Zoning for Medical Marijuana in the City of Grand Rapids

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Introduction

On September 21, 2016 the Governor approved House Bill 4209 (PA 281), 4827 (PA 282), and 4210 (PA 283). These Acts went into effect on December 20, 2016. A brief summary of each Act is listed below as well as implications for Grand Rapids. The purpose of this research is to find suitable land use regulations for marijuana provisioning centers/dispensaries and growing facilities by comparing Grand Rapids current land use to case studies from municipalities with similar laws.

DEFINITIONS OF ALLOWABLE USES

Medical Marijuana Facilities Licensing Act (PA 281)

This Act allows for the legal growing, processing, transporting, and distributing of medical marijuana for those who obtain a license through the state of Michigan. Providers may obtain a license to operate one of the following commercial businesses:

- 1) Grower- A Grower license authorizes the Grower to grow no more than 1500 plants in an area zoned industrial or agriculture.
- 2) Processor- A Processor license authorizes the purchase of marijuana only from a Grower and sales of marijuana-infused products only to a Provisioning Center.
- 3) Secure Transporter- A Secure Transporter license authorizes licensees to store and transport marijuana and money associated with the purchase of marijuana between marijuana facilities.
- 4) Provisioning Center- A Provisioning Center license authorizes the purchase or transfer of marijuana only from a Grower or Processor. The license authorizes the sale and transfer of marijuana to registered qualified patients or registered primary caregivers.
- 5) Safety Compliance Facility- a Safety Compliance Facility license authorizes a facility to receive marijuana from, test marijuana for, and return marijuana to one of the three licensed marijuana facilities listed above.

The license will be issued by a newly created board within the Department of Licensing and Regulatory Affairs (LARA). Facilities will pay a licensing fee, and a fee for a regulatory assessment. A portion of the sales tax will be distributed to the municipality in which the facilities are located. The final license process and fees have not been established by LARA. They will be required to begin accepting applications by no later than December 15, 2017.

The City of Grand Rapids may determine which of these facilities should be allowed to operate and place restrictions on their location. The City must adopt an ordinance that allows for each type of facility the City chooses to allow. Once the ordinance is adopted, the City is responsible to submit the following documents to LARA with each of application:

- 1) A copy of the local ordinance that authorizes the facility
- 2) A copy of any zoning regulations that apply to the proposed facility
- 3) A copy of any violations of any local ordinance or zoning

The City must also establish an administration fee to offset the cost of associated with the operation not to exceed \$5,000.

Michigan Medical Marijuana Act (PA 283)

This Act protects licensed individuals from criminal or civil charges for manufacturing, transferring or distributing marijuana. Caregivers are limited to 2.5 oz. of marijuana or marijuana infused products in their possession. Persons are not permitted to consume in public or in personal vehicles.

Marijuana Tracking Act (PA 282)

Persons are required to have a LARA issued ID and be registered on the LARA database. Any licensed individual who is in violation of this Act will be stripped of their license by LARA.

REVENUE IMPACTS

Medical marijuana provisioning centers are a multi-billion dollar business in America. Colorado alone had sales of \$996 million in 2015. Much of this revenue benefits the community through taxes, registration fees and license fees. In California, medical marijuana establishments have been credited with helping revitalize the Uptown neighborhood of Oakland City, as well as promote local entrepreneurship in Colorado Springs, Colorado (Nemith, 2014). In the case of the newly passed Public Act 281, 25% of the funds collected from the medical marijuana industry return to the municipality where the facility is located. This is allocated in accordance with the amount of facilities located with each municipality. Another 35% is distributed to the county where the facility is located. Of that 35%, 5% is designated exclusively to the county sheriff (Senate Fiscal Agency, pg. 27). Therefore, there is a fiscal impact associated with locating medical marijuana facilities.

At the State level, it is estimated that the total administration cost for regulation of the Medical Marijuana Facilities Licensing Act is \$21 million a year. Of that, 62.6% (\$13.2 million) will fund LARA staff. An equivalent of 113 full time employees will be hired. LARA employees will be responsible for processing applications, licensing, and enforcement. Another 28.4% (13.2 million) will fund the Department of State Police. An equivalent of 34 full time employees will be hired. They will also be responsible for enforcement. Attorney General cost will take 2.9% (\$550,000). Lastly, 7.1% (\$1.5 million) will fund miscellaneous expenses. This includes travel, contractual services, civil service assessments and other overhead cost. Local costs for similar impacts, such as additional licensing, code enforcement, law enforcement and legal staff should be considered when choosing to allow such facilities within the City and when establishing application fees. The maximum administrative fee that a local government may charge for licensing is \$5,000, which may or may not cover additional operational expenses to the City.

The fiscal impacts related to land use may vary. Because of the infancy of legalized marijuana facilities, there has been little data collected on the effects of provision centers on property values of surrounding land. There are concerns that should be considered when zoning for Medical Marijuana facilities. First, there may be a loss of revenue from businesses choosing not to locate in an area near medical marijuana facility. Also, because medical marijuana facilities are a locally unwanted land use (LULU), there is potential that a disproportionate amount of facilities may be located in areas that do not have the resources to resist establishment. (Morrison, 2014). Conversely, if the use restrictions leave only minimal locations for placement of these facilities, it may create a 'hot spot' of real estate value and competition for these properties, pushing out other tenants or uses. This could be further amplified if establishments are allowed to locate in close proximity to one another. Using different models from established cities can help to create

a zoning code that is practical for the geographical and cultural context of Grand Rapids and prevent disproportionate location of facilities within the community.

POTENTIAL ISSUES

2010 Pew research indicates that though 73% of adults support legalization of medical marijuana, 44% would feel somewhat or very uncomfortable if a provision center opened near their home (Nemith, 2014). The opening of medical marijuana facilities is perceived to have association with increased loitering, noxious odors, and exposer to minors, gang activity, and sales of other illegal drugs. There are also fears that the facility may attract violent crime and property crime (Tilden, 2010). It is important to note that though these fears are present, there have not yet been any studies that have found a direct correlation between medical marijuana facilities and crime.

Grand Rapids Sensitive Land Use Maps

The goal of this report is to show how different land use regulations will affect the potential placement of medical marijuana facilities and the surrounding residents. Within this preliminary analysis, two aspects of land use were examined; use by district and relationship to surrounding uses. First, a base assumption was made that Medical Marijuana Provisioning Centers would be allowed, with special land use, in all mixed-use commercial and industrial zone districts except Neighborhood Office Service Zone Districts. Restricting medical marijuana to these zone districts in consistent with other established municipality regulations. There are 4,262.89 acres of land in these zone districts City of Grand Rapids. It is important to keep in mind that this is only a snapshot of the current land use at the time of this report. Future land use changes will change the land area totals.

The second aspect of the analysis is the relationship to surrounding uses. Proximity separations or buffers from sensitive land uses are commonly used to help mitigate the impacts to the sensitive use. The following maps are designed to help guide in decision making with regards to proximity buffers around sensitive uses such as schools, daycare centers, rehab centers, parks, religious institutions, and residential zone districts. A minimum 1,000-foot separation from schools is required by state and federal law and has been removed from the potential suitable land area. The commercial and industrial land that is not within 1,000 ft. of an elementary or secondary school is included in suitable land. Each map highlights a specific use within the City of Grand Rapids and two different proximity buffer. All or none of the buffers may be implemented in the Zoning Ordinance. The proximity buffers are semi-transparent, and allow for the user to see what parcels would be affected by the buffer at each distance. Most buffers are created with a 1000, and 500 foot proximity. For reference, consider that 1000 feet is 100 feet larger than 3 football fields. Using downtown Grand Rapids as an example, the distance from the South exit of City Hall to the Starbucks located at Monroe and Pearl is 992 feet. The distance from the entrance to the Chop House on Monroe to the stage at Monroe center is about 500 feet. Residential buffers were created with 150 and 250 foot distance. Small maps are provided within the text of each sensitive land use for reference, but they can also be found in larger form within the appendices for clearer analysis. Lastly, the base suitable land for each map is always the 2,844.04 acres of commercial and industrial land that is not located within 1,000 ft. of a elementary, secondary, or preschool.

The sensitive land uses in this research are not the only uses that are buffered by municipalities. Other operations that are sometimes buffered include homeless shelters, youth community centers, and public community centers.

The individual buffers were then applied in combination based on model Ordinances from four other cities. The cities chosen – Ann Arbor, Denver, Los Angles, and Phoenix - were chosen based on availability of zoning information, and to create a diverse spectrum of models. Showing the impact of different models of land use buffers in Grand Rapids gives decision makers opportunity to see the impact on a controlled geography and socioeconomic land area.

OBJECTIVE

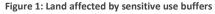
Once there is a general consensus on types of uses to be buffered and distances, the suitable land for each medical marijuana facility can be recalculated. Analyzing the location of suitable land with regards to the location of vulnerable populations will help to determine if the proposed buffers are equitable.

