

# CITY OF HUBER HEIGHTS STATE OF OHIO City Council Meeting <br> Regular Session July 25, 2022 <br> 6:00 P.M. 

## City Hall - Council Chambers - 6131 Taylorsville Road

Call The Meeting To Order - Mayor Jeff Gore

Invocation - Pastor Jon Strifler Of The First Christian Church At 6114 Fishburg Road, Huber Heights, Ohio

Pledge Of Allegiance
A. City Council Meeting Minutes - July 11, 2022

Special Presentations/Announcements

Citizens Comments

Citizens Registered to Speak on Agenda Items

City Manager Report

## Pending Business

A. An Ordinance To Approve A Rezoning From Agricultural (A) To Planned Industrial (PI) And A Lot Split For The Property Located At 9416 Taylorsville Road And Further Identified As Parcel Number P70 039020018 On The Montgomery County Auditor’s Map And To Not Accept The Recommendation Of The Planning Commission (Case RZ 22-17). (second reading)
11. New Business

## CITY COUNCIL

 Anthony Rodgers, Clerk of CouncilA. A Motion To Restart The City Manager Search Process Commencing In February, 2023 Pursuant To The Baker Tilly Executive Recoupment Guaranty Whereby Baker Tilly Will Undertake The Process Charging Only For Project-Related Expenses But No Additional Professional Fees.
B. A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case BDP 22-13. The Applicant Is Hartman I, LLC. The Applicant Is Requesting Approval Of A Basic Development Plan And Rezoning To Planned Office (PO) For Property Located At 7611 Old Troy Pike And Further Described As Parcel Number P70 040050140 On The Montgomery County Auditor's Map.
C. A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case MJC 22-21. The Applicant Is Skilken Gold Real Estate Development. The Applicant Is Requesting Approval Of A Major Change To The Basic Development Plan To Construct A 6,138 Square Foot Convenience Store With Fueling Pumps And Carwash For Property Located At The Northeast Corner Of Old Troy Pike And Taylorsville Road And Further Described As Parcel Numbers P70 040050015 And P70 040050043 On The Montgomery County Auditor's Map.
D. A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case BDP 22-25. The Applicant Is Homestead Development. The Applicant Is Requesting Approval Of A Basic Development Plan For 15.56 Acres For Property Located At 6209 Brandt Pike And Further Described As Parcel Number P70 039120140 On The Montgomery County Auditor's Map.
E. A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case MJC 22-27. The Applicant Is Ruetschle Architects. The Applicant Is Requesting Approval Of A Major Change To The Basic And Detailed Development Plans For An 11,623 Square Foot Addition For Property Located At 5400 Chambersburg Road And Further Described As Parcel Number P70 040040032 On The Montgomery County Auditor's Map.

## ADMINISTRATION

Bryan Chodkowski, Interim City Manager
F. An Ordinance To Approve A Basic Development Plan And Rezoning To Planned Office (PO) For The Property Located At 7611 Old Troy Pike And Further Identified As Parcel Number P70 040050140 On The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case BDP 22-13).
(first reading)
G. An Ordinance To Approve A Major Change To The Basic Development Plan For The Property Located At The Northeast Corner Of Old Troy Pike And Taylorsville Road And Further Identified As Parcel Number P70 040050015 On The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case MJC 22-21).
(first reading)
H. An Ordinance To Approve A Basic Development Plan For The Property Located At 6209 Brandt Pike And Further Identified As Parcel Number P70 039120140 On The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case BDP 22-25). (first reading)
I. An Ordinance To Approve A Major Change To The Combined Basic And Detailed Development Plan For The Property Located At 5400 Chambersburg Road And Further Identified As Parcel Number P70 040040032 On The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case MJC 22-27). (first reading)
J. A Resolution Authorizing The City Manager To Enter Into A Community Reinvestment Area Agreement With Hayden Properties, LLC Under Certain Terms And Conditions. (first reading)
K. An Ordinance Authorizing Advances And Transfers Between Various Funds Of The City Of Huber Heights, Ohio And Amending Ordinance No. 2021-O-2511 By Making Supplemental Appropriations For Expenses Of The City Of Huber Heights, Ohio For The Period Beginning January 1, 2022 And Ending December 31, 2022.
(first reading)
L. An Ordinance To Levy Special Assessments For The Repair And Reconstruction Of Sidewalks, Curbs And Gutters, Driveway Approaches And Appurtenances Thereto On Parts Or All Of Certain Streets In The City Of Huber Heights Referred To As The 2022 Sidewalk Program, And Declaring An Emergency. (first reading)
M. A Resolution Establishing And/Or Amending The City Of Huber Heights Organizational Chart And Authorizing The New Personnel Staffing Levels As Detailed Below. (first reading)
N. A Resolution Establishing And/Or Amending The Salary Ranges And Wage Levels For Employees Of The City Of Huber Heights, Ohio.
(first reading)
O. A Resolution Authorizing The City Manager To Enter Into A Contract For Preparation Of Engineering Plans And Specifications For The Design Of Chambersburg Road West Improvements Project.
(first reading)
P. A Resolution To Increase The Not To Exceed Maintenance Contract Amount And Authorizing The City Manager To Enter Into A Contract Modification With Veolia Environment.
(first reading)
Q. A Resolution Increasing The Not To Exceed Amount And Authorizing The City Manager To Enter Into A Contract For The East Water Main Extension Project. (first reading)
R. A Resolution Amending Resolution No. 2022-R-7141 To Modify The Contract With M \& T Excavating, LLC For The 2022 Water Main Replacement Program. (first reading)
12. City Official Reports and Comments
13. Executive Session
14.

Adjournment

Al-8548
Minutes A.
City Council Meeting
Meeting Date: 07/25/2022
Approval of Minutes - 7/11/22
Submitted By: Anthony Rodgers
Department:
City Council
Council Committee Review?: None
Date(s) of Committee Review: N/A
Audio-Visual Needs: None Emergency Legislation?: No
Motion/Ordinance/ N/A
Resolution No.:
Agenda Item Description or Legislation Title
City Council Meeting Minutes - July 11, 2022
Purpose and Background
Approval of the minutes from the July 11, 2022 City Council Meeting.

Fiscal Impact
Source of Funds:
N/A
Cost: N/A
Recurring Cost? (Yes/No): N/A
Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:
There are no financial implications to this agenda item.

| Minutes | Attachments |
| :--- | :--- |

1. 
2. 
3. Pledge Of Allegiance

## 4. Roll Call

Present: Richard Shaw, Kathleen Baker, Mark Campbell, Nancy Byrge, Ed Lyons, Anita Kitchen, Don Webb, Jeff Gore

Absent: Glenn Otto

Mr. Lyons moved to excuse Mr. Otto's absence; Mr. Shaw seconded the motion. On a call of the vote, Mr. Lyons, Mrs. Kitchen, and Mr. Shaw voted yea; Ms. Baker, Mr. Campbell, Mrs. Byrge, and Mr. Webb voted nay. The motion fails 3-4.

## 5. Approval Of Minutes

A. City Council Meeting Minutes - June 27, 2022
B. City Council Special Meeting Minutes - June 29, 2022
6.

Special Presentations/Announcements

There were no Special Presentations.

## 7. Citizens Comments

There were no Citizens Comments.

## 8. <br> Citizens Registered to Speak on Agenda Items

Clerk of Council Anthony Rodgers said one person is registered to speak on Item 11-B.

## 9. <br> City Manager Report

Interim City Manager Bryan Chodkowski said on Thursday, July 14, 2022, from 10:00 a.m. to 11:30 a.m., residents can enjoy a cappuccino with a first responder at the Huber Heights Library. He said that same day is a radio discount day at the Kroger Aquatic Center, and guests who arrive between $2: 00$ p.m. and $4: 00$ p.m. will only pay $\$ 4.00$ admission and will receive a free bottle of water and a gift compliments of Kroger. He said this Friday is a free summer movie night and Encanto is the featured film. He said the movie will be shown at Thomas Cloud Park and will be drive-in style. He said registration for the upcoming crime prevention academy is open and will be held on Thursdays in September, 2022 from 6:00 p.m. to 9:00 p.m. at the

In Council Chambers

Police Division. He said topics will include new trends of crime, how to keep yourself safe, and how to protect your property and identity. He said residents are encouraged to contact Officer Nick Lambert to register as there is limited space. He said August 2, 2022 is National Night Out, and the event will be held at Wayne High School from 6:00 p.m. to 9:00 p.m.

## 10. Pending Business

A. An Ordinance Approving The Editing And Inclusion Of Certain Ordinances And/Or Resolutions As Parts Of The Various Component Codes Of The City Code Of Huber Heights, Ohio; Providing For The Adoption And Publication Of New Matter In The Updated And Revised City Code As Supplement 10; And Repealing Ordinances And Resolutions In Conflict Therewith.
(second reading)

Mr. Rodgers said the City Charter requirements have been met for notification of the City Code update, and this standard update is Supplement 10 to the City Code for January 1, 2022 through March 31, 2022.

Mayor Gore said the Council Work Session recommendation was to adopt this item.
Mrs. Byrge moved to approve; Ms. Baker seconded the motion. On a call of the vote, Mr. Campbell, Mrs. Byrge, Mr. Lyons, Mrs. Kitchen, Mr. Webb, Mr. Shaw, and Ms. Baker voted yea; none voted nay. The motion passes 7-0.
B. A Resolution Declaring It Necessary To Improve Public Streets And Easements In Section 2 - Phase 5 And Section 7 - Phase 5 By Constructing And Installing Certain Public Infrastructure Improvements, Including Street Improvements, Subbase, Concrete Curb/Gutter With Drainage, Asphalt, Street Lights And Signs, Sidewalk, Survey Work And Engineering, And In Each Case, All Other Costs And Improvements Necessary And Appurtenant Thereto. (second reading)

Mr. Chodkowski said this item is a holdover from a previous meeting for Council to be provided additional clarity. He said this matter is relative to the developer utilizing its funds to build this infrastructure and the City being a collection mechanism for the repayment of those funds via a special assessment process.

Mr. Rodgers said there was an amendment to this item based on the discussion at the Council Work Session. He said the motion would be to amend this resolution with the substitute resolution in the meeting packet that addresses some concerns that were raised.

Mrs. Kitchen moved to amend the resolution with the substitute resolution; Ms. Baker seconded the motion. On a call of the vote, Mrs. Byrge, Mrs. Kitchen, Mr. Webb, Mr. Shaw, Ms. Baker, and Mr. Campbell voted yea; Mr. Lyons voted nay. The motion passes 6-1.

Mrs. Byrge moved to adopt; Mr. Webb seconded the motion. On a call of the vote, Mrs. Kitchen, Mr. Webb, Mr. Shaw, Ms. Baker, Mr. Campbell, and Mrs. Byrge voted yea; Mr. Lyons voted nay. The motion passes 6-1.
C. An Ordinance Determining To Proceed With The Improvement Of Public Streets And Easements In Section 2 - Phase 5 And Section 7 - Phase 5 By Constructing And Installing Certain Public Infrastructure Improvements, Including Street Improvements, Subbase, Concrete Curb/Gutter With Drainage, Asphalt, Street Lights And Signs, Sidewalk, Survey Work And Engineering, And In Each Case, All Other Costs And Improvements Necessary And Appurtenant Thereto. (second reading)

Mr. Chodkowski said this item is a companion piece to the previous legislation and will require a similar amendment as noted by the Clerk of Council.

Mrs. Byrge moved to amend the ordinance with the substitute ordinance; Ms. Baker seconded the motion. On a call of the vote, Mrs. Kitchen, Mr. Webb, Mr. Shaw, Ms. Baker, Mr. Campbell, and Mrs. Byrge voted yea; Mr. Lyons voted nay. The motion passes 6-1

Mr. Webb moved to adopt; Mrs. Kitchen seconded the motion. On a call of the vote, Mr. Webb, Mr. Shaw, Ms. Baker, Mr. Campbell, Mrs. Byrge, and Mrs. Kitchen voted yea; Mr. Lyons voted nay. The motion passes 6-1.

## 11. New Business

## CITY COUNCIL <br> Anthony Rodgers, Clerk of Council

A. A Resolution To Accept The Resignation Of Anthony C. Rodgers As Clerk Of Council And To Appoint Anthony C. Rodgers As Clerk Of Council. (first reading)

Law Director Gerald McDonald said Mr. Rodgers will be officially resigning pursuant to OPERS, and then the City will rehire him immediately so there is no delay. He said Mr. Rodgers will come back as someone who has retired and then been rehired.

Mayor Gore said the Council Work Session recommendation was to adopt this item.

Ms. Baker moved to adopt; Mrs. Byrge seconded the motion. On a call of the vote, Mr. Shaw, Ms. Baker, Mr. Campbell, Mrs. Byrge, Mr. Lyons, Mrs. Kitchen, and Mr. Webb voted yea; none voted nay. The motion passes 7-0.

City Manager Search Process (Items 11-B - 11-E)
B. A Motion To Direct The Clerk Of Council To Authorize Baker Tilly To Restart The City Manager Search Process.

Mayor Gore asked for a motion to adopt.

Mr. Lyons moved to adopt; Mr. Campbell seconded the motion.
Ms. Jennifer Bierley said she hopes tonight brings closure to the City Manager issue. She said Council was elected to provide representation, and by being elected, the residents extended a level of trust in the Councilmembers, trust as a ward or at large representatives to cast votes according to what is felt to be best for the City, and to the Mayor to be efficient in running meetings and casting tie breaking votes if needed. She said she cannot imagine an employer finding it acceptable for employees to no call, no show or walk out in the middle of a shift. She said that action would come with consequences. She said anyone who tries to justify these actions as being acceptable has lost touch with their role as an elected official.

On a call of the vote, Mr. Lyons, Mrs. Kitchen, and Mr. Shaw voted yea; Ms. Baker, Mr. Campbell, Mrs. Byrge, and Mr. Webb voted nay. The motion fails 3-4.
C. A Resolution To Appoint Gerald Smith To The Position Of City Manager Of The City Of Huber Heights.
(first reading)

Mayor Gore said there was no Council Work Session recommendation as this item was just added to the agenda.

Mr. Lyons moved to adopt; Mr. Shaw seconded the motion.

Mr. Lyons said with the final four candidates, he felt Mr. Smith was the most qualified in two categories, City Manager experience and breadth of education. He said he hopes the City Council appoints Mr. Smith as the next City Manager of Huber Heights.

On a call of the vote, Mr. Lyons, Mrs. Kitchen, and Mr. Shaw voted yea; Mr. Campbell, Mrs. Byrge, Mr. Webb, and Ms. Baker voted nay. The motion fails 3-4.
D. A Resolution To Appoint Richard Dzik To The Position Of City Manager Of The City Of Huber Heights.
(second reading)

Mayor Gore said there was no Council Work Session recommendation for this item.

Mr. Campbell moved to adopt; Ms. Baker seconded the motion.

Mr. Lyons said with Items 11-D and 11-E on the agenda, with this City Manager search, after plenty of reflection on what has been said by all Councilmembers and Mayor Gore, he thinks it is necessary to restart the process from scratch because of the controversy this process has had. He said a fresh start and going back to the basics would be best for Council. He said he will be voting no for that reason.

Mayor Gore said it was this Council who brought forward these four names as qualified individuals. He said it was Council who said these individuals were the top four picks, so he is not sure what the controversy is about.

On a call of the vote, Mrs. Byrge, Mr. Webb, Ms. Baker, and Mr. Campbell voted yea; Mr. Lyons, Mrs. Kitchen, and Mr. Shaw voted nay. The motion fails 4-3.
E. A Resolution To Appoint John Russell To The Position Of City Manager Of The City Of Huber Heights.
(first reading)

Mayor Gore said there was no Council Work Session recommendation for this item.

Mr. Campbell moved to adopt; Mrs. Byrge seconded the motion.

Mr. Campbell said he had asked Mr. Rodgers to read an email from BakerTilly dated May 11, 2022. He said there has been a lot of controversy around this candidate.

Mr. Rodgers read the email from Ms. Patty Heminover of Baker Tilly regarding the qualifications of the candidates.

Mr. Campbell said it does not appear John Russell will be appointed City Manager, but as a City employee, he thinks John Russell is one of the best the community has ever seen. He said he has been a City employee for over two decades, and out of all the applicants on the long and short list, he was the only applicant that would not have had to move here. He said Huber Heights is Mr. Russell's home.

Mr. Campbell asked Mr. Chodkowski, after City Staff interviewed all four candidates, who was the pick of the City Staff?

Mr. Chodkowski said Mr. Russell was the preferred candidate based on his commitment to the City not only as an employee but also as a resident, his extensive involvement as a board member of the YMCA, having been an adjunct professor at Sinclair College for the Fire and EMS academy. He said Mr. Russell represented the best skill set necessary to advance the City forward.

Mrs. Byrge said Mr. Russell has the respect of the people in this community already, and he knows the operation of the community. She said he had received lots of awards. She listed many more reasons and added that John Russell is the only candidate that has served on both sides of the labor table. She said you cannot put a price on the experience he brings.

At Mr. Webb's request, Mayor Gore reviewed again, in this meeting, the ISO certification the Fire Division recently received

Mr. Webb said John Russell brought forward an action plan regarding employee evaluations and a system for following through. He encouraged Council to vote for what is right for the City.

Ms. Baker said Mr. Russell is a member of the community, and he would fight hard for the City.

On a call of the vote, Mr. Webb, Ms. Baker, Mr. Campbell, and Mrs. Byrge voted yea; Mr. Lyons, Mrs. Kitchen, and Mr. Shaw voted nay. The motion fails 4-3.

Mayor Gore said at this point, Council had decided not to start the process over and not to hire a City Manager. He asked Mr. Rodgers to add to the next Council Work Session agenda an item to change the organizational chart to allow Mr. Chodkowski to hire an assistant.
F. A Motion To Amend Section II - Meetings - (M) Attendance, Absences And Removals Of The 2022 Rules Of Council As Attached.

Mr. Rodgers said this item was discussed at the Council Work Session and is a proposal to address the issue of absences and attendance at regular session meetings of Council. He said the language specifies if a member is not present then their vote would be cast as a nay or no vote for whatever legislation appears on that meeting agenda.

Mr. Webb moved to adopt; Ms. Baker seconded the motion.
Mr. Webb thanked legal counsel for putting the language together for this item. At Mr. Webb's request, Mr. Rodgers read the amendment to the Rules of Council. Mr. Webb asked Mr. McDonald to explain why a nay vote is necessary as opposed to a yea vote.

Mr. McDonald said the City Charter requires affirmative votes to pass something, but it is silent on not passing something. He said Council could not say a person that was not here voted yes. He said there was nothing he could find in the City Charter that spoke to a person not present voting no.

Mr. Lyons said that since Mr. McDonald wrote this amendment, he finds it to be legal. He asked Mr. McDonald what the state law states regarding absentee voting and he asked if he could stay at home and vote like during the pandemic.

Mr. McDonald said a Councilmember has to be present to vote. He said that according to the proposed change, if a Councilmember goes to the restroom and misses a vote, that missed vote could be recorded as a no vote. He said the state law has some say in voting, but typically in a charter community, local rules govern and that is why this amendment is being done under Rules of Council. He said he does not know what the state law speaks to. He said according to the Open Meetings Act, one has to be present to vote. He said he is not too sure about what the state law says.

Mr. Lyons said he cannot vote for this amendment as he feels this amendment violates state law, and with emergencies and everyday life, he cannot in good conscience have absent Councilmembers be recorded as any vote at all.

Mr. Campbell confirmed with Mr. McDonald that he does not think this amendment violates the law. He asked Mr. McDonald if this is the first time he has looked into
this issue and why.

Mr. McDonald said he looked into this issue in 2017 because Mayor Tom McMasters made this same proposal and asked if it was legal. He said at that time, there were many 4-3 vote splits because Councilmembers were not at meetings, and Mayor Tom McMasters felt these vote splits were contrary to the spirit of the City Charter, and he was unable to break ties.

Mr. Webb said this amendment would apply to anyone on Council and that a vote on something important could be counted as a no vote. He confirmed with Mr . McDonald that a motion of reconsideration at the next meeting needs to come from the prevailing side.

Mayor Gore said the Councilmember that is not present this evening is the same Councilmember who at the last meeting said he would put his attendance record up against any Councilmember's attendance in the last six years. He said that is why this item should pass - to prevent these types of games from being played. He said if Mr . Otto was in attendance this evening, Council would have hired a City Manager. He said the City does not have a City Manager because Glenn Otto decided not to show up.

On a call of the vote, Mr. Webb, Ms. Baker, Mr. Campbell, and Mrs. Byrge voted yea; Mrs. Kitchen, Mr. Shaw, and Mr. Lyons voted nay. The motion fails 4-3.
G. A Resolution Affirming The Adoption Of Resolution No. 2021-R-6960 Directing The City Manager To Solicit Qualifications From Firms To Conduct A Community Needs Assessment.
(first reading)

Mr. Rodgers said at the Council Work Session, it was decided to place a community needs assessment for the Culture and Diversity Citizen Action Commission on the agenda. He said a draft has been worked through with City Staff and the commission.

Mayor Gore said it is his understanding that Mr. Chodkowski has a meeting scheduled for Wednesday morning with members of the Culture and Diversity Citizen Action Commission.

Mr. Chodkowski said the meeting on Wednesday is regarding the Citizens Review Board. He said based on the final draft submitted by the commission on Friday, this Request For Qualifications (RFQ) is ready to be released to the public as soon as this legislation is approved.

Mrs. Byrge recommended moving this item forward to another reading. She said she ran this back by the Regional Equity Initiative Project Manager from the Miami Valley Regional Planning Commission (MVRPC) for his feedback. She said she would provide the feedback and then invited the commission and the City Manager to sit down with this gentleman to discuss how to better frame the RFQ language. She said the requirements for deliverables are not well spelled out. She read the comments and recommendations provided by the MVRPC. She said she would provide the email and point of contact information to the commission and to Mr. Chodkowski.

Mr. Chodkowski said some of his concerns with respect to the broad scope are similarly matched. He said if Council would like for City Staff and the commission to set up a meeting with the gentleman from MVRPC, he would be happy to do so.

Mrs. Byrge said it is important for the commission to meet with MVRPC and come back and brief Council on what the framework will be for the community needs assessment. She said she would like to move this item to another reading until that meeting is held, and further discussion can be had to come up with a finite plan.

Mayor Gore said the recommendation at the Council Work Session was to adopt this item, and he said Mrs. Byrge is recommending moving this item to another reading to allow more time for input. He asked for input from the other Councilmembers.

Ms. Baker said she would like to hear the input from MVRPC.

Mr. Webb said Mrs. Byrge brought up some valid points, and Council needs to delve into this matter a little further.

Mr. Lyons said this item is something Council can continue to move forward with and incorporate in future meetings with the commission as well as City Staff. He said he hears the comments and agrees this item is something to consider and entertain, but he thinks it can be incorporated with the same time schedule that Council adopted.

Mrs. Byrge said a lot of the requirements in the RFQ are not scoped to allow a vendor to come back and appropriately respond to what they will be doing and what deliverables are required. She said Council cannot just move forward and say it will figure it out later.

Mr. Chodkowski said in his opinion, it was the will of Council that this particular document be released for solicitation because there was a concern about inaction. He said the legislation this document is affirming is legislation adopted in January, 2021 under the premise that the commission would complete its RFQ for this needs assessment and that document could be released in a timely manner. He said, for whatever reason, that did not occur. He said this legislation is effectively to compel that document to go out, for good, bad, or otherwise. He continued with his opinion, and he said the purpose of this legislation was to demonstrate action because there was a concern about inaction, and he would recommend this legislation be adopted.

Mrs. Byrge reiterated her position and stated she does not believe in sending out RFQ's that are good, bad, or indifferent just because there is an urgency.

Mr. Shaw moved to adopt; Mr. Lyons seconded the motion. On a call of the vote, Mr. Shaw, Mr. Campbell, Mr. Lyons, and Mrs. Kitchen voted yea; Mr. Webb, Ms. Baker, and Mrs. Byrge voted nay. The motion fails 4-3.
H. A Public Hearing Scheduled For July 11, 2022 By The Huber Heights City Council For Case RZ 22-17. The Applicant Is Michael Skilwies. The Applicant Is Requesting Approval Of A Replat And A Rezoning Of 3.55 Acres From Agricultural (A) To Planned Industrial (PI) To Allow The Continued Operation Of A Truck, Diesel And Heavy Equipment Repair Business For Property Located At 9416 Taylorsville Road And Further Described As Parcel Number P70 039020018 On The Montgomery County Auditor's Map.

Mayor Gore called on City Staff to make the initial presentation.
Aaron Sorrell said this was a difficult case and a difficult decision for the Planning Commission. He said he gave the Clerk of Council a copy of the standards for approval for Council. He said this is a 5 acre parcel zoned Agricultural, the existing land use is Residential, and the surrounding property is zoned Agricultural. He said the applicant is requesting a replat of 3.5 acres and a rezoning to Planned Industrial (PI) to accommodate an existing business. He said the site is near the intersection of Taylorsville Road and New Carlisle Pike. He said there is some Industrial zoning at the intersection and north of the intersection. He said this action would require a dedication of right-of-way along Taylorsville Road consistent with the thoroughfare plan. He said the applicant has been operating this repair business for a little over ten years. He said in August, 2021, there was a complaint that led to zoning enforcement action. He said the pictures are from when that action took place. He said most of those trucks have been moved. He said the applicant requested a use variance, and the Board of Zoning Appeals (BZA) unanimously denied the variance. He said City Staff informed the applicant that they could apply for a lot split and rezoning. He discussed the applicable zoning standards. He said the residential lot is nonconforming in frontage. He said the use is permitted and conforming, and there is no public water or sewer. He said City Staff is assuming no improvements are planned, and the record plan survey on May 4, 2022, will serve as the Basic Development Plan. He said the use is principally permitted within the Planned Industrial District, and if the rezoning is approved, the applicant will be required to move his repair operations indoors. He said the site is not visible from the street and violations would likely be triggered by
complaints from adjacent property owners. He said there are twelve conditions that should be satisfied for the Planning Commission or Council to recommend rezoning approval. He said the proposed rezoning is not consistent with the comprehensive plan. He said Taylorsville Road is classified as a major thoroughfare. He continued with his analysis and discussed the complaints listed in the BZA minutes. He said limiting the hours of operation may reduce the impact of the facility on neighboring residents. He said residents get drinking water from private wells, and the concern about groundwater pollution should not be overlooked. He said the rezoning does not meet the standards outlined and City Staff recommended denial. He said City Staff provided a set of acceptable conditions if the Planning Commission was inclined to recommend approval. He said concern was expressed by the owner of the farm behind this property regarding whether this rezoning will lead to additional Industrial rezoning. He said there was a lot of discussion at the Planning Commission meeting with a 4-1 vote to deny the rezoning request. He said if Council determines this rezoning request is consistent with standards, he recommended several conditions and he listed those conditions.

Mr. Lyons asked if the Council would be voting on this item tonight?
Mayor Gore said the Council Work Session recommendation was to pass this item to a second reading.

Mr. Lyons asked Mr. Sorrell, if Council turns this request down, what would be the process for the property owner?

Mr. Sorrell stated the City would resume enforcement actions on the illegal vehicle repair business and the case would go to Common Pleas Court. He said it would have been easier if the BZA had approved a variance. He said a strict interpretation of the Zoning Code does not allow a use variance. He said that being said, things are granted all the time that are not fully in compliance. He said the rezoning is the last option under the City Code.

Mr. Lyons asked if this request is turned down, is there something the Economic Development Department might be able to do to help Mr. Skilweis find an affordable location in Huber Heights or would the City be able to have some type of timetable to give Mr. Skilweis a reasonable amount of time to do that?

Mr. Chodkowski said City Staff could be made available to assist Mr. Skilweis. He said if unable to do that, City Staff would approach the Skilweis' to find out how much time they need to relocate and calibrate the compliance plan around that decision.

Mayor Gore asked if any representative of Michael Skilweis had any comments.

Mr. Skilweis said both of the neighbors who are complaining own businesses that they are not zoned for. He said he runs a mobile diesel repair business, and most of the work is done offsite. He said there are no oil changes or maintenance, just major engine or transmission repairs. He said all of the work is done inside the building on a concrete slab, and everything is caught in sealed drain pans and he described the process. He said they have been in business for nine plus years without any complaints until the new neighbors moved in. He said the most noise anyone hears is his personal work truck, and it will still be there if this is denied. He said he works maybe 20 hours a week out in the building. He said if the application was denied, the neighbors would not receive any real benefit as the noise issue would not significantly change. He said denying the application potentially would drive him and his company out of business.

Mayor Gore asked if Law Director Gerald McDonald had any comments.
Mr. McDonald said pursuant to Section 1130.10, since the Planning Commission voted against this application, it would require a two-thirds majority vote of Council to approve this item.

Mayor Gore asked if there was anyone present to speak in favor of the approval of this issue.

Mr. Larry Mouser said he lives on the property directly across the street. He said his
land is in front of one of the complainants and also across the street from Mr. Skilweis. He said he has lived there 24 and a half years. He said back when the applicant applied for a pole barn, he and the other residents signed off on it. He said he has no issues of any type with this business. He said he does not hear anything from that property. He said Interstate Trucking is on the backside of his house, and he hears noise there all the time. He said he has been to Mr. Skilweis' facility, and he trusts there will be no groundwater contamination. He said it used to be a neighborhood and everyone helped each other until here recently, and with the new additions, this business has become an issue. He said his vote is to not make this man lose his business or his home.

Mr. Rodgers said he distributed an email from a resident to Council earlier in favor of the applicant.

Mayor Gore asked if there was anyone present to speak against the approval of this issue.

Ms. Rachel Goodspeed said she lives next to the Skilweis family. She said she is the owner and operator of Goodspeed's R and R. She said she did not initiate the complaint but is responding to the rezoning request. She said this public hearing is her family's third appearance to ask for the zoning change to be denied to preserve the character of the community where they have a small farm and to preserve the health of the property. She said they previously cited their concerns about the impact of property values, safety concerns, the large rigs on Taylorsville Road, and chemical spills in the water supply. She said the location of the business structure is against her rear pastures. She said she empathizes with what is going on. She asked the City to consider maintaining the Agricultural zoning and she said there is nothing to preclude a different business from moving into the property once it is rezoned. She said this change would not necessarily impact them now, but would risk a future nuisance with potential noise issues and pollutants from future businesses. She asked Council to consider if they would want Industrial zoning next to their house.

Mayor Gore asked if there was anyone else present to speak against the approval of this issue.

Ms. Cindy Rosengarten said she lives just to the west of the property. She said this business has been going on for ten years in violation of the Zoning Code, and she has a hard time understanding how it went on this long, being out of compliance with regulations. She said if the zoning goes to Planned Industrial, she has concerns about the potential impact on property values in the neighborhood, potential environmental impacts on the water, emissions, and how this business would be monitored if it is in violation. She said she strongly opposes the lot split and the rezoning.

Mayor Gore asked if there was anyone else present to speak against the approval of this issue.

Seeing none, Mayor Gore asked if there was any member of City Council to make or provide additional information.

Seeing none, Mayor Gore asked one last time if there was anyone to speak in favor of or against the approval of this zoning case.

Mrs. Skilweis said Mrs. Rosengarten's husband runs a woodworking business out of his outbuilding, has a commercial dumpster, and has a large work truck that he takes to and from work every day. She said the Goodspeed's are running a bed and breakfast from a yurt built in the far back of their very wooded property where there is no access for fire and EMS services. She said the Goodspeed's are in need of a rezoning, but they have an issue with this rezoning request. She said they have offered to hide everything and put buffering up. She said per the log she showed Council, there is not that much work happening there and the work is by appointment only.

Mayor Gore said Ms. Rosengarten asked how this issue has gone on for ten years. He said there are approximately 16,500 residences in the City of Huber Heights, and it is impossible for the Zoning officials to know what is happening in all of the homes. He said the Zoning Division is typically complaint driven, and from what he understands, if Zoning officials are driving down Taylorsville Road, they cannot see what is
happening on that property. He discussed the zoning process. He said the Zoning Code specifically deals with running a business out of a home and, in fairness, City Staff needs to be consistent and if there is another business being run out of an adjacent property, then the Zoning Division needs to get involved to look at those situations. He said this seemed like an issue of tit-for-tat between neighbors, and he is frustrated it has been nine years and no one has come to Council to try to find a resolution. He said he is really frustrated if there are two businesses being run right beside this particular business when the City Code deals with running and operating a business out of a home. He said the City had just dealt with a zoning issue with a window tinting company on Jonetta Street where the Zoning Division shut it down and made the business move. He said this matter is not just the zoning issue, it is also about running a business out of a home. He said the City Code is pretty clear about not running a business out of a home. He said City Staff needs to look into the neighbors running a business out of their homes as well, because that is also against the City Code. He said the Council Work Session recommendation was to move this item on to a second reading. He encouraged Council to drive by and take a look and to find out all of the facts of what is going on before voting to put someone out of business and make them move out of the City.

Mayor Gore said, barring further comments, this Public Hearing of the City Council for Planning Commission Case RZ 22-17 is hereby closed.

## ADMINISTRATION

Bryan Chodkowski, Interim City Manager
I. An Ordinance To Approve A Rezoning From Agricultural (A) To Planned Industrial (PI) And A Lot Split For The Property Located At 9416 Taylorsville Road And Further Identified As Parcel Number P70 039020018 On The Montgomery County Auditor's Map And To Not Accept The Recommendation Of The Planning Commission (Case RZ 22-17).
(first reading)

Mr. Shaw asked what options this Council has on this matter. He said in previous times, Council has sent items back to the Planning Commission and BZA for additional review. He asked if Council had an opportunity to table this item and send it back for review for a variance.

Mr. Rodgers said this case has been through those processes already. He said the Planning Commission has made a recommendation and Council can either accept or overrule that recommendation which, as Mr. McDonald stated earlier, would require a supermajority vote of six members of Council to overrule the Planning Commission decision.

Mayor Gore said one of the things the neighbors are complaining about is the future. He asked if conditional zoning can be passed on this property where, if it is sold, it goes back to Agricultural zoning.

Mr . McDonald said once action is taken to change the zoning, it would require further action to revert the zoning.

Mayor Gore asked Mr. Sorrell, if approved, are the conditions that have been set strong enough to prevent another type of business from being louder, more dangerous, and more worrisome than what this particular business is, where the owner would have to come back for a Major Change.

Mr. Sorrell said since the Planning Commission recommended denial, there are no conditions associated with the PUD. He said if Council is leaning toward that direction, he would recommend a chance to rewrite the ordinance with certain conditions that become the PUD standards. He said the seven conditions he outlined with more detail are probably adequate with also restricting the use to a specific type. He said an item came up regarding inspections, and this matter was not on the Fire Division's radar. He said this business on the Fire Division's radar would trigger yearly inspections.

Mr. Webb said there was no Fire Division recommendation in the meeting packet.

Mr. Sorrell said he reached out to the Fire Division to see if this business was regularly inspected, and the Fire Division did not know about the business. He said since there are no improvements being made to the property, there is nothing that would trigger additional compliance with the Fire Code.

Mr. Webb said, regardless of what has happened for ten years on the property, Council is being asked to look at this business as a new business.

Mr. Sorrell said going with Planned Industrial instead of an I-1 or I-2 district provides the opportunity for City Staff to focus on the uses.

After discussion, Mayor Gore said this item would move to the next Council Work Session and on to a second reading at the next City Council Meeting.
J. A Resolution Authorizing The City Manager To Execute A Lease For 6053 Brandt Pike. (first reading)

Mr. Chodkowski said this item is to affirm the lease for Dogtown to continue to facilitate the redevelopment at the former Marian Meadows property.

Mayor Gore said the Council Work Session recommendation was to adopt this item.

Mr. Campbell moved to adopt; Mrs. Kitchen seconded the motion. On a call of the vote, Mr. Shaw, Ms. Baker, Mr. Campbell, Mrs. Byrge, Mr. Lyons, Mrs. Kitchen, and Mr. Webb voted yea; none voted nay. The motion passes 7-0.
K. A Resolution Amending Resolution No. 2022-R-7130 Regarding Certain Surplus Property. (first reading)

Mr. Chodkowski said this legislation allows the City to reshuffle the current vehicle fleet to make sure the most productive vehicles are on the road.

Mayor Gore said the Council Work Session recommendation was to adopt this item.

Mr. Campbell moved to adopt; Ms. Baker seconded the motion. On a call of the vote, Ms. Baker, Mr. Campbell, Mrs. Byrge, Mr. Lyons, Mrs. Kitchen, Mr. Webb, and Mr. Shaw voted yea; none voted nay. The motion passes 7-0.
12. City Official Reports and Comments

Mrs. Kitchen said Council had talked about the depletion of bottled water at the St. Peter's food pantry. She said if citizens want to donate bottled water, there is a room at Otto Insurance where water can be stored if citizens have water main breaks. She thanked Mr. Chodkowski for meeting with her on Hubbard Drive. She said she hopes the City makes it a major priority to get some of the water lines replaced.

## 13. Executive Session

Mayor Gore said there is a need to go into Executive Session this evening.

Mr. Rodgers said the motion is to go into Executive Session for discussion with an attorney for the City concerning disputes that are the subject of pending or imminent court action.

Ms. Baker moved to enter into Executive Session for discussion with an attorney for the City concerning disputes that are the subject of pending or imminent court action.; Mrs. Byrge seconded the motion. On a call of the vote, Mr. Campbell, Mrs. Byrge,

Huber Heights City Council

In Council Chambers
6131 Taylorsville Road $\quad$ July 11, 2022

Mrs. Kitchen, Mr. Webb, Mr. Shaw, and Ms. Baker voted yea; Mr. Lyons voted nay. The motion passes 6-1.

Council entered Executive Session at 7:57 p.m. Council returned from Executive Session at 8:17 p.m.

There were no actions taken by Council following the Executive Session.
14. Adjournment

Mayor Gore adjourned the Regular Session City Council Meeting at 8:17 p.m.

## Clerk of Council

## Mayor

Date

Date

AI-8549
City Council Meeting
A.

City Manager
Meeting Date: 07/25/2022
Case RZ 22-17 - Michael Skilwies - Rezoning/Replat - 9416 Taylorsville Road
Submitted By: Geri Hoskins
Department: Planning Division: Planning
Council Committee Review?: Council Work
Session
Audio-Visual Needs: SmartBoard Emergency Legislation?: No
Motion/Ordinance/
Resolution No.:

## Agenda Item Description or Legislation Title

An Ordinance To Approve A Rezoning From Agricultural (A) To Planned Industrial (PI) And A Lot Split For The Property Located At 9416 Taylorsville Road And Further Identified As Parcel Number P70 039020018 On The Montgomery County Auditor's Map And To Not Accept The Recommendation Of The Planning Commission (Case RZ 22-17).
(second reading)

Purpose and Background
The applicant, Michael Skilwies, is requesting a replat and rezoning of 3.55 acres from Agriculture (A) to Planned Industrial (PI).

## Fiscal Impact

## Source of Funds: <br> N/A

Cost:
N/A
Recurring Cost? (Yes/No):
N/A
Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:

## Drawings

Staff Report
Decision Record
Minutes
Presentation
Ordinance

## Attachments

$\qquad$

RECORD PLAN

SKILWIES PLAT NO. 1

CITY OF HUBER HEIGHTS
CITY OF HUBER HEIGHTS
MONTGOMERY COUNTY, OHIO
MONTGOMERY CONTAINING 4.9995 ACRES

$$
\text { MAY 4, } 2022
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$50 \quad$ GRAPHIC Scale





DEssaprony:




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MChaEL A. SKLIMES

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> ENGINEER OF MONTGOMERY COUNTY $\frac{2022-01788 \mathrm{E}}{\mathrm{JOB} \mathrm{NO}}$ CHECKED BY

PLANNING CoMMIISSION:
Approved y the tily of tuber feigts Plomning Commission on
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By:

# Memorandum 

Staff Report for Meeting of May 24, 2022

To: Huber Heights City Planning Commission
From: $\quad$ Aaron K. Sorrell, Interim City Planner Community Planning Insights

Date: May 18, 2022
Subject: RZ 22-17 Request to Replat and Rezone 3.55 Acres from Agriculture to Planned Industrial

Application dated March 28, 2022

## Department of Planning and Zoning City of Huber Heights

APPLICANT/OWNER: Michael Skilwies - Applicant / Owner

## DEVELOPMENT NAME: N/A

ADDRESS/LOCATION: 9416 Taylorsville Rd.
ZONING/ACREAGE:
EXISTING LAND USE:
ZONING
ADJACENT LAND:
REQUEST:

## ORIGINAL APPROVAL:

APPLICABLE HHCC:
CORRESPONDENCE:

A - Agricultural (5 acres)
Residential

Agricultural
The applicant requests approval of a replat and rezoning of 3.55 acres from Agriculture to Planned Industrial to allow the continued operation of their truck, diesel and heavy equipment repair business.

N/A
Chapter 1109, 1171, 1177
In Favor -
In Opposition -

## STAFF ANALYSIS AND RECOMMENDATION:

## Overview:

The applicant has been operating a truck and heavy equipment repair business at this location for many years. Based on complaints received in August 2021, Zoning staffinitiated enforcement action on the applicant's business based on the fact that non-farm related truck and heavy equipment repair is not permitted in the Agricultural District. In August 2021 the applicant requested a use variance for the diesel truck and equipment repair operations. The BZA unanimously denied the application at their October 6, 2021 meeting.

The applicant was provided with the lot split and rezoning application shortly after the BZA decision as an alternative path to allow the continued operation of the repair facility. On or about March 28, 2022 Zoning staff filed minor misdemeanor charges for the continued operation of repair facility and the applicant subsequently filed the application for a lot split and rezoning.

## Applicable Subdivision and Zoning Regulations

The applicable subdivision regulations include: 1109 Subdivision Design Standards
The appliable zoning chapters include: 1171 General Provisions, 1177 Planned Industrial District. The relevant sections are cited and discussed below:

## Chapter 1109 Subdivision Design Standards

### 1109.01 General statement.

The regulations in Sections 1119.02 to 1109.22, inclusive, shall control the manner in which streets, lots and other elements of a subdivision are arranged on the land. These design controls shall help ensure convenient and safe streets, creation of usable lots, provision of space for public utilities and reservation of land for recreational uses. The planning of attractive and functional neighborhoods shall be promoted, minimizing the undesirable features of unplanned, haphazard growth.

The City Planning Commission has the responsibility for reviewing the design of each future subdivision early in its design development. The Commission shall ensure that all of the requirements of Sections 1109.02 to 1109.22, inclusive, are met.

### 1109.02 Conformity to development plans and zoning.

The arrangement, character, width and location of all thoroughfares or extensions thereof shall conform with the City's Official Thoroughfare Plan. Thoroughfares not contained in the aforementioned plan shall conform to the recommendation of the City Planning Commission based upon the design standards set forth in Sections 1109.03 to 1109.14, inclusive. In addition, no final plat of land within the area in which an existing Zoning Ordinance is in effect shall be approved unless it conforms with such Ordinance.

### 1109.03 Suitability of land.

If the City Planning Commission finds that land proposed to be subdivided is unsuitable for subdivision development due to flooding, bad drainage, topography, inadequate water supply, schools, transportation facilities and other such conditions which may endanger health, life or property; and, if from investigations conducted by the public agencies concerned, it is determined that in the best interest of the public the land should not be developed for the purpose proposed, the Commission shall not approve the land for subdivision unless adequate methods are advanced by the subdivider for solving the problems that will be created by the development of the land.

### 1109.17 Lots.

The following regulations shall govern the design and layout of lots:
(a) The lot arrangement and design shall be such that all lots shall provide satisfactory building sites, properly related to topography and the character of surrounding development.
(b) All lots shall conform to or exceed the requirements of these subdivision regulations and the zoning district requirements for the district in which they are located and the use for which they are intended.
(c) Where no public utilities exist, the lots shall meet the requirements of the Montgomery County Board of Health.
(d) All side lots shall be at right angles to street lines and radial to curved street lines, except where the City Planning Commission determines that a variation to this rule would provide a better layout.
(e) Lots with double frontage shall be avoided except where the Commission determines that it is essential to provide separation of residential development from arterial streets.
(f) No corner lot shall have a width at the building line of less than 75 feet, except as authorized by the Zoning Ordinance.
(g) Except as provided in Section 1109.17(i) the maximum depth of a lot shall not be greater than three times the width of the lot, except lots which contain an area of five acres or more. Lots containing over five acres shall not be less than 200 feet in width at any location; they should be of such shape and dimensions as to render the possible resubdivision of any such parcels at some later date into lots and streets which meet the requirements of these regulations, except as authorized in Chapter 1143.
(h) Additional lot depth may be required where a residential lot in a subdivision backs up to a railroad right-of-way, a high-pressure gasoline or gas line, open drainage ditch, an arterial street, an industrial area or other existing land use which may have a detrimental effect on the residential use of the property, and where no street is provided at the rear of such lot. Where a residential lot has its side lot line adjacent to any of the aforementioned an appropriate additional width may also be required.
(i) The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.

Where soil conditions are of such nature that proper operation of wells and septic systems may be impaired, the City Planning Commission may increase the size of any or all lots in the subdivision.

Where soils are classified as prime agricultural soils as defined in these regulations, or are adjacent to prime agricultural soils, the Commission may permit the alteration of these requirements where the subdivider demonstrates that such alteration is necessary and desirable in order to preserve the prime agricultural soils, provided that the subdivision is not contrary to applicable zoning regulations

## Chapter 1171 General Provisions

### 1171.01 Purpose.

Planned Unit Developments Districts may be permitted as amendments to the zoning map, after application and approval of specific and detailed plans, where tracts suitable in location and character for the uses and structures proposed are to be planned and developed as units. The provisions of this chapter are adopted to unify planning and development in such districts. Applications for rezoning of land into a Planned Unit Development District shall be granted only when the basic development plan for the project is such that the public health, safety and morals shall not be jeopardized by a departure from the restrictions on corresponding uses in the standard zoning district. PUD rezonings may be approved only when a basic development plan for the area has been approved by Council. A detailed development plan shall then be approved for zoning permit to be approved for development in the District. Normally the detailed development plan shall be approved by the Planning Commission after the rezoning and basic development plan have been approved by Council. Owners shall have the option however, of submitting a combined basic and detailed development plan ("combined development plan") if they should so desire for some or all of the site.
(Ord. 93-O-602, Passed 3-22-93)

### 1171.05 Contents of basic development plan.

(a) The basic development plan shall consist of at least the following information together with such other data and materials as may be required by the City:
(1) Site plan showing the actual shape and dimensions of the lot to be built upon or to be changed in its use together with the location of the existing and proposed structures with approximate square footages, number of stories including heights of structures;
(2) Typical elevation views of the front and side of each type of building;
(3) Planning location and dimensions of all proposed drives, service access road, sidewalks and curb openings;
(4) Parking lot areas (show dimensions of a typical parking space), unloading areas, fire lanes and handicapped parking;
(5) Landscaping plan, walls and fences;
(6) Storm water detention and surface drainage;
(7) Exterior lighting plan;
(8) Vehicular circulation pattern;
(9) Location and square footage of signs;
(10) Topographic survey; and
(11) Listing of proposed uses taken from the list of permitted and special uses of the PUD zoning district to which rezoning is being sought.
(b) The Planning Commission shall schedule both the proposed rezoning and the issue of approval of the basic development plan for a combined public hearing, following which it shall make its recommendation indicating approval, approval with modification or disapproval.

### 1171.06 General standards for approval.

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
(a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;
(b) Could be substantially completed within the period of time specified in the schedule of development submitted by the developer;
(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;
(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;
(e) Contains such proposed covenants, easements and other provisions relating to the proposed development standards as may reasonably be required for the public health, safety and welfare;
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;
(g) Shall preserve natural features such as water courses, trees and rock outcrops, to the degree possible, so that they can enhance the overall design of the PUD;
(h) Is designed to take advantage of the existing land contours in order to provide satisfactory road gradients and suitable building lots and to facilitate the provision of proposed services;
(i) Shall place underground all electric and telephone facilities, street light wiring and other wiring conduits and similar facilities in any development which is primarily designed for or occupied by dwellings, unless waived by the Commission because of technical reasons;
(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors; and
(I) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

### 1171.091 Planning commission/council review.

It is the purpose of the Planning Development regulations to encourage property owners to develop their land in efficient and effective ways. It is the intent of these regulations to encourage land uses which may not always meet traditional zoning rules. Inherent in these Planned Development regulations is an opportunity for property owners to develop their sites without requiring strict compliance with all zoning regulations where the overall plan is deemed to be in the best interest of the City. During review of a Basic or Detailed Development Plan by the Planning Commission or City Council, all requirements within Part 11, Title 7 of the Code are to be used as guidelines and may be varied as part of the Basic or Detailed Development Plan if it is determined that such deviation will not materially adversely affect neighboring properties or the community as a whole, any such variation of these requirements does not change the overall plan and character of the proposed development, and the variance does not have the effect of nullifying the intent and purpose of these regulations or the Zoning Ordinance. In granting variances or modifications, the Commission or Council may require such conditions as shall, in its judgement, secure substantially the objective of the standards or requirements so varied or modified.

## Chapter 1179 Planned Industrial District

### 1177.01 Principal permitted uses.

Any principal permitted use in the Industrial Districts, I-1 and I-2, and PO Planned Office District shall be permitted. Manufacturing, processing, warehousing, industrial service activities, office and associated activities may be developed, operated and maintained within a single, organized development in accordance with an approved Planned Industrial Development District.

### 1177.02 Accessory uses.

Only the following accessory uses shall be permitted in this District:
(a) Uses customarily incidental to all principal permitted uses; and
(b) Temporary buildings and uses incidental to construction work, which buildings shall be removed upon the completion or abandonment of the construction work.

### 1177.03 Development standards.

Except when specifically modified herein, the provisions of Chapter 1181, "General Provisions" shall govern. In addition, the following developmental standards shall apply:
(a) Minimum Land Area Requirements.
(1) No minimum land area shall be required.
(b) Site Planning, General Design Standards and Improvement Requirements.
(1) Total land occupancy by all buildings for a Planned Industrial Development District shall not exceed 75 percent of the area of the tract to be developed.
(2) Planned Industrial Development Districts shall have access to at least one major thoroughfare as established on the Official Thoroughfare Plan.
(3) Landscaping and use of yards shall be as follows:
A. Required side and rear yards shall be maintained in landscaping and shall not be used for off-street parking along all property lines which abut residential or PM districts. The
landscaping shall include, at a minimum, a six-foot high wooden or vinyl fence structure, earth mound, or wall with an opaqueness of 100 percent.
B. Any front, side or rear yard that fronts a public street is required to be landscaped including street trees as outlined in Chapter 1181 and additional landscaping as determined appropriate by the Planning Commission.
C. The project area, where it abuts another business, office, or industrial district, shall be maintained in landscaping and not used for parking, to the extent of a minimum of 15 -foot depth along property lines.
(4) Off-street parking and loading spaces shall be required as set forth in Chapter 1185. In addition:
A. Off-street parking and loading facilities shall be provided, with area, location and design appropriate to the needs and specific uses of the industrial project. Space designated for off-street parking shall not be used for off-street loading.
B. Off-street parking and loading facilities shall not be located in the front yard of any property.
C. Off-street parking and loading shall be of sufficient size to accommodate normal peak loads.
D. Loading docks shall not be placed between the building and the front lot line.
(5) There shall be a side and rear yard setback of 25 feet or equal to the heights of the principal building, whichever is greater. If adjacent to a residential district or PM District, a minimum of 75 feet.
(6) All streets within the Planned Industrial Development District shall have a width of not less than 40 feet and shall comply with the City's construction standards.
(7) The distribution systems for utilities are required to be underground.
(8) Building materials. The front facade of a principal building facing any public street on any property in the PI District shall be required to be constructed of at least 30 percent masonry materials that will extend along the entire length of the facade of the principal building. For the purposes of this section, the front facade of a principal building shall include any wall of the principal building that is parallel to the public street and is located within 100 feet of the established building line. The Planning Commission shall determine the appropriateness of the proposed masonry material design. In the case of a property which has frontage on more than one public street, the facade facing the public street from which access to the property is provided shall be considered the front facade of the building. In addition to the front facade, the side or rear facades of the principal building that face Interstate 70 or a State Route shall be constructed of at least 30 percent masonry materials that shall be clearly visible to Interstate 70 or the State Route unless a sufficient landscaping buffer is provided and is determined appropriate by Planning Commission. Recommended masonry materials include brick, split face block, tilt-up concrete, dryvit or any similar material determined appropriate by the Planning Commission.
(9) Street tree requirement. Please refer to Chapter 1181 for street tree requirements.
(10) Trash container enclosures. Please refer to Chapter 1181 for trash container enclosure requirements.

### 1177.04 Conditions.

All uses shall be conducted wholly within a completely enclosed building except for parking, loading and unloading facilities, which shall all be off-street. No use shall be permitted to be established or maintained which
by reason of its nature or manner of operation is or may become hazardous, noxious or offensive owing to the emission of odor, dust, smoke, cinders, gas fumes, noise, vibration, refuse matter or water-carried waste.

### 1177.05 Special uses.

The following special uses and no other shall be permitted in the "P1" District.
(a) Sexually oriented businesses in accordance with Chapter 1135. Provided no sexually oriented business shall be located within a 500 -foot radius of any other sexually oriented business. No sexually oriented business shall be located within a 500-foot radius from any residential use or residential zoning district, any public park, church or church grounds, public or private school, kindergarten or nursery school. No sexually oriented business shall be located within 1,000 feet of the right-of-way of, or be on a lot with frontage upon any divided, limited access highway including but not limited to applicable portions of Interstate 70, Ohio Route 4 and Ohio Route 235. Measurement of distances shall be as provided in Section 735.04 of the City Code of Huber Heights.

## Subdivision Standards Analysis:

The following is the analysis of the subdivision and zoning regulations as applied to the applicant's proposal to subdivide a five-acre parcel into two lots: Lot 1: A 1.30-acre lot zoned Agricultural; Lot 2: A 3.55-acre lot requesting to be zoned Planned Industrial.

## Proposed Lot 1 Analysis:

Use: Conforming (residential uses are permitted in the Agricultural District)
Lot Size: $\quad 1.3$ acres - Conforms to zoning regulations (min. 1 acre required)
Lot Frontage: 158.06 feet - Does not conform to zoning code regulations
(Zoning code requires 200 feet. (Section 1142.05)
Yards:
Front: Conforming (min 60 feet)
Side: Conforming (min 30 feet)
Rear: Conforming (min 50 feet)
Other Issues:
There is no public water or sewer currently available along this portion of Taylorsville Road. Therefore, the proposed lot does not meet 1109.17(i) of the subdivision regulations: The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.

## Proposed Lot 2 Analysis:

Use: Proposed use of truck / heavy equipment repair is permitted in the Planned Industrial District

Lot Size: $\quad 3.56$ acres - Conforms to zoning regulations (No min. area required)
Lot Frontage: 41.43 feet - Conforms to zoning regulations ( 35 feet is min. required)

Yards:
Front: Conforming (min 50 feet)
Side: Conforming (min 25 feet)
Rear: Conforming (min 25 feet)
Other Issues:
There is no public water or sewer currently available along this portion of Taylorsville Road. Therefore, the proposed lot does not meet 1109.17(i) of the subdivision regulations: The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.

## Staff Analysis

The subdivision of the 5 -acre parcel into two new lots will create one minor nonconformity, which is Lot 1 , will have less frontage than required by the zoning code. The subdivision regulations do not prohibit flag lots and there are examples of rural nonconforming lots of similar type. That being said, it is poor planning practice to encourage the creation of non-conforming lots.

Staff recommends the record plan only be approved if Planning Commission recommends approval of the rezoning.

## Zoning Standards Analysis:

This analysis is based on the rezoning application submitted on March 28, 2022. The zoning code assumes that rezonings to planned unit development are part of a redevelopment or new construction project. The applicant has not indicated they are proposing any improvements to the site, and has not submitted a formal basic development plan. Therefore, staff is assuming no improvements are planned for the property, and the record plan survey dated May 4, 2022 will serve as the basic development plan.

### 1177.01 Principal permitted uses.

Any principal permitted use in the Industrial Districts, I-1 and I-2, and PO Planned Office District shall be permitted. Manufacturing, processing, warehousing, industrial service activities, office and associated activities may be developed, operated and maintained within a single, organized development in accordance with an approved Planned Industrial Development District.

The proposed truck and heavy equipment repair is principally permitted within the Planned Industrial District.

### 1177.03 Development standards.

Except when specifically modified herein, the provisions of Chapter 1181, "General Provisions" shall govern. In addition, the following developmental standards shall apply:
(a) Minimum Land Area Requirements.
(1) No minimum land area shall be required.

The proposed replat and rezoning results in a Planned Industrial site of approximately 3.55 acres.
(b) Site Planning, General Design Standards and Improvement Requirements.
(1) Total land occupancy by all buildings for a Planned Industrial Development District shall not exceed 75 percent of the area of the tract to be developed.

