



USE ON REVIEW REPORT

▶ **FILE #:** 3-D-21-UR

AGENDA ITEM #: 28

AGENDA DATE: 3/11/2021

▶ **APPLICANT:** RELIANCE DEVELOPMENT, LLC

OWNER(S): Allen & Elizabeth Morgan

TAX ID NUMBER: 42 056

[View map on KGIS](#)

JURISDICTION: County Commission District 8

STREET ADDRESS: 2718 Shipetown Rd.

▶ **LOCATION:** Southeast side of Rutledge Pk, northeast side of Shipetown Rd. at their intersection

▶ **APPX. SIZE OF TRACT:** 2.31 acres

SECTOR PLAN: Northeast County

GROWTH POLICY PLAN: Planned Growth Area

ACCESSIBILITY: Access is via Rutledge Pike, a major arterial street with 4 lanes and center median within 250' of right-of-way; and Shipetown Rd., a local street with 20' of pavement width within 40' of right-of-way.

UTILITIES: Water Source: Northeast Knox Utility District

Sewer Source: Knoxville Utilities Board

WATERSHED: Roseberry Creek

▶ **ZONING:** CN (Neighborhood Commercial)

▶ **EXISTING LAND USE:** SFR (Single Family Residential)

▶ **PROPOSED USE:** Fueling service station with convenience store and Restaurant with drive-through facility

HISTORY OF ZONING: The property was rezoned from A (Agricultural) to CN (Neighborhood Commercial) in 2014 (5-A-14-RZ).

SURROUNDING LAND USE AND ZONING: North: Car sales, repairs -- CA (General Business)

South: Shipetown Rd., houses, retail store -- A (Agricultural), CN (Neighborhood Commercial)

East: House, vacant land -- A (Agricultural)

West: Rutledge Pike, houses -- A (Agricultural)

NEIGHBORHOOD CONTEXT: This area is developed with some commercial uses along Rutledge Pike under various zones and residential uses developed in the A and RA zones.

STAFF RECOMMENDATION:

▶ **APPROVE** the request for a convenience store that is approximately 4,088 sqft with an internal restaurant with a drive-through facility, and a fuel station with 10 gas pump locations, subject to 5 conditions.

1. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.
2. Connection to sanitary sewer and meeting any other relevant requirements of the utility provider.
3. Meeting all applicable requirements of the Knox County Zoning Ordinance, including but not limited to signage and landscaping.
4. Implementing the recommendations of the Shipetown Square Transportation Impact Study (Fulghum MacIndoe, Revised 2/22/2021), as revised and approved by Planning Commission staff and Knox County Engineering and Public Works (see Exhibit A).
5. Installation of all landscaping as shown on the development plan within six months of the issuance of an occupancy permit, or posting a bond with the Knox County Department of Engineering and Public Works to guarantee such installation.

With the conditions noted, this plan meets the requirements for approval of a restaurant, drive-through facility, and fueling service station in the CN (Neighborhood Commercial) zone and the criteria for approval of a use on review.

COMMENTS:

This proposal will consist of a 4,088 SF convenience market with 10 gas station pump locations and an internal fast food restaurant with a drive-thru window and no indoor seating, located at the intersection of Rutledge Pike at Roberts Road and Shipetown Road. There is also approximately 3,340 SF of retail shops located behind the rear of the lot. There are two proposed driveways for the development; a right-in/right-out driveway on Rutledge Pike and a full-access driveway on Shipetown Road.

The Shipetown Square Transportation Impact Study (Fulghum MacIndoe, Revised 2/22/2021) was prepared to address the impact of the proposed development on Rutledge Pike and Shipetown Road (see Exhibit A). The driveway design recommendations were incorporated into the site design. There were no recommended improvements to the external street system. TDOT and Knox County have a pending project to improve the Rutledge Pike and Shipetown Road intersection with an expected completion date of 2024 (see Exhibit A, Attachment 4). The intersection improvements include signalization and turn lanes.

DEVELOPMENT STANDARDS FOR USES PERMITTED ON REVIEW (ARTICLE 4.10 – SECTION 2)

The planning commission, in the exercise of its administrative judgment, shall be guided by adopted plans and policies, including the general plan and the following general standards:

- 1) THE PROPOSED USE IS CONSISTENT WITH THE ADOPTED PLANS AND POLICIES, INCLUDING THE GENERAL PLAN AND SECTOR PLAN.
 - A. The Northeast County Sector Plan recommends NC (Neighborhood Commercial) uses for this site which includes retail and service-oriented commercial uses intended to provide goods and services that serve the day-to-day needs of households, within a walking or short driving distance.
 - B. The NC location criteria state that automobile-oriented uses (e.g. gas stations or convenience stores) should be located on arterial streets at the edge of neighborhoods. Rutledge Pike is a major arterial street.

- 2) THE USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ZONING ORDINANCE.
 - A. The CN (Neighborhood Commercial) zone is intended to provide the opportunity to locate limited retail and service uses in a manner convenient to and yet not disruptive to established residential neighborhoods. It is intended to provide for the recurring shopping and personal service needs of nearby residential areas. Development should be compatible with the character of the adjacent neighborhood. This zoning should generally be placed at street intersections that include either a collector or arterial street, as close to the edge of the neighborhood as possible. The range of permitted uses is limited to those that are generally patronized on a frequent basis by neighborhood residents. Development performance standards are provided to maximize compatibility between commercial uses and adjacent residential uses.
 - B. The fuel station, restaurant, and drive-through facility are uses permitted on review in the CN zone. There are no specific standards for these uses within the CN or the supplemental regulations in Article 4 of the Knox County Zoning Ordinance.
 - C. The CN zone permits individual buildings or commercial establishments that are no more than 5,000 sqft. The convenience store/restaurant is approximately 4,088 sqft and the retail shops building is approximately 3,189 sqft.
 - D. The CN zone has landscaping standards for parking areas and side and rear yards. The proposed landscape plan meets the CN zone standards.
 - E. The CN zone requires that site lighting be directed away from residential and agricultural zones and any

public right-of-way. The attached plans do not show the site lighting but must be provided during permit review.

3) THE USE IS COMPATIBLE WITH THE CHARACTER OF THE NEIGHBORHOOD WHERE IT IS PROPOSED, AND WITH THE SIZE AND LOCATION OF BUILDINGS IN THE VICINITY.

- A. The one-story building height and setback from the southeast property line are compatible with the area.
- B. There is one-story retail establishments to the northeast and southwest.

4) THE USE WILL NOT SIGNIFICANTLY INJURE THE VALUE OF ADJACENT PROPERTY.

- A. The fuel station could have noise, lights, fumes, or odors that are a nuisance to nearby residential uses.
- B. The retail shops are located near the southeast which should help buffer the fuel station from the residential, as well as the required landscape screening. The fuel station will also be at a lower elevation which will help reduce the potential for lighting to be a nuisance to the nearby residential uses.

5) THE USE WILL NOT DRAW ADDITIONAL TRAFFIC THROUGH RESIDENTIAL AREAS.

- A. The development has access to Rutledge Pike which is a major arterial street.

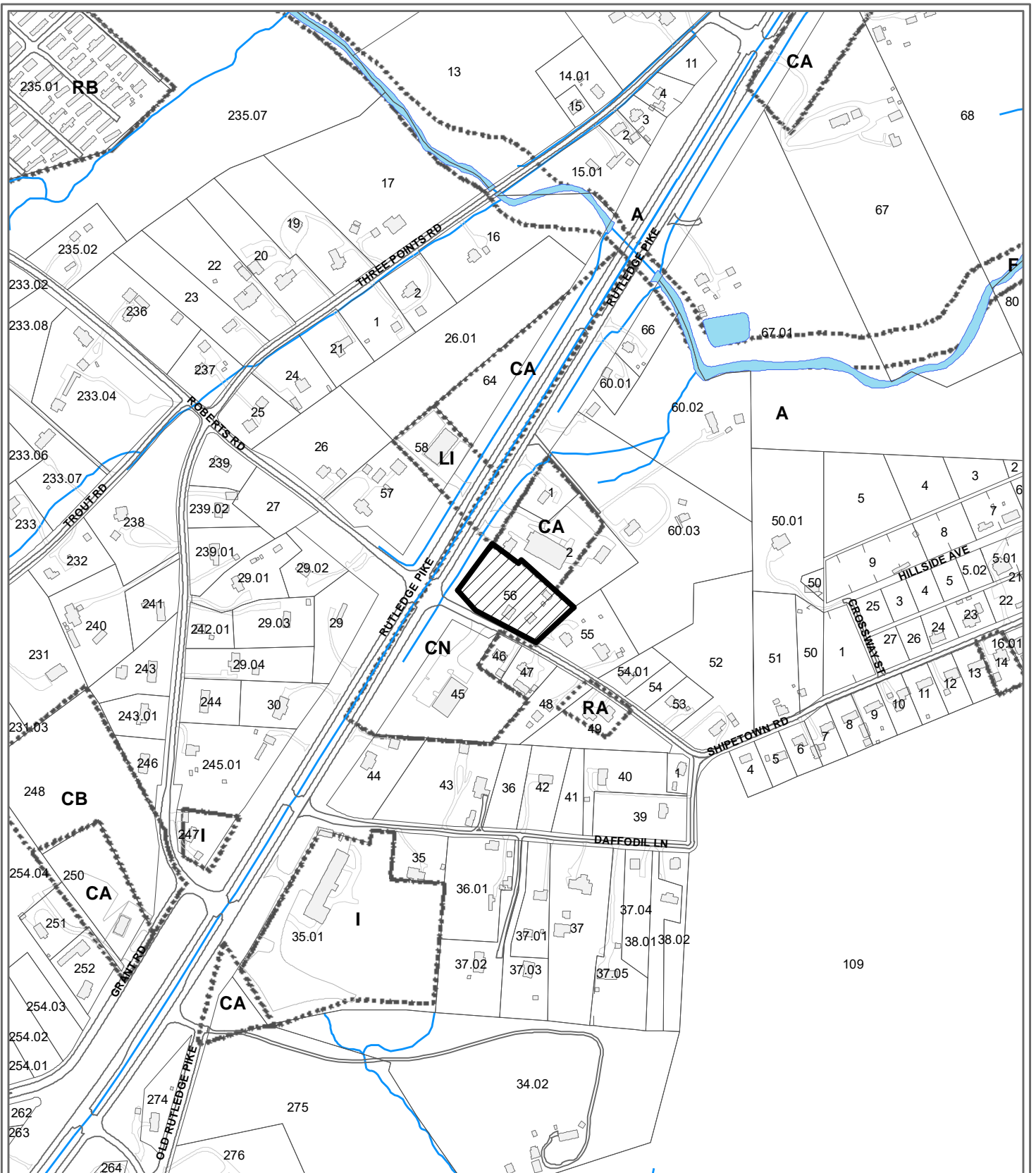
6) THE NATURE OF DEVELOPMENT IN THE SURROUNDING AREA IS NOT SUCH AS TO POSE A POTENTIAL HAZARD TO THE PROPOSED USE OR TO CREATE AN UNDESIRABLE ENVIRONMENT FOR THE PROPOSED USE.

