



CITY OF PATASKALA

RESOLUTION 2021-021

Passed May 6, 2021

A RESOLUTION AUTHORIZING AND DIRECTING THE CITY ADMINISTRATOR TO EXECUTE A SETTLEMENT AGREEMENT AND RELEASE OF ALL CLAIMS WITH SOUTHGATE COMPANY LIMITED PARTNERSHIP

WHEREAS, Southgate Company Limited Partnership owns real property located in the City that includes Parcel Nos. 64-152964-00.000 (the “First Parcel”) and 64-152964-00.001 (the “Second Parcel”) (together, the First Parcel and the Second Parcel are the “Property”); and

WHEREAS, on or about March 5, 2007, through Ordinance No. 2006-3746, the City rezoned the First Parcel to a Planned Development District (“PDD”) zoning classification and approved development standards text and a preliminary development plan covering the First Parcel; and

WHEREAS, on or about May 16, 2016, through Ordinance No. 2016-4257, the City rezoned the Second Parcel to the PDD zoning classification and approved development standards text and a preliminary development plan that included the Property; and

WHEREAS, on or about September 6, 2019, Southgate submitted a revised development text standards and a revised preliminary development plan concerning the Property (“2019 Development Plan”); and

WHEREAS, a dispute arose between the Parties concerning the review, consideration, and approval of the 2019 Development Plan; and

WHEREAS, Southgate then filed a lawsuit in the Court of Common Pleas in Licking County, Ohio, captioned as *Southgate Company Limited Partnership v. The City of Pataskala, Ohio*, Case No. 20CV0045 (“the Litigation”). However, the City disputed the claims and allegations contained in the Litigation; and

WHEREAS, since filing the Litigation, Southgate essentially met all of the City’s criteria to have the 2019 Development Plan approved, except for submitting the Plan to the Planning and Zoning Commission. That is, all the necessary City Departments and personnel have reviewed, considered, and commented on the 2019 Development Plan. And, Southgate has revised and edited the 2019 Development Plan as requested by the City; and

WHEREAS, Council for the City of Pataskala now wants to end the Litigation and enter into the attached Settlement Agreement and Release of all Claims.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF PATASKALA, COUNTY OF LICKING, STATE OF OHIO, A MAJORITY OF ALL MEMBERS PRESENT CONCURRING THAT:

Section 1: Council for the City of Pataskala hereby authorizes and directs the City Administrator to execute a Settlement Agreement and Release of All Claims, in substantially the same form and content at the Agreement attached hereto as Exhibit A and incorporated herein by reference, with Southgate Company Limited Partnership.

Section 2: Council for the City of Pataskala hereby authorizes and directs the City Administrator, or his designee, to execute all other documents necessary to settle the Litigation.

Section 3: It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Resolution were adopted in an open meeting of Council and that all deliberations of the Council and any of the decision-making bodies of the City of Pataskala which resulted in such formal actions were in meetings open to the public in compliance with all legal requirements of the State of Ohio.

Section 4: This Resolution shall take effect at the earliest time allowed by the Charter of the City of Pataskala.

ATTEST:

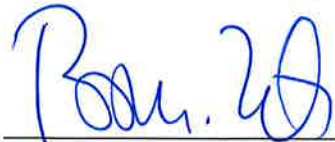


Kathy M. Hoskinson, Clerk of Council



Michael W. Compton, Mayor

APPROVED AS TO FORM:



Brian M. Zets, Law Director

SETTLEMENT AGREEMENT AND RELEASE OF ALL CLAIMS

This Settlement Agreement and Release of All Claims (“Agreement”) is entered into by and between Plaintiff, **Southgate Company Limited Partnership** (“Southgate”), and Defendant, **City of Pataskala, Ohio** (“City”). Together, Southgate and the City may be referred to as the “Parties”, and each may singularly be referred to as a “Party.” This Agreement is effective as of the date of the last-dated signature below (the “Effective Date”).

RECITALS

This Agreement is made with reference to the following:

WHEREAS, Southgate owns real property located in Pataskala, Ohio that includes Parcel Nos. 64-152964-00.000 (the “First Parcel”) and 64-152964-00.001 (the “Second Parcel”) (together, the First Parcel and the Second Parcel are the “Property”).

WHEREAS, on or about March 5, 2007, through Ordinance No. 2006-3746, the City rezoned the First Parcel to a Planned Development District (“PDD”) zoning classification and approved development standards text and a preliminary development plan covering the First Parcel.

WHEREAS, on or about May 16, 2016, through Ordinance No. 2016-4257, the City rezoned the Second Parcel to the PDD zoning classification and approved development standards text and a preliminary development plan that included the Property.

WHEREAS, on or about September 6, 2019, Southgate submitted a revised development text standards and a revised preliminary development plan concerning the Property (“2019 Development Plan”).

WHEREAS, a dispute arose between the Parties concerning the review, consideration, and approval of the 2019 Development Plan.

WHEREAS, Southgate filed a lawsuit in the Court of Common Pleas in Licking County, Ohio, captioned as *Southgate Company Limited Partnership v. The City of Pataskala, Ohio*, Case No. 20CV0045, in which Southgate seeks compensatory damages, attorney fees, and costs for alleged constitutional violations, as well as declaratory, injunctive, and other equitable relief (the “Litigation”).

WHEREAS, the City disputes the claims and allegations contained in the Litigation.

WHEREAS, the Parties wish to resolve the Litigation, pursuant to the terms set forth herein.

NOW, THEREFORE, based upon the foregoing recitals, which are incorporated herein, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and the mutual promises and covenants contained herein, the Parties mutually agree as follows:

1. ***Approval of Preliminary Development Plan and Development Text.*** The City will approve Southgate's Preliminary Development Plan and Development Text. A true and accurate copy of the Preliminary Development Plan and Development Text is attached hereto as **Exhibit 1** and is incorporated herein.

2. ***Impact and Development Fees on the Property.*** In lieu of paying Southgate any amount of money for settlement of its claims against the City in the Litigation the City shall not impose any Impact Fees associated with the development or improvement of the Property for twenty (20) years from the Effective Date. However, Southgate and its successors and assigns will pay timely all costs and expenses for infrastructure improvements outlined in the Memorandum of Understanding attached hereto as **Exhibit 2** and incorporated herein.

3. ***Dismissal of the Litigation with Prejudice.*** Southgate shall dismiss the Litigation, with prejudice, each Party to bear its own costs and attorneys' fees, within ten (10) days of the latter of the City's approval of the Preliminary Development Plan and Development Text.

4. ***Release by the Parties.*** For and in consideration of the terms and conditions of this Agreement, the Parties hereby agree as follows:

A. Southgate on behalf of itself, its parents, subsidiaries, general partners, limited partners, affiliates, predecessors, and successors, as well as its officers, directors, shareholders, employees, agents, insurers, members, heirs, administrators, guarantors, indemnitors, and assigns, absolutely and unconditionally release the City, and each of its current and former elected and appointed officials, heirs, beneficiaries, executors, administrators, insurers, officers, partners, current and former employees, agents, affiliates, successors, guarantors, indemnitors, and assigns and all persons acting by, through, and under them from any and all damages, injuries, omissions, actions and causes of action, suits, debts, disputes, consultant's fees, attorneys' fees, expenses, costs, liabilities, and demands whatsoever, whether known or unknown, past and current, that in any way arise out of or relate to claims made, or claims that could have been made in the Litigation. This release does not apply to any obligations, claims, or other liabilities created by this Agreement.

