Canal Winchester

Town Hall
10 North High Street
Canal Winchester, OH 43110

Meeting Agenda

September 5, 2017

6:30 p.m.

PUBLIC HEARING

City Council

Steve Donahue - President
Will Bennett – Vice-President
Bob Clark
Bruce Jarvis
Bobbie Mershon
Mike Walker

Call To Order

Roll Call

Purpose of Public Hearing

17-204 ZONING MAP AMENDMENT ZM-17-003 AND PRELIMINARY DEVELOPMENT PLAN PDP-17-002; TO CONSIDER A PRELIMINARY DEVELOPMENT PLAN FOR TURNING STONE PLANNED UNIT DISTRICT; FOR 17.47 ACRES LOCATED ALONG HIGH STREET AND U.S. 33 (PID 184-002764 (PRD), 184-000748 (PRD), 184-000749 (PRD), 184-000739 (PRD), 184-000738 (PRD), 184-000747 (OT-SF), and 184-001616 (R-3))

Applicant: Jason Wisniewski, Grand Communities

Owner: Damon Pfeifer, Tiger Construction

Attachments: **Staff Report Council**

Preliminary Development Plan

Preliminary Development Plan Supplement

ORD-17-041 AN ORDINANCE TO AMEND PART 11 OF THE CODIFIED ORDINANCES AND THE ZONING MAP OF THE CITY OF CANAL WINCHESTER, REZONING A TOTAL OF 17.554 ACRES CONSISTING OF PARCELS (184-002764, 184-000748, 184-000749, 184-000738, AND 184-000739) ZONED PLANNED RESIDENTIAL DEVELOPEMNT (PRD), A PARCEL (184-000747) ZONED OLD TOWN SINGLE FAMILY RESIDENTIAL (OTSFR), AND A PARCEL (184-001616) ZONED LOW DENSISTY RESIDENTIAL (R-3) TO PLANNED UNIT DEVELOPMENT (PUD), OWNED BY DAMON A. PFEIFER AND TIGER CONSTRUCTION, INC., LOCATED SOUTHWEST OF THE INTERSECTION OF NORTH HIGH STREET AND US 33

Attachments: **N High St and US 33 Rezoning Exhibit A – Legal Desc**

N High St and US 33 Rezoning Exhibit B – App Part 1

N High St and US 33 Rezoning Exhibit C – App Part 2

Staff Report

Public Comments – Five Minute Limit Per Person

Council Discussion and Recommendation

Adjournment

Zoning Map Amendment #ZM-17-003
Preliminary Development Plan #PDP-17-002
Turning Stone

Owner:	Damon Pfeifer, Tiger Construction
Applicant:	Grand Communities, Ltd.
Property Location:	PID 184-002764 (PRD), 184-000748 (PRD), 184-000749 (PRD), 184-000739 (PRD), 184-000738 (PRD), 184-000747 (OT-SF), and 184-001616 (R-3) (consisting of 17.47 acres located along High Street and US 33)
Existing Zoning:	PRD (Planned Residential District), OT-SF (Old Town Single Family) & R-3 (Low Density Residential)
Proposed Zoning:	PUD (Planned Unit District)
Proposed Use:	Planned Unit District for 17 acres consisting of 15.8 acres for single family homes and 1.75 acres for a commercial outparcel.

Location and Surrounding Land Uses
The subject property, approximately 17.47 acres, consists of seven properties at the intersection of U.S. 33 and North High Street. These properties are zoned PRD, OT-SF, and R-3. Properties to the north across U.S. 33 are zoned GC (General Commercial) and contain a Speedway Gas Station and also vacant land zoned R-3 (Low Density Residential). Properties to the west and south consist of single family homes in the Villages at Westchester subdivision phases 1 & 2 and are zoned R-3. Properties to the east consist of single family homes in the OT-SF (Old Town Single Family) zoning district. Properties in the OT-SF district are architecturally regulated by the Landmarks Commission.

Setbacks
The property is zoned as a Planned Unit District. The applicant has stated that the setbacks will be as followes:

Residential
- Front – 25’ Side – 0’ & 5’ Rear – 25’

Commercial
- U.S. 33 – 20’ North High Street – 30’ Build To Turning Stone Dr. – 50’
- Residential lots – 20’ Reserve areas – 20’ Between Commercial Buildings 20’

Analysis
Residential:
The applicant has indicated that out of the total 17.55 acres, 15.80 acres will be for residential uses. This residential area will have a maximum of 84 homes, each on their own individual lots creating a total density of 5.3 lots per acre. The typical lot size for this development is 34’x124’ (4,126 S.F.) The applicant has indicated in the Preliminary Development Plan that there shall be a maximum of 84 homes built, but fewer lots are allowable without amending the Preliminary Plan.

Commercial:
The applicant has indicated that the remaining 1.75 acres of the development will be for commercial uses. The commercial portion of the development will be directly adjacent to U.S. 33 and North High Street. It is also noted that this commercial site is part of the Old Town Overlay District which is governed by the Landmarks Commission and the Old Town Guidelines for architecture and site design. The applicant has indicated that the permitted uses for the commercial parcel will be of the following:

Uses permitted in Section 1167.02(b) – Business and Professional Offices.
Business offices engaged in providing tangible and intangible serves to the public, involving both persons and their possessions, including:

(1) Administrative, Business and Professional Offices: Administrative offices primarily engaged in general administration, supervision, purchasing, accounting and other management functions, and professional offices engaged in providing tangible and intangible services to the general public, involving both persons and possessions, including financial services, real estate and insurance.

(2) Professional: Offices of physicians and surgeons, dentist and dental surgeons, chiropractors, medical and dental laboratories, health and allied sciences not elsewhere classified, legal services, design services including engineering, architecture, landscape architecture, urban planning, graphic arts, and interior design, and accounting, auditing, and bookkeeping services.

(3) Health care maintenance and emergency services.

<u>Access and parking</u>
The city has had EMHT analyze the traffic study for this project and they have found that with the existing daycare facility combined with the projected ingress traffic to the site from eastbound U.S. 33, it raises a concern that a single left turn vehicle entering the daycare site waiting for an appropriate gap, could cause a backup on southbound High Street that reaches the U.S. 33 in the 2038 PM Peak Build Condition. The City engineer suggests that the developer needs to propose a means to allow site traffic a way to enter the site unimpeded by the current condition at the daycare entrance. This concept may involve a larger radius (75-feet or greater) or minimal drop taper for the southbound to westbound movement into the site driveway.

6/23/17 Update: The applicant has attached "Exhibit A" proposing to re-stripe the existing pavement to create a dedicated southbound right-turn lane into the development while increasing storage in the left-turn/through lane.

Residential:
The residential roads are being proposed to be private streets that are 26 feet wide, unless otherwise indicated in the Preliminary Plan. These private roads will provide access to Carriage Place and Turning Stone Drive, the proposed public road that will connect to North High Street. Within the development, a 5 foot sidewalk is planned to be constructed along <u>one side</u> of the street with curb ramps at each corner.

Each home will have a two car garage and a minimum driveway to park two vehicles. It is indicated in the development text that no trailer, truck, boat, or anything other than operational motor vehicles, motorcycles, or scooters shall be parked in the street unless for loading and unloading and if they are to be parked in the garage space then the door must completely shut. Carports, detached garages, etc. are not permitted.

Commercial:
The commercial outparcel is proposed to accessed by improving the Alley north of 266 North High street and 253 Highland Ave to a public street that will be 30' wide with a 60' right-of-way. This public street is noted on the plans as Turning Stone Drive. The Preliminary Development Plan indicates a 10 foot setback for the parking from the right-of-way and a 10 foot setback from the commercial buildings. The parking standards for this site are to not exceed 1 space per 200 S.F. of building area. The parking design standards indicate that they are to be broken up where possible to not create a single large unbroken paved lot and smaller defined parking areas are encouraged. Due to the irregular shape of the lot parking is permitted in front of the commercial buildings facing Turning Stone Drive. All parking areas shall provide 1 tree for every 6 parking spaces and areas for more than five vehicles shall be effectively screened on each side that abuts a residential zoning district with a 4 foot masonry wall or landscaping not less than 4 foot in height.

Utilities
Water: The applicant is proposing for the residential development an 8 inch waterline extension will come off of the existing 8 inch waterline located on Carriage Place. The waterline through the development will be public. The commercial water service will come off of the existing 6 inch line located on the south side of the existing Highland Ave.

Sanitary: The applicant is proposing for the residential development, an 8" sanitary line extension will come from the manhole located on Lot 152/173 of Winchester Village Section 2. For reference, this sanitary connection will come off of Carriage Place west of the proposed private drive into the residential development. The commercial sewer connection is planned to connect into the existing manhole near Highland Ave.

Storm Water: The applicant is proposing a wet retention pond to be in the northeast corner of the residential development. This retention pond will be designed to handle both the residential and commercial site's storage volume. The retention pond is preliminarily designed to have the overflow go to the ditch along U.S. 33.

Landscaping
Residential:
As part of the development, the developers will be removing a total of 252 trees that equal to approximately 2,440 inches of trees that will be removed. The majority of the trees that are planned to be removed are along the center tree line, approximately where the main private access road is to be located. Out of the 252 trees to be removed, 228 were deemed to be in good condition by the applicant's tree surveyor, and those 252 will be replaced with trees from the list of Approved Urban Forest Trees and Plants by Canal Winchester. The applicant has indicated that the final quantity of trees to be removed and replaced will be determined during the Final Development Plan Technical Review process. The landscape plan that has been provided is conceptual.

The conceptual landscaping plan shows mounding and tree buffers between the residential units and U.S. 33. Additionally, the applicant is showing trees to be planted between each residential building along with buffering between the two cul-de-sacs and around the retention pond. It is also shown on the landscape plan that existing trees around the perimeter are planned to be retained. The Urban Forester has reviewed the conceptual landscape plan and recommends that the buffer between U.S. 33 and the dwelling units be comprised of mostly conifer species. The applicant has updated the plans per Urban Forester request.

Based on comments from the public during the public hearing, staff recommended to the applicant that additional landscaping be added between Unit 1 and the existing residential home along Highland Ave. The applicant has updated the plans to include additional landscaping.

To the north of the development, the applicant is proposing that a 8 foot wide asphalt recreational path be constructed through “Reserve F” leading to the retention pond and out the other side to the commercial outparcel. The applicant increased the size and upgraded the path per city staff request so that the area for the pond would be included in the 20% open space requirement.

The applicant has indicated that the percentage of open space being provided within the development consists of 24% (this calculation includes the retention pond which is calculated in “Reserve F”). Additionally, the applicant has indicated the desire for a divergence from this requirement in the development plan. Staff recommend to the applicant that 4 units from the previous site plan be removed from the development to increase the size of “Reserve A” so that it can be a usable public park space. With the reduction of these four units, there could be upwards to 10 trees saved in this area as well as reducing the number of lots per acre from the originally requested 5.74 lots per acre to 5.3 lots per acre. Removing these units as well would provide a buffer from the existing residential homes in Winchester Village to the proposed project. The applicant affirmed with staffs request and removed the 4 units from the plan to create an area for a public park. Park equipment will be determined during the final development plan stage.

Commercial:
The applicant has indicated that there will be 30 S.F. of landscaping area for every 1,000 S.F. of building ground coverage and will plant 1 tree per 1,000 S.F. of ground coverage. The Urban Forester recommends that the landscaping be designed to be comprehensive in large pockets located between and around the commercial buildings to promote larger usable landscape areas rather than small islands (i.e. 900 S.F. landscape area be 30 ft. by 30 ft., not 90 ft. by 10 ft.). The applicant has also indicated that there shall be 1 tree planted for every 6 parking spaces within interior landscape islands. The Urban Forester also requests that these landscape islands be designed to be comprehensive and larger in size rather than many smaller islands. The applicant has agreed with the Commercial Parcel landscaping modifications.

<u>Lighting</u>
The preliminary development plan states that street lighting shall comply with the city zoning code. It appears that final site lighting will be determined during the final development plan. The application does indicate that any residential landscape lighting for dwelling units shall be low-voltage. Outdoor lighting fixtures for safety, security and ingress and egress purposed shall be cut off fixtures only. Staff recommends that the applicant provide a spec sheet for the proposed private street lighting for review showing that it is a decorative fixture the same or substantially similar to that along public streets. The applicant affirmed that the street lighting plan will be submitted with the final development plan.

<u>Architecture</u>
Residential:
The residential dwelling units are to be single-family, duplex-style residences on slabs and the option to select a loft. The maximum building height shall not exceed 30 feet in height. The minimum square footage per livable space shall be no less than 1,200 S.F. for a single story and no less than 2,000 S.F. for a ranch with a loft. The applicant has supplied 6 façade types for review. These façade types will be available in both ranch and loft option. All façade types will

alternate in color and will be developed so no identical façade type will be adjacent or across the street from one another.

The applicant has indicated that the architectural design standards are as follows:

1. Each home shall have a two car garage and a maximum 18 foot driveway.
2. Exterior wall finish materials shall comprise of brick, stone, stucco, wood siding, cement fiber siding and upgraded vinyl with a nominal thickness of .42 gauge.
3. Ranch homes shall have a 4:12 pitch roof with all turned gabled at 5:12 pitch. The loft option shall have a minimum 7.25:12 pitch and will be equipped with dormer windows. The roof materials shall be fiberglass asphalt shingles or dimensional shingles. *6/23/17 Update: The applicant has indicated that the natural slate option has been removed.*
4. Traditional single or double-hung and casement windows are allowed. Common window fenestration shall be used on all elevations.
5. Extruded aluminum gutters with downspouts tied into curb drains will be used.
6. All garage doors shall have glass inserts.

The preliminary development plan indicates that no accessory structures shall be permitted within the development. This would include any temporary structures, shacks, garage, barns, or other permanent outbuildings. Additionally, no decks or pools or fences shall be permitted. Patios and pergolas are permitted but shall be professionally designed.

Commercial:
The preliminary development plan makes note that commercial subarea is located in the Old Town Overlay District and final designs shall be reviewed by the Landmarks Commission. Within the commercial parcel multiple buildings are allowed to be constructed and the width, height and style of the building shall be considered in relationship to adjacent structures. The total height for any commercial building shall not exceed 40 feet and the buildings should be placed closer to U.S. 33 to create an adequate barrier from the highway to the surrounding properties to the south.

The applicant has indicated the architectural design requirements will be as follows:

1. The exterior of each building shall utilize natural materials such as brick, wood, stone, manufactured stone, stucco or cementitious siding. Aluminum and/or vinyl shall be allowed for trim detail only such as soffits, gutters, shutters, etc. but shall not be used as siding products.
2. Roofs and façade colors shall be coordinated to complement each other and in a historical color palette.
3. Roof materials shall be shingles, cedar shakes, slate or synthetic slate, and metal standing seam. Asphalt shingles shall have an “architectural” or “dimensional” appearance and performance.
4. All structures shall be architecturally compatible and shall retain traditional building massing.
5. The façade facing North High Street shall be designed to have its front entry, or architectural appearance of a front entry, facing North High Street.
6. Special attention shall be given to minimize any “blank walls” without windows facing North High Street and U.S. 33.

7. The applicant has also agreed with staff's request to add the commercial development standards for building design to the requirements.

HOA Responsibilities

The preliminary plan indicates that the HOA will be responsible for all lawn maintenance for individual lots and all common areas. The association will also maintain front yard landscaping on individual lots. The HOA is responsible for snow pushing services for all of the private streets, sidewalks, driveways and walkways from driveway to the front door. Select exterior maintenance of the dwelling units shall also be provided to the homeowners which may include roofs, gutters, paint, siding, garage doors, and exterior light fixtures.

The preliminary development plan indicates that the HOA board will be turned over from the developer to the resident's within 90 days of the expiration of the development period. The development period is stated to be within 30 days following the date when 100% of the dwelling units are sold or within 30 years of the recording of the declaration. The applicant has stated *"Based on current market data, the projected development will be fully developed between 6 and 8 years."*

Signage

The commercial and residential development will coordinate and/or share signage in order to minimize visual clutter and will be made out of materials as allowed in the Old Town Guidelines. The entry monument is proposed to be a maximum 12 feet tall and 8 feet wide. The entry monument sign will also provide future tenants equal amount of sign space The sub-entry monuments shall be a maximum of 7 feet tall and 5 feet wide.

The signage is being proposed to have a minimum of 50 S.F. of landscaping around the base of the sign. This landscaping is described as being natural materials such as turf, ground cover, shrubs and hedges with no more than 50% consisting of turf. The applicant agreed to staffs request to have the landscaping turf be decorative grasses only.

Divergence Requests

1. The applicant is requesting a divergence request to allow a PUD district that is below the 20 acre minimum lot area requirement (Chapter 1177.03(b)). Staff supports this request due to the site having an expired PRD development text associated for most of the site.
2. The applicant is requesting a divergence from the maximum density of 4 units per acre to 5.74 units per acre (Chapter 1177.03(c)). Staff supports this request due to the the architectural standard recommendations being incorporated into the sites design and that units 1, 2, 3 & 4 were removed from the site design as discussed above, reducing the density to 5.3 units per acre.
3. The applicant is requesting a divergence request to allow private roads in the development (Chapter 1173.03(c)(10)(b)). Staff recommends that the roads within the development be private roads so the HOA can maintain them.
4. Chapter 1181.04 states that the mandatory land dedication for a PUD is required at 25%. This requirement "shall be used as sites for public parks, open space and recreational areas. The preliminary development plan is only showing 24% open space being provided.

Staff Recommendation

Staff recommends that the Preliminary Development Plan PDP-17-002 be approved as presented and recommended to City Council with the following recommendations.

1. Revise the Residential Development Standards item #7 to reflect that the exterior designs will alternate whenever possible between Exterior Designs 'A' through 'F'. In no instance two identical façades or color schemes will be placed next to each other in the development.

2. Staff recommends that the applicant provide a spec sheet for the proposed private street lighting for review showing that it is a decorative fixture the same or substantially similar to that along public streets.

3. School Dedication fees are required per Section 1181.04(c).

FISCHER DEVELOPMENT COMPANY
A Fischer Group Company

June 23rd, 2017

Mr. Lucas Haire, Developmental Director
Mr. Andrew Moore, Planning and Zoning Administrator
City of Canal Winchester
36 High Street
Canal Winchester, Ohio 43110

RE: Review of Turning Stone Preliminary PUD Development Plan
Response to Review Letter and Staff Recommendations received June 6th, 2017

Dear Mr. Haire & Mr. Moore,

The following letter is Grand Communities, Ltd.'s ("GCL") response to the staff recommendations outlined in the Turning Stone review letter, sent by Andrew Moore on June 6th, 2017. We welcome the opportunity to meet and/or discuss any issues about the proposed project, but in the meantime we offer the following responses:

Under the heading of "Staff Recommendation," the following recommendations were made:

COMMENT #1: ***Based on the traffic study review by the City's engineer, the developer needs to propose a means to allow site traffic a way to enter the site unimpeded by the current condition at the daycare entrance.***

RESPONSE #1: Please find attached "Exhibit A," created by Todd Stanhope, Director of Traffic Engineering at Smart Services, Inc. Our proposal is to re-stripe the existing pavement in this area to create a dedicated southbound right-turn lane into the proposed development while increasing storage in the left-turn/through lane along southbound High Street. In addition, northbound High Street would be re-striped to create a dedicated right-turn lane for traffic turning onto US-33. A final striping plan would be included as part of the Final Development Plan for Turning Stone.

COMMENT #2: ***The buffer between U.S 33 and the dwelling units be comprised of mostly conifer species.***

RESPONSE #2: Agreed. Please see the updated landscape plan.

COMMENT #3: ***The multi-use path be required to be a paved 8 foot asphalt surface and be designed to be ADA accessible.***

RESPONSE #3: Agreed. Please see the updated landscape plan and development text.

COMMENT #4: ***The multi-use path be continued to the commercial parcel to provide the employees of the future commercial buildings access.***

RESPONSE #4: Agreed. Please see the updated landscape plan and development text. Making this connection results in a meaningful open space around the pond, and is therefore included in the minimum required public open space requirements; eliminating the need for a divergence from Chapter 1173.03(c)(6).

COMMENT #5: ***Units 1, 2, 3, and 4 be removed from the development to increase the size of "Reserve A" so that it can be a usable public park space. The public park should be equipped with usable playground equipment.***

RESPONSE #5: Units1, 2, 3, and 4 have been removed from the development; please see the modified preliminary development plan. Per conversations with City Staff, it is our understanding and intention to dedicate "Reserve A" to the City for ownership and maintenance purposes; however, "Reserve A" shall still count towards the minimum open space requirement. In addition, the incorporation of "usable playground equipment" shall be further defined and approved during Final Development Plan approval, but shall be mutually-agreeable between the developer and the City. A cash donation and/or the donation of playground equipment shall be an acceptable alternative.

COMMENT #6: **The commercial landscaping be designed to be comprehensive in large pockets located between and around the commercial buildings to promote larger usable landscape areas rather than small islands (i.e. 900 S.F. landscape area be 30 ft. by 30 ft. not 90 ft. by 10 ft.)**

RESPONSE #6: Agreed. Please see the updated development text.

COMMENT #7: **Any parking landscape islands be designed to be comprehensive and larger in size rather than many smaller islands.**

RESPONSE #7: Agreed. Please see the updated development text.

COMMENT #8: ***The applicant design alternative residential front facades to create a minimum of 6 façade types.***

RESPONSE #8: As of the date of this letter, we are still working internally and with City Staff to address architecture in the community.

COMMENT #9: ***Different roof types and colors alternate with the 6 architectural residential types to help further break apart the buildings. Additionally, staff requests that the natural slate option be removed from the roof types permitted unless the developer will construct a unit type with natural slate.***

RESPONSE #9: Same as above. The natural slate roof option has been removed from the development text.

COMMENT #10: ***The applicant provide an elevation sample of a façade with shutters for review.***

RESPONSE #10: The façade designs do not allow enough room for shutters, thus eliminating the need for them. The text pertaining to shutters under "Architectural and Design Standards" has been removed from the development text.

COMMENT #11: ***The downspouts be tied into the curb drains rather than splash blocks.***

RESPONSE #11: Agreed. Please see updated development text.

COMMENT #12: **The building design standards of Chapter 1199.03 (a) through (g) be incorporated into the commercial development design standards.**

RESPONSE #12: Agreed. Please see the updated development text.

COMMENT #13: ***The development period be shortened from 30 years to 15 years.***

RESPONSE #13: The thirty (30) year development period is a customary length of time for Homeowners Association documents in the State of Ohio. Although it is not our intention to control the development for that period of time, we cannot predict future events that may make that necessary. Based on current market data, we project the current development period to be between six (6) and eight (8) years.

COMMENT #14: ***The entry monument be a maximum of 12 feet tall and that it be designed to allow for all of the future commercial buildings to have an equal amount of shared space on the sign.***

RESPONSE #14: Agreed. Please see the revised development text.

COMMENT #15: ***The turf in the required sign landscaping be comprised of decorative grasses only.***

RESPONSE #15: Agreed. Please see the revised development text.

COMMENT #16: ***The applicant update the divergence requests to include all deviations from Chapter 1177.***

RESPONSE #16: Agreed. Please see the revised development text for modified divergence requests.

Please let us know if you require additional information or clarification. We look forward to presenting additional information on our proposed development to the Canal-Winchester Planning Commission on July 10th, 2017. Thank you for your time and consideration.

Sincerely,

Jason M. Wisniewski
Vice President of Planning and Zoning
Grand Communities, Ltd./Fischer Development Company

cc: Jonathan Wilcox – Partner, Wilcox Communities
Hillary Laffin – Project Planner, Grand Communities, Ltd./Fischer Development Company

Enclosures:
Exhibit A, North High Street Restraining "Concept"

EXHIBIT "A"

NORTH HIGH STREET
RESTRIPING "CONCEPT"

TURNING STONE
TRAFFIC STUDY

PREPARED BY:
SMART SERVICES, INC.

PLANNED UNIT DISTRICT- PUD

TURNING STONE

CITY OF CANAL WINCHESTER, OHIO

Applicant:
Grand Communities, Ltd.
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018
(859) 344-3136
Jason M. Wisniewski

Engineer/ Planner:
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road, Suite 250
Worthington, Ohio 43085
(614) 540-6633
Brian Burkhart, PE

CEC Project 171-424

May 19, 2017
Rev. June 30, 2017

Application for
Planned Unit District - PUD

TURNING STONE DEVELOPMENT TEXT
CITY OF CANAL WINCHESTER, OHIO
May 19, 2017
Revised June 30, 2017

I. General

Applicant:
Grand Communities, Ltd.
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018
(859) 344-3136
Jason M. Wisniewski

Property Owners:
Damon Pfeifer
650 Winchester Pike
Canal Winchester, Ohio 43110

Property:
High Street Canal Winchester, Ohio 43110

Approx. Site Total: 17.55± acres

Residential: 15.80 acres (0.48 ac- Public R/W, 4.16 ac.-Reserve)
Commercial: 1.75 acres

Tax Parcel Numbers:
184-002764-00 (PRD)
184-000748-00 (PRD)
184-000749-00 (PRD)
184-000739-00 (PRD)
184-000738-00 (PRD)
184-000747-00 (OTSFR)
184-001616-00 (R-3)

Project Engineer/Planner:
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road, Suite 250
Worthington, Ohio 43085
(614) 540-6633
Brian Burkhart, PE

Project Developer: Grand Communities, Ltd.
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018
Phone: (859) 344-3136
Contact: Jason M. Wisniewski
Email: jwisniewski@fischerhomes.com

Proposed Application: PUD-Planned Unit District development plan and text for single-family and commercial uses

Existing Zoning; PRD (Planned Residential District), R-3 and
OTSFR (Old Town Single Family Residential

Project Narrative:

The project site consists of approximately 17.55 acres located on the west side of High Street, north of Carriage Place. It is currently zoned PRD, R-3, and OTSFR. The site is comprised of farm field and woods.

Currently located around the proposed development to the:

- north of the property is US 33
- south of the property is Winchester Village Section 2 Subdivision
- east of the property is Lombardy Heights Subdivision
- west of the property is Winchester Village Section 2 Subdivision

The applicant is requesting to rezone the property to Planned Unit District (PUD). The proposed development will consist of a single-family development (84 lots) and a 1.75 acre commercial tract. Under a planned unit district, the site will be able to accommodate both single-family units and commercial buildings. The residential area will take on similar characteristics to the adjacent neighborhoods, while the commercial space will act as an extension to the commercial parcels that line High Street, unifying the community.

Utilities/Public Services:

A. All utilities shall be underground, whenever possible, except for telephone and cable pedestals and electric transformers.

   1. Waterline: For the residential development, an eight inch (8”) waterline extension will come off the existing eight inch (8”) waterline located on Carriage Place. Waterline service throughout the development will be public. For the commercial development, the waterline service will come from the existing six inch (6") waterline located on the south side of the proposed Turning Stone Drive.

   2. Sanitary: For the residential development, an eight inch (8”) sanitary line extension will come from the manhole located on Lot 152/173 of Winchester Village Section 2. For the

commercial development, the sanitary sewer service will connect into the existing manhole near the intersection of Highland Avenue and proposed Turning Stone Drive. All sanitary service throughout the development will be public.

3. Drainage: Existing drainage flows south to north. A retention pond is being proposed at the northeast corner of the residential development and will serve both of the residential and commercial areas. Maintenance of the retention pond will be shared by the residential and commercial based on a proportionate share of storage volume.

Traffic

A. Traffic improvements are not required as a result of this proposed development as identified in the Smart Services, Inc. traffic study dated May 2017. However, the Applicant agrees to restripe High Street between the proposed entrance (Turning Stone Drive) to US33 to help facilitate left-hand turns from southbound High Street into the existing commercial/office uses on the west side of High Street. A final striping plan will be included and approved with the Final Development Plan.

II. Residential Development Standards

The following are Development Standards for the Subdivision, provided however, in the event a standard, provision, or requirement is not provided, the standards, provisions and requirements set forth in the City of Canal Winchester Planning and Zoning Code shall apply.

A. General Standards

Site Acreage:	17.55 Acres
Residential Acreage:	15.80 Acres (0.48 Ac.- Public R/W)
Number of Lots:	84
Typical Lot Size:	34’x124’ (Min)
Building Setbacks:	25’ Front/ 0’ Side & 5’ Side/ 25’ Rear
Open Space Percentage:	4.16 Acres/ 24% (4.16 Ac. / 17.55 Ac.-0.48 Ac.)
Net Density:	5.48 Lots Per Acre (84 Lots / 15.80 Ac - 0.48 Ac.)

1. All proposed roads are private and twenty-six feet (26’) wide, unless otherwise noted on the Preliminary Plan.

2. All public roads are to be thirty feet (30’) wide within a sixty foot (60’) right-of-way per city standards.

B. Building, Setback and Height Restrictions

1. The maximum number of homes shall not exceed eighty-four (84); provided, however, the Subdivision may contain fewer lots subject to final engineering or in order to meet other technical requirements (including but not limited to wetland avoidance/mitigation,

road relocation for connectivity purposes, utility requirements, etc.) without additional amendment to the Preliminary Plan.

2. Driveways may encroach into the side yards, but must be a minimum of one foot (1') off the property line. Side yards for corner lots shall be thirty feet (30') on the side of the lot adjacent to the street.

3. No structure may be constructed within the rear yard setback area, provided, however, patios, pergolas, and other non-structural (no foundation) assemblage may be erected in such area and shall further comply with the requirements of the City of Canal Winchester Planning and Zoning Resolution. Decks shall not be permitted.

4. Dwelling Units shall be single-family, duplex-style residences on slabs and the option to select a loft. The maximum building height shall not exceed thirty feet (30') in height from top of foundation to ridge of roof line.

5. There shall be no maximum lot coverage requirement.

6. House square footages (which shall be defined as habitable, heated, above-ground living space) shall be not less than twelve hundred (1,200) square feet for a ranch and not less than two thousand (2,000) square feet for a ranch with a loft.

7. The Applicant has included six (6) exterior designs (see Appendix F) and in no instance will the same exterior design be allowed on adjacent buildings and/or directly across the street.

C. <u>Architectural and Design Standards:</u>

1. Each house shall have an attached garage which can accommodate not less than two (2) cars. All homes shall have a minimum of four (4) parking spaces on each lot, which includes two (2) enclosed by the garage and two (2) spaces in front of the garage located between the garage and the street.

2. Each home will have a driveway apron that will be constructed to accommodate a maximum eighteen foot (18') wide driveway.

3. Utility meters may not be located on the front of any lot but shall be located on the side or rear of the structure.

4. Wall finish materials: Brick, stone, stucco, wood siding, cement fiber siding and upgraded vinyl siding (defined as siding with a nominal thickness of 0.42 gauge) are approved exterior wall finish materials.

5. The main roof pitch of single-story units shall have a 4:12 pitch, with all turned gables having a 5:12 pitch. The front roof pitch of loft units shall have a minimum 7¼:12 pitch, and will be equipped with dormer windows. Roofs may be fiberglass asphalt shingles or

dimensional shingles. Roof pitches shall be appropriate to the architecture of the house.

6. Traditional single- or double-hung and casement windows are allowed. Common window fenestration shall be used on all elevations.

7. Extruded aluminum gutters with downspouts may be used. All downspouts shall be tied into the curb drains.

8. All garage doors shall have glass inserts.

D. Pedestrian Requirements

1. A minimum three foot (3') wide concrete sidewalk shall be constructed from the driveway of the house to the front door/stoop of each house/lot.

2. A five foot (5') wide concrete sidewalk(s) shall be installed along one side of the street, with curb ramps at all corners.

III. Residential HOA Responsibilities

1. Homeowners Association: All residential property owners located within Turning Stone will be required to join and maintain membership in a forced and funded homeowners association (the "Association"), which will be formed prior to any lots being sold.

2. Association shall be responsible for all lawn maintenance for individual lots and all common areas. Association shall also maintain front yard landscaping on individual lots.

3. Reserve areas and landscaping of those reserve areas are to be maintained by The Association.

4. The Association shall manage and provide snow pushing services for private roads, driveways, sidewalks along street, and sidewalks leading from the driveway to the front door of the Dwelling Unit. Snow pushing shall be provided in accordance with requirements and rules established by the Board of Directors. De-icers and de-icing service is not part of this service. Home Lot Owners bear all risks and are responsible for any damage to pavement surfaces caused by their use of de-icers on their own driveways and sidewalks.

5. Select exterior maintenance of Dwelling Units shall be provided to homeowners on behalf of The Association, which may include, but shall not be limited to roofs, gutters, paint, siding, garage doors, and exterior light fixtures. The Association shall not be responsible for repairs or damages that were insured or should have been insured at the time damages occurred.

6. The Board will be turned over at the expiration of the Development Period. Within ninety (90) days after the expiration of the Development Period, the President of the Association shall call a special membership meeting ("Development Period Special Meeting"). At the Development Period Special Meeting, all Declarant appointed Directors shall be deemed removed from office, and the Class A Members, including the Declarant if it is then an Owner, shall elect a Director to fill each vacancy on the Board.

Development Period. "Development Period" means the period commencing on the date on which this Declaration is recorded and terminating on the earlier to occur of: (i) within thirty (30) days following the date when one hundred percent (100%) of the Dwelling Units which may be built on the Property or Additional Property have been deeded by either Declarant and/or any Builder to a third party purchaser; or (ii) thirty (30) years from the date of recording of the Declaration.

IV. Residential Accessory Structures

In order to promote the health, safety, and welfare of all Lot Owners, Members, and Occupants, and to preserve, beautify, and maintain the Property and all Structures thereon as a subdivision of high-quality and to preserve and promote a good environmental quality, the following covenants, restrictions and limitations as to use and occupancy are hereby adopted, declared and established. These covenants and restrictions shall hereinafter burden and benefit all Lots on the Property, shall run with the land, be binding on current and successor Lot Owners, for the benefit of all Lot Owners and all Lots on the Property.

A. Ancillary Structures

1. No Improvements or Structures of a temporary character, trailer, shack, garage, barn, or other temporary outbuilding shall be used or erected on any Lot after the permanent residence on each Lot has been completed.

B. Parking

1. All Lots shall provide a minimum of two (2) off-street parking spaces, exclusive of garages. No parking spaces, streets, or driveways nor any other part of the Common Elements nor any Lot upon which a Dwelling Unit is constructed shall be used for parking of any trailer, truck, boat, or anything other than operative automobiles, motorcycles, or scooters, except while loading, unloading, or cleaning which shall not exceed forty-eight (48) hours. Any of such vehicles may, however, be stored or parked in an enclosed garage provided such garage door is completely closed at all times when such a vehicle is parked therein.

2. All Dwelling Units shall contain a garage; carports shall not be permitted. Garage doors should be kept closed at all times, except during times of ingress and egress from the garage. Garages shall be used primarily for the parking of vehicles and shall not be used

primarily for storage or other purposes. Garages shall not be converted to additional living space.

C. Swimming Pools/ Spas

1. No above-ground or in-ground swimming pools, hot tubs or spas shall be constructed, erected, placed, or permitted to remain upon any Lot.

D. Garbage Refuse and Disposal

1. All trash, garbage, or other rubbish shall be kept at all times in each Owner's garage, except on the days which the trash, garbage, or other rubbish is collected by the local waste removal authorities or as otherwise directed and instructed by the Association. Any trash containers placed outside by the Dwelling Unit Owners to be collected by the local waste removal authorities shall only remain outside for a period not to exceed twenty-four (24) hours and may not be placed at the curb any earlier than 6:00 p.m. the day before the trash is scheduled to be removed. Trash removal and/or recycling shall be subject to such other rules and regulations as the Board may adopt from time to time.

E. Signs

1. No permanent sign shall be permitted on any Lot or building in the Subdivision. An Owner of a Dwelling Unit is permitted to place and maintain a standard "For Sale" or "For Rent" sign on his Lot; provided, however it is of a typical size within the industry. An Owner must obtain the prior written consent of the Board in the event said Owner desires to install and maintain a "For Sale" or "For Rent" sign which is not of a typical size within the industry.

F. Fencing

1. No fences shall be erected or built on any part of any Lot. Entrance designations, Recreational Facilities, fences and any other Structure erected by Declarant, Builder and/or the Association are exempt from this Restriction.

G. Patios, Decks and Pergolas

1. Patios and pergolas are permitted, but shall be professionally designed and may not be constructed or installed without consent of the Board. Decks shall not be permitted.

H. Mailboxes/ Addresses

1. The Builder shall be responsible for the installation of individual mailboxes, cluster mailboxes, or a community mailbox facility. The Association shall be responsible for maintenance of the established mailboxes.

I. House Numbering

1. Each home shall be required to install house numbers in a common location on each home.

J. Lighting

1. Street lighting shall comply with the Zoning Code of The City of Canal Winchester and follow specifications from American Electric Lighting.

2. Landscape lighting for Dwelling Units shall be low-voltage. Outdoor lighting fixtures for safety, security and ingress and egress purposes and shall be fixtures with the light source shielded from off lot visibility (cut off fixtures only).

V. Commercial Development Standards

The following are Development Standards for the commercial subarea of the PUD, provided however, in the event a standard, use, provision, or requirement is not provided, the standards, uses, provisions and requirements set forth in the City of Canal Winchester Planning and Zoning Code shall apply.

A. General Standards

Total Site Acreage:	17.55 Acres
Commercial Acreage:	1.75 Acres (Phase 2 of Development)
Number of Buildings:	To be Determined in Final Development Plan
Building Square Footage:	To be Determined in Final Development Plan
Building Setbacks:	20’ from U.S. Rt. 33 / Build to 30’ from N. High St. / 50’ from Turning Stone Drive / 20’ from Residential Lot / 20’ from Residential Reserve Area / 20’ Between Commercial Buildings
Parking Setbacks:	10’ from ROW to Parking / 10’ from Parking Stall to Commercial Building(s)
Parking Spaces:	Not to Exceed 1 Space per 200 Square Feet of Building Area

1. As final plans are developed, special attention shall be given to the fact that this subarea is located within the Old Town Overlay District per Section 1175.01.

B. Permitted Uses

Uses permitted in Section 1167.02(b) - Business and Professional Offices:

Business offices engaged in providing tangible and intangible services to the public, involving both persons and their possessions, including:

(1) Administrative, Business and Professional Offices: Administrative offices primarily engaged in general administration, supervision, purchasing, accounting and other management functions, and professional offices engaged in providing tangible and intangible services to the general public, involving both persons and possessions, including financial services, real estate and insurance.

(2) Professional: Offices of physicians and surgeons, dentists and dental surgeons, chiropractors, medical and dental laboratories, health and allied sciences not elsewhere classified, legal services, design services including engineering, architecture, landscape architecture, urban planning, graphic arts, and interior design, and accounting, auditing and bookkeeping services.

(3) Health care maintenance and emergency services.

C. <u>Building, Setback and Height Restrictions</u>

1. Multiple buildings may be constructed.

2. The width, height, surrounding setbacks and style shall be considered in relationship to adjacent structures. If the new buildings cannot align with adjacent structures due to site constraints, the buildings shall be placed farther back rather than in front of adjacent buildings. The proportion of the buildings shall be compatible with adjacent buildings and the relationship between buildings within the commercial subarea should allow for consistency of style, size and density.

3. The height of all buildings shall not exceed forty (40') feet per Section 1173.03(b).

4. The buildings may be placed toward the northern property line adjacent to U.S. Rt. 33 in order to create adequate space and separation from the homes to the south, to provide a visual barrier from U.S. Rt. 33, and to create better visibility for the businesses along U.S. Rt. 33.

5. All commercial lots shall front on a public right-of-way.

6. There shall be no maximum lot coverage requirement.

7. The commercial and residential development will coordinate and/or share signage in order to minimize visual clutter and will be made out of material as allowed in the Old Town District guidelines. The Entry Monument shall be a maximum of twelve feet (12') in height and eight feet (8') wide. The Sub-Entry Monument(s) shall be a maximum of seven feet (7') in height and five feet (5') in width.

D. Architectural and Design Standards:

1. Each building shall be in an architectural style which is appropriate in the Old Town Overlay District, and final designs shall be reviewed by the Canal Winchester Landmarks Commission per Section 1175.01.

2. All exterior walls shall be comprised of eighty (80) percent natural material with brick or stone as the predominant material. Other natural materials may also be incorporated into the building's exterior design. Use of "newer" materials is subject to approval by the Planning and Zoning Commission. Stucco, drivit and like materials may be used as accents provided the total square footage of accent material does not exceed twenty (20) percent of the gross exterior building wall square footage. Aluminum and/or vinyl shall be allowed for trim details only such as soffits, gutters, shutters, etc., but shall not be used as siding products.

3. Roof and building façade colors shall be coordinated to complement each other and a historical color palette may be utilized to create consistency with neighboring parcels in the Old Town District. Roof materials shall be shingles, slate or synthetic slate, and metal standing seam. Asphalt shingles shall have an "architectural" or "dimensional" appearance and performance.

4. All structures within the commercial subarea shall be designed to be architecturally compatible with each other by employing similar roof pitches, architectural details and be constructed of compatible exterior building materials. All buildings and portions thereof shall retain traditional building massing. A building frontage that exceeds a width of fifty (50) feet shall incorporate articulation and offset of the wall plane to inhibit a large expanse of blank wall and add interest to the façade.

5. The façade of the portion of the building facing North High Street shall be designed to have its front entry, or the architectural appearance of a front entry, facing North High Street. For the other buildings, if any, the orientation shall be towards the primary street right of way and an entryway shall be located on the front of the building. Corner entrances are acceptable to meet this requirement if one side of the corner entrance faces the primary street right of way.

6. Special attention shall be given to minimize any "blank walls" without windows facing North High Street and U.S. Rt. 33. Specifically, elevations facing the primary street shall be a minimum of forty (40) percent glass between the height of two (2) feet and ten (10) feet and have an unobstructed view of the building interior to a depth of four (4) feet. The use of black, gold, green, silver, or any other reflective colored glass on a building is prohibited. The use of spandrel glass is also prohibited. Frosted glass may be permitted in some cases, subject to approval of the Planning and zoning Commission.

7. For every one hundred (100) feet of elevation width, each side and rear elevation must

contain at least two (2) design elements and each front elevation must contain at least three (3) design elements. For multi-story buildings, each story on a single elevation shall contain at least two (2) design elements. Typical design elements can include:

a) A door of at least twenty-eight (28) square feet in area with an awning, window, faux window or other feature subject to approval by the Planning and Zoning Commission.
b) A window of at least six (6) square feet in area. Windows closer than ten (10) feet shall be considered as one (1) element. A set of adjacent windows, such as double or bay windows, shall be considered as one element.
c) A chimney.
d) An articulated gable vent of at least four (4) square feet in area.
e) Porches, decks or similar structures.
f) A similar significant permanent architectural feature consistent with the style of the building upon approval by the Planning and Zoning Commission.

8. All external and rooftop mechanical equipment, including satellite antennas, and trash dumpsters shall be screened from view at all property lines on which the building is located. Screening materials shall be complimentary to those used on the majority of the building. For ground mounted equipment, landscaping shall be the preferred method of screening. If two or more buildings are located on the same property, rooftop equipment shall not be visible at ground level within fifty (50) feet from any building.

E. Parking Requirements

1. There shall be a maximum of one parking space for every 200 square feet of commercial building space.

2. The parking areas shall be broken up where possible so not to create a single large unbroken paved lot for off-street parking, and smaller defined parking areas are encouraged.

3. Due to the irregular shape of the site and resulting constraints with building layouts, parking may be located on the portion of the site fronting Turning Stone Drive.

VI. Landscaping, and/or Screening Commitments

The proposed development shall comply with all landscape regulations set forth in part eleven Chapter 1191 of the codified ordinances of Canal Winchester.

A. Residential

1. A total of two hundred fifty-two (242) trees are anticipated to be removed within the project limits, and two hundred twenty-eight (218) trees will be replaced by one (1) tree from the list of Approved Urban Forest Trees and Plants for Canal Winchester. Any tree that is determined to be "dying," "dead," and/or any species not listed in the Approved Urban Forest Trees and Plants for Canal Winchester at the time of removal shall not require replacements. The final quantity of trees to be removed and replaced shall be determined during final technical review. Please see the Conceptual Landscape Plan for preliminary tree removal and replacement quantities and locations

2. An eight foot (8') wide recreational asphalt path shall be provided within the Development; a preliminary routing is shown on the Conceptual Landscape Plan, along the northern boundary. The path will tie into the commercial parcel to allow access for future employees. The final alignment and routing of the recreational asphalt path is subject to final technical review.

3. Chapter 1191, Section 1191.07, pertaining to the City's Street Tree Fund, shall not apply due to the use of private streets within the Development.

B. Commercial

1. 30 sq. ft. for every 1,000 sq. ft. of building ground coverage

2. 1 tree for every 1,000 sq. ft. of building ground coverage.

3. Off-street parking areas for more than five (5) vehicles shall be effectively screened on each side which abuts a residential zoning district or public right-of-way by a masonry wall or solid wood fence. Such wall or fence shall be no higher than four (4) feet and shall be maintained in good condition. Landscaping provided in lieu of such wall or fence shall consist of a strip of land not less than fifteen (15) feet in width planted with an evergreen hedge or dense planting of evergreen shrubs not less than four (4) feet in height.

4. All off-street parking areas shall provide one (1) tree of no less than two (2) inches DBH, for every six (6) parking spaces. These trees shall be planted in a parking island and located uniformly within the interior of the parking area. All trees shall be balled and burlapped or containerized/potted when planted. The top eighteen (18) inches of the burlap bag and cage shall be removed when planting. Planting beds for parking lot trees shall be constructed so as to minimize damage to trunks and roots of the trees from vehicles, pedestrians and parking lot maintenance through the use of adequate soil planting area and curbing or parking blocks. Planting soil area per tree shall be a minimum of sixteen (16) square feet. The minimum dimension for the planting areas shall be four (4) feet on one side. Additionally, any parking landscape island shall be designed to be comprehensive and larger in size rather than many smaller islands.

5. A landscaped area totaling a minimum of fifty (50) square feet shall be provided centered on the base of all freestanding signs and should be comprised of a variety of natural materials, such as, ground cover, perennials, shrubs, and hedges. Turf grass shall not be used in this sign landscaping area.

6. For all non-single family residential uses requiring trash container receptacles, such as dumpsters, all such containers or receptacles shall be enclosed on all sides by walls or fences with an opacity of one hundred (100) percent and a minimum height of six (6) feet. Such containers or receptacles when located adjacent to or abutting a residential zoning district shall in addition be landscaped on all sides visible from such districts by shrubs and hedges with an opacity of seventy-five (75) percent. Trash containers and receptacles shall be located behind the building line and shall be located to the rear of non-residential uses. Trash containers and receptacles shall conform to side and rear yard setback requirements and for non-residential uses adjacent to a residential zoning district, such containers and receptacles shall be located no closer than twenty-five (25) feet to any property line.

7. The landscaping shall be designed to be comprehensive in large pockets located between and around the commercial buildings to promote larger usable landscape areas rather than small islands.

VII. Divergence Request

1. The applicant is requesting a divergence from 1173.03 (b) “Minimum Lot Requirements” which requires a minimum lot area for a PUD twenty (20) acres or more. The site is owned by a single owner/entity, and therefore, it makes sense to plan the site together. The applicant believes rezoning the site to PUD and planning it comprehensively allows the commercial and residential uses to better complement one another and encourages the uses to work together to create the best overall design.

2. The applicant is requesting a divergence from 1173.03 (c) “Site Development Standards” which requires a maximum density of four (4) units per acre. There are four (4) major reasons the applicant is requesting this divergence:

    a. Additional density increases the number of residents to support and promote commercial growth within downtown Canal-Winchester/Old Town District. Additional residents within walking distance of downtown/Old Town District promotes activity along the streetscape, especially high street.

    b. Additional density increases the city's tax base through increased property tax and through additional commercial/sales tax from increased residents/users. In addition, the proposed street network is private (i.e. not maintained by the city) and duplex residents tend to have fewer/older children, which limits the impact on local schools.

c. Provides another housing type/diversifies housing stock with an option that tends to attract young professionals and active adults/"baby boomers".

d. Additional density makes the ownership and maintenance of private streets more economical for future residents; i.e. more residents to bear the cost. This in turn increases the disposable income available to future residents, which can be used to support local businesses.

In summary, the applicant believes the above points support additional density and result in the highest and best use of the site; especially given the site's location next to a major highway (US 33) and downtown Canal-Winchester/Old Town District.

3. The applicant is requesting a divergence from 1173.03 (c) (10) b "Site Development Standards" which allows private roads as a common easement as long as the easement does not serve an area larger than two (2) acres, except that such area will contain six (6) dwellings or less. The applicant, during its pre-application meeting with city staff, showed a plan with public streets/rights-of-way, and city staff requested all streets to be private.

4. The applicant is requesting a divergence from Chapter 1181.04, which states 25% of site acreage be set aside as a public space. These public spaces "shall be used as sites for public parks, open space, and recreational areas." The current amount of open space on the site is 24% and includes two large recreational areas, and four smaller common areas used for open space and screening of nearby residences. The 24% open space does not include any open space that may be dedicated by the commercial parcel in final development plans.

5. The applicant is requesting a divergence from Chapter 1173.03(b)(4), which states that "adjacent residential homes shall not have identical facades relative to style and color, and all residential building front yard setbacks shall meet the applicable district requirements and be staggered." The applicant is committed to creating a high-quality community that minimizes monotony through variations in architecture, color schemes for buildings, slight variations in front-yard setbacks, and landscaping. The applicant is working with City Staff to define the implementation of these variations to create an aesthetically-pleasing community within the City of Canal Winchester.

Appendices

Appendix A-	Zoning Code and Map Amendment/ Preliminary Plan Applications
Appendix B-	Preliminary Plan
Appendix C-	Traffic Study
Appendix D-	Capacity Letter
Appendix E-	Evidence of Control
Appendix F-	Duplex Design Study
Appendix G-	Duplex Elevations

Appendix A- Zoning Code and Map Amendment/Preliminary Plan Applications

City of Canal Winchester

36 South High Street
Canal Winchester, Ohio 43110
Development Department
Phone (614) 837-7501 Fax (614) 837-0145

ZONING CODE AND MAP AMENDMENT APPLICATION

rev. 9/24/2013

PROPERTY OWNER

Name Damon Pfeifer, Tiger Construction Inc.

Address 650 Winchester Pike Canal Winchester, OH 43110

Daytime Phone _____ Email _____

APPLICANT

Name Grand Communities, Ltd.

Address 3940 Olympic Boulevard Suite100 Erlanger, KY 41018

Daytime Phone 859-344-3136 Email jwisniewski@fischerhomes.com

Address or Location of Subject Property SW corner of US 33 & High Street

Requested Rezone parcel 184-002764-00 (PRD), 184-000748-00 (PRD), 184-000749-00 (PRD) 184-000739-00 (PRD), 184-000738-00 (PRD), 184-000747-00 (OTSFR) and 184-001616-00 (R-3) to a PUD

Attach a current survey (within 2 years) and legal description along with supporting materials required per Section 1143.02 (c) (see attachment). Additional information may be required by the Planning & Zoning Administrator, the Planning & Zoning Commission or Village Council.

I certify that the information provided with this application is correct and accurate to the best of my ability.

_____ _____

Property Owner's or Authorize Agent's Signature **Date**

DO NOT WRITE BELOW THIS LINE

Date Received: ___ / ___ / _____ Fee: $_____ Paid ☐ Tracking Number: ZA - _____

P&Z Public Hearing: ___ / ___ / _____
Recommendation ____ Approval ____ Denial

Council Public Hearing: ___ / ___ /_____
Action ____ Approval ____ Denial

Expiration Date: ___ / ___ / _____

Council Ordinance No.: _____

City of Canal Winchester

36 South High Street
Canal Winchester, Ohio 43110
Development Department
Phone (614) 837-7501 Fax (614) 837-0145

ZONING CODE AND MAP AMENDMENT APPLICATION

rev. 9/24/2013

PROPERTY OWNER

Name Damon Pfeifer, Tiger Construction Inc.

Address 650 Winchester Pike Canal Winchester, OH 43110

Daytime Phone _____ Email _____

APPLICANT

Name Grand Communities, Ltd.

Address 3940 Olympic Boulevard Suite100 Erlanger, KY 41018

Daytime Phone 859-344-3136 Email jwisniewski@fischerhomes.com

Address or Location of Subject Property SW corner of US 33 & High Street

Requested Rezone parcel 184-002764-00 (PRD), 184-000748-00 (PRD), 184-000749-00 (PRD) 184-000739-00 (PRD), 184-000738-00 (PRD), 184-000747-00 (OTSFR) and 184-001816-00 (R-3) to a PUD

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I certify that the information provided with this application is correct and accurate to the best of my ability.

Damon A Pfeifer 4-12-17

Property Owner's or Authorize Agent's Signature **Date**

DO NOT WRITE BELOW THIS LINE

Date Received: ___/___/_____ Fee: $_____ Paid ☐ Tracking Number: ZA - _____

P&Z Public Hearing: ___/___/_____
Recommendation ____ Approval ____ Denial

Council Public Hearing: ___/___/_____
Action ____ Approval ____ Denial

Expiration Date: ___/___/_____

Council Ordinance No.: _____

City of Canal Winchester

36 South High Street
Canal Winchester, Ohio 43110
Development Department
Phone (614) 837-7501 Fax (614) 837-0145

DEVELOPMENT PLAN APPLICATION

X Preliminary _____Final

rev. 09/24/2013

PROPERTY OWNER

Name Damon Pfeifer, Tiger Construction Inc.

Address 650 Winchester Pike Canal Winchester, OH 43110

Daytime Phone _____ Email _____

APPLICANT

Name Grand Communities, Ltd.

Address 3940 Olympic Boulevard Suite 100 Erlanger, KY 41018

Daytime Phone 859-344-3136 Email jwisniewski@fischerhomes.com

Address/Location of Subject Property SW corner of US 33 & High Street

Parcel 184-002764-00 (PRD), 184-000748-00 (PRD), 184-000749-00 (PRD), 184-000739-00 (PRD), 184-000738-00 (PRD), 184-000747-00 (OTSFR) and 184-001616-00 (R-3) to a PUD

Tax Parcel ID _____ Current Zoning _____ Acreage 17.55 Ac. +/-

Attach a current survey (within 2 years) of the subject property and all supporting materials as required by Chapter 1141 and Chapter 1173 as applicable (see attachment). Additional information may be required by the Planning and Zoning Administrator or the Planning and Zoning Commission.

I certify that the information provided with this application is correct and accurate to the best of my ability.

_____ _____

Property Owner's or Authorize Agent's Signature **Date**

DO NOT WRITE BELOW THIS LINE

Date Received: ___ / ___ / _____ Fee: $_____ Paid ☐

Historic District: ___ Yes ___ No
Preservation District: ___ Yes ___ No

Date of Action: ___ / ___ / _____

Application ___ No

Expiration Date: ___ / ___ / _____

Approved: ___ Yes

___ Yes, with conditions

Tracking Number: PDP - _____

City of Canal Winchester

36 South High Street
Canal Winchester, Ohio 43110
Development Department
Phone (614) 837-7501 Fax (614) 837-0145

DEVELOPMENT PLAN APPLICATION

X Preliminary _____ Final

rev. 09/24/2013

PROPERTY OWNER

Name Damon Pfeifer, Tiger Construction Inc.

Address 650 Winchester Pike Canal Winchester, OH 43110

Daytime Phone _____ Email _____

APPLICANT

Name Grand Communities, Ltd.

Address 3940 Olympic Boulevard Suite 100 Erlanger, KY 41018

Daytime Phone 859-344-3136 Email jwisniewski@fischerhomes.com

Address/Location of Subject Property SW corner of US 33 & High Street

Parcel 184-002764-00 (PRD), 184-000748-00 (PRD), 184-000749-00 (PRD), 184-000739-00 (PRD), 184-000738-00 (PRD), 184-000747-00 (OTSFR) and 184-001616-00 (R-3) to a PUD

Tax Parcel ID _____ Current Zoning _____ Acreage 17.47 Ac.

Attach a current survey (within 2 years) of the subject property and all supporting materials as required by Chapter 1141 and Chapter 1173 as applicable (see attachment). Additional information may be required by the Planning and Zoning Administrator or the Planning and Zoning Commission.

I certify that the information provided with this application is correct and accurate to the best of my ability.