- A. There are no known uses in the area that could be a potential hazard or create an undesirable environment for the proposed uses within the development.

ESTIMATED TRAFFIC IMPACT: A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

ESTIMATED STUDENT YIELD: Not applicable.

The Planning Commission's approval or denial of this request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal a Planning Commission decision in the County.



**3-D-21-UR
USE ON REVIEW**



Fueling service station with convenience store in CN (Neighborhood Commercial)

Original Print Date: 2/5/2021 Revised:
 Knoxville - Knox County Planning Commission * City / County Building * Knoxville, TN 37902

Petitioner: Reliance Development, LLC

Map No: 42
 Jurisdiction: County

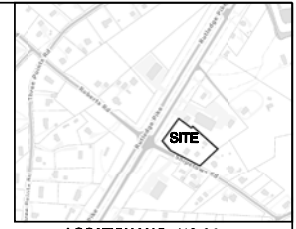


Certification of Concept Plan.
I hereby certify that I am a registered engineer, licensed to practice engineering under the laws of the State of Tennessee. I further certify that the plan and accompanying drawings, documents and statements conform to all applicable provisions of the Knoxville-Knox County Subdivision Regulations except as has been itemized and described in a report filed with the Metropolitan Planning Commission.

Registered Engineer: *[Signature]*
Tennessee Certificate No. 104281

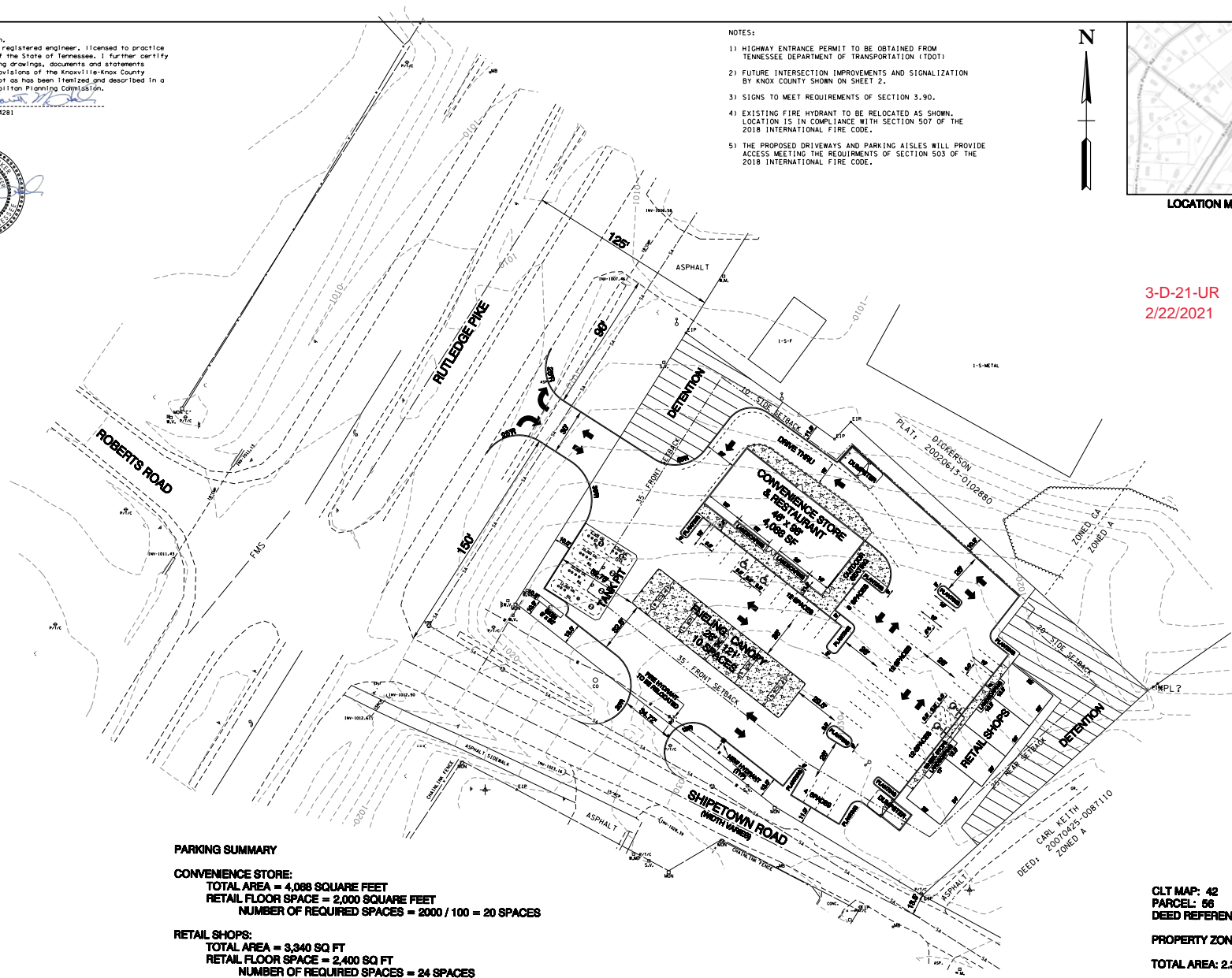


- NOTES:
- HIGHWAY ENTRANCE PERMIT TO BE OBTAINED FROM TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT)
 - FUTURE INTERSECTION IMPROVEMENTS AND SIGNALIZATION BY KNOX COUNTY SHOWN ON SHEET 2.
 - SIGNS TO MEET REQUIREMENTS OF SECTION 3.90.
 - EXISTING FIRE HYDRANT TO BE RELOCATED AS SHOWN. LOCATION IS IN COMPLIANCE WITH SECTION 507 OF THE 2018 INTERNATIONAL FIRE CODE.
 - THE PROPOSED DRIVEWAYS AND PARKING AISLES WILL PROVIDE ACCESS MEETING THE REQUIREMENTS OF SECTION 503 OF THE 2018 INTERNATIONAL FIRE CODE.



LOCATION MAP - NO SCALE

3-D-21-UR
2/22/2021



PARKING SUMMARY

CONVENIENCE STORE:
TOTAL AREA = 4,088 SQUARE FEET
RETAIL FLOOR SPACE = 2,000 SQUARE FEET
NUMBER OF REQUIRED SPACES = 2000 / 100 = 20 SPACES

RETAIL SHOPS:
TOTAL AREA = 3,340 SQ FT
RETAIL FLOOR SPACE = 2,400 SQ FT
NUMBER OF REQUIRED SPACES = 24 SPACES

TOTAL REQUIRED SPACES = 44 SPACES

NUMBER OF SPACES PROPOSED = 49 TOTAL W/ 4 ADA SPACES

CLT MAP: 42
PARCEL: 66
DEED REFERENCE: 2136 - 451

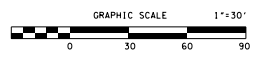
PROPERTY ZONED: CN

TOTAL AREA: 2.31 ACRES

DEVELOPER:
RELIANCE DEVELOPMENT, LLC
644 BLUE HERON RD
KNOXVILLE, TN 37934
CONTACT: EDDIE KHERANI
(865) 966-3100

ENGINEER:
ROBERT G. CAMPBELL
AND ASSOCIATES
7623 TAGGART LANE
KNOXVILLE, TN 37938
PHONE: (865) 947-5996
FAX: (865) 947-7556

PLANNING SERVICES FILE NUMBER: 3-D-21-UR



NO.	DATE	DESCRIPTION	BY	CKD.

ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

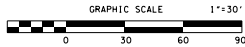
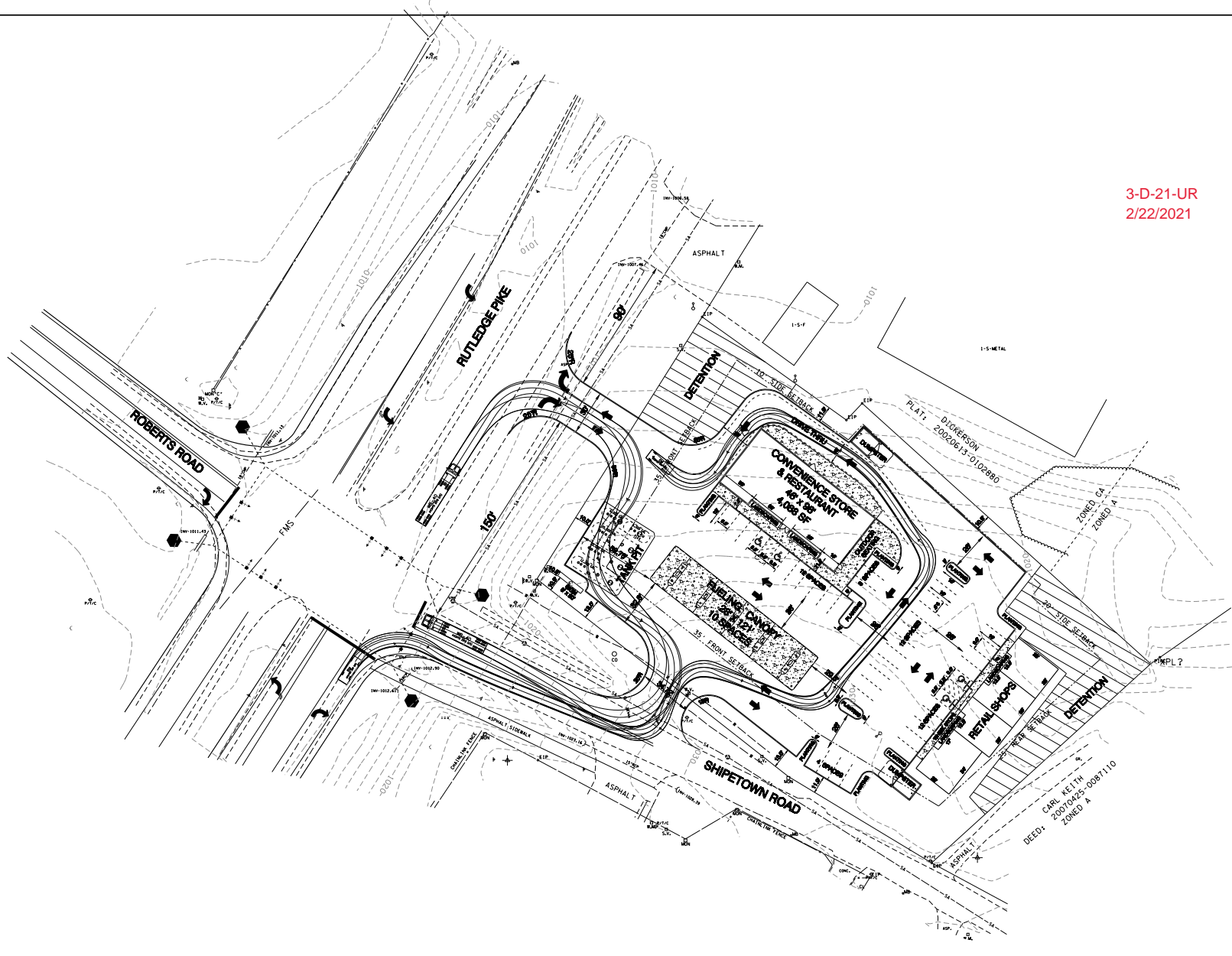
SHIPETOWN SQUARE
USE ON REVIEW

GENERAL LAYOUT

DESIGNED BY	CHECKED BY	SCALE	SHEET ONE
CMT	RGC	1" = 30'	NO. 1
DRAWN BY	DATE	FILE NO.	OF THREE SHEETS
CMT	2-18-21	20306	OF THREE SHEETS



3-D-21-UR
2/22/2021



PLANNING SERVICES FILE NUMBER: 3-D-21-UR

NO.	DATE	DESCRIPTION	BY	CKD.



ROBERT G. CAMPBELL & ASSOC., L.P.
CONSULTING ENGINEERS
KNOXVILLE, TENNESSEE

SHIPETOWN SQUARE
USE ON REVIEW

TURNING TEMPLATES &
KNOX COUNTY IMPROVEMENTS

DESIGNED BY CMT	CHECKED BY RGC	SCALE 1" = 30'	SHEET TWO
DRAWN BY CMT	DATE 2-18-21	FILE NO. 20306	NO. (2)
OF THREE SHEETS			

PLANTING SPECIFICATIONS

SCOPE OF WORK: LABOR AND EQUIPMENT NECESSARY FOR A COMPLETE AND QUALITY LANDSCAPE AS PER PLANS AND SPECIFICATIONS.

REFERENCES AND STANDARDS: ALL WORK SHALL ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES, AND ORDINANCES. PROVIDE LICENSES AND NECESSARY PERMITS PRIOR TO BEGINNING WORK. CARRY GENERAL LIABILITY AND WORKMAN'S COMPENSATION INSURANCE IN AMOUNTS REQUIRED BY THE STATE. QUALITY OF ALL MATERIALS SHALL MEET OR EXCEED THE STANDARDS OF THE AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

PROJECT CONDITIONS: THE CONTRACTOR SHALL BE AWARE OF ALL SITE CONDITIONS AND CONSTRUCTION DOCUMENTS. PROTECT ALL UTILITIES AND EXISTING FACILITIES. FIELD VERIFY ROLL / PROPERTY LINE WITH OWNER. IF CONDITIONS DIFFER FROM PLANS, NOTIFY ARCHITECT IMMEDIATELY. (I.E. ADVERSE DRAINAGE CONDITIONS AND OBSTRUCTIONS) CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTIONS.

LAYOUT: LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANTING LOCATIONS, ETC TO ACCOMMODATE LOCAL CONDITIONS. SUCH ADJUSTMENTS IN PLACE WILL BE CIRCLED, CLARIFIED AND NOT CHANGE ORDER.

EROSION CONTROL AND SITE CLEANUP: PROVIDE EROSION CONTROL AS NECESSARY. MAINTAIN SITE CLEANUP THROUGHOUT WORK AND PROVIDE A FINAL SITE CLEANUP.

PLANT MATERIAL: NURSERY GROWN, SOUND, HEALTHY AND VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF AND HAVE HEALTHY, WELL DEVELOPED ROOT SYSTEMS. GROWN UNDER CLIMATE CONDITIONS SIMILAR TO THOSE IN LOCALITY OF PROJECT (PREFERABLY WITHIN A 200-MILE RADIUS OF THE PROJECT SITE).

PLANTS MUST BE EQUAL OR EXCEED THE REQUIREMENTS DENOTED IN THE PLANT LIST, WHICH ARE TENTH ACCEPTABLE SIZES.

PLANTS MUST BE AS DIRECTED BY LANDSCAPE ARCHITECT. IN NO CASE SHOULD THE PLANTS BE MOVED BACK TO AN EXISTING SITE THAT NO LONGER MEET THE SPECIFICATIONS.

SUBSTRATE: SPECIFICATION OF PLANT INSPECTION CERTIFICATE GENUS SPECIES AND VARIETY. PREPARED SCHEDULE OF WORK, SOIL TEST RESULTS, PROPOSED RATES OF APPLICATION OF FERTILIZERS AND SOIL CONDITIONS PRIOR TO INSTALLATION.

PLANT INSPECTION: THE LANDSCAPE ARCHITECT HAS THE RIGHT TO INSPECT PLANT MATERIALS EITHER AT THE PLACE OF ORIGIN OR AT THE SITE BEFORE PLANTING. OBJECTIVE OR UNSATISFACTORY MATERIAL MAY BE REJECTED AT ANY TIME DURING PROGRESS OF WORK.

SOIL AMENDMENT: FERTILIZERS: COMMERCIAL GRADE, 8-8-4 FORMULA CONFORMING TO U.S. DEPARTMENT OF AGRICULTURE, ANALYSIS AND TEXTURE. ORGANIC: ALL DELIVERED IN ORIGINAL CONTAINERS BEARING MANUFACTURER'S GUARANTEED ANALYSIS AND TEXTURE.

EROSION CONTROL: CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING SOIL CONDITION FOR DRAINAGE AND NUTRIENT CONTENT. NOTIFY ARCHITECT IMMEDIATELY OF ANY PROBLEMS TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING PLANT INSTALLATION.

