



LAWRENCEVILLE

GEORGIA

CITY COUNCIL WORK SESSION AGENDA

Wednesday, December 14, 2022
2:00 PM

Council Assembly Room
70 S. Clayton St, GA 30046

Call to Order

Prayer

Pledge of Allegiance

Agenda Additions / Deletions

Discussion of General City Business

There is no public comment during this section of the agenda unless formally requested by the Mayor and the Council.

- [1.](#) SUP2022-00076 & SUP2022-00077; RV & JV Properties and Jesus Villalobos; 108 McConnell Drive
- [2.](#) City of Lawrenceville 2022 Housing Study Strategy
- [3.](#) Tree City Ordinance to be Considered a Tree City USA
- [4.](#) Lawrenceville Arts Commission – Go Georgia Arts Mural Trail Grant Update
- [5.](#) Architectural and Engineering Consulting Services on an Annual Contract
- [6.](#) Purchase and Installation of a Security Camera System
- [7.](#) Renewal of Managed Firewall and Network Engineering Services Agreement with Cira Infotech, Inc.
- [8.](#) Discussion regarding the street name of the new GGC Corridor
- [9.](#) Approval of a New Street Racing and Reckless Driving Exhibitions Ordinance
- [10.](#) Agreement with Gwinnett County Habitat for Humanity, Inc

Executive Session - Personnel, Litigation, Real Estate

Final Adjournment



LAWRENCEVILLE

GEORGIA

AGENDA REPORT
MEETING: CITY COUNCIL WORK SESSION
AGENDA CATEGORY: DISCUSSION OF CITY BUSINESS

Item: SUP2022-00076 & SUP2022-00077; RV & JV Properties and Jesus Villalobos; 108 McConnell Drive

Department: Planning and Development

Date of Meeting: Wednesday, December 14, 2022

Fiscal Impact: None

Presented By: Todd Hargrave, Director of Planning and Development

Planning and Development Recommendation: **Denial**

Planning Commission Recommendation: **Recommendation to be provided at meeting.**

Summary: The applicant requested a Special Use Permit to allow Automobile Sales (Auto Broker) with Outdoor Storage. The subject property is a 0.33-acre parcel zoned BG (General Business District), located along the southern right-of-way of McConnell Drive perpendicular to Highway 120/West Pike Street.

Attachments/Exhibits:

- SUP2022-00076_Report
- SUP2022-00076_Application
- SUP2022-00076_Letter of Intent
- SUP2022-00076_Survey
- SUP2022-00076_Site Plan



LAWRENCEVILLE

Planning & Development

CASE NUMBER: SUP2022-00076

APPLICANT: JESUS VILLALOBOS

OWNER: RV & JV PROPERTIES, LLC.

CONTACT: JESUS VILLALOBOS

PHONE NUMBER: 678-508-3794

LOCATION: 108 MCCONNELL DR

PARCEL ID: R5144 017

ACREAGE: 0.33

ZONING PROPOSAL: TO ALLOW AUTOMOBILE SALES (OUTDOOR SALES) AS A SPECIAL USE

PROPOSED DEVELOPMENT: GENERAL BUSINESS

DEPARTMENT RECOMMENDATION: DENIAL

VICINITY MAP





LAWRENCEVILLE

Planning & Development

ZONING AND DEVELOPMENT STANDARDS

The property consists of a 3,172 square-foot two-story commercial building, accessory driveways, and parking.

Article 1 Districts, Section 102.11, B. Lot Development Standards

Standard	Requirement	Proposal	Recommendation
Minimum Lot Area	No Minimum	14,574 sq. ft.	NA
Minimum Lot Width	No Minimum	81.7 feet	NA
Minimum Front Yard Setback	50 feet	50 feet	NA
Minimum Rear Yard Setback	10 feet	58 feet	NA
Minimum Side Yard Setback	10 feet	6 feet	NA
Impervious Surface Coverage	95%	NA	NA
Maximum Building Height	35 feet	NA	NA

Article 1 Districts, Section 103.2 Use Table

Standard	Requirement	Proposal	Recommendation
Automobile Sales (Outdoor Sales) and related service	Special Use Permit	Special Use Permit	Denial

Article 2 Supplemental and Accessory Use Standards, Section 200.3, Subsection 200.3.8 Automobile Sales or Auction and Related Service (Use or New Car Outdoor Sales Lot) reads as follows:

“Automobile Sales or Auction and Related Service (Used or New Car Outdoor Sales Lot)



LAWRENCEVILLE

1.

Planning & Development

- A. *No used car lots are permitted within 100 feet of any residential property.*
- B. *No lots smaller than 25,000 square feet.*
- C. *All buildings must have a permanent foundation. Architectural exterior treatments must consist of brick, or stone.*
- D. *The building must be at least 1000 square feet.*
- E. *No metal building facades; and*
- F. *A 15-foot landscaped buffer shall be provided fronting the street.”*

In conclusion, in 2016 the City Council has publicly stated they intend to limit automobile sales and associated service facilities to an area along the Buford Drive corridor extending from its intersection with CSX Transportation Railroad (overpass) to the southern right-of-way intersection of Buford Drive and Georgia Highway 316/University Parkway.



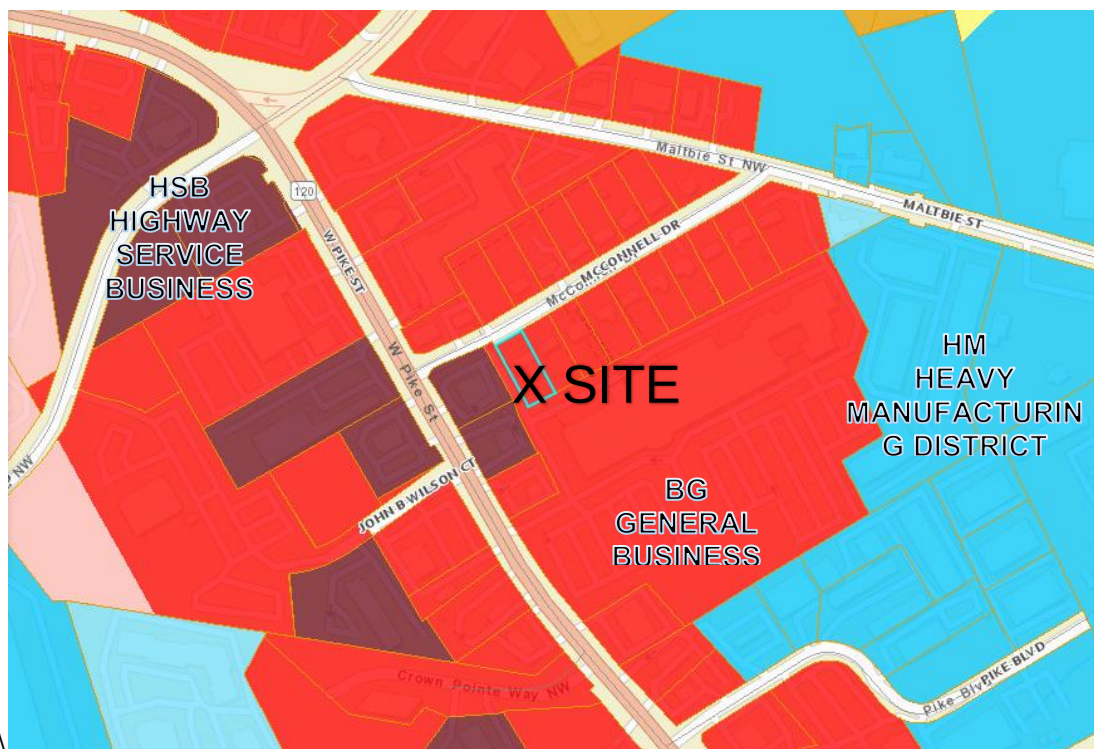
LAWRENCEVILLE

Planning & Development

SURROUNDING ZONING AND USE

The immediate surrounding area consists primarily of commercial/retail uses. There are manufacturing uses farther out.

CITY OF LAWRENCEVILLE OFFICIAL ZONING MAP





LAWRENCEVILLE

Planning & Development

1.

2040 COMPREHENSIVE PLAN

The 2040 Comprehensive Plan and Future Development Map indicate the property lies within the Community Mixed-Use Character Area. The Community Mixed Use character area recognizes the large-scale redevelopment opportunities that are present in Lawrenceville. These are areas that could accommodate a diversity of development types and densities—including revitalized, mixed-use areas—that build on existing industrial or commercial character. Community Mixed Use areas are primarily located near Downtown, and could benefit from the “halo effect” of high-quality development already happening nearby.

For this to happen, heavy industrial and noxious uses would need to relocate, and dumping and other poor environmental practices must be eliminated. The proposed request to include automobile sales and related services could be incompatible with the intent of the 2040 Comprehensive Plan, due to the City Council setting a precedent to have automobile sales on the Buford Corridor.

LAWRENCEVILLE 2040 COMPREHENSIVE PLAN – FUTURE LAND USE PLAN MAP





LAWRENCEVILLE

Planning & Development

1.

STAFF RECOMMENDATION

The requested Special Use Permit allowing automobile sales may be counter to the emphasis of the City Council's efforts to improve the overall image of the City of Lawrenceville. Given the aforementioned factors, the Planning and Development Department recommends **DENIAL** for the requested Special Use Permit.



LAWRENCEVILLE

Planning & Development

1.

CITY OF LAWRENCEVILLE DEPARTMENT COMMENTS:

BUILDING INSPECTIONS

No comment

CODE ENFORCEMENT

The City of Lawrenceville Planning and Development Department has an open code citation associated with the subject property (CEU2022-05062). This case concerns an ongoing lack of a business license and noncompliant outdoor storage (multiple untagged vehicles on lot). The final court hearing is scheduled for 12-22-2022.

There is one closed code violation on records for the subject property, CEU2019-01212. This case concerned a junked vehicle parked on the premises, which was removed and brought into compliance.

DAMAGE PREVENTION DEPARTMENT

No comment

ELECTRIC DEPARTMENT

This property will be served by the City of Lawrenceville Electric Department.

ENGINEERING DEPARTMENT

No comment

GAS DEPARTMENT

The property will be served by the City of Lawrenceville Gas Department.

STREET AND SANITATION DEPARTMENT

The property will be served by the City of Lawrenceville Street and Sanitation Department.



LAWRENCEVILLE

Planning & Development

1.

STATE CODE 36-67-3 (FMR.) REVIEW STANDARDS:

1. **Whether a zoning proposal will permit a use that is suitable in view of the use and development of the adjacent and nearby property.**

As proposed the plan would not be suitable given the precedent established by the City Council relating to Automobile Sales (Outdoor Sales), and related service facilities.

2. **Whether a zoning proposal will adversely affect the existing use or usability of adjacent or nearby property.**

Antiquated policies have adversely affected the economic stability of the City of Lawrenceville. Therefore, the City Council has taken the initiative to make decisions that are consistent with the policies relating to the long-range plans for the immediate area for the City to flourish.

3. **Whether the property to be affected by a zoning proposal has a reasonable economic use as currently zoned.**

The property has a reasonable economic use as currently zoned.

4. **Whether the zoning proposal will result in a use that will or could cause excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.**

Impacts on public facilities would be anticipated in the form of traffic, utility demand, stormwater runoff, and schools; however, these impacts would be mitigated with appropriate conditions, site development requirements, and planning.

5. **Whether the zoning proposal conforms with the policy and intent of the Comprehensive Plan.**

Policies of the City are intended to benefit or enhance the quality of life for existing and potential members of the public choosing to reside within the city limits.



LAWRENCEVILLE

Planning & Development

1.

6. **Whether there are other existing or changing conditions affecting the use and development of the property, which give supporting grounds for either approval or disapproval of the zoning proposal.**

The request represents an opportunity to for the City Council to maintain consistency with the intent of the 2040 Comprehensive Plan and the beginning of a long overdue zoning cleanup in this area.



LAWRENCEVILLE

Planning & Development

ADDITIONAL EXHIBITS:



PLANNING COMMISSION
RECOMMENDED CONDITIONS

SUP2022-00076:

NOTE: The following conditions are provided as a guide should the City Council choose to approve the petition of this request.

Approval of Special Use permit for **Automobile Broker**, Automobile Sales not to include automobile repair and maintenance, subject to the following enumerated conditions:

1. Automobile Broker and Sales shall be limited to area in the rear of the property screened from view from McConnell Drive and behind the by the existing of opaque fence.
2. Parking in the front of the property shall be designated for customer parking only.
3. All vehicles must be parked in striped designated spaces and all required access aisles must remain open.
4. Under no circumstances shall the owner or occupant of the property keep any junk, scrap, metal, rags, paper, abandoned, wrecked, or junked or scrap material or any parts thereof.
5. All loading and unloading of vehicles in need of service shall occur in the rear/screened portions of the property.
6. No work on vehicles is to be conducted on site.
7. No tents, canopies, temporary banners, streamers or roping decorated with flags, tinsel, or other similar material shall be displayed, hung, or strung on the site. No decorative balloons or hot-air balloons shall be displayed on the site. Yard and/or bandit signs, sign-twirlers, or sign walkers shall be prohibited.
8. Lighting shall be contained in cut-off type luminaries and shall be directed toward the property so as not to shine directly into adjacent properties or right-of-ways.
9. Peddlers and/or any parking lot sales unrelated to the Special Use shall be prohibited.
10. Outdoor storage of any items and/or materials unrelated to the Special Use shall be prohibited.

11. Dumpsters shall be restricted to the rear of the property.
12. The owner shall repaint or repair any graffiti or vandalism that occurs on the property within 72 hours.
13. Sign twirling is prohibited on the property.
14. The Special Use Permit shall be valid for a two-year period, at which time the use shall cease or an application shall be made for renewal of the Special Use Permit.



LAWRENCEVILLE

GEORGIA

SPECIAL USE PERMIT APPLICATION

APPLICANT INFORMATION	PROPERTY OWNER INFORMATION*
NAME: <u>Jesus Villalobos</u>	NAME: <u>Rosalia Villalobos</u>
ADDRESS: <u>108 Mcconnell Dr</u>	ADDRESS: <u>108 Mcconnell Dr</u>
CITY: <u>Lawrenceville, Ga</u>	CITY: <u>Lawrenceville</u>
STATE: <u>Ga.</u> ZIP: <u>30046</u>	STATE: <u>GA</u> ZIP: <u>30046</u>
PHONE: <u>678-508-3794</u>	PHONE: <u>678-595-9915</u>
CONTACT PERSON: <u>Jesus Villalobos</u> PHONE: <u>678-508-3794</u>	
CONTACT'S E-MAIL: <u>latinamericanmotors@gmail.com</u>	
* If multiple property owners, each owner must file an application form or attach a list, however only one fee. Multiple projects with one owner, must file separate applications, with separate fees.	
ZONING DISTRICT(S): <u>BG</u> ACREAGE: <u>0.3343</u>	
PARCEL NUMBER(S): <u>R5144017</u>	
ADDRESS OF PROPERTY: <u>108 Mcconnell Dr Lawrenceville, Ga 30046</u>	
PROPOSED SPECIAL USE: <u>Auto Broker</u>	

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT

Jesus Villalobos 5-2-2022
SIGNATURE OF APPLICANT DATE

Rosalia Villalobos 5-2-2022
SIGNATURE OF OWNER DATE

OLIVIA SOBERANIS
TYPED OR PRINTED NAME
Olivia Soberanis
NOTARY PUBLIC DATE 5-2-2022

Rosalia Villalobos
TYPED OR PRINTED NAME
3-17-2025 5-2-22
NOTARY PUBLIC DATE



LAWRENCEVILLE

GEORGIA

DISCLOSURE OF CAMPAIGN CONTRIBUTIONS

Have you, within the two years immediately preceding the filing of this application, made campaign contributions aggregating \$250.00 or more to the Mayor of the City of Lawrenceville, a member of the City Council, or to a member of the Planning Commission of the City of Lawrenceville? N
Y/N

If the answer is yes, please complete the following section:

NAME OF GOVERNMENT OFFICIAL	CONTRIBUTIONS (List all which aggregate to \$250 or more)	DATE CONTRIBUTION WAS MADE (Within last two years)

Have you, within the two years immediately preceding the filing of this application, made gifts having in the aggregate a value of \$250.00 or more to the Mayor of the City of Lawrenceville, a member of the City Council, or to a member of the Planning Commission of the City of Lawrenceville? N
Y/N

If the answer is yes, please complete the following section:

NAME OF GOVERNMENT OFFICIAL	CONTRIBUTIONS (List all which aggregate to \$250 or more)	DATE CONTRIBUTION WAS MADE (Within last two years)

Attach additional sheets if necessary to disclose or describe all contributions/gifts.



LAWRENCEVILLE

GEORGIA

NOTIFICATION REQUIREMENTS

Written Notification

The applicant is required to notify all adjoining property owners (including those across any streets) of their intention to rezone the property. The notification shall be sent by Certified Mail and be postmarked no later than the published deadline contained in the Rezoning Schedule. A sample notification letter is provided at the end of this packet.

The written notice shall include:

1. Special Use case number
2. Dates, times and place of public hearings
3. Copy of the application
4. Applicant contact information
5. Letter of Intent
6. Site plan
7. Vicinity map

Proof that the notifications were mailed as required must be delivered to the Planning Department as soon as is feasible, but no later than 12:00 p.m. (noon) on the Wednesday prior to the Planning Commission meeting. Failure to submit the required proof of mailing will result in the application being tabled to the next month's meeting.

Notification Sign

The applicant is required to post a notification sign (provided by the Planning Department) in a clearly visible location on the property, at or near the public street, no later than the published deadline contained in the Rezoning Schedule. It is the responsibility of the applicant to insure that the notification sign remain on the property throughout the rezoning proceedings. (COPY TO BE GIVEN TO APPLICANT)

SUP2022-00076
CASE NUMBER

9-7-2022 ^{DO}
DATE

Jesus Villalobos
ACKNOWLEDGED BY (PRINT NAME)

Jesus Villalobos
SIGNATURE

70 S Clayton St • PO Box 2200 • Lawrenceville, Georgia 30046-2200
770.963.2414 • www.lawrencevillega.org

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT



LAWRENCEVILLE

GEORGIA

VERIFICATION OF CURRENT PAID PROPERTY TAXES FOR SPECIAL USE PERMIT

THE UNDERSIGNED BELOW IS AUTHORIZED TO MAKE THIS APPLICATION. THE UNDERSIGNED CERTIFIES THAT ALL CITY OF LAWRENCEVILLE PROPERTY TAXES BILLED TO DATE FOR THE PARCEL LISTED BELOW HAVE BEEN PAID IN FULL TO THE TAX COMMISSIONER OF GWINNETT COUNTY, GEORGIA. IN NO CASE SHALL AN APPLICATION BE PROCESSED WITHOUT SUCH PROPERTY VERIFICATION.

*Note: A SEPARATE VERIFICATION FORM MUST BE COMPLETED FOR EACH TAX PARCEL INCLUDED IN THE SPECIAL USE PERMIT REQUEST.

PARCEL I.D. NUMBER:

(Map Reference Number)

District

Land Lot

Parcel

- R5144 017

Jesus Villalobos

Signature of Applicant

5/2/2022

Date

Jesus Villalobos

Type or Print Name and Title

PLEASE TAKE THIS FORM TO THE TAX COMMISSIONER'S OFFICE AT THE GWINNETT JUSTICE AND ADMINISTRATION CENTER, 75 LANGLEY DRIVE, FOR THEIR APPROVAL BELOW.

TAX COMMISSIONER'S USE ONLY

(PAYMENT OF ALL PROPERTY TAXES BILLED TO DATE FOR THE ABOVE REFERENCED PARCEL HAVE BEEN VERIFIED AS PAID CURRENT AND CONFIRMED BY THE SIGNATURE BELOW)

Kimberly Bailey

NAME

5/5/22

DATE

Revenue Specialist

TITLE

70 S Clayton St • PO Box 2200 • Lawrenceville, Georgia 30046-2200
770.963.2414 • www.lawrencevillega.org

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT

August 2 , 2022

Letter of Intent

Jesus Villalobos
Owner
Latin American Motors LLC.
108 McConnell Dr
Lawrenceville, GA 30046

To: City of Lawrenceville

This letter is to ask the city of Lawrenceville for a permit to use an office space in the following address:

108 McConnell Dr.,
Lawrenceville, GA 30046

This space will be rented to Latin American Motors LLC from RV & JV Properties LLC. I am asking the City of Lawrenceville for approval to locate my business at the address listed above. Selling vehicles, I will only act as an office broker at this location by renting an office space to process my contracts and take care of other paperwork. After COVID sales have been taking place mostly through the internet, for this reason we have decided to locate our company in a smaller space. We will attract most of our customers via internet and will have appointments at the office for paperwork. I have had this business since 2007 and have been located in the city of Grayson, GA since then. I started in this industry back in the year 2000 and I have lived in Lawrenceville, GA since 2000 as well; I will continue living here for many more years. I want to be of service in my community by growing my business in this industry and providing a service. I understand that in 2020 the City changed the requirements for Broker Office to a new process. I am submitting all documentation required to obtain the Lawrenceville City License approval.

Thank you in advanced,



Jesus Villalobos
Latin American Motors LLC.
Owner

LEGAL DESCRIPTION

LOT 5, HOYT BAGWELL SUBDIVISION

#108 McCONNELL ROAD, LAWRENCEVILLE, GEORGIA

All that tract or parcel of land lying and being in Land Lot 144 of the 5th Land District, Gwinnett County, Georgia, being Lot 5 of the revised subdivision plat for Hoyt Bagwell and also shown on the plat prepared for Kevin Watts by Christopher Hodge with Boundary Zone, Inc., dated 4-11-2007, containing 0.336 acres of land, and being more particularly described as follows:

COMMENCING at the centerline intersection of West Pike Street with McConnell Road;

THENCE 229.70 feet in a Northeasterly direction to a point;

THENCE, South 25 degrees, 53 minutes, 03 seconds East for a distance of 30.00 feet to a ½" Rebar on the Southerly margin of the right of way for McConnell Road and at the TRUE POINT OF BEGINING;

THENCE, North 63 degrees, 51 minutes, 25 seconds East for a distance of 80.15 feet to a ½" rebar also along the Southerly margin of the right of way for McConnell Road;
THENCE, South 25 degrees, 49 minutes, 17 seconds East for a distance 184.36 feet to a ½" rebar;

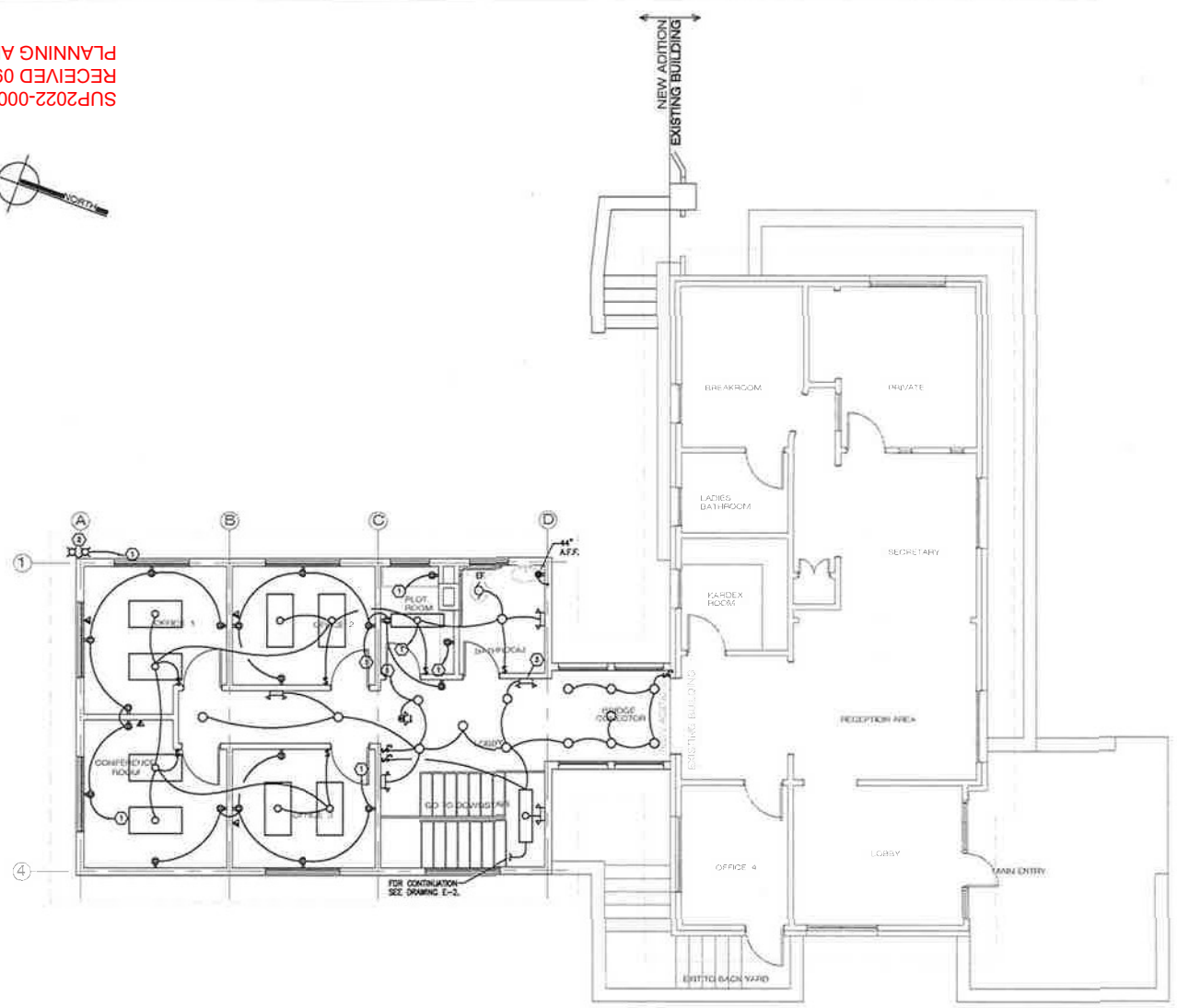
THENCE, South 66 degrees, 15 minutes, 55 seconds West for a distance 80.00 feet to a ½" rebar;

THENCE North 25 degrees, 53 minutes, 03 seconds West for a distance of 181.00 feet to a ½" rebar on McConnell Road which is ALSO THE TRUE POINT OF BEGINNING.

Together with all easements affecting said property.

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT



FIRST FLOOR PLAN - ELECTRICAL
SCALE: 1/4" = 1'-0"

- KEYED NOTES:**
- ① EXTEND WIRE AND CONDUIT TO THE NEW PANEL AND CONNECT TO 20A/1P CIRCUIT BREAKER.
 - ② OUTDOOR TYPE LIGHT FIXTURE WITH TWO 75W FLOOD TYPE LAMPS AND MOTION DETECTOR.
 - ③ MOUNT AS HIGH AS POSSIBLE, TYPICAL.

A
ARCHITECTURAL
& CONSTRUCTION

BRIAN DONNELLY SITE SCAPES LLC	
DESIGNED BY	DATE
PROJECT NO.	1/4" = 1'-0"
PROJECT NAME	XXXXXXX
PROJECT ADDRESS	670 5th Street
PROJECT PHONE	670 5th Street
PROJECT FAX	670 5th Street
PROJECT EMAIL	670 5th Street
PROJECT WEBSITE	670 5th Street

DATE	PROJECT
1/1/2022	PLANNING & DEVELOPMENT

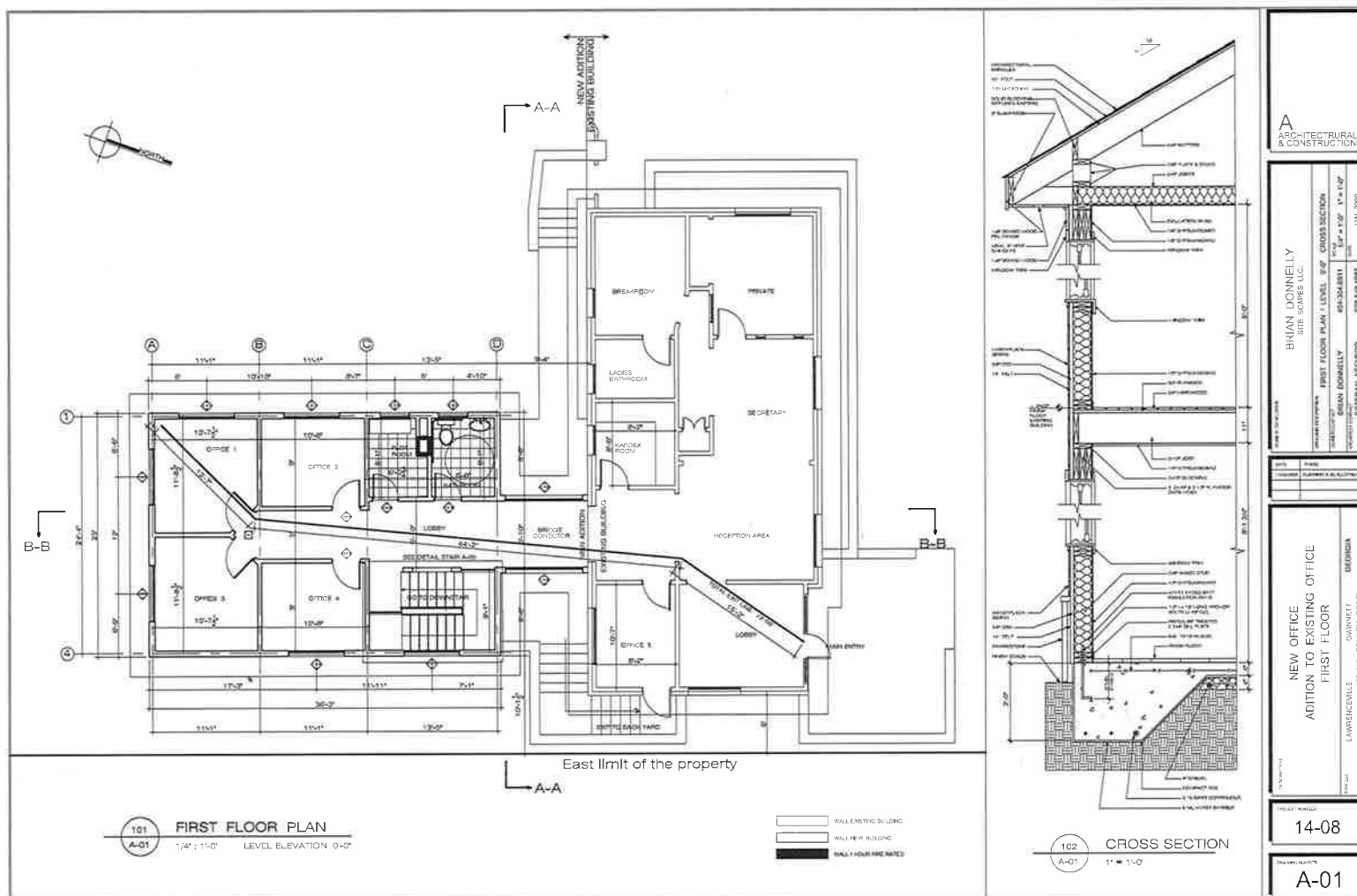
NEW OFFICE ADDITION TO EXISTING OFFICE FIRST FLOOR	
PROJECT	TAX PARCEL #
108 MC CONNELL DRIVE	
ZONED	

PROJECT NUMBER
14-08

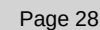
DRAWING NUMBER
E-3

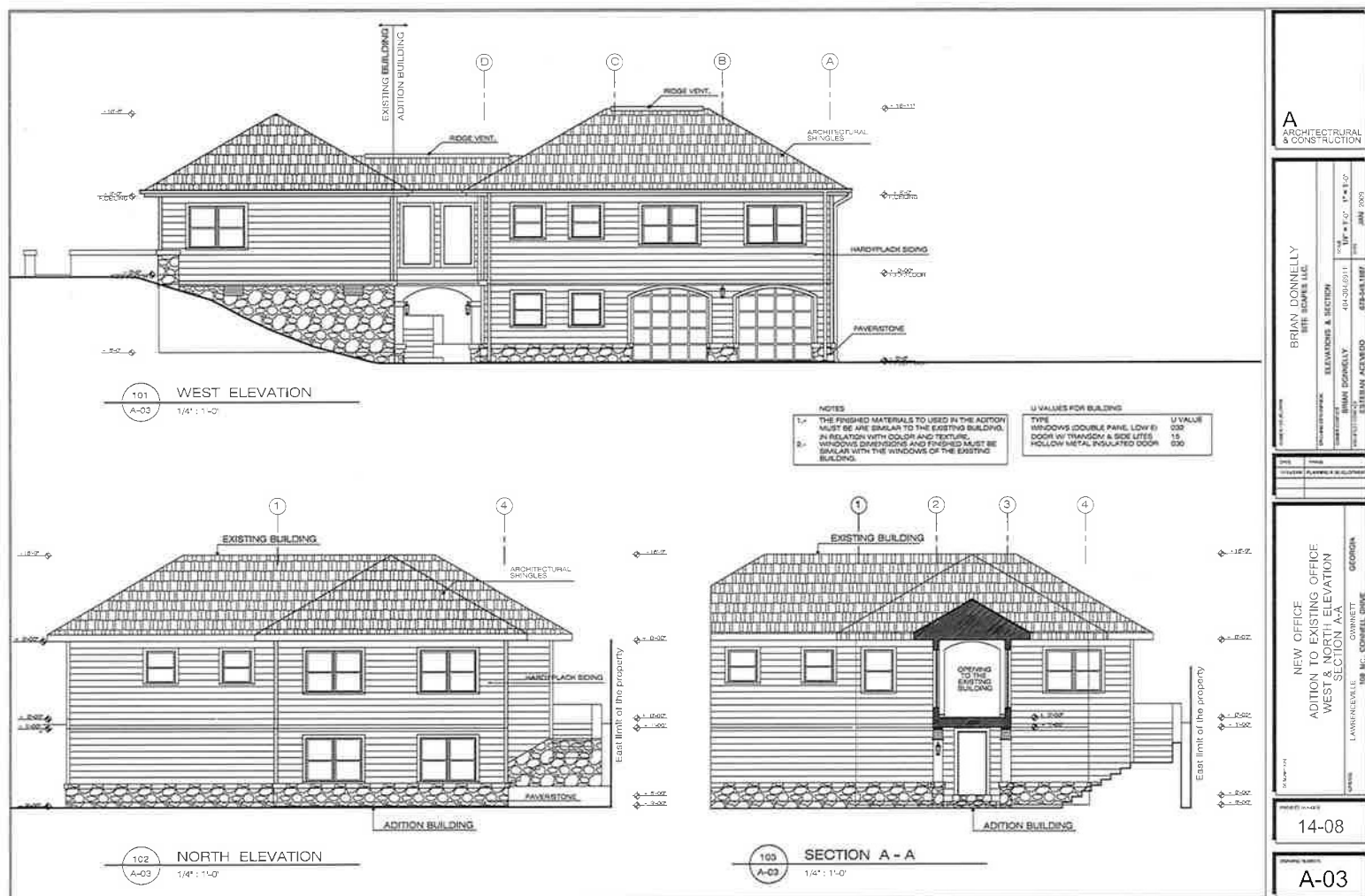
**MARSHALL & BOLLWERK
ENGINEERING, INC.**
850 North Point Pkwy, Suite 370
Alpharetta, Ga 30005
p: 770-795-0000, f: 770-795-0000
e: mbe@mbelco.net

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT

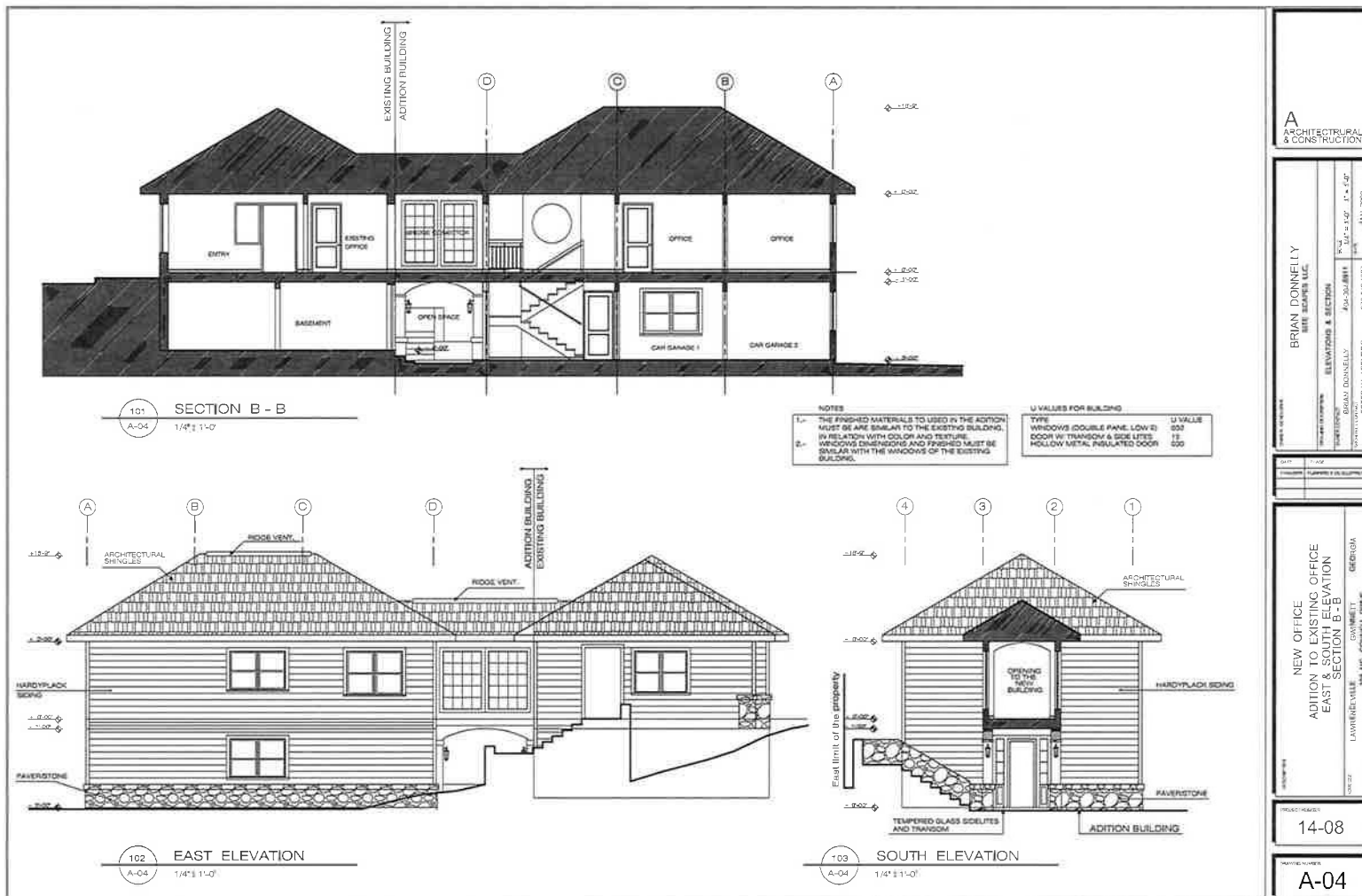


[illegible]





SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT



ELECTRICAL SPECIFICATIONS

1. THE CONTRACTOR SHALL COORDINATE WITH THE 2005 NATIONAL ELECTRICAL CODE (NFPA 70), AS MODIFIED BY THE STATE, COUNTY, CITY AND LOCAL ORDINANCES, AND ALL APPLICABLE LAWS AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE COVERAGE. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF OUTLET/JUNCTION BOXES WITH THE HVAC CONTRACTOR AND OTHER TRADES TO AVOID INTERFERENCE WITH THE INSTALLATION OF OUTDOOR.
2. THE CONTRACTOR SHALL OBTAIN, PURCHASE, AND MAINTAIN ALL PERMITS AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES FOR THE DURATION OF THIS PROJECT.
3. THE CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS, AND MAKE FINAL CONNECTIONS TO EQUIPMENT FURNISHED BY OTHER TRADES. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE COMPLETED PROJECT.
4. PANELBOARDS AND OTHER ELECTRICAL EQUIPMENT SHALL BE INSTALLED AS SHOWN ON THE PLANS, UNLESS NOTED OTHERWISE. WORKING CLEARANCES SHALL BE AS FOLLOWS BASED ON REQUIREMENTS OF THE 2005 NEC, ARTICLE 110.26 - 120/208V SYSTEMS:
- 36" MINIMUM, AND WIDTH OF EQUIPMENT OR 30", WHICHEVER IS GREATER.
5. THE CONTRACTOR SHALL COORDINATE THE WIDTH, DEPTH, HEIGHT, DOOR SWINGS, AND NEC ARTICLE 110.26 CLEARANCES FOR ALL PANELS TO INSURE THAT ALL EQUIPMENT FITS WITHIN THE SPACE ALL AROUND.
6. IDENTIFY PANELBOARDS, AND OTHER ELECTRICAL EQUIPMENT WITH ENGRAVED PLASTIC NAMEPLATES HAVING CONTRASTING 1/4" HIGH (OR LARGER) LETTERS, WITH NAMES TO MATCH THE SCHEDULES OR OTHER DRAWING REFERENCES. TYPEWRITTEN PANEL DIRECTORIES SHALL BE PROVIDED IN ALL PANELBOARDS, AND SHALL REFLECT AS-BUILT CONDITIONS.
7. ALL WIRING, CONSISTING OF INDIVIDUAL CONDUCTORS, SHALL BE INSTALLED IN CONDUIT, EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS. ALL CONDUITS AND EXPOSED CONDUITS SHALL BE RIGID GALVANIZED STEEL, OR INTERMEDIATE METAL CONDUIT, BUT THEY SHALL NOT BE MIXED ON THIS PROJECT, WHERE USED. INTERMEDIATE METAL CONDUIT (IMC) SHALL BE RUN IN EMT OR BE TYPE MC CABLE (BUT NON-METALLIC SHEATHED TYPE NM) CABLE IS PERMITTED AS ALLOWED BY AHJ. IN FINISHED AREAS WITH CAVITY TYPE WALL CONSTRUCTION, ALL CONCEALED CABLES SHALL BE SECURED TO THE WALLS. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A NYLON PULL CORD RATED FOR 200 POUND TENSION. ANY OF THE FOLLOWING TYPES OF RACEWAYS MAY BE USED, SUBJECT TO THE NEC AND THE ADDITIONAL RESTRICTIONS LISTED, IF ANY:
- A. CONCEALED:
- 1). GFI, OR IMC.
- 2). EMT, COMPRESSION FITTINGS, OR SET SCREW FITTINGS - BUT NOT BOTH TYPES.
- 3). TYPE MC CABLE, ONLY ABOVE ACCESSIBLE CEILINGS, IN WALL CAVITIES, AND ADDITIONAL USAGES AS APPROVED BY AUTHORITY HAVING JURISDICTION, AND OWNER.
- B. EXPOSED:
- 1). GFI, OR IMC.
- 2). EMT, COMPRESSION FITTINGS OR SET SCREW FITTINGS, ONLY WHERE USED INDOORS AND NOT SUBJECT TO PHYSICAL DAMAGE.
- 3). FLEXIBLE METAL CONDUIT.
8. PROVIDE EXPANSION FITTINGS IN ALL RIGID RACEWAYS CROSSING STRUCTURAL EXPANSION JOINTS. FURNISH AND INSTALL ALL SUPPORTS REQUIRED FOR CONDUIT, MATERIALS, DEVICES, EQUIPMENT AND THE LIKE, WHERE THE BUILDING STRUCTURE IS NOT ADAPTED OR SUITABLE FOR MOUNTING SAME DIRECTLY THEREON. RACEWAYS SHALL NOT BE USED AS SUPPORTS FOR BOXES OR OTHER ELECTRICAL EQUIPMENT. LUMEN CABLE SUPPORT BRACKETS SHALL BE OPEN ON ONE SIDE, AND CABLES SHALL BE ATTACHED WITH PLASTIC CABLE TIES. ALL RACEWAY PENETRATIONS THROUGH FIREWALLS, SHALL BE SEALED WITH UL LISTED SEALING COMPOUNDS TO MAINTAIN THE FIRE RATING OF THE WALL. ALL RACEWAYS/SLEEVES PASSING THROUGH AREAS OF DIFFERENT TEMPERATURES, I.E. FROM INSIDE TO OUTSIDE OF BUILDINGS SHALL BE SEALED WITH AN APPROVED PUTTY OR DUCT-SEAL TO PREVENT THE CIRCULATION OF WARM AIR TO A COLDER SECTION OF THE RACEWAY OR SLEEVE. ALL RACEWAY PENETRATIONS THROUGH EXTERIOR AND INTERIOR WALLS SHALL BE PROPERLY SEALED.
9. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF RACEWAY SYSTEMS AND REQUIREMENTS FOR ALL LOW VOLTAGE (LVO) EQUIPMENT (COMPUTER, DATA, SECURITY, AND TELEPHONE) WITH THE OWNER AND EQUIPMENT SUPPLIER(S) PRIOR TO THE INSTALLATION OF CONDUITS, JUNCTION BOXES, WIRING DEVICES, AND WIRING. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A NYLON PULL CORD.
10. ALL PULL BOXES, DEVICE BOXES, AND JUNCTION BOXES SHALL BE SIZED PER IEC, NEMA, AND THE NATIONAL ELECTRICAL CODE.
11. THIRTY AMP BRANCH CIRCUITS MAY BE SHOWN WITH EITHER SINGLE CIRCUIT, OR TWO CIRCUIT HOME RUNS. TWO CIRCUIT HOME RUNS SHARE A COMMON NEUTRAL, UNLESS NOTED OTHERWISE AND GROUND IN A SINGLE CONDUIT. THE CONTRACTOR MAY ELECT TO COMBINE SINGLE CIRCUIT HOME RUNS TO MAKE TWO CIRCUIT HOME RUNS, OR TO CHANGE TWO CIRCUIT HOME RUNS TO SINGLE CIRCUIT HOME RUNS.
12. PROVIDE SEPARATE GROUND, INSULATED GROUND WIRE IN ALL RACEWAYS.
13. MAINTAIN AS-BUILT DRAWINGS, UPDATED DAILY DURING CONSTRUCTION, AND PRESENT THE OWNER, WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE, WITH TWO SETS OF AS-BUILT DRAWINGS. PROVIDE THE OWNER'S PERSONNEL WITH ON-SITE INSTRUCTION IN THE OPERATION AND MAINTENANCE OF THE COMPLETED ELECTRICAL SYSTEM PRIOR TO SYSTEM ACCEPTANCE.
14. ALL WIRING SHALL BE 600 VOLT, COPPER, STRANDED, WITH TYPE THIN/THIN INSULATION. MINIMUM SIZE FOR POWER AND LIGHTING CIRCUITS SHALL BE 12 AWG. SIZES 10 AWG AND SMALLER SHALL BE SOLD PROVIDE AN EQUIPMENT GROUND WIRE IN ALL RACEWAYS, AND CABLE ASSEMBLIES. SIZE EQUIPMENT GROUNDS PER TABLE 250.122 OF THE NATIONAL ELECTRICAL CODE.
15. CONDUCTOR COLOR CODES SHALL MATCH EXISTING FACILITY. USE CONDUCTORS #8 AND SMALLER WITH COLOR FACTORY-APPLIED THE ENTIRE LENGTH OF THE CONDUCTORS. COLOR CODING FOR THE LARGER SIZES MAY BE ACCOMPLISHED BY USING COLORED, 1 INCH WIDE, PRESSURE-SENSITIVE PLASTIC TAPE IN HALF-LAPPED TURNS FOR A DISTANCE OF 8 INCHES FROM TERMINAL POINTS. APPLY THE LAST TWO LAPS OF TAPE WITH NO TENSION TO PREVENT POSSIBLE UNWINDING.
16. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES (OR OTHER INDEPENDENT NATIONALLY RECOGNIZED TESTING AGENCY, WHERE APPLICABLE), AND SHALL BE RATED FOR THE MAXIMUM AVAILABLE VOLTAGE AND AVAILABLE FAULT CURRENT FOR THIS PROJECT.
17. ALL DEVICE BOXES SHALL BE INSTALLED FLUSH, AND CONDUITS RUN CONCEALED IN FINISHED AREAS, EXCEPT AS SPECIFICALLY SHOWN OR NOTED OTHERWISE. VERIFY ALL DOOR SWINGS BEFORE INSTALLING SWITCH BOXES. SEE ARCHITECTURAL DRAWINGS FOR CABINET WORK, WALL SECTIONS, ELEVATIONS, AND OTHER DETAILS AFFECTING THE MOUNTING HEIGHT AND LOCATION OF OUTLET BOXES.
18. WIRING DEVICES: DUPLEX RECEPTACLES SHALL BE BUILDING STANDARD, AC TOGGLE SWITCHES SHALL BE BUILDING STANDARD U.N.O.; GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLES SHALL BE BUILDING STANDARD. OUTLET COVER PLATES SHALL BE BUILDING STANDARD.

19. ALL WALL OUTLETS THAT ARE SHOWN BACK TO BACK, IN FIRE RATED WALLS, SHALL BE INSTALLED WITH A MINIMUM OF 24" OF HORIZONTAL SEPARATION (TWO STUDS) PER NEC ARTICLE 300.21, AND UL REQUIREMENTS. IN WALL SPACES WHERE THE 24" SEPARATION IS NOT POSSIBLE, BLOCKING AND GYPSUM BOARD PROVISIONS, TO MAINTAIN THE FIRE RATING OF THE WALL, SHALL BE PROVIDED BY OTHERS, NOT BY THIS CONTRACTOR.
20. OUTLETS WITHIN 6'-0" OF ANY PLUMBING FIXTURE, AND/OR WHERE INDICATED, SHALL BE BUILDING STANDARD GROUND FAULT CIRCUIT INTERRUPTER OUTLETS.
21. ALIGN ALL SIMILAR WIRING DEVICES IN THE SAME ROOM AT THE SAME HEIGHTS AND DISTANCES FROM ARCHITECTURAL FEATURES, UNLESS NOTED OTHERWISE. GANG ALL DEVICE BOXES AT THE SAME LOCATION, WHERE ALLOWED BY CODE. PROVIDE DIVIDERS TO SEPARATE LOW VOLTAGE (I.E., THERMOSTAT) DEVICES FROM POWER DEVICES (I.E., SWITCHES). ALL EXTERIOR WIRING DEVICES, IF ANY, SHALL BE BUILDING STANDARD.
22. ALL UNIT EQUIPMENT FOR EMERGENCY LIGHTING SHALL BE CONNECTED TO EMERGENCY BRANCH CIRCUITS, UNLESS NOTED OTHERWISE. CONNECT AHEAD OF ANY LOCAL SWITCHES PER NEC ARTICLE 700.12(F).
23. ALL LUMINAIRES SHALL BE BUILDING STANDARD.
24. THIS PROJECT MAY UTILIZE BOTH ACCESSIBLE AND NON-ACCESSIBLE TYPE CEILING. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL CEILING TYPES IN EACH AREA. LIGHTING CIRCUITS IN NON-ACCESSIBLE CEILINGS MUST UTILIZE FIXTURE-MOUNTED JUNCTION BOXES WHICH ARE USUALLY LIMITED TO EIGHT (8) WIRES IN THEIR CAPACITY. CIRCUITING FOR THE LIGHTING IS SCHEMATIC, BUT GENERALLY ATTEMPTS TO SHOW THESE CONSIDERATIONS. HOWEVER, CONTRACTOR MAY WANT TO PROVIDE SUPPLEMENTARY JUNCTION BOXES IN ACCESSIBLE AREAS, OR OVERSIDE FIXTURE BOXES TO OPTIMIZE THE WIRING.
25. ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. LOCATE LIGHTING FIXTURES SYMMETRICALLY OR IN PROPER RELATION TO FINISHED AREAS UNLESS OTHERWISE DIMENSIONED OR DETAILED. THE CONTRACTOR SHALL COORDINATE ALL FIXTURE LOCATIONS WITH THE CLEARANCES WITH THE DUCTWORK, THE REFLECTED CEILING PLAN, HVAC PLAN, AND OTHER DRAWINGS TO AVOID CONFLICTS.
26. EXISTING SERVICE PANELBOARD IS A GENERAL ELECTRIC LOAD CENTER, 200A MAIN BREAKER 120/240V, SINGLE PHASE, THREE WIRE, FOURTY (40) POLE. PROVIDE OVERCURRENT FOR NOTE 8 ABOVE.
27. THE BRANCH CIRCUITS SHALL BE PHASE ADJUSTED TO PROVIDE APPROXIMATE BALANCED LOADING ON EACH PANEL, AND THE SERVICE.
28. ALL COMMUNICATIONS CABLES SHALL BE ROUTED AND SECURED AT LEAST 12" FROM FLUORESCENT FIXTURES AND POWER CIRCUITS. CROSS OTHER CIRCUITS AT 90 DEGREE ANGLE.

SYMBOL LEGEND

- WALL MOUNTED DUPLEX RECEPTACLE, MOUNT 18" A.F.F.
- WALL MOUNTED GFI TYPE DUPLEX RECEPTACLE, MOUNT 18" A.F.F., UNLESS NOTED OTHERWISE.
- CEILING MOUNTED DUPLEX RECEPTACLE
- WALL MOUNTED PHONE/DATA RECEPTACLE, MOUNT 18" A.F.F.
- 2X4 FLUORESCENT LIGHT FIXTURE:
LITHONIA # 29402 F B 332 14 OR EQUAL
- 1X4 WRAPAROUND FLUORESCENT LIGHT FIXTURE:
LITHONIA # 218-232-120-GE3105 OR EQUAL
- 6" FLUORESCENT DOWNLIGHT FIXTURE:
LITHONIA # 176-1/26TBT-F601A2-120-GE310 OR EQUAL
- EXIT SIGN - LITHONIA #LWJ 5 W 1 R 120/277 N OR EQUAL
WITH EMERGENCY BATTERY PACK.
- WALL MTD LIGHT 8"-0" AFD SEAGULL # 8507-12
- EMERGENCY LIGHTING FIXTURE W/TWO HEADS
- SINGLE POLE LIGHT SWITCH
- THREE-WAY LIGHT SWITCH SWITCH
- CONDUIT RUN CONCEALED IN WALLS OR ABOVE CEILING
- LOAD CENTER TYPE PANEL
- FUSIBLE DISCONNECT SWITCH

WIRING SIZE CHART

CONTRACTOR SHALL PROVIDE WIRING FOR 120 V. CIRCUITS (LINE TO NEUTRAL) OF SIZES BELOW DEPENDING UPON CIRCUIT LENGTH BELOW:

< 100 FT	#12 AWG (CU)
100-150 FT	#10 AWG (CU)
150-250 FT	#8 AWG (CU)

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
AFD	ABOVE FINISH GRADE
GFI	GROUND FAULT CIRCUIT INTERRUPTER
NC	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
U.N.O.	UNLESS NOTED OTHERWISE
WP	WEATHER PROOF "WIRE IN-USE"

NOTE:

MOUNTING HEIGHTS NOTED ARE TO CENTERLINE OF DEVICE UNLESS NOTED.

MOUNTING HEIGHTS SHOWN ARE MAXIMUM/MINIMUM HANDICAPPED ACCESSIBILITY STANDARDS - THEY SHALL NOT BE ALTERED WITHOUT WRITTEN AUTHORIZATION.

ARCHITECTURAL & CONSTRUCTION

BRIAN DONNELLY
SITE SAFETY LLC

ELECTRICAL SPECS AND LEGEND
BRIAN DONNELLY
XXXXXXXXXX
ESTERBAN ACCLVDO
678-458-1987

DATE: DEC 2008

DATE:	PROJECT:
11/03/2008	PLUMBING & DEVELOPMENT

NEW OFFICE
ADDITION TO EXISTING OFFICE

TAX PARCEL #
108 MC CONNELL DRIVE
ZONED

PROJECT NUMBER

14-08

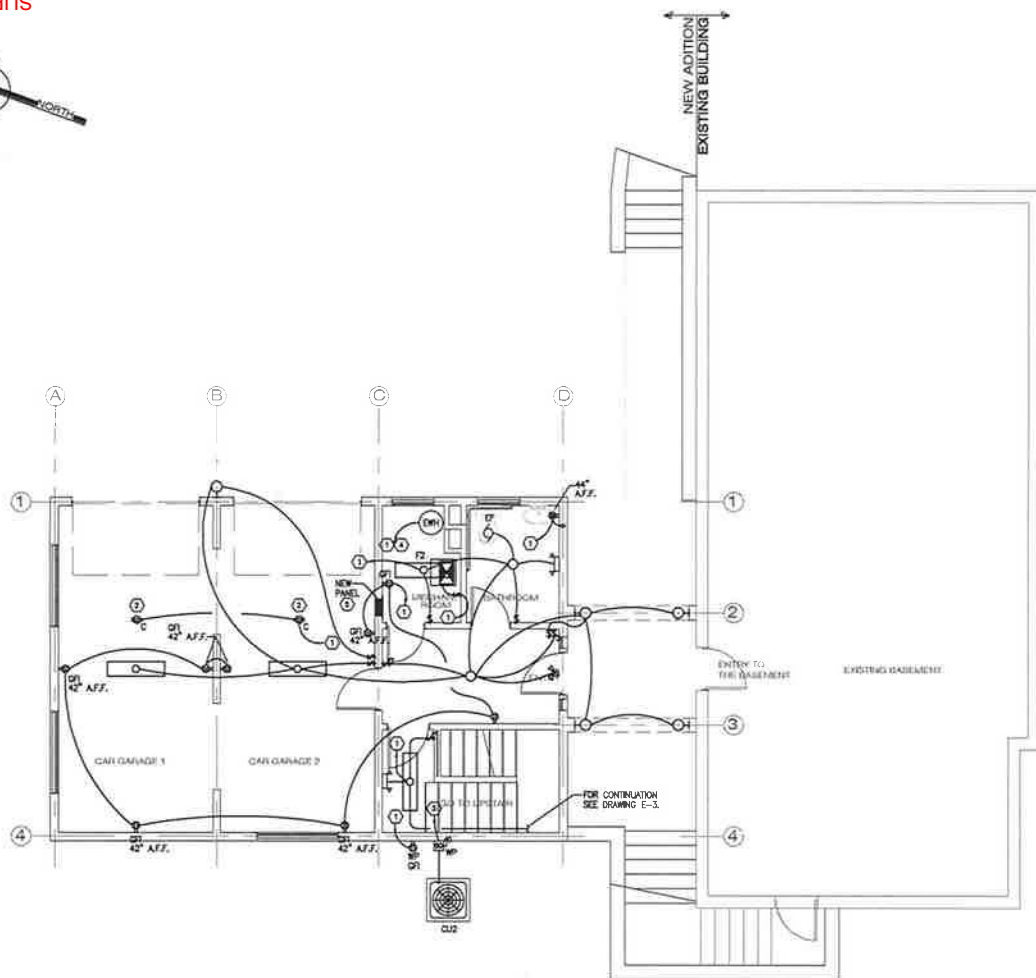
Drawing number

E-1



**MARSHALL & BOLLWERK
ENGINEERING, INC.**
8600 North Point Pkwy., Suite 375
Alpharetta, Ga. 30005
P: 877-765-0088 F: 877-765-0083
E: info@mbeng.com

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT



GROUND FLOOR PLAN - ELECTRICAL
SCALE: 1/4" = 1'-0"

KEYED NOTES:

- ① EXTEND WIRE AND CONDUIT TO NEW PANEL AND CONNECT TO 25A/1P SPACE CIRCUIT BREAKER.
 - ② CEILING MOUNTED 20A, 120V RECEPTACLE FOR GARAGE OPENER, (GARAGE OPENER AND CONTROLS BY OTHERS).
 - ③ PROVIDE 40A/2P CIRCUIT BREAKER IN NEW PANEL AND CONNECT. 2#10, #10G, 3/4" TC.
 - ④ PROVIDE THIS CIRCUIT BREAKER WITH 1-POLE PADLOCKING DEVICE SUCH AS BY SIEMENS # EDPLD1.
 - ⑤ PROVIDE NEW 120/240V, 1Ø, 3W FLUSH MOUNTED, 100A, 24 POLES LOAD CENTER TYPE PANEL. THIS PANEL SHALL BE FED FROM THE EXISTING PANEL. PROVIDE 100A/2P CIRCUIT BREAKER IN THE EXISTING PANEL AND EXTEND 2#1, #1G, 1 1/4" TC TO FEED THE NEW PANEL.
- PROVIDE IN THE NEW PANEL:
- 1Ø - 20A/1P CIRCUIT BREAKERS
 - 1 - 40A/2P CIRCUIT BREAKER
 - 6 - 1P SPACES

A
ARCHITECTURAL
& CONSTRUCTION

BRIAN DONNELLY
SITE SCALES, LLC

DATE	PHASE
11/15/2020	PLANNING & DESIGN CONCEPT
DATE	PHASE
11/15/2020	PLANNING & DESIGN CONCEPT
DATE	PHASE
11/15/2020	PLANNING & DESIGN CONCEPT

**NEW OFFICE
ADDITION TO EXISTING OFFICE
GROUND FLOOR**

14-08

E-2

14-08

Page 32

**MARSHALL & BOLLWERK
ENGINEERING, INC.**
8500 North Point Pkwy., Suite 375
Alpharetta, Ga. 30005
p: 770.785.0333, f: 770.785.0093
e: mbe@mbollwerk.com

PLANNING AND DEVELOPMENT
11-07-2022

MECHANICAL Compliance Certificate

Georgia Commercial Code

Section 1: Project Information

Project Type: Addition
Project Title: Brian Donnelly Site Upgrade LLC
Construction Site: [blank] Design/Agent: [blank]

Section 2: General Information

Building Location (for weather data): [blank] Location: [blank]
Climate Zone: [blank]
Heating Degree Days (Base 65 degrees F): [blank]
Cooling Degree Days (Base 50 degrees F): [blank]

Section 3: Mechanical Systems List

Systems: [blank]

Section 4: Requirements Checklist

Requirements Specific To HVAC System 1:

- 1. Equipment minimum efficiency: Central Furnace (Class 2) 90% AFUE or 80% EE
- 2. Equipment minimum efficiency: Heat Pump (Class 2) 13.0 SEER

Requirements Specific To Storage Water Heater 1:

- 1. Hot water system must be manufactured after 2015
- 2. No efficiency requirements for water heater with storage capacity less than 30 gallons
- 3. Hot water tank must be vented
- 4. Hot water storage tank must be installed in a well-ventilated area
- 5. Hot water tank must be installed in a well-ventilated area

General Requirements: Must be met by all systems to which the requirement is applicable:

- 1. Unit shall be per 2015 ASHRAE 90.1-2015
- 2. Hot water pipe insulation: 1 in. for pipes up to 1 1/2 in. and 2 in. for pipes up to 1 1/2 in. Cold water/insulation/insulation up to 1 in. for pipes up to 1 1/2 in. and 1 1/2 in. for pipes up to 1 1/2 in. Steam pipe insulation: 1 1/2 in. for pipes up to 1 1/2 in. and 2 in. for pipes up to 1 1/2 in.
- 3. Exhaust: Flue gas must be vented
- 4. Exhaust: Flue gas must be vented
- 5. Exhaust: Flue gas must be vented
- 6. Exhaust: Flue gas must be vented
- 7. Exhaust: Flue gas must be vented
- 8. Exhaust: Flue gas must be vented
- 9. Exhaust: Flue gas must be vented
- 10. Exhaust: Flue gas must be vented
- 11. Exhaust: Flue gas must be vented
- 12. Exhaust: Flue gas must be vented
- 13. Exhaust: Flue gas must be vented
- 14. Exhaust: Flue gas must be vented
- 15. Exhaust: Flue gas must be vented
- 16. Exhaust: Flue gas must be vented
- 17. Exhaust: Flue gas must be vented
- 18. Exhaust: Flue gas must be vented
- 19. Exhaust: Flue gas must be vented
- 20. Exhaust: Flue gas must be vented
- 21. Exhaust: Flue gas must be vented
- 22. Exhaust: Flue gas must be vented
- 23. Exhaust: Flue gas must be vented
- 24. Exhaust: Flue gas must be vented
- 25. Exhaust: Flue gas must be vented
- 26. Exhaust: Flue gas must be vented
- 27. Exhaust: Flue gas must be vented
- 28. Exhaust: Flue gas must be vented
- 29. Exhaust: Flue gas must be vented
- 30. Exhaust: Flue gas must be vented
- 31. Exhaust: Flue gas must be vented
- 32. Exhaust: Flue gas must be vented
- 33. Exhaust: Flue gas must be vented
- 34. Exhaust: Flue gas must be vented
- 35. Exhaust: Flue gas must be vented
- 36. Exhaust: Flue gas must be vented
- 37. Exhaust: Flue gas must be vented
- 38. Exhaust: Flue gas must be vented
- 39. Exhaust: Flue gas must be vented
- 40. Exhaust: Flue gas must be vented
- 41. Exhaust: Flue gas must be vented
- 42. Exhaust: Flue gas must be vented
- 43. Exhaust: Flue gas must be vented
- 44. Exhaust: Flue gas must be vented
- 45. Exhaust: Flue gas must be vented
- 46. Exhaust: Flue gas must be vented
- 47. Exhaust: Flue gas must be vented
- 48. Exhaust: Flue gas must be vented
- 49. Exhaust: Flue gas must be vented
- 50. Exhaust: Flue gas must be vented
- 51. Exhaust: Flue gas must be vented
- 52. Exhaust: Flue gas must be vented
- 53. Exhaust: Flue gas must be vented
- 54. Exhaust: Flue gas must be vented
- 55. Exhaust: Flue gas must be vented
- 56. Exhaust: Flue gas must be vented
- 57. Exhaust: Flue gas must be vented
- 58. Exhaust: Flue gas must be vented
- 59. Exhaust: Flue gas must be vented
- 60. Exhaust: Flue gas must be vented
- 61. Exhaust: Flue gas must be vented
- 62. Exhaust: Flue gas must be vented
- 63. Exhaust: Flue gas must be vented
- 64. Exhaust: Flue gas must be vented
- 65. Exhaust: Flue gas must be vented
- 66. Exhaust: Flue gas must be vented
- 67. Exhaust: Flue gas must be vented
- 68. Exhaust: Flue gas must be vented
- 69. Exhaust: Flue gas must be vented
- 70. Exhaust: Flue gas must be vented
- 71. Exhaust: Flue gas must be vented
- 72. Exhaust: Flue gas must be vented
- 73. Exhaust: Flue gas must be vented
- 74. Exhaust: Flue gas must be vented
- 75. Exhaust: Flue gas must be vented
- 76. Exhaust: Flue gas must be vented
- 77. Exhaust: Flue gas must be vented
- 78. Exhaust: Flue gas must be vented
- 79. Exhaust: Flue gas must be vented
- 80. Exhaust: Flue gas must be vented
- 81. Exhaust: Flue gas must be vented
- 82. Exhaust: Flue gas must be vented
- 83. Exhaust: Flue gas must be vented
- 84. Exhaust: Flue gas must be vented
- 85. Exhaust: Flue gas must be vented
- 86. Exhaust: Flue gas must be vented
- 87. Exhaust: Flue gas must be vented
- 88. Exhaust: Flue gas must be vented
- 89. Exhaust: Flue gas must be vented
- 90. Exhaust: Flue gas must be vented
- 91. Exhaust: Flue gas must be vented
- 92. Exhaust: Flue gas must be vented
- 93. Exhaust: Flue gas must be vented
- 94. Exhaust: Flue gas must be vented
- 95. Exhaust: Flue gas must be vented
- 96. Exhaust: Flue gas must be vented
- 97. Exhaust: Flue gas must be vented
- 98. Exhaust: Flue gas must be vented
- 99. Exhaust: Flue gas must be vented
- 100. Exhaust: Flue gas must be vented

Project Title: Brian Donnelly Site Upgrade LLC
Date Issued: 11/07/2022
Page 1 of 1

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design submitted in this document is consistent with the building plans, specifications and other information submitted with this permit application. The proposed mechanical systems have been designed to meet the Georgia Commercial Code requirements in accordance with Section 5.0.0 and to comply with the minimum requirements in the Requirements Checklist.

Section 6: Post Construction Compliance Statement

Post Construction Compliance Statement: The proposed mechanical design submitted in this document is consistent with the building plans, specifications and other information submitted with this permit application. The proposed mechanical systems have been designed to meet the Georgia Commercial Code requirements in accordance with Section 5.0.0 and to comply with the minimum requirements in the Requirements Checklist.

Principal Mechanical Designer Name: [blank] Signature: [blank] Date: [blank]

Project Title: Brian Donnelly Site Upgrade LLC
Date Issued: 11/07/2022
Page 2 of 2

ARCHITECTURAL & CONSTRUCTION

BRIAN DONNELLY
SITE SAFES LLC

COMCHECK ENERGY CODE COMPLIANCE

BRIAN DONNELLY
ESTEBAN ALVAREZ

678-548-1887

DEC 2028

DATE: [blank] TIME: [blank]

PLANNING & DEVELOPMENT

NEW OFFICE
ADDITION TO EXISTING OFFICE

100 MC CONNELL DRIVE

TAX PARCEL #

PROJECT NUMBER
14-08

DRAWING NUMBER
EN-1

MARSHALL & BOLLWERK
ENGINEERING, INC.

850 North Point Pkwy, Suite 375
Alpharetta, GA 30005
P: 678-765-0333, F: 678-765-0089
E: mbe@mbinc.com

MECHANICAL NOTES:**GENERAL:**

1. CONTRACTOR SHALL VERIFY ALL CODES, ORDINANCES, AND STANDARDS FOR ALL ITEMS REQUIRING CLARIFICATION. PROVIDE COMPLETE FUNCTIONAL NAME SYSTEM WITH ALL ACCESSORIES REQUIRED FOR PROPER OPERATION AND SUBMIT TO THE OWNER AT THE END OF THE PROJECT FOR 70-DAY REVIEW.

2. THE SYSTEMS SHALL BE IDENTIFIED BY NAME, MAKE, MODEL, AND LOCATION. PROVIDE ACCESSIBILITY LISTS AND ORIGINATES.

3. ALL MECHANICAL EQUIPMENT SHALL BE IDENTIFIED BY NAME, MAKE, MODEL, AND LOCATION. PROVIDE ACCESSIBILITY LISTS AND ORIGINATES.

4. ALL MECHANICAL EQUIPMENT SHALL BE IDENTIFIED BY NAME, MAKE, MODEL, AND LOCATION. PROVIDE ACCESSIBILITY LISTS AND ORIGINATES.

5. THE CONTRACTOR SHALL PROVIDE DUCT CONSTRUCTION SHOP DRAWINGS TO SCALE, ONE (1) SHEET (14" x 11") SUBMIT TO THE OWNER FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION. DUCT SHOP DRAWINGS SHALL BE UPDATED DURING CONSTRUCTION TO SHOW ANY CHANGES MADE DURING CONSTRUCTION AND SUBMITTED TO THE OWNER AT THE END OF THE PROJECT FOR 70-DAY REVIEW.

6. THE MECHANICAL SUBCONTRACTOR SHALL COORDINATE THE SPACE REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT AND DUCTWORK WITH THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND FABRICATING OF STRUCTURAL ELEMENTS, INCLUDING ROOF THROUGHS, TO SUIT THE PROPOSED ROUTING OF THE DUCTWORK AND LOCATION OF EQUIPMENT. PROVIDE ADEQUATE CLEARANCES AROUND AND ACCESS TO ALL EQUIPMENT FOR MAINTENANCE.

7. WALL, FLOOR OR CEILING SURFACES DETACHED DURING THE COURSE OF THE MECHANICAL WORK SHALL BE REPAIRED TO MATCH NEW JAIL DURING SURROUNDING CONDITIONS.

8. REFER TO ARCHITECT'S REFLECTED CEILING PLANS FOR LOCATION OF LOCATIONS AND OTHER CEILING LOCATED DEVICES. COORDINATE AIR DISTRIBUTION DEVICES WITH THE REFLECTED CEILING PLAN. IF A PARTICULAR ITEM CANNOT BE LOCATED APPROPRIATELY AS SHOWN ON THE HVAC LAYOUT THE CONTRACTOR SHALL PREPARE A DRAWING SHOWING A PROPOSED LOCATION AND SUBMIT IT TO THE OWNER FOR APPROVAL.

9. COORDINATE THE INSTALLATION OF THE DUCTWORK, EQUIPMENT, PIPING, ETC., TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL & STRUCTURAL CONDITIONS. CUTTING OR ALTERING ANY STRUCTURAL MEMBER SHALL NOT BE PERMITTED.

10. DO NOT SCALE DUCTWORK SHALL VERIFY ALL TYPES, MATERIALS, TEMPERATURES AND PRESSURES BEFORE CONSTRUCTION OR OPERATION OF ANY MATERIALS.

11. WHERE DUCT OR PIPE SECTION SIZE IS NOT INDICATED, IT SHALL BE THE SAME SIZE AS THE LAST USED SECTION.

12. ALL PENETRATIONS THROUGH FIRE RATED FLOORS, CEILING, WALLS AND PARTITIONS SHALL BE FIRE STOPPED TO COMPLY WITH THE APPLICABLE CODE, INCLUDING RESISTANCE, OF THE STANDARD BUILDING CODE, STANDARD MECHANICAL CODE AND LOCAL FIRE MARSHAL. REQUIREMENTS FIRE STOP SYSTEM USED SHALL BE UL LISTED AND SHALL BE SUITABLE FOR THE PENETRATING AND PENETRATED MATERIALS. THE WORK SHALL BE INSPECTED AND CERTIFIED BY THE MECHANICAL SUBCONTRACTOR'S REPRESENTATIVE.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF OWN PERSONNEL EMPLOYED ON THE PROJECT AND IN PARTICULAR WHEN WORKING IN CONFINED SPACES AND SHALL COMPLY WITH OSHA REQUIREMENTS.

14. THE SCHEDULED "BIDS OF DESIGN" IS INTENDED TO INDICATE THE PERFORMANCE REQUIRED FOR THE PARTICULAR ITEM OF EQUIPMENT. SUBSTITUTIONS WILL BE PERMITTED. SUBSTITUTIONS SHALL BE DESIGNED TO INCLUDE ALL NECESSARY CHANGES TO BUILDING, STRUCTURE & OTHER SERVICES WITHOUT ANY ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT SUBSTITUTIONS SHALL FIT INTO THE SPACE AVAILABLE WITH PROVISIONS FOR PROPER ACCESS, MAINTENANCE, PART REPLACEMENT, WEIGHT ALLOWANCE & FOR COORDINATION WITH OTHER TRADES (INCLUDING ELECTRICAL, PLUMBING, STRUCTURAL AND ARCHITECTURAL).

15. MANUFACTURER CATALOG SHOP DRAWINGS SUBMITTED SHALL BE MARKED TO INDICATE PROJECT SPECIFIC INFORMATION, FULL MODEL NUMBERS, IDENTIFY AND HIGHLIGHT SPECIFIC EQUIPMENT CAPABILITIES. HIGHLIGHT INCLUDED OPTIONS AND EXCLUDE THOSE THAT ARE NOT PROVIDED. CLEARLY IDENTIFY OPTIONS FROM OPTIONS NOT PROVIDED.

16. ALL EQUIPMENT PROVIDED SHALL BE COMMERCIALLY AVAILABLE PRODUCTS SPECIFICALLY MADE FOR THE APPLICATION FOR WHICH IT IS INTENDED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND START-UP INSTRUCTIONS.

17. A TECHNICIAN, FACTORY TRAINED AND CERTIFIED BY THE MANUFACTURER OF THE HVAC EQUIPMENT PROVIDED SHALL PROVIDE THE START-UP CHECKS AND SHALL SUBMIT A REPORT TO THE OWNER ON EACH SYSTEM. THIS REPORT SHALL INCLUDE CERTIFICATION, IN WRITING, THAT EQUIPMENT IS CORRECTLY INSTALLED, INCLUDING PROPER DRAINAGE FROM DRAIN PANS AND SEALING OF ALL AIR LEAKS. ELECTRICAL CONNECTIONS AND TERMINAL BOXES, GAS PIPING IS LEAK FREE. ROOF/CEILING FILTER ARE CLEAN, IN PLACE AND EASILY REPLACEABLE. FANS AND COMPRESSORS ROTATE CORRECTLY. ELECTRICAL AMP DRAWING AND CURRENTS ARE WITHIN MANUFACTURER'S RATED CAPACITIES. RECOMMENDED LISTS, REFRIGERANT SIZES AND DISCHARGE PRESSURES FOR ALL CIRCUITS WITH STATEMENT THAT SYSTEMS ARE CORRECTLY CHARGED.

18. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

19. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

20. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

21. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

22. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

23. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

24. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

25. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

26. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

27. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

28. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

29. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

30. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

31. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

32. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

33. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

34. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

35. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

36. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

37. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

38. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

39. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

40. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

41. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

42. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

43. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

44. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

45. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

33. FIRE DAMPERS SHALL BE THE FOLLOWING BLADE TYPE WITH DAMPER BLADES OUT OF THE AIR STREAM WHEN IN THE OPEN POSITION. DAMPERS SHALL BE UL LISTED FOR INSTALLATION IN 2-HOUR FIRE RATED WALLS AND PARTITIONS. DAMPERS SHALL BE DESIGNED AND APPROVED FOR VERTICAL INSTALLATION IN WALLS AND PARTITIONS AND FOR HORIZONTAL INSTALLATION IN FLOORS. DAMPER ASSEMBLIES SHALL BE CALIBRATED FOR CORROSION RESISTANCE AND MATERIALS FOR CONSTRUCTION SHALL CONFORM TO UL STANDARDS FOR SAFETY (UL555). FIRE DAMPERS SHALL SUIT THE FIRE RATINGS SHOWN ON THE ARCHITECTURAL PLANS. PROVIDE ACCESSIBILITY LISTS AND ORIGINATES.

34. PROVIDE ACCESS DOORS, ROOFMATES MOUNTING ANCHORS AND, UNLESS THE SLIDES ARE INTEGRAL WITH THE DAMPERS, PROVIDE GALVANIZED STEEL SLEEVES FOR ALL FIRE AND SMOKE DAMPERS. INSTALL THE FIRE AND SMOKE DAMPERS IN ACCORDANCE WITH THE MANUFACTURER'S UL INSTALLATION INSTRUCTIONS. DAMPER ASSEMBLIES SHALL BE SEALED AGAINST AIR LEAKAGE. RECOMMENDED LIST, REFRIGERANT SIZES AND DISCHARGE PRESSURES FOR ALL CIRCUITS WITH STATEMENT THAT SYSTEMS ARE CORRECTLY CHARGED.

35. THE CONTRACTOR SHALL PROVIDE DUCT CONSTRUCTION SHOP DRAWINGS TO SCALE, ONE (1) SHEET (14" x 11") SUBMIT TO THE OWNER FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION. DUCT SHOP DRAWINGS SHALL BE UPDATED DURING CONSTRUCTION TO SHOW ANY CHANGES MADE DURING CONSTRUCTION AND SUBMITTED TO THE OWNER AT THE END OF THE PROJECT FOR 70-DAY REVIEW.

36. THE MECHANICAL SUBCONTRACTOR SHALL COORDINATE THE SPACE REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT AND DUCTWORK WITH THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND FABRICATING OF STRUCTURAL ELEMENTS, INCLUDING ROOF THROUGHS, TO SUIT THE PROPOSED ROUTING OF THE DUCTWORK AND LOCATION OF EQUIPMENT. PROVIDE ADEQUATE CLEARANCES AROUND AND ACCESS TO ALL EQUIPMENT FOR MAINTENANCE.

37. WALL, FLOOR OR CEILING SURFACES DETACHED DURING THE COURSE OF THE MECHANICAL WORK SHALL BE REPAIRED TO MATCH NEW JAIL DURING SURROUNDING CONDITIONS.

38. REFER TO ARCHITECT'S REFLECTED CEILING PLANS FOR LOCATION OF LOCATIONS AND OTHER CEILING LOCATED DEVICES. COORDINATE AIR DISTRIBUTION DEVICES WITH THE REFLECTED CEILING PLAN. IF A PARTICULAR ITEM CANNOT BE LOCATED APPROPRIATELY AS SHOWN ON THE HVAC LAYOUT THE CONTRACTOR SHALL PREPARE A DRAWING SHOWING A PROPOSED LOCATION AND SUBMIT IT TO THE OWNER FOR APPROVAL.

39. COORDINATE THE INSTALLATION OF THE DUCTWORK, EQUIPMENT, PIPING, ETC., TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL & STRUCTURAL CONDITIONS. CUTTING OR ALTERING ANY STRUCTURAL MEMBER SHALL NOT BE PERMITTED.

40. DO NOT SCALE DUCTWORK SHALL VERIFY ALL TYPES, MATERIALS, TEMPERATURES AND PRESSURES BEFORE CONSTRUCTION OR OPERATION OF ANY MATERIALS.

41. WHERE DUCT OR PIPE SECTION SIZE IS NOT INDICATED, IT SHALL BE THE SAME SIZE AS THE LAST USED SECTION.

42. ALL PENETRATIONS THROUGH FIRE RATED FLOORS, CEILING, WALLS AND PARTITIONS SHALL BE FIRE STOPPED TO COMPLY WITH THE APPLICABLE CODE, INCLUDING RESISTANCE, OF THE STANDARD BUILDING CODE, STANDARD MECHANICAL CODE AND LOCAL FIRE MARSHAL. REQUIREMENTS FIRE STOP SYSTEM USED SHALL BE UL LISTED AND SHALL BE SUITABLE FOR THE PENETRATING AND PENETRATED MATERIALS. THE WORK SHALL BE INSPECTED AND CERTIFIED BY THE MECHANICAL SUBCONTRACTOR'S REPRESENTATIVE.

43. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF OWN PERSONNEL EMPLOYED ON THE PROJECT AND IN PARTICULAR WHEN WORKING IN CONFINED SPACES AND SHALL COMPLY WITH OSHA REQUIREMENTS.

44. THE SCHEDULED "BIDS OF DESIGN" IS INTENDED TO INDICATE THE PERFORMANCE REQUIRED FOR THE PARTICULAR ITEM OF EQUIPMENT. SUBSTITUTIONS WILL BE PERMITTED. SUBSTITUTIONS SHALL BE DESIGNED TO INCLUDE ALL NECESSARY CHANGES TO BUILDING, STRUCTURE & OTHER SERVICES WITHOUT ANY ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT SUBSTITUTIONS SHALL FIT INTO THE SPACE AVAILABLE WITH PROVISIONS FOR PROPER ACCESS, MAINTENANCE, PART REPLACEMENT, WEIGHT ALLOWANCE & FOR COORDINATION WITH OTHER TRADES (INCLUDING ELECTRICAL, PLUMBING, STRUCTURAL AND ARCHITECTURAL).

45. MANUFACTURER CATALOG SHOP DRAWINGS SUBMITTED SHALL BE MARKED TO INDICATE PROJECT SPECIFIC INFORMATION, FULL MODEL NUMBERS, IDENTIFY AND HIGHLIGHT SPECIFIC EQUIPMENT CAPABILITIES. HIGHLIGHT INCLUDED OPTIONS AND EXCLUDE THOSE THAT ARE NOT PROVIDED. CLEARLY IDENTIFY OPTIONS FROM OPTIONS NOT PROVIDED.

46. ALL EQUIPMENT PROVIDED SHALL BE COMMERCIALLY AVAILABLE PRODUCTS SPECIFICALLY MADE FOR THE APPLICATION FOR WHICH IT IS INTENDED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION AND START-UP INSTRUCTIONS.

47. A TECHNICIAN, FACTORY TRAINED AND CERTIFIED BY THE MANUFACTURER OF THE HVAC EQUIPMENT PROVIDED SHALL PROVIDE THE START-UP CHECKS AND SHALL SUBMIT A REPORT TO THE OWNER ON EACH SYSTEM. THIS REPORT SHALL INCLUDE CERTIFICATION, IN WRITING, THAT EQUIPMENT IS CORRECTLY INSTALLED, INCLUDING PROPER DRAINAGE FROM DRAIN PANS AND SEALING OF ALL AIR LEAKS. ELECTRICAL CONNECTIONS AND TERMINAL BOXES, GAS PIPING IS LEAK FREE. ROOF/CEILING FILTER ARE CLEAN, IN PLACE AND EASILY REPLACEABLE. FANS AND COMPRESSORS ROTATE CORRECTLY. ELECTRICAL AMP DRAWING AND CURRENTS ARE WITHIN MANUFACTURER'S RATED CAPACITIES. RECOMMENDED LISTS, REFRIGERANT SIZES AND DISCHARGE PRESSURES FOR ALL CIRCUITS WITH STATEMENT THAT SYSTEMS ARE CORRECTLY CHARGED.

48. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

49. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

50. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

51. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

52. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

53. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

54. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

55. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

56. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

57. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

58. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

59. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

60. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

61. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

62. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

63. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

64. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

65. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

66. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

67. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

68. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

69. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

70. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

71. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

72. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

73. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

74. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

75. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

76. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

77. ALL CONTROL WIRING & TRANSFORMERS SHALL BE SUPPLIED UNDER THE MECHANICAL CONTRACT. ALL MECHANICAL CONTROLS SHALL BE SUPPLIED BY THE MECHANICAL CONTRACTOR.

78. THE CONTRACTOR SHALL VERIFY THE ELECTRICAL SUPPLY VOLTAGES AND PHASES ON THE ELECTRICAL PLANS AND ON SITE BEFORE ORDERING ANY ELECTRICALLY OPERATED EQUIPMENT. ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE PROVIDED & INSTALLED WITH SUITABLY PROTECTED AND RATED DISCONNECT SWITCHES.

79. MOUNT THERMOSTATS AS INDICATED ON PLANS 48" A.F.F. UNLESS OTHERWISE NOTED OR AS REQUIRED FOR ACCESSIBILITY CODE COMPLIANCE. COORDINATE LOCATION OF THERMOSTATS WITH CABINETS AND OTHER SERVICES. THE THERMOSTATS SHALL NOT BE INSTALLED ON OUTSIDE WALLS. IN THE DIRECT AIR FROM ANY DIFFUSER OR WHERE IT MAY BE INFLUENCED BY HEAT GIVEN OFF FROM EQUIPMENT.

TEST AND BALANCE

54. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF AN INDEPENDENT TEST, ADJUSTMENT AND BALANCE (TAB) AND COMMISSIONING AGENCY TO TEST, ADJUST, BALANCE AND COMMISSION:

A. EACH SUPPLY AIR, RETURN, EXHAUST AND OUTDOOR AIR DISTRIBUTION SYSTEM.
B. EACH CONTROL SYSTEM INCLUDING CALIBRATE ALL CONTROL ELEMENTS AND CHECK OPERATION INCLUDING ALL INTERLOCKS.
C. OVERALL BUILDING AIR BALANCE.

D. REPORT ON ALL OF THE ABOVE.

55. TESTING AND BALANCING OF AIR DISTRIBUTION SYSTEMS SHALL BE PERFORMED AT MINIMUM IN ACCORDANCE WITH ASHRAE NATIONAL STANDARDS, FIFTH EDITION, 1989. TEST AND BALANCE SHALL INCLUDE ALL EQUIPMENT AND DISTRIBUTION SYSTEMS AND SHALL BE REPORTED AS A MINIMUM ON FORMS AS PROVIDED BY THE TAB. (PAGE 213 AND 214 OF THE STANDARDS MANUAL). NEER EQUIVALENT OR OTHER APPROVED EQUIVALENT.

56. THE AGENCY SHALL, UNLESS EXPRESSLY OTHERWISE BY THE OWNER, BE AN ASBC OR NEER MEMBER AND THE TAB WORK SHALL BE DONE BY AN ASBC OR NEER CERTIFIED TEST AND BALANCE TECHNICIAN AND COMMISSIONING AGENT.

57. THE CONTROL SYSTEM OPERATION SHALL BE CHECKED FOR PROPER CALIBRATION AND OPERATION AND A REPORT ON THE OPERATION AND ADJUSTMENT SHALL BE SUBMITTED TO THE OWNER. THE TAB AGENCY SHALL VERIFY BY CHECK MEASUREMENTS USING INDEPENDENT INSTRUMENTS IN THE FIELD TO ENSURE THAT THE CONTROLS INDICATION IS ACCURATE. EVERY SAFETY AND ALARM INTERLOCK SHALL BE CHECKED. THE INTERFACE WITH THE BUILDING FIRE ALARM SYSTEM SHALL BE CHECKED.

58. THE TAB AGENCY SHALL CHECK ALL THE SYSTEMS OPERATING TOGETHER TO ENSURE THAT THE AIR CONDITIONED SPACES ARE UNDER AN OVERALL POSITIVE PRESSURE. SHALL CHECK AND REPORT THAT THE BUILDING ENVELOPE IS PROPERLY SEALED AND UNCONTROLLED AIR LEAKAGE INTO THE BUILDING DOES NOT OCCUR. SHALL CHECK THAT RETURN AND EXHAUST DUCTS LOCATED OUTSIDE THE AIR CONDITIONED SPACE ARE SEALED. SHALL CHECK SUPPLY AIR DUCTS FOR LEAKS TO ENSURE THAT COLD AIR LEAKAGE DOES NOT CAUSE CONDENSATION ON DUCT, EQUIPMENT AND BUILDING SURFACES ABOVE THE CEILING (DURING SUMMER MONTHS). SHALL CHECK RETURN AND EXHAUST GRILLES FOR PROPER SEAL AT DUCT CONNECTIONS TO ENSURE THAT AIR DOES NOT ENTER THESE DUCTS THROUGH UNCONTROLLED WALLS, CHASES, ETC.

59. THE TAB AGENCY SHALL CHECK ALL REFRIGERATION LINES FOR COMPLIANCE WITH THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. SHALL CHECK SUPPORT SETTINGS ON ALL SYSTEMS WITH LINES LONGER THAN 50 FEET.

60. INSTRUMENTS USED FOR TESTING AND BALANCING SHALL HAVE BEEN CALIBRATED WITHIN A PERIOD OF SIX MONTHS OF THE TIME OF THE TESTING AND BALANCING AND SUCH INSTRUMENTS SHALL BE CHECKED FOR ACCURACY PRIOR TO START OF WORK. SUBMIT VERIFICATION OF CERTIFICATION TO THE OWNER.

61. FOUR COPIES OF THE COMPLETE TEST REPORT SHALL BE SUBMITTED TO THE OWNER PRIOR TO FINAL INSPECTION OF THE PROJECT.

62. THE TAB REPORT SHALL INCLUDE A LIST OF ALL DEFICIENCIES FOUND DURING THE PRELIMINARY TESTING AND A CONTRACTOR RESPONSE INDICATING REMEDIAL ACTION TAKEN FOR EACH ITEM. THE TAB WORK SHALL NOT BE DEEMED DONE WITHOUT THIS REPORT.

SYMBOL MECHANICAL LEGEND

1. FLOOR MOUNTED SUPPLY REGISTER - HART & DOOLEY MODEL 210 - 3 WAY DEFLECTION WITH DAMPER

2. FLOOR MOUNTED RETURN GRILLE - HART & DOOLEY MODEL 265 - SIZE LISTED ON PLANS

3. PROVIDE RECTANGULAR TO ROUND TRANSITION

4. CEILING MOUNTED SUPPLY REGISTER - HART & DOOLEY MODEL 953 - 3 WAY DEFLECTION WITH DAMPER

5. PROVIDE RECTANGULAR TO ROUND TRANSITION

6. CEILING MOUNTED RETURN GRILLE - HART & DOOLEY MODEL 472 - SEE LISTED ON PLANS

7. PROVIDE RECTANGULAR TO ROUND TRANSITION

8. MANUAL VOLUME DAMPER

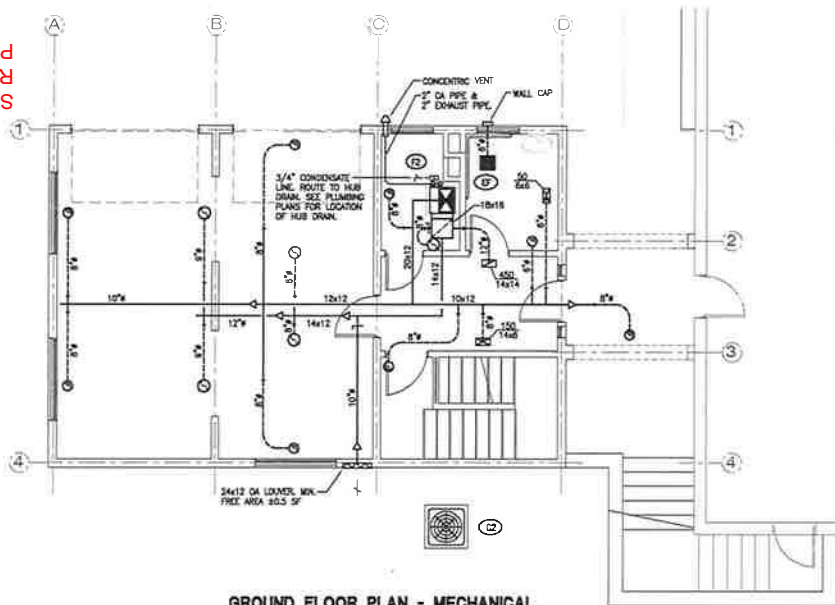
9. ROOF RECTANGULAR OR ROUND DUCTWORK

10. FLEXIBLE DUCT

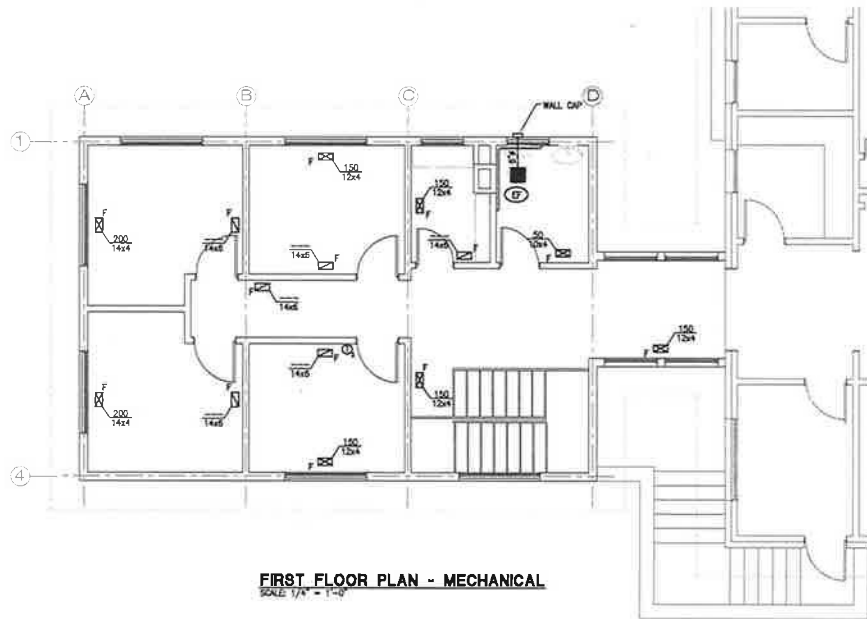
11. ELECTRONIC PROGRAMMABLE THERMOSTAT

12. REGISTER AIRFLOW & FACE SIZE: AIRFLOW (CFM) FACE SIZE

SUP2022-00076
RECEIVED 09-07-2022
PLANNING AND DEVELOPMENT



GROUND FLOOR PLAN - MECHANICAL
SCALE: 1/4" = 1'-0"



FIRST FLOOR PLAN - MECHANICAL
SCALE: 1/4" = 1'-0"

OUTSIDE AIR REQUIREMENTS:

THE HVAC SYSTEM OUTDOOR AIR QUANTITY IN THE BUILDING MEETS THE REQUIREMENTS FOR THE VENTILATION RATE PROCEDURE PER CHAPTER 4 OF THE 2006 INTERNATIONAL MECHANICAL CODE, TABLE 403.3.

OFFICE AREA:
190 SQUARE FEET OF OCCUPABLE SPACE X 7 PEOPLE PER 1000 SQUARE FEET = 1.3 PEOPLE
2 PEOPLE (20 CFM/PERSON) = 40 CFM OUTSIDE AIR

CONFERENCE ROOM:
40 SQUARE FEET OF OCCUPABLE SPACE X 50 PEOPLE PER 1000 SQUARE FEET = 2 PEOPLE
2 PEOPLE (20 CFM/PERSON) = 40 CFM OUTSIDE AIR

CORRIDORS:
3MS SF X 0.05 CFM/SF = 16.75 CFM

TOILET ROOM:
75 CFM PER TOILET OR URINAL X 2 TOILET = 150 CFM

TOTAL OUTSIDE AIR REQUIRED: = 40 + 40 + 16.75 + 150 = 246.75 CFM

OUTSIDE AIR PROVIDED BY F2: = 250 CFM

1. HVAC SYSTEM DESIGN ASSUMES: NO-SMOKING WILL BE PERMITTED IN THE BUILDING
2. OCCUPIED ZONE IS DEFINED - THE OCCUPIED ZONE SHALL HAVE BOUNDARIES MEASURED AT 3' & 7' AFF AND 24' FROM THE ENCLOSING WALLS (2000 INTERNATIONAL CODE SECTION 403.1).

A
ARCHITECTURAL
& CONSTRUCTION

BRIAN DONNELLY
SITE SCOPES LLC

MECHANICAL PLANS

DATE: 11/1/2022
TIME: 11:00 AM
DRAWN BY: BRIAN DONNELLY
CHECKED BY: ESTEBAN ACEVEDO
DATE: 11/1/2022
TIME: 11:00 AM

DATE: 11/1/2022
TIME: 11:00 AM
DRAWN BY: BRIAN DONNELLY
CHECKED BY: ESTEBAN ACEVEDO
DATE: 11/1/2022
TIME: 11:00 AM

**NEW OFFICE
ADDITION TO EXISTING OFFICE**

ZONED TAX PARCEL #
108 MC CONNELL DRIVE

PROJECT NUMBER
14-08

DRAWING NUMBER
M-2

**MARSHALL & BOLLWERK
ENGINEERING, INC.**
850 North Point Pkwy, Suite 375
Alpharetta, Ga. 30005
P: (770) 765-0333 F: (770) 765-0065
WWW.MARSHALLBOLLWERK.COM

PLANNING AND DEVELOPMENT

RECEIVED 09-07-2022
09-07-2022

FURNACE SCHEDULE

MARK	RUE GPM	SUPPLY TEMP °F	RETURN TEMP °F	HEATING DATA	COOLING DATA	ELECTRICAL DATA	MCA	MDP	NOTES
				INPUT CAPACITY MBH	OUTPUT CAPACITY MBH	WATER FLOW GPM			
F2	1400	250	0.50	1/2	58	1/2	93K	CNPP4021	

- NOTES**
- SPECIFIED CAPACITIES ARE BASED ON 80°F DB/67°F WB ENTERING AIR AND 95°F OUTDOOR AMBIENT TEMPERATURE.
 - COMPLY WITH THE EQUIPMENT MANUFACTURER'S "FLOW LINE" INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. PROVIDE ALL ACCESSORIES RECOMMENDED.
 - STATIC PRESSURE (SP) SHOWN IS EXTERNAL TO FURNACE'S FOR SUPPLY & RETURN AIR DUCTING AND REGISTERS ONLY. COOLING COIL, FILTER PRESSURE DROP TO BE INCLUDED IN THE TOTAL PRESSURE DROP FOR EQUIPMENT PROVIDED TO ACHIEVE THE CAPACITIES SPECIFIED (AS WARRANTED).
 - COMPLY WITH THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS FOR PLUMBING, WIRING, AND MATERIALS.
 - PROVIDE INTERNALLY ADJUSTABLE, UNID. RETURN AIR INTAKE PLenums FOR ALL UNITS. PLENUMS SHALL MATCH THE CROSS SECTIONAL SIZE OF THE UNITS AND SHALL BE 24" HIGH MINIMUM OR AS REQUIRED TO SUIT THE RETURN AIR DUCT CONNECTIONS. MOUNT ENTIRE ASSEMBLY OVER A 2" DEEP DRIP TRAY.
 - CONTRACTOR SHALL VERIFY SELECTION OF MODELS SELECTIONS FOR FURNACE, COOLING COILS & CONDENSING UNITS WITH THE MANUFACTURER'S REPRESENTATIVE TO ENSURE CORRECT MATCH. ADVISE OWNER OF ANY DISCREPANCY. PROVIDE DUCT ADAPTERS BETWEEN FURNACE & COIL CASINGS AS REQUIRED & AS RECOMMENDED BY THE MANUFACTURER.
 - PROVIDE WITH CONCENTRIC VENT, CONDENSATE TRAP & SIDE FILTER RACK.
 - PROVIDE WITH ELECTRONIC PROGRAMMABLE THERMOSTAT.
 - PROVIDE A 12" X 12" MIN. DUCT ACCESS DOOR DOWNSTREAM OF THE COOLING COILS AS CLOSE AS POSSIBLE TO THE COIL TO ALLOW VISUAL INSPECTION OF THE COIL DISCHARGE SIDE. SHOW THESE ON THE SHOP DRAWINGS.
 - DURING CONSTRUCTION PROVIDE WITH AIR FILTERS IN COMMON RETURN/OUTDOOR AIR PATH. FILTERS SHALL BE CHANGED MIN. ONCE PER WEEK & REPLACED IF REDUCED. UPON ACCEPTANCE BY THE OWNER THE CONTRACTOR SHALL PROVIDE & INSTALL NEW CLEAN MEDIUM FILTERS. FILTERS SHALL BE FAIR 30/30, 2" MEDIUM EFFICIENCY FILTERS OR EQUAL.

SELECTIONS ARE BASED ON PRODUCTS BY CARRIER.
EQUAL PRODUCTS: LENNOX, RUUD, TRANE, YORK OR AS APPROVED BY OWNER.

CONDENSING UNIT SCHEDULE

MARK	TONS	REFRIGERANT	TOTAL COOLING MBH	BUSTON TON	SEER	VOLTS/PH/VZ	MCA	MDP	CARRIER BASED UP DESIGN	NOTES
C2	3.5	R-410A	41.0	45	13.5	230V/1/60	23.5	40	240A342	A

NOTES:
A. ALL CONDENSING UNITS SHALL BE PROVIDED WITH CYCLE PROTECTOR, HIGH PRESSURE SWITCH, TIME DELAY RELAY, CRANKCASE HEATER, THERMOSTATIC EXPANSION VALVE & SUPPORT FEET.

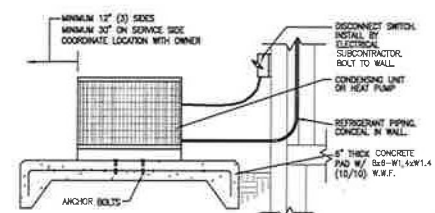
SELECTIONS ARE BASED ON PRODUCTS BY CARRIER.
EQUAL PRODUCTS: LENNOX, TRANE, YORK OR AS APPROVED BY OWNER.

EXHAUST FAN SCHEDULE

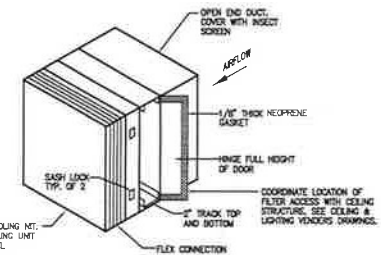
MARK	FAN GPM	HP	WATTS	VOLTS/PH/VZ	MODEL	NOTES
D	75	.375"	48 WATTS	115V/1/20	TT	ALS

NOTES:
A. PROVIDE WITH BACKDRAFT DAMPER, SQUARE TO ROUND TRANSITION & WALL CAP MODEL: S.220.
B. INTERLOCK WITH TOILET ROOM LIGHTS.

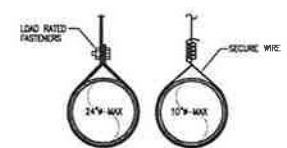
SELECTIONS ARE BASED ON PRODUCTS BY PENN VENTILATOR.
EQUAL PRODUCTS: GREENHECK, ACM, COOK



CONDENSING UNIT DETAIL:
NOT TO SCALE



EXTERNAL FILTER SECTION DETAIL:
NO SCALE



MINIMUM HANGER SIZE FOR ROUND DUCT				
DA	WIRE GA.	MAXIMUM SPACING	STRAPS	RODS
10" - 12"	(1) 12 GA.	12'	1" x 22 GA.	1/4"
12" - 18"	(2) 12 GA.	12'	1" x 22 GA.	3/8"
18" - 24"	(2) 10 GA.	12'	1" x 22 GA.	1/2"
24" - 36"	(2) 8 GA.	12'	1" x 20 GA.	3/8"

ROUND DUCT HANGERS:
NOT TO SCALE

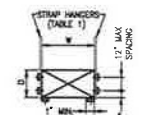
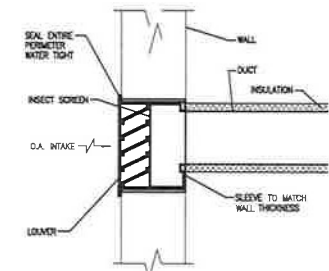


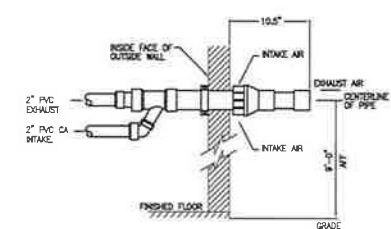
TABLE 1 STRAP HANGERS (PINS) SPACED			
W+D MAX.	10"-C" MAX.	8"-0" MAX.	5"-0" OR LESS
72"	1 1/2 22 GA.	1 1/2 22 GA.	1 1/2 22 GA.
96"		1 1/2 20 GA.	1 1/2 22 GA.
120"		1 1/2 18 GA.	1 1/2 22 GA.
168"			1 1/2 18 GA.
192"			1 1/2 18 GA.
192"+	SPECIAL ANALYSIS REQUIRED		

NOTES:
1. TABULATED DATA FROM SWANNA ALLOWES FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.
2. PROVIDE HIGH DENSITY INSULT AT TRAPZIDE FOR INSULATED DUCTS.

RECTANGULAR DUCT HANGERS:
NOT TO SCALE



LOUVER INSTALLATION:
NO SCALE



CONCENTRIC WALL TERMINATION:
NOT TO SCALE

NOTES:
1. WALL TERMINATION SHALL COMPLY WITH NFPA 54-7.6
2. VERIFY PIPE SIZE WITH FURNACE VENDOR.

MARSHALL & BOLLWERK ENGINEERING, INC.
850 North Point Pkwy, Suite 575
Alpharetta, Ga. 30005
p: 678 718-0353, f: 678 718-0085
m: mbe@mbeng.net

A
ARCHITECTURAL
& CONSTRUCTION

BRIAN DONNELLY
SITE SCAPES LLC
MECHANICAL SCHEDULES & DETAILS
BRIAN DONNELLY
XXXXXXXXXX
ESTERAN ACEVEDO
678-569-1987
DEC 2008

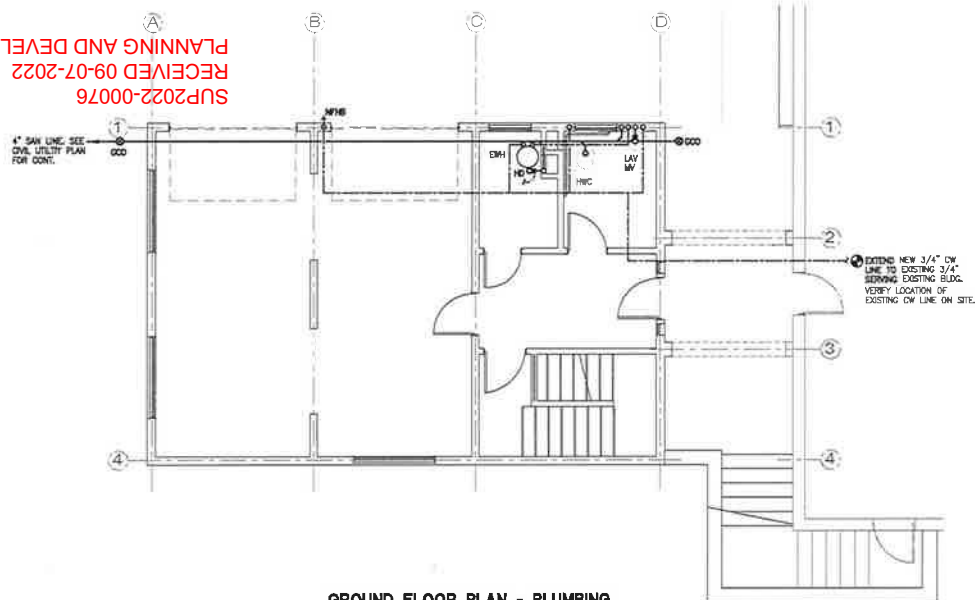
DATE	PHASE
11/03/2008	PLANNING & DEVELOPMENT

NEW OFFICE
ADDITION TO EXISTING OFFICE
ZONED
TAX PARCEL #
102 MC CONNELL DRIVE

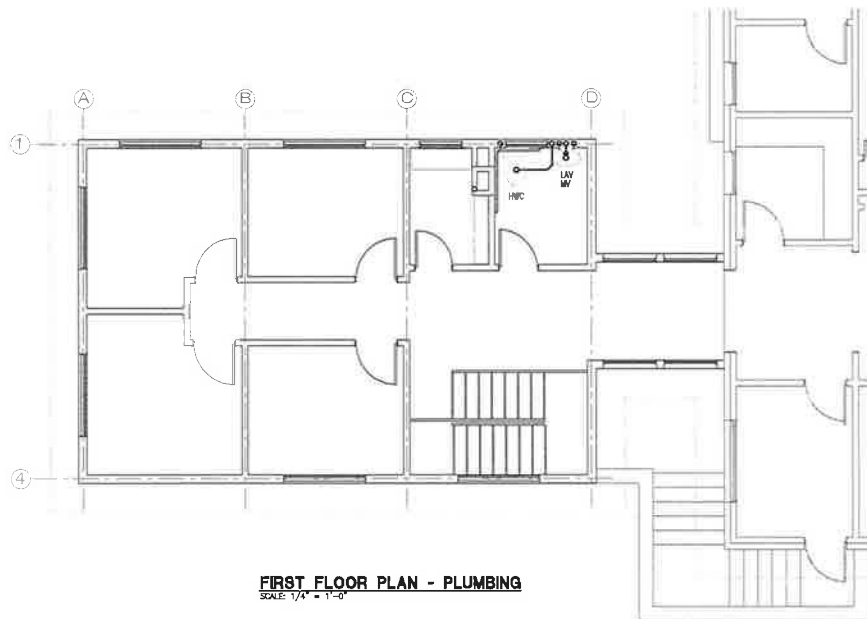
14-08

M-3

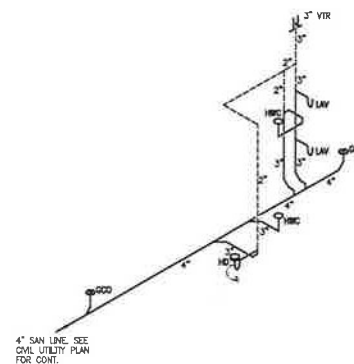
SUP2022-00076
 RECEIVED 09-07-2022
 PLANNING AND DEVELOPMENT



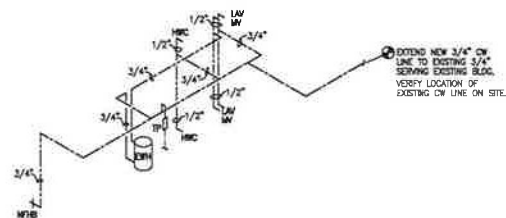
GROUND FLOOR PLAN - PLUMBING
SCALE: 1/4" = 1'-0"



FIRST FLOOR PLAN - PLUMBING
SCALE: 1/4" = 1'-0"



SANITARY WASTE & VENT RISER DIAGRAM
NOT TO SCALE



DOMESTIC WATER RISER DIAGRAM
NOT TO SCALE



A
ARCHITECTURAL
& CONSTRUCTION

BRIAN DONNELLY
SITE SCALES LLC

PLUMBING PLANS & RISERS
BRIAN DONNELLY
XXXXXXXXXX
678-549-1987
DLC 2008

DATE: 11/03/2008
PROJECT: PLUMBING & DEVELOPMENT

**NEW OFFICE
ADDITION TO EXISTING OFFICE**

TAX PARCEL #
1/1A MC CONNELL DRIVE
ZONED

PROJECT NUMBER

14-08

DRAWING NUMBER

P-2



GAS LINE SIZING NOTES:

1. GAS LINES HAVE BEEN SIZED AS PER TABLE 402.4(2) OF THE 2008 INTERNATIONAL GAS CODE - FUEL GAS FOR PRESSURES OF LESS THAN 2 PSI WITH A PRESSURE DROP OF 0.5" IN WATER COLUMN AND 0.6 SPECIFIC GRAVITY.





LAWRENCEVILLE

GEORGIA

*The City of Lawrenceville
Planning & Development*

Location Map and Surrounding Zoning

File # SUP2022-00076

Applicant: Jesus Villalobos



 Subject Property

 Parcels

 City Maintained Streets



0 250 500



LAWRENCEVILLE

GEORGIA

*The City of Lawrenceville
Planning & Development*

Location Map and Surrounding Zoning

File # SUP2022-00076

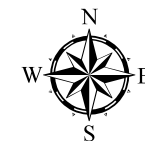
Applicant: Jesus Villalobos



 Subject Property

 Parcels

 City Maintained Streets



0 125 250



LAWRENCEVILLE

GEORGIA

*The City of Lawrenceville
Planning & Development*

Location Map and Surrounding Zoning

File # SUP2022-00076

Applicant: Jesus Villalobos

 Subject Property

 Parcels

Zoning Districts

 RS-150 Single-Family Residential

 RM-12 Multifamily Residential

 OI Office/Institutional

 LM Light Manufacturing

 HSB Highway Service Business

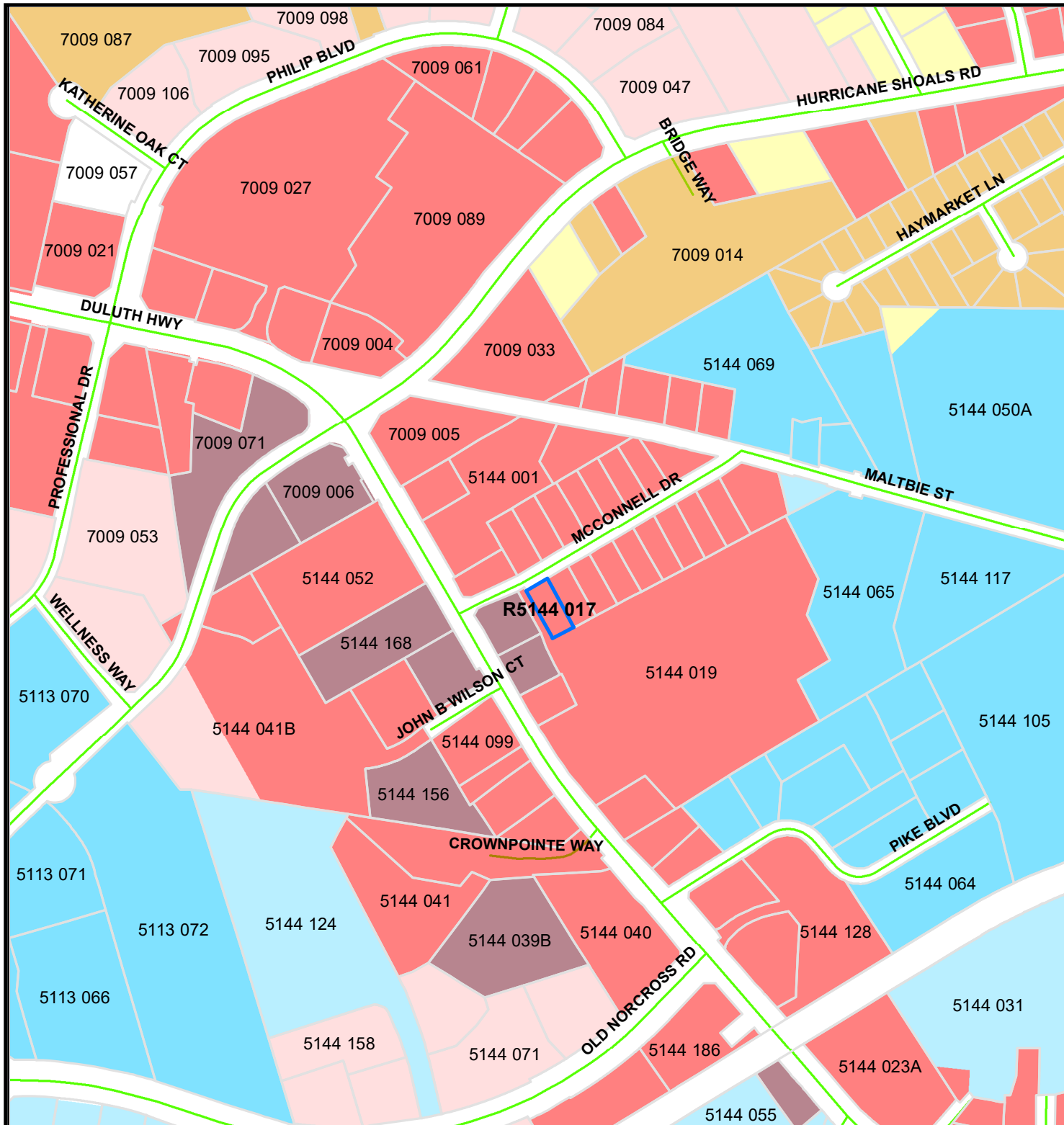
 HM Heavy Manufacturing

 BG General Business

 City Maintained Streets



0 250 500





LAWRENCEVILLE

GEORGIA

*The City of Lawrenceville
Planning & Development*

Location Map and Surrounding Zoning

File # SUP2022-00076

Applicant: Jesus Villalobos

 Subject Property

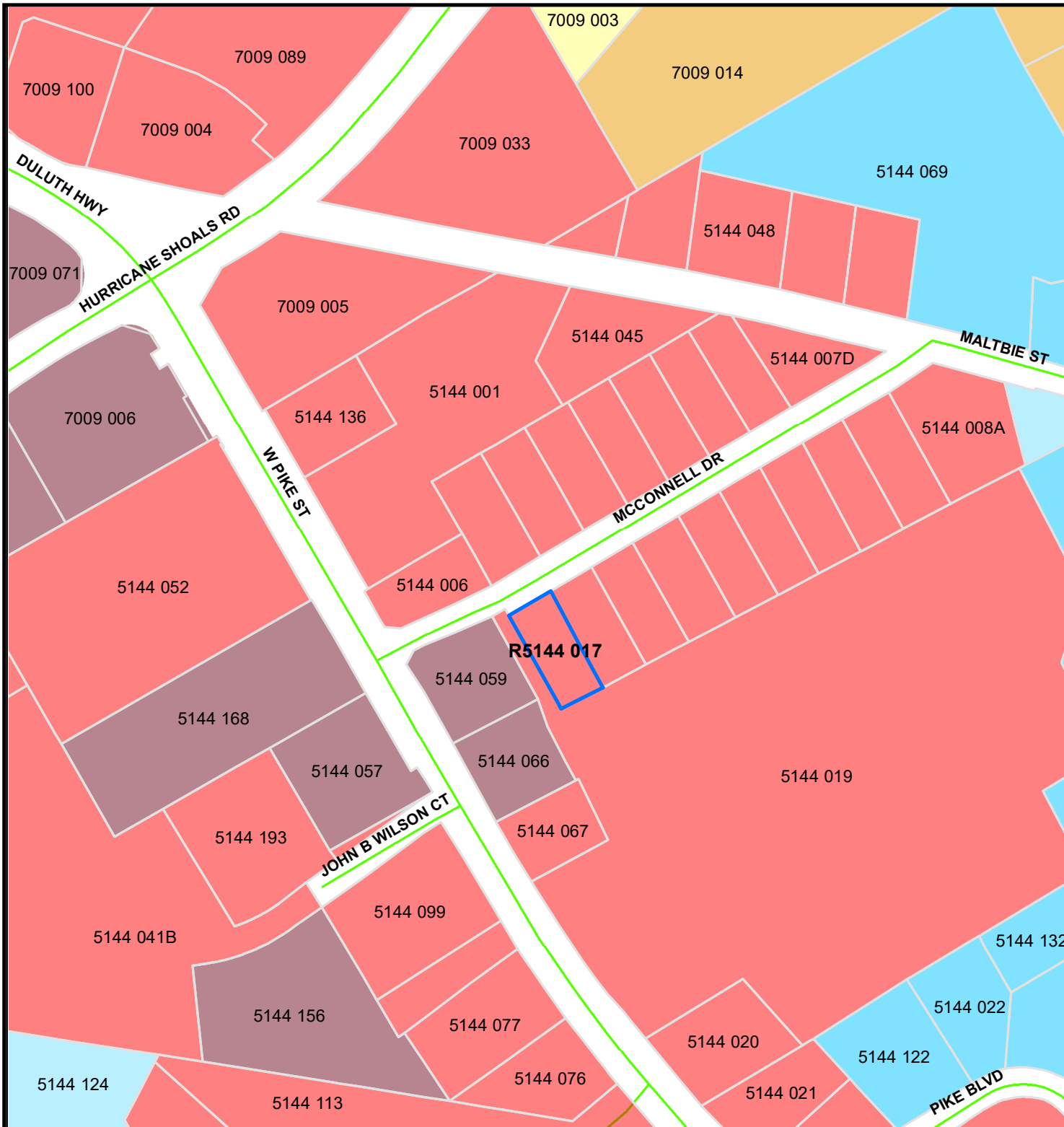
 Parcels

Zoning Districts

-  RS-150 Single-Family Residential
-  RM-12 Multifamily Residential
-  LM Light Manufacturing
-  HSB Highway Service Business
-  HM Heavy Manufacturing
-  BG General Business
-  City Maintained Streets



0 125 250





LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item:	City of Lawrenceville 2022 Housing Study Strategy
Department:	Administration
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	N/A
Presented By:	Chuck Warbington, City Manager
Action Requested:	Presentation

Summary: This is a presentation of the DRAFT Housing Study Strategies that will ultimately be included in the Comprehensive Plan update.