As indicated by the record plan, the occupancy for the PI district is significantly less than 75 percent of the area. Additionally, the applicant has not indicated any additional improvements are intended for the site.
(2) Planned Industrial Development Districts shall have access to at least one major thoroughfare as established on the Official Thoroughfare Plan.

Taylorsville Road is a major thoroughfare as established on the Official Thoroughfare Plan.
(3) Landscaping and use of yards shall be as follows:
A. Required side and rear yards shall be maintained in landscaping and shall not be used for off-street parking along all property lines which abut residential or PM districts. The landscaping shall include, at a minimum, a six-foot high wooden or vinyl fence structure, earth mound, or wall with an opaqueness of 100 percent.
B. Any front, side or rear yard that fronts a public street is required to be landscaped including street trees as outlined in Chapter 1181 and additional landscaping as determined appropriate by the Planning Commission.
C. The project area, where it abuts another business, office, or industrial district, shall be maintained in landscaping and not used for parking, to the extent of a minimum of 15-foot depth along property lines.

No additional landscaping or buffering is indicated on any plans submitted to date. However, with exception to the street tree requirement, no screening along the side yards is required.
(4) Off-street parking and loading spaces shall be required as set forth in Chapter 1185. In addition:
A. Off-street parking and loading facilities shall be provided, with area, location and design appropriate to the needs and specific uses of the industrial project. Space designated for off-street parking shall not be used for off-street loading.
B. Off-street parking and loading facilities shall not be located in the front yard of any property.
C. Off-street parking and loading shall be of sufficient size to accommodate normal peak loads.
D. Loading docks shall not be placed between the building and the front lot line.

The applicant has not proposed any off-street parking or loading area improvements. A large gravel parking area exists in front of the existing building where repairs are currently taking place. Staff does not feel additional parking is warranted and will distract from the rural nature of the neighborhood.
(5) There shall be a side and rear yard setback of 25 feet or equal to the heights of the principal building, whichever is greater. If adjacent to a residential district or PM District, a minimum of 75 feet.

There is approximately 25 feet between the existing barn and the east property line. The applicant has not provided building heights, therefore if the building is greater than 25 feet, the structure will be a legally non-conforming structure if the rezoning is approved.
(6) All streets within the Planned Industrial Development District shall have a width of not less than 40 feet and shall comply with the City's construction standards.
No new streets are proposed.
(7) The distribution systems for utilities are required to be underground.

No new utilities are proposed.
(8) Building materials. The front facade of a principal building facing any public street on any property in the PI District shall be required to be constructed of at least 30 percent masonry materials that will extend along the entire length of the facade of the principal building. For the purposes of this section, the front facade of a principal building shall include any wall of the principal building that is parallel to the public street and is located within 100 feet of the established building line. The Planning Commission shall determine the appropriateness of the proposed masonry material design. In the case of a property which has frontage on more than one public street, the facade facing the public street from which access to the property is provided shall be considered the front facade of the building. In addition to the front facade, the side or rear facades of the principal building that face Interstate 70 or a State Route shall be constructed of at least 30 percent masonry materials that shall be clearly visible to Interstate 70 or the State Route unless a sufficient landscaping buffer is provided and is determined appropriate by Planning Commission. Recommended masonry materials include brick, split face block, tilt-up concrete, dryvit or any similar material determined appropriate by the Planning Commission.

No new buildings are proposed. If the rezoning is approved, any new buildings proposed on this lot shall be subject to this provision.
(9) Street tree requirement. Please refer to Chapter 1181 for street tree requirements.

No landscaping plans were submitted with the application.
(10) Trash container enclosures. Please refer to Chapter 1181 for trash container enclosure requirements.

No new trash containers are proposed.

### 1177.04 Conditions.

All uses shall be conducted wholly within a completely enclosed building except for parking, loading and unloading facilities, which shall all be off-street. No use shall be permitted to be established or maintained which by reason of its nature or manner of operation is or may become hazardous, noxious or offensive owing to the emission of odor, dust, smoke, cinders, gas fumes, noise, vibration, refuse matter or water-carried waste.

If the rezoning is approved, the applicant will be required to move his repair operations wholly indoors. This requirement was brought to the attention of the applicant, and he indicated he understood the requirements and wished to proceed with the rezoning request.

While the applicant has agreed to these conditions, it is important to note that the site under discussion is not readily visible from the right-of-way, in fact it is nearly 400 feet from Taylorsville Road. Therefore, any violations of this condition will be almost impossible for code enforcement staff to easily recognize and thus enforcement of this condition will likely only be triggered by complaints made by adjacent property owners or residents.

## Staff Analysis of Standards for approval

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
(a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;
The applicant is seeking relief for the illegal use by requesting a rezoning to Planned Industrial after the BZA denied the use variance. The comprehensive plan indicates this area should be agricultural/low density residential. The proposed rezoning is not consistent with the comprehensive plan.

In his application, the applicant references the industrially zoned land within a $1 / 4$ to $1 / 2$ mile of this site. It should be noted that the majority of that land is consistent with the comprehensive plan and has access to public water and sewer. Neither are applicable to the applicant's site.
(b) Could be substantially completed within the period of time specified in the schedule of development submitted by the developer;

N/A. The applicant is not proposing any improvements to the property.
(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;

Taylorsville Road is classified as a major thoroughfare in the City Thoroughfare Plan. The proposed record plan illustrates a dedication of 35 feet of Right of Way, consistent with the Thoroughfare Plan.
(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;
This use has not historically imposed an undue burden on public services.
(e) Contains such proposed covenants, easements and other provisions relating to the proposed development standards as may reasonably be required for the public health, safety and welfare;
N/A
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;

No improvements to the property have been proposed by the applicant. However, the applicant has stated he is willing to provide buffering for the adjacent neighboring properties.
(g) Shall preserve natural features such as water courses, trees and rock outcrops, to the degree possible, so that they can enhance the overall design of the PUD;

## N/A

(h) Is designed to take advantage of the existing land contours in order to provide satisfactory road gradients and suitable building lots and to facilitate the provision of proposed services;
N/A
(i) Shall place underground all electric and telephone facilities, street light wiring and other wiring conduits and similar facilities in any development which is primarily designed for or occupied by dwellings, unless waived by the Commission because of technical reasons;
No improvements to the property have been proposed by the applicant.
(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;
No additional public facilities are anticipated due to this rezoning request.
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors; and
This rezoning request ultimately arose due to complaints from neighboring property owners or residents regarding the operation of a truck / heavy equipment repair facility in their neighborhood. According to the minutes of the BZA hearing, complaints, centered on the noise of the diesel engines and traffic congestion due to vehicles moving on and off site. Additional concerns were raised about the potential contamination of drinking water wells due to fluid leaks or spills.

Noise, smoke and fumes are likely an occasional byproduct of heavy engine repair. If the planning commission is inclined to approve the rezoning, limiting the hours of operation to a traditional M-F, 8am - 6pm may reduce the impacts of this facility on the neighboring residents, especially in the evenings and weekends.
(1) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

As indicated above, neighbors have expressed concerns about noise from the diesel engines and ground water pollution from this operation during the BZA hearing. All residents along this segment of Taylorsville Road get their drinking water from private wells, and this concern should not be overlooked.

## STAFF RECOMMENDATION

It is the staff's opinion the rezoning to Planned Industrial does not meet the standards outlined in Section 1171.06. As outlined through the staff analysis above, the application does not meet the standards of Section 1171.06(a), (k), and (L). Therefore, staff recommends denial of the replat and rezoning from Agricultural to Planned Industrial.

If the Planning Commission determines the rezoning request is consistent with the standards outlined in Section 1171.06, staff recommends the following conditions:

1) The applicant shall obtain all necessary zoning and business licenses required by the City of Huber Heights;
2) All business and repair operations shall occur indoors, consistent with the requirements of the Planned Industrial District;
3) No outdoor storage of equipment, parts, inoperable or junk vehicles, or other materials associated with the truck and equipment repair business shall be permitted;
4) Repaired vehicles shall be stored on site no longer than five consecutive days;
5) The applicant shall comply with the Huber Heights Fire Department regarding the onsite storage of hazardous and/or industrial materials;
6) Hours of operation shall be limited to 8:00am - 6:00pm, Monday through Friday;

## Planning Commission Action

Planning Commission may take the following actions with a motion:

1) Recommend approval of the rezoning and Basic Development Plan;
2) Recommend denial of the rezoning and Basic Development Plan (the Commission should state the specific reasons for denial); or
3) Table the application for additional information.

## Planning Commission Decision Record

WHEREAS, on March 28, 2022, the applicant, Michael Skilwies, requested approval of a Replat and Rezone of 3.55 acres from Agriculture to Planned Industrial at 9416 Taylorsville Road (Case RZ 22-17), and;

WHEREAS, on May 24, 2022, the Planning Commission did meet and fully discuss the details of the request.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission hereby approved the request.

Ms. Thomas moved to approve the application by the applicant, Michael Skilwies, for approval of a Replat and Rezone of 3.55 acres from Agriculture to Planned Industrial at 9416 Taylorsville Road Parcel Number P70 039020018 of the Montgomery County Auditors Map (Case RZ 22-17) in accordance with the recommendation of Staff's Memorandum dated May 24, 2022, with the following conditions:

1. The applicant shall obtain all necessary zoning and business licenses required by the City of Huber Heights;
2. All business and repair operations shall occur indoors, consistent with the requirements of the Planned Industrial District;
3. No outdoor storage of equipment, parts, inoperable or junk vehicles, or other materials associated with the truck and equipment repair business shall be permitted;
4. Repaired vehicles shall be stored on site no longer than five consecutive days;
5. The applicant shall comply with the Huber Heights Fire Department regarding the onsite storage of hazardous and/or industrial materials;
6. Hours of operation shall be limited to 8:00am - 6:00pm, Monday through Friday;
7. The applicant shall pave and widen the driveway to minimum width of $35^{\prime}$;
8. The applicant shall install screening along west property line, subject to detailed development plan approval.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Ms. Vargo. NAYS: Ms. Opp, Mr. Jeffries, Ms. Thomas, and Mr. Walton. Motion to approve denied 4-1 .

## Planning Commission

May 24, 2022, Meeting
City of Huber Heights
I. Chair Terry Walton called the meeting to order at approximately 6:00 p.m.
II. Present at the meeting: Mr. Jeffries, Ms. Opp, Ms. Thomas, Ms. Vargo and Mr. Walton.

Members absent: None.
Staff Present: Aaron K. Sorrell, Interim City Planner, and Geri Hoskins, Planning \& Zoning Administrative Secretary.
III. Opening Remarks by the Chairman and Commissioners

## IV. Citizens Comments

None.

## V. Swearing of Witnesses

Mr. Walton explained the proceedings of tonight's meeting and administered the sworn oath to all persons wishing to speak or give testimony regarding items on the agenda. All persons present responded in the affirmative.

## VI. Pending Business

1. None

## VII. New Business

1. REZONING AND LOT SPLIT - The applicant, MICHAEL SKILWIES, is requesting approval of a Replat and Rezoning from A (Agricultural) to PI (Planned Industrial). Property located at 9416 Taylorsville Road (Case RZ 22-17).

Mr. Sorrell stated that the applicant has been operating a truck and heavy equipment repair business at this location for many years. Based on complaints received in August 2021, Zoning staff-initiated enforcement action on the applicant's business based on the fact that non-farm related truck and heavy equipment repair is not permitted in the Agricultural District. In August 2021 the applicant requested a use variance for the diesel truck and equipment repair operations. The BZA unanimously denied the application at their October 6, 2021 meeting.

The applicant was provided with the lot split and rezoning application shortly after the BZA decision as an alternative path to allow the continued operation of the repair facility. On or about March 28, 2022 Zoning staff filed minor misdemeanor charges for the continued operation of repair facility and the applicant subsequently filed the application for a lot split and rezoning.

## Applicable Subdivision and Zoning Regulations

The applicable subdivision regulations include: 1109 Subdivision Design Standards
The appliable zoning chapters include: 1171 General Provisions, 1177 Planned Industrial District.

## Subdivision Standards Analysis:

The following is the analysis of the subdivision and zoning regulations as applied to the applicant's proposal to subdivide a five-acre parcel into two lots: Lot 1: A 1.30-acre lot zoned Agricultural; Lot 2: A 3.55-acre lot requesting to be zoned Planned Industrial.

## Proposed Lot 1 Analysis:

Use: Conforming (residential uses are permitted in the Agricultural District) Lot Size: $\quad 1.3$ acres - Conforms to zoning regulations (min. 1 acre required) Lot Frontage: 158.06 feet - Does not conform to zoning code regulations (Zoning code requires 200 feet. (Section 1142.05)
Yards:
Front: Conforming (min 60 feet)
Side: Conforming (min 30 feet)
Rear: Conforming (min 50 feet)
Other Issues:
There is no public water or sewer currently available along this portion of Taylorsville Road. Therefore, the proposed lot does not meet 1109.17(i) of the subdivision regulations: The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.

## Proposed Lot 2 Analysis:

Use: Proposed use of truck / heavy equipment repair is permitted in the Planned Industrial District

Lot Size: 3.56 acres - Conforms to zoning regulations (No min. area required) Lot Frontage: 41.43 feet - Conforms to zoning regulations ( 35 feet is min . required)

Yards:
Front: Conforming (min 50 feet)
Side: Conforming (min 25 feet)
Rear: Conforming (min 25 feet)
Other Issues:
There is no public water or sewer currently available along this portion of Taylorsville Road. Therefore, the proposed lot does not meet 1109.17(i) of the subdivision regulations: The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.

## Staff Analysis

The subdivision of the 5 -acre parcel into two new lots will create one minor nonconformity, which is Lot 1 , will have less frontage than required by the zoning code. The subdivision regulations do not prohibit flag lots and there are examples of rural non-conforming lots of similar type. That being said, it is poor planning practice to encourage the creation of non-conforming lots.

Staff recommends the record plan only be approved if Planning Commission recommends approval of the rezoning.

## Zoning Standards Analysis:

This analysis is based on the rezoning application submitted on March 28, 2022. The zoning code assumes that rezonings to planned unit development are part of a redevelopment or new construction project. The applicant has not indicated they are proposing any improvements to the site, and has not submitted a formal basic development plan. Therefore, staff is assuming no improvements are planned for the property, and the record plan survey dated May 4, 2022 will serve as the basic development plan.

The proposed truck and heavy equipment repair is principally permitted within the Planned Industrial District.

As indicated by the record plan, the occupancy for the PI district is significantly less than 75 percent of the area. Additionally, the applicant has not indicated any additional improvements are intended for the site. Taylorsville Road is a major thoroughfare as established on the Official Thoroughfare Plan.
No additional landscaping or buffering is indicated on any plans submitted to date. However, with exception to the street tree requirement, no screening along the side yards is required.
The applicant has not proposed any off-street parking or loading area improvements. A large gravel parking area exists in front of the existing building where repairs are currently taking place. Staff does not feel additional parking is warranted and will distract from the rural nature of the neighborhood.
No new buildings are proposed. If the rezoning is approved, any new buildings proposed on this lot shall be subject to this provision.
If the rezoning is approved, the applicant will be required to move his repair operations wholly indoors. This requirement was brought to the attention of the applicant, and he indicated he understood the requirements and wished to proceed with the rezoning request.

While the applicant has agreed to these conditions, it is important to note that the site under discussion is not readily visible from the right-of-way, in fact it is nearly 400 feet from Taylorsville Road. Therefore, any violations of this condition will be almost impossible for code enforcement staff to easily recognize and thus enforcement of this condition will likely only be triggered by complaints made by adjacent property owners or residents

The applicant is seeking relief for the illegal use by requesting a rezoning to Planned Industrial after the BZA denied the use variance. The comprehensive plan indicates this area should be agricultural/low density residential. The proposed rezoning is not consistent with the comprehensive plan.

In his application, the applicant references the industrially zoned land within a $1 / 4$ to $1 / 2$ mile of this site. It should be noted that the majority of that land is consistent with the comprehensive plan and has access to public water and sewer. Neither are applicable to the applicant's site.

This rezoning request ultimately arose due to complaints from neighboring property owners or residents regarding the operation of a truck / heavy equipment repair facility in their neighborhood. According to the minutes of the BZA hearing, complaints, centered on the noise of the diesel engines and traffic congestion due to vehicles moving on and off site. Additional concerns were raised about the potential contamination of drinking water wells due to fluid leaks or spills.
Noise, smoke and fumes are likely an occasional byproduct of heavy engine repair. If the planning commission is inclined to approve the rezoning, limiting the hours of operation to a traditional M-F, 8am - 6 pm may reduce the impacts of this facility on the neighboring residents, especially in the evenings and weekends.
(a) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

As indicated above, neighbors have expressed concerns about noise from the diesel engines and ground water pollution from this operation during the BZA hearing. All residents along this segment of Taylorsville Road get their drinking water from private wells, and this concern should not be overlooked.

## STAFF RECOMMENDATION

It is the staff's opinion the rezoning to Planned Industrial does not meet the standards outlined in Section 1171.06. As outlined through the staff analysis above, the application does not meet the standards of Section 1171.06(a), (k), and (L). Therefore, staff recommends denial of the replat and rezoning from Agricultural to Planned Industrial.

If the Planning Commission determines the rezoning request is consistent with the standards outlined in Section 1171.06, staff recommends the following conditions:

1) The applicant shall obtain all necessary zoning and business licenses required by the City of Huber Heights;
2) All business and repair operations shall occur indoors, consistent with the requirements of the Planned Industrial District;
3) No outdoor storage of equipment, parts, inoperable or junk vehicles, or other materials associated with the truck and equipment repair business shall be permitted;
4) Repaired vehicles shall be stored on site no longer than five consecutive days;
5) The applicant shall comply with the Huber Heights Fire Department regarding the onsite storage of hazardous and/or industrial materials;
6) Hours of operation shall be limited to 8:00am - 6:00pm, Monday through Friday;

Michael Skilwies and Attorney Greg Page spoke. A few neighbors spoke in opposition.

Discussion on inside storage, widen apron and driveway, current hours, Night lights, no complaints, visual truck traffic, EPA, concern about how long they've been in business, property value, safety, health, no other industrial plots, enforcement, and splitting lot what if sold.

## Action

Ms. Thomas moved to approve the request by the applicant Michael Skilwies, for approval of a Rezoning from A (Agricultural) to PI (Planned Industrial) and a Lot Split. Property located at 9416 Taylorsville Road further identified as Parcel Number P70 039020018 of the Montgomery County Auditor's Map (Case RZ 2217) in accordance with the recommendation of Staff's Memorandum dated May 24, 2022 and the Planning Commission Decision Record attached thereto.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Ms. Vargo. NAYS: Mr. Jeffries, Ms. Opp, Ms. Thomas, and Mr. Walton. Motion to approve denied 4-1.
2. MAJOR CHANGE TO THE DETAILED DEVELOPMENT PLAN - The applicant, SKILKEN GOLD REAL ESTATE DEVELOPMENT, LLC, is requesting approval of a Major Change to the Detailed Development Plan for a proposed Convenient Store/Gas Station and Car Wash. Property located at Old Troy Pike and Taylorsville Road (Case MJC 22-21).

Mr. Sorrell stated applicant wasn't ready but due to already being advertised, this was added to the agenda.

## Action

Mr. Jeffries moved to table the request by the applicant Skilken Gold Real Estate Development, LLC, for approval of a Major Change to the Detailed Development Plan (Case MJC 22-21) until the next Planning Commission meeting of 6/14/2022.

Seconded by Ms. Thomas. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, Ms. Thomas, Mr. Jeffries, and Mr. Walton. NAYS: None. Motion to table carried 5-0.

## VIII. Additional Business

## RZ 22-17 <br> 9416 Taylorsville Rd

Request for Approval of Rezoning and Replat
July 11, 2022

## Site Details:

- 5 acres, zoned A (Agricultural)
- Existing land use is residential
- Surrounding property is zoned Agricultural


## Application:

- Applicant is requesting a replat of 3.5 acres and a rezoning to Planned Industrial to accommodate existing diesel truck / equipment repair business.
- 1.5 acres (residence) will remain zoned Agricultural





## Site History:

- Applicant has been operating the repair facility for many years.
- August 2021:
- Complaint led to zoning enforcement action

- Applicant requested use variance
- BZA unanimously denied variance application


## Site History:

- After BZA denial city staff informed the applicant they could apply for lot split and rezoning as an alternative path forward
- March 2022:
- Zoning enforcement action initiated
- Applicant filed a rezoning / lot split application



## Applicable Subdivision and Zoning Regulations

The applicable subdivision regulations include: 1109 Subdivision Design Standards

The appliable zoning chapters include: 1171 General Provisions, 1177 Planned Industrial District.

## Replat Conformance with Subdivision and Zoning Regulations

## Proposed Lot 1 Analysis (residential lot):

Use: Conforming (residential uses permitted in the Agricultural District)
Lot Size: 1.3 acres - Conforming (min. 1 acre required)
Lot Frontage: 158.06 feet - Does not conform to zoning code regulations (Zoning code requires 200 feet.)

Yards:
Front: Conforming (min 60 feet)
Side: Conforming (min 30 feet)
Rear: Conforming (min 50 feet)

## Replat Conformance with Subdivision and Zoning Regulations Proposed Lot 1 Analysis (residential lot):

Other Issues:

- No public water or sewer currently available along this portion of Taylorsville Road.
- Proposed lot does not meet 1109.17(i) of the subdivision regulations: The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.


## Replat Conformance with Subdivision and Zoning Regulations

Proposed Lot 2 Analysis (repair facility):
Use: Proposed use of truck / heavy equipment repair is permitted in the Planned Industrial District

Lot Size: 3.56 acres - Conforming (No min. area required)
Lot Frontage: 41.43 feet - Conforming ( 35 feet is min. required)
Yards:
Front: Conforming (min 50 feet)
Side: Conforming (min 25 feet)
Rear: Conforming (min 25 feet)

## Replat Conformance with Subdivision and Zoning Regulations

 Proposed Lot 2 Analysis (repair facility):Other Issues:

- No public water or sewer currently available along this portion of Taylorsville Road.
- Proposed lot does not meet 1109.17(i) of the subdivision regulations: The minimum lot size where public sewer or water is not available shall be one acre with a minimum frontage of 200 feet.
$>$ Could be an issue if lots are ever sold separately


## Lot Split Staff Analysis - Summary

The subdivision of the 5-acre parcel into two new lots will create one minor nonconformity:

- Lot 1 , will have less frontage than required by the zoning code.

The subdivision regulations do not prohibit flag lots and there are examples of rural non-conforming lots of similar type.
$>$ Staff recommended the record plan only be approved if the rezoning is approved.

## Conformance with Zoning Regulations

This analysis was based on the rezoning application submitted on March 28, 2022.

- The zoning code assumes that rezonings to Planned Development are part of a redevelopment or new construction project.
- The applicant has not indicated any improvements to the site, and has not submitted a formal basic development plan.
- Therefore, staff is assuming no improvements are planned and the record plan survey dated May 4, 2022 will serve as the basic development plan.


## Conformance with Zoning Regulations

### 1177.01 Principal permitted uses.

- The proposed truck and heavy equipment repair is principally permitted within the Planned Industrial District.
1177.03 Development standards.
- No Basic Plan submitted, however based on the plat survey the lot meets the PI development standards.


## Conformance with Zoning Regulations

### 1177.04 Conditions.

"All uses shall be conducted wholly within a completely enclosed building..... No use shall be permitted to be established or maintained which .... is or may become hazardous, noxious or offensive owing to the emission of odor, dust, smoke, cinders, gas fumes, noise, $\qquad$ "

- If the rezoning is approved, the applicant will be required to move his repair operations wholly indoors. The applicant is aware of this condition.
- The site is not readily visible from the street, any violations of this condition will likely only be triggered by complaints made by adjacent property owners or residents.


## Staff Analysis

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;

- The applicant is seeking relief for the illegal use by requesting a rezoning to Planned Industrial after the BZA denied the use variance.
- The comprehensive plan indicates this area should be agricultural/low density residential and the proposed rezoning is not consistent with the comprehensive plan.


## Staff Analysis

a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;

- The applicant references the industrially zoned land within a $1 / 4$ to $1 / 2$ mile of this site. The majority of that land is consistent with the comprehensive plan, and has access to public water and sewer. Neither are applicable to the applicant's site.


## Staff Analysis

(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;

- Taylorsville Road is classified as a major thoroughfare in the City Thoroughfare Plan.
- 35 feet of ROW will be dedicated, consistent with the Thoroughfare Plan.


## Staff Analysis

(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;

- This use has not historically imposed an undue burden on public services.
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;
- No improvements to the property have been proposed by the applicant. However, the applicant has stated he is willing to provide buffering for the adjacent neighboring properties.


## Staff Analysis

(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;

- No additional public facilities are anticipated due to this rezoning request.
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors;
- This rezoning request ultimately arose due to complaints regarding the operation of a truck / heavy equipment repair facility


## Staff Analysis

(k) Continued:

- According to the minutes of the BZA hearing, complaints ,centered on the noise of the diesel engines and traffic congestion due to vehicles moving on and off site.
- Additional concerns were raised about the potential contamination of drinking water wells due to fluid leaks or spills.
- If the Council is inclined to approve the rezoning, limiting the hours of operation to a traditional M-F, 8am - 6 pm may reduce the impacts of this facility on the neighboring residents, especially in the evenings and weekends.


## Staff Analysis

(I) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

- As indicated above, neighbors have expressed concerns about noise from the diesel engines and ground water pollution from this operation during the BZA hearing.
- All residents along this segment of Taylorsville Road get their drinking water from private wells, and this concern should not be overlooked.


## Staff Recommendation

It is the staff's opinion the rezoning to Planned Industrial does not meet the standards outlined in Section 1171.06.

- As outlined above, the application does not meet the standards of Section 1171.06(a), (k), and (L).
- Therefore, staff recommended denial of the replat and rezoning from Agricultural to Planned Industrial.
- Staff provided a set of acceptable conditions if Planning Commission was inclined to recommend approval.


## Planning Commission Action:

- Three neighbors spoke in opposition to the rezoning request
- Concerns about visual appearance (parked trucks)
- Noise, pollution
- Lower property values due to industrial zoning
- Planning Commission voted 4-1 to deny the rezoning request.
- Difficult decision since the use has been operating $10+$ years
- Concerns with enforcement issues (neighbor initiated)


## Staff Recommendation

If Council determines the rezoning request is consistent with the standards outlined in Section 1171.06, staff recommends the following conditions:

1. The permitted uses be limited to truck or heavy equipment repair;
2. The applicant shall obtain all necessary zoning and business licenses required by the City of Huber Heights;
3. All business and repair operations shall occur indoors, consistent with the requirements of the Planned Industrial District;
4. No outdoor storage of equipment, parts, inoperable or junk vehicles, or other materials associated with the truck and equipment repair business shall be permitted;

## Staff Recommendation

Continued:
4. Repaired vehicles shall be stored on site no longer than five consecutive days;
5. The applicant shall comply with the Huber Heights Fire Department regarding the onsite storage of hazardous and/or industrial materials;
6. Hours of operation shall be limited to 8:00am - 6:00pm, Monday through Friday;
7. Applicant submits detailed development plan.

# CITY OF HUBER HEIGHTS <br> STATE OF OHIO 

ORDINANCE NO. 2022-O-

## TO APPROVE A REZONING FROM AGRICULTURAL (A) TO PLANNED INDUSTRIAL (PI) AND A LOT SPLIT FOR THE PROPERTY LOCATED AT 9416 TAYLORSVILLE ROAD AND FURTHER IDENTIFIED AS PARCEL NUMBER P70 039020018 ON THE MONTGOMERY COUNTY AUDITOR'S MAP AND TO NOT ACCEPT THE RECOMMENDATION OF THE PLANNING COMMISSION (CASE RZ 22-17).

WHEREAS, the citizens of Huber Heights require the efficient and orderly planning of land uses within the City; and

WHEREAS, the City Planning Commission has reviewed Case RZ 22-17 and on May 24, 2022, opposed approval by a vote of 4-1 of the Rezoning from Agricultural (A) to Planned Industrial (PI) and a Lot Split; and

WHEREAS, the City Council has considered the issue.
NOW, THEREFORE, BE IT ORDAINED by the City Council of Huber Heights, Ohio that:
Section 1. The application requesting approval of a Rezoning from Agricultural (A) to Planned Industrial (PI) and a Lot Split (Case RZ 21-17) is hereby approved in opposition to the Planning Commission's recommendation of denial by a vote of 4-1 with the following conditions:

1. The applicant shall obtain all necessary zoning and business licenses required by the City of Huber Heights.
2. All business and repair operations shall occur indoors, consistent with the requirements of the Planned Industrial District.
3. No outdoor storage of equipment, parts, inoperable or junk vehicles, or other materials associated with the truck and equipment repair business shall be permitted.
4. Repaired vehicles shall be stored on site no longer than five consecutive days.
5. The applicant shall comply with the Huber Heights Fire Division regarding the onsite storage of hazardous and/or industrial materials.
6. Hours of operation shall be limited to 8:00 a.m. - 6:00 p.m., Monday through Friday.
7. The applicant shall pave and widen the driveway to minimum width of 35 '.
8. The applicant shall install screening along west property line, subject to detailed development plan approval.

Section 2. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Ordinance shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:

## AUTHENTICATION:

Clerk of Council

Date

## Mayor

Date

AI-8565
New Business A.
City Council Meeting
Meeting Date:
07/25/2022
City Manager Search Process Restart
Submitted By:
Anthony Rodgers
Department:
City Council
Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022
Work
Session
Audio-Visual Needs: None Emergency Legislation?: No

## Motion/Ordinance/

Resolution No.:

## Agenda Item Description or Legislation Title

A Motion To Restart The City Manager Search Process Commencing In February, 2023 Pursuant To The Baker Tilly Executive Recoupment Guaranty Whereby Baker Tilly Will Undertake The Process Charging Only For Project-Related Expenses But No Additional Professional Fees.

## Purpose and Background

This agenda item is to pause the current City Manager search process and to authorize a restart of the City Manager search process in February, 2023 with Baker Tilly as discussed at the July 19, 2022 Council Work Session.

## Fiscal Impact

| Source of Funds: | N/A |
| :--- | :--- |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | N/A |

Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:

## Attachments

Email - Baker Tilly

| From: | Heminover, Patty |
| :--- | :--- |
| To: | Rodgers, Anthony |
| Subject: | RE: Huber Heights |
| Date: | Wednesday, July 20, 2022 9:24:40 AM |

CAUTION EXTERNAL EMAIL: This message originated from a non Huber Heights email server. DO NOT CLICK ANY LINKS or OPEN ANY ATTACHMENTS unless you have contacted the sender to verify its legitimacy or confirmed you were expecting it. Contact the IT Department if you need assistance.

Tony,

It was sad to hear that the Huber Heights City Council was unable to adopt a resolution to appoint a City Manager. I understand the City needs to put the search on hold until later this year. I will contact the candidates to inform them of the Cities decision.

Your executive recruitment is guaranteed for 12 months. The replacement recruitment will be repeated with no additional professional fee. It will include project-related expenses (example: posting of ads travel expenses, background checks, copies, postage, etc.). This guarantee is subject to further limitations and restrictions of your state laws.

I will check in with you periodically to see how things are progressing. If you need any assistance in the meantime, please feel free to contact me.

Thank you,
Patty Heminover

From: Rodgers, Anthony [ARodgers@hhoh.org](mailto:ARodgers@hhoh.org)
Sent: Thursday, July 14, 2022 12:01 PM
To: Heminover, Patty [Patty.Heminover@bakertilly.com](mailto:Patty.Heminover@bakertilly.com)
Subject: Huber Heights

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

## Good afternoon Patty,

I am writing to inform you that the Huber Heights City Council voted to pause and to not restart the City Manager search process at this time at the July 11, 2022 City Council Meeting. At the same meeting, the City Council was unable to adopt a resolution by the required votes to appoint any one of the three finalist applicants remaining for the City Manager position. Based on these actions, I am providing notification that the City of Huber Heights desires to pause and to not restart the City Manager search process at this time. Referencing our phone conversation last week, you had conveyed that under the City's agreement with Baker Tilly, the City could opt to restart the City Manager search process with Baker Tilly at no additional cost
(except for travel expenses for applicants or other incidental expenses) for up to one year from the date of this action on July 11, 2022. Can you please provide acknowledgement of this email and confirmation of this understanding of the agreement?

Thanks again for all your hard work to date in helping Huber Heights in this process. It has been tremendously valuable.

Tony


Mr. Anthony C. Rodgers, MPA
Clerk of Council
Master Municipal Clenk (MMC)

City of Huber Heights
6131 Taylorsville Road
Huber Heights, Ohio 45424
Phone: (937) 237-5832
Fax: (937) 233-1272
Email: atodgers@hhoh.org

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Al-8506
City Council Meeting
Meeting Date:
Case BDP 22-13 - Hartman I, LLC - Basic Development Plan and Rezoning - 7611 Old Troy Pike Public Hearing
Submitted By: Geri Hoskins
Department:
Planning
Division:
Planning
Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022
Work
Session
Audio-Visual Needs: SmartBoard Emergency Legislation?: No
Motion/Ordinancel N/A
Resolution No.:

New Business B.
City Council 07/25/2022

## Agenda Item Description or Legislation Title

A Public Hearing Scheduled For July 19, 2022 By The Huber Heights City Council For Case BDP 22-13. The Applicant Is Hartman I, LLC. The Applicant Is Requesting Approval Of A Basic Development Plan And Rezoning To Planned Office (PO) For Property Located At 7611 Old Troy Pike And Further Described As Parcel Number P70 040050140 On The Montgomery County Auditor's Map.

## Purpose and Background

The applicant, Hartman I, LLC, is requesting approval of a Basic Development Plan and a Rezoning to Planned Office (PO) for property located at 7611 Old Troy Pike (Case BDP 22-13).

Fiscal Impact

| Source of Funds: | N/A |
| :--- | ---: |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | N/A |
| Funds Available in Current Budget? (Yes/No): | N/A |
| Financial Implications: |  |

## Attachments

No file(s) attached.

Case MJC 22-21 - Skilken Gold Real Estate Development - Major Change - Basic Development Plan Old Troy Pike/Taylorsville Road - Public Hearing
Submitted By:
Geri Hoskins

| Department: Council Committee Review?: | Planning | Division: | Planning |
| :---: | :---: | :---: | :---: |
|  | Council | Date(s) of Committee Review: | 07/19/2022 |
|  | Work |  |  |
|  | Session |  |  |
| Audio-Visual Needs: | SmartBoard | Emergency Legislation?: | No |
| Motion/Ordinance/ Resolution No.: | N/A |  |  |

## Agenda Item Description or Legislation Title

A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case MJC 22-21. The Applicant Is Skilken Gold Real Estate Development. The Applicant Is Requesting Approval Of A Major Change To The Basic Development Plan To Construct A 6,138 Square Foot Convenience Store With Fueling Pumps And Carwash For Property Located At The Northeast Corner Of Old Troy Pike And Taylorsville Road And Further Described As Parcel Number P70 040050015 And P70 040050043 Of The Montgomery County Auditor's Map.

## Purpose and Background

The applicant, Skilken Gold Real Estate Development, is requesting approval of a Major Change to the Basic Development Plan for property located at the northeast corner of Old Troy Pike and Taylorsville Road (Case MJC 22-21).

Fiscal Impact

Source of Funds:
Cost:
Recurring Cost? (Yes/No):
Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:

## Attachments

No file(s) attached.

Al-8508
New Business D.
City Council Meeting
Meeting Date:
07/25/2022
City Council

Case BDP 22-25 - Homestead Development - Basic Development Plan - 6209 Brandt Pike - Public Hearing
Submitted By: Geri Hoskins

| Department: | Planning | Division: |
| :--- | :--- | :--- |
| Council Committee Review?: | Council | Planning |
| Date(s) of Committee Review: $07 / 19 / 2022$ |  |  |

Work
Session
Audio-Visual Needs: SmartBoard Emergency Legislation?: No
Motion/Ordinancel N/A
Resolution No.:

## Agenda Item Description or Legislation Title

A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case BDP 22-25. The Applicant Is Homestead Development. The Applicant Is Requesting Approval Of A Basic Development Plan For 15.56 Acres For Property Located At 6209 Brandt Pike And Further Described As Parcel Number P70 039120140 On The Montgomery County Auditor's Map.

## Purpose and Background

The applicant, Homestead Development, is requesting approval of a Basic Development Plan For 15.56 Acres For Property Located at 6209 Brandt Pike (BDP 22-25).

Fiscal Impact

| Source of Funds: | N/A |
| :--- | ---: |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | N/A |
| Funds Available in Current Budget? (Yes/No): | N/A |
| Financial Implications: |  |

Financial Implications:

## Attachments

No file(s) attached.


## Agenda Item Description or Legislation Title

A Public Hearing Scheduled For July 25, 2022 By The Huber Heights City Council For Case MJC 22-27. The Applicant Is Ruetschle Architects. The Applicant Is Requesting Approval Of A Major Change To The Basic And Detailed Development Plans For An 11,623 Square Foot Addition For Property Located At 5400 Chambersburg Road And Further Described As Parcel Number P70 04004 0032 On The Montgomery County Auditor's Map.

## Purpose and Background

The applicant, Ruetschle Architects, is requesting approval of a Major Change to the Basic and Detailed Development Plans for property located at 5400 Chambersburg Road (Case MJC 22-27).

Fiscal Impact

| Source of Funds: | N/A |
| :--- | ---: |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | N/A |
| Funds Available in Current Budget? (Yes/No): | N/A |
| Financial Implications: |  |

## Attachments

No file(s) attached.
Department: Planning Division: Planning
Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022

## Motion/Ordinance/

 Resolution No.:
## Agenda Item Description or Legislation Title

An Ordinance To Approve A Basic Development Plan And Rezoning To Planned Office (PO) For The Property Located At 7611 Old Troy Pike And Further Identified As Parcel Number P70 040050140 On
The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case BDP 22-13).
(first reading)

## Purpose and Background

The applicant, Hartman I, LLC, is requesting approval of a Basic Development Plan and a Rezoning to Planned Office (PO) to construct a 10,800 square foot emergency medical facility (Case BDP 22-13).

Fiscal Impact
Source of Funds:
N/A
Cost:
N/A
Recurring Cost? (Yes/No): N/A
Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:

## Attachments

## Drawings

Fire Assessment
Staff Report
Decision Record
Minutes
Ordinance


TAYLORSVILLE ROAD





## $\mathcal{H} u$ ber $\mathcal{H}$ eights Fire ©ivision

Inspections require two business days advance notice! (OAC)1301:7-7-09(A)(5)

| Occupancy Name: | Medical Building - Revision 1 |
| :--- | :--- |
| Occupancy Address: | 7611 Taylorsville Road |


| Type of Permit: | HHP\&D Site Plan |
| :--- | :--- |
| Additional Permits: | Choose an item. |
| Additional Permits: | Choose an item. |


| MCBR BLD: | N/A | HH P\&D: |  |
| :--- | :--- | :--- | :--- |
| MCBR MEC: |  | HHFD Plan: | 22-053/22-120 |
| MCBR ELE: |  | HHFD Box: | 14 |
| REVIEWER: | Susong | DATE: | $6 / 10 / 2022$ |

Fire Department Comments:
The Huber Heights City Code Part 15 Refers to Fire Code Requirements and has adopted by reference OFC and IFC Appendices
Plan submittal is approved as shown on drawing. Proposed use has not been clarified on drawing. Cover sheet indicates medical facility. Additional requirements regarding fire department access and fire hydrants may be forthcoming during development.

- Submitted drawing is not to scale, therefore turn radius for fire department apparatus access has not been verified.
- Site utility drawing has not been provided. Additional hydrants may be required.
- If building is to be sprinklered a hydrant will be required within 75 feet of the fire department connection. Huber Heights Codified Ordinance 1521.01(e).

Please reference contact information below for questions or concerns with this document.

Plans reviewed by the Huber Heights Fire Division are reviewed with the intent they comply in ALL respects to this code, as prescribed in SECTION (D) 104.1 of the 2017 Ohio Fire Code. Any omissions or errors on the plans or in this review do not relieve the applicant of complying with ALL applicable requirements of this code. These plans have been reviewed for compliance with the Ohio Fire Code adopted by this jurisdiction. There may be other regulations applicable under local, state, or federal statues and codes, which this department has no authority to enforce and therefore have not been evaluated as part of this plan review.

## Memorandum

Staff Report for Meeting of June 14, 2022

| To: | Huber Heights City Planning Commission |
| :--- | :--- |
| From: | Aaron K. Sorrell, Interim City Planner <br> Community Planning Insights |
| Date: | June 4, 2022 |
| Subject: | Basic Development Plan Review - Medical Facility <br> (7611 Old Troy Pike) |

Application dated June 3, 2022
Department of Planning and Zoning City of Huber Heights

| APPLICANT/OWNER: | Hartman I, LLC - Applicant <br> Huber Heights ABG, LLC - Owners |
| :--- | :--- |
| DEVELOPMENT NAME: | Huber Heights Medical Facility |
| ADDRESS/LOCATION: | 7611 Old Troy Pike <br> (Currently Rural King parking/display area) |
| ZONING/ACREAGE: | Planned Commercial - 1.1 acres |
| EXISTING LAND USE: | Parking / Display Area |
| ZONING | The applicant requests approval of a basic <br> development plan and rezoning to Planned Office to <br> ADJACENT LAND: |
| REQUEST: | N/A |
| ORIGINAL APPROVAL: | Chapter 1171, 1173, 1181, emergency medical facility. |
| APPLICABLE HHCC: | In Favor - None Received |
| In Opposition - None Received |  |

## STAFF ANALYSIS AND RECOMMENDATION:

## Overview

The applicant requests approval of a basic development plan and rezoning from Planned Commercial to Planned Office to construct a 10,800 square foot healthcare facility for outpatient and emergency services. The applicant anticipates an initial volume of 30 40 patients per day, with a maximum of $50-60$ a day once the facility is established.

The site plan for this development has evolved no less than four times since the application was originally submitted, and the City Council has requested the Planning Commission review the latest revision prior to their consideration of the rezoning and basic development plan approval request.

The Planning Commission originally heard this case on April 12, 2022. The original application had no direct access to Taylorsville Road. Prior to the Planning Commission meeting a revised plan was submitted which included a "Right-in / Right-out" on Taylorsville to facilitate site access. The access aligned with a large sewer easement on the eastern side of the site. There was significant discussion among the Planning Commission members regarding this access point and its close proximity to the bank driveway and the Old Troy Pike intersection. Ultimately, the Commission recommended approval of the rezoning and basic development plan with the access point on the eastern side.

Based on the location and depth of the sewer line, and a desire to have full turn access from Taylorsville into the site, the applicant revised the site plan and moved the building slightly west and relocated the access point to the west side of the site. Staff received the revised site plan on April 28, 2022, prior to the May $3{ }^{\text {rd }}$ City Council Work Session.

During the work session there was considerable discussion and concern expressed about adding the curb cut along Taylorsville Road. At the City Council meeting, there was additional concerns expressed about the curb cut access along Taylorsville Road.

The applicant has worked with Rural King to obtain an access agreement along the Taylorsville frontage, which enabled the elimination of the curb cut along Taylorsville Road. Subsequently, the applicant has submitted a revised site plan that utilizes the existing Rural King access point along Taylorsville. The site plan also moves the identification sign to the western side of the site.

City Council has requested the Planning Commission review the revised site plan and make a recommendation prior to Council moving forward with the rezoning legislation.

## Staff Analysis

This site plan revision goes a long way to addressing the Taylorsville Road access concerns of the Planning Commission and City Council. The revised site plan conforms to the PO district regulations including parking and buffering. The revised plan also allows the possibility of aligning driveways along Taylorsville at some future point when the Rural King property is redeveloped or improved.

## Conformance with Zoning Regulations:

## 1173 (PO) Planned Office District

The proposed use is principally permitted in the PO district.
The required 15 -foot perimeter yard is provided in the revised site plan.

## Chapter 1181 General Provisions

The proposal meets the requirements of Chapter 1181, with the exception of the following items are not illustrated on the Basic Development Plan:

- Street trees shall be placed every 40 -feet along the public street.
- No exterior lighting plan was submitted. Unless otherwise directed by the Planning Commission, parking light fixtures shall not exceed 25 feet in height.
- Mechanical, waste, and service screening is not illustrated with great detail, but shall comply with the zoning code.


## Chapter 1182 Landscaping and Screening Standards

The Basic Development Plan indicates potential locations for landscape islands and trees within the parking areas. Additional detail shall be provided during the detailed development plan phase.

## Chapter 1185 Parking and Loading

The proposal generally meets the requirements of Chapter 1185. The applicant is illustrating areas for parking island landscaping. Based on the interior programing, 45 spaces required, and 50 spaces are illustrated. The applicant is working with Rural King on the exact language to allow access through the Rural King parking area.

## Chapter 1189 Signs

The applicant is requesting a mixture of signage including one ground mounted sign, three corporate wall signs, three "Emergency" wall signs and one "Ambulance" canopy sign.

The original site plan had the ground mounted sign located on the eastern edge and the applicant requested an 8 -feet tall with a sign area of 80 square feet. The height was to account for the grade change between the site and $5 / 3^{\text {rd }}$ bank.

The code suggests a height limit of 6 -feet and not exceed 75 square feet in sign area. The ground sign has been relocated to the western edge of the site, and the grade change should no longer be a factor.

The two "Emergency" wall signs are 75 square feet each, and the three corporate wall signs are 50 square feet each, totaling 300 square feet. The code suggests single wall signs shall not exceed 75 square feet each, and a cumulative total of no more than 150 square feet. If the commission considers the "emergency" signs to be exempt, the wall signs are compliant.

The "Ambulance" canopy sign is 35 square feet and mounted above the canopy. The code suggests canopy signs are only permitted along street frontage and may not project above the canopy. While not along a street frontage, the canopy covers the ambulance entrance and a variance from the code requirements seems reasonable.

## Recommendation

Staff feels the standards of approval outlined in 1171.06 can be met and therefore staff recommends approval of the rezoning from Planned Commercial to Planned Office and approval of the basic development plan with the following conditions:

1. Street trees shall be placed every 40 -feet along Taylorsville Road.
2. The applicant shall comply with Chapter 1181.18 Screening of Service Structures.
3. The applicant shall comply with Chapter 1181.21 Lighting Standards.
4. The applicant shall comply with Chapter 1182 Landscaping and Screening.
5. Wall and canopy signs shall be similar to those submitted in the sign package submitted to the Planning Commission on April 12, 2022.
6. Ground signs shall not exceed 6 -feet in height.
7. Applicant shall comply will all fire code requirements.

## Planning Commission Action

Planning Commission may take the following actions with a motion to:

1) Approve the rezoning and basic development plan application, with or without conditions.
2) Deny the basic development plan.
3) Table the application in order to gather additional information.

## Planning Commission Decision Record

WHEREAS, on June 3, 2022, the applicant, Hartman I, LLC, requested approval of a Basic Development Plan and Rezoning to Planned Office (PO) to construct a 10,800 SF Emergency Medical Facility located at 7611 Old Troy Pike (Case RZ BDP 22-13), and;

WHEREAS, on June 14, 2022, the Planning Commission did meet and fully discuss the details of the request.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission hereby recommended approval of the request.

Ms. Thomas moved to approve the request by the applicant, Hartman I, LLC, for approval of a Basic Development Plan and Rezoning to Planned Office (PO) to construct a 10,800 SF Emergency Medical Facility at property located at 7611 Old troy Pike (Case RZ BDP 22-13) in accordance with the recommendation of Staff's Memorandum dated June 14, 2022, with the following conditions:

1. Street trees shall be placed every 40 -feet along Taylorsville Road.
2. The applicant shall comply with Chapter 1181.18 Screening of Service Structures.
3. The applicant shall comply with Chapter 1181.21 Lighting Standards.
4. The applicant shall comply with Chapter 1182 Landscaping and Screening.
5. Wall and canopy signs shall be similar to those submitted in the sign package submitted to the Planning Commission on April 12, 2022.
6. Ground signs shall not exceed 6 -feet in height.
7. Applicant shall comply will all fire code requirements.

RZ BDP 22-13 - Decision Record
Seconded by Mr. Jeffries. Roll call showed: YEAS: Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: Ms. Vargo and Ms. Opp. Motion to recommend approval carried 3-2 .

## Planning Commission

June 14, 2022, Meeting
City of Huber Heights
I. Chair Terry Walton called the meeting to order at approximately 6:00 p.m.
II. Present at the meeting: Mr. Jeffries, Ms. Opp, Ms. Thomas, Ms. Vargo and Mr. Walton.

Members absent: None.
Staff Present: Aaron K. Sorrell, Interim City Planner, and Geri Hoskins, Planning \& Zoning Administrative Secretary.
III. Opening Remarks by the Chairman and Commissioners
IV. Citizens Comments

None.
V. Swearing of Witnesses

Mr. Walton explained the proceedings of tonight's meeting and administered the sworn oath to all persons wishing to speak or give testimony regarding items on the agenda. All persons present responded in the affirmative.
VI. Pending Business

1. None

## VII. New Business

1. FINAL PLAT - The applicant, DEC Land Co. I LLC, is requesting approval of the final plat for 62 building lots in Carriage Trails - Section 2, Phase 5 (Case FP 22-23).

Mr. Sorrell stated that the applicant requests approval of the final plat for section two, phase five of the Carriage Trails subdivision. This phase contains 62 lots on approximately 16.32 acres.

## Conformance with Zoning Regulations

The detailed development plan was approved by the Planning Commission on August 10, 2021.

## Staff Analysis

The applicant requests approval of the final plat for section two, phase five of the Carriage Trails subdivision. This final plat accurately reflects the DDP and simply releases drainage easements between two sections.

## Fire: None

City Engineer: None

## Recommendation

Staff recommends approval of the final plat submitted on May 2, 2022.

## Action

Ms. Opp moved to approve the request by the applicant DEC Land Co. I LLC, for approval of a Final Plat for 62 building lots in Carriage Trails - Section 2, Phase 5 (Case FP 22-23) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Thomas. Roll call showed: YEAS: Ms. Vargo, Mr. Jeffries, Ms. Thomas, Ms. Opp, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
2. FINAL PLAT - The applicant, GENERATIONS CONSTRUCTION, LLC, is requesting approval of the final plat for 14 building lots in Callamere Farms, Section 6 (FP 22-26).

Mr. Sorrell stated that the applicant requests approval of the final plat for section six of the Callamere Farms subdivision. This phase contains 14 lots on approximately 8.03 acres.

## Conformance with Zoning Regulations

The detailed development plan was approved by the Planning Commission on March 23, 2021.

## Staff Analysis

The applicant requests approval of the final plat for section six of the Callamere Farms subdivision. This final plat accurately reflects the DDP previously approved by the Planning Commission.

Fire: None
City Engineer: None

## Recommendation

Staff recommends approval of the final plat submitted on May 30, 2022.

## Action

Mr. Jeffries moved to approve the request by the applicant Generations Construction, LLC, for approval of a Final Plat for 14 building lots in Callamere Farms, Section six (FP 22-26) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Vargo. Roll call showed: YEAS: Ms. Thomas, Ms. Opp, Ms. Vargo, Mr. Jeffries, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
3. MINOR CHANGE - The applicant, MELISSA BARRETT, is requesting approval of $A$ Minor Change to increase the wall sign area by approximately 60 SF at Kohl's/Sephora in the Northpark Center (MC 22-24).

Mr. Sorrell stated that the applicant The applicant requests approval to add an additional copy to the existing wall sign, which will increase the size from approximately 192 SF to 252 SF. The request is to facilitate adding the "Sephora" brand to the existing Kohl's sign.

## Conformance with Zoning Regulations

## Northpark Center Sign Policy

The Northpark Center sign guidelines allow large tenants (over 60,000 SF) to have a maximum wall sign area of up to 250 SF on any one building face and a maximum of 500 SF total. The Kohl's tenant space is approximately 81,000 SF.

## Current Application

The applicant seeks a minor change to add one 60 SF internally illumined wall sign below the existing internally illuminated wall sign to highlight the two brands (Kohl's and Sephora). The total wall sign area will increase from 192 SF to 252SF. With this additional sign, the wall signs slightly exceed the maximum size by 2 SF , which is a negligible overage amount.

## Staff Analysis

The applicant seeks a minor change to add one internally illumined wall sign below an existing internally illuminated wall sign. Total wall sign area will exceed the maximum size by approximately 2 SF , or $1 \%$ of the total sign area. Staff feel this is a negligible overage amount and the new sign is visually proportional to the building frontage and existing sign.

Fire: None received
City Engineer: None Received

## Recommendation

Staff recommend approval of the minor change to the sign package as submitted.

## Action

Mr. Jeffries moved to approve the request by the applicant Melissa Barrett, for approval of a Minor Change to increase the wall sign area by approximately 60 SF at Kohl's/Sephora in the Northpark Center (Case MC 22-24) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Opp. Roll call showed: YEAS: Ms. Vargo, Mr. Jeffries, Ms. Thomas, Ms. Opp, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
4. BASIC DEVELOPMENT PLAN AND REZONING - The applicant, HARTMAN I, LLC, is requesting approval of a Basic Development Plan and Rezoning to Planned Office (PO)at property located at 7611 Old Troy Pike (RZ BDP 2213).

Mr. Sorrell stated that the applicant requests approval of a basic development plan and rezoning from Planned Commercial to Planned Office to construct a 10,800 square foot healthcare facility for outpatient and emergency services. The applicant anticipates an initial volume of $30-40$ patients per day, with a maximum of $50-60$ a day once the facility is established.

The site plan for this development has evolved no less than four times since the application was originally submitted, and the City Council has requested the Planning Commission review the latest revision prior to their consideration of the rezoning and basic development plan approval request.

The Planning Commission originally heard this case on April 12, 2022. The original application had no direct access to Taylorsville Road. Prior to the Planning Commission meeting a revised plan was submitted which included a "Right-in / Right-out" on Taylorsville to facilitate site access. The access aligned with a large sewer easement on the eastern side of the site. There was significant discussion among the Planning Commission members regarding this access point and its close proximity to the bank driveway and the Old Troy Pike intersection. Ultimately, the Commission recommended approval of the rezoning and basic development plan with the access point on the eastern side.

Based on the location and depth of the sewer line, and a desire to have full turn access from Taylorsville into the site, the applicant revised the site plan and moved the building slightly west and relocated the access point to the west side of the site. Staff received the revised site plan on April 28, 2022, prior to the May $33^{\text {rd }}$ City Council Work Session.

During the work session there was considerable discussion and concern expressed about adding the curb cut along Taylorsville Road. At the City Council meeting, there was additional concerns expressed about the curb cut access along Taylorsville Road.

The applicant has worked with Rural King to obtain an access agreement along the Taylorsville frontage, which enabled the elimination of the curb cut along Taylorsville Road. Subsequently, the applicant has submitted a revised site plan that utilizes the existing Rural King access point along Taylorsville. The site plan also moves the identification sign to the western side of the site.

City Council has requested the Planning Commission review the revised site plan and make a recommendation prior to Council moving forward with the rezoning legislation.

## Staff Analysis

This site plan revision goes a long way to addressing the Taylorsville Road access concerns of the Planning Commission and City Council. The revised site plan conforms to the PO district regulations including parking and buffering. The revised plan also allows the possibility of aligning driveways along Taylorsville at some future point when the Rural King property is redeveloped or improved.

## Conformance with Zoning Regulations:

## 1173 (PO) Planned Office District

The proposed use is principally permitted in the PO district.
The required 15 -foot perimeter yard is provided in the revised site plan.

## Chapter 1181 General Provisions

The proposal meets the requirements of Chapter 1181, with the exception of the following items are not illustrated on the Basic Development Plan:

- Street trees shall be placed every 40 -feet along the public street.
- No exterior lighting plan was submitted. Unless otherwise directed by the Planning Commission, parking light fixtures shall not exceed 25 feet in height.
- Mechanical, waste, and service screening is not illustrated with great detail, but shall comply with the zoning code.


## Chapter 1182 Landscaping and Screening Standards

The Basic Development Plan indicates potential locations for landscape islands and trees within the parking areas. Additional detail shall be provided during the detailed development plan phase.

## Chapter 1185 Parking and Loading

The proposal generally meets the requirements of Chapter 1185. The applicant is illustrating areas for parking island landscaping. Based on the interior programing, 45 spaces required, and 50 spaces are illustrated. The applicant is working with Rural King on the exact language to allow access through the Rural King parking area.

## Chapter 1189 Signs

The applicant is requesting a mixture of signage including one ground mounted sign, three corporate wall signs, three "Emergency" wall signs and one "Ambulance" canopy sign.

The original site plan had the ground mounted sign located on the eastern edge and the applicant requested an 8 -feet tall with a sign area of 80 square feet. The height was to account for the grade change between the site and $5 / 3^{\text {rd }}$ bank.

The code suggests a height limit of 6 -feet and not exceed 75 square feet in sign area. The ground sign has been relocated to the western edge of the site, and the grade change should no longer be a factor.

The two "Emergency" wall signs are 75 square feet each, and the three corporate wall signs are 50 square feet each, totaling 300 square feet. The code suggests single wall signs shall not exceed 75 square feet each, and a cumulative total of no more than 150 square feet. If the commission considers the "emergency" signs to be exempt, the wall signs are compliant.

