market-style stall module to engage with new customer groups and can gain a broader audience for their product with a unique location. However, they are limited to the locations of the system's deployment and would deal with relatively short-term leases and unconditioned outdoor spaces.

Community Members
The community surrounding the vacant lot will gain an effective and responsive public space for the time of vacancy. However, public fallout may ensue when the development replaces the public space so module retainment would be encouraged in the incentive based system to ensure a lasting impact.

City of Denver
The city itself faces the most stakeholder implications as community members and developers will turn to them in times of conflict. However, the provision of impactful public spaces in amenity-lacking areas will bolster their public space initiatives and help the city portray a progressive public image.

PROPERTY VALUE AND GENTRIFICATION

The data method described in this research uses factors like median household income and demographic population data to prioritize lots which are being developed in low-income and high-minority areas. Unfortunately, planned development of these areas will unavoidably have impacts on both property value and gentrification. For the

purposes of this discussion, gentrification will be defined as "the process of repairing and rebuilding homes and businesses in a deteriorating area (such as an urban neighborhood) accompanied by an influx of middle-class or affluent people and that often results in the displacement of earlier, usually poorer residents" (Merriam-Webster, 2019). Gentrification has become increasingly prevalent in Denver as new developments create drastic rises in property values in previously underdeveloped areas in the city. Property values in Denver have seen a steady increase during the recent development boom, with rapidly improving areas like River North seeing a median property value increase of over 100% between 2015 and 2017 (City of Denver Assessor's Office, 2017). Additionally, research has shown that property values can increase as much as .1% for every 10m closer they are to a public space (Brander and Koetse, 2011). As the lots selected are prioritized based on their lack of nearby public spaces the property value impacts can become more drastic.

While the lots selected in this research may be more vulnerable to gentrification and property value increases, the temporary nature of the design solution proposed helps mitigate the negative impact. Temporary site interventions, unlike permanent development, will provide interim areas for the existing community to interact with previously unavailable urban amenities. Additionally, rising property values can have positive impacts on communities particularly in areas where houses are owned rather than rented. This research does not focus on the economic impacts of the proposed solution, but further economic analysis could provide more predictive information about the impacts of temporary public spaces on property values and gentrification.

8.2 BROADER APPLICATIONS

As the data method evaluated properties planned for development, the design solution was applied accordingly. The potential applications of the modular system, however, are not limited to this type of property. There are several potential temporary uses that exist in the city today: pop-up parks, farmers markets, city-owned parking lots, etc. With the City of Denver already pushing for the creation of new public spaces, having a readily available and easily deployable form of public space could open doors for new temporary uses. Furthermore, urban vacancy is not limited to development sites. The urban form is filled with forgotten spaces which are opportunities for activation and innovation. Using a temporary and modular design system allows these spaces to serve as playing grounds for the creation of new types of public space.

Finally, Denver is not the only city in need of urban public spaces or undergoing a period of rapid development. As stated, the average American city is comprised of 17% vacant land and even more vacancies exist that are unaccounted for. Cities across the U.S. and globally have adopted GIS which greatly increases the amount of data available for analysis and decision-making. The GIS method described in this research could be applied in any city with a usable data set and assist them in prioritizing their public space interventions while potentially revealing even larger patterns of public spaces that exist across multiple cities. The accompanying design solution uses lessons from established methods of public space creation to strive for a more responsive and semi-permanent typology that can create lasting impact in any city.

09

CONCLUSION

The dichotomy between long-term and short-term urbanism, while at times over simplified, represents the primary methods of public space generation in American cities. However the gray areas between these extremes are spaces where innovative strategies of semi-permanence and modularity can thrive and provide cities with new tools for creating public spaces. Using urban vacancies in Denver as a case study, this research shows that using GIS and data-informed methods provides both a sense of larger scale patterns of distribution in urban amenities, and an understandable way of quantifying the varying opportunity of urban lots. Additionally, this research presents a conceptual modular design solution which responds to urban needs through data-responsive program to replace urban vacancies with amenities. While the data and site designs shown are for selected sites within Denver, the described data methods and designed system have far-reaching applications in the improvement of any urban space and provide a better understanding of effective and semi-permanent urban public spaces.

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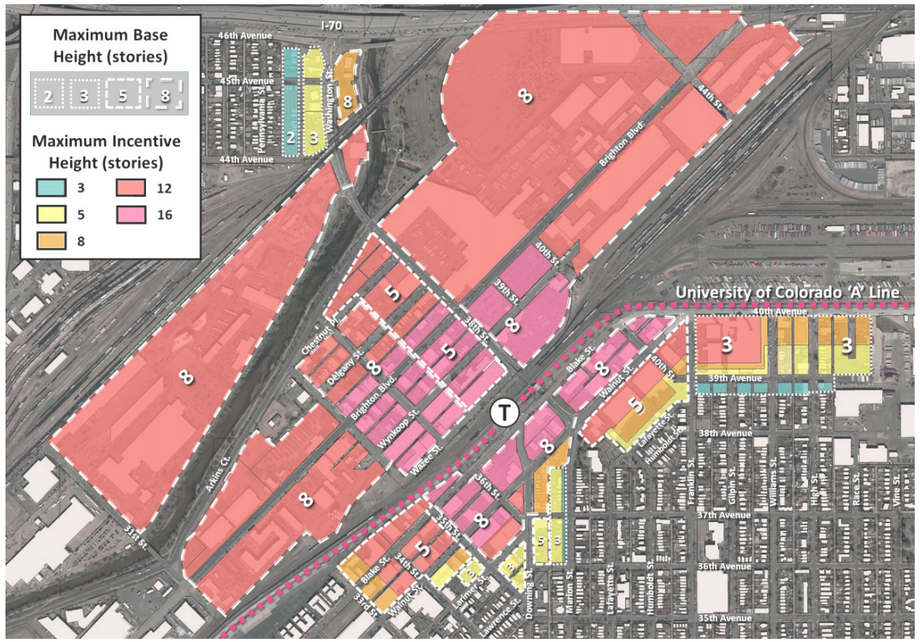
APPENDICIES



Appendix A - Map of 38th and Blake Station height limit exemptions
Adapted from City and County of Denver

VISION

STEAM on the Platte (STEAM) is a 3.2 acre, mixed-use project in Denver's burgeoning Sun Valley neighborhood along the Platte River. STEAM is an undiscovered gem with a convenient downtown location, light rail stop, bike path, sports arena access, and a riverside setting that makes it desirable for enterprising leaders, creative pioneers, and residents who crave an authentic blend of Denver's historical and edgy culture.