DECISIONS TO BE MADE

- 1. Which types of medical marijuana facility license should be allowed?
- 2. Which identified sensitive uses should contain proximity buffers?
- 3. What is the correct distance for the proximity buffer?
- 4. Is there a need for distance buffers around residential zone districts?
- 5. How does the distribution of suitable land, established by distance buffers affect minority populations and vulnerable populations?
- 6. What recommendations regarding operational regulation would be helpful?

OVERVIEW OF AFFECTED LAND

Suitable Land		2,844.04	
			Remaining
Buffer	500 ft	1000 ft	Suitable Land
Child Care	71.31	181.83	2,590.90
Drug Rehabs	216.5	229.19	2,398.35
Parks	369.99	415.12	2,058.93
Churches	104.89	238.78	2,500.37
-Suitable land is	calculated	d in acres	



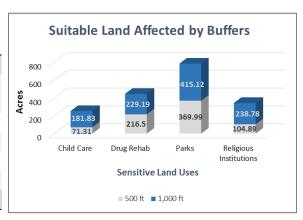
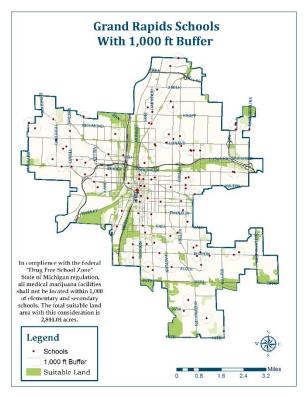


Figure 2: Suitable Land affected by 500 and 1,000 foot buffers

SCHOOL

Before any other buffers are considered, the school buffer must be established. The federal "Drug Free School Zones" regulation requires a buffer between medical marijuana facilities and any preschool, elementary, or secondary schools. Each state determines the distance that the buffer must be. The State of Michigan requires a 1,000 foot buffer. Therefore, any consideration of suitable land must first remove any land within 1,000 feet of them (MCL 333.26427).



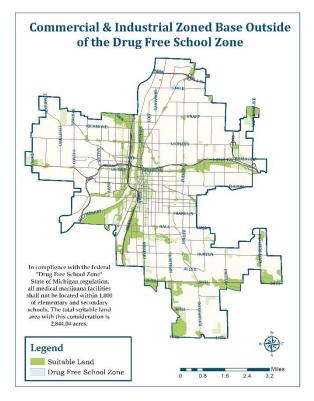


Figure 3: Drug Free School Zone

Figure 4: Commercial & Industrial Land outside of the school zone

Figure 3 shows the location of schools within the Grand Rapids area surrounded by a 1,000 foot buffer. No land within that buffer may be considered for the operation of any type of marijuana facility. Of the 4,262.89 acres of commercial or industrial land in Grand Rapids, 1,418.85 is located within 1,000 feet of a school. This leaves a base line area for suitable land of 2,844.04 acres. Figure 4 shows all mixed use commercial and industrial land remaining after the land in the "Drug Free School Zone" was removed. From this point of the analysis on, the land that is suitable for medical marijuana facilities would be determined by the City of Grand Rapids Zoning Ordinance. Maps within the *Grand Rapids Sensitive Land Use* section will not distinguish the difference between mixed use commercial and industrial zone districts, but growers and processors are restricted to industrial zone districts by state law. The *City Model* analysis will separate commercial and industrial uses.

DAY CARE CENTERS

A common concern when considering the placement of medical marijuana facilities is potential drug exposure to children. Most cities choose to use proximately buffers to separate the two businesses. Day Care Centers in Michigan can have one of three classifications: Family Child Care Homes, Group Child Care Homes, and Child Care Centers. Family and group childcare homes are located in residential zone districts within the child care provider's home. Child Care Centers are operated in facilities other than private residence. When considering buffers for different types of day care centers, it was decided that it was most appropriate to focus proximity buffers on the 90 Child Care Centers located throughout the city. Two factors that impacted this were that the Family and Group homes were already located in residential areas with more private outdoor play areas and the general protection of a residential neighborhood setting.

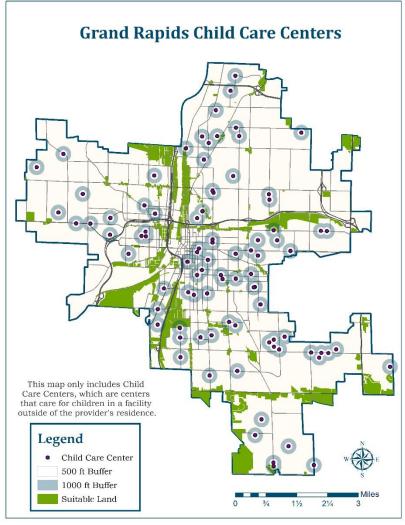


Figure 5: Child Care Centers

Child Care Centers have playgrounds that are usually located onsite, but may be adjacent to commercial uses. The Federal Drug Free School zone considers preschools in the regulation, but all childcare centers are not considered preschools. Therefore without creating a reasonable buffer, Child Care Centers may still be found within the "Federal Drug Free Zone."

Child Care Centers are fairly evenly distributed throughout the city, apart from denser concentrations around

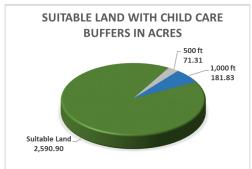


Figure 6: Land Affected by Child Care Buffers

major roads. There are more located in the center city than in the peripherals of the city, consistent with population density. A few clusters are located in primarily residential zone districts in the southeast portion of the map Near Burton Street. Both the Child Care Center map and the map with all Day Care Facilities can found in Appendix A. In later *city model* maps, only the buffers surrounding Child Care Centers will be used to determine suitable land. Refer to Appendix A for a larger version of figure 6 as well as the location of all classifications of Day Care Centers.

REHAB CENTERS

Rehabilitation centers are considered a special land uses subject to additional locational restrictions in many communities. There may be an inherent conflict between medical marijuana facilities and rehabilitation centers. Though every potential conflict cannot be zoned away, it is reasonable to respect the goals of both rehab centers and medical marijuana facilities. This is most commonly accomplished through proximity buffers. Like Day Care facilities, a registry of all licensed rehabilitation centers within the state of Michigan is available for public viewing and use (LARA). The licensing category for rehab centers within the state registry is Substance Use Disorder Programs. This is defined by the state of Michigan as centers where staff provides technical assistance regarding Substance Use Disorder treatment and recovery. This may be inpatient or outpatient services.

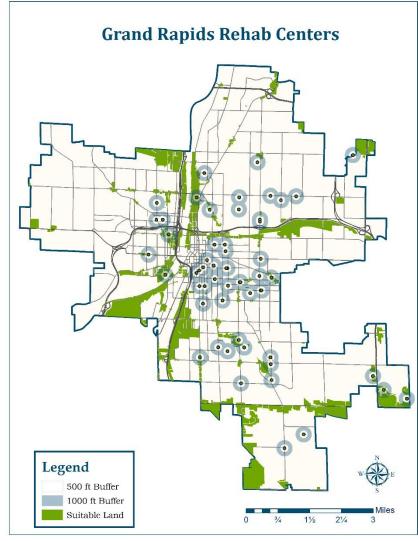


Figure 7: Rehabilitation Centers

Both Denver and Phoenix chose to use buffers around rehab centers.

There are currently 57 licensed rehab centers located within the City. They are distributed in clusters with a few centers located independently in the peripherals of the city. A majority of rehab centers are located

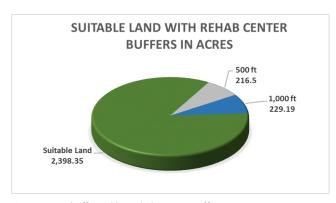


Figure 8: Land Affected by Rehab Center Buffers

between Fulton Street and Franklin Street, west of US 131. There are 10 on or around Leonard Street, with five located near the Kent County jail. There is also a concentration on Kalamazoo, and around the Cottage Grove Industrial area. A 500 ft. buffer around rehab centers would affect 216.5 acres of suitable land, with the total raising to 445.69 acres if a 1000 ft. buffer was implemented.

PARKS

As mentioned in the child care section, a common concern the placement of Medical Marijuana facilities is exposure to minors. In conversation with planning staff in Phoenix, a possible reason for park buffers is because of the diverse population that uses parks, including children of all ages. They also wish to discourage use within a nearby park, although this is illegal in itself. On the other hand, a potential concern for using a parks buffer is uneven distribution may that occur. If medical marijuana facilities are limited to areas that are not located near parks, there may be the unintended consequence of unevenly burdening areas that already lack public parks with an unwanted land use, such as medical marijuana facilities. It is also important to note that public consumption of marijuana products is illegal. The problem of consumption in public parks may be mitigated by existing laws.

Both Phoenix and Los Angeles implement buffers around parks.