The "Ambulance" canopy sign is 35 square feet and mounted above the canopy. The code suggests canopy signs are only permitted along street frontage and may not project above the canopy. While not along a street frontage, the canopy covers the ambulance entrance and a variance from the code requirements seems reasonable.

## Recommendation

Staff feels the standards of approval outlined in 1171.06 can be met and therefore staff recommends approval of the rezoning from Planned Commercial to Planned Office and approval of the basic development plan with the following conditions:

- Street trees shall be placed every 40 -feet along Taylorsville Road.
- The applicant shall comply with Chapter 1181.18 Screening of Service Structures.
- The applicant shall comply with Chapter 1181.21 Lighting Standards.
- The applicant shall comply with Chapter 1182 Landscaping and Screening.
- Wall and canopy signs shall be similar to those submitted in the sign package submitted to the Planning Commission on April 12, 2022.
- Ground signs shall not exceed 6-feet in height.
- Applicant shall comply will all fire code requirements.

Discussion on the rezoning.

## Action

Ms. Thomas moved to approve the request by the applicant Hartman I, LLC, for approval of a Basic Development Plan and Rezoning to Planned Office (PO) for property located at 7611 Old Troy Pike (RZ BDP 22-13) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: Ms. Opp and Ms. Vargo. Motion to approve carried 3-2.
5. BASIC DEVELOPMENT PLAN AND REZONING - The applicant, HOMESTEAD DEVELOPMENT, is requesting approval of a Basic Development Plan to construct 135 -unit senior community and a 192-unit market rate community on a combined 15.56 acres. Property located at 6209 Brandt Pike (BDP 22-25).

Mr. Sorrell stated that this project grew out from the Brandt Pike Redevelopment Plan (2017), which identified a need and demand for senior housing and marketrate multi-family housing along and near the Brandt Pike corridor. The City subsequently purchased the shopping center to facilitate redevelopment. New developments within this site include: Dayton Metro Library Huber Heights Branch, Dogtown, and the shopping center will be refaced with a brick / stone façade. TIF proceeds from the proposed apartment developments, as well as future developments may fund the façade and public infrastructure upgrades.

The applicant is requesting basic development plan approval for a 184-unit market-rate apartment community and a 135 -unit senior apartment community. While this application covers approximately 15.56 acres, the overall area zoned PM exceeds 20 acres.
The area zoned PM has a mix of uses including retail, commercial, public use (library) and planned residential.
All uses being considered are compatible with the neighboring properties. Extensive natural vegetation exists that will buffer and screen the proposed development and the existing homes to the west.
The overall campus development is focused around a wet detention area and has large areas of open space. The combined proposed residential development sites are approximately $40 \%$ open space.
The parking areas are arranged for the convenience of the residents but are broken up with landscape islands and covered parking areas.
Sidewalks are indicated along the future road frontage of non-senior multi-family building. Staff recommends sidewalks also be provided for the senior facility residents.
No sign details were provided for this application but will be submitted during the detailed development phase.
While no height maximum height restriction exists in the PM district, the Brandt Pike Overlay District has a maximum height of three stories or 35 feet. The proposed non-senior apartments have both two- and three-story buildings. The two-story buildings are 34 feet to the roof peak and the three-story buildings are 44 feet to the roof peak. The applicant is proposing the market-rate apartments will have mixture of two- and three-story buildings along the west side of the site, which is closest to the existing single-family neighborhood. This arrangement will breakup the building massing along the western edge and the buildings are sited approximately 150 -feet from the back of the single-family homes.

The three-story senior buildings will also be at least 150-feet from the back of the single-family homes. Additionally, the building is oriented in such a way that only the endcaps, and not the full building length, are facing the single-family homes.

Staff feels both the market rate site plan and senior building site plan provides a significant visual buffer and a nine (9) foot variance from the maximum height is acceptable. A landscaping plan has not been submitted at this time. Staff

## Planning Commission Meeting

June 14, 2022
recommends a mixture of street trees, and clustered plantings along the eastern
edge of the market-rate and senior apartments. Staff feels a six-foot high earthen mound is inappropriate for this site and will interfere with pedestrian access from the apartments to the sidewalk network.
The applicant is proposing a five-foot earthen mound and evergreen plantings along the west edge to screen the development from the existing single-family homes.

Areas for parking landscaping are illustrated in the basic development plan. The applicant shall submit additional details during the detailed development phase.

The zoning code requires two-space per multi-family unit. In the non-senior community, the applicant is proposing 357 parking spaces for 184 units, or 1.94 spaces per unit. Of the 184 units, 84 are one-bedroom apartments which are less likely to have two vehicles. Additionally, most communities have begun reducing parking minimums of non-senior multi-family apartments to approximately 1.5 spaces / unit. Staff feels the amount of parking proposed for the non-senior community is adequate.

The applicant is proposing 134 spaces for 135 units, or .99 spaces per unit. Most senior living facilities have a 1:1 parking ratio because the majority of residents either live alone or only have one vehicle in the household. Staff feels the amount of parking provided is acceptable at this time. There is room to provide additional parking in the front of the building if management determines it's necessary in the future. However, at this point in time, staff does not think sacrificing greenspace for parking is necessary.
Staff feels issuing a conditional use permit/approval for this type of development is confusing and unnecessary. Staff recommends incorporating the standards, where appropriate, in the overall basic development plan approval and subsequent detailed development plan approval. This section of the overlay district should be revisited in the future and revised for clarity and intent.

## STAFF RECOMMENDATION

It is the staff's opinion the proposal meets the standards outlined in Section 1171.06. Staff recommends approval of the Basic Development Plan submitted on June 3, 2022 to construct approximately 184 market-rate apartments and 134 senior apartments within two residential communities. Staff recommends approval with the following conditions:

1) Sidewalks shall be required connecting the senior building and along the future roadway
2) All sidewalks shall be a minimum of $5^{\prime}$ in width
3) Street trees be provided 40 -foot on center
4) A sign package meeting code shall be submitted with the detailed development plans
5) A lighting plan shall be submitted with the detailed development plan
6) A landscaping plan shall be submitted with the detailed development plan
7) In lieu of mounding and screening along the new roadway, clustered landscaping areas shall be provided between the apartments and sidewalks.
8) The applicant will comply with all stormwater requirements, per the City Engineer;

Planning Commission Meeting
June 14, 2022
9) The applicant will comply will all Fire Code requirements, per the Huber Heights Fire Department.

Numerous neighbors were present and asked questions about the development.

## Action

Ms. Thomas moved to approve the request by the applicant Homestead Development, for approval of a Basic Development Plan to construct 135-unit senior community and a 192-unit market rate community on a combined 15.56 acres. Property located at 6209 Brandt Pike (BDP 22-25) in accordance with the recommendation of Staff's Memorandum dated June 8, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.

## VIII. Additional Business

None.
IX. Approval of the Minutes

None.
X. Reports and Calendar Review

DDP - The Waverly
DDP - Sheetz
MJC - Wayne High School
XI. Upcoming Meetings

June 8, 2022
July 12, 2022

## XII. Adjournment

There being no further business to come before the Commission, the meeting was adjourned at approximately 8:18 p.m.


# CITY OF HUBER HEIGHTS <br> STATE OF OHIO 

ORDINANCE NO. 2022-O-

TO APPROVE A BASIC DEVELOPMENT PLAN AND REZONING TO PLANNED OFFICE (PO) FOR THE PROPERTY LOCATED AT 7611 OLD TROY PIKE AND FURTHER IDENTIFIED AS PARCEL NUMBER P70 040050140 ON THE MONTGOMERY COUNTY AUDITOR'S MAP AND ACCEPTING THE RECOMMENDATION OF THE PLANNING COMMISSION (CASE BDP 22-13).

WHEREAS, the citizens of Huber Heights require the efficient and orderly planning of land uses within the City; and

WHEREAS, the City Planning Commission has reviewed Case BDP 22-13 and on April 12, 2022, recommended approval by a vote of 4-0 of the Basic Development Plan and Rezoning to Planned Office (PO); and

WHEREAS, the City Council has considered the issue.

NOW, THEREFORE, BE IT ORDAINED by the City Council of Huber Heights, Ohio that:
Section 1. The application requesting approval of a Basic Development Plan and Rezoning to Planned Office (PO) (Case BDP 22-13) is hereby approved in accordance with the Planning Commission's recommendation and following conditions:

1. Street trees shall be placed every 40 -feet along Taylorsville Road.
2. The applicant shall comply with Chapter 1181.18 - Screening of Service Structures.
3. The applicant shall comply with Chapter 1181.21 - Light Standards.
4. The applicant shall comply with Chapter 1182 - Landscaping and Screening.
5. Taylorsville Road access shall comply with the City Engineer's requirements.
6. The applicant shall comply with all Fire Code requirements.
7. Demonstration of unrestricted, permanent ingress and egress for the applicant Hartman I, LLC, for property located at 7611 Old Troy Pike from Huber Heights ABG, LLC.

Section 2. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Ordinance shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:

AUTHENTICATION:

## Clerk of Council

Mayor

Date

Case MJC 22-21 - Skilken Gold Real Estate Development - Major Change/Basic Development Plan Old Troy Pike/Taylorsville Road
Submitted By: Geri Hoskins
Department: Planning Division: Planning

Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022
Work
Session
Audio-Visual Needs: SmartBoard Emergency Legislation?: No
Motion/Ordinance/
Resolution No.:

## Agenda Item Description or Legislation Title

An Ordinance To Approve A Major Change To The Basic Development Plan For The Property Located At The Northeast Corner Of Old Troy Pike And Taylorsville Road And Further Identified As Parcel Number P70 040050015 On The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case MJC 22-21).
(first reading)

## Purpose and Background

The applicant, Skilken Gold Real Estate Development, is requesting a Major Change to the Basic Development Plan (Case MJC 22-21).

Fiscal Impact

| Source of Funds: | N/A |
| :--- | ---: |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | N/A |
| Funds Available in Current Budget? (Yes/No): | N/A |
| Financial Implications: |  |

## Attachments

## Drawings

Fire Assessment
Traffic Impact Study
Sign Package
Staff Report
Decision Record
Minutes
Ordinance


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| 6 | 36 | 64.9410 .27 | 0.270 .75 | 0.74 | 0.20 | 0.56 | 10.0 | 12.8 | 4.7 | 2.66 | 7.12 | 3.60 | 15 | 1.22 | 956 | 9628 | 98231 | ${ }_{92} 93$ | 987.50 | 966.65 | 1.7 |
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| 3 | , | 149.650 .08 | 1.12 | 0.90 | 0.02 | 0.89 | 10.0 | 13.4 | 4.6 | ${ }_{8.45}$ | ${ }^{4} .45$ | 6.00 | 15 | 1.00 | 950.00 | 981.49 | 961.02 | 92.52 | 966.00 | 567.50 | Ex\|-1 |
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| 9 | End | 0.51 | 0.51 | 0.99 | 0.45 | 0.45 | 10.0 | 10.0 | 5.3 | 4.07 | 4.07 | 4.13 |  | 0.40 | 922.10 | 98250 |  | ${ }_{963}$ |  | 55.10 | Ex3. 6 |













## Huber Heights Fire Division

## Inspections require two business days advance notice! (OAC)1301:7-7-09(A)(5)

| Occupancy Name: | Broad Reach Development - Sheetz |
| :--- | :--- |
| Occupancy Address: | Old Troy Pike \& Taylorsville Road |


| Type of Permit: | HHP\&D Site Plan |
| :--- | :--- |
| Additional Permits: | Choose an item. |
| Additional Permits: | Choose a item. |


| MCBR BLD: | Not Yet Assigned | HH P\&D: |  |
| :--- | :--- | :--- | :--- |
| MCBR MEC: |  | HHFD Plan: | 22-088 |
| MCBR ELE: |  | HHFD Box: | $5 / 17 / 2022$ |
| REVIEWER: | Susong | DATE: |  |

Fire Department Comments:
The Huber Heights City Code Part 15 Refers to Fire Code Requirements and has adopted by reference OFC and IFC Appendices
These comments are based only on the proposed site work, fire department access and basic fire protection concept at this time. A full plan review of the building systems, fire protection, egress and life safety will need to be conducted once the architectural plans have been submitted for permit. The proposed development will need to meet the requirements of the Ohio Fire Code 2017, Ohio Building Code 2017, and the Huber Heights Codified Ordinance. Based on the drawings provided the following requirements need to be met.

## Requirements: (Site Plan)

- The canopy over fuel pumps shall have a clearance of 13 feet 6 inches or higher for fire apparatus clearance. Ohio Fire Code 503.2.1.
- The turn radius for the first entrance off Old Troy Pike needs to be increased/decreased for Huber Heights Fire apparatus to make turn onto service road. Ohio Fire Code D103.3 and 503.2.4. (Confirm if island is a curbed concrete island or striped pavement.)
- The turn radius to car wash needs to be increased for Huber Heights Fire apparatus to make turn. Ohio Fire Code D103.3 and 503.2.4. (Drawing as shown we would not be able to get apparatus close to building in case of a fire.)
- Fire apparatus access roads will need to comply with OFC 503 as well as the adopted appendices from the OFC (2017) and the Huber Heights Codified

Ordinance (HHCO) Section 15. (Size of access driveway to car wash needs to be increased for fire department access to and from the building.)

- Hydrants in multi-family and commercial districts shall be placed not more than 300 feet apart, measured on the main and not more than 400 feet from any opening in any building. All new fire hydrants and any existing fire hydrants that are in need of replacement, shall meet the Huber Heights hydrant standard for this district of two (2), five (5) inch diameter steamer nozzles. These steamer nozzles shall have a five (5) inch STORTZ quick connection and one steamer shall have a four (4) inch STORTZ connection approved by the Code Official. Huber Heights Codified Ordinance 1521.06(c). (Hydrants are not shown on drawing.)
- Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants. Ohio Fire Code 507.5.4. (This will need to be confirmed once a drawing has been provided showing hydrants.)
- A 3-foot ( 914 mm ) clear space shall be maintained around the circumference of fire hydrants except as otherwise required or approved. (No trees, bushes, plantings, etc.) Ohio Fire Code 507.5.5. (This will need to be confirmed once a drawing has been provided showing hydrants.)

Please reference contact information below for questions or concerns with this document.

> Plans reviewed by the Huber Heights Fire Division are reviewed with the intent they comply in ALL respects to this code, as prescribed in SECTION (D) 104.1 of the 2017 Ohio Fire Code. Any omissions or errors on the plans or in this review do not relieve the applicant of complying with $A L L$ applicable requirements of this code. These plans have been reviewed for compliance with the Ohio Fire Code adopted by this jurisdiction. There may be other regulations applicable under local, state, or federal statues and codes, which this department has no authority to enforce and therefore have not been evaluated as part of this plan review.

# TRIP GENERATION COMPARISON 

TO: Russ Bergman, P.E., City Engineer, City of Huber Heights

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Robert Matko, PE, PS, PTOE, Senior Engineering Manager, CESO, Inc. Beth Cotner, Project Manager, Skilken Gold

FROM: $\quad$ Taylor Cline, P.E., Lead Project Engineer, CESO, Inc.
DATE: May 26, 2022
SUBJECT: Capacity Analysis for Proposed C-Store Development, City of Huber Heights, Miami County, Ohio

## INTRODUCTION

This memo documents a preliminary analysis on the traffic related impacts associates with the proposed C-Store Development. The purpose of this document is to allow the city to review the changes from the initial Broad Reach Development plan to the proposed development plan.

## OVERVIEW

A preliminary transportation impact assessment was prepared by TEC Engineering, Inc. for the proposed Broad Reach Development site located in the northeast quadrant of the intersection of Taylorsville Road and Old Troy Pike within the City of Huber Heights, Miami County, OH.

The proposed multi-use development included a combination of restaurant, retail, and multi-family housing land uses. TEC Engineering evaluated the proposed land uses and sizes identified on the site plan using ITE Land Use Codes to estimate the peak hour generated trips associates with this development. Internal trip capture and passby trip capture data was utilized to define the final trip generation for the site including new trips and redirected existing trips.

Based upon conversations with the City of Huber Heights, changes were made to the existing multi-use development to include the substitution of three (3) lots that the proposed C-Store Development will be replacing. Figure 1 below illustrates the proposed location of the C-Store Development.

Figure 1
Proposed Location of C-Store Development


The three (3) existing lots consisted of:

- Existing Drive-In Bank occupying approximately 3,500 S.F.
- Existing Fast-Food Restaurant with Drive-Through Window occupying approximately 2,500 S.F.
- Existing Retail Shopping Center occupying approximately 9,280 S.F.

The proposed C-Store Development consists of:

- 6,138 S.F. convenience market
- 12 passenger car fueling stations
- Drive-through included as part of the convenience market
- Car wash including 1 service bay


## TRIP GENERATION

Studies of similar developments throughout North America have shown that the amount of traffic generated will be functionally related to some unit of activity (i.e., number of dwelling units, vehicles, etc.). In development, site traffic fluctuates substantially on different days and hours throughout the year. Therefore, it is imperative to select an appropriate hourly volume on which to base the design of the external roadway and site access facilities. The Weekday AM and PM Peak Hours were selected based on the adjacent street traffic during this hour.

Utilizing the trip data from the preliminary transportation impact assessment prepared by TEC Engineering, Inc., CESO adjusted the generated trips to include the substitution of three (3) lots that the C-Store is taking over from the Broad Reach Development plan to determine the new Total Generated Trips.

Table 1
TEC Engineering Total Generated Trips

| Land Use | Pass-by Trips |  |  |  | Non-Pass-by Trips |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Weekday AM |  | Weekday PM |  | Weekday AM |  | Weekday PM |  |
|  | Enter | Exit | Enter | Exit | Enter | Exit | Enter | Exit |
| Drive-in Bank | 5 | 4 | 14 | 14 | 12 | 9 | 21 | 27 |
| Tire Store | 3 | 2 | 3 | 4 | 9 | 5 | 9 | 11 |
| Outparcel - Fast Food Restaurant with Drive-Through Window | 23 | 22 | 19 | 18 | 24 | 23 | 19 | 18 |
| Retail - Shopping Center | 30 | 18 | 14 | 15 | 58 | 35 | 27 | 29 |
| Retail - Shopping Center | 30 | 18 | 13 | 14 | 57 | 35 | 25 | 27 |
| End Cap Drive-Through Coffee/Donut Shop with Drive-Through | 50 | 48 | 24 | 24 | 52 | 50 | 24 | 24 |
| Fast Food Restaurant with DriveThrough Window | 29 | 28 | 24 | 23 | 30 | 29 | 24 | 23 |
| Fast Food Restaurant with DriveThrough Window | 18 | 18 | 16 | 14 | 19 | 18 | 16 | 14 |
| Multi-Family Housing (Mid Rise) | 0 | 0 | 0 | 0 | 15 | 43 | 45 | 29 |
| Total Trips | 188 | 158 | 124 | 123 | 276 | 247 | 210 | 196 |
| Adjusted Total Trips | 130 | 114 | 80 | 79 | 182 | 180 | 143 | 128 |

For analysis purposes, the base variable units for the trip-generation rates were KSF ( $3.4 \mathrm{KSF}=3,400$ S.F.), number of fueling positions, and bays. The C-Store Development Weekday Generated Traffic Volumes (Table 2) were calculated by utilizing data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition in combination with methods outlined in the (ITE) Trip Generation Handbook. Pass-by trips were applied and based on percentages found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, $3^{\text {rd }}$ Edition. CESO proposed a $76 \%$ pass-by rate for the AM and PM Peak Hours for ITE LUC Category 960. The C-Store Development Weekday Generated Traffic Volumes are presented below in Table 2.

Table 2
C-Store Development Weekday Generated Trips

| ITE Land Use Description | ITE <br> Cat. | Size | Unit | Total Generated Trips |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Weekday |  |  | Weekday AM Peak Hour |  |  |  | Weekday PM Peak Hour |  |  |  |
|  |  |  |  | Trips |  |  | Trips |  |  |  | Trips |  |  |  |
|  |  |  |  | Tot | In | Out | ${ }^{\text {ATot }}$ | In | Out | ${ }^{\text {BPB }}$ | ${ }^{\text {A }}$ Tot | In | Out | ${ }^{\text {BPB }}$ |
| Automated Car Wash | 948 | 1 | Bays | 776 | 388 | 388 | --- | --- | --- | --- | 78 | 39 | 39 | 0 |
| ITE Cat. 948 Entering (\%)/Exiting (\%) |  |  |  | 100\% | 50\% | 50\% | --- | --- | --- | --- | 100\% | 50\% | 50\% | c0\% |
| Internal Capture Applied |  |  |  | --- | --- | --- | --- | --- | --- | --- | 20 | 10 | 10 |  |
| Internal Capture Rates |  |  |  | --- | --- | --- | --- | --- | --- | --- | --- | 75\% | 75\% | --- |
| Gasoline/Service Station with Convenience Market | --- | 12 | Fuel Pos. | 2,766* | 1,383 | 1,383 | 314 | 38 | 38 | 238 | 318 | 38 | 38 | 242 |
| Entering (\%)/Exiting (\%) |  |  |  | 100\% | 50\% | 50\% | 100\% | 50\% | 50\% | ${ }^{\text {c }} 76 \%$ | 100\% | 50\% | 50\% | C76\% |
| Internal Capture Applied |  |  |  | --- | --- | --- | 314 | 38 | 38 | 238 | 318 | 38 | 38 | 242 |
| Internal Capture Rates |  |  |  | -- | --- | --- | --- | 0\% | 0\% | -- | -- | 0\% | 0\% | -- |
| Total (No Internal Capture Applied) |  |  |  | 3,542 | 1,771 | 1,771 | 314 | 38 | 38 | 238 | 396 | 77 | 77 | 242 |
| Total (Internal Capture Subtracted) |  |  |  | 3,542 | 1,771 | 1,771 | 314 | 38 | 38 | 238 | 338 | 48 | 48 | 242 |

[^0]Table 3
Total Development Weekday Peak Hour Generated Trips

| Land Use | Pass-by Trips |  |  |  | Non-Pass-by Trips |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Weekday AM |  | Weekday PM |  | Weekday AM |  | Weekday PM |  |
|  | Enter | Exit | Enter | Exit | Enter | Exit | Enter | Exit |
| Broad Reach Development | 130 | 114 | 80 | 79 | 182 | 180 | 143 | 128 |
| C-Store Development | 119 | 119 | 121 | 121 | 38 | 38 | 48 | 48 |
| Total Trips | 249 | 233 | 201 | 200 | 220 | 218 | 191 | 176 |

The proposed development is estimated to generate 920 trips during the Weekday AM Peak Hour ( 469 inbound and 451 outbound) and 768 trips will be generated during the Weekday PM Peak Hour ( 392 inbound and 376 outbound). The Trip Generation Resources and Calculations can be found in Attachment A.

## TRIP DISTRIBUTION

The basis for the directional distribution of the proposed development was based upon existing traffic patterns in the area. CESO utilized the directional distribution percentages determined in the preliminary transportation impact assessment prepared by TEC Engineering, Inc. which are summarized below in Table 4.

Table 4
Directional Distribution Percentages

| Route | Distribution Approach/Departure |  |
| :---: | :---: | :---: |
|  | Passenger Cars |  |
|  | AM Peak Hour | PM Peak Hour |
| Primary Trip Distribution - Cars (Figure 1.A) |  |  |
| To/From the West via I-70 | 15\%/15\% | 15\%/15\% |
| To/From the East via l-70 | 10\%/10\% | 10\%/10\% |
| To/From the North via Old Troy Pike | 40\%/40\% | 40\%/40\% |
| To/From the South via Old Troy Pike | 23\%/23\% | 23\%/23\% |
| To/From the West via Taylorsville Road | 4\%/4\% | 4\%/4\% |
| To/From the East via Taylorsville Road | 8\%/8\% | 8\%/8\% |
| TOTAL | 100\%/100\% | 100\%/100\% |
| Pass-by Trip Distribution - Cars (Figures 1.B) |  |  |
| Pass-by from the North/To the South via Old Troy Pike | 50\%/50\% | 50\%/50\% |
| Pass-by from the South/To the North via Old Troy Pike | 50\%/50\% | 50\%/50\% |
| TOTAL | 100\%/100\% | 100\%/100\% |

Based upon the directional distributions illustrated on Figures 1.A-1.B, the estimated Total Development-Generated Weekday Peak Hour Traffic Volumes shown in Table 3 were distributed to the adjacent roadway system. The Total Development Generated Traffic Volumes are illustrated on Figures 2.A-2.B.

All Figures can be found in Attachment B.

## CAPACITY ANALYSIS

The capacity of an intersection (signalized or unsignalized) can best be described by its corresponding Level of Service (LOS). The level of service of an intersection is a qualitative measure of the various attributes of an intersection. There are six levels of service ranging from "ideal" free flow conditions at LOS "A," to forced or "breakdown" conditions at LOS "F." The level of service for signalized intersections is based upon the average stopped delay per vehicle for various movements within the intersection. Although v/c affects delay, there are other parameters that more strongly affect it, such as the quality of progression, length of green phases, cycle lengths, and others. Thus, for any given v/c ratio, a range of delay values may result, and vice versa.

The level of service for unsignalized intersections is based upon total delay. Total delay is defined in the Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis, as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position. Table 4 summarizes the LOS definitions for unsignalized intersections. Throughout the memo, "unsignalized intersections" are commonly referred to as "stop sign controlled."

Table 5
Level of Service Criteria (Unsignalized Intersections)

| Level of Service | Delay per Vehicle (Sec.) | Description |
| :---: | :---: | :---: |
| A | $\leq 10.0$ | Little or no delay. |
| B | $>10.0$ and $\leq 15.0$ | Short traffic delays. |
| C | $>15.0$ and $\leq 25.0$ | Average traffic delays. |
| D | $>25.0$ and $\leq 35.0$ | Long traffic delays. |
| E | $>35.0$ and $\leq 50.0$ | Very long traffic delays. |
| F | $\geq 50.0$ | Extreme traffic delays. |

Source: Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis. Transportation Research Board.
Highway Capacity Manual 2016 (HCM 6 ${ }^{\text {th }}$ Edition) methodology was used in the Traffic Impact Study to remain consistent with "state-of-the-practice" professional standards. It is important to note that the Level of Service Criteria for unsignalized intersections is different than for signalized intersections. For example, a delay of 18 seconds yields level of service $C$ under the unsignalized LOS criteria (see Table 5) while yielding level of service B under the signalized intersection LOS criteria (see Table 6). Table 6 summarizes the LOS definitions for signalized intersections.

Table 6
Level of Service Criteria (Signalized Intersections)

| Level of Service | Delay per Vehicle (Sec.) | Description |
| :---: | :---: | :---: |
| A | $>10.0$ | Most vehicles do not stop at all. |
| B | $>10.0$ and $\leq 20.0$ | More vehicles stop than with LoS A. |
| C | $>20.0$ and $\leq 35.0$ | The number of vehicles stopping is significant, <br> although many pass through without stopping. |
| D | $>55.0$ and $\leq 80.0$ | Many Vehicles stop. <br> Individual cycle failures are noticeable. |
| E | $>85.0$ | Considered to be the limit of acceptable delay. <br> Individual cycle failures are frequent. |
| F |  |  |

Source: Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis. Transportation Research Board.
Synchro Version 11.0 was utilized to calculate delay and level of service values. Synchro 11 model parameters include traffic volumes, movements, heavy vehicle percentage, intersection traffic control, storage length, and lane widths. A peak hour factor (PHF) of 0.92 was used for all intersections.

Utilizing the 2022 Build Weekday Peak Hour Traffic Volumes illustrated on Figure 3, capacity calculations were performed for the Site driveways and key study intersections. Table 7 summarizes the capacity analyses results for the 2022 Build Traffic Scenario.

Table 7
Summary of 2022 Build Traffic Scenario Capacity Analysis

|  | Year $\rightarrow$ | 2022 AM and PM Peak Hours |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Volume $\rightarrow$ | Build- Year 2022 |  |  |  |  |
|  | Geometry $\rightarrow$ | Build |  |  |  |  |
|  | Direction | Movement | AM Peak Hour |  | PM Peak Hour |  |
|  |  |  | Original Study | New Study | Original Study | New Study |
| Old Troy Pike \& Taylorsville Road (Signal Controlled) | Intersection Overall $\rightarrow$ |  | C (23.2) | C (23.2) | D (36.6) | D (36.0) |
|  | Eastbound | EBL | C (23.9) | C (23.5) | D (42.2) | D (42.6) |
|  |  | EBT | C (28.2) | C (27.8) | D (37.3) | D (37.3) |
|  |  | EBR | C (23.6) | C (23.3) | C (26.0) | C (26.0) |
|  | Westbound | WBL | C (23.9) | C (23.8) | C (27.8) | C (28.4) |
|  |  | WBT | C (28.8) | C (28.4) | D (35.3) | D (35.3) |
|  |  | WBR | C (26.0) | C (26.6) | C (28.0) | C (28.2) |
|  | Northbound | NBL | B (16.3) | B (16.3) | C (28.4) | C (27.9) |
|  |  | NBT | C (23.7) | C (23.5) | C (33.4) | C (32.8) |
|  |  | NBR | B (15.7) | B (15.9) | B (19.5) | B (19.8) |
|  | Southbound | SBL | B (17.0) | B (17.0) | D (37.6) | D (36.6) |
|  |  | SBT | C (23.3) | C (23.4) | D (46.8) | D (45.6) |
|  |  | SBTR | C (23.3) | C (23.5) | D (46.8) | D (45.5) |
| Old Troy Pike \& Access \#1 (Stop Sign Controlled) | Intersection Overall $\rightarrow$ |  | -- | -- | -- | -- |
|  | Westbound | WBR | B (13.6) | B (13.5) | C (17.3) | C (16.8) |
| Old Troy Pike \& IHOP Driveway/Access \#2 (Stop Sign Controlled) | Intersection Overall $\rightarrow$ |  | -- | -- | -- | -- |
|  | Eastbound | EBLTR | D (28.0) | D (27.5) | F (70.0) | F (120.3) |
|  | Westbound | WBLTR | F (412.1) | F (78.5) | F (1059.7) | F (624.4) |
|  | Northbound | NBL | A (9.4) | A (9.3) | B (12.8) | B (12.5) |
|  | Southbound | SBL | C (21.3) | C (21.2) | D (30.0) | E (40.8) |
| Old Troy Pike \& Burger King Driveway /Access \#3 (Signal Controlled) | Intersection Overall $\rightarrow$ |  | B (18.2) | B (18.7) | B (18.9) | C (20.5) |
|  | Eastbound | EBL | D (35.4) | D (35.4) | C (32.4) | C (32.4) |
|  |  | EBTR | D (39.7) | D (39.8) | D (45.8) | D (45.9) |
|  | Westbound | WBL | C (33.9) | C (33.8) | C (32.3) | C (32.6) |
|  |  | WBTR | D (37.3) | D (36.1) | C (35.9) | C (34.2) |
|  | Northbound | NBL | B (10.6) | B (10.7) | B (18.0) | B (19.1) |
|  |  | NBT | B (16.5) | B (16.9) | A (3.8) | A (4.0) |
|  |  | NBR | A (9.0) | A (8.9) | A (0.8) | A (0.8) |
|  | Southbound | SBL | B (10.9) | B (11.1) | B (10.1) | B (10.8) |
|  |  | SBT | B (16.8) | B (16.9) | C (29.1) | C (31.8) |
|  |  | SBTR | B (16.7) | B (16.9) | C (29.1) | C (31.8) |
| Taylorsville Road \& Access \#4 (Stop Sign Controlled) | Intersection Overall $\rightarrow$ |  | -- | -- | -- | -- |
|  | Southbound | SBR | B (10.5) | B (10.7) | B (11.2) | B (11.3) |
| Taylorsville Road \& Access \#5 (Stop Sign Controlled) | Intersection Overall $\rightarrow$ |  | -- | -- | -- | -- |
|  | Eastbound | EBL | A (8.8) | A (8.8) | A (9.2) | A (9.3) |
|  | Southbound | SBLR | C (15.4) | C (15.1) | C (19.0) | C (19.4) |
| *Delay in seconds L-Left T- Through R - Right |  |  |  |  |  |  |

[^1]Utilizing the 2042 Build Weekday Peak Hour Traffic Volumes illustrated on Figure 4, capacity calculations were performed for the Site driveways and key study intersections. Table 8 summarizes the capacity analyses results for the 2042 Build Traffic Scenario.

Table 8
Summary of 2042 Build Traffic Scenario Capacity Analysis


[^2]
## CONCLUSIONS

The recommendations identified in the preliminary transportation impact assessment prepared by TEC Engineering, Inc. were found to be suitable for the substitution of three (3) lots of the existing Broad Reach Development. Based upon the capacity analysis results of the initial development plan in comparison to the proposed development plan, there were minimal changes in level of service and delay. Therefore, CESO determined no further improvements will be required at the study locations.

## ATTACHMENTS INCLUDED:

A. Trip Generation Resources and Calculations
B. Study Figures
C. Capacity Analysis Summary Sheets

ATTACHMENT A
TRIP GENERATION RESOURCES AND CALCULATIONS

April 13, 2022
Traffic Impact Study - Proposed C-Store Development
City of Huber Heights, OH
CESO Trip Generation Calculations

## ITE 948 - Automated Car Wash

## For AM Peak Hour $\boldsymbol{\rightarrow}$ 50\% Enter/50\% Exit

$77.50 \times 1$ Car Wash Tunnels $=77.50 \approx 78$ Trips
78 Trips x $0.50(50 \%)=39$ Trips Enter/39 Trips Exit
ITE 960 - Super Convenience Market/Gas Station

## For Weekday $\boldsymbol{\rightarrow}$ 50\% Enter/50\% Exit

$230.52 \times 12$ Fueling Positions $=2,766.24 \approx 2,766$ Trips
2,766 Trips x $0.50(50 \%)=1,383$ Trips Enter/1,383 Trips Exit

## Independent Study:

## For AM Peak Hour $\boldsymbol{\rightarrow}$ 50\% Enter/50\% Exit

$26.18 \times 12$ Fueling Positions $=314.16 \approx 314$ Trips
Pass-by Trips $=314$ Trips $\times 0.76(76 \%)=238$ Trips for Even Number
Pass-by Trips $=238$ Trips $\times 0.50(50 \%)=119$ Trips Enter/119 Trips Exit
Primary Trips $=314-238=76$ Trips
Primary Trips $=76 \times 0.50$ (50\%) $=38$ Trips Enter/38 Trips Exit

## For PM Peak Hour $\boldsymbol{\rightarrow} \mathbf{5 0 \%}$ Enter/50\% Exit

$26.55 \times 12$ Fueling Positions $=318.60 \approx 318$ Trips
Pass-by Trips $=318$ Trips $\times 0.76(76 \%)=242$ Trips for Even Number
Pass-by Trips $=242$ Trips $\times 0.50(50 \%)=121$ Trips Enter/121 Trips Exit
Primary Trips $=318-242=76$ Trips
Primary Trips $=76 \times 0.50$ (50\%) $=38$ Trips Enter/38 Trips Exit

## ATTACHMENT B STUDY FIGURES








## ATTACHMENT C <br> CAPACITY ANALYSIS SUMMARY SHEETS

|  | 4 | $\rightarrow$ |  | 7 |  |  | $4$ |  | \％ | （ |  | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \％ | 4 | 「 | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{1 /}$ | 个\％ |  |
| Traffic Volume（vph） | 124 | 82 | 82 | 153 | 121 | 269 | 70 | 529 | 102 | 203 | 504 | 88 |
| Future Volume（vph） | 124 | 82 | 82 | 153 | 121 | 269 | 70 | 529 | 102 | 203 | 504 | 88 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length（ft） | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.978 |  |
| Fit Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3461 | 0 |
| Flt Permitted | 0.673 |  |  | 0.699 |  |  | 0.398 |  |  | 0.323 |  |  |
| Satd．Flow（perm） | 1254 | 1863 | 1583 | 1302 | 1863 | 1583 | 741 | 3539 | 1583 | 602 | 3461 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd．Flow（RTOR） |  |  | 123 |  |  | 179 |  |  | 123 |  | 25 |  |
| Link Speed（mph） |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time（s） |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 135 | 89 | 89 | 166 | 132 | 292 | 76 | 575 | 111 | 221 | 548 | 96 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 135 | 89 | 89 | 166 | 132 | 292 | 76 | 575 | 111 | 221 | 644 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector（ft） | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector（ft） | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position（ft） | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size（ft） | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | $\mathrm{Cl}+\mathrm{Ex}$ | Cl＋Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position（ft） |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size（ft） |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | Cl＋Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend（s） |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm＋pt | NA | pm＋ov | pm＋pt | NA | $p m+o v$ | pm＋pt | NA | pm＋ov | pm＋pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | $\Rightarrow$ | $\rightarrow$ | 7 | 7 | － | 4 | 4 | 4 | $p$ |  | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 「 | \％ | $\uparrow$ | 「 | ${ }^{7}$ | ¢4 | F | \％ | 个t |  |
| Traffic Volume（veh／h） | 124 | 82 | 82 | 153 | 121 | 269 | 70 | 529 | 102 | 203 | 504 | 88 |
| Future Volume（veh／h） | 124 | 82 | 82 | 153 | 121 | 269 | 70 | 529 | 102 | 203 | 504 | 88 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 135 | 89 | 89 | 166 | 132 | 292 | 76 | 575 | 111 | 221 | 548 | 96 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 363 | 349 | 409 | 422 | 357 | 472 | 383 | 1134 | 645 | 422 | 1072 | 187 |
| Arrive On Green | 0.08 | 0.19 | 0.19 | 0.09 | 0.19 | 0.19 | 0.07 | 0.32 | 0.32 | 0.11 | 0.35 | 0.35 |
| Sat Flow，veh／h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3024 | 528 |
| Grp Volume（v），veh／h | 135 | 89 | 89 | 166 | 132 | 292 | 76 | 575 | 111 | 221 | 321 | 323 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1775 |
| Q Serve（g＿s），s | 4.8 | 3.3 | 3.5 | 6.0 | 4.9 | 12.7 | 2.2 | 10.5 | 3.6 | 6.5 | 11.4 | 11.5 |
| Cycle Q Clear（g＿c），s | 4.8 | 3.3 | 3.5 | 6.0 | 4.9 | 12.7 | 2.2 | 10.5 | 3.6 | 6.5 | 11.4 | 11.5 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.30 |
| Lane Grp Cap（c），veh／h | 363 | 349 | 409 | 422 | 357 | 472 | 383 | 1134 | 645 | 422 | 630 | 630 |
| V／C Ratio（X） | 0.37 | 0.26 | 0.22 | 0.39 | 0.37 | 0.62 | 0.20 | 0.51 | 0.17 | 0.52 | 0.51 | 0.51 |
| Avail Cap（c＿a），veh／h | 371 | 421 | 470 | 422 | 421 | 526 | 412 | 1134 | 645 | 455 | 630 | 630 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 23.2 | 27.8 | 23.3 | 23.3 | 28.2 | 24.2 | 16.0 | 22.1 | 15.1 | 16.0 | 20.3 | 20.4 |
| Incr Delay（d2），s／veh | 0.6 | 0.4 | 0.3 | 0.6 | 0.6 | 1.9 | 0.3 | 1.6 | 0.6 | 1.0 | 2.9 | 3.0 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 2.0 | 1.4 | 1.3 | 2.4 | 2.2 | 4.7 | 0.9 | 4.4 | 1.3 | 2.5 | 4.9 | 5.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 23.9 | 28.2 | 23.6 | 23.9 | 28.8 | 26.0 | 16.3 | 23.7 | 15.7 | 17.0 | 23.3 | 23.3 |
| LnGrp LOS | C | C | C | C | C | C | B | C | B | B | C | C |
| Approach Vol，veh／h |  | 313 |  |  | 590 |  |  | 762 |  |  | 865 |  |
| Approach Delay，s／veh |  | 25.0 |  |  | 26.1 |  |  | 21.8 |  |  | 21.7 |  |
| Approach LOS |  | C |  |  | C |  |  | C |  |  | C |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ），s | 14.5 | 31.5 | 13.0 | 20.9 | 11.7 | 34.4 | 12.7 | 21.3 |  |  |  |  |
| Change Period（ $Y+R \mathrm{Rc}$ ），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 10.0 | 21.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 8.5 | 12.5 | 8.0 | 5.5 | 4.2 | 13.5 | 6.8 | 14.7 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.1 | 2.7 | 0.0 | 0.5 | 0.0 | 2.8 | 0.0 | 0.6 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 23.2 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


|  | 4 |  |  | 7 |  |  |  | $\uparrow$ |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | ¢ |  | ${ }^{7}$ | 惺家 |  | \％ | 个 $\uparrow$ |  |
| Traffic Volume（vph） | 2 | 0 | 7 | 60 | 0 | 107 | 13 | 845 | 69 | 162 | 719 | 6 |
| Future Volume（vph） | 2 | 0 | 7 | 60 | 0 | 107 | 13 | 845 | 69 | 162 | 719 | 6 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.892 |  |  | 0.913 |  |  | 0.989 |  |  | 0.999 |  |
| Flt Protected |  | 0.990 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1645 | 0 | 0 | 1670 | 0 | 1770 | 5029 | 0 | 1770 | 3536 | 0 |
| Flt Permitted |  | 0.990 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1645 | 0 | 0 | 1670 | 0 | 1770 | 5029 | 0 | 1770 | 3536 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | ， | 0 | 8 | 65 | 0 | 116 | 14 | 918 | 75 | 176 | 782 | 7 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 10 | 0 | 0 | 181 | 0 | 14 | 993 | 0 | 176 | 789 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（tt） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |


| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type： |  |
| Control Type：Unsignalized |  |
| Intersection Capacity Utilization 53．1\％ | ICU Level of Service A |
| Analysis Period（min） 15 |  |

HCM 6th TWSC
7: Old Troy Pike \& IHOP Driveway/Access \#2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 36.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | $\uparrow$ |  |  | ¢ |  |  | 性 ${ }^{\text {a }}$ |  | 7 | 个t |  |  |
| Traffic Vol, veh/h | 2 | 0 | 7 | 60 | 0 | 107 | 13 | 845 | 69 | 162 | 719 | 6 |  |
| Future Vol, veh/h | 2 | 0 | 7 | 60 | 0 | 107 | 13 | 845 | 69 | 162 | 719 | 6 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |  |
| Storage Length | - | - | - | - | - | - | 80 | - | - | 100 | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 2 | 0 | 8 | 65 | 0 | 116 | 14 | 918 | 75 | 176 | 782 | 7 |  |



| Minor Lane/Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 827 | - | - | 166 | 108 | 394 | - |

## Notes

$\sim$ : Volume exceeds capacity $\$$ : Delay exceeds $300 \mathrm{~s} \quad+$ : Computation Not Defined $\quad$ : All major volume in platoon

|  | 4 |  |  | $\checkmark$ |  |  | 4 | $\uparrow$ | $p$ |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \％ | $\hat{1}$ |  | \％ | $\uparrow$ |  | \％ | 个4 | 「 | ${ }^{7}$ | 中t |  |
| Trafic Volume（vph） | 16 | 0 | 52 | 69 | O | 85 | 60 | 864 | 50 | 74 | 801 | 33 |
| Future Volume（vph） | 16 | 0 | 52 | 69 | 0 | 85 | 60 | 864 | 50 | 74 | 801 | 33 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 50 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length（ft） | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.994 |  |
| FIt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3518 | 0 |
| FIt Permitted | 0.697 |  |  | 0.567 |  |  | 0.245 |  |  | 0.229 |  |  |
| Satd．Flow（perm） | 1298 | 1583 | 0 | 1056 | 1583 | 0 | 456 | 3539 | 1583 | 427 | 3518 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd．Flow（RTOR） |  | 349 |  |  | 393 |  |  |  | 106 |  | 4 |  |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 353 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time（s） |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 17 | 0 | 57 | 75 | 0 | 92 | 65 | 939 | 54 | 80 | 871 | 36 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 17 | 57 | 0 | 75 | 92 | 0 | 65 | 939 | 54 | 80 | 907 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector（ft） | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector（tt） | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position（ft） | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size（ft） | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl＋Ex | Cl＋Ex |  | Cl＋Ex | Cl＋Ex |  | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position（ft） |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size（ft） |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl＋Ex |  |  | Cl＋Ex |  |  | Cl＋Ex |  |  | Cl＋Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend（s） |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm＋pt | NA |  | pm＋pt | NA |  | pm＋pt | NA | pm＋ov | pm＋pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | 4 | $p$ |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial (s) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 37.0 |  | 13.0 | 30.0 | 13.0 | 13.0 | 30.0 |  |
| Total Split (\%) | 14.0\% | 25.8\% |  | 14.0\% | 39.8\% |  | 14.0\% | 32.3\% | 14.0\% | 14.0\% | 32.3\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 31.0 |  | 7.0 | 24.0 | 7.0 | 7.0 | 24.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#hr) |  | 0 |  |  | , |  |  | 0 |  |  | 0 |  |
| Act Effct Green (s) | 15.0 | 10.0 |  | 17.4 | 15.2 |  | 58.8 | 54.1 | 64.5 | 59.2 | 54.3 |  |
| Actuated g/C Ratio | 0.16 | 0.11 |  | 0.19 | 0.16 |  | 0.63 | 0.58 | 0.69 | 0.64 | 0.58 |  |
| V/c Ratio | 0.07 | 0.12 |  | 0.30 | 0.16 |  | 0.17 | 0.46 | 0.05 | 0.21 | 0.44 |  |
| Control Delay | 27.6 | 0.5 |  | 31.4 | 0.6 |  | 8.1 | 16.1 | 0.3 | 8.4 | 15.6 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 27.6 | 0.5 |  | 31.4 | 0.6 |  | 8.1 | 16.1 | 0.3 | 8.4 | 15.6 |  |
| LOS | C | A |  | C | A |  | A | B | A | A | B |  |
| Approach Delay |  | 6.7 |  |  | 14.4 |  |  | 14.8 |  |  | 15.0 |  |
| Approach LOS |  | A |  |  | B |  |  | B |  |  | B |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 93
Actuated Cycle Length: 93
Offset: 0 (0\%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 14.6 Intersection LOS: B
Intersection Capacity Utilization 55.2\% ICU Level of Service B
Analysis Period (min) 15
Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


|  | 4 | $\rightarrow$ |  | 7 | $\square$ | 4 | 4 | $\uparrow$ | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\uparrow$ |  | \% | $\uparrow$ |  | \% | 种 | F | \% | 个t |  |
| Traffic Volume (veh/h) | 16 | 0 | 52 | 69 | - | 85 | 60 | 864 | 50 | 74 | 801 | 33 |
| Future Volume (veh/h) | 16 | 0 | 52 | 69 | 0 | 85 | 60 | 864 | 50 | 74 | 801 | 33 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 17 | 0 | 57 | 75 | 0 | 92 | 65 | 939 | 54 | 80 | 871 | 36 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 244 | 0 | 168 | 290 | 0 | 228 | 400 | 1797 | 904 | 390 | 1774 | 73 |
| Arrive On Green | 0.03 | 0.00 | 0.11 | 0.06 | 0.00 | 0.14 | 0.06 | 0.51 | 0.51 | 0.07 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3478 | 144 |
| Grp Volume(v), veh/h | 17 | 0 | 57 | 75 | 0 | 92 | 65 | 939 | 54 | 80 | 445 | 462 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1844 |
| Q Serve(g_s), s | 0.8 | 0.0 | 3.1 | 3.4 | 0.0 | 4.9 | 1.5 | 16.5 | 1.4 | 1.9 | 15.2 | 15.2 |
| Cycle Q Clear (g_c), s | 0.8 | 0.0 | 3.1 | 3.4 | 0.0 | 4.9 | 1.5 | 16.5 | 1.4 | 1.9 | 15.2 | 15.2 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.08 |
| Lane Grp Cap (c), veh/h | 244 |  | 168 | 290 | 0 | 228 | 400 | 1797 | 904 | 390 | 907 | 941 |
| V/C Ratio(X) | 0.07 | 0.00 | 0.34 | 0.26 | 0.00 | 0.40 | 0.16 | 0.52 | 0.06 | 0.20 | 0.49 | 0.49 |
| Avail Cap(c_a), veh/h | 330 | 0 | 307 | 309 | 0 | 528 | 425 | 1797 | 904 | 407 | 907 | 941 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.3 | 0.0 | 38.5 | 33.5 | 0.0 | 36.2 | 10.4 | 15.4 | 8.9 | 10.6 | 14.9 | 14.9 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 1.2 | 0.5 | 0.0 | 1.2 | 0.2 | 1.1 | 0.1 | 0.3 | 1.9 | 1.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.3 | 0.0 | 1.3 | 1.5 | 0.0 | 2.0 | 0.6 | 6.4 | 0.5 | 0.7 | 6.1 | 6.4 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 35.4 | 0.0 | 39.7 | 33.9 | 0.0 | 37.3 | 10.6 | 16.5 | 9.0 | 10.9 | 16.8 | 16.7 |
| LnGrp LOS | D | A | D | C | A | D | B | B | A | B | B | B |
| Approach Vol, veh/h |  | 74 |  |  | 167 |  |  | 1058 |  |  | 987 |  |
| Approach Delay, s/veh |  | 38.7 |  |  | 35.8 |  |  | 15.8 |  |  | 16.3 |  |
| Approach LOS |  | D |  |  | D |  |  | B |  |  | B |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 12.1 | 53.0 | 12.0 | 15.9 | 11.7 | 53.5 | 8.5 | 19.4 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 24.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 31.0 |  |  |  |  |
| Max Q Clear Time (g_c+11), s | 3.9 | 18.5 | 5.4 | 5.1 | 3.5 | 17.2 | 2.8 | 6.9 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 2.9 | 0.0 | 0.2 | 0.0 | 3.0 | 0.0 | 0.5 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl DelayHCM 6th LOS |  |  | 18.2 |  |  |  |  |  |  |  |  |  |
|  |  |  | B |  |  |  |  |  |  |  |  |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |


| Major/Minor | Minor1 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- |



| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization 43.8\% | ICU Level of Service A |
| Analysis Period (min) 15 |  |




|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\uparrow$ | 个 ${ }^{\text {c }}$ |  |  | 「 |
| Trafic Volume (vph) | 0 | 387 | 470 | 15 | 0 | 72 |
| Future Volume (vph) | 0 | 387 | 470 | 15 | 0 | 72 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.995 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3522 | 0 | 0 | 1611 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3522 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 4.4 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 421 | 511 | 16 | 0 | 78 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 421 | 527 | 0 | 0 | 78 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(t) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 60 |  |  | 60 | 60 | 60 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 24.6\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | - | 0 | - | 0 | - | 264 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - |  | - | 6.93 |
| Critical Hdwy Stg 1 | - | - | - |  | - | - |
| Critical Hdwy Stg 2 | - | - | - |  | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.319 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 735 |
| Stage 1 | 0 | - | - |  | 0 | - |
| Stage 2 | 0 | - | - |  | 0 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | - | - | - |  | - | 735 |
| Mov Cap-2 Maneuver | - | - | - |  | - - | - |
| Stage 1 | - | - | - |  | - | - |
| Stage 2 | - | - | - |  | - - | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0 |  | 0 |  | 10.5 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBT WBT WBRSBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | - | - | 735 |  |
| HCM Lane V/C Ratio |  | - | - | - | 0.106 |  |
| HCM Control Delay (s) |  | - | - | - | 10.5 |  |
| HCM Lane LOS |  | - | - | - | B |  |
| HCM 95th \%tile Q(veh) |  | - | - | - | 0.4 |  |


|  | 4 |  |  | 1 |  |  | 4 | $\dagger$ | $p$ |  | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1\% |  |
| Traffic Volume (vph) | 124 | 81 | 82 | 164 | 121 | 277 | 70 | 510 | 110 | 192 | 488 | 88 |
| Future Volume (vph) | 124 | 81 | 82 | 164 | 121 | 277 | 70 | 510 | 110 | 192 | 488 | 88 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.977 |  |
| Fit Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3458 | 0 |
| Flt Permitted | 0.673 |  |  | 0.700 |  |  | 0.407 |  |  | 0.339 |  |  |
| Satd. Flow (perm) | 1254 | 1863 | 1583 | 1304 | 1863 | 1583 | 758 | 3539 | 1583 | 631 | 3458 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  | 123 |  |  | 184 |  |  | 123 |  | 26 |  |
| Link Speed (mph) |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time (s) |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 135 | 88 | 89 | 178 | 132 | 301 | 76 | 554 | 120 | 209 | 530 | 96 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 135 | 88 | 89 | 178 | 132 | 301 | 76 | 554 | 120 | 209 | 626 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA | pm+ov | pm+pt | NA | $p m+o v$ | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | 4 | $\rightarrow$ |  | 4 |  |  | $4$ | 4 | \％ | $\vartheta$ | 1 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{17}$ | 4 | F＇ | \％ | 4 | 「 | ${ }^{1 /}$ | 44 | 「＇ | ${ }^{1}$ | 性 |  |
| Traffic Volume（veh／h） | 124 | 81 | 82 | 164 | 121 | 277 | 70 | 510 | 110 | 192 | 488 | 88 |
| Future Volume（veh／h） | 124 | 81 | 82 | 164 | 121 | 277 | 70 | 510 | 110 | 192 | 488 | 88 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 135 | 88 | 89 | 178 | 132 | 301 | 76 | 554 | 120 | 209 | 530 | 96 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 367 | 359 | 417 | 429 | 367 | 473 | 385 | 1132 | 643 | 419 | 1051 | 190 |
| Arrive On Green | 0.08 | 0.19 | 0.19 | 0.09 | 0.20 | 0.20 | 0.07 | 0.32 | 0.32 | 0.10 | 0.35 | 0.35 |
| Sat Flow，veh／h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3007 | 543 |
| Grp Volume（v），veh／h | 135 | 88 | 89 | 178 | 132 | 301 | 76 | 554 | 120 | 209 | 312 | 314 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1773 |
| Q Serve（g＿s），s | 4.8 | 3.2 | 3.5 | 6.4 | 4.9 | 13.2 | 2.2 | 10.1 | 3.9 | 6.2 | 11.1 | 11.2 |
| Cycle Q Clear（g＿c），s | 4.8 | 3.2 | 3.5 | 6.4 | 4.9 | 13.2 | 2.2 | 10.1 | 3.9 | 6.2 | 11.1 | 11.2 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.31 |
| Lane Grp Cap（c），veh／h | 367 | 359 | 417 | 429 | 367 | 473 | 385 | 1132 | 643 | 419 | 621 | 619 |
| V／C Ratio（X） | 0.37 | 0.25 | 0.21 | 0.41 | 0.36 | 0.64 | 0.20 | 0.49 | 0.19 | 0.50 | 0.50 | 0.51 |
| Avail Cap（c＿a），veh／h | 375 | 421 | 470 | 429 | 421 | 519 | 413 | 1132 | 643 | 460 | 621 | 619 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（I） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 22.9 | 27.4 | 23.0 | 23.2 | 27.8 | 24.3 | 16.1 | 22.0 | 15.3 | 16.1 | 20.5 | 20.6 |
| Incr Delay（d2），s／veh | 0.6 | 0.4 | 0.3 | 0.6 | 0.6 | 2.2 | 0.2 | 1.5 | 0.6 | 0.9 | 2.9 | 2.9 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 2.0 | 1.4 | 1.3 | 2.6 | 2.2 | 4.9 | 0.9 | 4.2 | 1.4 | 2.4 | 4.8 | 4.8 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 23.5 | 27.8 | 23.3 | 23.8 | 28.4 | 26.6 | 16.3 | 23.5 | 15.9 | 17.0 | 23.4 | 23.5 |
| LnGrp LOS | C | C | C | C | C | C | B | C | B | B | C | C |
| Approach Vol，veh／h |  | 312 |  |  | 611 |  |  | 750 |  |  | 835 |  |
| Approach Delay，s／veh |  | 24.6 |  |  | 26.2 |  |  | 21.6 |  |  | 21.9 |  |
| Approach LOS |  | C |  |  | C |  |  | C |  |  | C |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（G＋Y＋Rc），s | 14.2 | 31.5 | 13.0 | 21.3 | 11.7 | 34.0 | 12.7 | 21.7 |  |  |  |  |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 10.0 | 21.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 8.2 | 12.1 | 8.4 | 5.5 | 4.2 | 13.2 | 6.8 | 15.2 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.1 | 2.7 | 0.0 | 0.5 | 0.0 | 2.8 | 0.0 | 0.5 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 23.2 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


|  | 4 |  |  | 7 |  |  |  | $\uparrow$ |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | \＄ |  | ${ }^{7}$ | 惺家 |  | \％ | 个t |  |
| Traffic Volume（vph） | 2 | 0 | 7 | 24 | 0 | 114 | 13 | 823 | 77 | 167 | 680 | 6 |
| Future Volume（vph） | 2 | 0 | 7 | 24 | 0 | 114 | 13 | 823 | 77 | 167 | 680 | 6 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.892 |  |  | 0.888 |  |  | 0.987 |  |  | 0.999 |  |
| Flt Protected |  | 0.990 |  |  | 0.991 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1645 | 0 | 0 | 1639 | 0 | 1770 | 5019 | 0 | 1770 | 3536 | 0 |
| Flt Permitted |  | 0.990 |  |  | 0.991 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1645 | 0 | 0 | 1639 | 0 | 1770 | 5019 | 0 | 1770 | 3536 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | ， | 0 | 8 | 26 | 0 | 124 | 14 | 895 | 84 | 182 | 739 | 7 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 10 | 0 | 0 | 150 | 0 | 14 | 979 | 0 | 182 | 746 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（tt） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |


| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type：$\quad$ ICU Level of Service A |  |
| Control Type：Unsignalized |  |
| Intersection Capacity Utilization $47.3 \%$ |  |
| Analysis Period（min） 15 |  |

