City of Blue

GIS City Development Plan
-2022-
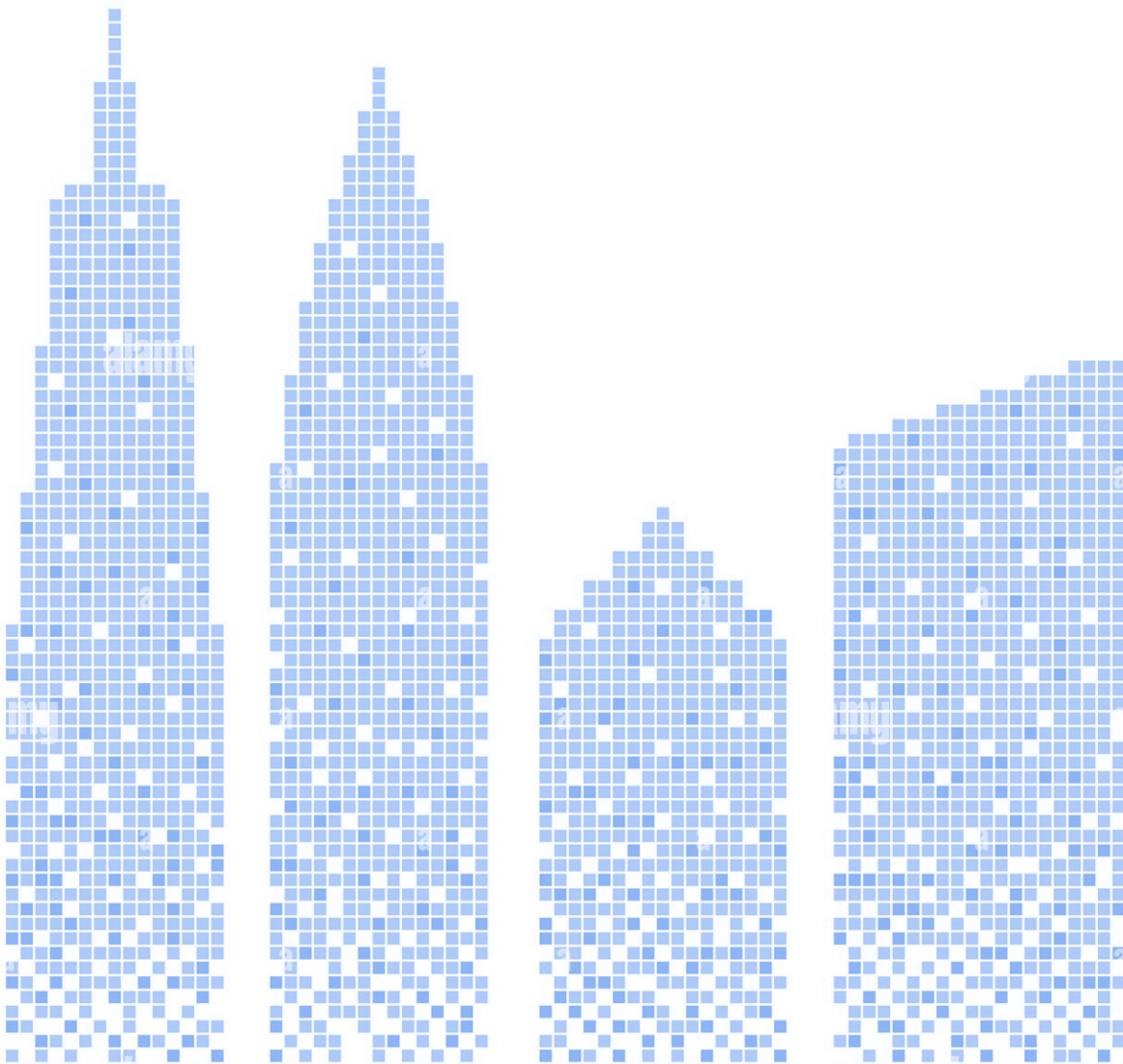
Contents

SECTION 1. PROJECT GOAL

- Develop GDB for City of Blue, including project boundary, zoning, land use, transportation, and population data by May 18, 2022.
- Proposed site location is in San Bernardino County, CA.
- Proposed budget is $80k for hardware and equipment and $10k for software and data purchases.
- Features must include utilities, municipalities and agencies, roads, census data, and natural features.
- Features must correspond to zone type.