LAWRENCEVILLE HOUSING STRATEGY

Lawrenceville City Council
12.14.22

HOUSING STRATEGY SCOPE OF WORK

- Housing Market Analysis and Needs Assessment
- Housing Stock Analysis
- Housing Strategy

HOUSING MARKET ANALYSIS

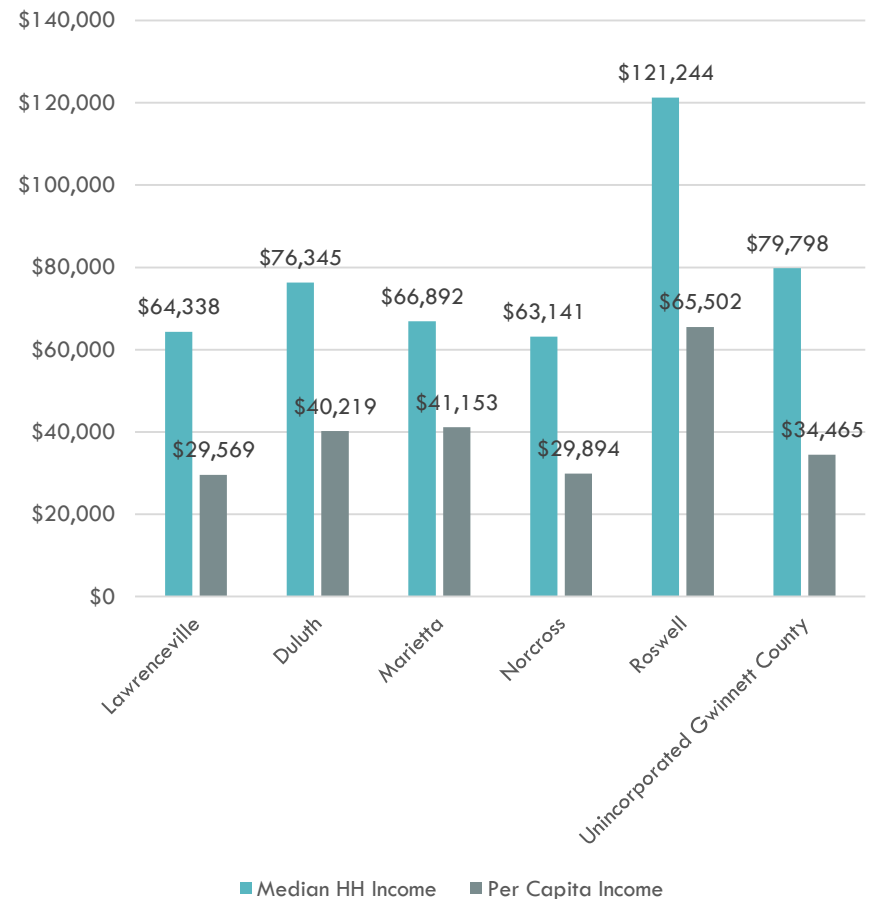
Housing Market Needs Assessment compares key demographic and economic trends to peer cities

Municipality	2022 Population	2022 Households	Avg Household Size
Lawrenceville	32,952	10,926	2.96
Duluth	32,540	12,812	2.54
Marietta	62,755	25,475	2.35
Norcross	18,534	6,309	2.93
Roswell	94,458	36,854	2.54
Unincorporated Gwinnett County	742,015	240,040	3.07

HOUSEHOLD AND PER CAPITA INCOME

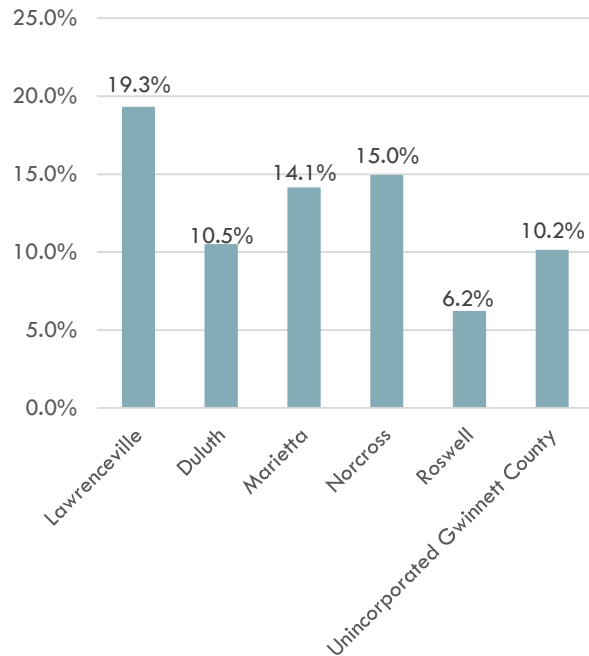
Income Rankings 2022

Household Income	Per Capita Income
Roswell	Roswell
Unincorporated County	Marietta
Duluth	Duluth
Marietta	Unincorporated County
Lawrenceville	Norcross
Norcross	Lawrenceville



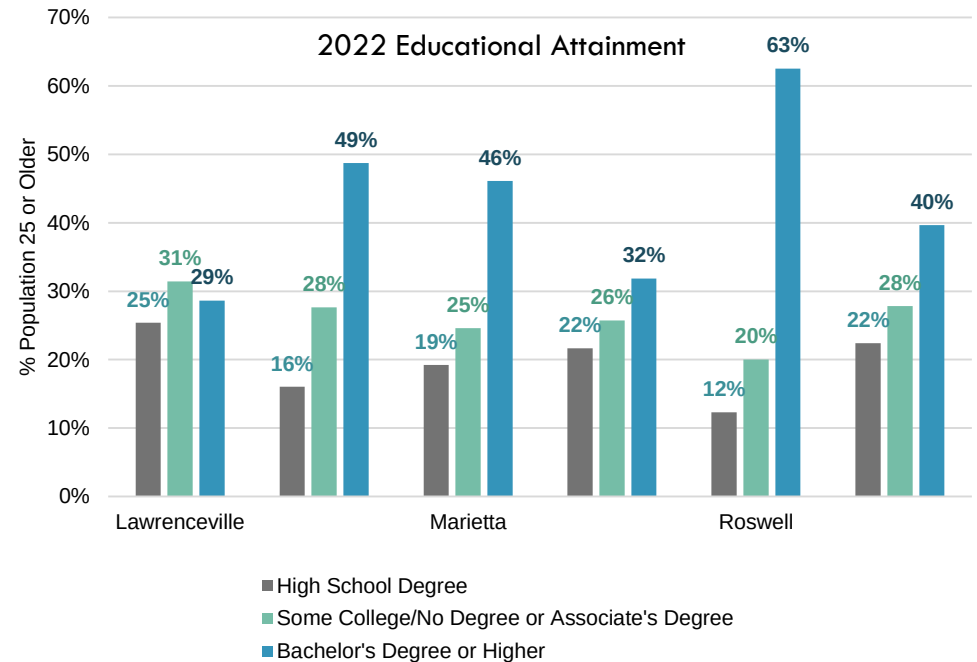
POVERTY AND EDUCATION

2022 Poverty Rates



National Poverty Rate: 12.8%

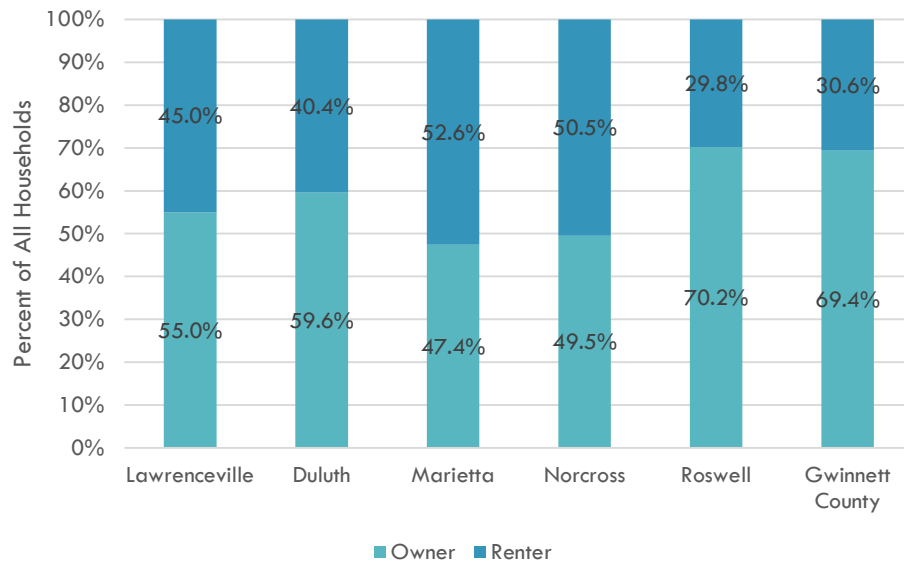
2022 Educational Attainment



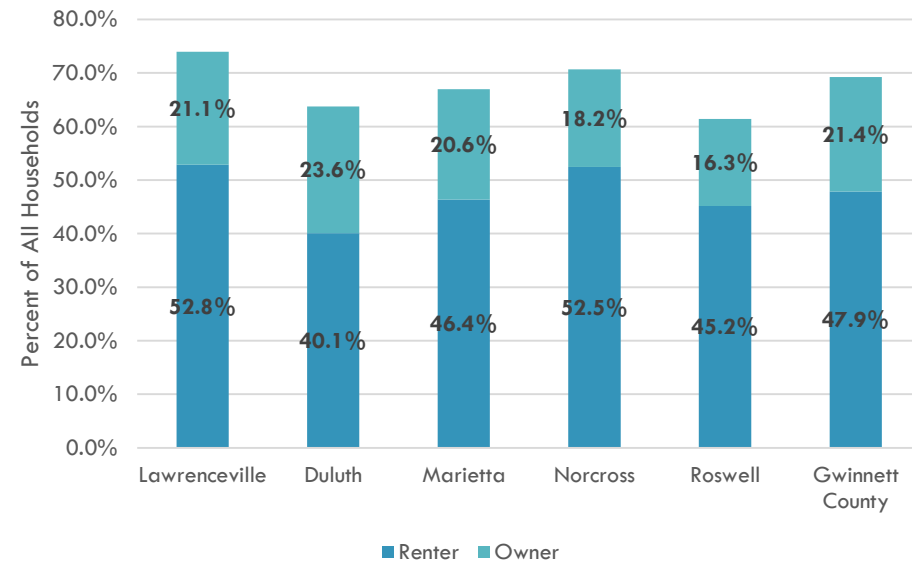
National College Graduation Rate: 35.0%

TENURE AND HOUSING COST BURDEN

Tenure Rates



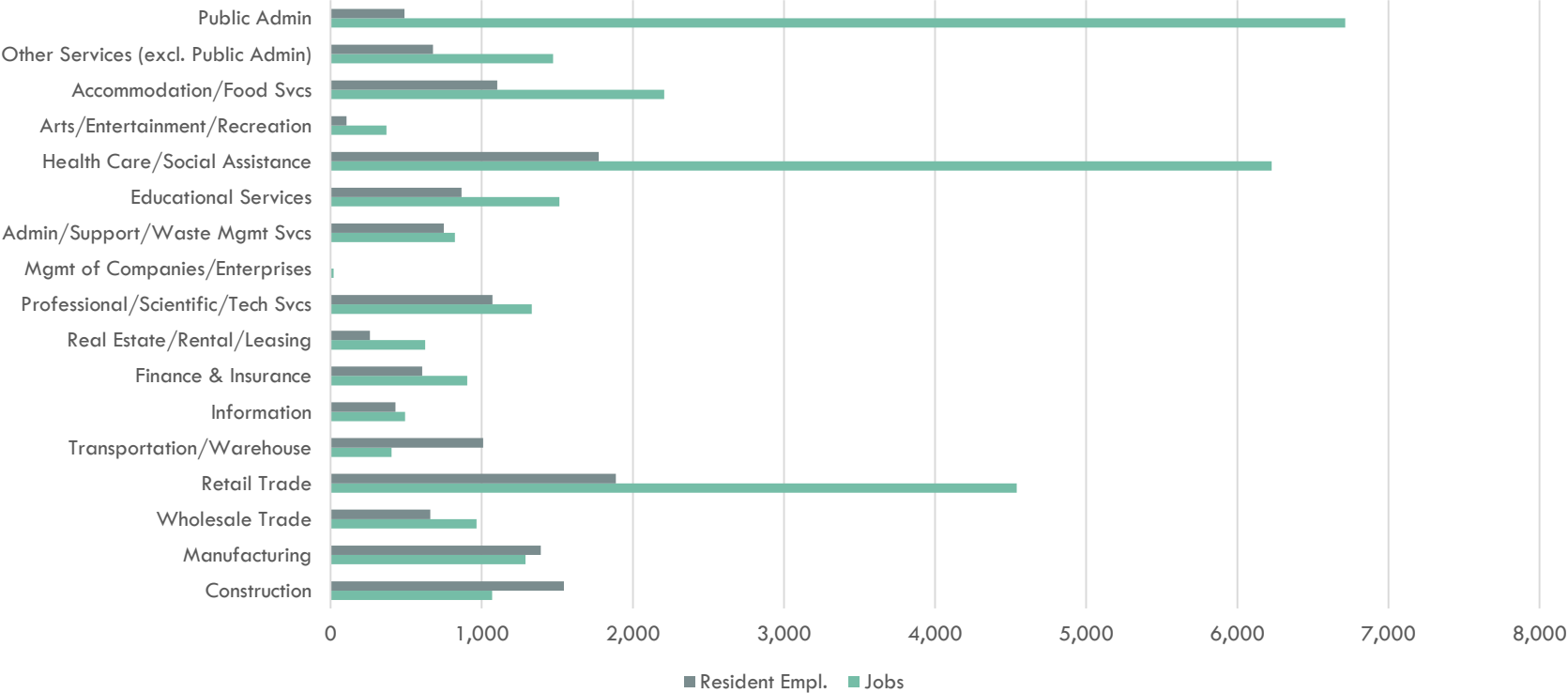
Housing Cost Burden by Tenure



- Marietta and Norcross have lower ownership rates than Lawrenceville
- Lawrenceville renters have the highest cost burden percentage of the communities

JOBS AND RESIDENTS BY INDUSTRY

Jobs-Resident Gap, 2022



COMMUTE PATTERNS

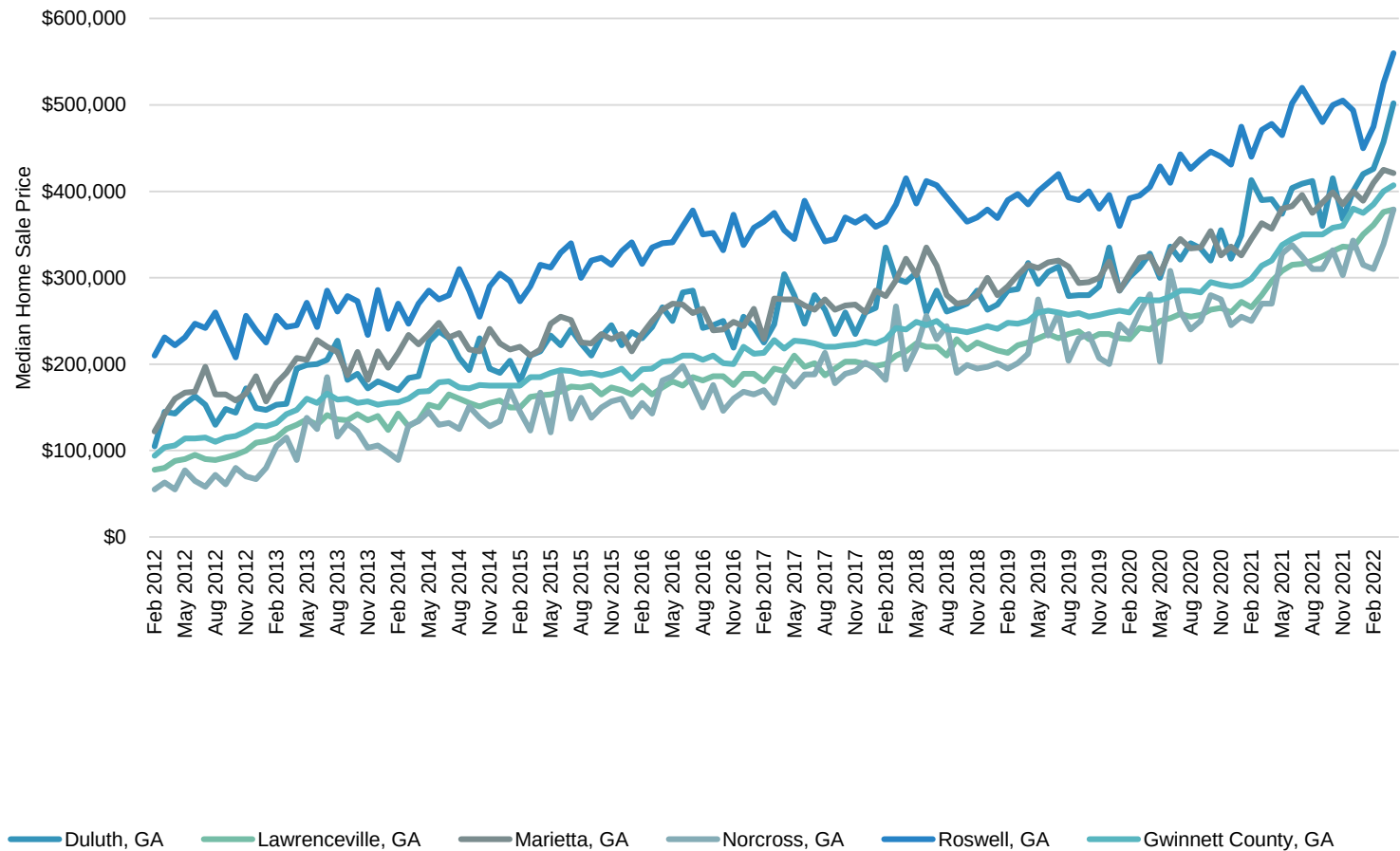
Workers by Place of Residence

Place of Residence	Workers	
	Number	Percent
Gwinnett County	17,536	51.7%
Lawrenceville	1,393	4.1%
Snellville	405	1.2%
Duluth	367	1.1%
Sugar Hill	321	0.9%
Peachtree Corners	294	0.9%
All Other Gwinnett County	14,756	43.5%
DeKalb County	2,183	6.4%
Barrow County	1,837	5.4%
Walton County	1,659	4.9%
Fulton County	1,595	4.7%
All Other Place of Residence	9,117	26.9%
Total Workers	33,927	100.0%

Residents by Place of Work

Place of Work	Employed Residents	
	Number	Percent
Gwinnett County	6,590	45.5%
Lawrenceville	1,393	9.6%
Suwanee	327	2.3%
Peachtree Corners	308	2.1%
Norcross	280	1.9%
Buford	260	1.8%
All Other Gwinnett County	4,022	27.8%
Fulton County	2,741	18.9%
DeKalb County	1,420	9.8%
Cobb County	759	5.2%
Forsyth County	419	2.9%
All Other Place of Work	2,550	17.6%
Total Employed Residents	14,479	100.0%

FOR SALE HOME PRICE TRENDS



MARKET RATE UNIT RENTS

Multifamily Units

City	Asking Rents	Asking Rent Per Sq. Ft.	Vacancy Rate
Lawrenceville	\$1,458	\$1.72	3.3%
Duluth	\$1,836	\$1.71	8.7%
Marietta	\$1,451	\$1.43	5.6%
Norcross	\$1,457	\$1.52	3.0%
Roswell	\$1,763	\$1.66	6.1%
County	\$1,652	\$1.60	6.7%

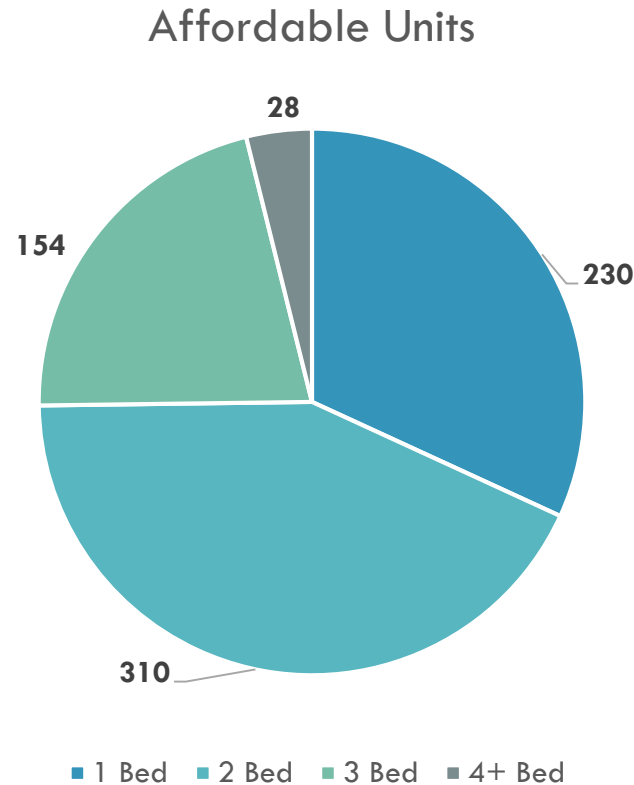
Including single-family rental units, the average asking rent in Lawrenceville is \$1,857 per month

AFFORDABLE RENTS

Affordable Rents by Income Category	1 Person	2 Person	3 Person	4 Person	5 Person
Extremely Low-Income	\$475	\$535	\$596	\$653	\$724
Very Low-Income	\$813	\$921	\$1,030	\$1,135	\$1,215
Low-Income	\$1,319	\$1,499	\$1,680	\$1,858	\$1,995
Median Income	\$1,657	\$1,884	\$2,115	\$2,340	\$2,515
Moderate Income	\$1,994	\$2,269	\$2,549	\$2,822	\$3,035

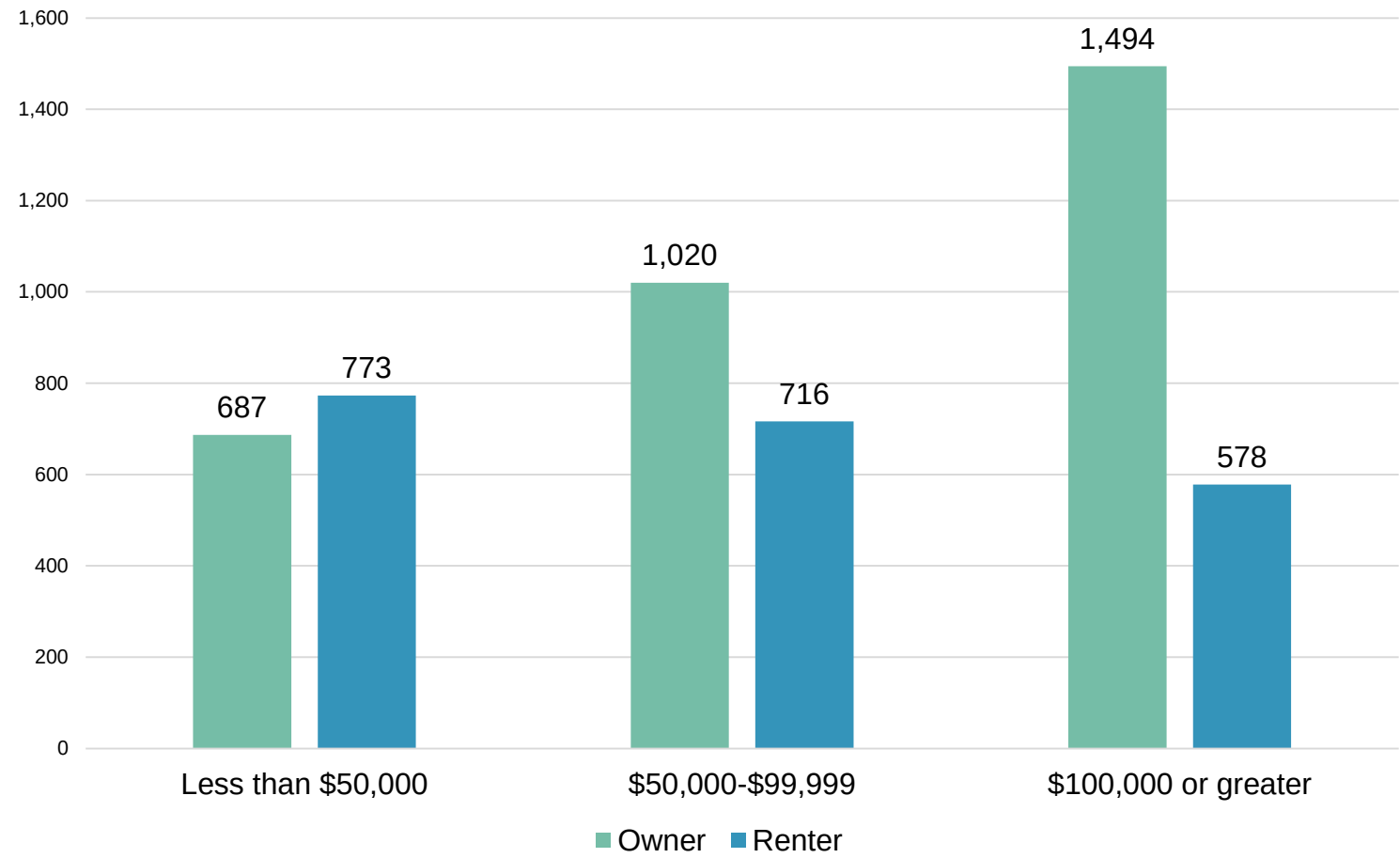
With an average asking rent of \$1,458, market rate units are available to many low-income Lawrenceville households

AFFORDABLE HOUSING UNITS



- 722 affordable units in 15 properties
- Note: Lawrenceville represents 3% of the population in Gwinnett County but 29% of affordable units

UNIT DEMAND THROUGH 2050



DISTRIBUTION OF HOUSING DEMAND

HH Income Distribution	2022		2050		Net Growth 2022-2050
	Lawrenceville (a)		Lawrenceville (b)		
	Number	Percent	Number	Percent	
Less than \$35,000	2,851	26.1%	3,682	23.1%	831
\$35,000-\$49,999	1,293	11.8%	1,853	11.6%	560
\$50,000-\$74,999	1,993	18.2%	2,941	18.4%	948
\$75,000-\$99,999	1,599	14.6%	2,305	14.5%	706
\$100,000-\$149,999	1,790	16.4%	2,805	17.6%	1,015
\$150,000 or greater	1,401	12.8%	2,359	14.8%	958
Total Households	10,927	100.0%	15,944	100.0%	5,017

- This housing demand model shows demand if new residents have the same income distribution as County households, moving the City to a more balanced household income community

POTENTIAL FUTURE HOUSING DISTRIBUTION

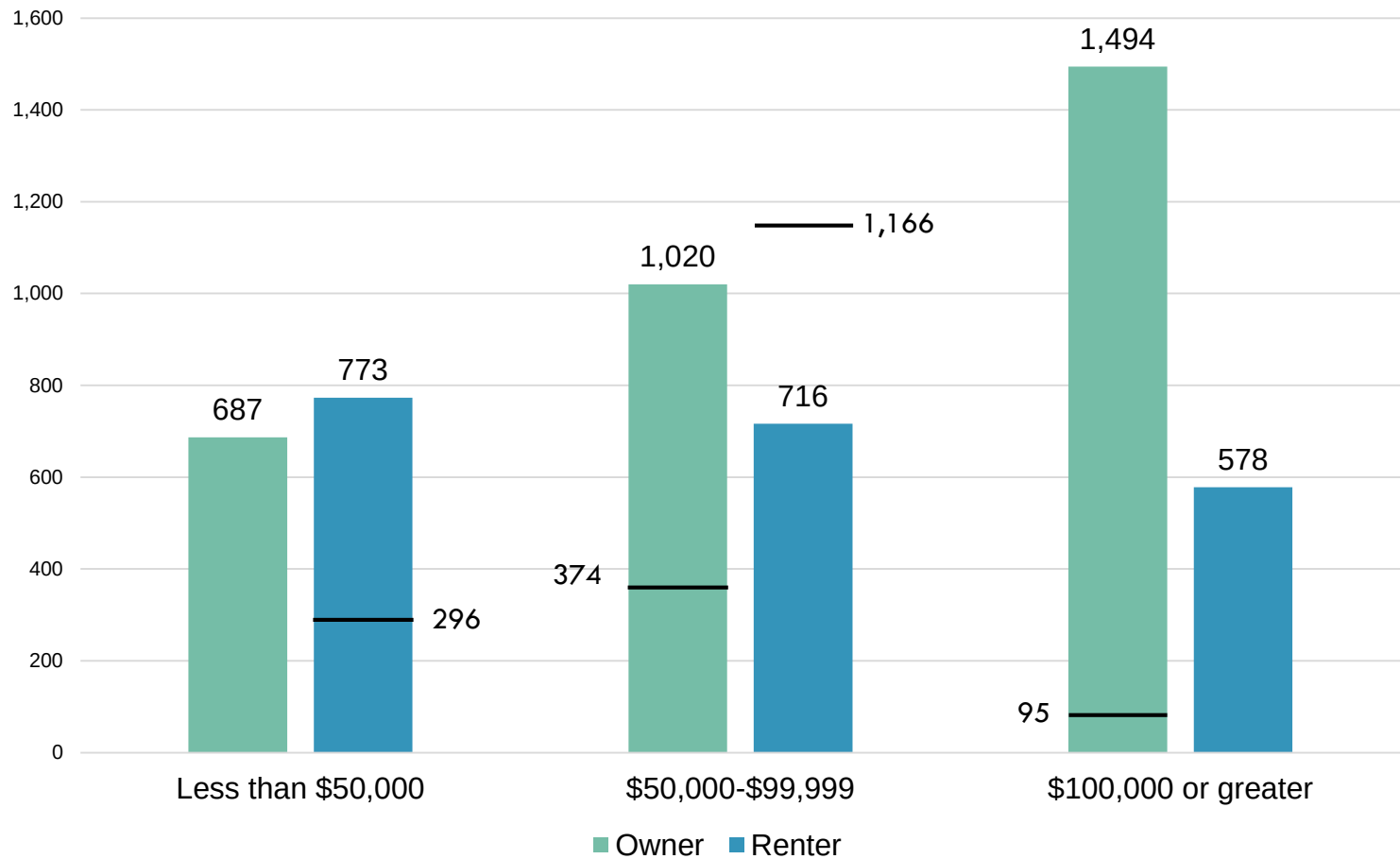
HH Income Distribution	2022		2050		Net Growth 2022-2050
	Lawrenceville (a)		Lawrenceville (b)		
	Number	Percent	Number	Percent	
Less than \$35,000	2,851	26.1%	2,640	16.6%	(211)
\$35,000-\$49,999	1,293	11.8%	1,779	11.2%	486
\$50,000-\$74,999	1,993	18.2%	3,011	18.9%	1,018
\$75,000-\$99,999	1,599	14.6%	2,243	14.1%	644
\$100,000-\$149,999	1,790	16.4%	3,226	20.2%	1,436
\$150,000 or greater	1,401	12.8%	3,046	19.1%	1,645
Total Households	10,927	100.0%	15,944	100.0%	5,017

- This shows what would need to happen for the overall City household income distribution to match the County

PLANNED AND PROPOSED PROJECTS

Anticipated HH Income	Type	Units	% of Total
Rental Units \$50,000 - \$100,000	MFR	700	60.4%
	MFR, Senior	350	
	Townhouse	116	
Rental Units \$30,000 - \$50,000	MFR	156	15.3%
	MFR, Senior	131	
	SFR, Senior	9	
Ownership Units \$50,000 - \$100,000	Townhouse	281	19.4%
	SFR	93	
Ownership Units \$100,000+	Townhouse	68	4.9%
	SFR	27	

2050 DEMAND V PLANNED AND PROPOSED



— Planned and proposed supply

bae urban economics

Comprehensive Housing Strategy
Prepared for the City of Lawrenceville, GA

December 7, 2022



This page intentionally blank

TABLE OF CONTENTS

TABLE OF CONTENTS I

LIST OF ABBREVIATIONS III

EXECUTIVE SUMMARY IV

 Priority Recommendations iv

INTRODUCTION..... 1

 Purpose of the Comprehensive Housing Strategy 1

 Methodology 1

HOUSING IN LAWRENCEVILLE 2

 Definition of Affordable Housing 2

 Housing Need 3

 Policies and Programs to Address Housing..... 5

COMPREHENSIVE HOUSING STRATEGY 6

 Housing Preservation Strategies..... 7

 Housing Demand Strategies..... 7

 Housing Production Strategies..... 8

List of Tables

Table 1: Income Limits, Atlanta-Sandy Springs-Roswell MSA, Fiscal Year 2022 2

Table 2: Existing Housing Need by Income Group and Tenure, 2022 4

List of Figures

Figure 1: Sample Households at Various AMI Levels 3

Figure 2: Demand for Units by Income and Tenure, 2050 with Planned and Proposed Supply . 4

Figure 3: Unit Distribution Needed to Match County’s Income Distribution 5

LIST OF ABBREVIATIONS

ADU	Accessory Dwelling Unit
AHTF	Affordable Housing Trust Fund
AMI	Area Median Income
ARC	Atlanta Regional Commission
CDBG	Community Development Block Grant
CHAS	Comprehensive Housing Affordability Strategy
CHS	Comprehensive Housing Strategy
CLT	Community Land Trust
FAR	Floor Area Ratio
FY	Fiscal Year
HUD	U.S. Department of Housing and Urban Development
IDA	Industrial Development Authority
LIHTC	Low Income Housing Tax Credit
LISC	Local Initiatives Support Corporation
MSA	Metropolitan Statistical Area
NOFA	Notice of Funding Availability
QAP	Qualified Application Program
RFP	Request for Proposals
SEDU	Small Efficiency Dwelling Unit
TBRA	Tenant Based Rental Assistance
TOD	Transportation Overlay District
TOT	Transient Occupancy Tax
VA	Veterans Affairs

EXECUTIVE SUMMARY

This Comprehensive Housing Strategy (CHS) document is designed to guide future decision-making on the production and preservation of housing in the City of Lawrenceville. The CHS helps establish the City's goals and objectives for improving the availability of quality housing for residents of different income levels, and providing housing for a variety of income levels to support a diverse community and promote economic development outcomes.

Like many cities, the City of Lawrenceville faces increasing challenges related to the production and availability of housing for residents of different income levels. Although its existing housing stock could support first-time buyers and younger families, these communities cannot compete with five-day close/all cash offers from investors. In addition, the lack of executive-level housing impacts the City's ability to attract job-rich employers and retain those already established in Lawrenceville.

Recognizing that there is no "one size fits all" approach to addressing housing needs, the CHS examines over twenty possible strategies to expand and preserve housing within Lawrenceville. Strategies are focused on market-based solutions that do not require the outlay of public funds.

Prioritizing the CHS Approach:

This Executive Summary and Implementation Guide highlight those key housing strategies that could be recommended for **immediate** Citywide implementation. Criteria for these strategies include the following:

- Strategies that don't require immediate financial outlay or dedicated funding sources.
- Strategies that can leverage existing tools, with a demonstrated commitment to identify a dedicated source of funding by a specified date.

Priority Recommendations

Of all of the strategies included in this document, the City can implement the following in the short-term to begin achieving long-term goals:

Housing Preservation

Prioritize programs that preserve and improve the existing affordable housing stock. This strategy focus on the creation of programs that address HUD's three main goals for preservation:

- **Safeguard** affordable rents for current and future generations;
- **Improve** and modernize properties; and

- **Stabilize** the financial footing of properties.¹

Expand the Good Neighbor Program. This strategy focuses on working with local faith-based groups, non-profits, and local schools to expand community service options to include providing home and yard maintenance services for veterans and seniors.

Housing Demand

Expand City Employee Housing Incentive to private employers. This strategy involves the City continuing its Housing Incentive program, which provides a \$5,000 stipend to employees to move into Lawrenceville or improve their Lawrenceville home. In addition, the strategy calls for the City to evaluate the possibility of expanding this program to large employers.

Housing Production

Assemble vacant and/or underutilized private and public property to provide for housing development. This strategy focuses on identifying publicly and privately owned sites that are appropriate for housing development and assisting in site assembly to promote housing development.

¹ <https://www.hudexchange.info/resources/documents/Recapitalization-HUD-Preservation-Workbook.pdf>

INTRODUCTION

Purpose of the Comprehensive Housing Strategy

This document on Comprehensive Housing Strategies (CHS) is designed to guide future decision-making regarding housing in the City of Lawrenceville. The CHS establishes the City's goals and objectives for improving the availability of quality housing for residents of a variety of income levels and lays out strategies to be implemented to achieve civic objectives for housing.

The proposed goal of the CHS is to provide quality housing that is affordable to households at all income levels. The CHS includes strategies for both rental and for-sale housing. Strategies in this document focus on market-based solutions that do not require the outlay of public funds. Strategies are subject to a final, full legal review. The three objectives and their supporting strategies are described below. Each strategy includes recommendations for initial steps to implementation.

Methodology

The objectives and strategies presented in this document are grounded in the findings of the Market Study that BAE completed in August 2022. The Market Study includes a demographic analysis, a real estate market conditions analysis, and projections for future development and population growth. The Market Study also includes an overview of Lawrenceville's housing context, which consists of an analysis of housing cost burdens among Lawrenceville households, along with current and future housing needs at low-, middle-, and high-incomes. The Market Study includes data from the following sources:

- The U.S. Census American Community Survey
- The U.S. Census Longitudinal Employer Household Dynamics program
- The U.S. Department of Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS)
- Esri, a third-party vendor that develops algorithms and uses proprietary spatial information to update and verify demographic statistics against Census data
- CoreLogic, a third-party vendor of property data
- CoStar, a third-party commercial real estate research firm with a wide-reaching, comprehensive database of commercial and multifamily real estate data
- Atlanta Regional Commission Population, Housing, and Employment Projections

To provide additional context for the strategies recommended in this report, some strategies include case studies that illustrate how jurisdictions with parallels to Lawrenceville have implemented these tools, programs, and policies. BAE compiled information for these case studies through a literature review process and interviews. Each strategy also includes a section relating it to the local context in Lawrenceville.

HOUSING IN LAWRENCEVILLE

The following section provides context for the CHS, including information as to how affordable housing is defined, Lawrenceville’s existing and future housing needs for all income levels, the impact of market conditions in Lawrenceville on housing availability, and an overview of Lawrenceville’s housing ecosystem and resources.

Definition of Affordable Housing

Affordable housing is defined by the U.S Department of Housing and Urban Development (HUD) as housing that does not require a household to spend more than 30 percent of its gross monthly income on housing costs.² For rental housing, these costs include monthly rent and utility payments; for owner-occupied housing, these costs include mortgage payments and additional expenses associated with homeownership.³ A household that spends more than 30 percent of its gross monthly income on housing costs is considered “cost-burdened.”

Many households are able to attain housing that is “naturally affordable,” meaning that those households are able to find market-rate housing that meets this criterion. Examples of such naturally affordable housing might include an older, class B and/or C multifamily property.⁴ Nonetheless, for many households—especially low- and moderate-income households—finding affordable housing in the private market can be difficult. To help identify the income groups that are disproportionately affected by high housing cost burdens, HUD and local jurisdictions use Area Median Income (AMI) levels. Table 1 below summarizes AMI levels in the Atlanta-Sandy Springs-Roswell MSA for Fiscal Year 2022.

Table 1: Income Limits, Atlanta-Sandy Springs-Roswell MSA, Fiscal Year 2022

FY 2022 Income Limit Category	Household Size				
	1-Person	2-Person	3-Person	4-Person	5-Person
Extremely Low Income (30% HAMFI)	\$20,250	\$23,150	\$26,050	\$28,900	\$32,470
Very Low Income (50% HAMFI)	\$33,750	\$38,600	\$43,400	\$48,200	\$52,100
Low Income (80% HAMFI)	\$54,000	\$61,700	\$69,400	\$77,100	\$83,300
Median Income (100% HAMFI)	\$67,500	\$77,100	\$86,800	\$96,400	\$104,100
Moderate Income (120% HAMFI) (a)	\$81,000	\$92,520	\$104,160	\$115,680	\$124,920

Note:

Households with incomes greater than 80 percent but less than or equal to 120 percent of the HAMFI adjusted for household size.

Sources: HUD, 2022; BAE, 2022.

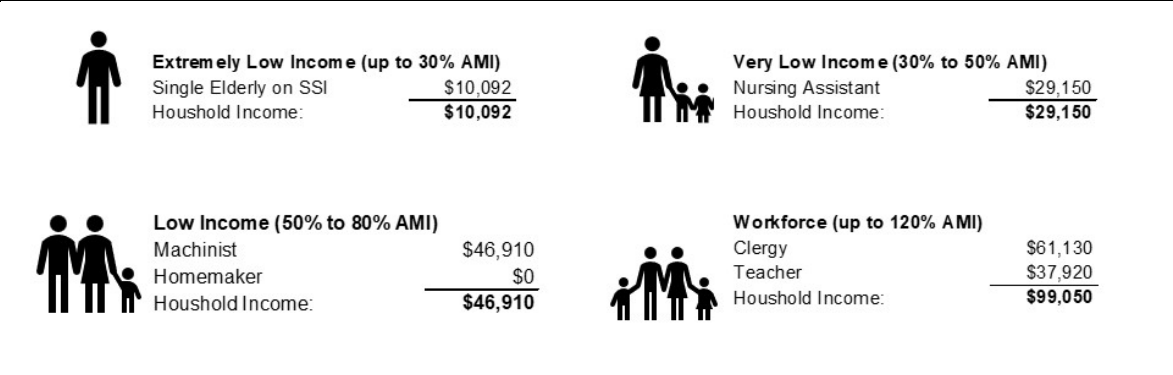
² U.S. Department of Housing and Urban Development (HUD) Resources Glossary

³ Additional costs associated with homeownership include property insurance, property taxes, mortgage insurance, and HOA fees.

⁴ <https://urbanland.uli.org/economy-markets-trends/new-costar-data-reveal-vast-national-inventory-naturally-occurring-affordable-housing-untapped-opportunity/>

Figure 1 provides some samples of household types earning up to 30, 50, 80, and 120 percent of AMI. For example, an extremely low-income household of one (up to 30 percent of AMI) might be comprised of a single elderly person living on Supplemental Security Income (SSI). A very low-income household of three (up to 50 percent of AMI) might be comprised of a nursing assistant and her two children. A low-income household of three (up to 80 percent of AMI) might be comprised of a machinist, a homemaker, and a child. And finally, a moderate-income household (up to 120 percent of AMI) might include a bank teller, a lab technician, and two children. Housing that is made affordable specifically for this group (households earning between 80 percent and 120 percent of AMI) is also known as “workforce housing.”

Figure 1: Sample Households at Various AMI Levels



Sources: HUD, 2022; Bureau of Labor Statistics, Wages by Occupation, Atlanta-Sandy Springs-Roswell MSA, 2022, BAE, 2022.

Housing Need

Housing Affordability becomes an issue when there is a deficit of housing units that can accommodate a city’s households at costs that are proportionate to their incomes. According to HUD standards, households paying more than 30 percent of their gross income for housing costs are considered “cost-burdened.” Per the US Census Bureau American Community Survey 2016-2020 five-year sample data, nearly 40 percent of Lawrenceville households are considered cost-burdened (54 percent of renter households and 23 percent of owner households).

Current Need

Table 2 shows the number and percentage of Lawrenceville households within each income level that are cost-burdened. In total, more than 4,000 Lawrenceville households are cost-burdened, including 1,668 extremely low-income households, 1,491 very low-income households, 639 low-income households, 57 moderate-income households, and 223 above moderate-income households.

Table 2: Existing Housing Need by Income Group and Tenure, 2022

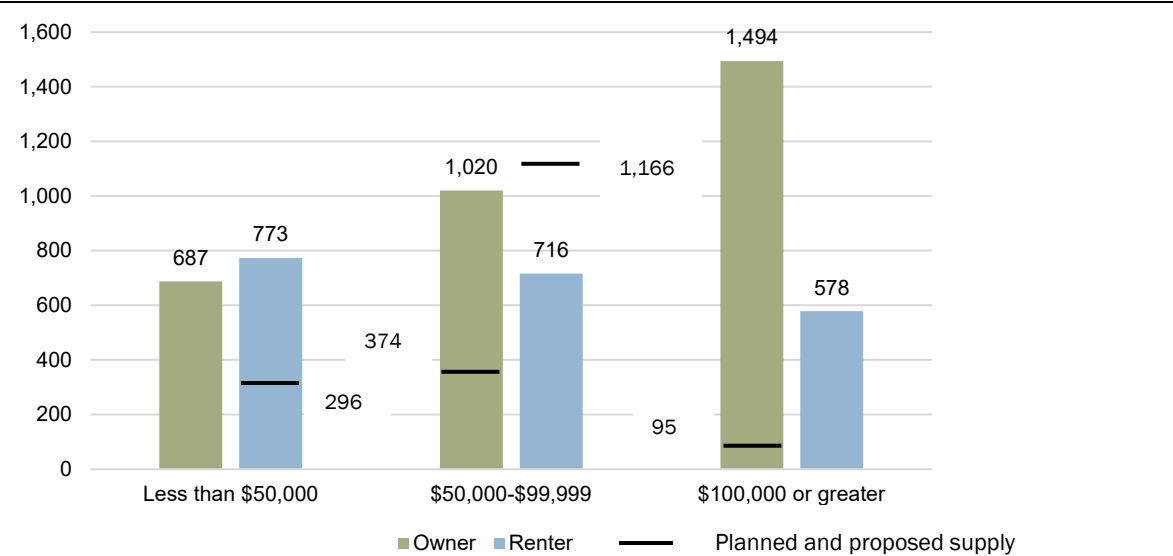
	Low Income Housing Gap (Up to 80% HAMFI)	Moderate Income Housing Gap (80%-100% HAMFI)	Above Moderate Housing Gap (>100% HAMFI)	Overall Affordability Gap (All Households)
Existing Households				
City of Lawrenceville	3,798	57	223	4,078
Owner Households	956	0	177	1,133
Renter Households	2,842	57	47	2,946

Sources: Esri Business Analyst, 2022; HUD, 2015-2019 Comprehensive Housing Affordability Strategy (CHAS) data, 2022; BAE, 2022.

Future Need

As Figure 2 shows, the City of Lawrenceville will need more than 5,000 new units to meet demand through 2050. While the data indicate the strongest need for Lawrenceville to trends towards the County’s income distribution is for units to serve households earning \$100,000 or more per year, there is overall need for units affordable to households of all income levels, for both renters and owners. Ownership units could be provided in single-family, townhouse, or condominium configurations. Rental units, particularly those serving lower-income households, should be distributed along high-quality transit corridors.

