



SUBDIVISION REPORT - CONCEPT/USE ON REVIEW

▶ **FILE #:** 12-SA-20-C
12-A-20-UR

AGENDA ITEM #: 15
AGENDA DATE: 12/10/2020

▶ **SUBDIVISION:** WOODBURY CROSSING

▶ **APPLICANT/DEVELOPER:** WC WOODBURY CROSSING LIMITED PARTNERSHIP

OWNER(S): People Bank of the South

TAX IDENTIFICATION: 21 00203 [View map on KGIS](#)

JURISDICTION: County Commission District 8

STREET ADDRESS: 7605 Twin Oak Ln.

▶ **LOCATION:** Southeast terminus of Edwards Place Blvd., southeast of Thompson School Rd.

SECTOR PLAN: Northeast County

GROWTH POLICY PLAN: Planned Growth Area

WATERSHED: Beaver Creek

▶ **APPROXIMATE ACREAGE:** 30.748 acres

▶ **ZONING:** PR (Planned Residential)

▶ **EXISTING LAND USE:** Vacant land

▶ **PROPOSED USE:** Detached residential subdivision

SURROUNDING LAND USE AND ZONING: The subject site is located within the Edwards Place subdivision and general area has been transitioning from a rural area to a residential area with small, single-family lots. Rezoning to PR began in the mid-1990s, with PR developments being built through the early 2000s. Gibbs Elementary, Middle, and High Schools are nearby to the south off of Tazewell Pike.

▶ **NUMBER OF LOTS:** 79

SURVEYOR/ENGINEER: Charles Garvick / Chadan Engineering, Inc.

ACCESSIBILITY: Access is via Edwards Place Blvd, a local street with 26' of pavement width within 50' of right-of-way, and via Lawgiver Circle, a local street with 26' of pavement width within 50' of right-of-way.

▶ **SUBDIVISION VARIANCES REQUIRED:** VARIANCE

1) Reduce the minimum tangent for a broken back curve on Lawgiver Circle at STA 13+87.42 from 150 feet to 38.669 feet.

ALTERNATIVE DESIGN STANDARDS APPROVED BY KNOX COUNTY ENGINEERING AND PUBLIC WORKS

1) Increase the maximum intersection approach from 1% to 1.5% for Lawgiver Circle at Edwards Place Boulevard.

STAFF RECOMMENDATION:

- ▶ **APPROVE variance 1 because the site conditions restrict compliance with the Subdivision Regulations and the proposed variance will not create a traffic hazard.**

APPROVE the Concept Plan subject to 13 conditions.

1. Connection to sanitary sewer and meeting any other relevant requirements of the utility provider.
2. Provision of street names which are consistent with the Uniform Street Naming and Addressing System within Knox County (County Ord. 91-1-102).
3. Providing a greenway easement on the southeast side of Beaver Creek, as shown, or as otherwise approved by Knox County Engineering and Public Works and Knox County Parks and Recreation.
4. Certifying that the required sight distance is available at the Lawgiver Circle intersection with Edwards Place Boulevard. This documentation is to be provided to Knox County Engineering and Public Works for review and approval during the design plan phase.
5. Platting either a 20' wide easement or common area between lots 51 and 52 for a pedestrian connection to the Twin Oak Landing subdivision (see file number 8-SA-20-C / 8-B-20-UR). This sidewalk is to be installed at a time determined by the Knox County Department of Engineering and Public Works during design plan review.
6. Platting either a 20' wide easement or common area for the sidewalk between lots 40 and 41 for a pedestrian connection to the future Beaver Creek greenway. This sidewalk is to be installed at a time determined by the Knox County Department of Engineering and Public Works during design plan review.
7. Providing the necessary sight distance and safety improvements at the mid-block crossing on Lawgiver Circle, taking into consideration the location of on-street parking, as required by Knox County Engineering and Public Works during design plan review.
8. Installing the sidewalk on Edwards Place Boulevard to the west side of the street, unless otherwise approved by Knox County Engineering and Public Works during design plan review.
9. Providing a maximum cross slope of 2% for all crosswalks at a stop sign unless otherwise approved by Knox County Engineering and Public Works during design plan review.
10. Meeting all applicable requirements of Knox County Engineering and Public Works.
11. Meeting all applicable requirements of the Knox County Zoning Ordinance.
12. Submitting to Planning staff prior to final plat review by the Planning Commission or Planning staff, the certification of design plan approval form as required by the Knoxville-Knox County Subdivision Regulations.
13. Prior to certification of the final plat for the subdivision, establishing a property owners association that will be responsible for the maintenance of the common areas, drainage system and any recreational amenities.

- ▶ **APPROVE the development plan for up to 79 detached residential lots, as shown, subject to 1 condition.**

- 1) Meeting all applicable requirements of the Knox County Zoning Ordinance.

With the conditions noted, this plan meets the requirements for approval in the PR District, and the other criteria for approval of a use on review.

COMMENTS:

Summary

Construction of a 79-lot detached residential subdivision in the undeveloped portion of the Edwards Place subdivision (approximately 30.75 acres). The proposed subdivision will extend both Edwards Place Boulevard and Lawgiver Circle, similarly to the original road design for the Edwards Place subdivision. Also, Road 'A' is in the same general location as a road that was originally proposed to cross Beaver Creek to provide access for lots on the south side of the creek. This current proposal does not have house lots on the south side of the creek. A greenway easement is provided on the south side of Beaver Creek and a sidewalk connection to the future greenway is proposed from Lawgiving Circle, between lots 40 and 41. There is also a sidewalk connection from Lawgiver Circle, between lots 51 and 52, that extends to the shared property line with the approved Twin Oak Landing subdivision that also has a sidewalk connection at this point (8-SA-20-C / 8-B-20-UR).

Background

The Edwards Place subdivision was originally approved in 2007 (2-SI-07-C / 2-K-07-UR) with 187 single family residential lots. The unbuilt portion of the subdivision was reapproved in 2013 (11-SA-13-C) with the same layout and number of lots. Lawgiver Circle was intended to wrap around Forest Willow Lane and connect to the

southern portion of Edwards Place Boulevard, and there was to be a street that extended to the south side of Beaver Creek with lots in the hillside area adjacent to the Gibbs school property.

Sidewalks were required throughout the subdivision and there was a requirement to make a pedestrian connection to the school property, if desired by Knox County Schools. Because the number of lots within the subdivision, the planning commission also required an amenity area that was to be located on the south side of Beaver Creek, near the terminus of Twin Oak Lane. The amenity was never constructed and the location is now part of the subject property. The 2007 Use on Review approval also had a requirement to connect to the terminus of Twin Oak Lane. (NOTE: The portion of Twin Oak Lane that terminates into the subject property has since been closed by Knox County)

The installation of the required sidewalks began with the construction of houses sometime between 2016 and 2018. Most of the sidewalks were installed in areas with the least amount of vehicle traffic. Edwards Place Boulevard will be the most heavily traveled road in the neighborhood and it is currently without a sidewalk for the majority of its length.

The 2007 and 2013 Concept Plan approvals had a condition that allowed Knox County Engineering and Public Works to require traffic calming to be installed. This could still be an option going forward to help slow down traffic, particularly on Edwards Place Boulevard.

In August 2020, the planning commission denied the request for an 80-unit apartment complex on this same site, as well as the associated cul-de-sacs at the existing termini of Edwards Place Boulevard and Lawgiver Circle (6-SA-20-C / 6-A-20-UR).

Density

The PR (Planned Residential) zoning allows up to 4 dwelling units per acre (du/ac). The proposed subdivision will have a density of 2.57 du/ac. The existing neighborhood consists of 95 lots on approximately 22.5 acres (4.22 du/ac). The combined density for the Edwards Place subdivision and the Woodbury Crossing subdivision is approximately 3.27 du/ac (174 dwellings on 53.25 acres). Approximately 39 additional dwelling units could be constructed based on the current zoning of PR up to 4 du/ac. If additional dwellings are proposed in the future, a new Concept Plan and/or Use on Review approval would be required.

Proposal

The Woodbury Crossing subdivision will be an expansion of the existing Edwards Place subdivision and extends Edwards Place Boulevard and Lawgiver Circle similarly to the original Edwards Place subdivision design. There will be sidewalks on one side of all new road segments, as well as a sidewalk connection to the future Twin Oak Landing subdivision to the east and a sidewalk connection to the proposed greenway on the south side of Beaver Creek. The sidewalk to the greenway easement will terminate at the closed Twin Oak Lane creek crossing which still exists and can hopefully be used as a pedestrian crossing. The old roadbed for Twin oak Lane also exists which could potentially be used as part of the pedestrian network that makes a connection to the nearby Gibbs school property.

A 60' wide greenway easement is being provided on the southeast side of Beaver Creek at the request of Knox County Parks and Recreation. The Knox County Greenway Corridor Study proposes a greenway along Beaver Creek and the preferred route in this area runs through this property (see Exhibit A). The previous approvals for Edwards Place and the adjacent Twin Oak Landing subdivision (approved and not developed) had requirements to make a pedestrian connection to the Gibbs school property. In conversations with the school system, the preferred location for a pedestrian connection is the one approved in the Twin Oak Landing subdivision that is at the end of the Gibbs Elementary School driveway, just as the driveway forks and extends up the hill to Gibbs Middle School. The sidewalk connections to Twin Oak Landing and the future greenway will provide two potential paths to making the pedestrian connection to the school property which the community has expressed as a need for the area.

Traffic Impact Study

The Woodbury Crossing Traffic Impact Study (CDM Smith, Revised October 2020) was prepared to address the impact of the proposed development on Thompson School Road. The Edwards Place subdivision was previously studied in 2007 for 187 single-family lots. This revised study only analyzed impact of the development on the Edwards Place Boulevard and Thompson School Road intersection, it did not analyze the impact on the internal neighborhood streets. The conclusion of the TIS was that no improvements are

necessary at the Thompson School Road intersection and that the new internal roads must connect to the terminus of Edwards Place Boulevard and Lawgiver Circle in accordance with the requirements of Knoxville-Knox County Planning and Knox County Engineering and Public Works.

Open Space

The 2007 Use on Review approval had a condition of providing both active and passive recreational uses on a 1.63 acre common area. According to the staff report, this is because the subdivision was going to have more than 150 houses. The total lots within the existing and proposed subdivision will be more than the stated threshold to warrant the inclusion of an amenity. This proposal does not specify an amenity but does provide pedestrian connections to the future Twin Oak Landing subdivision and the future greenway along the south side of Beaver Creek. The creek crossing of the closed roadbed of Twin Oak Lane still exists and is intended to be used as a pedestrian crossing of the creek.

EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE

- 1) The proposed development must work with the utility provider to ensure adequate service can be provided to the site and not adversely impact the Edwards Place subdivision that has experienced problems with their utilities.
- 2) The development will stay out of the Beaver Creek stream buffer and leave the forested hillside area on the southeast side of Beaver Creek undisturbed.
- 3) The development is providing a 60' greenway easement on the southeast side of Beaver Creek for future installation by Knox County and a sidewalk will be constructed from Lawgiver Circle to the existing roadbed crossing of Beaver Creek.
- 4) No improvements to Thompson School Road are required for this development based on the anticipated number of vehicle trips and the existing condition of the road in this location.
- 5) The development will establish the connected road system that the original Concept Plan approval intended and will have sidewalks on one side of all new street segments.

CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOX COUNTY ZONING ORDINANCE

- 1) With the stated conditions, the proposal meets the standards for development within a PR (Planned Residential) Zone and all other requirements of the Zoning Ordinance.
- 2) The proposed subdivision is consistent with the general standards for uses permitted on review: The proposed development is consistent with the adopted plans and policies of the General Plan and Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use is compatible with the character of the neighborhood where it is proposed. The use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas because the Edwards Place subdivision was intended to be expanded generally as proposed.

CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

- 1) The Northeast County Sector Plan designates this property for low density residential use with a maximum density of 5 du/ac. At a proposed density of 2.57 du/ac for the subject property and 3.27 du/ac for the overall development (including the Edwards Place subdivision), the proposed development is consistent with the Sector Plan.
- 2) The site is located within the Planned Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.

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.

