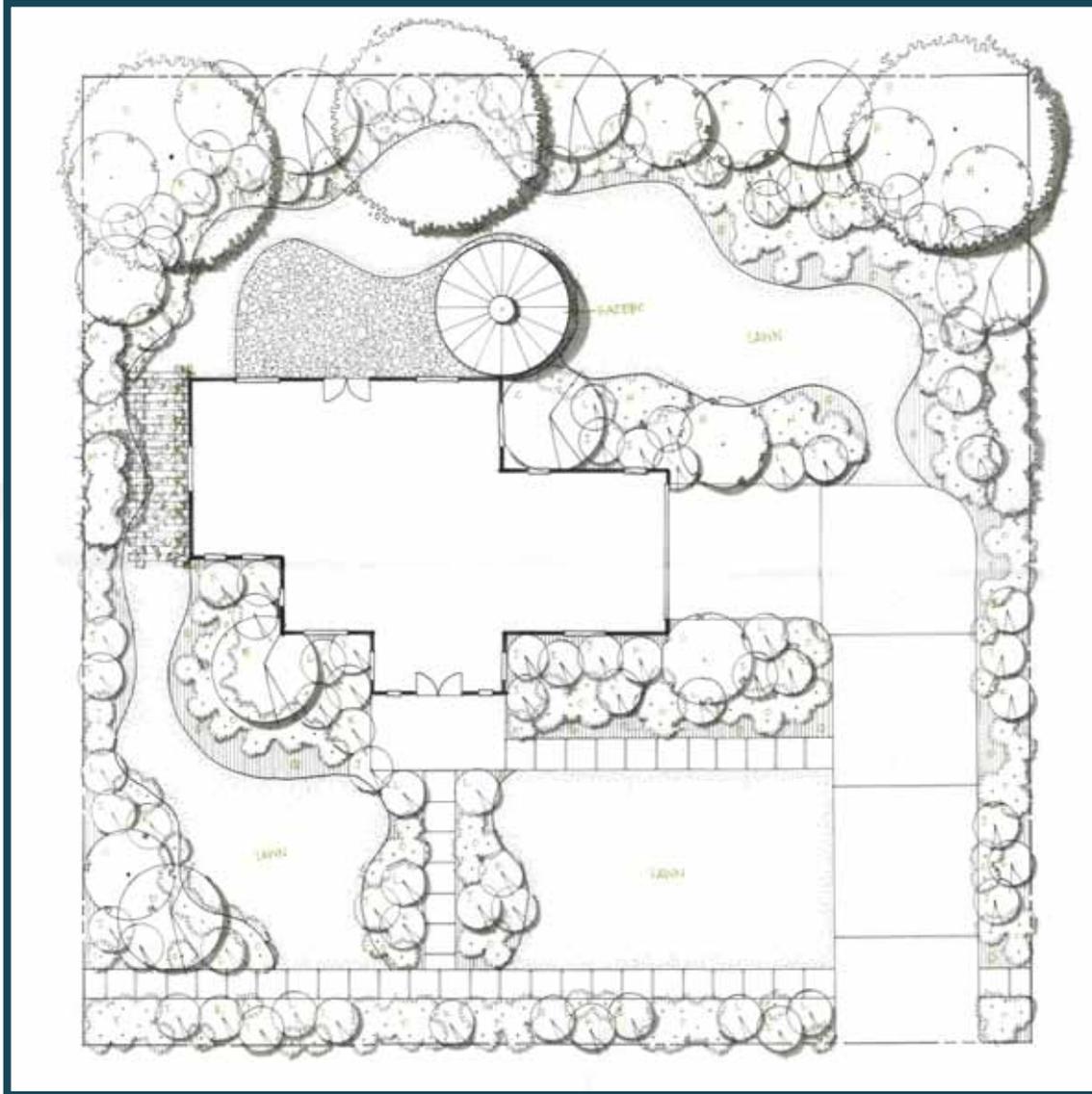


Jennifer Wilcox

Portfolio

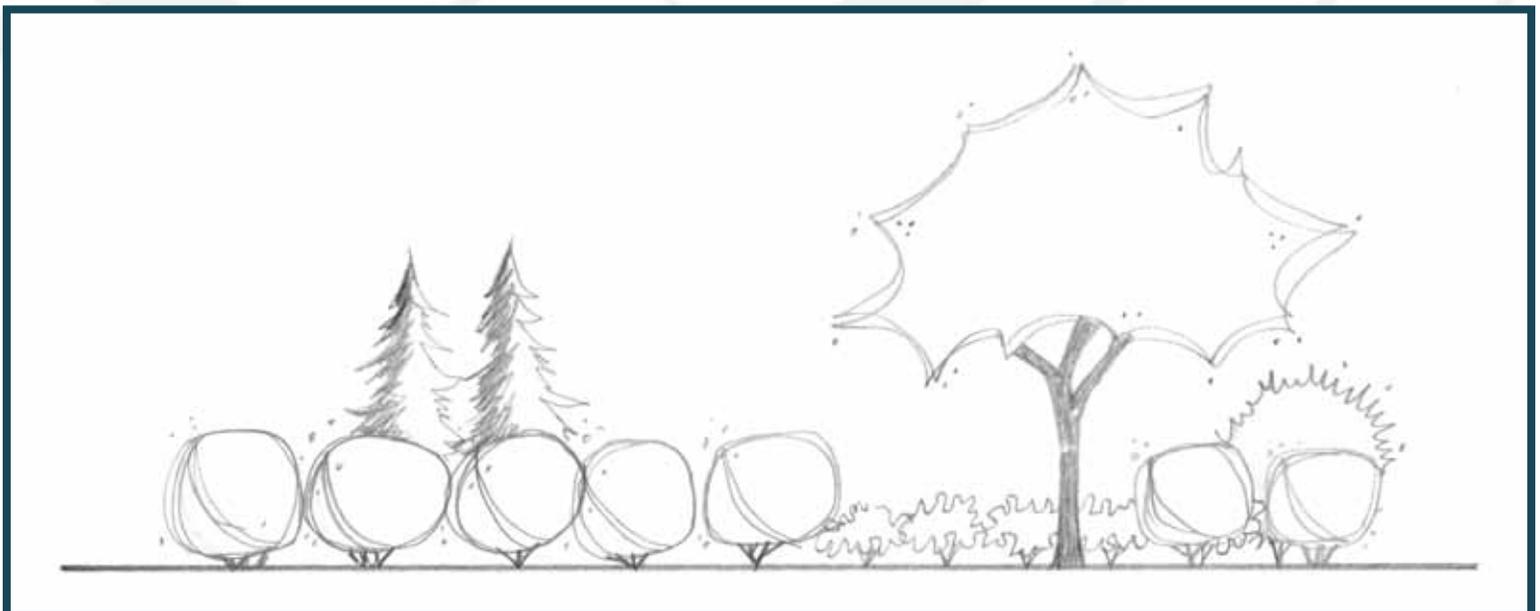
Hand Graphics



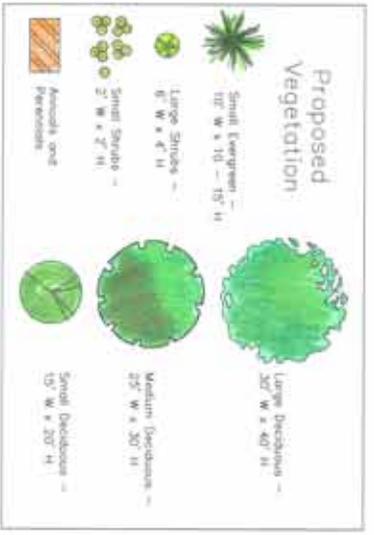
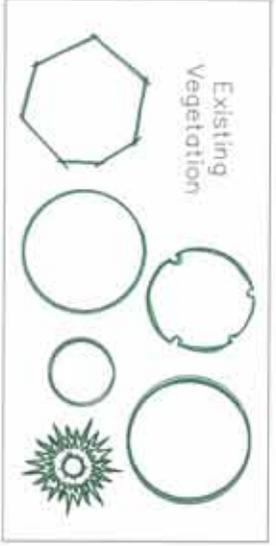
My freshman year was focused on hand graphics, using various mediums.

Most of my projects were done with simple line graphics, a few were graced with color – it was a