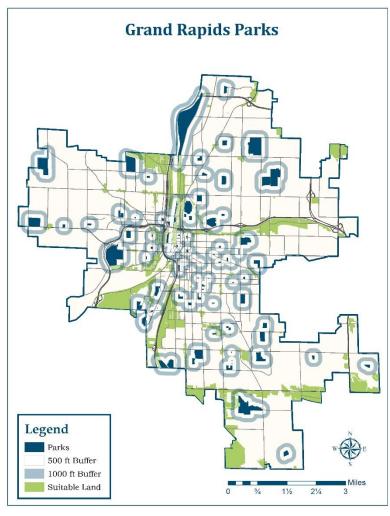


Figure 9: Public Parks

There are 97 parks scattered throughout the City of Grand Rapids. With the addition of cemeteries and golf courses there are 115. Parks vary drastically in size from 1/20th of an acre, all the way to 191.51 acres. Park are distributed somewhat evenly distributed throughout the city. A larger amount of small parks are located

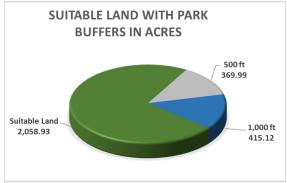


Figure 10: Land Affected by Park Buffers

within the city center. Conversely, there are larger parks located in the peripheral areas of the city, but they are less frequent. The two east arms of the city lack an abundance of parks. There is also an area in the northwest, running parallel to Leonard Street, which do not have many parks. A 500 ft. buffer around parks will affect up to 369.99 acres of suitable land. A buffer of up to 1,000 ft. around the parks layer could raise the acres of affected land to 785.11.

RELIGIOUS INSTITUTIONS

Religious institutions and any sort of medical marijuana facility are sometimes considered conflicting land uses. Religious Institution buffers are implemented to mitigate complaints and to allow conflicting uses to operate more harmoniously. Religious institution also tend to be establishments that accommodates a broad age range of participants and may include playgrounds and youth activities on the premises. They also often host AA, NA, and similar recovery meetings. Phoenix, for example, has experienced a number of complaints from churches located near medical marijuana facilities. They were usually concerning loitering and physical violence. Recent Phoenix zoning amendments expanded the buffer from 500 ft. to 1320 ft.

Los Angeles, Sacramento, and Phoenix all implement buffers between these two uses.

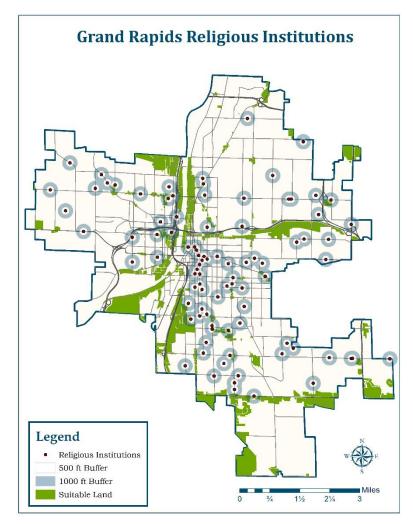


Figure 11: Religious Institutions

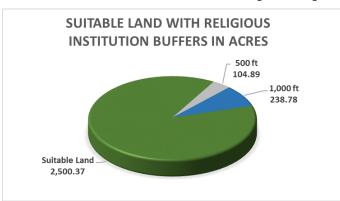
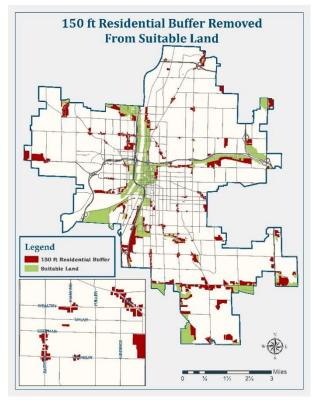


Figure 12: Land Affected by Religious Institution Buffers

There are 95 churches within the city of Grand Rapids. Religious institutions in the City of Grand Rapids are scattered. There is a large cluster located within the City Center and throughout South Division Avenue. If a 1,000 ft. buffer around religious institutions was applied, 343.67 acres of suitable land would be removed. That number would drop to 104.89 acres, if a 500 ft. buffer was implemented.

RESIDENTIAL BUFFERS

Both Los Angeles and Sacramento implement residential buffers for the location of medical marijuana facilities. As previously mentioned, there are two conflicting views within medical marijuana research in United States. Research conducted within California tended to focus more on the negative affects perceptibly associated with the use. There were also numerous reports about enforcement published in a 2009 White Paper on Marijuana Dispensaries published by the California Police Chiefs Association's Task Force for Marijuana Dispensaries. This report documents multiple crimes allegedly related to the presence of Marijuana Dispensaries. There is an emphasis on residential crime related to marijuana dispensaries. This document may be the precursor to the use of residential buffers in cities within California. No other cities were documented as having buffers for residential zone districts (Tilden, 2009). Also important to note, this document provided no causal relationship between these facilities and crime. It documented potentially unrelated crimes involving individuals within the industry or incidents in the proximity of a facility.



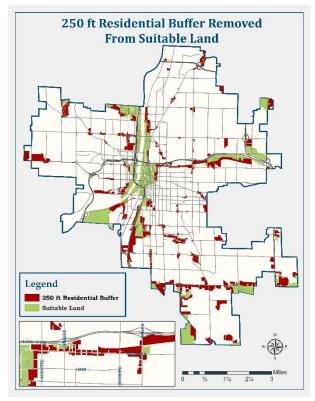


Figure 13: 150 foot Residential Buffer

Figure 14: 250 foot Residential Buffer

In both Los Angeles and Sacramento is that the proximity buffers associated with residential zone districts was considerably smaller than buffers associated with other conflicting land uses. Figures 13 & 14 show the suitable land that would be affected by both 150 and 250-foot buffers. One of the main concerns that arises from implementing residential buffers is the spatial grouping of potential locations that occurs. The remaining land is primary located in the city center, in industrial areas along the river, on strips or clusters along the highways, or in locations along 28th street. Since many commercial districts in Grand Rapids are small nodes, or linear commercial strips surrounded by residential zone districts, most of the suitable land will be completely eliminated by residential buffers. The goal of allowing Medical Marijuana facilities within the City of Grand Rapids is to allow for licensed card holders to have access to the product. Zoning

regulations should also promote equity by considering whether one population is more negatively affected. Therefore, possible placement of facilities should be reasonable spaced throughout the community for either access or avoidance depending on local policy determinations.

US City Models

The following section uses proximity buffer models from US cities who have regulate medical marijuana. The buffers are then implemented on the City of Grand Rapids using current regulatory land use and actual use locations. The following cities were chosen based on availability of zoning information, and to create a diverse spectrum of models. Showing the impact of different models of land use buffers in Grand Rapids gives decision makers opportunity to see the impact on a controlled geography and socioeconomic land area. City models act as a jumping off point to be adapted to the needs of this city.

Figure 15 contains geographic and demographic facts that are helpful to understand why one city would choose a fairly small buffer, while another would choose a very large one. Los Angeles and Phoenix are similar in land area, but Los Angeles has almost 4 million people where Phoenix contain 1.5. Also, the transportation emphasis in Phoenix is much more focused on cars, with very few walkable areas. Los Angeles, though vary car oriented, still has nodes and corridors that are walkable.

	Land Area	Population	Population Density*
Grand Rapids	45.27	192,416	4250
Ann Arbor	28.69	116,194	4050
Denver	155	649,654	4191
Los Angeles	503	3,900,794	7755
Phoenix	517	1,514,208	2929
* Population densit	y is per squar	e mile	

Figure 15: Geodemographic Data

Grand Rapids is more similar in population density with both Denver and Ann Arbor than the other city models. All three cities vary in land area but have very similar population densities. It is helpful to consider these factors when determining buffer distance for the City of Grand

Rapids. Other topics to consider are socioeconomic impacts, perception towards the subject, and the specific geography of Grand Rapids when deciding on actual buffer distance.

Zoning

The responsibility of land use planning is to determine how this particular use will affect the surround neighborhood, if the use is detrimental or beneficial, and mitigate any issues that may arise due to the physical location of the use. The following chart shows what land uses the model cities chose to buffer and the distance of the buffers.

Figure 16: Land Use Restrictions

Zoning				В	uffers		
City Model	Permitted	prohibited	Schools	Residential Zone Districts	Other Facilities		ner Sensitive Facilities
Ann Arbor	Downtown Campus Industrial		1,000				
Denver		Residential	1,000		1,000	1,000 1,000	Childcare Rehab Center
Los Angeles			1,320	250	1,000	500 1,320	Churches Parks
Phoenix	Commercial		1,320	500	5,280	1,320 1,320 1,320 1,320	Childcare Churches Parks Rehab Center

⁻Proximity buffers are measured in Feet -Table Modified from Nemeth, 2014

Use Regulation

Regulation of medical marijuana facilities comes in two forms; Operational, and Land use. Land use regulations can be implemented through zoning restrictions, proximity buffers, and density controls. It is most common that operation regulations come in the form of a specific business license.