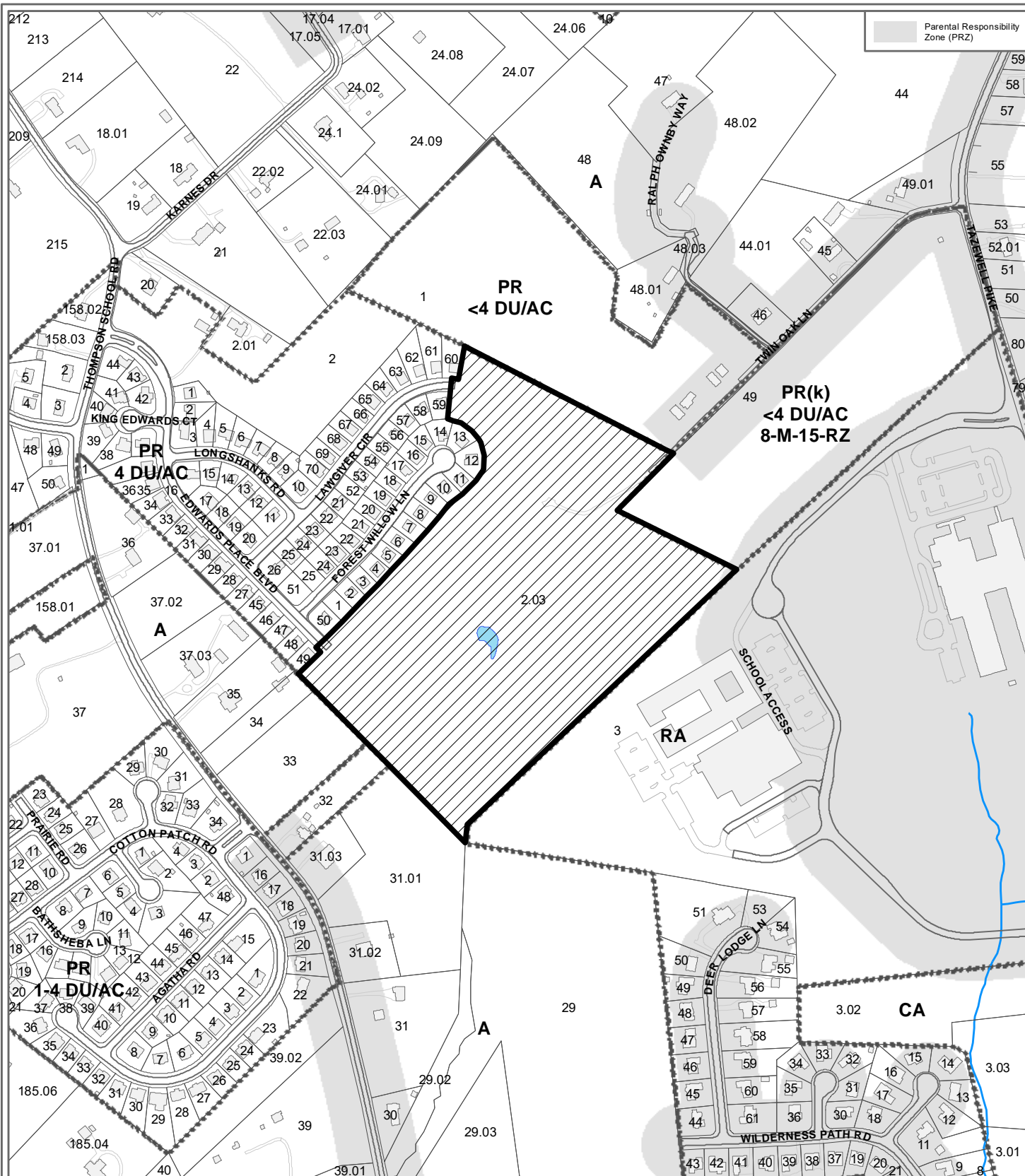
ESTIMATED STUDENT YIELD: 26 (public school children, grades K-12)

Schools affected by this proposal: Gibbs Elementary, Gibbs Middle, and Gibbs High.

- Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and zone boundaries are subject to change.
- Estimates presume full build-out of the proposed development. Build-out is subject to market forces, and timing varies widely from proposal to proposal.
- Student yields from new development do not reflect a net addition of children in schools. Additions occur incrementally over the build-out period. New students may replace current population that ages through the system or moves from the attendance zone.

Knoxville-Knox County Planning Commission's approval or denial of this concept plan request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court hearing will depend on when the appeal application is filed.

Knoxville-Knox County Planning Commission's approval or denial of this use on review 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.



**12-SA-20-C / 12-A-20-UR
CONCEPT PLAN/USE ON REVIEW**



Detached residential subdivision in PR (Planned Residential)

Original Print Date: 11/6/2020 Revised:
 Knoxville - Knox County Planning Commission * City / County Building * Knoxville, TN 37902

Petitioner: WC Woodbury Crossing Limited Partnership
 Woodbury Crossing

Map No: 21
 Jurisdiction: County



David Wilson Long
Dennis B. Ragsdale
John B. Waters III
J. Michael Ivens
J. Randolph Miller
Garrett P. Swartwood
Jennifer Milligan Swindle*
Lee A. Popkin
W. Michael Baisley
Kyle A. Baisley



Long, Ragsdale & Waters, P.C.
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Christopher A. Hall[†]

John B. Waters, Jr. (1929-2018)
R. Louis Crossley, Jr. (1953-2019)

December 9, 2020

Knoxville-Knox County
Planning Commission
City-County Building, Suite 403
400 Main Street
Knoxville, TN 37902

Re: Agenda Item No. 15 – File Nos. 12-SA-20-C and 12-A-20-UR

Dear Commissioners,

I represent Woodbury Crossing (“Woodbury”) in its proposed development of the property located at 7605 Twin Oak Lane (the “Property”). As you may recall, Woodbury appeared before you at the August 2020 meeting at which time the Planning Commission denied the request for an 80 unit multifamily development on the Property. At this meeting, the Planning Commission’s discussion and the public comments centered on the Property needing to be developed as detached single family residential.

The proposed Concept Plan and Development Plan is for a detached single family residential development consisting of 79 lots (the “Development”). The Development will have a density of only 2.57 dwelling units per acre and will include sidewalks and sidewalk connections. As part of the Development, Woodbury will be correcting the inadequate sewer system that presently causes problems with several of the residents in the Edwards Place subdivision. The Beaver Creek stream buffer and the forested hillside on southside of Beaver Creek will not be disturbed. Woodbury is providing a 60 foot greenway easement on the Property. If approved, Woodbury agrees to provide a permanent conservation easement for the remaining undeveloped portion of the Property to preclude future development thereon. This restriction would be permanent and run with the land. The undisturbed/undeveloped area accounts for approximately one third (1/3) of the Property.

Planning Staff recommends approval of the Concept Plan and the Development Plan. As provided in Professional Staff’s Report, the Development satisfies the criteria established by the Knox County Zoning Ordinance for uses permitted on review. The Development is in harmony with the intent and purpose of the Zoning Ordinance and is consistent with the adopted plans and policies of the General Plan and the Northeast County Sector Plan. In addition, the Property is located within the Planned Growth Area.

We appreciate your consideration and request that you approve the subdivision variance, the Concept Plan and the Development Plan in the instant matter.

Respectfully yours,

LONG, RAGSDALE & WATERS, P.C.

By: _____

Taylor D. Forrester

cc: Anne Little (alittle@wodagroup.com)
Tom Simons (TSimons@wodagroup.com)
Chuck Garvick, Jr. (cmgarvick@chadanengineering.com)
Mike Reynolds (mike.reynolds@knoxplanning.org)

Conceptual Plan For

Woodbury Crossing Subdivision

Edwards Place Boulevard

Corryton, Knox County, Tennessee

File No. 12-SA-20-C / 12-A-20-UR



171 West Main Street
P.O. Box 695
St. Clairsville, Ohio 43080
Office: 304.845.8480
chadanengineering.com



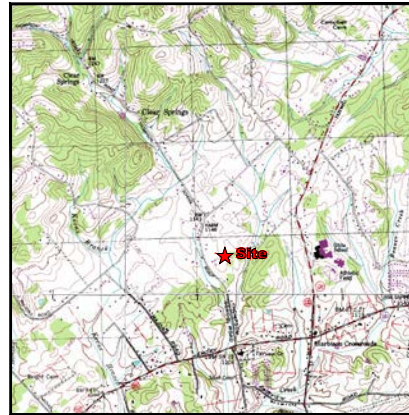
CLIENT:
Woodbury Crossing Limited Partnership
Attn: Anne Little
500 S. Front Street, 10th Floor
Columbus, OH 43215
614.396.3200

WOODBURY CROSSING SUBDIVISION

Edwards Place Boulevard
Corryton, Knox County, Tennessee

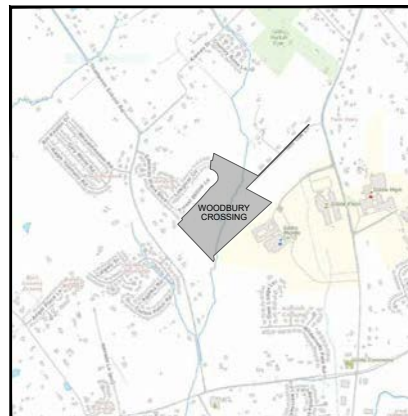
GENERAL NOTES

- The Contractor and Subcontractor shall be solely responsible for complying with all Federal, State and local safety requirements, together with exercising precautions at all times for the protection of persons (including employees) and property. It is also the sole responsibility of the Contractor and Subcontractor to initiate, maintain and supervise all safety requirements, precautions and programs in connection with this work.
- Existing utilities shown are from best available records and field investigation, and are not necessarily complete or exact. The Contractor is responsible for the investigation, location, support, protection and restoration of all existing utilities and appurtenances whether shown on these plans or not. The Contractor shall expose all utilities or construction prior to construction to verify the vertical and horizontal effect on the proposed construction, and shall make adjustments in elevations to provide sufficient clearance between the proposed and existing utilities. The Contractor shall call the utilities protection service (Dial 811) at least three (3) working days prior to work in the vicinity of their underground utilities.
- Chadan Engineering, Inc. assumes no responsibility for the accuracy and/or completeness of the provided surveying and mapping information nor any errors or omissions resulting from missing or inaccurate data.
- The Contractor shall exercise extreme caution when working near existing utilities. It is the Contractor's responsibility to contact the appropriate utility agency prior to exposing the utility. The Contractor is responsible for repairing any utility that may become damaged during the course of construction.
- Should the Contractor discover any discrepancies or conflicts with the existing and/or proposed information, the project Architect and Engineer shall be notified prior to continuing work.
- All proposed utility locations shall be provided by a state licensed surveyor, prior to installation. The Contractor shall adjust all structures to final grade as needed.
- The Contractor and/or Owner is responsible for coordinating with the electric, gas and communication companies regarding providing service to the development. Any information shown on plans shall be considered schematic only.
- Any properly corner pins or permanent survey markings disturbed during construction shall be reset by a registered surveyor at the Contractor's expense.
- The tracking or spillage of mud, dirt or debris upon public roads is prohibited and any such occurrence shall be cleaned up immediately by the Contractor. If the Contractor fails to keep the work area clean of debris, or fails to clean mud or dirt, the local jurisdiction may take action and assess the Contractor for the costs that are incurred.
- No non-rubber tire vehicles shall be moved on public roads; exceptions may be granted where short distances and special circumstances are involved. Granting of exceptions shall be in writing.
- The Contractor shall exercise extreme caution when excavating in the vicinity of existing trees, taking all measures possible to protect and preserve them. The Contractor shall be governed by the provisions of his contract with the Owner.
- All field file broken during excavation shall be replaced to its original condition or connected to the storm sewer system. The Contractor shall maintain a set of as-built documents for any file encountered during construction.
- Proposed storm water management basins and conveyance system will be owned by the Owner. It will be the Owner's responsibility to properly maintain and inspect the storm water management system.
- All traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the latest edition of the Tennessee Department of Transportation Manual for Traffic Controls.
- All trenches shall be backfilled or securely plated during nonworking hours.
- Access to all adjoining properties shall be maintained at all times.
- All areas within the public right-of-way that are disturbed by this project shall be restored to original or better condition.
- At all utility crossings where the existing utility is exposed in the trench, the backfill shall consist of compacted granular material between the deeper and shallower pipes. Where proposed utilities or services cross proposed or existing pavement areas, backfills shall be compacted granular extending at least 3 feet beyond the back of curb or edge of pavement. Cost is to be included in the price bid for related pipe.
- Clear water connections to sanitary sewer lines are strictly prohibited. This includes but not limited to, roof drains, foundation drains, yard drains, catch basins and trench drains.