Figure 2: Demand for Units by Income and Tenure, 2050 with Planned and Proposed Supply



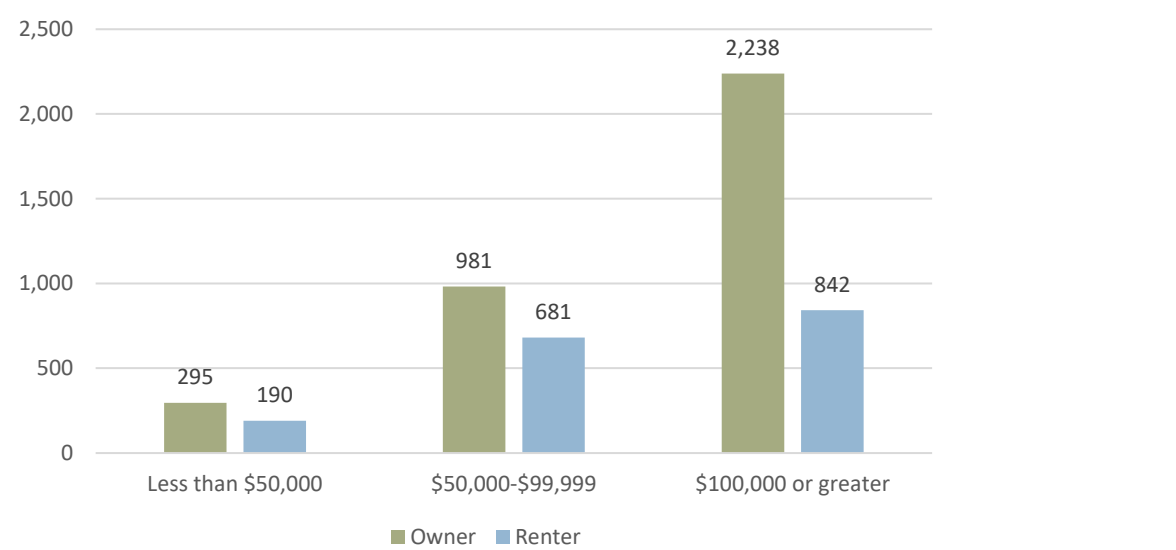
Sources: Esri Business Analyst; Gwinnett County; Atlanta Regional Commission (ARC); KB Advisory Group; Pond; BAE, 2022.

The black lines on Figure 2 show the number of units planned, proposed, or under construction by income category and tenure. There are 1,931 units in the pipeline to deliver in the short-term, representing 38 percent of total demand. More than 60 percent of planned and proposed units are rental units targeting households with incomes between \$50,000 and \$100,000, compared to 4.9 percent targeting households with incomes of \$100,000 or more.

For the City to match the County’s income distribution, it will need to attract additional households earning \$100,000 or more per year. As Figure 3 shows, achieving parity with the

County’s income distribution would require that 60 percent of households earn annual incomes of at least \$100,000 per year. Achieving parity with the County’s income distribution could occur in the long-term.

Figure 3: Unit Distribution Needed to Match County’s Income Distribution



Sources: Esri Business Analyst; Gwinnett County; Atlanta Regional Commission (ARC); KB Advisory Group; Pond; BAE, 2022.

Policies and Programs to Address Housing

Existing Programs

The Housing Authority of Lawrenceville manages public housing units in the City of Lawrenceville and participates with the Gwinnett Housing Corporation in the Welcome Home and Pathway Home programs. The Welcome Home program is a homeownership program that provides mortgage assistance to low- and moderate-income buyers for renovated and qualified homes throughout the County. The Pathway Home program offers affordable rental housing to families with children who are housing instable.

Federal Funding Sources

The State of Georgia administers federal housing programs throughout the state. The Housing Choice Voucher Program (formerly known as Section 8) provides tenant-based rental assistance to low-income households. The State of Georgia Department of Community Affairs (DCA) authorizes payments to participating landlords that make up the difference between the market rent and the affordable rent for the household that doesn’t exceed 30 percent of the household’s adjusted gross income.

DCA also administers the Dream Homeownership Program, which provides affordable financing, down payment, and closing cost assistance to qualified first-time homebuyers. Potential homebuyers must have not owned a home in the past three years, not have

household incomes exceeding the \$84,000 (1-2 persons) or \$96,000 (3+ persons) income limits, meet loan credit requirements, and not have more than \$20,000 or 20% of the home prices in liquid assets to qualify. In 2021, the qualified households could purchase homes with prices up to \$350,000, which is greater than the Lawrenceville median 2022 home price of \$310,500.

Low-Income Housing Tax Credits

Authorized in the 1986 Tax Reform Act, Low-Income Housing Tax Credits (LIHTC) are a dollar-for-dollar federal tax credit for investments in affordable housing projects, including new construction and rehabilitation. The successful program has engendered an entire ecosystem of affordable housing development, and has funded the development of over 2.4 million affordable housing units nationwide.

Local Funding Sources. Currently, there are no locally dedicated sources of annual funding for affordable housing in Lawrenceville.

Existing and Potential Solutions. Lawrenceville has developed programs and policies to assist local City employees in relocating to Lawrenceville or improving their homes. There are a variety of tools available to local governments to increase access to housing for an array of households. The following section explores potential strategies for housing stock and makes recommendations that are appropriate to the challenges faced by Lawrenceville.

COMPREHENSIVE HOUSING STRATEGY

Strategies are sorted into three categories –preservation, housing demand, and production. Preservation focuses on preserving quality housing at all income levels. Housing demand speaks to broader policies and programs that relate to economic development objectives; overall desirability of Lawrenceville as a place to live, work, and play; and antidisplacement strategies. Production focuses on policies and programs that would result in the production of more housing units.

Housing Preservation Strategies

1. Improve the Quality and Maintain Inventory of Affordable Housing Units This strategy focuses on policies and programs related to maintaining the quality of affordable housing units and retaining their below market rate status.	Action 1.1. Preserve and improve existing affordable housing stock
	Action 1.2. Market Project Based Vouchers (Section 8) to Landlords
2. Preserve Quality of Market Rate Units This strategy focuses on policies and programs that encourage and incentivize the maintenance of market rate properties.	Action 2.1. Expand Good Neighbor program
	Action 2.2. Code Enforcement of Non-Owner Occupied Units
3. Preserve Local Communities This strategy focuses on identifying or creating policies and programs aimed at preserving communities through focusing on neighborhood stabilization and antidisplacement.	Action 3.1. Provide Homeowner Counseling Services
	Action 3.2 Monitor Neighborhood Displacement Risks.

Housing Demand Strategies

1. Strategic Partnerships This strategy focuses on coordination internally and large local employers to generate new housing demand.	Action 1.1. Coordinate with City Departments
	Action 1.2. Coordinate and partner with Local Schools and Colleges
	Action 1.3. Expand City Employee Program to private employers
	Action 1.4. Coordinate and partner with large employers to implement programs incentivizing employees to live in Lawrenceville
2. Enhance Quality of Life Amenities This strategy focuses on identifying or creating policies and programs aimed at preserving communities through focusing on neighborhood stabilization and antidisplacement.	Action 2.1. Undertake Comprehensive Planning to improve quality of life, deliver and enhance local amenities, and promote connectivity to make Lawrenceville a more desirable place to live.
	Action 2.2 Focus new affordable housing development in high quality transit areas close to shopping and services, but also promote market rate development in proximity to reduce concentration of poverty.

Housing Production Strategies

1. Increase Housing Production Capacity This strategy focuses on policies and programs directly related to the ease of housing development.	Action 1.1. Remove barriers to development through streamlined permitting review processes.
	Action 1.2. Provide concierge services to housing developers to guide them through all of the different permitting and review departments
	Action 1.3. Assemble vacant and/or underutilized private and public property to provide housing to developers at below market rate prices.
2. Encourage Development of a Variety of Housing Types This strategy focuses on updates to land use and zoning regulations that allow for a more diverse typology of housing units.	Action 2.1 Update land use and zoning regulations to allow for the development of accessory dwelling units on single-family lots to provide options for household wealth generation and a greater variety of units.
	Action 2.2. Update land use and zoning regulations for “missing middle” housing development in appropriate locations.
3. Expand Funding and Financing Mechanisms to Increase Housing Development This strategy focuses on identifying or creating funding sources for housing expansion in order to attract a broader range of developers, and improve financial assistance programs.	Action 3.1. Align local housing initiatives with federal, state, and regional resources to maximize impacts
	Action 3.2. Apply for funding to support housing development.

Housing Preservation Strategy #1

Improve the Quality and Maintain the Inventory of Existing Affordable Housing Units

Housing Preservation Action 1.1. Prioritize programs that preserve and improve the existing affordable housing stock.

What? Create programs to preserve affordable housing units. According to HUD, affordable housing preservation addresses three main goals:

- **Safeguard** affordable rents for current and future generations;
- **Improve** and modernize properties; and
- **Stabilize** the financial footing of properties.⁵

Recapitalization is a preservation transaction that involves obtaining new funds — from Federal, state, or local sources — that extend the affordability covenants of a rent-restricted residential development while also tending to the property's long-term capital needs. Depending on the capital needs of a building, as well as its operating costs, subsidies, and the structuring of its rents, recapitalization may or may not be necessary for successful preservation.

To determine the best preservation strategy, a property owner should first determine the preservation goals specific to the building. This entails understanding the short- and long-term repair needs of the property, the extension options offered by the current funding sources (in many cases, owners can renew their Section 8 contracts for longer terms), as well as any regulatory options (for example, HUD Tenant Protection Vouchers, which are meant to prevent the displacement of low-income residents as a result of the loss of subsidy assistance).⁶

If recapitalization is necessary for the preservation of the property, the owner must estimate the cost of recapitalization and determine the financing sources that will be used. Financing sources can include:

- New first mortgage
- Federal tax credit equity
- HOME funds
- Community Development Block Grant (CDBG) funds
- Deferred developer fees

Why? Once affordable units are through their initial affordability covenant period, they can exit the affordability program and become market rate units. These units are

⁵ <https://www.hudexchange.info/resources/documents/Recapitalization-HUD-Preservation-Workbook.pdf>

⁶ <https://www.hudexchange.info/course-content/hud-multifamily-affordable-housing-preservation-clinics/Preservation-Clinic-Tenant-Protection-Vouchers.pdf>

not monitored and are free to charge market rents, reducing the number of available affordable units to qualifying households.

Where? In all areas where affordable units are aging out of the affordability program

Who? Planning and Development, City Council, Lawrenceville Housing Authority, Gwinnett County Board of Commissioners

Initial Implementation Steps



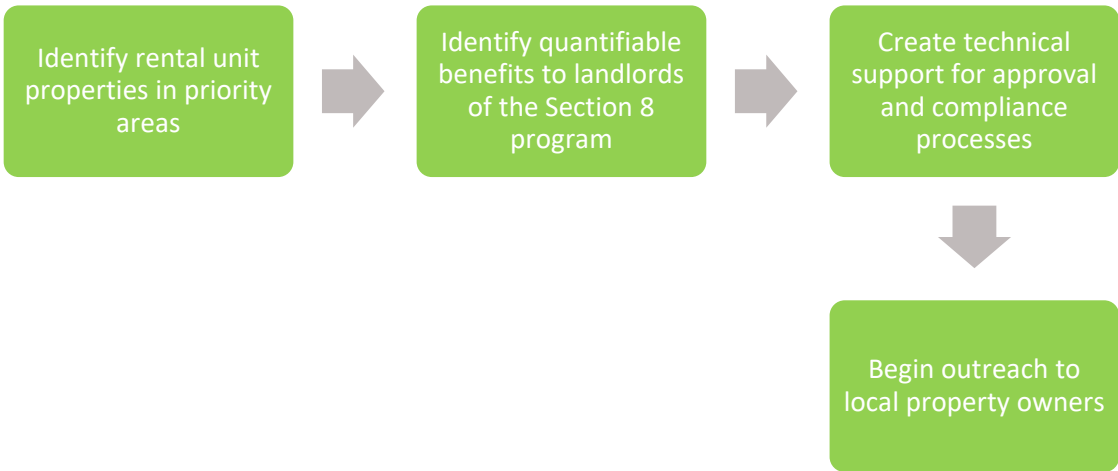
Housing Preservation Strategy #1

Improve the Quality and Maintain the Inventory of Existing Affordable Housing Units

Housing Preservation Action 1.2. Market Section 8 vouchers to expand landlord participation.

What?	As a means of expanding affordable units to replace expiring affordable housing units, many cities and local housing authorities have begun marketing programs to inform landlords of the benefits of accepting Section 8 vouchers, including the guarantee of timely rental payments for a significant portion of rents. Cities are also creating additional incentives, simplifying the landlord approval process, and correcting misconceptions that landlords may have about the voucher program in order to attract property owners to the voucher program.
Why?	These incentives aim to ensure that there are enough overall units accepting vouchers, and also to widen the geographic dispersion of voucher-eligible units. In many cities, voucher households tend to be concentrated in certain neighborhoods. Increasing the total number of neighborhoods with voucher-eligible units—including high-opportunity neighborhoods—can facilitate economic integration and increase opportunities for voucher recipient households.
Where?	Dispersed throughout the City
Who?	Lawrenceville Housing Authority, City Council

Initial Implementation Steps



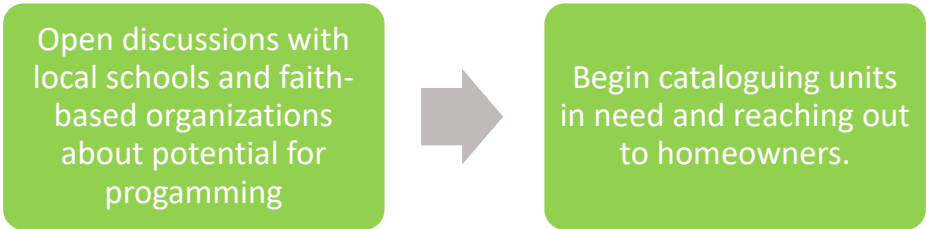
Housing Preservation Strategy #2

Maintain the Quality of Market Rate Units

Housing Preservation Action 2.1. Expand Good Neighbor program.

What?	The City should work with local faith-based groups, non-profits, and local schools to expand community service options to include providing home and yard maintenance services for veterans and seniors.
Why?	Homeownership and pride of ownership in one’s home contributes to the overall value and desirability of a neighborhood. Maintaining homes in existing neighborhoods helps all units in the surrounding neighborhood retain value and attract new homeowners.
Where?	Single-family neighborhoods
Who?	Local faith-based organizations, Local schools, Code Enforcement, City Council

Initial Implementation Steps



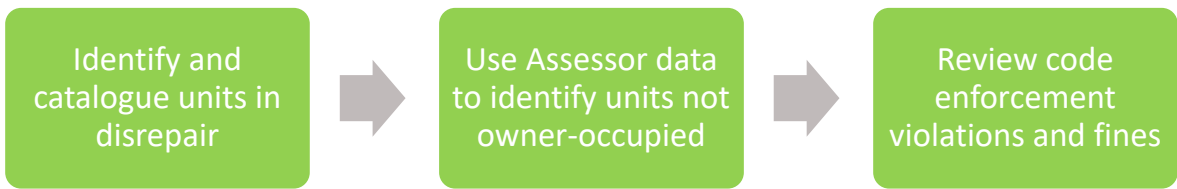
Housing Preservation Strategy #2

Maintain the Quality of Market Rate Units

Housing Preservation Action 2.2. Enforce Code Requirements on Non-Owner Occupied Units.

What?	The City should use its code enforcement ability to identify single-family and multifamily property owners who are not maintaining their properties to code and fine property owners increasing amounts for code violations. Focus on units that are not owner-occupied and in need of repair. Use funds from fines to support other housing programs.
Why?	Maintaining homes in existing neighborhoods helps all units in the surrounding neighborhood retain value and attract new homeowners. Fining property owners for not maintaining units to a minimum standard will compel them to perform maintenance or sell units to someone who can maintain the units.
Where?	Single-family neighborhoods
Who?	Executive Leadership, City Council, Code Enforcement

Initial Implementation Steps



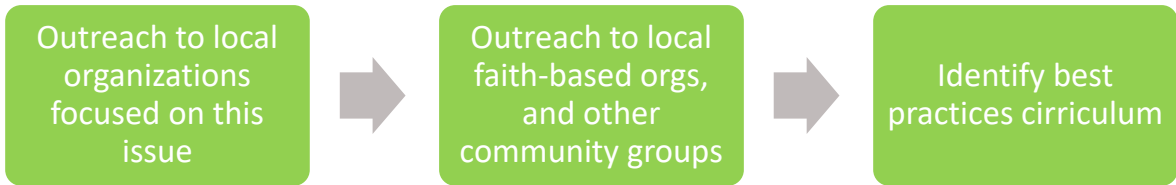
Housing Preservation Strategy #3

Preserve Local Communities

Housing Preservation Action 3.1. Provide Technical Support to Homeowners.

What?	Partner with local colleges and organizations to provide technical support to homeowners related to the value of their homes, maintaining their homes, financial planning, and the long-term effects of selling to institutional investors.
Why?	Institutional investors are purchasing swaths of housing in the Atlanta region. They buy multiple properties at or below market value, taking advantage of aging homeowners who may not know the value of their properties. They then buy another house at well over market prices to drive up values. They do not live in Lawrenceville. They have no local connection. They extract value from the community as absentee landlords, manipulating home prices and reducing the stock of available for-sale units. Because this is all legal and often enticing to sellers who see all cash offers with five-day closes as less risky than selling their homes on the market, it is important to educate homeowners as to the value of their homes, both to protect them from predatory buyers and to educate them on the long-term community impacts of selling to institutional investors.
Where?	Single-family neighborhoods
Who?	Planning and Development, Georgia Gwinnett College, Faith-based organizations and other NGOs, Executive Leadership

Initial Implementation Steps



Housing Preservation Strategy #3

Preserve Local Communities

Housing Preservation Action 3.2. Monitor Neighborhood Displacement Risks.

What? Track and monitor metrics that can be used to indicate displacement risk for existing residents. Metrics may include but are not limited to:

- Housing Cost Burden – share home households paying more than 30 percent towards housing
- Rent Appreciation – annual cost of renting a market rate unit
- Single-Family Home Price Appreciation – purchase price of housing units
- Annual Single-Family Home Flips – number units that sell more than one time within a given year
- Property Tax Appreciation – annual percentage change in property taxes
- Condominium Conversions – annual number of multifamily rental units converting to condominiums
- Foreclosures – annual number of foreclosures

Why? As developers become more interested in Lawrenceville, there is some risk that new investment will drive prices higher, resulting in increasing property tax bills for aging residents who may be on fixed income, and/or for renters who may not be able to keep up with increasing rents. Tracking these metrics will provide the City with evidence of if or when this becomes an issue and can help drive policies that protect existing residents while making room for new development.

Where? Citywide by census tract, or smaller areas where the data exists

Who? Planning and Development, Georgia Gwinnett College, Executive Leadership, City Council

Initial Implementation Steps



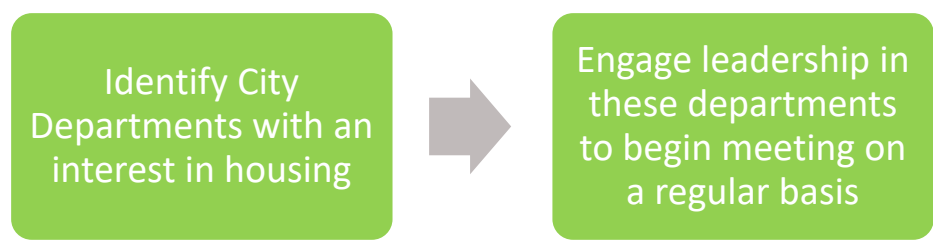
Housing Demand Strategy #1

Coordinate Internally and Partner with Key Stakeholders to Achieve Housing Goals

Housing Demand Action 1.1. Coordinate with City Departments.

What?	A number of City departments have an interest in meeting the need for housing at a variety of income levels and increasing housing demand at the higher end. City Executive Leadership should facilitate coordination between Planning, the Housing Authority, Economic Development, and the Downtown Development Authority to strategize about the best locations for new housing, and strategies for attracting new housing demand as an economic development tool.
Why?	The City will achieve its goals more quickly if department policies, programs, and actions are coordinated around a shared goal. Housing availability for workers at all levels, as well as at the executive level is key to attracting new businesses. Likewise, having a critical mass of housing is important for attracting and retaining quality retail and commercial uses. All of the departments identified have a direct or indirect goal of maintaining the City’s ability to attract new jobs and revenues, which requires housing for new workers.
Where?	Citywide
Who?	Executive Leadership

Initial Implementation Steps



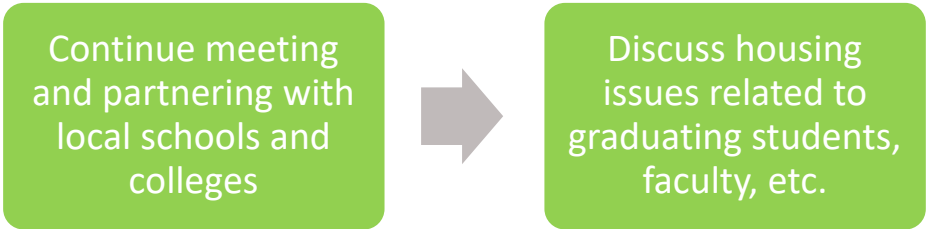
Housing Demand Strategy #1

Coordinate Internally and Partner with Key Stakeholders to Achieve Housing Goals

Housing Demand Action 1.2. Partner with Local Schools and Colleges.

What?	The City is already in contact and partnering with local schools and colleges. It should continue engaging these entities to facilitate some of the educational strategies identified above, ways in which educational institutions can strengthen relationships with local businesses to train students, and discussing the housing needs of recent graduates.
Why?	Local schools and colleges can be invaluable resources and partners for the City in implementing its housing strategy and understanding future housing need. The schools can use its students to track displacement measures, providing data training and experience, while saving the City money. Local schools and colleges can offer programs relevant to large local employers. If graduating students have relationships with local employers, and access to housing, they are more likely to stay and start families locally, keeping the City vibrant.
Where?	Citywide
Who?	Executive Leadership, Economic Development

Initial Implementation Steps



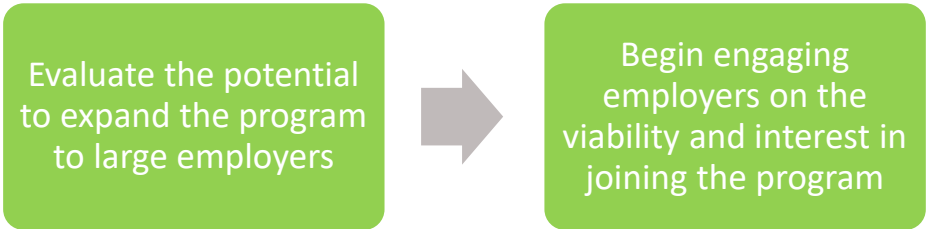
Housing Demand Strategy #1

Coordinate Internally and Partner with Key Stakeholders to Achieve Housing Goals

Housing Demand Action 1.3. Expand City Employee Program to Private Employers.

What?	The City currently provides a \$5,000 stipend to employees who elect to move into Lawrenceville. Those who already live in Lawrenceville can use the stipend for home improvement. The City should continue this program into future fiscal years and evaluate the possibility of expanding this program to large employers, with large employers providing a match to city funds for down payment and closing cost assistance.
Why?	Would-be homebuyers are facing increasing difficulty in raising down payments. This program could address this barrier to entry of the homeownership market, and reduces the cost of living near job centers, which reduces traffic congestion and supports long-term investment in neighborhoods.
Where?	Citywide
Who?	Executive Leadership, Economic Development, City Council

Initial Implementation Steps



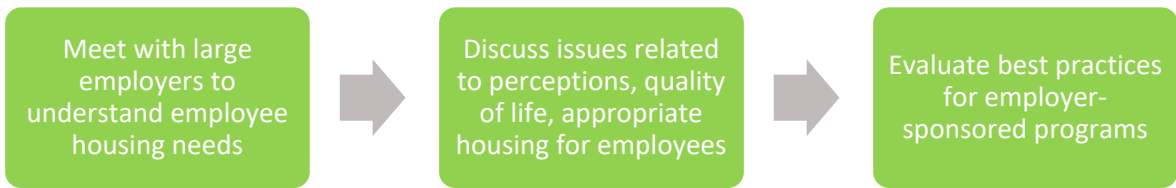
Housing Demand Strategy #1

Coordinate Internally and Partner with Key Stakeholders to Achieve Housing Goals

Housing Demand Action 1.4. Coordinate and Partner with Large Employers to Encourage Employees to Live in Lawrenceville.

What?	Separately or in conjunction with Housing Demand Action 1.3, the City should engage large employers about other programs they can utilize to incentivize employees to live in Lawrenceville.
Why?	Employer-sponsored programs could reduce the cost of living near job centers, which would reduce traffic congestion and support long-term investment in neighborhoods.
Where?	Citywide
Who?	Executive Leadership, Economic Development

Initial Implementation Steps



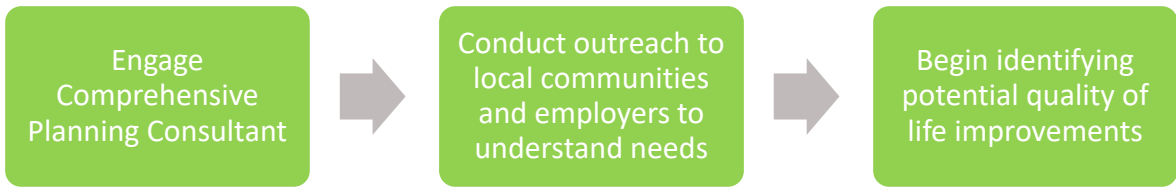
Housing Demand Strategy #2

Enhance Quality of Life Amenities to Generate New Housing Demand

Housing Demand Action 2.1. Undertake Comprehensive Planning.

What?	The City is currently undertaking Comprehensive Planning. The Comprehensive Plan will address land use policies and identify infrastructure improvements including connectivity and parks/recreation enhancements that can make Lawrenceville a more desirable place to live, work, and play.
Why?	Along with school performance, access to parks, recreation, walkable neighborhoods, and a variety of restaurants and cultural amenities are the highest drivers of housing demand. People want to live in places they can live, work, and play, with increasing emphasis on play. Recreation trails like the Silver Comet Trail and Atlanta Beltline are driving housing demand across the region. The Comprehensive Plan outlines the City’s goals for connecting neighborhoods and investments in community amenities, among other things, which can signal to the development community and homebuyers that Lawrenceville is investing in local quality of life amenities.
Where?	Citywide
Who?	Executive Leadership, Planning and Development, City Council, Engineering

Initial Implementation Steps



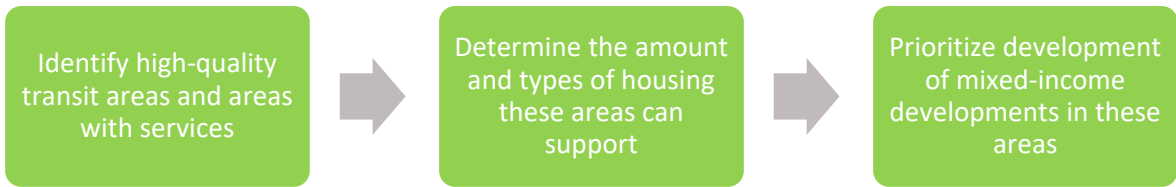
Housing Demand Strategy #2

Enhance Quality of Life Amenities to Generate New Housing Demand

Housing Demand Action 2.2. Promote Mixed-Income Neighborhoods in Appropriate Locations.

What?	The City should encourage mixed-income neighborhoods around high quality transit and services.
Why?	Residents in affordable housing development are often in need of proximity to services and transit. However, concentrating lower-income households into a single area tends to have adverse social outcomes for those families as well as the perception of their locations. Focusing affordable housing development around services and transit can achieve desired results without adverse impacts if the areas also include market rate units, where the overall location becomes mixed-income.
Where?	High quality transit areas and areas near social services
Who?	Executive Leadership, Planning and Development, City Council

Initial Implementation Steps



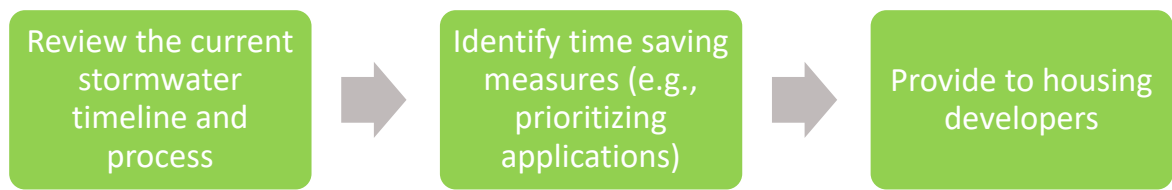
Housing Production Strategy #1

Enhance Policies and Incentives that Increase Housing Production Capacity Throughout the City

Housing Production Action 1.1. Remove barriers to development through streamlined permitting review process (especially stormwater)

What?	Reduce the amount of time required for permit review for housing developers.
Why?	In real estate, time is money. Permitting and other delays can cost developers real money from land carrying costs, to expiring contracting bids. Having a shortened timeline provides developers with both certainty about the process, as well as financial benefits, making Lawrenceville a more desirable place to build.
Where?	Citywide
Who?	Engineering, Planning and Development

Initial Implementation Steps



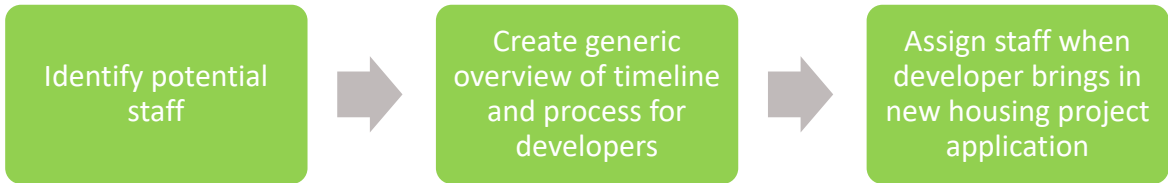
Housing Production Strategy #1

Enhance Policies and Incentives that Increase Housing Production Capacity Throughout the City

Housing Production Action 1.2. Provide concierge services to housing developers

What?	Provide developers proposing to build new housing with a concierge service to assign a single Point of Contact (POC) to guide developers through the different permitting departments. The POC would suggest and advise on order of meetings/applications, assist in facilitating meeting occurrences, and attend meetings with developer.
Why?	Easing the permitting process will make Lawrenceville more attractive place to housing developers.
Where?	Citywide
Who?	Planning and Development, Engineering

Initial Implementation Steps



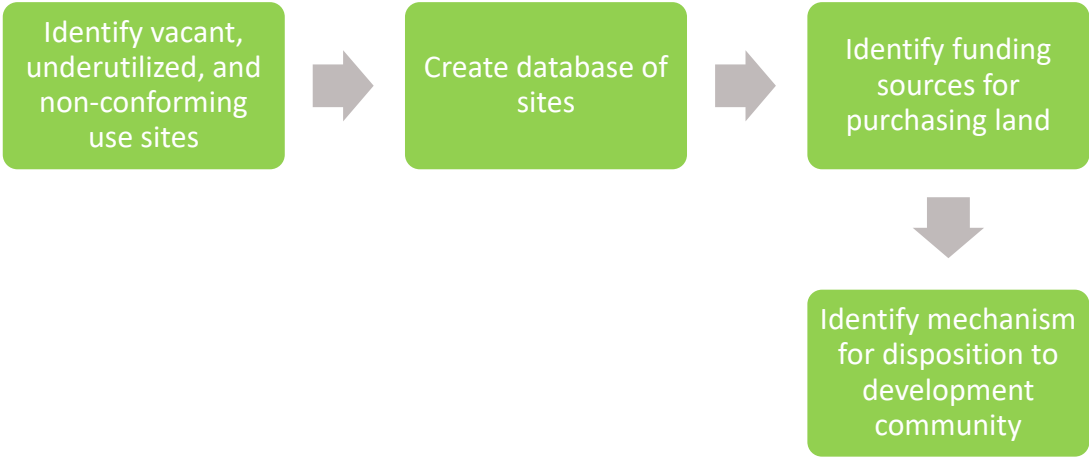
Housing Production Strategy #1

Enhance Policies and Incentives that Increase Housing Production Capacity Throughout the City

Housing Production Action 1.3. Assemble vacant and/or underutilized property to provide to housing developers

What?	Identify publicly and privately owned sites that are underutilized, vacant, or contain non-conforming or incompatible land uses that could reasonably be developed as housing. Prioritize housing as a use for publicly owned sites, and purchase identified private parcels for assembly and disposition to housing developers, and/or facilitate assembly of privately-owned parcels for housing developers.
Why?	Site assembly takes time and is generally considered a barrier to development. When the City purchases and assembles sites that can be readily made available for housing development, it creates value to the development community. In addition, land can be provided below market value in order to attract developers during a more challenging point in the market cycle.
Where?	Citywide
Who?	Planning and Development, Executive Leadership, Downtown Development Authority

Initial Implementation Steps



Housing Production Strategy #2

Enhance Policies and Incentives that Encourage a Variety of Housing Development

Housing Production Action 2.1. Update land use and zoning regulations to allow for the development of accessory dwelling units on single-family lots to provide options for household wealth generation and a greater variety of units.

What?	As part of the Comprehensive Plan update, review land use and zoning regulations to allow accessory dwelling unit (ADU) on single-family lots.
Why?	Allowing the development of ADUs behind single-family units provide opportunities for wealth generation for existing residents as well as additional market rate housing opportunities.
Where?	Zoning code and Comprehensive Plan
Who?	Planning and Development, Executive Leadership, City Council

Initial Implementation Steps



Housing Production Strategy #2

Enhance Policies and Incentives that Encourage a Variety of Housing Development

Housing Production Action 2.2. Update land use and zoning regulations to allow for the development of missing-middle housing typologies in appropriate locations.

What?	As part of the Comprehensive Plan update, review land use and zoning regulations to allow missing middle housing typologies in appropriate places.
Why?	Allowing the development missing middle uses in appropriate locations can act as a buffer, stepping development between commercial corridors and single-family neighborhoods while increasing housing opportunities.
Where?	To be evaluated during Comprehensive Planning
Who?	Planning and Development, Executive Leadership, City Council

Initial Implementation Steps



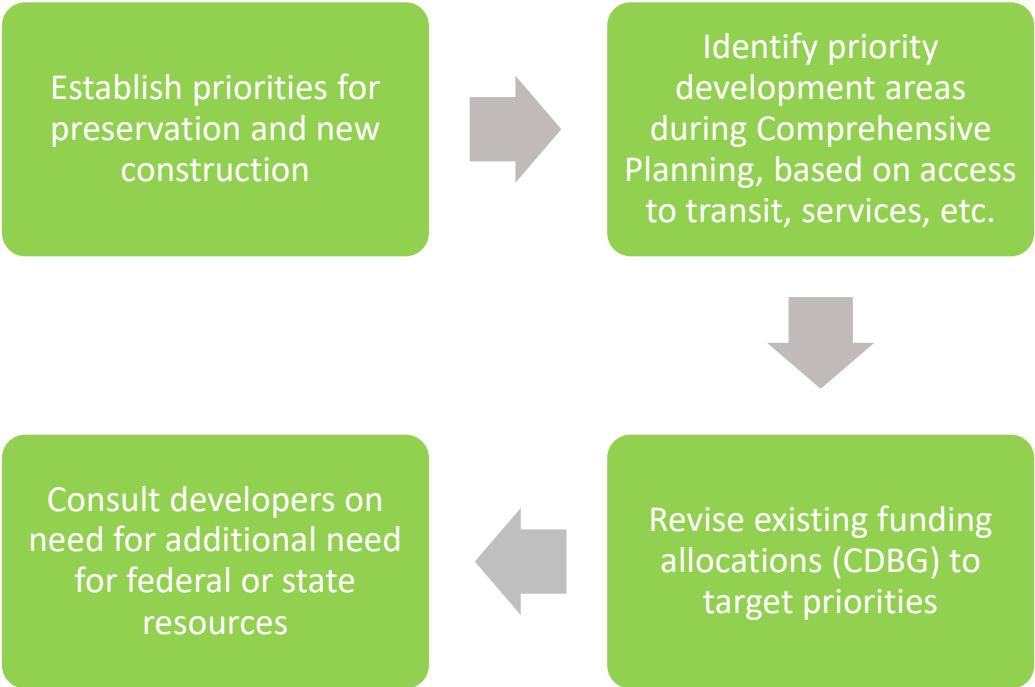
Housing Production Strategy #3

Expand Funding and Financing Sources to Support Housing Development

Housing Production Action 3.1. Align local housing initiatives with federal, state, and regional resources to maximize impacts.

What?	Review existing and create housing programs to align local housing initiatives with federal and state resources and programs to increase the impact of City-led investments. Some areas for partnership include creating preservation programs aligned with financing like PACE and Section 108; creating local geographic targets that align with federal and state designations (e.g., Opportunity Zones and Sustainable Communities); revising the existing CDBG allocation process to more competitively target priority areas; and consulting developers on any remaining disconnects between local application priorities or timelines and those for federal and state resources.
Why?	Aligning programs with funding sources will allow the City to better leverage external funding sources to supplement local funds in ways that promote the City’s housing and preservation goals.
Where?	Priority development areas
Who?	Planning and Development, Executive Leadership, City Council

Initial Implementation Steps



Housing Production Strategy #3

Expand Funding and Financing Sources to Support Housing Development

Housing Production Action 3.2. Apply for funding to support housing development

What?	The Bipartisan Infrastructure Law (BIL) created new federal sources of funding for which local governments can directly apply. While most of the grants relate directly to infrastructure, grants to related to brownfield remediation could assist in creating new viable housing sites, while broadband infrastructure could enhance the City’s desirability as a place to live.
Why?	The City would be able to use external funding sources to promote housing and development goals
Where?	Citywide; areas transitioning from light industrial uses to housing
Who?	Planning and Development, Downtown Development Authority, Executive Leadership, City Council

Initial Implementation Steps





LAWRENCEVILLE

GEORGIA

AGENDA REPORT
MEETING: CITY COUNCIL WORK SESSION
AGENDA CATEGORY: DISCUSSION OF CITY BUSINESS

Item:	Tree City Ordinance to be Considered a Tree City USA
Department:	Planning and Development
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	Already part of City's maintenance
Presented By:	Helen Appenzeller Balch, Deputy Director of Planning and Development
Action Requested:	Adoption of Tree City Ordinance: To be added to the Code of Ordinance, Chapter 32, STREETS, SIDEWALKS AND OTHER PUBLIC PROPERTIES, as ARTICLE VIII TREE CITY ORDINANCE

Summary: The City can apply to be considered a Tree City USA through the Arbor Day Foundation Program. By establishing a Tree City Ordinance, and meeting three other requirements, the City can be designated as a Tree City USA. This entails national recognition and demonstrating the city's commitment to the environment as a great way to build pride among residents.

To be added to the Code of Ordinance, Chapter 32, STREETS, SIDEWALKS AND OTHER PUBLIC PROPERTIES, as ARTICLE VIII TREE CITY ORDINANCE

Fiscal Impact: Annual budget of at least \$2 per capita. Public Works budgets for City Maintenance including landscaping, yearly.

Attachments/Exhibits:
Draft Tree Ordinance

**AN ORDINANCE ESTABLISHING THE REGULATION
OF THE PLANTING, REMOVAL AND MANAGEMENT OF SHADE AND ORNAMENTAL TREES ON
PUBLIC PROPERTY AND RIGHTS OF WAYS IN THE CITY OF LAWRENCEVILLE, GEORGIA**

PURPOSE: The purpose of this ordinance is to provide for the protection, management, removal and replacement of trees on public property and public rights of way within the City of Lawrenceville, Georgia. The City Council herein delegates the authority and responsibility for managing public trees, establishes practices governing the planting and care of trees on public property, and makes provision for the emergency removal of trees on private property under certain conditions.

WHEREAS, the health, safety and general welfare of the public and the conservation and protection of the natural resources of the City of Lawrenceville, Georgia and their values necessitate the implementation of regulations to guide the planting, maintenance and removal of shade and ornamental trees on public property and rights of way within the City, and

WHEREAS, high growth areas, where natural green spaces are diminishing, have left fewer trees to transform into oxygen the carbon dioxide of ever increasing, harmful vehicular and industrial emissions, resulting in severe air quality degradation, and

WHEREAS, the removal of forest canopy from urban areas of the state and its replacement with more intensive land uses exacts real costs upon the infrastructure which must be borne by all citizens of the community, and

WHEREAS, community forests function to the benefit of the local citizenry as a part of the public infrastructure as much as streets, utilities, stormwater management structures, and sewers and integrated forest canopies reduce the costs of maintenance of other co-located parts of the urban infrastructure, and

WHEREAS, well-managed urban forest resources increase in value and provide benefits to all the citizens of the community with respect to air quality, water quality, stormwater management, temperature amelioration, community aesthetics and general quality of life and, healthy community forests increase local commercial and residential property values, and

WHEREAS, these benefits are crucial to the long-term health, benefit, welfare, and safety of the citizens of the community, and

WHEREAS, the City of Lawrenceville's Development Regulations and this tree protection law are parts of a dedicated and integrated planning process dealing with land use, impacts of

impervious surface, urban hydrology and water quality, air quality, soil erosion, transportation, noise abatement, and wildlife habitat, and

WHEREAS, the City Council of the City of Lawrenceville, Georgia finds that it is in the best interest of the public to provide standards and requirements for the conservation, protection and replacement of trees on public property for the purpose of making the City a more attractive and healthier living environment.

NOW, THEREFORE, be it ordained by the City Council of the City of Lawrenceville, Georgia as follows:

Section I. Definitions

As used in this Article, the following words and phrases shall have the meanings indicated:

Damage: any injury to or destruction of a tree, including but not limited to: uprooting; severance of all or part of the root system or main trunk; storage of material on or compaction of surrounding soil; a substantial change in the natural grade above a root system or around a trunk; surrounding the tree with impervious paving materials; or any trauma caused by accident or collision.

Nuisance: any tree, or limb thereof, that has an infectious disease or insect; is dead or dying; obstructs the view of traffic signs or the free passage of pedestrians or vehicles; or threatens public health, safety, and welfare.