SECTION 2. BUDGET

2A: Technology

Item	Brand	Quantity	Price per Unit	Price
PC	HP Pavilion	10	$1,200	$12,000
UAV	DJI Phantom 4 RTK	2	$8,000	$16,000
Plotter Printer	HP Designjet	2	$5,000	$10,000
Tablet	Apple iPad	5	$300	$1,500
GPS Unit	Trimble Geo 7X	3	$3,500	$10,500
Digital Camera	Olympus TG6	5	$500	$2,500

2B: Software

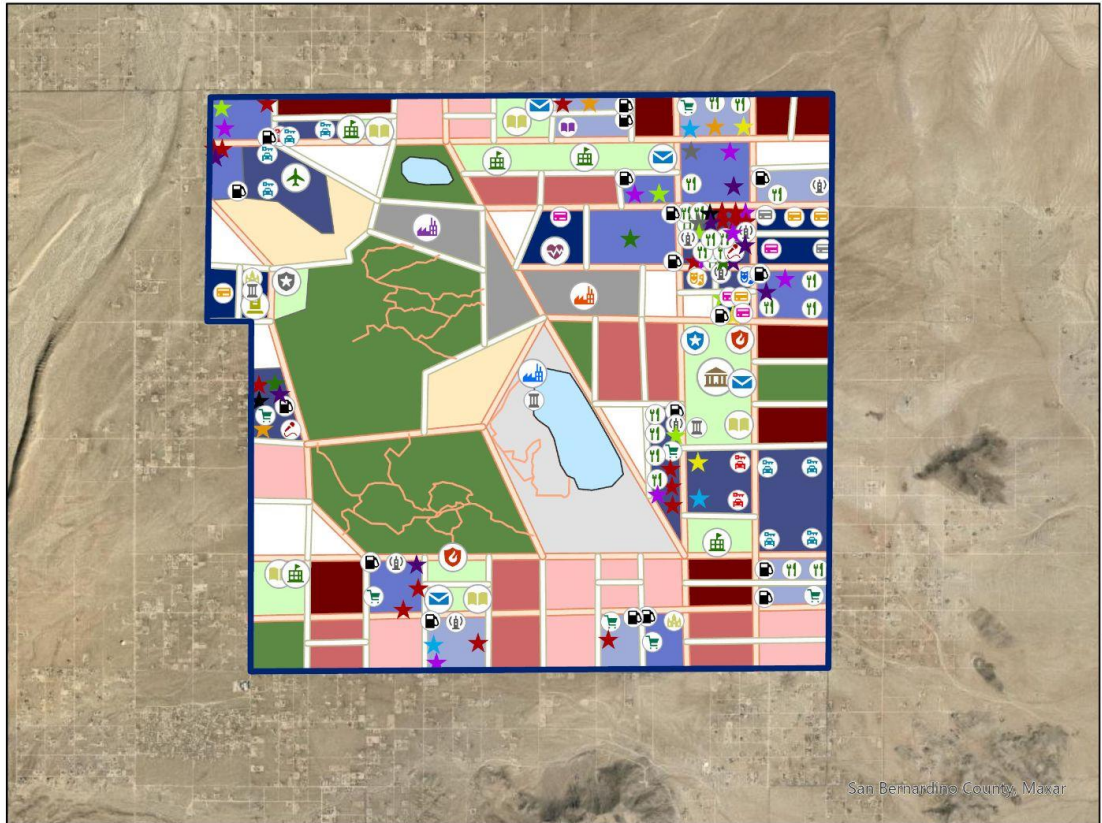| Item	Brand	Quantity	Price per Unit	Price
GIS Suite	ESRI ArcGIS + Extensions			$15,000
UAV Software	DJI	2	-	-
Aerial Data Imagery	EagleView			$20,000
Total Budget				**$87,500.00**

SECTION 3. SUMMARY

3A: Geodatabase
- Coordinate System: WGS 1984 Web Mercator (Auxiliary Sphere)
- Coordinates: 34.2307°N, 116.3442°W
- Project Area: 37.8115 mi^2.