TOP SOIL: 1. REMOVE EXISTING NATURAL LOAM TYPICAL FOR LOCALITY. 2. ADDITIONAL SOIL: 2" TO 4" DEPTH OF TOPSOIL. 3. FILL WITH SUBSOIL. 4. ADDITIONAL SOIL: 2" TO 4" DEPTH OF TOPSOIL. 5. FILL WITH SUBSOIL. 6. ADDITIONAL SOIL: 2" TO 4" DEPTH OF TOPSOIL. 7. FILL WITH SUBSOIL.

PLANTING SOIL MIX: 5 PARTS TOPSOIL (LOAM) AND 3 PARTS SAND (USE WITH CLAY LOAMS OR SILTY LOAMS). NOTE: PLANTING SOIL MIX MAY BE SUBSTITUTED WITH APPROVED TOPSOIL.

PREPARED PLANTING BED AREAS (ANNUALS & GROUNDCOVERS): 1. ADD TOPSOIL TO A DEPTH OF 6 INCHES. 2. ADD TOPSOIL TO A DEPTH OF 4 INCHES. 3. FILL WITH SUBSOIL TO A DEPTH OF 4 INCHES. 4. RAISE TO LEVEL GRADE THEN ADD 2 INCHES FINE SAND MULCH PRIOR TO PLANTING.

LANDSCAPE BEDS: ALL LANDSCAPE BEDS TO BE 4 TO 6 INCHES HIGHER THAN EXISTING FINISHED GRADE. TAPER BEDS ADJACENT TO HARDSCAPE SURFACES AND INSTALL V-TRENCHES ADJACENT TO LAWN (SEE DETAIL).

WEEDS: MULCHES SHALL BE FREE FROM NUTRIENT RICH, NOxious WEEDS, BOG GRASSES, HARMFUL INSECTS, OR ANY SPECIES OF PLANTS OR ANIMALS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF NOxious WEEDS INTRODUCED ON THE SITE IN THE MULCH FOR PERIOD OF ONE YEAR AFTER COMPLETION OF THE WORK. MULCHES SHALL BE FREE FROM TOXIC, VOLATILE, OR PARTICULATE SIZE. SECURE LANDSCAPE ARCHITECT'S APPROVAL FOR SPECIFIC MULCH TYPE.

PROTECTION: PROTECT FROM EROSION, FLOODING, WINDS AND RAIN. REPAIR OR REPLACE ANY DAMAGED AREAS.

PLANTING: REPAIR AND TIE UP TOP AND PARTIAL SIDES OF ALL PLANT BALLS. PLANT ALL TREES, SHRUBS AND GROUND COVERS AS PER PLANTING DETAILS.

MAINTENANCE: MAINTAIN PLANTING MATERIALS, WEEDING, FERTILIZING, DISEASE AND INSECT CONTROL, STAKING, ETC UNTIL FINAL INSPECTION AND ACCEPTANCE. SUBMIT WRITTEN MAINTENANCE INSTRUCTIONS TO LANDSCAPE ARCHITECT.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

WARRANTY AND GUARANTEE: UPON COMPLETION OF PLANTING, REQUEST AN INSPECTION FOR CONTRACT ACCEPTANCE. ONLY PLANTING BAGGING AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.

QUANTITIES AND REPLACEMENT: GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR AFTER DATE OF PROJECT ACCEPTANCE. GUARANTEE AGAINST DEFECTS, INCLUDING DRAIN AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ARE OR DAMAGE BY OTHERS, OR UNUSUAL WEATHERS OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL. PLANTING MATERIALS TO BE REPLACED TREES, SHRUBS OR OTHER PLANTS FOUND TO BE UNSATISFACTORY DURING GUARANTEE PERIOD.



Know what's below. Call before you dig.

LANDSCAPE REQUIREMENTS

KNOX COUNTY LANDSCAPE REQUIREMENTS - CN ZONING

MARK	ITEM	REQUIRED	PROPOSED
1	PARKING SETBACK AREA RUTLEDGE PIKE 1 NATIVE SHADE TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION 1 ORNAMENTAL TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION	3 SHADE TREES 1 ORNAMENTAL TREE	3 SHADE TREES 1 ORNAMENTAL TREE
2	PARKING SETBACK AREA SHIPSTOWN ROAD 1 NATIVE SHADE TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION 1 ORNAMENTAL TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION	4 SHADE TREES 2 ORNAMENTAL TREES	4 SHADE TREES 2 ORNAMENTAL TREES
3	SIDE YARD LANDSCAPING ADJACENT TO ADJACENT/RESIDENTIAL ZONE 1 EVERGREEN TREE PER 30' PROPERTY DEPTH BULBS AND/OR GROUNDCOVER REMAINING NEAR YARD AREA	3 EVERGREEN TREES BULBS AS REQUIRED	3 EVERGREEN TREES BULBS AS REQUIRED
4	NOT ADJACENT TO RESIDENTIAL/AGRICULTURAL ZONE 1 NATIVE SHADE TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION 1 ORNAMENTAL TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION	3 SHADE TREES 2 ORNAMENTAL TREES	3 SHADE TREES 2 ORNAMENTAL TREES
5	REAR YARD LANDSCAPING ADJACENT TO ADJACENT/RESIDENTIAL ZONE 1 EVERGREEN TREE PER 30' PROPERTY DEPTH BULBS AND/OR GROUNDCOVER REMAINING NEAR YARD AREA	3 EVERGREEN TREES BULBS AS REQUIRED	3 EVERGREEN TREES BULBS AS REQUIRED
6	PARKING AREA LANDSCAPE 1 NATIVE SHADE TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION 1 ORNAMENTAL TREE 12' MIN. AT 15' INTERVALS PER 60' W/ PROTRUSION	1 SHADE TREE	1 SHADE TREE
7	BUILDING FACADE LANDSCAPING 10% OF BUILDING FACADE LANDSCAPED WITH PERENNIALS DEPTH PLANTING 3'	-	AS SHOWN

PLANT SCHEDULE

DECIDUOUS TREES	QTY	COMMON / BOTANICAL NAME	SIZE	GAL.
6	GREEN VASE ZELKOVA / Zelkova serrata 'Green Vase'	10-12H	2' Gal	
6	RED MAPLE / Acer rubrum 'Red Sunset'	10-12H	2' Gal	
6	YELLOW OAK / Quercus phellos	10-12H	2' Gal	

EVERGREEN TREES	QTY	COMMON / BOTANICAL NAME	SIZE	GAL.
6	CHERRY LAUREL / Prunus caroliniana	6H		
10	SOUTHERN MAGNOLIA / Magnolia grandiflora	8-10H	2 1/2' Gal	

FLOWERING TREES	QTY	COMMON / BOTANICAL NAME	SIZE	GAL.
13	GRAPE HYDRANGEA / Lagerstroemia indica 'Merveilles'	8H	1 1/2' Trunk	
4	RED BUD / Cercis canadensis	8H	1 1/2' Gal	

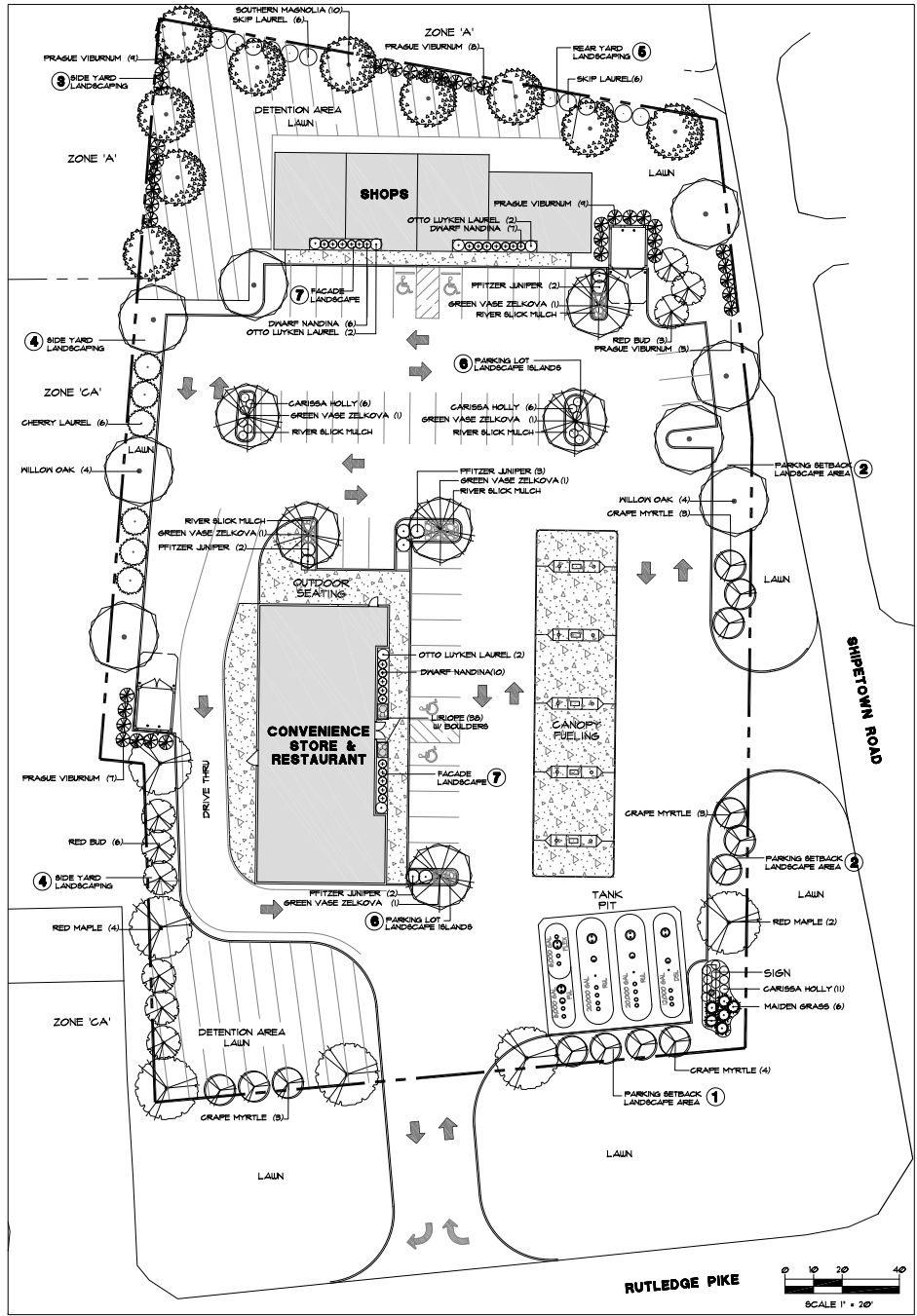
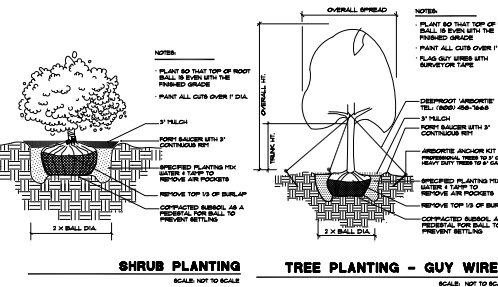
EVERGREEN SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	GAL.
25	CARRISSA HOLLY / Ilex cornuta 'Cortea'	12-15H	3 gal	
25	DWARF NANDINA / Nandina domestica 'Butt Stream'	12-15H	3 gal	
6	OTTO LUYKEN LAUREL / Prunus laurocerasus 'Otto Luyken'	12-15H	3 gal	
4	PFTZER JANIWER / Japaneas repens 'Pftzerjaner'	18-24H	3 gal	
30	PRAGUE VIBURNUM / Viburnum var. 'Prague'	56H	8 1/2 B	
12	SKIP LAUREL / Prunus laurocerasus 'Siphiklaem'	56H	8 1/2 B	