skill that I was still fine tuning, and was nervous to use unless absolutely necessary.

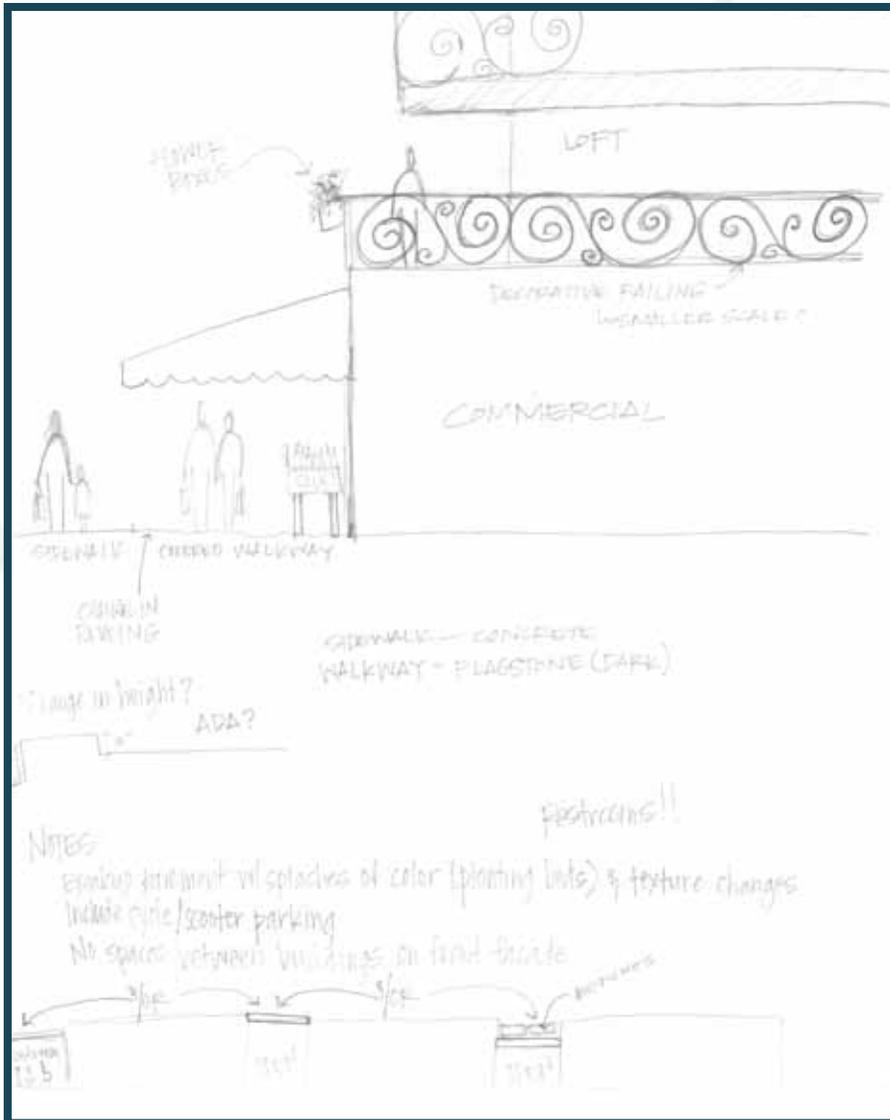
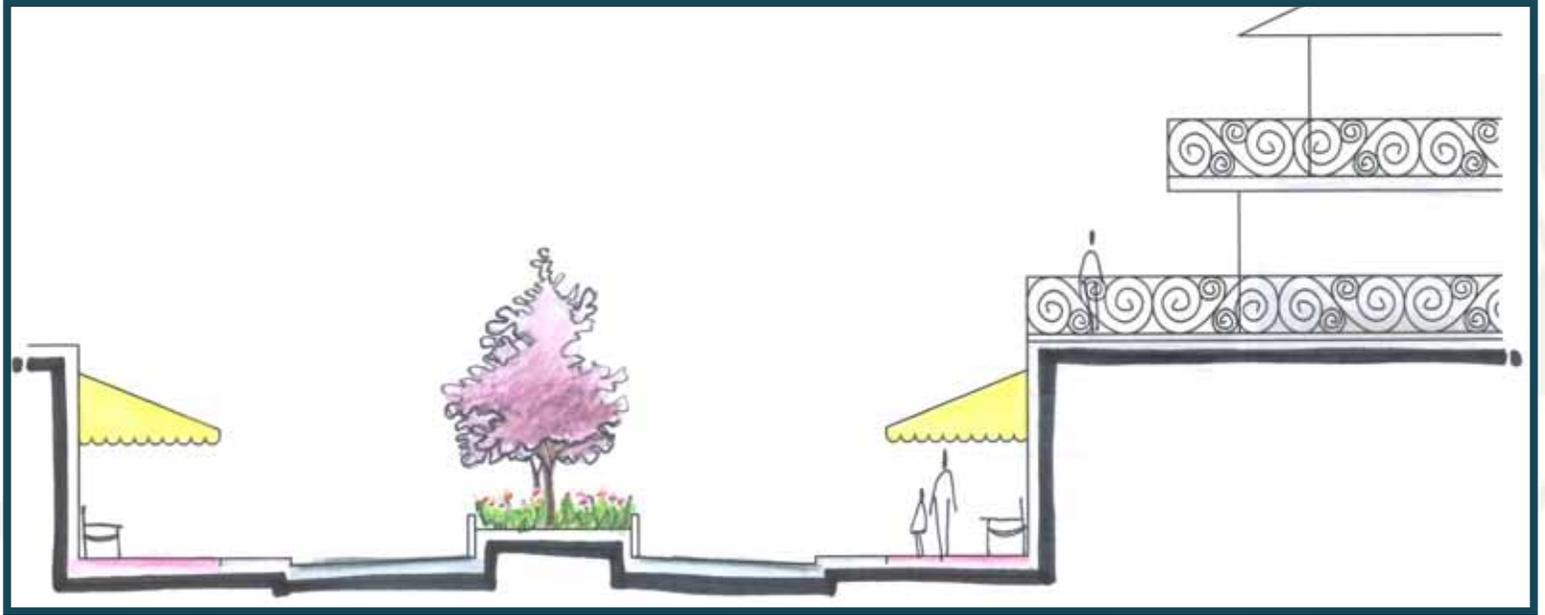
It was a great experience to learn the art of finding the perfect pen that wouldn't run or smudge when combined with marker, or remembering to pick up my hand, as to not smear pencil all over the place.