Damon A Pfeifer

Property Owner's or Authorize Agent's Signature

4-12-17

Date

DO NOT WRITE BELOW THIS LINE

Date Received: ___/___/_____ Fee: $_____ Paid ☐

Historic District: ___ Yes ___ No
Preservation District: ___ Yes ___ No

Date of Action: ___/___/_____

Application ___ No
Approved: ___ Yes
___ Yes, with conditions

Expiration Date: ___/___/_____

Tracking Number: PDP - _____

Appendix B- Preliminary Plan

PRELIMINARY PLAN
TURNING STONE

SECTION 30, TOWNSHIP 16, RANGE 20; CONGRESS LANDS
CITY OF CANAL WINCHESTER, COUNTY OF FRANKLIN, STATE OF OHIO

JUNE 2017

DEVELOPER
GRAND COMMUNITIES, LTD.
3940 OLYMPIC BOULEVARD, SUITE 100
ERLANGER, KENTUCKY 41019
PHONE: (859) 344-3136
CONTACT: JASON WISNIEWSKI
EMAIL: JWISNIEWSKI@FISCHERHOMES.COM

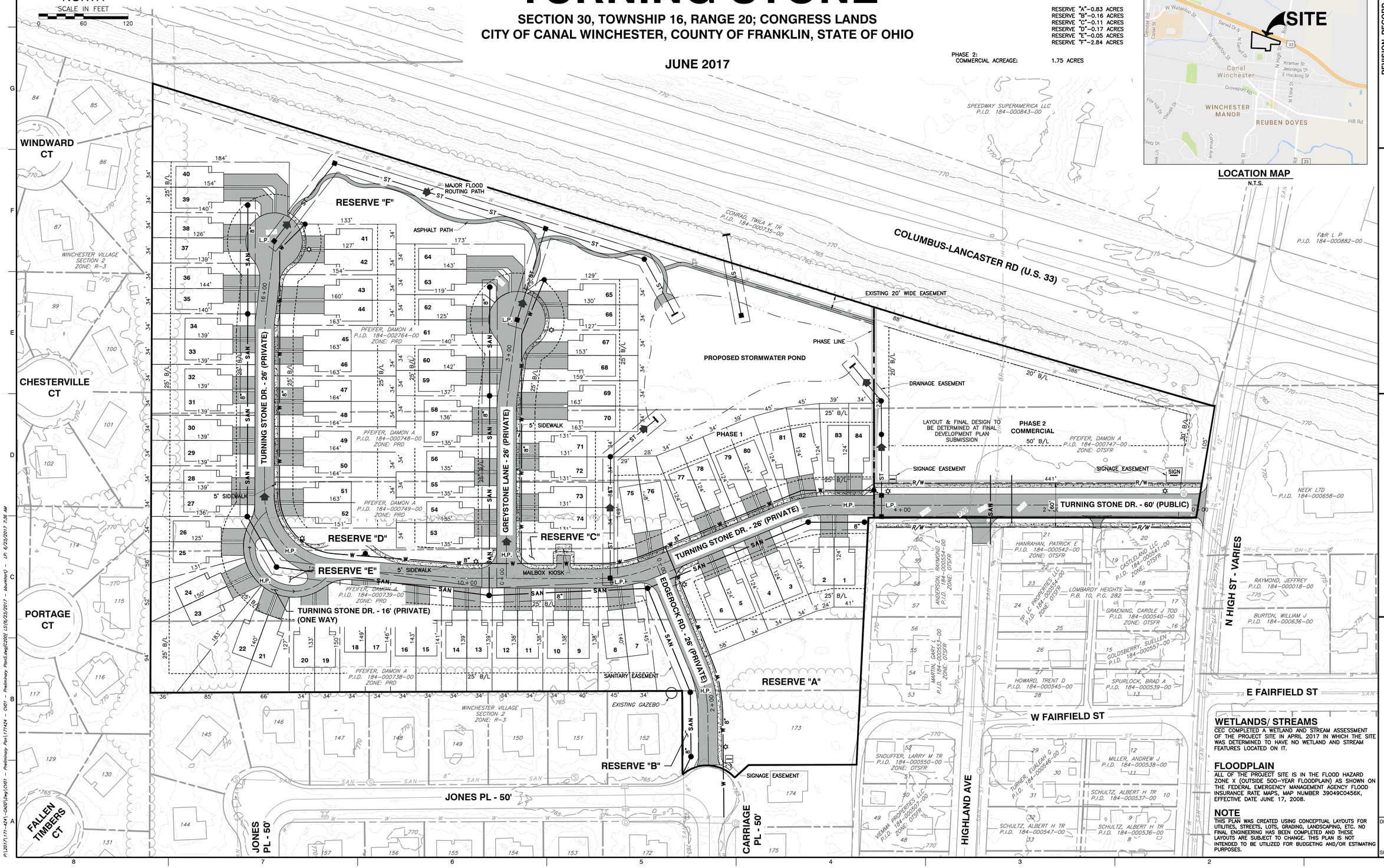
ENGINEER/SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
250 OLD WILSON BRIDGE ROAD, SUITE 250
WORTHINGTON, OHIO 43085
PHONE: (614) 540-6633
ENGINEER: BRIAN BURKHART, PE 74701, BBURKHART@CECINC.COM
SURVEYOR: MARK SMITH, PS S-8232, MSMITH@CECINC.COM

NORTH
SCALE IN FEET
0 60 120

SITE DATA

SITE ACREAGE:	17.55 ACRES +/-
OPEN SPACE:	4.16 ACRES (4.16/17.55=0.48)
	24%
PHASE 1:	
RESIDENTIAL ACREAGE:	15.80 ACRES
	PUBLIC R/W=0.48 ACRES
	RESERVE "A"=0.83 ACRES
	RESERVE "B"=0.16 ACRES
	RESERVE "C"=0.11 ACRES
	RESERVE "D"=0.17 ACRES
	RESERVE "E"=0.05 ACRES
	RESERVE "F"=2.84 ACRES
PHASE 2:	
COMMERCIAL ACREAGE:	1.75 ACRES

LOCATION MAP
N.T.S.



WETLANDS/ STREAMS

CEC COMPLETED A WETLAND AND STREAM ASSESSMENT OF THE PROJECT SITE IN APRIL 2017 IN WHICH THE SITE WAS DETERMINED TO HAVE NO WETLAND AND STREAM FEATURES LOCATED ON IT.

FLOODPLAIN

ALL OF THE PROJECT SITE IS IN THE FLOOD HAZARD ZONE X (OUTSIDE 500-YEAR FLOODPLAIN) AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS, MAP NUMBER 39049C0456K, EFFECTIVE DATE JUNE 17, 2008.

NOTE

THIS PLAN WAS CREATED USING CONCEPTUAL LAYOUTS FOR UTILITIES, STREETS, LOTS, GRADING, LANDSCAPING, ETC. NO FINAL ENGINEERING HAS BEEN COMPLETED AND THESE LAYOUTS ARE SUBJECT TO CHANGE. THIS PLAN IS NOT INTENDED TO BE UTILIZED FOR BUDGETING AND/OR ESTIMATING PURPOSES.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

PRELIMINARY PLAN

DATE:	JUNE 2017
DRAWN BY:	MDG
DWG SCALE:	1"=60'
CHECKED BY:	CLL
PROJECT NO:	171-424
APPROVED BY:	

DRAWING NO.: **C200**
SHEET 1 OF 7

P:\2017\171-424\-CADD\Dwg\C101 - Preliminary Plan\171424 - C101 - Preliminary Plan(S-Map)(C200) LS(6/23/2017 - bburkhart) - LP: 6/23/2017 7:36 AM

Civil & Environmental Consultants, Inc.

DESCRIPTION OF 17.554 ACRES FOR ZONING PURPOSES

Situated in the State of Ohio, County of Franklin, City of Canal Winchester, Section 30, Township 16, Range 20, Congress Lands, being all of Baby Farm No. 7 (Parcel 184-000738) and 8 (Parcel 184-000739) of Lombardy Heights, of record in Plat Book 10, Page 282 and as described in deed to Damon A. Pfeifer, of record in Instrument 201104200051504, all of Baby Farm No. 9 (Parcel 184-000749) and 10 (Parcel 184-000748) of said Lombardy Heights, and the adjacent alley as vacated in Ordinance 634, and all of that 7.123 acres (Parcel 184-002767) , all of which being described in deed to Damon A. Pfeifer, of record in Instrument 201104200051505, and all of Baby Farm No. 1, (Parcel 184-000747) of said Lombardy Heights and described in deed to Damon A. Pfeifer, of record in Instrument 201104200051506 and all of Lot 173 (Parcel 184-001616)of Winchester Village Section 2 , of record in Plat Book 77, Page 71 and described in deed to Tiger Construction, all being of record in the Recorder's Office, Franklin County, Ohio and being more particularly described as follows:

BEGINNING, at the common corner of said Winchester Village Section 2 and said 7.123 acres, also being in the south limited access right of way line of U.S. Route 33;

Thence South 68°29'51" East, a distance of 1103.95 feet, with the common line of said 7.123 acres and said U.S. Route 33, to a point;

Thence South 69°35'04" East, a distance of 386.02 feet, with the common line of said 7.123 acres and said U.S. Route 33, to a point;

Thence South 13°59'30" West, a distance of 0.62 feet, to a point in the north line of said Baby Farm No. 1;

Thence South 85°56'33" East, a distance of 5.17 feet, with the north line of said Baby Farm No. 1, to a point;

Thence South 08°52'37" West, a distance of 153.00 feet, with the east line of said Baby Farm No. 1, to a point;

Thence North 85°09'54" West, a distance of 455.29 feet, with the south line of said Baby Farm No. 1 and the north line of Highland Avenue, to a point in the west line of an existing alley and the east line of said Baby Farm No. 9;

Thence South 07°12'57" West, a distance of 230.09 feet, with the common line of said Baby Farm No. 7, 8, and 9 and said existing alley, to a point at the southeast corner of said Lot 173 of said Winchester Village Section 2;

Thence with the perimeter of said Lot 173, the following courses:

North 85°54'28" West, a distance of 145.00 feet, to a point;

South 52°03'34" West, a distance of 25.00 feet, to a point on a curve;

With the arc of a curve to the left having a radius of 50.00 feet, delta angle of 89°23'20", an arc length of 78.01 feet, a chord bearing of North 82°38'17" West, and a chord distance of 70.33 feet, to a point;

North 04°04'26" East, a distance of 112.50 feet, to a point on the south line of said Baby Farm No. 7;

Thence North 85°55'34" West, a distance of 712.94 feet, with the south line of said Baby Farm No. 7 and the north line of said Winchester Village Section 2, to a point;

Thence North 04°21'59" East, a distance of 816.03 feet, with the common line of said Lombardy Heights and said Winchester Village Section 2, to the **POINT OF TRUE BEGINNING,** and containing 17.554 acres, more or less.

The bearings shown hereon are an assumed bearing of South 68°29'51" East for the south right of way line of U.S. Route 33 as established from linework obtained from the Franklin County Auditor's GIS.

The above description was prepared from record information and intended to be used for zoning purposes only.

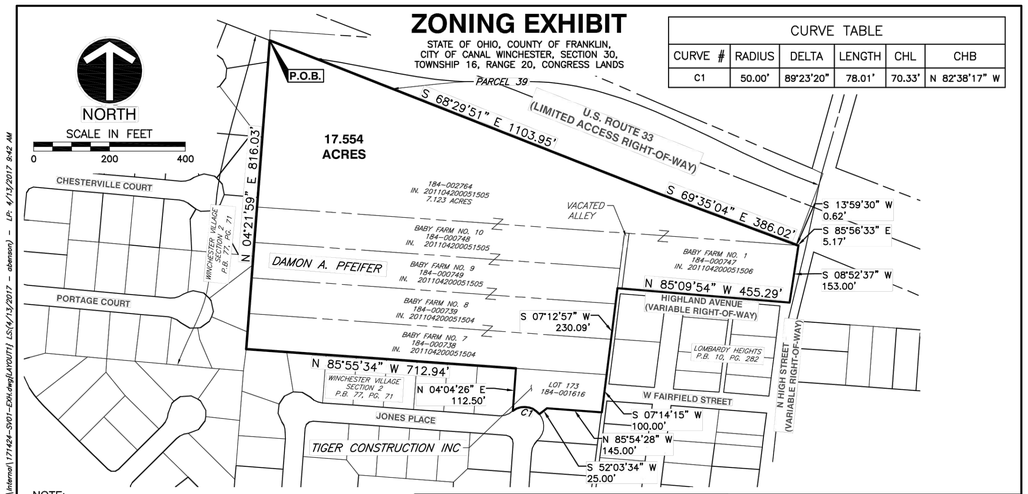
File Name: 171424SV01-DESC-ZO.docx

250 Old Wilson Bridge Road, Suite 250 | Worthington, Ohio 43085 | p: 614-540-6633 f: 614-540-6638 | www.cecinc.com

ZONING EXHIBIT

STATE OF OHIO, COUNTY OF FRANKLIN,
CITY OF CANAL WINCHESTER, SECTION 30,
TOWNSHIP 16, RANGE 20, CONGRESS LANDS

CURVE TABLE					
CURVE #	RADIUS	DELTA	LENGTH	CHL	CHB
C1	50.00'	89°23'20"	78.01'	70.33'	N 82°38'17" W



NOTE:
THE ABOVE INFORMATION IS BASED ON RECORD INFORMATION OBTAINED FROM THE RECORDER'S OFFICE, FRANKLIN COUNTY AND AUDITOR'S GIS. THE EXHIBIT DOES NOT REPRESENT A BOUNDARY SURVEY AND IS INTENDED TO BE USED FOR ZONING PURPOSES ONLY.

BASIS OF BEARING:
THE BEARINGS SHOWN HEREON ARE AN ASSUMED BEARING OF SOUTH 68°29'51" EAST FOR THE SOUTH RIGHT OF WAY LINE OF U.S. ROUTE 33 AS ESTABLISHED FROM LINEWORK OBTAINED FROM THE FRANKLIN COUNTY AUDITOR'S GIS.

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HIGH STREET
AND US 33
CANAL WINCHESTER, OHIO

17.554 ACRES

DRAWN BY:	ALB	CHECKED BY:	MAS	APPROVED BY:	MAS	EXHIBIT:
DATE:	APRIL 2017	DWG SCALE:	1"=200'	PROJECT NO:	171-424	1

STANDARD STREET LIGHT DETAIL

STREET LIGHTING SHALL COMPLY WITH THE ZONING CODE OF THE CITY OF CANAL WINCHESTER AND FOLLOW SPECIFICATIONS FROM AMERICAN ELECTRIC LIGHTING.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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614-540-6633 · 888-598-6808
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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

ZONING EXHIBIT & DETAILS

DATE:	JUNE 2017
DRAWN BY:	MDG
DWG SCALE:	AS NOTED
CHECKED BY:	CLL
PROJECT NO:	171-424
APPROVED BY:	644

DRAWING NO.: C201

SHEET 2 OF 7

P:\2017\171-424\-CADD\Dwg\CV01 - Preliminary Plan\171424 - CV01 - Preliminary Plan5.dwg[C201] LS:(6/23/2017 - sbunkard) - LP: 6/23/2017 7:38 AM
P:\2017\171-424\-Survey\Dwg\Internal\171424-SV01-EXH.dwg[AXIS/TIT] LS:(6/13/2017 - abessey) - LP: 6/13/2017 8:42 AM

NORTH

SCALE IN FEET

0 60 120

WINDWARD CT

CHESTERVILLE CT

PORTAGE CT

FALLEN TIMBERS CT

TURNING STONE DR. - 26' (PRIVATE)

GREYSTONE LANE - 26' (PRIVATE)

TURNING STONE DR. - 16' (PRIVATE) (ONE WAY)

EDGEROCK RD. - 26' (PRIVATE)

TURNING STONE DR. - 26' (PRIVATE)

TURNING STONE DR. - 60' (PUBLIC)

COLUMBUS-LANCASTER RD (U.S. 33)

N HIGH ST - VARIES

E FAIRFIELD ST

W FAIRFIELD ST

HIGHLAND AVE

JONES PL - 50'

JONES PL - 50'

CARRIAGE PL - 50'

EXISTING GAZEBO

LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED

REVISION RECORD

NO	DATE	DESCRIPTION

CEC

Civil & Environmental Consultants, Inc.

250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085

614-540-6633 · 888-598-6808

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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

TREE SURVEY

DATE: JUNE 2017	DRAWN BY: MDG
DWG SCALE: 1"=60'	CHECKED BY: CLL
PROJECT NO: 171-424	
APPROVED BY:	

DRAWING NO.: C700

SHEET 3 OF 7

P:\2017\171-424\-DWG\Dwg\CV01 - Preliminary Plan\171424 - CV01 - Preliminary Plan5.dwg[C700] LS:(6/23/2017 - bburkhart) - LP: 6/23/2017 7:36 AM

ID	Common Name	Scientific Name	Condition	DBH (IN)
1	Ash, Green	Fraxinus pennsylvanica	Good	8
2	Cherry, Black	Prunus serotina	Poor	11
2	Cherry, Black	Prunus serotina	Poor	9
3	Maple, Red	Acer rubra	Good	11
4	Cherry, Black	Prunus serotina	Good	11
5	Hackberry	Celtis occidentalis	Good	11
5	Hackberry	Celtis occidentalis	Good	9
5	Hackberry	Celtis occidentalis	Good	7
5	Hackberry	Celtis occidentalis	Good	7
5	Hackberry	Celtis occidentalis	Good	7
6	Hackberry	Celtis occidentalis	Good	16
6	Hackberry	Celtis occidentalis	Good	14
6	Hackberry	Celtis occidentalis	Good	14
7	Osage-Orange	Maclura pomifera	Poor	7
8	Cherry, Black	Prunus serotina	Good	7
9	Cherry, Black	Prunus serotina	Good	6
10	Cherry, Black	Prunus serotina	Good	8
10	Cherry, Black	Prunus serotina	Good	7
10	Cherry, Black	Prunus serotina	Good	6
11	Hackberry	Celtis occidentalis	Good	11
12	Cherry, Black	Prunus serotina	Poor	8
13	Hackberry	Celtis occidentalis	Good	7
14	Hackberry	Celtis occidentalis	Good	11
15	Cherry, Black	Prunus serotina	Good	26
16	Cherry, Black	Prunus serotina	Poor	9
17	Hackberry	Celtis occidentalis	Good	7
18	Hackberry	Celtis occidentalis	Good	23
19	Hackberry	Celtis occidentalis	Good	23
19	Hackberry	Celtis occidentalis	Good	6
20	Hackberry	Celtis occidentalis	Good	10
21	Hackberry	Celtis occidentalis	Good	6
21	Hackberry	Celtis occidentalis	Good	6
22	Osage-Orange	Maclura pomifera	Good	11
22	Osage-Orange	Maclura pomifera	Good	8
23	Cherry, Black	Prunus serotina	Poor	12
24	Elm, Slippery	Ulmus rubra	Good	21
25	Cherry, Black	Prunus serotina	Good	19
26	Hackberry	Celtis occidentalis	Good	6
27	Oak, Pin	Quercus palustris	Good	13
28	Cherry, Black	Prunus serotina	Poor	27
29	Hackberry	Celtis occidentalis	Good	10
30	Cherry, Black	Prunus serotina	Good	10
31	Hackberry	Celtis occidentalis	Good	11
31	Hackberry	Celtis occidentalis	Good	6
32	Cherry, Black	Prunus serotina	Good	6
33	Cherry, Black	Prunus serotina	Poor	18
34	Osage-Orange	Maclura pomifera	Good	24
34	Osage-Orange	Maclura pomifera	Good	16

ID	Common Name	Scientific Name	Condition	DBH (IN)
34	Osage-Orange	Maclura pomifera	Good	14
35	Osage-Orange	Maclura pomifera	Good	6
36	Osage-Orange	Maclura pomifera	Good	6
37	Cherry, Black	Prunus serotina	Poor	27
37	Cherry, Black	Prunus serotina	Poor	24
38	Cherry, Black	Prunus serotina	Poor	27
39	Cherry, Black	Prunus serotina	Poor	22
39	Cherry, Black	Prunus serotina	Poor	20
40	Cherry, Black	Prunus serotina	Good	8
41	Cherry, Black	Prunus serotina	Good	32
42	Hackberry	Celtis occidentalis	Good	10
42	Hackberry	Celtis occidentalis	Good	9
43	Hackberry	Celtis occidentalis	Good	6
44	Hackberry	Celtis occidentalis	Good	8
45	Hackberry	Celtis occidentalis	Good	10
45	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	9
46	Hackberry	Celtis occidentalis	Good	8
46	Hackberry	Celtis occidentalis	Good	8
46	Hackberry	Celtis occidentalis	Good	8
46	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	6
46	Hackberry	Celtis occidentalis	Good	6
46	Hackberry	Celtis occidentalis	Good	6
47	Hackberry	Celtis occidentalis	Good	8
48	Maple, Red	Acer rubra	Good	9
48	Maple, Red	Acer rubra	Good	8
49	Osage-Orange	Maclura pomifera	Good	13
49	Osage-Orange	Maclura pomifera	Good	10
49	Osage-Orange	Maclura pomifera	Good	9
50	Maple, Red	Acer rubra	Good	28
50	Maple, Red	Acer rubra	Good	24
50	Maple, Red	Acer rubra	Good	22
51	Cherry, Black	Prunus serotina	Good	10
52	Maple, Silver	Acer saccharinum	Good	10
52	Maple, Silver	Acer saccharinum	Good	9
53	Maple, Silver	Acer saccharinum	Good	15
53	Maple, Silver	Acer saccharinum	Good	14
53	Maple, Silver	Acer saccharinum	Good	12
53	Maple, Silver	Acer saccharinum	Good	10
53	Maple, Silver	Acer saccharinum	Good	9
53	Maple, Silver	Acer saccharinum	Good	8
54	Elm, Slippery	Ulmus rubra	Good	20
55	Osage-Orange	Maclura pomifera	Poor	26
56	Sycamore	Platanus occidentalis	Good	38
57	Hickory, Shagbark	Carya ovata	Poor	24

ID	Common Name	Scientific Name	Condition	DBH (IN)
58	Hackberry	Celtis occidentalis	Good	7
59	Boxelder	Acer negundo	Good	7
60	Boxelder	Acer negundo	Good	6
61	Boxelder	Acer negundo	Good	6
62	Cherry, Black	Prunus serotina	Good	10
63	Boxelder	Acer negundo	Good	6
64	Osage-Orange	Maclura pomifera	Good	21
65	Boxelder	Acer negundo	Good	10
66	Osage-Orange	Maclura pomifera	Good	8
67	Cherry, Black	Prunus serotina	Good	13
68	Hackberry	Celtis occidentalis	Good	19
69	Hackberry	Celtis occidentalis	Good	22
70	Osage-Orange	Maclura pomifera	Poor	16
71	Hackberry	Celtis occidentalis	Good	9
72	Hackberry	Celtis occidentalis	Good	21
72	Hackberry	Celtis occidentalis	Good	20
73	Cherry, Black	Prunus serotina	Good	18
74	Cherry, Black	Prunus serotina	Good	16
75	Cherry, Black	Prunus serotina	Good	6
76	Cherry, Black	Prunus serotina	Good	16
76	Cherry, Black	Prunus serotina	Good	7
77	Cherry, Black	Prunus serotina	Good	12
78	Osage-Orange	Maclura pomifera	Good	15
79	Cherry, Black	Prunus serotina	Good	20
80	Cherry, Black	Prunus serotina	Good	8
80	Cherry, Black	Prunus serotina	Good	6
81	Cherry, Black	Prunus serotina	Good	10
82	Cherry, Black	Prunus serotina	Good	10
83	Cherry, Black	Prunus serotina	Good	8
84	Cherry, Black	Prunus serotina	Good	10
84	Cherry, Black	Prunus serotina	Good	10
85	Cherry, Black	Prunus serotina	Good	7
86	Osage-Orange	Maclura pomifera	Poor	12
87	Osage-Orange	Maclura pomifera	Good	9
88	Osage-Orange	Maclura pomifera	Good	20
88	Osage-Orange	Maclura pomifera	Good	18
89	Cherry, Black	Prunus serotina	Good	10
90	Osage-Orange	Maclura pomifera	Good	6
91	Osage-Orange	Maclura pomifera	Good	8
91	Osage-Orange	Maclura pomifera	Good	7
92	Osage-Orange	Maclura pomifera	Good	11
93	Osage-Orange	Maclura pomifera	Good	17
94	Hackberry	Celtis occidentalis	Good	8
95	Cherry, Black	Prunus serotina	Good	30
96	Maple, Silver	Acer saccharinum	Good	22
96	Maple, Silver	Acer saccharinum	Good	19
97	Osage-Orange	Maclura pomifera	Good	13
97	Osage-Orange	Maclura pomifera	Good	12

ID	Common Name	Scientific Name	Condition	DBH (IN)
98	Cherry, Black	Prunus serotina	Good	25
98	Cherry, Black	Prunus serotina	Good	25
99	Osage-Orange	Maclura pomifera	Good	7
100	Boxelder	Acer negundo	Good	11
100	Boxelder	Acer negundo	Good	9
101	Boxelder	Acer negundo	Good	6
101	Boxelder	Acer negundo	Good	6
102	Cherry, Black	Prunus serotina	Good	10
103	Cherry, Black	Prunus serotina	Good	11
103	Cherry, Black	Prunus serotina	Good	10
104	Cherry, Black	Prunus serotina	Good	7
105	Cherry, Black	Prunus serotina	Poor	7
106	Osage-Orange	Maclura pomifera	Good	7
107	Cherry, Black	Prunus serotina	Good	6
108	Osage-Orange	Maclura pomifera	Good	18
108	Osage-Orange	Maclura pomifera	Good	13
108	Osage-Orange	Maclura pomifera	Good	10
109	Cherry, Black	Prunus serotina	Good	8
110	Maple, Silver	Acer saccharinum	Good	15
111	Boxelder	Acer negundo	Good	7
112	Boxelder	Acer negundo	Good	10
113	Osage-Orange	Maclura pomifera	Good	9
114	Boxelder	Acer negundo	Good	11
114	Boxelder	Acer negundo	Good	10
115	Boxelder	Acer negundo	Poor	6
116	Osage-Orange	Maclura pomifera	Good	9
117	Boxelder	Acer negundo	Good	25
117	Boxelder	Acer negundo	Good	22
117	Boxelder	Acer negundo	Good	18
118	Osage-Orange	Maclura pomifera	Good	10
119	Osage-Orange	Maclura pomifera	Good	7
120	Maple, Red	Acer rubra	Good	7
121	Boxelder	Acer negundo	Good	6
122	Boxelder	Acer negundo	Good	6
123	Boxelder	Acer negundo	Good	8
124	Osage-Orange	Maclura pomifera	Good	10
125	Boxelder	Acer negundo	Good	8
126	Cherry, Black	Prunus serotina	Good	28
127	Hackberry	Celtis occidentalis	Good	6
128	Osage-Orange	Maclura pomifera	Good	13
128	Osage-Orange	Maclura pomifera	Good	6
129	Cherry, Black	Prunus serotina	Good	12
130	Osage-Orange	Maclura pomifera	Poor	7
131	Osage-Orange	Maclura pomifera	Good	13
131	Osage-Orange	Maclura pomifera	Good	9
132	Cherry, Black	Prunus serotina	Good	11
133	Osage-Orange	Maclura pomifera	Good	17
134	Cherry, Black	Prunus serotina	Good	28

ID	Common Name	Scientific Name	Condition	DBH (IN)
135	Hackberry	Celtis occidentalis	Good	8
136	Cherry, Black	Prunus serotina	Good	29
137	Maple, Silver	Acer saccharinum	Good	9
138	Osage-Orange	Maclura pomifera	Good	12
139	Hackberry	Celtis occidentalis	Good	10
139	Hackberry	Celtis occidentalis	Good	7
140	Hackberry	Celtis occidentalis	Good	9
141	Hackberry	Celtis occidentalis	Good	6
142	Hackberry	Celtis occidentalis	Good	7
143	Hackberry	Celtis occidentalis	Good	28
144	Hackberry	Celtis occidentalis	Good	9
145	Cherry, Black	Prunus serotina	Good	13
146	Maple, Silver	Acer saccharinum	Good	8
146	Maple, Silver	Acer saccharinum	Good	7
146	Maple, Silver	Acer saccharinum	Good	6
147	Cherry, Black	Prunus serotina	Good	7
148	Cherry, Black	Prunus serotina	Good	8
149	Cherry, Black	Prunus serotina	Good	8
150	Cherry, Black	Prunus serotina	Good	26
151	Cherry, Black	Prunus serotina	Good	7
152	Cherry, Black	Prunus serotina	Poor	7
153	Cherry, Black	Prunus serotina	Poor	6
154	Cherry, Black	Prunus serotina	Poor	9
155	Cherry, Black	Prunus serotina	Poor	6
156	Boxelder	Acer negundo	Good	7
157	Cherry, Black	Prunus serotina	Good	15
157	Cherry, Black	Prunus serotina	Good	7
157	Cherry, Black	Prunus serotina	Good	7
158	Cherry, Black	Prunus serotina	Good	7
159	Cherry, Black	Prunus serotina	Poor	8
160	Cherry, Black	Prunus serotina	Good	11
161	Boxelder	Acer negundo	Good	8
162	Boxelder	Acer negundo	Good	9
163	Boxelder	Acer negundo	Good	7
164	Cherry, Black	Prunus serotina	Good	9
165	Boxelder	Acer negundo	Poor	8
166	Cherry, Black	Prunus serotina	Good	8
167	Cherry, Black	Prunus serotina	Good	8
168	Boxelder	Acer negundo	Good	7
169	Cherry, Black	Prunus serotina	Good	8
170	Cherry, Black	Prunus serotina	Good	10
171	Boxelder	Acer negundo	Good	7
172	Cherry, Black	Prunus serotina	Good	22
173	Hackberry	Celtis occidentalis	Good	14
174	Hackberry	Celtis occidentalis	Good	9
175	Cherry, Black	Prunus serotina	Good	11
176	Cherry, Black	Prunus serotina	Good	8
177	Cherry, Black	Prunus serotina	Good	8

ID	Common Name	Scientific Name	Condition	DBH (IN)
178	Cherry, Black	Prunus serotina	Good	7
179	Cherry, Black	Prunus serotina	Good	10
180	Boxelder	Acer negundo	Good	8
181	Boxelder	Acer negundo	Good	6
182	Cherry, Black	Prunus serotina	Good	8
183	Cherry, Black	Prunus serotina	Poor	8
184	Cherry, Black	Prunus serotina	Good	9
185	Boxelder	Acer negundo	Poor	7
186	Maple, Silver	Acer saccharinum	Good	9
186	Maple, Silver	Acer saccharinum	Good	7
186	Maple, Silver	Acer saccharinum	Good	6
187	Ash, Green	Fraxinus pennsylvanica	Good	8
187	Ash, Green	Fraxinus pennsylvanica	Good	7
188	Spruce, Blue	Picea pungens	Good	9
189	Hackberry	Celtis occidentalis	Good	15
189	Hackberry	Celtis occidentalis	Good	12
189	Hackberry	Celtis occidentalis	Good	10
190	Hackberry	Celtis occidentalis	Good	12
190	Hackberry	Celtis occidentalis	Good	7
191	Hackberry	Celtis occidentalis	Good	13
192	Cherry, Black	Prunus serotina	Good	9
193	Hackberry	Celtis occidentalis	Good	7
194	Hackberry	Celtis occidentalis	Good	14
194	Hackberry	Celtis occidentalis	Good	13
194	Hackberry	Celtis occidentalis	Good	6
195	Hackberry	Celtis occidentalis	Good	11
196	Hackberry	Celtis occidentalis	Good	9
197	Hackberry	Celtis occidentalis	Good	17
197	Hackberry	Celtis occidentalis	Good	12
197	Hackberry	Celtis occidentalis	Good	10
197	Hackberry	Celtis occidentalis	Good	9
197	Hackberry	Celtis occidentalis	Good	9
198	Cherry, Black	Prunus serotina	Good	11
199	Hackberry	Celtis occidentalis	Good	9
200	Hackberry	Celtis occidentalis	Good	10
201	Hackberry	Celtis occidentalis	Good	12
201	Hackberry	Celtis occidentalis	Good	11
201	Hackberry	Celtis occidentalis	Good	8
201	Hackberry	Celtis occidentalis	Good	7
201	Hackberry	Celtis occidentalis	Good	7
201	Hackberry	Celtis occidentalis	Good	6
201	Hackberry	Celtis occidentalis	Good	6
202	Hackberry	Celtis occidentalis	Good	10
203	Hackberry	Celtis occidentalis	Good	10
204	Hackberry	Celtis occidentalis	Good	14
204	Hackberry	Celtis occidentalis	Good	11
204	Hackberry	Celtis occidentalis	Good	7
204	Hackberry	Celtis occidentalis	Good	6

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

TREE SURVEY

DATE:	JUNE 2017	DRAWN BY:	MDG
DWG SCALE:	N/A	CHECKED BY:	CLL
PROJECT NO:	171-424		
APPROVED BY:			

DRAWING NO.: C701

SHEET 4 OF 7

P:\2017\171-424\-CADD\Dwg\C701 - Preliminary Plan\171424 - C701 - Preliminary Plan%5dwg[C701] LS(6/23/2017 - Abuckhard) - LP: 6/23/2017 7:38 AM

ID	Common Name	Scientific Name	Condition	DBH (IN)
204	Hackberry	Celtis occidentalis	Good	6
205	Cherry, Black	Prunus serotina	Good	9
206	Cherry, Black	Prunus serotina	Good	7
207	Cherry, Black	Prunus serotina	Good	9
208	Hackberry	Celtis occidentalis	Good	20
209	Cherry, Black	Prunus serotina	Poor	13
209	Cherry, Black	Prunus serotina	Poor	8
210	Hackberry	Celtis occidentalis	Good	9
211	Hackberry	Celtis occidentalis	Good	10
212	Hackberry	Celtis occidentalis	Good	14
212	Hackberry	Celtis occidentalis	Good	12
213	Cherry, Black	Prunus serotina	Good	14
214	Osage-Orange	Maclura pomifera	Good	16
214	Osage-Orange	Maclura pomifera	Good	13
215	Hackberry	Celtis occidentalis	Good	6
216	Hackberry	Celtis occidentalis	Good	6
217	Hackberry	Celtis occidentalis	Good	15
217	Hackberry	Celtis occidentalis	Good	11
218	Hackberry	Celtis occidentalis	Good	13
219	Hackberry	Celtis occidentalis	Good	12
220	Hackberry	Celtis occidentalis	Good	12
220	Hackberry	Celtis occidentalis	Good	9
220	Hackberry	Celtis occidentalis	Good	9
221	Hackberry	Celtis occidentalis	Good	11
221	Hackberry	Celtis occidentalis	Good	7
221	Hackberry	Celtis occidentalis	Good	7
221	Hackberry	Celtis occidentalis	Good	6
222	Hackberry	Celtis occidentalis	Good	19
223	Cherry, Black	Prunus serotina	Good	12
224	Hackberry	Celtis occidentalis	Good	21
225	Hackberry	Celtis occidentalis	Good	14
226	Hackberry	Celtis occidentalis	Good	12
226	Hackberry	Celtis occidentalis	Good	10
226	Hackberry	Celtis occidentalis	Good	10
226	Hackberry	Celtis occidentalis	Good	8
227	Hackberry	Celtis occidentalis	Good	11
228	Hackberry	Celtis occidentalis	Good	9
229	Cherry, Black	Prunus serotina	Good	12
230	Boxelder	Acer negundo	Good	15
231	Hackberry	Celtis occidentalis	Good	13
232	Hackberry	Celtis occidentalis	Good	8
233	Hackberry	Celtis occidentalis	Good	11
234	Hackberry	Celtis occidentalis	Good	12
235	Hackberry	Celtis occidentalis	Good	14
236	Cherry, Black	Prunus serotina	Good	16
237	Maple, Red	Acer rubra	Good	11
238	Walnut, Black	Juglans nigra	Good	9
239	Boxelder	Acer negundo	Good	10

ID	Common Name	Scientific Name	Condition	DBH (IN)
240	Boxelder	Acer negundo	Good	12
241	Maple, Sugar	Acer saccharum	Good	16
241	Maple, Sugar	Acer saccharum	Good	9
241	Maple, Sugar	Acer saccharum	Good	6
242	Elm, Slippery	Ulmus rubra	Good	10
242	Elm, Slippery	Ulmus rubra	Good	7
242	Elm, Slippery	Ulmus rubra	Good	6
243	Hackberry	Celtis occidentalis	Good	9
244	Hackberry	Celtis occidentalis	Good	8
245	Cherry, Black	Prunus serotina	Poor	18
246	Boxelder	Acer negundo	Good	6
247	Osage-Orange	Maclura pomifera	Poor	9
248	Maple, Red	Acer rubra	Good	8
249	Cherry, Black	Prunus serotina	Poor	6
250	Oak, Pin	Quercus palustris	Good	11
251	Boxelder	Acer negundo	Poor	13
252	Cherry, Black	Prunus serotina	Good	28
252	Cherry, Black	Prunus serotina	Good	12
253	Osage-Orange	Maclura pomifera	Good	9
254	Osage-Orange	Maclura pomifera	Good	11
255	Boxelder	Acer negundo	Poor	17
256	Boxelder	Acer negundo	Good	10
257	Boxelder	Acer negundo	Good	12
258	Oak, Black	Quercus nigra	Good	11
259	Walnut, Black	Juglans nigra	Good	9
260	Hackberry	Celtis occidentalis	Good	13
260	Hackberry	Celtis occidentalis	Good	9
260	Hackberry	Celtis occidentalis	Good	6
261	Cherry, Black	Prunus serotina	Good	13
262	Cherry, Black	Prunus serotina	Good	8
263	Hackberry	Celtis occidentalis	Good	11
264	Hackberry	Celtis occidentalis	Good	7
265	Ash, White	Fraxinus americana	Good	12
266	Elm, American	Ulmus americana	Good	6
267	Elm, American	Ulmus americana	Good	6
268	Ash, Green	Fraxinus pennsylvanica	Good	7
269	Boxelder	Acer negundo	Good	9
270	Boxelder	Acer negundo	Good	6
271	Hackberry	Celtis occidentalis	Good	11
271	Hackberry	Celtis occidentalis	Good	7
272	Hackberry	Celtis occidentalis	Good	10
273	Boxelder	Acer negundo	Poor	8
274	Hackberry	Celtis occidentalis	Poor	9
275	Boxelder	Acer negundo	Good	6
276	Cherry, Black	Prunus serotina	Good	18
277	Hackberry	Celtis occidentalis	Good	15
278	Cherry, Black	Prunus serotina	Good	18
279	Hackberry	Celtis occidentalis	Good	15

ID	Common Name	Scientific Name	Condition	DBH (IN)
279	Hackberry	Celtis occidentalis	Good	12
280	Hackberry	Celtis occidentalis	Good	13
280	Hackberry	Celtis occidentalis	Good	10
280	Hackberry	Celtis occidentalis	Good	7
280	Hackberry	Celtis occidentalis	Good	7
280	Hackberry	Celtis occidentalis	Good	6
281	Cherry, Black	Prunus serotina	Good	18
282	Cherry, Black	Prunus serotina	Good	14
283	Hackberry	Celtis occidentalis	Good	14
283	Hackberry	Celtis occidentalis	Good	13
283	Hackberry	Celtis occidentalis	Good	10
284	Hackberry	Celtis occidentalis	Good	17
284	Hackberry	Celtis occidentalis	Good	15
284	Hackberry	Celtis occidentalis	Good	13
285	Maple, Red	Acer rubra	Good	6
286	Maple, Red	Acer rubra	Good	8
286	Maple, Red	Acer rubra	Good	7
287	Maple, Red	Acer rubra	Good	6
287	Maple, Red	Acer rubra	Good	6
287	Maple, Red	Acer rubra	Good	6
288	Maple, Red	Acer rubra	Good	10
288	Maple, Red	Acer rubra	Good	6
289	Maple, Red	Acer rubra	Good	6
290	Cherry, Black	Prunus serotina	Good	6
291	Cherry, Black	Prunus serotina	Good	6
292	Maple, Red	Acer rubra	Good	6
293	Cherry, Black	Prunus serotina	Good	6
294	Hackberry	Celtis occidentalis	Good	11
294	Hackberry	Celtis occidentalis	Good	8
294	Hackberry	Celtis occidentalis	Good	8
294	Hackberry	Celtis occidentalis	Good	6
294	Hackberry	Celtis occidentalis	Good	6
295	Hackberry	Celtis occidentalis	Good	7
295	Hackberry	Celtis occidentalis	Good	6
296	Boxelder	Acer negundo	Good	8
297	Cherry, Black	Prunus serotina	Good	6
298	Hackberry	Celtis occidentalis	Good	6
299	Osage-Orange	Maclura pomifera	Good	11
299	Osage-Orange	Maclura pomifera	Good	7
300	Osage-Orange	Maclura pomifera	Good	11
300	Osage-Orange	Maclura pomifera	Good	9
300	Osage-Orange	Maclura pomifera	Good	8
301	Maple, Red	Acer rubra	Good	7
302	Cherry, Black	Prunus serotina	Good	6
303	Hackberry	Celtis occidentalis	Good	6
304	Hackberry	Celtis occidentalis	Good	8
305	Ash, Green	Fraxinus pennsylvanica	Good	7
306	Osage-Orange	Maclura pomifera	Good	28

ID	Common Name	Scientific Name	Condition	DBH (IN)
306	Osage-Orange	Maclura pomifera	Good	8
306	Osage-Orange	Maclura pomifera	Good	6
307	Maple, Red	Acer rubra	Good	6
308	Maple, Red	Acer rubra	Good	9
309	Maple, Red	Acer rubra	Good	6
310	Maple, Red	Acer rubra	Good	8
311	Cherry, Black	Prunus serotina	Good	8
312	Maple, Silver	Acer saccharinum	Good	18
313	Maple, Red	Acer rubra	Good	8
314	Cherry, Black	Prunus serotina	Good	8
315	Cherry, Black	Prunus serotina	Good	25
316	Cherry, Black	Prunus serotina	Good	10
316	Cherry, Black	Prunus serotina	Good	9
317	Cherry, Black	Prunus serotina	Good	9
318	Cherry, Black	Prunus serotina	Good	10
319	Cherry, Black	Prunus serotina	Good	9
320	Cherry, Black	Prunus serotina	Good	8
321	Osage-Orange	Maclura pomifera	Good	7
322	Cherry, Black	Prunus serotina	Good	8
322	Cherry, Black	Prunus serotina	Good	7
323	Hackberry	Celtis occidentalis	Good	10
324	Cherry, Black	Prunus serotina	Good	11
324	Cherry, Black	Prunus serotina	Good	7
325	Cherry, Black	Prunus serotina	Poor	11
326	Cherry, Black	Prunus serotina	Poor	16
327	Cherry, Black	Prunus serotina	Good	12
327	Cherry, Black	Prunus serotina	Good	8
328	Osage-Orange	Maclura pomifera	Good	9
329	Cherry, Black	Prunus serotina	Good	6
330	Cherry, Black	Prunus serotina	Good	6
331	Boxelder	Acer negundo	Good	6
332	Boxelder	Acer negundo	Good	6
333	Cherry, Black	Prunus serotina	Good	8
333	Cherry, Black	Prunus serotina	Good	6
334	Cherry, Black	Prunus serotina	Good	8
334	Cherry, Black	Prunus serotina	Good	7
335	Hackberry	Celtis occidentalis	Good	10
336	Hackberry	Celtis occidentalis	Good	11
337	Boxelder	Acer negundo	Good	10
338	Boxelder	Acer negundo	Poor	10
338	Boxelder	Acer negundo	Poor	6
339	Cherry, Black	Prunus serotina	Good	7
340	Cherry, Black	Prunus serotina	Good	9
340	Cherry, Black	Prunus serotina	Good	6
341	Cherry, Black	Prunus serotina	Poor	21
342	Hackberry	Celtis occidentalis	Poor	11
343	Hackberry	Celtis occidentalis	Good	27
344	Cherry, Black	Prunus serotina	Good	6

ID	Common Name	Scientific Name	Condition	DBH (IN)
345	Osage-Orange	Maclura pomifera	Good	15
346	Osage-Orange	Maclura pomifera	Good	12
347	Osage-Orange	Maclura pomifera	Good	10
348	Cherry, Black	Prunus serotina	Good	7
349	Boxelder	Acer negundo	Good	6
350	Boxelder	Acer negundo	Good	6
351	Boxelder	Acer negundo	Good	8
352	Elm, American	Ulmus americana	Good	9
353	Osage-Orange	Maclura pomifera	Good	10
354	Cherry, Black	Prunus serotina	Poor	11
355	Cherry, Black	Prunus serotina	Poor	10
356	Osage-Orange	Maclura pomifera	Good	8
357	Osage-Orange	Maclura pomifera	Good	6
358	Hackberry	Celtis occidentalis	Good	6
359	Osage-Orange	Maclura pomifera	Poor	7
360	Osage-Orange	Maclura pomifera	Poor	11
361	Osage-Orange	Maclura pomifera	Poor	6
362	Osage-Orange	Maclura pomifera	Good	8
363	Maple, Silver	Acer saccharinum	Good	11
363	Maple, Silver	Acer saccharinum	Good	9
363	Maple, Silver	Acer saccharinum	Good	8
364	Hackberry	Celtis occidentalis	Good	6
365	Cherry, Black	Prunus serotina	Poor	9
366	Hackberry	Celtis occidentalis	Good	9
367	Osage-Orange	Maclura pomifera	Good	7
367	Osage-Orange	Maclura pomifera	Good	6
368	Osage-Orange	Maclura pomifera	Good	6
369	Oak, Pin	Quercus palustris	Good	8
370	Cherry, Black	Prunus serotina	Good	11
371	Hackberry	Celtis occidentalis	Good	7
372	Hackberry	Celtis occidentalis	Good	20
373	Hackberry	Celtis occidentalis	Good	18
374	Cherry, Black	Prunus serotina	Good	15
375	Hackberry	Celtis occidentalis	Good	7
376	Osage-Orange	Maclura pomifera	Good	20
376	Osage-Orange	Maclura pomifera	Good	13
377	Hackberry	Celtis occidentalis	Good	8
377	Hackberry	Celtis occidentalis	Good	7
378	Cherry, Black	Prunus serotina	Good	7
379	Hackberry	Celtis occidentalis	Good	6
380	Hackberry	Celtis occidentalis	Good	8
381	Hackberry	Celtis occidentalis	Good	21
382	Hackberry	Celtis occidentalis	Good	6
383	Cherry, Black	Prunus serotina	Good	19
384	Hackberry	Celtis occidentalis	Good	23
384	Hackberry	Celtis occidentalis	Good	10
385	Cherry, Black	Prunus serotina	Good	6
386	Osage-Orange	Maclura pomifera	Good	11

ID	Common Name	Scientific Name	Condition	DBH (IN)
387	Cherry, Black	Prunus serotina	Good	6
388	Hackberry	Celtis occidentalis	Good	8
388	Hackberry	Celtis occidentalis	Good	7
389	Cherry, Black	Prunus serotina	Good	6
390	Osage-Orange	Maclura pomifera	Good	15
390	Osage-Orange	Maclura pomifera	Good	13
391	Cherry, Black	Prunus serotina	Good	13
392	Cherry, Black	Prunus serotina	Good	9
392	Cherry, Black	Prunus serotina	Good	7
393	Cherry, Black	Prunus serotina	Good	6
394	Cherry, Black	Prunus serotina	Good	6
395	Cherry, Black	Prunus serotina	Good	12
396	Osage-Orange	Maclura pomifera	Good	7
397	Cherry, Black	Prunus serotina	Good	14
398	Cherry, Black	Prunus serotina	Good	14
399	Osage-Orange	Maclura pomifera	Good	26
400	Cherry, Black	Prunus serotina	Good	12
401	Cherry, Black	Prunus serotina	Good	8
402	Osage-Orange	Maclura pomifera	Good	45
403	Boxelder	Acer negundo	Good	6
404	Osage-Orange	Maclura pomifera	Good	9
405	Osage-Orange	Maclura pomifera	Good	8
406	Boxelder	Acer negundo	Good	7
407	Cherry, Black	Prunus serotina	Good	7
408	Cherry, Black	Prunus serotina	Good	6
409	Cherry, Black	Prunus serotina	Good	8
410	Cherry, Black	Prunus serotina	Poor	9
411	Cherry, Black	Prunus serotina	Good	9
412	Bradford Pear	Pyrus calleryana	Good	9
413	Hackberry	Celtis occidentalis	Good	24
413	Hackberry	Celtis occidentalis	Good	20
413	Hackberry	Celtis occidentalis	Good	23
413	Hackberry	Celtis occidentalis	Good	17
414	Hackberry	Celtis occidentalis	Good	7
415	Maple, Red	Acer rubra	Good	7
416	Cherry, Black	Prunus serotina	Good	8
417	Hackberry	Celtis occidentalis	Good	6

TOTAL TREES REMOVED= 242
TOTAL DBH REMOVED= 2,305"
TOTAL TREES REPLACED= 218
(EXCLUDES REPLACING EXISTING TREES IN POOR CONDITION)

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

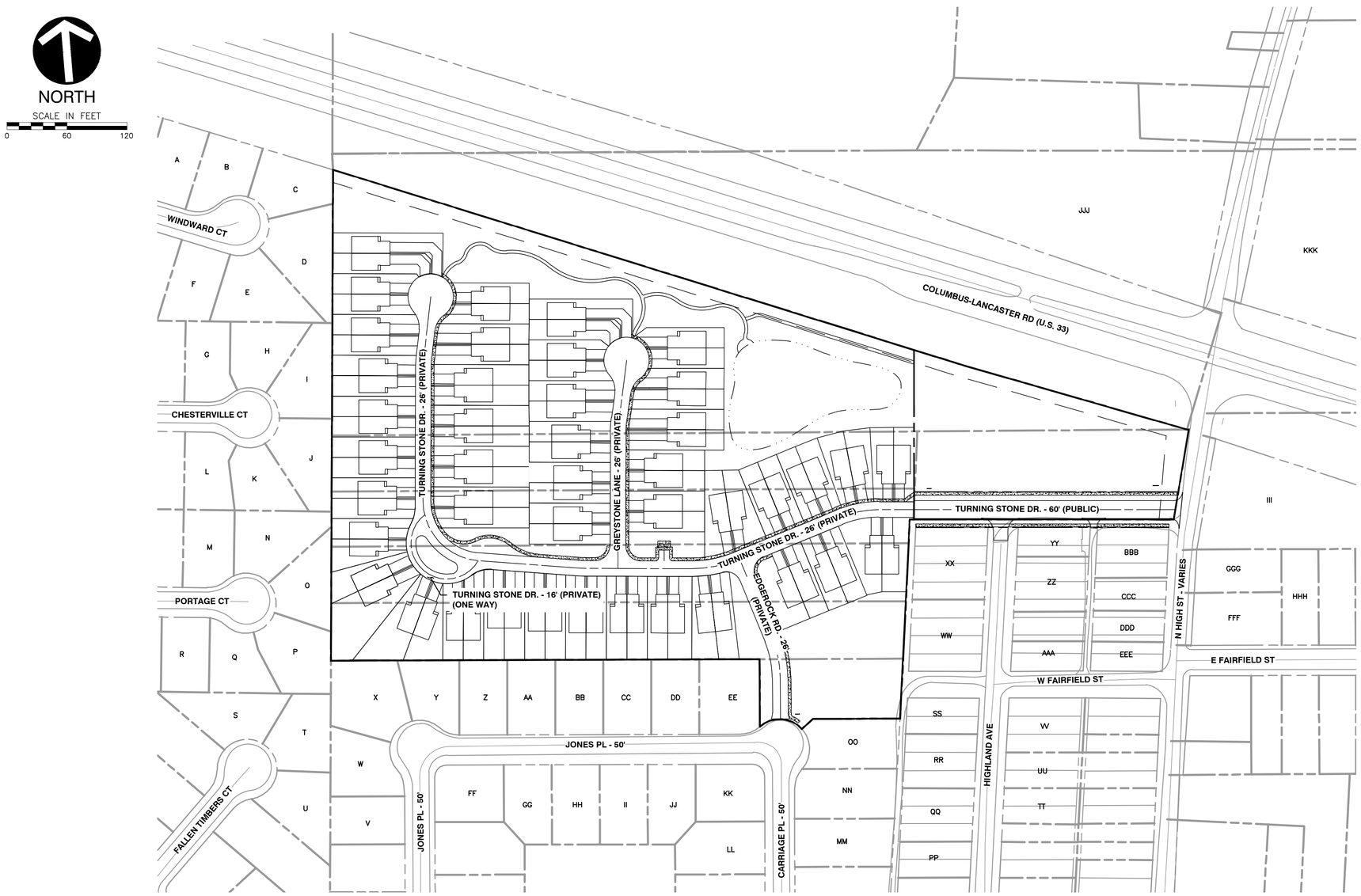
TREE SURVEY

DATE:	JUNE 2017	DRAWN BY:	MDG
DWG SCALE:	N/A	CHECKED BY:	CLL
PROJECT NO:	171-424		
APPROVED BY:			

DRAWING NO.: C702

SHEET 5 OF 7

P:\2017\171-424\-CADD\Dwg\CV01 - Preliminary Plan\171424 - CV01 - Preliminary Plan5.dwg[C702] LS:(6/23/2017 - Abunkhorst) - LP: 6/23/2017 7:38 AM



A VIVIAN K FAELCHLE
225 WINWARD CT
CANAL WINCHESTER, OH 43110

B ALICIA M KING
215 WINWARD CT
CANAL WINCHESTER, OH 43110

C STEVE FERGUSON
205 WINDWARD CT
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D DIANA MINNEAR
200 WINDWARD CT
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G C DAVID DOWNARD
225 CHESTERVILLE CT
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H PATRICIA M MCKEE
215 CHESTERVILLE CT
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I JILL DUNLEVY
200 CHESTERVILLE CT
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J ALLEN & VICTORIA YOHO
204 CHESTERVILLE CT
CANAL WINCHESTER, OH 43110

K JONATHAN FURNESS
210 CHESTERVILLE CT
CANAL WINCHESTER, OH 43110

L JANE MARIE HAYES
220 CHESTERVILL CT
CANAL WINCHESTER, OH 43110

M CHRISTOPHER J REHER
225 PORTAGE CT
CANAL WINCHESTER, OH 43110

N ROGER & BLANCHE HAYES
215 PORTAGE CT
CANAL WINCHESTER, OH 43110

O ROBERT & LORETTA KING
200 PORTAGE CT
CANAL WINCHESTER, OH 43110

P AUDRA & JAMES ANDERSON
204 PORTAGE CT
CANAL WINCHESTER, OH 43110

Q MICHAEL P BETTS
212 PORTAGE CT
CANAL WINCHESTER, OH 43110

R NANCY GILLILAN
220 PORTAGE CT
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S DELRENE B SILER
203 FALLEN TIMBERS CT
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T SHERRI E MCANAUL
200 FALLEN TIMBERS CT
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U ANDREW W HUNYADY
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W SALINA TR FRUTH
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X KIRK & LORI HENDERSON
240 JONES PL
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Y RICHARD STONE
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Z JOSEPH VANARTSDALEN
265 JONES PL
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AA LINDA COTTRELL
275 JONES PL
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BB WENDY INNOCENTI
281 JONES PL
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CC ANUCHA & JUNTANA SAELIM
289 JONES PL
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DD TY SMITH
293 JONES PL
CANAL WINCHESTER, OH 43110

EE HARRY & JACQUELINE HANNA
299 JONES PL
CANAL WINCHESTER, OH 43110

FF MATTHEW C SYCKS
250 JONES PL N
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GG EVELYN M MULLINS
260 JONES PL N
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HH MITCHELL P CARPENTER
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II WILLIAM BATES
280 JONES PLACE
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290 N JONES PL
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XX RAYMOND & VIVIAN ANDERSON
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YY PATRICK & MARIE HANRAHAN
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AAA TRENT D HOWARD
11352 CEDAR CREEK DR
CANAL WINCHESTER, OH 43110

BBB PATRICK & MARIE HANRAHAN
253 HIGHLAND AVE
CANAL WINCHESTER, OH 43110

CCC CAROLE J TOD GRAENING
260 N HIGH ST
CANAL WINCHESTER, OH 43110

DDD SUELLEN GOLDSBERRY
254 N HIGH ST
CANAL WINCHESTER, OH 43110

EEE BRAD A SPURLOCK
248 N HIGH ST
CANAL WINCHESTER, OH 43110

FFF WILLIAM J BURTON
8 E FAIRFIELD ST
CANAL WINCHESTER, OH 43110

GGG JEFFREY RAYMOND
8085 BAKER RD
STOUTSVILLE, OH 43154

HHH INSPIRIT LTD
PO BOX 76
LITHOPOLIS, OH 43136

III NEEK LTD
4700 N HIGH ST
COLUMBUS, OH 43214

JJJ SPEEDWAY SUPERAMERICA LLC
267 HIGH ST
CANAL WINCHESTER, OH 43110

KKK F&R L P
6270 BOWEN RD
CANAL WINCHESTER, OH 43110

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

ADJOINING PROPERTY OWNER'S INFORMATION

DATE:	JUNE 2017
DRAWN BY:	MDG
DWG SCALE:	1"=60'
CHECKED BY:	CLL
PROJECT NO:	171-424
APPROVED BY:	

DRAWING NO.: C800

SHEET 6 OF 7

P:\2017\171-424\-CADD\Dwg\CV01 - Preliminary Plan\171424 - CV01 - Preliminary Plan(S.dwg(C800) LS:(6/23/2017 - bburkhart) - LP: 6/23/2017 7:36 AM

NORTH

SCALE IN FEET

0 60 120

WINDWARD CT

CHESTERVILLE CT

PORTAGE CT

FALLEN TIMBERS CT

CrB

Ut

CeB

COLUMBUS-LANCASTER RD (U.S. 33)

TURNING STONE DR. - 26' (PRIVATE)

GREYSTONE LANE - 26' (PRIVATE)

Ko

TURNING STONE DR. - 60' (PUBLIC)

TURNING STONE DR. - 26' (PRIVATE)

EDGEROCK RD. - 26' (PRIVATE)

TURNING STONE DR. - 16' (PRIVATE) (ONE WAY)

CsB

CfB

N HIGH ST - VARIES

E FAIRFIELD ST

W FAIRFIELD ST

HIGHLAND AVE

JONES PL - 50'

CARRIAGE PL - 50'

SOILS

CeB – CELINA SILT LOAM, 2% TO 6% SLOPES
CfB – CELINA–URBAN LAND COMPLEX, 2% TO 6% SLOPES
CrA – CROSBY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 0% TO 2% SLOPES
CrB – CROSBY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 2% TO 6% SLOPES
CsB – CROSBY–URBAN LAND COMPLEX, 2% TO 6% SLOPES
Ko – KOKOMO SILTY CLAY LOAM, 0% TO 2% SLOPES
Us – UDORTHENTS, LOAMY, STEEP
Ut – UDORTHENTS–URBAN LAND COMPLEX, GENTLY ROLLING
Wt – WESTLAND SILTY CLAY LOAM, SOUTHERN OHIO TILL PLAIN, 0% TO 2% SLOPES

SOIL TYPE, BOUNDARY, AND CHARACTERISTICS ARE BASED ON THE AVAILABLE INFORMATION PROVIDED IN THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

SOILS PLAN

DATE: JUNE 2017	DRAWN BY: MDG
DWG SCALE: 1"=60'	CHECKED BY: CLL
PROJECT NO.: 171-424	
APPROVED BY:	

DRAWING NO.: C900

SHEET 7 OF 7

F:\2017\171-424\-CADD\Dwg\C901 – Preliminary Plan\171424 – C901 – Preliminary Plan(Soils).dwg[C900] LS:(6/23/2017 – bburkhart) – LP: 6/23/2017 7:37 AM

Turning Stone - Preliminary Plant List

Typical Large Deciduous Shade Trees (On Lot Trees and Buffer Trees)

Common Name	Botanical Name	Size
Sugar Maple	*Acer saccharum*	8' height / 2" caliper
Maidenhair/ Ginkgo	*Ginkgo biloba*	8' height / 2" caliper
White Oak	*Quercus alba*	8' height / 2" caliper
Bur Oak	*Quercus macrocarpa*	8' height / 2" caliper
Silver Linden	*Tilia tomentosa*	8' height / 2" caliper
American Elm	Ulmus americana	8' height / 2" caliper
Northern Catalpa	*Catalpa speciosa*	8' height / 2" caliper

Typical Medium Deciduous Shade Tree (Buffer Trees)

Common Name	Botanical Name	Size
Red Horsechestnut	*Aesculus x carnea*	8' height / 2" caliper
American Hornbeam	*Carpinus caroliniana*	8' height / 2" caliper
Sargent Cherry	*Prunus sargentii*	8' height / 2" caliper

Typical Small Deciduous/ Ornamental Tree (Front Yard and Buffer Trees)

Common Name	Botanical Name	Size
Paperbark Maple	*Acer griseum*	6' height
Serviceberry	*Amelanchier sp.*	6' height
Eastern Redbud	*Cercis canadensis*	6' height
Cornelliancherry Dogwood	*Cornus mas*	6' height
Japanese Tree Lilac	*Syringa reticulata*	6' height
Blackhaw Viburnum	Viburnum prunifolium	6' height

Typical Large and Medium Evergreen Trees (Buffer Trees)

Common Name	Botanical Name	Size
White Pine	*Pinus strobus*	8' height / 2" caliper
Norway Spruce	*Picea abies*	8' height / 2" caliper
Colorado Blue Spruce	*Picea pungens*	8' height / 2" caliper
Canadian Hemlock	*Tsuga canadensis*	8' height / 2" caliper

***NOTES:** *Final species and quantities will be determined at the time of final landscape plan approval, and will be based on nursery availability and seasonal planting requirements.*

Turning Stone - Landscape Requirement Summary

Number of Trees to be Removed	242 trees
Number of Trees to be Replaced	218 trees
Number of Trees Not To Be Replaced (Dying, Diseased & Poor Condition)	24 trees
Trees in Buffer	
Large/Medium Deciduous Trees in Buffers	42 trees
Large/Medium Evergreen Trees in Buffers	48 trees
Small Deciduous Trees in Buffers	43 trees
Trees on Lot	
Large/Medium Deciduous Trees on Lot	43 trees
Small Deciduous/ Ornamental Trees on Lot	42 trees
	218 Total Tree

Turning Stone - Landscape Key

- **Large/Medium Deciduous Tree**
- **Large/Medium Evergreen Tree**
- **Small Deciduous**
- **Ornamental Tree**

Grand Communities, Ltd.