Administrator: The Public Works Director or designee who is responsible for the administration of the provisions of this ordinance.

Street Trees: Street trees are herein defined as trees, shrubs, bushes, and all other woody vegetation on land lying between property lines on either side of all streets, avenues, or right-of-ways within the City or lying within all rights of ways of all streets, avenues, or ways within the City.

Topping: Topping is defined as the severe cutting back of tree limbs to stubs larger than three (3) inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree.

Park and Public Trees and Landscape: Park and Public trees are herein defined as trees, shrubs, bushes and all other vegetation in public parks and on public property at public facilities, and all area owned by the City, or to which the public has free access.

Section II. Public Tree Protection and Care

A. Except as hereinafter provided, no person except a public utility shall cut, prune, injure or remove any living tree on or in a public highway, right-of-way, neutral ground, public park, public place, triangle, sidewalk, or other public property; or cut or disturb or interfere in any way with the roots of any tree on public property; or spray with any chemical insecticide or herbicide or other oils or whitewash any tree on public property; or place any wire, rope, sign, poster, barricade, or other fixture on a tree or tree guard on public property; or injure, misuse or remove any device placed to protect any such tree;

Section III. Notification and Penalties

A. Any person who shall injure, damage, or destroy any public tree situated upon the public right-of-way of any street, alley, sidewalk, park or other public property within the City shall promptly notify Public Works of such fact and shall, within such reasonable time as specified by Public Works, repair or replace the same to the satisfaction of the Department.

B. Should the person fail or refuse to repair or replace the damaged or destroyed trees or plants within such reasonable time, Public Works shall do or cause to be done the necessary repairing or replacement, and the costs of this work shall be recovered from the person responsible for the damage or destruction by, a proper action of law. In any such action, "The Guide for Establishing Values of Trees and Other Plants," published by the Council of Trees and Landscape Appraisers, current edition, shall form the basis for establishing any monetary damages due for damage or destruction to the tree. In addition, the City may recover for any other damages or losses to which it is entitled by law.

Section IV. Penalties for Violations

Any person violating any provision of this ordinance shall be, upon conviction or a plea of guilty, subject to a fine not to exceed \$1000.00 plus restitution for damages to public trees and property.

Section V. City Requirements

A. The City shall have the right to plant, prune, maintain and remove trees, plants and shrubs within the right-of-ways of all streets, parks, squares, and public grounds, as may be necessary to ensure public safety or to preserve or enhance the symmetry and beauty of such public grounds.

B. All tree work taking place on public property being conducted by contractors, sub-contractors, or City employees shall conform to International Society of Arboriculture and ANSI 300 and Z-133 arboricultural standards for tree work.

C. It shall be unlawful as a normal practice for any person, firm, or government entity/department to top any street tree, park tree, or other tree on public property. Trees severely damaged by storms or other causes, or certain trees under utility wires or other obstructions where other pruning practices are impractical may be exempted from this provision of this ordinance by receipt of written notification from the Administrator for each instance allowing such actions.

D. It shall be unlawful for any entity, utility, citizen, or tree care company or government to trench, cut, grade, clear, or fill within the critical root zone of any public tree without the expressed written consent of the Administrator.

Section VI. Authority and power

(a) Delegation of authority and responsibility. The Director of Public Works and/or their designee, hereinafter referred to as the “Director”, shall have full authority and responsibility to plant, prune, maintain and remove trees and woody plants growing in or upon all municipal streets, rights-of-ways, city parks, and other public property. This shall include the removal of trees that may threaten electrical, telephone, gas, or any municipal water or sewer line, or any tree that is affected by fungus, insect, or other pest disease.

(b) Coordination among city departments. All city departments will coordinate as necessary with the Director and will provide services as required to ensure compliance with this Ordinance as it relates to streets, alleys, rights-of-way, drainage, easements, and other public properties not under direct jurisdiction of the Director.

Section VII. Private Landowner Responsibilities and Rights

- A. Every owner of any tree overhanging any street or right of way within the City shall prune the branches so that such branches shall not substantially obstruct the view of any street intersection and so that there shall be a clear space of thirteen (13) feet above street surface or eight (8) feet above the sidewalk surface. Said owners shall remove all dead, diseased or dangerous trees, or broken or decayed limbs that constitute a menace to the safety of the public. The City shall have the right to prune any tree or shrub on private property when it interferes with visibility of any traffic control device or sign or line of sight. Any tree or shrub or part thereof located in, overhanging or interfering with the use of any highway or street in the City that, in the opinion of the Director of Public Works, violates the provisions of this Article or endangers the life, health, safety or property of the public shall be declared a public nuisance. The owner shall be notified of the existence of a nuisance and given a reasonable time for its correction or removal. If not corrected or removed within the time allotted, the Director of Public Works shall cause the

Commented [JW1]: Consider adding the following section: Any tree or shrub or part thereof located in, overhanging or interfering with the use of any highway or street in the City that, in the opinion of the Director of Public Works, violates the provisions of this Article or endangers the life, health, safety or property of the public shall be declared a public nuisance. The owner shall be notified of the existence of a nuisance and given a reasonable time for its correction or removal. If not corrected or removed within the time allotted, the Director of Public Works shall cause the nuisance to be corrected or removed and the cost shall be assessed against the owner or occupant and collected as provided by law.

nuisance to be corrected or removed and the cost shall be assessed against the owner or occupant and collected as provided by law

- B. Duty To Maintain Street Trees Planted. Maintenance of a street tree shall be the responsibility of the owner of the property adjacent to the tree location.

Section IX. Emergency Action

It may become necessary, from time to time for emergency crews to prune or remove trees to provide for public safety or restore phone, electrical, and/or water service. Such an action may be conducted by government, emergency, or utility crews without permit so as to allow immediate action to prevent damage or correct a condition which may pose a hazard to life or property.

Section X. Indemnification

Nothing contained in this ordinance shall be deemed to impose any liability upon the City, its elected officials, officers or employees, nor to relieve the owner of any private property from the duty to keep any tree, shrub or plant upon any street tree area on his or her property or under his or her control in such condition as to prevent it from constituting a hazard or an impediment to travel or vision upon any public property or right of way or public place within the City.

Section XI. Appeals

Appeals to decisions by the Director, or to penalties imposed after violations of this ordinance, shall be heard by City Council.

Section XII. Severability

Should any part or provision of this ordinance be declared by a court of the competent jurisdiction to be invalid, the same shall not affect the validity of the ordinance as a whole or any part thereof other than part held to be invalid.

SO ORDAINED this ____ day of December, 2022.

David Still, Mayor

ATTEST:

Karen Pierce, City Clerk

Approved as to form:

Lee Thompson, City Attorney

DRAFT



LAWRENCEVILLE

GEORGIA

AGENDA REPORT
MEETING: CITY COUNCIL WORK SESSION
AGENDA CATEGORY: NEW BUSINESS

Item: Lawrenceville Arts Commission – Go Georgia Arts Mural Trail Grant Update

Department: Community Relations

Date of Meeting: Wednesday, December 14, 2022

Fiscal Impact: \$0

Presented By: Jasmine Billings, Community Development Manager

Action Requested: Informational

Summary: Jasmine Billings, Community Development Manager, will provide an update to the Mayor and Council on a mural that will be placed alongside the wall of McCray's Tavern on the Square. The Grant was accepted in March, 2022 and provides a mural that will serve as a Welcome Mural to downtown Lawrenceville.

Attachments/Exhibits:
Design 6





LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item:	Architectural and Engineering Consulting Services on an Annual Contract
Department:	Engineering
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	\$800,000.00
Presented By:	Jim Wright, City Engineer
Action Requested:	Approval to renew Architectural and Engineering Consulting Services on an Annual Contract to the following firms: Atlas Technical Consultants LLC for Civil Engineering, Stormwater Management and Ecological Engineering, Traffic Engineering Services, Geotechnical Engineering, and Surveying Services; CAS Architecture, P.C. for Architectural Services, Mechanical, Electrical, Plumbing (MEP), Civil Engineering, and Landscape Architect Services; CROFT & Associates for Architectural Services and Mechanical, Electrical, Plumbing (MEP); Geo-Hydro Engineers, Inc. for Geotechnical Engineering; Hussey, Gay, Bell & DeYoung, Inc. for Civil Engineering, Landscape Architect Services, Stormwater Management and Ecological Engineering, Geotechnical Engineering, and Surveying Services; Kimley-Horn and Associates, Inc. for Civil Engineering, Landscape Architect Services, Stormwater Management and Ecological Engineering, and Traffic Engineering Services; and Precision Planning, Inc. for Architectural Services, Mechanical, Electrical, Plumbing (MEP), Civil Engineering, Landscape Architect Services, Stormwater Management and Ecological Engineering, and Surveying Services in the amount of \$800,000.00.

Summary: This contract is to provide comprehensive architectural and/or engineering services to include, but not be limited to: consultative and technical guidance; production of individual project scopes, design documents, construction documents, planning documents, specifications, project schedules, and cost estimates; as well as, project management, construction administration,

monitoring and testing, data analysis, permitting and report writing services on an as-needed basis. Pricing for Atlas Technical Consultants LLC has increased by 3%, Kimley-Horn and Associates, Inc. and Precision Planning, Inc. has increased by 2%, and CROFT & Associates and Geo-Hydro Engineers, Inc. has increased by 10% while the other firms' pricing remained unchanged. This is the second of four renewal options.

Background: Original awarded amount was \$1,000,000.00. First renewal amount was \$800,000.00.

Fiscal Impact: Amount of \$800,000.00. This contract is funded by multiple funding sources that are dependent upon the specified project.

Attachments/Exhibits:

Cost Tabulation

RP001-21
 Architectural and Engineering Consulting Services on an Annual Contract
 Engineering Department

	Atlas Technical Consultants LLC	CAS Architecture, P.C.	CROFT & Associates	Geo-Hydro Engineers, Inc.
PERSONNEL POSITION / BILLING CATEGORY	Hourly Billing Rate	Hourly Billing Rate	Hourly Billing Rate	Hourly Billing Rate
Principal-In-Charge	\$0.00	\$126.00	\$220.00	\$126.50
Project Manager	\$173.35	\$96.00	\$192.50	\$93.50
Engineer, Senior	\$157.59	\$96.00	\$165.00	\$104.50
Engineer	\$115.57	\$96.00	\$121.00	\$93.50
Engineer, Associate	\$105.06	\$96.00	\$121.00	\$82.50
Architect, Senior	\$0.00	\$96.00	\$165.00	\$104.50
Architect	\$0.00	\$96.00	\$121.00	\$93.50
Architect, Associate	\$0.00	\$96.00	\$121.00	\$82.50
Technician	\$73.54	\$76.00	\$110.00	\$63.80
CADD Technician	\$78.80	\$56.00	\$110.00	\$82.50
Administrative Support	\$57.78	\$45.00	\$99.00	\$49.50
Landscape Architect, Senior	\$131.33	\$96.00		
Landscape Architect	\$105.06	\$96.00		
Surveyor, Principal	\$157.59			
Surveyor, Senior	\$105.06			
Surveyor, Project	\$94.55			
Survey Crew	\$115.57			
Aerial Survey	\$126.07			
Mobile Scanner	\$0.00			
SUE Crew	\$131.33			
Vacuum Excavation Crew	\$147.08			
Planner, Principal	\$173.35			
Planner, Senior	\$157.59			
Planner	\$105.06			
Scientist, Principal	\$173.35			\$181.50
Scientist, Senior	\$131.33			\$159.50
Scientist	\$105.06			\$104.50
Scientist, Associate	\$94.55			\$93.50
Geotechnical Engineer	\$141.83			\$93.50
Other (may use additional sheet)	Additional Sheet			

	Hussey, Gay, Bell & Deyoung, Inc.	Kimley-Horn and Associates, Inc.	Precision Planning, Inc.
PERSONNEL POSITION / BILLING CATEGORY	Hourly Billing Rate	Hourly Billing Rate	Hourly Billing Rate
Principal-In-Charge	\$160.00	\$208.08	\$192.47
Project Manager	\$150.00	\$202.88	\$156.06
Engineer, Senior	\$150.00	\$208.08	\$140.45
Engineer	\$100.00	\$176.87	\$104.04
Engineer, Associate	\$95.00	\$135.25	\$88.43
Architect, Senior		\$0.00	\$156.06
Architect		\$0.00	\$124.85
Architect, Associate		\$0.00	\$104.04
Technician	\$70.00	\$104.04	\$67.63
CADD Technician	\$65.00	\$104.04	\$83.23
Administrative Support	\$70.00	\$93.64	\$72.83
Landscape Architect, Senior	\$150.00	\$208.08	\$124.85
Landscape Architect	\$140.00	\$176.87	\$83.23
Surveyor, Principal	\$150.00	\$130.05	\$156.06
Surveyor, Senior	\$120.00	\$114.44	\$104.04
Surveyor, Project	\$110.00	\$93.64	\$83.23
Survey Crew	\$130.00	\$140.45	\$140.45
Aerial Survey		\$0.00	\$1,244.32
Mobile Scanner	\$130.00	\$0.00	\$920.75
SUE Crew	\$135.00	\$201.84	\$151.90
Vacuum Excavation Crew		\$250.74	\$189.35
Planner, Principal	\$150.00	\$208.08	\$135.25
Planner, Senior	\$140.00	\$208.08	\$124.85
Planner	\$110.00	\$176.87	\$78.03
Scientist, Principal	\$250.00	\$208.08	\$150.86
Scientist, Senior	\$180.00	\$208.08	\$124.85
Scientist	\$115.00	\$176.87	
Scientist, Associate	\$105.00	\$135.25	
Geotechnical Engineer	\$150.00	\$176.87	
Other (may use additional sheet)			

Recommended Vendors:

Atlas Technical Consultants LLC
 2450 Commerce Ave. Suite 100
 Duluth, GA 30096
 P: 770-686-1006
todd.long@oneatlas.com

Geo-Hydro Engineers, Inc.
 1000 Cobb Place Blvd. Suite 290
 Kennesaw, GA 30144
 P: 706-354-1800
mike@geohydro.com

Precision Planning, Inc.
 400 Pike Blvd.
 Lawrenceville, GA 30046
 P: 770-338-8125
063DL@ppi.us

CAS Architecture
 1485 Natchez Way
 Grayson, GA 30017
 P: 678-646-7736
csmith@casarc.com

Hussey, Gay, Bell & Deyoung, Inc.
 4145 Shackleford Road, Suite 300
 Norcross, GA 30093
 P: 770-923-1600
csims@husseygaybell.com

CROFT & Associates
 3380 Blue Springs Road
 Kennesaw, GA 30144
 P: 770-529-7714
mark@croftae.com

Kimley-Horn and Associates, Inc.
 817 West Peachtree Street, NW, Suite 601
 Atlanta, GA 30308
 P: 678-533-3925
mike.rushing@kimley-horn.com



LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item:	Purchase and Installation of a Security Camera System
Department:	Information Technology
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	\$851,339.86
Presented By:	Kyle Parker, Information Technology Director
Action Requested:	Award Purchase and Installation of a Security Camera System to the highest-scoring firm, A3 Communications, Inc., amount not to exceed \$851,339.86. Authorization for Mayor to execute contracts subject to approval by the City Attorney. Contracts to follow award.

Summary: This project consists of the designing, furnishing, installing, training, and support of a security camera system for eight (8) City facilities. It will be a complete and comprehensive turn-key system. It will replace three individual existing systems with one integrated system that will allow the City's staff to monitor and playback video. Staff negotiated various items such as additional software licenses, maintenance agreements, and a solar-powered option for the cameras at the Lawrenceville Lawn, Public Works, and other parking areas for an additional cost of \$67,709.85 to complete the system.

Background: The City has three (3) existing security camera systems. These disjointed systems are all different and do not combine to provide the City with a single integrated system solution.

Fiscal Impact: Amount not to exceed \$851,339.86. This project is funded by the ARPA Capital Outlay Funds (2301535.541000 & 3551535.541000). Project 02-024.

Attachments/Exhibits:

Score Tabulation
Cost Tabulation

RP001-23
Security Camera System
Information Technology

			A3 Communications, Inc.	Com-Tech Communications of Georgia, Inc.	Howard Technology Solutions	Mobile Communications America, Inc.	Robert J. Young Company, LLC
ITEM #	POINTS ALLOCATED	CRITERIA	TOTAL POINTS	TOTAL POINTS	TOTAL POINTS	TOTAL POINTS	TOTAL POINTS
1	50	Proposed System Specifications and Details	39.6	32.4	25.4	23.6	40
2	15	Vendor Background and Qualifications	15.6	12.6	7	11	11.2
3	15	Vendor's Experience / Past Projects	13.6	12.8	6.6	12.4	10.8
4	10	Product Availability and Installation Schedule	9	5.2	5.2	2.6	9.2
5	10	Price of Products & Services	5.7	4.3	10	6	4.7
6	20	Optional System Demonstration / Oral Presentation	13.6	16.8	N/A	N/A	15.6
TOTAL			97.1	84.1	54.2	55.6	91.5

Recommended Vendor:

A3 Communications, Inc.
 10700 Abbotts Bridge Road, Suite 140
 Duluth, GA 30097
 P: 404-382-9490 ext. 5108
ccalhoun@a3communications.com

RP001-23

Security Camera System

Information Technology

SECTION A: CITY HALL - PRODUCTS				A3 Communications, Inc.	Com-Tech Communications of Georgia, Inc.	Howard Technology Solutions	Mobile Communications America, Inc.	Robert J. Young Company, LLC
TOTAL SECTION A				\$61,900.41	\$56,496.21	\$31,643.68	\$56,239.40	\$81,512.91
SECTION B: POLICE DEPARTMENT- PRODUCTS								
TOTAL SECTION B				\$69,723.63	\$28,205.56	\$45,347.44	\$48,434.05	\$92,601.72
SECTION C: LAWRENCEVILLE PUBLIC WORKS- PRODUCTS								
TOTAL SECTION C				\$81,108.24	\$87,136.52	\$28,682.50	\$72,191.36	\$124,272.00
SECTION D: LAWRENCEVILLE ARTS CENTER- PRODUCTS								
TOTAL SECTION D				\$50,732.30	\$64,302.83	\$33,537.92	\$49,486.32	\$70,778.52
SECTION E: BOBBY SIKES PERFORMING ARTS CENTER- PRODUCTS								
TOTAL SECTION E				\$26,473.30	\$31,684.43	\$20,744.06	\$28,787.92	\$22,951.84
SECTION F: LAWRENCEVILLE LAWN AMPHITHEATER - PRODUCTS								
TOTAL SECTION F				\$46,908.94	\$15,674.90	\$9,012.80	\$19,206.05	\$84,540.03
SECTION G: PARKING DECK #1- PRODUCTS								
TOTAL SECTION G				\$41,652.49	\$53,625.74	\$21,676.37	\$56,010.48	\$36,039.04
SECTION H: PARKING DECK #2- PRODUCTS								
TOTAL SECTION H				\$38,216.92	\$91,191.78	\$16,404.68	\$46,780.06	\$31,901.84
SECTION I: CAMERA INSTALLATION AND CONFIGURATION - LABOR								
ITEM #	DESCRIPTION	APPROX. QTY		TOTAL PRICE	TOTAL PRICE	TOTAL PRICE	TOTAL PRICE	TOTAL PRICE
1	City Hall	1	LS	\$26,405.00	\$47,000.00	\$23,121.00	\$31,199.69	\$51,903.00
2	Police Department	1	LS	\$25,325.00	\$12,000.00	\$29,478.00	\$19,927.63	\$41,062.50
3	Lawrenceville Public Works	1	LS	\$32,125.00	\$132,000.00	\$21,764.00	\$46,947.59	\$46,647.00
4	Lawrenceville Arts Center	1	LS	\$31,000.00	\$94,875.00	\$25,313.00	\$24,951.35	\$41,062.50

COST TABULATION

5	Bobby Sikes Performing Arts Center	1	LS	\$19,700.00	\$42,000.00	\$16,727.00	\$21,195.82	\$17,082.00
6	Lawrenceville Lawn Amphitheater	1	LS	\$29,575.00	\$10,000.00	\$9,543.00	\$9,103.42	\$30,222.00
7	Parking Deck #1	1	LS	\$34,700.00	\$34,000.00	\$21,989.00	\$32,265.12	\$17,082.00
8	Parking Deck #2	1	LS	\$44,075.00	\$84,000.00	\$16,633.00	\$26,685.56	\$13,140.00
TOTAL SECTION I				\$242,905.00	\$455,875.00	\$164,568.00	\$212,276.18	\$258,201.00
SECTION J: ANNUAL MAINTENANCE OF CAMERA SYSTEM								
ITEM #	DESCRIPTION	APPROX. QTY		TOTAL PRICE	TOTAL PRICE	TOTAL PRICE	TOTAL PRICE	TOTAL PRICE
1	City Hall	1	LS	\$7,064.43	\$7,800.00	\$5,372.00	\$20,583.75	\$12,523.20
2	Police Department	1	LS	\$7,603.89	\$9,900.00	\$6,851.00	\$12,163.13	\$10,827.35
3	Lawrenceville Public Works	1	LS	\$9,058.66	\$12,300.00	\$2,211.00	\$13,410.63	\$12,392.75
4	Lawrenceville Arts Center	1	LS	\$6,538.58	\$16,500.00	\$5,882.00	\$15,905.63	\$9,783.75
5	Bobby Sikes Performing Arts Center	1	LS	\$3,693.86	\$6,300.00	\$3,884.00	\$10,291.88	\$4,043.95
6	Lawrenceville Lawn Amphitheater	1	LS	\$6,118.72	\$1,500.00	\$2,211.00	\$2,183.13	\$3,652.60
7	Parking Deck #1	1	LS	\$6,108.20	\$5,100.00	\$5,108.00	\$7,173.13	\$4,043.93
8	Parking Deck #2	1	LS	\$6,583.35	\$6,600.00	\$3,862.00	\$5,613.75	\$3,130.80
TOTAL SECTION J				\$52,769.69	\$66,000.00	\$35,381.00	\$87,325.03	\$60,398.33
PROPOSAL TOTALS				A3 Communications, Inc.	Com-Tech Communications of Georgia, Inc.	Howard Technology Solutions	Mobile Communications America, Inc.	Robert J. Young Company, LLC
SECTION A TOTAL				\$61,900.41	\$56,496.21	\$31,643.68	\$56,239.40	\$81,512.91
SECTION B TOTAL				\$69,723.63	\$28,205.56	\$45,347.44	\$48,434.05	\$92,601.72
SECTION C TOTAL				\$81,108.24	\$87,136.52	\$28,682.50	\$72,191.36	\$124,272.00
SECTION D TOTAL				\$50,732.30	\$64,302.83	\$33,537.92	\$49,486.32	\$70,778.52

COST TABULATION

PAGE 3

6.

SECTION E TOTAL	\$26,473.30	\$31,684.43	\$20,744.06	\$28,787.92	\$22,951.84
SECTION F TOTAL	\$46,908.94	\$15,674.90	\$9,012.80	\$19,206.05	\$84,540.03
SECTION G TOTAL	\$41,652.49	\$53,625.74	\$21,676.37	\$56,010.48	\$36,039.04
SECTION H TOTAL	\$38,216.92	\$91,191.78	\$16,404.68	\$46,780.06	\$31,901.84
SECTION I TOTAL	\$242,905.00	\$455,875.00	\$164,568.00	\$212,276.18	\$258,201.00
SECTION J TOTAL	\$52,769.69	\$66,000.00	\$35,381.00	\$87,325.03	\$60,398.33
TOTAL	\$712,390.92	\$950,192.97	\$406,998.45	\$676,736.85	\$863,197.23
10% City Contingencies	\$71,239.09	\$95,019.30	\$40,699.85	\$67,673.69	\$86,319.72
GRAND TOTAL	\$783,630.01	\$1,045,212.27	\$447,698.30	\$744,410.54	\$949,516.95



LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item:	Renewal of Managed Firewall and Network Engineering Services Agreement with Cira Infotech, Inc.
Department:	Information Technology
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	\$7,507 per Month for 36 Months
Presented By:	Kyle Parker, Information Technology Director
Action Requested:	Approval to renew Professional Services agreement with Cira Infotech to provide managed firewall and network engineering services for \$7,507.00 per month for 36 months. Authorization for the Mayor to execute contracts subject to approval by the City Attorney.

Summary: Staff is seeking approval to renew our agreement with Cira Infotech, Inc. to provide Managed Firewall services for the City's seven (7) firewalls, endpoint detection and response services for 420 endpoints, and provide network engineering services and support for the City's network. In this renewal, we are adding support for 3 additional firewalls that support the Guest Network and the Parking Guidance Systems, and Vulnerability Assessment Services.

Background: Cira Infotech, Inc. specializes in providing professional network and security engineering services and has over 100 certified engineers on staff. Their knowledge and past experience of the City's IT systems makes them a valued and trusted partner. Cira Infotech often advises and assists with the implementation of systems to make sure they integrate with the existing systems and are implemented so that the City's data and systems are secure.

Fiscal Impact: \$7,507 per Month for 36 Months. (1001537.522210 Service Contracts & 3551535.541000 Project 02-030).

Attachments/Exhibits:
Agreement

Managed Services Agreement - Renewal

City of Lawrenceville, GA

Agreement #: XXXXX

Due November 3, 2022

Submitted by:

ALTON KIZZIAH

EVP & GM, TECHNOLOGY SOLUTIONS GROUP

4320 West Kennedy Boulevard | Suite 200

Tampa, Florida 33609

813.327.4717

Akizziah@mgtcon

Page 117



“Cira Infotech, Inc”

5755 N Point Parkway, Suite 81 & 82
Alpharetta, GA 30022

Managed Firewall Services Agreement to Perform “Managed Firewall, Network and EDR services” to the client “City of Lawrenceville, GA”

Date

November 3, 2022

Services Performed By:

“Cira Infotech, Inc”
5755 N Point Parkway, Suite 81
& 82
Alpharetta, GA 30022

Services Performed For:

“City of Lawrenceville, GA”
70 S Clayton Street, P.O. Box
2200, Lawrenceville, GA
30046, USA

This Managed Firewall Services Agreement (MFSA) is issued for the Managed Services contract between “City of Lawrenceville, GA” (“Client”) and “Cira Infotech, Inc” (“Supplier”), effective December 1st, 2022 (the “Agreement”). This MFSA is subject to the terms and conditions contained in the Agreement between the parties and is made a part thereof.

Period of Performance

The Services shall commence on December 1st, 2022, and shall continue for a period of 36 Months.

Engagement Resources

The following CIT Resources shall be engaged on a Shared basis model for the duration of this project. CIT reserves the right to assign resources to this project based on the requirement and availability of resources.

Name	Designation
Mahesh Garikota	Head – IT Operations and Delivery
Ashok Pilla	NOC Manager
NOC Resources	Network Operations team including Palo Alto and Check Point Certified Engineers Level 2 and Level 3 Resources

CIT's Understanding of the City of Lawrenceville's environment

CIT has the following understanding of the client.

- ❖ The Client “City of Lawrenceville” currently has Palo Alto Firewalls at City Hall and Check Point Appliances at the Police Dept. City Parking facilities has Fortinet 60E firewall. COL has CrowdStrike Falcon as EDR solution across all end points.

Systems or devices in scope

1. The following components are currently installed at City of Lawrenceville and Police Department

Part Number	Product Description	Location	Quantity
CPAP-SG5200-NGTP	5200 Next Generation Threat Prevention (NGTP) Appliances at – to be replaced by PA 3200 series firewalls by April 2023.	City Hall	2
PA-3220	3220 Palo Alto appliances with Next Generation blades at the Police Department	Police Department	2
FORTI NET-100E	Fortinet 100E firewalls with Next Generation Features	City Hall	1
FORTI NET-60E	Fortinet 60E with Next Generation Features	City Parking Facilities	2
CS-FALCON	Endpoint Security Support (CrowdStrike Falcon)	City & PD Laptops, Workstations and Servers	420
PAN-PRA-25	Palo Alto Panorama Virtual Software – Centralized management device	City Hall	1
CIT-VA	Quarterly Vulnerability Assessments and Reporting on Servers	City Hall and PD	50 Servers

Summary

- 7 x Firewalls devices in total
- 1 x Firewall management server
- 420 Endpoints for EDR service

Scope of Work

Firewall Managed Services:

- 24x7 Device Software Hardware Health Monitoring and Alerting
- Policy Provisioning: Day to Day Firewall changes (No more than 5 changes a week or 20 changes a month)
- Incident Handling (Any issues with the Firewall including break-fix)
- Maintain the Firewall Currency including Hotfixes, Upgrades, Threat Prevention, and other updates
- Tweaking of Firewall configurations / Troubleshooting any connectivity issues through the firewall
- Maintain currency of the OS and blades on the firewalls and firewall management server
- Support all blades as licensed and configured
- Responsible to work with issues related to the product and resolving them by working with the vendor Support team including RMA
- Backup and Restore of Configurations on regular basis.
- Replace the gateways and bring them operational in the event of a hardware/software fault
- Annual audit of system configurations; compare against best practices and industry standards
- Monthly device and system state reporting
- Documentation for system state and changes



Endpoint Detection and Response Services:

- Policy Provisioning: Day to Day policy changes
- Threat review and updates: update threat policies per SOC and vendor recommendations to mitigate or protect against known IOCs and Signatures
- Main the stable CrowdStrike EDR version per vendor recommendations
- Update EDR policy detection and protection levels based on industry trends, and suggestions from SOC and CrowdStrike Threat Defense.
- Periodic cleanup for Endpoints on the console to save licenses and preserve historical data for compliance and forensic needs
- Investigate all critical and high detections; make necessary policy or signatures changes to protect the environment against threats
- Monthly systems and environment status report
- Documentation of system state and all changes.

Vulnerability Assessment Service:

- Perform quarterly vulnerability scans on all servers at City Hall and the Police Department
- Generate findings report
- Comparison of the report against previous data and provide metrics on areas of improvement and attention
- Quarterly management reporting

General Services:

- Follow the ITIL change and incident management process using the CIT ITSM tool
- Monthly management meeting with reporting on all services
- Dedicated client services manager or a project manager
- 24x7 hotline for emergency service requests, changes, or troubleshooting needs
- Prepare systems in scope for any internal projects

Additional value-add services:

- Advanced Network support – limited to 5 hours per month
 - Configuration review of network switches and wireless controller
 - Configuration of VLANs, Trunking, STP, VTP, SNMP, etc. on network devices
- Monthly 2 hours for Server consulting service, support of enterprise applications like AD, DNS, DHCP, Hyper-V, and Azure AD.
- Once the City Hall firewalls are migrated, the scope will be automatically updated to include support for the new firewall hardware platform and remove the old firewalls

Service Level Objectives (SLO)

The following Service Level Objective (SLO) will be applicable:

- 2 Hour response for any Monitoring Alert (SNMP based) via email/ticket
- 4 Hour response for any Priority 1 issues such as Hardware failure and major outage during business hours and 8-hour response outside of business hours
- 6 Hour response for any Priority 2 issues such as minor/partial impact to business during business hours and 24 hours response outside of business hours
- 2 Business Day response for any Priority 3 issues such as non-impact/low-impact issues
- Same Business Day response from high-impact changes (provided changes are communicated via email or phone call before 12 Noon. Changes communicated after 12 noon will be processed the next business day)
- 2 Business Day response for any of the regular changes.

CIT Out of Scope

- Hardware and software Ownership, Licenses, and Manufacturer support are COL's responsibility
- Review Issues related to applications or databases not related to the Firewall
- Network Device Configurations on the upstream and downstream devices
- Physical Hands and Eyes
- Anything not specified in the In-Scope section above.
- Remediation of vulnerabilities found during vulnerability assessment will be out of the scope of CIT. VA services are limited to scanning and reporting

City of Lawrenceville to Provide

- Access to the COL Network Architecture Documentation If any
- Network Configurations/Access to the upstream and downstream Switches/Routers etc. as needed
- Firewall Configurations and Access including Console
- Access to Check Point and Palo Alto Support Portal for CIT resources to download licenses as well as log service requests for the current hardware.
- B2B VPN with Cira SOC at Alpharetta GA and Remote Access account to access Data Centers (for device monitoring and supporting)

Completion Criteria

Contractor shall have fulfilled its obligations when any one of the following first occurs:

- Contractor accomplishes the Contractor activities described within this SOW, including delivery to Client of the materials in line with scope of work and Client accepts such activities and materials without unreasonable objections.
- CIT resource will perform it's best to identify and troubleshoot the issues in a reasonable time frame as agreed mutually and will escalate any unresolved issues to obtain help from Product Vendor and will closely work with Product support team while keeping City of Lawrenceville informed with progress.
- CIT does not guarantee or be responsible for any product features nonfunctional due to limitation from Product/Service from Manufacturer (In this case Check Point/Palo Alto/Crowd Strike)

Consultation Charges

CIRA INFOTECH is pleased to provide Managed services to the City of Lawrenceville as described in the above sections for a fixed monthly cost. The Ongoing Managed services will start from the date of signing the contract and will continue for a period of 36 Months. At the end of 36 Month Contract. In the event that there is a need to expand or change the scope or schedule of this engagement, a formal addendum will be executed, and additional fees may apply.

Monthly Managed Services Cost	Duration	Service covering both City of Lawrenceville and Police Dept.
\$ 7,507 / Month (\$ 270,240 for 3YRs)	36 Months	As defined in the Scope and CIT Scope sections above

Note: This pricing quote is valid for sixty (60) days from the date of this Proposal and is based on Net 30 days Payment term. This contract shall terminate immediately and absolutely at such time as appropriated and otherwise unobligated funds are no longer available from City to satisfy the obligations of the City under the contract



LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: CITY COUNCIL WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item:	Discussion regarding the street name of the new GGC Corridor
Department:	Engineering
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	None
Presented By:	Jim Wright, P.E., City Engineer
Action Requested:	Discussion regarding the name of the new Collins Hill Extension Project.

Summary: The GGC Project was completed in Spring 2021 and provides a direct connection between N. Clayton St. and Collins Hill Rd. The new section of roadway hasn't been formally named. Discussion on the naming of the new corridor should define the limits of the new name as well as an appropriate name. The Engineering Department recommends that the future name should provide continuity either way.

Fiscal Impact: None

Attachments/Exhibits: Georgia State Guidance, Gwinnett County Ordinance, City of Roswell Street Name Regulations

Section 360-100. - Assignment of Names and Addresses.

360-100.1 Subdivision or Development Names.

- A. Proposed subdivision or development names must be reviewed and approved prior to the issuance of a Development Permit. Names will be reviewed by the Department upon submittal of the Subdivision Development Plan or Site Development Plan.
- B. Proposed names shall not duplicate or too closely approximate, phonetically, the name of any other subdivision or development in Gwinnett County or its municipalities except for extensions of existing subdivisions or developments.
- C. Subdivision and development names may be reserved if submitted and approved along with the Concept Plan for the project.

360-100.2 Street Names.

- A. Proposed street names for public or private streets must be reviewed and approved prior to approval of a Development Permit or recording of a Final Plat. Street names may be reserved through approval as shown on an approved Concept Plan or Subdivision Development Plan for the subdivision.
- B. Street names shall consist of a root name of the subdivider or developer's choosing and a suffix designation (such as "Street", "Avenue", "Drive", etc.), and shall be followed by a quadrant suffix. Directional prefixes (i.e., "North", "South") and the prefixes "old" or "new" shall not be used.
- C. All streets shall bear the proper quadrant suffix appropriate to its location within the County (i.e. NE, NW, SE and SW), as determined by the Department.
- D. A proposed street that is obviously in alignment with another already existing and named street shall bear the name of such existing street, unless this requirement is waived by the Department of Transportation.
- E. Except within the same development, no proposed street name shall duplicate (be spelled the same or be phonetically the same) as an existing street name within Gwinnett County regardless of the use of such suffix designations as "Street", "Avenue", "Boulevard", "Drive", "Place", "Way", "Court", or however otherwise designated. In the same subdivision, a root name may not occur more than twice.
- F. All street root names and suffix designations are subject to the approval of the Department. Obscene or otherwise unacceptable language, abbreviations, contractions, or initials may not be used.
- G. Root names shall consist of no more than 13 characters including spaces. Letters not occurring in the English alphabet, hyphens, and numerals shall not be used.

360-100.3 Street Address Assignments.

- A. A street address number will be assigned prior to issuance of a Building Permit. For any new structure proposed on a property which has not been assigned an address, a street number will be assigned upon confirmation or establishment of the property as a buildable lot of record under the requirements of this UDO. Unless a public or private street is proposed, an overall development located on one buildable lot of record shall be issued a single street address. The property owner shall be responsible for numbering/lettering individual buildings, suites and units.
- B. Subdivisions. House numbers will be assigned after an Exemption Plat or Subdivision Development Plan is approved for the property. Submit two copies of the approved plat to the Department. Block number assignments shall also be designated for abutting major street name signs at this time.
- C. For each of the plans listed below projects will be numbered after the developer submits the Site Development Plan or Subdivision Development Plan to the Department of Planning and Development.
 - 1. Commercial/Industrial projects or buildings.
 - 2. Apartment projects.
 - a. One number shall be assigned to the apartments when the project is located on one parcel.
 - 3. Condominium projects.
 - a. Individual units shall be numbered consecutively if located along public or private streets.
 - b. Units in the "stacked-flat" configuration shall use the same numbering approach as applies to an apartment project.
- D. The following numbering systems shall be followed per postal regulations:
 - 1. Individual mailbox for each dwelling unit:
 - a. Each street in the project must be named.
 - 2. Cluster box system — Centralized mailbox for entire project:
 - a. One street name will serve to assign all house numbers for mail delivery.

STREET NAME REGULATIONS

The following conventions will be followed when naming a street within the City of Roswell.

- (a.) Street names shall consist of a root name and a suffix designation (such as, “Street, Avenue, Road, Circle, Way, etc.). Root names shall consist of no more than 13 characters including spaces and hyphens.
- (b.) Directional prefixes (i.e. North, South, East, West) and the prefixes “old” or “new”, shall not be used.
- (c.) A proposed street that is obviously in alignment with another already existing and named street shall bear the name of such existing street, unless this requirement is waived by the Fire, Police and Public Works Department.
- (d.) Except within the same development, no proposed street name shall duplicate (be spelled the same or be phonetically the same) an existing street name within the City of Roswell, in the postal zone, or in the unincorporated areas in proximity to Roswell regardless of the use of such suffix designations as “Street”, “Avenue”, or however otherwise designated. In the same subdivision, a root name shall not occur more than twice.
- (e.) City streets shall not bear the name of names of living individuals.
- (f.) Proposed names for private streets shall follow the same conventions as for public streets.
- (g.) All street root names and suffix designations are subject to the approval of the Planning and Zoning Department. Obscene or otherwise unacceptable language, abbreviations, contractions, or initials shall not be used. Names must respect the dignity of all races, religions and national origins and comply with any pertinent civil laws.
- (h.) Letters not occurring in the English alphabet, and numerals, shall not be used.
- (i.) Continuous roadways shall not be subdivided into segments with different names.

**Street Addressing
Standards and Guidelines
for the State of Georgia**

**Prepared by
Georgia Spatial Data Infrastructure
GIS Coordinating Committee
Framework Transportation Technical Working Group
August 2000**

FOREWORD

This guideline was produced by The University of Georgia's Office of Information Technology Outreach Services (ITOS) under contract with Georgia's GIS Coordinating Committee as part of a collaborative effort to develop the State of Georgia's core Geographic Information System (GIS) base map.

TABLE OF CONTENTS

1 INTRODUCTION	1
2 PURPOSE	2
3 GOALS	2
4.0 TERMINOLOGY	3
4.1 Physical Address & Mailing Address	3
4.2 Parsing	3
4.3 Address Database	4
4.4 Roads Database with Address Ranges (RDAR)	4
5.0 REVIEW OF EXISTING STANDARDS	6
5.1 United States Postal Service (USPS)	6
5.2.0 US Census Bureau (USCB)	7
5.2.1 Roads Database (RDAR)	7
5.2.2 Address Database	9
5.2.3 Alphabetic Case	9
5.3 National Emergency Numbering Association (NENA)	10
5.3.1 Address Database	10
5.3.2 Roads Database (RDAR)	10
5.4 Georgia Department of Transportation (GDOT)	11
5.5 American Planning Association (APA)	11
6.0 RECOMMENDED STANDARDS AND GUIDELINES FOR ADDRESSING	12
6.1 ESTABLISHING A REFERENCE POINT AND BASELINES	12
6.1.1 Establishing a Reference Point	12
6.1.2 Establishing Baselines	12
6.2.0 STREET NAMING	13
6.2.1 General Principles of Assigning Pre-Directions	15
6.2.2 General Principles of Assigning Street Names	15
6.2.3 General Principles of Assigning Street Types	19
6.2.4 General Principles of Assigning Quadrants	19
6.3.0 STREET NUMBERING	21

6.3.1 Assign Each Street an Order	21
6.3.2 Assign Each Street a Parent	22
6.3.3 Assign Address Ranges	23
6.3.3(a) First Order Streets	23
6.3.3(b) Higher Order Streets	24
6.3.3(c) Special Cases	26
6.3(a) Advantages of This System	28
6.3(b) Disadvantages of This System	30
6.4.0 HOUSE NUMBERING	30
6.4.1 Corner Lots	31
6.4.2 Stacked Addresses	31
6.4.3 Apartments and Duplexes	31
6.4.4 Businesses	32
6.4.5 Mobile Home Parks	32
7 APPENDICES	33
7.A RECOMMENDED DATABASE DESIGNS	33
7.A.1 Recommended Design of Address Database (Minimum Content)	33
7.A.2 Recommended Design of RDARs (Minimum Content)	34
7.A.3 Justification for Width and Data Type Recommendations	35
7.B STREET TYPES WITH DESCRIPTIONS	38
7.C POTENTIAL ADDRESS DATA SOURCES	42
8. SELECTED REFERENCES	43

1 INTRODUCTION

Because the property address is a fundamental component of any government service delivery system, it must be assigned through a logical and consistent procedure. The importance of proper addressing cannot be overstated; during an emergency it can mean, quite literally, the difference between life and death. Additionally, addressing helps define educational and political districts, and affects the quality of services available to citizens. A logical and consistent addressing system, therefore, can tangibly improve the quality of life in a community.