Downtown Redevelopment

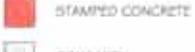


The sketch to the left displays the design process taken for the redevelopment of this downtown block. I wanted to create a destination for shopping and dining, but also an area that could feel like home.

It was very challenging to create an environment that would be appealing to pedestrians, while still providing access for vehicles. In some areas I was able to create a very pedestrian friendly environment, in others it was stale and uninviting. It was also very challenging to place the various site elements that were required. In portions I failed to consider how the elements would interact or conflict, while others worked well.

The graphics for this project were completed in AutoCAD. The plan was rendered using water color pencils. This was a new medium for me at the time, so the colors were brighter than anticipated, but it gives it a fun and unique look.



-  SHADE TREES
-  TABLE & CHAIRS WITH UMBRELLA
-  RAISED PLANTERS (T WITH SEATING)
-  GRAVEL
-  ORNAMENTAL TREES
-  TABLE & CHAIRS
-  FABRIC AWNINGS
-  STAMPED CONCRETE
-  CONIFERS
-  BENCH
-  TURF
-  CONCRETE



Nature Playground

ELEMENTS

• TREE

- ROPE SWING
- WOODEN PLANK SWING

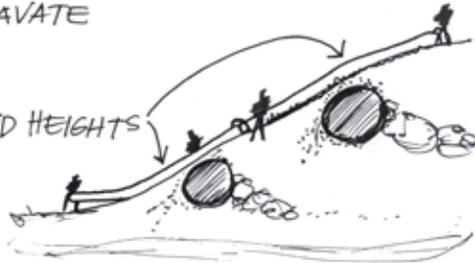
- CLIMBING ROPE (KNOTTED)

• SAND BOX

- BURIED DINO BONES
- THINGS TO BURY
- TOOLS TO DIG WITH & EXCAVATE

• GRASSY HILL

- TWO SIDES OF VARIED HEIGHTS
- TUBES TO GO UNDER
- BOULDERS TO CLIMB



• BOULDERS

- VARIED HEIGHTS TO ALLOW CHALLENGING CLIMB
 - ↳ NOT TOO HIGH
 - ↳ SURROUNDED BY TURF



• LOGS

- VARIED THICKNESS FOR BALANCING
- SOME CUT FOR CLIMBING OR OTHER PLAY
 - SOME PROPEL UP ON OTHERS

• TREE GROVES

- ON & BEHIND HILL FOR SHELTERED PLAY
- SIMPLE PATH THROUGH MODERATE GROVE (CRICKET PARK)
- MULTI-STEMMED SHRUBS



It was a new experience to design a park for children using natural play elements instead of the typical plastic monstrosities.

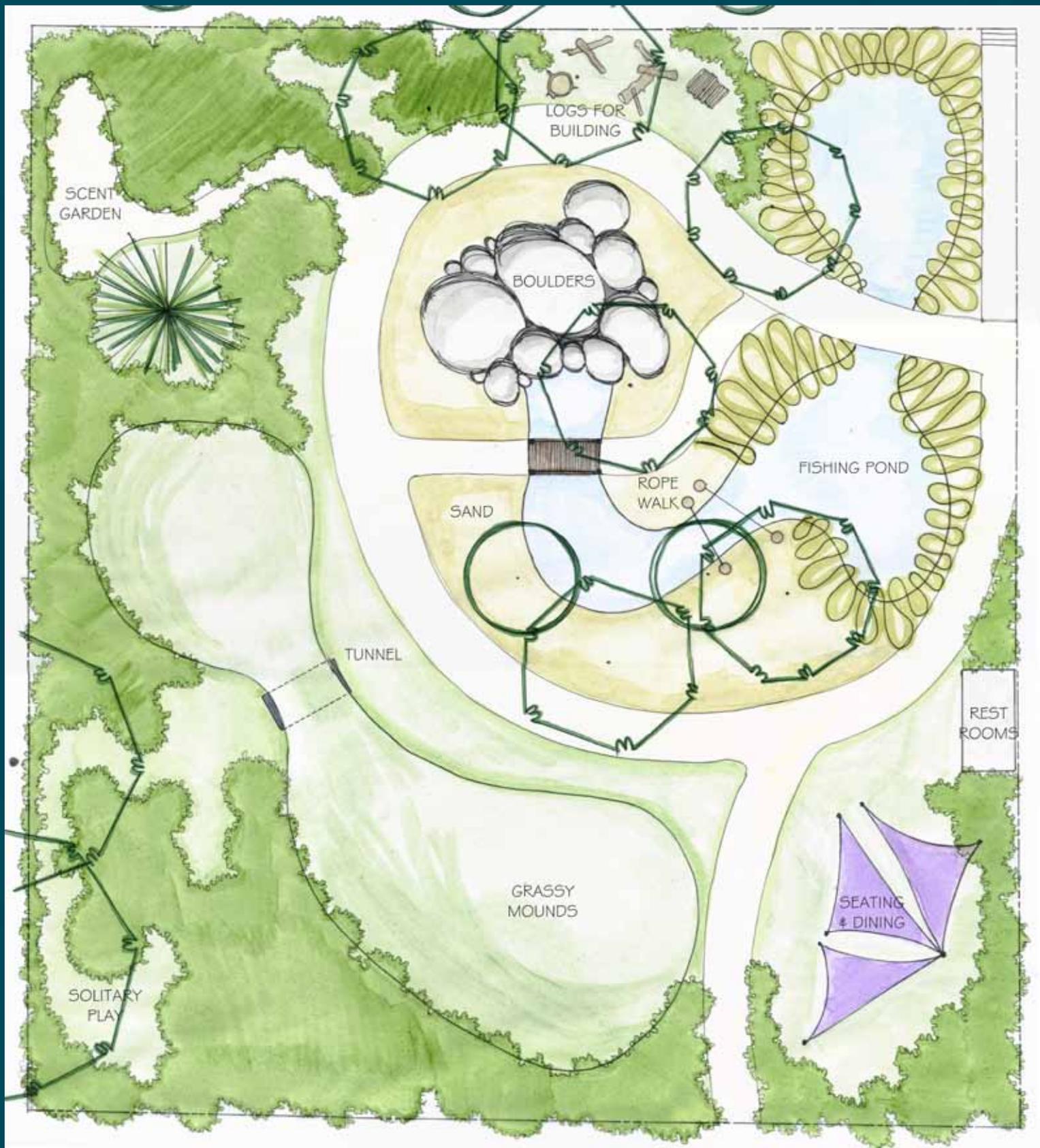
For weeks I researched the developmental needs of children in all age groups, and began to find things that each age group needed. After visiting numerous parks I began to understand the importance of the various play elements.