Turning Stone

City of Canal-Winchester, Franklin County, Ohio

Conceptual Landscape Plan

0' 75' 150

Appendix C- Traffic Study

Turning Stone
Traffic Study

Prepared For:

Wilcox Communities

Prepared By:

1900 Crown Park Court, Suite E
Columbus, OH 43235
(614) 914-5543

May 2017

SSI Project #: 693301

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Turning Stone
Traffic Study

Prepared For:

Wilcox Communities
250 W. Old Wilson Bridge Rd., Suite 140
Worthington, OH 43085

Telephone: (614) 340-1050

Prepared By:

Smart Services, Inc.
1900 Crown Park Court, Suite E
Columbus, OH 43235

Telephone: (614) 914-5543
e-mail: tstanhope@smartservices-inc.com

Under the direction of:

Registered Engineer No. E-64507, Ohio

05-03-2017
Date

STATE OF OHIO
TODD J. STANHOPE
E-64507
REGISTERED PROFESSIONAL ENGINEER

May 2017

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Traffic Counts
Referenced Exhibits
Turn Lane Warrant Graphs
Capacity Analysis Reports
Storage Length Calculations

BACKGROUND

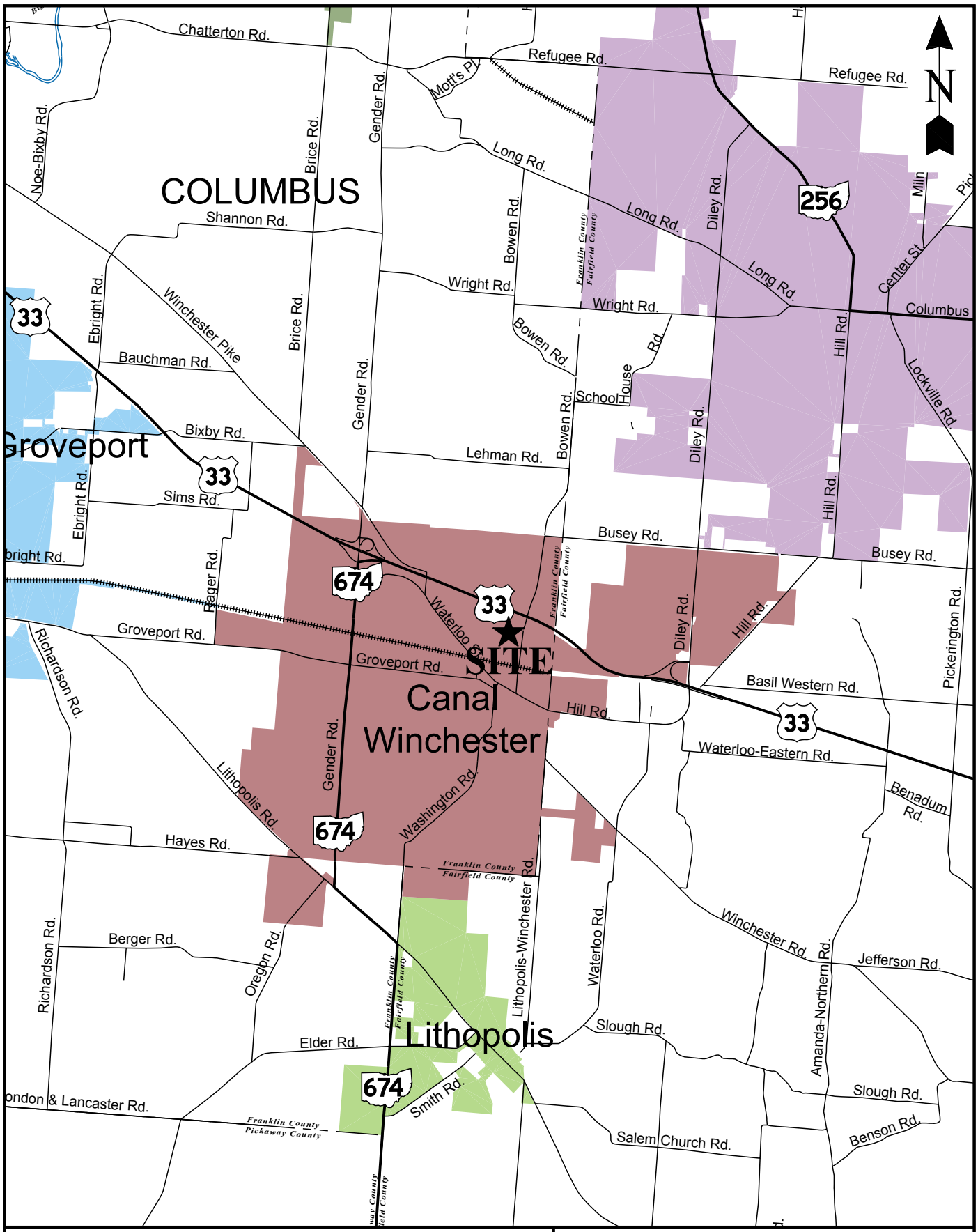
Wilcox Communities is proposing to develop a site with 88 single family homes and 1.75 acres of commercial land use. The site is located in the southwest quadrant of the US 33 & High Street intersection in the City of Canal Winchester. Figure 1 shows the location of the site. There is a full access proposed on High Street. There is also an access to Carriage Place to the south. Figure 2 shows a site layout. The traffic study is focused on the High Street intersection so for purposes of the study, all traffic was assumed to utilize the High Street access. The City of Canal Winchester is the permitting agency for the access and they are requiring a traffic study for the site.

Based on an initial conversation with the City of Canal Winchester, a memo of understanding (MOU) dated January 25, 2017 was produced and submitted to the City. The MOU is in the Appendix.

EXISTING CONDITIONS

The intersection of US 33 & High Street/Bowen Road is restricted to Right-In/Right-Out movements as there is a median between the eastbound and westbound lanes of US 33. The intersection is controlled by "Stop" signs on the High Street and Bowen Road approaches. Since there is no direct interaction between the site and US 33 WB & Bowen Road, the volumes on those legs are unrelated to the study. High Street is two lanes at the site access and has a speed limit of 25 MPH.

As part of the project, peak hour (7-9 AM & 4-6 PM) turning movement counts were taken at the intersection of US 33 EB & High Street. The count reports are in the Appendix. The basis of the AM Peak volumes in the study was 7:15-8:15 AM. The basis of the PM Peak volumes was 4:30-5:30 PM.

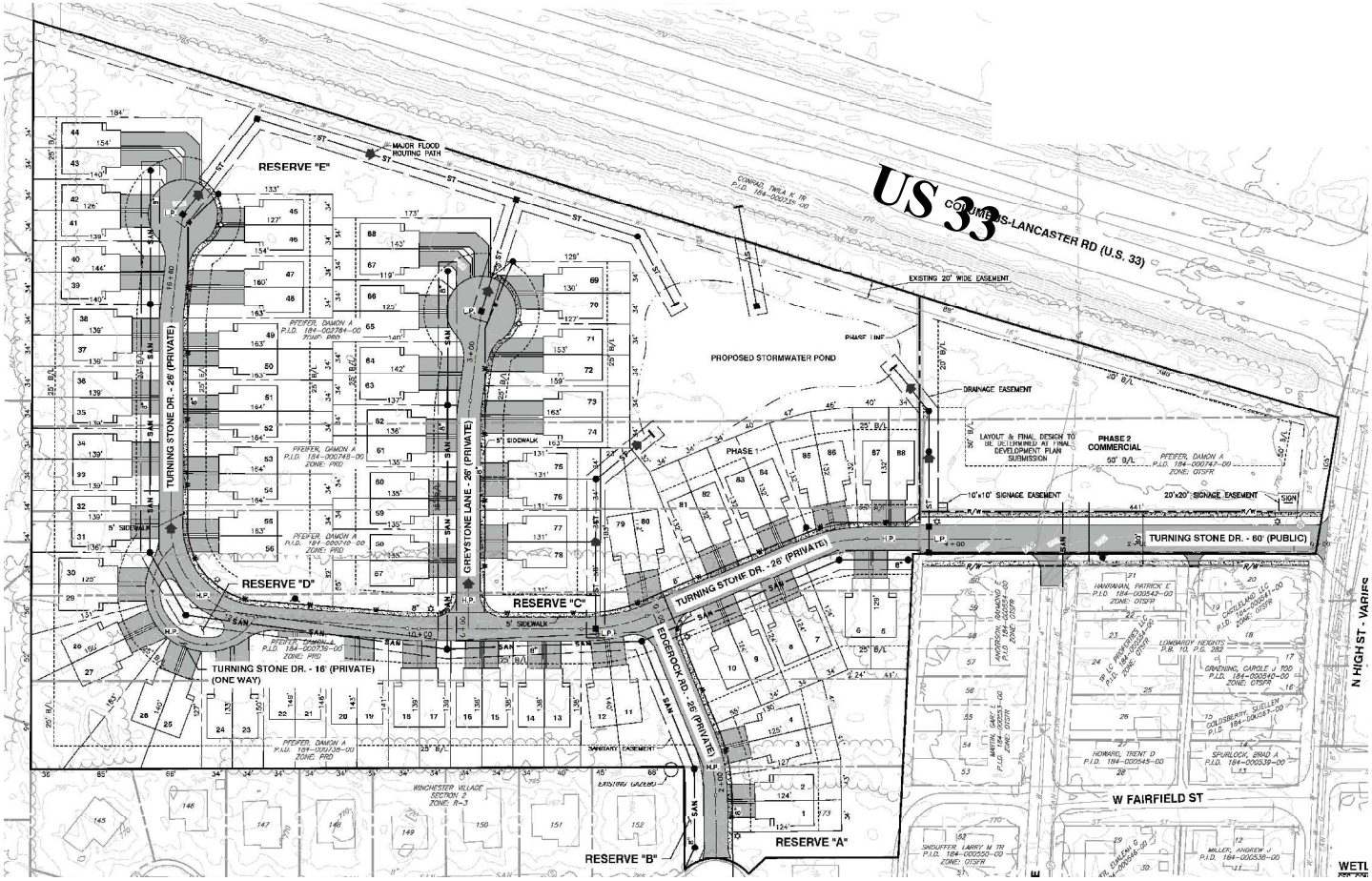


TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC.

FIGURE 1

SITE LOCATION



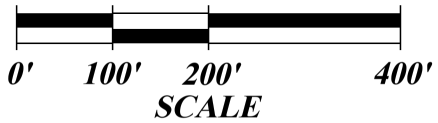


FIGURE 2

SITE LAYOUT

TURNING STONE TRAFFIC STUDY

5/2017

PREPARED BY:

SMART SERVICES, INC.

PROJECTED SITE TRAFFIC

Trip Generation

The accepted method for computing trip generation in the traffic engineering profession is utilizing the *Trip Generation Manual, 9th Edition* published by the Institute of Transportation Engineers (ITE). This manual provides trip rates for different land uses based on data from sample sites in each category. To represent the single-family homes, the land use "Single-Family Detached Housing" (ITE Code #210) was used. To represent the commercial development, the land use "Shopping Center" (ITE Code #820) was used.

Trip Distribution

The distribution for the single family homes was based on the traffic entering the freeway at the adjacent interchanges which is as follows:

Single-Family Entering

- From the west on US 33 – 74%
- From the south on High Street – 26%
    - From the east on US 33 – 21%
    - From the south on High Street – 5%

Single-Family Exiting

- To the east on US 33 – 21%
- To the south on High Street – 79%
    - To the west on US 33 – 74%
    - To the south on High Street – 5%

The distribution for the proposed commercial was assumed to be equally split from each direction which results as follows:

Commercial Entering

- From the west on US 33 – 33%
- From the south on High Street – 67%
    - From the east on US 33 – 33%
    - From the south on High Street – 34%

Commercial Exiting

- To the east on US 33 – 33%
- To the south on High Street – 67%
    - To the west on US 33 – 33%
    - To the south on High Street – 34%

Pass-by trips were also considered in the analysis. Pass-by trips are trips to commercial developments that are already on the adjacent street. For example, someone may stop at a store on the way home from work. This reduces the impact of traffic on the adjacent street. It also changes the distribution of traffic since traffic enters the site from one direction and continues in the same direction after leaving the site. The traffic volume entering and exiting the site is not changed. The percentage of pass-by trips are found in the *Trip Generation Handbook-An ITE Recommended Practice*, *3rd Edition* published by ITE. Table 1 also shows the pass-by percentage. The pass-by traffic was assumed to all come from US 33 EB.

Traffic Study Subarea	Land Use	Time of Day	Data Set from: *Trip Generation Manual, 9th Edition* (Unless noted Otherwise)	Overide with Average	Regression Equation from: *Trip Generation Manual 9th Edition*	Pass-By % From *Trip Generation Handbook 3rd Edition* unless noted otherwise	Total Trips	Entering				Exiting			
								%	Total Trips	Pass-By Trips	Primary Trips	%	Total Trips	Pass-By Trips	Primary Trips
1	Single-Family Detached Housing (ITE Code #210)	Daily	Weekday	☐	ln(T)=0.92ln(X)+2.72	NA	934	50%	467	0	467	50%	467	0	467
		AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	☐	T=0.70(X)+9.74	NA NA	71	25%	18	0	18	75%	53	0	53
	Ind. Variable (X) = 88 Dwelling Units	PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	☐	ln(T)=0.90ln(X)+0.51	NA NA	94	63%	59	0	59	37%	35	0	35
				☐											
2	Shopping Center (ITE Code #820)	Daily	Weekday	☐	ln(T)=0.65ln(X)+5.83	NA	2187	50%	1094	0	1094	50%	1093	0	1093
		AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	☐	ln(T)=0.61ln(X)+2.24	No Data	54	62%	33	0	33	38%	21	0	21
	Ind. Variable (X) = 17.5 1000 SF Gross Leasable Area	PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	☐	ln(T)=0.67ln(X)+3.31	34.0%	186	48%	89	30	59	52%	97	33	64
				☐											
TOTALS				☐											
		Daily					**3121**		**1561**	**0**	**1561**		**1560**	**0**	**1560**
		AM Peak					**125**		**51**	**0**	**51**		**74**	**0**	**74**
		PM Peak					**280**		**148**	**30**	**118**		**132**	**33**	**99**

Turning Stone Traffic Study - 5/2017

TABLE 1 - SITE TRIP GENERATION SUMMARY

SMART SERVICES, INC.

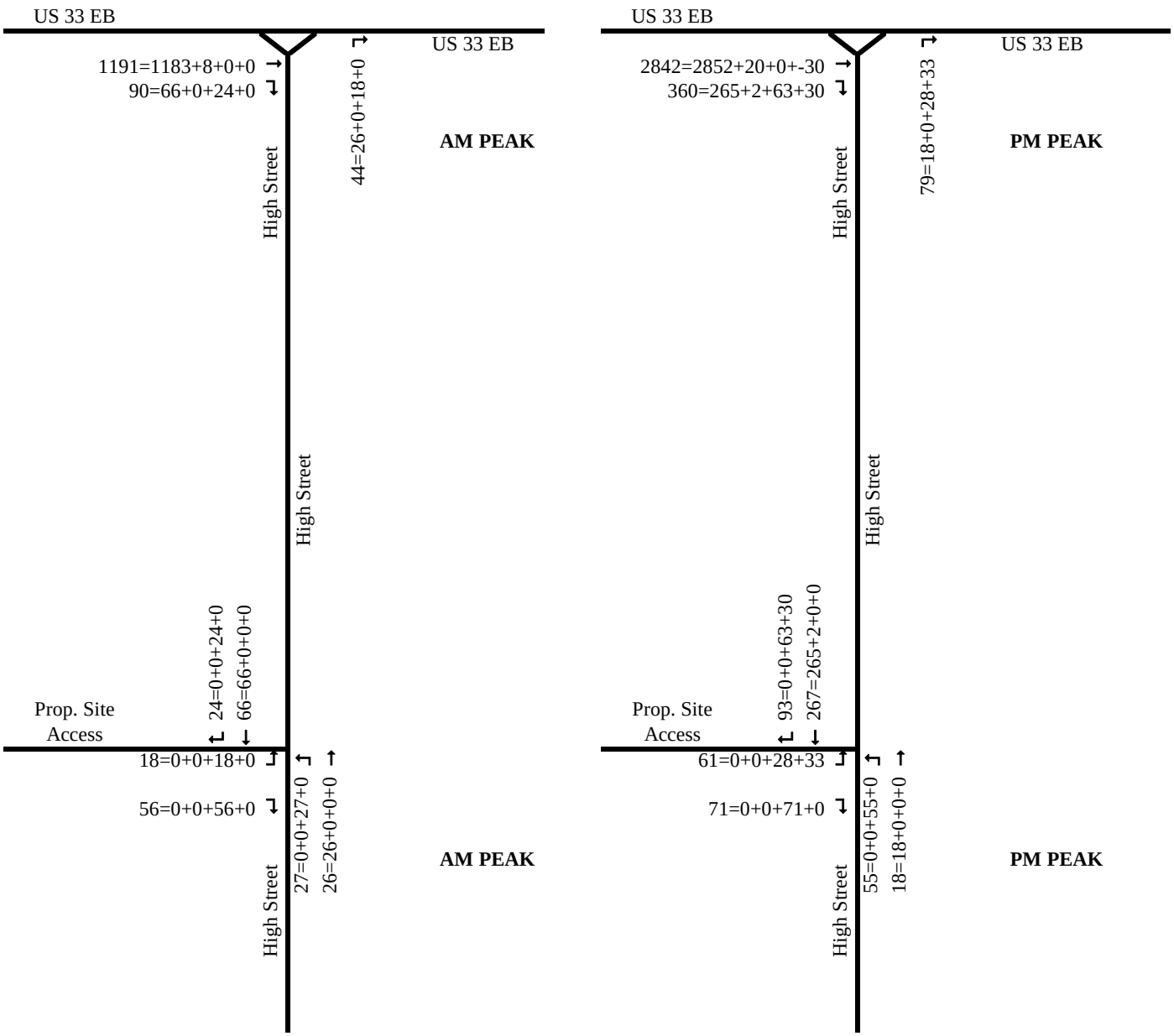
2018 AND 2038 TRAFFIC

Per the MOU, a 20-year design horizon is required. Opening Day is assumed to be in 2018 therefore the design year will be 2038. The Mid-Ohio Regional Planning Commission (MORPC) provided linear annual growth rates for use in the study. The correspondence from MORPC is in the Appendix. Table 2 shows the growth factors applied to the 2017 counts.

Segment	Linear Annual Growth Rate	2017 to 2018 Factor	2017 to 2038 Factor
US 33 EB w/o High St	0.70%	1.007	1.147
High St w/o US 33 EB	0.60%	1.006	1.126

TABLE 2 – Growth Factor Summary

Figure 3 shows the components of the 2018 'Build' traffic. Figure 4 shows the components of the 2038 'Build' traffic. To assist with review, exhibits showing the 2018 and 2038 'No Build' traffic are in the Appendix.



LEGEND

A=B+C+D+E

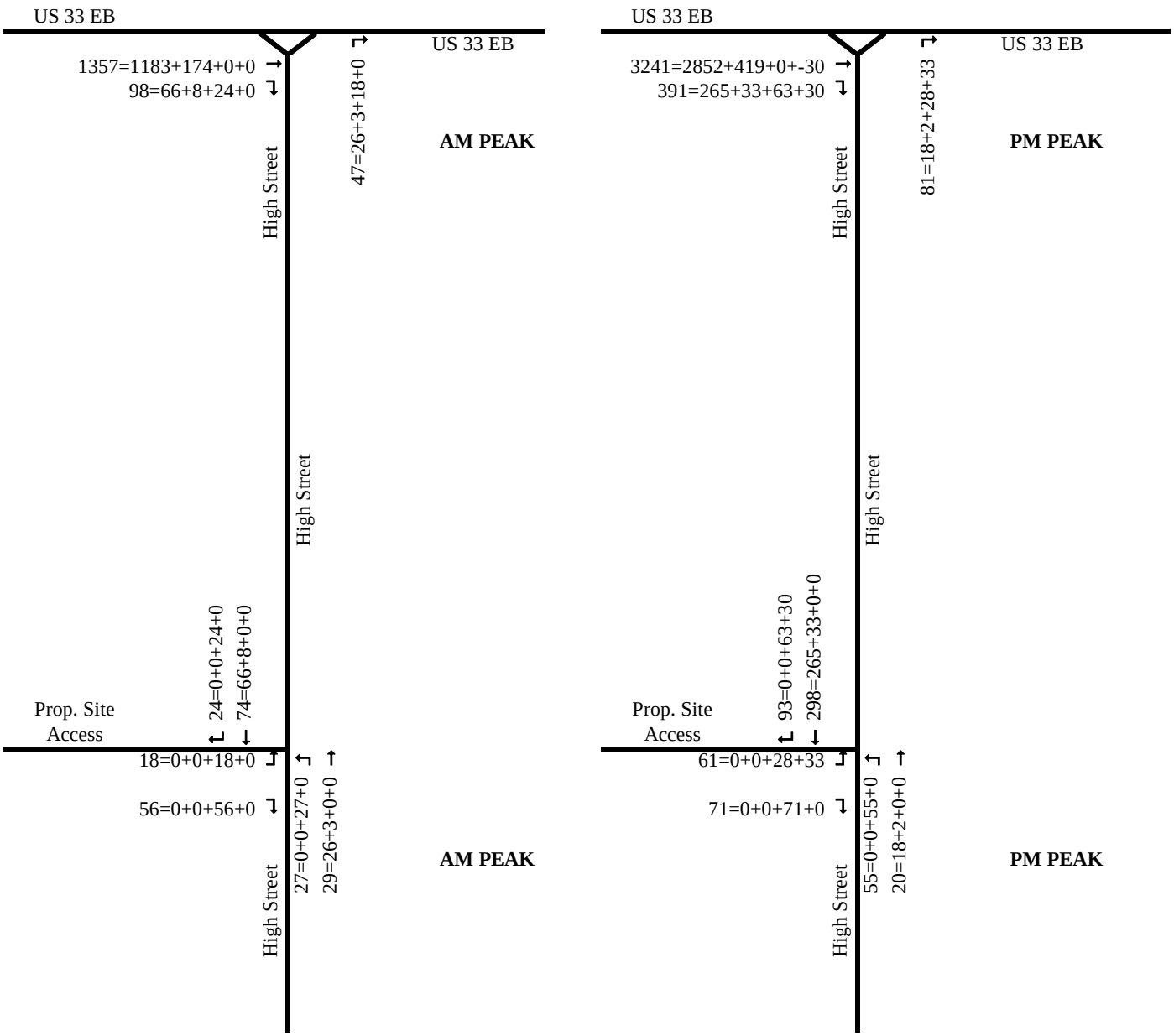
A = 2018 'BUILD'
B = EXISTING (2017)
C = GROWTH
D = SITE PRIMARY
E = SITE PASS-BY

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

FIGURE 3

2018 'BUILD'



LEGEND

A=B+C+D+E

A = 2038 'BUILD'
B = EXISTING (2017)
C = GROWTH
D = SITE PRIMARY
E = SITE PASS-BY

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

FIGURE 4

2038 'BUILD'

TRAFFIC ANALYSES

Turn Lane Warrant Analyses

The procedure for determining whether turn lanes are warranted is according to the *State Highway Access Management Manual (AMM).* Left and right turn lane warrant analyses were performed on High Street & the Prop. Site Access. It is noted that because of the low northbound through volumes, the percentage of left turns falls into the outlying area of the left turn warrant chart. Per engineering judgement, the left turn lane warrant would not be met. Table 3 shows a summary of the results of the turn lane warrant analyses. The graphs from the *AMM* are in the Appendix.

Intersection	Direction	Peak Hour	2018 'Build'	2038 'Build'
High Street & the Prop. Site Access	SB RT	AM Peak	Warrant Not Met	Warrant Not Met
		PM Peak	Warrant Not Met	Warrant Not Met
	NB LT	AM Peak	Warrant Not Met	Warrant Not Met
		PM Peak	Warrant Not Met	Warrant Not Met

TABLE 3 – Summary of Turn Lane Warrant Analyses

Unsignalized Capacity Analyses

Per the MOU, unsignalized capacity analyses were performed at the intersection of High Street & the Prop. Site Access. In the analyses, delays are computed which correspond to a Level of Service (LOS) "A" through "F". Typically, Level of Service (LOS) "D" or above is considered an acceptable LOS. For a Two-Way Stop condition, the unsignalized capacity analysis gives LOS results for vehicles that must wait for gaps to make their maneuver. In this case, it would be only the minor street right turn movement. All other movements are free flowing so they don't encounter delay. Since driver expectations are different for various types of traffic control, there are different LOS criteria for unsignalized intersections versus signalized intersections. The LOS criteria for two-way stop control are shown in Table 4.

Level of Service	Delay Range (seconds/vehicle)
A	< 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: *Highway Capacity Manual 2010*

TABLE 4 - Level of Service Criteria for Unsignalized Intersections

The following comprises the background of the analysis:

- *HCS 2010 V6.9* was used to perform the analysis.
- A Peak Hour Factor (PHF) of 0.92 was applied to all movements.
- The existing lane arrangement was used in the analysis.
- A 3% heavy vehicle percentage was assumed for all movements.

The results are shown in Table 5. In the PM Peak, the Level of Service operates below LOS D for all cases. This is an expected result for the intersection of a high volume road with a low volume road that is not signalized. There is not a solution for this condition since traffic control will not be changed. There is an alternative to get to route US 33 EB and that is utilizing the US 33 & Hill-Diley interchange. If a motorist perceives the delay is too high to wait, they can adjust their route. The *HCS 2010* reports are in the Appendix.

Storage Length Analysis

Turn lane length analysis was performed for the northbound right turn movement at US 33 EB (there were no warranted turn lanes in this segment) to check the storage between US 33 & the proposed site access. The calculation was performed per Section 400 of the *ODOT L&D Manual*. The design speed was assumed to be 25 MPH which is the existing speed limit. The result showed that the existing lane would have vehicles stored to 100 feet. The storage length calculations are in the Appendix.

Intersection	Time	Year	Delay (Level of Service)			
			Main Street		Minor Street	
			Eastbound Left	Westbound Left	Northbound All	Southbound All
2661-High Street & US 33 EB	AM Peak	2018 'No Build' Traffic			14.4 (B)	
		2018 'Build' Traffic			14.9 (B)	
		2038 'No Build' Traffic			16.0 (C)	
		2038 'Build' Traffic			16.7 (C)	
	PM Peak	2018 'No Build' Traffic			49.8 (E)	
		2018 'Build' Traffic			124.2 (F)	
		2038 'No Build' Traffic			77.2 (F)	
		2038 'Build' Traffic			272.9 (F)	

Turning Stone Traffic Study - 5/2017

TABLE 6 - Unsignalized Capacity Summary - (2-Way-Stop, East-West Major Street)

CONCLUSIONS

2018 and 2038 'No Build' and 'Build' volumes were developed for use in turn lane warrant analyses, unsignalized capacity analyses, and storage length analyses. The following is a summary of the conclusions for each analysis condition.

2018 & 2038 'No Build'

- US 33 EB & High Street
  - The impeded movements will operate below Level of Service (LOS) D. There is not a solution for this condition since traffic control will not be changed. There is an alternative to get to route US 33 EB and that is utilizing the US 33 & Hill-Diley interchange. If a motorist perceives the delay is too high to wait, they have the ability to adjust their route.

2018 & 2038 'Build'

- High Street & Prop. Site Access
  - A southbound right turn lane is not warranted.
  - A northbound left turn lane is not warranted.
  - There is approximately 175 feet of storage between the proposed access on High Street and US 33. Since a southbound right turn lane was not warranted, the only relevant storage consideration is for the northbound right turn movement at US 33. The storage for the northbound right was calculated to be 100 feet which can be stored within this spacing.

- US 33 EB & High Street
  - Same as 'No Build': The impeded movements will operate below Level of Service (LOS) D. There is not a solution for this condition since traffic control will not be changed. There is an alternative to get to route US 33 EB and that is utilizing the US 33 & Hill-Diley interchange. If a motorist perceives the delay is too high to wait, they can adjust their route.

APPENDIX

SMART SERVICES, INC.
Surveying ◆ Environmental ◆ Traffic ◆ CA/CM
An Ohio DBE/EDGE Certified Firm

February 6, 2017

Mr. Lucas Haire
City of Canal Winchester
36 S. High St.
Canal Winchester, OH 43110

Re: US 33 & High Street SW Quadrant Traffic Study
City of Canal Winchester, Franklin County, Ohio

Please consider this letter as a Memo of Understanding (MOU) for a traffic study for the subject development. The site is located in the City of Canal Winchester in the southwest quadrant of the intersection of US 33 & High Street. The site is proposed to be developed with approximately 76 single family lots and 1.75 acres of commercial land use. There is a single access proposed on the west side of High Street south of US 33. The permitting agency for the access is the City of Canal Winchester and they are requiring a traffic study for the site.

The scope of the study is based upon an initial conversation with the City of Canal Winchester on January 25, 2017. The following is Smart Services' understanding of the scope which includes some follow up information:

- The study area is the site access on High Street and the partial intersection of US 33 & High Street.
- The time of analysis will be the weekday AM Peak hour (one hour between 7 and 9 AM) and the PM Peak hour (one hour between 4 and 6 PM).
- A new peak hour (7-9 AM and 4-6 PM) turning movement count will be taken at the intersection of US 33 EB & High Street. (US 33 WB & Bowen Road will not be counted since it has no direct interaction with the site traffic.)
- Trip Generation - Site traffic will be computed using *Trip Generation Manual, 9th Edition* published by ITE.
- Design Year Traffic Development – Canal Winchester requires a 20-year design horizon. Opening Day will be assumed to be 2018. Therefore, the design year is 2038. Smart Services will attempt to obtain annual growth rates from the Mid-Ohio Regional Planning Commission (MORPC). This request cannot be made until after the traffic counts are complete and it typically takes 2-4 weeks for MORPC to provide the growth rates. Therefore, we may have to discuss with the City if assumptions can be used for growth rates in order to meet the mid-February completion schedule.
- Analyses
    - Turn lane warrants will be analyzed at the site access on High Street.
    - The length of any warranted turn lanes will be calculated.
    - Access spacing from a traffic demand perspective will be discussed.
    - An unsignalized capacity analysis will be performed at the US 33 & High Street Intersection.

A report will be produced that includes the data and provides the conclusions as well as the methods and analyses used.

If this MOU is acceptable to you, please indicate your approval in the space provided below. If not, please let us know what items need to be changed. Thank you for your attention to this.

Sincerely,
SMART SERVICES, INC.

Todd J. Stanhope, PE, PTOE
Director of Traffic Engineering

Submitted: One electronic copy (PDF format) via e-mail

cc: M. Peoples – City of Canal Winchester
J. Wilcox – Wilcox Communities

City of Canal Winchester

Approved: _____ Date: _____

Smart Services, Inc.

88 W. Church Street
Newark, OH 43055
(740) 345-4700

File Name : US 33 EB & High Street
Site Code : 380565
Start Date : 1/31/2017
Page No : 1

Groups Printed- Cars - Trucks

	High Street Northbound		US 33 Eastbound			
Start Time	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	6	6	238	21	259	265
07:15 AM	4	4	283	18	301	305
07:30 AM	5	5	337	12	349	354
07:45 AM	11	11	299	24	323	334
Total	26	26	1157	75	1232	1258
08:00 AM	6	6	264	12	276	282
08:15 AM	7	7	252	25	277	284
08:30 AM	8	8	232	17	249	257
08:45 AM	7	7	247	19	266	273
Total	28	28	995	73	1068	1096
04:00 PM	5	5	694	63	757	762
04:15 PM	7	7	732	58	790	797
04:30 PM	9	9	715	69	784	793
04:45 PM	2	2	713	60	773	775
Total	23	23	2854	250	3104	3127
05:00 PM	5	5	687	64	751	756
05:15 PM	2	2	737	72	809	811
05:30 PM	2	2	667	65	732	734
05:45 PM	3	3	620	65	685	688
Total	12	12	2711	266	2977	2989
Grand Total	89	89	7717	664	8381	8470
Apprch %	100		92.1	7.9		
Total %	1.1	1.1	91.1	7.8	98.9	
Cars	86	86	7318	653	7971	8057
% Cars	96.6	96.6	94.8	98.3	95.1	95.1
Trucks	3	3	399	11	410	413
% Trucks	3.4	3.4	5.2	1.7	4.9	4.9

Smart Services, Inc.

88 W. Church Street
Newark, OH 43055
(740) 345-4700

File Name : US 33 EB & High Street
Site Code : 380565
Start Date : 1/31/2017
Page No : 2

	High Street Northbound		US 33 Eastbound			
Start Time	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1						
Peak Hour for Entire Intersection Begins at 07:15 AM						
07:15 AM	4	4	283	18	301	305
07:30 AM	5	5	337	12	349	354
07:45 AM	11	11	299	24	323	334
08:00 AM	6	6	264	12	276	282
Total Volume	26	26	1183	66	1249	1275
% App. Total	100		94.7	5.3		
PHF	.591	.591	.878	.688	.895	.900
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1						
Peak Hour for Entire Intersection Begins at 04:30 PM						
04:30 PM	9	9	715	69	784	793
04:45 PM	2	2	713	60	773	775
05:00 PM	5	5	687	64	751	756
05:15 PM	2	2	737	72	809	811
Total Volume	18	18	2852	265	3117	3135
% App. Total	100		91.5	8.5		
PHF	.500	.500	.967	.920	.963	.966

From: Hwashik Jang
To: Todd Stanhope
Cc: Nick Gill; Dan Blechschmidt; "Lucas Haire"; Jonathan Wilcox; Zhuojun Jiang
Subject: RE: US 33 EB and High Street Growth Rate Request
Date: Friday, February 24, 2017 1:23:57 PM

Todd,

We have completed processing growth rates at the intersection of US33 EB & High St. Please use a linear annual growth rate as summarized in the following table below.

Location	Linear Annual Growth Rate
US 33 EB e/o High St	0.70%
US 33 EB w/o High St	0.70%
High St s/o US 33 EB	0.60%

Note: This is planning level analysis based on MORPC regional travel demand model.

If you have any other questions, please let me know.

Thanks,

Hwashik

Hwashik Jang | hjang@morpc.org | MORPC
Tel 614.233.4145 | Fax 614.233.4245

From: Todd Stanhope [mailto:tstanhope@smartservices-inc.com]
Sent: Tuesday, February 07, 2017 2:56 PM
To: Zhuojun Jiang <zjiang@morpc.org>
Cc: Hwashik Jang <hjang@morpc.org>; Nick Gill <ngill@morpc.org>; Dan Blechschmidt <drblechschmidt@columbus.gov>; 'Lucas Haire' <lhaire@canalwinchesterohio.gov>; Jonathan Wilcox <jonathan@wilcoxcommunities.com>
Subject: US 33 EB and High Street Growth Rate Request

Zhuojun

We are performing a traffic study for a site in the City of Canal Winchester that has proposed access on High Street south of US 33. Please provide a growth rates for US 33 EB and High Street south of US 33. Below is MORPC's requested information about the study.

1. Traffic Data upon which you would be applying these growth rates (preferably 24 hour counts). As part of the project, a peak hour turning movement count was taken at the intersection of US 33 EB and High Street. The count report is attached.

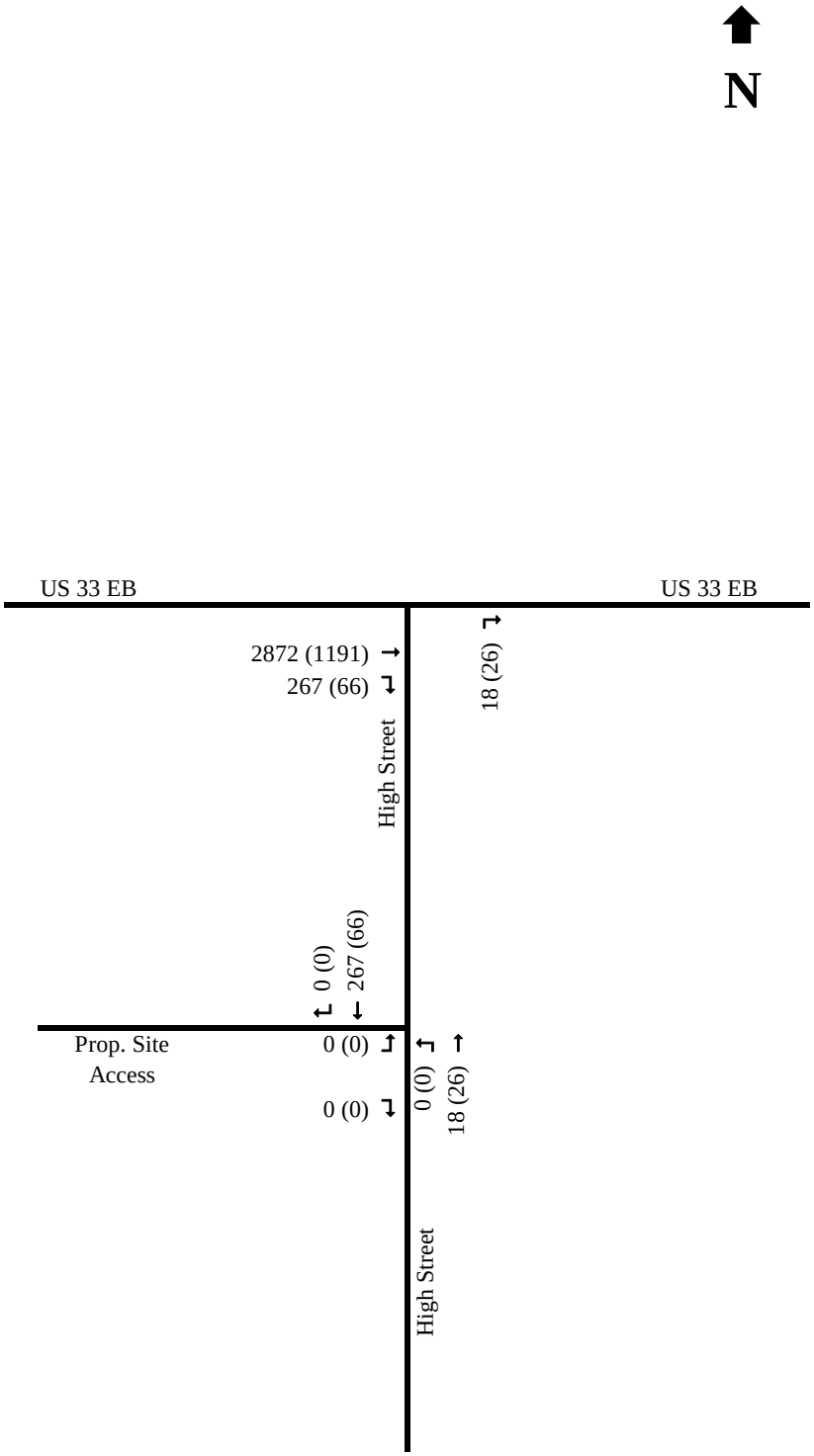
2. Open Year & Design Year, for this study: 2018 and 2038
3. Roadway network assumptions: Any roadway assumptions/changes in the vicinity, such as change in number of lanes or roadway alignments, etc: None anticipated.
4. Land use assumptions: General info on proposed site location & development, such as: site map, Trip Generation (excel file, preferably). The subject site is located in the southwest quadrant of the intersection of US 33 & High Street. Trip generation for the 76 single family units and 1.75 acres of commercial land use will be calculated as part of the study and is not available at this time.
5. Project Review Contact Person: Lucas Haire of the City of Canal Winchester is the contact for the study. His e-mail address is in the cc: line.

Thank you!

Todd J. Stanhope, PE, PTOE
Director of Traffic Engineering

-
***Smart Services, Inc.* (Columbus Office)**
*A **DBE / EDGE** Certified Business*

1900 Crown Park Court, Suite E
Columbus, Ohio 43235
Ph: 614-914-5543
www.SmartServices-Inc.com



LEGEND

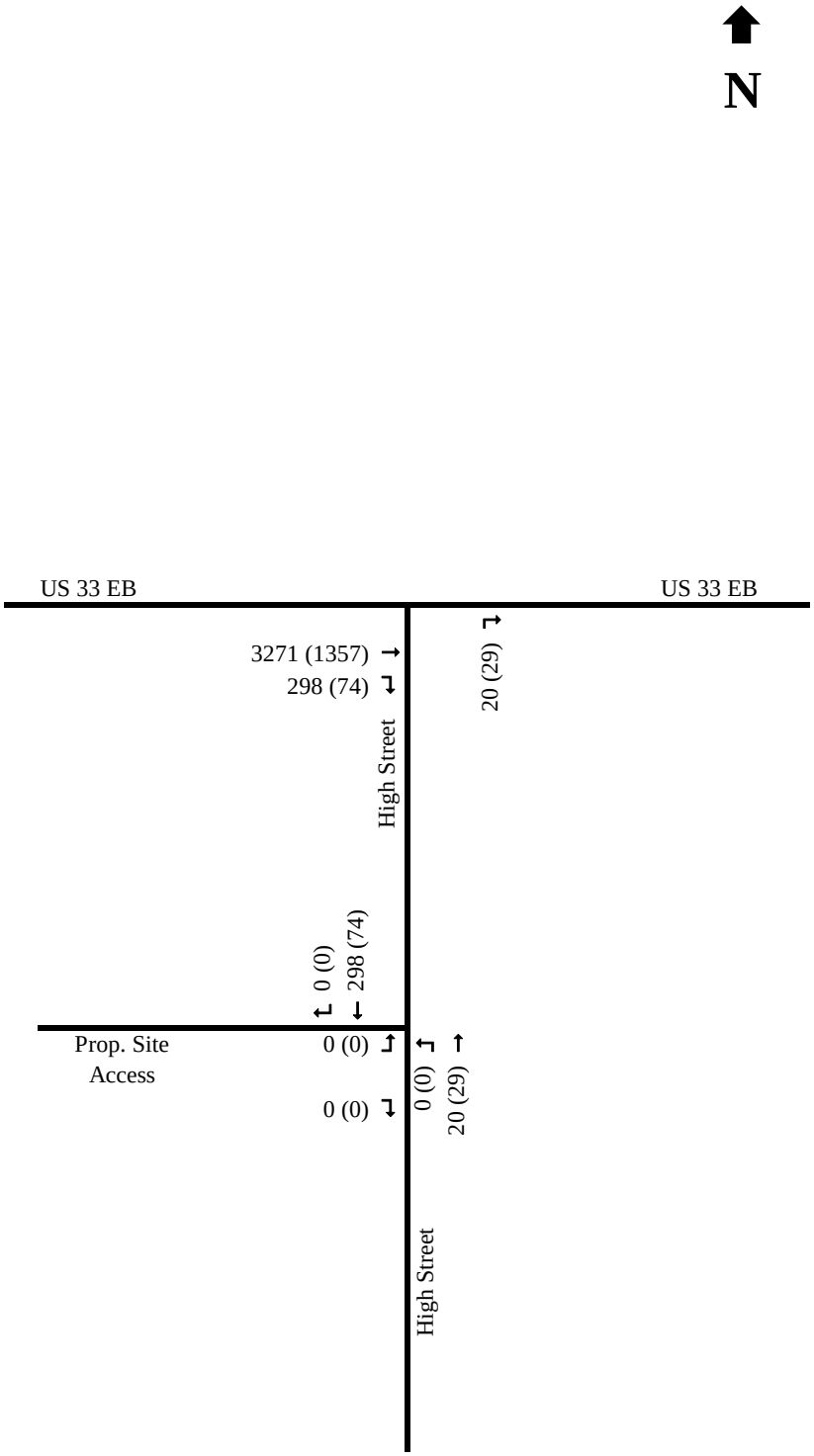
222	-	PM PEAK Hour Turning Movement
(222)	-	AM PEAK Hour Turning Movement

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX FIGURE

2018 'NO BUILD' TRAFFIC



LEGEND

222	-	PM PEAK Hour Turning Movement
(222)	-	AM PEAK Hour Turning Movement

TURNING STONE TRAFFIC STUDY

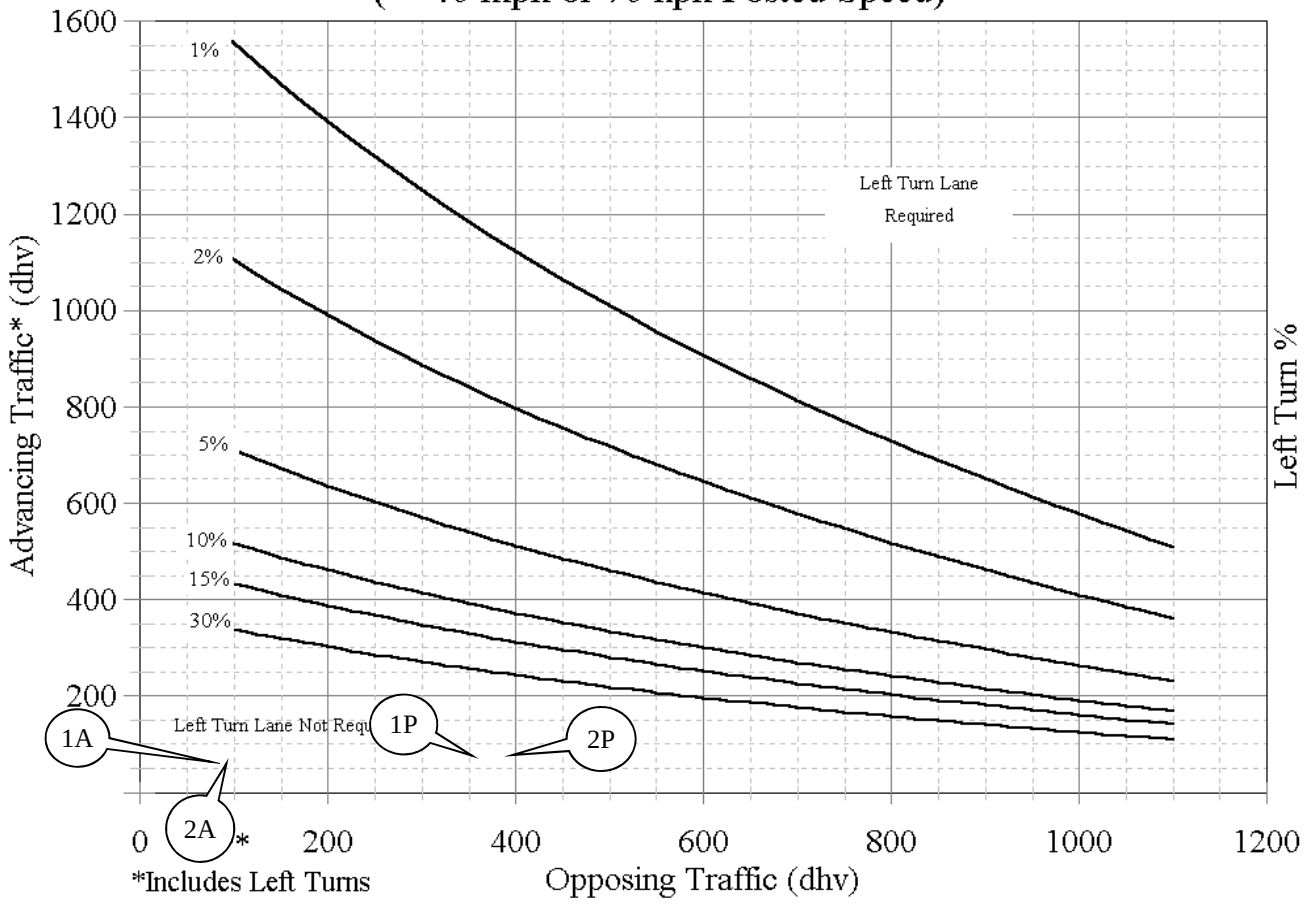
PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX FIGURE

2038 'NO BUILD' TRAFFIC

2-Lane Highway Left Turn Lane Warrant

(=<40 mph or 70 kph Posted Speed)



** There is no minimum number of turns

WARRANT SUMMARY

ID	INTERSECTION [MOVEMENT] - VOLUME SET	AM PEAK (A)	PM PEAK (P)		RESULT
1	High Street & Prop. Site Access [NB LT] - 2018 'BUILD'	(90,53 / 50.9%)	(360,73 / 75.3%)		NOT MET
2	High Street & Prop. Site Access [NB LT] - 2038 'BUILD'	(98,56 / 48.2%)	(391,75 / 73.3%)		NOT MET

Note: Because of the low northbound through volumes, the percentage of left turns falls into the outlying area of the chart. Per engineering judgement, the left turn lane warrant would not be met.

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

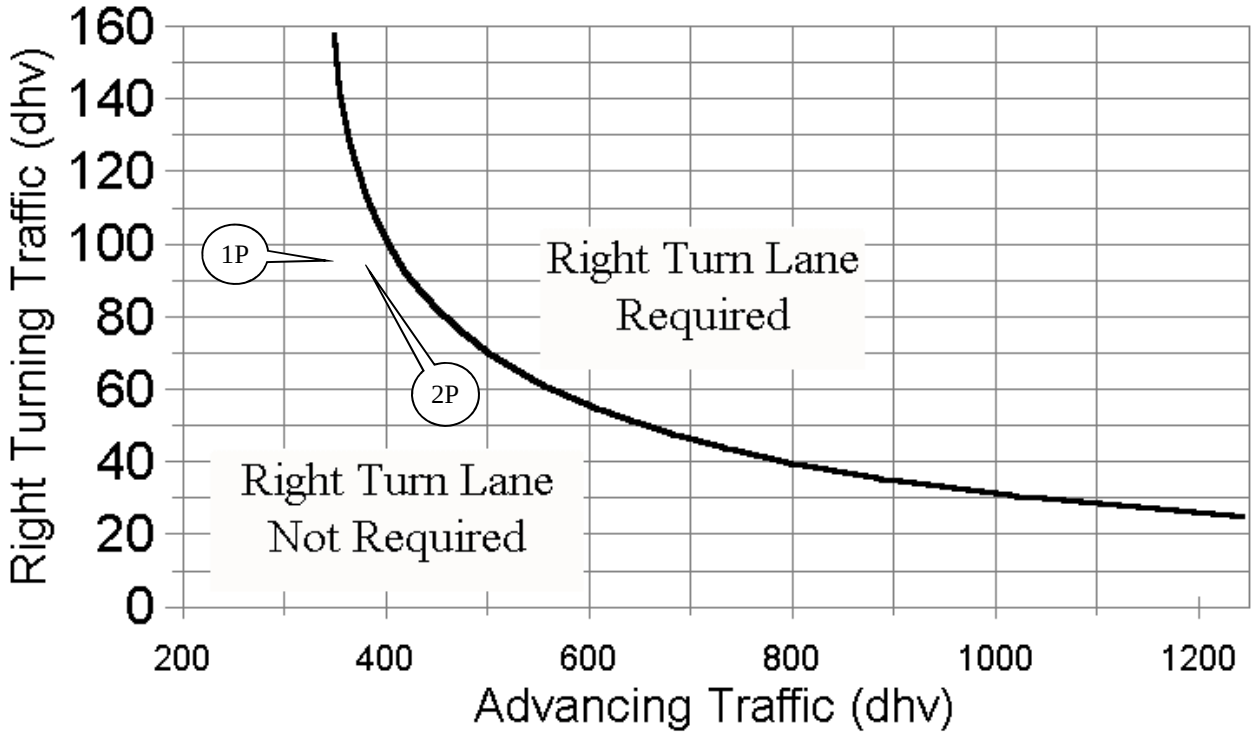
APPENDIX

2 LANE HIGHWAY LEFT TURN LANE WARRANT (=< 40 MPH)

2-Lane Highway Right Turn Lane Warrant

=< 40 mph or 70 kph Posted Speed

Note: Only volumes that are within the chart were plotted. All others are not met.