GRASSES	QTY	COMMON / BOTANICAL NAME	SIZE	GAL.
6	HAIRY GRASS / Miscanthus sinensis 'Morning Light'	24H	5 gal	

GROUND COVERS	QTY	COMMON / BOTANICAL NAME	COVT	SPACING
30	LIRIOPE / Liriope muscari 'Big Blue'	4' pot	12" OC	

ADDITIONAL ITEMS	MATERIAL	DESCRIPTION
55	HARDWOOD MULCH	brns and shvds
55	TOP SOIL - PLANTING BEDS	12" all planting bed areas / 4" all lawn areas
55	SEED	Labron 'Young Colors' seed or approved equal
55	ROCK MULCH	4-6" 1/2" chip white stone with pea gravel infill
55	BOLDBERS	2x2x1"

QUANTITIES ARE FOR THE CONTRACTORS CONVENIENCE ONLY. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL PLANTINGS ILLUSTRATED ON PLAN.



MICHAEL VERSEN & ASSOCIATES
LANDSCAPE ARCHITECTURE
295 N. WEBBER RD. SUITE 201
KNOXVILLE, TN 37919
(615) 586-1531

Landscape Plan
Shiptown Square
Rutledge Pike & Shiptown Road
Knoxville, Tennessee

JOB NO. 2102059
DATE: MAY 18, 2021
DATE: FEB. 22, 2021
REVISIONS: NONE



SCALE 1" = 20'



SHIPETOWN SQUARE
Transportation Impact Analysis
Rutledge Pike (US 11-W)
Knoxville, TN

A Transportation Impact Analysis for the Shipetown Square

Submitted to

Knoxville – Knox County Planning Commission

Revised February 22, 2021
January 25, 2021
FMA Project No. 588.009

Submitted By:



3-D-21-UR
Revised: 2/22/2021

Executive Summary

Reliance Development, LLC is proposing a commercial development (i.e. Shipetown Square). The full build out of the development will consist of a 4,088 SF convenience market with 10 gas station pump locations and an internal fast food restaurant with a drive-thru window and no indoor seating. The concept plan also shows approximately 3,340 SF of retail shops to be located behind the convenience market. The project is located at the intersection of Rutledge Pike (US 11W) at Roberts Road / Shipetown Square in Knox County. Construction is proposed to take place this year and this study assumes full build out for the development will occur in 2024.

There are two proposed driveways for the development; a right-in/right-out driveway on Rutledge Pike (US 11W) and a full access driveway on Shipetown Road.

In order to maintain or provide an acceptable level-of-service for each of the intersections studied, some recommendations are presented.

Rutledge Pike (US 11W) at Roberts Road/Shipetown Road

After the completion of the TDOT intersection improvements including the addition of a traffic signal and the full buildout of the Shipetown Square development the traffic conditions for the signalized intersection of Rutledge Pike (US 11W) at Roberts Road / Shipetown Road will operate at a LOS C during the AM peak hour and a LOS B during the PM peak hour. The traffic from the Shipetown Square development will only cause a minor increase in delay to the signalized intersection; therefore there are no recommended improvements.

Rutledge Pike at RIRO Driveway

After the completion of the full buildout of the Shipetown Square development the westbound right turn (driveway) will operate at a LOS A during the AM peak hour and a LOS B during the PM peak hour. A northbound right turn lane is not warranted at the intersection of Rutledge Pike (US 11W) at the right-on/right-out driveway connection per TDOT Roadway Design Guidelines.

Shipetown Road at Driveway Connection

After the completion of the Shipetown Square development the intersection of Shipetown Road at the driveway connection will operate at an acceptable LOS B or better; therefore, there are no recommended improvements. Neither an eastbound left turn lane nor a westbound right turn lane are warranted at the proposed driveway connection.

6 Turn Lane Warrant Analysis

The intersection of Shipetown Road at the full access driveway connection was evaluated to determine if a right turn lane or a left turn lane are warranted. The Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy," was used to analyze the information.

Neither an eastbound left turn nor a westbound right turn lane on Shipetown Road is warranted for the driveway connection. The turn lane warrant worksheets and analysis are included in Attachment 9.

The intersection of Rutledge Pike (US 11W) at the right-in/right-out driveway connection was evaluated to determine if a right turn lane is warranted. Per the TDOT Roadway Design Guidelines revised March 2, 2020 "As suggested in the 2016 Highway Capacity Manual, TRB, page 19-33, exclusive right turn lanes shall be considered when the right-turn volume exceeds 300 vph and the adjacent thru-lane volume also exceeds 300 vphpl." The proposed right turn volumes are 17 vehicles during the AM peak hour and 37 vehicles during the PM peak hour; therefore, an exclusive right turn lane is not warranted at this intersection.

7 Conclusions and Recommendations

7.1 Rutledge Pike (US 11W) @ Roberts Road/Shipetown Road

The existing traffic conditions at the unsignalized intersection of Rutledge Pike (US 11W) at Roberts Road / Shipetown Road and the background and full buildout conditions at the signalized intersection of Rutledge Pike (US 11W) at Roberts Road / Shipetown Road were analyzed using the Highway Capacity Software (HCS7).

The existing traffic conditions for the eastbound approach (Roberts Road) operate at a LOS F, the westbound approach (Shipetown Road) operates at a LOS E, the northbound left turn lane operates at a LOS B and the southbound left turn lane operates at a LOS A during the AM peak hour. The eastbound approach (Roberts Road) operates at a LOS D, the westbound approach operates at a LOS F (Shipetown Road) and both the northbound and southbound left turn lanes operate at a LOS A during the PM peak hour.

The TDOT roadway improvements are expected to be completed by the year 2024 and are therefore included in the background intersection analysis. The background traffic conditions at the signalized intersection of Rutledge Pike (US 11W) at Roberts

**Shipetown Square
Transportation Impact Analysis
February 22, 2021**

Road / Shipetown Road operate at LOS B during both the AM and PM peak hours using the optimized signal timing per the HCS7 software.

After the completion of the full buildout of the Shipetown Square development the signalized intersection of Rutledge Pike (US 11W) at Roberts Road / Shipetown Road will operate at a LOS C during the AM peak hour and a LOS B during the PM peak hour using the optimized signal timing per the HCS7 software.

The average queue length reflects the capacity of the traffic signals and the 95% queue length is defined as the queue length that has only a 5-percent probability of being exceeded during the analysis time period. The 95% queue length is typically used to determine the length of turning lanes in order to minimize the risk of blockage.

The signalized intersection capacity analyses shows a 95% queue length at the full buildout at the intersection of Rutledge Pike (US 11W) at Roberts Road / Shipetown Road of 12 feet for the northbound right turn lane and 97 feet for the southbound left turn lane during the AM peak hour and 38 feet for the northbound right turn lane and 19 feet for the southbound left turn lane during the PM peak hour. The TDOT concept plan shows a storage capacity of 200 feet for the northbound right turn lane and 175 feet for the southbound left turn lane; therefore, the queue from the signalized intersection is not expected to exceed the capacity for the newly designed TDOT intersection improvements.