The sketch to the left shows some of the ideas I had that would meet the needs of the children, while creating a unique and fun place to play. I also wanted to create a space that parents could enjoy and feel comfortable in.

A simple clay model was constructed to get a better feel for the spaces I created, and to ensure that I met the needs of the users.

The plan was completed using hand graphics and rendered with marker.





Trail & Campground Development

TRAILS

WALKING

- ~~Family~~ FAMILY/ECOLOGY Δ ✓
- SPRING \circ ✓ (connection w/ Bonneville)

HIKING

- REDFORD HOLE \circ ✓
- MURRAY'S HILL \square ✓
- WIDE CANYON MEADOW \circ ✓
- NARROW CANYON CONNECTION \circ ✓
- BONNEVILLE Δ/\circ
- WELLSVILLE OVERLOOK \circ ✓

BIKE

- MURRAY'S HILL \square
- WIDE CANYON MEADOW \circ
- BONNEVILLE Δ/\circ
- REDFORD HOLE \circ
- NARROW CANYON CONNECTION \circ

50' contours

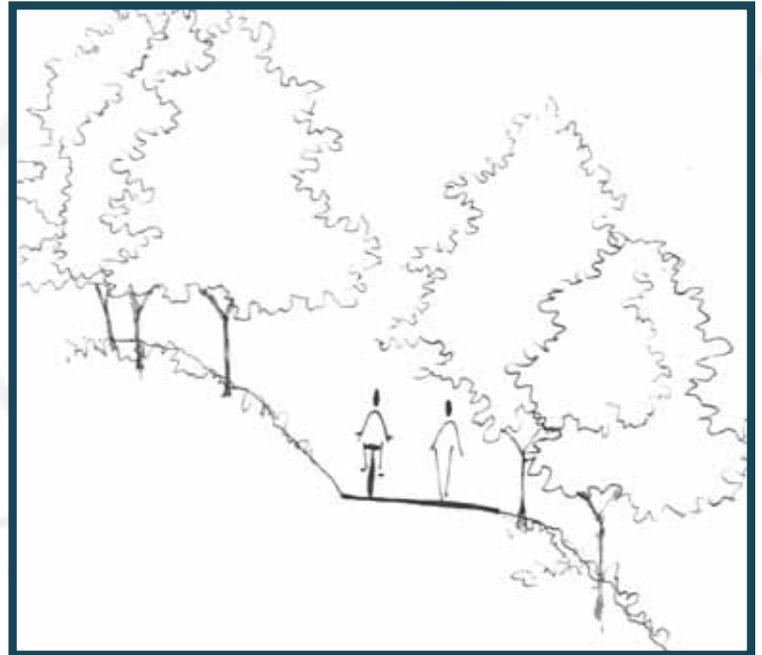
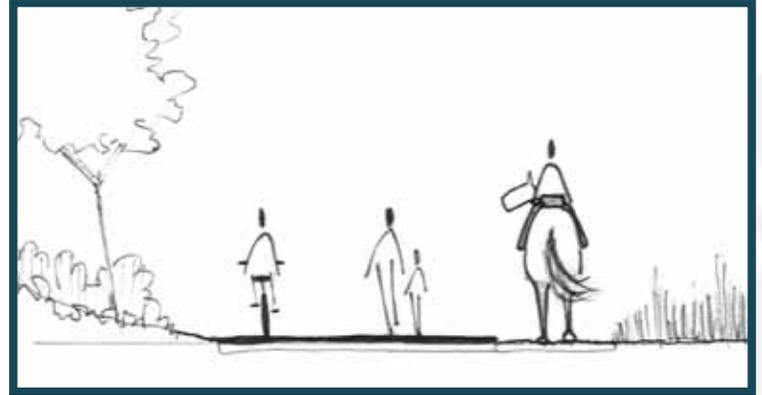
Δ = 893' to 625'
6% 8%

\circ = 625' to 416'
8% 12%

\square = 416' to 278'
12% 18%

Δ - EASY - 6-8%
 \circ - MODERATE 8-12%
 \square - HARD - 12-18%

• RATTLESNAKE CONNECTION \square



This was one of my favorite projects to work on. I elected to make sure that all of the trails that I was showing on my plan were the correct slope, which required that I research what slopes were appropriate for the various users that would be found on-site. These notes show my calculations and trail configurations that were added to my final design.

To ensure my trails were the correct grade I used ArcGIS to create a map showing the slopes and contour lines. Using this information I was able to place my trails in the appropriate areas for the difficulty I was trying to achieve.