WARRANT SUMMARY

ID	INTERSECTION [MOVEMENT] - VOLUME SET	AM PEAK (A)	PM PEAK (P)		RESULT
1	High Street & Prop. Site Access [SB RT] - 2018 'BUILD'	(90,24)	(360,93)		NOT MET
2	High Street & Prop. Site Access [SB RT] - 2038 'BUILD'	(98,24)	(391,93)		NOT MET

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX

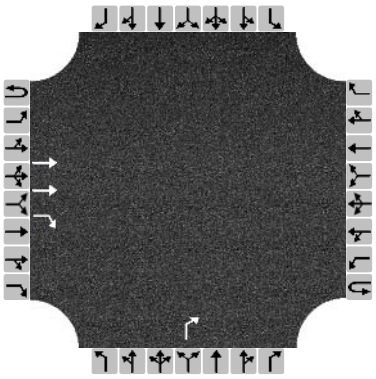
2 LANE HIGHWAY RIGHT TURN LANE WARRANT (=< 40 MPH)

HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 No Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1191	66								26				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												28				
Capacity, c (veh/h)												411				
v/c Ratio												0.07				
95% Queue Length, Q_{95} (veh)												0.2				
Control Delay (s/veh)												14.4				
Level of Service, LOS												B				
Approach Delay (s/veh)									14.4							
Approach LOS									B							

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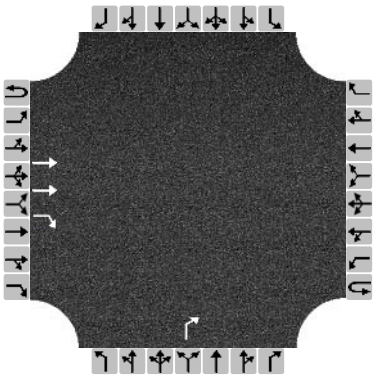
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 No Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			2872	267								18				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												20				
Capacity, c (veh/h)												100				
v/c Ratio												0.20				
95% Queue Length, Q_{95} (veh)												0.7				
Control Delay (s/veh)												49.8				
Level of Service, LOS												E				
Approach Delay (s/veh)									49.8							
Approach LOS									E							

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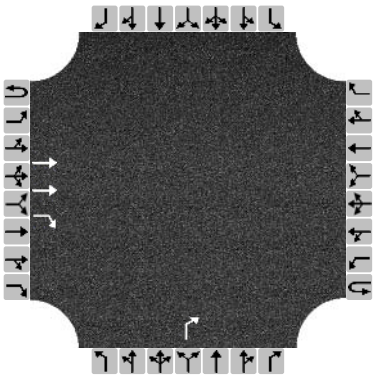
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1191	90								44				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												48				
Capacity, c (veh/h)												411				
v/c Ratio												0.12				
95% Queue Length, Q_{95} (veh)												0.4				
Control Delay (s/veh)												14.9				
Level of Service, LOS												B				
Approach Delay (s/veh)									14.9							
Approach LOS									B							

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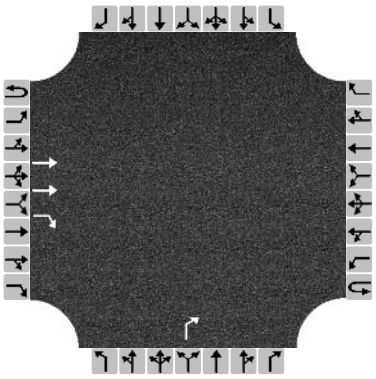
HCS 2010 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			2842	360								79				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												86				
Capacity, c (veh/h)												103				
v/c Ratio												0.84				
95% Queue Length, Q_{95} (veh)												4.7				
Control Delay (s/veh)												124.2				
Level of Service, LOS												F				
Approach Delay (s/veh)									124.2							
Approach LOS									F							

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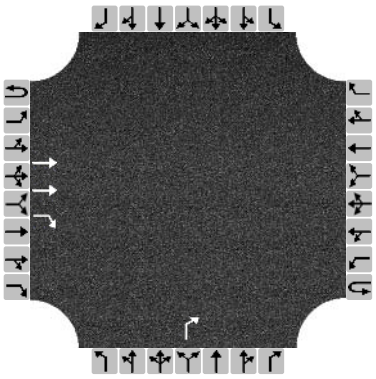
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 No Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1357	74								29				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												32				
Capacity, c (veh/h)												358				
v/c Ratio												0.09				
95% Queue Length, Q_{95} (veh)												0.3				
Control Delay (s/veh)												16.0				
Level of Service, LOS												C				
Approach Delay (s/veh)									16.0							
Approach LOS									C							

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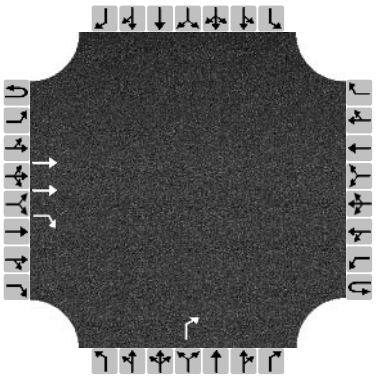
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 No Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			3271	298								20				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												22				
Capacity, c (veh/h)												71				
v/c Ratio												0.31				
95% Queue Length, Q_{95} (veh)												1.1				
Control Delay (s/veh)												77.2				
Level of Service, LOS												F				
Approach Delay (s/veh)									77.2							
Approach LOS									F							

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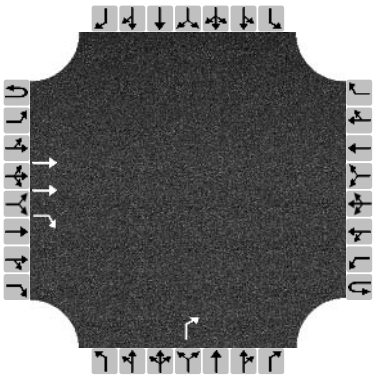
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1357	98								47				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												51				
Capacity, c (veh/h)												358				
v/c Ratio												0.14				
95% Queue Length, Q_{95} (veh)												0.5				
Control Delay (s/veh)												16.7				
Level of Service, LOS												C				
Approach Delay (s/veh)									16.7							
Approach LOS									C							

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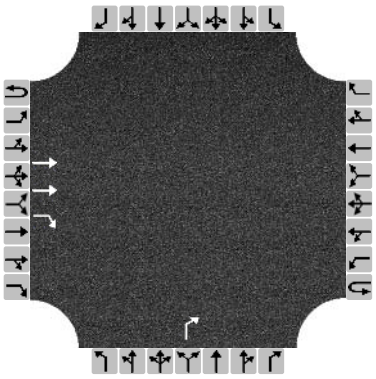
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			3241	391								81				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												88				
Capacity, c (veh/h)												73				
v/c Ratio												1.21				
95% Queue Length, Q_{95} (veh)												6.8				
Control Delay (s/veh)												272.9				
Level of Service, LOS												F				
Approach Delay (s/veh)									272.9							
Approach LOS									F							

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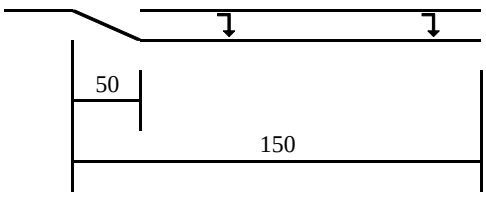
(5) HIGH STREET & US 33 EB - NB RT - 2018 'BUILD'

Critical Analysis Period: PM Peak

Type =	Unsignalized Stopped Crossroad				
Speed =	25	MPH	Storage Length (Adj) =	100	feet
Cycle Length =	60	seconds	Deceleration/Div. Taper =	50	feet
Turning Volume =	79	VPH	Turn Lane Length =	150	feet
# of Turning Lanes =	1				
Advancing Volume =	79	VPH			
Turning % (>10% HIGH) =	100.0%	HIGH			
Design Condition =	A				
Vehicles per Cycle =	1.32				
Storage Length (Calc) =	100	feet			

Calculations based on 401-7E in ODOT L&D Manual. All dimensions are in feet.

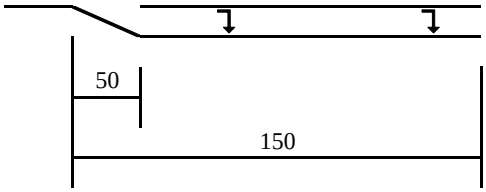


(6) HIGH STREET & US 33 EB - NB RT - 2038 'BUILD'

Critical Analysis Period: PM Peak

Type =	Unsignalized Stopped Crossroad				
Speed =	25	MPH	Storage Length (Adj) =	100	feet
Cycle Length =	60	seconds	Deceleration/Div. Taper =	50	feet
Turning Volume =	81	VPH	Turn Lane Length =	150	feet
# of Turning Lanes =	1				
Advancing Volume =	81	VPH			
Turning % (>10% HIGH) =	100.0%	HIGH			
Design Condition =	A				
Vehicles per Cycle =	1.35				
Storage Length (Calc) =	100	feet			

Calculations based on 401-7E in ODOT L&D Manual. All dimensions are in feet.



Appendix D- Capacity Letter

CANAL WINCHESTER
Established 1828

April 11, 2017

Brian Burkhart
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Rd., Suite 250
Worthington, OH 43085

Dear Mr. Burkhart:

This letter is in reference to the water and sanitary sewer services for the preliminary Turning Stone mixed use development. The City of Canal Winchester owns and operates water and sanitary sewer facilities and feels confident that there is sufficient capacity in the systems to fully serve the proposed development.

Should you have any questions please feel free to contact me at 614-834-5111 or mpeoples@canalwinchesterohio.gov.

Sincerely,

Matthew C. Peoples
Director of Public Service

Appendix E- Evidence of Control

Grand Communities, Ltd.
Mr. Jason M. Wisniewski
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018

April 12, 2017

Re: High & 33 (Turning Stone)

Dear Jason,

I understand that under Chapter 1173.04 (G) of Canal Winchester's Planning and Zoning Code, Grand Communities, Ltd. is required to provide evidence that it has sufficient control over the Pfeifer property consisting of approximately 17.57 +/- acres, more or less, containing seven (7) parcels (184-002764-00, 184-000748-00, 184-000749-00, 184-000739-00, 184-000738-00 184-000747-00, 184-001616-00) in Canal Winchester, Franklin County, Ohio to proceed with Preliminary Plan approvals. Pursuant to the agreements between the owner of the Pfeifer property, Wilcox Investment Group, LLC, and Grand Communities, Ltd., please take this letter as evidence that Grand Communities, Ltd. has sufficient control and can proceed with its application for rezoning, and development plan/text approvals.

Thank you.

Damon A. Pfeifer

Damon A. Pfeifer

4-12-17
Date

Appendix F- Duplex Design Study

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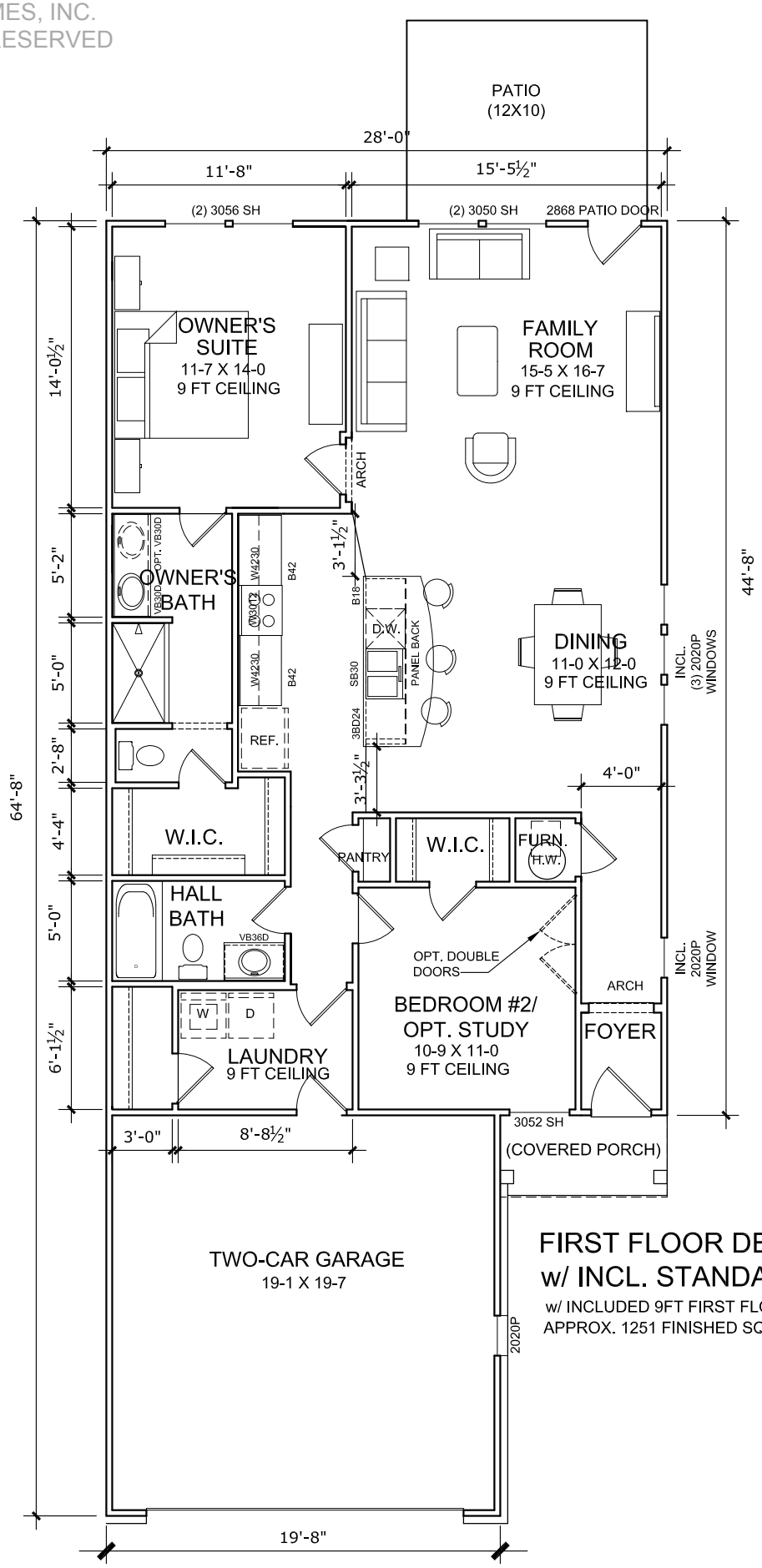
04.19.2017



FIRST FLOOR DESIGN 'A'
w/ INCL. STANDARD PLAN

w/ INCLUDED 9FT FIRST FLOOR
APPROX. 1251 FINISHED SQ. FT.

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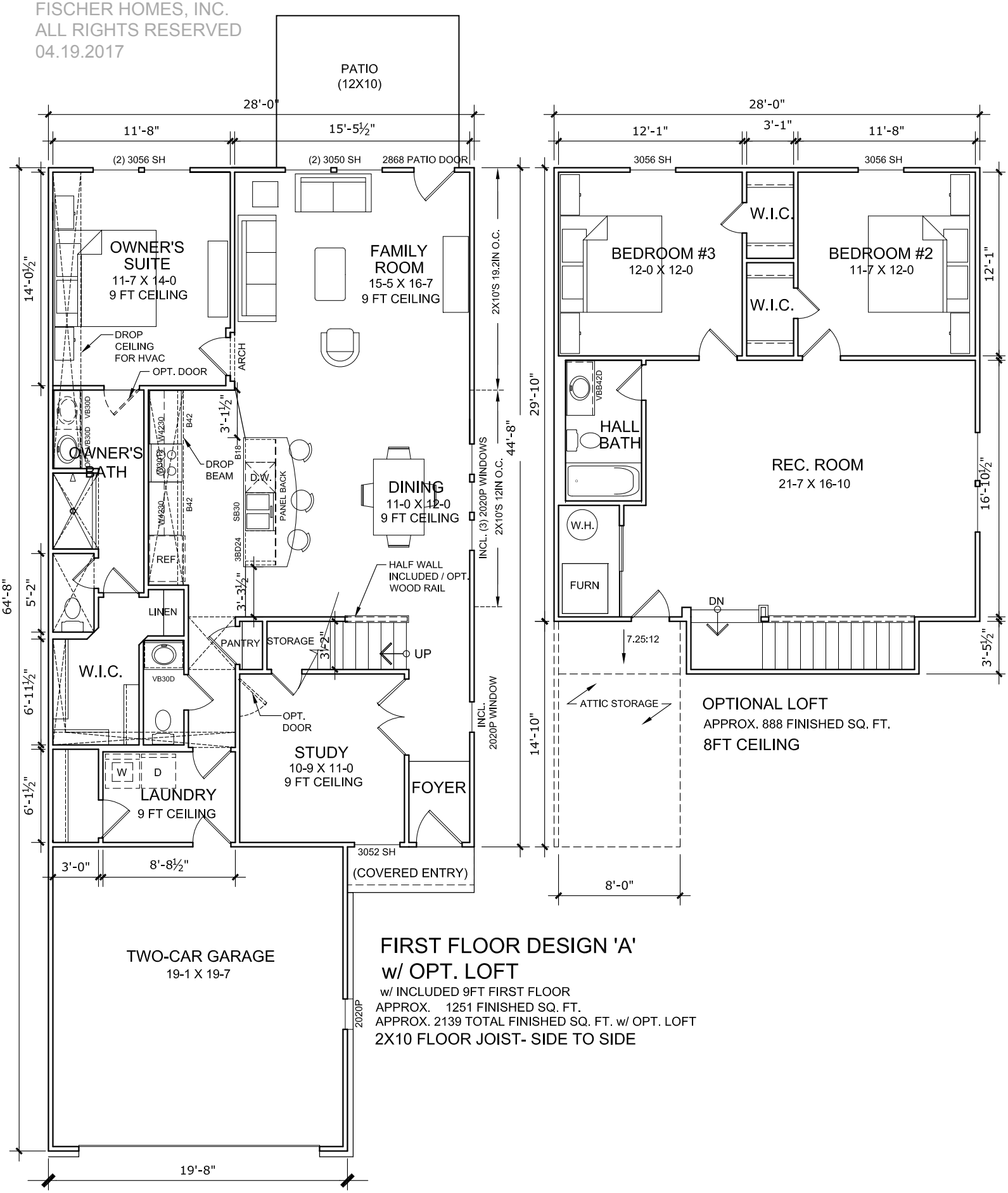
04.19.2017



OPTIONAL LOFT
APPROX. 888 FINISHED SQ. FT.
8FT CEILING

FIRST FLOOR DESIGN 'A'
w/ OPT. LOFT

w/ INCLUDED 9FT FIRST FLOOR
APPROX. 1251 FINISHED SQ. FT.
APPROX. 2139 TOTAL FINISHED SQ. FT. w/ OPT. LOFT
2X10 FLOOR JOIST- SIDE TO SIDE

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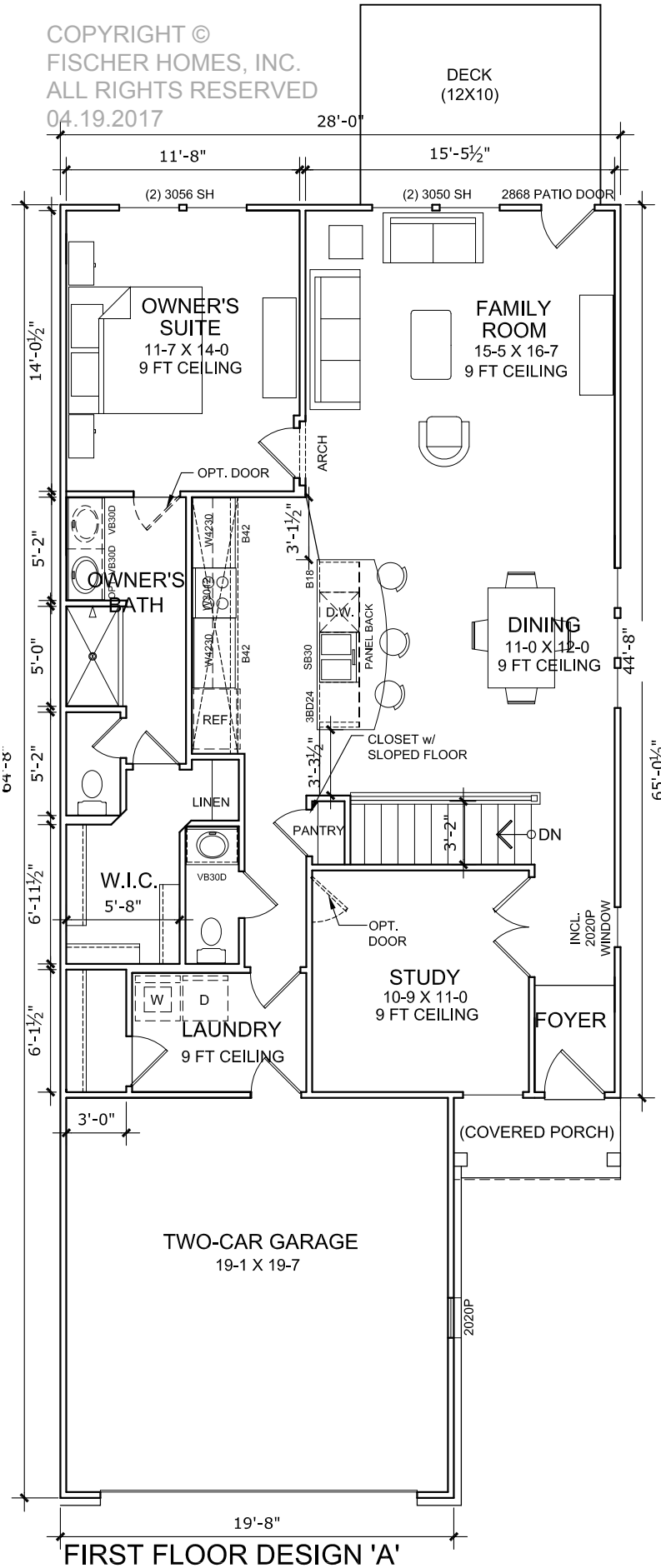
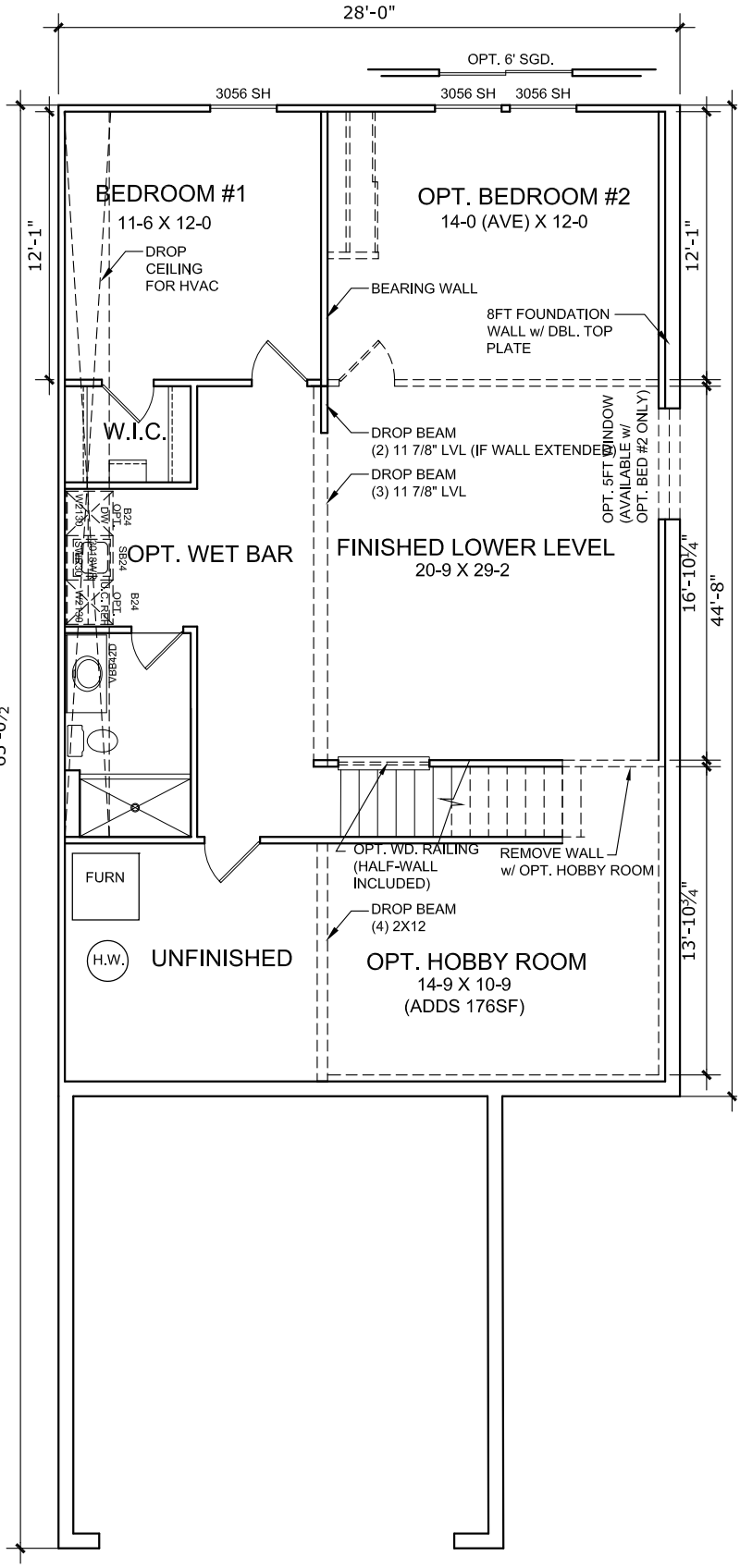


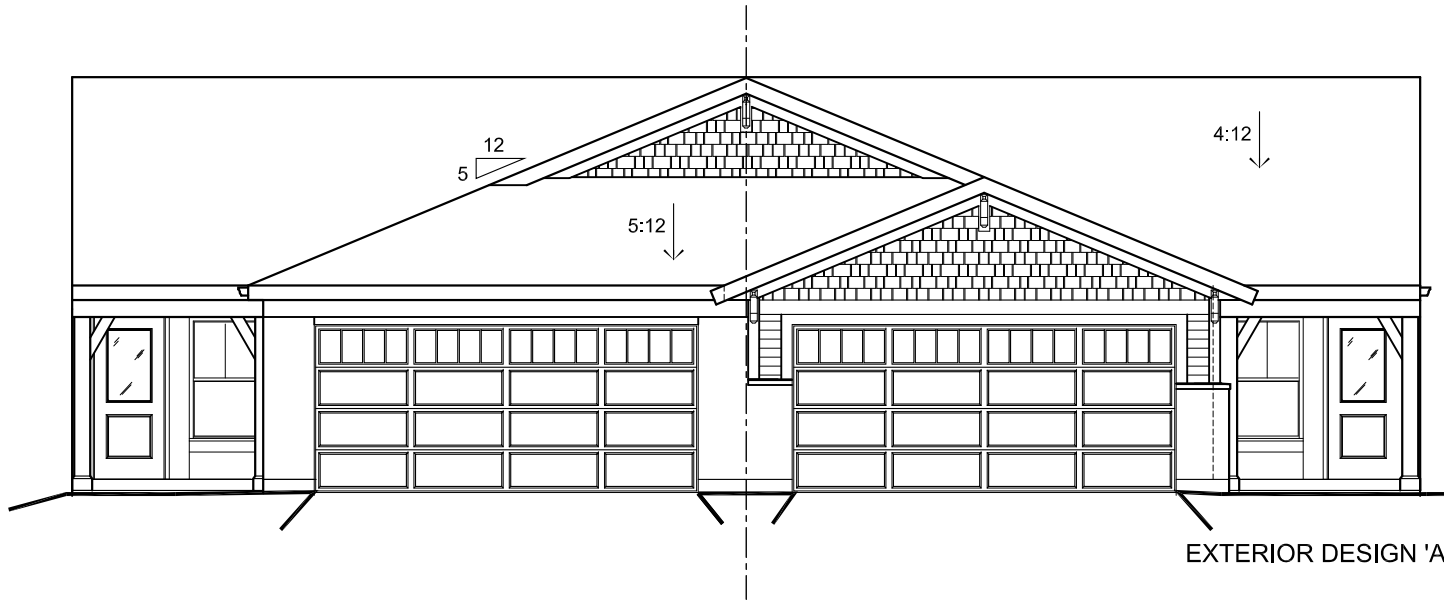


FIRST FLOOR DESIGN 'A'
w/ OPT. BASEMENT

w/ INCLUDED 9FT FIRST FLOOR
APPROX. 1251 FINISHED SQ. FT.
APPROX. 2145 TOTAL FINISHED SQ. FT.
w/ OPT. FINISHED LOWER LEVEL

OPTIONAL LOWER LEVEL

FINISHED REC. RM. & BEDROOM:
APPROX. 894 SQ. FT.
2X10 FLOOR JOIST- SIDE TO SIDE
8FT CEILING



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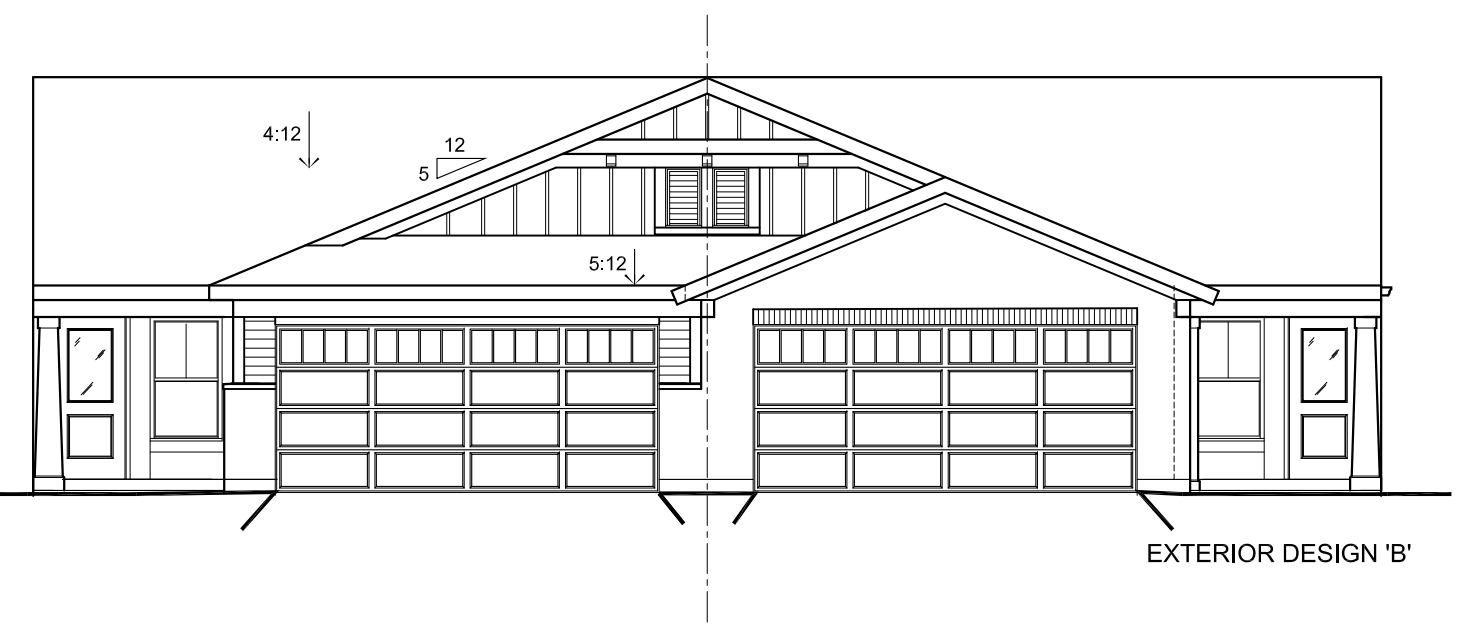
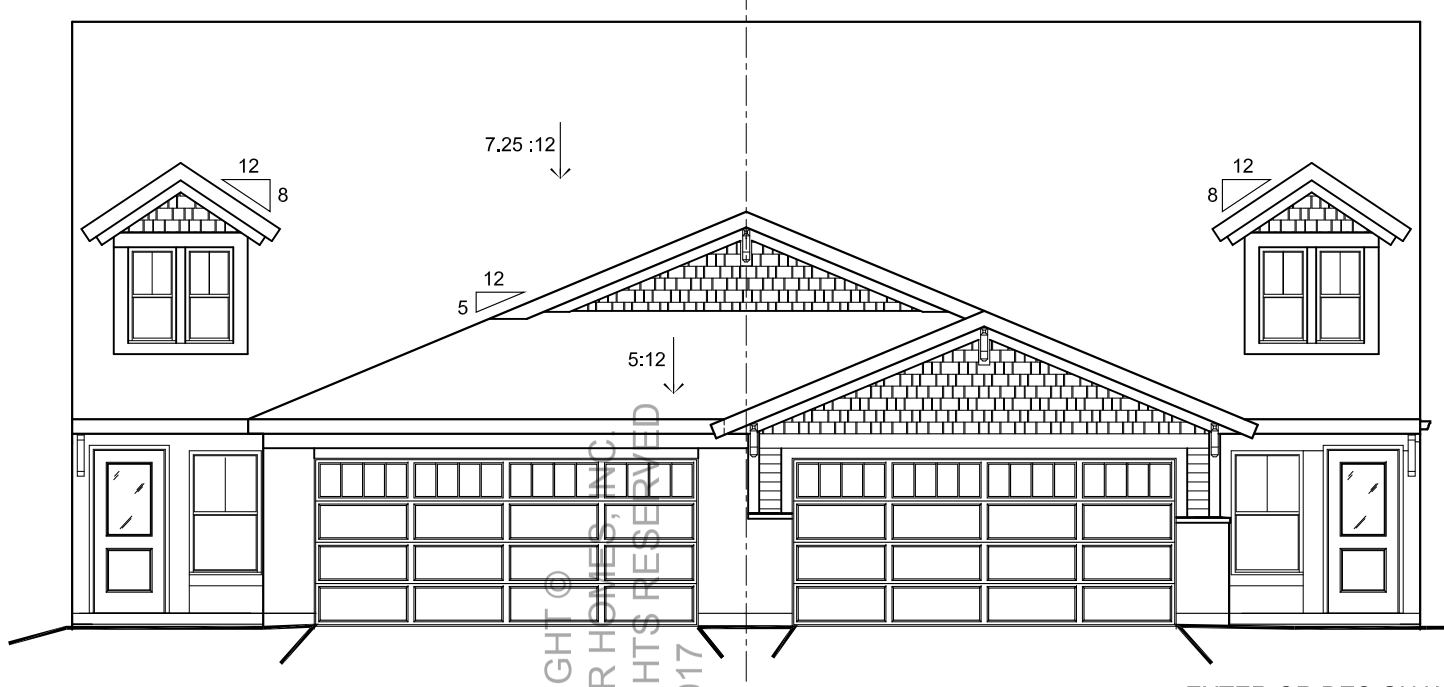
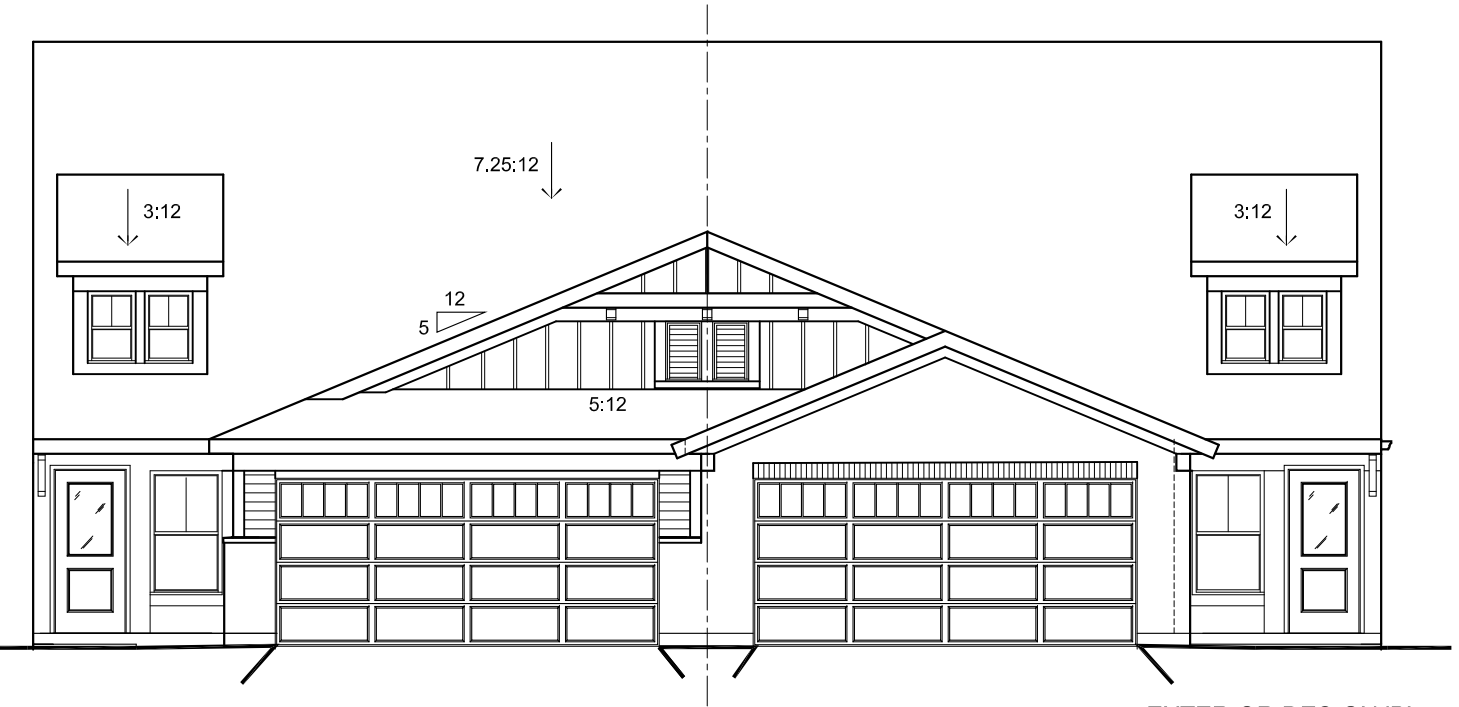


EXTERIOR DESIGN 'B'



EXTERIOR DESIGN 'A'
w/ OPT. LOFT
(5:12 CROSS GABLES)



EXTERIOR DESIGN 'B'
w/ OPT. LOFT
(5:12 CROSS GABLES)

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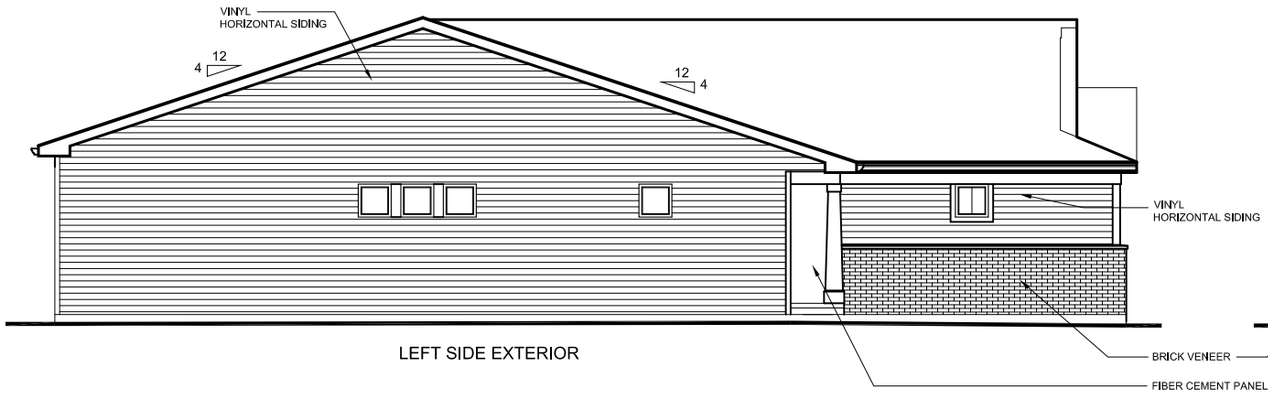
04.19.2017

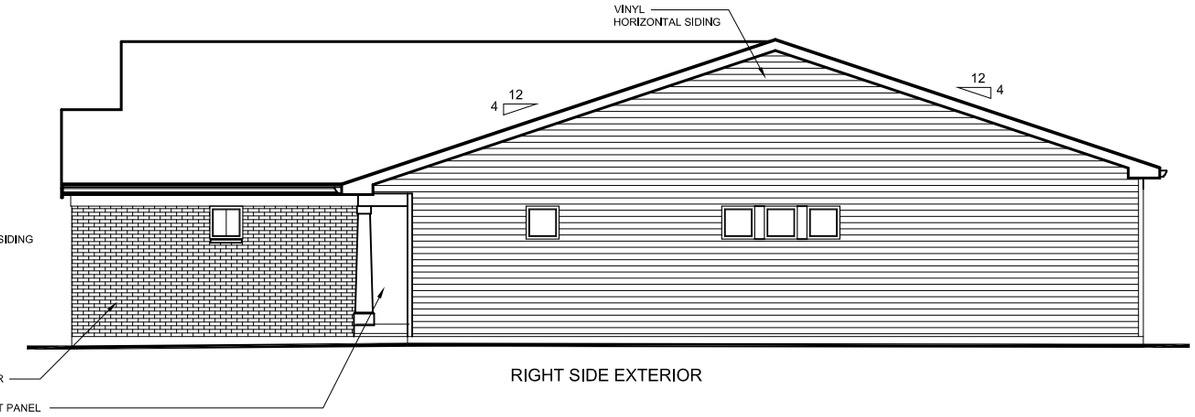
Appendix G- Duplex Elevations

TYPICAL SIDE AND REAR ELEVATIONS

REAR EXTERIOR

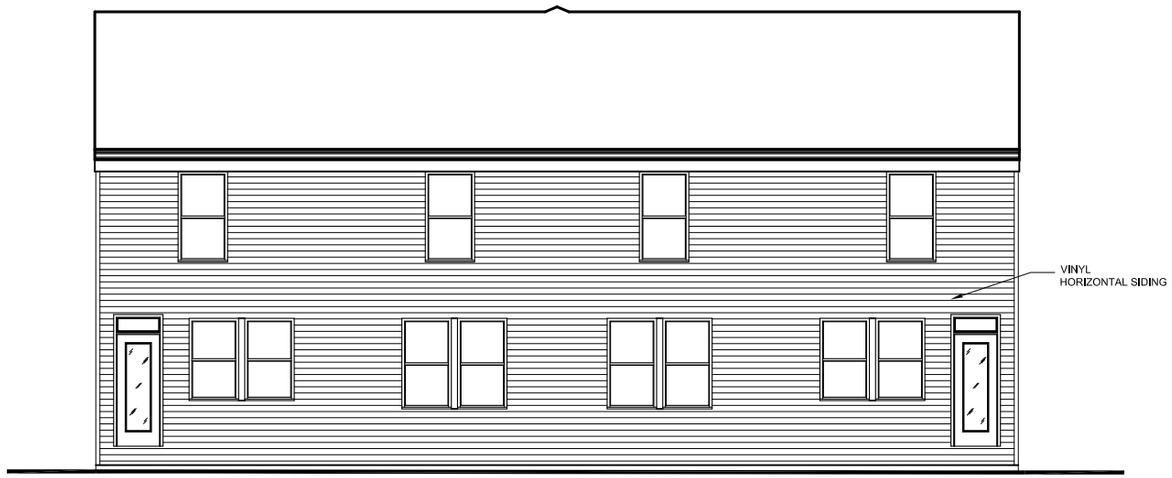


LEFT SIDE EXTERIOR

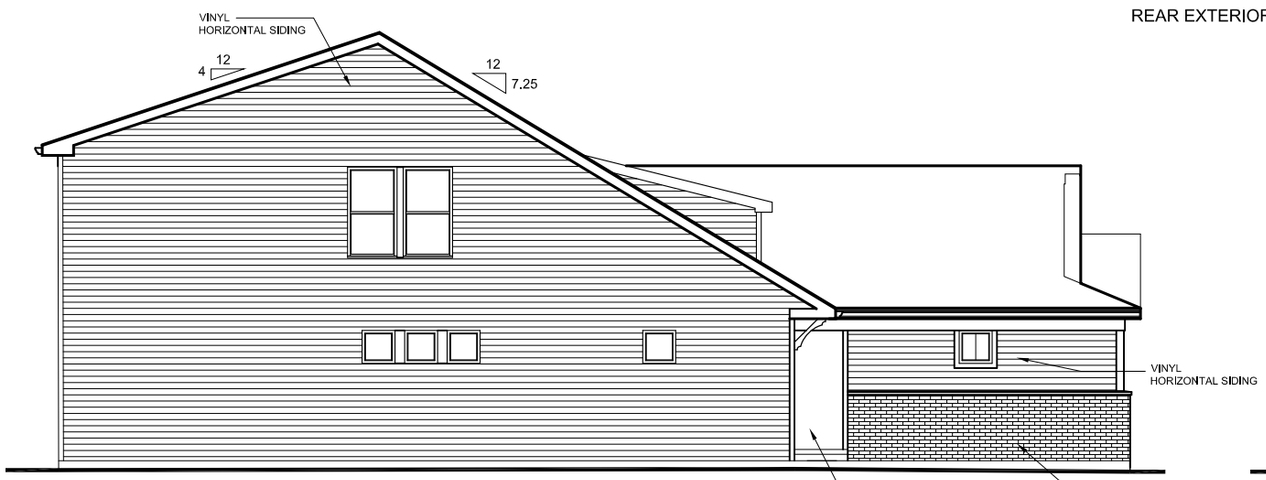


RIGHT SIDE EXTERIOR

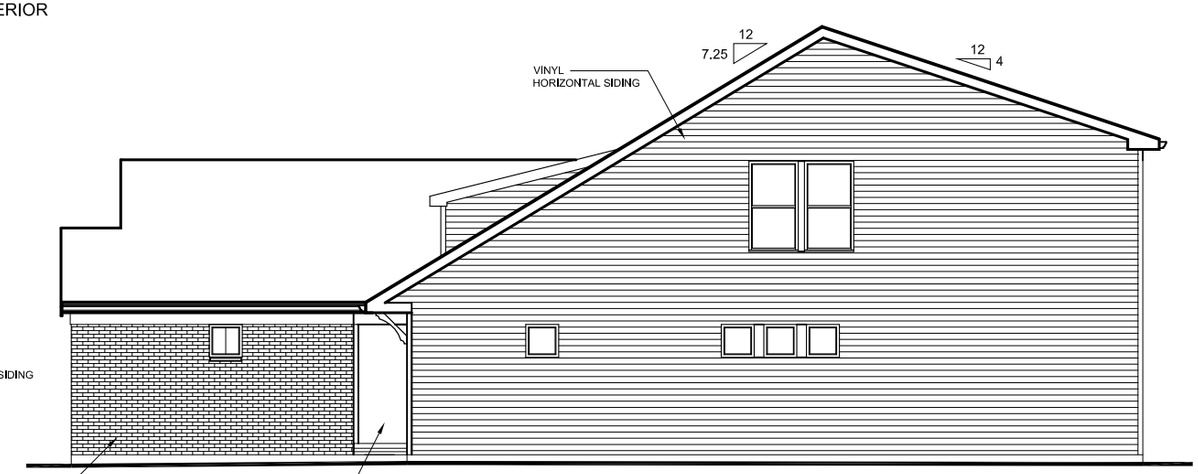
TYPICAL SIDE AND REAR ELEVATIONS w/ OPTIONAL LOFT



REAR EXTERIOR



LEFT SIDE EXTERIOR



RIGHT SIDE EXTERIOR

BRICK VENEER

FIBER CEMENT PANEL

Andrew Moore

From: Hillary Laffin <hlaffin@fischerhomes.com>
Sent: Wednesday, June 28, 2017 10:01 AM
To: Lucas Haire; Andrew Moore
Cc: Jason Wisniewski
Subject: [EXTERNAL] Turning Stone Architecture
Attachments: Turning Stone-Front Facades- 17-06-28.pdf

Good Morning Lucas and Andrew,

Our exterior front facades for Turning Stone have been finalized and can be found attached to this email.

We were able to use the original two exteriors (Exterior Design 'A' and 'B') as starting points, and through the use of material variations, were able to come up with six facades. Each of these facades has the option of being built into a loft unit.

Please note on the plan the various letters:

A. This material and color is subject to change.
B. Siding color is subject to change.
C. Door color is subject to change.

There will be a few different color schemes offered throughout the neighborhood to minimize monotony. Additionally, No two identical facades or color schemes will be placed next to each other in the development.

If available, we would like to discuss with you these new facades and confirm that these meet the expectations you have set. Please let us know when you are available.

Thanks,

Hillary Laffin
Project Planner

Grand Communities, LTD.
Fischer Development Company

3940 Olympic Blvd. Suite 100
Erlanger, KY 41018
Office: 859.344.
7261
Cell: 513.827.0008

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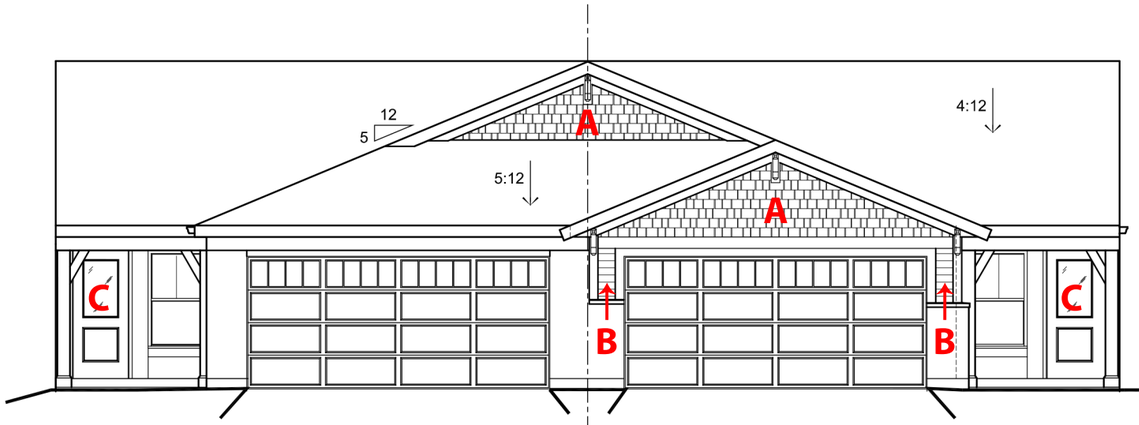
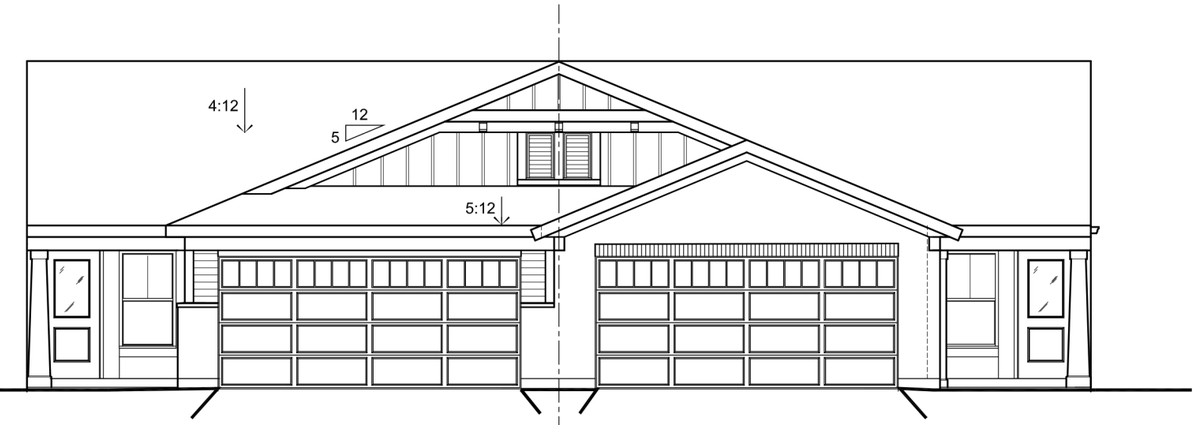


EXTERIOR DESIGN 'A'



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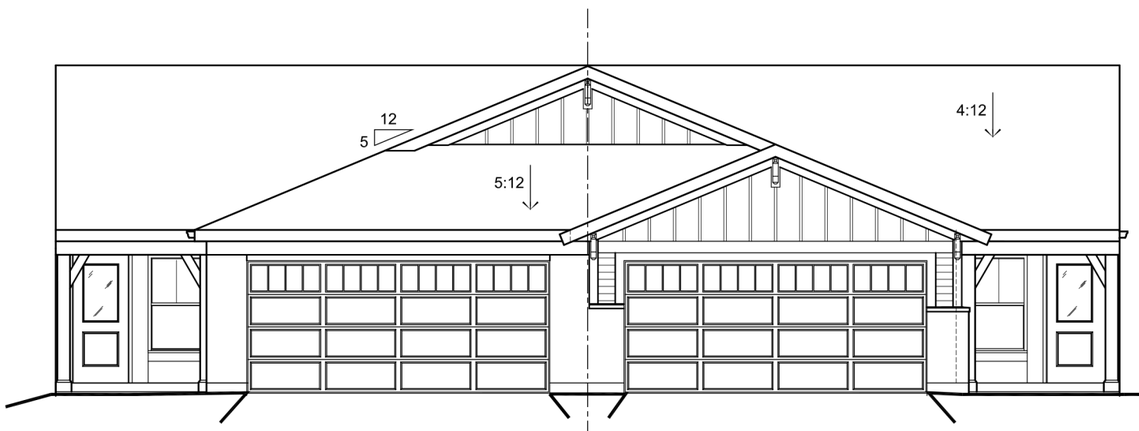
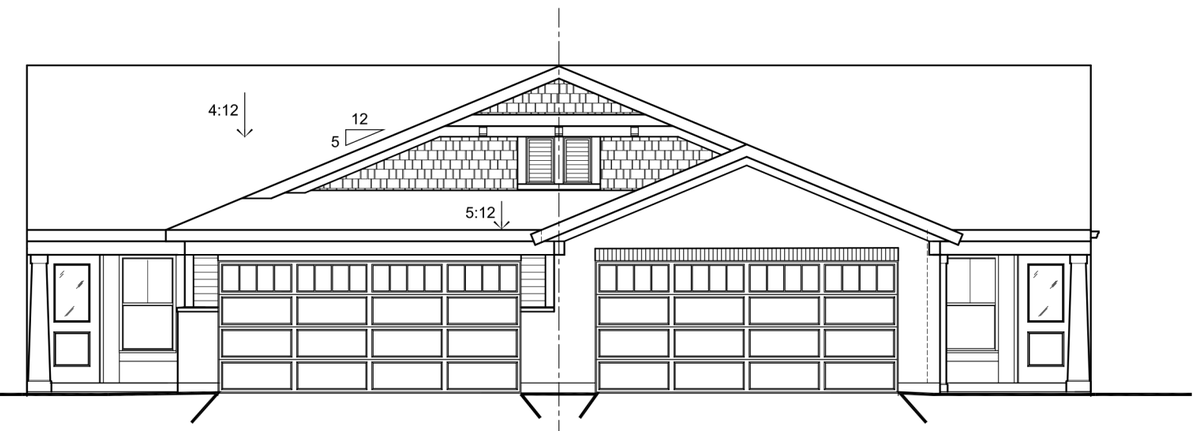
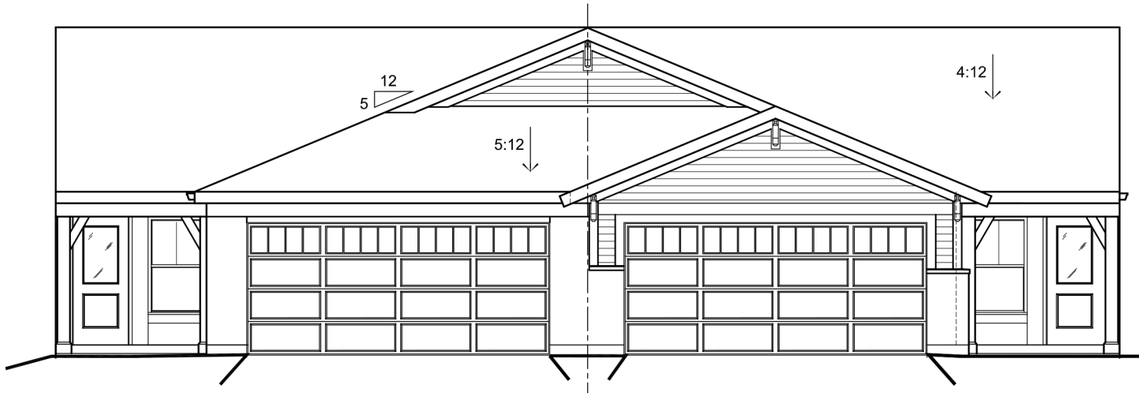


EXTERIOR DESIGN 'C'



EXTERIOR DESIGN 'D'



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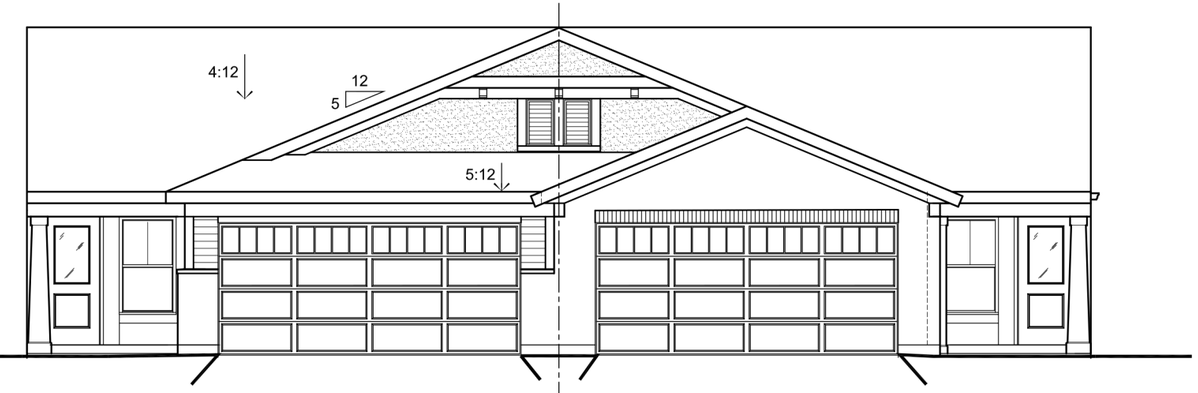


EXTERIOR DESIGN 'F'

Madison Township Fire Department Memo

Date: June 7, 2017

To: Andrew Moore

Cc: FM Scot Hite

From: Chief Robert Bates

Subject: Proposed Turning Stone PUD Development

We have completed our review of the above proposed development and our comments are below. For you reference we have attached the Madison Township Fire Department Requirements for New Construction document for reference. Please let us know if you have any questions or require further clarification.

1. Utilities; provide the expected required fire flow for the proposed residential structures and flow projections for the proposed 8” water main in the residential area.

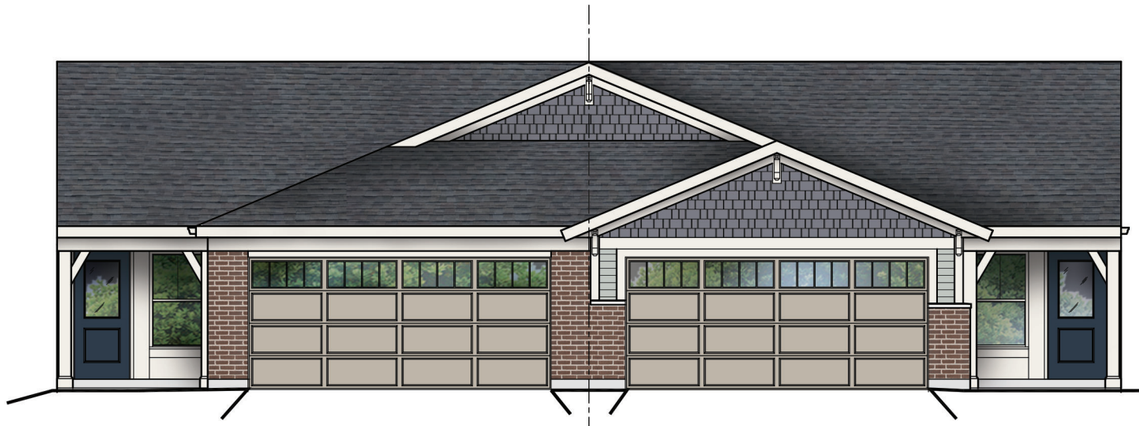
2. Utilities; provide specifics regarding the size waterline being proposed for the commercial area. The proposed commercial area is of sufficient area to allow for the construction of buildings that would require sprinklers and possibly a private fire protection line. These lines are required to be a minimum of 6” by code. For these reasons and because it is simply “best practice” the connection of this portion of the waterline to the 6” waterline to the south is not acceptable. The waterlines for the project need to be looped back to Carriage Place as proposed and back to the 12” waterline on High Street.