Licensing

Figure 17: Operational Regulations

	Alarm Systems	Security Cameras	Outdoor Lighting	Limited hours
Ann Arbor	Χ	Χ		Χ
Denver	Χ	Χ		Χ
Los Angeles	Χ	Χ	Χ	Χ
Phoenix				

Because the medical marijuana industry is still young, and community impacts is not yet fully determined, some argue that operational regulations are more enforceable. This can be accomplished through requiring that a proposed

medical marijuana facility obtain a license through the city. An operational management plan required for the license or summited for planning commission review would help guide decision making as well. Figure 9 shows operational restrictions that are enforced within municipalities to mitigate potential nuisance complaints. These are helpful additions to the operational management plan.

ANN ARBOR MODEL

Ann Arbor has maintained a moratorium on new medical marijuana facilities since August 5, 2010, but existing facilities are eligible to renew their current license. It is the least restrictive on proximity buffers, but has a number of operational requirements. The zoning ordinance allows for "Medical Marijuana Dispensaries" which are similar to provisioning centers, and "medical marijuana cultivation facilities" which would be similar to a grow facility, though only up to 72 plants are permitted. Dispensaries are allowed in Downtown, Commercial, or Industrial zone districts. Cultivation facilities are to be located in Commercial, Industrial, Research District or Office/Research/Limited Industrial zone districts. Operational restrictions or requirements include external and internal security cameras with records kept for at least 72 hours, safe overnight storage for products and money, and monitoring alarms. Additionally, hours of operation must be between 7:00am and 9:00pm. These issues are not handed in zoning, but in granting of the application.

The zoning code states that medical marijuana dispensaries must comply with the 1,000 foot buffer around schools, but have no other buffer restrictions. Also, all operations for both types of facilities must be conducted indoors. No drive-through dispensaries are allowed. It is unlawful to use any processing methods that create noise, dust, vibration, glare, fumes, odors, or electrical interference beyond the property border. The zoning code also clarifies that no person may reside in any type of medical marijuana facility. (Section 5:20.1. of the Ann Arbor City Zoning Ordinance)

DENVER MODEL

Colorado, unlike Michigan, allows consumption of Marijuana for recreational use. While it changes some parameters of the use, it does not disqualify Denver as a viable model to study for future zoning. Colorado has allowed the use of medical marijuana since 2000, and has pioneered the task of zoning for medical marijuana. Also, some of the top researchers on medical marijuana and zoning for medical marijuana are located in Denver.

Denver allows for "retail marijuana stores", similar to provisioning centers, "retail marijuana products manufacturers", which is similar to processors, and "retail marijuana cultivating facilities", which is similar to growers. They also allow for retail marijuana testing facilities, which are not considered in this research but are provided for under the Michigan legislative changes.

As of May, 2016, Denver will have an annual open application for retail marijuana stores. The planning director will put a cap on the number of new facilities that receive a license and that number will change from year to year based on the number of facilities that are operating shortly before the open application period. Applicants eligible for the license are then selected by blind lottery. If selected, applicant must provide a map, drawn to scale, containing all schools, childcare centers, rehab centers, and any other marijuana facilities within 1,000 feet. Medical Marijuana facilities are not permitted within 1,000 feet of the uses that are required to be listed on the map. Public notice and hearing are also required. A sign no smaller than 22Wx24H is required to be posted at the location of the proposed marijuana facility containing information of the use and contact information. Lastly, facilities are not permitted in residential zone district and some mixed use commercial districts.

Retail marijuana product manufacturers are only allowed in certain heavy industrial zone districts unless grandfathered in by an existing marijuana use. Retail marijuana cultivating facilities are allowed in zone

districts designated for plant husbandry. They are not allowed within 1,000 feet of schools or within 1,000 feet of residential zone districts. Public notice is not required for these establishments, unless the director finds it necessary. (Section 5.6-211 and Section 5.6-212 of the Denver Zoning Ordinance)

LOS ANGELES MODEL

Currently, Los Angeles has a ban on all marijuana facilities in all zone districts. Currently, the code is being rewritten. Medical Marijuana dispensaries were allowed in Los Angeles with a conditional use permit, which is equivalent to a special land use. There are 1,000 ft. buffers required from schools, playgrounds, parks, libraries, places of religious worship, child care facilities, and youth facilities. There is also a 1,000 foot buffer required between other facilities. Los Angeles zoning ordinance also states that the hours of operation shall not exceed 7:00am to 8:00pm. The area must be adequately lit and all graffiti and litter must be removed within 24 hours. Alcohol is not permitted on the premises. On-site consumption of products is allowed. Seating, restrooms and ventilation must be provided. It is also required that security systems, alarms, and cameras are installed. A security guard must be present during all business hours. Lastly, it is also required under conditional use that minors not be allowed on the premises, loitering be avoided and an emergency contact person's number be posted at all times. (Title 22.56.196 of the Los Angeles County Zoning Code)

PHOENIX MODEL

The City of Phoenix utilizes larger buffers. This may be more suited for that geography, as population density is much lower. Phoenix has a population density of 2,929 people per square mile, where Grand Rapids, Ann Arbor, and Denver are between 4,050 and 4,250 people per square miles. In Phoenix, no medical marijuana facility is allowed to be located within 5,280 feet of another facility. Also, facilities must not be located within 1,320 feet schools, parks, public community center, dependent care facilities, homeless shelters, youth community centers, or places of worship. Emissions of dust, fumes, vapors, or odors are not permitted. A survey of the property must be submitted to ensure compliance with all buffers. Medical marijuana dispensers are also prohibited within 500 of residential zone districts. (Ordinance G-6151) For the purpose of this analysis, the distance buffers were lowered to 1,000 ft. on the case of 1,320 ft. and 250 ft. in the case of the 500 ft. Residential buffer.

Suitable Land Maps

Suitable land was calculated using only the land area within the commercial and industrial parcels in the Grand Rapids boundaries. Michigan law requires that medical marijuana facilities are constrained to commercial or industrial zone districts further than 1,000 feet from any school. Therefore, these requirements were assumed before any other regulations were factored into suitable land for each City model. There are 2,844.04 acres of commercial and industrial land outside of the Drug Free School Zone. Since Michigan law states that medical marijuana provisioning centers are only allowed in either commercial or industrial zone districts, and medical marijuana growers and processors be located only in industrial zone districts, all models will assume this regulation. To determine the suitable land for each city model, the buffers used in each model city where applied to the Grand Rapids land map. All lands that was within the established distance buffers specific to that jurisdiction (as outlined above) were removed from the suitable land. The remaining suitable land for each city is located on figure 18 below.

Figure 18: Suitable Land by City Model

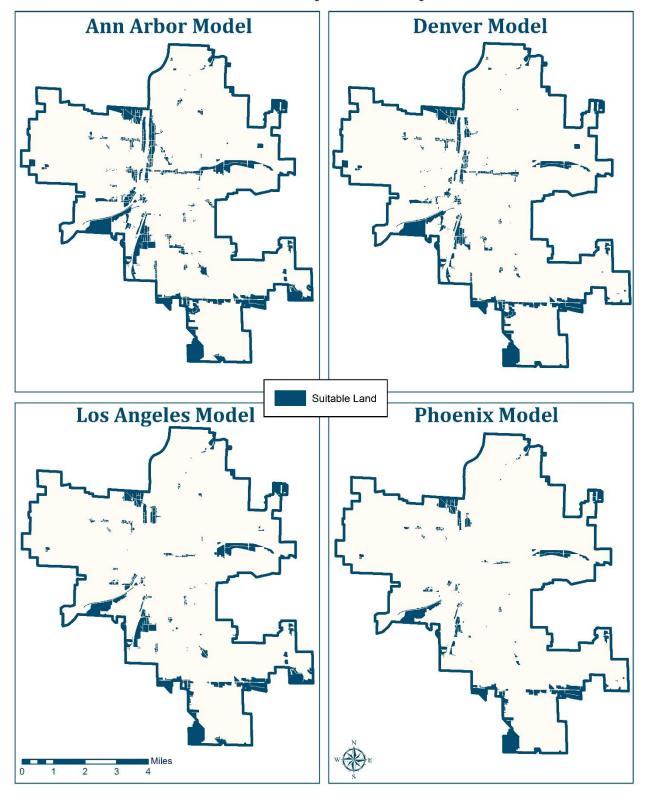
	Suitable Land within	Suitable Land within Grand Rapids				
	Commercial & Industrial	Industrial				
Ann Arbor Model	2,844.04	1,386.22				
Denver Model	2,173.26	1,123.35				
Los Angeles Model	2,003.13	1,031.31				
Phoenix Model	1,481.32	821.15				
-suitable land is calculate	ed in acres					

Of all models, the Ann Arbor model produced the greatest acreage of suitable land for medical marijuana provisioning centers. It also contained the most industrial land for medical marijuana growers and processors.

Both the Denver and Los Angeles models contained buffers that removed about 1/4th of the total suitable combined land (commercial & industrial) and about 15% of the available industrial land available for growers and processors.