7.2 Rutledge Pike at RIRO Driveway Connection

The traffic conditions at the unsignalized intersection of Rutledge Pike (US 11W) at the right-in/right-out driveway connection were analyzed using the Highway Capacity Software (HCS7). After the completion of the full buildout of the Shipetown Square development the westbound right turn (driveway) will operate at a LOS A during the AM peak hour and a LOS B during the PM peak hour.

After the completion of the Shipetown Square development a northbound right turn lane is not warranted at the intersection of Rutledge Pike (US 11W) at the right-on/right-out driveway connection.

The minimum required intersection sight distance and stopping sight distance were determined using the AASHTO "Geometric Design of Highways and Streets". The required intersection sight distance for a five lane road with a 55 mph speed limit is 566 feet and the minimum required stopping sight distance is 495 feet. FMA measured the sight distance at the proposed intersection of Rutledge Pike (US 11W) at the right-in/right-out driveway connection. At 15 feet from the edge of pavement the sight distance at the proposed intersection is greater than 600 southbound.

7.3 Shipetown Road at Driveway Connections

The full buildout traffic conditions at the unsignalized intersection of Shipetown Road at the proposed driveway connection was analyzed using the Highway Capacity Software (HCS7).

The intersection of Shipetown Road at the driveway connection is a four-way intersection with stop signs located at both the Dollar General driveway and the proposed convenience market driveway connection. After the completion of the full buildout of the Shipetown Square development the northbound approach (Dollar General driveway) operates at a LOS B during both the AM and PM peak hours. All other approaches operate at a LOS A during both the AM and PM peak hours.

After the completion of the Shipetown Square development neither an eastbound left turn lane nor a westbound right turn lane are warranted at the intersection of Shipetown Road at the proposed driveway connection.

The minimum required sight distance for a road with a posted speed limit of 25 mph is 250 feet in each direction in accordance with the "Knoxville-Knox County Subdivision Regulations" amended through February 13, 2020. FMA measured the sight distance at the existing intersection of Shipetown Road at the Dollar General driveway connection. At 15 feet from the edge of pavement the sight distance is greater than 250 feet eastbound and 250 feet westbound. FMA recommends any necessary landscaping that may be involved to maintain this sight distance and continue to comply with Knox County Engineering requirements.

Attachment 1
Aerial Photo

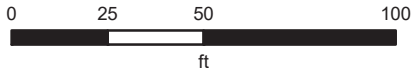


Rutledge Pike @ Roberts

Knoxville - Knox County - KUB Geographic Information System



Printed: 1/17/2021 at 9:51:48 AM



KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS ,WITH ALL FAULTS, and assumes all responsibility for the use thereof, and futher covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.

Attachment 4
TDOT Concept Plan

INDEX OF SHEETS

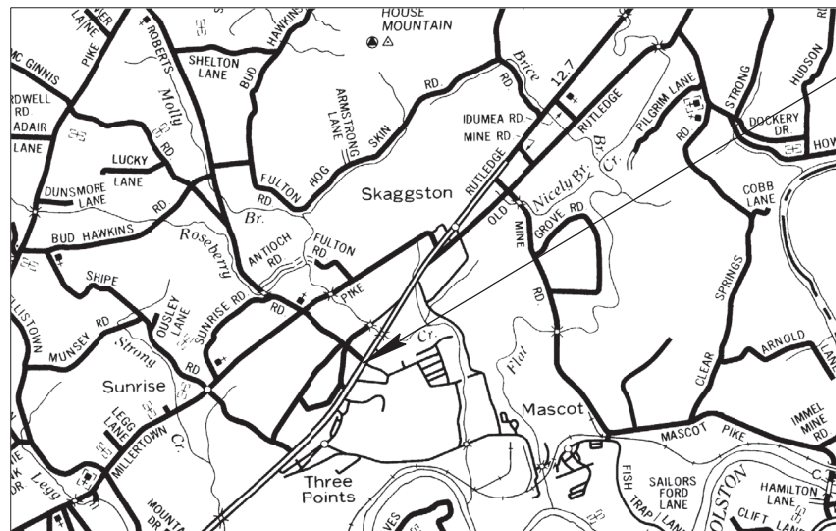
TITLE SHEET 1
 PRESENT LAYOUT 2
 PROPOSED LAYOUT 3
 PROPOSED SIGNAL LAYOUT 4



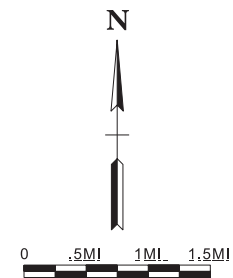
**RUTLEDGE PIKE AT ROBERTS ROAD/SHIPETOWN ROAD
 INTERSECTION CONCEPT PLAN**

KNOX COUNTY COMMISSIONERS

RANDY SMITH
 BRAD ANDERS
 CHARLES BUSLER
 MICHELE CARRINGER
 CARSON DAILEY
 EVELYN GILL
 HUGH NYSTROM
 JOHN SCHOONMAKER
 JUSTIN BIGGS
 LARSEN JAY
 RICHIE BEELER



PROJECT LOCATION



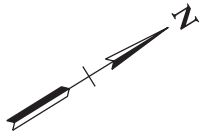
GLENN JACOBS - MAYOR

JIM SNOWDEN - SENIOR DIRECTOR OF ENGINEERING AND PUBLIC WORKS

KNOX COUNTY ENGINEERING AND PUBLIC WORKS
 205 WEST BAXTER AVENUE
 KNOXVILLE, TENNESSEE 37917

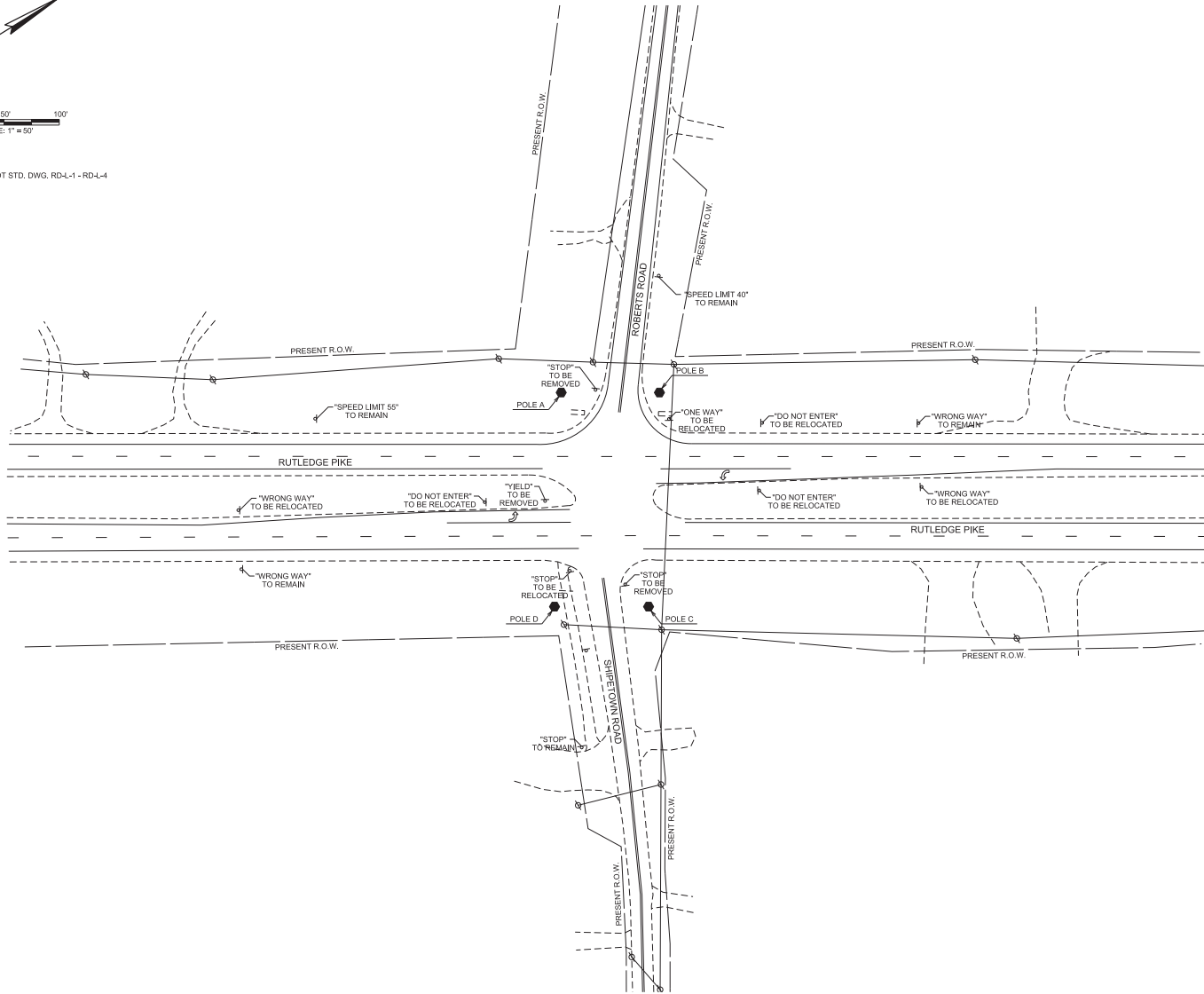
REVISIONS	DATE
<p>CANNON & CANNON INC CONSULTING ENGINEERS - FIELD SURVEYORS 865.670.8555 8550 Kingston Pike www.cannon-cannon.com Knoxville, TN 37918</p>	
CLIENT:	KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS
PROJECT:	RUTLEDGE PIKE AT ROBERTS ROAD/SHIPETOWN ROAD INTERSECTION CONCEPT PLAN
TITLE SHEET	
CDI PROJECT NO.	00263-0096
DATE	MAY 27, 2020
P.A.C.	BH
DRAWN	TSN
C.C.	BH
1	

PRELIMINARY

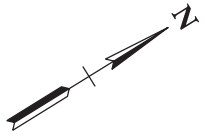


0 50' 100'
SCALE: 1" = 50'

NOTE: REFER TO TDOT STD. DWG. RD-L-1 - RD-L-4 FOR LEGEND.