3B: Population
- Population: 11,813 People
- Population Density: 312.4182 People per mi^2.
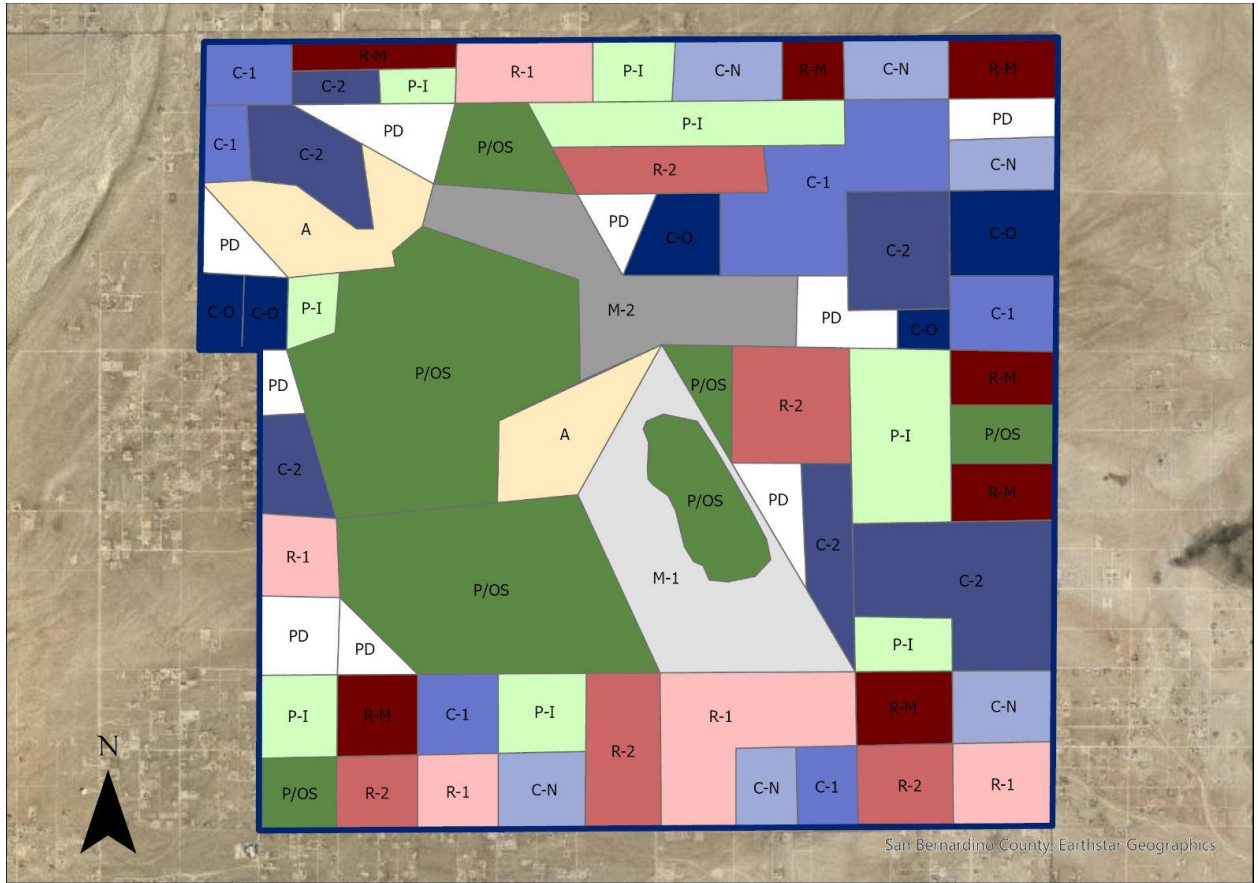
SECTION 4. MAPS

4A: Overview

Legend

City Boundary — City Boundary

Businesses

Type
- 🛒 grocery store
- ★ apparel
- ★ computer store
- ★ furniture store
- ★ jewelry store
- ★ home store
- ★ salon
- ★ shoe store
- ★ thrift store
- ★ art store
- ★ video game store
- dentist office
- attorney firm
- therapy office
- 🍴 restaurant

- 🅖 gas station
- 🚗 car dealership
- 🚗 auto repair
- 📕 book store
- 🎳 bowling alley
- ⛪ church
- 🎬 movie theater
- 🏛 museum
- music store
- 📱 phone store