PHASE I includes the conversion of a 65,000 square foot brick and timber warehouse into workspace for tech companies and creative businesses, and a courtyard leading to the river's edge. An existing 6,000 square foot building with an expansive bowstring roof will feature a vibrant restaurant/brewery to be completed in 2018.

FUTURE PHASES will include the addition of more office and residential buildings.

FINAL MASTER SITE PLAN

PROJECT OVERVIEW

1401 Zuni Street

- 65,000 square foot former industrial warehouse built in 1918
- Bold, creative office space
- Fiber-optic internet
- Coffee shop/cafe in lobby
- Available for lease now!

2056 West Colfax

- Riverfront restaurant space leased to Raices Brewery
- 6,000 square foot building with bowstring roof

LOCATION HIGHLIGHTS

- 3.2 acre site with 400 feet of river frontage
- Walking distance to Auraria Campus and Sports Authority Field at Mile High
- Unique intersection of Lakewood Gulch and Platte River Bike Trails
- Breathtaking views of downtown Denver and the Rocky Mountains
- Short walking distance to Decatur-Federal and West Auraria Light Rail Stations
- Convenient parking
- Superb visibility and access to I-25
- Two miles from I-70 interchange

Appendix B - Vision and Masterplan for "Steam on the Platte"
http://www.steamontheplatte.com/wp-content/uploads/2019/03/2019-03-15-Brochure-STEAM-on-the-Platte.pdf