B. The City on behalf of itself, its current and former elected and appointed officials, heirs, beneficiaries, executors, administrators, insurers, officers, partners, current and former employees, agents, affiliates, successors, guarantors, indemnitors, and assigns, absolutely and unconditionally release Southgate, and each of its parents, subsidiaries, general partners, limited partners, affiliates, predecessors, and successors, as well as its officers, directors, shareholders, employees, agents, insurers, members, heirs, administrators, guarantors, indemnitors, and assigns and all persons acting by, through, and under them from any and all damages, injuries, omissions, actions and causes of action, suits, debts, disputes, consultant's fees, attorneys' fees, expenses, costs, liabilities, and demands whatsoever, whether known or unknown, past and current, that in any way arise out of or relate to claims made, or claims that could have been made in the Litigation. This release does not apply to any obligations, claims, or other liabilities created by this Agreement.

5. ***No Admission of Liability.*** Southgate and the City acknowledge that this Agreement represents the compromise of disputed contentions and claims between the Parties

concerning the Litigation, and this Agreement shall not be construed as: (a) an admission of the truth or falsity of any contentions or claims heretofore asserted in the Litigation; or (b) an acknowledgment or an admission of liability by the City, which are expressly denied. All Parties explicitly deny any and all liability to each other.

6. ***Binding Nature of Agreement; Successors and Assigns.*** This Agreement shall be binding upon and shall inure to the benefit of the Parties hereto and their respective heirs, executors, administrators, personal representatives, predecessors, successors, and current and former subrogees, assigns, insurers, parents, subsidiaries, affiliates, shareholders, officers, directors, employees, general partners, limited partners, members, managers, administrators, and all persons acting by, through, under, or in concert with the Parties, or otherwise legally entitled to recover through the Parties.

7. ***Authority.*** Each Party, by signing below, represents and warrants that the person signing this Agreement has the full power, legal capacity, and authority: (i) to enter this Agreement on behalf of the respective Party; (ii) to make this Agreement and the promises contained therein binding on such Party; and (iii) to perform the obligations under this Agreement.

8. ***No Assignment.*** The Parties represent and warrant that they (i) have not made or purported to make any assignment or other disposition, in whole or in part, of any claim or claims that was, were, or are the subject of this Agreement, and (ii) are the sole owner of the claims asserted by them.

9. ***Limitations on Waiver.*** No course of dealing among or between Southgate and the City, no waiver by any or all of the Parties hereto, and no refusal or neglect of any of the Parties hereto, in exercising any rights hereunder or in enforcing compliance with the terms of this Agreement, shall constitute a waiver of any provision herein unless such power is expressed in writing by the waiving Party.

10. ***Entire Agreement; Modifications to Be in Writing.*** This Agreement constitutes the entire agreement between the Parties regarding settlement of the Litigation. All prior and contemporaneous agreements, contracts, promises, representations, and statements, if any, between the Parties or their representatives are merged into this Agreement, which shall constitute the entire agreement and understanding between the Parties. No waiver, modification, or termination of the terms hereof shall be valid unless in writing signed by the Party to be charged and only to the extent set forth therein.

11. ***Expenses; Costs.*** Each Party shall be responsible for its own costs and expenses, including attorneys' fees and court costs, incurred in connection with this Agreement or with the Litigation.

12. ***Governing Law.*** This Agreement shall be governed by and construed in accordance with the internal substantive law of the state of Ohio, without regard to its conflicts of law principles. The actual development of the Property shall be governed, as applicable by the Pataskala Codified Ordinances, as they currently exist or as amended, unless specifically exempted by this Agreement or expressly covered in Preliminary Development Plan and Development Text (Exhibit 1).

13. **Severability.** The provisions of this Agreement are severable and no provision hereof shall be affected should any paragraph, provision, or clause be found to be ineffective, invalid, or unenforceable.

14. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be treated as an original and all of which shall be construed together and shall constitute one Agreement. The Parties agree that this Agreement, or counterparts as provided for herein, may be executed and transmitted via electronic means, and shall, when so executed and transmitted, be valid as though an original.

15. **Additional Documents and Continued Cooperation.** The Parties agree to act in good faith to execute all documents reasonably necessary or advisable to fulfill the terms and obligations of this Agreement or as necessary to comply with any legal requirement to put third parties on notice of the terms of this Agreement.

16. **Interpretation.** This Agreement shall not be interpreted against any Party due to the fact that a Party's attorney drafted any language of this Agreement in whole or in part. The headings are for the convenience of the Parties and are not to be used in construing the meaning of any provision of this Agreement.

17. **Representation by Counsel.** The Parties represent and warrant that they have each been represented by counsel in all matters concerning this Agreement; that they have been fully advised by their attorney(s) of their rights and obligations contained in this Agreement; and that they have read and understood the provisions of this Agreement.

IN WITNESS WHEREOF, the Parties execute this Agreement on the dates set forth below.

[Signatures Appear on the Next Page]

SOUTHGATE COMPANY LIMITED PARTNERSHIP,
an Ohio limited partnership

By: Southgate Corporation, an Ohio corporation

Its: General Partner

_____ Date: _____
Robert E. O'Neill, President
Southgate Corporation

CITY OF PATASKALA, OHIO

By: _____ Date: _____

Its: _____

Memorandum of Understanding

Between the City of Pataskala and Southgate Company Limited Partnership

Southgate Company Limited Partnership (“Southgate”) owns 95.35+/- acres located at the northeast corner of State Route 310 (Hazelton-Etna Road) and Refuge Road (the “Property”). The City of Pataskala (“City”) previously zoned the Property as a Planned Development District known as Hazelton Crossing. Southgate seeks to develop the Property pursuant to the Preliminary Development Plan attached as Exhibit A (the “Development Plan”). As set forth in the Development Plan, the Hazelton Crossing development consists of four separate Sub-Areas:

<u>Sub-Area</u>	<u>Size</u>	<u>Use</u>
A	25.10+/- acres	Retail/Commercial (up to 10,000 sq.ft./acre)
B	8.4+/- acres	Assisted Living
C	10.5+/- acres	Condominium (up to 5 dwelling units/acre)
D	51.35+/- acres	Single-Family Homes (up to 155 lots)

Southgate and its successors and assigns (collectively, “Developer”) intend to develop Sub-Area D first. Sub-Areas A, B, and C will be developed in future phases. A traffic impact study, dated June 24, 2020, of the proposed Hazelton Crossing development described in the Development Plan (the “TIS”), is attached as Exhibit B (without exhibits). As set forth in the TIS, there are conclusions and recommendations concerning roadway improvements to areas adjacent or near the Property, including but not limited to five enumerated recommendations on page eight of the TIS that pertain to the full development of Sub-Areas A, B, and C (each a “Recommendation”). In an effort to allow Developer to proceed with development of the Hazelton Crossing development, the parties hereby set forth the following memorandum of understanding:

- (1) At such time City issues Developer a building permit to commence construction of one or more single-family homes within Sub-Area D, Developer shall be obligated to construct an east-bound turn lane that is 245 feet in length on Refugee Road into the entrance of Sub-Area D, located across from Brenden Park Drive. The improvements on Refugee Road west of Brendan Park Drive must be widened to provide full width pavement, rather than tapered pavement, within the limits required to develop the left turn lane. The City may withhold certificates of occupancy for one or more single-family homes within Sub-Area D until such left turn-lane is completed.
- (2) At the earlier of the time City issues Developer a building permit to commence construction of the shopping center in Sub-Area A, or to commence construction of one or more condominium buildings in Sub-

Area C, Developer shall be obligated to complete Recommendation 1: the intersection of State Route 310 and the Property's main access point (depicted as "Beacon Chase" in the Development Plan) shall be controlled by a traffic signal, and a southbound left turn lane 315 feet in length, and northbound right turn lane 365 feet in length shall be constructed. The City may withhold certificates of occupancy for one or more of the shopping center units within Sub-Area A or one or more of the condominium buildings in Sub-Area C, as applicable, until the improvements set forth in this paragraph are completed.