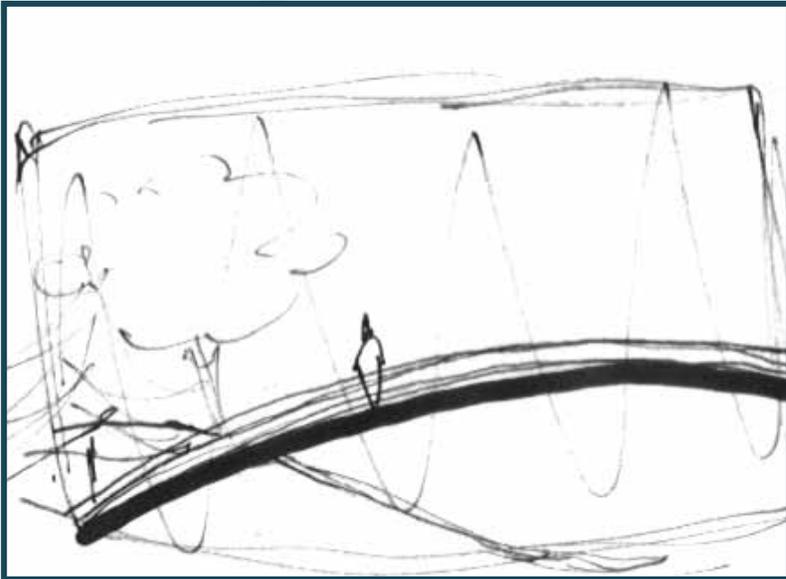
This project was a great combination of computer and hand graphics. The page layout was a favorite due to my choice to use the bright icons to identify different areas on the map. It was a great learning experience to learn about the construction and maintenance of trail systems, and the process used to layout campground areas.

Courtyard



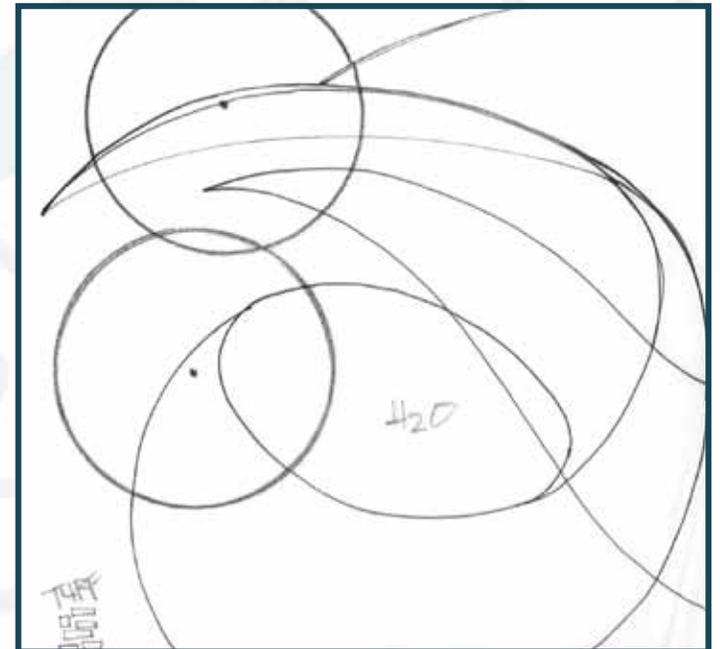
The courtyard project was a lot of fun to work on because it combined numerous elements. I decided to use a piece of art titled Samba by AJ LaGasse for inspiration. I was particularly drawn to a portion of the painting that, in my mind, could easily be transferred to the landscape.