Appendix C - Full Data Table

All data from Denver Open Data, score generated by Author

ADDRESS	AREA (SQ.FT)	AREA (SQ.M)	ID	CANOPY AREA	CANOPY %	PARKS	PAKRS ACRES	PUBLIC ART	BIKE RACKS	TTL POPULATION	PCT_HISPAN	PCT_WHITE	PCT_BLACK	PCT_NATIVE	PCT_ASIAN	PCT_HAWAII	PCT_OTHER	MEDIAN_AGE	AVG_HH_INC	AREA_IMPRM	SCORE
3853 Walnut St & 3860 Blake St	123516.4737	11475.067	214	149	0.013	3	12.611653	2	0	6940	81.99	65.17	5.24	1.53	0.58	0	26.15	27.2	44442	880022	1.0521
3648-3560 Brighton Blvd	24192.57567	2247.566	144	15	0.007	3	12.611653	2	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	40628	933539	1.1093
3750, 3760, 3770 Walnut St	19427.04193	1804.833	106	24	0.013	3	12.611653	2	0	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	798901	1.2331
3701-3713 N Marion St	24291.92646	2256.796	233	0	0	4	16.853514	3	2	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	774558	1.2574
3700 N Marion St	6241.619637	579.866	208	1	0.002	4	16.853514	3	2	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	774369	1.262
14th Ave and Zuni St	195198.2782	18134.531	113	163	0.009	6	70.627036	11	1	2751	45.91	55.47	22.06	0.98	4.76	0	10.76	27.9	33099	730102	1.2757
N/A	221820.5998	20607.828	138	942	0.046	4	14.889964	2	0	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	826569	1.2814
2060 W Colfax Ave	172630.9546	16037.956	141	186	0.012	6	70.627036	11	1	2751	45.91	55.47	22.06	0.98	4.76	0	10.76	27.9	33099	728300	1.2842
Fox North	2337688.313	217178.561	61	9170	0.042	3	7.877551	2	1	3355	68.94	72.73	4.35	2.86	0	0.21	14.49	30.4	40628	745733	1.3085
3601 Brighton Blvd	24652.59246	2290.303	133	3	0.001	3	12.611653	2	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	919554	1.3086
13th Ave and Decatur St	177006.2216	16444.432	39	502	0.031	6	70.627036	11	1	1413	47.91	45.29	22.93	1.13	8.7	0	9.77	18.4	12682	534497	1.3166
3724 Walnut St	31791.03872	2953.487	188	131	0.044	4	21.134777	2	0	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	800663	1.318
3501 Blake St	26051.46891	2420.263	249	0	0	4	21.134777	3	1	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	934255	1.324
3595 Wynkoop St	24499.01314	2276.035	149	50	0.022	3	12.611653	2	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	938933	1.3343
171-185 S Pecos St	8003.777706	743.576	157	0	0	3	19.454213	1	0	3633	72.34	73.11	5.06	1.95	5.78	1.27	12.36	27.5	34501	595162	1.3566
38th and Blake St	53840.76947	5001.976	193	76	0.015	3	12.611653	2	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	867412	1.3951
3777 N Downing St & 3601 Walnut St	115282.6822	10710.122	154	224	0.021	4	21.134777	3	1	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	906411	1.4
38th Ave and Walnut St	29531.0718	2743.529	194	0	0	3	12.611653	2	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	817624	1.415
Legal Desc Only	164614.9276	15293.242	153	99	0.006	3	18.679062	1	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	816356	1.4309
50 S Kalamath St	331864.3735	30831.239	115	109	0.004	6	18.348641	2	2	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	768396	1.4344
1338 1st St	235678.6367	21895.283	37	29	0.001	4	34.04294	2	0	646	23.99	71.36	3.87	1.39	16.72	1.08	0	19.8	84402	803886	1.4352
1370 W Maple	29589.85346	2748.99	5	92	0.033	4	27.137559	1	1	3633	72.34	73.11	5.06	1.95	5.78	1.27	12.36	27.5	34501	596970	1.4471
3942 Williams St/SW corner 40th Ave and High St	53005.03874	4924.334	110	323	0.066	3	13.635673	3	1	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	714385	1.4572
1011 Decatur St	144934.0944	13464.831	171	251	0.019	7	130.809694	12	3	1413	47.91	45.29	22.93	1.13	8.7	0	9.77	18.4	12682	507151	1.4669
2740 W 9th Ave	29237.734	2716.277	250	0	0	9	126.208304	12	1	1413	47.91	45.29	22.93	1.13	8.7	0	9.77	18.4	12682	438517	1.482
8th Ave and Lipan St	6286.268295	584.014	140	19	0.033	3	26.524326	2	10	2751	45.91	55.47	22.06	0.98	4.76	0	10.76	27.9	33099	387424	1.5203
3463 Walnut St	40173.31821	3732.227	251	143	0.038	4	16.853514	3	3	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	779176	1.57
2121 CHildren's Museum Dr	136973.749	12725.29	27	841	0.066	7	36.694399	1	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	693268	1.6232
3954 Williams St	13869.62959	1288.532	67	193	0.15	3	13.635673	3	1	5020	62.67	72.79	13.92	0.86	0.82	0	7.69	29.9	47477	709136	1.6482
W. Alameda & Zuni St.	698605.2468	64902.614	14	360	0.006	4	46.888698	0	0	4566	72.08	62.75	0.09	1.4	6.29	0	27.79	33.5	53465	369149	1.6558
2350 Cleveland Pl	133917.7164	12441.375	174	0	0	7	10.179592	3	22	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	391435	1.6626
2900 Brighton Blvd	330866.1402	30738.5	161	11	0	3	11.001993	3	0	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	586013	1.6699
5120 N Broadway	189687.6996	17622.581	152	765	0.043	2	13.328144	0	0	3355	68.94	72.73	4.35	2.86	0	0.21	14.49	30.4	40628	389345	1.6754
90 Galapago St	17715.35579	1645.812	168	45	0.027	4	9.673326	2	2	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	564849	1.6833
1975 Mile High Stadium Circle	115356.1996	10716.952	7	913	0.085	5	28.356249	1	0	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	645695	1.6947
2026 Bryant St	20571.21221	1911.13	19	126	0.066	6	33.856298	1	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	617383	1.6979
1775 Federal Blvd	23554.52397	2188.289	72	42	0.019	5	56.418402	0	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	377289	1.7025
450 S Santa Fe Dr	103663.4935	9630.663	217	69	0.007	7	48.615294	1	2	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	569405	1.7065
521 W 43rd Ave	16119.95206	1497.594	22	65	0.043	1	3.976749	0	0	3355	68.94	72.73	4.35	2.86	0	0.21	14.49	30.4	40628	336153	1.7119
Alameda Ave and Cherokee St	163910.4518	15227.794	89	98	0.006	4	35.629301	1	3	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	524009	1.7277
3909 - 3927 Cook St	36684.18926	3408.076	54	224	0.066	3	12.693311	10	0	4655	45.22	45.41	30.72	0.86	0.9	0	19.96	30.6	52740	296927	1.7278
1098 W 4th Ave	34583.81869	3212.945	226	39	0.012	5	15.15652	3	6	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	505433	1.7494
1160 E 18th St	25918.63162	2407.922	206	27	0.011	2	5.635603	0	17	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	312884	1.7551
24th St and California St	27984.37472	2599.836	230	0	0	9	10.83812	6	26	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	344265	1.7619
Denargo St and Wewatta Way	252090.172	23419.966	185	0	0	3	25.513426	8	3	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	592421	1.7625
55 N Elati St	13283.25538	1234.056	92	69	0.056	4	9.673326	2	2	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	537734	1.7762
2800 W 10th Ave	86578.18104	8043.384	172	991	0.123	7	130.809694	12	3	1413	47.91	45.29	22.93	1.13	8.7	0	9.77	18.4	12682	431726	1.7768
Park Ave and Ogden St	551327.1087	51220.014	150	2218	0.043	4	8.55446	2	22	1867	19.34	61.22	23.57	2.04	0.48	0	8.25	32.6	68759	398963	1.7825
2200 Welton St	64685.8508	6009.518	13	77	0.013	9	10.83812	5	33	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	353511	1.7905
20th Ave and 22nd St	60711.84045	5640.32	94	154	0.027	7	9.434321	3	44	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	384083	1.7961
99 S Broadway	133363.9245	12389.926	158	614	0.05	2	3.515701	1	4	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	477305	1.8084
2917 W 25th Ave	4104.673334	381.337	229	0	0	5	26.65376	0	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	335072	1.8256
2250 Champa St	19957.85289	1854.147	55	11	0.006	7	9.206533	7	87	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	471129	1.8359
2250 Champa St	19983.99841	1856.576	186	11	0.006	7	9.206533	7	87	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	471129	1.8359
3134 Walnut St	23744.49604	2205.938	34	45	0.02	3	14.397799	3	3	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	480686	1.8428
4301 - 4307 Kalamath St	8157.486198	757.856	52	40	0.053	6	19.069309	2	2	2770	65.74	76.14	5.81	1.16	0	0.72	12.35	32.1	43946	333826	1.8517
2923 - 2929 Lawrence St	8200.240409	761.828	63	6	0.008	5	10.761442	3	8	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	434105	1.8735
2929 Lawrence St	8200.240409	761.828	163	6	0.008	5	10.761442	3	8	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	434105	1.8735
4335 Kalamath St	12183.17403	1131.855	23	84	0.074	5	18.48987	2	2	2770	65.74	76.14	5.81	1.16	0	0.72	12.35	32.1	43946	351558	1.8779
4001 Inca St	118147.9463	10976.314	91	577	0.053	5	35.309649	3	4	2770	65.74	76.14	5.81	1.16	0	0.72	12.35	32.1	43946	357323	1.8796
714 W 1st Ave	9232.509183	857.729	126	100	0.117	4	9.673326	2	3	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	563336	1.8867
22nd St & Tremont Pl	28546.12113	2652.024	45	126	0.048	9	10.83812	4	51	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	374455	1.8891
1618 Lafayette St	11707.80792	1087.692	41	0	0	2	83.489214	0	17	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	321546	1.8894
601-643 Inca St	17864.69414	1659.686	111	21	0.013	2	11.484131	5	13	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	361153	1.9118
956 Santa Fe Dr	3381.759046	314.176	248	0	0	2	26.164632	5	12	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	357311	1.9157
660 Bannock St	289509.1589	26896.307	124	38	0.001	6	15.968326	9	19	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	396162	1.9232
295 N Bannock St	18497.52534	1718.478	178	27	0.016	4	4.216858	6	5	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	329662	1.954
1614 & 1618 Lafayette St	24224.36146	2250.519	159	69	0.031	2	83.489214	0	17	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	323007	1.9563
18th Ave and Marion St	31925.81351	2966.008	90	326	0.11	1	2.724723	0	17	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	317206	1.9628
836 N Santa Fe Dr	6817.682038	633.384	202	0	0	3	26.524326	6	15	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	306157	1.992
221 N Federal Blvd	35162.42137	3266.699	65	37	0.011	5	77.245262	1	3	5829	79.48	80.34	1.51	1.84	0.43	0	14.39	29.6	46361	275267	1.9943
1029 Santa Fe Dr	41264.77767	3833.627	20	16	0.004	2	26.164632	12	11	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	362677	1.9981
900 S Jason St	19869.90107	1845.976	109	335	0.181	4	39.301662	0	0	4023	70.17	71.09	0.94	4.82	0.87	0	14.49	29.7	50200	447493	2.0098
2501 W 26th Ave	152068.6549	14127.654	18	672	0.048	10	46.048246	2	7	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	322627	2.0286