- (3) At such time City issues Developer a building permit to commence construction of the shopping center in Sub-Area A or construction of a development on any one of Outlot Nos. 2-7 in Sub-Area A, Developer shall be obligated to complete Recommendation 2: the State Route 310 and South Right-in, Right-out access point and a northbound right turn lane 265 feet in length shall be constructed. The City may withhold certificates of occupancy for one or more units within the shopping center or Outlot Nos. 2-7 in Sub-Area A until the improvements set forth in this paragraph are completed.
- (4) At such time City issues Developer a building permit to commence construction of the shopping center in Sub-Area A, Developer shall be obligated to complete Recommendations 3 and 4: Recommendation 3 - an access point on the south side of Sub-Area A to Refugee Road with an eastbound left turn lane 245 feet in length and, in the event City or a third party has sufficiently widened Refugee Road at the time the foregoing access point is constructed, Developer shall take steps necessary to create a center two-way-left-turn-lane on Refugee Road; and Recommendation 4 – dedicated left turn lanes for all four approaches to the intersection of State Route 310 and Refugee Road shall be constructed as follows, the southbound left turn lane 315 feet in length, eastbound left turn lane 265 feet in length, northbound turn lane 285 feet in length, and a westbound left turn lane that should strive for a 295-foot length subject to coordination with the three-lane pavement section east of this dedicated turn lane. The City may withhold certificates of occupancy for one or more units within the shopping center in Sub-Area A until the improvements set forth in this paragraph are completed.
- (5) Upon completion of the full development of all of Sub-Areas A, B, C, and D consistent with the Development Plan ("Full Build-Out"), Developer may

be obligated to construct the infrastructure described in Recommendation 5: a southbound right turn lane may be constructed, if necessary, at the intersection of State Route 310 and U.S. Route 40. The obligation set forth in the preceding sentence shall be null and void in the event the infrastructure described in this paragraph is no longer warranted upon Full Build-Out, pursuant to either: (a) agreement by Developer and City, or (b) as a result of a traffic impact study conducted by a mutually acceptable engineer. In determining whether the improvements described in this paragraph are warranted upon Full Build-Out, such determination should account for changes in the assumptions set forth in the TIS, including without limitation, changes in background conditions, impacts on the intersection by other developments, and/or growth in the region.

- (6) It is acknowledged and agreed by Developer and the City that the intent of this MOU is to ensure that traffic impacts of the development project are viewed in totality and no Sub-Area is separable from the entirety of the project. Traffic improvements noted herein shall be installed concurrently with the proposed development improvements as specifically described herein. In the event the Development Plan is modified to change the uses or intensity of uses in either Sub-Areas A, B, C, or D (each, a "Changed Sub-Area"), the obligation(s) set forth in Paragraphs 1-5 above that are applicable to the Changed Sub-Area shall be void and revised based upon the recommendations of a new traffic study performed by a mutually acceptable engineer. Such new, future traffic study shall account for the traffic impact of all of the improvements constructed or planned to be constructed on the Property and for changes in the assumptions set forth in the TIS, including without limitation, changes in background conditions, impacts on the applicable obligation by other developments, and/or growth in the region.
- (7) It is further acknowledged and agreed by Developer and the City that any of the foregoing roadway improvements that Developer is required to construct the obligations described in Paragraphs 1-6 and that is not located on the Property, City shall use its best efforts to acquire by eminent domain the right, title, or property interest in the real property within the City of Pataskala necessary for Developer to complete the applicable roadway improvement. City shall acquire such right, title, or property interest in a timely manner that does not unreasonably delay Developer's completion of the roadway improvement. In the event City fails to timely acquire such right, title, or property interest, Developer's applicable roadway improvement obligation shall be delayed until the City acquires such right,

title, or property interest. The City has no obligation to acquire such right, title, or property interest if the property, required to construct the obligations described in Paragraphs 1-6, is not located within the City.

- (8) The duties, obligations, responsibilities, and covenants set forth in this Memorandum of Understanding shall run with the land and bind and inure all Southgate's successors and assigns.

Southgate Company Limited Partnership,
an Ohio limited partnership

By: Southgate Corporation, an Ohio corporation

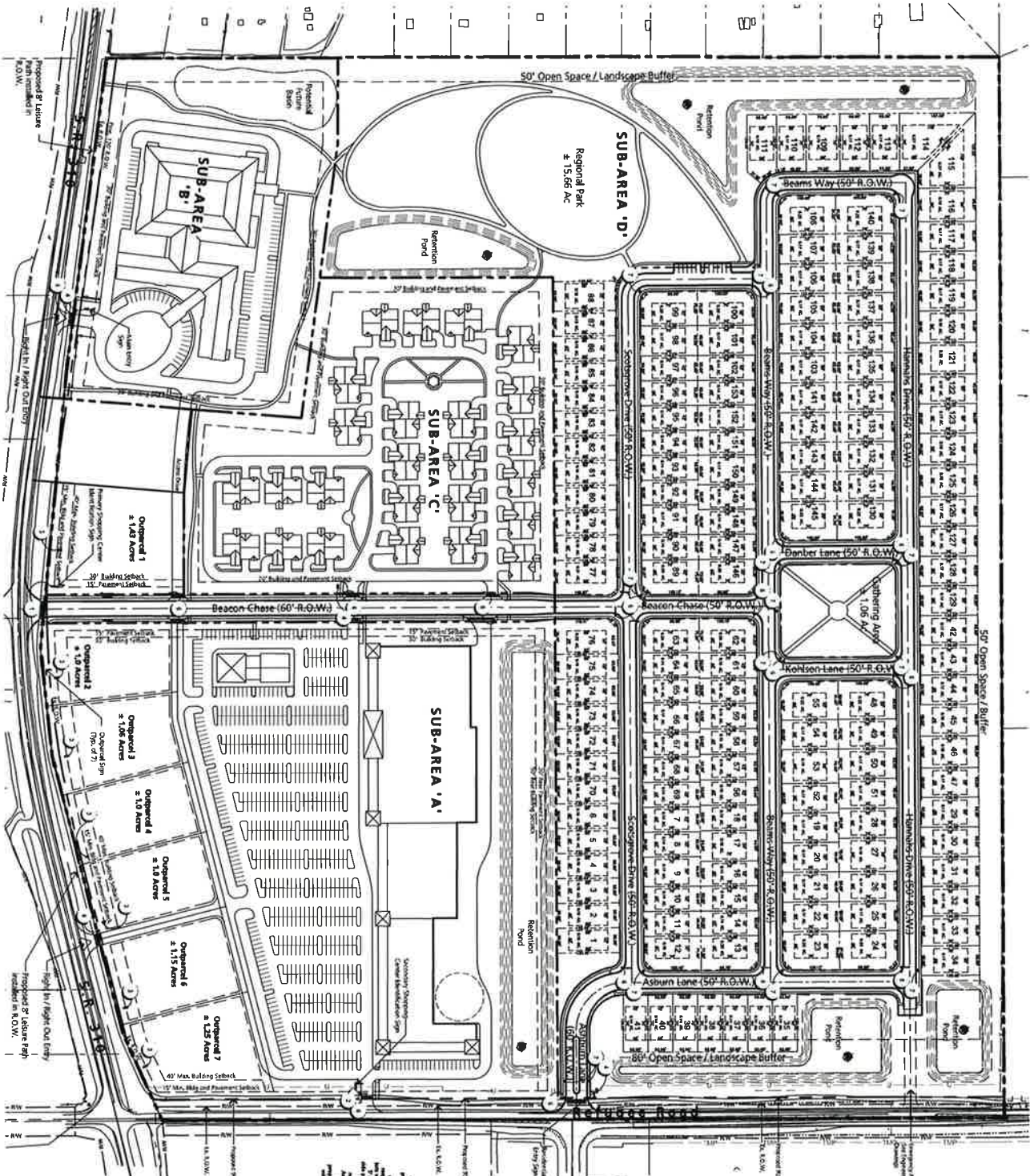
Its: General Partner

_____ Date: _____
Robert E. O'Neill, President
Southgate Corporation

City of Pataskala

By: _____ Date: _____

Its: _____



Preliminary Development Plan Data:

Total Site Acreage:	± 95.55 Acres
Total Open Space:	± 28.27 Acres (30%)
Sub-Area 'A'	± 25.16 Acres
Proposed Use:	Residential / Commercial
Maximum Density:	10,000 s.f. / Acre
Maximum Height:	35' / 45' (see development text)
• Main Retail Bldg.:	35'
• Outparcel Bldg.s:	30'
Minimum Parking:	1 space/250 s.f. Gross Floor Area
Shown on Plan:	163,860 s.f.
Retail Space:	688 Retail
Parking Spaces:	7
Sub-Area 'B'	± 8.4 Acres
Proposed Use:	Assisted Living
Maximum Bldg. Height:	50'
Minimum Parking:	1 space per 2 occupants plus 1 for each employee for main work shift
Sub-Area 'C'	± 10.5 Acres
Proposed Use:	Condominium
Maximum Density:	5 B.U. / Acre
Maximum Bldg. Height:	35'
Minimum Parking:	1 attached garage space and 1 driveway space per unit
Shown on Plan:	Duplex Condominium Units: 50
Sub-Area 'D'	± 51.35 Acres
Proposed Use:	Single-Family
Maximum Lot Permitted:	150'
Maximum Bldg. Height:	35'
Minimum Parking:	2 detached garage spaces and 2 driveway spaces per unit + 6 peak parking spaces

Single Family Typical Lot Diagrams:
(NOT TO SCALE)



52' Lot Typ. Diagram:
CODED LAYOUT & MATERIALS NOTES

KEY	SYMBOL	REFERENCE	NOTES
1	REAR YARD	22'	REAR YARD SETBACK
2	FRONT YARD	22'	FRONT YARD SETBACK
3	SIDE YARD	5'	SIDE YARD SETBACK
4	STREET LIGHT	10'	STREET LIGHT SETBACK
5	STREET LIGHT	10'	STREET LIGHT SETBACK

62' Lot Typ. Diagram:
CODED LAYOUT & MATERIALS NOTES

KEY	SYMBOL	REFERENCE	NOTES
1	REAR YARD	22'	REAR YARD SETBACK
2	FRONT YARD	22'	FRONT YARD SETBACK
3	SIDE YARD	5'	SIDE YARD SETBACK
4	STREET LIGHT	10'	STREET LIGHT SETBACK
5	STREET LIGHT	10'	STREET LIGHT SETBACK



HAZELTON CROSSING - Preliminary Development Plan



January 29, 2021
(Revised 04.28.2021)



Engineers, Surveyors, Planners, Scientists

Exhibit B

June 24, 2020

Mr. Alan W. Haines, PE
Public Service Director
City of Pataskala
621 West Broad Street
Pataskala, OH 43062

Subject: Hazelton Crossing - Traffic Impact Study

Dear Mr. Haines,

This letter provides a Traffic Impact Study (TIS) in support of the Preliminary Development Plan (PDP) and Development Text application currently pending with the City of Pataskala for the above captioned site. The development site is located in the northeast quadrant of the SR 310/Refugee Road intersection and was the subject of a TIS dated April 2016 prepared by others. Development text and a preliminary plan similar to the current application was approved by Pataskala that same year through Ordinance number 2016-4257. As we discussed by phone on November 6, 2019, the scope of this TIS is an update of the 2016 study with the Study Area expanded to include additional off-site intersections at US 40/SR 310 and SR 310/Smoke Road.

Development Plan and Study Area

The attached Preliminary Development Plan shows a land use concept for the entire 95-acre site. Near-term development focuses on Subarea D comprised of 51 acres at the eastern side of the property where up to 155 single-family detached residences are proposed. Subarea D is the only part of the plan that the applicant expects to move to construction as soon as practicable following the City's approval. The ultimate use of the balance of the site (44 acres) is uncertain at this time and the current application provides for 25 acres of retail/commercial use, 8.4 acres of assisted living, and 50 units of multifamily housing/condominiums consistent with the 2016 approval. Accordingly, this study analyzes traffic impacts of Subarea D development separately and together with the uses in Subareas A, B, and C at the intensities of use set forth in the attached Preliminary Development Plan. In the event the uses or intensity of such uses are changed, the impacts related to Subareas A, B, and C identified herein shall be re-studied and subject to modification.

The development plan features one full-movement public street access to Refugee Road, located opposite Brenden Park Drive. The Refugee Road/Brenden Park Drive access point exclusively serves the single-family residential, Subarea D, site. Access to Subareas A, B, and C consists of a new full-movement public street access to State Route 310, one full-movement private driveway access to the retail site from Refugee Road, and two right-in/right-out (RIRO) private driveways, one focused on the retail subarea and one focused on the assisted living facility from State Route 310. The preliminary development plan provides for a future connection between Subarea D and the full-movement public street access to State Route 310 at the time that Subarea A develops and the access to State Route 310 is built.

All proposed site access points and Study Area intersections are within the City of Pataskala, except for the State Route 310/US 40 intersection which is under Ohio Department of Transportation jurisdiction and the Refugee Road/Smoke Road intersection under the jurisdiction of the Licking County Engineer. The State Route 310/Refugee Road intersection is situated on the City boundary and ODOT controls the portion of this intersection outside Pataskala. **Figure 1** below shows the site location and Study Area for this TIS.

Figure 1: Site Location Map



The Study Area for this TIS is limited to the following intersections:

- State Route 310/Refugee Road (a portion of which is outside of Pataskala)
- Refugee Road/Brenden Park Drive
- Refugee Road/Smoke Road (outside of Pataskala)
- State Route 310/US 40 (outside of Pataskala)
- State Route 310/Proposed Access Points
- Refugee Road/Proposed Access Points

Data Collection

Existing traffic levels were observed at the four existing intersections within the Study Area from peak-hour turning movement count performed on November 20, 2019 (7:00 – 9:00 AM, 4:00 – 6:00 PM) and November 21, 2019 (7:00 – 9:00 AM, 4:00 – 6:00 PM). The count data can be found attached in **Appendix B**. We compared current counts to those observed in 2015 that served as the basis for the 2016 TIS. The total volume entering the intersection on all four approaches increased about 12% over 4 years with most of the percentage increase on Refugee Road where volumes are low. Northbound and southbound approach volumes on State Route 310 increased by 2% or less from the 2016 projection to the 2019 count.