3. Given the proposed width of the streets both public and private streets we suggest there be no parking on either side of the street as ladder trucks require 20’ minimum width for deployment of outriggers. In the residential area where it is a “private drive” this is required and the streets will need to be posted as fire lanes. (See attached)

4. The street layout as proposed is acceptable. However, our preference would to grid the streets and rather than have two cul-de-sacs tie Greystone Lane and Turning Stone Drive.

5. In order to limit the spread of fire between structures we would like to see additional distance between the units or utilization of fire resistive materials such as brick, cement board or stucco on the sides of the structures that are adjacent to each other. Combustible materials such as vinyl or wood siding promote the spread of fire between units. (See attached)

Southeast Expy/ US 33
Winward Ct
Chesterville Ct.
Portage Ct
Stormwater
Management Area
Commercial
Parcel
Highland Ave
High St
Jones Pl
Carriage Pl



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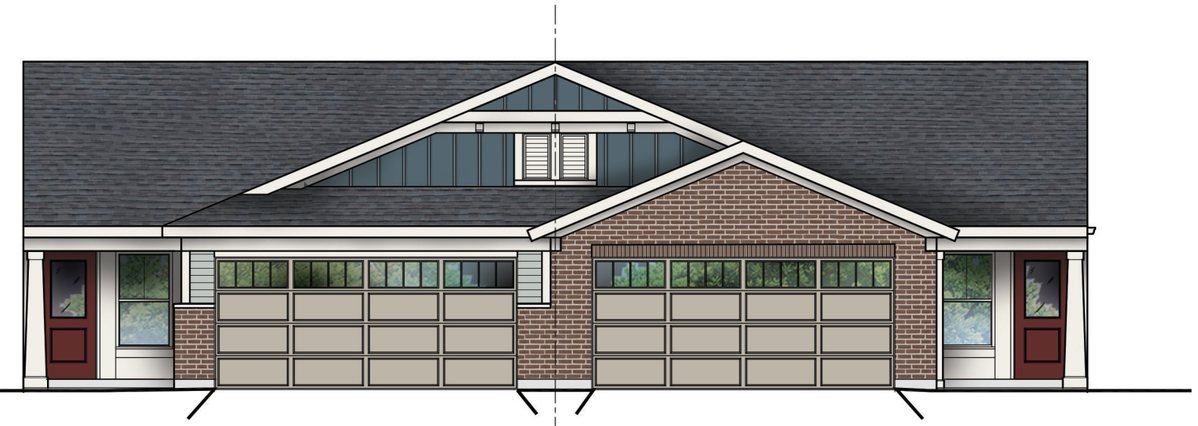

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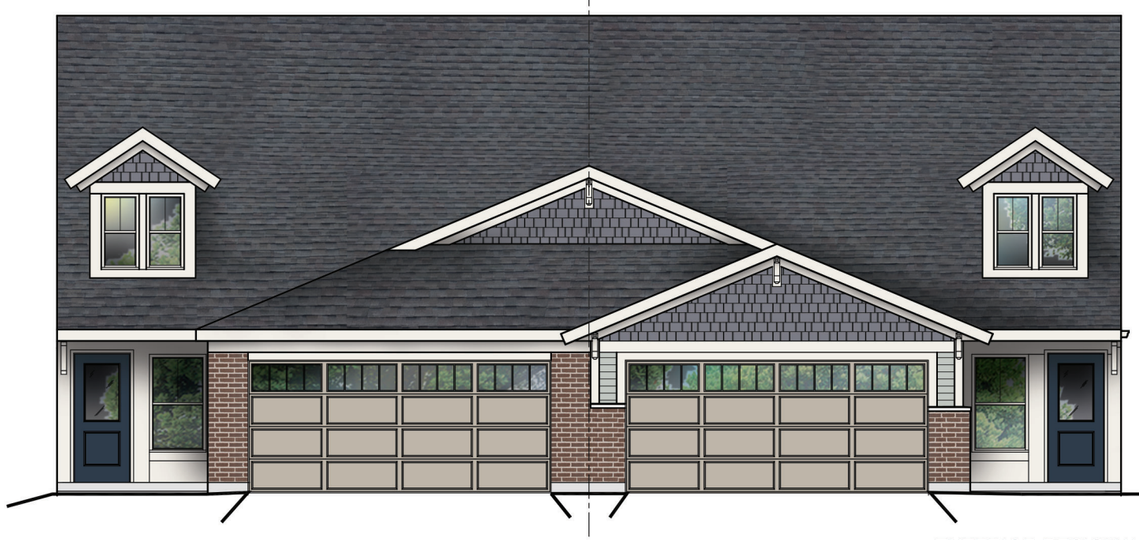
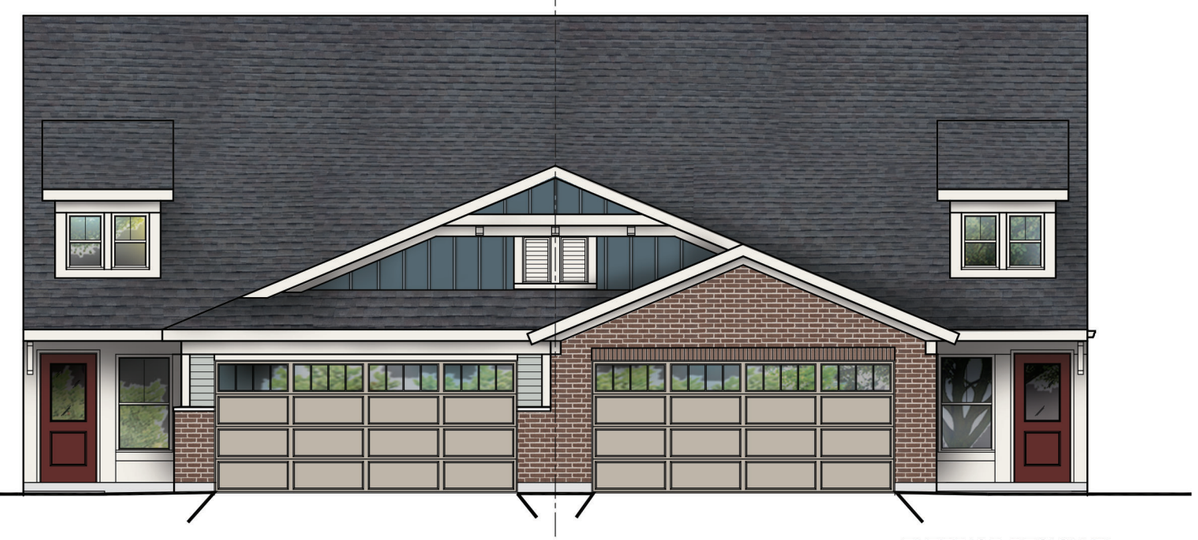
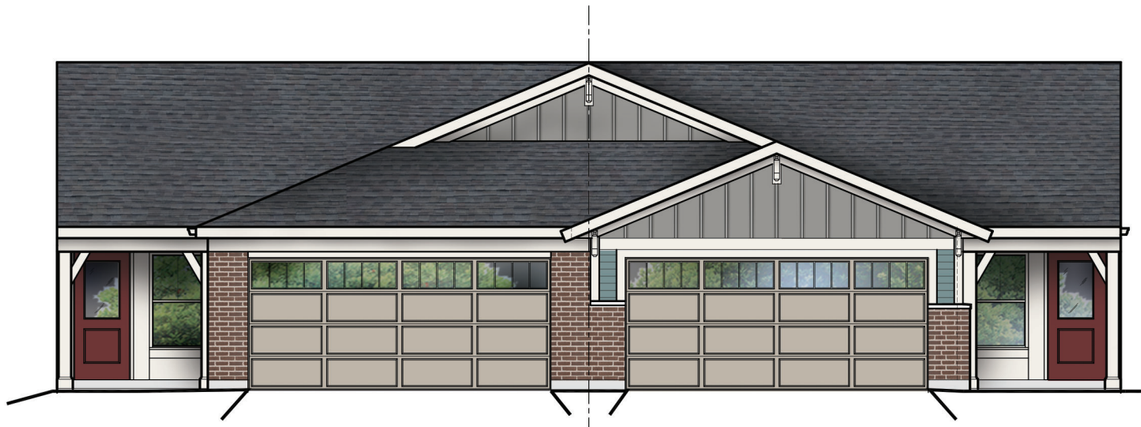


EXTERIOR DESIGN 'A'
w/ OPT. LOFT
(5:12 CROSS GABLES)



EXTERIOR DESIGN 'B'
w/ OPT. LOFT
(5:12 CROSS GABLES)



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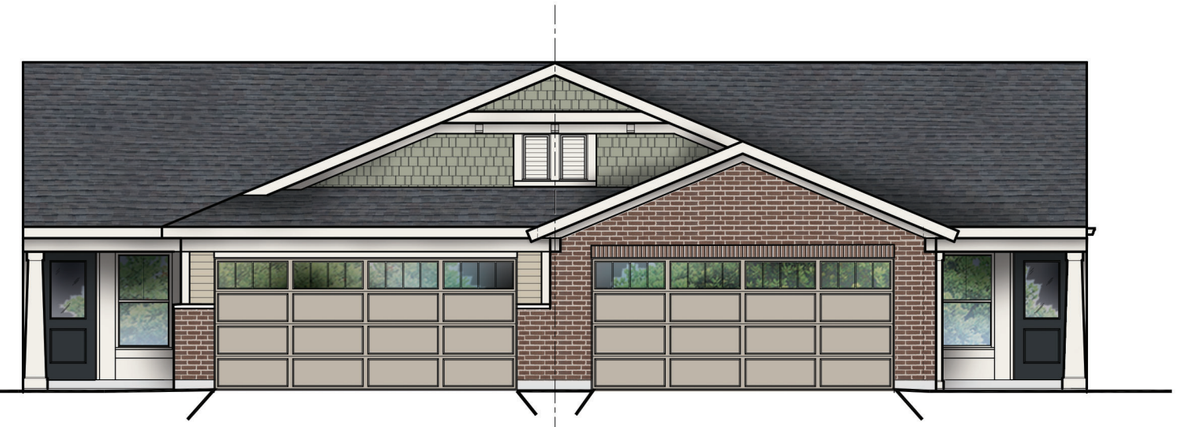

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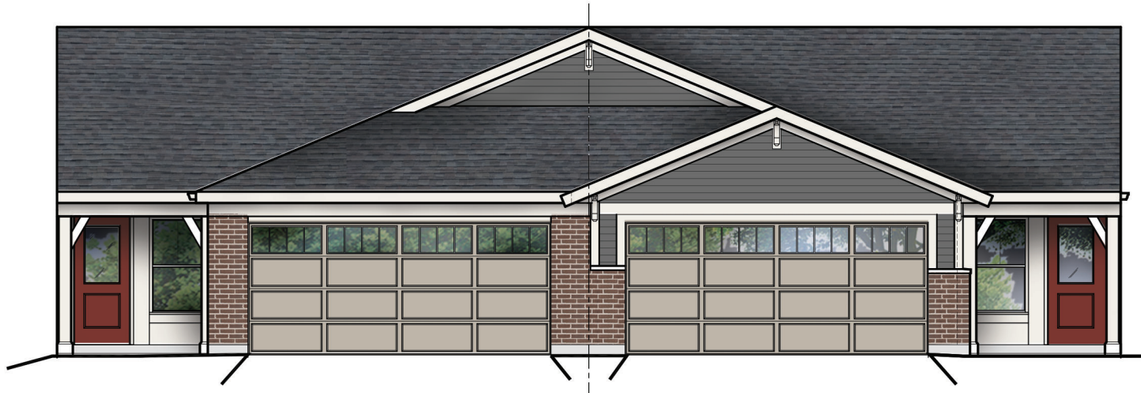

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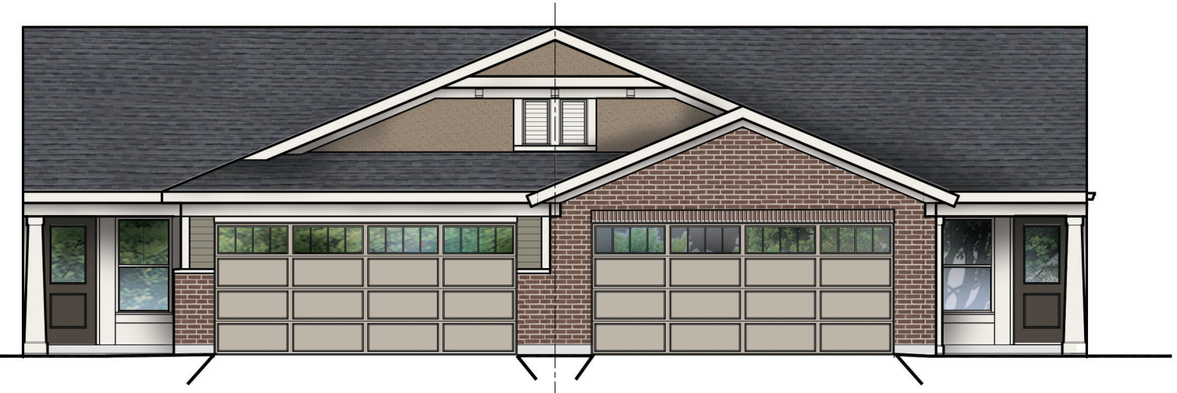
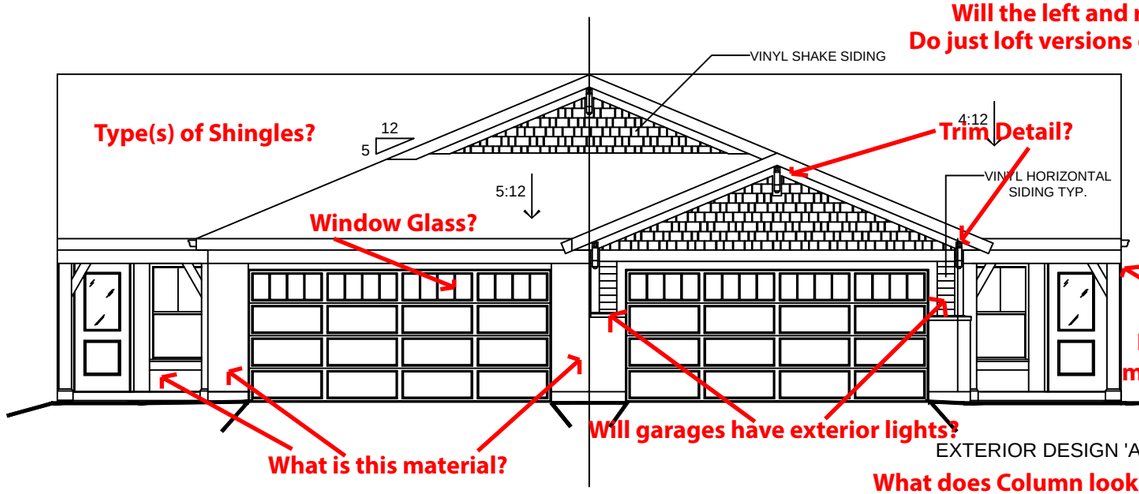


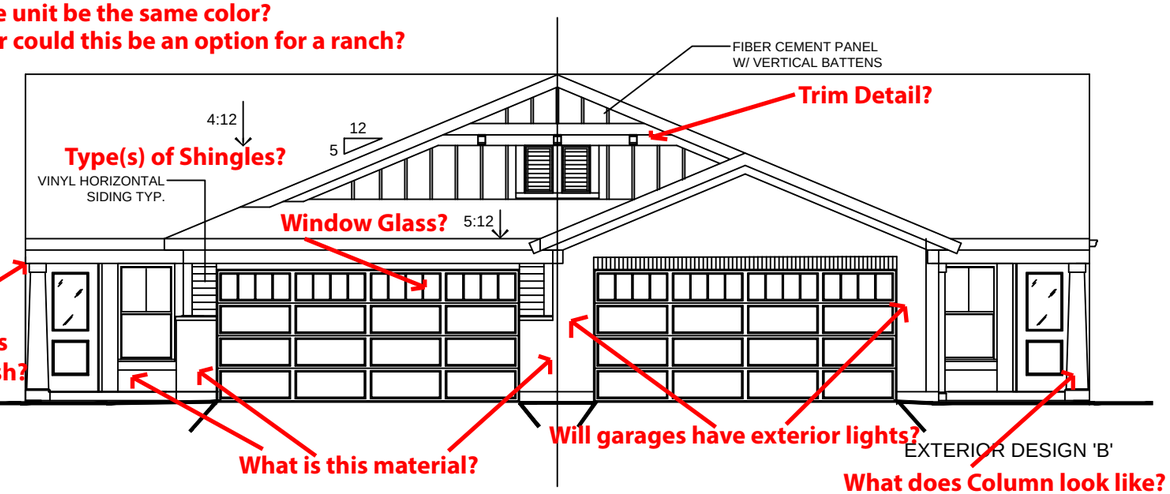
EXTERIOR DESIGN 'F'

Will the left and right side of the unit be the same color?
Do just loft versions get a dormer or could this be an option for a ranch?



EXTERIOR DESIGN 'A'

Do side finishes match front finish?



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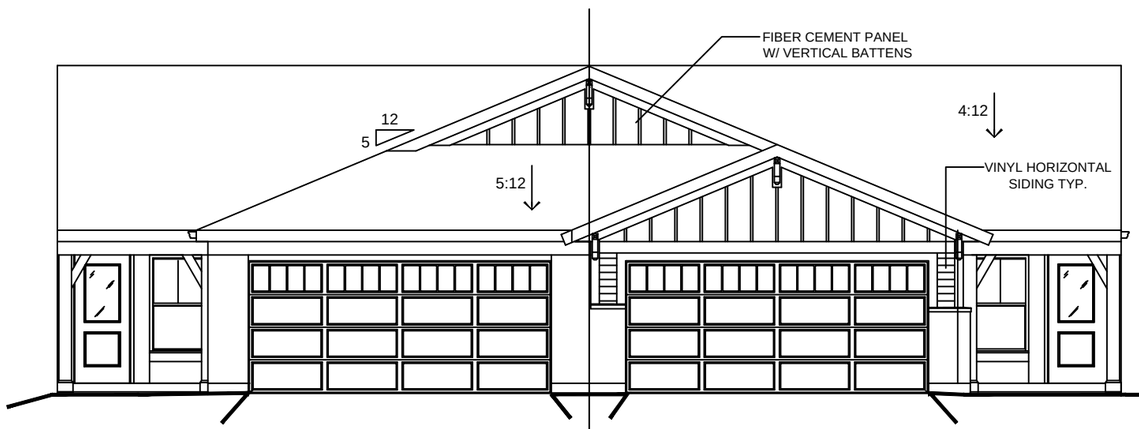

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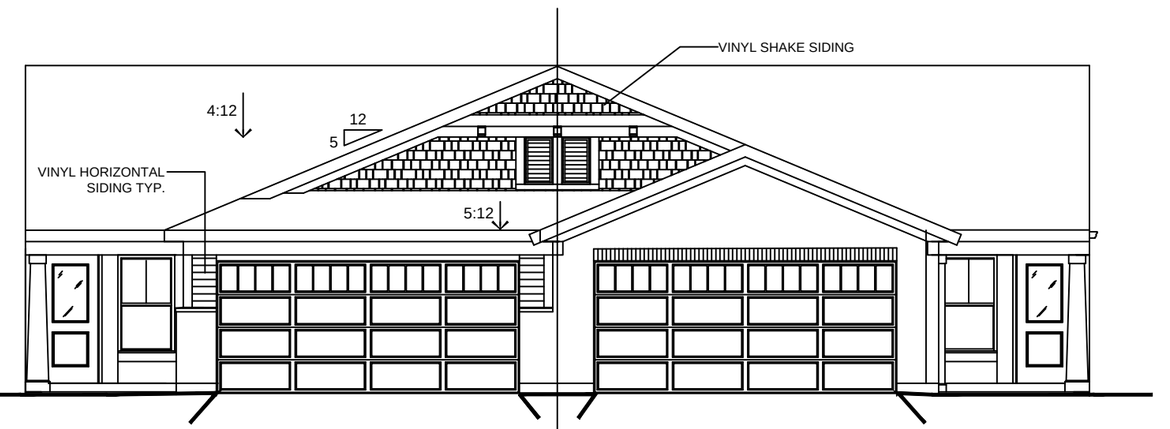

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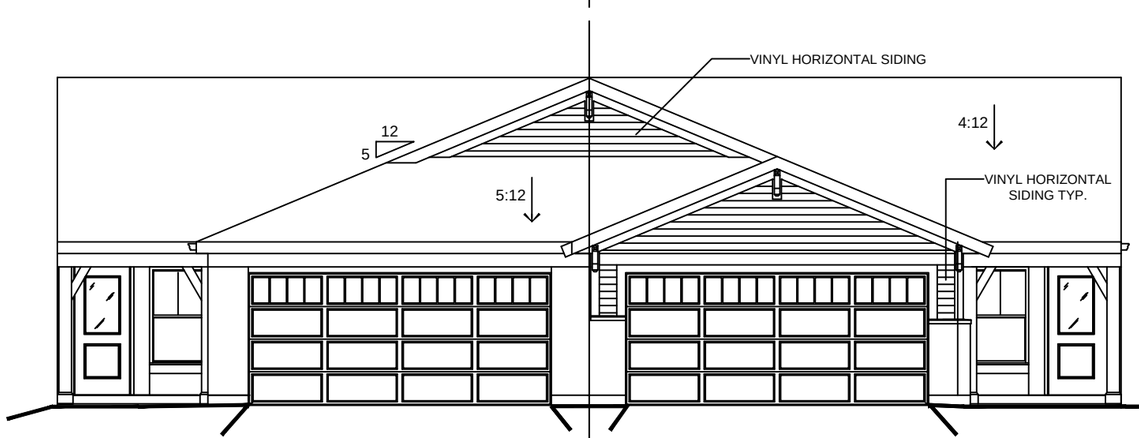

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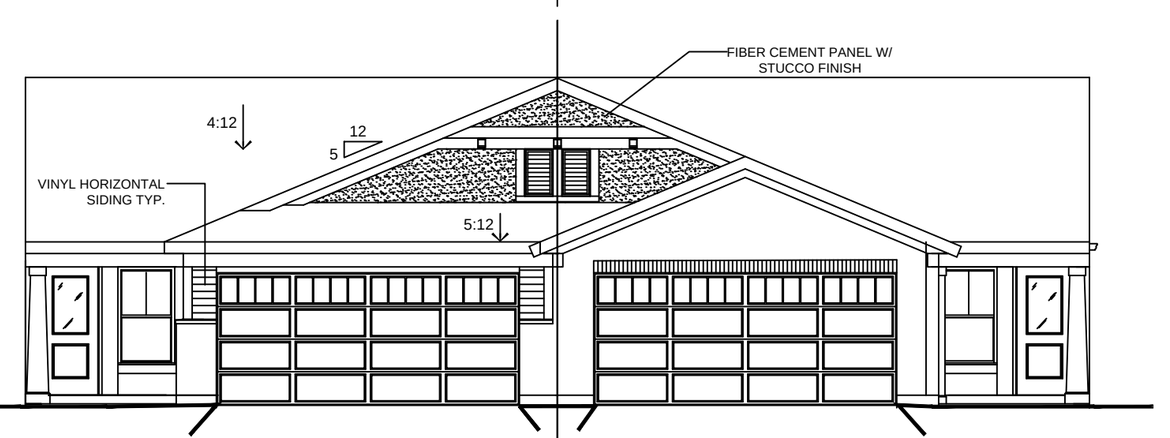

EXTERIOR DESIGN 'F'

Andrew Moore

From: Hillary Laffin <hlaffin@fischerhomes.com>
Sent: Wednesday, June 28, 2017 10:01 AM
To: Lucas Haire; Andrew Moore
Cc: Jason Wisniewski
Subject: [EXTERNAL] Turning Stone Architecture
Attachments: Turning Stone-Front Facades- 17-06-28.pdf

Good Morning Lucas and Andrew,

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B. Siding color is subject to change.
C. Door color is subject to change.

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Thanks,

Hillary Laffin
Project Planner

Grand Communities, LTD.
Fischer Development Company

3940 Olympic Blvd. Suite 100
Erlanger, KY 41018
Office: 859.344.
7261
Cell: 513.827.0008

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Turning Stone - Preliminary Plant List

Typical Large Deciduous Shade Trees (On Lot Trees and Buffer Trees)

Common Name	Botanical Name	Size
Sugar Maple	*Acer saccharum*	8' height / 2" caliper
Maidenhair/ Ginkgo	*Ginkgo biloba*	8' height / 2" caliper
White Oak	*Quercus alba*	8' height / 2" caliper
Bur Oak	*Quercus macrocarpa*	8' height / 2" caliper
Silver Linden	*Tilia tomentosa*	8' height / 2" caliper
American Elm	Ulmus americana	8' height / 2" caliper
Northern Catalpa	*Catalpa speciosa*	8' height / 2" caliper

Typical Medium Deciduous Shade Tree (Buffer Trees)

Common Name	Botanical Name	Size
Red Horsechestnut	*Aesculus x carnea*	8' height / 2" caliper
American Hornbeam	*Carpinus caroliniana*	8' height / 2" caliper
Sargent Cherry	*Prunus sargentii*	8' height / 2" caliper

Typical Small Deciduous/ Ornamental Tree (Front Yard and Buffer Trees)

Common Name	Botanical Name	Size
Paperbark Maple	*Acer griseum*	6' height
Serviceberry	*Amelanchier sp.*	6' height
Eastern Redbud	*Cercis canadensis*	6' height
Corneliancherry Dogwood	*Cornus mas*	6' height
Japanese Tree Lilac	*Syringa reticulata*	6' height
Blackhaw Viburnum	Viburnum prunifolium	6' height

Typical Large and Medium Evergreen Trees (Buffer Trees)

Common Name	Botanical Name	Size
White Pine	*Pinus strobus*	8' height / 2" caliper
Norway Spruce	*Picea abies*	8' height / 2" caliper
Colorado Blue Spruce	*Picea pungens*	8' height / 2" caliper
Canadian Hemlock	*Tsuga canadensis*	8' height / 2" caliper

***NOTES:** *Final species and quantities will be determined at the time of final landscape plan approval, and will be based on nursery availability and seasonal planting requirements.*

Turning Stone - Landscape Requirement Summary

Number of Trees to be Removed	242 trees
Number of Trees to be Replaced	218 trees
Number of Trees Not To Be Replaced (Dying, Diseased & Poor Condition)	24 trees
Trees in Buffer	
Large/Medium Deciduous Trees in Buffers	42 trees
Large/Medium Evergreen Trees in Buffers	69 trees
Small Deciduous Trees in Buffers	26 trees
Trees on Lot	
Large/Medium Deciduous Trees on Lot	39 trees
Small Deciduous/ Ornamental Trees on Lot	42 trees
	218 Total Tree

Turning Stone - Landscape Key

- **Large/Medium Deciduous Tree**
- **Large/Medium Evergreen Tree**
- **Small Deciduous**
- **Ornamental Tree**

Grand Communities, Ltd.

Turning stone

City of Canal Winchester, Ohio

Landscape Plan

0' 75' 150'

Path
ASPHALT PATH
Pond
ENTRY SIGN
ENTRY SIGN
MAIL KIOSK
Park
ENTRY SIGN

ORDINANCE NO. 17-041

AN ORDINANCE TO AMEND PART 11 OF THE CODIFIED ORDINANCES AND THE ZONING MAP OF THE CITY OF CANAL WINCHESTER, REZONING A TOTAL OF 17.554 ACRES CONSISTING OF PARCELS (184-002764, 184-000748, 184-000749, 184-000738, AND 184-000739) ZONED PLANNED RESIDENTIAL DEVELOPEMNT (PRD), A PARCEL (184-000747) ZONED OLD TOWN SINGLE FAMILY RESIDENTIAL (OTSFR), AND A PARCEL (184-001616) ZONED LOW DENSISTY RESIDENTIAL (R-3) TO PLANNED UNIT DEVELOPMENT (PUD), OWNED BY DAMON A. PFEIFER AND TIGER CONSTRUCTION, INC., LOCATED SOUTHWEST OF THE INTERSECTION OF NORTH HIGH STREET AND US 33

WHEREAS, the rezoning of the area hereinafter described has been proposed to the Council of the City of Canal Winchester; and

WHEREAS, notice of a public hearing has been duly advertised and the public hearing has been held before the Council of the City of Canal Winchester;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF CANAL WINCHESTER, OHIO:

Section 1. That Part 11 of the Codified Ordinances and the Zoning Map of the City of Canal Winchester, Ohio, which is a part thereof, be and hereby is amended as follows:

That parcels consisting of 17.554 acres, located southwest of the intersection of US 33 and High Street, owned by Damon Pfeifer and Tiger Construction, Inc, as fully set forth in the description attached hereto as Exhibit A and incorporated herein by reference, is rezoned from Planned Residential District (PRD), Old Town Single Family Residential (OTSFR) and Low Density Residential (R-3) to Planned Unit Development (PUD).

Section 2. That the City Council hereby approves the preliminary plan and development standards text for such 17.554 acres which are attached hereto as Exhibits B and C and incorporated herein by reference with the following conditions:

1. Revise the Residential Development Standards item #7 to reflect that the exterior designs will alternate between Exterior Designs ‘A’ through ‘F’. In no instance two identical façades or color schemes will be placed next to each other in the development.
2. The street lights erected on the private drives within the development be substantially similar to the street lights required on the public streets as per the Canal Winchester Standards.
3. Reserve “A” be dedicated as a public park with the final plat approval.
4. The developer equip and install within Reserve “A” usable playground equipment that is mutually agreeable to the developer and the technical review group prior to the final development plan approval. A cash donation to the city shall be an acceptable alternative with the amount determined by the technical review group.
5. School Facilities dedication is required per Section 1153.21, and the value of the fee in lieu of school dedication shall be determined as per 1153.21(e).

Section 2. That this ordinance shall take effect and be in force from and after the earliest period allowed by law.

DATE PASSED _____

_____
PRESIDENT OF COUNCIL

ATTEST_____
CLERK OF COUNCIL

_____
MAYOR

DATE APPROVED_____

APPROVED AS TO FORM:

_____
LEGAL COUNSEL

I hereby certify that the ordinance as set forth above was published for a period of not less than fifteen days after passage by the Council, by posting a copy thereof in not less than three (3) public places in the municipal corporation, as determined by Council and as set forth in the Canal Winchester Charter.

_____
Clerk of Council/Finance Director

DESCRIPTION OF 17.554 ACRES FOR ZONING PURPOSES

Situated in the State of Ohio, County of Franklin, City of Canal Winchester, Section 30, Township 16, Range 20, Congress Lands, being all of Baby Farm No. 7 (Parcel 184-000738) and 8 (Parcel 184-000739) of Lombardy Heights, of record in Plat Book 10, Page 282 and as described in deed to Damon A. Pfeifer, of record in Instrument 201104200051504, all of Baby Farm No. 9 (Parcel 184-000749) and 10 (Parcel 184-000748) of said Lombardy Heights, and the adjacent alley as vacated in Ordinance 634, and all of that 7.123 acres (Parcel 184-002767) , all of which being described in deed to Damon A. Pfeifer, of record in Instrument 201104200051505, and all of Baby Farm No. 1, (Parcel 184-000747) of said Lombardy Heights and described in deed to Damon A. Pfeifer, of record in Instrument 201104200051506 and all of Lot 173 (Parcel 184-001616)of Winchester Village Section 2 , of record in Plat Book 77, Page 71 and described in deed to Tiger Construction, all being of record in the Recorder's Office, Franklin County, Ohio and being more particularly described as follows:

BEGINNING, at the common corner of said Winchester Village Section 2 and said 7.123 acres, also being in the south limited access right of way line of U.S. Route 33;

Thence South 68°29'51" East, a distance of 1103.95 feet, with the common line of said 7.123 acres and said U.S. Route 33, to a point;

Thence South 69°35'04" East, a distance of 386.02 feet, with the common line of said 7.123 acres and said U.S. Route 33, to a point;

Thence South 13°59'30" West, a distance of 0.62 feet, to a point in the north line of said Baby Farm No. 1;

Thence South 85°56'33" East, a distance of 5.17 feet, with the north line of said Baby Farm No. 1, to a point;

Thence South 08°52'37" West, a distance of 153.00 feet, with the east line of said Baby Farm No. 1, to a point;

Thence North 85°09'54" West, a distance of 455.29 feet, with the south line of said Baby Farm No. 1 and the north line of Highland Avenue, to a point in the west line of an existing alley and the east line of said Baby Farm No. 9;

Thence South 07°12'57" West, a distance of 230.09 feet, with the common line of said Baby Farm No. 7, 8, and 9 and said existing alley, to a point at the southeast corner of said Lot 173 of said Winchester Village Section 2;

Thence with the perimeter of said Lot 173, the following courses:

> North 85°54'28" West, a distance of 145.00 feet, to a point;
>
> South 52°03'34" West, a distance of 25.00 feet, to a point on a curve;
>
> With the arc of a curve to the left having a radius of 50.00 feet, delta angle of 89°23'20", an arc length of 78.01 feet, a chord bearing of North 82°38'17" West, and a chord distance of 70.33 feet, to a point;
>
> North 04°04'26" East, a distance of 112.50 feet, to a point on the south line of said Baby Farm No. 7;

Thence North 85°55'34" West, a distance of 712.94 feet, with the south line of said Baby Farm No. 7 and the north line of said Winchester Village Section 2, to a point;

Thence North 04°21'59" East, a distance of 816.03 feet, with the common line of said Lombardy Heights and said Winchester Village Section 2, to the **POINT OF TRUE BEGINNING,** and containing 17.554 acres, more or less.

The bearings shown hereon are an assumed bearing of South 68°29'51" East for the south right of way line of U.S. Route 33 as established from linework obtained from the Franklin County Auditor's GIS.

The above description was prepared from record information and intended to be used for zoning purposes only.

File Name: 171424SV01-DESC-ZO.docx

ORD-17-041
Exhibit B

PLANNED UNIT DISTRICT- PUD

TURNING STONE

CITY OF CANAL WINCHESTER, OHIO

Applicant:
Grand Communities, Ltd.
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018
(859) 344-3136
Jason M. Wisniewski

Engineer/ Planner:
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road, Suite 250
Worthington, Ohio 43085
(614) 540-6633
Brian Burkhart, PE

CEC Project 171-424

May 19, 2017
Rev. June 30, 2017

Application for
Planned Unit District - PUD

TURNING STONE DEVELOPMENT TEXT
CITY OF CANAL WINCHESTER, OHIO
May 19, 2017
Revised June 30, 2017

I. General

Applicant:
Grand Communities, Ltd.
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018
(859) 344-3136
Jason M. Wisniewski

Property Owners:
Damon Pfeifer
650 Winchester Pike
Canal Winchester, Ohio 43110

Property:
High Street Canal Winchester, Ohio 43110

Approx. Site Total: 17.55± acres

Residential: 15.80 acres (0.48 ac- Public R/W, 4.16 ac.-Reserve)
Commercial: 1.75 acres

Tax Parcel Numbers:
184-002764-00 (PRD)
184-000748-00 (PRD)
184-000749-00 (PRD)
184-000739-00 (PRD)
184-000738-00 (PRD)
184-000747-00 (OTSFR)
184-001616-00 (R-3)

Project Engineer/Planner:
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road, Suite 250
Worthington, Ohio 43085
(614) 540-6633
Brian Burkhart, PE

Project Developer: Grand Communities, Ltd.
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018
Phone: (859) 344-3136
Contact: Jason M. Wisniewski
Email: jwisniewski@fischerhomes.com

Proposed Application: PUD-Planned Unit District development plan and text for single-family and commercial uses

Existing Zoning; PRD (Planned Residential District), R-3 and
OTSFR (Old Town Single Family Residential

Project Narrative:

The project site consists of approximately 17.55 acres located on the west side of High Street, north of Carriage Place. It is currently zoned PRD, R-3, and OTSFR. The site is comprised of farm field and woods.

Currently located around the proposed development to the:

- north of the property is US 33
- south of the property is Winchester Village Section 2 Subdivision
- east of the property is Lombardy Heights Subdivision
- west of the property is Winchester Village Section 2 Subdivision

The applicant is requesting to rezone the property to Planned Unit District (PUD). The proposed development will consist of a single-family development (84 lots) and a 1.75 acre commercial tract. Under a planned unit district, the site will be able to accommodate both single-family units and commercial buildings. The residential area will take on similar characteristics to the adjacent neighborhoods, while the commercial space will act as an extension to the commercial parcels that line High Street, unifying the community.

Utilities/Public Services:

A. All utilities shall be underground, whenever possible, except for telephone and cable pedestals and electric transformers.

   1. Waterline: For the residential development, an eight inch (8”) waterline extension will come off the existing eight inch (8”) waterline located on Carriage Place. Waterline service throughout the development will be public. For the commercial development, the waterline service will come from the existing six inch (6") waterline located on the south side of the proposed Turning Stone Drive.

   2. Sanitary: For the residential development, an eight inch (8”) sanitary line extension will come from the manhole located on Lot 152/173 of Winchester Village Section 2. For the

commercial development, the sanitary sewer service will connect into the existing manhole near the intersection of Highland Avenue and proposed Turning Stone Drive. All sanitary service throughout the development will be public.

3. Drainage: Existing drainage flows south to north. A retention pond is being proposed at the northeast corner of the residential development and will serve both of the residential and commercial areas. Maintenance of the retention pond will be shared by the residential and commercial based on a proportionate share of storage volume.

Traffic

A. Traffic improvements are not required as a result of this proposed development as identified in the Smart Services, Inc. traffic study dated May 2017. However, the Applicant agrees to restripe High Street between the proposed entrance (Turning Stone Drive) to US33 to help facilitate left-hand turns from southbound High Street into the existing commercial/office uses on the west side of High Street. A final striping plan will be included and approved with the Final Development Plan.

II. Residential Development Standards

The following are Development Standards for the Subdivision, provided however, in the event a standard, provision, or requirement is not provided, the standards, provisions and requirements set forth in the City of Canal Winchester Planning and Zoning Code shall apply.

A. General Standards

Site Acreage:	17.55 Acres
Residential Acreage:	15.80 Acres (0.48 Ac.- Public R/W)
Number of Lots:	84
Typical Lot Size:	34’x124’ (Min)
Building Setbacks:	25’ Front/ 0’ Side & 5’ Side/ 25’ Rear
Open Space Percentage:	4.16 Acres/ 24% (4.16 Ac. / 17.55 Ac.-0.48 Ac.)
Net Density:	5.48 Lots Per Acre (84 Lots / 15.80 Ac - 0.48 Ac.)

1. All proposed roads are private and twenty-six feet (26’) wide, unless otherwise noted on the Preliminary Plan.

2. All public roads are to be thirty feet (30’) wide within a sixty foot (60’) right-of-way per city standards.

B. Building, Setback and Height Restrictions

1. The maximum number of homes shall not exceed eighty-four (84); provided, however, the Subdivision may contain fewer lots subject to final engineering or in order to meet other technical requirements (including but not limited to wetland avoidance/mitigation,

road relocation for connectivity purposes, utility requirements, etc.) without additional amendment to the Preliminary Plan.

2. Driveways may encroach into the side yards, but must be a minimum of one foot (1') off the property line. Side yards for corner lots shall be thirty feet (30') on the side of the lot adjacent to the street.

3. No structure may be constructed within the rear yard setback area, provided, however, patios, pergolas, and other non-structural (no foundation) assemblage may be erected in such area and shall further comply with the requirements of the City of Canal Winchester Planning and Zoning Resolution. Decks shall not be permitted.

4. Dwelling Units shall be single-family, duplex-style residences on slabs and the option to select a loft. The maximum building height shall not exceed thirty feet (30') in height from top of foundation to ridge of roof line.

5. There shall be no maximum lot coverage requirement.

6. House square footages (which shall be defined as habitable, heated, above-ground living space) shall be not less than twelve hundred (1,200) square feet for a ranch and not less than two thousand (2,000) square feet for a ranch with a loft.

7. The Applicant has included six (6) exterior designs (see Appendix F) and in no instance will the same exterior design be allowed on adjacent buildings and/or directly across the street.

C. <u>Architectural and Design Standards:</u>

1. Each house shall have an attached garage which can accommodate not less than two (2) cars. All homes shall have a minimum of four (4) parking spaces on each lot, which includes two (2) enclosed by the garage and two (2) spaces in front of the garage located between the garage and the street.

2. Each home will have a driveway apron that will be constructed to accommodate a maximum eighteen foot (18') wide driveway.

3. Utility meters may not be located on the front of any lot but shall be located on the side or rear of the structure.

4. Wall finish materials: Brick, stone, stucco, wood siding, cement fiber siding and upgraded vinyl siding (defined as siding with a nominal thickness of 0.42 gauge) are approved exterior wall finish materials.

5. The main roof pitch of single-story units shall have a 4:12 pitch, with all turned gables having a 5:12 pitch. The front roof pitch of loft units shall have a minimum 7¼:12 pitch, and will be equipped with dormer windows. Roofs may be fiberglass asphalt shingles or

dimensional shingles. Roof pitches shall be appropriate to the architecture of the house.

6. Traditional single- or double-hung and casement windows are allowed. Common window fenestration shall be used on all elevations.

7. Extruded aluminum gutters with downspouts may be used. All downspouts shall be tied into the curb drains.

8. All garage doors shall have glass inserts.

D. Pedestrian Requirements

1. A minimum three foot (3') wide concrete sidewalk shall be constructed from the driveway of the house to the front door/stoop of each house/lot.

2. A five foot (5') wide concrete sidewalk(s) shall be installed along one side of the street, with curb ramps at all corners.

III. Residential HOA Responsibilities

1. Homeowners Association: All residential property owners located within Turning Stone will be required to join and maintain membership in a forced and funded homeowners association (the "Association"), which will be formed prior to any lots being sold.

2. Association shall be responsible for all lawn maintenance for individual lots and all common areas. Association shall also maintain front yard landscaping on individual lots.

3. Reserve areas and landscaping of those reserve areas are to be maintained by The Association.

4. The Association shall manage and provide snow pushing services for private roads, driveways, sidewalks along street, and sidewalks leading from the driveway to the front door of the Dwelling Unit. Snow pushing shall be provided in accordance with requirements and rules established by the Board of Directors. De-icers and de-icing service is not part of this service. Home Lot Owners bear all risks and are responsible for any damage to pavement surfaces caused by their use of de-icers on their own driveways and sidewalks.

5. Select exterior maintenance of Dwelling Units shall be provided to homeowners on behalf of The Association, which may include, but shall not be limited to roofs, gutters, paint, siding, garage doors, and exterior light fixtures. The Association shall not be responsible for repairs or damages that were insured or should have been insured at the time damages occurred.

6. The Board will be turned over at the expiration of the Development Period. Within ninety (90) days after the expiration of the Development Period, the President of the Association shall call a special membership meeting ("Development Period Special Meeting"). At the Development Period Special Meeting, all Declarant appointed Directors shall be deemed removed from office, and the Class A Members, including the Declarant if it is then an Owner, shall elect a Director to fill each vacancy on the Board.

Development Period. "Development Period" means the period commencing on the date on which this Declaration is recorded and terminating on the earlier to occur of: (i) within thirty (30) days following the date when one hundred percent (100%) of the Dwelling Units which may be built on the Property or Additional Property have been deeded by either Declarant and/or any Builder to a third party purchaser; or (ii) thirty (30) years from the date of recording of the Declaration.

IV. Residential Accessory Structures

In order to promote the health, safety, and welfare of all Lot Owners, Members, and Occupants, and to preserve, beautify, and maintain the Property and all Structures thereon as a subdivision of high-quality and to preserve and promote a good environmental quality, the following covenants, restrictions and limitations as to use and occupancy are hereby adopted, declared and established. These covenants and restrictions shall hereinafter burden and benefit all Lots on the Property, shall run with the land, be binding on current and successor Lot Owners, for the benefit of all Lot Owners and all Lots on the Property.

A. Ancillary Structures

1. No Improvements or Structures of a temporary character, trailer, shack, garage, barn, or other temporary outbuilding shall be used or erected on any Lot after the permanent residence on each Lot has been completed.

B. Parking

1. All Lots shall provide a minimum of two (2) off-street parking spaces, exclusive of garages. No parking spaces, streets, or driveways nor any other part of the Common Elements nor any Lot upon which a Dwelling Unit is constructed shall be used for parking of any trailer, truck, boat, or anything other than operative automobiles, motorcycles, or scooters, except while loading, unloading, or cleaning which shall not exceed forty-eight (48) hours. Any of such vehicles may, however, be stored or parked in an enclosed garage provided such garage door is completely closed at all times when such a vehicle is parked therein.

2. All Dwelling Units shall contain a garage; carports shall not be permitted. Garage doors should be kept closed at all times, except during times of ingress and egress from the garage. Garages shall be used primarily for the parking of vehicles and shall not be used

primarily for storage or other purposes. Garages shall not be converted to additional living space.

C. Swimming Pools/ Spas

1. No above-ground or in-ground swimming pools, hot tubs or spas shall be constructed, erected, placed, or permitted to remain upon any Lot.

D. Garbage Refuse and Disposal

1. All trash, garbage, or other rubbish shall be kept at all times in each Owner's garage, except on the days which the trash, garbage, or other rubbish is collected by the local waste removal authorities or as otherwise directed and instructed by the Association. Any trash containers placed outside by the Dwelling Unit Owners to be collected by the local waste removal authorities shall only remain outside for a period not to exceed twenty-four (24) hours and may not be placed at the curb any earlier than 6:00 p.m. the day before the trash is scheduled to be removed. Trash removal and/or recycling shall be subject to such other rules and regulations as the Board may adopt from time to time.

E. Signs

1. No permanent sign shall be permitted on any Lot or building in the Subdivision. An Owner of a Dwelling Unit is permitted to place and maintain a standard "For Sale" or "For Rent" sign on his Lot; provided, however it is of a typical size within the industry. An Owner must obtain the prior written consent of the Board in the event said Owner desires to install and maintain a "For Sale" or "For Rent" sign which is not of a typical size within the industry.

F. Fencing

1. No fences shall be erected or built on any part of any Lot. Entrance designations, Recreational Facilities, fences and any other Structure erected by Declarant, Builder and/or the Association are exempt from this Restriction.

G. Patios, Decks and Pergolas

1. Patios and pergolas are permitted, but shall be professionally designed and may not be constructed or installed without consent of the Board. Decks shall not be permitted.

H. Mailboxes/ Addresses

1. The Builder shall be responsible for the installation of individual mailboxes, cluster mailboxes, or a community mailbox facility. The Association shall be responsible for maintenance of the established mailboxes.

I. House Numbering

1. Each home shall be required to install house numbers in a common location on each home.

J. Lighting

1. Street lighting shall comply with the Zoning Code of The City of Canal Winchester and follow specifications from American Electric Lighting.

2. Landscape lighting for Dwelling Units shall be low-voltage. Outdoor lighting fixtures for safety, security and ingress and egress purposes and shall be fixtures with the light source shielded from off lot visibility (cut off fixtures only).

V. Commercial Development Standards

The following are Development Standards for the commercial subarea of the PUD, provided however, in the event a standard, use, provision, or requirement is not provided, the standards, uses, provisions and requirements set forth in the City of Canal Winchester Planning and Zoning Code shall apply.

A. General Standards

Total Site Acreage:	17.55 Acres
Commercial Acreage:	1.75 Acres (Phase 2 of Development)
Number of Buildings:	To be Determined in Final Development Plan
Building Square Footage:	To be Determined in Final Development Plan
Building Setbacks:	20’ from U.S. Rt. 33 / Build to 30’ from N. High St. / 50’ from Turning Stone Drive / 20’ from Residential Lot / 20’ from Residential Reserve Area / 20’ Between Commercial Buildings
Parking Setbacks:	10’ from ROW to Parking / 10’ from Parking Stall to Commercial Building(s)
Parking Spaces:	Not to Exceed 1 Space per 200 Square Feet of Building Area

1. As final plans are developed, special attention shall be given to the fact that this subarea is located within the Old Town Overlay District per Section 1175.01.

B. Permitted Uses

Uses permitted in Section 1167.02(b) - Business and Professional Offices:

Business offices engaged in providing tangible and intangible services to the public, involving both persons and their possessions, including:

(1) Administrative, Business and Professional Offices: Administrative offices primarily engaged in general administration, supervision, purchasing, accounting and other management functions, and professional offices engaged in providing tangible and intangible services to the general public, involving both persons and possessions, including financial services, real estate and insurance.

(2) Professional: Offices of physicians and surgeons, dentists and dental surgeons, chiropractors, medical and dental laboratories, health and allied sciences not elsewhere classified, legal services, design services including engineering, architecture, landscape architecture, urban planning, graphic arts, and interior design, and accounting, auditing and bookkeeping services.

(3) Health care maintenance and emergency services.

C. <u>Building, Setback and Height Restrictions</u>

1. Multiple buildings may be constructed.

2. The width, height, surrounding setbacks and style shall be considered in relationship to adjacent structures. If the new buildings cannot align with adjacent structures due to site constraints, the buildings shall be placed farther back rather than in front of adjacent buildings. The proportion of the buildings shall be compatible with adjacent buildings and the relationship between buildings within the commercial subarea should allow for consistency of style, size and density.

3. The height of all buildings shall not exceed forty (40') feet per Section 1173.03(b).

4. The buildings may be placed toward the northern property line adjacent to U.S. Rt. 33 in order to create adequate space and separation from the homes to the south, to provide a visual barrier from U.S. Rt. 33, and to create better visibility for the businesses along U.S. Rt. 33.

5. All commercial lots shall front on a public right-of-way.

6. There shall be no maximum lot coverage requirement.

7. The commercial and residential development will coordinate and/or share signage in order to minimize visual clutter and will be made out of material as allowed in the Old Town District guidelines. The Entry Monument shall be a maximum of twelve feet (12') in height and eight feet (8') wide. The Sub-Entry Monument(s) shall be a maximum of seven feet (7') in height and five feet (5') in width.

D. Architectural and Design Standards:

1. Each building shall be in an architectural style which is appropriate in the Old Town Overlay District, and final designs shall be reviewed by the Canal Winchester Landmarks Commission per Section 1175.01.

2. All exterior walls shall be comprised of eighty (80) percent natural material with brick or stone as the predominant material. Other natural materials may also be incorporated into the building's exterior design. Use of "newer" materials is subject to approval by the Planning and Zoning Commission. Stucco, drivit and like materials may be used as accents provided the total square footage of accent material does not exceed twenty (20) percent of the gross exterior building wall square footage. Aluminum and/or vinyl shall be allowed for trim details only such as soffits, gutters, shutters, etc., but shall not be used as siding products.

3. Roof and building façade colors shall be coordinated to complement each other and a historical color palette may be utilized to create consistency with neighboring parcels in the Old Town District. Roof materials shall be shingles, slate or synthetic slate, and metal standing seam. Asphalt shingles shall have an "architectural" or "dimensional" appearance and performance.

4. All structures within the commercial subarea shall be designed to be architecturally compatible with each other by employing similar roof pitches, architectural details and be constructed of compatible exterior building materials. All buildings and portions thereof shall retain traditional building massing. A building frontage that exceeds a width of fifty (50) feet shall incorporate articulation and offset of the wall plane to inhibit a large expanse of blank wall and add interest to the façade.

5. The façade of the portion of the building facing North High Street shall be designed to have its front entry, or the architectural appearance of a front entry, facing North High Street. For the other buildings, if any, the orientation shall be towards the primary street right of way and an entryway shall be located on the front of the building. Corner entrances are acceptable to meet this requirement if one side of the corner entrance faces the primary street right of way.

6. Special attention shall be given to minimize any "blank walls" without windows facing North High Street and U.S. Rt. 33. Specifically, elevations facing the primary street shall be a minimum of forty (40) percent glass between the height of two (2) feet and ten (10) feet and have an unobstructed view of the building interior to a depth of four (4) feet. The use of black, gold, green, silver, or any other reflective colored glass on a building is prohibited. The use of spandrel glass is also prohibited. Frosted glass may be permitted in some cases, subject to approval of the Planning and zoning Commission.

7. For every one hundred (100) feet of elevation width, each side and rear elevation must

contain at least two (2) design elements and each front elevation must contain at least three (3) design elements. For multi-story buildings, each story on a single elevation shall contain at least two (2) design elements. Typical design elements can include:

a) A door of at least twenty-eight (28) square feet in area with an awning, window, faux window or other feature subject to approval by the Planning and Zoning Commission.
b) A window of at least six (6) square feet in area. Windows closer than ten (10) feet shall be considered as one (1) element. A set of adjacent windows, such as double or bay windows, shall be considered as one element.
c) A chimney.
d) An articulated gable vent of at least four (4) square feet in area.
e) Porches, decks or similar structures.
f) A similar significant permanent architectural feature consistent with the style of the building upon approval by the Planning and Zoning Commission.

8. All external and rooftop mechanical equipment, including satellite antennas, and trash dumpsters shall be screened from view at all property lines on which the building is located. Screening materials shall be complimentary to those used on the majority of the building. For ground mounted equipment, landscaping shall be the preferred method of screening. If two or more buildings are located on the same property, rooftop equipment shall not be visible at ground level within fifty (50) feet from any building.

E. Parking Requirements

1. There shall be a maximum of one parking space for every 200 square feet of commercial building space.

2. The parking areas shall be broken up where possible so not to create a single large unbroken paved lot for off-street parking, and smaller defined parking areas are encouraged.

3. Due to the irregular shape of the site and resulting constraints with building layouts, parking may be located on the portion of the site fronting Turning Stone Drive.

VI. Landscaping, and/or Screening Commitments

The proposed development shall comply with all landscape regulations set forth in part eleven Chapter 1191 of the codified ordinances of Canal Winchester.

A. Residential

1. A total of two hundred fifty-two (242) trees are anticipated to be removed within the project limits, and two hundred twenty-eight (218) trees will be replaced by one (1) tree from the list of Approved Urban Forest Trees and Plants for Canal Winchester. Any tree that is determined to be "dying," "dead," and/or any species not listed in the Approved Urban Forest Trees and Plants for Canal Winchester at the time of removal shall not require replacements. The final quantity of trees to be removed and replaced shall be determined during final technical review. Please see the Conceptual Landscape Plan for preliminary tree removal and replacement quantities and locations

2. An eight foot (8') wide recreational asphalt path shall be provided within the Development; a preliminary routing is shown on the Conceptual Landscape Plan, along the northern boundary. The path will tie into the commercial parcel to allow access for future employees. The final alignment and routing of the recreational asphalt path is subject to final technical review.

3. Chapter 1191, Section 1191.07, pertaining to the City's Street Tree Fund, shall not apply due to the use of private streets within the Development.

B. Commercial

1. 30 sq. ft. for every 1,000 sq. ft. of building ground coverage

2. 1 tree for every 1,000 sq. ft. of building ground coverage.

3. Off-street parking areas for more than five (5) vehicles shall be effectively screened on each side which abuts a residential zoning district or public right-of-way by a masonry wall or solid wood fence. Such wall or fence shall be no higher than four (4) feet and shall be maintained in good condition. Landscaping provided in lieu of such wall or fence shall consist of a strip of land not less than fifteen (15) feet in width planted with an evergreen hedge or dense planting of evergreen shrubs not less than four (4) feet in height.

4. All off-street parking areas shall provide one (1) tree of no less than two (2) inches DBH, for every six (6) parking spaces. These trees shall be planted in a parking island and located uniformly within the interior of the parking area. All trees shall be balled and burlapped or containerized/potted when planted. The top eighteen (18) inches of the burlap bag and cage shall be removed when planting. Planting beds for parking lot trees shall be constructed so as to minimize damage to trunks and roots of the trees from vehicles, pedestrians and parking lot maintenance through the use of adequate soil planting area and curbing or parking blocks. Planting soil area per tree shall be a minimum of sixteen (16) square feet. The minimum dimension for the planting areas shall be four (4) feet on one side. Additionally, any parking landscape island shall be designed to be comprehensive and larger in size rather than many smaller islands.

5. A landscaped area totaling a minimum of fifty (50) square feet shall be provided centered on the base of all freestanding signs and should be comprised of a variety of natural materials, such as, ground cover, perennials, shrubs, and hedges. Turf grass shall not be used in this sign landscaping area.

6. For all non-single family residential uses requiring trash container receptacles, such as dumpsters, all such containers or receptacles shall be enclosed on all sides by walls or fences with an opacity of one hundred (100) percent and a minimum height of six (6) feet. Such containers or receptacles when located adjacent to or abutting a residential zoning district shall in addition be landscaped on all sides visible from such districts by shrubs and hedges with an opacity of seventy-five (75) percent. Trash containers and receptacles shall be located behind the building line and shall be located to the rear of non-residential uses. Trash containers and receptacles shall conform to side and rear yard setback requirements and for non-residential uses adjacent to a residential zoning district, such containers and receptacles shall be located no closer than twenty-five (25) feet to any property line.

7. The landscaping shall be designed to be comprehensive in large pockets located between and around the commercial buildings to promote larger usable landscape areas rather than small islands.

VII. Divergence Request

1. The applicant is requesting a divergence from 1173.03 (b) “Minimum Lot Requirements” which requires a minimum lot area for a PUD twenty (20) acres or more. The site is owned by a single owner/entity, and therefore, it makes sense to plan the site together. The applicant believes rezoning the site to PUD and planning it comprehensively allows the commercial and residential uses to better complement one another and encourages the uses to work together to create the best overall design.