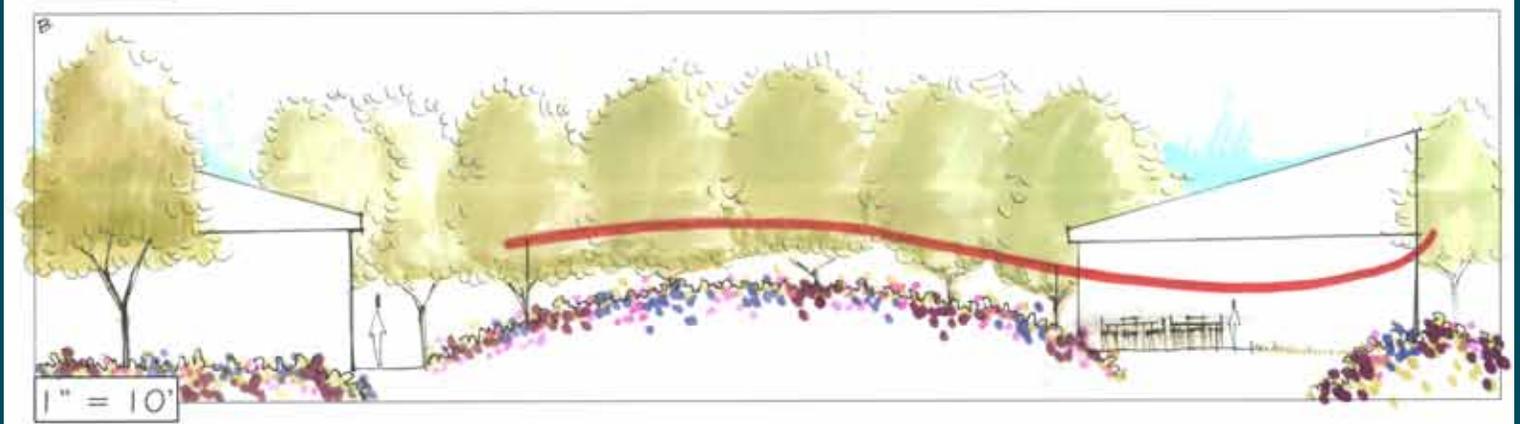
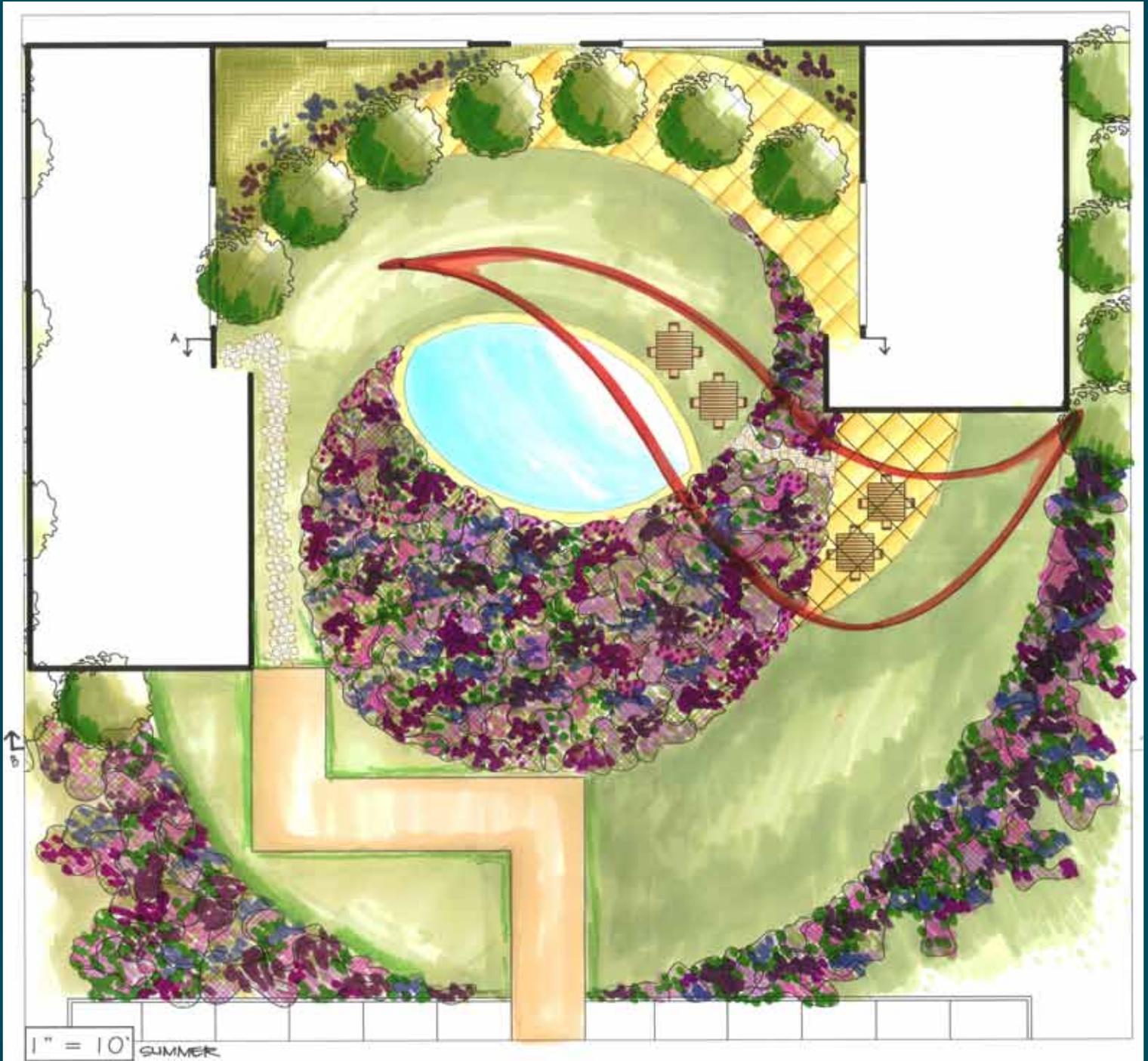
I worked on sketching my ideas out to see if I could turn this work of art into a working landscape. Eventually I selected which elements from the painting would become elements in my design.



After seeing the bold colors of the painting I wanted to transfer them into the landscape. To accomplish this I created a perennial bed that was filled with purple flowering plants year-round. Additionally the water, turf, and walkways were a solid color.

The sketched plan was transferred into AutoCAD, detailed, and then rendered by hand. In addition to the plan, a SketchUp model was created to facilitate a solar analysis to ensure the design would encourage use year-round.





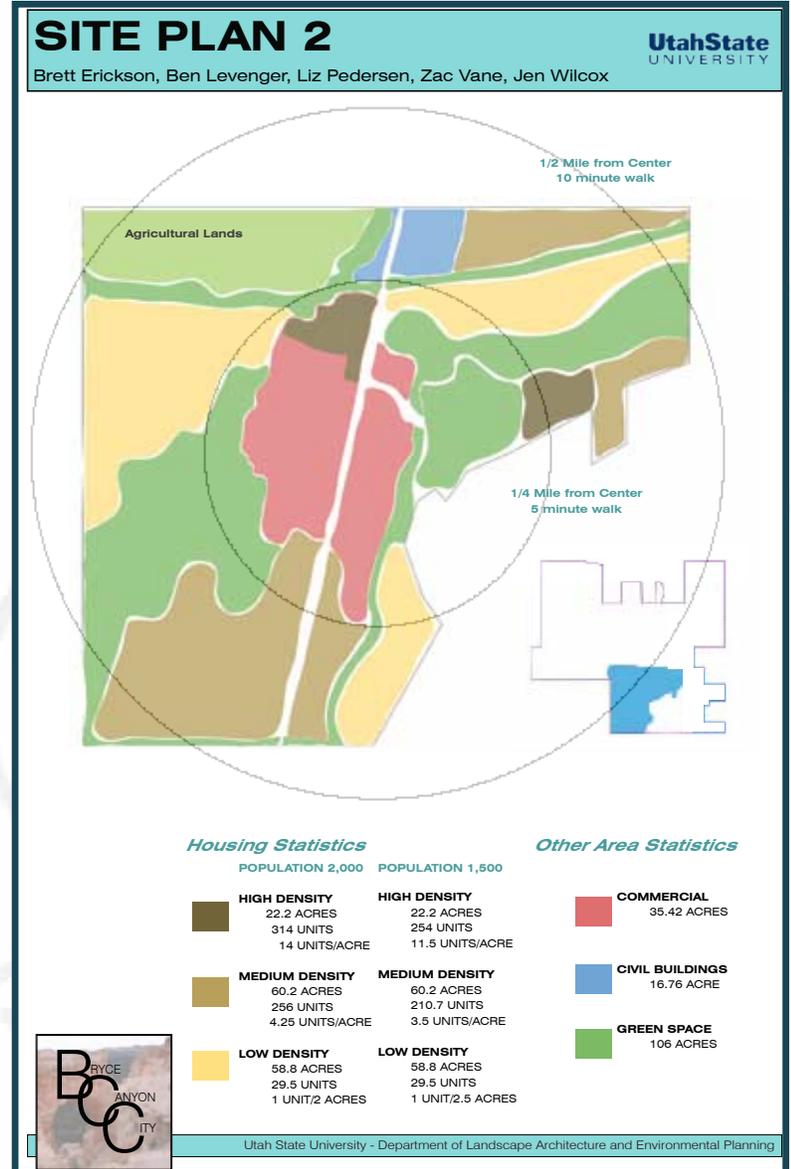
City Planning - Bryce Canyon City

Due to the scale of this project it was split into two sections. The first portion was a group project that required us to develop a zoning map for the area. I assisted my group by creating a map in ArcGIS that displayed the site elements that should be considered, such as fault lines. (Shown Below) With this map we began to divide the site into sections showing where development would start, and how the city should grow. We then selected the first section and divided that into various development regions, such as civic, residential (high, medium, low), and commercial. (Shown to the Right)