The Phoenix model contains the most buffers and reduces the amount of suitable land for provisioning centers by 50%. The reduction of suitable industrial land with this model is 40%.

Suitable Land by Proximity Buffer

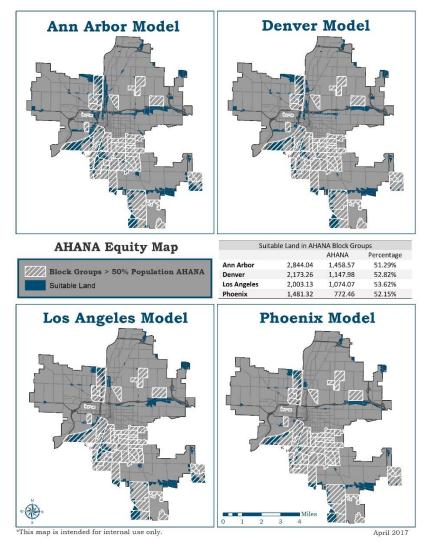


Equity Mapping

RACE MAPPING

Race mapping allows decision makers the opportunity to analyze how different zoning restrictions and buffers influence concentrations of minority population. To determine concentrated areas of minority population in Grand Rapids, 2010 population by race census data was collected at the block group level. All block groups that contained 50% or higher combined minority populations were highlighted in the equity maps. When referring to minority groups, African American, Hispanic, Asian, and Native Americans (AHANA) are included.

Figure 20: Equity Map Summary



After calculating the total suitable land by city models, the AHANA data was overlaid to determine the percentage of suitable land located within. Analysis of the AHANA overlay showed that as sensitive land use buffers where applied, they generally removed an equal amount of land found inside and outside of the AHANA layer. Therefore, implementation of sensitive land uses will not disproportionately affect minority populations.

When land area within each city model was calculated, roughly half of suitable land was found to be within the AHANA overlay. The model that contained the highest percentage of land within the overlay was the Los Angeles modal with 53.62%, while the model with the lowest percentage of land within the overlay was the Ann Arbor model with 51.29%. In summary, implementation of distance

buffers for the sensitive uses mentioned in this report will not disproportionately affect minority populations in Grand Rapids (See Appendix F for AHANA Equity maps for all city models).

Figure 21: AHANA Block Group Data

Suitable Land in AHANA Block Groups								
	AHANA Percentag							
Ann Arbor	2,844.04	1,458.57	51.29%					
Denver	2,173.26	1,147.98	52.82%					
Los Angeles	2,003.13	1,074.07	53.62%					
Phoenix	1,481.32	772.46	52.15%					

MAPPING VULNERABLE AREAS

For this analysis, characteristics from the vulnerable population group identified in the Great Housing Strategies report will help identify areas that may already face economic barriers. The categories included in this analysis are employment, education, housing and income. It must be determined how the placement of a medical marijuana facility would affect the quality of life for these areas. Therefore, block groups with a majority of the populations containing **all** of the following characteristics have been categorized as vulnerable areas. These are areas that may face barriers to everyday life issues and upward mobility.

Employment

National unemployment rate in 2015 was 5.7%, while the overall unemployment rate for Grand Rapids in 2015 was 7.5%. Within Grand Rapids, average unemployment rates by block group fluctuate significantly. Some block groups had rates as low as 3%, while others had unemployment levels as high as 36%. For establishing vulnerable areas, all block groups with an average unemployment rate at or higher than the national average (5.7%) were included.

Education

Educational attainment can affect health, living conditions, and ability to navigate social structures. Lower education attainment can limit job opportunities and prohibit upward mobility. Grand Rapids block groups range in mean educational attainment from graduate degrees to middle school level. Block groups that were classified as vulnerable areas were block groups that had a mean educational attainment of some college and lower.

Housing

Home ownership is an important avenue for families and individuals to gain wealth, and maintain security and stability. Block groups range from home ownership percentages in the teens to home ownership percentages in the high 80s. Block groups that had home ownership below 50% were classified as vulnerable areas.

Income

Income is the avenue by which an individual is able to care for themselves and their family. The 2015 median household income for Grand Rapids was \$73,026. The median household income for a family for 4 was \$66,800. Block groups that were classified as vulnerable areas were those that had an average household income of 50% or lower than the average family of 4 household income (\$33,400).

Mapping Results

The analysis showed the percentage of land found in vulnerable areas increased slightly as the number of sensitive land uses were buffered. The Ann Arbor Model had the fewest proximity buffers, and the lowest percentage of suitable land found within the identified vulnerable area. Conversely, the Phoenix Model had the most sensitive land use buffers and also contained the highest percentage of suitable land located in vulnerable areas. However, less than 6 percentage points of difference was found between Ann Arbor, with only the drug free school zone, and Phoenix model, which contains all five sensitive uses and 250 foot residential buffer.

Figure 22: Suitable Land in Vulnerable Areas Summary

	Suitable Land in Vulnerable Areas						
	Total VA* Perce						
Ann Arbor Model	2,844.04	1225.87	43.10%				
Denver Model	2,173.26	942.26	43.36%				
Los Angeles Model	2,003.13	911.42	45.50%				
Phoenix Model	1,481.32	722.46	48.77%				
* VA: Vulnerable Areas							

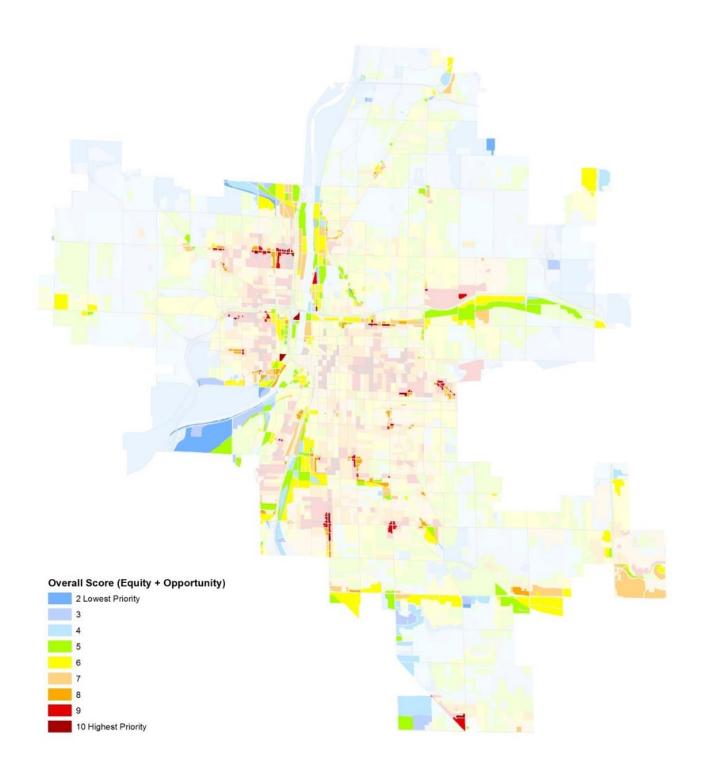
Vital Streets Equity & Prioritization Analysis

Simultaneous to this report, a multi-variable analysis of Grand Rapids demographics and geographical features was conducted to aide prioritization of funding for vital streets projects. The collected data was classified into two main categories; *Demographic Need* and *Connection Opportunity*. The attributes that determined the *Demographic Need* category included median income, density of total population over the age of 65, density of total population under the age of 18, density of households with a person with a disability, density of population within the non-white race demographic and density of households in poverty status. Each factor was generalized into a 1-5 score based on quantile distribution. The sum of all generalized scores was divided by the number of attributes to give a value of 1-5. The *Connection Opportunity* category was calculated the same way, but the attributes included job density, access to parks, proximity to transit, connectivity to bike facilities, sidewalk gaps, commercial centers, crash data, and tree canopy. Since the methodology was similar to the end value was also 1-5. In either instances, the higher the number, the higher the demographic need or connection opportunity.

With the data readily available, it was beneficial to map the results of that study with the found suitable areas from the medical marijuana zoning research. The following map highlights all land outside of the drug free school zone within commercial and industrial zone districts and level of priority as designated by the vital streets analysis. This data is available for further analysis.

Figure 23: Vital Streets Equity Analysis combined with Suitable Land





Summary

While the state of Michigan has passed legislation that allows for multiple medical marijuana facilities, it is up to the City which facilities should be allowed. There are potential financial benefits that come with zoning for medical marijuana, but there are also substantial concerns (both real and perceived) that come with allowing the sales of this controlled substance. Historically, land uses that are similarly concerning have been substantially limited in their location in terms of both district and proximity from sensitive uses. The approval process is also more intense, such as the process required for Special Land Uses. While distance buffers can be helpful to some populations, they may have the inverse effect on another population. Before regulation is passed, it is import to analyze the placement of suitable land and mitigate any negative affects there may be. This document is meant to be a tool for analysis and decision making to be utilized with other best practices and tools in zoning and use regulation.