HCM 6th TWSC
7：Old Troy Pike \＆IHOP Driveway／Access \＃2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay，s／veh | 7.7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \＄ |  |  | $\dagger$ |  |  | 性官 |  | 7 | 性 |  |  |
| Traffic Vol，veh／h | 2 | 0 | 7 | 24 | 0 | 114 | 13 | 823 | 77 | 167 | 680 | 6 |  |
| Future Vol，veh／h | 2 | 0 | 7 | 24 | 0 | 114 | 13 | 823 | 77 | 167 | 680 | 6 |  |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control S | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | － | － | None | － | － | None | － | － | None | － | － | None |  |
| Storage Length | － | － | － | － | － | － | 80 | － | － | 100 | － | － |  |
| Veh in Median Storage，\＃ | \＃ | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Grade，\％ | － | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mumt Flow | 2 | 0 | 8 | 26 | 0 | 124 | 14 | 895 | 84 | 182 | 739 | 7 |  |



|  | 4 | $\rightarrow$ |  |  |  |  | $4$ | 9 |  |  | $\frac{1}{7}$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | $\uparrow$ |  | ${ }^{7}$ | $\uparrow$ |  | ${ }^{7}$ | 中4 | 「 | ${ }^{*}$ | $1 \psi^{*}$ |  |
| Traffic Volume (vph) | 16 | 0 | 52 | 108 | 0 | 80 | 60 | 841 | 43 | 65 | 745 | 33 |
| Future Volume (vph) | 16 | 0 | 52 | 108 | 0 | 80 | 60 | 841 | 43 | 65 | 745 | 33 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 50 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.994 |  |
| Flt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3518 | 0 |
| Flt Permitted | 0.701 |  |  | 0.493 |  |  | 0.262 |  |  | 0.232 |  |  |
| Satd. Flow (perm) | 1306 | 1583 | 0 | 918 | 1583 | 0 | 488 | 3539 | 1583 | 432 | 3518 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 320 |  |  | 394 |  |  |  | 106 |  | 5 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 353 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time (s) |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 17 | 0 | 57 | 117 | 0 | 87 | 65 | 914 | 47 | 71 | 810 | 36 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 17 | 57 | 0 | 117 | 87 | 0 | 65 | 914 | 47 | 71 | 846 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ |  | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ |  | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA |  | pm+pt | NA |  | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  |  | $\uparrow$ | 7 |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial (s) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 37.0 |  | 13.0 | 30.0 | 13.0 | 13.0 | 30.0 |  |
| Total Split (\%) | 14.0\% | 25.8\% |  | 14.0\% | 39.8\% |  | 14.0\% | 32.3\% | 14.0\% | 14.0\% | 32.3\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 31.0 |  | 7.0 | 24.0 | 7.0 | 7.0 | 24.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Effct Green (s) | 15.0 | 10.0 |  | 18.0 | 15.2 |  | 55.7 | 49.8 | 64.6 | 55.9 | 49.9 |  |
| Actuated g/C Ratio | 0.16 | 0.11 |  | 0.19 | 0.16 |  | 0.60 | 0.54 | 0.69 | 0.60 | 0.54 |  |
| V/c Ratio | 0.07 | 0.13 |  | 0.47 | 0.15 |  | 0.17 | 0.48 | 0.04 | 0.19 | 0.45 |  |
| Control Delay | 27.6 | 0.6 |  | 36.4 | 0.5 |  | 8.1 | 16.4 | 0.1 | 8.4 | 15.8 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 27.6 | 0.6 |  | 36.4 | 0.5 |  | 8.1 | 16.4 | 0.1 | 8.4 | 15.8 |  |
| LOS | C | A |  | D | A |  | A | B | A | A | B |  |
| Approach Delay |  | 6.8 |  |  | 21.1 |  |  | 15.1 |  |  | 15.2 |  |
| Approach LOS |  | A |  |  | C |  |  | B |  |  | B |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 93
Actuated Cycle Length: 93
Offset: 0 (0\%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 15.4
Intersection LOS: B
Intersection Capacity Utilization 56.7\%
ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


|  | 4 | $\rightarrow$ |  | 7 | $\square$ | 4 | 4 | $\uparrow$ | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{1}$ |  | \% | $\uparrow$ |  | \% | 种 | $\stackrel{7}{ }$ | \% | 个t |  |
| Traffic Volume (veh/h) | 16 | 0 | 52 | 108 | - | 80 | 60 | 841 | 43 | 65 | 745 | 33 |
| Future Volume (veh/h) | 16 | 0 | 52 | 108 | 0 | 80 | 60 | 841 | 43 | 65 | 745 | 33 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 17 | 0 | 57 | 117 | 0 | 87 | 65 | 914 | 47 | 71 | 810 | 36 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 262 | 0 | 168 | 308 | 0 | 244 | 413 | 1770 | 908 | 388 | 1733 | 77 |
| Arrive On Green | 0.03 | 0.00 | 0.11 | 0.07 | 0.00 | 0.15 | 0.06 | 0.50 | 0.50 | 0.06 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3465 | 154 |
| Grp Volume(v), veh/h | 17 | 0 | 57 | 117 | 0 | 87 | 65 | 914 | 47 | 71 | 415 | 431 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1843 |
| Q Serve(g_s), s | 0.8 | 0.0 | 3.1 | 5.3 | 0.0 | 4.6 | 1.6 | 16.2 | 1.2 | 1.7 | 14.2 | 14.2 |
| Cycle Q Clear (g_c), s | 0.8 | 0.0 | 3.1 | 5.3 | 0.0 | 4.6 | 1.6 | 16.2 | 1.2 | 1.7 | 14.2 | 14.2 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.08 |
| Lane Grp Cap (c), veh/h | 262 | 0 | 168 | 308 | 0 | 244 | 413 | 1770 | 908 | 388 | 888 | 921 |
| V/C Ratio(X) | 0.06 | 0.00 | 0.34 | 0.38 | 0.00 | 0.36 | 0.16 | 0.52 | 0.05 | 0.18 | 0.47 | 0.47 |
| Avail Cap(c_a), veh/h | 349 | 0 | 307 | 309 | 0 | 528 | 438 | 1770 | 908 | 409 | 888 | 921 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.3 | 0.0 | 38.6 | 33.1 | 0.0 | 35.2 | 10.5 | 15.8 | 8.7 | 10.9 | 15.2 | 15.2 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 1.2 | 0.8 | 0.0 | 0.9 | 0.2 | 1.1 | 0.1 | 0.2 | 1.8 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.3 | 0.0 | 1.3 | 2.3 | 0.0 | 1.8 | 0.6 | 6.3 | 0.4 | 0.6 | 5.8 | 6.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 35.4 | 0.0 | 39.8 | 33.8 | 0.0 | 36.1 | 10.7 | 16.9 | 8.9 | 11.1 | 16.9 | 16.9 |
| LnGrp LOS | D | A | D | C | A | D | B | B | A | B | B | B |
| Approach Vol, veh/h |  | 74 |  |  | 204 |  |  | 1026 |  |  | 917 |  |
| Approach Delay, s/veh |  | 38.8 |  |  | 34.8 |  |  | 16.1 |  |  | 16.5 |  |
| Approach LOS |  | D |  |  | C |  |  | B |  |  | B |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 11.9 | 52.3 | 13.0 | 15.8 | 11.7 | 52.5 | 8.5 | 20.3 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 24.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 31.0 |  |  |  |  |
| Max Q Clear Time (g_c+11), s | 3.7 | 18.2 | 7.3 | 5.1 | 3.6 | 16.2 | 2.8 | 6.6 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 3.0 | 0.0 | 0.2 | 0.0 | 3.1 | 0.0 | 0.4 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl DelayHCM 6th LOS |  |  | 18.7 |  |  |  |  |  |  |  |  |  |
|  |  |  | B |  |  |  |  |  |  |  |  |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |


| Major/Minor | Minor1 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- |



| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization 43.3\% | ICU Level of Service A |
| Analysis Period (min) 15 |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 7 | 4 | 1 |  | 4 |  |
| Traffic Vol, veh/h | 79 | 300 | 487 | 0 | 13 | 0 |
| Future Vol, veh/h | 79 | 300 | 487 | 0 | 13 | 0 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 65 | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 326 | 529 | 0 | 14 | 0 |


| Major/Minor | Major1 | Major2 |  |  | Minor2 |  |  |
| :--- | ---: | :--- | :--- | :--- | ---: | ---: | :---: |
| Conflicting Flow All | 529 | 0 | - | 0 | 1027 | 529 |  |
| $\quad$ Stage 1 | - | - | - | - | 529 | - |  |
| $\quad$ Stage 2 | - | - | - | - | 498 | - |  |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |  |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |  |
| Pot Cap-1 Maneuver | 1038 | - | - | - | 260 | 550 |  |
| $\quad$ Stage 1 | - | - | - | - | 591 | - |  |
| $\quad$ Stage 2 | - | - | - | - | 611 | - |  |
| Platoon blocked, \% |  | - | - | - |  |  |  |
| Mov Cap-1 Maneuver | 1038 | - | - | - | 238 | 550 |  |
| Mov Cap-2 Maneuver | - | - | - | - | 370 | - |  |
| Stage 1 | - | - | - | - | 542 | - |  |
| Stage 2 | - | - | - | - | 611 | - |  |


| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 1.8 | 0 | 15.1 |
| HCM LOS |  |  | C |


| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR SBLn1 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 1038 | - | - | - | 370 |
| HCM Lane V/C Ratio | 0.083 | - | - | -0.038 |  |
| HCM Control Delay (s) | 8.8 | - | - | -15.1 |  |
| HCM Lane LOS | A | - | - | - | C |
| HCM 95th \%tile Q(veh) | 0.3 | - | - | - | 0.1 |


|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\uparrow$ | 个t |  |  | 「 |
| Trafic Volume (vph) | 0 | 383 | 469 | 18 | 0 | 92 |
| Future Volume (vph) | 0 | 383 | 469 | 18 | 0 | 92 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.994 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3518 | 0 | 0 | 1611 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3518 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 4.4 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 416 | 510 | 20 | 0 | 100 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 416 | 530 | 0 | 0 | 100 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 60 |  |  | 60 | 60 | 60 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 25.9\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | - | 0 | - | 0 | - | 265 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - |  | - | 6.93 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.319 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 734 |
| Stage 1 | 0 | - | - |  | 0 | - |
| Stage 2 | 0 | - | - |  | 0 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | - | - | - |  | - | 734 |
| Mov Cap-2 Maneuver | - | - | - |  | - - | - |
| Stage 1 | - | - | - |  | - | - |
| Stage 2 | - | - | - |  | - - | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0 |  | 0 |  | 10.7 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBT WBT WBRSBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | - | - | 734 |  |
| HCM Lane V/C Ratio |  | - | - | - | 0.136 |  |
| HCM Control Delay (s) |  | - | - | - | 10.7 |  |
| HCM Lane LOS |  | - | - | - | - B |  |
| HCM 95th \%tile Q(veh) |  | - | - | - | 0.5 |  |


|  | 4 |  |  | 1 |  | 4 | 4 | $\dagger$ | $p$ |  | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | F | ${ }^{*}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1\% |  |
| Traffic Volume (vph) | 208 | 226 | 170 | 137 | 206 | 341 | 176 | 765 | 123 | 318 | 902 | 130 |
| Future Volume (vph) | 208 | 226 | 170 | 137 | 206 | 341 | 176 | 765 | 123 | 318 | 902 | 130 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.981 |  |
| Fit Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3472 | 0 |
| Flt Permitted | 0.439 |  |  | 0.384 |  |  | 0.141 |  |  | 0.143 |  |  |
| Satd. Flow (perm) | 818 | 1863 | 1583 | 715 | 1863 | 1583 | 263 | 3539 | 1583 | 266 | 3472 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  | 109 |  |  | 109 |  |  | 134 |  | 19 |  |
| Link Speed (mph) |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time (s) |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 226 | 246 | 185 | 149 | 224 | 371 | 191 | 832 | 134 | 346 | 980 | 141 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 226 | 246 | 185 | 149 | 224 | 371 | 191 | 832 | 134 | 346 | 1121 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA | pm+ov | pm+pt | NA | $p m+o v$ | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | 4 | $\rightarrow$ |  | 7 |  | 4 | 4 | 4 | \％ | $\pm$ | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 「 | \％ | 4 | 7 | \％ | 中4 | 「 | ${ }^{7}$ | 中\％ |  |
| Traffic Volume（veh／h） | 208 | 226 | 170 | 137 | 206 | 341 | 176 | 765 | 123 | 318 | 902 | 130 |
| Future Volume（veh／h） | 208 | 226 | 170 | 137 | 206 | 341 | 176 | 765 | 123 | 318 | 902 | 130 |
| Initial Q（Qb），veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 226 | 246 | 185 | 149 | 224 | 371 | 191 | 832 | 134 | 346 | 980 | 141 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 294 | 374 | 466 | 294 | 374 | 553 | 277 | 1089 | 609 | 401 | 1128 | 162 |
| Arrive On Green | 0.08 | 0.20 | 0.20 | 0.08 | 0.20 | 0.20 | 0.09 | 0.31 | 0.31 | 0.10 | 0.24 | 0.24 |
| Sat Flow，veh／h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3118 | 448 |
| Grp Volume（v），veh／h | 226 | 246 | 185 | 149 | 224 | 371 | 191 | 832 | 134 | 346 | 558 | 563 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1790 |
| Q Serve（g＿s），s | 7.0 | 10.9 | 8.4 | 5.9 | 9.8 | 17.9 | 6.5 | 19.1 | 5.1 | 11.3 | 27.1 | 27.2 |
| Cycle Q Clear（g＿c），s | 7.0 | 10.9 | 8.4 | 5.9 | 9.8 | 17.9 | 6.5 | 19.1 | 5.1 | 11.3 | 27.1 | 27.2 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.25 |
| Lane Grp Cap（c），veh／h | 294 | 374 | 466 | 294 | 374 | 553 | 277 | 1089 | 609 | 401 | 643 | 647 |
| V／C Ratio（X） | 0.77 | 0.66 | 0.40 | 0.51 | 0.60 | 0.67 | 0.69 | 0.76 | 0.22 | 0.86 | 0.87 | 0.87 |
| Avail Cap（c＿a），veh／h | 294 | 374 | 466 | 294 | 374 | 553 | 288 | 1089 | 609 | 412 | 643 | 647 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 30.5 | 33.2 | 25.4 | 26.4 | 32.7 | 24.9 | 21.9 | 28.3 | 18.6 | 20.9 | 32.0 | 32.0 |
| Incr Delay（d2），s／veh | 11.8 | 4.2 | 0.5 | 1.4 | 2.6 | 3.1 | 6.5 | 5.1 | 0.8 | 16.8 | 14.8 | 14.8 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 2.3 | 5.2 | 3.1 | 2.5 | 4.6 | 6.8 | 3.0 | 8.5 | 1.9 | 6.6 | 14.6 | 14.7 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 42.2 | 37.3 | 26.0 | 27.8 | 35.3 | 28.0 | 28.4 | 33.4 | 19.5 | 37.6 | 46.8 | 46.8 |
| LnGrp LOS | D | D | C | C | D | C | C | C | B | D | D | D |
| Approach Vol，veh／h |  | 657 |  |  | 744 |  |  | 1157 |  |  | 1467 |  |
| Approach Delay，s／veh |  | 35.8 |  |  | 30.2 |  |  | 30.9 |  |  | 44.6 |  |
| Approach LOS |  | D |  |  | C |  |  | C |  |  | D |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（G＋Y＋Rc），s | 19.4 | 33.6 | 13.0 | 24.0 | 14.4 | 38.6 | 13.0 | 24.0 |  |  |  |  |
| Change Period（Y＋Rc），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 14.0 | 27.0 | 7.0 | 18.0 | 9.0 | 32.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 13.3 | 21.1 | 7.9 | 12.9 | 8.5 | 29.2 | 9.0 | 19.9 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.1 | 2.9 | 0.0 | 0.9 | 0.0 | 1.8 | 0.0 | 0.0 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 36.6 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | D |  |  |  |  |  |  |  |  |  |


|  | 4 |  |  | 7 |  |  |  | $\uparrow$ |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | ¢ |  | ${ }^{7}$ | 种家 |  | \％ | 个t |  |
| Traffic Volume（vph） | 5 | 0 | 28 | 42 | 0 | 73 | 12 | 1276 | 32 | 94 | 1277 | 31 |
| Future Volume（vph） | 5 | 0 | 28 | 42 | 0 | 73 | 12 | 1276 | 32 | 94 | 1277 | 31 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.884 |  |  | 0.915 |  |  | 0.996 |  |  | 0.996 |  |
| Flt Protected |  | 0.993 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1635 | 0 | 0 | 1674 | 0 | 1770 | 5065 | 0 | 1770 | 3525 | 0 |
| Flt Permitted |  | 0.993 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1635 | 0 | 0 | 1674 | 0 | 1770 | 5065 | 0 | 1770 | 3525 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 5 | 0 | 30 | 46 | 0 | 79 | 13 | 1387 | 35 | 102 | 1388 | 34 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 35 | 0 | 0 | 125 | 0 | 13 | 1422 | 0 | 102 | 1422 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（tt） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |


| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type： |  |
| Control Type：Unsignalized |  |
| Intersection Capacity Utilization 63．1\％ | ICU Level of Service B |
| Analysis Period（min） 15 |  |

HCM 6th TWSC
7: Old Troy Pike \& IHOP Driveway/Access \#2



| Approach | EB | WB | NB | SB |
| :--- | ---: | ---: | ---: | ---: |
| HCM Control Delay, s | 70.4 | $\$ 1059.7$ | 0.1 | 2 |
| HCM LOS | F | F |  |  |


| Minor Lane/Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 475 | - | - | 89 | 43 | 244 | - |
| HCM Lane V/C Ratio | 0.027 | - | -0.403 | 2.907 | 0.419 | - | - |
| HCM Control Delay (s) | 12.8 | - | - | 70.4 | 1059.7 | 30 | - |
| HCM Lane LOS | $B$ | - | - | F | F | D | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | 1.6 | 13.7 | 1.9 | - |

## Notes

$\sim$ : Volume exceeds capacity $\$$ : Delay exceeds $300 \mathrm{~s} \quad+$ : Computation Not Defined $\quad$ : All major volume in platoon

|  | 4 |  |  | $\checkmark$ |  |  | 4 | $\dagger$ | $p$ |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\uparrow$ |  | ${ }^{7}$ | $\uparrow$ |  | \% | 个4 | F | \% | 个12 |  |
| Trafic Volume (vph) | 25 | 0 | 143 | 49 | 0 | 74 | 129 | 1168 | 57 | 95 | 1230 | 82 |
| Future Volume (vph) | 25 | 0 | 143 | 49 | 0 | 74 | 129 | 1168 | 57 | 95 | 1230 | 82 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 50 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.991 |  |
| Flt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3507 | 0 |
| FIt Permitted | 0.705 |  |  | 0.480 |  |  | 0.097 |  |  | 0.104 |  |  |
| Satd. Flow (perm) | 1313 | 1583 | 0 | 894 | 1583 | 0 | 181 | 3539 | 1583 | 194 | 3507 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 274 |  |  | 304 |  |  |  | 109 |  | 9 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 353 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time (s) |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 27 | 0 | 155 | 53 | 0 | 80 | 140 | 1270 | 62 | 103 | 1337 | 89 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 27 | 155 | 0 | 53 | 80 | 0 | 140 | 1270 | 62 | 103 | 1426 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (tt) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex |  | Cl+Ex | Cl+Ex |  | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA |  | pm+pt | NA |  | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | 4 | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial (s) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 40.0 | 13.0 | 13.0 | 40.0 |  |
| Total Split (\%) | 14.4\% | 26.7\% |  | 14.4\% | 26.7\% |  | 14.4\% | 44.4\% | 14.4\% | 14.4\% | 44.4\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 18.0 |  | 7.0 | 34.0 | 7.0 | 7.0 | 34.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Efft Green (s) | 15.6 | 10.0 |  | 18.0 | 15.2 |  | 53.8 | 46.1 | 59.1 | 50.6 | 42.6 |  |
| Actuated g/C Ratio | 0.17 | 0.11 |  | 0.20 | 0.17 |  | 0.60 | 0.51 | 0.66 | 0.56 | 0.47 |  |
| v/c Ratio | 0.10 | 0.37 |  | 0.21 | 0.15 |  | 0.52 | 0.70 | 0.06 | 0.41 | 0.86 |  |
| Control Delay | 26.6 | 2.5 |  | 28.3 | 0.6 |  | 22.7 | 17.1 | 0.5 | 14.6 | 29.1 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 26.6 | 2.5 |  | 28.3 | 0.6 |  | 22.7 | 17.1 | 0.5 | 14.6 | 29.1 |  |
| LOS | C | A |  | C | A |  | C | B | A | B | C |  |
| Approach Delay |  | 6.1 |  |  | 11.7 |  |  | 17.0 |  |  | 28.2 |  |
| Approach LOS |  | A |  |  | B |  |  | B |  |  | C |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0\%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 78.4\% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


|  | $\Rightarrow$ | $\rightarrow$ | 7 | 7 | - | 4 | 4 | 4 | $p$ |  | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{\beta}$ |  | ${ }^{7}$ | $\hat{\beta}$ |  | \% | ¢4 | F' | ${ }^{7}$ | 个\% |  |
| Traffic Volume (veh/h) | 25 | - | 143 | 49 | - | 74 | 129 | 1168 | 57 | 95 | 1230 | 82 |
| Future Volume (veh/h) | 25 | 0 | 143 | 49 | 0 | 74 | 129 | 1168 | 57 | 95 | 1230 | 82 |
| Initial $Q(Q b)$, veh | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 27 | 0 | 155 | 53 | 0 | 80 | 140 | 1270 | 62 | 103 | 1337 | 89 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 274 | 0 | 194 | 215 | 0 | 224 | 266 | 1713 | 855 | 388 | 1619 | 107 |
| Arrive On Green | 0.04 | 0.00 | 0.12 | 0.06 | 0.00 | 0.14 | 0.15 | 0.96 | 0.96 | 0.07 | 0.48 | 0.48 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3382 | 225 |
| Grp Volume(v), veh/h | 27 | 0 | 155 | 53 | 0 | 80 | 140 | 1270 | 62 | 103 | 701 | 725 |
| Grp Sat Flow(s),veh/h/n | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1830 |
| Q Serve(g_s), s | 1.2 | 0.0 | 8.6 | 2.3 | 0.0 | 4.1 | 3.4 | 4.0 | 0.1 | 2.5 | 30.6 | 30.8 |
| Cycle Q Clear (g_c), s | 1.2 | 0.0 | 8.6 | 2.3 | 0.0 | 4.1 | 3.4 | 4.0 | 0.1 | 2.5 | 30.6 | 30.8 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.12 |
| Lane Grp Cap (c), veh/h | 274 | 0 | 194 | 215 | 0 | 224 | 266 | 1713 | 855 | 388 | 850 | 876 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.80 | 0.25 | 0.00 | 0.36 | 0.53 | 0.74 | 0.07 | 0.27 | 0.82 | 0.83 |
| Avail Cap(c_a), veh/h | 345 | 0 | 317 | 252 | 0 | 317 | 270 | 1713 | 855 | 398 | 850 | 876 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.2 | 0.0 | 38.4 | 31.7 | 0.0 | 35.0 | 16.1 | 0.9 | 0.7 | 9.8 | 20.2 | 20.3 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 7.4 | 0.6 | 0.0 | 1.0 | 1.8 | 2.9 | 0.2 | 0.4 | 8.9 | 8.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.5 | 0.0 | 3.7 | 1.0 | 0.0 | 1.6 | 1.2 | 1.1 | 0.1 | 0.9 | 13.6 | 14.1 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 32.4 | 0.0 | 45.8 | 32.3 | 0.0 | 35.9 | 18.0 | 3.8 | 0.8 | 10.1 | 29.1 | 29.1 |
| LnGrp LOS | C | A | D | C | A | D | B | A | A | B | C | C |
| Approach Vol, veh/h |  | 182 |  |  | 133 |  |  | 1472 |  |  | 1529 |  |
| Approach Delay, s/veh |  | 43.8 |  |  | 34.5 |  |  | 5.1 |  |  | 27.9 |  |
| Approach LOS |  | D |  |  | C |  |  | A |  |  | C |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 12.5 | 49.4 | 11.1 | 17.0 | 12.8 | 49.1 | 9.4 | 18.7 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 34.0 | 7.0 | 18.0 | 7.0 | 34.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time (g_c+11), s | 4.5 | 6.0 | 4.3 | 10.6 | 5.4 | 32.8 | 3.2 | 6.1 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 11.2 | 0.0 | 0.5 | 0.0 | 0.9 | 0.0 | 0.3 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 18.9 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | B |  |  |  |  |  |  |  |  |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |




| Intersection Summary Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization $50.1 \%$ | ICU Level of Service A |
| Analysis Period (min) 15 |  |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 690 | 0 | - | 0 | 1468 | 689 |
| Stage 1 | - | - | - | - | 689 | - |
| Stage 2 | - | - | - | - | 779 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 905 | - | - | - | 141 | 446 |
| Stage 1 | - | - | - | - | 498 | - |
| Stage 2 | - | - | - | - | 452 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 905 | - | - | - | 133 | 446 |
| Mov Cap-2 Maneuver | - | - | - | - | 271 | - |
| Stage 1 | - | - | - | - | 468 | - |
| Stage 2 | - | - | - | - | 452 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.7 |  | 0 |  | 19 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL EBT WBT WBR SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | 905 | - | - | - | 271 |
| HCM Lane V/C Ratio |  | 0.06 | - | - | - | 0.052 |
| HCM Control Delay (s) |  | 9.2 | - | - | - | 19 |
| HCM Lane LOS |  | A | - | - | - | C |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - |  | 0.2 |


|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | 4 | 个t |  |  | 「 |
| Trafic Volume (vph) | 0 | 667 | 622 | 11 | 0 | 63 |
| Future Volume (vph) | 0 | 667 | 622 | 11 | 0 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.997 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3529 | 0 | 0 | 1611 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3529 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 35 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 3.8 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 725 | 676 | 12 | 0 | 68 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 725 | 688 | 0 | 0 | 68 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 38.4\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | 4 | 个 |  |  |  |
| Tr |  |  |  |  |  |  |
| Traffic Vol, veh/h | 0 | 667 | 622 | 11 | 0 | 63 |
| Future Vol, veh/h | 0 | 667 | 622 | 11 | 0 | 63 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 725 | 676 | 12 | 0 | 68 |



|  | 4 |  |  |  |  | 4 | 4 | 4 | \％ | $V$ |  | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 「 | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{*}$ | 中 ${ }^{\text {\％}}$ |  |
| Traffic Volume（vph） | 209 | 226 | 170 | 144 | 206 | 344 | 176 | 748 | 137 | 319 | 886 | 130 |
| Future Volume（vph） | 209 | 226 | 170 | 144 | 206 | 344 | 176 | 748 | 137 | 319 | 886 | 130 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length（ft） | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.981 |  |
| Flt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3472 | 0 |
| Flt Permitted | 0.439 |  |  | 0.384 |  |  | 0.141 |  |  | 0.153 |  |  |
| Satd．Flow（perm） | 818 | 1863 | 1583 | 715 | 1863 | 1583 | 263 | 3539 | 1583 | 285 | 3472 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd．Flow（RTOR） |  |  | 109 |  |  | 109 |  |  | 149 |  | 20 |  |
| Link Speed（mph） |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time（s） |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 227 | 246 | 185 | 157 | 224 | 374 | 191 | 813 | 149 | 347 | 963 | 141 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 227 | 246 | 185 | 157 | 224 | 374 | 191 | 813 | 149 | 347 | 1104 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector（ft） | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector（ft） | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position（ft） | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size（ft） | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position（ft） |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size（ft） |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | Cl＋Ex |  |  | Cl＋Ex |  |  | Cl＋Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend（s） |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm＋pt | NA | pm＋ov | pm＋pt | NA | pm＋ov | pm＋pt | NA | pm＋ov | pm＋pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | 4 | $\rightarrow$ |  | 4 |  |  | $4$ | 4 | \％ |  | 1 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \％ | 4 | F＇ | \％ | 4 | 「 | \％ | 44 | 「＇ | ${ }^{1}$ | 性 |  |
| Traffic Volume（veh／h） | 209 | 226 | 170 | 144 | 206 | 344 | 176 | 748 | 137 | 319 | 886 | 130 |
| Future Volume（veh／h） | 209 | 226 | 170 | 144 | 206 | 344 | 176 | 748 | 137 | 319 | 886 | 130 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 227 | 246 | 185 | 157 | 224 | 374 | 191 | 813 | 149 | 347 | 963 | 141 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 293 | 374 | 466 | 294 | 374 | 554 | 281 | 1088 | 608 | 405 | 1125 | 165 |
| Arrive On Green | 0.08 | 0.20 | 0.20 | 0.08 | 0.20 | 0.20 | 0.09 | 0.31 | 0.31 | 0.10 | 0.24 | 0.24 |
| Sat Flow，veh／h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3110 | 455 |
| Grp Volume（v），veh／h | 227 | 246 | 185 | 157 | 224 | 374 | 191 | 813 | 149 | 347 | 550 | 554 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1788 |
| Q Serve（g＿s），s | 7.0 | 10.9 | 8.4 | 6.3 | 9.8 | 18.0 | 6.5 | 18.5 | 5.8 | 11.4 | 26.6 | 26.7 |
| Cycle Q Clear（g＿c），s | 7.0 | 10.9 | 8.4 | 6.3 | 9.8 | 18.0 | 6.5 | 18.5 | 5.8 | 11.4 | 26.6 | 26.7 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.25 |
| Lane Grp Cap（c），veh／h | 293 | 374 | 466 | 294 | 374 | 554 | 281 | 1088 | 608 | 405 | 643 | 647 |
| V／C Ratio（X） | 0.77 | 0.66 | 0.40 | 0.53 | 0.60 | 0.68 | 0.68 | 0.75 | 0.24 | 0.86 | 0.86 | 0.86 |
| Avail Cap（c＿a），veh／h | 293 | 374 | 466 | 294 | 374 | 554 | 292 | 1088 | 608 | 416 | 643 | 647 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter（I） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 30.5 | 33.2 | 25.4 | 26.5 | 32.7 | 24.9 | 21.9 | 28.1 | 18.9 | 20.8 | 31.8 | 31.9 |
| Incr Delay（d2），s／veh | 12.1 | 4.2 | 0.5 | 1.9 | 2.6 | 3.2 | 6.0 | 4.7 | 1.0 | 15.9 | 13.7 | 13.7 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 2.3 | 5.2 | 3.1 | 2.7 | 4.6 | 6.9 | 3.0 | 8.2 | 2.2 | 6.5 | 14.2 | 14.3 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 42.6 | 37.3 | 26.0 | 28.4 | 35.3 | 28.2 | 27.9 | 32.8 | 19.8 | 36.6 | 45.6 | 45.5 |
| LnGrp LOS | D | D | C | C | D | C | C | C | B | D | D | D |
| Approach Vol，veh／h |  | 658 |  |  | 755 |  |  | 1153 |  |  | 1451 |  |
| Approach Delay，s／veh |  | 36.0 |  |  | 30.3 |  |  | 30.3 |  |  | 43.4 |  |
| Approach LOS |  | D |  |  | C |  |  | C |  |  | D |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（G＋Y＋Rc），s | 19.5 | 33.5 | 13.0 | 24.0 | 14.4 | 38.6 | 13.0 | 24.0 |  |  |  |  |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 14.0 | 27.0 | 7.0 | 18.0 | 9.0 | 32.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 13.4 | 20.5 | 8.3 | 12.9 | 8.5 | 28.7 | 9.0 | 20.0 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.1 | 3.1 | 0.0 | 0.9 | 0.0 | 2.1 | 0.0 | 0.0 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 36.0 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | D |  |  |  |  |  |  |  |  |  |


|  | $\rangle$ |  | $\geqslant$ | 7 |  |  | 4 | 4 |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | ¢ |  | \％ | 性中 |  | \％ | 性 |  |
| Traffic Volume（vph） | 5 | － | 28 | 19 | O | 95 | 12 | 1225 | 64 | 143 | 1241 | 31 |
| Future Volume（vph） | 5 | 0 | 28 | 19 | 0 | 95 | 12 | 1225 | 64 | 143 | 1241 | 31 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | － | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.884 |  |  | 0.888 |  |  | 0.993 |  |  | 0.996 |  |
| Flt Protected |  | 0.993 |  |  | 0.992 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1635 | 0 | 0 | 1641 | 0 | 1770 | 5050 | 0 | 1770 | 3525 | 0 |
| Flt Permitted |  | 0.993 |  |  | 0.992 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1635 | 0 | 0 | 1641 | 0 | 1770 | 5050 | 0 | 1770 | 3525 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 5 | 0 | 30 | 21 | 0 | 103 | 13 | 1332 | 70 | 155 | 1349 | 34 |
| Shared Lane Trafic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 35 | 0 | 0 | 124 | 0 | 13 | 1402 | 0 | 155 | 1383 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |

## Intersection Summary

Area Type：Other

Control Type：Unsignalized
Intersection Capacity Utilization 58．2\％ICU Level of Service B
Analysis Period（min） 15

HCM 6th TWSC
7：Old Troy Pike \＆IHOP Driveway／Access \＃2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay，s／veh | 28.3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \＄ |  |  | $\dagger$ |  |  | 惺家 |  | 7 | 㤽 |  |  |
| Traffic Vol，veh／h | 5 | 0 | 28 | 19 | 0 | 95 | 12 | 1225 | 64 | 143 | 1241 | 31 |  |
| Future Vol，veh／h | 5 | 0 | 28 | 19 | 0 | 95 | 12 | 1225 | 64 | 143 | 1241 | 31 |  |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | － | － | None | － | － | None | － | － | None | － | － | None |  |
| Storage Length | － | － | － | － | － | － | 80 | － | － | 100 | － | － |  |
| Veh in Median Storage，\＃ | \＃ | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Grade，\％ | － | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 5 | 0 | 30 | 21 | 0 | 103 | 13 | 1332 | 70 | 155 | 1349 | 34 |  |



| Approach | EB | WB | NB | SB |
| :--- | ---: | ---: | :--- | :--- |
| HCM Control Delay，s | 120.3 | $\$ 624.4$ | 0.1 | 4.1 |
| HCM LOS | F | F |  |  |


| Minor Lane／Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity（veh／h） | 491 | - | - | 63 | 61 | 249 | - |
| HCM Lane V／C Ratio | 0.027 | - | -0.569 | 2.031 | 0.624 | - | - |
| HCM Control Delay（s） | 12.5 | - | -120.35 | 624.4 | 40.8 | - | - |
| HCM Lane LOS | B | - | - | F | F | E | - |
| HCM 95th \％tile Q（veh） | 0.1 | - | - | 2.3 | 11.8 | 3.8 | - |

## Notes

$\sim$ ：Volume exceeds capacity $\$$ ：Delay exceeds $300 \mathrm{~s} \quad+$ ：Computation Not Defined $\quad$ ：All major volume in platoon

|  | 4 |  |  | 7 |  |  | 4 | $\dagger$ | $p$ |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \％ | $\uparrow$ |  | \％ | $\uparrow$ |  | \％ | 个4 | F | \％ | 个的 |  |
| Trafic Volume（vph） | 24 | 0 | 143 | 91 | 0 | 66 | 129 | 1161 | 35 | 54 | 1227 | 82 |
| Future Volume（vph） | 24 | 0 | 143 | 91 | 0 | 66 | 129 | 1161 | 35 | 54 | 1227 | 82 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 50 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length（ft） | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.991 |  |
| Flt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3507 | 0 |
| FIt Permitted | 0.710 |  |  | 0.480 |  |  | 0.095 |  |  | 0.114 |  |  |
| Satd．Flow（perm） | 1323 | 1583 | 0 | 894 | 1583 | 0 | 177 | 3539 | 1583 | 212 | 3507 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd．Flow（RTOR） |  | 243 |  |  | 305 |  |  |  | 109 |  | 9 |  |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 353 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time（s） |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 26 | 0 | 155 | 99 | 0 | 72 | 140 | 1262 | 38 | 59 | 1334 | 89 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 26 | 155 | 0 | 99 | 72 | 0 | 140 | 1262 | 38 | 59 | 1423 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector（ft） | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector（tt） | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position（ft） | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size（ft） | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl＋Ex | Cl＋Ex |  | Cl＋Ex | Cl＋Ex |  | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position（ft） |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size（ft） |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl＋Ex |  |  | Cl＋Ex |  |  | Cl＋Ex |  |  | Cl＋Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend（s） |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm＋pt | NA |  | pm＋pt | NA |  | pm＋pt | NA | pm＋ov | pm＋pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | 4 | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial (s) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 40.0 | 13.0 | 13.0 | 40.0 |  |
| Total Split (\%) | 14.4\% | 26.7\% |  | 14.4\% | 26.7\% |  | 14.4\% | 44.4\% | 14.4\% | 14.4\% | 44.4\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 18.0 |  | 7.0 | 34.0 | 7.0 | 7.0 | 34.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Efft Green (s) | 15.6 | 10.0 |  | 18.0 | 15.2 |  | 54.5 | 47.0 | 60.0 | 49.9 | 42.6 |  |
| Actuated g/C Ratio | 0.17 | 0.11 |  | 0.20 | 0.17 |  | 0.61 | 0.52 | 0.67 | 0.55 | 0.47 |  |
| v/c Ratio | 0.10 | 0.40 |  | 0.40 | 0.14 |  | 0.53 | 0.68 | 0.03 | 0.24 | 0.85 |  |
| Control Delay | 26.6 | 3.6 |  | 32.4 | 0.6 |  | 22.9 | 15.9 | 0.1 | 10.3 | 28.9 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 26.6 | 3.6 |  | 32.4 | 0.6 |  | 22.9 | 15.9 | 0.1 | 10.3 | 28.9 |  |
| LOS | C | A |  | C | A |  | C | B | A | B | C |  |
| Approach Delay |  | 6.9 |  |  | 19.0 |  |  | 16.1 |  |  | 28.1 |  |
| Approach LOS |  | A |  |  | B |  |  | B |  |  | C |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0\%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 21.2 Intersection LOS: C
Intersection Capacity Utilization 78.4\% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3




| Intersection |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |


| Major/Minor | Minor1 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- |



| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization $50.2 \%$ | ICU Level of Service A |
| Analysis Period (min) 15 |  |




|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\uparrow$ | 个t |  |  | 「 |
| Trafic Volume (vph) | 0 | 682 | 618 | 15 | 0 | 77 |
| Future Volume (vph) | 0 | 682 | 618 | 15 | 0 | 77 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.997 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3529 | 0 | 0 | 1611 |
| FIt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3529 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 35 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 3.8 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 741 | 672 | 16 | 0 | 84 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 741 | 688 | 0 | 0 | 84 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 39.2\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |




| Approach | EB | WB | SB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0 | 11.3 |

HCMLOS B

| Minor Lane/Major Mvmt | EBT | WBT | WBR SBLn1 |
| :--- | :---: | ---: | ---: |
| Capacity (veh/h) | - | - | -653 |
| HCM Lane V/C Ratio | - | - | -0.128 |
| HCM Control Delay (s) | - | - | -11.3 |
| HCM Lane LOS | - | - | - |
| HCM 95th \%tile Q(veh) | - | - | -0.4 |


|  | 4 |  |  | 1 |  | 4 | 4 | $\dagger$ | $p$ |  | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1\% |  |
| Traffic Volume (vph) | 155 | 103 | 104 | 184 | 153 | 332 | 89 | 664 | 120 | 244 | 635 | 110 |
| Future Volume (vph) | 155 | 103 | 104 | 184 | 153 | 332 | 89 | 664 | 120 | 244 | 635 | 110 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.978 |  |
| Fit Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3461 | 0 |
| Flt Permitted | 0.652 |  |  | 0.528 |  |  | 0.255 |  |  | 0.190 |  |  |
| Satd. Flow (perm) | 1215 | 1863 | 1583 | 984 | 1863 | 1583 | 475 | 3539 | 1583 | 354 | 3461 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  | 123 |  |  | 131 |  |  | 130 |  | 25 |  |
| Link Speed (mph) |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time (s) |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 168 | 112 | 113 | 200 | 166 | 361 | 97 | 722 | 130 | 265 | 690 | 120 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 168 | 112 | 113 | 200 | 166 | 361 | 97 | 722 | 130 | 265 | 810 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA | pm+ov | pm+pt | NA | $p m+o v$ | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | 4 | $\rightarrow$ |  | 7 |  | 4 | 4 | 4 | \％ | $\pm$ | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 「 | ${ }^{7}$ | 4 | 7 | ${ }^{7}$ | 中4 | 「 | ${ }^{7}$ | 中t |  |
| Traffic Volume（veh／h） | 155 | 103 | 104 | 184 | 153 | 332 | 89 | 664 | 120 | 244 | 635 | 110 |
| Future Volume（veh／h） | 155 | 103 | 104 | 184 | 153 | 332 | 89 | 664 | 120 | 244 | 635 | 110 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 168 | 112 | 113 | 200 | 166 | 361 | 97 | 722 | 130 | 265 | 690 | 120 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 372 | 412 | 471 | 443 | 412 | 547 | 297 | 951 | 563 | 365 | 954 | 166 |
| Arrive On Green | 0.09 | 0.22 | 0.22 | 0.09 | 0.22 | 0.22 | 0.08 | 0.27 | 0.27 | 0.08 | 0.21 | 0.21 |
| Sat Flow，veh／h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3027 | 526 |
| Grp Volume（v），veh／h | 168 | 112 | 113 | 200 | 166 | 361 | 97 | 722 | 130 | 265 | 405 | 405 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1776 |
| Q Serve（g＿s），s | 5.8 | 4.0 | 4.3 | 7.0 | 6.1 | 15.5 | 3.0 | 14.9 | 4.6 | 8.4 | 17.0 | 17.0 |
| Cycle Q Clear（g＿c），s | 5.8 | 4.0 | 4.3 | 7.0 | 6.1 | 15.5 | 3.0 | 14.9 | 4.6 | 8.4 | 17.0 | 17.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.30 |
| Lane Grp Cap（c），veh／h | 372 | 412 | 471 | 443 | 412 | 547 | 297 | 951 | 563 | 365 | 560 | 560 |
| V／C Ratio（X） | 0.45 | 0.27 | 0.24 | 0.45 | 0.40 | 0.66 | 0.33 | 0.76 | 0.23 | 0.73 | 0.72 | 0.72 |
| Avail Cap（c＿a），veh／h | 372 | 421 | 479 | 443 | 421 | 555 | 315 | 951 | 563 | 365 | 560 | 560 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 21.5 | 25.9 | 21.3 | 21.7 | 26.7 | 22.2 | 19.4 | 26.9 | 18.1 | 20.5 | 28.3 | 28.3 |
| Incr Delay（d2），s／veh | 0.9 | 0.4 | 0.3 | 0.7 | 0.6 | 2.8 | 0.6 | 5.7 | 1.0 | 7.1 | 7.9 | 7.9 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 2.4 | 1.7 | 1.6 | 2.8 | 2.7 | 5.8 | 1.2 | 6.7 | 1.7 | 4.1 | 8.6 | 8.6 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 22.3 | 26.2 | 21.5 | 22.5 | 27.3 | 25.1 | 20.1 | 32.6 | 19.1 | 27.6 | 36.2 | 36.3 |
| LnGrp LOS | C | C | C | C | C | C | C | C | B | C | D | D |
| Approach Vol，veh／h |  | 393 |  |  | 727 |  |  | 949 |  |  | 1075 |  |
| Approach Delay，s／veh |  | 23.2 |  |  | 24.9 |  |  | 29.5 |  |  | 34.1 |  |
| Approach LOS |  | C |  |  | C |  |  | C |  |  | C |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（G＋Y＋Rc），s | 16.0 | 27.4 | 13.0 | 23.6 | 12.2 | 31.2 | 13.0 | 23.6 |  |  |  |  |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 10.0 | 21.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 10.4 | 16.9 | 9.0 | 6.3 | 5.0 | 19.0 | 7.8 | 17.5 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 1.9 | 0.0 | 0.7 | 0.0 | 2.2 | 0.0 | 0.1 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 29.2 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


|  | 4 |  |  | 7 |  |  |  | $\uparrow$ |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | \＄ |  | ${ }^{7}$ | 惺家 |  | \％ | 个t |  |
| Traffic Volume（vph） | 3 | 0 | 9 | 60 | 0 | 107 | 17 | 1072 | 69 | 162 | 911 | 8 |
| Future Volume（vph） | 3 | 0 | 9 | 60 | 0 | 107 | 17 | 1072 | 69 | 162 | 911 | 8 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.896 |  |  | 0.913 |  |  | 0.991 |  |  | 0.999 |  |
| Flt Protected |  | 0.989 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1651 | 0 | 0 | 1670 | 0 | 1770 | 5040 | 0 | 1770 | 3536 | 0 |
| Flt Permitted |  | 0.989 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1651 | 0 | 0 | 1670 | 0 | 1770 | 5040 | 0 | 1770 | 3536 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 3 | 0 | 10 | 65 | 0 | 116 | 18 | 1165 | 75 | 176 | 990 | 9 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 13 | 0 | 0 | 181 | 0 | 18 | 1240 | 0 | 176 | 999 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（tt） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |


| Intersection Summary |  |
| :--- | :--- |
| Area Type：Other |  |
| Control Type：Unsignalized |  |
| Intersection Capacity Utilization 56．6\％ | ICU Level of Service B |
| Analysis Period（min） 15 |  |

HCM 6th TWSC
7：Old Troy Pike \＆IHOP Driveway／Access \＃2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay，s／veh | 89.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \＄ |  |  | ¢ |  |  | 惺官 |  | ${ }_{1}$ | 个t |  |  |
| Traffic Vol，veh／h | 3 | 0 | 9 | 60 | 0 | 107 | 17 | 1072 | 69 | 162 | 911 | 8 |  |
| Future Vol，veh／h | 3 | 0 | 9 | 60 | 0 | 107 | 17 | 1072 | 69 | 162 | 911 | 8 |  |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | － | － | None | － | － | None | － | － | None | － | － | None |  |
| Storage Length | － | － | － | － | － | － | 80 | － | － | 100 | － | － |  |
| Veh in Median Storage，\＃ | \＃ | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Grade，\％ | － | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mumt Flow | 3 | 0 | 10 | 65 | 0 | 116 | 18 | 1165 | 75 | 176 | 990 | 9 |  |



| Approach | EB | WB | NB | SB |
| :--- | ---: | ---: | :--- | :--- |
| HCM Control Delay，s | 62.8 | $\$ 1252.9$ | 0.2 | 4.9 |
| HCM LOS | F | F |  |  |


| Minor Lane／Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Capacity（veh／h） | 689 | - | - | 75 | 53 | 299 | - |
| HCM Lane V／C Ratio | 0.027 | - | -0.174 | 3.425 | 0.589 | - | - |
| HCM Control Delay（s） | 10.4 | - | - | 62.81252 .9 | 32.9 | - | - |
| HCM Lane LOS | B | - | - | F | F | D | - |
| HCM 95th \％tile Q（veh） | 0.1 | - | - | 0.6 | 19.5 | 3.5 | - |

## Notes

$\sim$ ：Volume exceeds capacity $\$$ ：Delay exceeds $300 \mathrm{~s} \quad+$ ：Computation Not Defined $\quad$ ：All major volume in platoon

|  | 4 |  |  | $\checkmark$ |  |  | 4 | $\uparrow$ | p |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{1}$ |  | \% | $\uparrow$ |  | \% | 个4 | 「 | \% | $\uparrow \stackrel{ }{\text { ¢ }}$ |  |
| Trafic Volume (vph) | 21 | 0 | 66 | 74 | 0 | 86 | 76 | 1075 | 53 | 76 | 981 | 42 |
| Future Volume (vph) | 21 | 0 | 66 | 74 | 0 | 86 | 76 | 1075 | 53 | 76 | 981 | 42 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 150 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.994 |  |
| FIt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3518 | 0 |
| Flt Permitted | 0.697 |  |  | 0.559 |  |  | 0.133 |  |  | 0.118 |  |  |
| Satd. Flow (perm) | 1298 | 1583 | 0 | 1041 | 1583 | 0 | 248 | 3539 | 1583 | 220 | 3518 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 332 |  |  | 383 |  |  |  | 123 |  | 5 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 352 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time (s) |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 23 | 0 | 72 | 80 | 0 | 93 | 83 | 1168 | 58 | 83 | 1066 | 46 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 23 | 72 | 0 | 80 | 93 | 0 | 83 | 1168 | 58 | 83 | 1112 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (tt) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex |  | Cl+Ex | Cl+Ex |  | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA |  | pm+pt | NA |  | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | $\uparrow$ | 7 |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial ( $s$ ) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 30.0 | 13.0 | 13.0 | 30.0 |  |
| Total Split (\%) | 16.3\% | 30.0\% |  | 16.3\% | 30.0\% |  | 16.3\% | 37.5\% | 16.3\% | 16.3\% | 37.5\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 18.0 |  | 7.0 | 24.0 | 7.0 | 7.0 | 24.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Effct Green (s) | 15.0 | 10.0 |  | 17.4 | 15.2 |  | 46.0 | 41.0 | 51.4 | 46.0 | 41.0 |  |
| Actuated g/C Ratio | 0.19 | 0.12 |  | 0.22 | 0.19 |  | 0.58 | 0.51 | 0.64 | 0.58 | 0.51 |  |
| V/c Ratio | 0.08 | 0.15 |  | 0.28 | 0.15 |  | 0.29 | 0.64 | 0.05 | 0.30 | 0.62 |  |
| Control Delay | 21.6 | 0.6 |  | 24.3 | 0.5 |  | 14.6 | 22.9 | 0.3 | 11.5 | 21.2 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 21.6 | 0.6 |  | 24.3 | 0.5 |  | 14.6 | 22.9 | 0.3 | 11.5 | 21.2 |  |
| LOS | C | A |  | C | A |  | B | C | A | B | C |  |
| Approach Delay |  | 5.7 |  |  | 11.5 |  |  | 21.4 |  |  | 20.5 |  |
| Approach LOS |  | A |  |  | B |  |  | C |  |  | C |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0\%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 19.8
Intersection LOS: B
Intersection Capacity Utilization 61.3\% ICU Level of Service B
Analysis Period (min) 15
Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


|  | 4 | $\rightarrow$ |  | $\dagger$ |  | 4 | 4 | $\uparrow$ | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\uparrow$ |  | \% | $\uparrow$ |  | \% | 个4 | F | \% | 个t |  |
| Traffic Volume (veh/h) | 21 | 0 | 66 | 74 | O | 86 | 76 | 1075 | 53 | 76 | 981 | 42 |
| Future Volume (veh/h) | 21 | 0 | 66 | 74 | 0 | 86 | 76 | 1075 | 53 | 76 | 981 | 42 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 23 | 0 | 72 | 80 | 0 | 93 | 83 | 1168 | 58 | 83 | 1066 | 46 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 294 | 0 | 195 | 328 | 0 | 255 | 311 | 1530 | 798 | 364 | 1494 | 64 |
| Arrive On Green | 0.04 | 0.00 | 0.12 | 0.07 | 0.00 | 0.16 | 0.15 | 0.86 | 0.86 | 0.07 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3471 | 150 |
| Grp Volume(v), veh/h | 23 | 0 | 72 | 80 | 0 | 93 | 83 | 1168 | 58 | 83 | 546 | 566 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1843 |
| Q Serve(g_s), s | 0.9 | 0.0 | 3.3 | 3.0 | 0.0 | 4.2 | 1.9 | 10.7 | 0.4 | 1.9 | 20.2 | 20.2 |
| Cycle Q Clear (g_c), s | 0.9 | 0.0 | 3.3 | 3.0 | 0.0 | 4.2 | 1.9 | 10.7 | 0.4 | 1.9 | 20.2 | 20.2 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.08 |
| Lane Grp Cap (c), veh/h | 294 |  | 195 | 328 | 0 | 255 | 311 | 1530 | 798 | 364 | 765 | 794 |
| V/C Ratio(X) | 0.08 | 0.00 | 0.37 | 0.24 | 0.00 | 0.36 | 0.27 | 0.76 | 0.07 | 0.23 | 0.71 | 0.71 |
| Avail Cap(c_a), veh/h | 387 | 0 | 357 | 354 | 0 | 357 | 336 | 1530 | 798 | 389 | 765 | 794 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.7 | 0.0 | 32.2 | 27.2 | 0.0 | 29.9 | 12.2 | 3.9 | 2.4 | 11.2 | 18.7 | 18.7 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 1.2 | 0.4 | 0.0 | 0.9 | 0.5 | 3.7 | 0.2 | 0.3 | 5.6 | 5.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.4 | 0.0 | 1.3 | 1.3 | 0.0 | 1.6 | 0.7 | 2.3 | 0.2 | 0.7 | 8.7 | 9.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 28.8 | 0.0 | 33.4 | 27.5 | 0.0 | 30.8 | 12.7 | 7.6 | 2.6 | 11.5 | 24.3 | 24.1 |
| LnGrp LOS | C | A | C | C | A | C | B | A | A | B | C | C |
| Approach Vol, veh/h |  | 95 |  |  | 173 |  |  | 1309 |  |  | 1195 |  |
| Approach Delay, s/veh |  | 32.3 |  |  | 29.3 |  |  | 7.7 |  |  | 23.4 |  |
| Approach LOS |  | C |  |  | C |  |  | A |  |  | C |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 11.9 | 40.4 | 11.8 | 15.8 | 11.9 | 40.4 | 8.8 | 18.9 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 24.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time (g_c+11), s | 3.9 | 12.7 | 5.0 | 5.3 | 3.9 | 22.2 | 2.9 | 6.2 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 6.2 | 0.0 | 0.2 | 0.0 | 1.2 | 0.0 | 0.3 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl DelayHCM 6th LOS |  |  | 16.6 |  |  |  |  |  |  |  |  |  |
|  |  |  | B |  |  |  |  |  |  |  |  |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |




| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization $50.5 \%$ | ICU Level of Service A |
| Analysis Period (min) 15 |  |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 670 | 0 | - | 0 | 1267 | 668 |
| Stage 1 | - | - | - | - | 668 | - |
| Stage 2 | - | - | - | - | 599 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 920 | - | - | - | 186 | 458 |
| Stage 1 | - | - | - | - | 510 | - |
| Stage 2 | - | - | - | - | 549 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 920 | - | - | - | 168 | 458 |
| Mov Cap-2 Maneuver | - | - | - | - | 304 | - |
| Stage 1 | - | - | - | - | 460 | - |
| Stage 2 | - | - | - | - | 549 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 1.7 |  | 0 |  | 17.6 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 920 | - | - | - | 304 |
| HCM Lane V/C Ratio |  | 0.099 | - | - | - | 0.057 |
| HCM Control Delay (s) |  | 9.3 | - | - | - | 17.6 |
| HCM Lane LOS |  | A | - | - | - | C |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - |  | 0.2 |


|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\uparrow$ | 个t |  |  | F |
| Trafic Volume (vph) | 0 | 468 | 597 | 15 | 0 | 72 |
| Future Volume (vph) | 0 | 468 | 597 | 15 | 0 | 72 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.996 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3525 | 0 | 0 | 1611 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3525 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 4.4 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 509 | 649 | 16 | 0 | 78 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 509 | 665 | 0 | 0 | 78 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 60 |  |  | 60 | 60 | 60 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 28.1\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |



|  | 4 | $\rightarrow$ |  | 7 |  | 4 | 4 | 4 | P | $\pm$ | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 「 | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1T |  |
| Traffic Volume (vph) | 155 | 102 | 104 | 195 | 153 | 340 | 89 | 646 | 128 | 233 | 619 | 110 |
| Future Volume (vph) | 155 | 102 | 104 | 195 | 153 | 340 | 89 | 646 | 128 | 233 | 619 | 110 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.977 |  |
| Flt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3458 | 0 |
| Flt Permitted | 0.652 |  |  | 0.529 |  |  | 0.259 |  |  | 0.212 |  |  |
| Satd. Flow (perm) | 1215 | 1863 | 1583 | 985 | 1863 | 1583 | 482 | 3539 | 1583 | 395 | 3458 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  | 123 |  |  | 133 |  |  | 139 |  | 26 |  |
| Link Speed (mph) |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time (s) |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 168 | 111 | 113 | 212 | 166 | 370 | 97 | 702 | 139 | 253 | 673 | 120 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 168 | 111 | 113 | 212 | 166 | 370 | 97 | 702 | 139 | 253 | 793 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | 4 | $\rightarrow$ | \％ | 7 |  | 4 | 4 | 4 | \％ | $\$$ | $\frac{1}{1}$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \％ | 4 | 「 | \％ | 4 | 「 | \％ | 中4 | 「 | ${ }^{7}$ | 中 ${ }^{\text {c }}$ |  |
| Traffic Volume（veh／h） | 155 | 102 | 104 | 195 | 153 | 340 | 89 | 646 | 128 | 233 | 619 | 110 |
| Future Volume（veh／h） | 155 | 102 | 104 | 195 | 153 | 340 | 89 | 646 | 128 | 233 | 619 | 110 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 168 | 111 | 113 | 212 | 166 | 370 | 97 | 702 | 139 | 253 | 673 | 120 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 375 | 419 | 477 | 448 | 419 | 553 | 298 | 937 | 557 | 367 | 938 | 167 |
| Arrive On Green | 0.09 | 0.22 | 0.22 | 0.09 | 0.22 | 0.22 | 0.08 | 0.26 | 0.26 | 0.08 | 0.21 | 0.21 |
| Sat Flow，veh／h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3014 | 537 |
| Grp Volume（v），veh／h | 168 | 111 | 113 | 212 | 166 | 370 | 97 | 702 | 139 | 253 | 396 | 397 |
| Grp Sat Flow（s），veh／h／ln | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1774 |
| Q Serve（g＿s），s | 5.7 | 3.9 | 4.3 | 7.0 | 6.0 | 15.9 | 3.0 | 14.5 | 5.0 | 8.0 | 16.6 | 16.6 |
| Cycle Q Clear（g＿c），s | 5.7 | 3.9 | 4.3 | 7.0 | 6.0 | 15.9 | 3.0 | 14.5 | 5.0 | 8.0 | 16.6 | 16.6 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.30 |
| Lane Grp Cap（c），veh／h | 375 | 419 | 477 | 448 | 419 | 553 | 298 | 937 | 557 | 367 | 553 | 552 |
| V／C Ratio（X） | 0.45 | 0.27 | 0.24 | 0.47 | 0.40 | 0.67 | 0.32 | 0.75 | 0.25 | 0.69 | 0.72 | 0.72 |
| Avail Cap（c＿a），veh／h | 375 | 421 | 479 | 448 | 421 | 555 | 317 | 937 | 557 | 367 | 553 | 552 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 21.2 | 25.6 | 21.0 | 21.9 | 26.4 | 22.1 | 19.6 | 27.0 | 18.5 | 20.4 | 28.4 | 28.4 |
| Incr Delay（d2），s／veh | 0.8 | 0.3 | 0.3 | 0.8 | 0.6 | 3.1 | 0.6 | 5.5 | 1.1 | 5.4 | 7.8 | 7.8 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（ $50 \%$ ），veh／ln | 2.3 | 1.7 | 1.5 | 3.0 | 2.6 | 6.0 | 1.2 | 6.5 | 1.9 | 3.8 | 8.4 | 8.4 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 22.1 | 26.0 | 21.3 | 22.6 | 27.1 | 25.2 | 20.2 | 32.5 | 19.5 | 25.8 | 36.1 | 36.2 |
| LnGrp LOS | C | C | C | C | C | C | C | C | B | C | D | D |
| Approach Vol，veh／h |  | 392 |  |  | 748 |  |  | 938 |  |  | 1046 |  |
| Approach Delay，s／veh |  | 22.9 |  |  | 24.9 |  |  | 29.3 |  |  | 33.7 |  |
| Approach LOS |  | C |  |  | C |  |  | C |  |  | C |  |
| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration（G＋Y＋Rc），s | 16.0 | 27.1 | 13.0 | 23.9 | 12.2 | 30.9 | 13.0 | 23.9 |  |  |  |  |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting（Gmax），s | 10.0 | 21.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 10.0 | 16.5 | 9.0 | 6.3 | 5.0 | 18.6 | 7.7 | 17.9 |  |  |  |  |
| Green Ext Time（p＿c），s | 0.0 | 2.0 | 0.0 | 0.7 | 0.0 | 2.2 | 0.0 | 0.0 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 28.9 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | C |  |  |  |  |  |  |  |  |  |


|  | 4 |  |  | 7 |  |  |  | $\uparrow$ |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | ¢ |  | ${ }^{7}$ | 种家 |  | \％ | 个t |  |
| Traffic Volume（vph） | 3 | 0 | 9 | 24 | 0 | 114 | 17 | 1049 | 77 | 167 | 872 | 8 |
| Future Volume（vph） | 3 | 0 | 9 | 24 | 0 | 114 | 17 | 1049 | 77 | 167 | 872 | 8 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.896 |  |  | 0.888 |  |  | 0.990 |  |  | 0.999 |  |
| Flt Protected |  | 0.989 |  |  | 0.991 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1651 | 0 | 0 | 1639 | 0 | 1770 | 5034 | 0 | 1770 | 3536 | 0 |
| Flt Permitted |  | 0.989 |  |  | 0.991 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1651 | 0 | 0 | 1639 | 0 | 1770 | 5034 | 0 | 1770 | 3536 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 3 | 0 | 10 | 26 | 0 | 124 | 18 | 1140 | 84 | 182 | 948 | 9 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 13 | 0 | 0 | 150 | 0 | 18 | 1224 | 0 | 182 | 957 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（tt） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |

## Intersection Summary

Area Type：Other

Control Type：Unsignalized
Intersection Capacity Utilization 51．3\％ICU Level of Service A
Analysis Period（min） 15

HCM 6th TWSC
7: Old Troy Pike \& IHOP Driveway/Access \#2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 23.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \$ |  |  | $\dagger$ |  |  | 蚛 |  | 7 | 个t |  |  |
| Traffic Vol, veh/h | 3 | 0 | 9 | 24 | 0 | 114 | 17 | 1049 | 77 | 167 | 872 | 8 |  |
| Future Vol, veh/h | 3 | 0 | 9 | 24 | 0 | 114 | 17 | 1049 | 77 | 167 | 872 | 8 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |  |
| Storage Length | - | - | - | - | - | - | 80 | - | - | 100 | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 3 | 0 | 10 | 26 | 0 | 124 | 18 | 1140 | 84 | 182 | 948 | 9 |  |



| Minor Lane/Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 714 | - | - | 78 | 99 | 305 | - |

## Notes

$\sim$ : Volume exceeds capacity $\$$ : Delay exceeds $300 \mathrm{~s} \quad+$ : Computation Not Defined $\quad$ : All major volume in platoon

|  | 4 |  |  | $\checkmark$ |  |  | 4 | $\uparrow$ | p |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \％ | $\hat{1}$ |  | \％ | $\uparrow$ |  | \％ | 个4 | 「 | \％ | 个t |  |
| Trafic Volume（vph） | 21 | 0 | 66 | 108 | 0 | 80 | 76 | 1052 | 43 | 65 | 925 | 42 |
| Future Volume（vph） | 21 | 0 | 66 | 108 | 0 | 80 | 76 | 1052 | 43 | 65 | 925 | 42 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 150 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length（ft） | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.993 |  |
| FIt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3514 | 0 |
| Flt Permitted | 0.701 |  |  | 0.559 |  |  | 0.155 |  |  | 0.124 |  |  |
| Satd．Flow（perm） | 1306 | 1583 | 0 | 1041 | 1583 | 0 | 289 | 3539 | 1583 | 231 | 3514 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd．Flow（RTOR） |  | 309 |  |  | 384 |  |  |  | 123 |  | 6 |  |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 354 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time（s） |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 23 | 0 | 72 | 117 | 0 | 87 | 83 | 1143 | 47 | 71 | 1005 | 46 |
| Shared Lane Trafic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 23 | 72 | 0 | 117 | 87 | 0 | 83 | 1143 | 47 | 71 | 1051 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 60 |  | 60 | 15 |  | 60 | 60 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector（ft） | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector（tt） | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position（ft） | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size（ft） | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl＋Ex | Cl＋Ex |  | Cl＋Ex | Cl＋Ex |  | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex | Cl＋Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay（s） | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position（ft） |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size（ft） |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend（s） |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm＋pt | NA |  | pm＋pt | NA |  | pm＋pt | NA | pm＋ov | pm＋pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | $\uparrow$ | 7 |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial ( $s$ ) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 30.0 | 13.0 | 13.0 | 30.0 |  |
| Total Split (\%) | 16.3\% | 30.0\% |  | 16.3\% | 30.0\% |  | 16.3\% | 37.5\% | 16.3\% | 16.3\% | 37.5\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 18.0 |  | 7.0 | 24.0 | 7.0 | 7.0 | 24.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Effct Green (s) | 15.0 | 10.0 |  | 17.4 | 15.2 |  | 46.2 | 41.2 | 51.6 | 45.8 | 41.0 |  |
| Actuated g/C Ratio | 0.19 | 0.12 |  | 0.22 | 0.19 |  | 0.58 | 0.52 | 0.64 | 0.57 | 0.51 |  |
| V/c Ratio | 0.08 | 0.15 |  | 0.40 | 0.14 |  | 0.27 | 0.63 | 0.04 | 0.26 | 0.58 |  |
| Control Delay | 21.6 | 0.7 |  | 27.2 | 0.5 |  | 13.2 | 21.7 | 0.1 | 10.9 | 20.2 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 21.6 | 0.7 |  | 27.2 | 0.5 |  | 13.2 | 21.7 | 0.1 | 10.9 | 20.2 |  |
| LOS | C | A |  | C | A |  | B | C | A | B | C |  |
| Approach Delay |  | 5.8 |  |  | 15.8 |  |  | 20.3 |  |  | 19.6 |  |
| Approach LOS |  | A |  |  | B |  |  | C |  |  | B |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0\%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

## Maximum v/c Ratio: 0.63

Intersection Signal Delay: 19.2
Intersection LOS: B
Intersection Capacity Utilization 62.6\% ICU Level of Service B
Analysis Period (min) 15
Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \％ |  |  | \％ | $\hat{F}$ |  | ${ }^{7}$ | 个个 | 「 | \％ | 性 |  |
| Traffic Volume（veh／h） | 21 | 0 | 66 | 108 | 0 | 80 | 76 | 1052 | 43 | 65 | 925 | 42 |
| Future Volume（veh／h） | 21 | 0 | 66 | 108 | 0 | 80 | 76 | 1052 | 43 | 65 | 925 | 42 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 23 | 0 | 72 | 117 | 0 | 87 | 83 | 1143 | 47 | 71 | 1005 | 46 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 310 | 0 | 195 | 342 | 0 | 268 | 321 | 1517 | 805 | 359 | 1462 | 67 |
| Arrive On Green | 0.04 | 0.00 | 0.12 | 0.08 | 0.00 | 0.17 | 0.15 | 0.85 | 0.85 | 0.07 | 0.42 | 0.42 |
| Sat Flow，veh／h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3460 | 158 |
| Grp Volume（v），veh／h | 23 | 0 | 72 | 117 | 0 | 87 | 83 | 1143 | 47 | 71 | 516 | 535 |
| Grp Sat Flow（s），veh／h／n | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1842 |
| Q Serve（g＿s），s | 0.9 | 0.0 | 3.3 | 4.5 | 0.0 | 3.9 | 1.9 | 10.6 | 0.3 | 1.7 | 18.9 | 18.9 |
| Cycle Q Clear（g＿c），s | 0.9 | 0.0 | 3.3 | 4.5 | 0.0 | 3.9 | 1.9 | 10.6 | 0.3 | 1.7 | 18.9 | 18.9 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.09 |
| Lane Grp Cap（c），veh／h | 310 | 0 | 195 | 342 | 0 | 268 | 321 | 1517 | 805 | 359 | 751 | 778 |
| V／C Ratio（X） | 0.07 | 0.00 | 0.37 | 0.34 | 0.00 | 0.33 | 0.26 | 0.75 | 0.06 | 0.20 | 0.69 | 0.69 |
| Avail Cap（c＿a），veh／h | 404 | 0 | 357 | 354 | 0 | 357 | 346 | 1517 | 805 | 391 | 751 | 778 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（1） | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 28.7 | 0.0 | 32.2 | 27.2 | 0.0 | 29.2 | 12.2 | 4.1 | 2.5 | 11.5 | 18.8 | 18.8 |
| Incr Delay（d2），s／veh | 0.1 | 0.0 | 1.2 | 0.6 | 0.0 | 0.7 | 0.4 | 3.5 | 0.1 | 0.3 | 5.1 | 4.9 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 0.4 | 0.0 | 1.3 | 1.9 | 0.0 | 1.5 | 0.7 | 2.3 | 0.1 | 0.6 | 8.1 | 8.4 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 28.8 | 0.0 | 33.4 | 27.8 | 0.0 | 29.9 | 12.6 | 7.7 | 2.6 | 11.8 | 23.9 | 23.7 |
| LnGrp LOS | C | A | C | C | A | C | B | A | A | B | C | C |
| Approach Vol，veh／h |  | 95 |  |  | 204 |  |  | 1273 |  |  | 1122 |  |
| Approach Delay，s／veh |  | 32.3 |  |  | 28.7 |  |  | 7.8 |  |  | 23.0 |  |
| Approach LOS |  | C |  |  | C |  |  | A |  |  | C |  |


| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration $(G+Y+R c)$ ，s | 11.6 | 40.1 | 12.5 | 15.8 | 11.9 | 39.8 | 8.8 | 19.5 |
| Change Period $(\mathrm{Y}+\mathrm{Rc})$ ，s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Max Green Setting（Gmax），s | 7.0 | 24.0 | 7.0 | 18.0 | 7.0 | 24.0 | 7.0 | 18.0 |
| Max Q Clear Time（g＿c＋11），s | 3.7 | 12.6 | 6.5 | 5.3 | 3.9 | 20.9 | 2.9 | 5.9 |
| Green Ext Time（p＿c），s | 0.0 | 6.0 | 0.0 | 0.2 | 0.0 | 1.8 | 0.0 | 0.3 |

Intersection Summary

| HCM 6th Ctrl Delay | 16.6 |
| :--- | ---: |
| HCM 6th LOS | $B$ |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |


| Major/Minor | Minor1 |  |  |  |  |  | Major1 | Major2 |
| :--- | ---: | ---: | ---: | ---: | :--- | :---: | :---: | :---: |
| Conflicting Flow All | - | 622 | 0 | 0 | 1243 |  |  |  |
| $\quad$ Stage 1 | - | - | - | - | - |  |  |  |
| Stage 2 | - | - | - | - | - |  |  |  |


| Approach | WB | NB | SB |
| :--- | :---: | :---: | :---: |
| HCM Control Delay, s | 15.4 | 0 | 0 |

HCMLOS C

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
| :--- | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | - | -368 | 298 | - |
| HCM Lane V/C Ratio | - | -0.059 | - | - |
| HCM Control Delay (s) | - | -15.4 | 0 | - |
| HCM Lane LOS | - | - | C | A |
| HCM 95th \%tile Q(veh) | - | - | 0.2 | 0 |
| H | - |  |  |  |



| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization $50.0 \%$ | ICU Level of Service A |
| Analysis Period (min) 15 |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 7 | 4 | F |  | M |  |
| Traffic Vol, veh/h | 79 | 381 | 614 | 0 | 13 | 0 |
| Future Vol, veh/h | 79 | 381 | 614 | 0 | 13 | 0 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 65 | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 414 | 667 | 0 | 14 | 0 |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 667 | 0 | - | 0 | 1253 | 667 |
| Stage 1 | - | - | - | - | 667 | - |
| Stage 2 | - | - | - | - | 586 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 923 | - | - | - | 190 | 459 |
| Stage 1 | - | - | - | - | 510 | - |
| Stage 2 | - | - | - | - | 556 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 923 | - | - | - | 172 | 459 |
| Mov Cap-2 Maneuver | - | - | - | - | 308 | - |
| Stage 1 | - | - | - | - | 463 | - |
| Stage 2 | - | - | - | - | 556 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 1.6 |  | 0 |  | 17.3 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT WBR SBLn1 |  |  |
| Capacity (veh/h) |  | 923 | - | - | - | 308 |
| HCM Lane V/C Ratio |  | 0.093 | - | - | - | 0.046 |
| HCM Control Delay (s) |  | 9.3 | - | - | - | 17.3 |
| HCM Lane LOS |  | A | - | - | - | C |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - |  | 0.1 |


|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | 4 | 个t |  |  | 「 |
| Trafic Volume (vph) | 0 | 464 | 596 | 18 | 0 | 92 |
| Future Volume (vph) | 0 | 464 | 596 | 18 | 0 | 92 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.996 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3525 | 0 | 0 | 1611 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3525 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 30 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 4.4 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 504 | 648 | 20 | 0 | 100 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 504 | 668 | 0 | 0 | 100 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 60 |  |  | 60 | 60 | 60 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 29.4\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |



|  | 4 |  |  | 1 |  | 4 | 4 | $\dagger$ | $p$ |  | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1t |  |
| Traffic Volume (vph) | 264 | 288 | 217 | 167 | 262 | 426 | 225 | 969 | 152 | 397 | 1146 | 164 |
| Future Volume (vph) | 264 | 288 | 217 | 167 | 262 | 426 | 225 | 969 | 152 | 397 | 1146 | 164 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.981 |  |
| Fit Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3472 | 0 |
| Flt Permitted | 0.328 |  |  | 0.266 |  |  | 0.148 |  |  | 0.125 |  |  |
| Satd. Flow (perm) | 611 | 1863 | 1583 | 495 | 1863 | 1583 | 276 | 3539 | 1583 | 233 | 3472 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  | 109 |  |  | 109 |  |  | 113 |  | 19 |  |
| Link Speed (mph) |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time (s) |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 287 | 313 | 236 | 182 | 285 | 463 | 245 | 1053 | 165 | 432 | 1246 | 178 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 287 | 313 | 236 | 182 | 285 | 463 | 245 | 1053 | 165 | 432 | 1424 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA | pm+ov | pm+pt | NA | $p m+o v$ | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |


|  | 4 |  |  | 7 |  |  |  | $\uparrow$ |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | ¢ |  | ${ }^{7}$ | 惺家 |  | \％ | 个t |  |
| Traffic Volume（vph） | 6 | 0 | 36 | 42 | 0 | 73 | 16 | 1618 | 32 | 94 | 1627 | 40 |
| Future Volume（vph） |  | 0 | 36 | 42 | 0 | 73 | 16 | 1618 | 32 | 94 | 1627 | 40 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | 0 |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.886 |  |  | 0.915 |  |  | 0.997 |  |  | 0.996 |  |
| Flt Protected |  | 0.992 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1637 | 0 | 0 | 1674 | 0 | 1770 | 5070 | 0 | 1770 | 3525 | 0 |
| Flt Permitted |  | 0.992 |  |  | 0.982 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1637 | 0 | 0 | 1674 | 0 | 1770 | 5070 | 0 | 1770 | 3525 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 7 | 0 | 39 | 46 | 0 | 79 | 17 | 1759 | 35 | 102 | 1768 | 43 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 46 | 0 | 0 | 125 | 0 | 17 | 1794 | 0 | 102 | 1811 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（tt） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |


| Intersection Summary |  |
| :--- | :--- |
| Area Type：Other |  |
| Control Type：Unsignalized |  |
| Intersection Capacity Utilization 73．1\％ | ICU Level of Service D |
| Analysis Period（min） 15 |  |

HCM 6th TWSC
7: Old Troy Pike \& IHOP Driveway/Access \#2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 180 | 80.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | $\uparrow$ |  |  | $\uparrow$ |  |  | 惺 |  | ${ }^{7}$ | 颜 |  |  |
| Traffic Vol, veh/h | 6 | 0 | 36 | 42 | 0 | 73 | 16 | 1618 | 32 | 94 | 1627 | 40 |  |
| Future Vol, veh/h | 6 | 0 | 36 | 42 | 0 | 73 | 16 | 1618 | 32 | 94 | 1627 | 40 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control Stor | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | - | - | None | - | - | None | - | - | None | - |  | None |  |
| Storage Length | - | - | - | - | - | - | 80 | - | - | 100 | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 7 | 0 | 39 | 46 | 0 | 79 | 17 | 1759 | 35 | 102 | 1768 | 43 |  |



| Approach | EB | WB | NB | SB |
| :--- | ---: | ---: | :--- | :--- |
| HCM Control Delay, s\$ 685.5 | $\$ 5330.7$ | 0.2 | 3.3 |  |
| HCM LOS | F | F |  |  |


| Minor Lane/Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Capacity (veh/h) | 335 | - | - | 26 | 11 | 159 | - | - |
| HCM Lane V/C Ratio | 0.052 | - | -1.75611 .364 | 0.643 | - | - |  |  |
| HCM Control Delay (s) | 16.3 | - | $\$ 685.55330 .7$ | 61.3 | - | - |  |  |
| HCM Lane LOS | C | - | - | F | F | F | - | - |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | 5.5 | 17 | 3.6 | - | - |

## Notes

$\sim$ : Volume exceeds capacity $\$$ : Delay exceeds $300 \mathrm{~s} \quad+$ : Computation Not Defined $\quad$ : All major volume in platoon

|  | 4 |  |  | $\checkmark$ |  |  | 4 | $\uparrow$ | p |  | $\downarrow$ | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{1}$ |  | \% | $\uparrow$ |  | \% | 个4 | F' | \% | $\uparrow$ |  |
| Trafic Volume (vph) | 32 | 0 | 182 | 52 | 0 | 78 | 164 | 1500 | 61 | 101 | 1549 | 105 |
| Future Volume (vph) | 32 | 0 | 182 | 52 | 0 | 78 | 164 | 1500 | 61 | 101 | 1549 | 105 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 150 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.990 |  |
| FIt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3504 | 0 |
| FIt Permitted | 0.702 |  |  | 0.375 |  |  | 0.094 |  |  | 0.104 |  |  |
| Satd. Flow (perm) | 1308 | 1583 | 0 | 699 | 1583 | 0 | 175 | 3539 | 1583 | 194 | 3504 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 261 |  |  | 292 |  |  |  | 109 |  | 9 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 352 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time (s) |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 35 | 0 | 198 | 57 | 0 | 85 | 178 | 1630 | 66 | 110 | 1684 | 114 |
| Shared Lane Trafic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 35 | 198 | 0 | 57 | 85 | 0 | 178 | 1630 | 66 | 110 | 1798 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (tt) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex |  | Cl+Ex | Cl+Ex |  | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | $\mathrm{Cl}+\mathrm{Ex}$ |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA |  | pm+pt | NA |  | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | 4 | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial (s) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 40.0 | 13.0 | 13.0 | 40.0 |  |
| Total Split (\%) | 14.4\% | 26.7\% |  | 14.4\% | 26.7\% |  | 14.4\% | 44.4\% | 14.4\% | 14.4\% | 44.4\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 18.0 |  | 7.0 | 34.0 | 7.0 | 7.0 | 34.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Efft Green (s) | 15.6 | 10.0 |  | 16.8 | 12.6 |  | 55.3 | 46.0 | 59.0 | 48.9 | 40.7 |  |
| Actuated g/C Ratio | 0.17 | 0.11 |  | 0.19 | 0.14 |  | 0.61 | 0.51 | 0.66 | 0.54 | 0.45 |  |
| v/c Ratio | 0.13 | 0.49 |  | 0.27 | 0.18 |  | 0.59 | 0.90 | 0.06 | 0.44 | 1.13 |  |
| Control Delay | 27.1 | 6.0 |  | 29.5 | 0.8 |  | 23.0 | 25.7 | 0.3 | 16.7 | 94.5 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 27.1 | 6.0 |  | 29.5 | 0.8 |  | 23.0 | 25.7 | 0.3 | 16.7 | 94.5 |  |
| LOS | C | A |  | C | A |  | C | C | A | B | F |  |
| Approach Delay |  | 9.2 |  |  | 12.3 |  |  | 24.5 |  |  | 90.0 |  |
| Approach LOS |  | A |  |  | B |  |  | C |  |  | F |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 ( $0 \%$ ), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 53.3 Intersection LOS: D
Intersection Capacity Utilization 92.3\% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


|  | $\Rightarrow$ | $\rightarrow$ | 7 | 7 | - | 4 | 4 | 4 | $p$ |  | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{\beta}$ |  | ${ }^{7}$ | $\hat{\beta}$ |  | ${ }^{7}$ | ¢4 | F' | \% | 个t |  |
| Traffic Volume (veh/h) | 32 | - | 182 | 52 | - | 78 | 164 | 1500 | 61 | 101 | 1549 | 105 |
| Future Volume (veh/h) | 32 | 0 | 182 | 52 | 0 | 78 | 164 | 1500 | 61 | 101 | 1549 | 105 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 35 | 0 | 198 | 57 | 0 | 85 | 178 | 1630 | 66 | 110 | 1684 | 114 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 312 | 0 | 236 | 218 | 0 | 258 | 217 | 1608 | 811 | 210 | 1516 | 102 |
| Arrive On Green | 0.05 | 0.00 | 0.15 | 0.06 | 0.00 | 0.16 | 0.15 | 0.91 | 0.91 | 0.07 | 0.45 | 0.45 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3379 | 227 |
| Grp Volume(v), veh/h | 35 | 0 | 198 | 57 | 0 | 85 | 178 | 1630 | 66 | 110 | 879 | 919 |
| Grp Sat Flow(s),veh/h/n | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1830 |
| Q Serve(g_s), s | 1.5 | 0.0 | 10.9 | 2.4 | 0.0 | 4.3 | 4.9 | 40.7 | 0.3 | 2.8 | 40.4 | 40.4 |
| Cycle Q Clear (g_c), s | 1.5 | 0.0 | 10.9 | 2.4 | 0.0 | 4.3 | 4.9 | 40.7 | 0.3 | 2.8 | 40.4 | 40.4 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.12 |
| Lane Grp Cap(c), veh/h | 312 | 0 | 236 | 218 | 0 | 258 | 217 | 1608 | 811 | 210 | 797 | 821 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.84 | 0.26 | 0.00 | 0.33 | 0.82 | 1.01 | 0.08 | 0.52 | 1.10 | 1.12 |
| Avail Cap(c_a), veh/h | 370 | 0 | 317 | 251 | 0 | 317 | 219 | 1608 | 811 | 219 | 797 | 821 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.9 | 0.0 | 37.2 | 29.9 | 0.0 | 33.3 | 18.7 | 4.3 | 1.9 | 20.0 | 24.8 | 24.8 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 13.7 | 0.6 | 0.0 | 0.7 | 21.3 | 25.8 | 0.2 | 2.1 | 63.8 | 70.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.6 | 0.0 | 5.1 | 1.0 | 0.0 | 1.7 | 2.8 | 7.4 | 0.2 | 1.2 | 29.6 | 31.9 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay (d),s/veh | 30.0 | 0.0 | 51.0 | 30.5 | 0.0 | 34.1 | 39.9 | 30.1 | 2.1 | 22.1 | 88.6 | 94.8 |
| LnGrp LOS | C | A | D | C | A | C | D | F | A | C | F | F |
| Approach Vol, veh/h |  | 233 |  |  | 142 |  |  | 1874 |  |  | 1908 |  |
| Approach Delay, s/veh |  | 47.8 |  |  | 32.6 |  |  | 30.1 |  |  | 87.7 |  |
| Approach LOS |  | D |  |  | C |  |  | C |  |  | F |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 12.6 | 46.7 | 11.3 | 19.4 | 12.9 | 46.4 | 10.1 | 20.6 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 34.0 | 7.0 | 18.0 | 7.0 | 34.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time (g_c+1), s | 4.8 | 42.7 | 4.4 | 12.9 | 6.9 | 42.4 | 3.5 | 6.3 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.3 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 57.6 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | E |  |  |  |  |  |  |  |  |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |




| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization 52.4\% | ICU Level of Service A |
| Analysis Period (min) 15 |  |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 875 | 0 | - | 0 | 1837 | 874 |
| Stage 1 | - | - | - | - | 874 | - |
| Stage 2 | - | - | - | - | 963 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 771 | - | - | - | 83 | 349 |
| Stage 1 | - | - | - | - | 408 | - |
| Stage 2 | - | - | - | - | 370 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 771 | - | - | - | 77 | 349 |
| Mov Cap-2 Maneuver | - | - | - | - | 206 | - |
| Stage 1 | - | - | - | - | 379 | - |
| Stage 2 | - | - | - | - | 370 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.6 |  | 0 |  | 23.8 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL EBT WBT WBR SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | 771 | - | - | - | 206 |
| HCM Lane V/C Ratio |  | 0.07 | - | - | - | 0.069 |
| HCM Control Delay (s) |  | 10 | - | - | - | 23.8 |
| HCM Lane LOS |  | B | - | - | - | C |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - |  | 0.2 |


|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | 4 | 个t |  |  | 「 |
| Trafic Volume (vph) | 0 | 837 | 792 | 11 | 0 | 63 |
| Future Volume (vph) | 0 | 837 | 792 | 11 | 0 | 63 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.998 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3532 | 0 | 0 | 1611 |
| Flt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3532 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 35 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 3.8 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 910 | 861 | 12 | 0 | 68 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 910 | 873 | 0 | 0 | 68 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 47.4\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |



|  | 4 | $\rightarrow$ |  | 7 |  | 4 | 4 | 4 | 7 | * | $\dagger$ | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | 「 | ${ }^{7}$ | 4 | F | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1T |  |
| Traffic Volume (vph) | 265 | 288 | 217 | 174 | 262 | 429 | 225 | 952 | 166 | 398 | 1130 | 164 |
| Future Volume (vph) | 265 | 288 | 217 | 174 | 262 | 429 | 225 | 952 | 166 | 398 | 1130 | 164 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 |  | 0 | 200 |  | 0 | 265 |  | 215 | 160 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 65 |  |  | 50 |  |  | 50 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  |  | 0.850 |  |  | 0.850 |  |  | 0.850 |  | 0.981 |  |
| Flt Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 3539 | 1583 | 1770 | 3472 | 0 |
| Flt Permitted | 0.328 |  |  | 0.266 |  |  | 0.148 |  |  | 0.125 |  |  |
| Satd. Flow (perm) | 611 | 1863 | 1583 | 495 | 1863 | 1583 | 276 | 3539 | 1583 | 233 | 3472 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  |  | 109 |  |  | 109 |  |  | 113 |  | 20 |  |
| Link Speed (mph) |  | 35 |  |  | 35 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 978 |  |  | 357 |  |  | 1156 |  |  | 241 |  |
| Travel Time (s) |  | 19.1 |  |  | 7.0 |  |  | 22.5 |  |  | 4.7 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 288 | 313 | 236 | 189 | 285 | 466 | 245 | 1035 | 180 | 433 | 1228 | 178 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 288 | 313 | 236 | 189 | 285 | 466 | 245 | 1035 | 180 | 433 | 1406 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 | 5 | 3 | 8 | 1 | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 | 8 |  | 8 | 2 |  | 2 | 6 |  |  |



|  | $\rangle$ | $\rightarrow$ | 7 | 7 | $\leftarrow$ | 4 | 4 | 4 | $p$ | - | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{7}$ | 4 | F | \% | $\uparrow$ | 「 | \% | ¢4 | F | ${ }^{7}$ |  |  |
| Traffic Volume (veh/h) | 265 | 288 | 217 | 174 | 262 | 429 | 225 | 952 | 166 | 398 | 1130 | 164 |
| Future Volume (veh/h) | 265 | 288 | 217 | 174 | 262 | 429 | 225 | 952 | 166 | 398 | 1130 | 164 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 288 | 313 | 236 | 189 | 285 | 466 | 245 | 1035 | 180 | 433 | 1228 | 178 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 259 | 374 | 476 | 252 | 374 | 564 | 258 | 1066 | 599 | 363 | 1108 | 160 |
| Arrive On Green | 0.08 | 0.20 | 0.20 | 0.08 | 0.20 | 0.20 | 0.10 | 0.30 | 0.30 | 0.05 | 0.12 | 0.12 |
| Sat Flow, veh/h | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 3554 | 1585 | 1781 | 3117 | 450 |
| Grp Volume(v), veh/h | 288 | 313 | 236 | 189 | 285 | 466 | 245 | 1035 | 180 | 433 | 697 | 709 |
| Grp Sat Flow(s),veh/h/n | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1789 |
| Q Serve(g_s), s | 7.0 | 14.5 | 11.0 | 7.0 | 12.9 | 18.0 | 8.6 | 25.9 | 7.2 | 14.0 | 32.0 | 32.0 |
| Cycle Q Clear (g_c), s | 7.0 | 14.5 | 11.0 | 7.0 | 12.9 | 18.0 | 8.6 | 25.9 | 7.2 | 14.0 | 32.0 | 32.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.25 |
| Lane Grp Cap (c), veh/h | 259 | 374 | 476 | 252 | 374 | 564 | 258 | 1066 | 599 | 363 | 632 | 636 |
| V/C Ratio(X) | 1.11 | 0.84 | 0.50 | 0.75 | 0.76 | 0.83 | 0.95 | 0.97 | 0.30 | 1.19 | 1.10 | 1.11 |
| Avail Cap(c_a), veh/h | 259 | 374 | 476 | 252 | 374 | 564 | 258 | 1066 | 599 | 363 | 632 | 636 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.1 | 34.6 | 25.9 | 28.9 | 34.0 | 26.5 | 22.8 | 31.1 | 19.7 | 29.7 | 39.7 | 39.7 |
| Incr Delay (d2), s/veh | 90.1 | 15.2 | 0.8 | 11.7 | 8.9 | 9.9 | 42.1 | 21.4 | 1.3 | 111.1 | 67.7 | 71.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 8.7 | 7.9 | 4.1 | 4.0 | 6.6 | 10.1 | 6.4 | 13.7 | 2.7 | 17.7 | 26.9 | 27.7 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay (d),s/veh | 123.2 | 49.8 | 26.7 | 40.7 | 42.9 | 36.3 | 65.0 | 52.5 | 20.9 | 140.8 | 107.4 | 110.8 |
| LnGrp LOS | F | D | C | D | D | D | E | D | C | F | F | F |
| Approach Vol, veh/h |  | 837 |  |  | 940 |  |  | 1460 |  |  | 1839 |  |
| Approach Delay, s/veh |  | 68.5 |  |  | 39.2 |  |  | 50.7 |  |  | 116.6 |  |
| Approach LOS |  | E |  |  | D |  |  | D |  |  | F |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 20.0 | 33.0 | 13.0 | 24.0 | 15.0 | 38.0 | 13.0 | 24.0 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 14.0 | 27.0 | 7.0 | 18.0 | 9.0 | 32.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time (g_c+1), s | 16.0 | 27.9 | 9.0 | 16.5 | 10.6 | 34.0 | 9.0 | 20.0 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 75.4 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | E |  |  |  |  |  |  |  |  |  |


|  | $\rangle$ |  | $\geqslant$ | 7 |  |  | 4 | 4 |  |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | ¢ |  |  | ¢ |  | \％ | 性家 |  | \％ | 性 |  |
| Traffic Volume（vph） | 6 | － | 36 | 19 | O | 95 | 16 | 1566 | 64 | 143 | 1590 | 40 |
| Future Volume（vph） | 6 | 0 | 36 | 19 | 0 | 95 | 16 | 1566 | 64 | 143 | 1590 | 40 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 0 |  | 0 | ， |  | 0 | 80 |  | 0 | 100 |  | 0 |
| Storage Lanes | 0 |  | 0 | 0 |  | 0 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 25 |  |  | 25 |  |  | 50 |  |  | 65 |  |  |
| Lane Util．Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.886 |  |  | 0.888 |  |  | 0.994 |  |  | 0.996 |  |
| Flt Protected |  | 0.992 |  |  | 0.992 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（prot） | 0 | 1637 | 0 | 0 | 1641 | 0 | 1770 | 5055 | 0 | 1770 | 3525 | 0 |
| Flt Permitted |  | 0.992 |  |  | 0.992 |  | 0.950 |  |  | 0.950 |  |  |
| Satd．Flow（perm） | 0 | 1637 | 0 | 0 | 1641 | 0 | 1770 | 5055 | 0 | 1770 | 3525 | 0 |
| Link Speed（mph） |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance（ft） |  | 336 |  |  | 329 |  |  | 158 |  |  | 423 |  |
| Travel Time（s） |  | 7.6 |  |  | 7.5 |  |  | 3.1 |  |  | 8.2 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj．Flow（vph） | 7 | 0 | 39 | 21 | 0 | 103 | 17 | 1702 | 70 | 155 | 1728 | 43 |
| Shared Lane Trafic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 0 | 46 | 0 | 0 | 124 | 0 | 17 | 1772 | 0 | 155 | 1771 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width（ft） |  | 0 |  |  | 0 |  |  | 12 |  |  | 12 |  |
| Link Offset（ft） |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width（ft） |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed（mph） | 15 |  | ， | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Sign Control |  | Stop |  |  | Stop |  |  | Free |  |  | Free |  |


| Intersection Summary |  |
| :--- | :--- |
| Area Type：Other |  |
| Control Type：Unsignalized |  |
| Intersection Capacity Utilization 68．3\％ | ICU Level of Service C |
| Analysis Period（min） 15 |  |

HCM 6th TWSC
7：Old Troy Pike \＆IHOP Driveway／Access \＃2

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay，s／veh | 366 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \＄ |  |  | ¢ |  |  | 惺家 |  | \％ | 恨 |  |  |
| Traffic Vol，veh／h | 6 | 0 | 36 | 19 | 0 | 95 | 16 | 1566 | 64 | 143 | 1590 | 40 |  |
| Future Vol，veh／h | 6 | 0 | 36 | 19 | 0 | 95 | 16 | 1566 | 64 | 143 | 1590 | 40 |  |
| Conflicting Peds，\＃／hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control Stor | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |  |
| RT Channelized | － | － | None | － | － | None | － | － | None | － | － | None |  |
| Storage Length | － | － | － | － | － | － | 80 | － | － | 100 | － | － |  |
| Veh in Median Storage，\＃ | \＃ | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Grade，\％ | － | 0 | － | － | 0 | － | － | 0 | － | － | 0 | － |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles，\％ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 7 | 0 | 39 | 21 | 0 | 103 | 17 | 1702 | 70 | 155 | 1728 | 43 |  |



| Approach | EB | WB | NB | SB |
| :--- | ---: | ---: | ---: | ---: |
| HCM Control Delay，$\$ 3508.9$ | $\$ 10039.5$ | 0.2 | 9.2 |  |
| HCM LOS | F | F |  |  |


| Minor Lane／Major Mvmt | NBL | NBT | NBR EBLn1WBLn1 | SBL | SBT | SBR |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Capacity（veh／h） | 348 | - | - | 7 | 6 | 163 | - |

## Notes

$\sim$ ：Volume exceeds capacity $\$$ ：Delay exceeds $300 \mathrm{~s} \quad+$ ：Computation Not Defined $\quad$ ：All major volume in platoon

|  | 4 | $\rightarrow$ |  | 7 |  |  |  | 4 | $p$ |  | $\frac{1}{7}$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ${ }^{1 /}$ | $\hat{F}$ |  | ${ }^{7}$ | $\hat{\dagger}$ |  | ${ }^{7}$ | 44 | 「 | ${ }^{7}$ | 1\% |  |
| Traffic Volume (vph) | 32 | 0 | 182 | 91 | 0 | 66 | 164 | 1468 | 35 | 54 | 1546 | 105 |
| Future Volume (vph) | 32 | 0 | 182 | 91 | 0 | 66 | 164 | 1468 | 35 | 54 | 1546 | 105 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 110 |  | 0 | 110 |  | 0 | 100 |  | 0 | 0 |  | 150 |
| Storage Lanes | 1 |  | 0 | 1 |  | 0 | 1 |  | 1 | 1 |  | 0 |
| Taper Length (ft) | 50 |  |  | 50 |  |  | 50 |  |  | 25 |  |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt |  | 0.850 |  |  | 0.850 |  |  |  | 0.850 |  | 0.990 |  |
| Fit Protected | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  | 0.950 |  |  |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 1770 | 1583 | 0 | 1770 | 3539 | 1583 | 1770 | 3504 | 0 |
| Flt Permitted | 0.710 |  |  | 0.375 |  |  | 0.092 |  |  | 0.104 |  |  |
| Satd. Flow (perm) | 1323 | 1583 | 0 | 699 | 1583 | 0 | 171 | 3539 | 1583 | 194 | 3504 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd. Flow (RTOR) |  | 231 |  |  | 292 |  |  |  | 109 |  | 9 |  |
| Link Speed (mph) |  | 30 |  |  | 30 |  |  | 35 |  |  | 35 |  |
| Link Distance (ft) |  | 354 |  |  | 430 |  |  | 423 |  |  | 803 |  |
| Travel Time (s) |  | 8.0 |  |  | 9.8 |  |  | 8.2 |  |  | 15.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 35 | 0 | 198 | 99 | 0 | 72 | 178 | 1596 | 38 | 59 | 1680 | 114 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow (vph) | 35 | 198 | 0 | 99 | 72 | 0 | 178 | 1596 | 38 | 59 | 1794 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) |  | 12 |  |  | 12 |  |  | 12 |  |  | 12 |  |
| Link Offset(ft) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Crosswalk Width(ft) |  | 16 |  |  | 16 |  |  | 16 |  |  | 16 |  |
| Two way Left Turn Lane |  |  |  |  |  |  |  | Yes |  |  | Yes |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 | 15 |  | 9 |
| Number of Detectors | 1 | 2 |  | 1 | 2 |  | 1 | 2 | 1 | 1 | 2 |  |
| Detector Template | Left | Thru |  | Left | Thru |  | Left | Thru | Right | Left | Thru |  |
| Leading Detector (ft) | 20 | 100 |  | 20 | 100 |  | 20 | 100 | 20 | 20 | 100 |  |
| Trailing Detector (ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Position(ft) | 0 | 0 |  | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 |  |
| Detector 1 Size(ft) | 20 | 6 |  | 20 | 6 |  | 20 | 6 | 20 | 20 | 6 |  |
| Detector 1 Type | Cl+Ex | Cl+Ex |  | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ |  | Cl+Ex | Cl+Ex | Cl+Ex | $\mathrm{Cl}+\mathrm{Ex}$ | Cl+Ex |  |
| Detector 1 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 1 Extend (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Queue (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 1 Delay (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Detector 2 Position(ft) |  | 94 |  |  | 94 |  |  | 94 |  |  | 94 |  |
| Detector 2 Size(ft) |  | 6 |  |  | 6 |  |  | 6 |  |  | 6 |  |
| Detector 2 Type |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |  | Cl+Ex |  |
| Detector 2 Channel |  |  |  |  |  |  |  |  |  |  |  |  |
| Detector 2 Extend (s) |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |  | 0.0 |  |
| Turn Type | pm+pt | NA |  | pm+pt | NA |  | pm+pt | NA | pm+ov | pm+pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Permitted Phases | 4 |  |  | 8 |  |  | 2 |  | 2 | 6 |  |  |


|  | 4 |  |  |  |  |  | 4 | 4 | $p$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Detector Phase | 7 | 4 |  | 3 | 8 |  | 5 | 2 | 3 | 1 | 6 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial (s) | 7.0 | 10.0 |  | 7.0 | 10.0 |  | 7.0 | 20.0 | 7.0 | 7.0 | 20.0 |  |
| Minimum Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 26.0 | 13.0 | 13.0 | 26.0 |  |
| Total Split (s) | 13.0 | 24.0 |  | 13.0 | 24.0 |  | 13.0 | 40.0 | 13.0 | 13.0 | 40.0 |  |
| Total Split (\%) | 14.4\% | 26.7\% |  | 14.4\% | 26.7\% |  | 14.4\% | 44.4\% | 14.4\% | 14.4\% | 44.4\% |  |
| Maximum Green (s) | 7.0 | 18.0 |  | 7.0 | 18.0 |  | 7.0 | 34.0 | 7.0 | 7.0 | 34.0 |  |
| Yellow Time (s) | 4.0 | 4.0 |  | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  |
| All-Red Time (s) | 2.0 | 2.0 |  | 2.0 | 2.0 |  | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |  |
| Lost Time Adjust (s) | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Lost Time (s) | 6.0 | 6.0 |  | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |
| Lead/Lag | Lead | Lag |  | Lead | Lag |  | Lead | Lag | Lead | Lead | Lag |  |
| Lead-Lag Optimize? | Yes | Yes |  | Yes | Yes |  | Yes | Yes | Yes | Yes | Yes |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Recall Mode | None | None |  | None | None |  | None | C-Min | None | None | C-Min |  |
| Walk Time (s) |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |  | 7.0 |  |
| Flash Dont Walk (s) |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |  | 11.0 |  |
| Pedestrian Calls (\#/hr) |  | 0 |  |  | 0 |  |  | 0 |  |  | 0 |  |
| Act Efft Green (s) | 15.6 | 10.0 |  | 16.8 | 12.6 |  | 56.2 | 47.0 | 60.0 | 48.1 | 40.8 |  |
| Actuated g/C Ratio | 0.17 | 0.11 |  | 0.19 | 0.14 |  | 0.62 | 0.52 | 0.67 | 0.53 | 0.45 |  |
| v/c Ratio | 0.13 | 0.52 |  | 0.46 | 0.15 |  | 0.60 | 0.86 | 0.03 | 0.26 | 1.13 |  |
| Control Delay | 27.1 | 8.6 |  | 34.8 | 0.7 |  | 23.2 | 22.6 | 0.0 | 11.3 | 92.0 |  |
| Queue Delay | 0.0 | 0.0 |  | 0.0 | 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |
| Total Delay | 27.1 | 8.6 |  | 34.8 | 0.7 |  | 23.2 | 22.6 | 0.0 | 11.3 | 92.0 |  |
| LOS | C | A |  | C | A |  | C | C | A | B | F |  |
| Approach Delay |  | 11.4 |  |  | 20.4 |  |  | 22.2 |  |  | 89.4 |  |
| Approach LOS |  | B |  |  | C |  |  | C |  |  | F |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type: | her |  |  |  |  |  |  |  |  |  |  |  |

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 ( $0 \%$ ), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: $52.1 \quad$ Intersection LOS: D
Intersection Capacity Utilization 92.3\% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 8: Old Troy Pike \& Burger King Driveway/Access \#3


|  | $\Rightarrow$ | $\rightarrow$ | 7 | 7 | - | 4 | 4 | 4 | $p$ |  | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{\beta}$ |  | \% | $\hat{\beta}$ |  | ${ }^{7}$ | ¢4 | F' | ${ }^{4}$ | $\uparrow \hat{S}^{2}$ |  |
| Traffic Volume (veh/h) | 32 | - | 182 | 91 | - | 66 | 164 | 1468 | 35 | 54 | 1546 | 105 |
| Future Volume (veh/h) | 32 | 0 | 182 | 91 | 0 | 66 | 164 | 1468 | 35 | 54 | 1546 | 105 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 35 | 0 | 198 | 99 | 0 | 72 | 178 | 1596 | 38 | 59 | 1680 | 114 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 341 | 0 | 236 | 239 | 0 | 277 | 217 | 1611 | 831 | 199 | 1474 | 99 |
| Arrive On Green | 0.05 | 0.00 | 0.15 | 0.07 | 0.00 | 0.17 | 0.15 | 0.91 | 0.91 | 0.06 | 0.44 | 0.44 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 3554 | 1585 | 1781 | 3379 | 227 |
| Grp Volume(v), veh/h | 35 | 0 | 198 | 99 | 0 | 72 | 178 | 1596 | 38 | 59 | 877 | 917 |
| Grp Sat Flow(s),veh/h/n | 1781 | 0 | 1585 | 1781 | 0 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1829 |
| Q Serve(g_s), s | 1.5 | 0.0 | 10.9 | 4.1 | 0.0 | 3.5 | 5.0 | 37.1 | 0.2 | 1.6 | 39.3 | 39.3 |
| Cycle Q Clear (g_c), s | 1.5 | 0.0 | 10.9 | 4.1 | 0.0 | 3.5 | 5.0 | 37.1 | 0.2 | 1.6 | 39.3 | 39.3 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.12 |
| Lane Grp Cap (c), veh/h | 341 | 0 | 236 | 239 | 0 | 277 | 217 | 1611 | 831 | 199 | 775 | 798 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.84 | 0.41 | 0.00 | 0.26 | 0.82 | 0.99 | 0.05 | 0.30 | 1.13 | 1.15 |
| Avail Cap(c_a), veh/h | 399 | 0 | 317 | 251 | 0 | 317 | 219 | 1611 | 831 | 231 | 775 | 798 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.8 | 0.0 | 37.3 | 29.7 | 0.0 | 32.1 | 18.7 | 4.0 | 1.7 | 20.0 | 25.4 | 25.4 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 13.7 | 1.1 | 0.0 | 0.5 | 21.2 | 20.4 | 0.1 | 0.8 | 74.9 | 81.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.6 | 0.0 | 5.1 | 1.8 | 0.0 | 1.4 | 2.9 | 6.1 | 0.1 | 0.6 | 31.2 | 33.6 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 29.9 | 0.0 | 51.0 | 30.8 | 0.0 | 32.6 | 39.9 | 24.4 | 1.9 | 20.8 | 100.3 | 106.9 |
| LnGrp LOS | C | A | D | C | A | C | D | C | A | C | F | F |
| Approach Vol, veh/h |  | 233 |  |  | 171 |  |  | 1812 |  |  | 1853 |  |
| Approach Delay, s/veh |  | 47.8 |  |  | 31.6 |  |  | 25.5 |  |  | 101.0 |  |
| Approach LOS |  | D |  |  | C |  |  | C |  |  | F |  |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s | 11.4 | 46.8 | 12.4 | 19.4 | 12.9 | 45.3 | 10.1 | 21.7 |  |  |  |  |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  |  |  |  |
| Max Green Setting (Gmax), s | 7.0 | 34.0 | 7.0 | 18.0 | 7.0 | 34.0 | 7.0 | 18.0 |  |  |  |  |
| Max Q Clear Time (g_c+11), s | 3.6 | 39.1 | 6.1 | 12.9 | 7.0 | 41.3 | 3.5 | 5.5 |  |  |  |  |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.2 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  |  | 61.4 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  |  | E |  |  |  |  |  |  |  |  |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |


| Major/Minor | Minor1 |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- |



| Intersection Summary $\quad$ Other |  |
| :--- | :--- |
| Area Type: |  |
| Control Type: Unsignalized |  |
| Intersection Capacity Utilization $59.1 \%$ | ICU Level of Service B |
| Analysis Period (min) 15 |  |




|  | $\stackrel{ }{*}$ | $\rightarrow$ | $\leftarrow$ | 4 |  | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations |  | $\uparrow$ | 个t |  |  | 「 |
| Trafic Volume (vph) | 0 | 852 | 788 | 15 | 0 | 77 |
| Future Volume (vph) | 0 | 852 | 788 | 15 | 0 | 77 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 |
| Frt |  |  | 0.997 |  |  | 0.865 |
| FIt Protected |  |  |  |  |  |  |
| Satd. Flow (prot) | 0 | 1863 | 3529 | 0 | 0 | 1611 |
| FIt Permitted |  |  |  |  |  |  |
| Satd. Flow (perm) | 0 | 1863 | 3529 | 0 | 0 | 1611 |
| Link Speed (mph) |  | 30 | 35 |  | 30 |  |
| Link Distance ( t ) |  | 357 | 194 |  | 328 |  |
| Travel Time (s) |  | 8.1 | 3.8 |  | 7.5 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 926 | 857 | 16 | 0 | 84 |
| Shared Lane Traffic (\%) |  |  |  |  |  |  |
| Lane Group Flow (vph) | 0 | 926 | 873 | 0 | 0 | 84 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(tt) |  | 12 | 12 |  | 0 |  |
| Link Offset(ft) |  | 0 | 0 |  | 0 |  |
| Crosswalk Width(ft) |  | 16 | 16 |  | 16 |  |
| Two way Left Turn Lane |  | Yes | Yes |  |  |  |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 |  |  | 9 | 15 | 9 |
| Sign Control |  | Free | Free |  | Stop |  |
| Intersection Summary |  |  |  |  |  |  |
| Area Type: Other |  |  |  |  |  |  |
| Control Type: Unsignalized |  |  |  |  |  |  |
| Intersection Capacity Utilization 48.2\%Analysis Period (min) 15 |  |  |  | ICU Level of Service A |  |  |
|  |  |  |  |  |  |  |


| Intersection |  |  |  |  |  |  |
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SHEETZ, INC.
5700 SIXTHAVE
ALTOONA, PA 16002
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To: Huber Heights City Planning Commission

From: $\quad$ Aaron K. Sorrell, Interim City Planner Community Planning Insights

Date: June 22, 2022
Subject: Major Change to Basic Development Plan
Application dated June 3, 2022
Department of Planning and Zoning City of Huber Heights

APPLICANT/OWNER: $\quad$ Skilken Gold Real Estate Dev. - Applicant Broad Reach Retail Partners, LLC - Owners

DEVELOPMENT NAME: Broad Reach / Sheetz
ADDRESS/LOCATION: NE Corner of Old Troy Pike and Taylorsville Rd.
ZONING/ACREAGE: Planned Mixed Use (PM) / 2.82 Acres
EXISTING LAND USE:
ZONING
ADJACENT LAND:
REQUEST:

ORIGINAL APPROVAL:

APPLICABLE HHCC:
CORRESPONDENCE:

Chapter 1171, 1179
In Favor - None Received In Opposition - None Received

## STAFF ANALYSIS AND RECOMMENDATION:

## Overview

The applicant requests to construct a 6,138 SF convenience store with fueling pumps and a 1,648 SF carwash. During the informal review with the Planning Commission there was significant discussion about the proposed use as compared to the uses illustrated on the adopted basic development plan. The Planning Commission expressed concerns about the perceived deviation from the originally illustrated uses and layout on the south side of the development, and members felt that the City Council should have an opportunity to review the new development proposal. It was recommended by the Planning Commission and agreed to by the applicant that they would request a major change to the basic development plan, which allows City Council the opportunity to review the proposal.

## Background

On May 21, 2021, the Planning Commission approved (4-1) a rezoning to PM and basic development plan to facilitate the redevelopment of two parcels totaling 17.2 acres into a mixed use development which includes a variety of commercial, office, and retail uses, along with a 192 unit apartment community. The rezoning was, and continues to be, consistent with the Comprehensive Plan.

As part of the rezoning and basic development plan approval, the following conditions were memorialized in the rezoning ordinance:

1. The Basic Development Plan shall be the plans stamped received by the City of Huber Heights Planning Department on May 5, 2021, unless specifically modified below.
2. The allowable uses shall be those that are permitted within the PM - Planned Mixed Use District as described in Chapter 1179 of the City's Zoning Code.
3. Prior to the issuance of a zoning permit, the applicant shall submit and receive approval of a Detailed Development Plan through the Planning Commission.
4. Prior to the issuance of a zoning permit, the applicant shall obtain approval of a final subdivision of the subject property for the purpose, but not the sole purpose, of establishing all necessary public easements on the subject property.
5. A drop express lane shall be installed along the frontage of Old Troy Pike at the development.
6. Old Troy Pike \& Access 3 (across from Burger King) shall have a signalized intersection installed.
7. Taylorsville Road shall be widened on the north side to match the widening of the existing northbound turn lane at the intersection of Old Troy Pike and Taylorsville.
8. Access shall be provided directly from the multi-family area to Taylorsville Road.
9. Access easements shall be granted to the public for access from the businesses to the north to access the signalized intersection.

## Transportation Improvements

As part of the rezoning and basic development plan approval, the developer is widening the north side of Taylorsville Road to add a lane and widening the east side of Old Troy Pike to Huber Road to add a lane. Additionally, a new traffic signal will be installed along Old Troy Pike to facilitate better site access and the existing Huntington Bank and Starbucks sites will have access to this signalized intersection. The site is being cleared and roadway improvements will begin shortly.

For the sites under consideration in this application, the interior drive network and access to Taylorsville Road and Old Troy Pike is unchanged from the approved rezoning and basic development plan.

The city is planning to carry the Old Troy Pike widening from former Huber Road to I-70.

## Allowable Uses

For the sites in this application, the basic development plan presented at the May $14^{\text {th }}$ Planning Commission meeting illustrated a proposed bank, medical facility, and future outparcel. The basic development plan simply outlines allowable uses, site access, internal circulation (drive-aisles) and illustrates possible individual site plan concepts.

During the meeting, planning staff indicated to the Planning Commission the three sites were illustrative only, and those uses may change during the detailed development plan process. When the Planning Commission approved the basic development plan, it set the range of allowable uses (those permitted in the PM district), transportation improvements, site access, and internal site circulation.

The applicant is now proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel in place of the illustrated bank, medical building and future outparcel.

Chapter 1179.02 states: "The uses outlined as permitted uses in the (PR) Planned Residential District, (PO) Planned Office District, (PP) Planned Public and Private Buildings and Grounds District, and (PC) Planned Commercial District are principal uses permitted in the (PM) Planned Mixed Use District except as prohibited in this chapter."