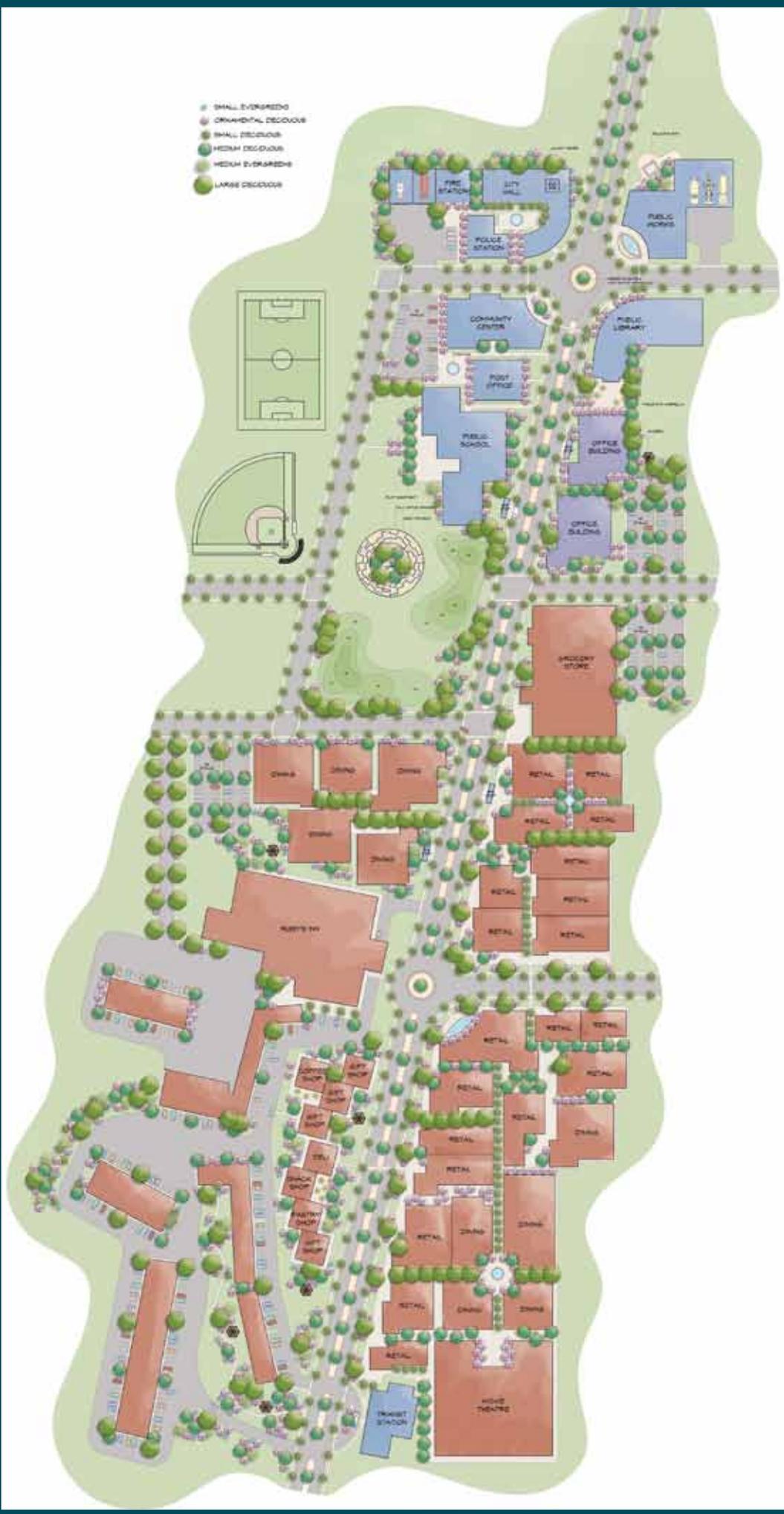
The second portion of the project was individual, and required that we each select a portion of our development and detail it further. Our group decided to each take a portion of the first development region so they could be combined later for a comprehensive plan.

I worked to create a gateway that would provide a sense of arrival. I strived for a walkable community that would be comfortable for not only the residents, but also attract the tourists visiting the park.

The plan was designed in AutoCAD, rendered by computer, and modeled in SketchUp.



- SMALL EVERGREEN
- ORNAMENTAL DECIDUOUS
- SMALL DECIDUOUS
- MEDIUM DECIDUOUS
- MEDIUM EVERGREEN
- LARGE DECIDUOUS



Design Charrette

Proposed Communities

Phased Development

- The proposed areas have been divided into subareas of approximately 500 acres, which can accommodate approximately 7,000 residents depending on the type of development.
- The division will allow development to occur in phases, accommodating growth as needed, and as budgeted allow.

Consider the Following

- zoning in each community needs to include various types of housing, such as:
 - Mixed-use - housing above retail
 - Small to single family homes
 - Larger to large family homes
 - Apartments & Condominiums
 - Duplexes & Town Homes
 - Townhomes & Multi-Family Homes
- High density urbanism housing **"INCREASE DENSITY"**
 - Although researchers have looked for a link between high density housing and crime, not one study has shown any relationship between population density or housing density and violent crime rates. In housing of non-urban areas, the effect of density is insignificant once residential density and crime rates are compared to other words. Lower crime neighborhoods have more crime, regardless of density. (See Higher Housing Dens.)

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Since participating in my first charrette I have wanted to lead my own charrette group. During my last year of schooling I had the opportunity of being a team captain. It was a great experience, one that helped me further develop my leadership skills.

I was asked to address the need for, and develop, new communities in Cache County. The week prior to the charrette was spent researching development types, and considering their application within Cache Valley.

My group helped me gather additional information that would be used to create our posters. The posters created during the charrette are being used for educating the general public through Envision Utah. I wanted to be sure that the posters provided information in an appropriate manner, but also provided information that was eye-catching. I spent many hours working on the page layouts, considering the amount and type of detail to include. The end result provides a simple details on a wide range of information to help the audience understand the options available to them.