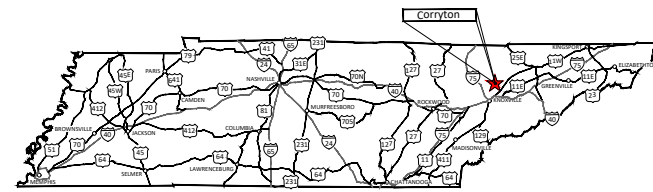
LOCATION MAP

Scale: 1" = 2000'



VICINITY MAP

Scale: 1" = 1000'



STATE MAP

DRAWING INDEX

Sheet CS	Cover Sheet
Sheet C100	Overall Site Plan
Sheet C101	Sight Distance Exhibit & Sidewalk Profile
Sheet C200	Overall Site Grading Plan
Sheet C201	Edwards Place Boulevard Plan & Profile
Sheet C202	Lawgiver Circle Plan & Profile
Sheet C203	Lawgiver Circle Plan & Profile
Sheet C204	Road "A" Plan & Profile

PROJECT TEAM

13. Proposed storm water management basins and conveyance system will be owned by the Owner. It will be the Owner's responsibility to properly maintain and inspect the storm water management system.
14. All traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the latest edition of the Tennessee Department of Transportation Manual for Traffic Controls.
15. All trenches shall be backfilled or securely plated during nonworking hours.
16. Access to all adjoining properties shall be maintained at all times.
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19. Clear water connections to sanitary sewer lines are strictly prohibited. This includes but not limited to, roof drains, foundation drains, yard drains, catch basins and trench drains.

Owner/Developer: Woodbury Crossing Limited Partnership Attn: Connor Swartz 500 S. Front Street, 10th Floor Columbus, OH 43215 614.396.3200	Surveyor: Civil & Environmental Consultants, Inc. 2704 Cherokee Farm Way Ste 101 Knoxville, TN 37920 865.977.9979
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Supervisory Architect: PCI Design Group, Inc. 500 S. Front Street, Suite 975 Columbus, OH 43215 614.396.3265	Geotechnical: Shield Engineering, Inc. 300 Forestral Dr. Knoxville, TN 37918 865.544.5955
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Mapping Notes

Boundary and existing conditions survey provided by:

Civil & Environmental Consultants, Inc.
2704 Cherokee Farm Way Ste 101
Knoxville, TN 37920
865.977.9979

Chadan Engineering, Inc. assumes no responsibility for the accuracy and/or completeness of the provided surveying and mapping information nor any errors or omissions resulting from missing or inaccurate data.



12-SA-20-C / 12-A-20-UR
11/23/2020

File No. 12-SA-20-C / 12-A-20-UR

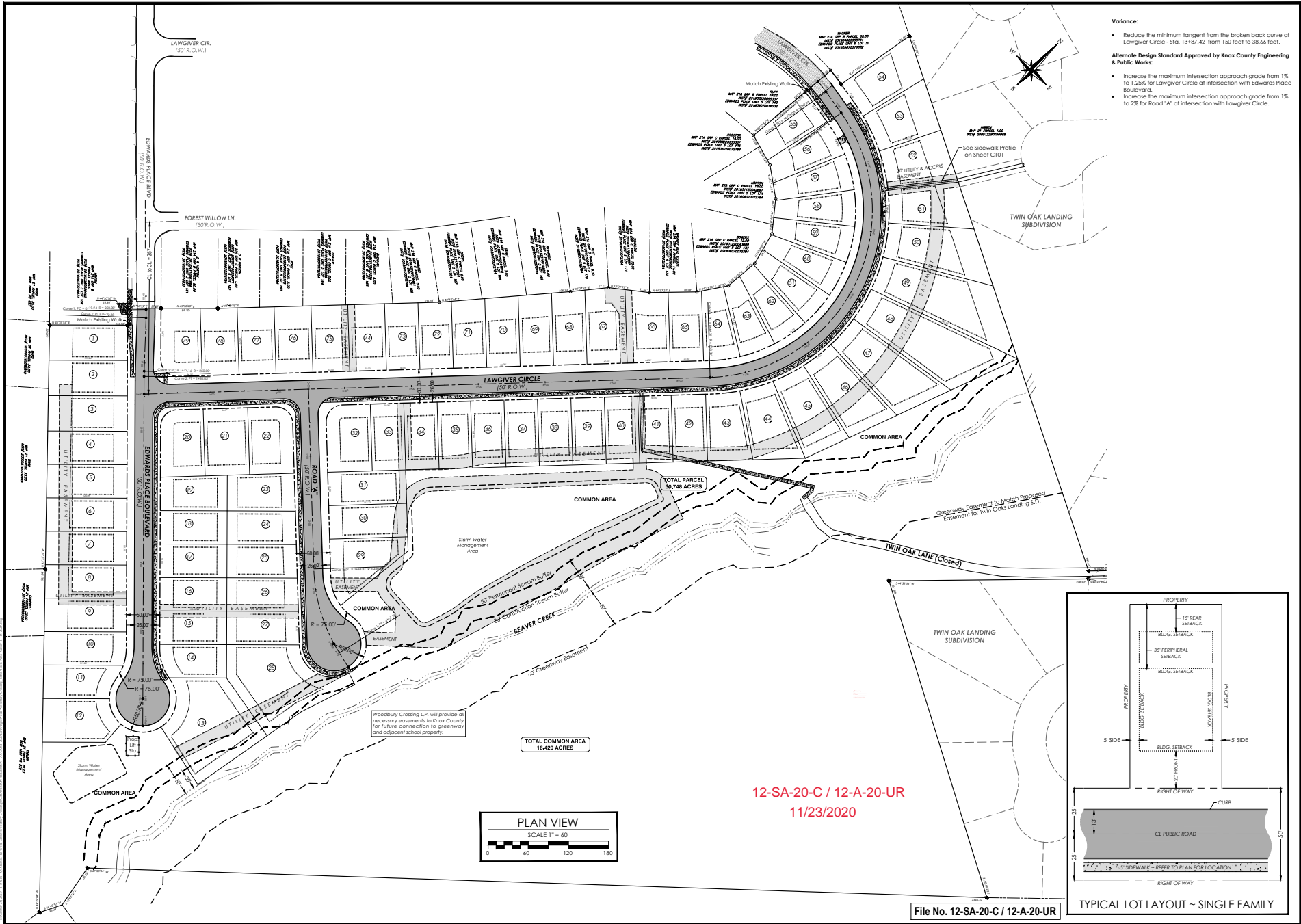
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DATE ISSUED: 10-27-2020
DRAWN: DUB/RLL CHECKED: CG

NOTES:

Cover Sheet

CS



WOODBURY CROSSING SUBDIVISION

Edwards Place Boulevard
Corryton, Knox County, Tennessee

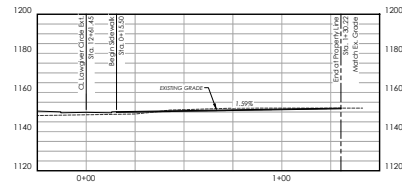
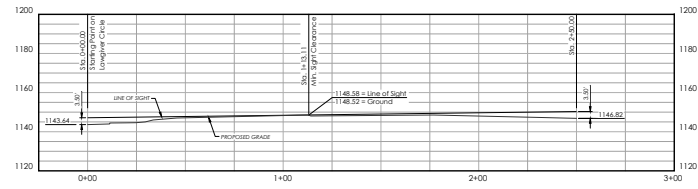
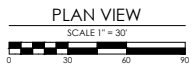
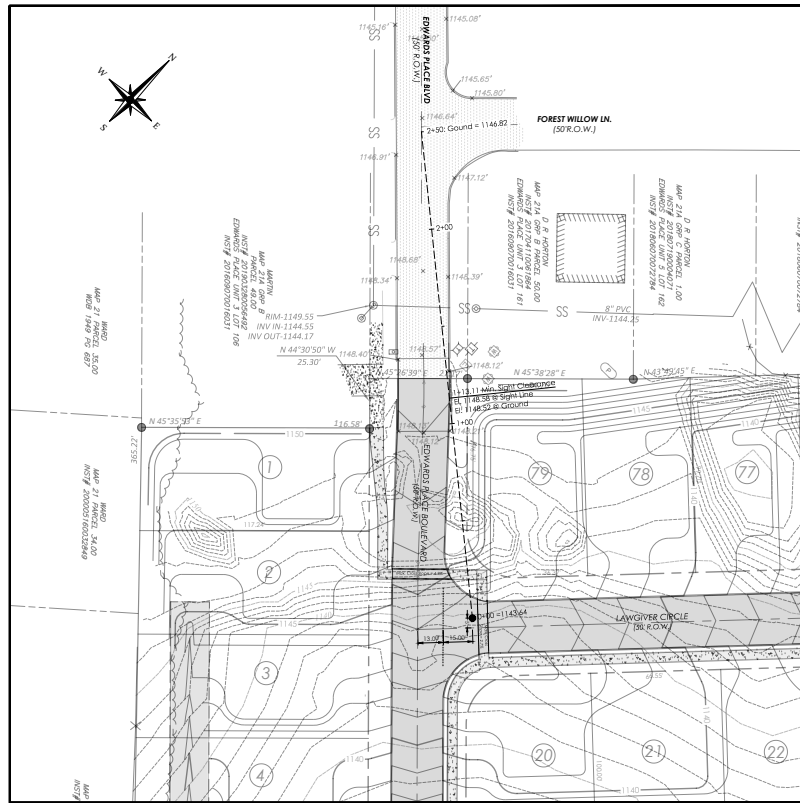
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CHECKED: CG

NOTES: _____

Site Plan

C100



12-SA-20-C / 12-A-20-UR
11/23/2020

File No. 12-SA-20-C / 12-A-20-UR



171 West Main Street
P.O. Box 695
St. Clairsville, Ohio 43080
Office: 304.845.8480
chadanengineering.com



CLIENT:
Woodbury Crossing Limited Partnership
Attn: Anne Little
500 S. Front Street, 10th Floor
Columbus, OH 43215
614.396.3200

WOODBURY CROSSING SUBDIVISION

Edwards Place Boulevard
Corryton, Knox County, Tennessee

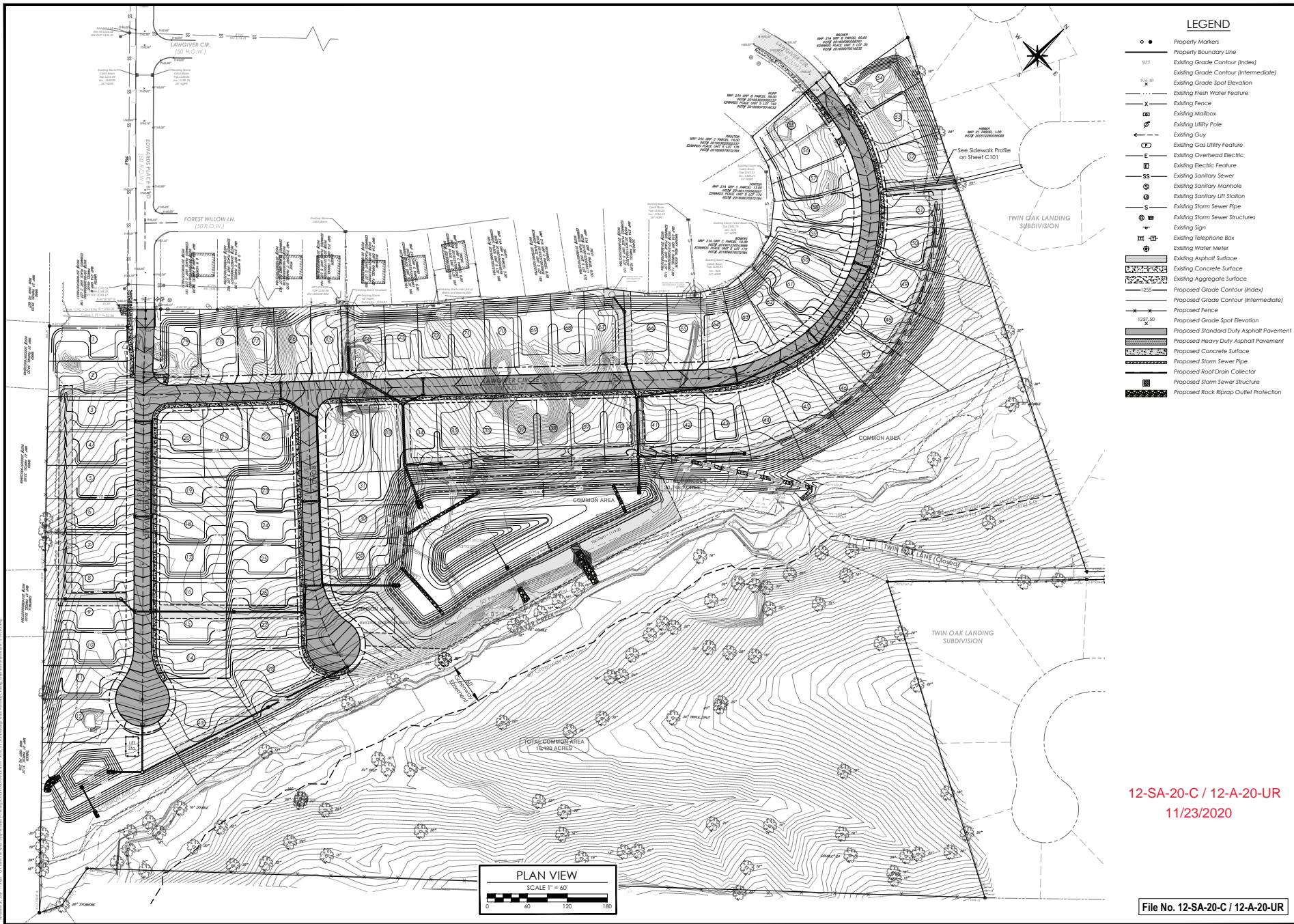
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NOTES:

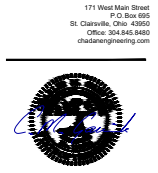
Sight Distance
Plan & Profile

C101



LEGEND

- Property Markers
- Property Boundary Line
- 925 Existing Grade Contour (Index)
- 912.40 Existing Grade Contour (Intermediate)
- Existing Fresh Water Feature
- X Existing Fence
- Ⓜ Existing Mailbox
- Ⓢ Existing Utility Pole
- Ⓤ Existing Guy
- Ⓤ Existing Gas Utility Feature
- E Existing Overhead Electric
- Ⓤ Existing Electric Feature
- SS Existing Sanitary Sewer
- Ⓢ Existing Sanitary Manhole
- Ⓢ Existing Sanitary Lift Station
- S Existing Storm Sewer Pipe
- Ⓢ Existing Storm Sewer Structures
- Ⓢ Existing Sign
- Ⓢ Existing Telephone Box
- Ⓢ Existing Water Meter
- Existing Asphalt Surface
- Existing Concrete Surface
- Existing Aggregate Surface
- Proposed Grade Contour (Index)
- Proposed Grade Contour (Intermediate)
- Proposed Fence
- 1237.50 Proposed Grade Spot Elevation
- Existing Standard Duty Asphalt Pavement
- Existing Heavy Duty Asphalt Pavement
- Existing Concrete Surface
- Proposed Storm Sewer Pipe
- Proposed Roof Drain Collector
- Proposed Storm Sewer Structure
- Proposed Storm Sewer Structure
- Proposed Rock Riprap Outlet Protection



171 West Main Street
P.O. Box 695
St. Clairsville, Ohio 43960
Office: 304.845.8480
chadanengineering.com

WOODBURY CROSSING SUBDIVISION
Edwards Place Boulevard
Corryton, Knox County, Tennessee

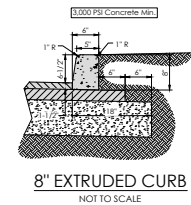
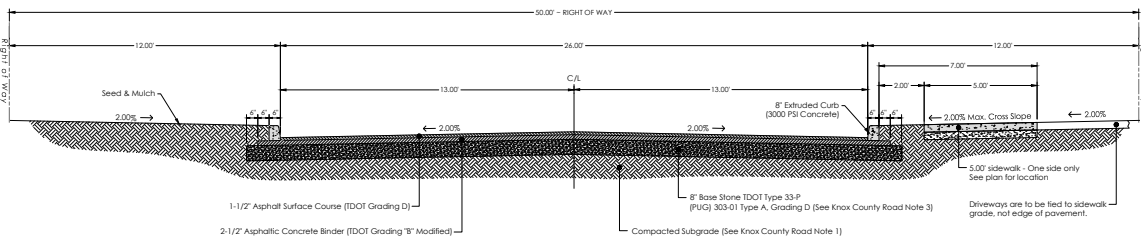
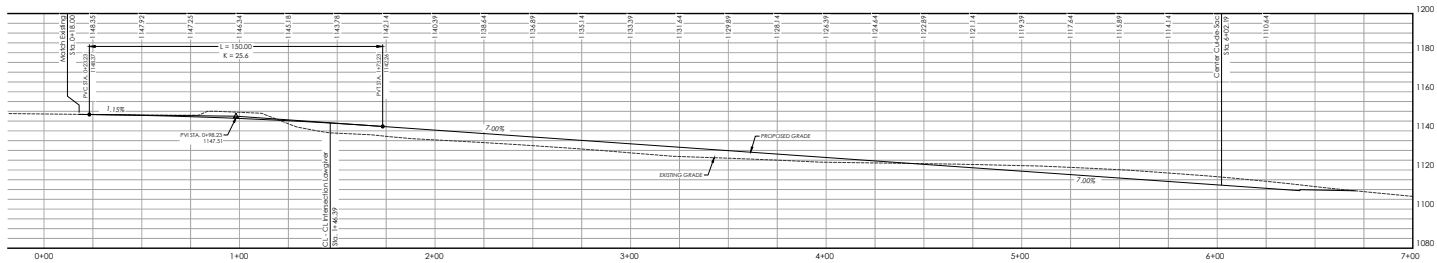
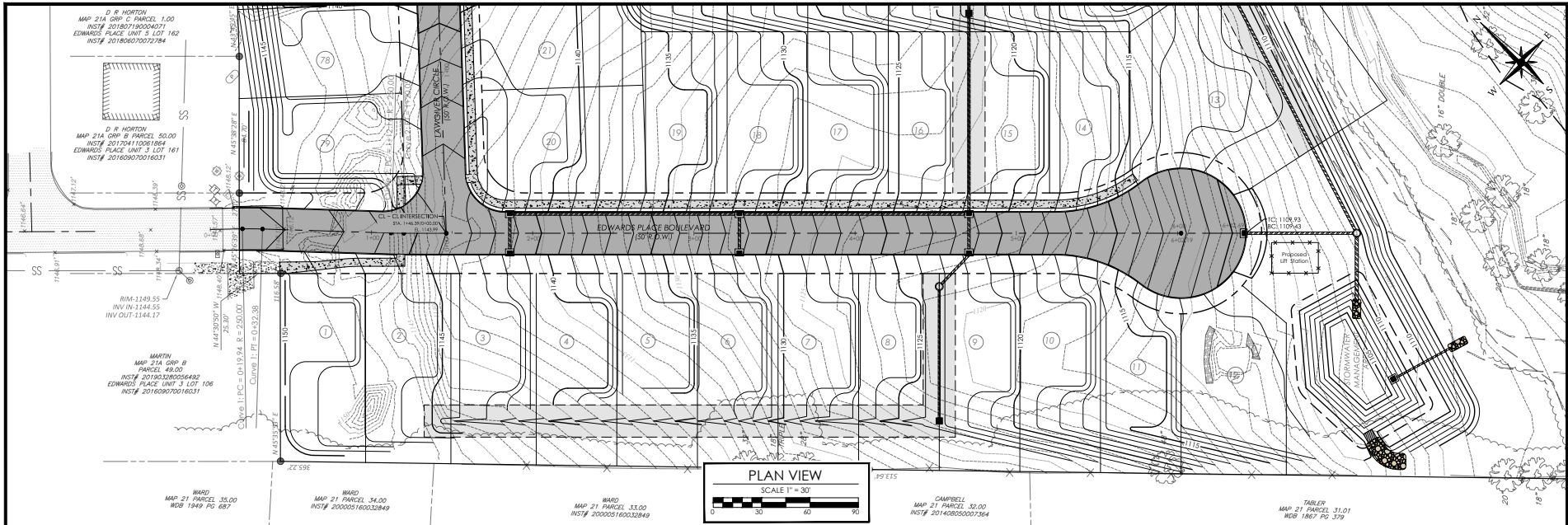
NO.	DATE	REVISIONS

DATE ISSUED: 10-27-2020
DRAWN: DJB/RL CHECKED: CG
NOTES:

12-SA-20-C / 12-A-20-UR
11/23/2020

File No. 12-SA-20-C / 12-A-20-UR

Overall Grading
Plan
C200



12-SA-20-C / 12-A-20-UR
11/23/2020

File No. 12-SA-20-C / 12-A-20-UR



DATE	REVISIONS

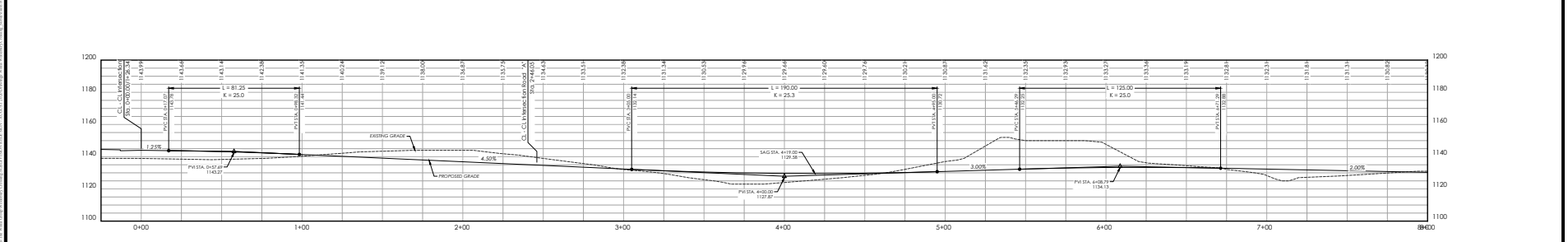
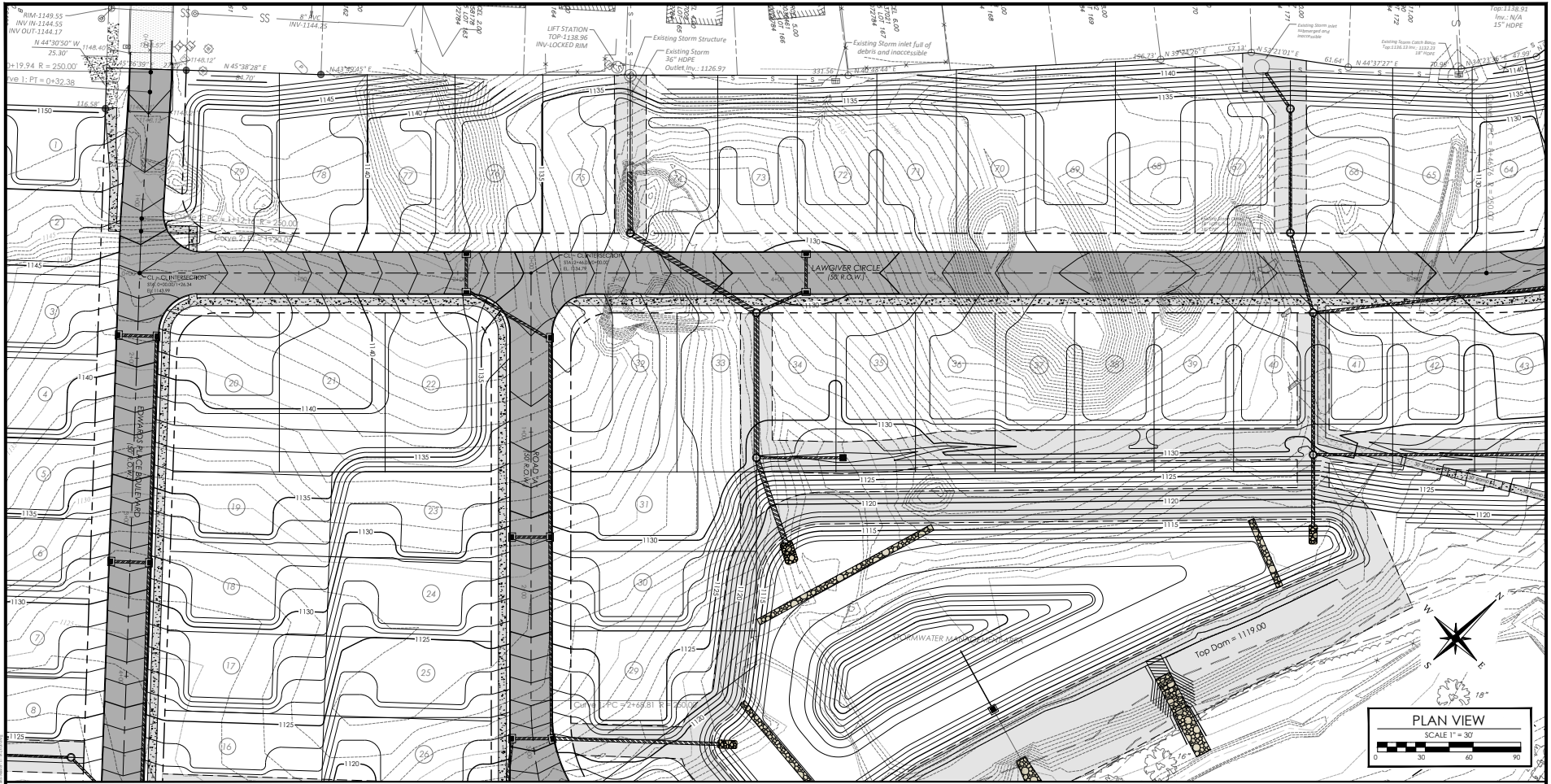
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NOTES:



WOODBURY CROSSING SUBDIVISION

Edwards Place Boulevard
Corryton, Knox County, Tennessee



NO.	REVISIONS	DATE

DATE ISSUED: 10-27-2020
DRAWN: DJB/RLL
CHECKED: CG

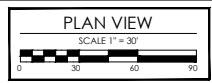
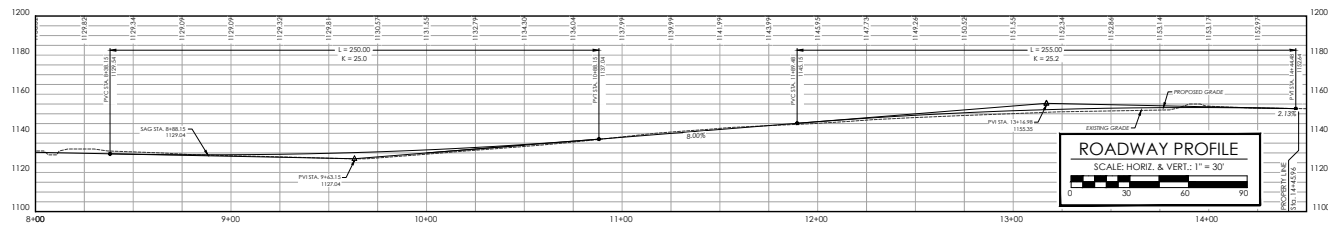
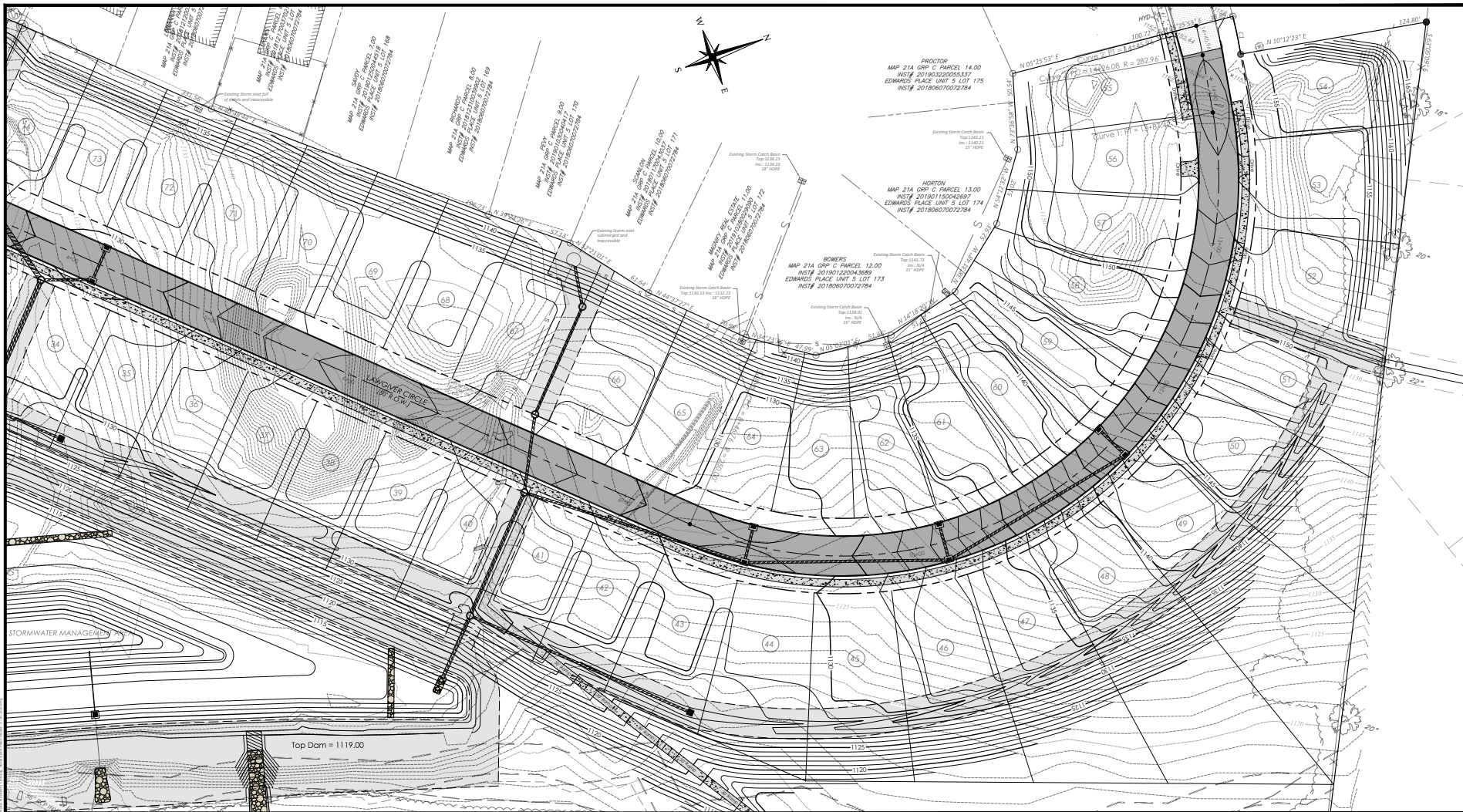
NOTES:

12-SA-20-C_12-A-20-UR
11/23/2020

File No. 12-SA-20-C / 12-A-20-UR

Lawgiver Circle
Sta. 0+00 - 8+00
Plan & Profile

C202



12-SA-20-C / 12-A-20-UR
11/23/2020

File No. 12-SA-20-C / 12-A-20-UR



171 West Main Street
P.O. Box 695
St. Clairsville, Ohio 43080
Office: 304.945.8488
chadanengineering.com



CLIENT:
Woodbury Crossing Limited Partnership
Attn: Anne Little
500 S. Front Street, 10th Floor
Columbus, OH 43215
614.396.3200

WOODBURY CROSSING SUBDIVISION
Edwards Place Boulevard
Corryton, Knox County, Tennessee

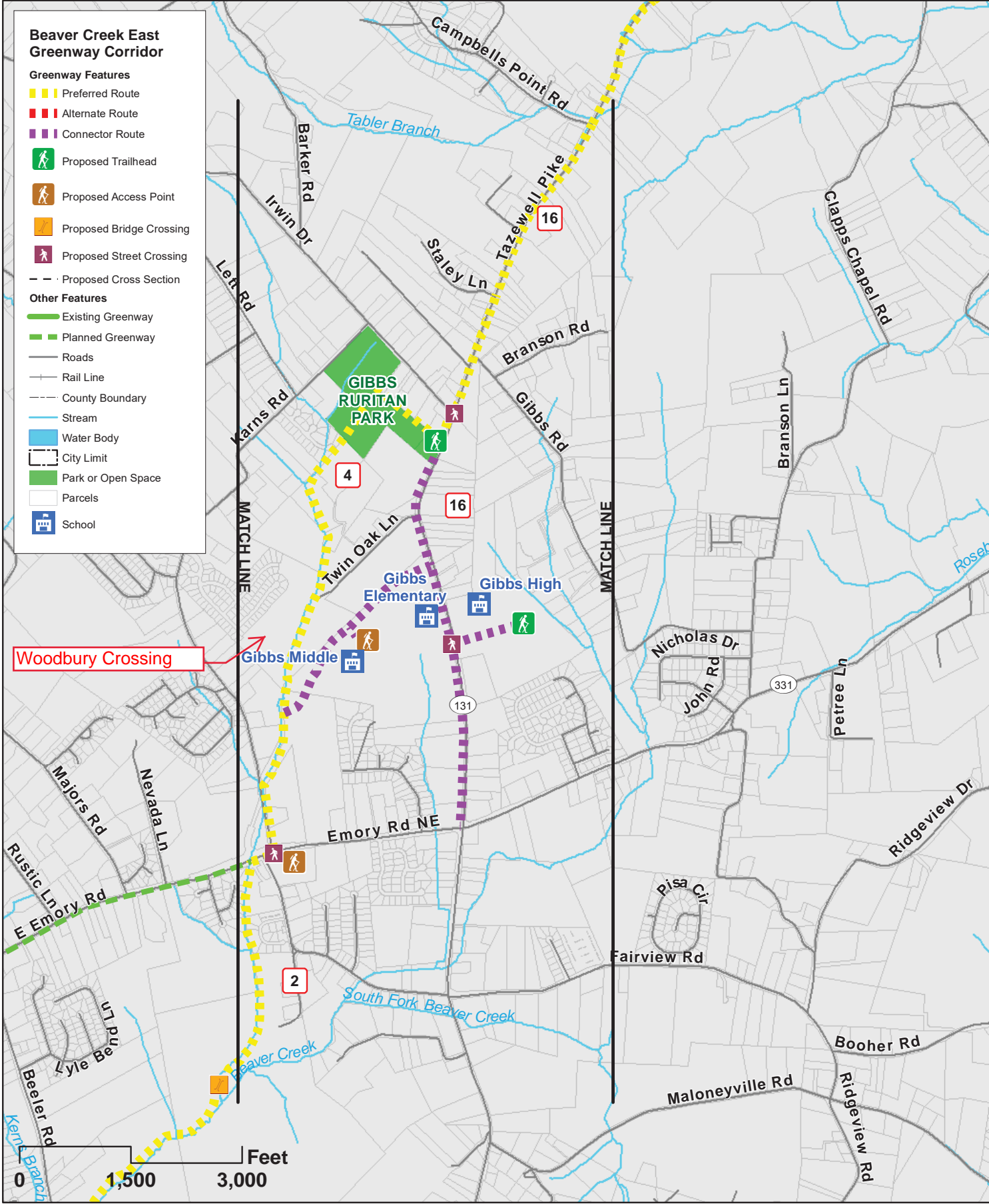
DATE	REVISIONS

DATE ISSUED: 10-27-2020
DRAWN: DJB/RLL CHECKED: CG
NOTES:

Lawgiver Circle
Sta. 8+00 - 14+46
Plan & Profile

C203

Figure 4-3. Beaver Creek East: East of Beeler Road to Campbells Point Road



WOODBURY CROSSING
Knox County

TRAFFIC IMPACT STUDY

Prepared for :
WODA COOPER COMPANIES, INC.