As such, the following related uses are permitted in PM district:

- Retail, office and commercial establishments
- Personal service commercial establishments
- Filling stations
- Service stations

The proposed uses are permitted within this adopted basic development plan.

## Ground Signs

The approved basic development plan approved two multi-tenant ID signs, and one general ID sign adjacent to the public right of way. The approved locations are illustrated below. Sign "A" is $16^{\prime}-8$ " and located at the main signalized intersection along Old Troy Pike. Sign "B" is 14'-2" and located along Taylorsville Road. Sign "C", the smallest ID sign, is 5' tall and located at the corner of Taylorsville Road and Old Troy Pike.



Through is major change, the applicant proposes two additional 6'-10" ground-mounted gas price signs adjacent to the public right of way. The signs are designed in a similar and complementary manner to those being constructed by the Broad Reach developer. The two ground mounted gas price signs are the only substantial changes being proposed to the approved basic development plan.



## Applicable Zoning Regulations

The significant appliable zoning chapters include: 1171 General Provisions, 1179 Planned Mixed Use District, and 1181 General Provisions. Since a basic development plan was previously approved, only the relevant sections to this application are discussed in detail below:

## Chapter 1171 General Provisions

### 1171.06 General standards for approval.

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
(a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;
(b) Could be substantially completed within the period of time specified in the schedule of development submitted by the developer;
(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;
(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;
(e) Contains such proposed covenants, easements and other provisions relating to the proposed development standards as may reasonably be required for the public health, safety and welfare;
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;
(g) Shall preserve natural features such as water courses, trees and rock outcrops, to the degree possible, so that they can enhance the overall design of the PUD;
(h) Is designed to take advantage of the existing land contours in order to provide satisfactory road gradients and suitable building lots and to facilitate the provision of proposed services;
(i) Shall place underground all electric and telephone facilities, street light wiring and other wiring conduits and similar facilities in any development which is primarily designed for or occupied by dwellings, unless waived by the Commission because of technical reasons;
(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors; and
(I) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

### 1171.11 Changes in the basic and detailed development plans.

A PUD shall be developed only according to the approved and recorded detailed development plan and supporting data together with all recorded amendments and shall be binding on the applicants, their successors, grantees and assigns and shall limit and control the use of premises (including the internal use of buildings and structures) and location of structures in the PUD as set forth therein.
(a) Major Changes. Changes which alter the concept, uses or intent of the PUD including increases in the number of units per acre, change in location or amount of nonresidential land uses, more than 15 percent modification in proportion of housing types, significant redesign of roadways, utilities or drainage, may be approved only by submission of a new basic plan and supporting data in accordance with Sections 1171.03, 1171.04 and 1171.05.
(b) Minor Changes. The Zoning Officer recommends to the Planning Commission approval or disapproval of the minor changes in the PUD. Minor changes are defined as any change not defined as a major change.

## Conformance with Zoning Regulations

### 1179.02 Permitted uses.

The uses outlined as permitted uses in the (PR) Planned Residential District, (PO) Planned Office District, (PP) Planned Public and Private Buildings and Grounds District, and (PC) Planned Commercial District are principal uses permitted in the (PM) Planned Mixed Use District except as prohibited in this chapter.

The approved basic development plan permits the uses proposed by the applicant.

## Development Standards Analysis:

### 1179.06 Development standards (Planned Mixed Use)

Except when specifically modified herein, the provisions of the Planning and Zoning Code shall govern. The following development standards apply to a PM development:
(a) Minimum Land Area Requirement. A minimum of 20 acres shall be required.

The approved basic development plan contains 17.2 acres.
(b) Covenants. The developer of a PM development shall be required to submit a set of covenants or deed restrictions with the Basic Development Plan application that will outline, at a minimum, development standards and guidelines established in this chapter and any other requirements the developer and/or Planning Commission deems necessary. The Planning Commission may require additional or amended covenants as it deems necessary to ensure compliance with the Planning and Zoning Code and the Planned Mixed-Use District.

Covenants will be submitted during the detailed development phase and with the PUD agreement.
(c) Required Mix of Land Uses. A developer shall be required to provide a mix of land uses in a PM Development. At a minimum, at least two of the following uses are required in a PM Development: residential, commercial, office, institutional, and/or industrial.

The approved permitted uses include a mix of residential, office, retail and commercial uses.
(d) Site Planning.
(1) The combination of different uses whether as part of one building or as part of the overall development shall be designed and developed so as not to create a nuisance by excessive noise, light, vibration, odor or any other annoyances for any uses within the development or neighboring properties.

After the informal review with the Planning Commission, the applicant relocated the proposed vacuum stands from along Taylorsville Road to behind the car wash. The revised location will reduce the noise impacts to surrounding residents. Additionally, the more intense activities such as fueling pumps, and the main access to the convenience store, are located adjacent to Old Troy Pike, away from surrounding residential areas. The car wash is a single bay wash whose doors close during the washing procedure.
(2) A PM development is to be designed so that buildings and structures are clustered and open space areas are preserved and maintained. Special care shall be given to protect preexisting natural features including, but not limited to, woodlands, ravines, streams, lakes, ponds, and/or flood plains. Impervious surface coverage, including, but not limited to, buildings, parking area, and accessways, shall not exceed 75 percent of the total development area. Therefore, 25 percent of the development area shall be reserved for green space.

The approved basic development plan requires a minimum of 25 percent green space. The proposal shall also meet this requirement, which will be evaluated at the Detailed Development Plan stage.
(3) The number of ingress and egress points onto the public streets shall be limited in order to reduce the number of traffic conflict points. Adequate and properly arranged facilities for internal pedestrian and traffic circulations shall be provided. The street and thoroughfare network shall be designed to minimize truck traffic through residential areas of the development.

The proposed development maintains the previously approved site access points and internal circulation pathways.
(4) Parking systems shall be designed so as to discourage single large unbroken paved lots for off-street parking and shall encourage smaller defined parking areas within the total parking system. Underground parking facilities are encouraged.

The applicant's proposal has two smaller parking areas, not one large parking area, consistent with other commercial sites within this development.
(5) The development shall be designed to tie all the uses into one overall community and encourage walking, biking, running, and alternative modes of transportation. Developers are encouraged to incorporate bus stops, bikeways, walkways, and crosswalks into an overall thematic scheme for pedestrian traffic. Sidewalks shall be required except, in the case of a golf course or specific open space development, the Planning Commission may determine them to be unnecessary.

The proposed development maintains the previously approved transportation system, including sidewalks, site access points and internal circulation pathways.
(6) Any signs as proposed within this district, shall comply with Chapter 1189 "Signs". Additionally, a developer of a PM development shall develop and submit with the Detailed Development Plan application, a comprehensive set of graphic design criteria for signage in the development. This set of graphic design criteria for signage shall be approved by the Planning Commission and shall apply to all signage requests within the development. The criteria shall include, at a minimum, the sizes permitted (if different from Chapter 1189), colors permitted, materials permitted, typefaces permitted, type size permitted, and permitted illumination. Compliance with the on- site comprehensive graphics shall be verified by the Zoning Administrator during the sign permit review process.

## Ground Signs

The applicant proposes two 6'-10" ground-mounted gas price signs adjacent to the public right of way. The signs have been significantly redesigned from those illustrated during the informal review. Specifically, they have been reduced from 30' tall pylon signs to a more modest height of 6'-10" and are designed in complementary manner that reflects the design of those being constructed by the Broad Reach developer. The two-ground mounted gas price signs are the only substantial change being proposed to the approved basic development plan.

## Building Signs

While not part of the basic development plan, the proposed canopy and wall signs are generally consistent with the sign code and similar to those approved within the Broad Reach development. The final sign package will be evaluated during the detailed development plan phase.
(7) Minimum lot area, frontage and setback requirements may be varied to allow greater flexibility in design. However, the following shall be used as a guideline for development:
A. With multiple buildings on a single property, entirely residential buildings shall be at least 15 feet from another entirely residential building and at least 50 feet from nonresidential or mixed-use buildings.

The proposal meets these standards
(8) No maximum height restriction shall apply, except that the proposed development meets all Federal Aviation Administration (FAA), Dayton International Airport or Wright Patterson Air Force Base height or abatement requirements.

The proposal meets these standards
(9) Common parking areas and accessways shall be lighted adequately with light fixtures that shall be designed to reflect light away from adjoining properties. Special attention will be given to protect entirely residential structures from light emitted from nonresidential land uses.

A lighting plan was submitted with the application and appears to meet the lighting standards in terms of height and light trespass. A final review will be completed during the detailed development plan phase.
(10) Nonresidential uses shall have trash containers and/or receptacles (including recycling containers) placed to the rear of all structures and shall be screened or enclosed on four sides with opening doors for the purpose of trash removal. The placement of trash containers and/or receptacles in multi-family residential developments shall be as inconspicuous as possible. The use of a wooden or vinyl fence structure, earth mound, or wall with an opaqueness of 100 percent and a height of 12 inches above the top of the largest container is required.

The application illustrates enclosed dumpsters. A final review will be completed during the detailed development plan phase.
(11) The architecture of nonresidential structures is encouraged to be unique yet similar in certain sections of the PM.
The applicant is proposing brick structures consistent with the non-residential material requirements and the basic development plan. A final review will be completed during the detailed development plan phase.
(12) The distribution systems for utilities are required to be underground.

All utilities will be below ground.
(13) The use of privately owned open space and public dedicated park land is encouraged as part of a PM development. Privately owned open space shall be maintained by the developer or by a duly authorized owner's association.
All open space will be privately maintained.
(14) The use of chain link fencing is prohibited. Additionally, on an entirely residential property, no fencing shall be permitted in the front yard, and, in the case of a corner lot, no fencing shall be permitted in the side yard with frontage to a public right-of-way. The covenants submitted by the developer shall establish the height requirements for fencing in the development. Fencing in a development shall be uniform in height in related use areas. On an entirely residential property, fence height shall not exceed six feet.
No fencing is proposed in the application.
(15) With the submission of a Basic Development Plan application, the applicant is required to submit a phasing plan that details when certain sections of the development will commence construction and when the sections will be complete.

The proposed filling station will be constructed in one phase.

### 1179.07 Landscaping.

To protect and promote a harmonious development that ensures a functional and logical arrangement of mixed uses, the effective and efficient use of landscaping and buffering is required. Therefore, a PM development shall include the following landscaping and buffering:
(a) Development Landscaping. Within the PM development that is proposed, entirely residential buildings shall be screened from nonresidential and mixed-use buildings with a 20 foot wide buffer strip that includes a six foot high earth mound, wooden or vinyl fence, wall, landscaping and/or mixture thereof that shall maintain an opaqueness of at least 80 percent year around. Parking areas, accessways, or any impervious surfaces are prohibited within this buffer strip. If planted materials are used, the screen must achieve the required height, width, and opaqueness within two years of planting. The use of pre-existing trees, natural features or amenities as part of this buffer is encouraged. The Planning Commission may approve some other arrangement of buffering if it determines that such an arrangement meets the intent of this requirement.

N/A
(b) Perimeter Landscaping. In a section of a PM development that contains nonresidential, mixed use, or multi-family buildings that abut a neighboring property with a single-family residential zoning designation or in a PM development section that contains an entirely residential section that abuts a neighboring property with a commercial, office, or multi-family zoning designation, the perimeter of the section of the PM development shall be screened with a 25 foot wide buffer strip that includes a six foot high earth mound, wooden or vinyl fence, wall, landscaping and/or mixture thereof that shall maintain an opaqueness of at least 80 percent year-round. Parking areas, accessways or an impervious surfaces are prohibited within this buffer strip. If planted materials are used, the screen must achieve the required height, width, and opaqueness within two years of planting. The use of pre-existing trees, natural features or amenities as part of this buffer is encouraged. The Planning Commission may approve some other arrangement of buffering if it determines that such an arrangement meets the intent of this requirement.

## N/A

(c) Parking Lot Landscaping. All parking lots are required to have interior landscaped areas as outlined in Chapter 1185, "Parking and Loading".

The landscaping plan submitted appears to meet these requirements. Staff will verify compliance during the detailed development phase.
(d) Street Tree Requirement. All frontage property within a PM development that abuts public rights-of-way and is developed with nonresidential, mixed use, and/or multi-family buildings is required to have one street tree per 40 feet of frontage planted just outside of the street right-
of-way. Unless determined to be inappropriate by the City Engineer, street trees shall be planted at least four feet from the edge of the sidewalk on private property. All frontage property within a PM development along a major collector or better as defined by the Huber Heights Thoroughfare Plan, no matter what use, shall meet this requirement. The type of tree and size shall be proposed by the developer at the Detailed Development Plan application stage and approved by the Planning Commission. A list of appropriate trees with required caliper is available in the City Engineer's Office.
Street trees are illustrated in a clustered manner. Further refinement may be necessary during the detailed development phase.

### 1179.08 Parking and loading.

The provisions of Chapter 1185, "Parking and Loading" shall apply, except that the off-street loading spaces and docks shall be provided with area, location and design appropriate to the needs of the development and specific uses within it, and the space designated for off-street loading shall not be used for off-street parking. Within the PM development, off-street loading areas shall be physically isolated and/or enclosed from residences in or adjacent to the PM Development. In all cases, off-street loading spaces and docks are prohibited in the front and side yards of any property.

As proposed, the code requires approximately 49 spaces and at least five stacking spaces. The initial site plan illustrates 45 parking spaces and room to stack 10 vehicles. The final parking requirements will be determined during the detailed development plan review and may change based on the floor area of the retail component of the convenience store.

### 1179.09 Planning commission/city council review.

All requirements within this chapter are to be used as guidelines and may be varied as part of the Basic or Detailed Development Plan approval if it is determined that such deviation will not adversely affect neighboring properties or the community as a whole. Additionally, any variation of these requirements shall, in no case, change the overall plan and character of the proposed development.

### 1181.24 Commercial building design standards.

(a) Applicability. The Commercial Building Design Standards shall apply to all newly constructed or reconstructed/remodeled nonresidential structures located in the $O-1, B-1, B-2$, and $B-3$ zoning districts.
(1) Exceptions. The requirements of this section shall not apply to:
A. Existing structures as of the adoption of this section shall be exempt from these commercial building design standards unless an exempted structure is expanded by ten percent or more of its original size.
B. Deviation from the design standards contained in this section may only be approved through the Planned Unit Development Approval Process.
(b) Design Standards.
(1) Building materials.
A. All exterior walls, including parking structures, garages, and accessory structures shall be 100 percent masonry materials.
B. Masonry coverage calculation does not include doors, windows, chimneys, dormers, window box-outs, bay windows that do not extend to the foundation, or any exterior wall that does not bear on the foundation.
C. Masonry Materials shall be defined as:

1. Hard fired brick: Shall be kiln fired clay or slate material and can include concrete brick if it is to the same American Society for Testing and Materials (ASTM) standard for construction as typical hard fired clay brick. Unfired or under-fired clay, sand or shale brick shall be prohibited.
2. Stone: Includes naturally occurring granite, marble, limestone, slate, river rock, and other similar hard and durable all-weather stone that is customarily used in exterior construction material. Cast or manufactured stone product may be approved, provided that such product yields a highly textured, stone-like appearance.
3. Decorative concrete block: Shall be highly textured finish such as split-faced, indented, hammered, fluted, ribbed, or similar architectural finish. Coloration shall be integral to the masonry material and shall not be painted on.
4. Concrete pre-cast or tilt wall panel: Shall be of an architectural finish that is equal to or exceeds the appearance and texture of face brick or stone. Coloration shall be integral to the masonry material and shall not be painted on.
5. Stucco: An exterior plaster made from a mixture of cement, sand, lime and water spread over metal screening or chicken wire or lath.
6. Exterior Insulated Finish System (EIFS): A synthetic stucco cladding system that typically consists of these main components:
a. Panels of expanded polystyrene foam insulation installed with adhesive or mechanically fastened to the substrate, usually plywood or oriented strand board;
b. A base coat over the foam insulation panels,
c. A glass fiber reinforcing mesh laid over the polystyrene insulation panels and fully imbedded in the base coat; and
d. A finishing coat over the base coat and the reinforcing mesh.
7. Other: The Director of the Planning and Development Department, or his/her designee, may approve the use of other materials not specifically mentioned herein if it is determined that said materials exhibit comparable characteristics as those materials already approved herein.
(2) Roofing design and materials.
A. Asphalt shingles, industry approved synthetic shingles, standing seam metal or tile roofs are allowed.
B. Gable roofs, if provided, shall have a minimum pitch of 6/12.
C. Pitch roofs, if provided, shall have a minimum pitch of 9/12.
D. Architectural elements that add visual interest to the roof, such as dormers and masonry chimneys, are encouraged.
E. Flat roofs shall require parapet screening in accordance with Section 1181.18.
F. Parapet shall require cornice detailing or similar design.
(3) Prohibited Materials. The following materials shall be prohibited as primary cladding or roofing materials:
A. Aluminum or vinyl siding or cladding.
B. Galvanized steel or other metal.
C. Wood or plastic siding.
D. Cementitious fiber board.
E. Unfinished concrete block.
F. Exposed aggregate.
G. Wood roof shingles.
H. Reflective glass.
(4) Architectural design features.
A. All nonresidential buildings shall be architecturally finished on all sides with the same materials and detailing (e.g. tiles, moldings, cornices, wainscoting, etc.)
B. Structures 20,000 square feet or less shall require a minimum of two distinct building materials from the approved masonry list be utilized on all facades to provide architectural detail and interest.
C. Structures over 20,000 square feet shall require a minimum of three distinct building materials from the approved masonry list be utilized on all facades to provide architectural detail and interest.
D. Secondary materials must cover a minimum of ten percent of the building façade on all sides.
E. No blank walls shall front along any public right-of-way.
F. All nonresidential buildings shall be designed to include no less than four of the architectural design features listed as follows. Buildings over 20,000 square feet must include a minimum of six of the architectural design features listed as follows.
8. Canopies, awnings, arcades, covered walkways or porticos.
9. Recesses, projections, columns, pilasters projecting from the planes, offsets, reveals or projecting ribs used to express architectural or structural bays.
10. Varies roof heights for pitched, peaked, sloped or flat roof styles.
11. Articulated cornice line.
12. Arches.
13. Display windows, faux windows or decorative windows.
14. $\quad$ Architectural details (such as tile work and molding) or accent materials integrated into the building facade.
15. Integrated planted or wing walls that incorporate landscaping and sitting areas or outdoor patios.
16. Integrated water features.
17. Other architectural features approved by the Planning and development Director or his/her designee.

The submitted elevations indicate the buildings will be clad with a brick and stone exterior, consistent with the design standards. A formal review of the building design for compliance with this section will occur during the detailed development plan phase.

## Staff Analysis

The applicant requests to construct a 6,138 SF convenience store with fueling pumps and a 1,648 SF carwash. On May 21, 2021, the Planning Commission approved (4-1) a rezoning to PM and a basic development plan to facilitate the redevelopment of two parcels totaling 17.2 acres into a mixed-use development including a variety of commercial, office, and retail uses, along with a 192 unit apartment community. The rezoning was, and continues to be, consistent with the Comprehensive Plan.

When the Planning Commission approved the basic development plan, it set the range of allowable uses (those permitted in the PM district), site access, and internal site circulation. The applicant is proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel bisected by the interior street network. The proposed uses are permitted within the adopted basic development plan.

Additionally, the revised traffic study indicates there will be minimal changes in the level of service and delay by the proposed development compared to three previous lots originally studied. No additional roadway improvements are necessary beyond the roadway widenings currently underway. The internal circulation system proposed by the applicant remains unchanged from the approved basic development plan.

Since the informal review before the Planning Commission, the applicant has made two key revisions to the application. First, the carwash and vacuum stations were redesigned to reduce noise impacts to the surrounding properties. Secondly, two 30' tall pylon gas price signs were reduced to 6 '-10" tall.

Since the approved basic development plan only permitted three signs adjacent to the right of way, the two proposed $6^{\prime}-10^{\prime \prime}$ gas price ground signs require major change approval from the Planning Commission. Staff feels the two proposed gas price ground signs are modestly sized and highly complementary in design to the previously approved Broad Reach ID signs.

## Additional Comments:

Fire: See Attached.
City Engineer: The City Engineer has expressed a concern about customers parking along the eastern edge of the building backing into the drive aisle, and a concern about drive-thru customers crossing a drive aisle after ordering and stacking at the pick-up window.

This site is not unique with parking along a drive aisle; most of the sites along Old Troy Pike are similarly situated. Regarding drive-thru customers crossing the drive aisle, the applicant has stated that drive-thru customers are approximately $10 \%$ of sales and the applicant does not anticipate congestion issues related to vehicle stacking.

## Recommendation

The application for a major change was initiated at the request of the Planning Commission and their desire for City Council to review this development application.

Only the two proposed ground signs must be approved through the major change. Staff feels the major change requested by the applicant meets the standards outlined in Chapter 1171.06 for the following reasons:

- The proposed uses are consistent with the Comprehensive Plan;
- The proposed uses are currently permitted within the approved basic development plan;
- All site access locations and interior circulation remain unchanged;
- The replacement of the convenience store, fueling station and carwash will result in minimal changes in the level of service and delay along the thoroughfares compared to the three lots and uses originally studied; and,
- The two ground mounted gas price signs are modest in height and designed in a complementary manner to the previously approved development ID signs.

Staff recommends approval with the following conditions:

- All conditions approved by the Planning Commission on May 21, 2021, shall remain in effect;
- The two additional ground mounted gas price signs shall not exceed 6'-10";
- The applicant shall comply with all engineering, building and fire codes; and,
- The applicant shall update the basic development plan to reflect all conditions imposed by the planning commission.


## Planning Commission Action

Planning Commission may take the following actions with a motion to:

1) Approve the basic development plan application, with or without conditions.
2) Deny the basic development plan.
3) Table the application in order to gather additional information.

## Planning Commission Decision Record

WHEREAS, on June 3, 2022, the applicant, Skilken Gold Real Estate Development Architects, requested approval of a Major Change to the basic development plan to construct a 6,138 SF convenience store with fueling pumps and a 1,648 SF carwash at property located at the NE Corner of Old Troy Pike and Taylorsville Road further identified as Parcel Numbers P70 040050015 and P70 040050043 of the Montgomery County Auditor's Map (Case MJC 22-21), and;

WHEREAS, on June 28, 2022, the Planning Commission did meet and fully discuss the details of the request.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission hereby recommended approval of the request.

Ms. Vargo moved to approve the request by the applicant, Skilken Gold real estate Development Architects, for approval of a Major Change to the basic development plan to construct a 6,138 SF convenience store with fueling pumps and a $1,648 \mathrm{SF}$ carwash at property located at the NE Corner of Old Troy Pike and Taylorsville Road (Case MJC 22-21), in accordance with the recommendation of Staff's Memorandum dated June 22, 2022, with the following conditions:

1. All conditions approved by the Planning commission on May 21, 2021, shall remain in effect;
2. The two additional ground mounted gas price signs shall not exceed 6'10";
3. The applicant shall comply with all engineering, building and fire codes; and,
4. The applicant shall update the basic development plan to reflect all conditions imposed by the Planning Commission.
5. No more than five (5) vacuums will be permitted.

MJC 22-21 - Decision Record
Seconded by Ms. Opp. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, and Mr. Walton. NAYS: Mr. Jeffries and Ms. Thomas. Motion to recommend approval carried 3-2.

## Planning Commission

June 28, 2022, Meeting City of Huber Heights
I. Chair Terry Walton called the meeting to order at approximately 6:00 p.m.
II. Present at the meeting: Mr. Jeffries, Ms. Opp, Ms. Thomas, Ms. Vargo and Mr. Walton.

Members absent: None.
Staff Present: Aaron K. Sorrell, Interim City Planner, and Geri Hoskins, Planning \& Zoning Administrative Secretary.

## III. Opening Remarks by the Chairman and Commissioners

## IV. Citizens Comments

None.

## V. Swearing of Witnesses

Mr. Walton explained the proceedings of tonight's meeting and administered the sworn oath to all persons wishing to speak or give testimony regarding items on the agenda. All persons present responded in the affirmative.
VI. Pending Business

1. None

## VII. New Business

Ms. Thomas moved to change the agenda by adding a presentation by Joe Nickel from YARD Company and moving 7A to 7B and 7B to 7A.

Seconded by Ms. Vargo. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.

1. JOE NICKEL FROM YARD COMPANY gave a brief presentation on their help to develop the Comprehensive Plan.

Library
Alematic
Pool
Music Nights
Farmer's Market
Final Recommendation

Planning Commission Meeting
June 28, 2022
2. MAJOR CHANGE - The applicant, RUETSCHLE ARCHITECTS, is requesting a Major Change to the Combined Basic and Detailed Development Plan to construct an 11,623 SF career technology addition to the existing auditorium facility. Property is located at 5400 Chambersburg Road (MJC 22-27).

Mr. Sorrell stated that in late October 2009, the Planning Commission approved a combined basic and detailed development plan to construct a new high school, softball field, tennis courts and associated student and staff parking areas.

At the time of approval, an existing auditorium along Chambersburg Road was improved during the school upgrades. A partial section of the approved BDP is below:


While the approved BPD illustrates bus parking in the lot immediately south of the auditorium, the school no longer stages buses there. It has been using the east/west drive near the current student parking area.

The applicant is now proposing to add an 11,623 addition to the rear of the existing auditorium to facilitate the development of the career technology center and a covered pedestrian walkway.

Parking will be reconfigured, and there is an overall net reduction of 26 parking spaces, which is simply one row of existing parking. No changes to the current bus parking, circulation, or other student/event parking are anticipated.

## Conformance with Zoning Regulations

The use conforms with all requirements of Chapter 1174. The applicant is requesting an amendment to facilitate the addition of $11,623 \mathrm{SF}$ to an existing building. The addition is in the interior of the campus and will not be seen from Chambersburg Road.

Staff feels the impact on parking is negligible. There are currently 1175 spaces throughout the campus. At the time of the original basic and detailed development plan approval in 2009, the high school required 460 spaces, and the stadium required 1175 spaces. The original parking calculation was based on 146 employees, 1680 students and 68 classrooms.

The current enrollment is 1569 students, and with this addition, there will be six additional classrooms. The stadium seating stays the same. The reduction from 1175 spaces to 1149 should have a negligible impact on the school's daily operations or impact to surrounding properties.

## Landscaping

The applicant proposes improving the interior street tree landscaping along the impacted perimeter roads. This is an improvement from the original basic and detailed development plan.

## Building Materials

The building will be clad with a brick exterior, similar to the existing auditorium.

As outlined above, the new high school was approved in October 2009. The addition of the career center will provide additional educational opportunities for Huber Heights students. It is the staff's opinion the impact of the reduced parking are negligible.

Additionally, the applicant is proposing additional interior landscaping that will improve the overall aesthetics of the campus. No other changes to the approved basic and detailed development plan are presented. Staff feels the General Standards for Approval outlined in Chapter 1171.06 can be satisfied and recommend approval.

## Additional Comments:

Fire: See Attached. The applicant will comply will all fire code requirements.
City Engineer: No comments received.

## Recommendation

Staff recommends approving the major change to the basic and detailed development plan submitted on June 2, 2022.

Mike Ruetschle and Gary Doll spoke.

## Action

Mr. Jeffries moved to approve the request by the applicant RUETSCHLE RCHITECTS, for approval of a Major Change to the Combined Basic and Detailed Development Plan to construct an 11,623 SF career technology addition to the existing auditorium facility. Property is located at 5400 Chambersburg Road (Case MJC 22-27) in accordance with the recommendation of Staff's Memorandum dated June 22, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Thomas. Roll call showed: YEAS: Ms. Vargo, Mr. Jeffries, Ms. Thomas, Ms. Opp, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
3. MAJOR CHANGE - The applicant, SKILKEN GOLD REAL ESTATE DEVELOPMENT, LLC, is requesting approval of A Major Change to the Basic Development Plan for a proposed 6,138 SF Convenience Store with Fuel Canopy, a 1,648 SF Car Wash and Vacuum Stalls. Property is located at NE Corner of Old Troy Pike and Taylorsville Road (Case MJC 22-21).

Mr. Sorrell stated that the applicant requests approval to construct a 6,138 SF convenience store with fueling pumps and a $1,648 \mathrm{SF}$ carwash. During the informal review with the Planning Commission there was significant discussion about the proposed use as compared to the uses illustrated on the adopted basic development plan. The Planning Commission expressed concerns about the perceived deviation from the originally illustrated uses and layout on the south side of the development, and members felt that the City Council should have an opportunity to review the new development proposal. It was recommended by the Planning Commission and agreed to by the applicant that they would request a major change to the basic development plan, which allows City Council the opportunity to review the proposal.

## Background

On May 21, 2021, the Planning Commission approved (4-1) a rezoning to PM and basic development plan to facilitate the redevelopment of two parcels totaling 17.2 acres into a mixed-use development which includes a variety of commercial, office, and retail uses, along with a 192-unit apartment community. The rezoning was, and continues to be, consistent with the Comprehensive Plan. Transportation Improvements

Planning Commission Meeting
June 28, 2022
As part of the rezoning and basic development plan approval, the developer is widening the north side of Taylorsville Road to add a lane and widening the east side of Old Troy Pike to Huber Road to add a lane. Additionally, a new traffic signal will be installed along Old Troy Pike to facilitate better site access and the existing Huntington Bank and Starbucks sites will have access to this signalized intersection. The site is being cleared and roadway improvements will begin shortly.

For the sites under consideration in this application, the interior drive network and access to Taylorsville Road and Old Troy Pike is unchanged from the approved rezoning and basic development plan.

The city is planning to carry the Old Troy Pike widening from former Huber Road to I-70.

## Allowable Uses

For the sites in this application, the basic development plan presented at the May $14^{\text {th }}$ Planning Commission meeting illustrated a proposed bank, medical facility, and future outparcel. The basic development plan simply outlines allowable uses, site access, internal circulation (drive-aisles) and illustrates possible individual site plan concepts.

During the meeting, planning staff indicated to the Planning Commission the three sites were illustrative only, and those uses may change during the detailed development plan process. When the Planning Commission approved the basic development plan, it set the range of allowable uses (those permitted in the PM district), transportation improvements, site access, and internal site circulation.

The applicant is now proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel in place of the illustrated bank, medical building and future outparcel.

Chapter 1179.02 states: "The uses outlined as permitted uses in the ( $P R$ ) Planned Residential District, (PO) Planned Office District, (PP) Planned Public and Private Buildings and Grounds District, and (PC) Planned Commercial District are principal uses permitted in the (PM) Planned Mixed Use District except as prohibited in this chapter."

As such, the following related uses are permitted in PM district:

- Retail, office, and commercial establishments
- Personal service commercial establishments
- Filling stations
- Service stations

The proposed uses are permitted within this adopted basic development plan.

## Ground Signs

The approved basic development plan approved two multi-tenant ID signs, and one general ID sign adjacent to the public right of way. The approved locations are illustrated below. Sign "A" is $16^{\prime}-8$ " and located at the main signalized intersection along Old Troy Pike. Sign "B" is 14 '-2" and located along Taylorsville Road. Sign "C", the smallest ID sign, is 5 ' tall and located at the corner of Taylorsville Road and Old Troy Pike.

After the informal review with the Planning Commission, the applicant relocated the proposed vacuum stands from along Taylorsville Road to behind the car wash. The revised location will reduce the noise impacts to surrounding residents. Additionally, the more intense activities such as fueling pumps, and the main access to the convenience store, are located adjacent to Old Troy Pike, away from surrounding residential areas. The car wash is a single bay wash whose doors close during the washing procedure.

The approved basic development plan requires a minimum of 25 percent green space. The proposal shall also meet this requirement, which will be evaluated at the Detailed Development Plan stage.

A lighting plan was submitted with the application and appears to meet the lighting standards in terms of height and light trespass. A final review will be completed during the detailed development plan phase.

The applicant is proposing brick structures consistent with the non-residential material requirements and the basic development plan. A final review will be completed during the detailed development plan phase.

## Staff Analysis

The applicant requests to construct a 6,138 SF convenience store with fueling pumps and a 1,648 SF carwash. On May 21, 2021, the Planning Commission approved (4-1) a rezoning to PM and a basic development plan to facilitate the redevelopment of two parcels totaling 17.2 acres into a mixed-use development including a variety of commercial, office, and retail uses, along with a 192-unit apartment community. The rezoning was, and continues to be, consistent with the Comprehensive Plan.

When the Planning Commission approved the basic development plan, it set the range of allowable uses (those permitted in the PM district), site access, and internal site circulation. The applicant is proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel bisected by the interior street network. The proposed uses are permitted within the adopted basic development plan.

Additionally, the revised traffic study indicates there will be minimal changes in the level of service and delay by the proposed development compared to three previous lots originally studied. No additional roadway improvements are necessary beyond the roadway widenings currently underway. The internal circulation system proposed by the applicant remains unchanged from the approved basic development plan.

Since the informal review before the Planning Commission, the applicant has made two key revisions to the application. First, the carwash and vacuum stations were redesigned to reduce noise impacts to the surrounding properties. Secondly, two $30^{\prime}$ tall pylon gas price signs were reduced to $6^{\prime}-10^{\prime \prime}$ tall.

Since the approved basic development plan only permitted three signs adjacent to the right of way, the two proposed 6'-10" gas price ground signs require major change approval from the Planning Commission. Staff feels the two proposed gas price ground signs are modestly sized and highly complementary in design to the previously approved Broad Reach ID signs.

## Additional Comments:

## Fire: See Attached.

City Engineer: The City Engineer has expressed a concern about customers parking along the eastern edge of the building backing into the drive aisle, and a concern about drive-thru customers crossing a drive aisle after ordering and stacking at the pick-up window.

This site is not unique with parking along a drive aisle; most of the sites along Old Troy Pike are similarly situated. Regarding drive-thru customers crossing the drive aisle, the applicant has stated that drive-thru customers are approximately $10 \%$ of sales and the applicant does not anticipate congestion issues related to vehicle stacking.

## Recommendation

The application for a major change was initiated at the request of the Planning Commission and their desire for City Council to review this development application.

Only the two proposed ground signs must be approved through the major change. Staff feels the major change requested by the applicant meets the standards outlined in Chapter 1171.06 for the following reasons:

- The proposed uses are consistent with the Comprehensive Plan;
- The proposed uses are currently permitted within the approved basic development plan;
- All site access locations and interior circulation remain unchanged;
- The replacement of the convenience store, fueling station and carwash will result in minimal changes in the level of service and delay along the thoroughfares compared to the three lots and uses originally studied; and,
- The two-ground mounted gas price signs are modest in height and designed in a complementary manner to the previously approved development ID signs.

Staff recommends approval with the following conditions:

- All conditions approved by the Planning Commission on May 21, 2021, shall remain in effect;

June 28, 2022

- The two additional ground mounted gas price signs shall not exceed 6 '-10";
- The applicant shall comply with all engineering, building and fire codes; and,
- The applicant shall update the basic development plan to reflect all conditions imposed by the planning commission.

Lengthy discussions on stacking of cars, road widening, gaining left turn, additional lane on Troy Pike, curb cut management,

Mike Castellitto from Broadreach talked about widening Taylorsville and Troy Pike, lanes shifted, traffic control measures in place, history and relationship with the city, agreement pertains to property, not tenants.

Frank Petruziello talked about Sheetz selling gas but restaurant was original business, seating for 30 , food to order, touch screens, drive-thru $10 \%$ of business. Traffic load won't change.

Discussion on vacuums and parking 49 required spaces, hours of operation, security, highly competitive. Signage and additional lanes. Eliminate 3 vacuums, hours of operation at Detailed Development Plan. All fire concerns are being addressed.

## Action

Ms. Vargo moved to approve the request by the applicant SKILKEN GOLD REAL ESTATE DEVELOPMENT, for approval of a Major Change to the Basic Development Plan for a proposed 6,138 SF Convenience store a with Fuel Canopy, a 1,648 SF Car Wash and Vacuum Stalls. Property is located at NE Corner of Old Troy Pike and Taylorsville Road (Case MJC 22-21) in accordance with the recommendation of Staff's Memorandum dated June 22, 2022, and the amended Planning Commission Decision Record attached thereto.

Seconded by Ms. Opp. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, and Mr. Walton. NAYS: Mr. Jeffries and Ms. Thomas. Motion to approve carried 3-2.

## VIII. Additional Business

None.

## IX. Approval of the Minutes

Without objection, the minutes of the June 14, 2022, Planning Commission meeting are approved.

## X. Reports and Calendar Review

DDP - The Waverly<br>DDP - Medical Facility

Planning Commission Meeting
June 28, 2022

## XI. Upcoming Meetings

July 12, 2022
July 26, 2022

## XII. Adjournment

There being no further business to come before the Commission, the meeting was adjourned at approximately 8:01 p.m.

## Terry Walton, Chair

Geri Hoskins, Administrative Secretary

Date

Date

# TO APPROVE A MAJOR CHANGE TO THE BASIC DEVELOPMENT PLAN FOR THE PROPERTY LOCATED AT THE NORTHEAST CORNER OF OLD TROY PIKE AND TAYLORSVILLE ROAD AND FURTHER IDENTIFIED AS PARCEL NUMBER P70 04005 0015 ON THE MONTGOMERY COUNTY AUDITOR'S MAP AND ACCEPTING THE RECOMMENDATION OF THE PLANNING COMMISSION (CASE MJC 22-21). 

WHEREAS, the citizens of Huber Heights require the efficient and orderly planning of land uses within the City; and

WHEREAS, the City Planning Commission has reviewed Case MJC 22-21 and on June 28, 2022, recommended approval by a vote of 3-2 of the Major Change; and

WHEREAS, the City Council has considered the issue.
NOW, THEREFORE, BE IT ORDAINED by the City Council of Huber Heights, Ohio that:
Section 1. The application requesting approval of a Major Change to the Basic Development Plan (Case MJC 22-21) is hereby approved in accordance with the Planning Commission's recommendation and following conditions:

1. All conditions approved by the Planning Commission on May 21, 2021, shall remain in effect.
2. The two additional ground mounted gas price signs shall not exceed $6^{\prime}-10^{\prime \prime}$.
3. The applicant shall comply with all engineering, building and fire codes.
4. The applicant shall update the basic development plan to reflect all conditions imposed by the Planning Commission.
5. No more than five (5) vacuums will be permitted.
6. Prior to the issuance of a zoning permit, the applicant shall enter into a PUD Agreement with the City for the purpose, but not the sole purpose, of establishing the development obligations of the applicant and requiring the submittal of a performance bond, cash bond, or letter of credit to insure the installation of landscaping as approved. The bond or letter of credit shall be in an amount equal to the applicant's estimate of the cost of installation as approved by the Planning Department and shall remain in effect until such time as the landscaping has been completed as determined by the Planning Department. Upon completion of the installation of landscaping as required by the approved landscape plan, the applicant may request release of the performance bond or letter of credit. Following an inspection by the Planning Department and upon determination by the department that the landscaping has been completed in accordance with the approved landscaping plan, $80 \%$ of the performance bond or letter of credit may be released. However, the performance bond or letter of credit will not be released until a maintenance bond lasting three growing seasons, or letter of credit equal to $20 \%$ of the initial performance bond or letter of credit to ensure maintenance of the landscaping, is submitted to and accepted by the Planning Department. The term of the maintenance bond shall be three growing seasons.

Section 2. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Ordinance shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ 2022;
$\qquad$

Effective Date:
AUTHENTICATION:

Clerk of Council
Mayor

Date
Date
Department: Planning Division: Planning
Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022

## Motion/Ordinance/

 Resolution No.:
## Agenda Item Description or Legislation Title

An Ordinance To Approve A Basic Development Plan For The Property Located At 6209 Brandt Pike And Further Identified As Parcel Number P70 039120140 On The Montgomery County Auditor’s Map And Accepting The Recommendation Of The Planning Commission (Case BDP 22-25).
(first reading)

## Purpose and Background

The applicant, Homestead Development, is requesting approval of a Basic Development Plan to construct a 135-unit senior community and a 192-unit market rate community on a combined 15.56 acres (Case BDP 22-25).

Fiscal Impact
Source of Funds:
N/A
Cost:
N/A
Recurring Cost? (Yes/No): N/A
Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:

## Attachments

Drawings
Elevations
Staff Report
Decision Record
Minutes
Ordinance





## Southpoint Crossing

HOMESTE气D

COMPANIES




55+ community
site area 6.0 acres $\begin{array}{ll}\text { parking provided } & 6.0 \text { acres } \\ 134 \text { spaces }\end{array}$

Homestead Apartment Community
parking provided
8.1 acres

Retail + Restaurant
site area
parking provided

Library, Public Use, Senior Center
site area
parking provided

Medical Offices

## site area

parking provided


sightline // west property line
SCALE: NTS




FRONt/BACK ELEVATION


SIDE ELEVATION


STONE 01
product // provia
color // lakepointe - dry stack // no grout

SHUTTERS
product // na color // night owl

SW 7061



SIDING 01
product // james hardie
// hardieplank lap siding
color // dorian gray
SW 7017

TRIM
product // na

color // white


SIDING 03
product // shake siding
color // white




SIDING 01
product // james hardie lap siding color // arctic white


SIDING 03
product // hardie shingle siding color // arctic white


SHUTTERS
product// na polor // black


ROOF
product // asphalt shingle


SIDING 02
product // james hardie lap siding color // evening blue


STONE 01
product // taylor clay products color // executive grey


TRIM
product// na color // arctic white


FRONT ELEVATION


REAR ELEVATION


SIDE ELEVATION

# Memorandum 

Staff Report for Meeting of June 14, 2022

| Huber Heights City Planning Commission |  |
| :---: | :---: |
| Aaron K. Sorrell, Interim City Planner |  |
| June 8, 2022 |  |
| Subject: BDP 22-25 Basic Development Plan - Marian Meadows |  |
| Application dated May 26, 2022 |  |
| Department of Planning and Zoning City of Huber Heights |  |
| APPLICANT/OWNER: | Homestead Development - Applicant City of Huber Heights - Owner |
| DEVELOPMENT NAME: | Marian Meadows |
| ADDRESS/LOCATION: | 6209 Brandt Pike (rear lots of former Marian Shopping Center) P70 039120140 |
| ZONING/ACREAGE: | PM - Planned Mixed Use / 15.56 Acres <br> BPO - Brandt Pike Revitalization Overlay District |
| EXISTING LAND USE: | Vacant |
| ZONING |  |
| ADJACENT LAND: | R-4 - West; PC - North; PM - East; PP/B-3 - South |
| REQUEST: | The applicant requests approval of a basic development plan to construct a 135 -unit senior community and a 192-unit market rate community on a combined 15.56 acres. |
| ORIGINAL APPROVAL: | N/A |
| APPLICABLE HHCC: | Chapter 1171, 1179, 1180 |
| CORRESPONDENCE: | In Favor In Opposition - |

## STAFF ANALYSIS AND RECOMMENDATION:

## Overview:

This project grew out from the Brandt Pike Redevelopment Plan (2017), which identified a need and demand for senior housing and market-rate multi-family housing along and near the Brandt Pike corridor. The City subsequently purchased the shopping center to facilitate redevelopment. New developments within this site include: Dayton Metro Library Huber Heights Branch, Dogtown, and the shopping center will be refaced with a brick / stone façade. TIF proceeds from the proposed apartment developments, as well as future developments may fund the façade and public infrastructure upgrades.

The applicant is requesting basic development plan approval for a 184-unit market-rate apartment community and a 135 -unit senior apartment community.

## Applicable Zoning Regulations

The appliable zoning chapters include: 1171 General Provisions, 1179 Planned Mixed Use District, 1180 Brandt Pike Revitalization Overlay District, 1181 General Provisions. The relevant sections are cited and discussed below:

## Chapter 1171 General Provisions

### 1171.01 Purpose.

Planned Unit Developments Districts may be permitted as amendments to the zoning map, after application and approval of specific and detailed plans, where tracts suitable in location and character for the uses and structures proposed are to be planned and developed as units. The provisions of this chapter are adopted to unify planning and development in such districts. Applications for rezoning of land into a Planned Unit Development District shall be granted only when the basic development plan for the project is such that the public health, safety and morals shall not be jeopardized by a departure from the restrictions on corresponding uses in the standard zoning district. PUD rezonings may be approved only when a basic development plan for the area has been approved by Council. A detailed development plan shall then be approved for zoning permit to be approved for development in the District. Normally the detailed development plan shall be approved by the Planning Commission after the rezoning and basic development plan have been approved by Council. Owners shall have the option however, of submitting a combined basic and detailed development plan ("combined development plan") if they should so desire for some or all of the site.
(Ord. 93-O-602, Passed 3-22-93)

### 1171.05 Contents of basic development plan.

(a) The basic development plan shall consist of at least the following information together with such other data and materials as may be required by the City:
(1) Site plan showing the actual shape and dimensions of the lot to be built upon or to be changed in its use together with the location of the existing and proposed structures with approximate square footages, number of stories including heights of structures;
(2) Typical elevation views of the front and side of each type of building;
(3) Planning location and dimensions of all proposed drives, service access road, sidewalks and curb openings;
(4) Parking lot areas (show dimensions of a typical parking space), unloading areas, fire lanes and handicapped parking;
(5) Landscaping plan, walls and fences;
(6) Storm water detention and surface drainage;
(7) Exterior lighting plan;
(8) Vehicular circulation pattern;
(9) Location and square footage of signs;
(10) Topographic survey; and
(11) Listing of proposed uses taken from the list of permitted and special uses of the PUD zoning district to which rezoning is being sought.
(b) The Planning Commission shall schedule both the proposed rezoning and the issue of approval of the basic development plan for a combined public hearing, following which it shall make its recommendation indicating approval, approval with modification or disapproval.
(Ord. 2006-O-1655, Passed 9-25-05)

### 1171.06 General standards for approval.

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
(a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;
(b) Could be substantially completed within the period of time specified in the schedule of development submitted by the developer;
(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;
(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;
(e) Contains such proposed covenants, easements and other provisions relating to the proposed development standards as may reasonably be required for the public health, safety and welfare;
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;
(g) Shall preserve natural features such as water courses, trees and rock outcrops, to the degree possible, so that they can enhance the overall design of the PUD;
(h) Is designed to take advantage of the existing land contours in order to provide satisfactory road gradients and suitable building lots and to facilitate the provision of proposed services;
(i) Shall place underground all electric and telephone facilities, streetlight wiring and other wiring conduits and similar facilities in any development which is primarily designed for or occupied by dwellings, unless waived by the Commission because of technical reasons;
(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors; and
(I) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.
(Ord. 93-O-602, Passed 3-22-93)

### 1171.091 Planning commission/council review.

It is the purpose of the Planning Development regulations to encourage property owners to develop their land in efficient and effective ways. It is the intent of these regulations to encourage land uses which may not always meet traditional zoning rules. Inherent in these Planned Development regulations is an opportunity for property owners to develop their sites without requiring strict compliance with all zoning regulations where the overall plan is deemed to be in the best interest of the City. During review of a Basic or Detailed Development Plan by the Planning Commission or City Council, all requirements within Part 11, Title 7 of the Code are to be used as guidelines and may be varied as part of the Basic or Detailed Development Plan if it is determined that such deviation will not materially adversely affect neighboring properties or the community as a whole, any such variation of these requirements does not change the overall plan and character of the proposed development, and the variance does not have the effect of nullifying the intent and purpose of these regulations or the Zoning Ordinance. In granting variances or modifications, the Commission or Council may require such conditions as shall, in its judgement, secure substantially the objective of the standards or requirements so varied or modified.
(Case 427; Ord. 2002-O-1367, Passed 9-9-02)

## Development Standards Analysis:

### 1179.06 Development standards (Planned Mixed Use)

Except when specifically modified herein, the provisions of the Planning and Zoning Code shall govern. The following development standards apply to a PM development:
(a) Minimum Land Area Requirement. A minimum of 20 acres shall be required.

While this application covers approximately 15.56 acres, the overall area zoned PM exceeds 20 acres.
(b) Covenants. The developer of a PM development shall be required to submit a set of covenants or deed restrictions with the Basic Development Plan application that will outline, at a minimum, development standards and guidelines established in this chapter and any other requirements the developer and/or Planning Commission deems necessary. The Planning Commission may require additional or amended
covenants as it deems necessary to ensure compliance with the Planning and Zoning Code and the Planned Mixed-Use District.

Covenants will be created during the detailed development plan phase.
(c) Required Mix of Land Uses. A developer shall be required to provide a mix of land uses in a PM Development. At a minimum, at least two of the following uses are required in a PM Development: residential, commercial, office, institutional, and/or industrial.

The area zoned PM has a mix of uses including retail, commercial, public use (library) and planned residential.
(d) Site Planning.
(1) The combination of different uses whether as part of one building or as part of the overall development shall be designed and developed so as not to create a nuisance by excessive noise, light, vibration, odor or any other annoyances for any uses within the development or neighboring properties.
All uses being considered are compatible with the neighboring properties. Extensive natural vegetation exists that will buffer and screen the proposed development and the existing homes to the west.
(2) A PM development is to be designed so that buildings and structures are clustered and open space areas are preserved and maintained. Special care shall be given to protect preexisting natural features including, but not limited to, woodlands, ravines, streams, lakes, ponds, and/or flood plains. Impervious surface coverage, including, but not limited to, buildings, parking area, and accessways, shall not exceed 75 percent of the total development area. Therefore, 25 percent of the development area shall be reserved for green space.

The overall campus development is focused around a wet detention area and has large areas of open space. The combined proposed residential development sites are approximately $40 \%$ open space.
(3) The number of ingress and egress points onto the public streets shall be limited in order to reduce the number of traffic conflict points. Adequate and properly arranged facilities for internal pedestrian and traffic circulations shall be provided. The street and thoroughfare network shall be designed to minimize truck traffic through residential areas of the development.

Access is limited to two required access points for each residential development.
(4) Parking systems shall be designed so as to discourage single large unbroken paved lots for offstreet parking and shall encourage smaller defined parking areas within the total parking system. Underground parking facilities are encouraged.

The parking areas are arranged for the convenience of the residents but are broken up with landscape islands and covered parking areas.
(5) The development shall be designed to tie all the uses into one overall community and encourage walking, biking, running, and alternative modes of transportation. Developers are encouraged to incorporate bus stops, bikeways, walkways, and crosswalks into an overall thematic scheme for pedestrian traffic. Sidewalks shall be required except, in the case of a golf course or specific open space development, the Planning Commission may determine them to be unnecessary.

Sidewalks are indicated along the future road frontage of non-senior multi-family building. Staff recommends sidewalks also be provided for the senior facility residents.
(6) Any signs as proposed within this district, shall comply with Chapter 1189 "Signs". Additionally, a developer of a PM development shall develop and submit with the Detailed Development Plan application, a comprehensive set of graphic design criteria for signage in the development. This set of graphic design criteria for signage shall be approved by the Planning Commission and shall apply to all signage requests within the development. The criteria shall include, at a minimum, the sizes permitted (if different from Chapter 1189), colors permitted, materials permitted, typefaces permitted, type size permitted, and permitted illumination. Compliance with the on- site comprehensive graphics shall be verified by the Zoning Administrator during the sign permit review process.
No sign details were provided for this application but will be submitted during the detailed development phase.
(7) Minimum lot area, frontage and setback requirements may be varied to allow greater flexibility in design. However, the following shall be used as a guideline for development:
A. With multiple buildings on a single property, entirely residential buildings shall be at least 15 feet from another entirely residential building and at least 50 feet from nonresidential or mixed-use buildings.
All residential buildings are spaced according to the above requirements.
(8) No maximum height restriction shall apply, except that the proposed development meets all Federal Aviation Administration (FAA), Dayton International Airport or Wright Patterson Air Force Base height or abatement requirements.

While no height maximum height restriction exists in the PM district, the Brandt Pike Overlay District has a maximum height of three stories or 35 feet. The proposed nonsenior apartments have both two- and three-story buildings. The two-story buildings are 34 feet to the roof peak and the three-story buildings are 44 feet to the roof peak. The applicant is proposing the market-rate apartments will have mixture of two- and threestory buildings along the west side of the site, which is closest to the existing singlefamily neighborhood. This arrangement will breakup the building massing along the western edge and the buildings are sited approximately 150 -feet from the back of the single-family homes.

The three-story senior buildings will also be at least 150 -feet from the back of the singlefamily homes. Additionally, the building is oriented in such a way that only the endcaps, and not the full building length, are facing the single-family homes.

Staff feels both the market rate site plan and senior building site plan provides a significant visual buffer and a nine (9) foot variance from the maximum height is acceptable.
(9) Common parking areas and accessways shall be lighted adequately with light fixtures that shall be designed to reflect light away from adjoining properties. Special attention will be given to protect entirely residential structures from light emitted from nonresidential land uses.

A lighting plan will be submitted with the detailed development plan.
(10) Nonresidential uses shall have trash containers and/or receptacles (including recycling containers) placed to the rear of all structures and shall be screened or enclosed on four sides with opening doors for the purpose of trash removal. The placement of trash containers and/or receptacles in multi-family residential developments shall be as inconspicuous as possible. The use of a wooden or vinyl fence structure, earth mound, or wall with an opaqueness of 100 percent and a height of 12 inches above the top of the largest container is required.

Both developments indicate enclosed trash facilities. The screening details will be provided in the detailed development plan.
(11) The architecture of nonresidential structures is encouraged to be unique yet similar in certain sections of the PM.

N/A
(12) The distribution systems for utilities are required to be underground.

All utilities will be below ground.
(13) The use of privately owned open space and public dedicated park land is encouraged as part of a PM development. Privately owned open space shall be maintained by the developer or by a duly authorized owner's association.
Two small dog parks are illustrated in the basic development plan of the market rate apartments. Overall, the developments have approximately $40 \%$ open space.
(14) The use of chain link fencing is prohibited. Additionally, on an entirely residential property, no fencing shall be permitted in the front yard and, in the case of a corner lot, no fencing shall be permitted in the side yard with frontage to a public right-of-way. The covenants submitted by the developer shall establish the height requirements for fencing in the development. Fencing in a development shall be uniform in height in related use areas. On an entirely residential property, fence height shall not exceed six feet.

## No fencing is currently illustrated on the plans.

(15) With the submission of a Basic Development Plan application, the applicant is required to submit a phasing plan that details when certain sections of the development will commence construction and when the sections will be complete.
No phasing plans have been submitted to date, though staff expects the apartments to be constructed in one phase.

### 1179.07 Landscaping.

To protect and promote a harmonious development that ensures a functional and logical arrangement of mixed uses, the effective and efficient use of landscaping and buffering is required. Therefore, a PM development shall include the following landscaping and buffering:
(a) Development Landscaping. Within the PM development that is proposed, entirely residential buildings shall be screened from nonresidential and mixed-use buildings with a 20 -foot-wide buffer strip that includes a six-foot-high earth mound, wooden or vinyl fence, wall, landscaping and/or mixture thereof that shall maintain an opaqueness of at least 80 percent year around. Parking areas, accessways, or any impervious surfaces are prohibited within this buffer strip. If planted materials are used, the screen must achieve the required height, width, and opaqueness within two years of planting. The use of pre-
existing trees, natural features or amenities as part of this buffer is encouraged. The Planning Commission may approve some other arrangement of buffering if it determines that such an arrangement meets the intent of this requirement.
A landscaping plan has not been submitted at this time. Staff recommends a mixture of street trees, and clustered plantings along the eastern edge of the market-rate and senior apartments. Staff feels a six-foot high earthen mound is inappropriate for this site and will interfere with pedestrian access from the apartments to the sidewalk network.
(b) Perimeter Landscaping. In a section of a PM development that contains nonresidential, mixed use, or multi-family buildings that abut a neighboring property with a single-family residential zoning designation or in a PM development section that contains an entirely residential section that abuts a neighboring property with a commercial, office, or multi-family zoning designation, the perimeter of the section of the PM development shall be screened with a 25 foot wide buffer strip that includes a six foot high earth mound, wooden or vinyl fence, wall, landscaping and/or mixture thereof that shall maintain an opaqueness of at least 80 percent year-round. Parking areas, accessways or an impervious surfaces are prohibited within this buffer strip. If planted materials are used, the screen must achieve the required height, width, and opaqueness within two years of planting. The use of pre-existing trees, natural features or amenities as part of this buffer is encouraged. The Planning Commission may approve some other arrangement of buffering if it determines that such an arrangement meets the intent of this requirement.

The applicant is proposing a five-foot earthen mound and evergreen plantings along the west edge to screen the development from the existing single-family homes.
(c) Parking Lot Landscaping. All parking lots are required to have interior landscaped areas as outlined in Chapter 1185, "Parking and Loading".

Areas for parking landscaping are illustrated in the basic development plan. The applicant shall submit additional details during the detailed development phase.
(d) Street Tree Requirement. All frontage property within a PM development that abuts public rights-ofway and is developed with nonresidential, mixed use, and/or multi-family buildings is required to have one street tree per 40 feet of frontage planted just outside of the street right-of-way. Unless determined to be inappropriate by the City Engineer, street trees shall be planted at least four feet from the edge of the sidewalk on private property. All frontage property within a PM development along a major collector or better as defined by the Huber Heights Thoroughfare Plan, no matter what use, shall meet this requirement. The type of tree and size shall be proposed by the developer at the Detailed Development Plan application stage and approved by the Planning Commission. A list of appropriate trees with required caliper is available in the City Engineer's Office.