Development Options

Low Impact Development

Preserve open space and resource land resources.

- Protect sensitive natural features and natural processes.
- Identify and link on-site and off-site "green infrastructure."
- Incorporate natural features (rivers, creeks, riparian corridors, mature forests) into site designs.
- Customize site design according to the site profile.
- Disperse and micro-manage storm water at its source.

Benefits

- Reduces soil clearing and grading costs
- Reduces infrastructure costs (sewers, water, gas, electric)
- Balances growth with environmental protection
- Preserves and protects amenities
- Preserves trees and natural vegetation

Constraints

- Lacks interest and sense of place
- Daily auto trips increase
- Increase in impervious surfaces
- Large amount of land consumed
- More yard maintenance to homeowners

Transit Oriented Development

A site of uses at various densities within a half-mile radius, or walking distance, of a transit stop.

A regional node containing a mixture of uses including office, residential, retail, and civic uses.

- Designed to include the easy use of bicycles, scooters, and rollerblades as daily transportation options.
- Each TOD must offer a range of housing, preferably mixed use but also include single family and higher density housing.

Benefits

- Natural transit-oriented spending
- Reduced traffic congestion and idling
- Better places to live, work, and play
- Greater mobility for all residents
- Higher, more stable property values

Constraints

- Large investment in transit facilities to ensure transit connections are available
- New concept of development for the valley
- Smaller lots and higher densities may be unattractive to homebuyers

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Development Options

Suburban Development

Typically low-density, unattached, single-use developments lacking in context and distinction as a unique community.

Most suburban developments do NOT create walkable communities, and increase the number of vehicle miles traveled per day by residents.

Benefits

- Cheaper to design and develop
- Consistent zoning and neighborhood structure
- Easier for city to maintain infrastructure
- Consistent with the "American Dream"
- Lower purchase price

Constraints

- Lacks interest and sense of place
- Daily auto trips increase
- Increase in impervious surfaces
- Large amount of land consumed
- More yard maintenance for homeowners

New Urbanism

Emphasis on beauty, aesthetics, human comfort and creating a sense of place.

A mix of shops, offices, apartments, and homes on city blocks.

- Follows use with neighborhood, blocks, and buildings
- Pedestrian friendly street design: Sidewalks, porches, windows and doors are close to street, outdoor parking lots and garages
- Connectivity
- Sustainability: More walking, less driving

Benefits

- Higher quality of life for residents
- Less driving and auto congestion
- More foot traffic for local businesses - increased sales
- Less spent on infrastructure
- Walkable

Constraints

- Higher property taxes
- Higher initial costs due to planning and design up front
- Loss of property rights

Examples

- Charlevoix, Utah
- Flagstaff, Oregon
- Green Springs, Mississippi
- Seaside Village, Florida

ENVISION CACHE 2000
LAEPUSU

In addition to the posters we were required to come up with an electronic presentation. It was a fun challenge to create slides that would maintain interest, and still provided quality information.

It was challenging to work with a group with a variety of skill levels, but I learned a lot from the experience.

New Communities

What is Community?

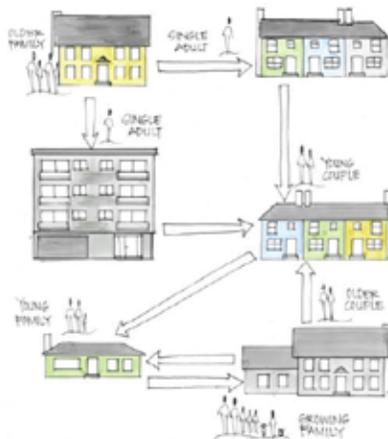
- By the mid-1950's there were nearly **100 distinct definitions** of community.
- Whether it is a biotic, human, or social community the concept is the same – **a group that is organized around common values, living and interacting within a close geographic region**

"In building a community today, we do not face the enormous physical difficulties confronted by our ancestors. But the path to improving our communities and the quality of life for ourselves and our children is nonetheless fraught with difficult decisions and complicated ideas."
 – Jon M. Huntsman, Jr.



Why is Building Community Important?

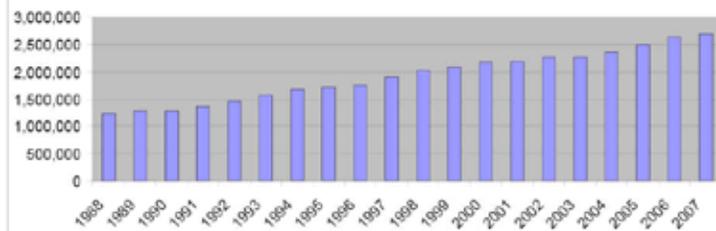
- A community accommodates the social, environmental, financial and safety needs of residents by providing **diverse opportunities**, allowing residents to **remain within the community** throughout their life stages.
- A community can allow residents to be **healthy and active** by increasing the **opportunity to walk or bike** to nearby businesses and open space.
- When designed efficiently a community will allow the residents to have easy access to goods and services that meet their daily needs, **decreasing the amount of time spent commuting in a car.**



Urban Growth Boundaries

- An UGB is a line drawn around a city that **prohibits development** outside that boundary.
- UGBs are designed to **slow or prevent sprawl, accommodate growth** for a designated period of time and are used to **guide infrastructure development.**
- UGBs may **increase the price of existing developable and already-developed land.** As a result, housing on that land becomes more expensive.
- Notable US cities which have adopted UGBs include **Portland, Oregon**; Boulder, Colorado; Twin Cities, Minnesota; Virginia Beach, Virginia; **Lexington, Kentucky**; San Jose, California; and Miami-Dade county

Average Daily Vehicle Miles Traveled in Cache County



"We found that an average white male living in a compact community with nearby shops and services is expected to weigh 10 pounds less than his counterpart in a low-density residential-only subdivision."

– Lawrence Frank

Use of Existing Rail Lines

- To **decrease the number of vehicle miles traveled**, all of the areas proposed for development are near the existing rail lines that run through the valley.
- **Using the existing** rail lines will decrease the initial investment for additional mass transit options.
- A rail system, especially if combined with a bus system, would **dramatically decrease air pollution.**

ENVISION CACHE 2009
 LAEPUSU



Group 12 - New Communities
 Jen Wilcox, Laurie Hurst, Ben Wilson, Mike Hancock, Tyson McMurdie,
 Cameron Bodine, Molly Mortensen, Emily Nelsen