Prepared By:



12-SA-20-C
12-A-2-UR
10/23/2020

MARCH 2020
REVISED OCTOBER 2020

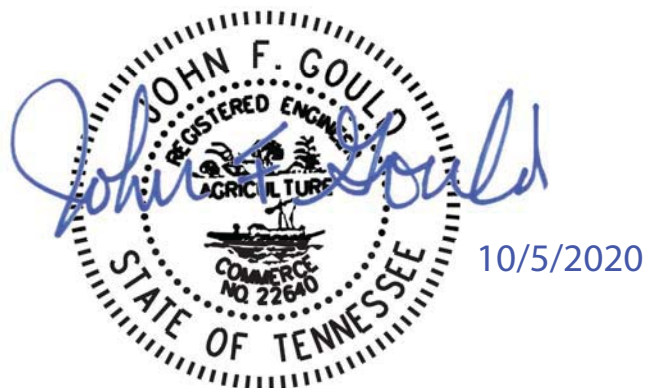
WOODBURY CROSSING

KNOX COUNTY, TENNESSEE

TRAFFIC IMPACT STUDY

Prepared for

WODA COOPER COMPANIES, INC
500 S. Front Street, 10th Floor
Columbus, OH 43215



March 2020
Revised October 2020

Prepared by

CDM SMITH INC
1100 Marion Street, Suite 300
Knoxville, Tennessee 37921

Project Number 253594

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INTRODUCTION

CDM Smith was commissioned to prepare this report to address the impact of an additional proposed single-family residential development located within the Edwards Place subdivision on Thompson School Road in northeast Knox County, TN. The Edwards Place subdivision was previously studied in 2007 for 187 single-family unit development. The development of these additional single-family units would buildout the Edwards Place subdivision with a total of 175 single family units. The study required the collection of traffic data, generation of anticipated traffic volumes from the proposed site and development of projected traffic volumes from normal growth and from the potential site. Analysis of the resulting traffic projections was conducted to determine the capacity and levels of service for the site access with Thompson School Road. This study will develop measures necessary to mitigate any traffic impacts including improved roadway geometrics and traffic control devices with its access with Thompson School Road.

Knox County Traffic Engineering assisted in developing the required scope of this study. The proposed residential development site was assessed as a Level 1 Traffic Impact Study. This study will address the anticipated traffic impacts of the proposed residential development on the study access intersection.

Project Description

The proposed Woodbury Crossing site is a 79-unit single-family residential development on approximately 54 acres with a zoning of PR (1-4). Access for the site are the extensions from Edwards Place Boulevard and Lawgiver Circle. **Figure 1** illustrates the proposed site plan.

Site Location

The proposed Woodbury Crossing site is at the termini of Edwards Place Boulevard, which intersects with Thompson School Road to the north, and Lawgiver Circle. The site is near the Gibbs Community in northeast Knox County. The single-family residential development is east of Thompson School Road, south of Karnes Drive, west of Tazewell Pike, and north of E. Emory Road. **Figure 2** illustrates the site location relative to local and regional access.

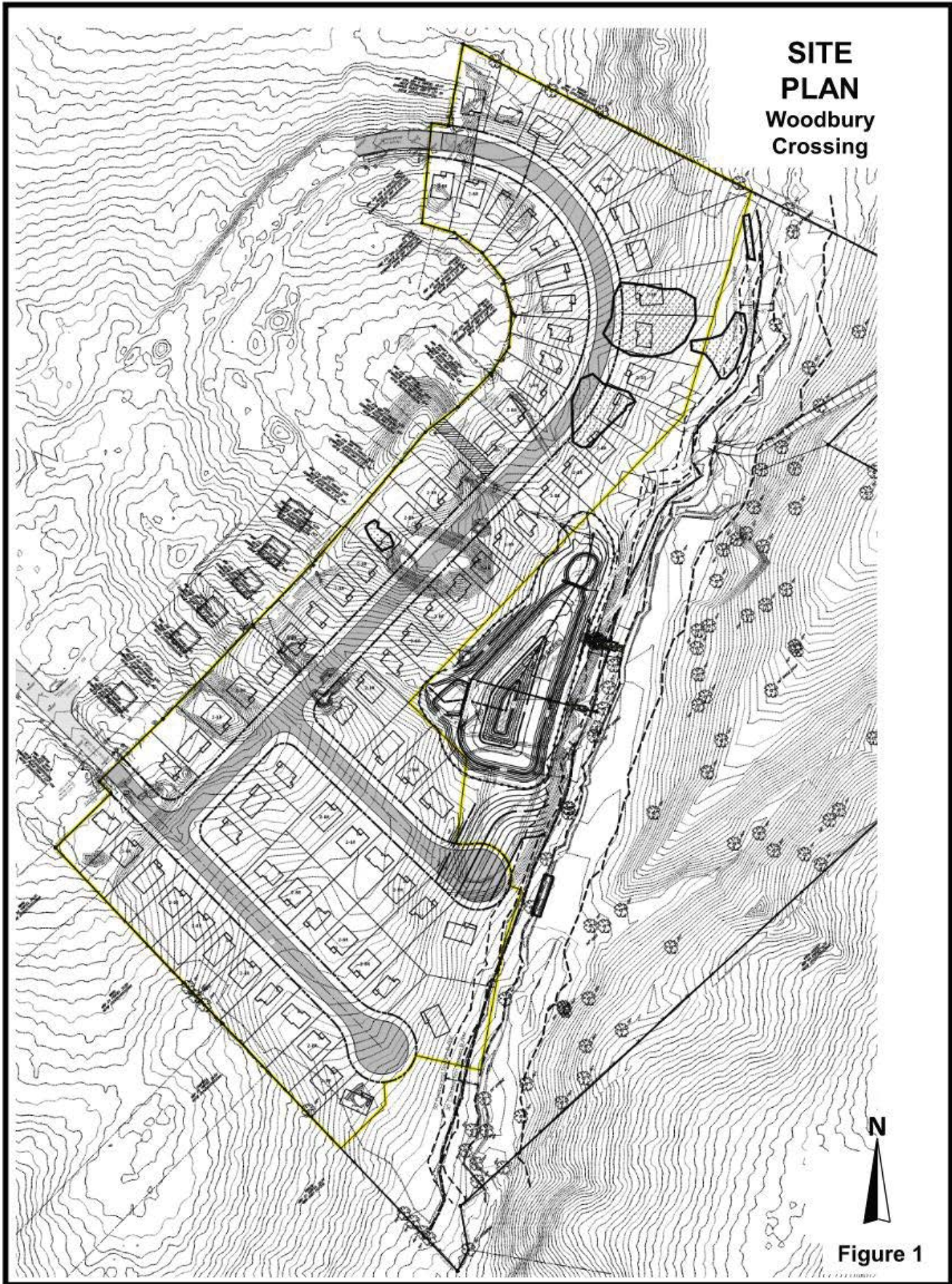
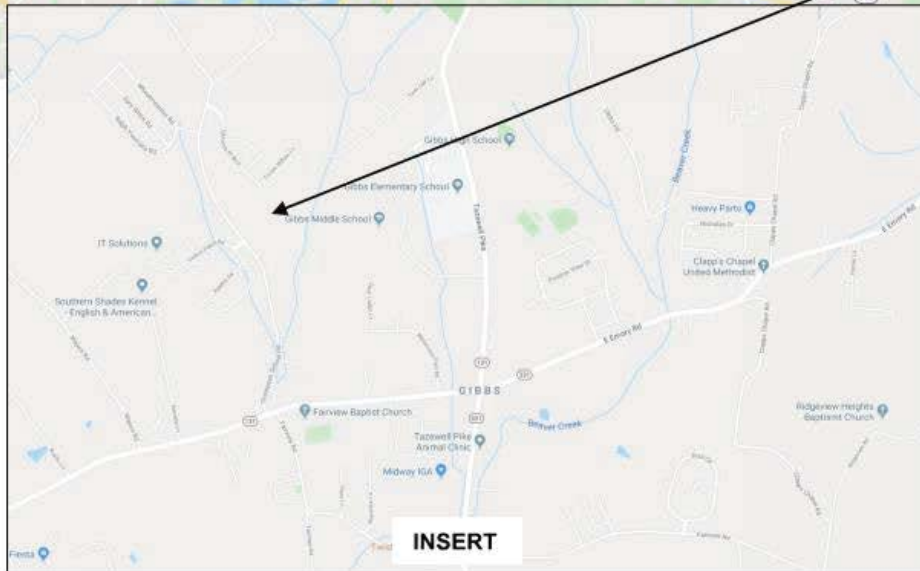
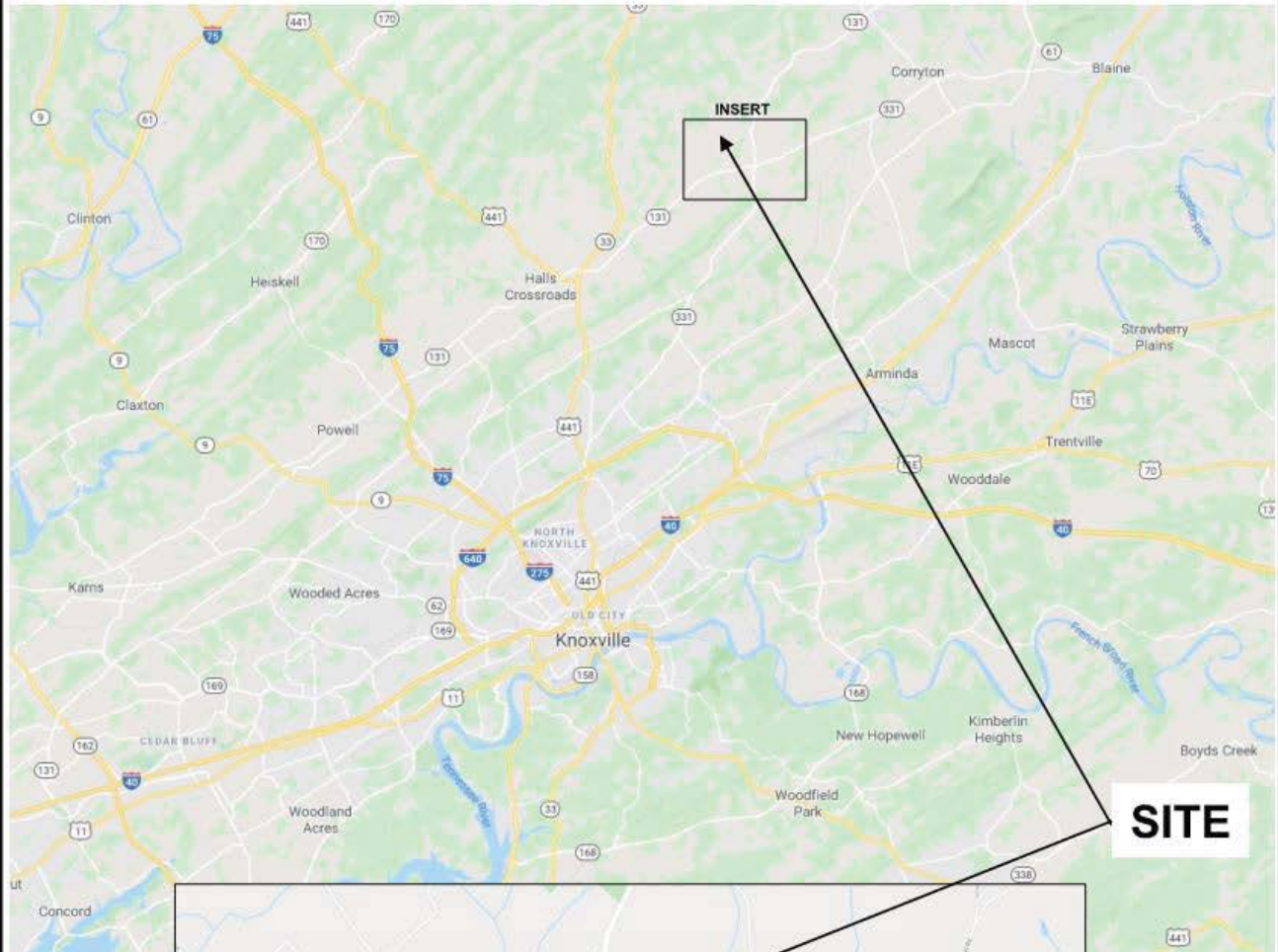


Figure 1

VICINITY MAP Woodbury Crossing



SITE

INSERT

Figure 2

LOCAL AND REGIONAL ACCESS

Local Access

Local access to this site is from the Edwards Place Boulevard and its intersection with Thompson School Road. Edwards Place Boulevard is a residential street. Thompson School Road through a series of connections provides access to Tazewell Pike, Maynardville Highway, and several intersections along E. Emory Road. Thompson School Road is a major collector having a width of 20 feet and a 2017 average daily traffic (ADT) of 2,630. The posted speed limit is 30 mph. Its intersection with E. Emory Road, south of the site, is currently undergoing improvements which includes an alignment with Fairview Road, a minor arterial between E. Emory Road and Tazewell Pike.