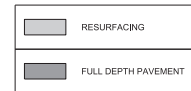
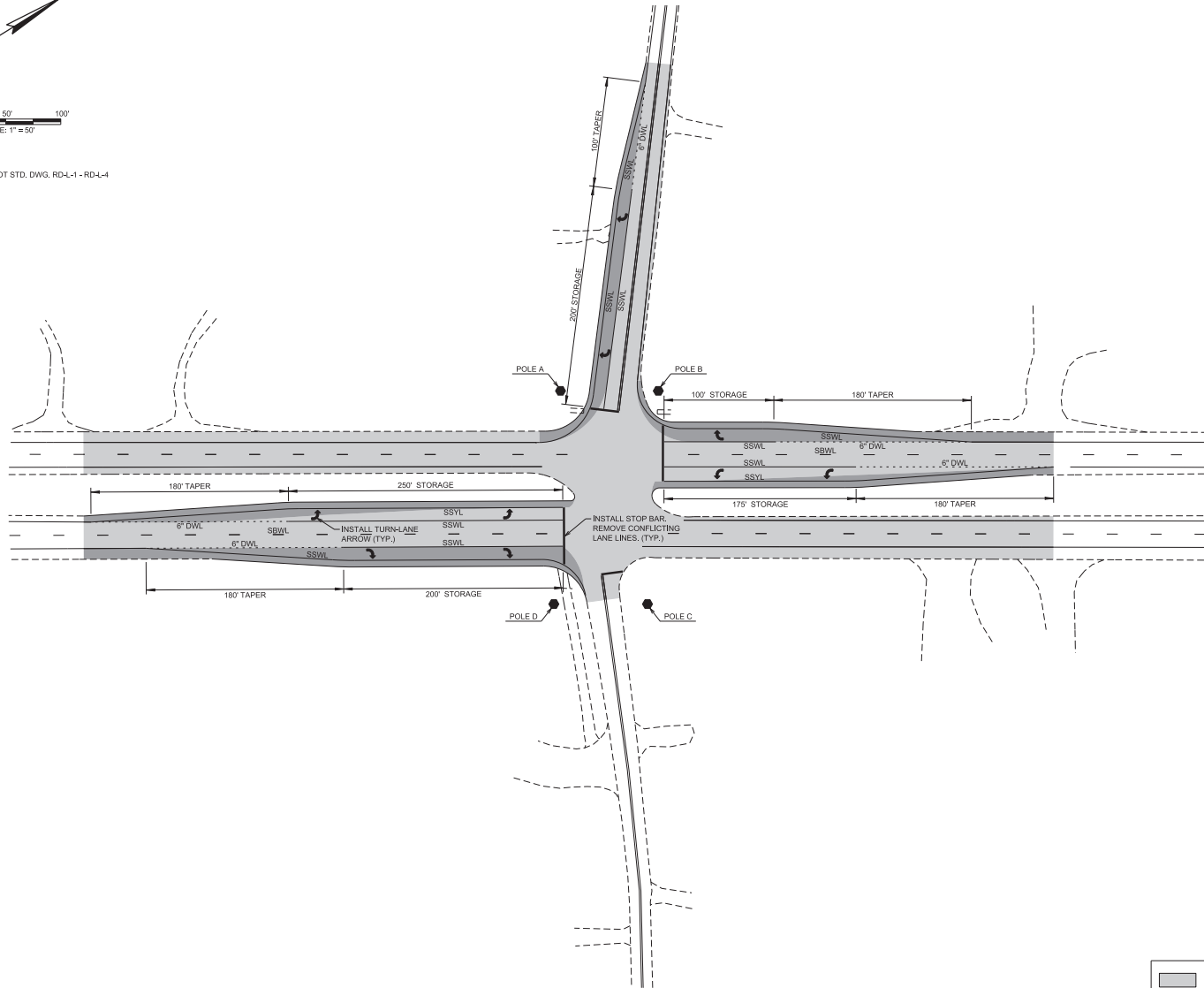


REVISIONS		DATE
 CANNON & CANNON INC CONSULTING ENGINEERS - FIELD SURVEYORS 865.670.8555 8550 Kingston Pike www.cannon-cannon.com Knoxville, TN 37918		
CLIENT: KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS		
PROJECT: RUTLEDGE PIKE AT ROBERTS ROAD/SHIPETOWN ROAD INTERSECTION CONCEPT PLAN		
PRESENT LAYOUT		
PRELIMINARY	CDI PROJECT NO.	00263-0096
	DATE	MAY 27, 2020
	P.A.C.	BH
	DRAWN	TSN
	C.C.	BH
2		



0 50' 100'
SCALE: 1" = 50'

NOTE: REFER TO TDOT STD. DWG. RD-L-1 - RD-L-4 FOR LEGEND.



REVISIONS	DATE

CANNON & CANNON INC
CONSULTING ENGINEERS - FIELD SURVEYORS
865.670.8555 | 8559 Kingston Pike
www.cannon-cannon.com | Knoxville, TN 37918

CLIENT: **KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS**

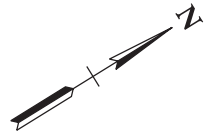
PROJECT: **RUTLEDGE PIKE AT ROBERTS ROAD/SHIPETOWN ROAD INTERSECTION CONCEPT PLAN**

PROPOSED LAYOUT

CDI PROJECT NO.	00263-0096
DATE	MAY 27, 2020
P.W.	BH
DRAWN	TSN
C.C.	BH

3

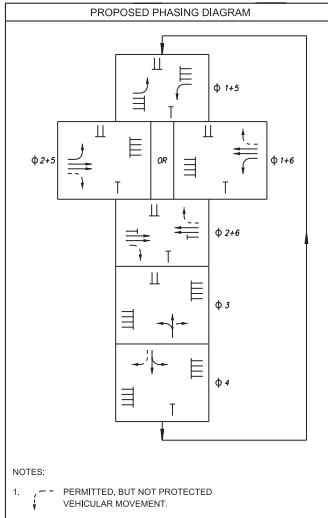
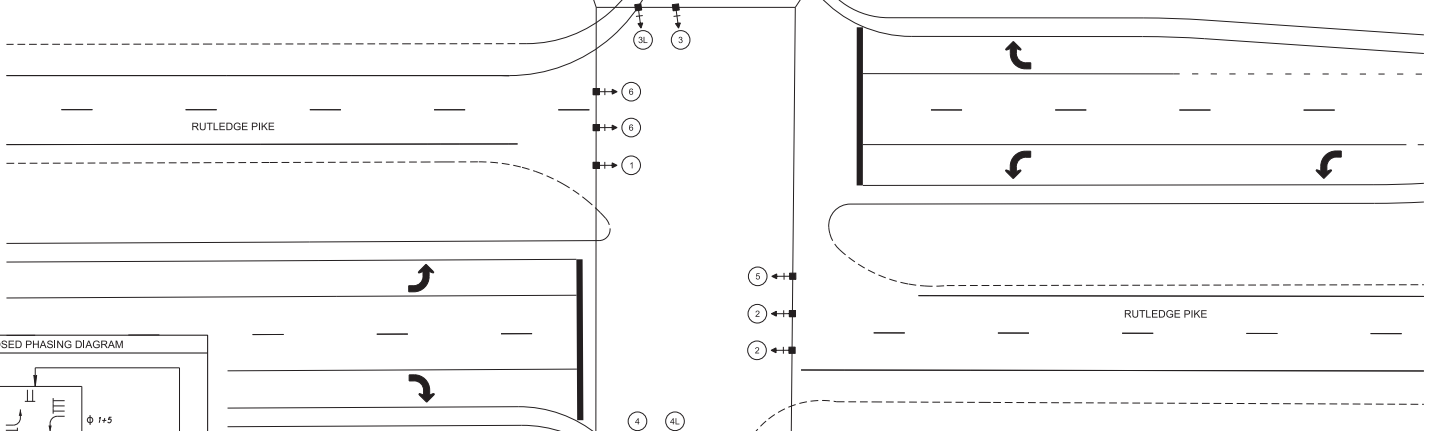
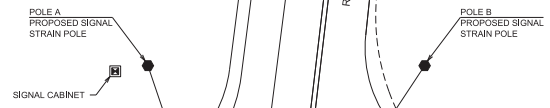
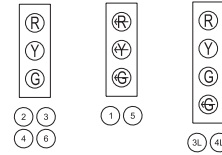
PRELIMINARY



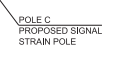
0 20' 40'
SCALE: 1" = 20'

NOTE: REFER TO TDOT STD. DWG. RD-L-1 - RD-L-4 FOR LEGEND.