ADDRESS	AREA (SQ.FT)	AREA (SQ.M)	ID	CANOPY AREA	CANOPY %	PARKS	PAKRS ACRES	PUBLIC ART	BIKE RACKS	TTL POPULATION	PCT_HISPAN	PCT_WHITE	PCT_BLACK	PCT_NATIVE	PCT_ASIAN	PCT_HAWAII	PCT_OTHER	MEDIAN_AGE	AVG_HH_INC	AREA_IMPRM	SCORE
1901 W Elk Pl	12214.35705	1134.752	156	16	0.014	3	12.218662	2	1	3863	61.2	80.84	1.55	5.31	1.89	0	8.21	34.9	66880	227684	2.0345
34th St and Arapahoe St	12216.66053	1134.966	71	58	0.051	6	17.975191	3	3	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	359769	2.0478
4337 Kalamath St	10293.39917	956.289	26	153	0.16	5	18.48987	2	1	2770	65.74	76.14	5.81	1.16	0	0.72	12.35	32.1	43946	360575	2.0551
742 S Broadway	32607.66352	3029.354	87	3	0.001	3	35.620948	0	5	2849	11.65	88.31	3.19	0.77	0.67	0	1.16	33.1	81156	358798	2.0601
300 S Logan St	19548.04969	1816.075	120	0	0	0	0	0	5	2849	11.65	88.31	3.19	0.77	0.67	0	1.16	33.1	81156	276261	2.069
720 W 10th Ave, 958 Inca St	24058.27449	2235.089	131	67	0.03	2	26.164632	12	16	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	362436	2.0712
S Logan St and E Exposition Ave	26846.8673	2494.158	204	60	0.024	1	3.507349	0	5	2849	11.65	88.31	3.19	0.77	0.67	0	1.16	33.1	81156	321960	2.0808
2841 W 4th Ave	15573.97476	1446.871	35	228	0.158	8	95.069721	0	0	3633	72.34	73.11	5.06	1.95	5.78	1.27	12.36	27.5	34501	377647	2.0883
2420 Larimer St	24569.61356	2282.594	49	152	0.067	5	3.734932	9	39	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	493709	2.0911
1286 N Osceola St	8998.37283	835.977	252	11	0.013	3	97.953012	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	104019	2.0939
2256 Curtis St	16083.37632	1494.196	227	19	0.013	7	9.206533	8	79	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	484786	2.1045
101 Broadway	40958.40478	3805.164	80	291	0.076	3	3.875395	2	2	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	255615	2.1083
540-546 Kalamath St.	13637.73213	1266.988	10	155	0.122	2	11.484131	3	11	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	390982	2.1215
542 N Kalamath St	13637.73213	1266.988	42	155	0.122	2	11.484131	3	11	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	390982	2.1215
1332, 1336, 1338 E Colfax Ave	9926.673094	922.219	50	0	0	2	83.489214	0	19	5444	7.38	85.58	7.33	0	2.68	0	1.73	32.5	58540	293544	2.1218
1274 Perry St	12200.22405	1133.439	225	36	0.032	3	97.953012	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	114866	2.1243
1046 Inca St	4515.929662	419.544	112	11	0.026	2	26.164632	16	13	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	336477	2.1278
9th Ave and Colorado Blvd	528699.0659	49117.798	216	1254	0.026	1	7.066659	0	2	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	188434	2.1304
4008 Tejon St	8151.178553	757.27	44	45	0.059	4	14.999761	1	6	2770	65.74	76.14	5.81	1.16	0	0.72	12.35	32.1	43946	75643	2.1317
2800, 2816, 2820, 2822, 2824, 2826 W 29th Ave	27375.80534	2543.298	47	199	0.078	5	22.840923	1	4	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	218277	2.1349
3000 Inca St	28028.29143	2603.916	117	0	0	7	47.18442	10	28	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	357358	2.16
300 Inca St	28028.29143	2603.916	146	0	0	7	47.18442	10	28	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	357358	2.16
1280-1290 Perry St	8133.461174	755.624	167	42	0.056	3	97.953012	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	114070	2.1781
Jason St and 37th Ave	23978.93378	2227.718	143	116	0.052	6	32.85658	3	7	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	330156	2.1804
1300-1308 Knox Ct	8073.17257	750.023	211	37	0.049	3	96.226805	11	3	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	199972	2.182
2734, 2738, and 2742 W 25th Ave	20063.94189	1864.003	257	273	0.146	7	35.548283	2	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	340434	2.1849
Legal Desc Only	1365342.407	126844.583	75	6903	0.054	1	7.066659	0	2	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	195306	2.1849
Legal Desc Only	1365342.407	126844.583	76	6903	0.054	1	7.066659	0	2	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	195306	2.1849
Legal Desc Only	1365342.407	126844.583	77	6903	0.054	1	7.066659	0	2	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	195306	2.1849
2729, 2727, 2719 W 28th Ave	37191.65332	3455.221	51	445	0.129	5	22.840923	1	4	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	272758	2.1895
Legal Desc Only	21727.40576	2018.544	74	10	0.005	10	47.102421	3	9	5281	29.69	88.3	2.75	0.66	1.38	0	6.21	34.6	76502	281894	2.1975
3301 Downing St	36328.67917	3375.048	240	359	0.106	7	22.712166	3	3	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	330870	2.2102
1263 - 1285 Osceola St	20333.43766	1889.04	201	131	0.069	3	97.953012	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	110766	2.2103
3760 Navajo	7984.004422	741.739	57	4	0.005	7	33.742692	2	10	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	198841	2.2158
1169-1179 N Birch St & 4353-4393 E Hale Parkways	29560.48954	2746.262	4	223	0.081	1	7.066659	0	2	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	221752	2.2164
Legal Desc Only	8923.154697	828.989	243	0	0	3	149.997969	1	0	3262	19.93	51.26	41.57	1.59	0	0	1.99	35.9	78165	65128	2.2183
2622 W 32nd Ave	6198.381051	575.849	64	16	0.028	5	18.35333	1	5	5281	29.69	88.3	2.75	0.66	1.38	0	6.21	34.6	76502	205563	2.2318