Unfortunately, the importance of the addressing task is frequently overlooked, resulting in addressing schemes that are often unorganized or incomprehensible and that lead to inefficient and ineffective governmental and commercial service delivery. But easily understood addressing systems are not simple to design and maintain. Local governments have found that managing a coherent addressing system can be difficult even under the best circumstances. During periods of steep growth, existing flaws in addressing systems -- duplicate street names, unnecessary name changes, non-sequential numbering, etc. -- can cause small inconsistencies to propagate through the system, creating even larger problems. Currently, many Georgia counties do not use municipal style addresses (*e.g.*, **101 E Main St SE**), but conversion from the old system of rural routes and boxes is inevitable as more counties implement 911 systems. The standards and guidelines in this document are designed to make the process a little easier and to help make addressing across the State of Georgia more consistent.

Citizens usually bear the cost of poorly designed addressing systems through inefficient government services and through lost business when potential customers are unable to locate an establishment. Poorly designed addressing systems result in postage increases, delivery delays, lost parcels, and even loss of property and life. Yet ironically, those most likely to oppose the revamping of older addressing systems (which may contain errors likely to interfere covertly with services) are the local citizens and businesses themselves, who may be required to revise subscriptions and billing, or to reprint labels, stationery, and the like. As a result, public officials who are aware of the dangers posed by addressing-system problems may discover that their constituencies do not support change. Education and public involvement are essential elements

in developing a comprehensive solution. Citizens must know why it is necessary to readdress, and they must be provided an opportunity to participate in the process.

Today there are various tools to help implement a new addressing system or revamp an existing one. Although Geographic Information System (GIS) tools will not make the political process any easier, they certainly make technical implementation much simpler, faster, and more consistent. This document was written with GIS implementation in mind; most, if not all, of the applications described in this document will be applicable to the non-digital world, but the standards herein were developed primarily for electronic implementation.

2 PURPOSE

In the development of this document, political concerns were necessarily attenuated, while safety and efficiency concerns remained paramount. The purpose of this document, *Street Address Standards and Guidelines for the State of Georgia*, is to assist county and municipal governments with implementing and maintaining a consistent, safe, useful, and standardized addressing system.

3 GOALS

The primary goal of this report is to provide local government agencies with a complete set of addressing guidelines, so that addressing may become more consistent statewide and efficiency of government services such as emergency response may be improved.

Secondary goals include:

- ? To improve the quality of life for residents of Georgia through improved delivery of mail and services;
- ? To project a positive and progressive image to residents, prospective residents, and developers;
- ? To make address location simpler for residents and businesses;

- ? To emphasize the importance of a consistent, county-wide addressing system;
- ? To promote the use of GIS for creation and maintenance of a roads database with address ranges (RDAR).

4.0 TERMINOLOGY

In order to understand the following recommended standards, one must first understand the difference between a **physical address** and a **mailing address**, as well as the difference between an **address database** and a **roads database with address ranges (RDAR)**.

4.1 Physical Address & Mailing Address

A **physical address** describes where a dwelling, business, or lot is physically located, not necessarily where mail is received. For instance, a person may reside at **123 N America St NE**, but receive mail at **PO Box 128**. The PO box is a **mailing address**, while **123 N America St NE** is a **physical address**.

4.2 Parsing

During data entry, both physical and mailing addresses should be broken down into as many components as possible, a process known as *parsing*. See examples of parsed and unparsed physical address formats below. (Note: For mailing addresses, an additional column should be included for PO boxes).

Unparsed Address Database

NAME	ADDRESS
Doe, Jane C., Dr.	123 N America St NW
Smith, Joe B. Jr.	125 Oak St SE
Jones, Terry	357 Magnum Rd NE

Parsed Address Database

LAST-NAME	MI	FIRST-NAME	TITLE	NAME-SUF	HOUSE-NUM	PRE-DIR	ST-NAME	ST-TYPE	QUAD
Doe	C	Jane	Dr		123	N	America	St	NW
Smith	B	Joe		Jr	125		Oak	St	SE
Jones		Terry			357		Magnum	Rd	NE

4.3 Address Database

An **address database**, for the purposes of these guidelines, is a database that contains specific **physical addresses**, which describe a location for receipt of emergency services, utilities, *et al.* It is not uncommon for agencies and businesses to maintain databases containing both physical and mailing addresses, as service and billing locations are not always identical. This document is written with concern for **physical addresses only**, but the recommendations given for physical addresses can be closely followed for mailing addresses as well.

4.4 Roads Database with Address Ranges (RDAR)

The differences between an **address database** and a **roads database with address ranges (RDAR)** are just as significant as the differences between a physical address and a mailing address. As mentioned above, an **address database** is a collection of any number of specific addresses, each of which correlates to one (and only one) spot on the earth. A RDAR, on the other hand, records the **acceptable range of addresses** for every street or portion of a street in an area. For example, a specific address might appear in an **address database** as **124 N America Street NW**. A **RDAR** might locate this address on the following road segment: **N America St NW 100 101 158 159** (*i.e.*, the section of **N America St NW** extending from addresses **100** and **101** to addresses **158** and **159**).

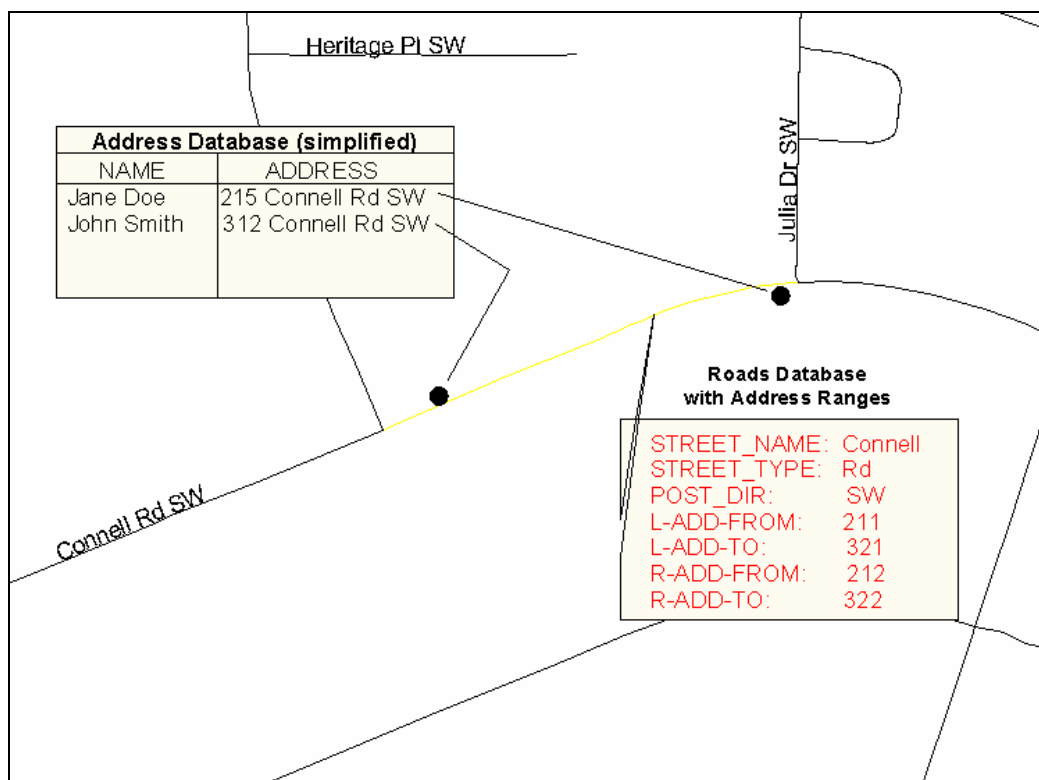


Figure 4.0: GIS map with address database and RDAR

A roads database with address ranges (RDAR) allows an address database to be mapped. Here, the two physical addresses **215 Connell Rd SW** and **312 Connell Rd SW** (identified from the address database, inset upper left) are located on a section of **Connell Road SW** spanning nos. 212-322 on the right, and nos. 211-321 on the left (identified from the RDAR, inset lower right).

With the advent of GIS, the RDAR is becoming more and more common. It is often used by 911 centers to dispatch calls, and is typically used to create a Master Street Address Guide (MSAG).[†] The RDAR is invaluable to GIS applications and is commonly used to map events (such as crimes) or approximate location of utility customers. The RDAR does **not** replace the address database; it is a GIS enhancement which can transform a standard address database into a very powerful tool for geographic and visual analysis.

[†] NENA defines an MSAG as “A database of street names and house number ranges within their associated communities defining Emergency Service Zones (ESZs) and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls.”

5.0 REVIEW OF EXISTING STANDARDS

To develop these guidelines and standards, many existing standards were examined, with primary consideration given to data published by the U.S. Postal Service (USPS), U.S. Census Bureau (USCB), National Emergency Numbering Association (NENA), American Planning Association (APA, formerly ASPO), and the Southern Association of State Planning and Development Agencies. Upon review, it became apparent that existing systems were not mutually compatible, especially in the area of database design, each having been developed for a particular scope of work. The recommendations made in this publication are an attempt to take the best features from all current systems and combine them into a single standard that will best serve local governments and the State of Georgia.

Furthermore, this publication does not attempt to encompass the general issue of database design, but focuses only on the addressing portion of a database. However, as a general rule, database design in the age of inexpensive data storage should implement parsing of data as much as possible. As an example, an address should be broken down into 10 different data fields (see Appendix, sec. 7.A.1); names should arguably be broken down into 6 data fields. Parsing of data typically results in more consistent data entry and will always produce a more versatile database.

5.1 United States Postal Service (USPS)

USPS Publication 28, *Postal Addressing Standards*, is primarily devoted to describing how a mailing address should appear on a parcel; no standards are provided for address data storage, address range storage, street naming, or street addressing. There are, however, abbreviations listed in Appendices B, C, F, and G of Publication 28, which are recommended for data entry into both address databases and address range databases. (Note: Although abbreviations listed in Publication 28 are shown in all uppercase letters, it is recommended that a mixture of uppercase and lowercase letters be used in an address database or RDAR. This issue is discussed in greater detail in section 5.2.3.)

5.2.0 US Census Bureau (USCB)

The USCB publishes standards for both address databases (Computer-readable Census Address List) and address range databases (Topologically Integrated Geographic Encoding and Referencing system, or TIGER).

5.2.1 Roads Database (RDAR)

Most RDARs in use today originate from the USCB TIGER/Line files, although in many cases the data has been enhanced and/or updated. TIGER/Line files are relatively complex extracts from the Census TIGER database utilizing **linked tables** related by **unique identifiers** -- these concepts must be understood in order to work with TIGER/Line files successfully. With TIGER data, address range information for a road segment (spatial object) is stored separately from the data file containing the spatial object itself (see LaMacchia). However, since both tables have a unique identifier in common, the two tables can be easily linked so that address range information can be accessed via the spatial object. This is a very desirable and very common way of storing data, as it provides coherent and comprehensive organization and reduces file sizes.

The diagram below illustrates the concept of linking tables. This concept will be mentioned again in section 5.4, where it is recommended in conjunction with the DLG-F dataset to be adopted as a state base map layer and used and maintained by Georgia DOT in the fall of 2000.

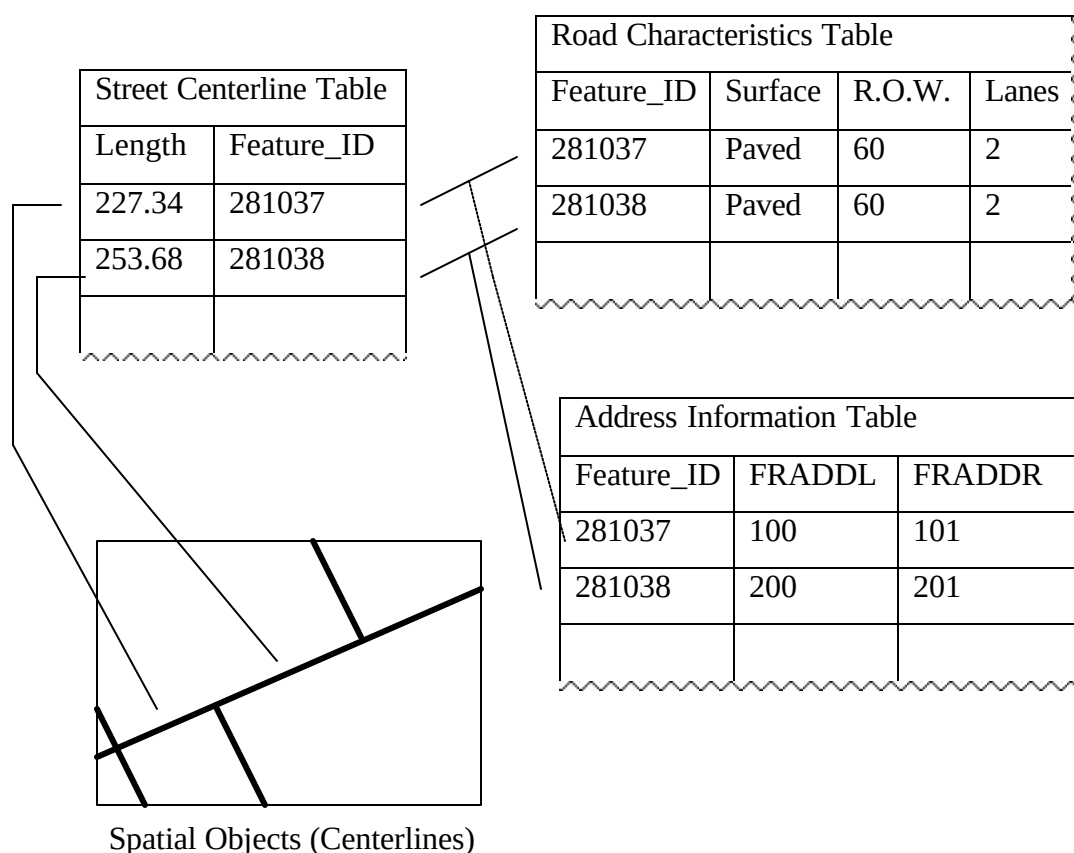


Figure 5.2.1: Linking Tables with Unique Identifiers

Since TIGER data was built to accommodate addressing, the roads database design recommended in section 7.A.2 closely resembles the design of the TIGER/Line file's *Record Type 1*. The most noticeable differences between the Record Type 1 data dictionary and the data dictionary recommended here are the removal of several unrelated data fields, inclusion of a field for the **full street name** (see section 6.2.0) and narrower strictures on data types. For example, the TIGER design allows alphabetical characters to be entered into the address range fields, which is not recommended here. The format described in this document should better serve local governments in Georgia by forcing more conscientious data entry; and since these standards are stricter than TIGER standards, data can easily be converted to Census Bureau format if necessary.

5.2.2 Address Database

The recommended format for an address database, however, is not patterned after the USCB design, because the Computer-readable Census Address List used by the USCB is not parsed enough to serve the needs of local governments. USCB format confines the entire street name to one field of 43 characters, which must encompass pre-direction, street name, street type and quadrant. This format is inadequate for most local government applications, because greater data-entry-level parsing allows for easier and more versatile recombination of data (concatenation) when needed. Conversely, if data-entry field options are insufficient, parsing at a later time becomes a complex and labor-intensive process. Therefore, it is better to have more fields of data than originally deemed necessary than to make the mistake of having too few. Parsing of data during entry also helps reduce data-entry errors, which is crucial to most local government applications, especially where GIS and 911 are concerned. (See the table in section 4.2 for an example of a parsed database and Appendix 7.A.1 for the recommended address database design.)

5.2.3 Alphabetic Case

The data entry style of **mixed uppercase and lowercase letters**, which the US Census Bureau uses, is recommended because it allows for a more versatile database than single-case formats can produce. For data entry purposes, it is recommended that the first letter of each word or abbreviation be entered in uppercase. Some words or abbreviations (such as *McCrae* or *NE*) will include additional uppercase letters after the initial.

Strong consideration was given to this recommendation, as it diverges from the all-uppercase style currently used for most road signs and maps. However, this recommendation can be made in good conscience, since most GIS software packages include tools to convert from mixed-case to all-uppercase or -lowercase, but do not include tools capable of correctly and consistently converting all-uppercase or -lowercase addressing data to mixed-case.

5.3 National Emergency Numbering Association (NENA)

5.3.1 Address Database

The address database design recommended by the National Emergency Numbering Association closely resembles the design recommended here. NENA recognizes the need to parse data so as to assure versatility and reduce data entry errors. Most of the recommendations in Appendix 7.A.1 for an address database design comply with NENA standards, except that the street name **field width** of 40 or 60 characters, recommended by NENA, is here reduced to 30. In order to minimize confusion, and to avoid problems with data entry and sign construction, the **street name** portion of a **full street name** (see section 6.2 for explanation of these terms) should never exceed 30 characters.

5.3.2 Roads Database (RDAR)

NENA does not make recommendations about RDARs *per se*. NENA standards do, however, make recommendations about the format of an MSAG; and since the MSAG is usually an output from a RDAR, the layout of the roads database can be inferred from the MSAG design. The MSAG design recommended by NENA closely compares to the format recommended here for the RDAR. The most significant difference is field width for street names and field type for low and high address ranges. NENA recommendations allow for alphabetical characters in the high and low range, whereas the format recommended here will allow only numbers. The purpose of this recommendation is, once again, to reduce data entry errors and to force compliance with numbering recommendations, which do not allow for alphabetical characters. NENA standards also allow for alphabetical characters in a ZIP code. Since letters should never occur within US ZIP codes, we recommend that this field also be strictly numerical.

5.4 Georgia Department of Transportation (GDOT)

In the fall of 2000, Georgia DOT will adopt and begin using Georgia's DLG-F transportation database. For the State of Georgia this is by far the most comprehensive and accurate road database available. At the time of this report (August 2000) there is no address information available with the DLG-F database, but conflation of TIGER address ranges and Atlanta Regional Commission (ARC) address ranges to the DLG-F data is currently underway for the Atlanta Metropolitan Area. Furthermore, there are tentative plans to perform the conflation of TIGER address ranges to the DLG-F database on a statewide basis. Even if the conflation does not take place on a statewide basis, the DLG-F data set is probably the best place to start for anyone looking to create a RDAR.

Since every road segment (arc) in the DLG-F database has a permanent unique identifier (Feature ID) it lends itself to being easily linked to separate tables. Just as the TIGER road segments are linked to the *Record Type 1* table through the TIGER Line ID (TLID), any local address range databases could be linked to the DLG-F data via the Feature ID. Therefore, anyone creating a separate address range database should include a Feature ID in their database design. This field should have a format and values identical to those used in the DLG-F data set (see 7.A.2).

5.5 American Planning Association (APA)

In 1978, the American Society of Planning Officials (now called the APA) published a comprehensive review of addressing systems, *Report No. 332: Street-Naming and Property-Numbering Systems*, focusing primarily on street naming conventions and various addressing methods. Because the report was written when very few cities had computers, it understandably omits database design. Still, many recommendations given for **street naming** and for establishing **reference points** and **baselines** are mirrored in this document with little or no modification. However, the hybrid addressing system and database design recommendations are direct results of intervening changes in computer technology.

6.0 RECOMMENDED STANDARDS AND GUIDELINES FOR ADDRESSING

Appendix 7.A of this document contains recommended database designs, with justifications, for both address databases and RDARs. They list the bare minimum number of data fields required. There may be many other elements necessary to meet your local requirements, but practically every address database and every RDAR should have the fields included here. To enhance the RDAR, for example, it may be necessary to add a field for emergency service zones, in order to meet the needs of the 911 center. Furthermore, for the address database, it may be necessary to add a field designating an address as commercial or residential. (For more ideas about additional data elements you may wish to include, refer to the publications and other sources referenced in sections 5, 7.C, and 8 of this document.)

6.1 ESTABLISHING A REFERENCE POINT AND BASELINES

6.1.1 Establishing a Reference Point

The process of assigning street names and numbers should begin by establishing a **reference point** for the county. The reference point should be an appropriate locale such as (but not necessarily) a prominent intersection in the county seat. Ideally, the reference point will be near the center of the county. It is highly recommended that the reference point be the intersection of two streets.

6.1.2 Establishing Baselines

The two streets that intersect at the reference point are called **baselines**. The baselines should continue all the way to the county line — even if this requires one or more changes of contiguous streets en route — thereby dividing the county into four roughly equivalent sections, or **quadrants**. In an ideal situation, the baselines will emanate from the reference point in predominantly N-S and E-W directions.

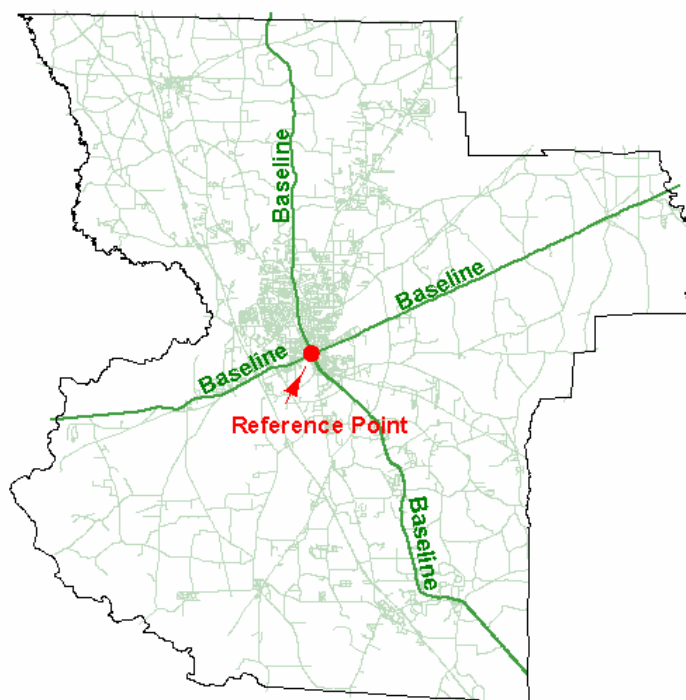


Figure 6.1: Establish a reference point and baselines

6.2.0 STREET NAMING

Assigning street names is not the most complex part of addressing; but in practice, the task may appear deceptively simple. The importance of carefully reviewing new street proposals and understanding their placement in the context of the county road system is fundamental to an efficient and effective addressing program and cannot be overemphasized.

Problems in assigning street names become manifest as new development occurs and as existing streets are rerouted or intersect with new streets. As an area grows, a lack of county-wide coordination and inadequate control and review mechanisms inevitably result in continuous roads changing names several times, numbering becoming non-sequential, and/or street names being duplicated. Adherence to the following guidelines should help alleviate such problems in the future; however, they do little to correct today's problems if not applied to revamp existing systems.

To fully understand the language used in the following sections, one must first understand the anatomy of a **full street name**, which is comprised of four distinct components. Just as most people have a first name, middle name, and last name which all combine to form a full name, a street has a **pre-direction**, **street name**, **street type**, and **quadrant** which all combine to form a **full street name**. Be careful to think of these individual components as you read and interpret these guidelines. Be aware that, just as not every person has a middle name, not every street will have a value for all of the components. As far as the database is concerned, every **full street name** does have four components, but some components may have a null value. However, every street must have a **non-null street name and street type**. Furthermore, every street except interstate highways and baselines should be assigned a quadrant.

Anatomy of a full street name :

<u>Pre-direction</u>	<u>Street Name</u>	<u>Street Type</u>	<u>Quadrant</u>
S	Oak	St	SW
	Deer	Run	NE

Pre-direction + Street Name + Street Type + Quadrant = Full Street Name:

S Oak St SW

Deer Run NE

6.2.0(a) Pre-direction: Indicates the primary compass direction that a second order street (see sec. 6.3.1) follows from the **baseline** (*i.e.*, **N**, **S**, **E**, **W**).

6.2.0(b) Street Name: The principal identifying component of a full street name, which in most cases should uniquely distinguish a street from all others (*e.g.*, **Oak**, **Broad**).

6.2.0(c) Street Type: Gives some indication of the primary use, length, or shape of the street (*e.g.*, **Lane**, **Circle**).

6.2.0(d) Quadrant: Indicates the street's location relative to the **reference point** and **baselines** (*i.e.*, **NW**, **NE**, **SW**, **SE**).

6.2.1 General Principles of Assigning Pre-Directions

6.2.1(a) Use Proper Reference Point

Street pre-directions should be used only to indicate the primary direction that a street travels **from its intersection with the baseline**. Even if it has been common practice in a particular area to assign pre-directions relative to a landmark or major thoroughfare other than the baseline, this practice should not be allowed, as it will eventually result in confusion. Furthermore, pre-directions should not be assigned to streets that do not continue across a baseline.

6.2.1(b) Use Proper Format

A street pre-direction should consist of only **one primary direction** (*North, South, East, or West*) and not a combination of two.

6.2.2 General Principles of Assigning Street Names

6.2.2(a) Avoid Duplication

A **full street name** should be used only once in any county. A **street name** should also be unique, except that it is acceptable to have one duplicate street name in closed subdivisions (those having access via only one or two entry points), and even in these cases such streets must have a different **street type** (*e.g., Quail Drive, Quail Lane*) and one should be a cul-de-sac (or dead-end) intersecting the other at a perpendicular (or nearly perpendicular) angle. Except in this manner, street name duplication — regardless of street type or jurisdiction (city, fire, police, ambulance) — should not occur in any county. Furthermore, duplication should not occur in any portion of an adjacent county in which a ZIP code is identical to a ZIP code used within the county in question.

6.2.2(b) Avoid Confusion

A street name should be appropriate, as well as easy to read, spell, and pronounce – even for children – in an emergency situation.

6.2.2(b.1)

Names which have **homonyms** (*i.e.*, other words pronounced similarly but spelled differently) should not be used on any street and certainly not on multiple streets even if the street type is different (*e.g.*, **Steven Lane** / **Stephen Lane**; **Disk Drive** / **Disc Lane**).

6.2.2(b.2)

Names that tend to be **mispronounced** or **misspelled** or are difficult to pronounce or spell should not be used (*e.g.*, **Javelina**, **Peony**, **Weimaraner**).

6.2.2(b.3)

Two-word names or one-word names that can be confused as two-word names should not be used. This avoids the problem of two words being combined into one word, or vice versa, when entered (*e.g.*, **Clearlake**, **Clear Lake**, **Brookhaven**, **Baytree**).

6.2.2(b.4)

A street name should not contain **directional words** such as *North*, *South*, *East*, or *West*. If they are used, it is difficult if not impossible to distinguish the pre-direction portion of a full street name from the street name itself. **Northridge** is an example of a street name that breaks this rule as well as the two-word rule above.

6.2.2(b.5)

Street names containing **punctuation** or **special characters** (*e.g.*, **Fishermen's**, **J.F.K.**, **Holman-Fuller**) should be avoided, as punctuation makes street names unnecessarily complicated, and some database programs do not gracefully handle punctuation. Furthermore,

words that normally require punctuation should not be used with the punctuation omitted (*e.g.*, ***Fishermens Landing***). Apostrophes, hyphens, or dots may be included when necessary (to avoid confusion, for example), but **it is especially important that special characters such as commas, quotation marks, and asterisks not be used**. In the case of numbered streets, such as ***First Street*** or ***Tenth Avenue***, it is recommended that the names be spelled out as opposed to using numbers with suffixes. This practice allows for the creation of a complete yet strictly alphabetical index.

6.2.2(c) Avoid Emotion

Except where historically significant; avoid using **proper names** as street names (*e.g.*, ***Wilma Calumet Road***). While this naming practice may not cause problems today, it will certainly create problems in the future if a name change or street closing becomes necessary. Furthermore, use of a first and last name usually results in an unnecessarily long street name. It is recognized that many streets already bear names of historically significant individuals and will continue to do so, but the desire to commemorate local history must be tempered by the ultimate goal of making street names easy to use for citizens, visitors, and service providers (especially in the area of emergency services).

6.2.2(d) Promote Continuity

A continuous street should have one name and one name only throughout its entire length, even if the street changes direction one or more times. In the case of permanent voids (such as a pond or closed railroad crossing) where a portion of a road is permanently closed or non-continuous, the road can have the same name on both sides of the void, if the void can be easily breached by an alternate route. If, however, a new street is added on the opposite side of a permanent void, in line or out of line with an existing street, that new street should be given a unique name. Also, it may be desirable to make exceptions to this “one name” rule in areas where a grid pattern prevails and streets are named according to their primary direction of travel.

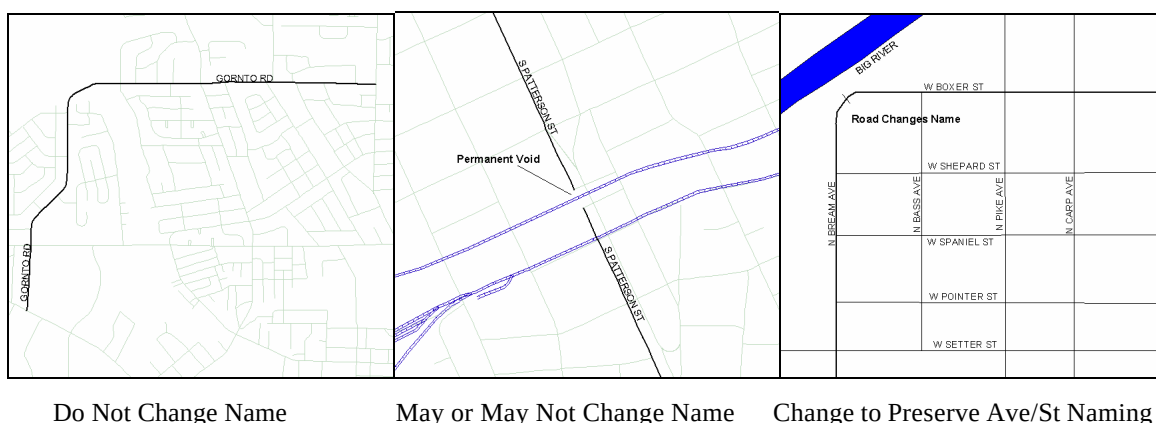


Figure 6.2.2(d): Name changes on continuous roads

6.2.2(e) Keep Names Short

Street names should be made up of one word, preferably of **15 characters or fewer**. Remember that a full street name may very well be made up of a pre-direction, street name, street type, and quadrant. Keeping the street name under 16 characters will reduce data entry errors and make the production of street signs more manageable.

6.2.2(f) Use Themes

Where possible, use naming themes in subdivisions or even larger geographic areas such as quadrants. Choosing names related to a single theme (*e.g.*, flowers, states, presidents) is suggested as a means of general identification for streets in a subdivision, rather than duplicating the name and differentiating only by the street type designator. As an example, use ***Jefferson Drive*** and ***Reagan Drive*** rather than ***Jefferson Drive*** and ***Jefferson Lane***. Also, consideration should be given to naming streets in alphabetical order to further aid navigation. Under this system, ***Alabama Drive***, for example, would be nearer the main entrance to a subdivision than would ***Delaware Drive***.

6.2.3 General Principles of Assigning Street Types

6.2.3(a) Be Consistent

Every street should be assigned a street type. Street types carry certain expectations of the length, shape, direction, width and other characteristics of a road. These expectations should not be violated. While many different possibilities for street types exist, the most commonly used street types are listed and described in Appendix 7.B. (Note: The descriptions are intentionally broad and in many cases overlapping; they are provided for consideration as guidelines, but are **not official or restrictive.**)

6.2.3(b) Avoid Confusion

Maintain a clear distinction between **street name** and **street type**. Create an exhaustive list of street types to be used in your jurisdiction and reserve those words to be used as street types only. You should not use a full street name of ***Terrace Drive SW*** and another full street name of ***Spring Terrace NE***. Use the word *Terrace* as a street type or a street name, but not both. A list of common street types, with their abbreviations and descriptions, is provided in Appendix 7.B.

6.2.4 General Principles of Assigning Quadrants

6.2.4(a) Be Consistent

A quadrant should be assigned to **every street except interstate highways and streets that form baselines.**

6.2.4(b) Use Proper Format

By assigning a quadrant to a street, one can quickly determine where a street is in relation to the reference point and baselines. Since a quadrant is a multi-directional reference, it should be made up of a combination of two primary compass directions always starting with *North* or *South* and always ending with *East* or *West*. There are **only four acceptable values for this element (NW, NE, SW, SE)**.

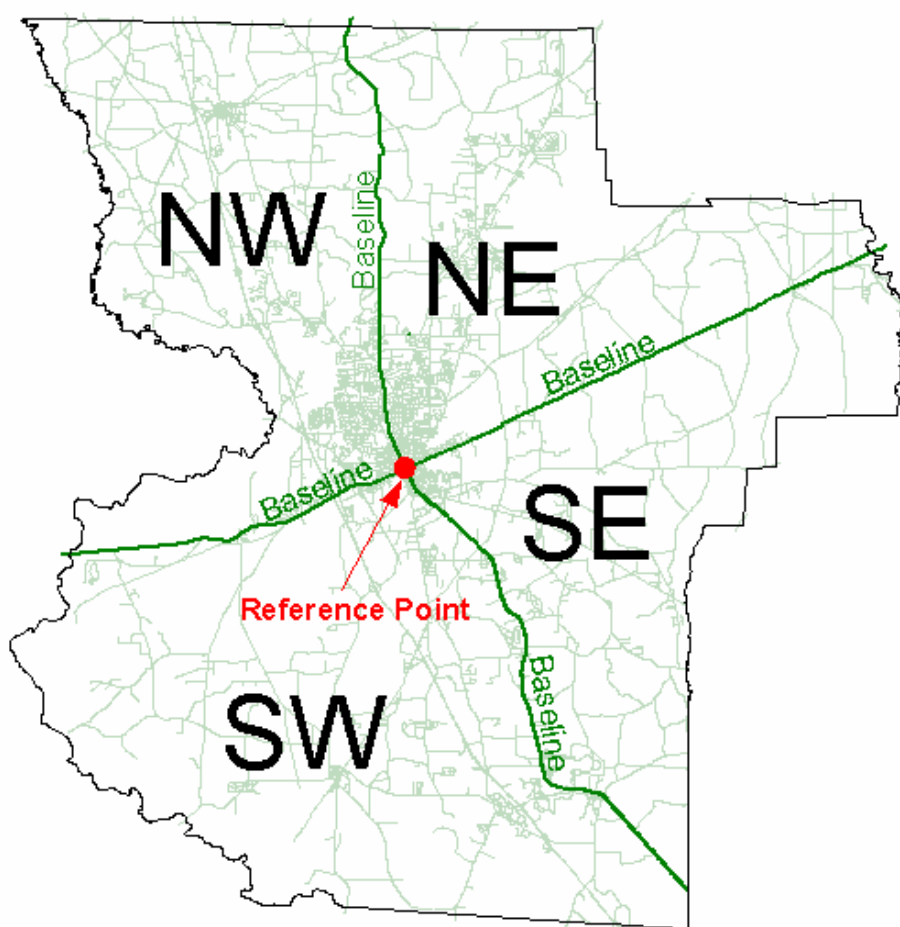


Figure 6.2.4: County divided into quadrants

6.3.0 STREET NUMBERING

Note: It is not unusual, during the development of a new subdivision, that construction will begin at both ends of a street and continue in phases toward a common centerpoint. In this situation, it is **very important that addressing be done from the master plan**. Otherwise, **parent streets** (see section 6.3.2) may be misassigned and it may be necessary to readdress one or both ends of the completed street.

6.3.1 Assign Each Street an Order

After a reference point and baselines have been established, a tree branch scheme should be used to assign an order to each street. The **baseline roads** act as the trunk of the tree and are referred to as **first order streets**. Any street that intersects a baseline street is designated a **second order street**. Any street that intersects a second order street, and that is not a baseline or second order street itself, is designated as a **third order street**. This process should continue until all streets are assigned an order.

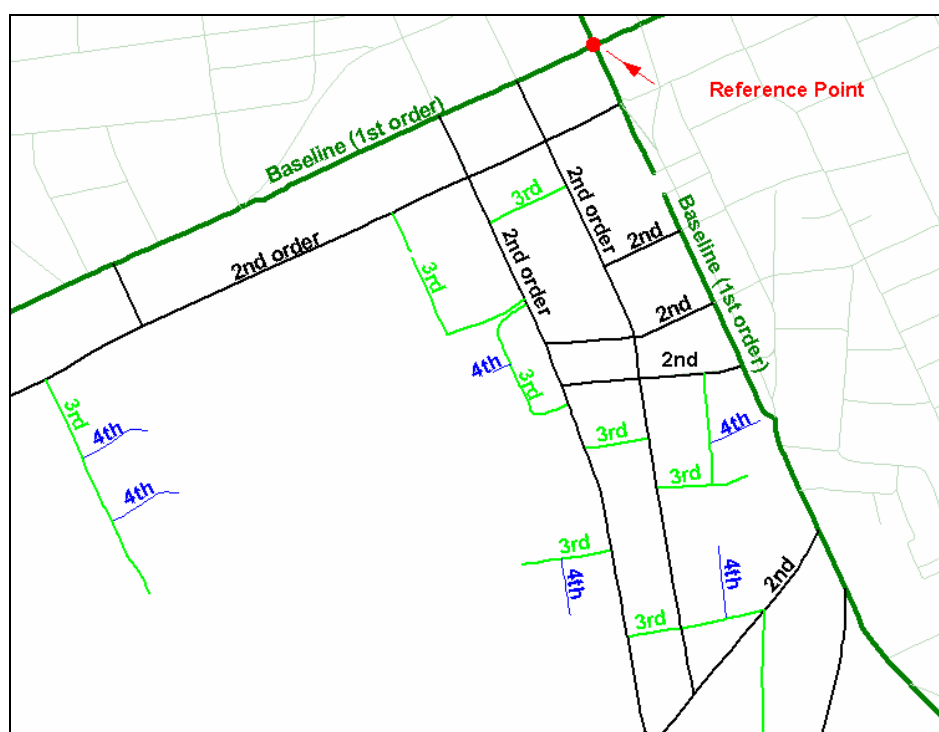


Figure 6.3.1: Assign each street an order

6.3.3 Assign Address Ranges

For streets of all orders, these three general principles will hold:

1. Numbering should always **commence at the intersection of the centerlines**, as opposed to the edge of pavement or right-of-way.
2. **Even numbers should be assigned to the right side of streets** and **odd numbers to the left side** as you travel in the direction of increasing address numbers.
3. **Numbers increase as you move away from the reference point** and toward the county boundary.

6.3.3(a) First Order Streets

Baselines should be assigned addresses first. Addressing is accomplished by **starting at the reference point** and subdividing the baseline streets into **20' sections** as they extend toward the county boundary. Each 20' section should be assigned a pair of sequential whole numbers, starting with the first section which should receive a value of **100** on the right side and a value of **101** on the left side.

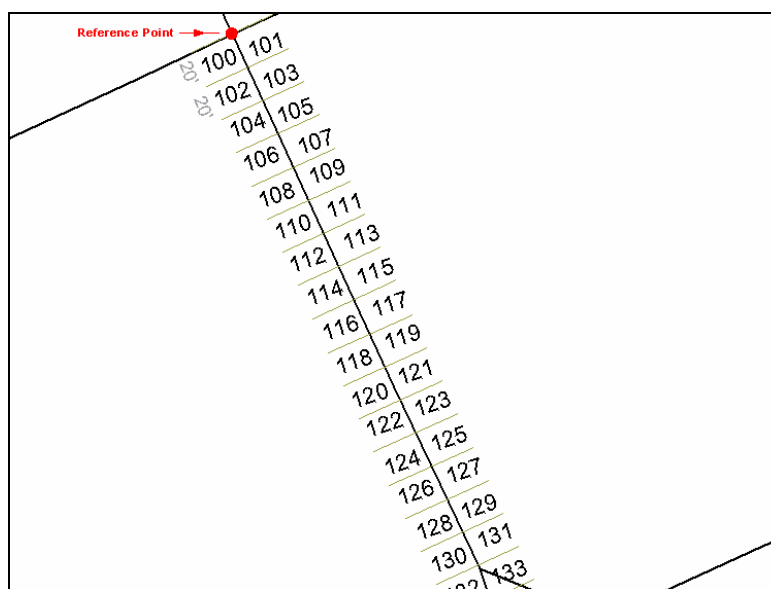


Figure 6.3.3(a): Sequential addressing of a 1st order street

Throughout the entire length of a street, sections should be assigned only according to distance traveled along the centerline. This means that **intersections and blocks should be ignored** during the segmenting process. In some GIS software, this process would be accomplished by dynamic segmentation. For example, if the distance from the reference point to the county boundary along a 1st order street is 10 miles (52,800'), there will be a total of 2,640 numbers assigned along each side of that street ($52,800 / 20 = 2,640$). Since each side is assigned 2,640 numbers, there will be a total of 5,280 numbers assigned. Because the lowest number used will be 100, the ending street numbers will be **5380** and **5381**.

6.3.3(b) Higher Order Streets

After first order streets are numbered, second order streets should be numbered in a similar fashion. Any non-baseline street will **commence numbering with the address of the parent at the intersection**, and **increase or decrease** depending on whether the parent-intersection is central (closer to the reference point) or peripheral (farther from the reference point) when compared to that street's other end.

- ? If the intersection with the **parent** is **closer** to the reference point (in a direct line) when compared with the street's other terminus, numbers will **increase** sequentially from the parent address.
- ? If the intersection with the **parent** is **farther** from the reference point (in a direct line) when compared with the street's other terminus, numbers will **decrease** sequentially from the parent address.

[For a nontechnical paraphrase of this rule, see general principle 3 in sec. 6.3.3 above.]

For example, in Figure 6.3.3(b)1, **Oak St** intersects its parent street (**S Patterson St**) at section **132/133** and proceeds toward a cul-de-sac at a distance farther away from the reference point. Therefore, **Oak Street** is assigned **increasing** numbers beginning with **132/133** at the parent-intersection. **S Patterson St** is also a parent to **Elk Ln**, which intersects it at the **120/121** section. However, because **Elk Ln** proceeds toward a cul-de-sac which is closer to the reference point, it is assigned a **decreasing** sequence of addresses beginning with **120/121**.