Regional Access

Emory Road (SR 131) extends for more than 26 miles across northern Knox County. Emory Road extends west to Oak Ridge Highway near the Anderson County line and east into Grainger County. Emory Road to the west had a 2017 ADT of approximately 12,220 and 5,180 to the east. Major intersections include Clinton Highway, Interstate 75, Norris Freeway, Maynardville Highway, Tazewell Pike, and Washington Pike. Oak Ridge Highway (SR 62) near the Anderson County line had a 12,270 ADT in 2017. Clinton Highway (US 25W/SR 9) had a recorded 2017 ADT of 30,090. The ADT south of Exit 112 on I-75 in 2017 was approximately 64,360. Norris Freeway (US 441/SR 71) is principle highway with a 2017 ADT of approximately 12,380. The Maynardville Highway (SR 33) 2017 ADT, north of Emory Road, was 16,150. Tazewell Pike (SR 331) have approximate 2017 ADTs of 7,200 and 14,280 north and south of Emory Road, respectively. Washington Pike near the Grainger County line had a 2017 ADT of approximately 620. These roadways provide a significant north-south connection between north Knox County and the downtown Knoxville central business district (CBD).

Modes of Travel in the Site Vicinity

Some sidewalks are provided in the subdivision but are not extensive. There are not any bike facilities in the vicinity of the proposed site. Knoxville Area Transit does not extend to the site; bus Route 22 extends as far north as Jacksboro Pike and Garden Drive.

EXISTING TRAFFIC CONDITIONS

Existing Traffic Control

The Edwards Place Boulevard approach to Thompson School Road is stop controlled. Thompson School Road has a posted speed limit of 30mph. E. Emory Road has a posted speed limit of 45 mph.

Existing Traffic Volumes

Peak-hour turning movement count was conducted February 20, 2020 for the intersection of Edwards Place Boulevard and Thompson School Road. The peak hours were measured to be 7:00 AM to 8:00 AM and 4:45 PM to 5:45 PM. **Figure 3** illustrates the resulting intersection peak-hour turning movements for the AM and PM peak hours.

Existing Capacity and Level of Service

In order to evaluate the current operations of the traffic control devices, capacity and level of service were calculated using the **Highway Capacity Manual, Special Report 209, Sixth Edition** published by the Transportation Research Board (TRB). Unsignalized intersections are evaluated based on estimated intersection delays, which may be related to level of service (LOS).

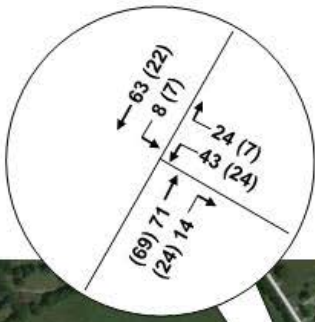
Level of service and capacity are the measurements of an intersection's ability to accommodate traffic volumes. Levels of service for intersections range from A to F. A LOS A is the best, and LOS F is failing. Unsignalized intersections levels of service have lower thresholds of delays than do signalized intersections. A LOS of F exceeds estimated delays of 50 seconds. For urban arterials, minor approaches may frequently experience levels of service E. A full level of service description for unsignalized intersections is presented in **Table 1**.

**TABLE 1
LEVEL OF SERVICE (LOS) DESCRIPTION
FOR TWO-WAY STOP INTERSECTIONS**

Level of Service	Average Control Delay per Vehicle (seconds)		
A	≤ 10.0		
B	> 10.0	and	≤ 15.0
C	> 15.0	and	≤ 25.0
D	> 25.0	and	≤ 35.0
E	> 35.0	and	≤ 50.0
F	> 50.0		

SOURCE: Highway Capacity Manual, TRB Special Report 209

2020 EXISTING TRAFFIC Woodbury Crossing



LEGEND
 TURNING MOVEMENT
 XXX AM PEAK
 (XXX) PM PEAK



Figure 3

Analyses were conducted using the Synchro Software, developed by Traffware. **Table 2** presents the levels of service for the existing traffic conditions; the levels of service for both the AM and PM peak hours were determined acceptable for the site access from Edwards Place Boulevard to Thompson School Road.

**TABLE 2
2020 EXISITNG LEVELS OF SERVICE**

INTERSECTION	TRAFFIC CONTROL	PEAK PERIOD	V/C	DELAY	LOS
Thompson School Road	STOP	AM	0.15 / 0.01	10.4 / 7.5	B / A
Edwards Place Boulevard	WB-LR/SB-L	PM	0.05 / 0.01	9.5 / 7.5	A / A

Note: Average vehicle delay

TRIP GENERATION

Project site traffic is typically generated using the publication, **Trip Generation, 10th Edition**. This reference is published by the Institute of Transportation Engineers (ITE) and represents national data collected for many different land uses including industrial, residential, and commercial uses. **Trip Generation** is an essential tool in calculating the traffic, which may be generated by a proposed development.

Daily trips generated for the Woodbury Crossing 79 single-family units are approximately 739, and peak-hour trips are approximately 56 and 76 generated during the AM and PM peaks, respectively. In addition to the proposed 79 units, it was assumed for background traffic conditions, that the existing and proposed subdivision would be built-out with 175 single-family units.

Table 3 presents the trip generation of this proposed site. The resulting trip generation of the single-family buildout and the proposed 79-unit single-family Woodbury Crossing is 1,740 daily trips, 129 AM peak-hour trips, and 174 PM peak-hour trips. This trip generation reflects an insignificant change from the trip generation studied in the 2007 Edwards Place traffic impact assessment.

TABLE 3. TRIP GENERATION

LAND USE	L.U.C	UNITS	DAILY TRAFFIC	AM PEAK			PM PEAK		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
SINGLE FAMILY ¹ (Exisitng+Proposed Subdivision)	210	175	1,740	32	97	129	110	64	174
SINGLE FAMILY ¹ (Exisitng Subdivision)	210	96	1,001	18	55	73	62	36	98
SINGLE FAMILY (Proposed Subdivision)		79	739	14	42	56	48	28	76

Reference: (1) Trip Generation, 10 Edition

BACKGROUND TRAFFIC CONDITION

Background traffic is traffic that can be anticipated regardless of the proposed development. Traffic within the study area should continue to grow due to other developments as well as the continued growth within the surrounding area. This background traffic must be analyzed and evaluated for the purpose of establishing a baseline. The background traffic reflects the historical traffic volumes in the area of the proposed development.

Background Traffic Volumes

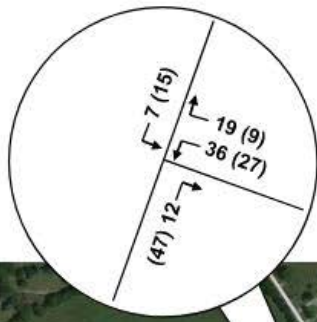
An average growth rate was determined using historical ADT traffic data from the Tennessee Department of Transportation count stations on Thompson School Road, E. Emory Road, and Tazewell Pike. Count stations in the site vicinity indicated an annual growth between 2.0- and 3.0-percent. The annual growth rate applied to the Thompson School Road traffic was, therefore, 3.0-percent. Assuming a buildout year of 2022 for Woodbury Crossing, the growth applied to the Thompson School Road traffic is 6-percent, a factor of 1.06 applied to the 2020 existing though traffic volumes. **Figure 4A** illustrates the projected traffic for intersection of Thompson School Road and Edwards Place with the growth rate applied.

In addition to the background growth applied, trips were assigned for the proposed Thompson Meadows subdivision located southwest of the proposed Woodbury Crossing site. The Thompson Meadows subdivision is 193 single family units. **Figure 4B** illustrates the tips assigned for this subdivision.

Turning movements to and from Edwards Place Boulevard at Thompson School Road also assumed buildout of the current single-family unit subdivision. **Figure 4C** illustrates the total trips generated for the current 96 single-family units of Edwards Place.

Figure 5 illustrates the 2022 background traffic for the Edwards Place Boulevard and Thompson School Road intersection.

EDWARDS PLACE PLACE BUILDOUT TRIPS Woodbury Crossing



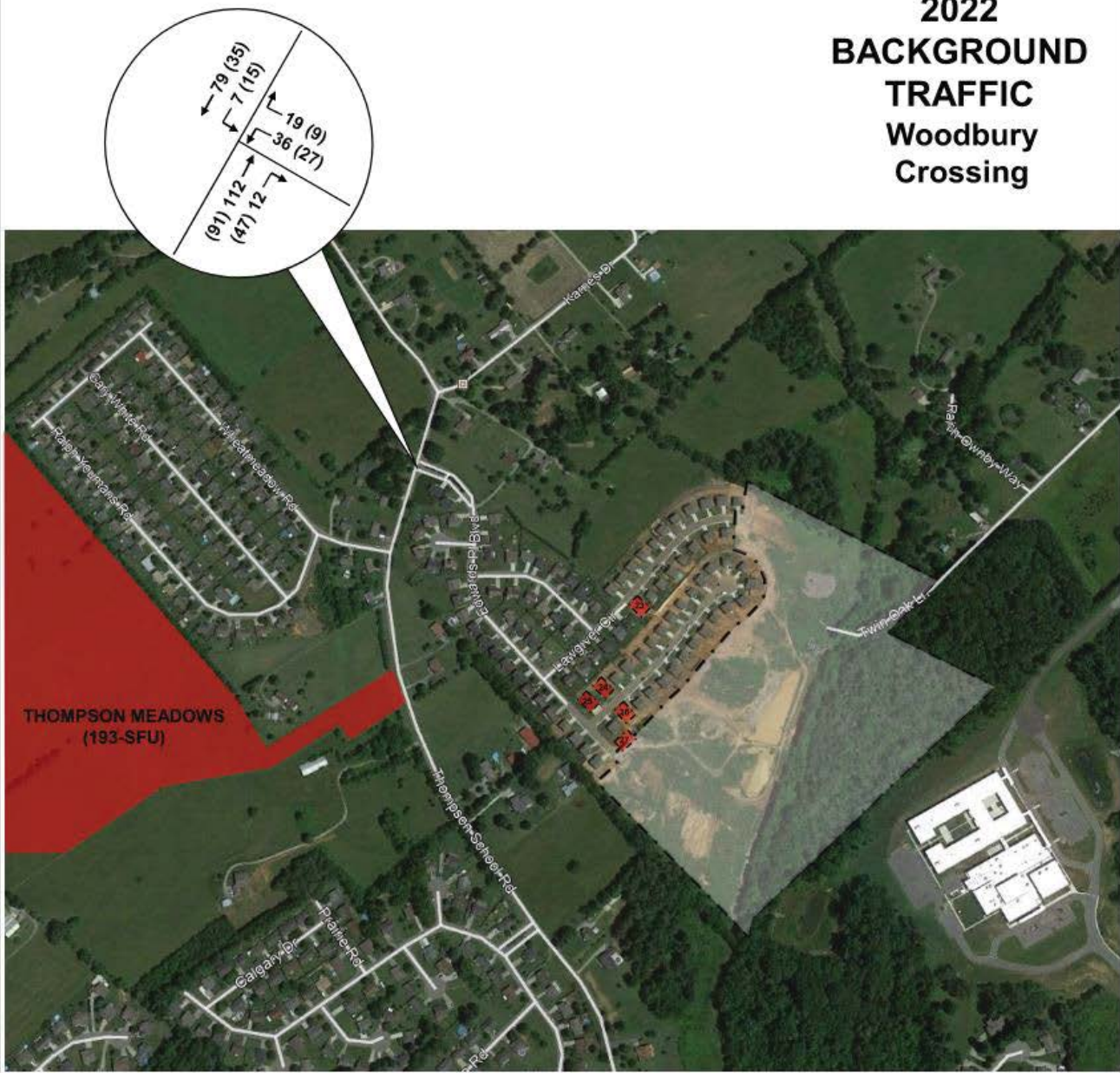
LEGEND

- ↙ TURNING MOVEMENT
- XXX ENTERING TRIPS
- (XXX) EXITING TRIPS



Figure 4C

**2022
BACKGROUND
TRAFFIC
Woodbury
Crossing**



Background Capacity and Level of Service

Analysis was performed with the grown traffic volumes presented in Figure 5. The levels of service are found to be acceptable and not failing for the unsignalized study intersections. The Edwards Place Boulevard approach traffic is expected to experience a LOS B in both the AM and PM peak hours. **Table 4** presents the level of service findings of the analyses conducted.