360 Acoma Apartments	60733.66964	5642.348	160	477	0.085	6	17.318044	7	11	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	266159	2.2324
N/A	12201.31121	1133.54	207	14	0.012	3	97.953012	1	3	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	107006	2.2589
2803 W Short Pl	16393.1506	1522.975	85	370	0.243	8	95.069721	1	0	3633	72.34	73.11	5.06	1.95	5.78	1.27	12.36	27.5	34501	401836	2.2619
3127-3165 Saint Paul St.	26387.15189	2451.449	21	51	0.021	3	149.997969	1	0	3262	19.93	51.26	41.57	1.59	0	0	1.99	35.9	78165	65651	2.2641
2134 Eliot St	11296.36861	1049.468	245	230	0.219	5	29.157622	1	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	389384	2.2683
1262 and 1272 Yates St	17161.55313	1594.362	197	62	0.039	2	68.043821	1	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	85394	2.2709
1243 - 1255 Tennyson St	17362.69813	1613.049	255	75	0.046	2	68.043821	1	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	102114	2.2716
2920 W 26th Ave	11975.3016	1112.543	253	212	0.191	4	15.829677	1	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	301170	2.2717
9th Ave and Colorado Blvd	504510.193	46870.576	125	3807	0.081	1	7.066659	0	1	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	165532	2.2732
9th Ave and Colorado Blvd	504510.193	46870.576	184	3807	0.081	1	7.066659	0	1	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	165532	2.2732
3417 Arapahoe St	7909.335248	734.802	24	116	0.158	6	17.975191	3	3	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	365487	2.2779
3201 W 17th Ave	13326.92452	1238.113	81	9	0.007	4	323.685701	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	363486	2.2786
4420 Pecos St	36433.9824	3384.831	88	533	0.157	5	18.48987	2	1	3863	61.2	80.84	1.55	5.31	1.89	0	8.21	34.9	66880	303000	2.2835
900 Grant St.	39558.24743	3675.085	8	287	0.078	5	15.608632	9	35	5602	6.62	86.47	2.68	0.89	3.7	0	3.21	32.4	73086	380159	2.2993
8th Ave and Bellaire St	79061.36217	7345.048	130	672	0.091	1	7.066659	0	1	4050	11.33	82.54	7.11	0.35	6.72	0	1.21	36.5	74506	156850	2.3045
1282 Yates St	12043.60931	1118.889	241	57	0.051	2	68.043821	1	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	74672	2.3058
3402-3410 W 17th Ave	8631.097798	801.856	209	0	0	3	317.036296	1	1	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	310436	2.3084
660 Logan St	8020.999946	745.176	62	0	0	6	20.236771	7	14	2879	9.83	92.39	0.69	0.35	3.16	0	1.42	32.4	97874	310198	2.3198
1648-1658 N Julian St, 3348-3398 W 17th Ave	17416.4961	1618.047	43	40	0.025	3	317.036296	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	348470	2.32
2890 Hazel Ct and 3120 W 29th Ave	32557.07319	3024.654	247	334	0.11	4	16.065747	1	9	5517	33.41	76.94	9.57	0.67	2.52	0	5.02	35.6	75478	179863	2.3258
1592-15984 Hooker St	8439.414267	784.048	148	22	0.028	5	333.534377	2	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	393234	2.3263
2822 N Federal Blvd	21513.2795	1998.651	114	325	0.163	5	22.840923	1	4	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	213568	2.3276
3222 W 19th Ave	8989.148168	835.12	108	39	0.047	3	293.77651	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	329152	2.339
2136 Lawrence St	36091.69038	3353.031	137	0	0	6	6.295652	12	159	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	506773	2.3393
1310 Knox Ct	8074.744099	750.169	224	90	0.12	3	96.226805	11	3	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	184794	2.3549
1800 & 1802 W 33rd Ave, 3255 Quivas St	10823.97333	1005.581	256	8	0.008	10	52.220129	5	16	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	158522	2.359
1701 Platte St	83365.04925	7744.874	187	123	0.016	14	66.298071	12	11	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	259659	2.3662
2151 N Eliot St	8081.417717	750.789	177	197	0.262	5	29.157622	1	1	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	385825	2.367
2101 Arapahoe St	47559.30187	4418.408	191	35	0.008	7	9.206533	12	168	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	512020	2.3853
45 W 1st Ave	15755.70168	1463.754	6	291	0.199	3	3.875395	2	2	5309	40.46	80.05	1.41	3.2	1.05	0	4.43	33.5	64989	247255	2.3887
1275 and 1295 N Stuart St	16268.74145	1511.417	118	152	0.101	2	68.043821	1	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	100228	2.3951
1630 Julian St	18459.67947	1714.962	78	106	0.062	3	317.036296	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	350235	2.3998
1840 Grant St & 1855 Logan St	59674.84632	5543.98	123	309	0.056	8	20.01929	15	104	3141	9.23	86.12	6.65	0	4.68	0	0.89	31.4	52541	404262	2.4013
1700 - 1738 Julian St	52759.13745	4901.489	127	230	0.047	3	317.036296	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	315612	2.4036
2881 N Speer Blvd	11040.70445	1025.716	151	229	0.223	5	22.840923	1	4	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	252329	2.4187
Vallejo St and 32nd Ave	17886.28652	1661.692	1	77	0.046	10	54.844528	4	13	5281	29.69	88.3	2.75	0.66	1.38	0	6.21	34.6	76502	191710	2.4249
1731 Central St	18929.46989	1758.607	93	24	0.014	15	67.73953	11	12	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	192981	2.4273
1358 N Emerson St	11908.82375	1106.367	129	181	0.164	3	83.770886	0	35	4938	9.9	89.77	3.93	0.28	1.03	0.53	2.71	31	44595	356046	2.4335
21st St and Glenarm Pl	40810.93935	3791.464	246	581	0.153	8	11.931256	7	150	2994	18.6	61.76	23.85	0.63	1.8	0	8.35	38.7	58941	394337	2.4419