Trip Generation

This study used trip generation methodology contained in the Trip Generation Manual, 10th Edition (Institute of Transportation Engineers, 2017), to calculate site traffic as illustrated below in **Table 1**. Land use code 210 (Single Family - Detached) was used to forecast traffic generated by Subarea D development for near term development. We calculated trip generation for Subareas A, B, and C using ITE land use code 820

(Shopping Center), 620 (Nursing Home), and 220 (Multifamily Housing). Because it is unknown how many beds will be within the assisted living complex, this study assumed a building size of 10,000 square feet per acre identical to the methodology applied to the 2016 TIS.

Even though development data for Subareas A, B, and C is identical to the development studied in the 2016 TIS, current trip generation projections are significantly lower. This study calculates trip generation using the latest 10th edition of the Trip Generation Manual, released in 2017, while the 2016 TIS was based on the previous 9th edition. With the 10th edition, ITE updated trip forecasting formulas based on an expanded number of samples (more data) and realigned some data categories, in this case changing the former condominium and assisted living land uses to "multi-family housing" and "nursing home" respectively. The result of applying current ITE data and methodology is to lower the number of site-generated vehicle trips by 12% compared to the 2016 calculations.

Table 1: Trip Generation

Sub Area	Land Use	Square Feet or Units	ITE Code	Time Period	ITE Formula	Total Trips	Trips Entering	Trips Exiting
A1	Shopping Center	163,000 sf	820	ADT	$\ln(T) = 0.68\ln(x) + 5.57$	8,382	4,191	4,191
				AM Peak	$T = 0.50(x) + 151.78$	233	See Below	
				PM Peak	$\ln(T) = 0.74\ln(x) + 2.89$	780	See Below	
				100%	AM Primary Trips	233	144	89
				0%	AM Pass-By Trips	0	0	0
				66%	PM Primary Trips	514	247	267
				34%	PM Pass-By Trips	266	133	133
A2	Shopping Center (Outparcels)	78,900 sf	820	ADT	$\ln(T) = 0.68\ln(x) + 5.57$	5,118	2,559	2,559
				AM Peak	$T = 0.50(x) + 151.78$	191	See Below	
				PM Peak	$\ln(T) = 0.74\ln(x) + 2.89$	456	See Below	
				100%	AM Primary Trips	191	118	73
				0%	AM Pass-By Trips	0	0	0
				66%	PM Primary Trips	300	144	156
				34%	PM Pass-By Trips	156	78	78
B	Nursing Home (Sub for Assisted Living)	84,000 sf	620	ADT	$\ln(T) = 0.83\ln(x) + 2.51$	488	244	244
				AM Peak	$\ln(T) = 0.84\ln(x)$	41	32	9
				PM Peak	Average Rate = 0.59	50	21	29
C	Multifamily Housing Low Rise (One or two floors) (Sub for Condos)	50 units	220	ADT	$T = 7.56(x) - 40.86$	338	169	169
				AM Peak	$\ln(T) = 0.95\ln(x) - 0.51$	25	6	19
				PM Peak	$\ln(T) = 0.89\ln(x) - 0.02$	32	20	12
D	Single Family - Detached	155 units	210	ADT	$\ln(T) = 0.92\ln(x) + 2.71$	1,556	778	778
				AM Peak	$T = 0.71(x) + 4.8$	115	29	86
				PM Peak	$\ln(T) = 0.96\ln(x) + 0.2$	155	98	57
TOTAL				ADT		15,882	7,941	7,941
				AM Primary Trips		605	329	276
				AM Pass-By Trips		0	0	0
				AM TOTAL		605	329	276
				PM Primary Trips		1,051	530	521
				PM Pass-By Trips		422	211	211
				PM TOTAL		1,473	741	732

Traffic Volume Projections

This study analyzed AM and PM peak hours in the opening year (2022) and the horizon year (2042) with, and without, site-generated traffic. The peak hours identified from the count data were 8:00 – 9:00 AM, and 4:45 – 5:45 PM. The Mid-Ohio Regional Planning Commission (MORPC) provided growth rates that this study applied to Study Area roadways. MORPC forecast linear annual growth of 1.0% to 1.2% in the State Route 310/Refugee Road area and 1.35% to 1.55% at off-site intersections. MORPC correspondence is documented in **Appendix A** and growth calculations are detailed in **Appendix C**.

We balanced observed volumes between intersections, keeping other intersections and driveways between intersections in mind, and increased counts to account for non-site background growth using the MORPC growth rates described above. The resulting 2022 and 2042 horizon year traffic volumes represent pre-development conditions exclusive of new trips generated by site development, referred to as the “No Build” or background condition. We added Hazelton Crossing site generated trips to the 2022 and 2042 background volumes to define the “Build” conditions. The scenarios analyzed in this study are as follows:

- 2022 AM No Build
- 2022 AM Build – Single Family Only
- 2042 AM No Build
- 2042 AM Build – Single Family Only
- 2042 AM Full Build
- 2022 PM No Build
- 2022 PM Build – Single Family Only
- 2042 PM No Build
- 2042 PM Build – Single Family Only
- 2042 PM Full Build

Traffic Distribution

The existing distribution of volumes was analyzed from observed count data, as shown on plates C1 and C2 in Appendix C. This distribution applied to this study is as follows:

- 20% to/from the north on SR 310
- 28% to/from the south on SR 310
- 15% to/from the east on US 40
- 22% to/from the west on US 40
- 4% to/from the east on Refugee Rd
- 9% to/from the west on Refugee Rd
- 1% to/from the north on Smoke Rd
- 1% to/from the south on Smoke Rd

Traffic Analysis

Turn Lane Warrant Analysis

This study evaluated left and right turn lane warrants at proposed site access points pursuant to requirements set forth in the Location and Design Manual § 400 (Ohio Department of Transportation). Posted speed limits are 50 mph on SR 310 (north of Refugee Road) and 45 mph on Refugee Road requiring application of high-speed criteria to both roadways. Refer to **Appendix E** for detailed turn lane warrant analysis.

Turn lane warrant analysis of both the 2022 and 2042 Single Family Only Build scenario results in the eastbound left turn lane meeting warrant criteria at the proposed single family access point on Refugee Road opposite Brenden Park Drive.

Turn lane warrant analysis of the 2042 Full Build scenario with development of the entire 95 acre site resulted in the following additional required turn lanes.

- Northbound right turn lane at SR 310/Main Access Point
- Southbound left turn lane at SR 310/Main Access Point
- Northbound right turn lane at SR 310/South RI-RO
- Eastbound left turn lane at Refugee Road/Retail Access Point

Turn Lane Length Analysis

The length of warranted turn lanes were evaluated pursuant to the requirements set forth in the Location and Design Manual § 400 (Ohio Department of Transportation). Refer to **Appendix F** for detailed turn lane length analysis. The turn lane length results are summarized in **Table 2** including ODOT recommended storage and deceleration distance based on a design speed 5 mph over the posted speed.

Table 2: Turn Lane Lengths at Proposed Site Access Points

<u>Turn Lane</u>	<u>Turn Lane Length</u>
Northbound right at SR 310/Main Access Point West	365'
Southbound left at SR 310/Main Access Point West	315'
Northbound right at SR 310/South RI-RO	265'
Eastbound left at Refugee Road/Shopping Access Point South	245'
Eastbound left at Refugee Road/Single Family Dr/Brenden Park Dr	245'

The need for turn lanes at signalized intersections is determined from capacity analysis rather than turn lane warrants. The capacity analysis for the State Route 310/Refugee Road intersection finds that left turn lanes at any of the four approaches are not necessary until the 2042 Full Build conditions occur. **Table 3** provides the length of turn lanes at the State Route 310/Refugee Road intersection, again including queue storage and deceleration components in accordance with ODOT methodology.