Zoning Code

As proposed in the draft zoning amendment, Medical Marijuana Provisioning Center would be allowed, with special land use, in all commercial zone districts except Neighborhood Office Service Zone Districts. All other draft code are items that were present in zoning codes or in studies from other municipalities that could be useful for the City of Grand Rapids. The draft zoning code in this report is a jumping off point for future code.

	Table 5.6.06.B. Uses: Mixed-Use	Com	merci	al Zor	ne Distri	cts		
Use Category	Specific Use	TN		TN MCN MON	MCN MON	SD	Use or Other Regulations	
		CC*	тсс	ТВА	TOD**	С	NOS	
EDUCATIONAL, GOV	ERNMENT AND INSTITUTIONAL		<u>'</u>					
Government and Institutional	Hospital, Clinic, Medical Center, Rehabilitation Center, Administrative Offices	Р	Р	S	S	Р	х	5.9.26.
	Medical Marijuana Provisioning Center	S	S	S	S	S	Х	5.9.16
COMMERCIAL, OFFIC	CE, RETAIL							
Entertainment,	Alcohol Sales for On-Site Consumption (LCC Permit)	Please see Section 5.9.05. Alcohol Sales				5.9.05.		
Hospitality and Recreation	Medical Marijuana Provisioning Center	S	S	S	S	S	X	5.9.05.
	Hookah Lounge, Cigar Lounge	S	S	S	S	S	Х	5.9.05.,
P = Permitted; S = Special Land Use; E = Existing; X = Not Permitted; "-" = Not Applicable; GFA = Gross Floor Area *Parcels in the TN-CC Zone District are subject to Section 5.6.06.C. **Parcels located in the TOD Zone Districts are subject to Section 5.6.06.D.								

Section 5.9.16 Medical Marijuana Provisioning Centers and Grow Facilities

A Medical Marahuana (Marijuana) Provision Center is a state licensed facility where the purchasing and/or transfer marijuana from a state licensed grower or processors, and the sales and transfer of marijuana to registered qualified patients or registered primary caregivers is permitted.

- A. A provisioning center shall be located as follows
 - 1. Provisioning centers shall be limited to Commercial Zone Districts or Special District-Industrial Transport;
 - 2. Provision Centers shall be limited to one (1) center per business district as designated in Figure 9.b of the Master Plan;
 - 3. Where no business district is established, provision centers shall provide a 1,000 foot buffer in accordance with Section 5.9.16.4;
 - 4. No Provision Center shall be established, operated or maintained within 1,000 feet of another Provision Center;
 - No Provision Center shall be established, operated or maintained within 1,000 feet of an elementary or secondary school to ensure community compliance with Federal "Drug-Free School Zone" requirements;
 - 6. No Provision Center shall be established, operated or maintained within 1,000 feet of a licensed Child Care Center.
 - 7. No Provision Center shall be established, operated or maintained within 1,000 feet of a Residential Rehab Facility.
- B. All provisioning center applicants shall provide an area map including the location of the proposed center as well as all land uses within 1000 feet. The map shall be drawn to scale and include any schools, daycare centers... whatever other buffered uses
- A provisioning center shall comply with all regulations established in 2016 PA 281, MCL, 2016 PA 282,
 MCL

Work Cited

- Department of Licensing and Regulatory Affairs (LARA)- State Licensed and Federally Certified Providers Directories, http://www.michigan.gov/lara/0,4601,7-154-63294 75598---,00.html
- Freisthler, Bridget. Ponicki, William. "A Micro-temporal Geospatial Analysis of Medical Marijuana Despensaries and Crime in Long Beach, California." 17 June 2015.
- Freisthler, Bridget, and Nancy J. Kepple. "Evaluating Medical Marijuana Dispensary Policies: Spatial Methods for the Study of Environmentally-based Interventions." *National Center for Biotechnology Information*. U.S. National Library of Medicine, 21 July 2012. Web.
- Henchman, Joseph, Scarboro, Morgan. "Marijuana Legalization and Taxes: Lessons for Other States from Colorado and Washington" Special Report-Tax Foundation 231. May 2016.
- Morrison, Chris, Paul J. Gruenewald, Bridget Freisthler, William R. Ponicki, Lillian G. Remer. "The Economic Geography of Medical Marijuana Dispensaries in California" *National Institute of Health*. Prevention Research Center, Berkeley, California. May 2015.
- Németh, Jeremy, and Eric Ross. "Planning for Marijuana: The Cannabis Conundrum." *Journal of the American Planning Association* 80.1 (2014): 6-20. Web.
- Salkin, Patricia. Kansler, Zachary. "Medical Marijuana Meets Zoning: Can you Grow, Smoke and sell that Here?" *Planning and Environmental* Law. Vol. 62, No. 8. August 2010
- Senate Fiscal Agency of Michigan. H.R. Report, House Bill 4902. September 2016.
- Tilton, D. "White Paper on Marijuana Dispensaries" Retrieved from www.procon.org/sourcefiles/CAPCAWhitePaperonMarijuanaDispensaries.pdf
- VanDongen, Matthew. Gone to Pot: Hamilton tries to shut down licensed Medical Marijuana Grower. 2016
- Williams, Lynne. "Regulating Medical and Recreational Marijuana Land Use" *Zoning Practice*, American Planning Association (2016)

Appendix A: Day Care Centers

Image 1: Child Care Center with 1,000 & 500 ft. Buffers

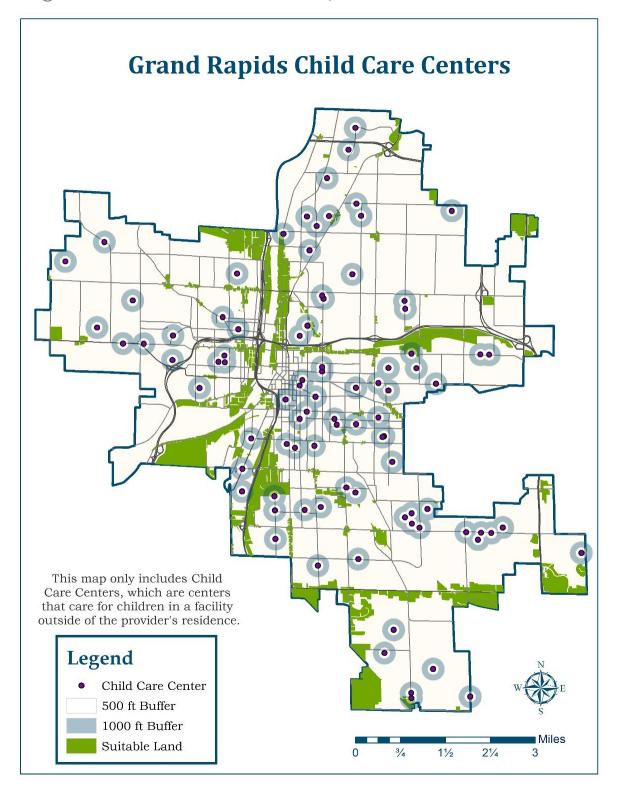
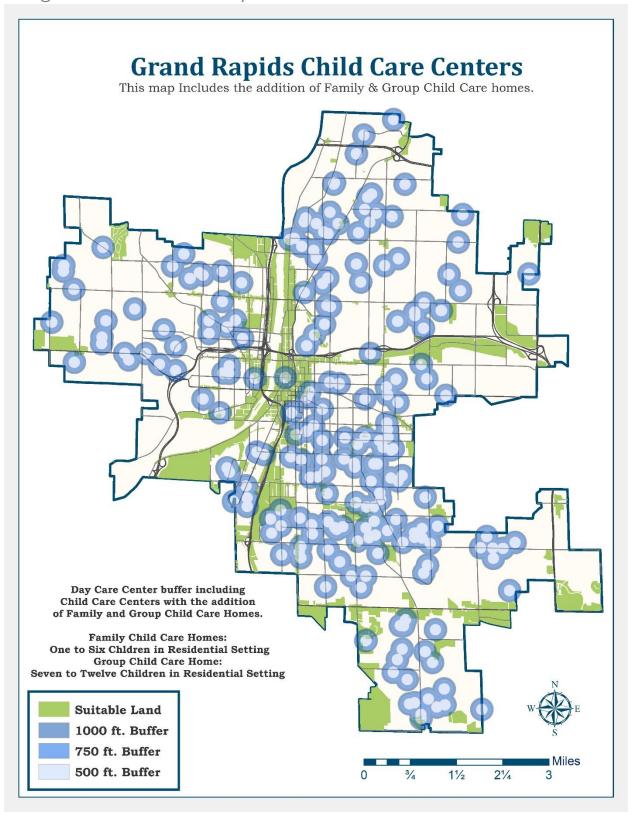
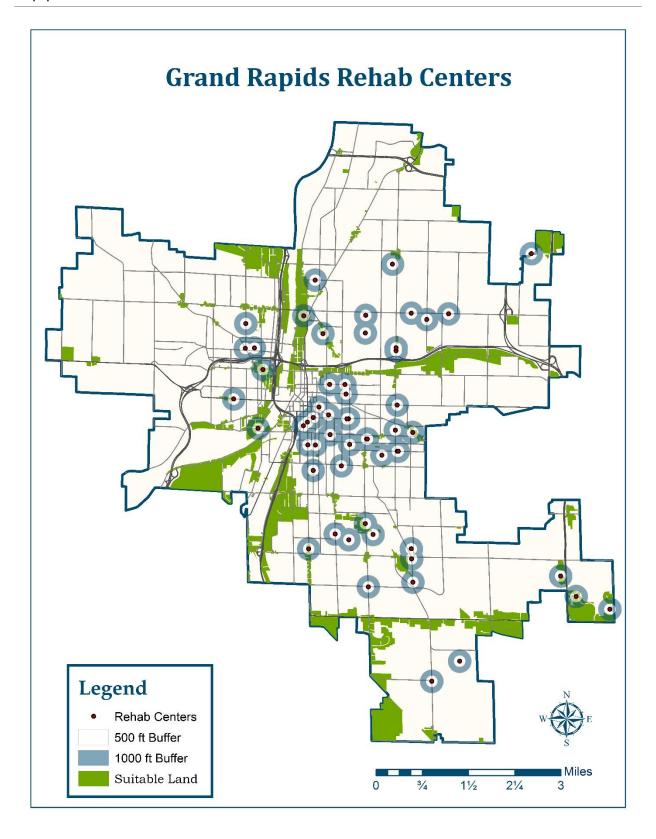