ADDRESS	AREA (SQ.FT)	AREA (SQ.M)	ID	CANOPY AREA	CANOPY %	PARKS	PARKS ACRES	PUBLIC ART	BIKE RACKS	TTL POPULATION	PCT_HISPAN	PCT_WHITE	PCT_BLACK	PCT_NATIVE	PCT_ASIAN	PCT_HAWAII	PCT_OTHER	MEDIAN_AGE	AVG_HH_INC	AREA_IMPRM	SCORE
3301 W 38th Ave	29728.69701	2761.889	68	202	0.073	2	10.667707	0	1	5012	31.7	91.24	0.66	1.86	2.33	0	2.69	36.3	73472	75675	**2.4423**
2500 Arapahoe St	20102.40131	1867.576	235	437	0.234	8	13.72564	8	20	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	461839	**2.445**
940-944 Downing St	12051.85445	1119.655	170	67	0.06	6	110.319599	0	12	5444	7.38	85.58	7.33	0	2.68	0	1.73	32.5	58540	147181	**2.4464**
1320 Knox Ct	8076.746185	750.355	38	124	0.165	3	96.226805	11	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	184562	**2.4576**
3135 W 18th Ave	12201.74176	1133.58	237	133	0.117	3	293.77651	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	361539	**2.4591**
2300 W 29th Ave	6913.45922	642.282	82	70	0.109	12	51.520682	5	9	5281	29.69	88.3	2.75	0.66	1.38	0	6.21	34.6	76502	279750	**2.4625**
1445 & 1455 Logan St	26587.08057	2470.023	190	91	0.037	4	11.519758	44	70	4434	21	80.76	1.85	1.04	3.38	0.11	7.26	31.1	45224	419858	**2.4661**
3240 N Speer Blvd	8529.917138	792.456	97	6	0.008	3	14.624288	0	11	4946	18.68	94.56	0.89	0.87	1.35	0	0.71	34.7	104057	123786	**2.4884**
2534 18th St	30897.67807	2870.491	183	117	0.041	14	65.751293	10	13	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	177862	**2.49**
1586 - 1594 Hooker St	19031.98527	1768.131	173	189	0.107	5	333.534377	2	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	396149	**2.4976**
2825 Eliot St	9811.660823	911.534	242	221	0.242	5	22.840923	1	3	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	214590	**2.4978**
1295 Quitman St	12201.31121	1133.54	223	144	0.127	3	97.953012	1	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	107443	**2.5093**
1275 & 1285 Yates St	14467.15242	1529.85	142	243	0.159	1	55.880134	1	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	67981	**2.5251**
1288 Winona Ct	20339.32551	1889.587	86	315	0.167	2	68.043821	1	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	96697	**2.5445**
1266 Newton St	8133.525757	755.63	239	167	0.221	3	97.953012	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	106833	**2.5501**
1630, 1622, 1610-1612 Irving St	43270.77036	4019.99	48	487	0.121	5	333.534377	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	356233	**2.5593**
2322 W 33rd Ave	14721.80756	1367.702	95	229	0.167	5	10.523797	2	8	5281	29.69	88.3	2.75	0.66	1.38	0	6.21	34.6	76502	182317	**2.5675**
921 & 951 Acoma St	77919.86134	7238.999	135	240	0.033	6	26.223562	24	29	1562	3.01	82.84	8.13	1.09	1.92	0	2.18	40.2	122684	405383	**2.5886**
1900 W 32nd Ave	14968.43003	1390.614	234	146	0.105	11	54.545346	8	14	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	169899	**2.5951**
3930 W 38th Ave	15639.24705	1452.935	25	70	0.048	0	0	0	0	4946	18.68	94.56	0.89	0.87	1.35	0	0.71	34.7	104057	29344	**2.6119**
2901 Grove St	31614.65069	2937.1	182	227	0.077	4	16.065747	1	10	4946	18.68	94.56	0.89	0.87	1.35	0	0.71	34.7	104057	161609	**2.6122**
2733 W. 28th Ave.	22218.05662	2064.127	3	644	0.312	5	22.840923	1	4	2626	54.87	71.17	3.27	3.01	0.23	0	19.54	31.5	71917	251111	**2.6145**
1719 - 1727 N Julian St	12568.83381	1167.684	104	172	0.147	3	317.036296	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	314787	**2.6252**
1190 S. Mariposa St.	10966.27208	1018.801	15	201	0.197	6	320.45165	0	0	5898	72.28	69.36	1.09	0.27	4.98	0	22.28	32.6	41204	400340	**2.6344**
27th St and Arapahoe St	31841.81204	2958.204	166	944	0.319	7	13.437416	7	10	7997	15.51	79.67	14.36	0.78	0.46	0.13	3.24	29.7	76707	419337	**2.6347**
1801 E Colfax Ave	20395.37314	1894.794	119	0	0	4	400.840203	1	16	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	269510	**2.6377**
125 S University Blvd	12122.03508	1126.175	147	7	0.006	1	2.352658	2	3	2297	4.05	97.78	0.44	0	1.78	0	0	43.6	136150	138956	**2.649**
3305 Navajo St	3954.732207	367.407	205	52	0.142	10	52.220129	8	11	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	175225	**2.6569**
1400 W 37th Ave	7761.331623	721.052	176	147	0.204	7	33.742692	4	10	3096	31.23	83.33	6.49	0.87	2.45	0	4.75	30.6	79816	213191	**2.6634**
320 Milwaukee St	40592.93808	3771.211	16	1	0	4	17.18093	4	8	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	181593	**2.6655**
320-360 N Milwaukee St	40592.93808	3771.211	165	1	0	4	17.18093	4	8	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	181593	**2.6655**
135 Adams St	7572.446706	703.504	59	0	0	4	19.092156	5	5	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	186880	**2.6665**
235 Fillmore St.	29266.91493	2718.988	17	3	0.001	5	20.526226	5	8	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	199252	**2.6679**
235 Fillmore St.	29266.91493	2718.988	96	3	0.001	5	20.526226	5	8	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	199252	**2.6679**
1726-1734 Irving St	9275.209574	861.696	31	165	0.191	4	323.685701	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	361711	**2.6867**
Knox Ct and 13th Ave	714473.2806	66376.804	196	4492	0.068	6	393.114294	12	3	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	373456	**2.691**
3001 E 1st Ave	1942921.161	180503.457	139	3348	0.019	8	43.542023	7	10	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	279908	**2.701**