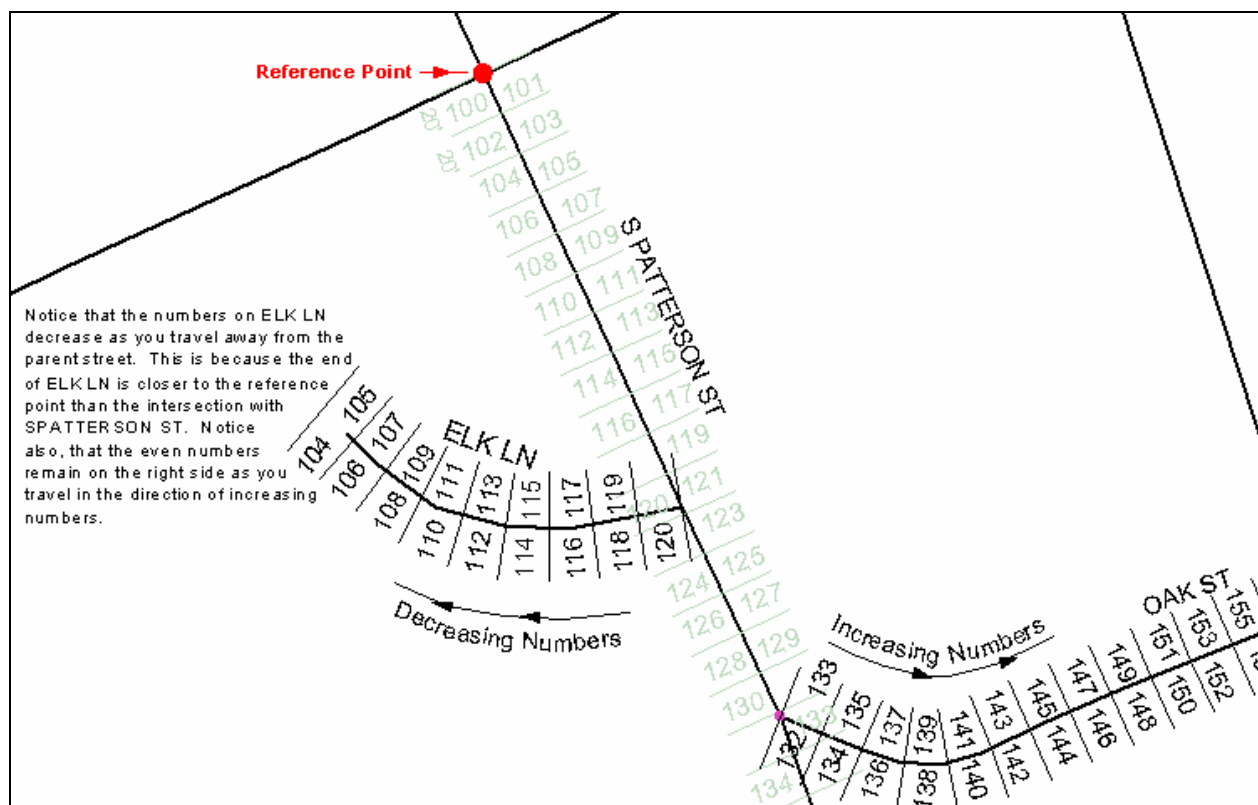


Figure 6.3.3(b)1: Sequential addressing of 2nd order streets

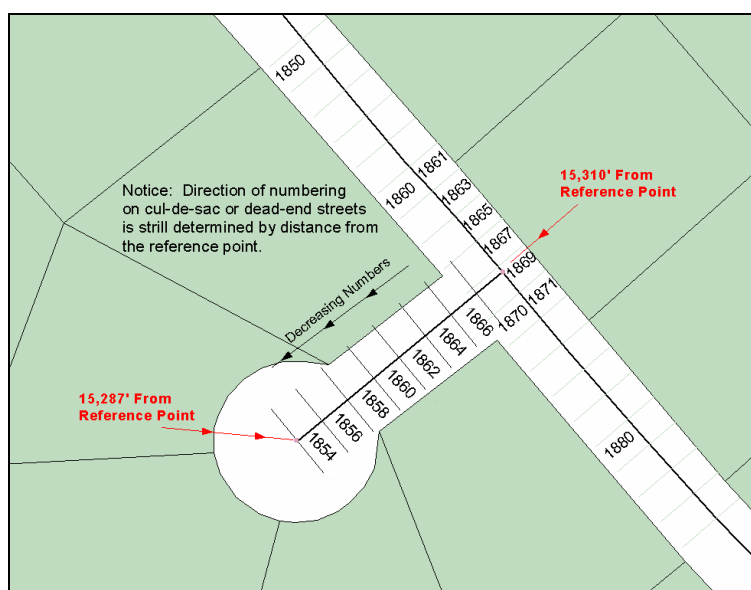


Figure 6.3.3(b)2: Numbering proceeds from the more central terminus

If a street continues in two directions from the parent, numbers will increase in one direction (on that portion which ends at a point farthest from the reference point) and decrease in the other direction.

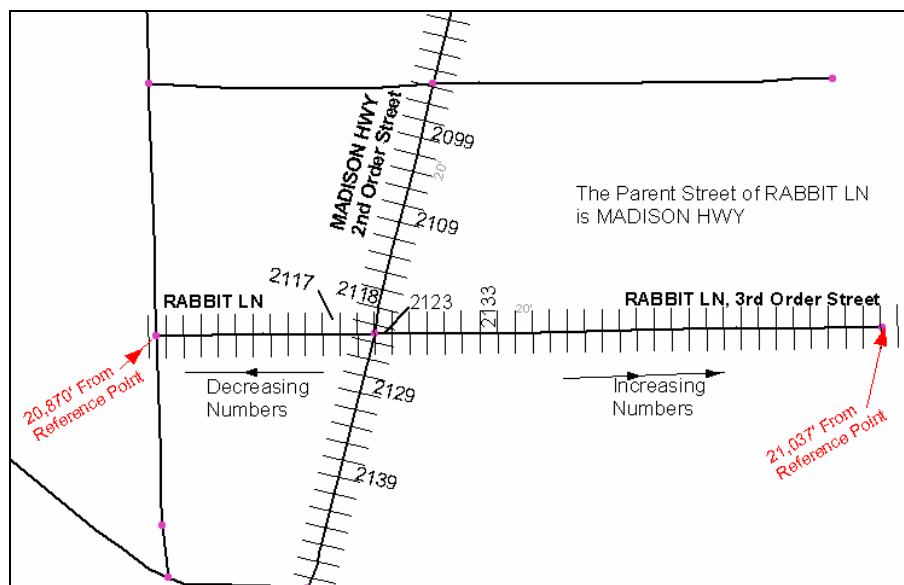


Figure 6.3.3(b)3: Sequential Addressing of 3rd order streets

6.3.3(c) Special Cases

In come cases, very short unnamed cul-de-sacs, containing accesses to five or fewer lots, may be addressed from the centerline of a named street [see fig. 6.3.3(c)1 below].

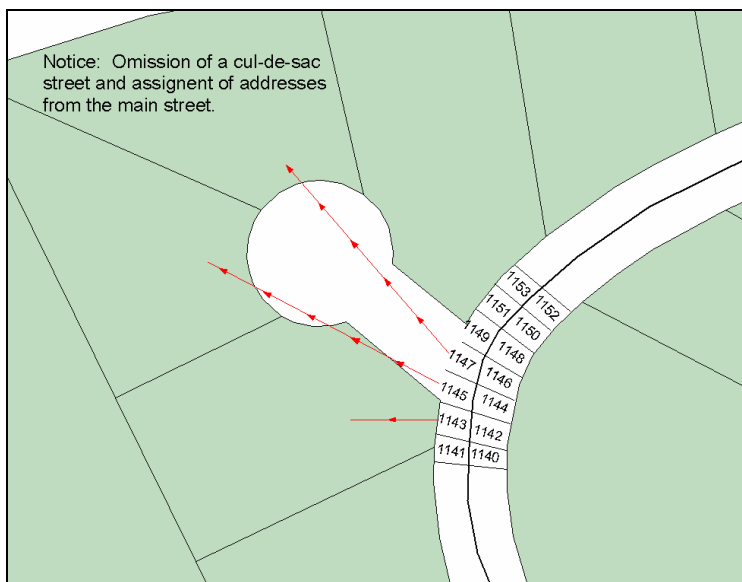


Figure 6.3.3(c)1: Assigning addresses to an unnamed cul-de-sac

If a street forms a **closed loop**, addressing should proceed clockwise from the base of the loop [see fig. 6.3.3(c)2 below].

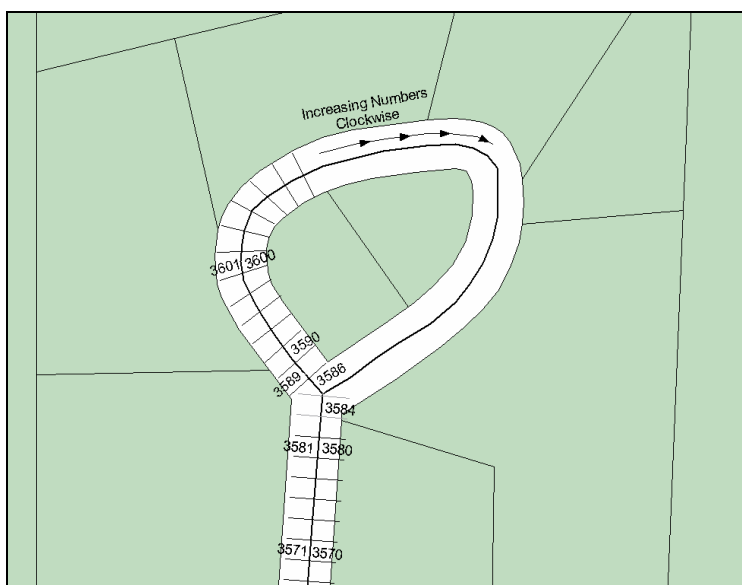


Figure 6.3.3(c)2: Addressing a closed loop

6.3(a) Advantages of This System

The primary advantage of this addressing system is that it is based totally on mathematical logic and can therefore be automated, except for designation of the reference point and baselines. Given an adequate GIS road centerline coverage, it would be possible to use programming logic to output a fully addressed road coverage.

Since the addressing is done on a countywide basis, future annexations, de-annexations, street additions or street closings will not cause addressing problems. Furthermore, with this addressing system it is possible to know approximately how far an address is from the reference point or from any other address. With block numbering systems, it is impossible to predict your distance to any address even if numbering by distance is used within the blocks, because a varying span of numbers must be omitted whenever a new block is reached.

Figure 6.3(a) shows the bull's-eye pattern of address ranges resulting from the recommended system. Each mile of street contains approximately 528 addresses. Since the addressing starts at **100**, the address **628** should be approximately one road mile from the reference point, and the address **1156** ($628 + 528$) should be approximately two road miles from the reference point.

By extrapolating this process, distance to a target address may be estimated from the addressing sequence, or an address from a known road distance. Just keep in mind that:

1. Numbering starts with 100 rather than 0; and,
2. A pair of numbers is assigned to every 20' section of road, averaging one address number per every 10 feet of centerline.

Example One: Estimate the address of a lot 2½ miles from the reference point.

Formula: **(Distance in feet / 10) + 100 = Address#**

$$(13,200 / 10) + 100 = \mathbf{1420}$$

Example Two: Estimate the distance between address **4419** and the reference point.

Formula: **(Address# - 100) x 10 = Distance in feet**

$$(4419 - 100) \times 10 = 43,190' \text{ or } 8.18 \text{ miles}$$

To get a very rough idea of the distance, in miles, from the reference point it is possible to take an address and divide by 500. Using this approximation method, the address **5000** should be approximately 10 miles from the reference point. Using the exact math above would result in an approximation of 9.28 miles, but it is much more complicated math, especially when you are driving. As a general rule, with this approximation method, lower address numbers will result in less accurate approximations since addressing begins with the number 100.

The hybrid addressing system recommended here is probably not the best system for highly organized grid systems such as those common in the Midwest. However, this system should work well in Georgia, which is spotted by small towns with loosely defined and quickly deteriorating grid systems giving way to predominantly curvilinear road networks.

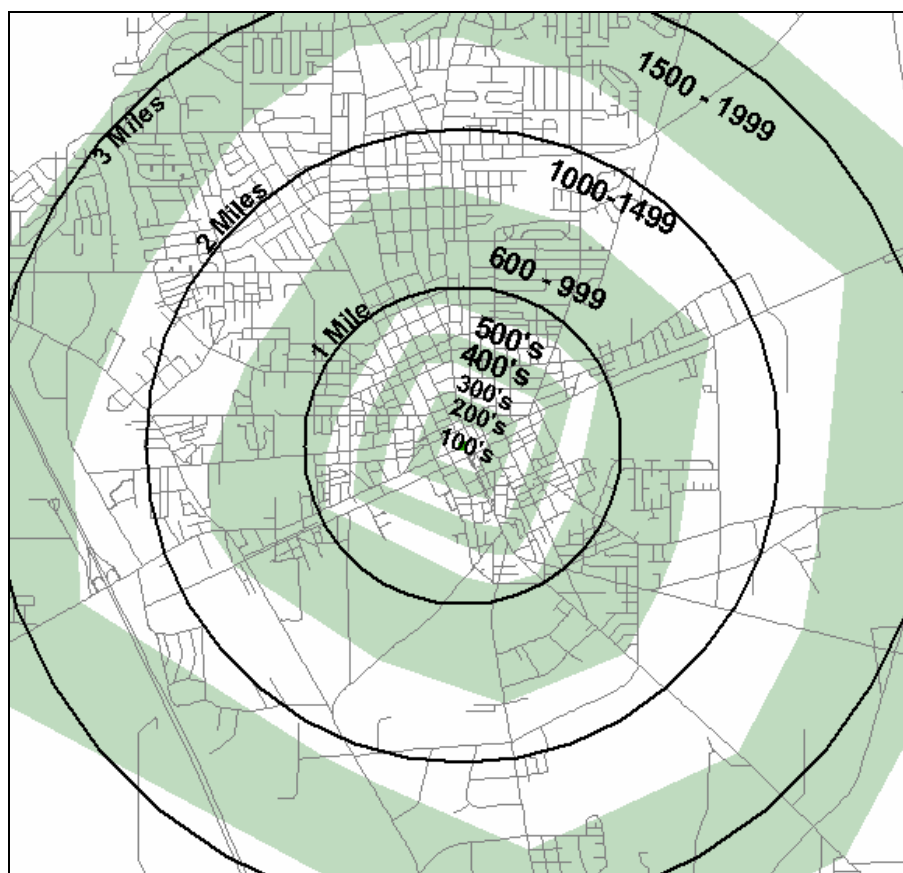


Figure 6.3(a): Addresses grouped by distance from a reference point

6.3(b) Disadvantages of This System

This addressing system is not “traditional” — that is, city blocks do not serve as its standard unit. Therefore, when applied to a street grid pattern, it does not result in all addresses between **100** and **200** being on the same block, and thus would likely cause confusion in the initial stages of use. The confusion would be compounded in a community where streets are named with numbers, because everyone expects a **250 X Ave** address to be somewhere between **X Avenue**’s intersections with **Second Street** and **Third Street**, for example. However, the confusion resulting from the change should quickly subside, as sequential numbering is easy to understand and grid systems in Georgia rarely prevail throughout an entire city (and never throughout an entire county). If this addressing system is to be used in an area where a grid pattern prevails with street numbers as names, it is recommended that the street names be changed to something other than numbers. **Street numbering does not work well with a sequential addressing system.**

6.4.0 HOUSE NUMBERING

The final stage of the addressing process is to assign addresses to particular residences, businesses, and other property. The general rule is to assign the address of the 20’ section of street aligned with the center of the front of a building or lot (in a line perpendicular to the centerline of the road). In the majority of cases, especially if a GIS is used, this is a very simple process involving verification from digital aerial photographs. Yet while it may be possible to automate the entire process of assigning addresses to road segments, automation of house numbering is infeasible. Rules must be established for assigning numbers with consistency, but human judgment will be necessary at various stages of the procedure. When no existing rule applies workably to a particular situation, let **safety** and **consistency** guide the decision making process. The following sections discuss how to handle the most common situations in which application of the general rule results in ambiguity.

6.4.1 Corner Lots

Usually, addresses will be assigned from the center of the side of the building where the front door is located. However, when the front door is obscured or invisible from the road, or the structure is obviously best reached for emergency purposes by the driveway, assign the property number based on where the driveway intersects the road .

6.4.2 Stacked Addresses

Houses or trailers behind other houses or trailers sharing a common driveway should be given separate numbers. The average house is approximately 60 feet long; therefore, there will normally be at least 3 numbers in front of a house. Assign the **first possible number to the front house** and the second number to the next house, etc. This is much preferred over the use of hyphenated, alphanumeric, or fractional numbering (*e.g.*, **437-2**, **437B**, **437½**).

6.4.3 Apartments and Duplexes

Apartments and all other multi-tenant structures should be **numbered by the main building or main entrance to the complex**. Each individual unit should then be given a **secondary location indicator** such as the building designator, floor number and unit number. It is **preferable that buildings be lettered, and that floors and apartments be numbered**. For example, the residence at the address **3006 Firehouse Rd, Apt F-1-27** should be the 27th apartment on the 1st floor of building F. The hyphens in the unit distinguish the 27th apartment on the 1st floor from the 7th apartment on the 12th floor.

6.4.4 Businesses

Businesses should be addressed like houses or apartments, depending on the layout. If there are several businesses within the same building, they should be addressed just as apartments are addressed, except they should be designated as **suites** (*e.g.*, **2506 Birdy Ln, Ste G257**).

6.4.5 Mobile Home Parks

There are two logical methods of addressing mobile home parks. The best choice for a particular mobile home park will depend on the specifics of the park design. The first choice is to handle the park as if it were an apartment complex: that is, assign one street address for all mobile homes and then give each unit a secondary designator that specifies which lot it occupies. The second choice is to treat internal park streets like any other streets, dividing them into 20' sections and assigning addresses to the mobile homes just as you would to any other home.

7 APPENDICES

7.A RECOMMENDED DATABASE DESIGNS

The **field name** recommendations shown below are not critical to database use or compatibility. No agency referenced in this document used a database with field names matching these precisely; however, each agency utilized a set of field names closely resembling those described here. Therefore, there is some flexibility in this area; however, field names should be **always descriptive**, and **never misleading**.

Unlike field names, **field widths** and **field types** are critical and **do affect compatibility**, and should therefore conform precisely with this standard.

7.A.1 Recommended Design of Address Database (Minimum Content)

<u>FIELD NAME</u>	<u>WIDTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
HOUSE-NUM	5	I	HOUSE NUMBER (1307)
UNIT	15	C	UNIT DESIGNATION (A-1-2)
PRE-DIR	2	C	PRE-DIRECTION (N, S, E, W)
STREET-NAME	30	C	STREET NAME (Oak)
STREET-TYPE	4	C	STREET TYPE (Blvd)
SUF-DIR	2	C	SUFFIX DIRECTION (NE, SW)
CITY	32	C	CITY (Townville)
STATE	2	C	TWO DIGIT STATE (GA)
ZIPCODE	5	I	ZIP CODE (30067)
ZIP-EXT	4	I	FOUR DIGIT ZIP EXTENSION (2804)

C = Character, I = Integer

Optional Content: OWNER NAME, OCCUPANT NAME, USE (commercial, residential, etc.), EMS ZONE, *et al.*

7.A.2 Recommended Design of RDARs (Minimum Content)

<u>FIELD NAME</u>	<u>WIDTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>
FRADDL	5	I	LEFT ADDRESS FROM (100)
TOADDL	5	I	LEFT ADDRESS TO (128)
FRADDR	5	I	RIGHT ADDRESS FROM (101)
TOADDR	5	I	RIGHT ADDRESS TO (129)
FEDIRP	2	C	PRE- DIRECTION (N, S, E, W)
FENAME	30	C	FEATURE (STREET) NAME (Elm)
FETYPE	4	C	FEATURE (STREET) TYPE (Rd)
FEDIRS	2	C	SUFFIX DIRECTION (NE)
FSTNAME	40	C	FULL STREET NAME (N Elm Rd NE)
ALIAS_1	40	C	FSTNAME ALIAS (Jones Memorial Dr)
*FEAURE_ID	10	C	Unique permanent feature identifier

C = Character, I = Integer

* Only used in the case of a separate address range database that will be linked to a road centerline coverage such as the DLG-F data.

Optional Content: LEFT EMS ZONE, RIGHT EMS ZONE, JURISDICTION (city, county), RIGHT FIRE ZONE, LEFT ZIP CODE, RIGHT ZIP CODE, ALIAS 2, *et al.*

7.A.3 Justification for Width and Data Type Recommendations

HOUSE-NUM

Width: If one pair of addresses is assigned for every 20' of centerline, a five-digit system will accommodate a road length of over 189 miles. No Georgia county has a single road longer than 189 miles; therefore, no more than 5 digits will ever be needed.

Type: To reduce data entry errors, ease indexing, and ensure database compatibility, address numbers should not include alphabetic characters, punctuation, or other special characters.

UNIT

Width: If proper abbreviations are used, a width of 15 spaces should allow for entry of building numbers, suites, apartment numbers, or combinations thereof. Where possible hyphens should be used to separate the building, floor, and unit.

Type: A character field type, the most liberal of all data types, is necessary here to accommodate letters and words such as **Bldg F Ste 2** or **Apt G-1-2**. Standard abbreviations from USPS Publication 28 should be used with no punctuation or special characters.

PRE-DIR & FEDIRP

Width: If these guidelines are followed there will only be 4 possible entries for this item (**N**, **S**, **E**, **W**). These entries require a width of only one character. Though it is not recommended, it is recognized that some may want to use combinations of the primary directions, such as NE or SW. For this reason the database design recommended here allows for two characters. This same width is recommended by NENA.

Type: A character data type is necessary to enter valid data.

STREET-NAME & FENAME

Width: Though some standards suggest a width greater than 30 characters to accommodate existing names, we suggest that a street name longer than 30 characters should be changed in order to reduce data entry errors and to ensure complete and easily readable roadsigns.

Type: A character data type is necessary to enter valid data.

STREET-TYPE & FETYPE

Width: If recommended abbreviations are used, street types should be no longer than 4 characters. The same width is suggested by NENA, USPS, and USCB.

Type: A character data type is necessary to enter valid data.

SUF-DIR & FEDIRS

Width: If these guidelines are followed, there will only 4 possible entries for this item; **NE**, **NW**, **SE**, **SW**. These entries require a width of only two characters. This same width is recommended by NENA.

Type: A character data type is necessary to enter valid data.

CITY

Width: A width of 32 characters allows for any city name in the state of Georgia to be entered without using abbreviations. This same width is recommended by NENA.

Type: A character data type is necessary to enter valid data.

STATE

Width: A width of 2 characters allows for all state abbreviations recommended by the USPS to be entered. The same width is suggested by NENA, USPS, and USCB.

Type: A character data type is necessary to enter valid data.

ZIPCODE

Width: All ZIP codes are comprised of 5 numbers plus a possible extension. The ZIP Code should be stored here without the extension. The same width is suggested by NENA, USPS, and USCB.

Type: An integer data type will prevent alphabetical characters and punctuation from being accidentally or intentionally entered into the ZIPCODE field, where they do not belong.

ZIP-EXT

Width: All ZIP code extensions are comprised of 4 numbers. The same width is suggested by NENA, USPS, and USCB.

Type: An integer data type will prevent alphabetical characters and punctuation from being accidentally or intentionally entered into the ZIP-EXT field, where they do not belong.

FRADDL, TOADDL, FRADDR, TOADDR

Width: This field has the same recommended width as the HOUSE-NUM since it will contain a possible house number.

Type: This field has the same recommended type as the HOUSE-NUM since it will contain a possible house number.

FSTNAME

Width: If recommendations in this guideline are followed strictly, a full street name will never exceed 40 characters [see 6.2.2(e) regarding street name portion of a full street name].

Type: A character data type is necessary to enter valid data.

ALIAS_1

Width: This field has the same recommended width as FSTNAME.

Type: A character data type is necessary to enter valid data.

7.B STREET TYPES WITH DESCRIPTIONS

Alley (Aly)

A short, narrow passage commonly found between close buildings and not used for through traffic.

Avenue (Ave)

A thoroughfare running principally in an east-west direction and usually terminating at a north-south running street. (Note: Although this directional arrangement is the recommended standard, some cities or counties may already have established grid systems in which avenues run N-S and streets run E-W. In any case, avenues should never run parallel to streets.)

Boulevard (Blvd)

A street divided by a landscaped center or median, often flanked by sidewalks, and generally designated with an alphabetical name (rather than a number).

Bypass (Byp)

A thoroughfare specially designed to allow nearly uninterrupted travel around the periphery of a congested area.

Causeway (Cswy)

A roadway elevated above wet ground or water.

Circle (Cir)

A short street that intersects another street only once and terminates in a closed loop [see fig. 6.3.3(c)2].

Court (Ct)

A relatively short, uninterrupted dead-end street.

Crossing (Xing)

A roadway that traverses an important feature such as a railroad, waterway, mountain pass, or gorge. (Note: In many cases, **crossing** is a historical designation for what was once the only route of transport over a prominent feature. Many roadways, therefore, retain this designation even if that feature is now passable at many points or has ceased to exist.)

Drive (Dr)

A curvilinear street of appreciable length which continues through to other rights-of-way.

Expressway (Expy)

A high-speed, limited-access divided highway for through traffic.

Extension (Ext)

This street type is **not** recommended, because it is often incompatible with database standards. If it must be used, it should **never be combined with another street type**. For example, if ***Laurel Boulevard*** is a wide roadway in town with a median, which changes to an un-divided roadway with narrow lanes for a short distance after a “dogleg”, the narrower portion may be designated ***Laurel Extension***, but **never *Laurel Boulevard Extension***.

Freeway (Fwy)

A high-speed, limited-access divided highway for through traffic.

Highway (Hwy)

A designated state or federal highway, usually designed to accommodate a large proportion of relatively high-speed traffic between cities. U.S. routes are also designated as highways.

Interstate (Int)

A road of the highest order which crosses state boundaries, characterized by limited access (usually merge/exit rather than signal controlled), wide right-of-way, and a through-traffic preference. This type is also used to designate a seamless extension of such a road (such as a spur or bypass) which does not cross state lines.

Lane (Ln)

A relatively short, uninterrupted street ending in a cul-de-sac.

Loop (Loop)

A short street that begins at and ends into the same parent street at two different points.

Parkway (Pky)

A special scenic street or park drive.

Pass (Pass)

A thoroughfare allowing access around or between obstacles.

Path (Path)

A non-urban roadway for low-speed traffic.

Place (Pl)

A relatively short, uninterrupted dead-end street.

Plaza (Plz)

An urban roadway accessing several commercial centers; also used in industrial parks.

Point (Pt)

A roadway allowing access to a bluff, dock, landing, scenic overlook, peninsula, or other terminal point.

Road (Rd)

A limited thoroughfare that is frequently used and often allows heavy traffic volume. A road may run in any direction, and is normally non-urban although it may extend through an urban area.

Spur (Spur)

A relatively short dead-end street, usually allowing access to a staging area or to other types of transportation.

Street (St)

A thoroughfare running principally in a north-south direction and usually terminating at an east-west running avenue. (Note: Although this directional arrangement is the recommended standard, some cities or counties may already have established grid systems in which streets run E-W and avenues run N-S. In any case, streets should never run parallel to avenues.)

Terrace (Ter)

A roadway flanked by a decline, often with an incline on the opposite side, and in many cases overlooking a river, gorge, park, or other scenic area.

Trail (Trl)

Any curvilinear street.

Walk (Wlk)

A thoroughfare designed to accommodate vehicular and pedestrian traffic, usually with access to recreational areas or storefronts.

Way (Way)

A widely applied thoroughfare designation, usually utilized in residential areas for aesthetic purposes.

7.C POTENTIAL ADDRESS DATA SOURCES

Practically every state agency, county, and city in the state of Georgia has a database containing addresses along with related information. Such databases might include utility customers, property owners, building permits, crime records, *et al.* These are all good examples and sources of specific address information; however, they do very little or nothing to help establish spatial relationships among these addresses. Without intimate local knowledge it is impossible to determine the spatial relationship, such as direct- or driving-distance, between any two addresses with a high level of confidence. To establish spatial relationships between addresses, it is necessary to have a **GIS road centerline coverage with address range attributes**, referred to in this document as a **roads database with address ranges (RDAR)**.

Unfortunately, the RDAR is much less common than the address database. The most widely used RDAR would be the Topologically Integrated Geographic Encoding and Referencing (TIGER) system developed and maintained by the USCB. TIGER data is comprehensive — that is, it contains address data for practically every part of the United States where such data exists. However, because the TIGER data encompasses the entire US, many imperfect or incomplete records have been assimilated. The Census Bureau cannot track every address change or road addition in the nation. City, county, and regional government agencies such as Regional Development Centers (RDCs) are better suited for the task of keeping record of street additions and address ranges. Unfortunately, not every city, county, or RDC has the resources to develop a detailed RDAR. Thus, there is great disparity in the scope and quality of data available at the local level, and even high quality data can be unwieldy if it exists only in paper form.

In summary, TIGER data is readily available for practically the entire United States, but the quality is unpredictable for local level use. Locally created data is not comprehensive and may range in quality from excellent to poor depending on the care that was taken in developing the data.

8. SELECTED REFERENCES

- Carl Vincent Institute of Government. Cobb County Addressing Report. Athens, GA: The University of Georgia, 1992.
- Centre County Street Naming and Addressing Policy. Centre County, PA: Centre County Board of County Commissioners, nd.
- Corwin, Margaret A. Street-Naming and Property-Numbering Systems (Report No. 332). Chicago: American Society of Planning Officials, 1978. ASPO is now the American Planning Association (APA).
- Information Technology Outreach Services. DLG-F Data Dictionary: Transportation. Athens, GA: The University of Georgia, 1998.
- LaMacchia, Robert A., et al. TIGER/Line⁷ Files, 1998: Technical Documentation. Washington, DC: U.S. Department of Commerce, 1998.
- Miller, Harold V. A Guide to Street Naming and Property Numbering. nl: Tennessee State Planning Commission, 1951. Reprinted by Southern Association of State Planning and Development Agencies, 1960.
- National Emergency Number Association (NENA) Data Standards Subcommittee. NENA-02-001: Recommended Formats for Data Exchange. nl: NENA, June 1993.
- Property Identification Task Force of the Salt Lake County Council of Governments. Guidelines for Property Identification within the Salt Lake Metropolitan Area. Salt Lake City: Salt Lake County Public Works Department, Development Services Division, 1984.
- Street Naming and Property Numbering Systems: A Technical Manual. Little Rock: Metroplan, 1985.
- Subcommittee on Cultural and Demographic Data. Address Data Content Standard. nl: np, 1999.
- United States Postal Service. Publication 28: Postal Addressing Standards. Washington, DC: USPS, 1995.



LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item:	Approval of a New Street Racing and Reckless Driving Exhibitions Ordinance
Department:	City Manager
Date of Meeting:	Wednesday, December 14, 2022
Fiscal Impact:	None anticipated
Presented By:	Steve North, Deputy City Manager
Action Requested:	Approval of a New Street Racing and Reckless Driving Exhibitions Ordinance

Summary: It is requested that Council approve a New Street Racing and Reckless Driving Exhibitions Ordinance as an amendment to the Code of Ordinances, Chapter 26, Offenses and Miscellaneous Provisions by adding Sec. 26-6. This Ordinance will give the Police Department additional authority in line with State law to address illegal street racing and reckless driving and for such cases to be heard in Lawrenceville Municipal Court.

Fiscal Impact: It is not anticipated that this Ordinance will add any costs to City operations.

Attachments/Exhibits: Draft Ordinance

ORDINANCE NO. _____

**APPROVING A NEW STREET RACING AND RECKLESS DRIVING EXHIBITIONS
ORDINANCE**

WHEREAS, the City Council of the City of Lawrenceville is charged with the protection of the health, safety and welfare of the residents and visitors of the City of Lawrenceville; and

WHEREAS, the Official Code of Georgia Annotated authorizes cities to adopt ordinances for the governing and policing of the City; and

WHEREAS, violations of such ordinances may be punished by fine or imprisonment or both; and

WHEREAS, there has been an increase in street racing and reckless driving activities in the incorporated areas of the City over the past few years; and

WHEREAS, street racing has drawn spectators, causing a disturbance of the peace and a threat to public safety; and

WHEREAS, street racing has caused occurrences of public streets being shut down and made impassable; and

WHEREAS, street racing and reckless driving may result in loss of life and property damage in the City of Lawrenceville; and

WHEREAS, establishing an ordinance to prohibit the organization of and participation in street racing exhibitions would enable the City of Lawrenceville Police Department to more effectively combat the occurrence of such behavior; and

WHEREAS, the City Council of the City of Lawrenceville finds that the creation of a Street Racing and Reckless Driving Exhibitions ordinance is in the best interest of the residents and visitors of the City of Lawrenceville to promote public safety and ensure the well-being of motorists and pedestrians.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Lawrenceville that a Section 26-6, entitled "Street Racing and Reckless Driving Exhibitions", as set forth herein, shall be added to Chapter 26 of the City of Lawrenceville Code of Ordinances.

Chapter 26 – OFFENSES AND MISCELLANEOUS PROVISIONS

Sec. 26-6 – STREET RACING AND RECKLESS DRIVING EXHIBITIONS

(a) – Definitions.

As used herein, the following terms shall have the meanings ascribed to them below:

Illegal street racing shall mean a motor vehicle speed contest using public highways, streets, rights-of-way, public or private driveways, airport runways, or parking lots in violation of applicable motor vehicle and traffic laws, OCGA 40-6-186, drag racing or racing and/or OCGA 40-6-251, laying drags. *Illegal street racing* may include, but is not limited to, situations in which: (1) a group of motor vehicles or individuals has gathered at a location for the purpose of participating in such an event; (2) a group of individuals has gathered on private property open to the general public without the consent of the owner, operator, or agent thereof for the purpose of participating in such an event; (3) one or more individuals has impeded the free public use of a public street, sidewalk, highway, public or private driveways, airport runways, or parking lots by actions, words, or physical barriers for the purpose of conducting such an event; (4) two or more vehicles have lined up with motors running for an illegal motor vehicle speed contest or exhibition of speed; (5) one or more drivers is revving his engine or spinning his tires in preparation for the event; or (6) an individual is stationed at or near one or more motor vehicles serving as a race starter.

Organizer shall mean any individual who in any manner knowingly takes part in the planning, organization, coordination, facilitation, or sharing of the location of any illegal street racing or reckless driving exhibition or collects money in connection with an illegal street racing or reckless driving exhibition, in violation of Code Section 40-6-186, or of laying drags, in violation of Code Section 40-6-251.

Participant shall mean any individual who is knowingly present at an illegal street racing or reckless driving exhibition for the purpose of actively taking part in the event, through conduct including, but not limited to: riding in a race vehicle as a passenger; assisting the organizers and/or drivers in carrying out the event; or exchanging money or anything of value with any driver, car owner, organizer or other participant in connection with the event. For the purpose of this definition, a person who is a mere bystander, passerby, or observer not aware of the illegal activity shall not be deemed a participant.

Promoter any person who knowingly promotes an exhibition of illegal drag racing, in violation of Code Section 40-6-186, or of laying drags, in violation of Code Section 40-6-251. The terms promote shall include, but not be limited to: advertising, posting, or sharing the location of any illegal street racing or reckless driving exhibition or taking video or photographic images for purpose of promoting and/or profiting from the event.

Reckless driving exhibition is when any person drives any vehicle in reckless disregard for the safety of persons or property.

Spectator is an individual person who is a bystander or observer of an illegal street racing or reckless driving exhibition.

(b) – Violations.

(1) No person shall knowingly act as an organizer of an illegal street racing or reckless driving exhibition.

(2) Except as provided elsewhere in this section, no person shall knowingly act as a participant in, or spectator of, an illegal street racing or reckless driving exhibition, as defined herein.

(3) Nothing in this section prohibits law enforcement officers or their agents from being participants or spectators at an illegal street racing or reckless driving exhibition in the course of their official duties.

(4) This section shall not apply to licensed or duly authorized racetracks, drag strips, or other designated areas set aside by proper authorities for such purposes.

(5) In all cases of violations of this ordinance, the person charged shall appear in the City of Lawrenceville Municipal Court.

(c) – Penalties.

Violations of this section shall be punished as follows:

(1) Organizers, promoters, and those driving motor vehicles shall be punished by a fine not to exceed \$1,000.00, imprisonment for a term not to exceed six months, or any combination thereof, subject to all limitations contained in applicable state law.

(2) All other participants other than spectators shall be punished by a fine not to exceed \$500.00, imprisonment for a term not to exceed six months, or any combination thereof, subject to all limitations contained in applicable state law.

(3) Spectators shall be punished by a fine not to exceed \$300.00, imprisonment for a term not to exceed six months, or any combination thereof, subject to all limitations contained in applicable state law.

(3) Any motor vehicle used in illegal street racing or reckless driving exhibition as defined in this section may be removed and impounded by police to the extent authorized by applicable state law, or pursuant to a warrant issued by a court of competent jurisdiction. An impounded vehicle may be held in impound for not less than

30 days or final adjudication of the case, to the maximum extent allowed under state law.

(d) - Proving a Violation.

Notwithstanding any other provision of law, to prove a violation of this section, admissible evidence may include, but is not limited to, any of the following:

- (1) The time of day;
- (2) The nature and description of the scene;
- (3) The number of people at the scene;
- (4) The location of the individual charged in relation to any individual or group present at the scene;
- (5) The number and description of motor vehicles at the scene;
- (6) That the individual charged drove or was transported to the scene;
- (7) That the individual charged has previously participated in an illegal street racing or reckless driving exhibition;
- (8) That the individual charged has previously aided and abetted an illegal street racing or reckless driving exhibition;
- (9) That the individual charged has previously organized an illegal street racing or reckless driving exhibition; or
- (10) That the individual charged previously was present at a location where preparations were being made for an illegal street racing or reckless driving exhibition or where an illegal street racing or reckless driving exhibition was in progress.

(e) This ordinance shall be enforced by the City of Lawrenceville Police Department.

(f) This Ordinance shall be effective on January 1, 2023.

(g) All ordinances, resolutions, or parts of the same in conflict with this Ordinance are hereby rescinded to the extent of said conflict.

IT IS SO ORDAINED this __ day of December, 2022.

David R. Still, Mayor

ATTEST:

Karen Pierce, City Clerk

STATE OF GEORGIA
COUNTY OF GWINNETT

**AGREEMENT TO PROVIDE FUNDS FOR THE
DEVELOPMENT OF AFFORDABLE HOUSING**

This Agreement to Provide Funds for Affordable Housing ("Agreement"), made and entered into by and between the City of Lawrenceville, Georgia, a municipal corporation organized and existing under the laws of the State of Georgia, ("City"), and the Gwinnett County Habitat for Humanity, Inc., a non-profit corporation organized and existing under the laws of the State of Georgia, (hereinafter "Habitat").

WITNESSETH:

WHEREAS, the City has expressed in its planning documents that one of its goals is to provide affordable housing for its citizens; and

WHEREAS, the City of Lawrenceville has obtained certain funds under the American Rescue Plan Act ("ARPA"), and an allowed use of these funds is to assist in providing affordable housing to those persons who meet certain income standards; and

WHEREAS, Habitat has a mission to providing affordable housing; and

WHEREAS, Habitat has obtained title to four lots located within the City of Lawrenceville, and intends to construct single family residential homes on these lots to be owned by individuals meeting the income standards established by Habitat which standards also satisfy the income standards for the use of ARPA funds; and

WHEREAS, the City of Lawrenceville desires to provide funding to assist Habitat with the construction of these homes provided that the homes meet certain minimum standards as set forth in this Agreement, and provided that the funds are used in accordance with the requirements for the use of ARPA funds; and

WHEREAS, the City has determined that the construction of this affordable housing within the boundaries of the City of Lawrenceville would benefit the citizens of the City of Lawrenceville and would be an appropriate use of the ARPA funds;

NOW THEREFORE, in consideration of the mutual covenants contained herein, the amounts to be provided herein and other good and valuable consideration, the receipt and sufficiency of which is acknowledged by the parties, the City and Habitat do agree as follows:

1.

The City will provide funds in the amount of One Hundred Thousand Dollars (\$100,000.00) to Habitat. These funds shall be paid using ARPA funds and shall be used

for the construction of not less than four (4) single family residential homes which shall be located within the boundaries of the City of Lawrenceville and which homes shall be sold by Habitat to individuals meeting the income requirements for participating in the Habitat program. Habitat agrees that it will comply with any and all federal laws and regulations for the use of ARPA funds, and shall provide all documentation required by the City, its auditors, or the federal government to demonstrate compliance with the requirements for the use of ARPA funds.

2.

Upon the City's request, Habitat shall make available to the City and its auditors all financial records regarding the use of the funds provided under this Agreement to demonstrate compliance with the requirements of this Agreement and with any federal laws related to the use of ARPA funds. In the event that the City or any appropriate entity determines that the funds provided under this Agreement have not been expended in compliance with the requirements for the use of ARPA funds, Habitat agrees that it shall be responsible for reimbursing the City for any unauthorized expenditures.

3.

The homes to be constructed by Habitat using the funds to be provided by the City under this Agreement shall contain at least fifteen hundred square feet of heated space, shall have a two-car garage, and shall have a working fireplace and chimney.

4.

This Agreement constitutes the entire understanding between the City and Habitat as to the matters referenced herein and may be modified only by written instrument duly executed by the parties hereto.

5.

This Agreement shall be governed by the laws of the State of Georgia.

6.

Time is of the essence to this Agreement.

7.

This Agreement may not be assigned by Habitat without the express written consent of the City.

8.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which, taken together, shall constitute one and the same instrument.

9.

The effective date of this Agreement shall be the date that the Agreement is approved and signed by the final party signing the Agreement.

CITY OF LAWRENCEVILLE

By: _____

Title: _____

Date: _____

Attest:

City Clerk

(City Seal)

GWINNETT COUNTY HABITAT FOR
HUMANITY, INC.

By: Brent Behar

Title: Executive Director

Date: _____

Attest:

By: [Signature]

Title: ABWK PROGRAM LEADER

(Corporate Seal)





LAWRENCEVILLE

GEORGIA

AGENDA REPORT

MEETING: WORK SESSION, DECEMBER 14, 2022

AGENDA CATEGORY: GENERAL DISCUSSION ITEM

Item: Agreement with Gwinnett County Habitat for Humanity, Inc

Department: Administration

Date of Meeting: Wednesday, December 14, 2022

Fiscal Impact: N/A

Presented By: Chuck Warbington, City Manager

Action Requested: Approve the agreement with Gwinnett County Habitat for Humanity, Inc for the City to provide funds for the development of affordable housing.

Attachments:
Agreement ARPA Funds