2. The applicant is requesting a divergence from 1173.03 (c) “Site Development Standards” which requires a maximum density of four (4) units per acre. There are four (4) major reasons the applicant is requesting this divergence:

    a. Additional density increases the number of residents to support and promote commercial growth within downtown Canal-Winchester/Old Town District. Additional residents within walking distance of downtown/Old Town District promotes activity along the streetscape, especially high street.

    b. Additional density increases the city's tax base through increased property tax and through additional commercial/sales tax from increased residents/users. In addition, the proposed street network is private (i.e. not maintained by the city) and duplex residents tend to have fewer/older children, which limits the impact on local schools.

c. Provides another housing type/diversifies housing stock with an option that tends to attract young professionals and active adults/"baby boomers".

d. Additional density makes the ownership and maintenance of private streets more economical for future residents; i.e. more residents to bear the cost. This in turn increases the disposable income available to future residents, which can be used to support local businesses.

In summary, the applicant believes the above points support additional density and result in the highest and best use of the site; especially given the site's location next to a major highway (US 33) and downtown Canal-Winchester/Old Town District.

3. The applicant is requesting a divergence from 1173.03 (c) (10) b "Site Development Standards" which allows private roads as a common easement as long as the easement does not serve an area larger than two (2) acres, except that such area will contain six (6) dwellings or less. The applicant, during its pre-application meeting with city staff, showed a plan with public streets/rights-of-way, and city staff requested all streets to be private.

4. The applicant is requesting a divergence from Chapter 1181.04, which states 25% of site acreage be set aside as a public space. These public spaces "shall be used as sites for public parks, open space, and recreational areas." The current amount of open space on the site is 24% and includes two large recreational areas, and four smaller common areas used for open space and screening of nearby residences. The 24% open space does not include any open space that may be dedicated by the commercial parcel in final development plans.

5. The applicant is requesting a divergence from Chapter 1173.03(b)(4), which states that "adjacent residential homes shall not have identical facades relative to style and color, and all residential building front yard setbacks shall meet the applicable district requirements and be staggered." The applicant is committed to creating a high-quality community that minimizes monotony through variations in architecture, color schemes for buildings, slight variations in front-yard setbacks, and landscaping. The applicant is working with City Staff to define the implementation of these variations to create an aesthetically-pleasing community within the City of Canal Winchester.

Appendices

Appendix A-	Zoning Code and Map Amendment/ Preliminary Plan Applications
Appendix B-	Preliminary Plan
Appendix C-	Traffic Study
Appendix D-	Capacity Letter
Appendix E-	Evidence of Control
Appendix F-	Duplex Design Study
Appendix G-	Duplex Elevations

PRELIMINARY PLAN
TURNING STONE

SECTION 30, TOWNSHIP 16, RANGE 20; CONGRESS LANDS
CITY OF CANAL WINCHESTER, COUNTY OF FRANKLIN, STATE OF OHIO

JUNE 2017

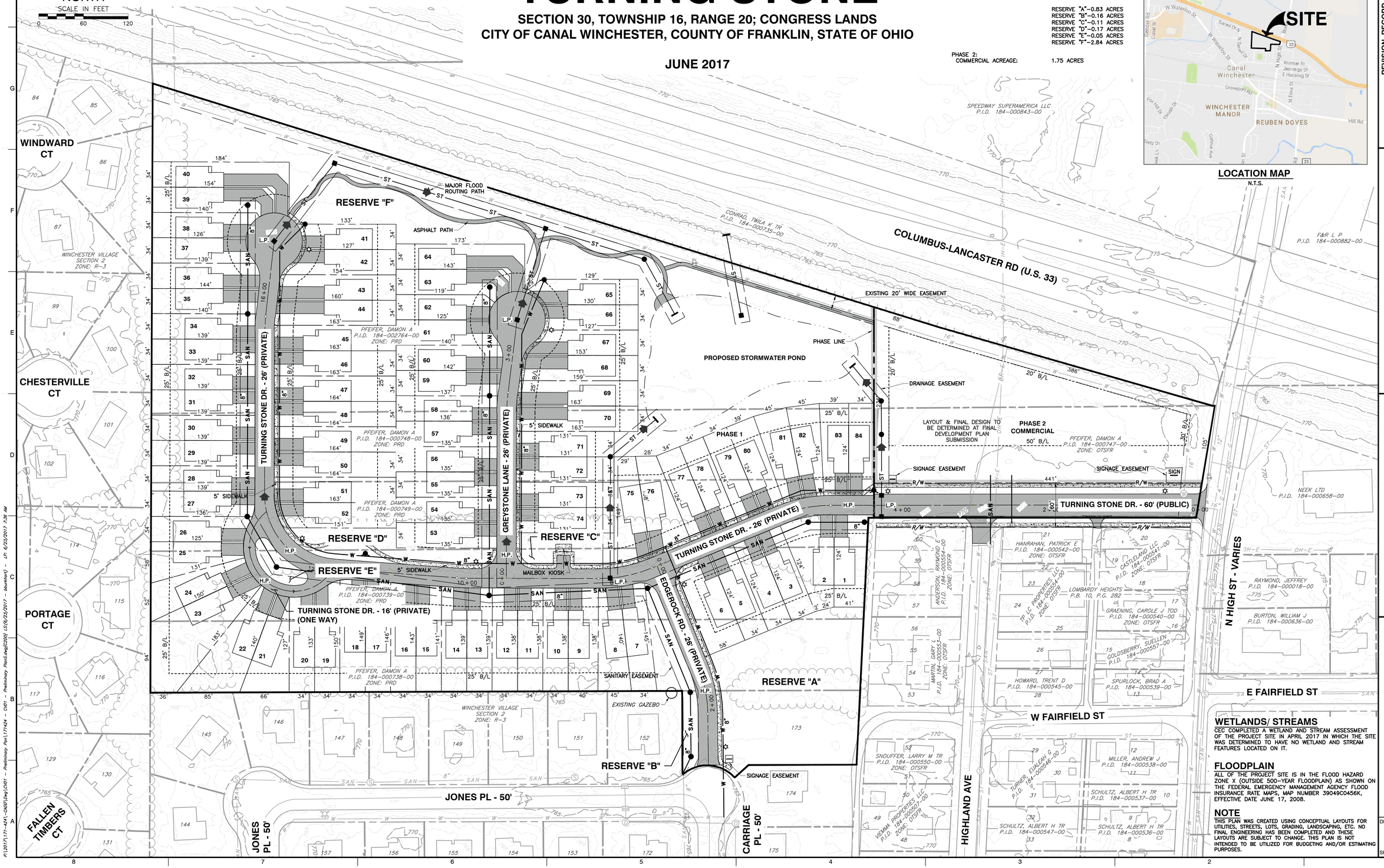
DEVELOPER
GRAND COMMUNITIES, LTD.
3940 OLYMPIC BOULEVARD, SUITE 100
ERLANGER, KENTUCKY 41019
PHONE: (859) 344-3136
CONTACT: JASON WISNIEWSKI
EMAIL: JWISNIEWSKI@FISCHERHOMES.COM

ENGINEER/SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
250 OLD WILSON BRIDGE ROAD, SUITE 250
WORTHINGTON, OHIO 43085
PHONE: (614) 540-6633
ENGINEER: BRIAN BURKHART, PE 74701, BBURKHART@CECINC.COM
SURVEYOR: MARK SMITH, PS S-8232, MSMITH@CECINC.COM

NORTH
SCALE IN FEET
0 60 120

SITE DATA

SITE ACREAGE:	17.55 ACRES +/-
OPEN SPACE:	4.16 ACRES (4.16/17.55=0.48)
	24%
PHASE 1:	
RESIDENTIAL ACREAGE:	15.80 ACRES
	PUBLIC R/W=0.48 ACRES
	RESERVE "A"=0.83 ACRES
	RESERVE "B"=0.16 ACRES
	RESERVE "C"=0.11 ACRES
	RESERVE "D"=0.17 ACRES
	RESERVE "E"=0.05 ACRES
	RESERVE "F"=2.84 ACRES
PHASE 2:	
COMMERCIAL ACREAGE:	1.75 ACRES



LOCATION MAP
N.T.S.

WETLANDS/ STREAMS

CEC COMPLETED A WETLAND AND STREAM ASSESSMENT OF THE PROJECT SITE IN APRIL 2017 IN WHICH THE SITE WAS DETERMINED TO HAVE NO WETLAND AND STREAM FEATURES LOCATED ON IT.

FLOODPLAIN

ALL OF THE PROJECT SITE IS IN THE FLOOD HAZARD ZONE X (OUTSIDE 500-YEAR FLOODPLAIN) AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS, MAP NUMBER 39049C0456K, EFFECTIVE DATE JUNE 17, 2008.

NOTE

THIS PLAN WAS CREATED USING CONCEPTUAL LAYOUTS FOR UTILITIES, STREETS, LOTS, GRADING, LANDSCAPING, ETC. NO FINAL ENGINEERING HAS BEEN COMPLETED AND THESE LAYOUTS ARE SUBJECT TO CHANGE. THIS PLAN IS NOT INTENDED TO BE UTILIZED FOR BUDGETING AND/OR ESTIMATING PURPOSES.

ORD-17-041
Exhibit C

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

PRELIMINARY PLAN

DATE:	JUNE 2017
DRAWN BY:	MDG
DWG SCALE:	1"=60'
CHECKED BY:	CLL
PROJECT NO:	171-424
APPROVED BY:	

DRAWING NO.: **C200**
SHEET 1 OF 7

P:\2017\171-424\-CADD\Dwg\C101 - Preliminary Plan\171424 - C101 - Preliminary Plan(S-Map)(C200) LS(6/23/2017 - bburkhart) - LP: 6/23/2017 7:36 AM

Civil & Environmental Consultants, Inc.

DESCRIPTION OF 17.554 ACRES FOR ZONING PURPOSES

Situated in the State of Ohio, County of Franklin, City of Canal Winchester, Section 30, Township 16, Range 20, Congress Lands, being all of Baby Farm No. 7 (Parcel 184-000738) and 8 (Parcel 184-000739) of Lombardy Heights, of record in Plat Book 10, Page 282 and as described in deed to Damon A. Pfeifer, of record in Instrument 201104200051504, all of Baby Farm No. 9 (Parcel 184-000749) and 10 (Parcel 184-000748) of said Lombardy Heights, and the adjacent alley as vacated in Ordinance 634, and all of that 7.123 acres (Parcel 184-002767) , all of which being described in deed to Damon A. Pfeifer, of record in Instrument 201104200051505, and all of Baby Farm No. 1, (Parcel 184-000747) of said Lombardy Heights and described in deed to Damon A. Pfeifer, of record in Instrument 201104200051506 and all of Lot 173 (Parcel 184-001616)of Winchester Village Section 2 , of record in Plat Book 77, Page 71 and described in deed to Tiger Construction, all being of record in the Recorder's Office, Franklin County, Ohio and being more particularly described as follows:

BEGINNING, at the common corner of said Winchester Village Section 2 and said 7.123 acres, also being in the south limited access right of way line of U.S. Route 33;

Thence South 68°29'51" East, a distance of 1103.95 feet, with the common line of said 7.123 acres and said U.S. Route 33, to a point;

Thence South 69°35'04" East, a distance of 386.02 feet, with the common line of said 7.123 acres and said U.S. Route 33, to a point;

Thence South 13°59'30" West, a distance of 0.62 feet, to a point in the north line of said Baby Farm No. 1;

Thence South 85°56'33" East, a distance of 5.17 feet, with the north line of said Baby Farm No. 1, to a point;

Thence South 08°52'37" West, a distance of 153.00 feet, with the east line of said Baby Farm No. 1, to a point;

Thence North 85°09'54" West, a distance of 455.29 feet, with the south line of said Baby Farm No. 1 and the north line of Highland Avenue, to a point in the west line of an existing alley and the east line of said Baby Farm No. 9;

Thence South 07°12'57" West, a distance of 230.09 feet, with the common line of said Baby Farm No. 7, 8, and 9 and said existing alley, to a point at the southeast corner of said Lot 173 of said Winchester Village Section 2;

Thence with the perimeter of said Lot 173, the following courses:

North 85°54'28" West, a distance of 145.00 feet, to a point;

South 52°03'34" West, a distance of 25.00 feet, to a point on a curve;

With the arc of a curve to the left having a radius of 50.00 feet, delta angle of 89°23'20", an arc length of 78.01 feet, a chord bearing of North 82°38'17" West, and a chord distance of 70.33 feet, to a point;

North 04°04'26" East, a distance of 112.50 feet, to a point on the south line of said Baby Farm No. 7;

Thence North 85°55'34" West, a distance of 712.94 feet, with the south line of said Baby Farm No. 7 and the north line of said Winchester Village Section 2, to a point;

Thence North 04°21'59" East, a distance of 816.03 feet, with the common line of said Lombardy Heights and said Winchester Village Section 2, to the **POINT OF TRUE BEGINNING,** and containing 17.554 acres, more or less.

The bearings shown hereon are an assumed bearing of South 68°29'51" East for the south right of way line of U.S. Route 33 as established from linework obtained from the Franklin County Auditor's GIS.

The above description was prepared from record information and intended to be used for zoning purposes only.

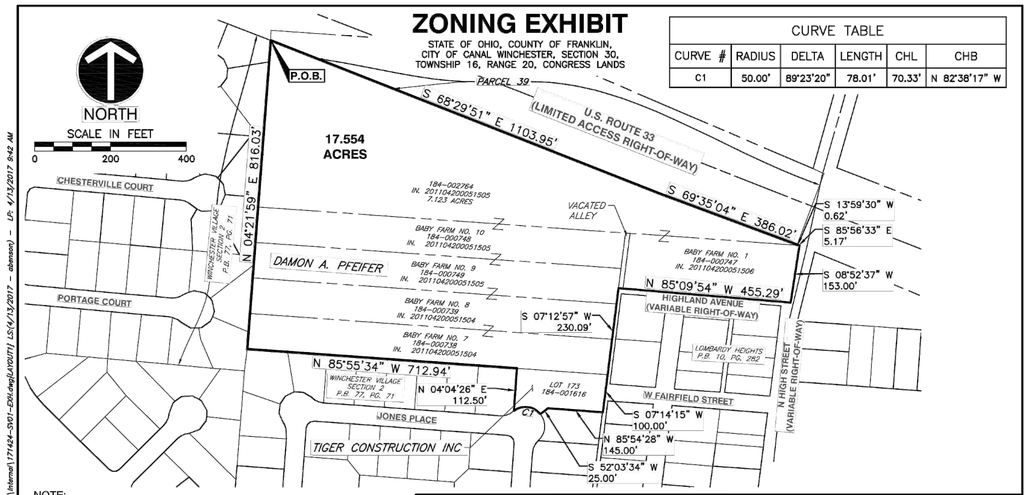
File Name: 171424SV01-DESC-ZO.docx

250 Old Wilson Bridge Road, Suite 250 | Worthington, Ohio 43085 | p: 614-540-6633 f: 614-540-6638 | www.cecinc.com

ZONING EXHIBIT

STATE OF OHIO, COUNTY OF FRANKLIN,
CITY OF CANAL WINCHESTER, SECTION 30,
TOWNSHIP 16, RANGE 20, CONGRESS LANDS

CURVE TABLE					
CURVE #	RADIUS	DELTA	LENGTH	CHL	CHB
C1	50.00'	89°23'20"	78.01'	70.33'	N 82°38'17" W



NOTE:
THE ABOVE INFORMATION IS BASED ON RECORD INFORMATION OBTAINED FROM THE RECORDER'S OFFICE, FRANKLIN COUNTY AND AUDITOR'S GIS. THE EXHIBIT DOES NOT REPRESENT A BOUNDARY SURVEY AND IS INTENDED TO BE USED FOR ZONING PURPOSES ONLY.

BASIS OF BEARING:
THE BEARINGS SHOWN HEREON ARE AN ASSUMED BEARING OF SOUTH 68°29'51" EAST FOR THE SOUTH RIGHT OF WAY LINE OF U.S. ROUTE 33 AS ESTABLISHED FROM LINEWORK OBTAINED FROM THE FRANKLIN COUNTY AUDITOR'S GIS.

Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
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HIGH STREET
AND US 33
CANAL WINCHESTER, OHIO

17.554 ACRES

DRAWN BY:	ALB	CHECKED BY:	MAS	APPROVED BY:	MAS	EXHIBIT:
DATE:	APRIL 2017	DWG SCALE:	1"=200'	PROJECT NO:	171-424	1

STANDARD STREET LIGHT DETAIL

STREET LIGHTING SHALL COMPLY WITH THE ZONING CODE OF THE CITY OF CANAL WINCHESTER AND FOLLOW SPECIFICATIONS FROM AMERICAN ELECTRIC LIGHTING.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

ZONING EXHIBIT & DETAILS

DATE:	JUNE 2017
DRAWN BY:	MDG
DWG SCALE:	AS NOTED
CHECKED BY:	CLL
PROJECT NO:	171-424
APPROVED BY:	

DRAWING NO.: C201

SHEET 2 OF 7

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P:\2017\171-424\-Survey\Dwg\Internal\171424-SV01-ZONing[A1024ITI] LS:(6/13/2017 - dbenham) - LP: 6/13/2017 8:42 AM

NORTH

SCALE IN FEET

0 60 120

WINDWARD CT

CHESTERVILLE CT

PORTAGE CT

FALLEN TIMBERS CT

TURNING STONE DR. - 26' (PRIVATE)

GREYSTONE LANE - 26' (PRIVATE)

TURNING STONE DR. - 16' (PRIVATE) (ONE WAY)

EDGEROCK RD. - 26' (PRIVATE)

EXISTING GAZEBO

COLUMBUS-LANCASTER RD (U.S. 33)

TURNING STONE DR. - 60' (PUBLIC)

TURNING STONE DR. - 26' (PRIVATE)

N HIGH ST - VARIES

E FAIRFIELD ST

W FAIRFIELD ST

HIGHLAND AVE

JONES PL - 50'

JONES PL - 50'

CARRIAGE PL - 50'

LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED

REVISION RECORD

NO	DATE	DESCRIPTION

CEC

Civil & Environmental Consultants, Inc.

250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085

614-540-6633 · 888-598-6808

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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

TREE SURVEY

DATE:	JUNE 2017
DRAWN BY:	MDG
DWG SCALE:	1"=60'
CHECKED BY:	CLL
PROJECT NO:	171-424
APPROVED BY:	

DRAWING NO.: C700

SHEET 3 OF 7

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ID	Common Name	Scientific Name	Condition	DBH (IN)
1	Ash, Green	Fraxinus pennsylvanica	Good	8
2	Cherry, Black	Prunus serotina	Poor	11
2	Cherry, Black	Prunus serotina	Poor	9
3	Maple, Red	Acer rubra	Good	11
4	Cherry, Black	Prunus serotina	Good	11
5	Hackberry	Celtis occidentalis	Good	11
5	Hackberry	Celtis occidentalis	Good	9
5	Hackberry	Celtis occidentalis	Good	7
5	Hackberry	Celtis occidentalis	Good	7
5	Hackberry	Celtis occidentalis	Good	7
6	Hackberry	Celtis occidentalis	Good	16
6	Hackberry	Celtis occidentalis	Good	14
6	Hackberry	Celtis occidentalis	Good	14
7	Osage-Orange	Maclura pomifera	Poor	7
8	Cherry, Black	Prunus serotina	Good	7
9	Cherry, Black	Prunus serotina	Good	6
10	Cherry, Black	Prunus serotina	Good	8
10	Cherry, Black	Prunus serotina	Good	7
10	Cherry, Black	Prunus serotina	Good	6
11	Hackberry	Celtis occidentalis	Good	11
12	Cherry, Black	Prunus serotina	Poor	8
13	Hackberry	Celtis occidentalis	Good	7
14	Hackberry	Celtis occidentalis	Good	11
15	Cherry, Black	Prunus serotina	Good	26
16	Cherry, Black	Prunus serotina	Poor	9
17	Hackberry	Celtis occidentalis	Good	7
18	Hackberry	Celtis occidentalis	Good	23
19	Hackberry	Celtis occidentalis	Good	23
19	Hackberry	Celtis occidentalis	Good	6
20	Hackberry	Celtis occidentalis	Good	10
21	Hackberry	Celtis occidentalis	Good	6
21	Hackberry	Celtis occidentalis	Good	6
22	Osage-Orange	Maclura pomifera	Good	11
22	Osage-Orange	Maclura pomifera	Good	8
23	Cherry, Black	Prunus serotina	Poor	12
24	Elm, Slippery	Ulmus rubra	Good	21
25	Cherry, Black	Prunus serotina	Good	19
26	Hackberry	Celtis occidentalis	Good	6
27	Oak, Pin	Quercus palustris	Good	13
28	Cherry, Black	Prunus serotina	Poor	27
29	Hackberry	Celtis occidentalis	Good	10
30	Cherry, Black	Prunus serotina	Good	10
31	Hackberry	Celtis occidentalis	Good	11
31	Hackberry	Celtis occidentalis	Good	6
32	Cherry, Black	Prunus serotina	Good	6
33	Cherry, Black	Prunus serotina	Poor	18
34	Osage-Orange	Maclura pomifera	Good	24
34	Osage-Orange	Maclura pomifera	Good	16

ID	Common Name	Scientific Name	Condition	DBH (IN)
34	Osage-Orange	Maclura pomifera	Good	14
35	Osage-Orange	Maclura pomifera	Good	6
36	Osage-Orange	Maclura pomifera	Good	6
37	Cherry, Black	Prunus serotina	Poor	27
37	Cherry, Black	Prunus serotina	Poor	24
38	Cherry, Black	Prunus serotina	Poor	27
39	Cherry, Black	Prunus serotina	Poor	22
39	Cherry, Black	Prunus serotina	Poor	20
40	Cherry, Black	Prunus serotina	Good	8
41	Cherry, Black	Prunus serotina	Good	32
42	Hackberry	Celtis occidentalis	Good	10
42	Hackberry	Celtis occidentalis	Good	9
43	Hackberry	Celtis occidentalis	Good	6
44	Hackberry	Celtis occidentalis	Good	8
45	Hackberry	Celtis occidentalis	Good	10
45	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	9
46	Hackberry	Celtis occidentalis	Good	8
46	Hackberry	Celtis occidentalis	Good	8
46	Hackberry	Celtis occidentalis	Good	8
46	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	7
46	Hackberry	Celtis occidentalis	Good	6
46	Hackberry	Celtis occidentalis	Good	6
46	Hackberry	Celtis occidentalis	Good	6
47	Hackberry	Celtis occidentalis	Good	8
48	Maple, Red	Acer rubra	Good	9
48	Maple, Red	Acer rubra	Good	8
49	Osage-Orange	Maclura pomifera	Good	13
49	Osage-Orange	Maclura pomifera	Good	10
49	Osage-Orange	Maclura pomifera	Good	9
50	Maple, Red	Acer rubra	Good	28
50	Maple, Red	Acer rubra	Good	24
50	Maple, Red	Acer rubra	Good	22
51	Cherry, Black	Prunus serotina	Good	10
52	Maple, Silver	Acer saccharinum	Good	10
52	Maple, Silver	Acer saccharinum	Good	9
53	Maple, Silver	Acer saccharinum	Good	15
53	Maple, Silver	Acer saccharinum	Good	14
53	Maple, Silver	Acer saccharinum	Good	12
53	Maple, Silver	Acer saccharinum	Good	10
53	Maple, Silver	Acer saccharinum	Good	9
53	Maple, Silver	Acer saccharinum	Good	8
54	Elm, Slippery	Ulmus rubra	Good	20
55	Osage-Orange	Maclura pomifera	Poor	26
56	Sycamore	Platanus occidentalis	Good	38
57	Hickory, Shagbark	Carya ovata	Poor	24

ID	Common Name	Scientific Name	Condition	DBH (IN)
58	Hackberry	Celtis occidentalis	Good	7
59	Boxelder	Acer negundo	Good	7
60	Boxelder	Acer negundo	Good	6
61	Boxelder	Acer negundo	Good	6
62	Cherry, Black	Prunus serotina	Good	10
63	Boxelder	Acer negundo	Good	6
64	Osage-Orange	Maclura pomifera	Good	21
65	Boxelder	Acer negundo	Good	10
66	Osage-Orange	Maclura pomifera	Good	8
67	Cherry, Black	Prunus serotina	Good	13
68	Hackberry	Celtis occidentalis	Good	19
69	Hackberry	Celtis occidentalis	Good	22
70	Osage-Orange	Maclura pomifera	Poor	16
71	Hackberry	Celtis occidentalis	Good	9
72	Hackberry	Celtis occidentalis	Good	21
72	Hackberry	Celtis occidentalis	Good	20
73	Cherry, Black	Prunus serotina	Good	18
74	Cherry, Black	Prunus serotina	Good	16
75	Cherry, Black	Prunus serotina	Good	6
76	Cherry, Black	Prunus serotina	Good	16
76	Cherry, Black	Prunus serotina	Good	7
77	Cherry, Black	Prunus serotina	Good	12
78	Osage-Orange	Maclura pomifera	Good	15
79	Cherry, Black	Prunus serotina	Good	20
80	Cherry, Black	Prunus serotina	Good	8
80	Cherry, Black	Prunus serotina	Good	6
81	Cherry, Black	Prunus serotina	Good	10
82	Cherry, Black	Prunus serotina	Good	10
83	Cherry, Black	Prunus serotina	Good	8
84	Cherry, Black	Prunus serotina	Good	10
84	Cherry, Black	Prunus serotina	Good	10
85	Cherry, Black	Prunus serotina	Good	7
86	Osage-Orange	Maclura pomifera	Poor	12
87	Osage-Orange	Maclura pomifera	Good	9
88	Osage-Orange	Maclura pomifera	Good	20
88	Osage-Orange	Maclura pomifera	Good	18
89	Cherry, Black	Prunus serotina	Good	10
90	Osage-Orange	Maclura pomifera	Good	6
91	Osage-Orange	Maclura pomifera	Good	8
91	Osage-Orange	Maclura pomifera	Good	7
92	Osage-Orange	Maclura pomifera	Good	11
93	Osage-Orange	Maclura pomifera	Good	17
94	Hackberry	Celtis occidentalis	Good	8
95	Cherry, Black	Prunus serotina	Good	30
96	Maple, Silver	Acer saccharinum	Good	22
96	Maple, Silver	Acer saccharinum	Good	19
97	Osage-Orange	Maclura pomifera	Good	13
97	Osage-Orange	Maclura pomifera	Good	12

ID	Common Name	Scientific Name	Condition	DBH (IN)
98	Cherry, Black	Prunus serotina	Good	25
98	Cherry, Black	Prunus serotina	Good	25
99	Osage-Orange	Maclura pomifera	Good	7
100	Boxelder	Acer negundo	Good	11
100	Boxelder	Acer negundo	Good	9
101	Boxelder	Acer negundo	Good	6
101	Boxelder	Acer negundo	Good	6
102	Cherry, Black	Prunus serotina	Good	10
103	Cherry, Black	Prunus serotina	Good	11
103	Cherry, Black	Prunus serotina	Good	10
104	Cherry, Black	Prunus serotina	Good	7
105	Cherry, Black	Prunus serotina	Poor	7
106	Osage-Orange	Maclura pomifera	Good	7
107	Cherry, Black	Prunus serotina	Good	6
108	Osage-Orange	Maclura pomifera	Good	18
108	Osage-Orange	Maclura pomifera	Good	13
108	Osage-Orange	Maclura pomifera	Good	10
109	Cherry, Black	Prunus serotina	Good	8
110	Maple, Silver	Acer saccharinum	Good	15
111	Boxelder	Acer negundo	Good	7
112	Boxelder	Acer negundo	Good	10
113	Osage-Orange	Maclura pomifera	Good	9
114	Boxelder	Acer negundo	Good	11
114	Boxelder	Acer negundo	Good	10
115	Boxelder	Acer negundo	Poor	6
116	Osage-Orange	Maclura pomifera	Good	9
117	Boxelder	Acer negundo	Good	25
117	Boxelder	Acer negundo	Good	22
117	Boxelder	Acer negundo	Good	18
118	Osage-Orange	Maclura pomifera	Good	10
119	Osage-Orange	Maclura pomifera	Good	7
120	Maple, Red	Acer rubra	Good	7
121	Boxelder	Acer negundo	Good	6
122	Boxelder	Acer negundo	Good	6
123	Boxelder	Acer negundo	Good	8
124	Osage-Orange	Maclura pomifera	Good	10
125	Boxelder	Acer negundo	Good	8
126	Cherry, Black	Prunus serotina	Good	28
127	Hackberry	Celtis occidentalis	Good	6
128	Osage-Orange	Maclura pomifera	Good	13
128	Osage-Orange	Maclura pomifera	Good	6
129	Cherry, Black	Prunus serotina	Good	12
130	Osage-Orange	Maclura pomifera	Poor	7
131	Osage-Orange	Maclura pomifera	Good	13
131	Osage-Orange	Maclura pomifera	Good	9
132	Cherry, Black	Prunus serotina	Good	11
133	Osage-Orange	Maclura pomifera	Good	17
134	Cherry, Black	Prunus serotina	Good	28

ID	Common Name	Scientific Name	Condition	DBH (IN)
135	Hackberry	Celtis occidentalis	Good	8
136	Cherry, Black	Prunus serotina	Good	29
137	Maple, Silver	Acer saccharinum	Good	9
138	Osage-Orange	Maclura pomifera	Good	12
139	Hackberry	Celtis occidentalis	Good	10
139	Hackberry	Celtis occidentalis	Good	7
140	Hackberry	Celtis occidentalis	Good	9
141	Hackberry	Celtis occidentalis	Good	6
142	Hackberry	Celtis occidentalis	Good	7
143	Hackberry	Celtis occidentalis	Good	28
144	Hackberry	Celtis occidentalis	Good	9
145	Cherry, Black	Prunus serotina	Good	13
146	Maple, Silver	Acer saccharinum	Good	8
146	Maple, Silver	Acer saccharinum	Good	7
146	Maple, Silver	Acer saccharinum	Good	6
147	Cherry, Black	Prunus serotina	Good	7
148	Cherry, Black	Prunus serotina	Good	8
149	Cherry, Black	Prunus serotina	Good	8
150	Cherry, Black	Prunus serotina	Good	26
151	Cherry, Black	Prunus serotina	Good	7
152	Cherry, Black	Prunus serotina	Poor	7
153	Cherry, Black	Prunus serotina	Poor	6
154	Cherry, Black	Prunus serotina	Poor	9
155	Cherry, Black	Prunus serotina	Poor	6
156	Boxelder	Acer negundo	Good	7
157	Cherry, Black	Prunus serotina	Good	15
157	Cherry, Black	Prunus serotina	Good	7
157	Cherry, Black	Prunus serotina	Good	7
158	Cherry, Black	Prunus serotina	Good	7
159	Cherry, Black	Prunus serotina	Poor	8
160	Cherry, Black	Prunus serotina	Good	11
161	Boxelder	Acer negundo	Good	8
162	Boxelder	Acer negundo	Good	9
163	Boxelder	Acer negundo	Good	7
164	Cherry, Black	Prunus serotina	Good	9
165	Boxelder	Acer negundo	Poor	8
166	Cherry, Black	Prunus serotina	Good	8
167	Cherry, Black	Prunus serotina	Good	8
168	Boxelder	Acer negundo	Good	7
169	Cherry, Black	Prunus serotina	Good	8
170	Cherry, Black	Prunus serotina	Good	10
171	Boxelder	Acer negundo	Good	7
172	Cherry, Black	Prunus serotina	Good	22
173	Hackberry	Celtis occidentalis	Good	14
174	Hackberry	Celtis occidentalis	Good	9
175	Cherry, Black	Prunus serotina	Good	11
176	Cherry, Black	Prunus serotina	Good	8
177	Cherry, Black	Prunus serotina	Good	8

ID	Common Name	Scientific Name	Condition	DBH (IN)
178	Cherry, Black	Prunus serotina	Good	7
179	Cherry, Black	Prunus serotina	Good	10
180	Boxelder	Acer negundo	Good	8
181	Boxelder	Acer negundo	Good	6
182	Cherry, Black	Prunus serotina	Good	8
183	Cherry, Black	Prunus serotina	Poor	8
184	Cherry, Black	Prunus serotina	Good	9
185	Boxelder	Acer negundo	Poor	7
186	Maple, Silver	Acer saccharinum	Good	9
186	Maple, Silver	Acer saccharinum	Good	7
186	Maple, Silver	Acer saccharinum	Good	6
187	Ash, Green	Fraxinus pennsylvanica	Good	8
187	Ash, Green	Fraxinus pennsylvanica	Good	7
188	Spruce, Blue	Picea pungens	Good	9
189	Hackberry	Celtis occidentalis	Good	15
189	Hackberry	Celtis occidentalis	Good	12
189	Hackberry	Celtis occidentalis	Good	10
190	Hackberry	Celtis occidentalis	Good	12
190	Hackberry	Celtis occidentalis	Good	7
191	Hackberry	Celtis occidentalis	Good	13
192	Cherry, Black	Prunus serotina	Good	9
193	Hackberry	Celtis occidentalis	Good	7
194	Hackberry	Celtis occidentalis	Good	14
194	Hackberry	Celtis occidentalis	Good	13
194	Hackberry	Celtis occidentalis	Good	6
195	Hackberry	Celtis occidentalis	Good	11
196	Hackberry	Celtis occidentalis	Good	9
197	Hackberry	Celtis occidentalis	Good	17
197	Hackberry	Celtis occidentalis	Good	12
197	Hackberry	Celtis occidentalis	Good	10
197	Hackberry	Celtis occidentalis	Good	9
197	Hackberry	Celtis occidentalis	Good	9
198	Cherry, Black	Prunus serotina	Good	11
199	Hackberry	Celtis occidentalis	Good	9
200	Hackberry	Celtis occidentalis	Good	10
201	Hackberry	Celtis occidentalis	Good	12
201	Hackberry	Celtis occidentalis	Good	11
201	Hackberry	Celtis occidentalis	Good	8
201	Hackberry	Celtis occidentalis	Good	7
201	Hackberry	Celtis occidentalis	Good	7
201	Hackberry	Celtis occidentalis	Good	6
201	Hackberry	Celtis occidentalis	Good	6
202	Hackberry	Celtis occidentalis	Good	10
203	Hackberry	Celtis occidentalis	Good	10
204	Hackberry	Celtis occidentalis	Good	14
204	Hackberry	Celtis occidentalis	Good	11
204	Hackberry	Celtis occidentalis	Good	7
204	Hackberry	Celtis occidentalis	Good	6

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

TREE SURVEY

DATE:	JUNE 2017	DRAWN BY:	MDG
DWG SCALE:	N/A	CHECKED BY:	CLL
PROJECT NO:	171-424		
APPROVED BY:			

DRAWING NO.: C701

SHEET 4 OF 7

P:\2017\171-424\-CADD\Dwg\C701 - Preliminary Plan\171424 - C701 - Preliminary Plan\Dwg[C701] LS(6/23/2017 - Abunkhard) - LP: 6/23/2017 7:38 AM

ID	Common Name	Scientific Name	Condition	DBH (IN)
204	Hackberry	Celtis occidentalis	Good	6
205	Cherry, Black	Prunus serotina	Good	9
206	Cherry, Black	Prunus serotina	Good	7
207	Cherry, Black	Prunus serotina	Good	9
208	Hackberry	Celtis occidentalis	Good	20
209	Cherry, Black	Prunus serotina	Poor	13
209	Cherry, Black	Prunus serotina	Poor	8
210	Hackberry	Celtis occidentalis	Good	9
211	Hackberry	Celtis occidentalis	Good	10
212	Hackberry	Celtis occidentalis	Good	14
212	Hackberry	Celtis occidentalis	Good	12
213	Cherry, Black	Prunus serotina	Good	14
214	Osage-Orange	Maclura pomifera	Good	16
214	Osage-Orange	Maclura pomifera	Good	13
215	Hackberry	Celtis occidentalis	Good	6
216	Hackberry	Celtis occidentalis	Good	6
217	Hackberry	Celtis occidentalis	Good	15
217	Hackberry	Celtis occidentalis	Good	11
218	Hackberry	Celtis occidentalis	Good	13
219	Hackberry	Celtis occidentalis	Good	12
220	Hackberry	Celtis occidentalis	Good	12
220	Hackberry	Celtis occidentalis	Good	9
220	Hackberry	Celtis occidentalis	Good	9
221	Hackberry	Celtis occidentalis	Good	11
221	Hackberry	Celtis occidentalis	Good	7
221	Hackberry	Celtis occidentalis	Good	7
221	Hackberry	Celtis occidentalis	Good	6
222	Hackberry	Celtis occidentalis	Good	19
223	Cherry, Black	Prunus serotina	Good	12
224	Hackberry	Celtis occidentalis	Good	21
225	Hackberry	Celtis occidentalis	Good	14
226	Hackberry	Celtis occidentalis	Good	12
226	Hackberry	Celtis occidentalis	Good	10
226	Hackberry	Celtis occidentalis	Good	10
226	Hackberry	Celtis occidentalis	Good	8
227	Hackberry	Celtis occidentalis	Good	11
228	Hackberry	Celtis occidentalis	Good	9
229	Cherry, Black	Prunus serotina	Good	12
230	Boxelder	Acer negundo	Good	15
231	Hackberry	Celtis occidentalis	Good	13
232	Hackberry	Celtis occidentalis	Good	8
233	Hackberry	Celtis occidentalis	Good	11
234	Hackberry	Celtis occidentalis	Good	12
235	Hackberry	Celtis occidentalis	Good	14
236	Cherry, Black	Prunus serotina	Good	16
237	Maple, Red	Acer rubra	Good	11
238	Walnut, Black	Juglans nigra	Good	9
239	Boxelder	Acer negundo	Good	10

ID	Common Name	Scientific Name	Condition	DBH (IN)
240	Boxelder	Acer negundo	Good	12
241	Maple, Sugar	Acer saccharum	Good	16
241	Maple, Sugar	Acer saccharum	Good	9
241	Maple, Sugar	Acer saccharum	Good	6
242	Elm, Slippery	Ulmus rubra	Good	10
242	Elm, Slippery	Ulmus rubra	Good	7
242	Elm, Slippery	Ulmus rubra	Good	6
243	Hackberry	Celtis occidentalis	Good	9
244	Hackberry	Celtis occidentalis	Good	8
245	Cherry, Black	Prunus serotina	Poor	18
246	Boxelder	Acer negundo	Good	6
247	Osage-Orange	Maclura pomifera	Poor	9
248	Maple, Red	Acer rubra	Good	8
249	Cherry, Black	Prunus serotina	Poor	6
250	Oak, Pin	Quercus palustris	Good	11
251	Boxelder	Acer negundo	Poor	13
252	Cherry, Black	Prunus serotina	Good	28
252	Cherry, Black	Prunus serotina	Good	12
253	Osage-Orange	Maclura pomifera	Good	9
254	Osage-Orange	Maclura pomifera	Good	11
255	Boxelder	Acer negundo	Poor	17
256	Boxelder	Acer negundo	Good	10
257	Boxelder	Acer negundo	Good	12
258	Oak, Black	Quercus nigra	Good	11
259	Walnut, Black	Juglans nigra	Good	9
260	Hackberry	Celtis occidentalis	Good	13
260	Hackberry	Celtis occidentalis	Good	9
260	Hackberry	Celtis occidentalis	Good	6
261	Cherry, Black	Prunus serotina	Good	13
262	Cherry, Black	Prunus serotina	Good	8
263	Hackberry	Celtis occidentalis	Good	11
264	Hackberry	Celtis occidentalis	Good	7
265	Ash, White	Fraxinus americana	Good	12
266	Elm, American	Ulmus americana	Good	6
267	Elm, American	Ulmus americana	Good	6
268	Ash, Green	Fraxinus pennsylvanica	Good	7
269	Boxelder	Acer negundo	Good	9
270	Boxelder	Acer negundo	Good	6
271	Hackberry	Celtis occidentalis	Good	11
271	Hackberry	Celtis occidentalis	Good	7
272	Hackberry	Celtis occidentalis	Good	10
273	Boxelder	Acer negundo	Poor	8
274	Hackberry	Celtis occidentalis	Poor	9
275	Boxelder	Acer negundo	Good	6
276	Cherry, Black	Prunus serotina	Good	18
277	Hackberry	Celtis occidentalis	Good	15
278	Cherry, Black	Prunus serotina	Good	18
279	Hackberry	Celtis occidentalis	Good	15

ID	Common Name	Scientific Name	Condition	DBH (IN)
279	Hackberry	Celtis occidentalis	Good	12
280	Hackberry	Celtis occidentalis	Good	13
280	Hackberry	Celtis occidentalis	Good	10
280	Hackberry	Celtis occidentalis	Good	7
280	Hackberry	Celtis occidentalis	Good	7
280	Hackberry	Celtis occidentalis	Good	6
281	Cherry, Black	Prunus serotina	Good	18
282	Cherry, Black	Prunus serotina	Good	14
283	Hackberry	Celtis occidentalis	Good	14
283	Hackberry	Celtis occidentalis	Good	13
283	Hackberry	Celtis occidentalis	Good	10
284	Hackberry	Celtis occidentalis	Good	17
284	Hackberry	Celtis occidentalis	Good	15
284	Hackberry	Celtis occidentalis	Good	13
285	Maple, Red	Acer rubra	Good	6
286	Maple, Red	Acer rubra	Good	8
286	Maple, Red	Acer rubra	Good	7
287	Maple, Red	Acer rubra	Good	6
287	Maple, Red	Acer rubra	Good	6
287	Maple, Red	Acer rubra	Good	6
288	Maple, Red	Acer rubra	Good	10
288	Maple, Red	Acer rubra	Good	6
289	Maple, Red	Acer rubra	Good	6
290	Cherry, Black	Prunus serotina	Good	6
291	Cherry, Black	Prunus serotina	Good	6
292	Maple, Red	Acer rubra	Good	6
293	Cherry, Black	Prunus serotina	Good	6
294	Hackberry	Celtis occidentalis	Good	11
294	Hackberry	Celtis occidentalis	Good	8
294	Hackberry	Celtis occidentalis	Good	8
294	Hackberry	Celtis occidentalis	Good	6
294	Hackberry	Celtis occidentalis	Good	6
295	Hackberry	Celtis occidentalis	Good	7
295	Hackberry	Celtis occidentalis	Good	6
296	Boxelder	Acer negundo	Good	8
297	Cherry, Black	Prunus serotina	Good	6
298	Hackberry	Celtis occidentalis	Good	6
299	Osage-Orange	Maclura pomifera	Good	11
299	Osage-Orange	Maclura pomifera	Good	7
300	Osage-Orange	Maclura pomifera	Good	11
300	Osage-Orange	Maclura pomifera	Good	9
300	Osage-Orange	Maclura pomifera	Good	8
301	Maple, Red	Acer rubra	Good	7
302	Cherry, Black	Prunus serotina	Good	6
303	Hackberry	Celtis occidentalis	Good	6
304	Hackberry	Celtis occidentalis	Good	8
305	Ash, Green	Fraxinus pennsylvanica	Good	7
306	Osage-Orange	Maclura pomifera	Good	28

ID	Common Name	Scientific Name	Condition	DBH (IN)
306	Osage-Orange	Maclura pomifera	Good	8
306	Osage-Orange	Maclura pomifera	Good	6
307	Maple, Red	Acer rubra	Good	6
308	Maple, Red	Acer rubra	Good	9
309	Maple, Red	Acer rubra	Good	6
310	Maple, Red	Acer rubra	Good	8
311	Cherry, Black	Prunus serotina	Good	8
312	Maple, Silver	Acer saccharinum	Good	18
313	Maple, Red	Acer rubra	Good	8
314	Cherry, Black	Prunus serotina	Good	8
315	Cherry, Black	Prunus serotina	Good	25
316	Cherry, Black	Prunus serotina	Good	10
316	Cherry, Black	Prunus serotina	Good	9
317	Cherry, Black	Prunus serotina	Good	9
318	Cherry, Black	Prunus serotina	Good	10
319	Cherry, Black	Prunus serotina	Good	9
320	Cherry, Black	Prunus serotina	Good	8
321	Osage-Orange	Maclura pomifera	Good	7
322	Cherry, Black	Prunus serotina	Good	8
322	Cherry, Black	Prunus serotina	Good	7
323	Hackberry	Celtis occidentalis	Good	10
324	Cherry, Black	Prunus serotina	Good	11
324	Cherry, Black	Prunus serotina	Good	7
325	Cherry, Black	Prunus serotina	Poor	11
326	Cherry, Black	Prunus serotina	Poor	16
327	Cherry, Black	Prunus serotina	Good	12
327	Cherry, Black	Prunus serotina	Good	8
328	Osage-Orange	Maclura pomifera	Good	9
329	Cherry, Black	Prunus serotina	Good	6
330	Cherry, Black	Prunus serotina	Good	6
331	Boxelder	Acer negundo	Good	6
332	Boxelder	Acer negundo	Good	6
333	Cherry, Black	Prunus serotina	Good	8
333	Cherry, Black	Prunus serotina	Good	6
334	Cherry, Black	Prunus serotina	Good	8
334	Cherry, Black	Prunus serotina	Good	7
335	Hackberry	Celtis occidentalis	Good	10
336	Hackberry	Celtis occidentalis	Good	11
337	Boxelder	Acer negundo	Good	10
338	Boxelder	Acer negundo	Poor	10
338	Boxelder	Acer negundo	Poor	6
339	Cherry, Black	Prunus serotina	Good	7
340	Cherry, Black	Prunus serotina	Good	9
340	Cherry, Black	Prunus serotina	Good	6
341	Cherry, Black	Prunus serotina	Poor	21
342	Hackberry	Celtis occidentalis	Poor	11
343	Hackberry	Celtis occidentalis	Good	27
344	Cherry, Black	Prunus serotina	Good	6

ID	Common Name	Scientific Name	Condition	DBH (IN)
345	Osage-Orange	Maclura pomifera	Good	15
346	Osage-Orange	Maclura pomifera	Good	12
347	Osage-Orange	Maclura pomifera	Good	10
348	Cherry, Black	Prunus serotina	Good	7
349	Boxelder	Acer negundo	Good	6
350	Boxelder	Acer negundo	Good	6
351	Boxelder	Acer negundo	Good	8
352	Elm, American	Ulmus americana	Good	9
353	Osage-Orange	Maclura pomifera	Good	10
354	Cherry, Black	Prunus serotina	Poor	11
355	Cherry, Black	Prunus serotina	Poor	10
356	Osage-Orange	Maclura pomifera	Good	8
357	Osage-Orange	Maclura pomifera	Good	6
358	Hackberry	Celtis occidentalis	Good	6
359	Osage-Orange	Maclura pomifera	Poor	7
360	Osage-Orange	Maclura pomifera	Poor	11
361	Osage-Orange	Maclura pomifera	Poor	6
362	Osage-Orange	Maclura pomifera	Good	8
363	Maple, Silver	Acer saccharinum	Good	11
363	Maple, Silver	Acer saccharinum	Good	9
363	Maple, Silver	Acer saccharinum	Good	8
364	Hackberry	Celtis occidentalis	Good	6
365	Cherry, Black	Prunus serotina	Poor	9
366	Hackberry	Celtis occidentalis	Good	9
367	Osage-Orange	Maclura pomifera	Good	7
367	Osage-Orange	Maclura pomifera	Good	6
368	Osage-Orange	Maclura pomifera	Good	6
369	Oak, Pin	Quercus palustris	Good	8
370	Cherry, Black	Prunus serotina	Good	11
371	Hackberry	Celtis occidentalis	Good	7
372	Hackberry	Celtis occidentalis	Good	20
373	Hackberry	Celtis occidentalis	Good	18
374	Cherry, Black	Prunus serotina	Good	15
375	Hackberry	Celtis occidentalis	Good	7
376	Osage-Orange	Maclura pomifera	Good	20
376	Osage-Orange	Maclura pomifera	Good	13
377	Hackberry	Celtis occidentalis	Good	8
377	Hackberry	Celtis occidentalis	Good	7
378	Cherry, Black	Prunus serotina	Good	7
379	Hackberry	Celtis occidentalis	Good	6
380	Hackberry	Celtis occidentalis	Good	8
381	Hackberry	Celtis occidentalis	Good	21
382	Hackberry	Celtis occidentalis	Good	6
383	Cherry, Black	Prunus serotina	Good	19
384	Hackberry	Celtis occidentalis	Good	23
384	Hackberry	Celtis occidentalis	Good	10
385	Cherry, Black	Prunus serotina	Good	6
386	Osage-Orange	Maclura pomifera	Good	11

ID	Common Name	Scientific Name	Condition	DBH (IN)
387	Cherry, Black	Prunus serotina	Good	6
388	Hackberry	Celtis occidentalis	Good	8
388	Hackberry	Celtis occidentalis	Good	7
389	Cherry, Black	Prunus serotina	Good	6
390	Osage-Orange	Maclura pomifera	Good	15
390	Osage-Orange	Maclura pomifera	Good	13
391	Cherry, Black	Prunus serotina	Good	13
392	Cherry, Black	Prunus serotina	Good	9
392	Cherry, Black	Prunus serotina	Good	7
393	Cherry, Black	Prunus serotina	Good	6
394	Cherry, Black	Prunus serotina	Good	6
395	Cherry, Black	Prunus serotina	Good	12
396	Osage-Orange	Maclura pomifera	Good	7
397	Cherry, Black	Prunus serotina	Good	14
398	Cherry, Black	Prunus serotina	Good	14
399	Osage-Orange	Maclura pomifera	Good	26
400	Cherry, Black	Prunus serotina	Good	12
401	Cherry, Black	Prunus serotina	Good	8
402	Osage-Orange	Maclura pomifera	Good	45
403	Boxelder	Acer negundo	Good	6
404	Osage-Orange	Maclura pomifera	Good	9
405	Osage-Orange	Maclura pomifera	Good	8
406	Boxelder	Acer negundo	Good	7
407	Cherry, Black	Prunus serotina	Good	7
408	Cherry, Black	Prunus serotina	Good	6
409	Cherry, Black	Prunus serotina	Good	8
410	Cherry, Black	Prunus serotina	Poor	9
411	Cherry, Black	Prunus serotina	Good	9
412	Bradford Pear	Pyrus calleryana	Good	9
413	Hackberry	Celtis occidentalis	Good	24
413	Hackberry	Celtis occidentalis	Good	20
413	Hackberry	Celtis occidentalis	Good	23
413	Hackberry	Celtis occidentalis	Good	17
414	Hackberry	Celtis occidentalis	Good	7
415	Maple, Red	Acer rubra	Good	7
416	Cherry, Black	Prunus serotina	Good	8
417	Hackberry	Celtis occidentalis	Good	6

TOTAL TREES REMOVED= 242
TOTAL DBH REMOVED= 2,305"
TOTAL TREES REPLACED= 218
(EXCLUDES REPLACING EXISTING TREES IN POOR CONDITION)

REVISION RECORD

NO	DATE	DESCRIPTION

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CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

TREE SURVEY

DATE:	JUNE 2017	DRAWN BY:	MDG
DWG SCALE:	N/A	CHECKED BY:	CLL
PROJECT NO:	171-424		
APPROVED BY:			

DRAWING NO.: C702

SHEET 5 OF 7

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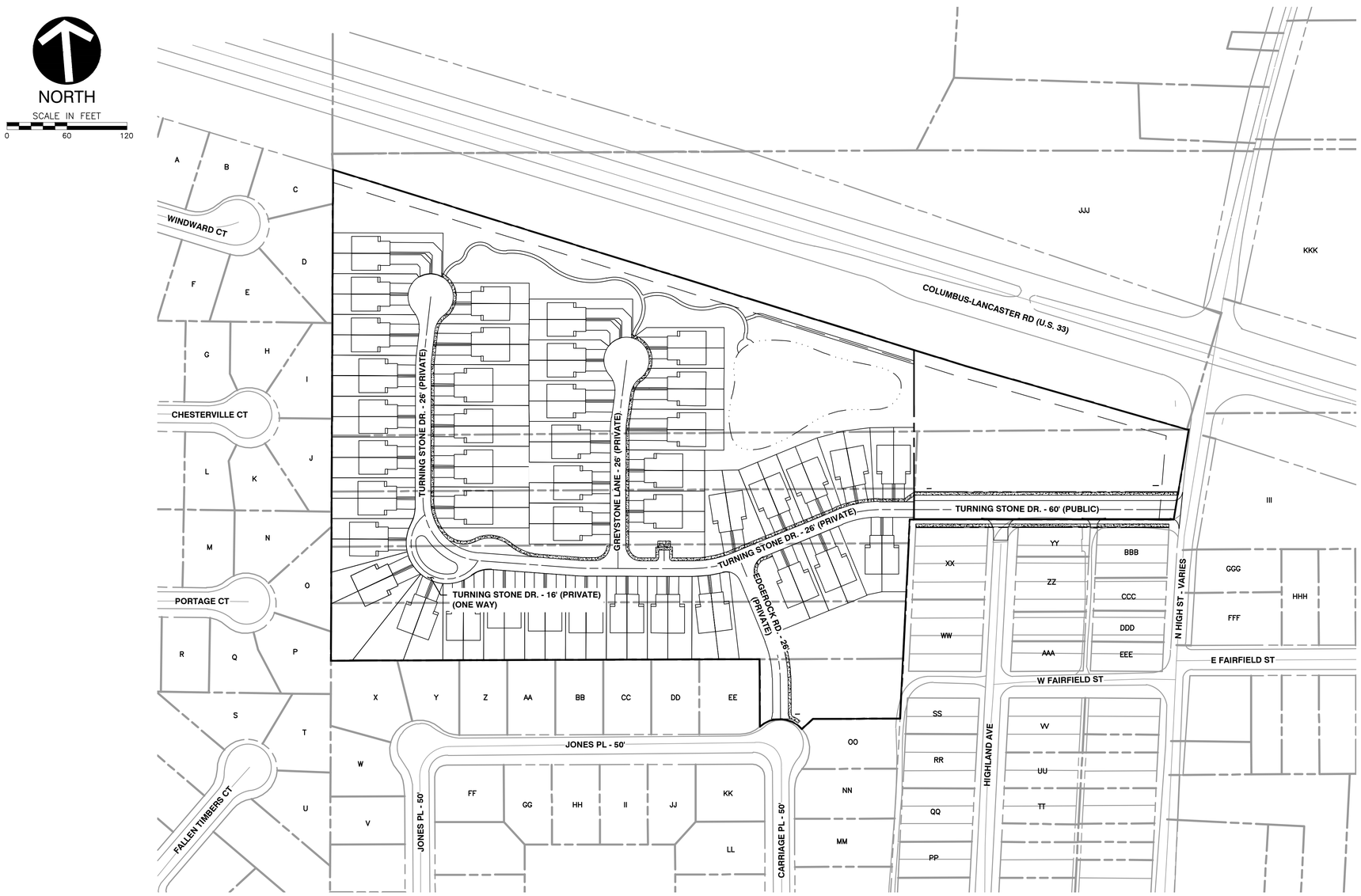

A VIVIAN K FAELCHLE
225 WINWARD CT
CANAL WINCHESTER, OH 43110

B ALICIA M KING
215 WINWARD CT
CANAL WINCHESTER, OH 43110

C STEVE FERGUSON
205 WINDWARD CT
CANAL WINCHESTER, OH 43110

D DIANA MINNEAR
200 WINDWARD CT
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F MYCHAL S FRY
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G C DAVID DOWNARD
225 CHESTERVILLE CT
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H PATRICIA M MCKEE
215 CHESTERVILLE CT
CANAL WINCHESTER, OH 43110

I JILL DUNLEVY
200 CHESTERVILLE CT
CANAL WINCHESTER, OH 43110

J ALLEN & VICTORIA YOHO
204 CHESTERVILLE CT
CANAL WINCHESTER, OH 43110

K JONATHAN FURNESS
210 CHESTERVILLE CT
CANAL WINCHESTER, OH 43110

L JANE MARIE HAYES
220 CHESTERVILL CT
CANAL WINCHESTER, OH 43110

M CHRISTOPHER J REHER
225 PORTAGE CT
CANAL WINCHESTER, OH 43110

N ROGER & BLANCHE HAYES
215 PORTAGE CT
CANAL WINCHESTER, OH 43110

O ROBERT & LORETTA KING
200 PORTAGE CT
CANAL WINCHESTER, OH 43110

P AUDRA & JAMES ANDERSON
204 PORTAGE CT
CANAL WINCHESTER, OH 43110

Q MICHAEL P BETTS
212 PORTAGE CT
CANAL WINCHESTER, OH 43110

R NANCY GILLILAN
220 PORTAGE CT
CANAL WINCHESTER, OH 43110

S DELRENE B SILER
203 FALLEN TIMBERS CT
CANAL WINCHESTER, OH 43110

T SHERRI E MCANAUL
200 FALLEN TIMBERS CT
CANAL WINCHESTER, OH 43110

U ANDREW W HUNYADY
210 FALLEN TIMBERS CT
CANAL WINCHESTER, OH 43110

V BENJAMIN L FRIESNER
220 JONES PLACE W
CANAL WINCHESTER, OH 43110

W SALINA TR FRUTH
8593 WINCHESTER SOUTHERN
CANAL WINCHESTER, OH 43110

X KIRK & LORI HENDERSON
240 JONES PL
CANAL WINCHESTER, OH 43110

Y RICHARD STONE
255 JONES PL
CANAL WINCHESTER,OH 43110

Z JOSEPH VANARTSDALEN
265 JONES PL
CANAL WINCHESTER, OH 43110

AA LINDA COTTRELL
275 JONES PL
CANAL WINCHESTER, OH 43110

BB WENDY INNOCENTI
281 JONES PL
CANAL WINCHESTER,OH 43110

CC ANUCHA & JUNTANA SAELIM
289 JONES PL
CANAL WINCHESTER,OH 43110

DD TY SMITH
293 JONES PL
CANAL WINCHESTER, OH 43110

EE HARRY & JACQUELINE HANNA
299 JONES PL
CANAL WINCHESTER, OH 43110

FF MATTHEW C SYCKS
250 JONES PL N
CANAL WINCHESTER, OH 43110

GG EVELYN M MULLINS
260 JONES PL N
CANAL WINCHESTER, OH 43110

HH MITCHELL P CARPENTER
270 JONES PLACE NORTH
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KK SHAUNA L DARFUS
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UU ALBERT H TR SCHULTZ
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WW GARY & KAREN MARTIN
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XX RAYMOND & VIVIAN ANDERSON
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CCC CAROLE J TOD GRAENING
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DDD SUELLEN GOLDSBERRY
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CANAL WINCHESTER, OH 43110

EEE BRAD A SPURLOCK
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6270 BOWEN RD
CANAL WINCHESTER, OH 43110

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NO	DATE	DESCRIPTION

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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

ADJOINING PROPERTY OWNER'S INFORMATION

DATE:	JUNE 2017	DRAWN BY:	MDG
DWG SCALE:	1"=60'	CHECKED BY:	CLL
PROJECT NO:	171-424		
APPROVED BY:			

DRAWING NO.: C800

SHEET 6 OF 7

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SOILS

- CeB – CELINA SILT LOAM, 2% TO 6% SLOPES
- CfB – CELINA–URBAN LAND COMPLEX, 2% TO 6% SLOPES
- CrA – CROSBY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 0% TO 2% SLOPES
- CrB – CROSBY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 2% TO 6% SLOPES
- CsB – CROSBY–URBAN LAND COMPLEX, 2% TO 6% SLOPES
- Ko – KOKOMO SILTY CLAY LOAM, 0% TO 2% SLOPES
- Us – UDORTHENTS, LOAMY, STEEP
- Ut – UDORTHENTS–URBAN LAND COMPLEX, GENTLY ROLLING
- Wt – WESTLAND SILTY CLAY LOAM, SOUTHERN OHIO TILL PLAIN, 0% TO 2% SLOPES

SOIL TYPE, BOUNDARY, AND CHARACTERISTICS ARE BASED ON THE AVAILABLE INFORMATION PROVIDED IN THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, SOIL SURVEY GEOGRAPHIC (SSURGO) DATABASE.