PROPOSED SIGNAL HEADS



NOTES:
1. --- PERMITTED, BUT NOT PROTECTED VEHICULAR MOVEMENT.



PROPOSED CONTROLLER RING DIAGRAM

1	2	3	4
↓	→	↑	↓
5	6	BARRIER	8
↑	←	NOT USED	NOT USED

REVISIONS	DATE
 CONSULTING ENGINEERS - FIELD SURVEYORS 865.670.8555 8550 Kingston Pike www.cannon-cannon.com Knoxville, TN 37918	
CLIENT:	KNOX COUNTY DEPARTMENT OF ENGINEERING AND PUBLIC WORKS
PROJECT:	RUTLEDGE PIKE AT ROBERTS ROAD/SHIPETOWN ROAD INTERSECTION CONCEPT PLAN
PROPOSED SIGNAL LAYOUT	
CCI PROJECT NO.	00263-0096
DATE	MAY 27, 2020
P.A.C.	BH
DRAWN	TSN
C.C.	BH
4	

PRELIMINARY

5/27/2020 2:32:54 PM
Z:\00263-0096\03-Drawings\02-Transportation\004.sht



Planning

KNOXVILLE | KNOX COUNTY

DEVELOPMENT REQUEST

DEVELOPMENT

- Development Plan
- Use on Review / Special Use

SUBDIVISION

- Concept Plan
- Final Plat

ZONING

- Plan Amendment
- Rezoning

Reliance Development, LLC

Applicant

1/25/2021

Date Filed

March 11, 2021

Meeting Date (if applicable)

3-D-21-UR

File Numbers(s)

CORRESPONDENCE

All correspondence related to this application should be directed to the approved contact listed below.

- Applicant
- Owner
- Option Holder
- Project Surveyor
- Engineer
- Architect/Landscape Architect

Garrett Tucker, PE

Robert G. Campbell and Associates, LP

Name

Company

7523 Taggart Lane

Knoxville

TN

37938

Address

City

State

Zip

865-947-5996

gtucker@rgc-a.com

Phone

Email

CURRENT PROPERTY INFO

Allen & Elizabeth Morgan

2804 Roberts Road

865-966-3100

Owner Name (if different)

Owner Address

Owner Phone

Mascot, TN 37806

CLT 42 Parcel 56

Property Address

*SE 1/2 Rutledge Pk,
NE 1/2 Shipetown Rd*

Parcel ID

2718 Shipetown Road, Mascot, TN 37806

2.31 AC

General Location

Tract Size

EIGHTH

CN

Jurisdiction (specify district above)

- City
- County

Zoning District

Northeast County

NC

Planned Growth

Planning Sector

Sector Plan Land Use Classification

Growth Policy Plan Designation

SFR

N

KUB

NEKUD

Existing Land Use

Septic (Y/N)

Sewer Provider

Water Provider

REQUEST

DEVELOPMENT

Development Plan Use on Review / Special Use

Residential Non-Residential

Home Occupation (specify): _____

Other (specify): Gas Station

SUBDIVISION

Proposed Subdivision Name _____ Unit / Phase Number _____

Parcel Change

Combine Parcels Divide Parcel Total Number of Lots Created: _____

Other (specify): _____

Attachments / Additional Requirements

ZONING

Zoning Change: _____
Proposed Zoning _____

Plan Amendment Change: _____
Proposed Plan Designation(s) _____

Proposed Property Use (specify) _____ Proposed Density (units/acre) _____ Previous Rezoning Requests _____

Other (specify): _____

STAFF USE ONLY

PLAT TYPE

Administrative Meeting

ATTACHMENTS

Property Owners / Option Holders Variance Request

ADDITIONAL REQUIREMENTS

- Design Plan Certification (*Final Plat only*)
- Use on Review / Special Use (*Concept Plan only*)
- Traffic Impact Study

FEE 1:

FEE 2:

FEE 3:

TOTAL:

0401 1500.00

\$1500.00

AUTHORIZATION

Staff Signature

Sherry Michienzi

Please Print

SHERRY MICHIEZI

Date

1/25/2021

Applicant Signature

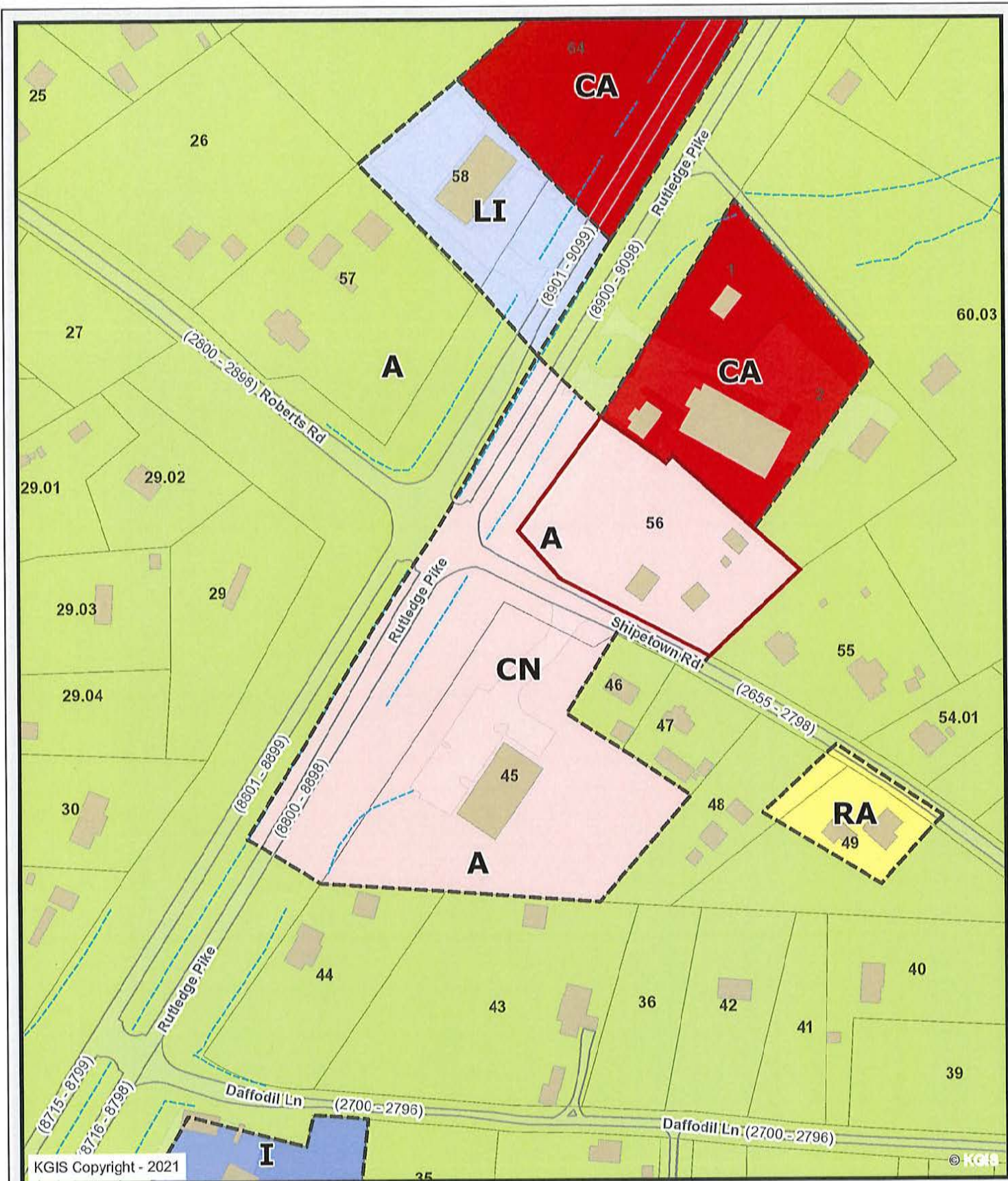
[Signature]

Please Print

AZIZ KHERANI
RELIANCE DEVELOPMENT LLC

Date

01/25/2021



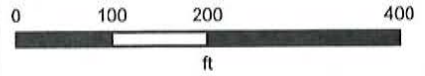
KGIS Copyright - 2021

© KGIS

2718 Shipetown Rd.



Printed: 1/25/2021 at 9:38:10 AM



Knoxville - Knox County - KUB Geographic Information System

KGIS makes no representation or warranty as to the accuracy of his map and its information nor to its fitness for use. Any user of this map product accepts the same AS IS, WITH ALL FAULTS, and assumes all responsibility for the use thereof, and further covenants and agrees to hold KGIS harmless from any and all damage, loss, or liability arising from any use of this map product.