Municipalities

Type
- ✈ airport
- ⚰ cemetery
- 🔥 fire station
- hospital

- 📖 library
- 🛡 police station
- ✉ post office
- 🛡 prison
- 🏫 school
- 🏛 town hall
- power generation facility
- waste treatment facility
- water treatment facility
- ⬜ Water

COB_Roads

Type
- Small
- Large
- Sidewalk

Hiking Trail — Hiking Trail

COB_Zones

Type
- A
- P-I
- P/OS
- PD
- M-1
- M-2
- C-N
- C-1
- C-2
- C-O
- R-1
- R-2
- R-3

4B: Zoning

4C: Transportation

COB_Intersections
COB_Boundary

COB_Roads

Type

⬭ Small
⬭ Large
— Sidewalk
— Hiking Trail

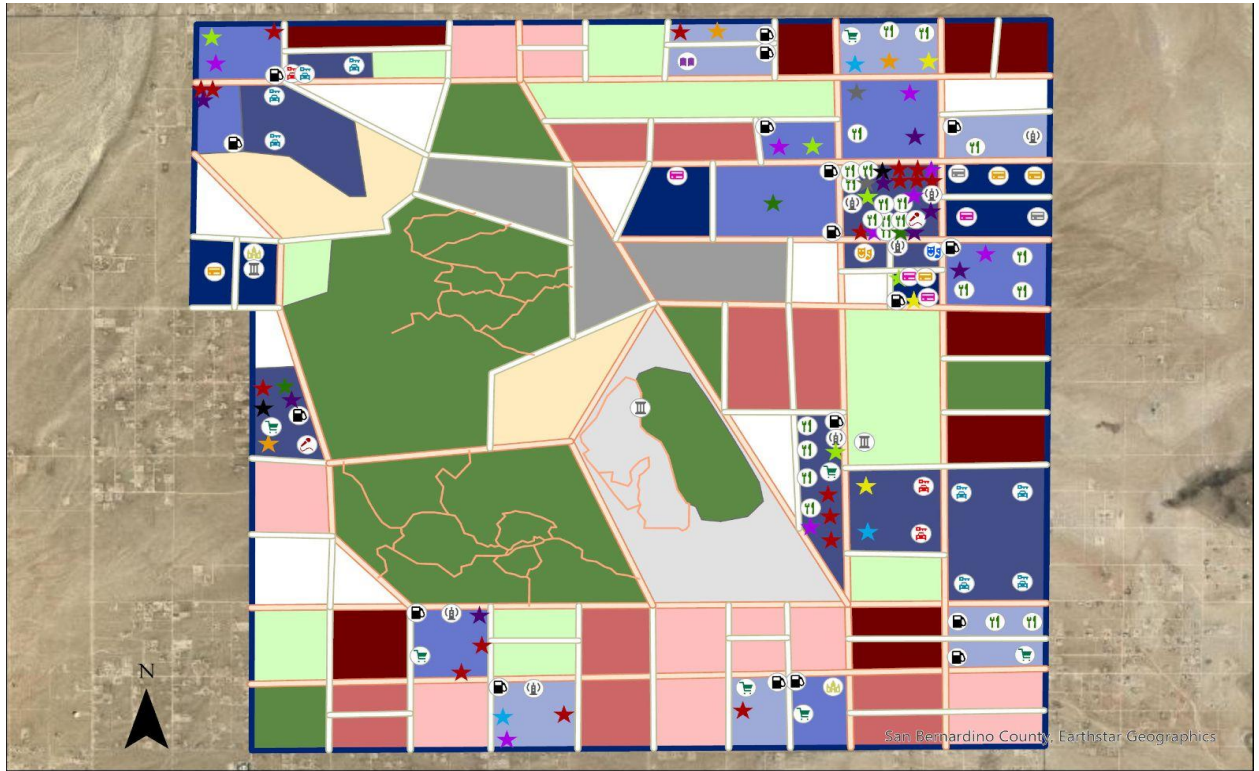0   1   2   4 Miles
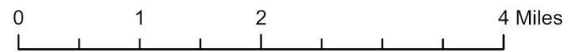
4D: Features - Municipalities
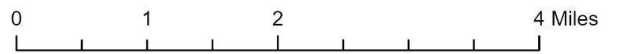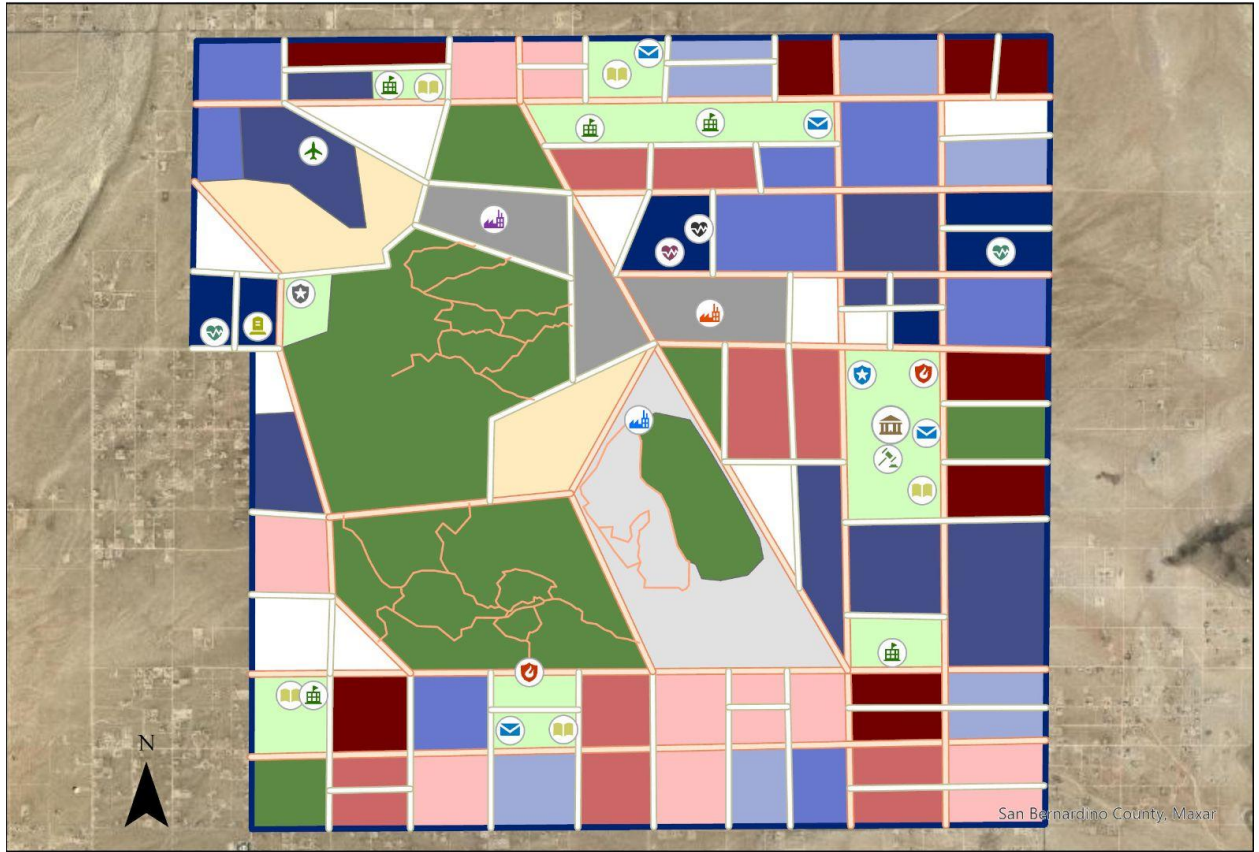
Municipalities