Table 3: Turn Lane Lengths at SR 310/Refugee Road

<u>Turn Lane</u>	<u>Turn Lane Length</u>
Northbound left at SR 310/Refugee Road	285'
Southbound left at SR 310/Refugee Road	315'
Eastbound left at SR 310/Refugee Road	295'
Westbound left at SR 310/Refugee Road	295'

Site frontage on Refugee Road between State Route 310 and Brenden Park Drive provides about 950 feet (center to center) including 520 feet from State Route 310 to the proposed retail access point and 430 feet from the proposed retail access point to Brenden Park Drive. The former (State Route 310 to proposed retail access point) can accommodate back-to-back left turn lanes with appropriate queue storage but cannot accommodate full deceleration length in both directions. The latter (proposed retail access point to Brenden Park Drive) can accommodate an eastbound left turn lane with the full queue storage and deceleration length shown in Table 2, but widening tapers will overlap with improvements at the proposed retail access point. Accordingly, the westbound approach of Refugee Road to State Route 310 should provide approximately 370 feet of storage/deceleration (measured from the centerline of State Route 310) in a dedicated westbound left turn lane, meeting the specification in Table 3, and the balance of Refugee Road east of that point through Brenden Park Drive should provide a consistent 3-lane section marked with a two-way center left-turn lane.

Intersection Capacity Analyses

This study used Synchro 10 software implementing HCM 6th edition methodology to evaluate operational characteristics of the Study Area intersections. A minimum overall intersection level of service (LOS) D is acceptable with minimum approach LOS D and minimum LOS E in any individual movement.

Existing signal phasing and timing, provided by the Ohio Department of Transportation, was modeled for the SR 310/Refugee Road, and SR 310/US 40 intersections. Intersection signal timing is modified slightly throughout all the analyses if necessary to rebalance the intersection as traffic volumes changed. **Table 4** below shows the results of the capacity analysis performed. Detailed capacity analysis reports can be found in **Appendix D**.