Image 2: All Forms of Day Care Centers with Buffers





Appendix C: Grand Rapids Parks

Image 1: Grand Rapids Public Parks with 1,000, & 500 ft. Buffer

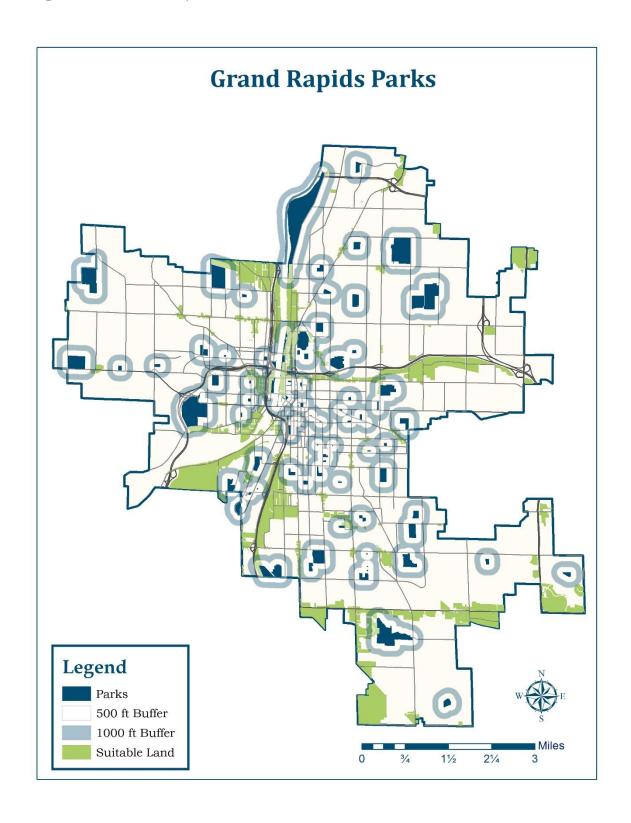
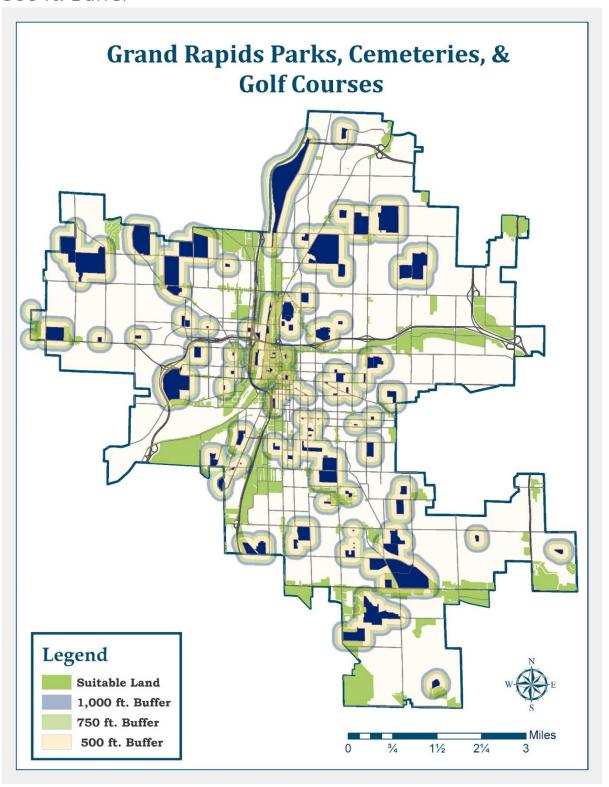
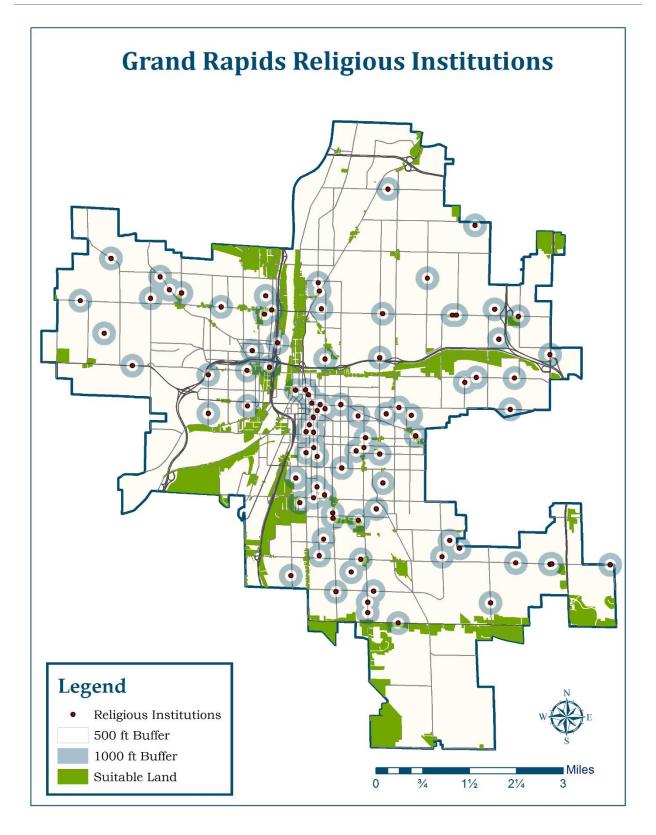
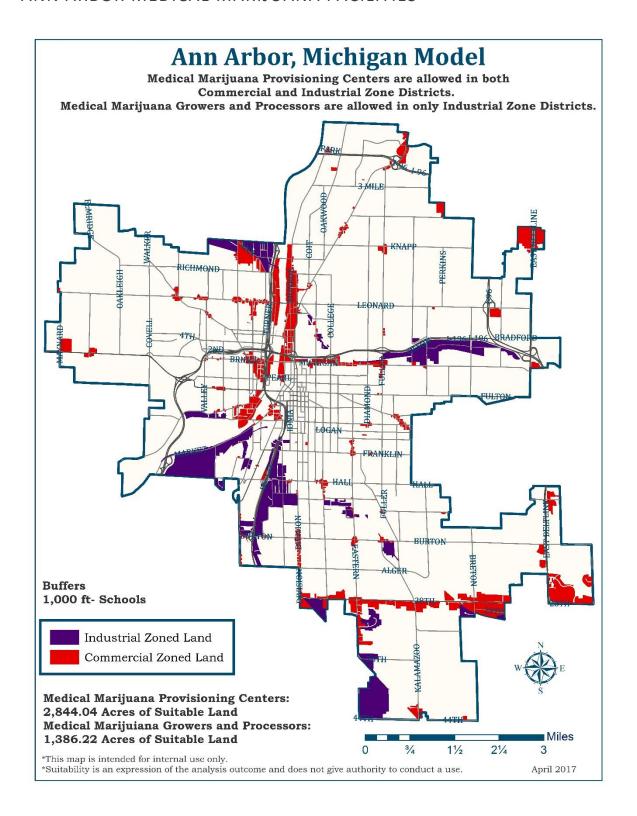