1920-1940 Hooker St	29107.80296	2704.206	32	249	0.092	3	293.77651	1	0	5517	33.41	76.94	9.57	0.67	2.52	0	5.02	35.6	75478	318701	**2.7092**
1305 Osceola St	14187.7136	1318.083	192	24	0.018	4	382.104996	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	108984	**2.7122**
1050 Bannock St	10061.08191	934.706	73	7	0.007	5	22.68808	38	27	1562	3.01	82.84	8.13	1.09	1.92	0	2.18	40.2	122684	376654	**2.7127**
1211, 1223, 1225 Santa Fe Dr	25122.14607	2333.926	198	472	0.202	4	39.309864	33	13	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	353411	**2.7266**
1211, 1223, and 1225 Santa Fe Drive	25122.14607	2333.926	210	472	0.202	4	39.309864	33	13	3260	39.82	86.38	1.01	2.09	2.21	0	6.63	30.3	47587	353411	**2.7266**
1366-1372 Knox Ct	8087.660779	751.369	169	45	0.06	4	380.378788	4	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	199035	**2.7406**
1211-1219 Perry St	7860.68242	730.282	203	159	0.218	3	97.953012	1	5	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	85751	**2.7425**
N/A	16444.70968	1527.765	84	20	0.013	5	31.456843	6	5	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	173270	**2.7481**
1552 Xavier St.	38816.1734	3606.144	9	0	0	2	340.032117	0	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	75676	**2.7698**
167 Adams St	8086.08925	751.223	60	43	0.057	5	20.526226	4	5	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	185744	**2.7849**
1578 S Broadway	12172.44243	1130.858	53	0	0	4	165.475347	4	1	5364	3.64	91.09	0.39	1.58	4.34	0	0.22	35.9	102939	107044	**2.7884**
3501 W 23rd Ave	16766.49647	1557.66	200	32	0.021	3	288.98957	0	0	5517	33.41	76.94	9.57	0.67	2.52	0	5.02	35.6	75478	71111	**2.794**
3520 W Conejos Pl	18616.2404	1729.507	103	159	0.092	4	372.91643	1	1	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	155151	**2.7974**
12th Ave and Perry St	14485.00176	1345.702	33	330	0.245	3	97.953012	1	5	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	86371	**2.8014**
1395 Lowell Blvd	16276.6852	1512.155	145	130	0.086	3	369.941308	1	3	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	133584	**2.8068**
1300 N Stuart St	8142.621253	756.475	238	8	0.011	3	352.195805	1	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	102148	**2.8069**
1439 N Xavier St	8134.128535	755.686	36	9	0.012	2	340.032117	1	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	71852	**2.809**
York St and 11th Ave	64121.8655	5957.122	98	392	0.066	6	135.365622	10	7	3203	7.59	91.29	4.28	1.25	1.9	0	1.28	47	78083	112004	**2.8189**
1360 N Knox Ct	8085.787861	751.195	195	72	0.096	4	380.378788	5	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	206503	**2.8239**
1323 Wolff St	8134.494508	755.72	102	18	0.024	3	352.195805	1	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	85964	**2.8528**
3808 Newton St	9930.612682	922.585	101	240	0.26	0	0	0	0	5012	31.7	91.24	0.66	1.86	2.33	0	2.69	36.3	73472	31978	**2.8756**
Stuart St. & 16th Ave.	27373.62027	2543.095	70	154	0.061	2	340.032117	1	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	106150	**2.8837**
1565 N Winona Ct	7794.13999	724.1	236	41	0.057	2	340.032117	0	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	77468	**2.8937**
326 & 344 Steele St	15959.03175	1482.644	121	168	0.113	5	20.526226	3	5	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	177935	**2.9051**
1193 S Pennsylvania St	7520.521652	698.68	69	65	0.093	2	161.209219	3	4	5364	3.64	91.09	0.39	1.58	4.34	0	0.22	35.9	102939	147372	**2.9391**
1027, 1031, 1035 Julian St	24394.92622	2266.365	116	733	0.323	6	131.246421	12	3	3721	76.59	79.12	2.31	3.74	0	0	12.63	29.9	39268	213534	**2.9433**
3418 W 18th Ave	7806.152502	725.216	162	178	0.245	3	317.036296	1	0	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	209777	**2.9524**
1775 Sherman St	52052.42283	4835.833	231	0	0	8	20.01929	64	145	3141	9.23	86.12	6.65	0	4.68	0	0.89	31.4	52541	423380	**2.96**
3550-3572 W 16th Ave	16542.72576	1536.871	228	258	0.168	4	372.91643	1	1	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	159822	**2.9602**
3865 Cherry Creek N Dr	45387.70657	4216.66	189	170	0.04	7	52.119981	9	3	4649	4.95	96.17	0.75	0.24	2.62	0	0	50.3	182516	294518	**2.9856**
1335 Newton St	8141.221946	756.345	199	107	0.141	4	382.104996	2	3	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	113861	**2.9872**
1480 Newatta St	10900.16021	1012.659	79	0	0	12	46.732261	22	186	4587	5.73	91.15	0.83	0.35	6.93	0	0.33	42.3	114478	464403	**2.9967**
2190 E 18th Ave	15313.87588	1422.707	100	76	0.053	4	458.902366	7	11	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	201234	**3.0078**
5835 E 13th Ave	9172.155996	852.122	30	228	0.268	1	4.891235	0	1	5964	13.83	89.4	6.02	0.4	1.17	0	1.93	39.7	96789	38670	**3.0086**
1565 King St	8924.435601	829.108	244	166	0.2	4	372.91643	1	1	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	170400	**3.0195**
4600 W Colfax Ave	36626.98989	3402.762	213	416	0.122	2	340.032117	1	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	83265	**3.0428**
860 N Emerson St	18169.37709	1687.992	179	585	0.347	4	84.907223	1	17	5602	6.62	86.47	2.68	0.89	3.7	0	3.21	32.4	73086	238111	**3.0443**
1452 Utica St	14157.56392	1315.282	105	248	0.189	1	284.151983	1	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	91288	**3.0617**
2310 E Colfax Ave	27987.34556	2600.112	134	63	0.024	6	430.666719	5	14	4623	10.95	85.18	6.25	1.1	0.93	0.13	0.13	34	60896	192208	**3.0834**