Table 4: Synchro Capacity Analysis Results

Time Period	Year	Scenario	EBLT	EBTH	EBRT	Approach	WBTL	WBTH	WBRT	Approach	NBLT	NBTH	NBRT	Approach	SELT	SETH	SERT	Approach	TOTAL	
SR 310/Refugee Rd																				
AM Peak Hour	2022	No Build	B/17.7	B/17.7	B/17.7	B/17.7	B/16.2	B/16.2	B/16.2	B/16.2	A/7.3	A/7.3	A/7.3	A/7.3	A/8.8	A/8.8	A/8.8	A/8.8	B/11.0	
		Single Family Only	B/17.8	B/17.8	B/17.8	B/17.8	B/17.6	B/17.6	B/17.6	B/17.6	A/7.6	A/7.6	A/7.6	A/7.6	A/9.0	A/9.0	A/9.0	A/9.0	B/11.7	
	2042	No Build	B/17.7	B/17.7	B/17.7	B/17.7	B/15.9	B/15.9	B/15.9	B/15.9	A/9.5	A/9.5	A/9.5	A/9.5	B/12.5	B/12.5	B/12.5	B/12.5	B/13.0	
		Single Family Only	B/17.9	B/17.9	B/17.9	B/17.9	B/17.0	B/17.0	B/17.0	B/17.0	B/10.6	B/10.6	B/10.6	B/10.6	B/13.7	B/13.7	B/13.7	B/13.7	B/14.1	
		Full Build	B/18.1	B/18.1	B/18.1	B/18.1	B/16.8	B/16.8	B/16.8	C/26.2	C/26.2	C/26.2	C/26.2	C/21.6	C/21.6	C/21.6	C/21.6	C/21.9		
		Full Build With Improvements	C/34.4	C/24.9	C/24.9	C/29.5	C/29.9	C/25.5	C/25.5	C/26.9	C/21.1	B/10.6	B/10.6	B/11.9	B/13.4	B/13.4	B/13.4	B/13.4	B/17.4	
PM Peak Hour	2022	No Build	B/17.9	B/17.9	B/17.9	B/17.9	B/14.9	B/14.9	B/14.9	B/14.9	B/10.4	B/10.4	B/10.4	B/10.4	B/10.9	B/10.9	B/10.9	B/10.9	B/12.3	
		Single Family Only	B/17.9	B/17.9	B/17.9	B/17.9	B/15.5	B/15.5	B/15.5	B/15.5	B/12.1	B/12.1	B/12.1	B/12.1	B/11.8	B/11.8	B/11.8	B/11.8	B/13.0	
	2042	No Build	B/18.0	B/18.0	B/18.0	B/18.0	B/14.4	B/14.4	B/14.4	B/14.4	B/16.4	B/16.4	B/16.4	B/16.4	C/20.1	C/20.1	C/20.1	C/20.1	B/18.0	
		Single Family Only	B/18.0	B/18.0	B/18.0	B/18.0	B/15.0	B/15.0	B/15.0	B/15.0	C/21.6	C/21.6	C/21.6	C/21.6	C/34.7	C/34.7	C/34.7	C/34.7	C/25.1	
		Full Build	B/18.9	B/18.9	B/18.9	B/18.9	B/16.8	B/16.8	B/16.8	B/16.8	F/208.2	F/208.2	F/208.2	F/208.2	F/212.1	F/212.1	F/212.1	F/212.1	F/163.9	
		Full Build With Improvements	C/28.2	D/46.0	D/46.0	D/40.5	E/75.9	C/23.0	C/23.0	D/47.5	B/18.3	E/55.2	E/55.2	D/54.1	E/66.9	B/13.9	B/13.9	B/13.9	B/18.9	D/39.2
Refugee Rd/Brendan Park Dr																				
AM Peak Hour	2022	No Build	-	-	-	-	A/7.3	-	-	A/9.2	A/9.6	-	A/9.6	A/9.6	-	-	-	-	A/1.3	
		Single Family Only	A/7.6	-	-	A/2.4	A/7.3	-	-	A/9.2	B/11.1	B/11.1	B/11.1	B/11.1	A/9.7	A/9.7	A/9.7	A/9.7	A/2.9	
	2042	No Build	-	-	-	-	A/7.4	-	-	A/9.2	B/10.0	-	B/10.0	B/10.0	-	-	-	-	A/1.3	
		Single Family Only	A/7.7	-	-	A/2.1	A/7.4	-	-	A/9.2	B/11.7	B/11.7	B/11.7	B/11.7	A/9.9	A/9.9	A/9.9	A/9.9	A/2.7	
		Full Build	A/7.7	-	-	A/1.7	A/7.4	-	-	A/9.2	B/11.6	B/11.6	B/11.6	B/10.0	B/10.0	B/10.0	B/10.0	A/2.2		
		Full Build With Improvements	A/7.7	-	-	A/1.7	A/7.4	-	-	A/9.2	B/11.6	B/11.6	B/11.6	B/10.0	B/10.0	B/10.0	B/10.0	A/3.2		
PM Peak Hour	2022	No Build	-	-	-	-	A/7.7	-	-	A/1.1	B/10.3	-	B/10.3	B/10.3	-	-	-	-	A/1.3	
		Single Family Only	A/7.6	-	-	A/2.4	A/7.7	-	-	A/1.0	B/13.2	B/13.2	B/13.2	B/13.2	A/9.3	A/9.3	A/9.3	A/9.3	A/3.6	
	2042	No Build	-	-	-	-	A/7.8	-	-	A/1.1	B/10.8	-	B/10.8	B/10.8	-	-	-	-	A/1.3	
		Single Family Only	A/7.6	-	-	A/2.1	A/7.8	-	-	A/1.0	B/14.2	B/14.2	B/14.2	B/14.2	A/9.5	A/9.5	A/9.5	A/9.5	A/3.4	
		Full Build	A/7.7	-	-	A/1.6	A/7.9	-	-	A/9.8	B/14.7	B/14.7	B/14.7	A/9.9	A/9.9	A/9.9	A/9.9	A/2.8		
		Full Build With Improvements	A/7.7	-	-	A/1.6	A/7.9	-	-	A/9.8	B/14.7	B/14.7	B/14.7	A/9.9	A/9.9	A/9.9	A/9.9	A/2.8		
Refugee Rd/Smoke Rd																				
AM Peak Hour	2022	No Build	A/7.5	A/7.5	A/7.5	A/7.5	A/7.9	A/7.9	A/7.9	A/7.9	A/7.6	A/7.6	A/7.6	A/7.6	A/7.4	A/7.4	A/7.4	A/7.4	A/7.7	
		Single Family Only	A/7.6	A/7.6	A/7.6	A/7.6	A/7.9	A/7.9	A/7.9	A/7.9	A/7.6	A/7.6	A/7.6	A/7.6	A/7.4	A/7.4	A/7.4	A/7.4	A/7.7	
	2042	No Build	A/7.7	A/7.7	A/7.7	A/7.7	A/8.2	A/8.2	A/8.2	A/8.2	A/7.8	A/7.8	A/7.8	A/7.8	A/7.8	A/7.5	A/7.5	A/7.5	A/7.5	
		Single Family Only	A/7.7	A/7.7	A/7.7	A/7.7	A/8.2	A/8.2	A/8.2	A/8.2	A/7.8	A/7.8	A/7.8	A/7.8	A/7.8	A/7.6	A/7.6	A/7.6	A/7.6	
		Full Build	A/7.8	A/7.8	A/7.8	A/7.8	A/8.4	A/8.4	A/8.4	A/7.9	A/7.9	A/7.9	A/7.9	A/7.9	A/7.6	A/7.6	A/7.6	A/7.6	A/8.1	
		Full Build With Improvements	A/7.8	A/7.8	A/7.8	A/7.8	A/8.4	A/8.4	A/8.4	A/7.9	A/7.9	A/7.9	A/7.9	A/7.9	A/7.6	A/7.6	A/7.6	A/7.6	A/8.1	
PM Peak Hour	2022	No Build	A/8.4	A/8.4	A/8.4	A/8.4	A/7.8	A/7.8	A/7.8	A/7.8	A/7.7	A/7.7	A/7.7	A/7.7	A/7.7	A/7.7	A/7.7	A/7.7	A/7.7	
		Single Family Only	A/8.4	A/8.4	A/8.4	A/8.4	A/7.9	A/7.9	A/7.9	A/7.9	A/7.7	A/7.7	A/7.7	A/7.7	A/7.8	A/7.8	A/7.8	A/7.8	A/8.1	
	2042	No Build	A/8.9	A/8.9	A/8.9	A/8.9	A/8.1	A/8.1	A/8.1	A/8.1	A/7.9	A/7.9	A/7.9	A/7.9	A/8.0	A/8.0	A/8.0	A/8.0	A/8.5	
		Single Family Only	A/8.9	A/8.9	A/8.9	A/8.9	A/8.1	A/8.1	A/8.1	A/8.1	A/7.9	A/7.9	A/7.9	A/7.9	A/8.0	A/8.0	A/8.0	A/8.0	A/8.5	
		Full Build	A/9.6	A/9.6	A/9.6	A/9.6	A/8.5	A/8.5	A/8.5	A/8.5	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/9.0	
		Full Build With Improvements	A/9.6	A/9.6	A/9.6	A/9.6	A/8.5	A/8.5	A/8.5	A/8.5	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/8.2	A/9.0	
US 40/SR 310																				
AM Peak Hour	2022	No Build	E/59.3	D/45.8	E/66.4	E/57.9	E/59.2	D/45.0	D/43.2	D/50.7	B/13.1	B/17.5	B/14.8	B/15.4	B/12.0	B/18.3	B/18.4	B/17.8	C/32.0	
		Single Family Only	E/59.6	D/45.6	E/57.6	D/53.5	E/59.0	D/45.0	D/43.4	D/50.5	B/13.5	B/18.2	B/15.4	B/16.0	B/12.1	B/18.9	B/19.0	B/18.2	C/31.1	
	2042	No Build	E/60.1	D/42.2	E/55.2	D/50.9	E/60.0	D/40.6	D/38.5	D/50.8	B/18.2	C/23.5	B/19.0	C/20.9	B/16.8	C/25.9	C/25.9	C/25.1	C/34.9	
		Single Family Only	E/60.8	D/42.2	E/55.2	D/51.1	E/67.2	D/40.8	D/38.8	D/51.4	B/18.8	C/24.0	B/19.2	C/21.4	B/16.9	C/26.5	C/26.5	C/25.5	D/35.1	
		Full Build	E/62.9	D/42.1	D/54.7	D/52.6	E/70.0	D/44.6	D/44.3	D/54.1	C/20.8	C/26.8	B/19.6	C/24.0	B/17.8	C/26.9	C/26.9	C/25.8	D/36.6	
		Full Build With Improvements	E/64.4	D/43.4	E/56.7	D/54.3	E/61.9	D/45.5	D/45.3	D/51.6	E/57.3	C/20.7	C/20.8	C/33.6	E/60.0	C/24.8	C/24.9	C/29.1	D/40.2	
PM Peak Hour	2022	No Build	E/62.8	D/35.8	E/68.7	D/53.0	E/55.8	D/35.4	C/34.3	D/42.1	C/25.0	D/35.6	C/28.1	C/30.5	C/25.2	C/34.6	C/34.9	C/33.6	D/40.3	
		Single Family Only	E/61.7	D/35.8	E/68.7	D/53.1	E/55.8	D/36.0	D/36.0	D/42.7	C/25.8	D/37.6	C/28.4	C/31.9	C/25.6	C/34.8	D/35.0	C/37.7	D/40.8	
	2042	No Build	E/61.1	C/34.2	E/77.2	D/54.8	E/57.3	D/35.0	C/33.5	D/42.3	D/47.5	E/55.2	C/33.9	D/48.4	C/32.3	D/43.7	D/43.9	D/42.4	D/48.8	
		Single Family Only	E/60.2	C/34.2	E/73.5	D/53.2	E/57.3	D/36.3	C/35.2	D/42.9	D/44.2	E/64.1	C/34.1	D/51.6	C/33.6	D/45.3	D/45.5	D/43.9	D/49.7	
		Full Build	E/64.2	C/29.9	E/62.9	D/50.1	E/57.3	D/40.8	D/43.5	E/45.9	E/77.5	F/262.1	D/40.6	F/121.1	D/39.9	F/276.6	F/240.1	F/133.0		
		Full Build With Improvements	E/75.1	C/35.0	E/64.8	D/54.9	E/56.7	D/44.9	D/46.7	D/48.6	E/60.9	D/48.9	D/49.2	D/52.5	E/76.6	D/48.2	D/48.8	D/52.9	D/52.9	
Refugee Rd/Full Access South																				
AM Peak Hour	2042	Full Build	A/8.0	-	-	A/3.4	-	-	-	-	-	-	-	-	B/10.9	-	B/10.9	B/10.9	A/2.2	
		Full Build With Improvements	A/8.0	-	-	A/3.4	-	-	-	-	-	-	-	-	-	B/10.9	-	B/10.9	B/10.9	A/2.2
PM Peak Hour	2042	Full Build	A/7.9	-	-	A/2.2	-	-	-	-	-	-	-	-	B/13.6	-	B/13.6	B/13.6	A/4.0	
		Full Build With Improvements	A/7.9	-	-	A/2.2	-	-	-	-	-	-	-	-	-	B/13.5	-	B/13.5	B/13.5	A/4.0
SR 310/South RI/R/O																				
AM Peak Hour	2042	Full Build	-	-	-	-	-	-	B/13.9	B/13.9	-	-	-	-	-	-	-	-	A/0.1	
		Full Build With Improvements	-	-	-	-	-	-	-	B/13.6	B/13.6	-	-	-	-	-	-	-	-	A/0.1
PM Peak Hour	2042	Full Build	-	-	-	-	-	-	C/23.7	C/23.7	-	-	-	-	-	-	-	-	A/0.2	
		Full Build With Improvements	-	-	-	-	-	-	-	C/22.5	C/22.5	-	-	-	-	-	-	-	-	A/0.2
SR 310/Full Access West																				
AM Peak Hour	2042	Full Build	-	-	-	-	F/167.4	-	B/13.6	F/133.7	-	-	-	-	A/9.4	-	-	-	B/13.3	
		Full Build With Improvements	-	-	-	-	B/12.1	-	B/10.2	B/11.7	-	-	-	-	A/4.9	A/3.2	A/4.6	A/6.8	A/5.4	A/5.7
PM Peak Hour	2042	Full Build	-	-	-	-	F/207.9	-	E/35.6	F/169.3	-	-	-	-	B/12.1	-	-	-	A/2.0	
		Full Build With Improvements	-	-	-	-	B/19.1	-	B/17.4	B/18.4	-	-	-	-	A/7.1	A/5.0	A/6.5	B/13.9	A/6.8	A/8.0
SR 310/North RI/R/O																				
AM Peak Hour	2042	Full Build	-	-	-	-	-	-	B/12.8	B/12.8	-	-	-	-	-	-	-	-	A/0.0	
		Full Build With Improvements	-	-	-	-	-	-	-	B/12.8	B/12.8	-	-	-	-	-	-	-	-	A/0.0
PM Peak Hour	2042	Full Build	-	-	-	-	-	-	C/19.8	C/19.8	-	-	-	-	-					