REVISION RECORD

NO	DATE	DESCRIPTION

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GRAND COMMUNITIES, LTD.
TURNING STONE
CITY OF CANAL WINCHESTER
FRANKLIN COUNTY, OHIO

SOILS PLAN

DATE: JUNE 2017	DRAWN BY: MDG
DWG SCALE: 1"=60'	CHECKED BY: CLL
PROJECT NO.: 171-424	
APPROVED BY:	

DRAWING NO.: C900

SHEET 7 OF 7

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Turning Stone - Preliminary Plant List

Typical Large Deciduous Shade Trees (On Lot Trees and Buffer Trees)

Common Name	Botanical Name	Size
Sugar Maple	*Acer saccharum*	8' height / 2" caliper
Maidenhair/ Ginkgo	*Ginkgo biloba*	8' height / 2" caliper
White Oak	*Quercus alba*	8' height / 2" caliper
Bur Oak	*Quercus macrocarpa*	8' height / 2" caliper
Silver Linden	*Tilia tomentosa*	8' height / 2" caliper
American Elm	Ulmus americana	8' height / 2" caliper
Northern Catalpa	*Catalpa speciosa*	8' height / 2" caliper

Typical Medium Deciduous Shade Tree (Buffer Trees)

Common Name	Botanical Name	Size
Red Horsechestnut	*Aesculus x carnea*	8' height / 2" caliper
American Hornbeam	*Carpinus caroliniana*	8' height / 2" caliper
Sargent Cherry	*Prunus sargentii*	8' height / 2" caliper

Typical Small Deciduous/ Ornamental Tree (Front Yard and Buffer Trees)

Common Name	Botanical Name	Size
Paperbark Maple	*Acer griseum*	6' height
Serviceberry	*Amelanchier sp.*	6' height
Eastern Redbud	*Cercis canadensis*	6' height
Corneliancherry Dogwood	*Cornus mas*	6' height
Japanese Tree Lilac	*Syringa reticulata*	6' height
Blackhaw Viburnum	Viburnum prunifolium	6' height

Typical Large and Medium Evergreen Trees (Buffer Trees)

Common Name	Botanical Name	Size
White Pine	*Pinus strobus*	8' height / 2" caliper
Norway Spruce	*Picea abies*	8' height / 2" caliper
Colorado Blue Spruce	*Picea pungens*	8' height / 2" caliper
Canadian Hemlock	*Tsuga canadensis*	8' height / 2" caliper

***NOTES:** *Final species and quantities will be determined at the time of final landscape plan approval, and will be based on nursery availability and seasonal planting requirements.*

Turning Stone - Landscape Requirement Summary

Number of Trees to be Removed	242 trees
Number of Trees to be Replaced	218 trees
Number of Trees Not To Be Replaced (Dying, Diseased & Poor Condition)	24 trees
Trees in Buffer	
Large/Medium Deciduous Trees in Buffers	42 trees
Large/Medium Evergreen Trees in Buffers	69 trees
Small Deciduous Trees in Buffers	26 trees
Trees on Lot	
Large/Medium Deciduous Trees on Lot	39 trees
Small Deciduous/ Ornamental Trees on Lot	42 trees
	218 Total Tree

Turning Stone - Landscape Key

- **Large/Medium Deciduous Tree**
- **Large/Medium Evergreen Tree**
- **Small Deciduous**
- **Ornamental Tree**

Grand Communities, Ltd.

Turning stone

City of Canal Winchester, Ohio

Landscape Plan

0' 75' 150'

Appendix C- Traffic Study

Turning Stone
Traffic Study

Prepared For:

Wilcox Communities

Prepared By:

1900 Crown Park Court, Suite E
Columbus, OH 43235
(614) 914-5543

May 2017

SSI Project #: 693301

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Turning Stone
Traffic Study

Prepared For:

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250 W. Old Wilson Bridge Rd., Suite 140
Worthington, OH 43085

Telephone: (614) 340-1050

Prepared By:

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1900 Crown Park Court, Suite E
Columbus, OH 43235

Telephone: (614) 914-5543
e-mail: tstanhope@smartservices-inc.com

Under the direction of:

Registered Engineer No. E-64507, Ohio

05-03-2017
Date

STATE OF OHIO
TODD J. STANHOPE
E-64507
REGISTERED PROFESSIONAL ENGINEER

May 2017

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2018 and 2038 Traffic	6
Traffic Analyses	9
Conclusions	12

APPENDIX
Correspondence
Traffic Counts
Referenced Exhibits
Turn Lane Warrant Graphs
Capacity Analysis Reports
Storage Length Calculations

BACKGROUND

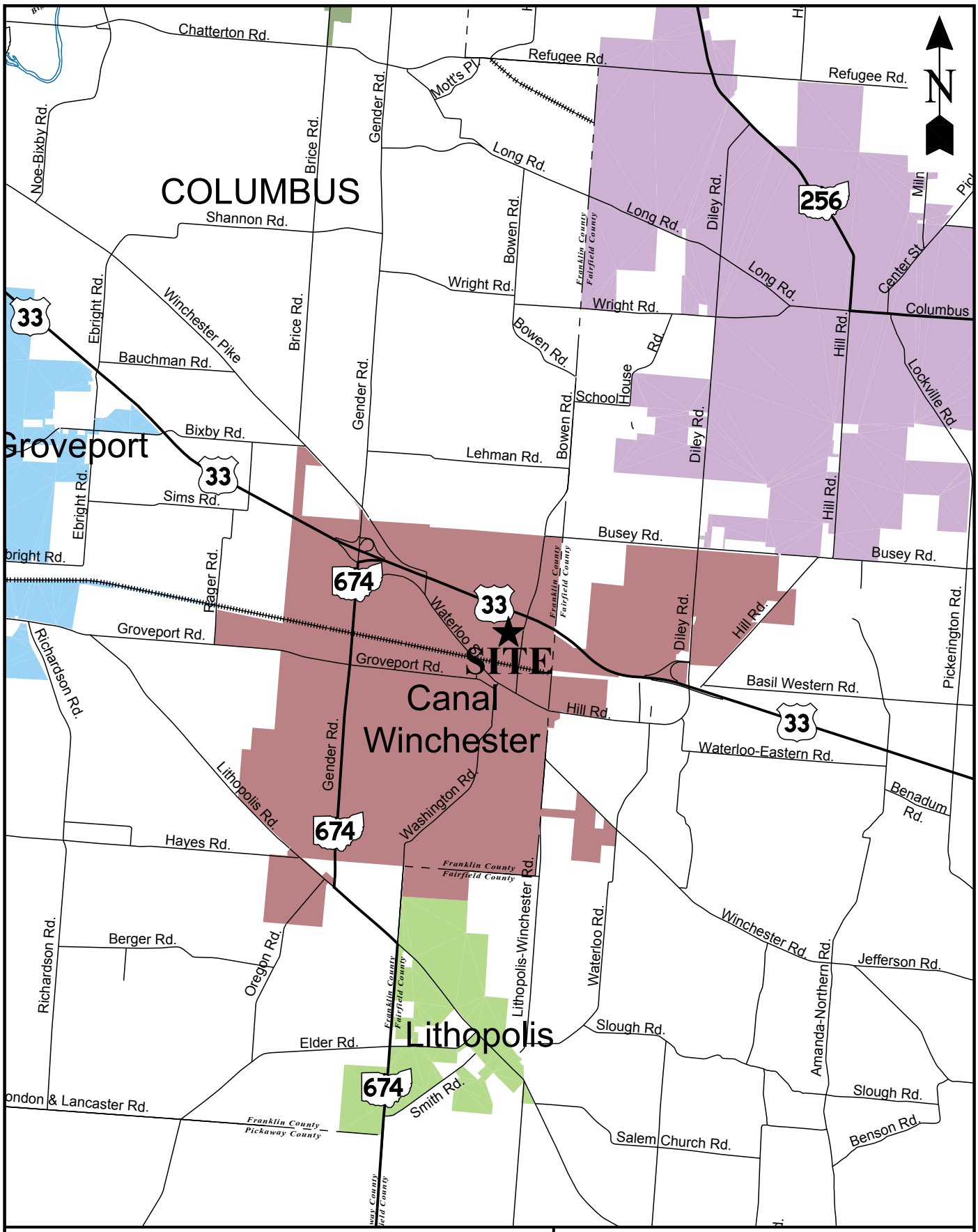
Wilcox Communities is proposing to develop a site with 88 single family homes and 1.75 acres of commercial land use. The site is located in the southwest quadrant of the US 33 & High Street intersection in the City of Canal Winchester. Figure 1 shows the location of the site. There is a full access proposed on High Street. There is also an access to Carriage Place to the south. Figure 2 shows a site layout. The traffic study is focused on the High Street intersection so for purposes of the study, all traffic was assumed to utilize the High Street access. The City of Canal Winchester is the permitting agency for the access and they are requiring a traffic study for the site.

Based on an initial conversation with the City of Canal Winchester, a memo of understanding (MOU) dated January 25, 2017 was produced and submitted to the City. The MOU is in the Appendix.

EXISTING CONDITIONS

The intersection of US 33 & High Street/Bowen Road is restricted to Right-In/Right-Out movements as there is a median between the eastbound and westbound lanes of US 33. The intersection is controlled by "Stop" signs on the High Street and Bowen Road approaches. Since there is no direct interaction between the site and US 33 WB & Bowen Road, the volumes on those legs are unrelated to the study. High Street is two lanes at the site access and has a speed limit of 25 MPH.

As part of the project, peak hour (7-9 AM & 4-6 PM) turning movement counts were taken at the intersection of US 33 EB & High Street. The count reports are in the Appendix. The basis of the AM Peak volumes in the study was 7:15-8:15 AM. The basis of the PM Peak volumes was 4:30-5:30 PM.

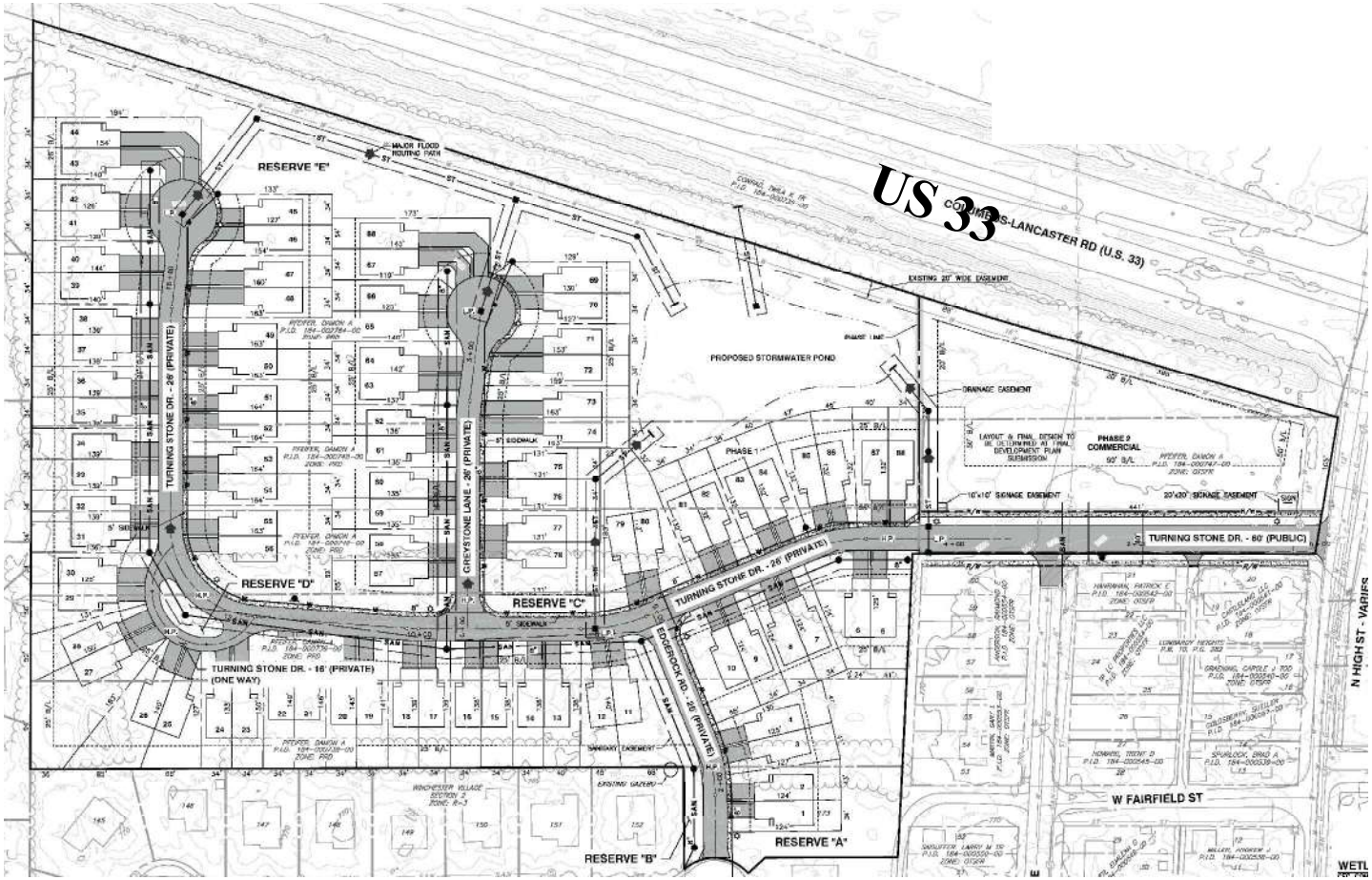


TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC.

FIGURE 1

SITE LOCATION



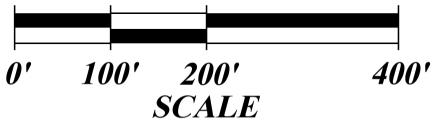


FIGURE 2

SITE LAYOUT

TURNING STONE TRAFFIC STUDY

5/2017

PREPARED BY:

SMART SERVICES, INC.

PROJECTED SITE TRAFFIC

Trip Generation

The accepted method for computing trip generation in the traffic engineering profession is utilizing the *Trip Generation Manual, 9th Edition* published by the Institute of Transportation Engineers (ITE). This manual provides trip rates for different land uses based on data from sample sites in each category. To represent the single-family homes, the land use "Single-Family Detached Housing" (ITE Code #210) was used. To represent the commercial development, the land use "Shopping Center" (ITE Code #820) was used.

Trip Distribution

The distribution for the single family homes was based on the traffic entering the freeway at the adjacent interchanges which is as follows:

Single-Family Entering

- From the west on US 33 – 74%
- From the south on High Street – 26%
    - From the east on US 33 – 21%
    - From the south on High Street – 5%

Single-Family Exiting

- To the east on US 33 – 21%
- To the south on High Street – 79%
    - To the west on US 33 – 74%
    - To the south on High Street – 5%

The distribution for the proposed commercial was assumed to be equally split from each direction which results as follows:

Commercial Entering

- From the west on US 33 – 33%
- From the south on High Street – 67%
    - From the east on US 33 – 33%
    - From the south on High Street – 34%

Commercial Exiting

- To the east on US 33 – 33%
- To the south on High Street – 67%
    - To the west on US 33 – 33%
    - To the south on High Street – 34%

Pass-by trips were also considered in the analysis. Pass-by trips are trips to commercial developments that are already on the adjacent street. For example, someone may stop at a store on the way home from work. This reduces the impact of traffic on the adjacent street. It also changes the distribution of traffic since traffic enters the site from one direction and continues in the same direction after leaving the site. The traffic volume entering and exiting the site is not changed. The percentage of pass-by trips are found in the *Trip Generation Handbook-An ITE Recommended Practice*, *3rd Edition* published by ITE. Table 1 also shows the pass-by percentage. The pass-by traffic was assumed to all come from US 33 EB.

Traffic Study Subarea	Land Use	Time of Day	Data Set from: *Trip Generation Manual, 9th Edition* (Unless noted Otherwise)	Overide with Average	Regression Equation from: *Trip Generation Manual 9th Edition*	Pass-By % From *Trip Generation Handbook 3rd Edition* unless noted otherwise	Total Trips	Entering				Exiting			
								%	Total Trips	Pass-By Trips	Primary Trips	%	Total Trips	Pass-By Trips	Primary Trips
1	Single-Family Detached Housing (ITE Code #210)	Daily	Weekday	☐	ln(T)=0.92ln(X)+2.72	NA	934	50%	467	0	467	50%	467	0	467
		AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	☐	T=0.70(X)+9.74	NA NA	71	25%	18	0	18	75%	53	0	53
	Ind. Variable (X) = 88 Dwelling Units	PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	☐	ln(T)=0.90ln(X)+0.51	NA NA	94	63%	59	0	59	37%	35	0	35
				☐											
2	Shopping Center (ITE Code #820)	Daily	Weekday	☐	ln(T)=0.65ln(X)+5.83	NA	2187	50%	1094	0	1094	50%	1093	0	1093
		AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	☐	ln(T)=0.61ln(X)+2.24	No Data	54	62%	33	0	33	38%	21	0	21
	Ind. Variable (X) = 17.5 1000 SF Gross Leasable Area	PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	☐	ln(T)=0.67ln(X)+3.31	34.0%	186	48%	89	30	59	52%	97	33	64
				☐											
TOTALS		**Daily**		☐			**3121**		**1561**	**0**	**1561**		**1560**	**0**	**1560**
		AM Peak					**125**		**51**	**0**	**51**		**74**	**0**	**74**
		PM Peak					**280**		**148**	**30**	**118**		**132**	**33**	**99**

Turning Stone Traffic Study - 5/2017

TABLE 1 - SITE TRIP GENERATION SUMMARY

SMART SERVICES, INC.

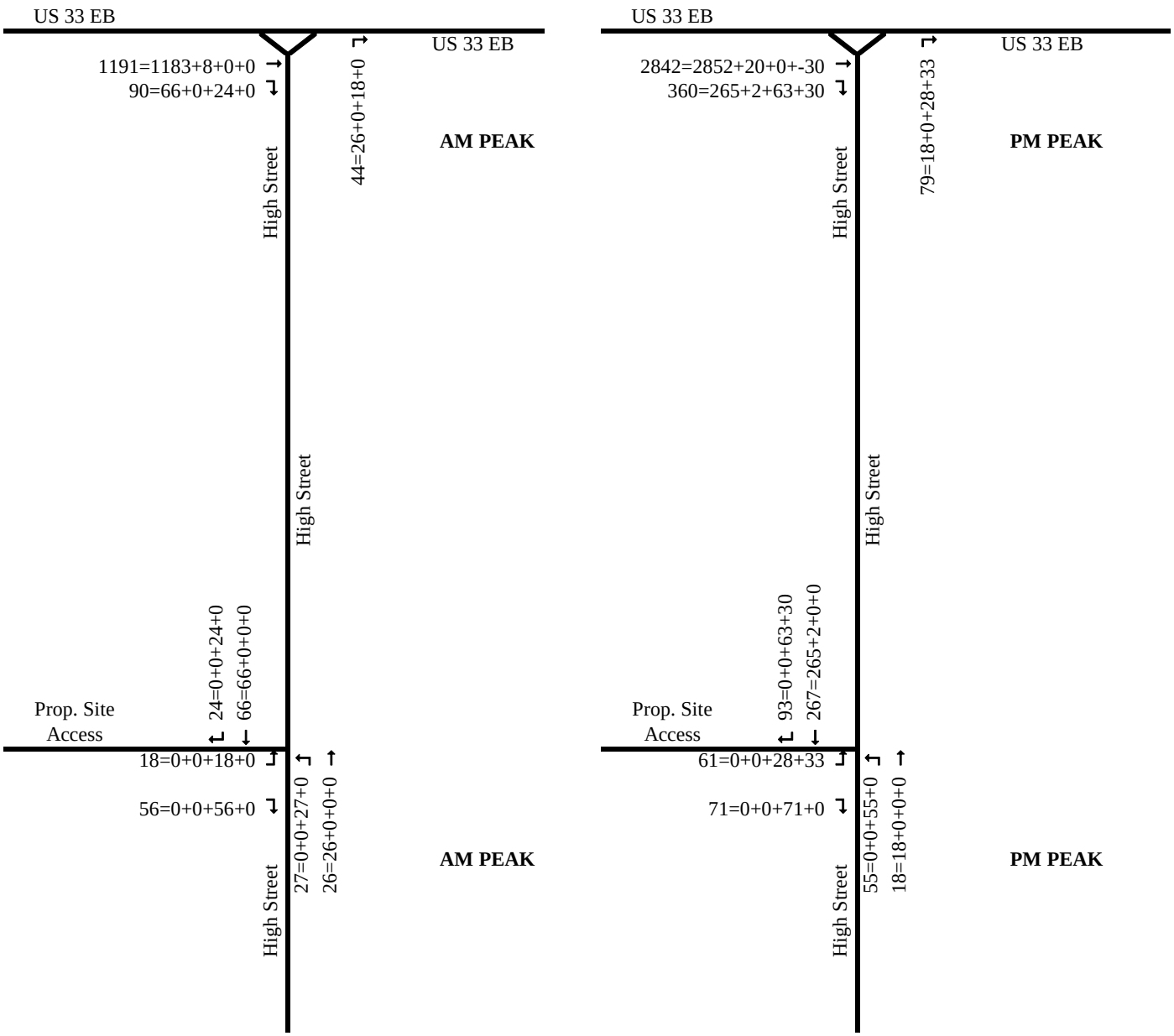
2018 AND 2038 TRAFFIC

Per the MOU, a 20-year design horizon is required. Opening Day is assumed to be in 2018 therefore the design year will be 2038. The Mid-Ohio Regional Planning Commission (MORPC) provided linear annual growth rates for use in the study. The correspondence from MORPC is in the Appendix. Table 2 shows the growth factors applied to the 2017 counts.

Segment	Linear Annual Growth Rate	2017 to 2018 Factor	2017 to 2038 Factor
US 33 EB w/o High St	0.70%	1.007	1.147
High St w/o US 33 EB	0.60%	1.006	1.126

TABLE 2 – Growth Factor Summary

Figure 3 shows the components of the 2018 'Build' traffic. Figure 4 shows the components of the 2038 'Build' traffic. To assist with review, exhibits showing the 2018 and 2038 'No Build' traffic are in the Appendix.



LEGEND

A=B+C+D+E

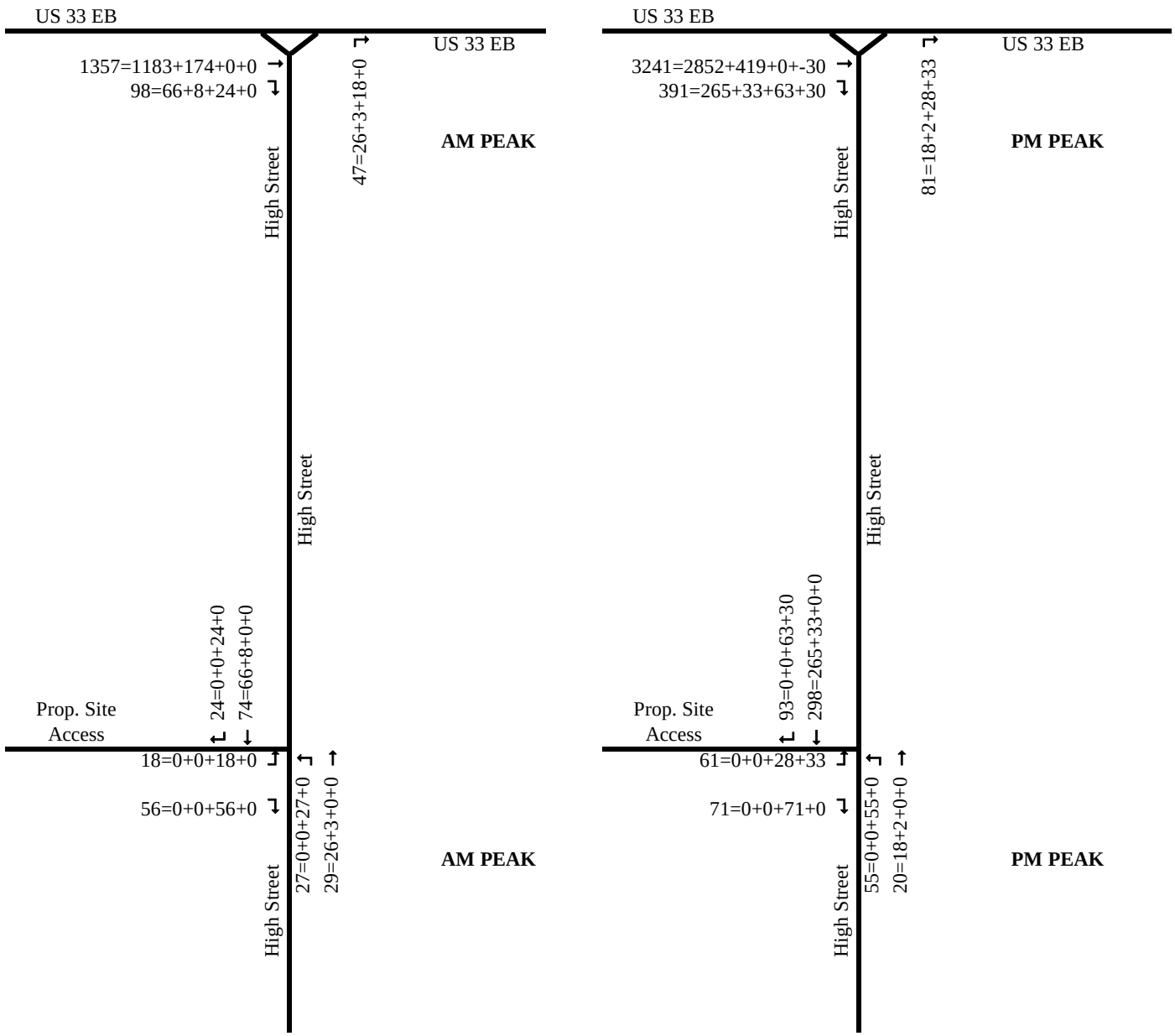
A = 2018 'BUILD'
B = EXISTING (2017)
C = GROWTH
D = SITE PRIMARY
E = SITE PASS-BY

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

FIGURE 3

2018 'BUILD'



LEGEND

A=B+C+D+E

A = 2038 'BUILD'
B = EXISTING (2017)
C = GROWTH
D = SITE PRIMARY
E = SITE PASS-BY

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

FIGURE 4

2038 'BUILD'

TRAFFIC ANALYSES

Turn Lane Warrant Analyses

The procedure for determining whether turn lanes are warranted is according to the *State Highway Access Management Manual (AMM).* Left and right turn lane warrant analyses were performed on High Street & the Prop. Site Access. It is noted that because of the low northbound through volumes, the percentage of left turns falls into the outlying area of the left turn warrant chart. Per engineering judgement, the left turn lane warrant would not be met. Table 3 shows a summary of the results of the turn lane warrant analyses. The graphs from the *AMM* are in the Appendix.

Intersection	Direction	Peak Hour	2018 'Build'	2038 'Build'
High Street & the Prop. Site Access	SB RT	AM Peak	Warrant Not Met	Warrant Not Met
		PM Peak	Warrant Not Met	Warrant Not Met
	NB LT	AM Peak	Warrant Not Met	Warrant Not Met
		PM Peak	Warrant Not Met	Warrant Not Met

TABLE 3 – Summary of Turn Lane Warrant Analyses

Unsignalized Capacity Analyses

Per the MOU, unsignalized capacity analyses were performed at the intersection of High Street & the Prop. Site Access. In the analyses, delays are computed which correspond to a Level of Service (LOS) "A" through "F". Typically, Level of Service (LOS) "D" or above is considered an acceptable LOS. For a Two-Way Stop condition, the unsignalized capacity analysis gives LOS results for vehicles that must wait for gaps to make their maneuver. In this case, it would be only the minor street right turn movement. All other movements are free flowing so they don't encounter delay. Since driver expectations are different for various types of traffic control, there are different LOS criteria for unsignalized intersections versus signalized intersections. The LOS criteria for two-way stop control are shown in Table 4.

Level of Service	Delay Range (seconds/vehicle)
A	< 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: *Highway Capacity Manual 2010*

TABLE 4 - Level of Service Criteria for Unsignalized Intersections

The following comprises the background of the analysis:

- *HCS 2010 V6.9* was used to perform the analysis.
- A Peak Hour Factor (PHF) of 0.92 was applied to all movements.
- The existing lane arrangement was used in the analysis.
- A 3% heavy vehicle percentage was assumed for all movements.

The results are shown in Table 5. In the PM Peak, the Level of Service operates below LOS D for all cases. This is an expected result for the intersection of a high volume road with a low volume road that is not signalized. There is not a solution for this condition since traffic control will not be changed. There is an alternative to get to route US 33 EB and that is utilizing the US 33 & Hill-Diley interchange. If a motorist perceives the delay is too high to wait, they can adjust their route. The *HCS 2010* reports are in the Appendix.

Storage Length Analysis

Turn lane length analysis was performed for the northbound right turn movement at US 33 EB (there were no warranted turn lanes in this segment) to check the storage between US 33 & the proposed site access. The calculation was performed per Section 400 of the *ODOT L&D Manual*. The design speed was assumed to be 25 MPH which is the existing speed limit. The result showed that the existing lane would have vehicles stored to 100 feet. The storage length calculations are in the Appendix.

Intersection	Time	Year	Delay (Level of Service)			
			Main Street		Minor Street	
			Eastbound Left	Westbound Left	Northbound All	Southbound All
2661-High Street & US 33 EB	AM Peak	2018 'No Build' Traffic			14.4 (B)	
		2018 'Build' Traffic			14.9 (B)	
		2038 'No Build' Traffic			16.0 (C)	
		2038 'Build' Traffic			16.7 (C)	
	PM Peak	2018 'No Build' Traffic			49.8 (E)	
		2018 'Build' Traffic			124.2 (F)	
		2038 'No Build' Traffic			77.2 (F)	
		2038 'Build' Traffic			272.9 (F)	

Turning Stone Traffic Study - 5/2017

TABLE 6 - Unsignalized Capacity Summary - (2-Way-Stop, East-West Major Street)

CONCLUSIONS

2018 and 2038 'No Build' and 'Build' volumes were developed for use in turn lane warrant analyses, unsignalized capacity analyses, and storage length analyses. The following is a summary of the conclusions for each analysis condition.

2018 & 2038 'No Build'

- US 33 EB & High Street
  - The impeded movements will operate below Level of Service (LOS) D. There is not a solution for this condition since traffic control will not be changed. There is an alternative to get to route US 33 EB and that is utilizing the US 33 & Hill-Diley interchange. If a motorist perceives the delay is too high to wait, they have the ability to adjust their route.

2018 & 2038 'Build'

- High Street & Prop. Site Access
  - A southbound right turn lane is not warranted.
  - A northbound left turn lane is not warranted.
  - There is approximately 175 feet of storage between the proposed access on High Street and US 33. Since a southbound right turn lane was not warranted, the only relevant storage consideration is for the northbound right turn movement at US 33. The storage for the northbound right was calculated to be 100 feet which can be stored within this spacing.

- US 33 EB & High Street
  - Same as 'No Build': The impeded movements will operate below Level of Service (LOS) D. There is not a solution for this condition since traffic control will not be changed. There is an alternative to get to route US 33 EB and that is utilizing the US 33 & Hill-Diley interchange. If a motorist perceives the delay is too high to wait, they can adjust their route.

APPENDIX

SMART SERVICES, INC.
Surveying ◆ Environmental ◆ Traffic ◆ CA/CM
An Ohio DBE/EDGE Certified Firm

February 6, 2017

Mr. Lucas Haire
City of Canal Winchester
36 S. High St.
Canal Winchester, OH 43110

Re: US 33 & High Street SW Quadrant Traffic Study
City of Canal Winchester, Franklin County, Ohio

Please consider this letter as a Memo of Understanding (MOU) for a traffic study for the subject development. The site is located in the City of Canal Winchester in the southwest quadrant of the intersection of US 33 & High Street. The site is proposed to be developed with approximately 76 single family lots and 1.75 acres of commercial land use. There is a single access proposed on the west side of High Street south of US 33. The permitting agency for the access is the City of Canal Winchester and they are requiring a traffic study for the site.

The scope of the study is based upon an initial conversation with the City of Canal Winchester on January 25, 2017. The following is Smart Services' understanding of the scope which includes some follow up information:

- The study area is the site access on High Street and the partial intersection of US 33 & High Street.
- The time of analysis will be the weekday AM Peak hour (one hour between 7 and 9 AM) and the PM Peak hour (one hour between 4 and 6 PM).
- A new peak hour (7-9 AM and 4-6 PM) turning movement count will be taken at the intersection of US 33 EB & High Street. (US 33 WB & Bowen Road will not be counted since it has no direct interaction with the site traffic.)
- Trip Generation - Site traffic will be computed using *Trip Generation Manual, 9th Edition* published by ITE.
- Design Year Traffic Development – Canal Winchester requires a 20-year design horizon. Opening Day will be assumed to be 2018. Therefore, the design year is 2038. Smart Services will attempt to obtain annual growth rates from the Mid-Ohio Regional Planning Commission (MORPC). This request cannot be made until after the traffic counts are complete and it typically takes 2-4 weeks for MORPC to provide the growth rates. Therefore, we may have to discuss with the City if assumptions can be used for growth rates in order to meet the mid-February completion schedule.
- Analyses
    - Turn lane warrants will be analyzed at the site access on High Street.
    - The length of any warranted turn lanes will be calculated.
    - Access spacing from a traffic demand perspective will be discussed.
    - An unsignalized capacity analysis will be performed at the US 33 & High Street Intersection.

A report will be produced that includes the data and provides the conclusions as well as the methods and analyses used.

If this MOU is acceptable to you, please indicate your approval in the space provided below. If not, please let us know what items need to be changed. Thank you for your attention to this.

Sincerely,
SMART SERVICES, INC.

Todd J. Stanhope, PE, PTOE
Director of Traffic Engineering

Submitted: One electronic copy (PDF format) via e-mail

cc: M. Peoples – City of Canal Winchester
J. Wilcox – Wilcox Communities

City of Canal Winchester

Approved: _____ Date: _____

Smart Services, Inc.

88 W. Church Street
Newark, OH 43055
(740) 345-4700

File Name : US 33 EB & High Street
Site Code : 380565
Start Date : 1/31/2017
Page No : 1

Groups Printed- Cars - Trucks

	High Street Northbound		US 33 Eastbound			
Start Time	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	6	6	238	21	259	265
07:15 AM	4	4	283	18	301	305
07:30 AM	5	5	337	12	349	354
07:45 AM	11	11	299	24	323	334
Total	26	26	1157	75	1232	1258
08:00 AM	6	6	264	12	276	282
08:15 AM	7	7	252	25	277	284
08:30 AM	8	8	232	17	249	257
08:45 AM	7	7	247	19	266	273
Total	28	28	995	73	1068	1096
04:00 PM	5	5	694	63	757	762
04:15 PM	7	7	732	58	790	797
04:30 PM	9	9	715	69	784	793
04:45 PM	2	2	713	60	773	775
Total	23	23	2854	250	3104	3127
05:00 PM	5	5	687	64	751	756
05:15 PM	2	2	737	72	809	811
05:30 PM	2	2	667	65	732	734
05:45 PM	3	3	620	65	685	688
Total	12	12	2711	266	2977	2989
Grand Total	89	89	7717	664	8381	8470
Apprch %	100		92.1	7.9		
Total %	1.1	1.1	91.1	7.8	98.9	
Cars	86	86	7318	653	7971	8057
% Cars	96.6	96.6	94.8	98.3	95.1	95.1
Trucks	3	3	399	11	410	413
% Trucks	3.4	3.4	5.2	1.7	4.9	4.9

Smart Services, Inc.

88 W. Church Street
Newark, OH 43055
(740) 345-4700

File Name : US 33 EB & High Street
Site Code : 380565
Start Date : 1/31/2017
Page No : 2

	High Street Northbound		US 33 Eastbound			
Start Time	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1						
Peak Hour for Entire Intersection Begins at 07:15 AM						
07:15 AM	4	4	283	18	301	305
07:30 AM	5	5	337	12	349	354
07:45 AM	11	11	299	24	323	334
08:00 AM	6	6	264	12	276	282
Total Volume	26	26	1183	66	1249	1275
% App. Total	100		94.7	5.3		
PHF	.591	.591	.878	.688	.895	.900
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1						
Peak Hour for Entire Intersection Begins at 04:30 PM						
04:30 PM	9	9	715	69	784	793
04:45 PM	2	2	713	60	773	775
05:00 PM	5	5	687	64	751	756
05:15 PM	2	2	737	72	809	811
Total Volume	18	18	2852	265	3117	3135
% App. Total	100		91.5	8.5		
PHF	.500	.500	.967	.920	.963	.966

From: Hwashik Jang
To: Todd Stanhope
Cc: Nick Gill; Dan Blechschmidt; "Lucas Haire"; Jonathan Wilcox; Zhuojun Jiang
Subject: RE: US 33 EB and High Street Growth Rate Request
Date: Friday, February 24, 2017 1:23:57 PM

Todd,

We have completed processing growth rates at the intersection of US33 EB & High St. Please use a linear annual growth rate as summarized in the following table below.

Location	Linear Annual Growth Rate
US 33 EB e/o High St	0.70%
US 33 EB w/o High St	0.70%
High St s/o US 33 EB	0.60%

Note: This is planning level analysis based on MORPC regional travel demand model.

If you have any other questions, please let me know.

Thanks,

Hwashik

Hwashik Jang | hjang@morpc.org | MORPC
Tel 614.233.4145 | Fax 614.233.4245

From: Todd Stanhope [mailto:tstanhope@smartservices-inc.com]
Sent: Tuesday, February 07, 2017 2:56 PM
To: Zhuojun Jiang <zjiang@morpc.org>
Cc: Hwashik Jang <hjang@morpc.org>; Nick Gill <ngill@morpc.org>; Dan Blechschmidt <drblechschmidt@columbus.gov>; 'Lucas Haire' <lhaire@canalwinchesterohio.gov>; Jonathan Wilcox <jonathan@wilcoxcommunities.com>
Subject: US 33 EB and High Street Growth Rate Request

Zhuojun

We are performing a traffic study for a site in the City of Canal Winchester that has proposed access on High Street south of US 33. Please provide a growth rates for US 33 EB and High Street south of US 33. Below is MORPC's requested information about the study.

1. Traffic Data upon which you would be applying these growth rates (preferably 24 hour counts). As part of the project, a peak hour turning movement count was taken at the intersection of US 33 EB and High Street. The count report is attached.

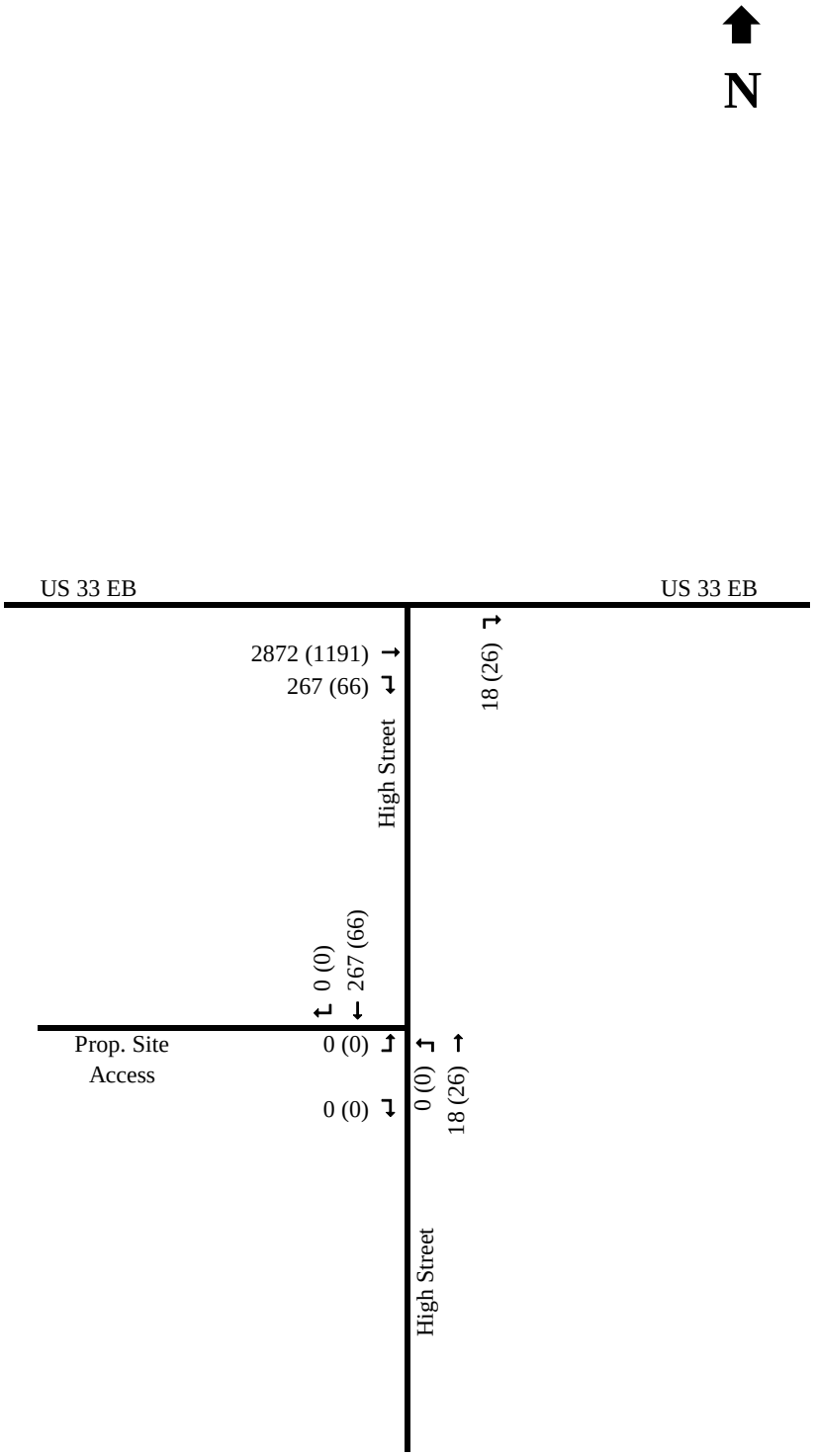
2. Open Year & Design Year, for this study: 2018 and 2038
3. Roadway network assumptions: Any roadway assumptions/changes in the vicinity, such as change in number of lanes or roadway alignments, etc: None anticipated.
4. Land use assumptions: General info on proposed site location & development, such as: site map, Trip Generation (excel file, preferably). The subject site is located in the southwest quadrant of the intersection of US 33 & High Street. Trip generation for the 76 single family units and 1.75 acres of commercial land use will be calculated as part of the study and is not available at this time.
5. Project Review Contact Person: Lucas Haire of the City of Canal Winchester is the contact for the study. His e-mail address is in the cc: line.

Thank you!

Todd J. Stanhope, PE, PTOE
Director of Traffic Engineering

-
***Smart Services, Inc.* (Columbus Office)**
*A **DBE / EDGE** Certified Business*

1900 Crown Park Court, Suite E
Columbus, Ohio 43235
Ph: 614-914-5543
www.SmartServices-Inc.com



LEGEND

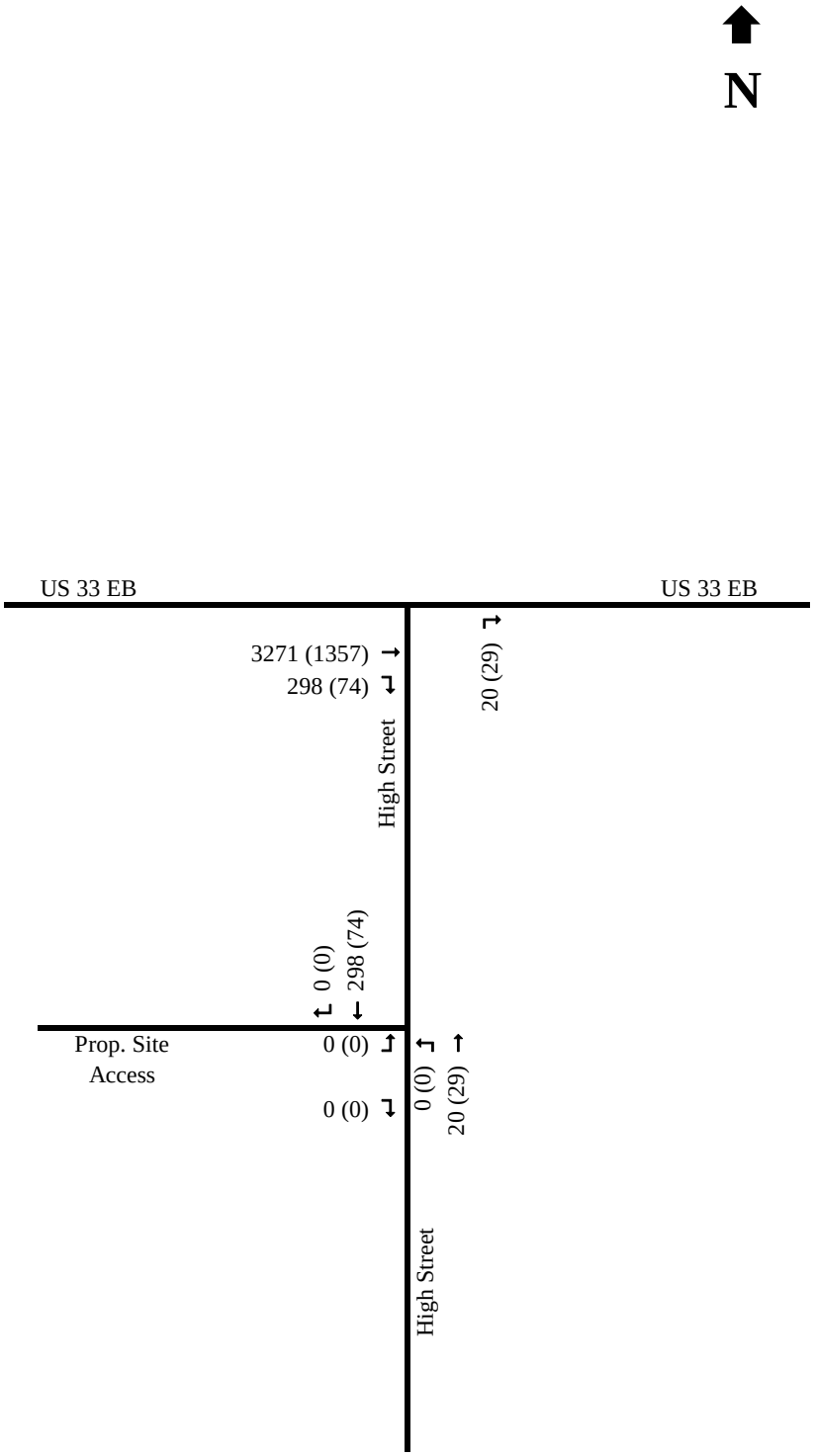
222	-	PM PEAK Hour Turning Movement
(222)	-	AM PEAK Hour Turning Movement

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX FIGURE

2018 'NO BUILD' TRAFFIC



LEGEND

222	-	PM PEAK Hour Turning Movement
(222)	-	AM PEAK Hour Turning Movement

TURNING STONE TRAFFIC STUDY

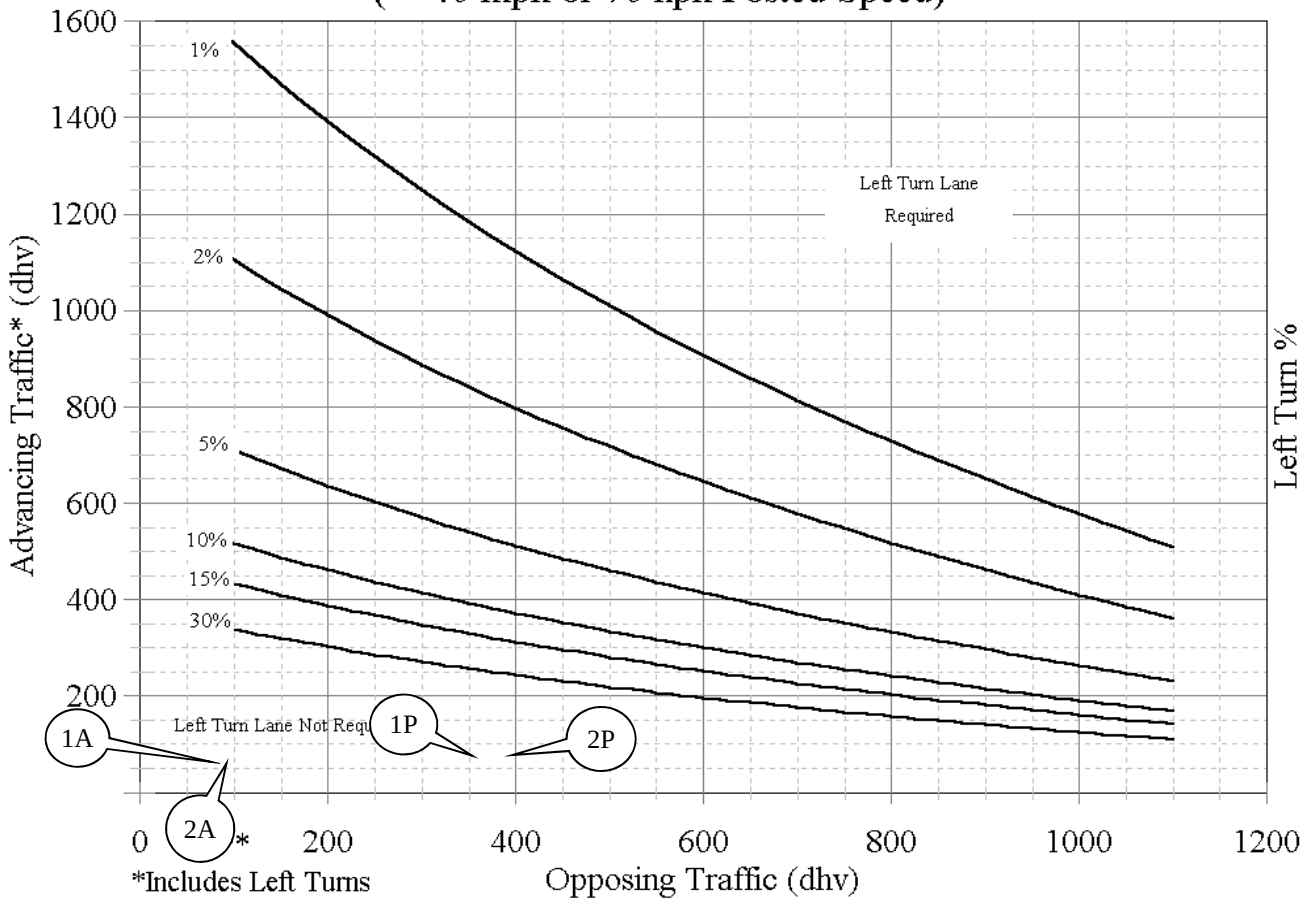
PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX FIGURE

2038 'NO BUILD' TRAFFIC

2-Lane Highway Left Turn Lane Warrant

(=<40 mph or 70 kph Posted Speed)



** There is no minimum number of turns

WARRANT SUMMARY

ID	INTERSECTION [MOVEMENT] - VOLUME SET	AM PEAK (A)	PM PEAK (P)		RESULT
1	High Street & Prop. Site Access [NB LT] - 2018 'BUILD'	(90,53 / 50.9%)	(360,73 / 75.3%)		NOT MET
2	High Street & Prop. Site Access [NB LT] - 2038 'BUILD'	(98,56 / 48.2%)	(391,75 / 73.3%)		NOT MET

Note: Because of the low northbound through volumes, the percentage of left turns falls into the outlying area of the chart. Per engineering judgement, the left turn lane warrant would not be met.

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

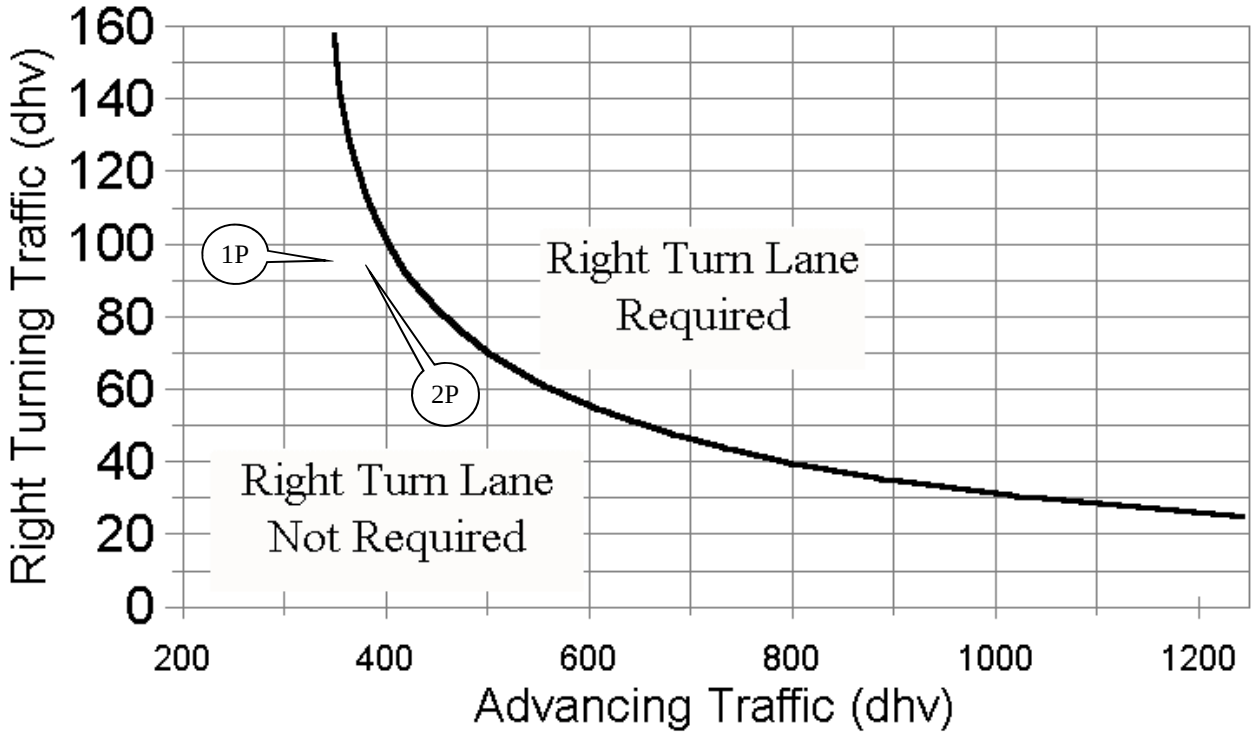
APPENDIX

2 LANE HIGHWAY LEFT TURN LANE WARRANT (=< 40 MPH)

2-Lane Highway Right Turn Lane Warrant

=< 40 mph or 70 kph Posted Speed

Note: Only volumes that are within the chart were plotted. All others are not met.