**TABLE 4
2022 BACKGROUND LEVELS OF SERVICE**

INTERSECTION	TRAFFIC CONTROL	PEAK PERIOD	V/C	DELAY	LOS
Thompson School Road	STOP	AM	0.14 / 0.01	10.9 / 7.6	B / A
Edwards Place Boulevard	WB-LR/SB-L	PM	0.07 / 0.02	10.2 / 7.6	B / A

Note: Average vehicle delay

PROJECT IMPACTS

Projected traffic conditions are developed by distributing the trips generated to the study access intersection of Edwards Place Boulevard at Thompson School Road and again conducting analyses for capacity and level of service.

Trip Distribution and Assignment

Using the turning-movement count from the current residents of the Edwards Place subdivision, trips were distributed to the Thompson School Road for the AM and PM peak hours. **Figures 6A and 6B** illustrate the traffic distributions for the AM and PM peak hours, respectively.

Project Traffic Volumes

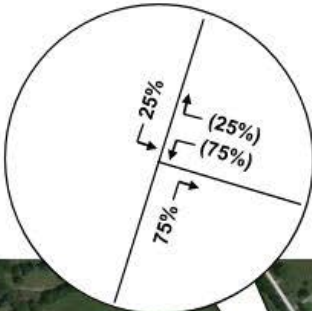
By multiplying the trips generated by the distribution percentages, the project traffic volumes were determined. **Figure 7** illustrates the resulting site traffic volumes.

Total Projected Traffic Volumes

Background and project traffic volumes were added together to develop post-development traffic volumes for the year 2022. **Figure 8** illustrates this 2022 projected traffic with the buildout of 175 single-family units. Using these projections, mitigation measures including traffic control devices and intersection geometry can be evaluated.

Projected traffic for the intersection of Thompson School Road and Edwards Place Boulevard do not meet any thresholds for turn lanes. Though traffic on Thompson School Road is well below traffic volumes required to meet turn-lane warrants.

**PM PEAK HOUR
DISTRIBUTION
& ASSIGNMENT
Woodbury
Crossing**



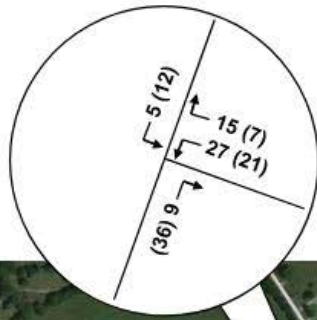
LEGEND
 TURNING MOVEMENT
 XXX ENTERING TRIPS
 (XXX) EXITING TRIPS



Figure 6B

SITE TRIPS

Woodbury Crossing



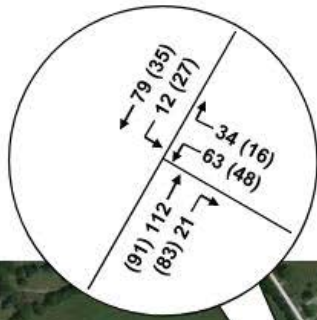
LEGEND

- ↙ TURNING MOVEMENT
- XXX ENTERING TRIPS
- (XXX) EXITING TRIPS



Figure 7

2022 PROJECTED TRAFFIC Woodbury Crossing



LEGEND
 TURNING MOVEMENT
 XXX ENTERING TRIPS
 (XXX) EXITING TRIPS



Figure 8

Projected Capacity and Level of Service

The development traffic was analyzed to assess the impact at the unsignalized intersection of Edwards Place Boulevard at Thompson School Road. The proposed site access is expected to operate at a LOS B during the peak hours. The resulting 2022 levels of service are presented in **Table 5** and illustrated in **Figure 9**.

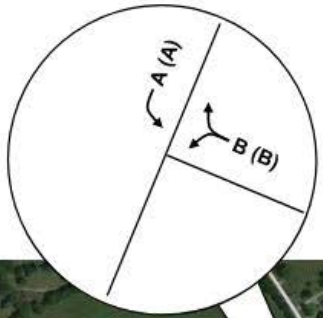
**TABLE 5
2022 PROJECTED LEVELS OF SERVICE**

INTERSECTION	TRAFFIC CONTROL	PEAK PERIOD	V/C	DELAY	LOS
Thompson School Road	STOP	AM	0.25 / 0.01	11.9 / 7.7	B / A
Edwards Place Boulevard	WB-LR/SB-L	PM	0.14 / 0.04	11.2 / 7.8	B / A

Note: Average vehicle delay

From the projected traffic and the analyses conducted, the current traffic control and intersection geometry are acceptable providing very good levels of service for both AM and PM peak hours.

**2022
LEVEL OF
SEVICE
Woodbury
Crossing**



LEGEND
 XXX AM PEAK-HOUR LOS
 (XXX) PM PEAK-HOUR LOS



Figure 9

CONCLUSION AND RECOMMENDATIONS

The study of the proposed 79-unit single-family residential development evaluated the projected traffic conditions. Background traffic was determined using a 3.0% annual growth rate applied to the Thompson School Road traffic until the year 2022 and turning movement to and from Edwards Place Boulevard assuming buildout of the Edwards Place single-family units. Using the identified turning movements for the projected traffic conditions, unsignalized capacity and level of service analyses were conducted using the **Highway Capacity Manual, 6th Edition**. Unsignalized levels of service were found to be acceptable with very good levels of service for the existing traffic and background conditions with and without the proposed Woodbury Crossing development. The proposed development has a negligible impact on the access intersection of Edwards Place Boulevard at Thompson School Road. No improvements were found necessary for acceptable access for the residential development. The Woodbury Crossing connections with Edwards Place Boulevard and Lawgiver Circle must be provided in accordance with all applicable subdivision regulations and standards adopted by Knoxville-Knox County Planning and the Knox County Department of Public Works.



DEVELOPMENT REQUEST

DEVELOPMENT

- Development Plan
- Planned Development
- Use on Review / Special Use

SUBDIVISION

- Concept Plan
- Final Plat

ZONING

- Plan Amendment
- Rezoning

WC Woodbury Crossing Limited Partnership

Applicant Name

Affiliation

10/23/2020
Date Filed

12-10-2020
Meeting Date (if applicable)

12-SA-20-C / 12-A-20-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

Charles Garvick

Chadan Engineering, Inc.

Name	Company		
PO Box 695	St. Clairsville	Ohio	43950
Address	City	State	Zip
740-449-2194	cmgarvick@chadanengineering.com		
Phone	Email		

CURRENT PROPERTY INFO

People Bank of the South	PO Box 1221, LaFollette TN 37721		
Owner Name (if different)	Owner Address	Owner Phone	
7605 Twin Oaks Lane, Corryton, TN 37721	021 00203		
Property Address	Parcel ID		
SE Terminus of Edwards Place Blvd. SE of Thompson School Rd.	30.748 Acres		
General Location	Tract Size		
8th District	PR (Planned Residential) < 4 du/ac		
Jurisdiction (specify district above) <input type="checkbox"/> City <input checked="" type="checkbox"/> County	Zoning District		
Northeast County	LDR	Planned Growth	
Planning Sector	Sector Plan Land Use Classification	Growth Policy Plan Designation	
Vacant	No	HPUD	NKUD
Existing Land Use	Septic (Y/N)	Sewer Provider	Water Provider

REQUEST

DEVELOPMENT
SUBDIVISION
ZONING
STAFF USE ONLY

Development Plan Use on Review / Special Use

Residential Non-Residential

Home Occupation (specify): _____

Other (specify): _____

Woodbury Crossing

One Phase

Proposed Subdivision Name

Unit / Phase Number

Parcel Change

Combine Parcels Divide Parcel

Total Number of Lots Created: 79

Other (specify): _____

Attachments / Additional Requirements

Zoning Change:

Proposed Zoning

Plan Amendment Change:

Proposed Plan Designation(s)

Proposed Density (units/acre)

Previous Rezoning Requests

Other (specify): _____

PLAT TYPE

Staff Review Planning Commission

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:

(base fee)

TOTAL:

0406 | 1300.00

FEE 2:

(\$100 per acre)

3074.80

FEE 3:

\$4374.80

AUTHORIZATION

By signing below, I certify I am the property owner, applicant or the owners authorized representative.



Jeffrey J. Woda, Authorized Rep of the GP 09/24/2020

Applicant Signature

Please Print

Date

614-396-3200

jwoda@wodagroup.com

Phone Number

Email



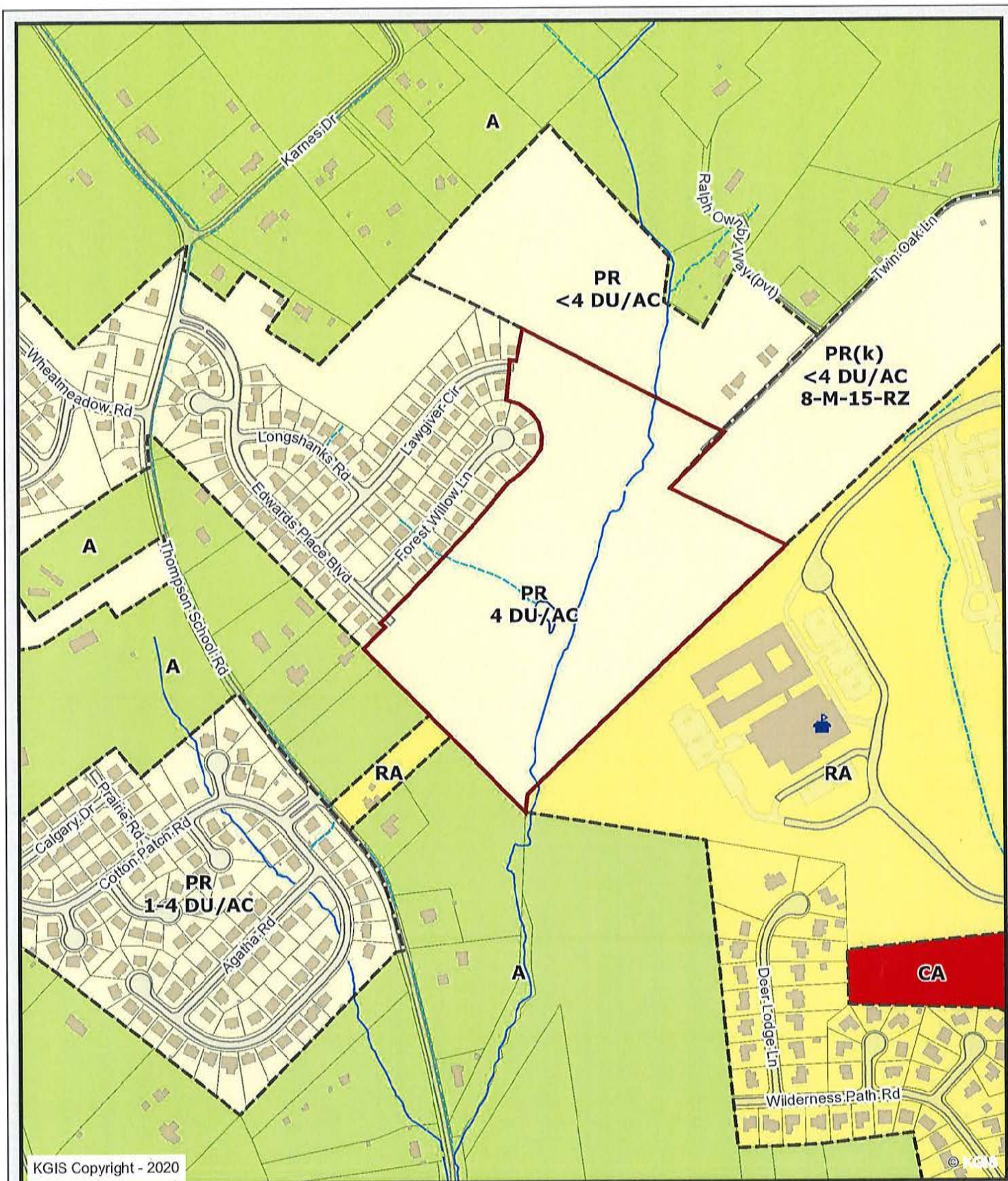
SHERRY MUCHIENZI

10/23/2020

Staff Signature

Please Print

Date



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