Street trees are not illustrated, but staff recommends street trees be provided at 40-foot intervals.

### 1179.08 Parking and loading.

The provisions of Chapter 1185, "Parking and Loading" shall apply, except that the off-street loading spaces and docks shall be provided with area, location and design appropriate to the needs of the development and specific uses within it, and the space designated for off-street loading shall not be used for off-street parking. Within the PM development, off-street loading areas shall be physically isolated and/or enclosed from residences in or adjacent to the PM Development. In all cases, off-street loading spaces and docks are prohibited in the front and side yards of any property.

The zoning code requires two-space per multi-family unit. In the non-senior community, the applicant is proposing 357 parking spaces for 184 units, or 1.94 spaces per unit. Of the 184 units, 84 are one-bedroom apartments which are less likely to have two vehicles. Additionally, most communities have begun reducing parking minimums of non-senior multi-family apartments to approximately 1.5 spaces / unit. Staff feels the amount of parking proposed for the non-senior community is adequate.

The applicant is proposing 134 spaces for 135 units, or .99 spaces per unit. Most senior living facilities have a 1:1 parking ratio because the majority of residents either live alone or only have one vehicle in the household. Staff feels the amount of parking provided is acceptable at this time. There is room to provide additional parking in the front of the building if management determines it's necessary in the future. However, at this point in time, staff does not think sacrificing greenspace for parking is necessary.

### 1179.09 Planning commission/city council review.

All requirements within this chapter are to be used as guidelines and may be varied as part of the Basic or Detailed Development Plan approval if it is determined that such deviation will not adversely affect neighboring properties or the community as a whole. Additionally, any variation of these requirements shall, in no case, change the overall plan and character of the proposed development.

This development falls with in the Brandt Pike Overlay District. The entire zoning text is included for your reference. My recommendations are at the end of each section.

## CHAPTER 1180 (BPO) BRANDT PIKE REVITALIZATION OVERLAY DISTRICT

### 1180.01 Purpose; intent.

(a) The purpose of the Brandt Pike Revitalization Overlay District is multi-faceted. On a practical level, the Overlay District standards are meant to implement the recommendations of the Brandt Pike Target Revitalization Study (2017) which identify a number of public health, safety, and welfare issues on Brandt Pike, including traffic congestion, changing land uses, aging shopping centers, unattractiveness, and lack of identity. As this part of Huber Heights has come close to reaching build-out, the opportunity to address these issues comes through site-by-site redevelopment, which is an incremental process that will occur in fragments. It is because of this fragmentation, that a cohesive framework that channels or guides new building and construction is needed; otherwise, redevelopment on individual parcels or sites will occur independent of the larger Brandt Pike Corridor context, perpetuating the public health, safety, and welfare issues. The Overlay is such a framework and is intended to supplement the land uses and development requirements of the multiple underlying zoning districts while providing more specific development standards that unify this unique corridor's development pattern by regulating primarily the form (scale, alignment, and composition of buildings); parking and loading; site amenities; landscape design; lighting; and graphics. It is also aimed at encouraging and incorporating environmentally-friendly design, facilitating pedestrian connections to adjacent neighborhoods, as well as better connecting the corridor to its surroundings and serve as a tool to achieve the City's vision for redevelopment and help to create an identity for this vital corridor.
(b) It is the intent of the City of Huber Heights Brandt Pike Revitalization Overlay District to improve the health safety and welfare of the citizens of Huber Heights through objectives which include, but are not limited to, the following objectives:
(1) To establish parking standards with the specific intent of coordinating traffic between adjoining properties.
(2) To reduce access points to improve traffic safety, circulation, and coordination.
(3) To provide standards for screening of service and loading areas, HVAC equipment, and other areas determined to detract from the aesthetic qualities of the streetscape.
(4) To regulate outdoor dining activities for the benefit of customers and pedestrians, while also preserving required parking and safe vehicular circulation.
(5) To minimize the potential for increased traffic congestion by providing incentives that require shared access points, cross-access easements, shared parking areas, and quality public spaces.
(6) To increase the number of pedestrian and vehicular connections between adjacent properties to provide complimentary and coordinated development of adjacent properties.
(7) To provide regulating standards which require orderly, well-planned development and to ensure that the new buildings and additions enhance the surrounding streetscape, including incentives for burial of existing utilities within the right-of-way.
(8) To use scale, building orientation and landscaping to establish community identity.
(9) To effectively and efficiently regulate the establishment and maintenance of businesses requiring outdoor storage of vehicles, type and heights of signage, equipment or merchandise.
(10) To establish a walkable streetscape by promoting a pedestrian orientation of streets and buildings and providing a safe and convenient interconnected sidewalk network.

### 1180.02 Applicability to underlying zoning districts.

(a) The provisions of this chapter shall be applicable to all lands shown as being located within the boundaries of the "BP" Brandt Pike Revitalization Overlay District ("BP") on the Zoning Map and shall be supplemental to the regulations of the underlying zoning district.
(b) Any and all development, redevelopment, improvements, or the like, including, but not limited to, signage, and any variance, modification, and/or conditional use request for property with the BP shall be subject to the procedures and provisions set forth in this Chapter 1180. Any changes to the underlying zoning of property within the BP shall not remove the property from the BP unless expressly specified in the rezoning approval.
(c) The Planning Commission shall review the particular facts and circumstance of each proposed conditional use in terms of the requirements contained in this chapter and shall find by a preponderance of the evidence that applicant has either met or made a good faith attempt to meet each applicable provision.

### 1180.03 Permitted uses.

(a) Uses permitted in the underlying zoning districts; and
(b) Multi-family residential uses are permitted if incorporated into an overall mixed-use development.

### 1180.04 Requirements for conditional use application.

Any applicant desiring to improve property, submit a land development or perform an alteration to an existing building located in the Brandt Pike Revitalization Overlay District is required to apply for and obtain conditional use approval pursuant to the provisions of this chapter, and said application shall be governed by the standards and criteria set forth below. If a Special Use permit is required for the use under the Underlying zoning, the applicant may submit a single application for special use/conditional use.

Staff feels issuing a conditional use permit/approval for this type of development is confusing and unnecessary. Staff recommends incorporating the standards, where appropriate, in the overall basic development plan approval and subsequent detailed development plan approval. This section of the overlay district should be revisited in the future and revised for clarity and intent.

### 1180.05 Conditional use general property standards and criteria.

The Planning Commission shall review the particular facts and circumstance of each proposed conditional use in terms of the following requirements and shall find by a preponderance of the evidence that applicant has either met or made a good faith attempt to meet each of the following
(a) Applicants shall be required to pursue, where physically feasible, cross-easement agreements with neighboring property owners for the purpose of creating a cohesive and efficient parking configuration and traffic circulation plan including pedestrian and vehicular connections.
(b) Applicants shall be required to investigate the feasibility of and to reduce, to the extent possible, the number of existing curb cuts in order to improve traffic safety and circulation.
(c) Appropriate fenced and/or landscaped screening shall be required around all HVAC equipment, service and loading areas, trash receptacles, and other areas deemed appropriate by the Planning Commission. A privacy fence, landscaped buffer and/or low shrubs shall provide screening along the side and rear property boundaries to residential zoning districts.
(d) Applicants shall be required to investigate the feasibility of and, to the extent possible, consolidate two or more parcels, under separate ownership, prior to development, with the purpose of providing a more unified development.
(e) The applicant shall appropriately landscape along the backside of the public sidewalk with low shrubs, ornamental walls and earth shaping or any combination thereof. In those instances where parking is located in front of the building, vehicular screening shall be provided between the street right-of-way and the building by low brick walls 24 to 36 inches in height from the curb elevation with a five-inch limestone cap or by landscaping of 100 percent opacity. The brick utilized in the wall shall match the brick used elsewhere in the corridor. Where it is determined by the Planning Commission that insufficient space exists for such landscaping, they may be located elsewhere on the lot, at locations determined acceptable by the Commission.
(f) The applicant shall renovate existing building facades to provide a combination of masonry materials, such as stone, stucco, or brick and decorative elements around windows and doors, such as columns, pediments, and shutters, and new roof plan where flat roofs presently exist. All exterior walls of Commercial, Office, and Mixed-Use Buildings shall be 100 percent masonry materials as per City Code 1181.24(b)(1). All buildings in the Brandt Pike Revitalization Overlay District shall be architecturally finished on all sides utilizing four-sided architectural design so that there will be no apparent rear of any building where visible by surrounding roadways, as determined by the City. All buildings shall have a minimum of two distinct building materials from the approved list with secondary materials covering a minimum of ten percent of the total building façades. Window walls shall be considered windows by the City Code. All materials, colors, and architectural details used on the exterior of a building should be compatible with the building style, and with each other.
The applicant is proposing four-sided architecture with a mixture of stone, lap siding and shake-style siding. Windows are trimmed and highlighted with shudders.
(g) The applicant shall bring the front facade wall and sidewalk into conformity with 1180.11 contained herein.
(h) New developments shall be planned containing new streets and/or pedestrian ways such that no block within the development shall contain a block frontage greater than 600 feet in one direction and 400 feet in the opposite direction without an intervening street or pedestrian way.
One street frontage exceeds 600 -feet, however since it abuts an existing development new cross streets are not feasible.
(i) Shopping center out-parcels shall have an equivalent design treatment on all facades and shall be of a complimentary architecture to that of the shopping center.
(j) Any right-of-way outside of the roadway shall be preserved for sidewalks and green area between the curb line and the front yard setback along the entire Brandt Pike, Chambersburg, Fishburg, Powell, Nebraska and Kitridge Road frontages.
(k) Minimum green area: 20 percent, which may include any green area in the right-of-way as provided in Subsection J. If 20 percent green area is physically impossible, the applicant shall make a contribution in lieu of green area to the City of Huber Heights. Such contribution will be based on the assessed value of the property.

The applicant is proposing $40 \%$ open space.
(I) A maximum of one 30 -foot curb cut per street frontage shall be provided, unless additional curb cuts are approved by the City in order to accommodate existing or proposed circulation deemed desirable by the City, including installation of one-way movements limiting existing or proposed driveways to entrance or exit only. The applicant shall reduce the number and width of existing curb cuts when practicable.
(M) A minimum of 250 feet must be provided between curb cuts and public street intersections. A minimum of 100 feet must be provided between curb cuts.

## The development meets this standard.

### 1180.07 Outdoor lighting.

All outside lighting on the premises, including sign lighting, shall be arranged, designed, and shielded or directed so as to protect the abutting streets and adjoining property from the glare of lights, and lighting shall be so shielded that the source of the light shall not be visible from any point outside the premises. No flashing or intermittent or moving lights shall be permitted, either freestanding, attached to a facade, or as a part of an approved sign. This does not include digital changeable copy.

## Lighting plans shall be provided during the detailed development plan stage.

### 1180.08 Lots; setbacks; parking.

The following dimensional requirements shall apply to all properties within the Brandt Pike Revitalization Overlay District:
(a) Maximum building height: three stories, not to exceed 35 feet.

## Please refer to my prior discussion on building height.

(b) Front, side, and rear yard setbacks: The front, side, and rear yard setbacks shall be no less than ten feet, unless adjacent to an existing residential zoning district, in which case the minimum side and rear yard setbacks shall be 30 feet.
The development proposal meets this standard.
(c) Lot coverage maximums shall be those of the underlying zoning district unless a mix of two or more uses is incorporated on site. In such case, all impervious surface areas, including building, parking, etc. shall not exceed more than 80 percent of the site for the entire development.

## The development proposal meets this standard.

(d) Parking setback. All parking shall be set back a minimum of ten feet from the ultimate right-of-way along all Brandt Pike and frontages. The parking setback along all collectors or residential streets may be zero feet from the ultimate right-of-way. A minimum of ten feet from the curb line shall be provided for the placement of sidewalks, landscaping and utilities.

## The development proposal meets this standard.

(e) Up to 25 percent of the required parking spaces may be replaced with landscaped area. This area is in addition to any other landscaping requirement.
(f) Up to 25 percent of the required parking spaces for any development may be compact spaces reduced in total area, width or depth for designated compact vehicle parking. Each compact vehicle parking space shall not be less than nine feet in width and 18 feet in depth.
(g) Parking Cap. Parking shall not exceed 110 percent of the minimum requirement. A fee shall be paid for each parking space added in excess in accordance with the fee schedule.

## Based on these standards, the market-rate apartments meet the parking requirements.

(h) Curbing. All parking and landscape areas shall be curbed with six-inch concrete except in cases where bioretention basins or similar storm water management methods are utilized. Extruded curb is prohibited.
(i) Decorative, commercial-quality, bicycle racks, benches and trash receptacles shall be required for all retail and office developments unless specifically waived by the Planning Commission.
(j) Dumpsters shall be screened on all sides by a minimum six-foot high brick or masonry wall with access via an opaque gate.

### 1180.09. Sign and graphic standards.

In addition to conformance with Chapter 1189 of the City of Huber Heights Planning \& Zoning Code, all signs and graphics shall meet the following requirements:
(a) Signs must positively influence the overall character and appearance of the streetscape and must be designed to complement the architecture of the building.
(b) Franchise logos and identification signs shall be permitted only if they are appropriate in size and are integrated into the building façade and street character. This also includes patio umbrella graphics and signage.
(c) Canopies designed as signs are prohibited.
(d) Individual letters (either illuminated or nonilluminated) are considered preferable to sign cabinets.
(e) Signs shall be illuminated only by the following means:
(1) By a white, steady, stationary light of reasonable intensity, directed solely at the sign and shielded or otherwise prevented from beaming directly onto adjacent properties or rights-ofway. Light fixtures shall be screened from view by site grading or evergreen shrubs. No exposed light sources (except in the case of a sign made of neon tubing) are permitted.
(ii) By white interior light of reasonable intensity with primary and secondary images lit or silhouetted on an opaque background. The background must be opaque and preferably made of aluminum (as opposed to Plexiglas) with routed-out or push-through letters and graphics. No additional background lighting or illuminated borders or outlines shall be permitted.
(f) Ground signs shall be set on grade or be placed on a low masonry base and to take on an architectural appearance compatible with the actual building and the streetscape. Maximum height of grounds signs is six feet from ground level in relation to the back of curb of the nearest street.
(g) Wall signs are prohibited above the ground floor level or above a height of one inch below the secondfloor window line, whichever is lower.

A sign package shall be provided during the detailed development phase.

### 1180.11 Pedestrian standards.

(a) Sidewalks are required to connect the street frontage sidewalks to all front building entrances, parking areas, central open space and any other destination that generates pedestrian traffic.
(b) Sidewalks shall connect to existing sidewalks on abutting tracks and other nearby pedestrian destination points and transit stops.
(c) Striped crosswalks shall be installed at any major intersection or other location as determined by the Planning Commission.
(d) Sidewalks shall be a minimum of four feet in width and separated from the curb line by a minimum of five feet of grass and landscaped area, which shall, in any event, comply with the design standards contained herein, unless specifically waived by the Planning Commission.
(e) All sidewalks and pedestrian connections shall be located a minimum of five feet from any buildings to allow for landscaping, unless arcades or entryways are part of the facade.
(f) Pedestrian circulation areas shall be provided and clearly defined by the use of sidewalks, walkways or textured or colored paving materials.

## All sidewalks should be a minimum of five-feet per the subdivision requirements and to

 accommodate two people walking side-by-side comfortably.
### 1180.99 Construction or implementation; permit issuance, invalidation.

(a) The Planning Commission may modify or waive specific requirements of this section as well as the requirements of Chapter 1185, Parking and Loading, if the Commission determines an improved development plan or better vehicular or pedestrian circulation will result.
(b) Construction or implementation of the proposed conditional use shall comply with the plans submitted with the application except to the extent those plans are modified by the Planning Commission and shall also comply with all terms of the decision of the Commission.
(c) The City shall issue a conditional use permit to the extent a conditional use has been permitted by the Commission. The breach of any condition, safeguard or requirement shall automatically invalidate the permit granted and shall constitute a violation of the City's Zoning Ordinance. The penalties for such violations are specified in Section 1125.99
(d) A conditional use permit shall be deemed to authorize only one particular conditional use and such permit shall automatically expire if, for any reason, the conditional use shall cease for more than one continuous one year.
(e) A conditional use permit shall be transferable, but only if and when the transferee signs a form provided by the City acknowledging that the transferee is bound by all terms and conditions of the prior approval and permit.

As stated before, the issuance of a conditional use permit for a permitted use is confusing and unnecessary. Staff recommends the Planning Commission waive the conditional use permit and incorporate the necessary standards in the basic development plan.

## 1181 General Provisions

### 1181.20 Building materials for dwellings.

(b) Dwellings Over One Story. All first-floor exterior walls of dwellings over one story shall be constructed of brick or other approved masonry type of materials. Other exterior wall areas of dwellings over one story may be constructed of other code approved building materials; provided, however, no vinyl siding shall be permitted, unless permitted under subsection (c) hereof.

The applicant has submitted proposed elevations that that are consistent with this requirement.

## Staff Analysis of Standards for approval

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
(a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;

This development is consistent with the comprehensive plan, which suggests this area be mixed use, as well as the Brandt Pike Revitalization Plan.
(b) Could be substantially completed within the period of time specified in the schedule of development submitted by the developer;

While no phasing plan was submitted with the application, each apartment community will be constructed as one phase.
(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;

New roads will be constructed for this development linking it to the existing transportation network.
(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;

The site is served by adequate utilities.
(e) Contains such proposed covenants, easements and other provisions relating to the proposed development standards as may reasonably be required for the public health, safety and welfare;

Draft covenants were not included in the application, however the standards set by the Planning Commission during the basic and detailed development planning process will be incorporated into the covenants before any zoning permit is issued.
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;

The applicant is providing adequate screening between all uses.
(g) Shall preserve natural features such as water courses, trees and rock outcrops, to the degree possible, so that they can enhance the overall design of the PUD;

Some existing vegetation will remain, however there are no real natural features on this site.
(h) Is designed to take advantage of the existing land contours in order to provide satisfactory road gradients and suitable building lots and to facilitate the provision of proposed services;

The site plan takes advantage of the natural grade and existing contours to limit grading beyond the required storm water detention cells.
(i) Shall place underground all electric and telephone facilities, streetlight wiring and other wiring conduits and similar facilities in any development which is primarily designed for or occupied by dwellings, unless waived by the Commission because of technical reasons;

All utilities will be placed below ground.
(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;

This residential development should not create excessive additional requirements to the community.
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors; and

Only residential uses are contemplated for this site.
(1) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

No rezoning is necessary.

## STAFF RECOMMENDATION

It is the staff's opinion the proposal meets the standards outlined in Section 1171.06. Staff recommends approval of the Basic Development Plan submitted on June 3, 2022 to construct approximately 184 market-rate apartments and 134 senior apartments within two residential communities. Staff recommends approval with the following conditions:

1) Sidewalks shall be required connecting the senior building and along the future roadway
2) All sidewalks shall be a minimum of $5^{\prime}$ in width
3) Street trees be provided 40-foot on center
4) A sign package meeting code shall be submitted with the detailed development plans
5) A lighting plan shall be submitted with the detailed development plan
6) A landscaping plan shall be submitted with the detailed development plan
7) In lieu of mounding and screening along the new roadway, clustered landscaping areas shall be provided between the apartments and sidewalks.
8) The applicant will comply with all stormwater requirements, per the City Engineer;
9) The applicant will comply will all Fire Code requirements, per the Huber Heights Fire Department;

## Planning Commission Action

Planning Commission may take the following actions with a motion:

1) Approve the Basic Development Plan with or without conditions;
2) Deny the Basic Development Plan (the Commission should state the specific reasons for denial); or
3) Table the application.

## Planning Commission Decision Record

WHEREAS, on May 26, 2022, the applicant, Homestead Development, requested approval of a Basic Development Plan to construct a 135 -unit senior community and a 192-unit market rate community on a combined 15.56 acres at 6209 Brandt Pike, further identified as Parcel Number P70 039120140 of the Montgomery County Auditor's Map (Case BDP 22-25), and;

WHEREAS, on June 14, 2022, the Planning Commission did meet and fully discuss the details of the request.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission hereby recommended approval of the request.

Ms. Thomas moved to approve the request by the applicant, Homestead Development, for approval of a Basic Development Plan to construct a 135-unit senior community and a 192-unit market rate community on a combined 15.56 acres at 6209 Brandt Pike (Case BDP 22-25), in accordance with the recommendation of Staff's Memorandum dated June 8, 2022, with the following conditions:

1. Sidewalks shall be required connecting the senior building and along the future roadway.
2. All sidewalks shall be a minimum of 5 ' in width.
3. Street trees be provided 40 -foot on center.
4. A sign package meeting code shall be submitted with the detailed development plans.
5. A lighting plan shall be submitted with the detailed development plan.
6. A landscaping plan shall be submitted with the detailed development plan.
7. In lieu of mounding and screening along the new roadway, clustered landscaping areas shall be provided between the apartments and sidewalks.
8. The applicant will comply with all stormwater requirements, per the City Engineer.

BDP 22-25 - Decision Record
9. The applicant will comply will all Fire Code requirements, per the Huber Heights Fire Department.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: None. Motion to recommend approval carried 5-0.

Terry Walton, Chair
Date
Planning Commission
I. Chair Terry Walton called the meeting to order at approximately 6:00 p.m.
II. Present at the meeting: Mr. Jeffries, Ms. Opp, Ms. Thomas, Ms. Vargo and Mr. Walton.

Members absent: None.
Staff Present: Aaron K. Sorrell, Interim City Planner, and Geri Hoskins, Planning \& Zoning Administrative Secretary.

## III. Opening Remarks by the Chairman and Commissioners

## IV. Citizens Comments

None.

## V. Swearing of Witnesses

Mr. Walton explained the proceedings of tonight's meeting and administered the sworn oath to all persons wishing to speak or give testimony regarding items on the agenda. All persons present responded in the affirmative.

## VI. Pending Business

1. None

## VII. New Business

1. FINAL PLAT - The applicant, DEC Land Co. I LLC, is requesting approval of the final plat for 62 building lots in Carriage Trails - Section 2, Phase 5 (Case FP 22-23).

Mr. Sorrell stated that the applicant requests approval of the final plat for section two, phase five of the Carriage Trails subdivision. This phase contains 62 lots on approximately 16.32 acres.

## Conformance with Zoning Regulations

The detailed development plan was approved by the Planning Commission on August 10, 2021.

## Staff Analysis

The applicant requests approval of the final plat for section two, phase five of the Carriage Trails subdivision. This final plat accurately reflects the DDP and simply releases drainage easements between two sections.

Fire: None
City Engineer: None

## Recommendation

Staff recommends approval of the final plat submitted on May 2, 2022.

## Action

Ms. Opp moved to approve the request by the applicant DEC Land Co. I LLC, for approval of a Final Plat for 62 building lots in Carriage Trails - Section 2, Phase 5 (Case FP 22-23) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Thomas. Roll call showed: YEAS: Ms. Vargo, Mr. Jeffries, Ms. Thomas, Ms. Opp, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
2. FINAL PLAT - The applicant, GENERATIONS CONSTRUCTION, LLC, is requesting approval of the final plat for 14 building lots in Callamere Farms, Section 6 (FP 22-26).

Mr. Sorrell stated that the applicant requests approval of the final plat for section six of the Callamere Farms subdivision. This phase contains 14 lots on approximately 8.03 acres.

## Conformance with Zoning Regulations

The detailed development plan was approved by the Planning Commission on March 23, 2021.

## Staff Analysis

The applicant requests approval of the final plat for section six of the Callamere Farms subdivision. This final plat accurately reflects the DDP previously approved by the Planning Commission.

Fire: None
City Engineer: None

## Recommendation

Staff recommends approval of the final plat submitted on May 30, 2022.

## Action

Mr. Jeffries moved to approve the request by the applicant Generations Construction, LLC, for approval of a Final Plat for 14 building lots in Callamere Farms, Section six (FP 22-26) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Vargo. Roll call showed: YEAS: Ms. Thomas, Ms. Opp, Ms. Vargo, Mr. Jeffries, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
3. MINOR CHANGE - The applicant, MELISSA BARRETT, is requesting approval of $A$ Minor Change to increase the wall sign area by approximately 60 SF at Kohl's/Sephora in the Northpark Center (MC 22-24).

Mr. Sorrell stated that the applicant The applicant requests approval to add an additional copy to the existing wall sign, which will increase the size from approximately 192 SF to 252 SF. The request is to facilitate adding the "Sephora" brand to the existing Kohl's sign.

## Conformance with Zoning Regulations

## Northpark Center Sign Policy

The Northpark Center sign guidelines allow large tenants (over 60,000 SF) to have a maximum wall sign area of up to 250 SF on any one building face and a maximum of 500 SF total. The Kohl's tenant space is approximately $81,000 \mathrm{SF}$.

## Current Application

The applicant seeks a minor change to add one 60 SF internally illumined wall sign below the existing internally illuminated wall sign to highlight the two brands (Kohl's and Sephora). The total wall sign area will increase from 192 SF to 252SF. With this additional sign, the wall signs slightly exceed the maximum size by 2 SF , which is a negligible overage amount.

## Staff Analysis

The applicant seeks a minor change to add one internally illumined wall sign below an existing internally illuminated wall sign. Total wall sign area will exceed the maximum size by approximately 2 SF, or $1 \%$ of the total sign area. Staff feel this is a negligible overage amount and the new sign is visually proportional to the building frontage and existing sign.

Fire: None received

## City Engineer: None Received

## Recommendation

Staff recommend approval of the minor change to the sign package as submitted.

## Action

Mr. Jeffries moved to approve the request by the applicant Melissa Barrett, for approval of a Minor Change to increase the wall sign area by approximately 60 SF at Kohl's/Sephora in the Northpark Center (Case MC 22-24) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Opp. Roll call showed: YEAS: Ms. Vargo, Mr. Jeffries, Ms. Thomas, Ms. Opp, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.

## 4. BASIC DEVELOPMENT PLAN AND REZONING - The applicant, HARTMAN I, LLC, is requesting approval of a Basic Development Plan and Rezoning to Planned Office (PO)at property located at 7611 Old Troy Pike (RZ BDP 2213).

Mr. Sorrell stated that the applicant requests approval of a basic development plan and rezoning from Planned Commercial to Planned Office to construct a 10,800 square foot healthcare facility for outpatient and emergency services. The applicant anticipates an initial volume of $30-40$ patients per day, with a maximum of $50-60$ a day once the facility is established.

The site plan for this development has evolved no less than four times since the application was originally submitted, and the City Council has requested the Planning Commission review the latest revision prior to their consideration of the rezoning and basic development plan approval request.

The Planning Commission originally heard this case on April 12, 2022. The original application had no direct access to Taylorsville Road. Prior to the Planning Commission meeting a revised plan was submitted which included a "Right-in / Right-out" on Taylorsville to facilitate site access. The access aligned with a large sewer easement on the eastern side of the site. There was significant discussion among the Planning Commission members regarding this access point and its close proximity to the bank driveway and the Old Troy Pike intersection. Ultimately, the Commission recommended approval of the rezoning and basic development plan with the access point on the eastern side.

Based on the location and depth of the sewer line, and a desire to have full turn access from Taylorsville into the site, the applicant revised the site plan and moved the building slightly west and relocated the access point to the west side of the site. Staff received the revised site plan on April 28, 2022, prior to the May $3^{\text {rd }}$ City Council Work Session.

During the work session there was considerable discussion and concern expressed about adding the curb cut along Taylorsville Road. At the City Council meeting, there was additional concerns expressed about the curb cut access along Taylorsville Road.

The applicant has worked with Rural King to obtain an access agreement along the Taylorsville frontage, which enabled the elimination of the curb cut along Taylorsville Road. Subsequently, the applicant has submitted a revised site plan that utilizes the existing Rural King access point along Taylorsville. The site plan also moves the identification sign to the western side of the site.

City Council has requested the Planning Commission review the revised site plan and make a recommendation prior to Council moving forward with the rezoning legislation.

## Staff Analysis

This site plan revision goes a long way to addressing the Taylorsville Road access concerns of the Planning Commission and City Council. The revised site plan conforms to the PO district regulations including parking and buffering. The revised plan also allows the possibility of aligning driveways along Taylorsville at some future point when the Rural King property is redeveloped or improved.

## Conformance with Zoning Regulations:

## 1173 (PO) Planned Office District

The proposed use is principally permitted in the PO district.
The required 15 -foot perimeter yard is provided in the revised site plan.

## Chapter 1181 General Provisions

The proposal meets the requirements of Chapter 1181, with the exception of the following items are not illustrated on the Basic Development Plan:

- Street trees shall be placed every 40 -feet along the public street.
- No exterior lighting plan was submitted. Unless otherwise directed by the Planning Commission, parking light fixtures shall not exceed 25 feet in height.
- Mechanical, waste, and service screening is not illustrated with great detail, but shall comply with the zoning code.


## Chapter 1182 Landscaping and Screening Standards

The Basic Development Plan indicates potential locations for landscape islands and trees within the parking areas. Additional detail shall be provided during the detailed development plan phase.

## Chapter 1185 Parking and Loading

The proposal generally meets the requirements of Chapter 1185. The applicant is illustrating areas for parking island landscaping. Based on the interior programing, 45 spaces required, and 50 spaces are illustrated. The applicant is working with Rural King on the exact language to allow access through the Rural King parking area.

## Chapter 1189 Signs

The applicant is requesting a mixture of signage including one ground mounted sign, three corporate wall signs, three "Emergency" wall signs and one "Ambulance" canopy sign.

The original site plan had the ground mounted sign located on the eastern edge and the applicant requested an 8 -feet tall with a sign area of 80 square feet. The height was to account for the grade change between the site and $5 / 3^{\text {rd }}$ bank.

The code suggests a height limit of 6-feet and not exceed 75 square feet in sign area. The ground sign has been relocated to the western edge of the site, and the grade change should no longer be a factor.

The two "Emergency" wall signs are 75 square feet each, and the three corporate wall signs are 50 square feet each, totaling 300 square feet. The code suggests single wall signs shall not exceed 75 square feet each, and a cumulative total of no more than 150 square feet. If the commission considers the "emergency" signs to be exempt, the wall signs are compliant.

The "Ambulance" canopy sign is 35 square feet and mounted above the canopy. The code suggests canopy signs are only permitted along street frontage and may not project above the canopy. While not along a street frontage, the canopy covers the ambulance entrance and a variance from the code requirements seems reasonable.

## Recommendation

Staff feels the standards of approval outlined in 1171.06 can be met and therefore staff recommends approval of the rezoning from Planned Commercial to Planned Office and approval of the basic development plan with the following conditions:

- Street trees shall be placed every 40 -feet along Taylorsville Road.
- The applicant shall comply with Chapter 1181.18 Screening of Service Structures.
- The applicant shall comply with Chapter 1181.21 Lighting Standards.
- The applicant shall comply with Chapter 1182 Landscaping and Screening.
- Wall and canopy signs shall be similar to those submitted in the sign package submitted to the Planning Commission on April 12, 2022.
- Ground signs shall not exceed 6 -feet in height.
- Applicant shall comply will all fire code requirements.

Discussion on the rezoning.

## Action

Ms. Thomas moved to approve the request by the applicant Hartman I, LLC, for approval of a Basic Development Plan and Rezoning to Planned Office (PO) for property located at 7611 Old Troy Pike (RZ BDP 22-13) in accordance with the recommendation of Staff's Memorandum dated June 4, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: Ms. Opp and Ms. Vargo. Motion to approve carried 3-2.

## 5. BASIC DEVELOPMENT PLAN AND REZONING - The applicant, HOMESTEAD DEVELOPMENT, is requesting approval of a Basic Development Plan to construct 135 -unit senior community and a 192 -unit market rate community on a combined 15.56 acres. Property located at 6209 Brandt Pike (BDP 22-25).

Mr. Sorrell stated that this project grew out from the Brandt Pike Redevelopment Plan (2017), which identified a need and demand for senior housing and marketrate multi-family housing along and near the Brandt Pike corridor. The City subsequently purchased the shopping center to facilitate redevelopment. New developments within this site include: Dayton Metro Library Huber Heights Branch, Dogtown, and the shopping center will be refaced with a brick / stone façade. TIF proceeds from the proposed apartment developments, as well as future developments may fund the façade and public infrastructure upgrades.

The applicant is requesting basic development plan approval for a 184-unit market-rate apartment community and a 135 -unit senior apartment community. While this application covers approximately 15.56 acres, the overall area zoned PM exceeds 20 acres.
The area zoned PM has a mix of uses including retail, commercial, public use (library) and planned residential.
All uses being considered are compatible with the neighboring properties. Extensive natural vegetation exists that will buffer and screen the proposed development and the existing homes to the west.
The overall campus development is focused around a wet detention area and has large areas of open space. The combined proposed residential development sites are approximately $40 \%$ open space.
The parking areas are arranged for the convenience of the residents but are broken up with landscape islands and covered parking areas.
Sidewalks are indicated along the future road frontage of non-senior multi-family building. Staff recommends sidewalks also be provided for the senior facility residents.
No sign details were provided for this application but will be submitted during the detailed development phase.
While no height maximum height restriction exists in the PM district, the Brandt Pike Overlay District has a maximum height of three stories or 35 feet. The proposed non-senior apartments have both two- and three-story buildings. The two-story buildings are 34 feet to the roof peak and the three-story buildings are 44 feet to the roof peak. The applicant is proposing the market-rate apartments will have mixture of two- and three-story buildings along the west side of the site, which is closest to the existing single-family neighborhood. This arrangement will breakup the building massing along the western edge and the buildings are sited approximately 150 -feet from the back of the single-family homes.

The three-story senior buildings will also be at least 150 -feet from the back of the single-family homes. Additionally, the building is oriented in such a way that only the endcaps, and not the full building length, are facing the single-family homes.

Staff feels both the market rate site plan and senior building site plan provides a significant visual buffer and a nine (9) foot variance from the maximum height is acceptable. A landscaping plan has not been submitted at this time. Staff

Planning Commission Meeting
June 14, 2022
recommends a mixture of street trees, and clustered plantings along the eastern edge of the market-rate and senior apartments. Staff feels a six-foot high earthen mound is inappropriate for this site and will interfere with pedestrian access from the apartments to the sidewalk network.
The applicant is proposing a five-foot earthen mound and evergreen plantings along the west edge to screen the development from the existing single-family homes.

Areas for parking landscaping are illustrated in the basic development plan. The applicant shall submit additional details during the detailed development phase.

The zoning code requires two-space per multi-family unit. In the non-senior community, the applicant is proposing 357 parking spaces for 184 units, or 1.94 spaces per unit. Of the 184 units, 84 are one-bedroom apartments which are less likely to have two vehicles. Additionally, most communities have begun reducing parking minimums of non-senior multi-family apartments to approximately 1.5 spaces / unit. Staff feels the amount of parking proposed for the non-senior community is adequate.

The applicant is proposing 134 spaces for 135 units, or .99 spaces per unit. Most senior living facilities have a 1:1 parking ratio because the majority of residents either live alone or only have one vehicle in the household. Staff feels the amount of parking provided is acceptable at this time. There is room to provide additional parking in the front of the building if management determines it's necessary in the future. However, at this point in time, staff does not think sacrificing greenspace for parking is necessary.
Staff feels issuing a conditional use permit/approval for this type of development is confusing and unnecessary. Staff recommends incorporating the standards, where appropriate, in the overall basic development plan approval and subsequent detailed development plan approval. This section of the overlay district should be revisited in the future and revised for clarity and intent.

## STAFF RECOMMENDATION

It is the staff's opinion the proposal meets the standards outlined in Section 1171.06. Staff recommends approval of the Basic Development Plan submitted on June 3, 2022 to construct approximately 184 market-rate apartments and 134 senior apartments within two residential communities. Staff recommends approval with the following conditions:

1) Sidewalks shall be required connecting the senior building and along the future roadway
2) All sidewalks shall be a minimum of $5^{\prime}$ in width
3) Street trees be provided 40 -foot on center
4) A sign package meeting code shall be submitted with the detailed development plans
5) A lighting plan shall be submitted with the detailed development plan
6) A landscaping plan shall be submitted with the detailed development plan
7) In lieu of mounding and screening along the new roadway, clustered landscaping areas shall be provided between the apartments and sidewalks.
8) The applicant will comply with all stormwater requirements, per the City Engineer;

Planning Commission Meeting
June 14, 2022
9) The applicant will comply will all Fire Code requirements, per the Huber Heights Fire Department.

Numerous neighbors were present and asked questions about the development.

## Action

Ms. Thomas moved to approve the request by the applicant Homestead Development, for approval of a Basic Development Plan to construct 135-unit senior community and a 192-unit market rate community on a combined 15.56 acres. Property located at 6209 Brandt Pike (BDP 22-25) in accordance with the recommendation of Staff's Memorandum dated June 8, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Mr. Jeffries. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.

## VIII. Additional Business

None.

## IX. Approval of the Minutes

None.
X. Reports and Calendar Review

DDP - The Waverly
DDP - Sheetz
MJC - Wayne High School

## XI. Upcoming Meetings

June 8, 2022
July 12, 2022

## XII. Adjournment

There being no further business to come before the Commission, the meeting was adjourned at approximately 8:18 p.m.

## Terry Walton, Chair

Geri Hoskins, Administrative Secretary

## Date

# TO APPROVE A BASIC DEVELOPMENT PLAN FOR THE PROPERTY LOCATED AT 6209 BRANDT PIKE AND FURTHER IDENTIFIED AS PARCEL NUMBER P70 039120140 ON THE MONTGOMERY COUNTY AUDITOR'S MAP AND ACCEPTING THE RECOMMENDATION OF THE PLANNING COMMISSION (CASE BDP 22-25). 

WHEREAS, the citizens of Huber Heights require the efficient and orderly planning of land uses within the City; and

WHEREAS, the City Planning Commission has reviewed Case BDP 22-25 and on June 14, 2022, recommended approval by a vote of 5-0 of the Basic Development Plan; and

WHEREAS, the property subject to this legislation is one of several key properties identified as essential to the redevelopment of the Brandt Pike corridor as outlined in the City's 2017 Brandt Pike Corridor Revitalization Study; and

WHEREAS, the committed investment of public assets such as a library, senior center, and public park in close proximity to 6209 Brandt Pike compels the City to further redevelopment efforts involving other properties near parcel number P70 03912 0140; and

WHEREAS, the City Council has considered the totality of this issue.
NOW, THEREFORE, BE IT ORDAINED by the City Council of Huber Heights, Ohio that:
Section 1. The application requesting approval of a Basic Development Plan (Case BDP 22-25) is hereby approved in accordance with the Planning Commission's recommendation and following conditions:

1. Sidewalks shall be required connecting the senior building and along the future roadway.
2. All sidewalks shall be a minimum of 5 feet in width.
3. Street trees shall be provided 40 -foot on center.
4. A sign package meeting code shall be submitted with the Detailed Development Plan.
5. A lighting plan shall be submitted with the Detailed Development Plan.
6. A landscaping plan shall be submitted with the Detailed Development Plan.
7. In lieu of mounding and screening along the new roadway, clustered landscaping areas shall be provided between the apartments and sidewalks.
8. The applicant will comply with all stormwater requirements, per the City Engineer.
9. The applicant will comply will all Fire Code requirements, per the Huber Heights Fire Division.
10. Prior to the issuance of a zoning permit, the applicant shall enter into a PUD Agreement with the City for the purpose, but not the sole purpose, of establishing the development obligations of the applicant and requiring the submittal of a performance bond, cash bond, or letter of credit to insure the installation of landscaping as approved. The bond or letter of credit shall be in an amount equal to the applicant's estimate of the cost of installation as approved by the Planning Department and shall remain in effect until such time as the landscaping has been completed as determined by the Planning Department. Upon completion of the installation of landscaping as required by the approved landscape plan, the applicant may request release of the performance bond or letter of credit. Following an inspection by the Planning Department and upon determination by the department that the landscaping has been completed in accordance with the approved landscaping plan, $80 \%$ of the performance bond or letter of credit may be released. However, the performance bond or letter of credit will not be released until a maintenance bond lasting three growing seasons, or letter of credit equal to $20 \%$ of the initial performance bond or letter of credit to ensure maintenance of the landscaping, is submitted to and accepted by the Planning Department. The term of the maintenance bond shall be three growing seasons.

Section 2. The City Manager is hereby authorized and directed to contact the owners of the following parcels for the express purpose of furthering the development of new private-public partnerships intended to support the redevelop of said parcels in the spirit of the 2017 Brandt Pike Corridor Revitalization Study:

| P70 020020001 | P70 020150001 | P70 020150002 |
| :--- | :--- | :--- |
| P70 020150004 | P70 020150005 | P70 020150008 |
|  | P70 039120082 |  |

Section 3. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 4. This Ordinance shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:
AUTHENTICATION:

Clerk of Council
Mayor

Date

| Al-8562 |  |  | New Business I. |
| :---: | :---: | :---: | :---: |
| City Council Meeting |  |  | City Manager |
| Meeting Date: | 07/25/2022 |  |  |
| Case MJC 22-27 - Ruetschle A Road | rchitects - Bas | ic/Detailed Development Plans - | 5400 Chambersburg |
| Submitted By: | Geri Hoskins |  |  |
| Department: <br> Council Committee Review?: | Planning <br> Council <br> Work <br> Session | Division: <br> Date(s) of Committee Review: | Planning : 07/19/2022 |
| Audio-Visual Needs: | SmartBoard | Emergency Legislation?: | No |
| Motion/Ordinance/ Resolution No.: |  |  |  |

## Agenda Item Description or Legislation Title

An Ordinance To Approve A Major Change To The Combined Basic And Detailed Development Plan For The Property Located At 5400 Chambersburg Road And Further Identified As Parcel Number P70 040040032 On The Montgomery County Auditor's Map And Accepting The Recommendation Of The Planning Commission (Case MJC 22-27).
(first reading)

## Purpose and Background

The applicant, Ruetschle Architects, is requesting a Major Change to the Basic and Detailed Development Plans (Case MJC 22-27).

Fiscal Impact

| Source of Funds: | N/A |
| :--- | ---: |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | N/A |
| Funds Available in Current Budget? (Yes/No): | N/A |
| Financial Implications: |  |

## Attachments

Drawings
Fire Assessment
Staff Report
Decision Record
Minutes
Ordinance

New Career Tech Classroom Addition and Renovation

## WAYNE HIGH SCHOOL

5400 Chambersburg Road, Huber Heights, Ohio 45424

## for

Huber Heights City Schools
5954 Longford Road, Huber Heights, Ohio 45424

## UPDATE TO PUD BASIC/DETAILED DEVELOPMENT PLAN

JUNE 2, 2022

## RUETSCHLE ARCHITECT

222 LINWOOD STREET
DAYTON OHIO 45405
T: 937.461.5390
RUETSCHLE.COM

Gilbane Building Company One South St. Clair Street

Burkhardt Engineering 28 North Cherry Street

Shell + Meyer Associates, Inc 2202 South Patterson Blva.

Heapy Engineering LLC 1400 West Dorothy Lane

Heapy Engineering LLC 1400 West Dorothy Lane

Construction Manage
Toledo, Ohio 43604

Civil Engineer
Germantown, Ohio 45327

Structural Engineer
Dayton, Ohio 45409
Consulting Engineers
Dayton, Ohio 45409

Technology Engineers
Dayton, Ohio 45409





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CONCRETE PAVEMENT SECTION


 $\frac{\text { BARRIIR CURB DETALL }}{\text { NOT TO SCALE }}$


CONCRETE SIDEWALK
WTH INTEGRAL CURB


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## general notes









F. Mninu


PLAN NOTES

## Huber Heights Fire Division

Inspections require two business days advance notice! (OAC)1301:7-7-09(A)(5)

| Occupancy Name: | Wayne High School - CTC Addition |
| :--- | :--- |
| Occupancy Address: | 5400 Chambersburg Road |


| Type of Permit: | HHP\&D Site Plan |
| :--- | :--- |
| Additional Permits: | Choose an item. |
| Additional Permits: | Choose an item. |


| MCBR BLD: | Not Yet Assigned | HH P\&D: |  |
| :--- | :--- | :--- | :--- |
| MCBR MEC: |  | HHFD Plan: | $22-125$ |
| MCBR ELE: |  | HHFD Box: | 40 |
| REVIEWER: | Susong | DATE: | $6 / 22 / 2022$ |

## Fire Department Comments:

The Huber Heights City Code Part 15 Refers to Fire Code Requirements and has adopted by reference OFC and IFC Appendices
These comments are based only on the proposed site work, fire department access and basic fire protection concept at this time. A full plan review of the building systems, fire protection, egress and life safety will need to be conducted once the architectural plans have been submitted for permit. The proposed development will need to meet the requirements of the Ohio Fire Code 2017, Ohio Building Code 2017 and the Huber Heights Codified Ordinance. Based on the drawings provided the following requirements need to be met.

## Requirements: (Site Plan)

- Proposed driveways are acceptable and appear to meet Ohio Fire Code requirements for turn radius.
- Covered walkway canopy has a clear height of 17 ft 10 in ., this exceeds the minimum required height of 13 ft .6 in . in Ohio Fire Code 503.2.1.
- Existing hydrants appear to meet requirements.
- A permit shall be obtained for construction from Montgomery County Building Regulations.

Please reference contact information below for questions or concerns with this document.

[^3]Staff Report for Meeting of June 28, 2022


## STAFF ANALYSIS AND RECOMMENDATION:

## Overview

In late October 2009, the Planning Commission approved a combined basic and detailed development plan to construct a new high school, softball field, tennis courts and associated student and staff parking areas.

At the time of approval, an existing auditorium along Chambersburg Road was improved during the school upgrades. A partial section of the approved BDP is below:


While the approved BPD illustrates bus parking in the lot immediately south of the auditorium, the school no longer stages buses there. It has been using the east/west drive near the current student parking area.

The applicant is now proposing to add an 11,623 addition to the rear of the existing auditorium to facilitate the development of the career technology center and a covered pedestrian walkway.

Parking will be reconfigured, and there is an overall net reduction of 26 parking spaces, which is simply one row of existing parking. No changes to the current bus parking, circulation, or other student/event parking are anticipated.

## Conformance with Zoning Regulations

The use conforms with all requirements of Chapter 1174. The applicant is requesting an amendment to facilitate the addition of 11,623 SF to an existing building. The addition is in the interior of the campus and will not be seen from Chambersburg Road.

Staff feels the impact on parking is negligible. There are currently 1175 spaces throughout the campus. At the time of the original basic and detailed development plan approval in 2009, the high school required 460 spaces, and the stadium required 1175 spaces. The original parking calculation was based on 146 employees, 1680 students and 68 classrooms.

The current enrollment is 1569 students, and with this addition, there will be six additional classrooms. The stadium seating stays the same. The reduction from 1175 spaces to 1149 should have a negligible impact on the school's daily operations or impact to surrounding properties.

## Landscaping

The applicant proposes improving the interior street tree landscaping along the impacted perimeter roads. This is an improvement from the original basic and detailed development plan.

## Building Materials

The building will be clad with a brick exterior, similar to the existing auditorium.

## Standards for Approval

1171.06 - General Standards For Approval

The Planning Commission shall review the application, prepared development plan and the facts presented at the hearing. The applicant shall have the burden of proof. No approval shall be given unless the Commission shall find by a preponderance of the evidence that such PUD on the proposed locations:
(a) Is consistent with official thoroughfare plan, comprehensive development plan and other applicable plans and policies;
(b) Could be substantially completed within the period of time specified in the schedule of development submitted by the developer;
(c) Is accessible from public roads that are adequate to carry the traffic that shall be imposed upon them by the proposed development. Further, the streets and driveways on the site of the proposed development shall be adequate to serve the residents or occupants of the proposed development;
(d) Shall not impose an undue burden on public services such as utilities, fire and police protection, and schools;
(e) Contains such proposed covenants, easements and other provisions relating to the proposed development standards as may reasonably be required for the public health, safety and welfare;
(f) Shall be landscaped or otherwise improved and the location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the existing intended uses, and any part of a PUD not used for structures, parking and loading areas, or accessways;
(g) Shall preserve natural features such as water courses, trees and rock outcrops, to the degree possible, so that they can enhance the overall design of the PUD;
(h) Is designed to take advantage of the existing land contours in order to provide satisfactory road gradients and suitable building lots and to facilitate the provision of proposed services;
(i) Shall place underground all electric and telephone facilities, street light wiring and other wiring conduits and similar facilities in any development which is primarily designed for or occupied by dwellings, unless waived by the Commission because of technical reasons;
(j) Shall not create excessive additional requirements at public cost of public facilities and services and shall not be detrimental to the economic welfare of the community;
(k) Shall not involve uses, activities, processes, materials, equipment and conditions of operation that shall be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors; and
(I) Rezoning of the land to the PUD District and approval of the development plan shall not adversely affect the public peace, health, morals, safety or welfare.

## Staff Analysis

As outlined above, the new high school was approved in October 2009. The addition of the career center will provide additional educational opportunities for Huber Heights students. It is the staff's opinion the impact of the reduced parking are negligible.

Additionally, the applicant is proposing additional interior landscaping that will improve the overall aesthetics of the campus. No other changes to the approved basic and
detailed development plan are presented. Staff feels the General Standards for Approval outlined in Chapter 1171.06 can be satisfied and recommend approval.

## Additional Comments:

Fire: See Attached. The applicant will comply will all fire code requirements.
City Engineer: No comments received.

## Recommendation

Staff recommends approving the major change to the basic and detailed development plan submitted on June 2, 2022.

## Planning Commission Action

Planning Commission may take the following actions with a motion to:

1) Approve the basic development plan application, with or without conditions.
2) Deny the basic development plan.
3) Table the application in order to gather additional information.

## Planning Commission Decision Record

WHEREAS, on June 3, 2022, the applicant, Ruetschle Architects, requested approval of a Major Change to an approved Detailed Development Plan to include 11,623 SF career technology addition to the existing auditorium facility at property located at 5400 Chambersburg Road further identified as Parcel Number P70 040040032 of the Montgomery County Auditor's Map (Case MJC 22-27), and;

WHEREAS, on June 28, 2022, the Planning Commission did meet and fully discuss the details of the request.

NOW, THEREFORE, BE IT RESOLVED that the Planning Commission hereby recommended approval of the request.

Mr. Jeffries moved to approve the request by the applicant, Ruetschle Architects, for approval of a Major Change to an approved Detailed Development Plan to include 11,623 SF career technology addition to the existing auditorium facility at property located at 5400 Chambersburg Road (Case MJC 22-27), in accordance with the recommendation of Staff's Memorandum dated June 22, 2022, with the following conditions:

1. Applicant shall meet all Fire Code requirements.
2. Applicant shall meet all Engineering requirements.

Seconded by Ms. Thomas. Roll call showed: YEAS: Ms. Vargo, Ms. Opp, Ms. Thomas, Mr. Jeffries, and Mr. Walton. NAYS: None. Motion to recommend approval carried 5-0.

## Planning Commission

June 28, 2022, Meeting City of Huber Heights
I. Chair Terry Walton called the meeting to order at approximately 6:00 p.m.
II. Present at the meeting: Mr. Jeffries, Ms. Opp, Ms. Thomas, Ms. Vargo and Mr. Walton.

Members absent: None.
Staff Present: Aaron K. Sorrell, Interim City Planner, and Geri Hoskins, Planning \& Zoning Administrative Secretary.

## III. Opening Remarks by the Chairman and Commissioners

## IV. Citizens Comments

None.

## V. Swearing of Witnesses

Mr. Walton explained the proceedings of tonight's meeting and administered the sworn oath to all persons wishing to speak or give testimony regarding items on the agenda. All persons present responded in the affirmative.
VI. Pending Business

1. None

## VII. New Business

Ms. Thomas moved to change the agenda by adding a presentation by Joe Nickel from YARD Company and moving 7A to 7B and 7B to 7A.

Seconded by Ms. Vargo. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, Mr. Jeffries, Ms. Thomas, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.

1. JOE NICKEL FROM YARD COMPANY gave a brief presentation on their help to develop the Comprehensive Plan.

Library
Alematic
Pool
Music Nights
Farmer's Market
Final Recommendation

Planning Commission Meeting
June 28, 2022
2. MAJOR CHANGE - The applicant, RUETSCHLE ARCHITECTS, is requesting a Major Change to the Combined Basic and Detailed Development Plan to construct an 11,623 SF career technology addition to the existing auditorium facility. Property is located at 5400 Chambersburg Road (MJC 22-27).

Mr. Sorrell stated that in late October 2009, the Planning Commission approved a combined basic and detailed development plan to construct a new high school, softball field, tennis courts and associated student and staff parking areas.

At the time of approval, an existing auditorium along Chambersburg Road was improved during the school upgrades. A partial section of the approved BDP is below:


While the approved BPD illustrates bus parking in the lot immediately south of the auditorium, the school no longer stages buses there. It has been using the east/west drive near the current student parking area.

The applicant is now proposing to add an 11,623 addition to the rear of the existing auditorium to facilitate the development of the career technology center and a covered pedestrian walkway.

Parking will be reconfigured, and there is an overall net reduction of 26 parking spaces, which is simply one row of existing parking. No changes to the current bus parking, circulation, or other student/event parking are anticipated.

## Conformance with Zoning Regulations

The use conforms with all requirements of Chapter 1174. The applicant is requesting an amendment to facilitate the addition of $11,623 \mathrm{SF}$ to an existing building. The addition is in the interior of the campus and will not be seen from Chambersburg Road.

Staff feels the impact on parking is negligible. There are currently 1175 spaces throughout the campus. At the time of the original basic and detailed development plan approval in 2009, the high school required 460 spaces, and the stadium required 1175 spaces. The original parking calculation was based on 146 employees, 1680 students and 68 classrooms.

The current enrollment is 1569 students, and with this addition, there will be six additional classrooms. The stadium seating stays the same. The reduction from 1175 spaces to 1149 should have a negligible impact on the school's daily operations or impact to surrounding properties.

## Landscaping

The applicant proposes improving the interior street tree landscaping along the impacted perimeter roads. This is an improvement from the original basic and detailed development plan.

## Building Materials

The building will be clad with a brick exterior, similar to the existing auditorium.

As outlined above, the new high school was approved in October 2009. The addition of the career center will provide additional educational opportunities for Huber Heights students. It is the staff's opinion the impact of the reduced parking are negligible.

Additionally, the applicant is proposing additional interior landscaping that will improve the overall aesthetics of the campus. No other changes to the approved basic and detailed development plan are presented. Staff feels the General Standards for Approval outlined in Chapter 1171.06 can be satisfied and recommend approval.

## Additional Comments:

Fire: See Attached. The applicant will comply will all fire code requirements.
City Engineer: No comments received.

## Recommendation

Staff recommends approving the major change to the basic and detailed development plan submitted on June 2, 2022.

Mike Ruetschle and Gary Doll spoke.

## Action

Mr. Jeffries moved to approve the request by the applicant RUETSCHLE RCHITECTS, for approval of a Major Change to the Combined Basic and Detailed Development Plan to construct an 11,623 SF career technology addition to the existing auditorium facility. Property is located at 5400 Chambersburg Road (Case MJC 22-27) in accordance with the recommendation of Staff's Memorandum dated June 22, 2022, and the Planning Commission Decision Record attached thereto.

Seconded by Ms. Thomas. Roll call showed: YEAS: Ms. Vargo, Mr. Jeffries, Ms. Thomas, Ms. Opp, and Mr. Walton. NAYS: None. Motion to approve carried 5-0.
3. MAJOR CHANGE - The applicant, SKILKEN GOLD REAL ESTATE DEVELOPMENT, LLC, is requesting approval of A Major Change to the Basic Development Plan for a proposed 6,138 SF Convenience Store with Fuel Canopy, a 1,648 SF Car Wash and Vacuum Stalls. Property is located at NE Corner of Old Troy Pike and Taylorsville Road (Case MJC 22-21).

Mr. Sorrell stated that the applicant requests approval to construct a 6,138 SF convenience store with fueling pumps and a $1,648 \mathrm{SF}$ carwash. During the informal review with the Planning Commission there was significant discussion about the proposed use as compared to the uses illustrated on the adopted basic development plan. The Planning Commission expressed concerns about the perceived deviation from the originally illustrated uses and layout on the south side of the development, and members felt that the City Council should have an opportunity to review the new development proposal. It was recommended by the Planning Commission and agreed to by the applicant that they would request a major change to the basic development plan, which allows City Council the opportunity to review the proposal.

## Background

On May 21, 2021, the Planning Commission approved (4-1) a rezoning to PM and basic development plan to facilitate the redevelopment of two parcels totaling 17.2 acres into a mixed-use development which includes a variety of commercial, office, and retail uses, along with a 192-unit apartment community. The rezoning was, and continues to be, consistent with the Comprehensive Plan. Transportation Improvements

Planning Commission Meeting
June 28, 2022
As part of the rezoning and basic development plan approval, the developer is widening the north side of Taylorsville Road to add a lane and widening the east side of Old Troy Pike to Huber Road to add a lane. Additionally, a new traffic signal will be installed along Old Troy Pike to facilitate better site access and the existing Huntington Bank and Starbucks sites will have access to this signalized intersection. The site is being cleared and roadway improvements will begin shortly.