- ✈ airport
- 🯄 cemetery
- 🔥 fire station
- ❤ hospital
- ❤ emergency room

- ❤ clinic
- 📖 library
- 🛡 police station
- ✉ post office
- ☆ prison
- 🏫 school

- 🏛 town hall
- ⚖ court
- 🏭 power generation facility
- 🏭 waste treatment facility
- 🏭 water treatment facility

4E: Features - Businesses

Businesses

⭐ (teal) home store   🖩 attorney firm   🎳 bowling alley

🛒 grocery store   ⭐ (magenta) salon   🍽 therapy office   ⛪ church

⭐ (red) apparel   ⭐ (dark purple) shoe store   🍴 restaurant   🎦 movie theater

⭐ (orange) computer store   ⭐ (green) thrift store   ⛽ gas station   🏛 museum

⭐ (yellow) furniture store   ⭐ (black) art store   🚗 car dealership   🎙 music store

⭐ (light green) jewelry store   ⭐ (gray) video game store   🚗 auto repair   📱 phone store

💳 dentist office   📖 book store

4F: Population
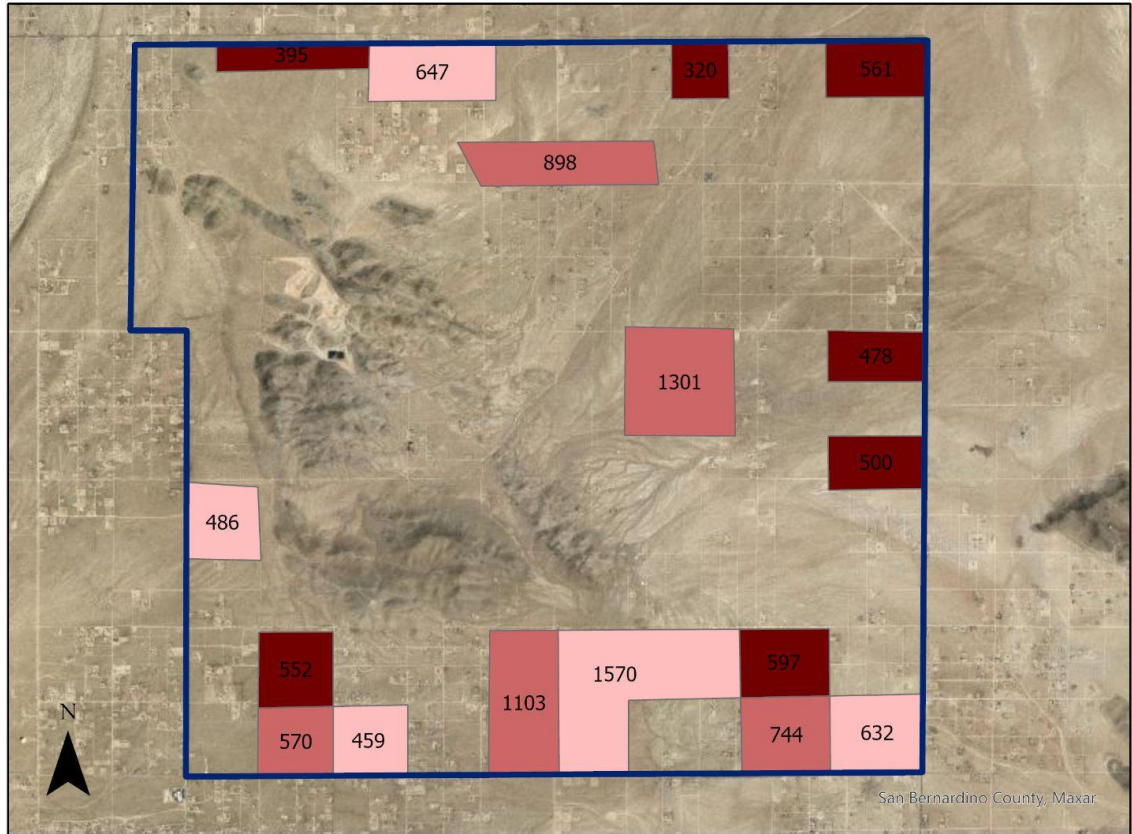
Number of People
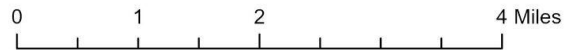
Zone

- Single Family (R-1)
- Two Family (R-2)
- Multi Family (R-3)

0   1   2   4 Miles

San Bernardino County, Maxar

SECTION 5. CONCLUSION

- The City of Blue incorporates suburban living with natural features and an urban center.
- Residential zones consist of the outer areas of the city, while remaining equally close to denser commercial areas as well as natural features.
- Natural features include hills with hiking trails and agricultural regions in the west, parks throughout, and a

reservoir in the city center.
- The commercial center of the city includes a mall and corporate complex in the north-east, immediately north of the city hall, and strip-mall to its west.
- Neighborhood commercial areas include local shopping centers, interspersed with schools and other public infrastructure.

SECTION 6. DISCUSSION

- GIS Software used: ESRI ArcGIS Desktop
- This project was an insightful lesson on the lengths a city-planner must go to design a city and its components to maintain functionality and form.
- Improvements could be made in verifying the corresponding feature with zone classification, as well as rigorously comparing population estimates to actual regional averages.