ADDRESS	AREA (SQ.FT)	AREA (SQ.M)	ID	CANOPY AREA	CANOPY %	PARKS	PARKS ACRES	PUBLIC ART	BIKE RACKS	TTL POPULATION	PCT_HISPAN	PCT_WHITE	PCT_BLACK	PCT_NATIVE	PCT_ASIAN	PCT_HAWAII	PCT_OTHER	MEDIAN_AGE	AVG_HH_INC	AREA_IMPRM	SCORE
3521 W Conejos Pl	16536.41811	1536.285	222	343	0.223	4	372.91643	1	1	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	156866	**3.0847**
1410 Zenobia St	9167.301477	851.671	220	120	0.141	2	340.032117	0	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	61212	**3.0933**
1901 Wazee St	168327.2029	15638.124	181	95	0.006	10	53.002545	21	203	4587	5.73	91.15	0.83	0.35	6.93	0	0.33	42.3	114478	423378	**3.1077**
1336, 1338, & 1340 N Perry St	8081.234731	750.772	46	153	0.204	4	382.104996	1	3	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	112186	**3.1163**
1458 N Yates St	16268.13867	1511.361	29	263	0.174	2	340.032117	0	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	71464	**3.1553**
Xavier St and Colfax Ave	88431.86455	8215.597	2	1458	0.177	2	340.032117	0	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	72508	**3.1608**
2801 Columbine Ave	8035.079128	746.484	218	79	0.106	5	463.87209	3	1	3262	19.93	51.26	41.57	1.59	0	0	1.99	35.9	78165	51562	**3.17**
1385, 1387, 1389, 1391 N Xavier St	8133.880966	755.663	11	135	0.179	2	340.032117	1	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	74713	**3.1746**
1330 N Perry St	8286.319318	769.825	221	178	0.231	4	382.104996	1	4	5349	57.56	72.76	8.64	3.55	0.71	0	10.92	28.7	35890	110219	**3.1811**
1607 Gilpin St	15569.12024	1446.42	28	384	0.265	4	400.840203	0	16	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	296581	**3.1821**
14th Ave and Xavier St	8133.880966	755.663	175	141	0.187	2	340.032117	1	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	74713	**3.1923**
1150 Bannock St	26475.7065	2459.676	99	308	0.125	5	22.644195	59	41	1562	3.01	82.84	8.13	1.09	1.92	0	2.18	40.2	122684	423319	**3.2136**
2200 18th Ave	11748.02185	1091.428	232	171	0.157	4	458.902366	8	12	2939	16.64	74.72	18.71	0	2.08	0.44	1.8	33.4	42973	200051	**3.2535**
1270-1288 N Stuart St	16287.29841	1513.141	155	286	0.189	4	382.104996	2	2	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	113624	**3.2639**
405, 409 Harrison St & 3875 S 4th Ave	15781.4274	1466.164	215	345	0.235	1	24.16863	1	3	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	69666	**3.2678**
2060 N High St	7973.26205	740.741	66	76	0.103	2	453.26044	3	4	1479	16.09	75.12	19.68	0	2.37	0	0.88	34.3	83417	170479	**3.2958**
4633 E Colfax Ave	6436.510811	597.972	122	20	0.033	2	321.500445	0	3	4797	10.74	87.83	6.09	0.38	2.88	0	0.54	39.9	148815	163572	**3.3145**
1425 Winona Ct	8134.731314	755.742	254	189	0.25	2	340.032117	1	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	81259	**3.3275**
1551 S Pearl St.	8105.862534	753.06	56	180	0.239	2	161.209219	3	1	5364	3.64	91.09	0.39	1.58	4.34	0	0.22	35.9	102939	55242	**3.3502**
1551 S Pearl St	8105.927117	753.066	219	180	0.239	2	161.209219	3	1	5364	3.64	91.09	0.39	1.58	4.34	0	0.22	35.9	102939	55242	**3.3502**
Stuart St. & Conejos Pl.	2799.873376	260.117	12	71	0.273	2	340.032117	1	1	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	106616	**3.3512**
1350 Elati St	37469.88937	3481.07	58	53	0.015	6	39.93302	85	74	1562	3.01	82.84	8.13	1.09	1.92	0	2.18	40.2	122684	357518	**3.4855**
100 W 14th Ave Pkwy	127660.446	11860.055	128	702	0.059	4	22.362523	81	100	1562	3.01	82.84	8.13	1.09	1.92	0	2.18	40.2	122684	443204	**3.4864**
594 - 598 N Saint Paul St	10571.08626	982.087	40	341	0.347	2	20.630958	4	4	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	77609	**3.5374**
822 18th St	16288.94529	1513.294	132	0	0	9	12.606986	56	325	3385	9.39	84.14	6.82	0.3	3.1	0	1.42	31.9	84638	382128	**3.6033**
417/421 Harrison St	8078.629867	750.53	107	308	0.41	1	24.16863	1	3	5491	4.5	94.15	0.46	0	3.17	0	0.25	50.4	143696	67960	**3.656**
1616 Market St	20380.45437	1893.408	83	2	0.001	6	10.490647	53	293	4587	5.73	91.15	0.83	0.35	6.93	0	0.33	42.3	114478	371957	**3.7132**
1200 17th St	138775.8196	12892.708	180	0	0	7	10.863255	56	316	4587	5.73	91.15	0.83	0.35	6.93	0	0.33	42.3	114478	409086	**3.7783**
1364 N Yates St	8133.708743	755.647	164	342	0.453	2	340.032117	1	0	3844	51.61	79.55	5.23	3.82	1.72	0	8.58	32.2	54881	71111	**3.7833**
1005 S Gaylord St	6955.987389	646.233	136	193	0.299	2	158.957806	1	2	4482	7.94	92.97	0.33	0	3.75	0	1.45	39.1	163371	51838	**3.8113**
1005 S Gaylord St	7111.934772	660.721	212	204	0.309	2	158.957806	1	2	4482	7.94	92.97	0.33	0	3.75	0	1.45	39.1	163371	51838	**3.8334**