WARRANT SUMMARY

ID	INTERSECTION [MOVEMENT] - VOLUME SET	AM PEAK (A)	PM PEAK (P)		RESULT
1	High Street & Prop. Site Access [SB RT] - 2018 'BUILD'	(90,24)	(360,93)		NOT MET
2	High Street & Prop. Site Access [SB RT] - 2038 'BUILD'	(98,24)	(391,93)		NOT MET

TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX

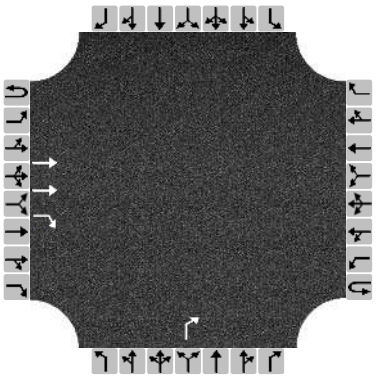
2 LANE HIGHWAY RIGHT TURN LANE WARRANT (=< 40 MPH)

HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 No Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1191	66								26				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												28				
Capacity, c (veh/h)												411				
v/c Ratio												0.07				
95% Queue Length, Q_{95} (veh)												0.2				
Control Delay (s/veh)												14.4				
Level of Service, LOS												B				
Approach Delay (s/veh)									14.4							
Approach LOS									B							

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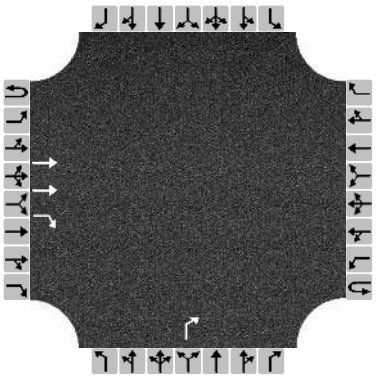
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 No Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			2872	267								18				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												20				
Capacity, c (veh/h)												100				
v/c Ratio												0.20				
95% Queue Length, Q_{95} (veh)												0.7				
Control Delay (s/veh)												49.8				
Level of Service, LOS												E				
Approach Delay (s/veh)									49.8							
Approach LOS									E							

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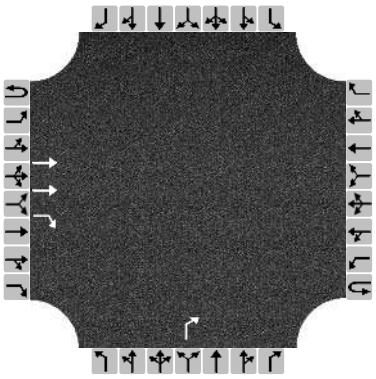
HCS 2010 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1191	90								44				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												48				
Capacity, c (veh/h)												411				
v/c Ratio												0.12				
95% Queue Length, Q_{95} (veh)												0.4				
Control Delay (s/veh)												14.9				
Level of Service, LOS												B				
Approach Delay (s/veh)									14.9							
Approach LOS									B							

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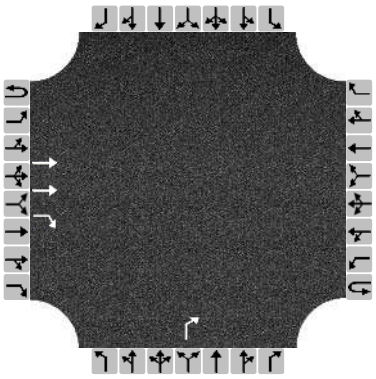
HCS 2010 Two-Way Stop-Control Report

General Information / Site Information

General Information		Site Information	
Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2018	North/South Street	High Street
Time Analyzed	2018 Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			2842	360								79				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												86				
Capacity, c (veh/h)												103				
v/c Ratio												0.84				
95% Queue Length, Q_{95} (veh)												4.7				
Control Delay (s/veh)												124.2				
Level of Service, LOS												F				
Approach Delay (s/veh)									124.2							
Approach LOS									F							

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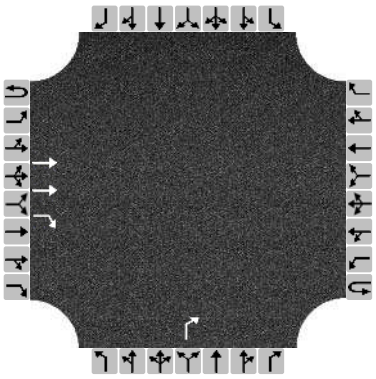
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 No Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1357	74								29				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												32				
Capacity, c (veh/h)												358				
v/c Ratio												0.09				
95% Queue Length, Q_{95} (veh)												0.3				
Control Delay (s/veh)												16.0				
Level of Service, LOS												C				
Approach Delay (s/veh)									16.0							
Approach LOS									C							

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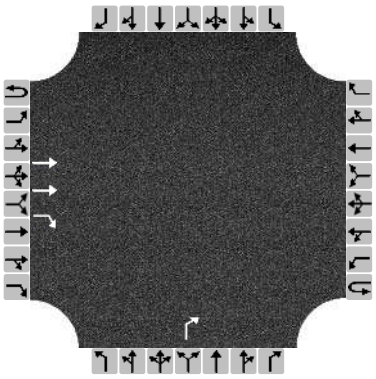
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	3/13/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 No Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			3271	298								20				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)												6.9				
Critical Headway (sec)												6.96				
Base Follow-Up Headway (sec)												3.3				
Follow-Up Headway (sec)												3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												22				
Capacity, c (veh/h)												71				
v/c Ratio												0.31				
95% Queue Length, Q_{95} (veh)												1.1				
Control Delay (s/veh)												77.2				
Level of Service, LOS												F				
Approach Delay (s/veh)									77.2							
Approach LOS									F							

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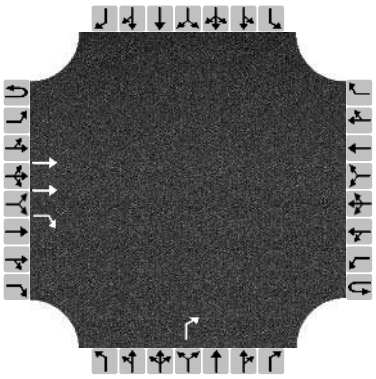
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 Build - AM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			1357	98								47				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												51				
Capacity, c (veh/h)												358				
v/c Ratio												0.14				
95% Queue Length, Q_{95} (veh)												0.5				
Control Delay (s/veh)												16.7				
Level of Service, LOS												C				
Approach Delay (s/veh)									16.7							
Approach LOS									C							

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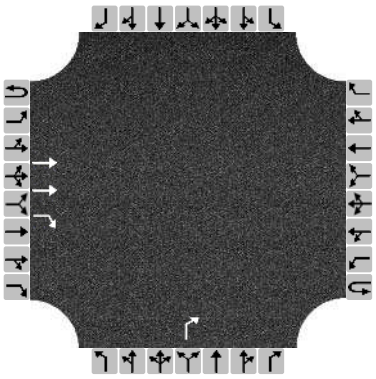
HCS 2010 Two-Way Stop-Control Report

General Information

Analyst	TJS	Intersection	US 33 EB & High Street
Agency/Co.	Smart Services, Inc.	Jurisdiction	City of Canal Winchester
Date Performed	5/1/2017	East/West Street	US 33 EB
Analysis Year	2038	North/South Street	High Street
Time Analyzed	2038 Build - PM Peak	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	US 33 & High Street SW Quadrant		

Lanes



Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	1	0	0	0	0		0	0	1		0	0	0
Configuration			T	R								R				
Volume, V (veh/h)			3241	391								81				
Percent Heavy Vehicles (%)												3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												88				
Capacity, c (veh/h)												73				
v/c Ratio												1.21				
95% Queue Length, Q_{95} (veh)												6.8				
Control Delay (s/veh)												272.9				
Level of Service, LOS												F				
Approach Delay (s/veh)									272.9							
Approach LOS									F							

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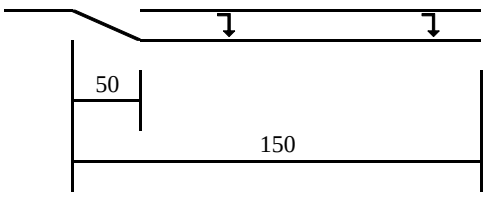
(5) HIGH STREET & US 33 EB - NB RT - 2018 'BUILD'

Critical Analysis Period: PM Peak

Type =	Unsignalized Stopped Crossroad				
Speed =	25	MPH	Storage Length (Adj) =	100	feet
Cycle Length =	60	seconds	Deceleration/Div. Taper =	50	feet
Turning Volume =	79	VPH	Turn Lane Length =	150	feet
# of Turning Lanes =	1				
Advancing Volume =	79	VPH			
Turning % (>10% HIGH) =	100.0%	HIGH			
Design Condition =	A				
Vehicles per Cycle =	1.32				
Storage Length (Calc) =	100	feet			

Calculations based on 401-7E in ODOT L&D Manual. All dimensions are in feet.

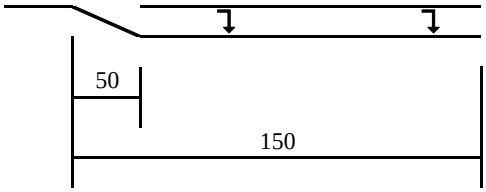


(6) HIGH STREET & US 33 EB - NB RT - 2038 'BUILD'

Critical Analysis Period: PM Peak

Type =	Unsignalized Stopped Crossroad				
Speed =	25	MPH	Storage Length (Adj) =	100	feet
Cycle Length =	60	seconds	Deceleration/Div. Taper =	50	feet
Turning Volume =	81	VPH	Turn Lane Length =	150	feet
# of Turning Lanes =	1				
Advancing Volume =	81	VPH			
Turning % (>10% HIGH) =	100.0%	HIGH			
Design Condition =	A				
Vehicles per Cycle =	1.35				
Storage Length (Calc) =	100	feet			

Calculations based on 401-7E in ODOT L&D Manual. All dimensions are in feet.



TURNING STONE TRAFFIC STUDY

PREPARED BY: SMART SERVICES, INC. 5/2017

APPENDIX

RIGHT TURN LANE CALCULATIONS

Appendix D- Capacity Letter

April 11, 2017

Brian Burkhart
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Rd., Suite 250
Worthington, OH 43085

Dear Mr. Burkhart:

This letter is in reference to the water and sanitary sewer services for the preliminary Turning Stone mixed use development. The City of Canal Winchester owns and operates water and sanitary sewer facilities and feels confident that there is sufficient capacity in the systems to fully serve the proposed development.

Should you have any questions please feel free to contact me at 614-834-5111 or mpeoples@canalwinchesterohio.gov.

Sincerely,

Matthew C. Peoples
Director of Public Service

Appendix E- Evidence of Control

Grand Communities, Ltd.
Mr. Jason M. Wisniewski
3940 Olympic Boulevard, Suite 100
Erlanger, Kentucky 41018

April 12, 2017

Re: High & 33 (Turning Stone)

Dear Jason,

I understand that under Chapter 1173.04 (G) of Canal Winchester's Planning and Zoning Code, Grand Communities, Ltd. is required to provide evidence that it has sufficient control over the Pfeifer property consisting of approximately 17.57 +/- acres, more or less, containing seven (7) parcels (184-002764-00, 184-000748-00, 184-000749-00, 184-000739-00, 184-000738-00 184-000747-00, 184-001616-00) in Canal Winchester, Franklin County, Ohio to proceed with Preliminary Plan approvals. Pursuant to the agreements between the owner of the Pfeifer property, Wilcox Investment Group, LLC, and Grand Communities, Ltd., please take this letter as evidence that Grand Communities, Ltd. has sufficient control and can proceed with its application for rezoning, and development plan/text approvals.

Thank you.

Damon A. Pfeifer

Damon A. Pfeifer

4-12-17
Date

Appendix F- Duplex Design Study

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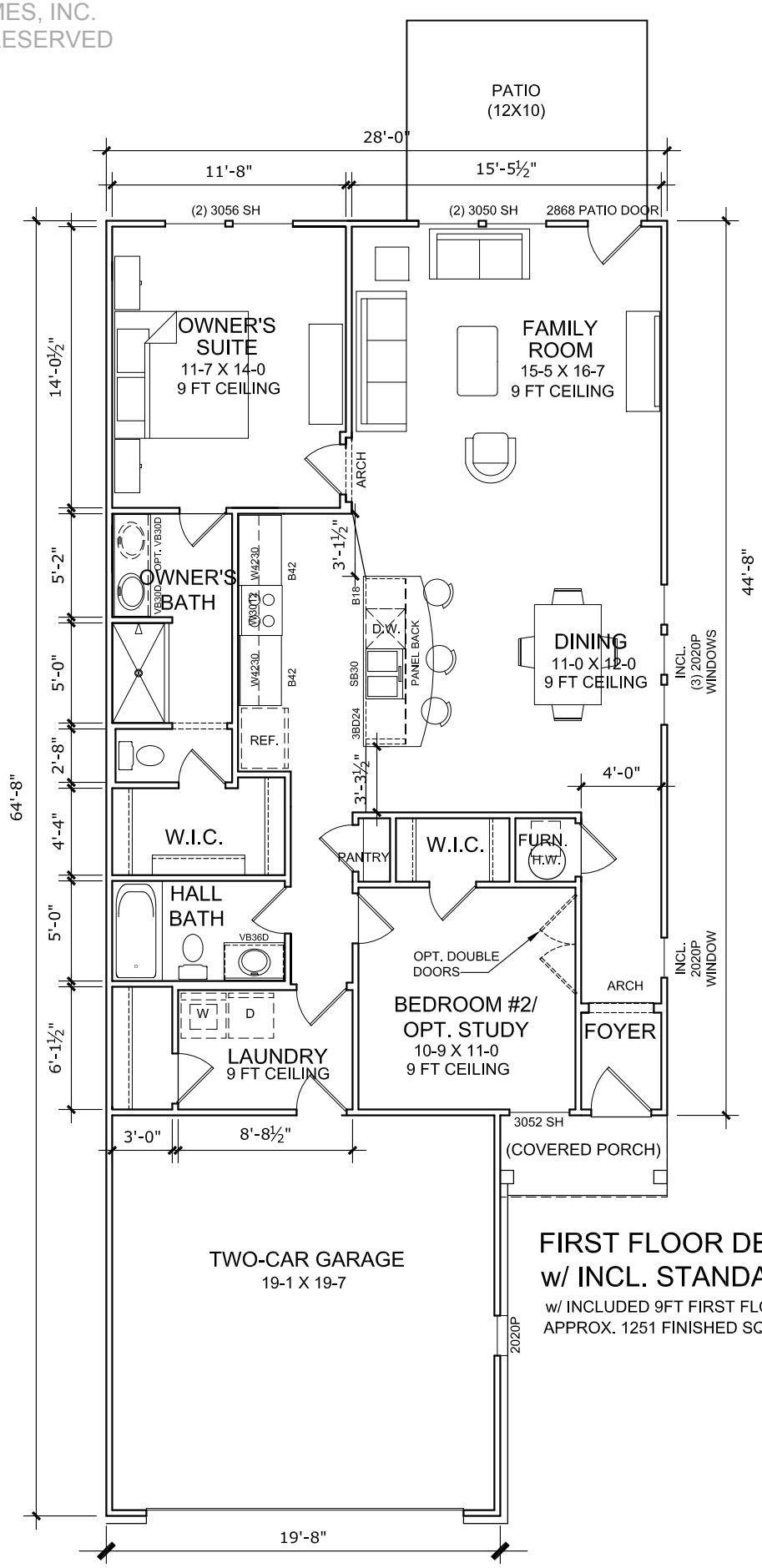

FIRST FLOOR DESIGN 'A'
w/ INCL. STANDARD PLAN

w/ INCLUDED 9FT FIRST FLOOR
APPROX. 1251 FINISHED SQ. FT.

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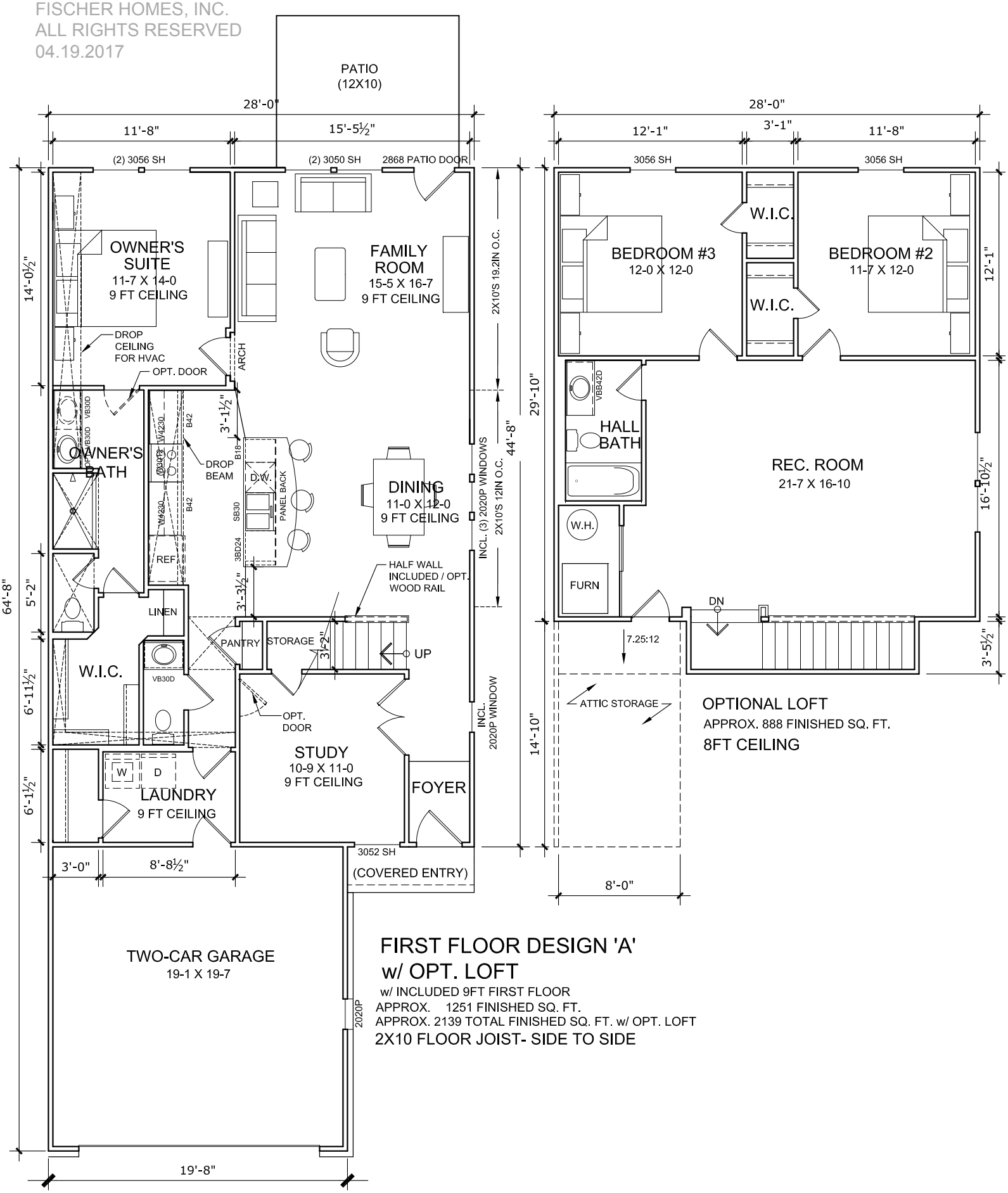

FIRST FLOOR DESIGN 'A'
w/ OPT. LOFT

w/ INCLUDED 9FT FIRST FLOOR
APPROX. 1251 FINISHED SQ. FT.
APPROX. 2139 TOTAL FINISHED SQ. FT. w/ OPT. LOFT
2X10 FLOOR JOIST- SIDE TO SIDE

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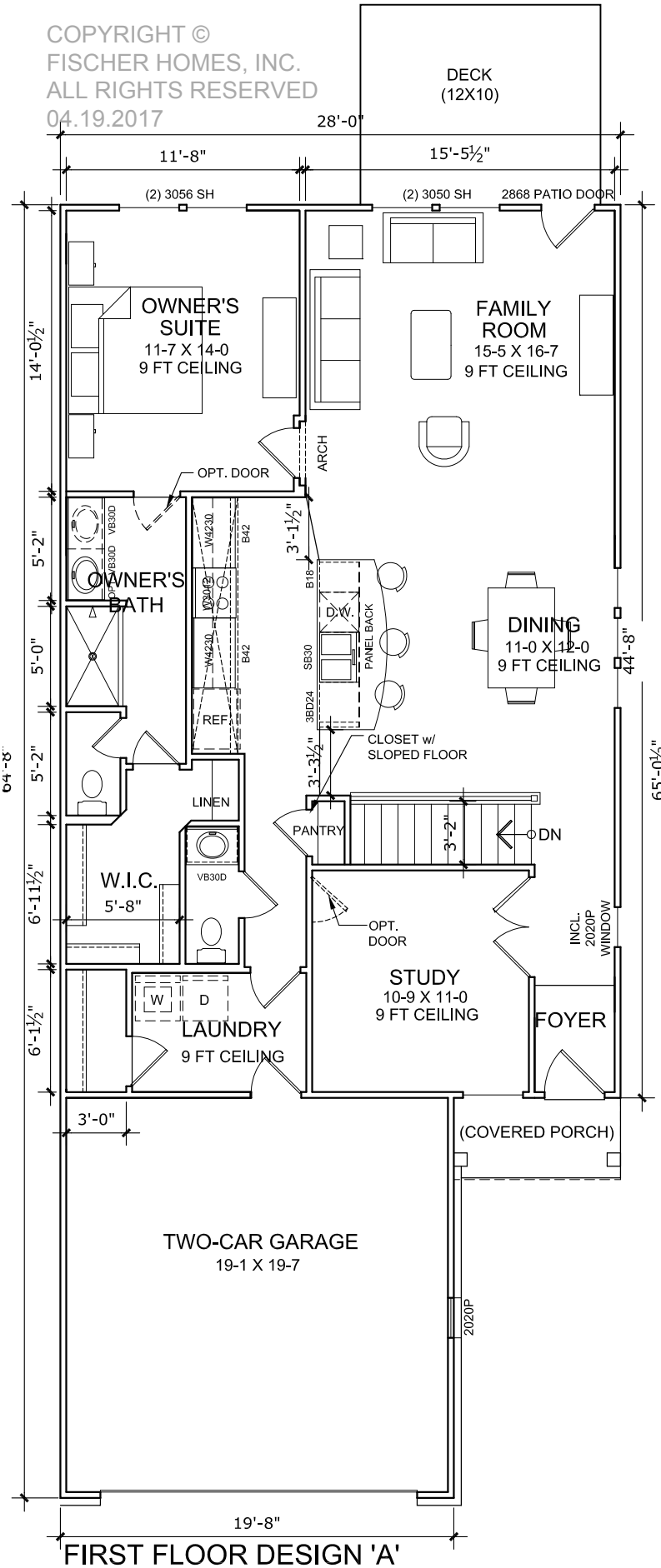
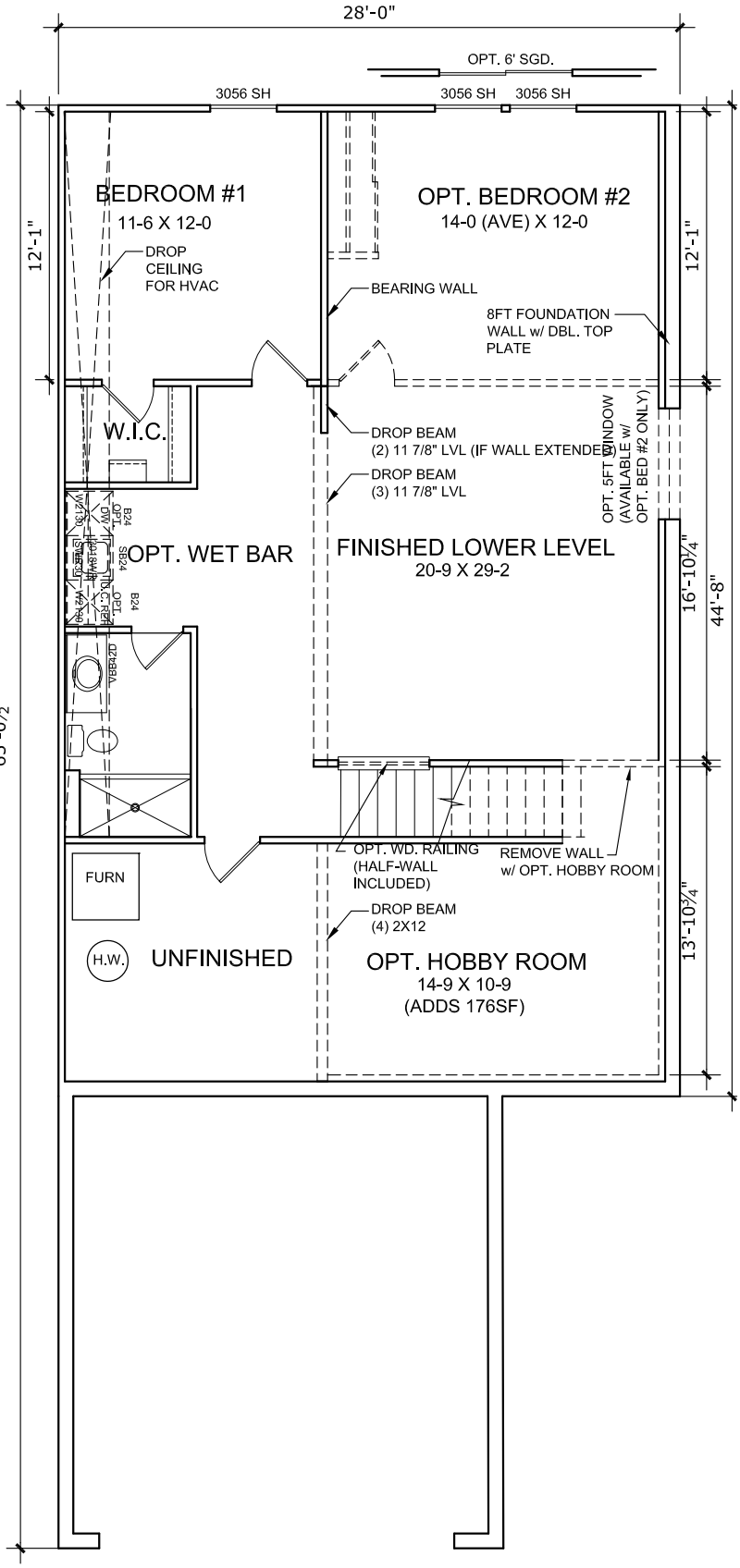


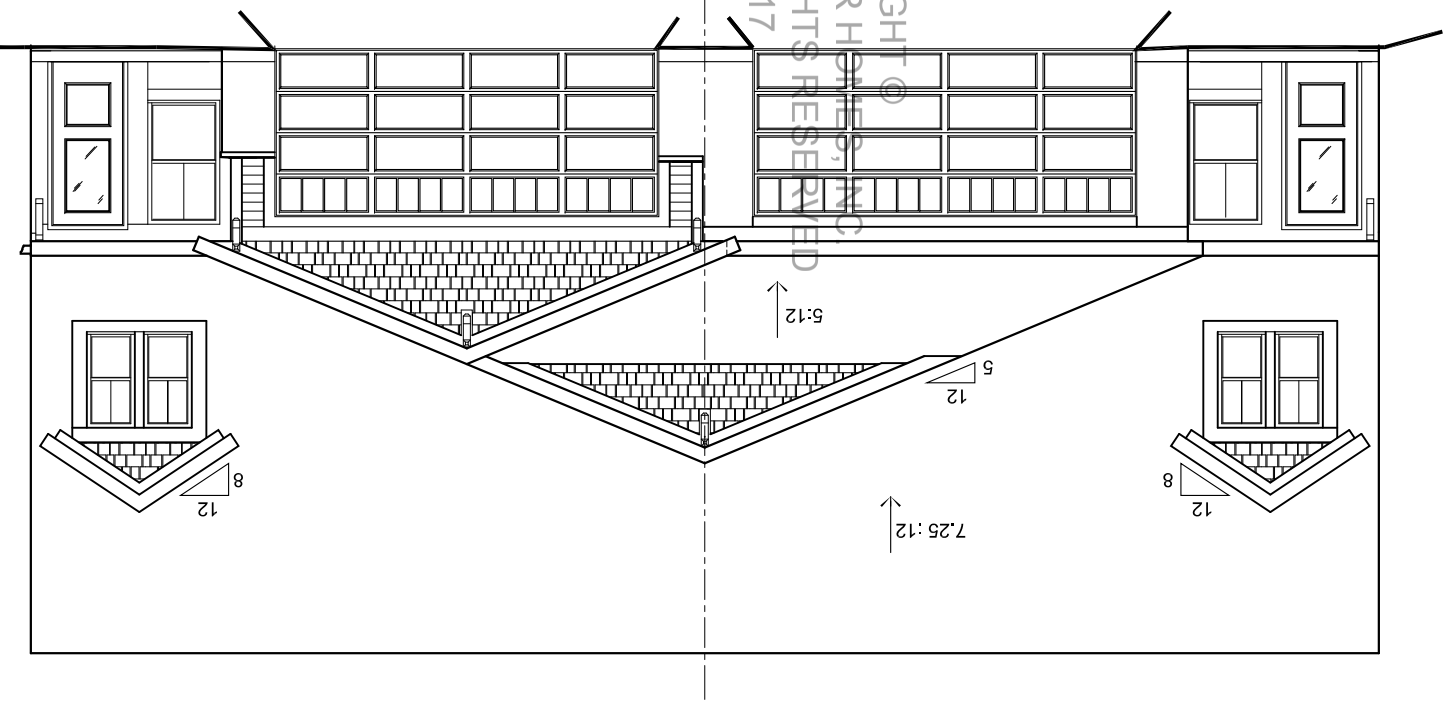


FIRST FLOOR DESIGN 'A'
w/ OPT. BASEMENT

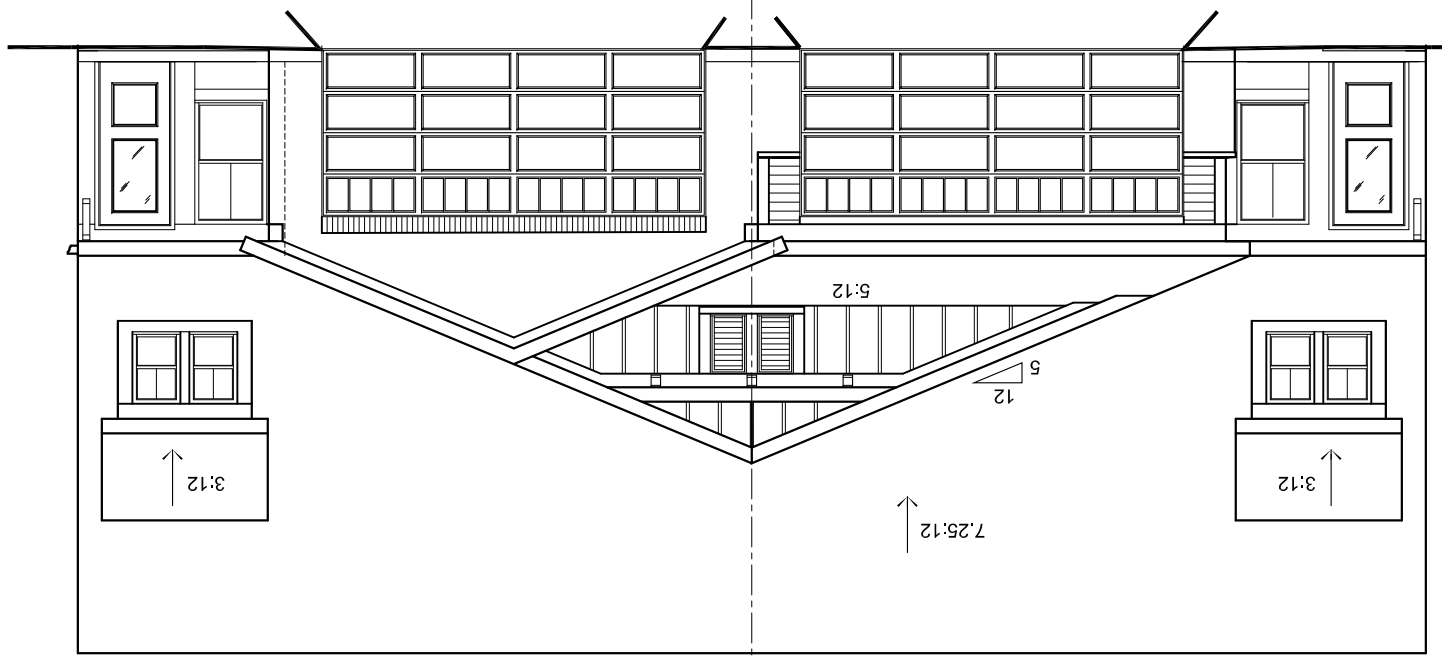
w/ INCLUDED 9FT FIRST FLOOR
APPROX. 1251 FINISHED SQ. FT.
APPROX. 2145 TOTAL FINISHED SQ. FT.
w/ OPT. FINISHED LOWER LEVEL

OPTIONAL LOWER LEVEL

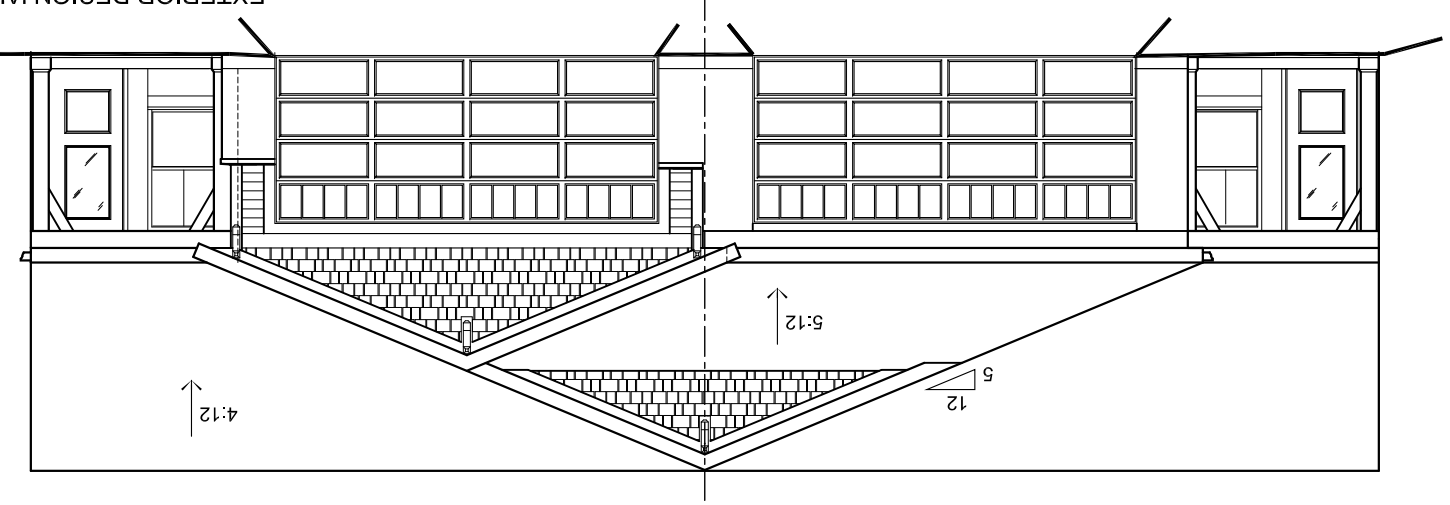
FINISHED REC. RM. & BEDROOM:
APPROX. 894 SQ. FT.
2X10 FLOOR JOIST- SIDE TO SIDE
8FT CEILING



EXTERIOR DESIGN 'A'
w/ OPT. LOFT
(5:12 CROSS GABLES)



EXTERIOR DESIGN 'B'
w/ OPT. LOFT
(5:12 CROSS GABLES)



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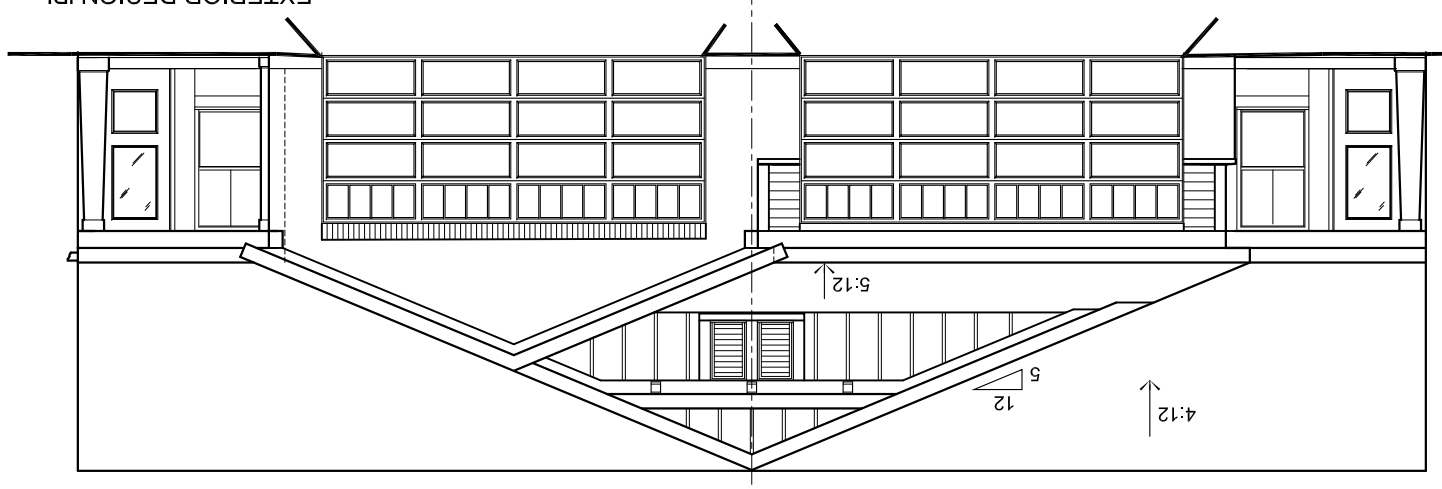

EXTERIOR DESIGN 'B'

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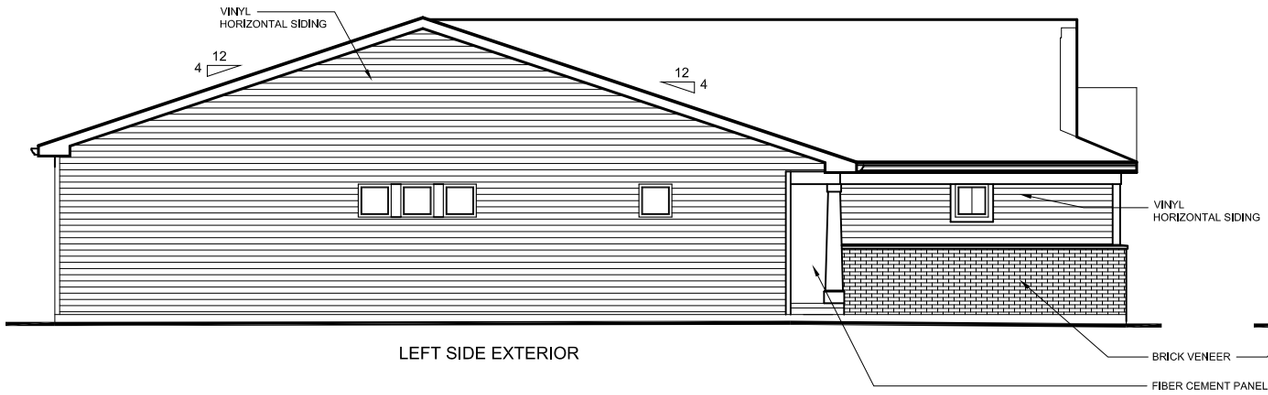
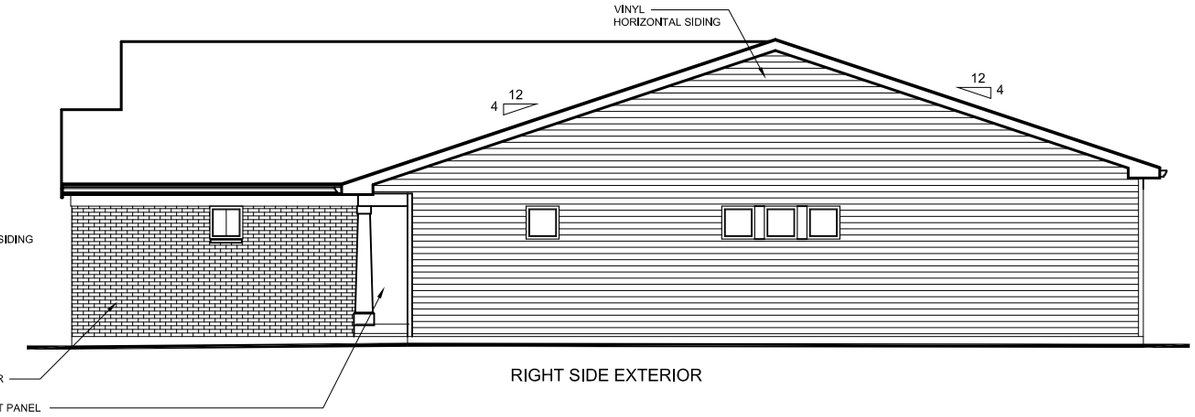
Appendix G- Duplex Elevations

TYPICAL SIDE AND REAR ELEVATIONS

REAR EXTERIOR

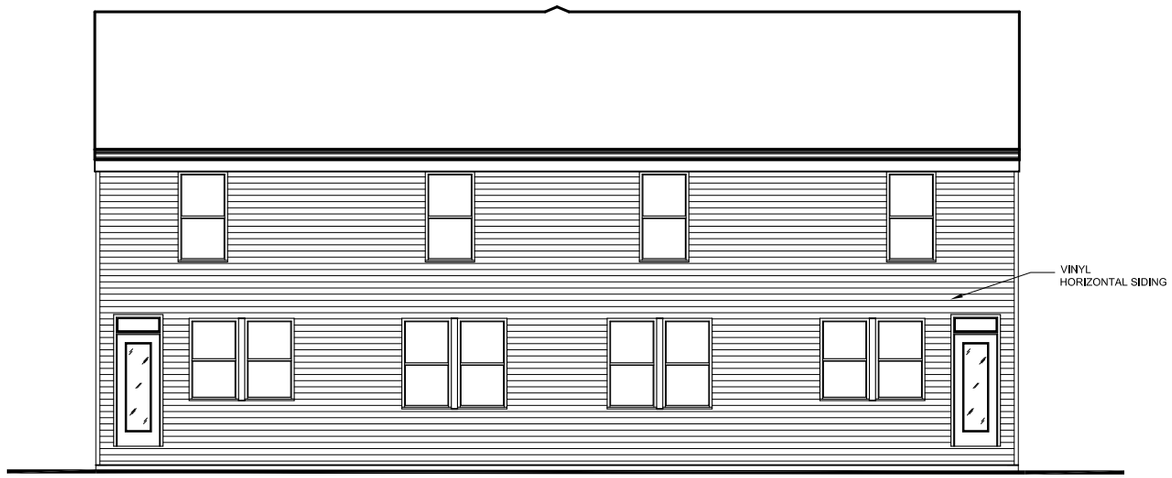


LEFT SIDE EXTERIOR

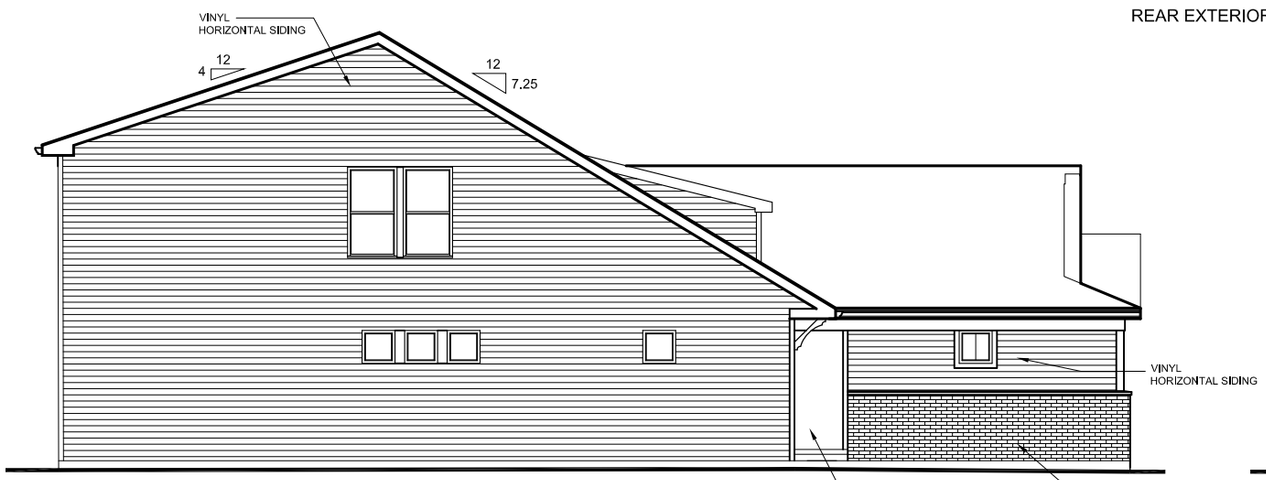


RIGHT SIDE EXTERIOR

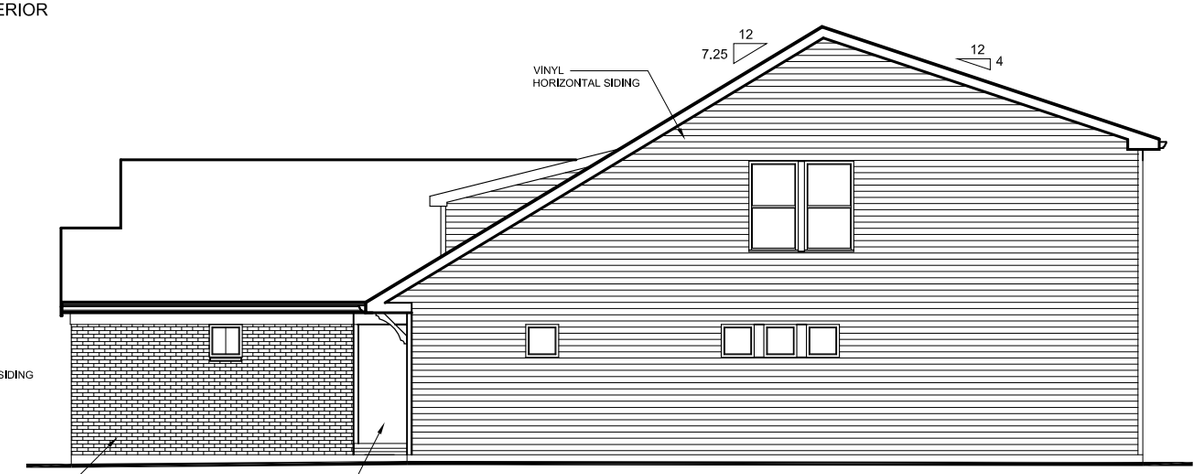
TYPICAL SIDE AND REAR ELEVATIONS w/ OPTIONAL LOFT



REAR EXTERIOR



LEFT SIDE EXTERIOR



RIGHT SIDE EXTERIOR

BRICK VENEER

FIBER CEMENT PANEL

Andrew Moore

From: Hillary Laffin <hlaffin@fischerhomes.com>
Sent: Wednesday, June 28, 2017 10:01 AM
To: Lucas Haire; Andrew Moore
Cc: Jason Wisniewski
Subject: [EXTERNAL] Turning Stone Architecture
Attachments: Turning Stone-Front Facades- 17-06-28.pdf

Good Morning Lucas and Andrew,

Our exterior front facades for Turning Stone have been finalized and can be found attached to this email.

We were able to use the original two exteriors (Exterior Design 'A' and 'B') as starting points, and through the use of material variations, were able to come up with six facades. Each of these facades has the option of being built into a loft unit.

Please note on the plan the various letters:

A. This material and color is subject to change.
B. Siding color is subject to change.
C. Door color is subject to change.

There will be a few different color schemes offered throughout the neighborhood to minimize monotony. Additionally, No two identical facades or color schemes will be placed next to each other in the development.

If available, we would like to discuss with you these new facades and confirm that these meet the expectations you have set. Please let us know when you are available.

Thanks,

Hillary Laffin
Project Planner

Grand Communities, LTD.
Fischer Development Company

3940 Olympic Blvd. Suite 100
Erlanger, KY 41018
Office: 859.344.
7261
Cell: 513.827.0008

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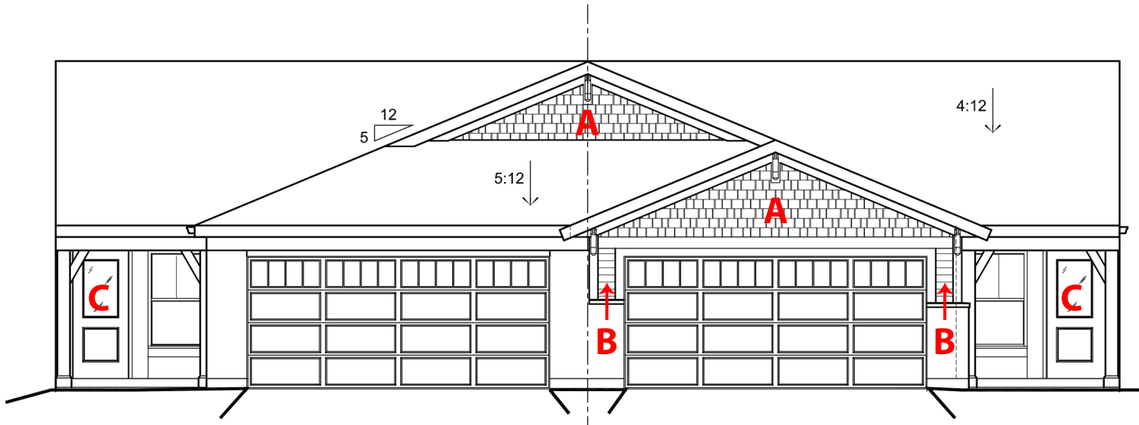
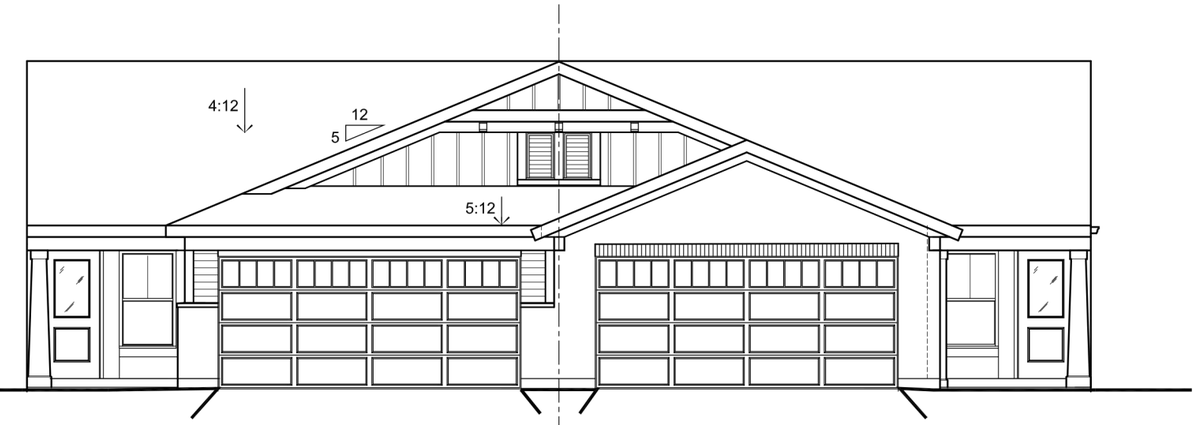
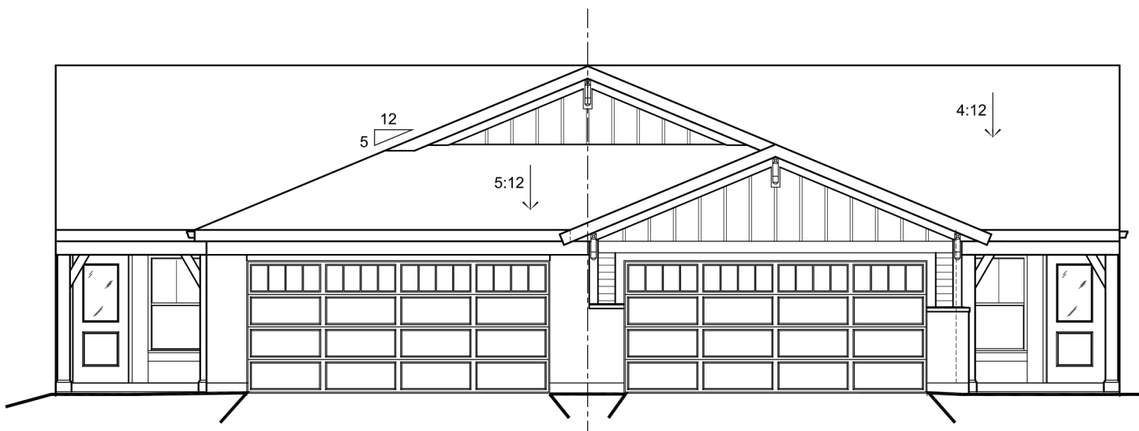


EXTERIOR DESIGN 'A'



EXTERIOR DESIGN 'B'



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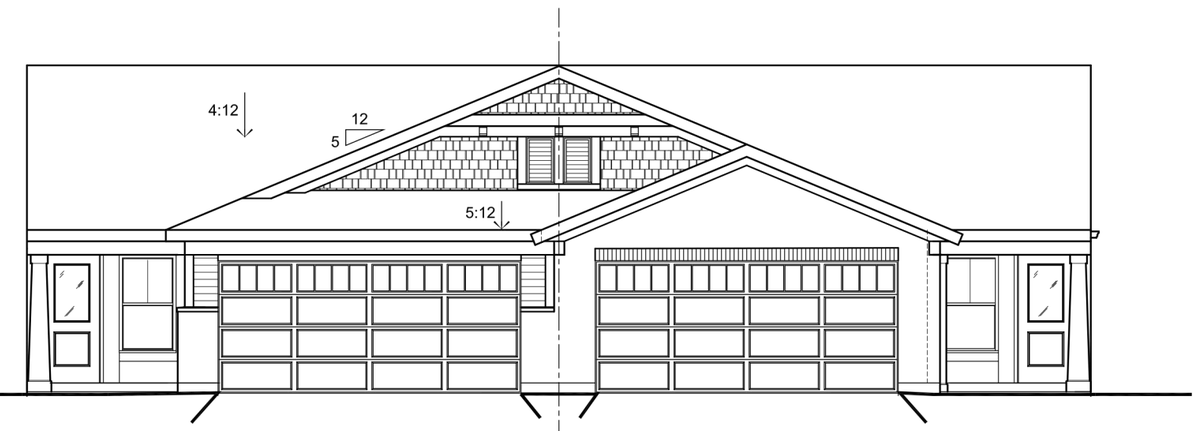
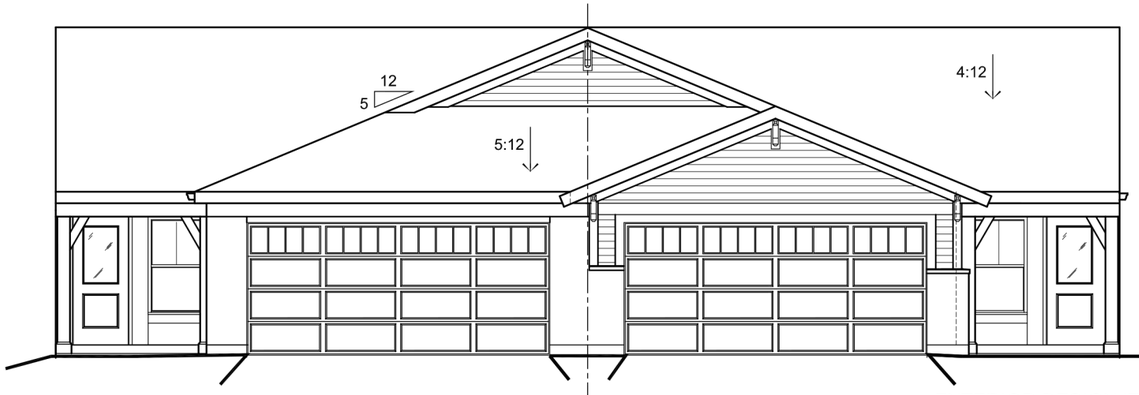


EXTERIOR DESIGN 'D'



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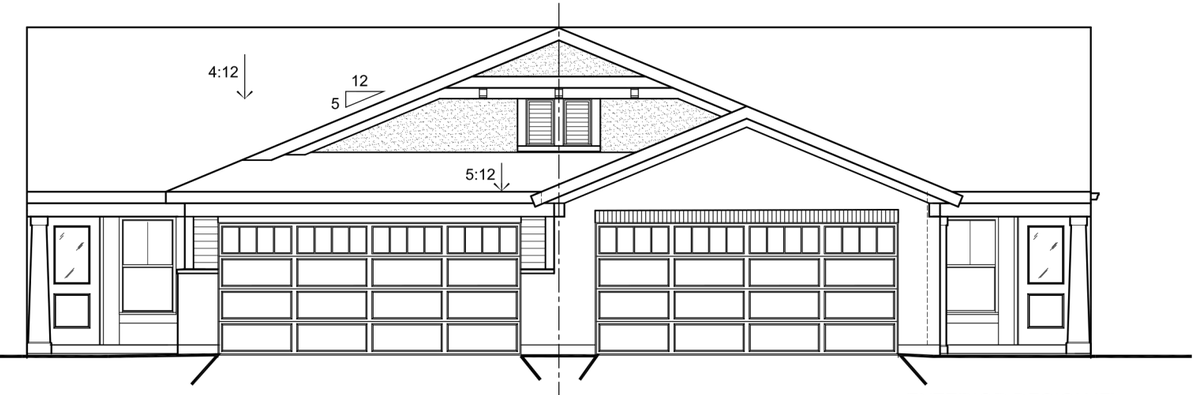

EXTERIOR DESIGN 'F'