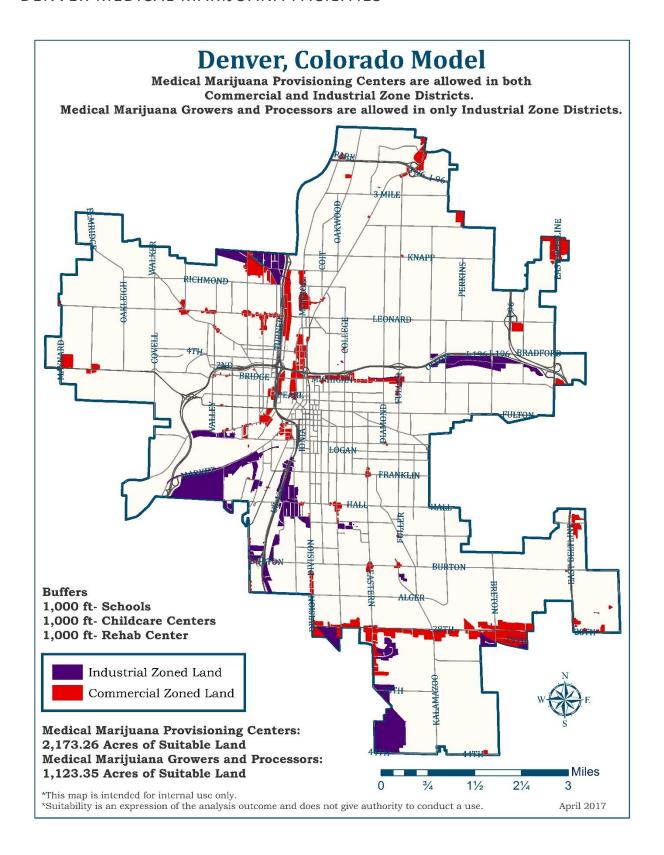
Image 2: Parks, Cemeteries, & Open Spaces with 1,000, 750, & 500 ft. Buffer

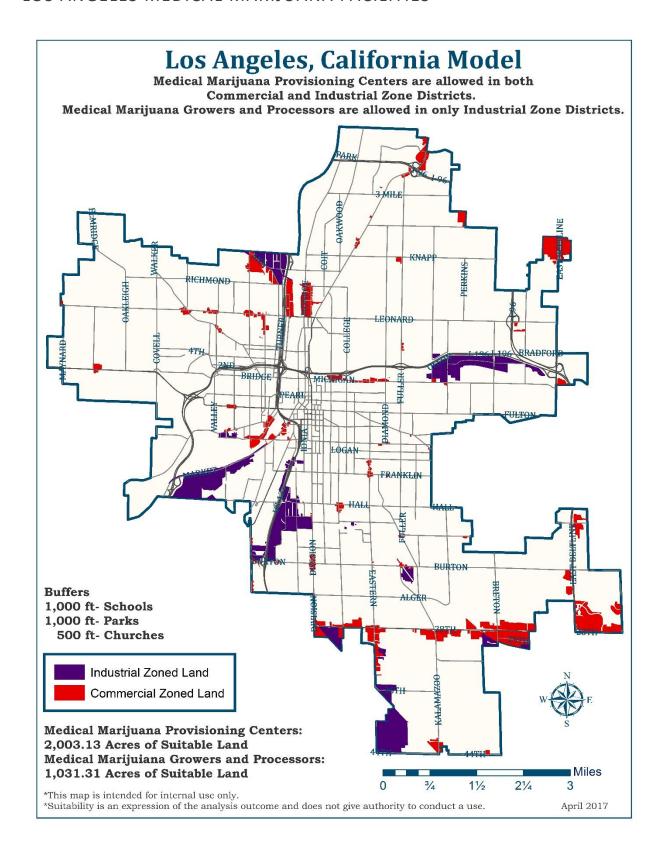


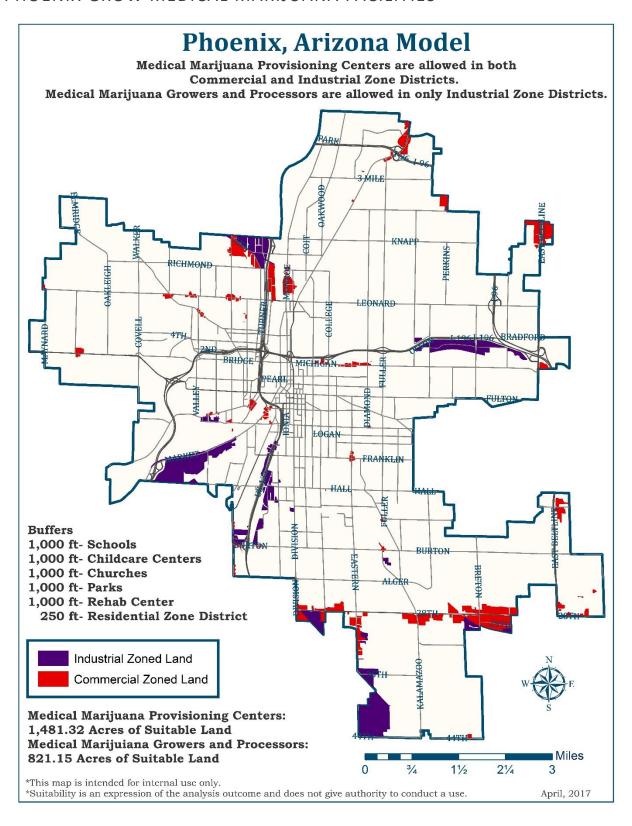


ANN ARBOR MEDICAL MARIJUANA FACILITIES



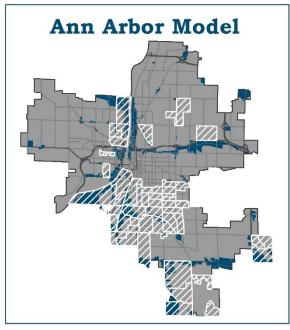


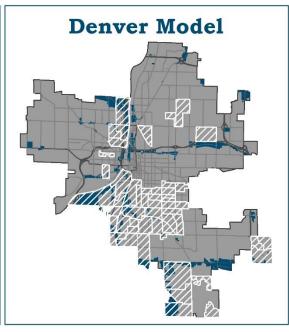




Appendix F: Equity Maps

ANAHA EQUITY MAP



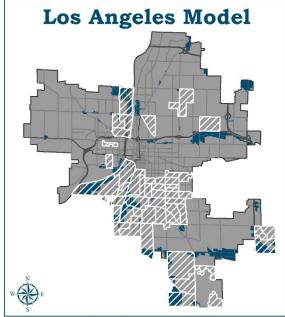


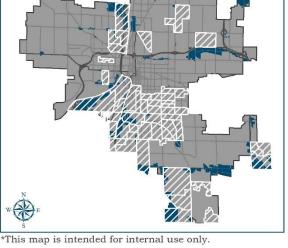
AHANA Equity Map

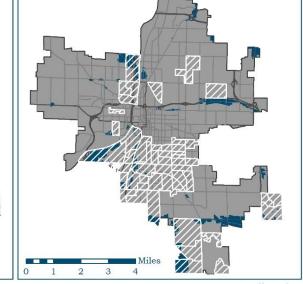
Block Groups > 50% Population AHANA
Suitable Land

Suita	able Land in AHA	ANA Block Gro	uns		
AHANA Perc					
Ann Arbor	2,844.04	1,458.57	51.29%		
Denver	2,173.26	1,147.98	52.82%		
Los Angeles	2,003.13	1,074.07	53.62%		
Phoenix	1 481 32	772 46	52 15%		

Phoenix Model

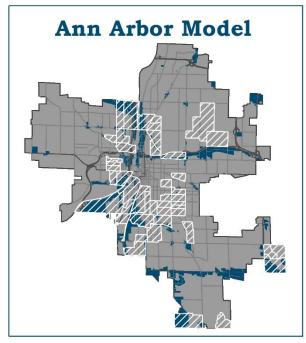


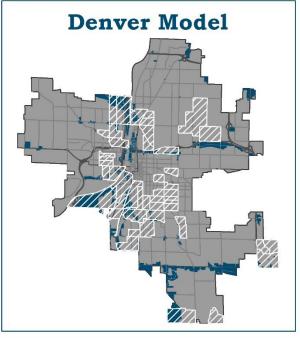




April 2017

VULNERABLE AREA MAP

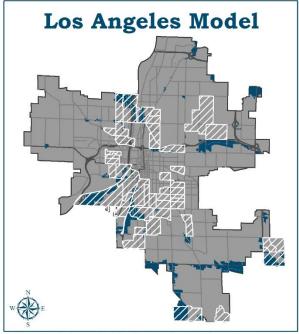


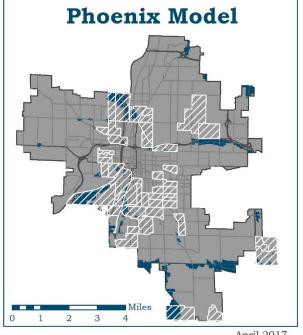


Vulnerable Areas Map



Suitable Land in Vulnerable Areas			
	Total	VA	Percentage
Ann Arbor	2,844.04	1225.87	43.10%
Denver	2,173.26	942.26	43.36%
Los Angeles	2,003.13	911.42	45.50%
Phoenix	1,481.32	722.46	48.77%





*This map is intended for internal use only.

April 2017