Table 4 results show the performance of existing roadway conditions unless “with improvements” is noted in the scenario column of the table. Where improvements were needed to meet performance criteria, those improvements are discussed below. The partial (51 acre) development scenarios limited to single family development in Sub-Area D, developed alone, did not require capacity improvements to meet performance requirements. Rather, not until the entirety of the “full build” scenario that includes the development of all the retail, assisted living and multi-family development assumptions made for the 44-acre balance of the site in Sub-Areas A, B, and C respectively are capacity improvements necessary at the three locations discussed below.

(1) State Route 310/Main Access Point West

The addition of a traffic signal at the intersection of State Route 310/Main Access Point West is necessary to attain the required levels of service. This intersection should include a southbound left turn lane that is 315’ long and a northbound right turn lane that is 365’ long. Two westbound lanes, one for right turns and one for left turns, are necessary for traffic leaving the site.

(2) State Route 310/Refugee Road

The addition of left turn lanes for each approach at the signalized intersection of State Route 310/Refugee Road is necessary to attain the required levels of service.

(3) State Route 310/US 40

The signalized intersection of State Route 310/US 40 was analyzed at the City’s request, although it is an ODOT maintained intersection outside of Pataskala city limits and nearly one mile from the site. By the 2042 horizon year, in large part due to anticipated offsite development, this intersection requires the addition of a southbound right turn lane, signalized right turn overlap phasing on all approaches, conversion to lead-lag phasing on eastbound and westbound approaches and adjustments to phase minimums.

Conclusions and Recommendations

Near Term Development of Single Family Homes in Sub-Area D

Delay and level of service at study area intersections are largely unaffected by near term development of the 51 acre single family portion of the site. The only improvement needed as a result of the full development of Sub-Area D, is the addition of an eastbound left turn lane on Refugee Road into the proposed driveway across from Brenden Park Drive.

Refugee Road will eventually require a consistent 3-lane section between State Route 310 and Brenden Park Drive once Sub Area A is fully developed. It is therefore recommended that widening improvements on Refugee Road west of Brenden Park Drive for the 51 acre single family site should provide full width pavement rather than tapered pavement within the limits required to develop the left turn lane. In this manner, the near-term single family widening will meet the future 3-lane pavement section provided by others across the retail site frontage.

Long Term Site Build-Out

Full development of the remaining 44 acre western portion of the site in Sub-Areas A, B, and C, with retail and other uses as originally proposed in 2016, may require certain access and roadway improvements to support site generated traffic. These improvements are outlined in the five recommendations below and are unrelated to the development of Sub-Area D, single family portion of the site. There is no known timetable for development of the 44 acre portion of the site and it is entirely foreseeable that market conditions could give rise to future land use changes prior to actual development. Accordingly, we recommend a flexible approach to implementation that allows re-study and revision of these recommendations closer to the time of actual development. Moreover, these recommendations shall be re-examined and subject to modification

in the event the uses or intensity of uses in Sub-Areas A, B, or C are modified from the attached Preliminary Development Plan.

- 1) The State Route 310/Main Site Access West intersection requires signal control to operate effectively. A southbound left turn lane of 315', and a northbound right turn lane of 365' are also recommended at this intersection.
- 2) The State Route 310/South RI-RO access points warrants a 265' northbound right turn lane at the time of development.
- 3) The South Site Access (retail) warrants an eastbound left turn lane addition on Refugee Road and due to intersection spacing a 3-lane section with a center two-way-left-turn-lane is recommended in this area of Refugee Road.
- 4) The State Route 310/Refugee Road intersection requires dedicated left turn lanes for all four approaches. The southbound left turn lane requires a length of 315', the eastbound left turn lane requires 265', the northbound left turn lane requires 285', and the westbound left turn lane should strive for a length of 295' subject to coordination with the 3-lane pavement section recommended east of this dedicated turn lane. No changes to existing traffic signal operation are required.
- 5) The State Route 310/US 40 intersection may require the following changes:
 - a. Change phasing to lead-lag operation for eastbound and westbound left turn phases
 - b. Add a southbound right turn lane
 - c. Add signalized right turn overlaps on all approaches
 - d. Reduce phase minimums to 7 seconds for left turn phases and 10 seconds for through phases

Access improvements and off-site intersection improvements associated with the 44 acre long-term site build-out are sensitive to the type and amount of development on the site as well as background conditions that may change over time in ways that deviate from our estimates of future regional growth. In particular, the State Route 310/US 40 intersection is likely to be impacted by other development, for example in the Etna Parkway area or around the I-70/State Route 310 intersection, possibly years prior to development of the 44 acre portion of Hazelton Crossing. Commitments related to the long-term build-out of Hazelton Crossing should be flexible enough to accommodate updates and reanalysis of proposed land uses proximate to the time of actual development.

In the near term, the single family residential portion of Hazelton Crossing in Sub-Area D should be approved for development with the eastbound left turn lane addition to Refugee Road described above.

Sincerely,



Lawrence C. Creed, PE
Principal
Director of Traffic Engineering Services

Attachments: Site Plan, MORPC Correspondence, Count Data, Traffic Volume Calculations, Capacity Analysis Reports, Turn Lane Warrant Analysis, Turn Lane Length Analysis