For the sites under consideration in this application, the interior drive network and access to Taylorsville Road and Old Troy Pike is unchanged from the approved rezoning and basic development plan.

The city is planning to carry the Old Troy Pike widening from former Huber Road to I-70.

## Allowable Uses

For the sites in this application, the basic development plan presented at the May $14^{\text {th }}$ Planning Commission meeting illustrated a proposed bank, medical facility, and future outparcel. The basic development plan simply outlines allowable uses, site access, internal circulation (drive-aisles) and illustrates possible individual site plan concepts.

During the meeting, planning staff indicated to the Planning Commission the three sites were illustrative only, and those uses may change during the detailed development plan process. When the Planning Commission approved the basic development plan, it set the range of allowable uses (those permitted in the PM district), transportation improvements, site access, and internal site circulation.

The applicant is now proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel in place of the illustrated bank, medical building and future outparcel.

Chapter 1179.02 states: "The uses outlined as permitted uses in the ( $P R$ ) Planned Residential District, (PO) Planned Office District, (PP) Planned Public and Private Buildings and Grounds District, and (PC) Planned Commercial District are principal uses permitted in the (PM) Planned Mixed Use District except as prohibited in this chapter."

As such, the following related uses are permitted in PM district:

- Retail, office, and commercial establishments
- Personal service commercial establishments
- Filling stations
- Service stations

The proposed uses are permitted within this adopted basic development plan.

## Ground Signs

The approved basic development plan approved two multi-tenant ID signs, and one general ID sign adjacent to the public right of way. The approved locations are illustrated below. Sign "A" is $16^{\prime}-8$ " and located at the main signalized intersection along Old Troy Pike. Sign "B" is 14 '-2" and located along Taylorsville Road. Sign "C", the smallest ID sign, is 5 ' tall and located at the corner of Taylorsville Road and Old Troy Pike.

After the informal review with the Planning Commission, the applicant relocated the proposed vacuum stands from along Taylorsville Road to behind the car wash. The revised location will reduce the noise impacts to surrounding residents. Additionally, the more intense activities such as fueling pumps, and the main access to the convenience store, are located adjacent to Old Troy Pike, away from surrounding residential areas. The car wash is a single bay wash whose doors close during the washing procedure.

The approved basic development plan requires a minimum of 25 percent green space. The proposal shall also meet this requirement, which will be evaluated at the Detailed Development Plan stage.

A lighting plan was submitted with the application and appears to meet the lighting standards in terms of height and light trespass. A final review will be completed during the detailed development plan phase.

The applicant is proposing brick structures consistent with the non-residential material requirements and the basic development plan. A final review will be completed during the detailed development plan phase.

## Staff Analysis

The applicant requests to construct a 6,138 SF convenience store with fueling pumps and a 1,648 SF carwash. On May 21, 2021, the Planning Commission approved (4-1) a rezoning to PM and a basic development plan to facilitate the redevelopment of two parcels totaling 17.2 acres into a mixed-use development including a variety of commercial, office, and retail uses, along with a 192-unit apartment community. The rezoning was, and continues to be, consistent with the Comprehensive Plan.

When the Planning Commission approved the basic development plan, it set the range of allowable uses (those permitted in the PM district), site access, and internal site circulation. The applicant is proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel bisected by the interior street network. The proposed uses are permitted within the adopted basic development plan.

Additionally, the revised traffic study indicates there will be minimal changes in the level of service and delay by the proposed development compared to three previous lots originally studied. No additional roadway improvements are necessary beyond the roadway widenings currently underway. The internal circulation system proposed by the applicant remains unchanged from the approved basic development plan.

Since the informal review before the Planning Commission, the applicant has made two key revisions to the application. First, the carwash and vacuum stations were redesigned to reduce noise impacts to the surrounding properties. Secondly, two $30^{\prime}$ tall pylon gas price signs were reduced to $6^{\prime}-10^{\prime \prime}$ tall.

Since the approved basic development plan only permitted three signs adjacent to the right of way, the two proposed 6'-10" gas price ground signs require major change approval from the Planning Commission. Staff feels the two proposed gas price ground signs are modestly sized and highly complementary in design to the previously approved Broad Reach ID signs.

## Additional Comments:

## Fire: See Attached.

City Engineer: The City Engineer has expressed a concern about customers parking along the eastern edge of the building backing into the drive aisle, and a concern about drive-thru customers crossing a drive aisle after ordering and stacking at the pick-up window.

This site is not unique with parking along a drive aisle; most of the sites along Old Troy Pike are similarly situated. Regarding drive-thru customers crossing the drive aisle, the applicant has stated that drive-thru customers are approximately $10 \%$ of sales and the applicant does not anticipate congestion issues related to vehicle stacking.

## Recommendation

The application for a major change was initiated at the request of the Planning Commission and their desire for City Council to review this development application.

Only the two proposed ground signs must be approved through the major change. Staff feels the major change requested by the applicant meets the standards outlined in Chapter 1171.06 for the following reasons:

- The proposed uses are consistent with the Comprehensive Plan;
- The proposed uses are currently permitted within the approved basic development plan;
- All site access locations and interior circulation remain unchanged;
- The replacement of the convenience store, fueling station and carwash will result in minimal changes in the level of service and delay along the thoroughfares compared to the three lots and uses originally studied; and,
- The two-ground mounted gas price signs are modest in height and designed in a complementary manner to the previously approved development ID signs.

Staff recommends approval with the following conditions:

- All conditions approved by the Planning Commission on May 21, 2021, shall remain in effect;

June 28, 2022

- The two additional ground mounted gas price signs shall not exceed 6 '-10";
- The applicant shall comply with all engineering, building and fire codes; and,
- The applicant shall update the basic development plan to reflect all conditions imposed by the planning commission.

Lengthy discussions on stacking of cars, road widening, gaining left turn, additional lane on Troy Pike, curb cut management,

Mike Castellitto from Broadreach talked about widening Taylorsville and Troy Pike, lanes shifted, traffic control measures in place, history and relationship with the city, agreement pertains to property, not tenants.

Frank Petruziello talked about Sheetz selling gas but restaurant was original business, seating for 30 , food to order, touch screens, drive-thru $10 \%$ of business. Traffic load won't change.

Discussion on vacuums and parking 49 required spaces, hours of operation, security, highly competitive. Signage and additional lanes. Eliminate 3 vacuums, hours of operation at Detailed Development Plan. All fire concerns are being addressed.

## Action

Ms. Vargo moved to approve the request by the applicant SKILKEN GOLD REAL ESTATE DEVELOPMENT, for approval of a Major Change to the Basic Development Plan for a proposed 6,138 SF Convenience store a with Fuel Canopy, a 1,648 SF Car Wash and Vacuum Stalls. Property is located at NE Corner of Old Troy Pike and Taylorsville Road (Case MJC 22-21) in accordance with the recommendation of Staff's Memorandum dated June 22, 2022, and the amended Planning Commission Decision Record attached thereto.

Seconded by Ms. Opp. Roll call showed: YEAS: Ms. Opp, Ms. Vargo, and Mr. Walton. NAYS: Mr. Jeffries and Ms. Thomas. Motion to approve carried 3-2.

## VIII. Additional Business

None.

## IX. Approval of the Minutes

Without objection, the minutes of the June 14, 2022, Planning Commission meeting are approved.

## X. Reports and Calendar Review

DDP - The Waverly<br>DDP - Medical Facility

Planning Commission Meeting
June 28, 2022

## XI. Upcoming Meetings

July 12, 2022
July 26, 2022

## XII. Adjournment

There being no further business to come before the Commission, the meeting was adjourned at approximately 8:01 p.m.

## Terry Walton, Chair

Geri Hoskins, Administrative Secretary

Date

Date

# TO APPROVE A MAJOR CHANGE TO THE COMBINED BASIC AND DETAILED DEVELOPMENT PLAN FOR THE PROPERTY LOCATED AT 5400 CHAMBERSBURG ROAD AND FURTHER IDENTIFIED AS PARCEL NUMBER P70 040040032 ON THE MONTGOMERY COUNTY AUDITOR'S MAP AND ACCEPTING THE RECOMMENDATION OF THE PLANNING COMMISSION (CASE MJC 22-27). 

WHEREAS, the citizens of Huber Heights require the efficient and orderly planning of land uses within the City; and

WHEREAS, the City Planning Commission has reviewed Case MJC 22-27 and on June 28, 2022, recommended approval by a vote of 5-0 of the Major Change; and

WHEREAS, the City Council has considered the issue.
NOW, THEREFORE, BE IT ORDAINED by the City Council of Huber Heights, Ohio that:
Section 1. The application requesting approval of a Major Change to the Combined Basic and Detailed Development Plan (Case MJC 22-27) is hereby approved in accordance with the Planning Commission's recommendation and following conditions:

1. The applicant shall meet all Fire Code requirements.
2. The applicant shall meet all Engineering requirements.
3. Prior to the issuance of a zoning permit, the applicant shall enter into a PUD Agreement with the City for the purpose, but not the sole purpose, of establishing the development obligations of the applicant and requiring the submittal of a performance bond, cash bond, or letter of credit to insure the installation of landscaping as approved. The bond or letter of credit shall be in an amount equal to the applicant's estimate of the cost of installation as approved by the Planning Department and shall remain in effect until such time as the landscaping has been completed as determined by the Planning Department. Upon completion of the installation of landscaping as required by the approved landscape plan, the applicant may request release of the performance bond or letter of credit. Following an inspection by the Planning Department and upon determination by the department that the landscaping has been completed in accordance with the approved landscaping plan, $80 \%$ of the performance bond or letter of credit may be released. However, the performance bond or letter of credit will not be released until a maintenance bond lasting three growing seasons, or letter of credit equal to $20 \%$ of the initial performance bond or letter of credit to ensure maintenance of the landscaping, is submitted to and accepted by the Planning Department. The term of the maintenance bond shall be three growing seasons.

Section 2. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Ordinance shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:

## AUTHENTICATION:

Clerk of Council
Mayor

Date

Date

CRA Agreement - Hayden Apartments, LLC - 5550 Huber Road
Submitted By: Bryan Chodkowski
Department: Economic Development


## Agenda Item Description or Legislation Title

A Resolution Authorizing The City Manager To Enter Into A Community Reinvestment Area Agreement With Hayden Properties, LLC Under Certain Terms And Conditions.
(first reading)

## Purpose and Background

This legislation provides a previously discussed property tax abatement for Homestead Properties, dba Hayden Properties, LLC, on a new $\$ 30.6$ million, 192-unit market-rate multi-family residential project near the intersection of Old Troy Pike and Taylorsville Road. This abatement is necessary to support the partnership between Broad Reach Properties, the master developer, and the City to support improvements to Old Troy Pike and Taylorsville Road. Said road improvements are designed to improve the flow of traffic on Old Troy Pike as well as access to businesses on Old Troy Pike between Taylorsville Road and I-70.

Fiscal Impact

## Source of Funds: <br> N/A

Cost:
N/A
Recurring Cost? (Yes/No): N/A
Funds Available in Current Budget? (Yes/No): N/A
Financial Implications:

## Attachments

Resolution
Exhibit A

# CITY OF HUBER HEIGHTS 

STATE OF OHIO
RESOLUTION NO. 2022-R-

## AUTHORIZING THE CITY MANAGER TO ENTER INTO A COMMUNITY REINVESTMENT AREA AGREEMENT WITH HAYDEN PROPERTIES, LLC UNDER CERTAIN TERMS AND CONDITIONS.

WHEREAS, the City of Huber Heights (the "City") created Community Reinvestment Area Number 6 ("CRA \#6") by Resolution No. 93-R-1347 on November 8, 1993, for the purpose of encouraging economic development activity; and

WHEREAS, 5550 Huber Road, (the "Property"), currently vacant, is located within CRA \#6; and

WHEREAS, Hayden Properties, LLC has a desire to acquire the Property for the purposes of constructing a 192-unit market-rate/multi-family development (the "Project"); and

WHEREAS, the Project will require an initial investment of $\$ 30,600,000.00$, creating 3.5 full-time equivalent jobs with a total payroll of approximately $\$ 190,000.00$; and

WHEREAS, Hayden Properties, LLC seeks to enter into an agreement with the City to ensure the full tax incentive available in CRA \#6 is provided in support of the Project.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Huber Heights, Ohio that:
Section 1. The City Manager is hereby authorized and directed to execute an agreement with Hayden Properties, LLC attached hereto as Exhibit A, to provide tax incentives for the purposes noted above and detailed therein; approved as to final form and content by the Law Director.

Section 2. 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 this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
__ Yeas; ___ Nays.
Effective Date:
AUTHENTICATION:

Clerk of Council

Date

## Mayor

Date

This Agreement made and entered into by and between the CITY OF HUBER HEIGHTS, OHIO, Charter City, with its main offices located at 6131 Taylorsville Road, Huber Heights, Ohio ("City"); and Hayden Apartments LLC, with its main offices located at 369 E Livingston Ave, Columbus, Ohio 43215 ("Property Owner").

WHEREAS, the City has encouraged the development of real property located in the area designated as a Community Reinvestment Area; and

WHEREAS, on November 8, 1993 the City Council of Huber Heights, Ohio by Resolution No. 1993-R-13147, subsequently amended by 2021-R-7035, designated the Area known as "Community Reinvestment Area Number 6" pursuant Chapter 3735 of the Ohio Revised Code and the Charter of Huber Heights; and

WHEREAS, the Property Owner intends to constructed certain improvements within the boundaries of the Community Reinvestment Area Number 6 in the City of Huber Heights, provided that the appropriate development incentives are available to support the economic viability of the Project; and

WHEREAS, the City, having the appropriate authority pursuant to the Ohio Constitution, Charter of the City of Huber Heights and laws of the State of Ohio, desires to provide the Property Owner with incentives available for the development of the Project in said Community Reinvestment Area; and

NOW, Therefore, in consideration of the mutual covenants contained in this agreement, and of the benefit to be derived by the parties from the execution of it, the parties herein agree as follow:

1. The Property Owner shall, at 5550 Huber Road_("Project Site) in Huber Heights Community Reinvestment Area Number 6 shall build a 192-unit multi-family residential development ("Project") The Project involves a total investment by the Property Owner of $\$ 30,600,000.00$ plus or minus, at the Project Site.
2. The Project will create and sustain 3.5 full-time equivalent jobs resulting in approximately \$ 190,000.00 in new payroll.
3. The Property Owner shall provide to the proper Tax Incentive Review Council any information reasonably required by the Tax Incentive Review Council to evaluate the Property Owner compliance with this Agreement.
4. Upon conclusion of the Project the City shall grant the Property Owner a tax exemption for real property improvements made to the Project Site pursuant to applicable law; and shall be in the following amounts: One Hundred Percent (100\%) for Fifteen (15) years. The exemption commences the first year for which real property would first be taxable were that property not exempted from taxation. Property Owner must file the
appropriate tax forms with the Montgomery County Auditor to effect and maintain the exemptions covered in this Agreement.
5. The Property Owner, on behalf of itself and each subsequent owner of any portion of the Project Site, acknowledges and agrees that the Project Site is also subject to a minimum service payment obligation (the "Minimum Service Payment Obligation"), which constitutes or is similar to a minimum service payment obligation under Ohio Revised Code Section 5709.91. The Minimum Service Payment Obligation for the Project Site shall be satisfied in each year by the remittance to the City of a Minimum Service Payment ("MSP"), which annual MSP shall be remitted to the City in two equal installments on February 15 and July 15 of each year ( $50 \%$ of the annual payment shall be due on each date) commencing in the MSP First Payment Year and continuing through and including the MSP Last Payment Year. The annual amount of such MSP for the Project Site shall be in the amounts as follows: No Minimum Service Payment is associated with the Project Site.
6. This Agreement is not transferable or assignable without the express written approval of the City.
7. The Property Owner shall pay such real estate taxes as are not exempted under this Agreement, and are charged against such property, and shall file all tax reports and returns as required by law. If Property Owner fails to pay such taxes or file such returns and reports, all incentives granted under this Agreement are rescinded, beginning with the year for which such taxes are charged or such reports returns are required to be filed, and thereafter.
8. The City shall perform such acts as are reasonably necessary or appropriate to effect, claim, reserve, and maintain exemptions from taxation granted under this Agreement including, without limitation, joining in the execution of all documentation and providing any necessary certificates required in connection with such exemptions.
9. If for any reason the Community Reinvestment Area designation expires or the Director of the Ohio Department of Development revokes certification of the Area, entitlements granted under this Agreement shall continue for the number of years specified under this Agreement; provided however, if Property Owner materially fails to fulfill its obligation under this Agreement the City may terminate or modify the exemptions from taxation granted under this Agreement.
10. If the Property Owner materially fails to fulfill its obligations under this Agreement, or if the City determines that the certification as to delinquent taxes required by this Agreement is fraudulent, the City may unilaterally terminate or modify the exemptions from taxation granted under this Agreement; and may require that the Property Owner pay to the City the amount of taxes that were exempted under this Agreement, (i.e. the taxes that would have been payable had the property not been exempted from taxation under this Agreement). The City is authorized to secure the repayment of such taxes by a lien on the Project Site in an amount required to be repaid; and such lien shall attach and may be perfected, collected, and enforced, in the same manner as a mortgage lien on the real property; and shall otherwise have the same force and effect as a mortgage lien on the
real property. The City is authorized to record the necessary documentation to perfect its lien rights set forth herein including but not limited to this Agreement. Any lien created herein shall run with the land.
11. The Property Owner covenants that it does not owe: (1) any delinquent taxes to the State of Ohio or political subdivision of the State; or (2) any other monies to the State, a state agency or a political subdivision of the State that are past due, whether the amounts owed are being contested in a court of law or not.
12. The Property Owner and the City acknowledge that this Agreement must be approved by formal action of the City Council of Huber Heights, Ohio, as a condition for the Agreement to take effect.
13. By executing this Agreement, the Property Owner is committing to following non-discriminatory hiring practices, acknowledging that no individual may be denied employment solely on the basis of race, religion, gender, disability, color, national origin, or ancestry.
14. The Property Owner agrees to construct the Project in a manner similar to the existing facility and in accordance with the requirements of Huber Heights Codified Ordinances.
15. The failure by any party to exercise any of its rights hereunder or to enforce any of the terms or conditions of this Agreement on any occasion shall not constitute or be deemed a waiver of that party's rights thereafter to exercise any rights hereunder or to enforce each and every term and condition of this Agreement. This Agreement may not be modified except by a writing specifically referring to this Agreement and executed by duly authorized representatives of both parties. The parties have had the opportunity to have this Agreement reviewed by legal counsel of their choosing. This Agreement was the product of negotiations between the parties and the parties agree that no provision or provisions herein shall be construed against any one party by virtue of the authorship of such provision.
16. The Parties agree to execute and deliver such additional documents and to perform such additional acts as may become reasonably necessary to effectuate the transfers contemplated by this Agreement.
17. A determination that any portion of this Agreement is unenforceable or invalid shall not affect the enforceability or validity of any of the remaining portions of this Agreement as a whole. In the event that any part of any of the covenants, Sections, or provisions herein may be determined by a court of law or equity to be invalid or unenforceable, the parties shall attempt to reach agreement with respect to valid and enforceable substitutes for deleted provision(s), which shall be as close in intent and effect as possible to the deleted portions.
18. The Property Owner hereby consents to the Huber Heights Tax Division providing to, the Huber Heights City Manager, or his designee, any and all tax information if necessary to evaluate Property Owner's compliance with this Agreement and such disclosure shall not be a violation of any federal state or local confidentiality laws or
requirements associated with tax and payroll returns. To the fullest extent permitted by law, the City Manager, or his designee, will treat any such information as confidential.

IN WITNESS WHEREOF, the parties execute this Agreement

## PROPERTY OWNER

THE CITY OF HUBER HEIGHTS
HAYDEN APARTMENTS LLC

Its: City Manager
Date: $\qquad$

STATE OF OHIO
COUNTY OF $\qquad$
The foregoing instrument was acknowledged before me this $\qquad$ day of , 20__, by $\qquad$ , City Manager of Huber Heights, Ohio, on behalf of the City of Huber Heights, Ohio.

Its: Managing Member
Date: $\qquad$

Printed Name: $\qquad$
Notary

STATE OF OHIO ) ) ss.
COUNTY OF $\qquad$

The foregoing instrument was acknowledged before me this $\qquad$ day of
$\qquad$ , 20__, by $\qquad$ , of
$\qquad$ , an Ohio $\qquad$ , on behalf of the company

Printed Name: $\qquad$ Notary

Al-8545
City Council Meeting
Meeting Date:
Supplemental Appropriations
Submitted By: Jim Bell
Department: Finance Division: Accounting
Council Committee Review?: Council Work Session
Date(s) of Committee Review: 07/19/2022
Audio-Visual Needs: None

## Motion/Ordinance/

 Resolution No.:
## Agenda Item Description or Legislation Title

An Ordinance Authorizing Advances And Transfers Between Various Funds Of The City Of Huber Heights, Ohio And Amending Ordinance No. 2021-O-2511 By Making Supplemental Appropriations For Expenses Of The City Of Huber Heights, Ohio For The Period Beginning January 1, 2022 And Ending December 31, 2022.
(first reading)

## Purpose and Background

The supplemental appropriations are for the following purposes:

- \$290,000 advance from Gasoline Tax Fund to Capital Improvement Fund for Chambersburg Road widening west of Old Troy Pike (to be repaid from Lexington Place TIF revenues).
- $\$ 220,000$ reduction of previously budgeted transfer from Gasoline Tax Fund to Capital Improvement Fund.
- \$15,000 for the purchase of land to expand Tom Cloud Park, pursuant to an agreement with Oakes Trees Development and the City of Riverside.
- $\$ 87,000$ addition to the Chambersburg Road widening project for design contract that was above the budgeted amount.
- $\$ 17,190$ to install new gas lines at Fire Station 22 and 23 so they can run the newer model of generators.
- $\$ 420,000$ to increase the maintenance cap for Veolia in addition to 2 repair projects.


## Fiscal Impact

Source of Funds:
Cost:
Recurring Cost? (Yes/No):
Funds Available in Current Budget? (Yes/No): Yes
Financial Implications:

Various Funds
\$609,190
No
,

## Attachments

Ordinance

# CITY OF HUBER HEIGHTS <br> STATE OF OHIO 

ORDINANCE NO. 2022-O-

AUTHORIZING ADVANCES AND TRANSFERS BETWEEN VARIOUS FUNDS OF THE CITY OF HUBER HEIGHTS, OHIO AND AMENDING ORDINANCE NO. 2021-O-2511 BY MAKING SUPPLEMENTAL APPROPRIATIONS FOR EXPENSES OF THE CITY OF HUBER HEIGHTS, OHIO FOR THE PERIOD BEGINNING JANUARY 1, 2022 AND ENDING DECEMBER 31, 2022.

WHEREAS, supplemental appropriations for expenses of the City of Huber Heights must be made for appropriations of funds for various 2022 operating and project funding.

NOW, THEREFORE, BE IT ORDAINED by the City Council of Huber Heights, Ohio that:
Section 1. Authorization is hereby given to advance and transfer certain monies up to amounts not exceeding those shown and for the purposes cited in Exhibit A, and such authorization applies to any and all such advances and transfers necessary and effected after January 1, 2022.

Section 2. Ordinance No. 2021-O-2511 is hereby amended as shown in Exhibit B of this Ordinance.

Section 3. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting of this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 4. This Ordinance shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.
Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:
AUTHENTICATION:

Clerk of Council

Date

Mayor

## Date

## EXHIBIT A

| Advance: |  |  |  |
| :---: | :---: | :---: | :---: |
| Amount | Fund From | Fund To | Purpose |
| \$290,000.00 | 203 Gasoline Tax | 406 Capital Imp | Chambersburg widen west of OTP |
| Transfer: |  |  |  |
| Amount | Fund From | Fund To | Purpose |
| \$(220,000.00) | 203 Gasoline Tax | 406 Capital Imp | Chambersburg widen west of OTP |

## EXHIBIT B

AMENDING ORDINANCE NO. 2021-O-2511 BY MAKING APPROPRIATIONS FOR EXPENSES OF THE CITY OF HUBER HEIGHTS, OHIO FOR THE PERIOD BEGINNING JANUARY 1, 2022 AND ENDING DECEMBER 31, 2022.

1) Section 3 of Ordinance No. 2021-O-2511 is hereby amended to reflect changes in the appropriations of the 203 Gasoline Tax Fund, as follows:
a. Subsection c) Non-Departmental, Transfers decrease of $\$ 220,000.00$
b. Subsection c) Non-Department, Advances increase of \$290,000.00.
2) Section 12 of Ordinance No. 2021-O-2511 is hereby amended to reflect an increase in the appropriations of the 218 Parks \& Recreation Fund, as follows:
a. Subsection b) Park \& Recreation, Operations and Capital of \$15,000.00.
3) Section 30 of Ordinance No. 2021-O-2511 is hereby amended to reflect an increase in the appropriations of the 406 Capital Improvement Fund, as follows:
a. Subsection c) Capital, Operations and Capital of $\$ 87,000.00$.
4) Section 34 of Ordinance No. 2021-O-2511 is hereby amended to reflect an increase in the appropriations of the 431 Fire Capital/Equipment Fund, as follows:
a. Subsection a) Fire, Operations and Capital of \$17,190.00.
5) Section 40 of Ordinance No. 2021-O-2511 is hereby amended to reflect an increase in the appropriations of the 501 Water Fund, as follows:
a. Subsection a) Engineering, Operations and Capital of \$420,000.00.

| Gasoline Tax Fund | $\$ 70,000.00$ |
| :--- | :--- |
| Parks \& Recreation Fund | $\$ 15,000.00$ |
| Capital Improvements Fund | $\$ 87,000.00$ |
| Fire Capital/Equipment Fund | $\$ 17,190.00$ |
| Water Fund | $\$ 420,000.00$ |

2022 Sidewalk Program - Ordinance Of Assessment
Submitted By: Hanane Eisentraut
Department:
Finance
Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022
Work
Session
Audio-Visual Needs: None Emergency Legislation?: Yes

## Motion/Ordinance/

Resolution No.:

## Agenda Item Description or Legislation Title

An Ordinance To Levy Special Assessments For The Repair And Reconstruction Of Sidewalks, Curbs And Gutters, Driveway Approaches And Appurtenances Thereto On Parts Or All Of Certain Streets In The City Of Huber Heights Referred To As The 2022 Sidewalk Program, And Declaring An Emergency. (first reading)

## Purpose and Background

This Ordinance Of Assessment is the final piece of legislation for the 2022 Sidewalk
Program. Following the passage of this ordinance by City Council, City Staff will send the invoices to the affected property owners. These property owners will have until August 12, 2022 to make payment. Assessment Authorization legislation will be brought to City Council for approval at the Work Session on $8 / 16 / 22$. All unpaid assessments will be sent to the County Auditor by the second Monday of September 2022 as required.

|  | Fiscal Impact |
| :--- | :---: |
| Source of Funds: | N/A |
| Cost: | N/A |
| Recurring Cost? (Yes/No): | No |
| Funds Available in Current Budget? (Yes/No): Yes |  |
| Financial Implications: |  |

## Attachments

Ordinance

# TO LEVY SPECIAL ASSESSMENTS FOR THE REPAIR AND RECONSTRUCTION OF SIDEWALKS, CURBS AND GUTTERS, DRIVEWAY APPROACHES AND APPURTENANCES THERETO ON PARTS OR ALL OF CERTAIN STREETS IN THE CITY OF HUBER HEIGHTS REFERRED TO AS THE 2022 SIDEWALK PROGRAM, AND DECLARING AN EMERGENCY. 

WHEREAS, City Council has previously adopted legislation declaring the necessity of repairing sidewalks, driveway aprons, handicap ramps, curbs and gutters, and catch basin aprons under the 2022 Sidewalk Program; and

WHEREAS, contracts have been let to perform various phases of the work under this program; and

WHEREAS, all phases of this work are now complete and the Engineering Division has calculated the final assessment cost to each property owner.

THEREFORE, BE IT ORDAINED, by the City Council of Huber Heights, Ohio, that:
Section 1. The assessment of the cost of repairing or reconstructing sidewalks, curbs and gutters, driveway approaches and appurtenances thereto on those streets in the City of Huber Heights, Ohio as previously reported to this Council and filed in the Office of the Clerk of this Council and aggregating $\$ 109,674.27$ is hereby adopted and confirmed. Notice of the filing of said assessments has been given as required by law, and no objections were filed with the Clerk of Council within the two weeks provided by statute.

Section 2. There are hereby levied and assessed upon the lots and lands bounding and abutting on the improvement and provided for in the Resolution of Necessity No. 2021-R7028 passed August 23, 2021, the several assessment amounts which, taken together, aggregate the dollar amount set forth above. Those assessments are within statutory limitation. The assessments and the description of said lots and lands are now on file in the Office of the Clerk of Council.

Section 3. The total assessment against each lot or parcel of land shall be payable on or before August 12, 2022, and any such assessment payments, which have not been delivered to the City's Account Technician postmarked by August 8, 2022, shall be assessed by up to five annual installments, except all assessments $\$ 100.00$ or less shall be in one installment. Such assessments shall further include interest on any bonds and notes that could be sold at the time to finance the improvements plus administration and collection costs, together with all other necessary expenditures. All assessments and installments thereof which have not been paid at the expiration of the payment period described above shall be certified by the Clerk of Council to the County Auditor as provided by law to be placed on the tax duplicate and collected as other taxes are collected.

Section 4. The City's Account Technician is hereby directed to cause notice of the passage of this Ordinance to be published once in a newspaper of general circulation in this City within ten days after its passage.

Section 5. The Office of the City Engineer is authorized and directed to keep the assessments on file in the Office of the City Engineer for as long as any of them remain unpaid.

Section 6. Further, the Clerk of Council is directed to deliver a certified copy of this Ordinance to the County Auditor within twenty days after its passage.

Section 7. It is hereby found and determined that all formal actions of this Council concerning and relating to the passage of this Ordinance were adopted in an open meeting
of this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 8. This Ordinance is hereby declared to be an emergency measure necessary for the immediate preservation of the public peace, health, safety, and welfare and for the further reason that this timely approval by Council will enable the City to meet the County deadline for filing unpaid assessments for 2022; therefore, this Ordinance shall be in force and effect immediately upon its adoption by Council.

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$
Yeas; Nays.

Effective Date:
AUTHENTICATION:

Clerk of Council

Date

Mayor

Date


## Fiscal Impact

Source of Funds:
Cost:
Recurring Cost? (Yes/No): TBD
TBD
Yes
Funds Available in Current Budget? (Yes/No): No
Financial Implications:

## Attachments

Resolution
Table of Organization

## ESTABLISHING AND/OR AMENDING THE CITY OF HUBER HEIGHTS ORGANIZATIONAL CHART AND AUTHORIZING THE NEW PERSONNEL STAFFING LEVELS AS DETAILED BELOW.

WHEREAS, the citizens of Huber Heights require the efficient and effective delivery of municipal services.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Huber Heights, Ohio that:
Section 1. The attached organizational chart, personnel staffing levels, and position control numbers as established hereafter is hereby adopted and effective December 19, 2021.

Section 2. The authorized personnel staffing levels for the Clerk of Council are as follows.

| City Council | No. |  | Position Control No. |  |
| :--- | :---: | :--- | :--- | :---: |
| Clerk of Council | 1 |  | Pay Grade <br> Deputy Clerk of Council | 1 |
| $504-101-2-2-01-\mathrm{F}$ | 50 |  |  |  |
| Public Records Technician | 1 | $504-213-1-2-01-\mathrm{F}$ | 25 |  |
|  |  |  | $201-\mathrm{P} / \mathrm{H}$ | 20 |

Section 3. The authorized personnel staffing levels for the City Manager's Office are as follows:

| City Manager's Office | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| City Manager | 1 | 505-100-2-2-01-F | 80 |
| Assistant City Manager/Director of | 1 | 505-117-2-2-01-F | 75 |
| Public Services |  |  |  |
| Assistant to City Manager | 1 | 505-618-2-2-01-F | 40 |
| Administrative Assistant III | 1 | 505-209-2-2-01-F | 25 |

Section 4. The authorized personnel staffing levels for the Department of Public Safety are as follows:

| Department of Public Safety | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Director of Public Safety | 1 | 505-116-2-2-01-F | 75 |
| Division of Fire |  |  |  |
| Fire Chief | 1 | 102-401-2-2-01-F | 70 |
| Battalion Chief | 4 | 102-403-1-1-01-- 04F | PS |
| Captain | 1 | 102-402-1-1-01-01F | PS |
| Fire Lieutenant | 10 | 102-404-1-1-01--10-F | Contract |
| Firefighter/Paramedic | 42 | 102-405-1-1-01-42-F | Contract |
| Administrative Assistant III | 2 | 102-200-1-2-01--02-F | 25 |
| Administrative Assistant I | 1 | 102-200-1-2-01-P/H | 10 |
| Fire Inspector | 1 | 102-501-1-2-01-F | 30 |
| Fire Inspector | 3 | 102-501-1-2-01-03-P/H | 30 |
| Fire-Prevention Manager/Plans Review | 1 | 102-502-1-2-01-P/H | 40 |
| Fire Fleet/Facility Mgt. Clerk | 1 | 102-503-1-2-01-P/H | 10 |
| Auxiliary \$1.00 per year | 30 | 102-411-3-0-01--30-V | V |
| Chaplains - Fire | 2 | 102-601-3-0-01--02-V | V |
| Medical Advisor | 1 | 102-604-3-0-01-V | V |
| Division of Police |  |  |  |
| Police Chief | 1 | 101-406-2-2-01-F | 70 |
| Police Lieutenant | 3 | 101-408-1-1-01--03-F | Contract |
| Police Sergeant | 8 | 101-409-1-1-01--08-F | Contract |
| Police Officer | 42 | 101-410-1-1-01--42-F | Contract |


| Administrative Assistant III | 1 | $101-200-1-2-01-\mathrm{F}$ | 25 |
| :--- | ---: | :--- | :---: |
| Police Accreditation Technician | 1 | $101-515-1-1-01-\mathrm{F}$ | 30 |
| Police Records Clerks | 2 | $101-204-1-1-01--02-\mathrm{F}$ | Contract |
| Police Evidence/Fleet Mgt. Clerk | 2 | $101-205-1-2-02-\mathrm{H} / \mathrm{H}$ | 25 |
| Communications/Records Manager | 1 | $101-611-2-1-01-\mathrm{F}$ | 45 |
| Communications/Records Supervisor | 1 | $101-613-1-1-01-\mathrm{F}$ | 35 |
| Communications Officer | 14 | $111-502-1-1-01-14-\mathrm{F}$ | Contract |
| Chaplain - Police | 3 | $101-601-3-0-01-03-\mathrm{V}$ | V |
|  |  |  |  |
| Division of Code Enforcement |  |  | 45 |
| Code Enforcement Manager | 1 | $310-621-2-1-01-\mathrm{F}$ | 35 |
| Code Enforcement Officer II | 1 | $310-513-1-1-01-01-\mathrm{F}$ | 35 |
| Code Enforcement Officer I | 4 | $310-513-1-2-01-04-\mathrm{P} / \mathrm{H}$ | 25 |
| Seasonal Laborer | 2 | $310-305-1-2-01-02-\mathrm{S}$ | S |

Section 5. The authorized personnel staffing levels for the Department of Information Technology are as follows:

| Department of Information Technology |  | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Information Technology Director | 1 | 509-105-2-2-01-F | 60 |
| Information Technology Systems Analyst | 2 | 509-609-1-2-02-F | 45 |
| Information Technology Systems Analyst | 1 | 509-609-1-2-01-P/H | 45 |
| GIS Technician | 1 | 509-510-1-1-01-F | 35 |

Section 6. The authorized personnel staffing levels for the Department of Finance are as follows:

| Department of Finance | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Director of Finance | 1 | 506-102-2-2-01-F | 65 |
| Division of Accounting |  |  |  |
| Deputy Director of Finance | 1 | 506-602-2-2-01-F | 50 |
| Accounting Generalist | 2 | 506-603-2-2-02F | 40 |
| Accounts Payable Technician | 1 | 506-504-1-1-01-F | 25 |
| Payroll Technician | 1 | 506-505-1-1-01-F | 30 |
| Account Technician | 1 | 506-206-1-1-01 F | 25 |
| Division of Taxation |  |  |  |
| Tax Administrator | 1 | 507-104-2-2-01-F | 50 |
| Assistant Tax Administrator | 2 | 507-612-2-2-02-F | 45 |
| Tax Analyst | 2 | 507-506-1-1-01--02-F | 30 |
| Tax Technician | 6 | 507-507-1-1-01-06-F | 20 |
| Administrative Assistant I | 3 | 507-212-1-2-01-03P/H | 10 |

Section 7. The authorized personnel staffing levels for the Department of Public Services are as follows:

| Department of Public Services | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Director of Public Services | 1 | 505-114-2-2-01-F | 75 |
| Division of Engineering |  |  |  |
| City Engineer | 1 | 320-106-2-2-01-F | 65 |
| Assistant City Engineer | 1 | 320-119-2-2-01-F | 55 |
| Civil Engineer | 1 | 320-605-2-2-01-01-F | 50 |
| Engineering Technician | 2 | 320-509-1-1-02-F | 35 |
| Administrative Assistant III | 1 | 320-200-1-2-01-F | 25 |
| Division of Public Works |  |  |  |
| Public Works Manager | 1 | 401-108-2-2-01-F | 60 |
| Public Works Supervisor | 1 | 401-109-1-1-01-F | 50 |
| Public Works Crew Leader | 2 | 401-302-1-1-02-F | Contract |


| Vehicle \& Equipment Mechanic | 3 | $401-300-1-1-03-\mathrm{F}$ | Contract |
| :--- | ---: | :--- | :---: |
| Maintenance Technician | 20 | $401-301-1-1-20-\mathrm{F}$ | Contract |
| Administrative Assistant III | 1 | $401-200-1-2-01-\mathrm{F}$ | 25 |
| Custodian | 1 | $401-305-1-2-01-\mathrm{F}$ | 10 |
| Custodian | 1 | $401-305-1-2-01-\mathrm{P} / \mathrm{H}$ | 10 |

Section 8. The authorized personnel staffing levels for the Department of Economic Development are as follows:

| Department of Economic Development | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Economic Development Director | 1 | 305-111-2-2-01-F | 60 |
| Economic Development Coordinator | 1 | 305-614-2-1-01-F | 40 |
| Community Engagement Specialist | 1 | 305-615-2-1-01-F | 40 |

Section 9. The authorized personnel staffing levels for the Department of Planning and Zoning are as follows:

Department of Planning \& Community Dev. No
Planning \& Community Dev. Director 1
City Planner 1
Administrative Assistant III
Administrative Assistant I
Administrative Assistant I

| Position Control No. | Pay Grade |
| :---: | :---: |
| 310-121-2-2-01-F | 60 |
| 310-118-2-2-01-F | 50 |
| 310-200-1-2-01-F | 25 |
| 310-207-1-1-01-F | 10 |
| 310-207-1-2-01-P/H | 10 |

Section 10. The authorized personnel staffing levels for the Department of Human Resources are as follows:

| Department of Human Resources | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Human Resources Director | , | 510-120-2-2-01-F | 60 |
| Human Resources Specialist | 1 | 510-514-1-1-01-F | 40 |
| Human Resources Assistant | 1 | 510-617-1-2-01-P/H | 30 |

Section 11. The authorized personnel staffing levels for the Department of Parks and Recreation Facilities are as follows:

| Department of Parks and Recreation Facilities | No. | Position Control No. | Pay Grade |
| :---: | :---: | :---: | :---: |
| Parks Manager | 1 | 216-616-2-2-01-F | 45 |
| Senior Center Program Coordinator | 1 | 215-110-2 -2 -01-P/H | 25 |
| Seasonal Laborer - Music Center | 125 | 219-306-1-2-01--125-S | S |
| Seasonal Laborer | 4 | 216-303-1-2-01--04-S | S |

Section 12. Council further ratifies and affirms any and all previous legislation of Council that established, abolished or altered the functions and structures of any administrative department.

Section 13. 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 this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 14. That this Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Section 15. Position Control Number Explanation:


1. Department/Division: Number represents Fund Number in General Ledger:

| 101-Police | 305-Economic Dev. | 401-Public Works | 507-Tax |
| :--- | :--- | :--- | :--- |
| 102-Fire | 310 Planning \& Zoning | 505-City Mgr. | 509-I. T. |
| 215-Senior Center | 320-Engineering | 506-Accounting | 510-H.R | 219 Parks \& Recreation

2. Classification: Number for classification or rank to which position is assigned, divided into defined series as shown below:

| 100-Administrative | 300-Labor | 500 -Technical |
| :--- | :--- | :--- |
| 200-Clerical | 400-Sworn Safety | 600 -Professional |

## 3. FLSA Status:

01-Non-exempt from minimum wage/overtime rules of FLSA (hourly) 02-Exempt from minimum wage/overtime rules of FLSA (salaried)
03-Unpaid Volunteer

## 4. Merit \& Personnel System Status:

01-Position is in Non-exempt service of city per Section 8.02 of Charter 02-Position is in Exempt service of city per Section 8.02 of Charter

## 5. Position Number:

Unique two-digit number for each employment position authorized by this Resolution.

## 6. Employment Status:

F-Full-time Position
P-Part-time Position
H-Hourly Position
T-Temporary (created for specific time)
S-Seasonal Position
V-Volunteer Position
Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:

## AUTHENTICATION:

Clerk of Council

Date

Mayor

Date


|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Authorized Slatifng Levels |  |  |  |  |  |  |
| - All employees are permanent / full time unless specified otherwise. <br> - (PT) = Part Time, (H) = Hourly Seasonal, (T) = Temporary, (V) = Volunter, (S)=Seasonal Contractor Relationship Vacant Position |  |  | 4 1 29 3 1 1 |  | 1 6 11 1 1 6 |  |  |



## Fiscal Impact

## Source of Funds:

TBD
Cost: TBD
Recurring Cost? (Yes/No): Yes
Funds Available in Current Budget? (Yes/No): No Financial Implications:

| Resolution | Attachments |
| :--- | :--- |

## ESTABLISHING AND/OR AMENDING THE SALARY RANGES AND WAGE LEVELS FOR EMPLOYEES OF THE CITY OF HUBER HEIGHTS, OHIO.

WHEREAS, the citizens of Huber Heights require efficient and effective delivery of municipal services.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Huber Heights, Ohio that:
Section 1. The pay ranges, compensation procedures, and administrative rules for nonbargaining employees as established hereafter shall be effective for the pay period beginning December 19, 2021 through the pay period ending December 17, 2022

Section 2. City Council shall be responsible for establishing the actual salaries for the City Manager, the Clerk of Council, and the Deputy Clerk of Council. The salary ranges of the City Manager, the Clerk of Council, and the Deputy Clerk of Council are set forth in the following plan document.

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 this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 4. This Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

## THE CITY OF HUBER HEIGHTS

## PERFORMANCE COMPENSATION PLAN FOR NON-BARGAINING EMPLOYEES

## 1. Compensation Philosophy

It is the city's philosophy to support and enhance organizational performance through a fair, objective, and equitable merit-based pay plan which will attract, retain, and motivate high performing non-bargaining employees.
2. General Administrative Responsibilities

The Human Resources Director, under the direction of the City Manager is responsible for the administration of the Performance Compensation Plan, including the processing of pay rate increases, the adjustment of pay for promotions, re-employments and reassignments, and the initiation of necessary revisions in pay ranges. The Human Resources Director is responsible for interpreting the application of the program to all pay issues which are not specifically covered by this ordinance, using the principles expressed herein as a policy guide.

## 3. Plan Administration

A. Market Surveys. The Human Resources Director shall conduct market surveys every three years or from time to time in order to collect updated comparable and competitive salary data, recommend revised pay structures and pay ranges as necessary, and recommend revised merit-based pay procedures. Such surveys and recommendations shall be conducted as positions become vacant, or upon request of a department/division head, or upon the initiation of the Human Resources Director when it is determined necessary for the effective administration of the Performance Compensation Plan.
B. Structure Adjustments. Periodically, the Human Resources Director may recommend pay range adjustments to the City Manager in keeping with labor market trends, who in turn may make appropriate recommendations to City Council. Pay ranges (except
for seasonal positions) shall include a minimum and maximum amount stated either as an annual salary or hourly rate.
C. Assignment of Positions to Pay Ranges. The Human Resources Director shall be responsible for assigning each city employment position to a pay range based on market data and the City Manager's determination of the strategic value of positions and/or employees to the organization. Strategic value considerations may involve turnover, skill needs, attraction and retention issues, supply and demand for qualified applicants for particular positions, the impact of specific positions and employees on the organization's mission, and/or other relevant factors.

## 4. Applicability

This resolution and Performance Compensation Plan shall apply to and is the sole authority for setting rates of pay for the following categories of positions and employees: All regular full-time, regular part-time, provisional full-time, provisional part-time, hourly, temporary, and seasonal employees of the City of Huber Heights, Ohio except: the Mayor; members of City Council, the City Law Director; and all employees who are members of a collective bargaining unit recognized by the State Employment Relations Board.

## 5. Positions and Pay Ranges

| Pay Grade | Minimum Pay | Maximum Pay |
| :---: | :---: | :---: |
| 10 | \$13.8268 | \$20.5800 |
| Custodian <br> Administrative Assistant I <br> Fire Fleet/Facility Management Clerk | \$28,759.74 | \$42,806.40 |
| 20 | \$16.7304 | \$24.9000 |
| Administrative Assistant II Public Records Technician Tax Technician | \$34,799.23 | \$51,792.00 |
| 25 | \$16.7686 | \$27.3900 |
| Account Technician <br> Accounts Payable Technician <br> Administrative Assistant III <br> Deputy Clerk of Council <br> Police Evidence/Fleet Management <br> Clerk <br> Senior Center Program Coordinator Code Enforcement Officer I | \$34,878.69 | \$56,971.20 |
| 30 | \$18.4463 | \$30.1300 |
| Police Accreditation Technician <br> Payroll Technician <br> Tax Analyst <br> Fire Inspector <br> Human Resources Assistant | \$38,368.30 | \$62,670.40 |
| 35 | \$19.3719 | \$31.6440 |
| GIS Technician <br> Engineering Technician <br> Code Enforcement Officer II Communications/Records Supervisor | \$40,293.55 | \$65,819.52 |
| 40 | \$21.3058 | \$36.0900 |
| Accounting Generalist <br> Assistant to City Manager <br> Community Engagement Specialist <br> Economic Development Coordinator <br> Human Resources Specialist <br> Fire Prevention Manager/Plans Review | \$44,316.06 | \$75,067.20 |


| 45 | \$23.4381 | \$39.7000 |
| :---: | :---: | :---: |
| Code Enforcement Manager <br> Assistant Tax Administrator <br> IT Systems Analyst <br> Parks Manager <br> Communications/Records Manager | \$48,751.25 | \$82,576.00 |
| 50 | \$25.7852 | \$43.6800 |
| Deputy Director of Finance <br> Tax Administrator Public Works Supervisor Clerk of Council Civil Engineer City Planner | \$53,633.22 | \$90,854.40 |
| 55 | \$30.9422 | \$52.4200 |
| Assistant City Engineer | \$64,359.78 | \$109,033.60 |
| 60 | \$\$34.0331 | \$57.6500 |
| Human Resources Director <br> IT Director <br> Public Works Manager <br> Economic Development Director <br> Planning \& Community Dev. Director | \$70,788.85 | \$119,912.00 |
| 65 | \$37.4381 | \$63.4200 |
| City Engineer Director of Finance | \$77,871.25 | \$131,913.60 |
| 70 | \$43.0579 | \$72.9400 |
| Fire Chief Police Chief | \$89,560.43 | \$151,715.20 |
| 75 | \$47.3637 | \$80.2300 |
| Assistant City Manager/Director of Public Services Director of Public Safety | \$98,516.50 | \$166,878.40 |
| 80 | \$52.0992 | \$85.1000 |
| City Manager | \$108,366.34 | \$177,008.00 |


| Position |  |  |  |
| :--- | :--- | :---: | :---: |
| Minimum Pay |  |  | Mid-point Pay |
| Seasonal Laborer | N/A | N/A | $\$ 20.00$ |
| Public Safety (PS) |  |  |  |
|  | Step 1 | Step 2 |  |
| Battalion Chief | $2 \%$ below Step 2 | $14 \%$ above top step Fire Lieutenant |  |
| Fire Captain | $2 \%$ below Step 2 | $6 \%$ above top step Fire Lieutenant |  |

Employees are paid bi-weekly on an hourly or salary basis. The bi-weekly pay rate for salaried employees is a calculation of the annual pay rate divided by 26 and the bi-weekly amount for hourly employees is a calculation of the annual pay rate divided by 2080 hours, to include those budget years with 27 pay periods. The bi-weekly amount for part-time/hourly employees, working less than a 40 -hour week in a 2080 work year, is a calculation of the annual pay rate multiplied by the number of hours worked.

## 6. Compensation Adjustments

All of the following pay rate adjustments are subject to funding by City Council based upon the availability of funds and economic and budget projections and priorities.
A. New Hires. Newly hired employees shall be hired at a rate of pay between the minimum and maximum of the applicable pay range. The exact pay rate shall be based on the employee's education, experience, knowledge, skills, and abilities. Prior to the making of a conditional offer of employment to a prospective new or newly promoted employee, the department/division head shall recommend a starting rate of pay which shall be forwarded to the Human Resources Manager for review and then to the City Manager for final action.
B. Completion of Probation. Department/division heads may recommend a pay increase, not to exceed $2 \%$, for newly hired or promoted employees upon the successful completion of probation or one year of employment. The department/division head should consider the employee's starting rate as related to their pay range, the pay of other employees in the position and in the employee's division, and the employee's performance in making this decision. Any such increase, upon approval by the City Manager, shall be paid from the division's regular payroll budget.
C. Promotion. Employees who are promoted to positions with a higher level of duties and responsibilities shall be placed at a rate of pay between the minimum and maximum of the applicable pay range.
D. Demotion. Employees who are demoted to positions with a lower level of duties and responsibilities because of less than satisfactory performance, failure to meet job requirements, or for disciplinary reasons shall be placed at the minimum of the new range, or receive a pay decrease not to exceed $10 \%$, whichever results in the least loss of pay.
E. Reassignment. Employees who are reassigned to positions with a lower pay grade through no fault of their own (i.e., reorganization, job abolishment, reduction-inforce, or market/technological factors, etc.), shall remain at their current rate of pay, or shall be placed at the maximum of the pay range, whichever is less. An employee who voluntarily requests and is granted a reassignment to a position with a lower pay grade will have their pay adjusted between the minimum and maximum of the lower pay grade.
F. Temporary Upgrade to a Higher Position. Employees who are temporarily assigned (for a minimum of 7 consecutive calendar days) to perform all of the duties and assume all of the responsibilities of a position due to a position vacancy or an approved leave of absence of a position incumbent shall be receive a pay increase not to exceed $5 \%$. Temporary upgrades shall be recommended to the Human Resources Manager and approved by the City Manager in advance.
G. Modification of Pay Ranges. When a position's pay range is modified upward, based on market data and/or strategic value, and the position is occupied, the incumbent shall retain his/her existing pay rate or be placed at the minimum of the new pay range, whichever is greater. When a position's pay range is modified downward, and the position is occupied, the incumbent shall remain at his/her current rate of pay.
H. Transfers. Employees who transfer to another job in an identical pay range or to an identical position in another division in the same pay range, there will be no change in the employee's rate of pay.
I. Transitional and Paid Intern Positions: In cases deemed necessary and appropriate by the City Manager, an appointment to a position in the non-exempt service which is not yet vacated, but which position incumbent has provided the City Manager with a written notice of resignation or retirement on a date certain, which date is within 90 days following the date of such appointment. In cases deemed necessary and appropriate by the City Manager, an appointment of a student intern may be made based on skill, experience, and the scope of the project to be completed.

## 7. Compensation Increases

The compensation of each employee shall be reviewed annually by the department director/division manager, or Mayor and Council, for the purpose of determining which employees may be entitled to a performance-based increase. All personnel records, performance, and experience shall be considered in making recommendations with major emphasis placed on the evaluation. The City Manager or Mayor and Council is authorized to pay non-union employees a performance-based increase provided that said increase is within the approved salary range for the respective position. The performance-based increase may also be provided in the form of a bonus. The annual performance-based increase is determined upon the availability of funds and economic and budget projections and priorities.

Providing the Collective Bargaining Agreements receive an annual increase, the City shall adjust the compensation of all non-union employees, to include employees of the City Council, to reflect the same annual increase within the respective year.

To be eligible for a performance-based increase, an employee must be employed with at least six months of continuous service before the merit award date.

An employee whose pay is at the maximum of the compensation range may not be granted an increase that would cause the base compensation to exceed the maximum of the range for that position. The employee would continue to be eligible for an annual increase and performance bonus, with a lump sum increase based upon the percentage increase. The pay range, however, does not change until a new market study is conducted, every three years, and a recommendation is made to revise pay structures and pay ranges as necessary

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:
AUTHENTICATION:

Clerk of Council

Date

Mayor

Date


Fiscal Impact

Source of Funds:
Cost:
Recurring Cost? (Yes/No):
Funds Available in Current Budget? (Yes/No): Yes
Financial Implications:

|  | Attachments |
| :--- | :--- |
| Bid Results |  |
| Resolution |  |

## Attachments

## Bid Results

Resolution
\$290,000
No

## CITY OF HUBER HEIGHTS CHAMBERSBURG ROAD WEST IMPROVEMENTS PROPOSAL RESULTS

BID OPENING DATE: July 1, 2022

| CONSULTANT'S NAME | PROPOSAL |
| :--- | :---: |
| Choice One Engineering | $\$ 260,100.00$ |
| The Kleingers Group | $\$ 262,184.00$ |
| Brumbaugh Engineering | $\$ 272,500.00$ |
| Lockwood, Jones, and Beals | $\$ 576,039.00$ |
| Mote \& Associates | Incomplete Submited Proposal, Missing <br> Cost of Requested Items |



## CITY OF HUBER HEIGHTS

STATE OF OHIO
RESOLUTION NO. 2022-R-

## AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT FOR PREPARATION OF ENGINEERING PLANS AND SPECIFICATIONS FOR THE DESIGN OF CHAMBERSBURG ROAD WEST IMPROVEMENTS PROJECT.

WHEREAS, the City Council has applied and received a grant through Miami Valley Regional Planning Commission (MVRPC) for the construction of the Chambersburg Road West Improvements Project; and

WHEREAS, it is necessary to obtain outside engineering services to design the Chambersburg Road West Improvements Project; and

WHEREAS, it is necessary to complete engineering plans and specifications for the design of this project; and

WHEREAS, Choice One Engineering has been determined to be the most qualified firm for the project.

NOW, THEREFORE BE IT RESOLVED by the City Council of Huber Heights, Ohio that:
Section 1. The City Manager is hereby authorized to enter into a contract for engineering plans and specifications for the design of the Chambersburg Road West Improvements Project with Choice One Engineering at a cost not to exceed $\$ 290,000.00$.

Section 2. 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 this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ 2022;
Yeas; $\qquad$ Nays.

Effective Date:
AUTHENTICATION:

Clerk of Council

Date

Mayor

Date


Agenda Item Description or Legislation Title
A Resolution To Increase The Not To Exceed Maintenance Contract Amount And Authorizing The City Manager To Enter Into A Contract Modification With Veolia Environment.
(first reading)

## Purpose and Background

This legislation will authorize the City Manager to enter into a contract modification and increase Veolia Water's contract by $\$ 420,000$ to cover the cost of three items. The first is to provide a back-up motor and pump for Well No. 6 at the Rip Rap Road Water Treatment Plant (RRWTP). The second item is to replace three large water valves on three other wells, also at the RRWTP. The third item is to cover the estimated additional expenditures between now and the end of the year on Veolia Water's yearly maintenance cap.

## Fiscal Impact

Source of Funds:
Cost:
Recurring Cost? (Yes/No):
Funds Available in Current Budget? (Yes/No): Yes
Financial Implications:

## Attachments

Maintenance Cap Expenditures
Resolution

Water/Sewer Funds
\$420,000
No

| Vendor |  | Amount | Description |
| :---: | :---: | :---: | :---: |
| Buckeye Pumps | \$ | 2,726.00 | New Carlisie Pike lift station pump replacement |
| Element | \$ | 5,343.61 | Vehicle maintenance |
| OUPS | \$ | 100.00 | Monthly maintenance fee |
| Woolace Electric | \$ | 785.00 | Lab outlet repair at RRRWTP lab |
| CCl | \$ | 2,547.75 | PLC - Work SCADA program fixes |
| Civica | \$ | 7,230.60 | 2022 license, support and maintenance for Authority billing software |
| Quality Seasons | \$ | 470.59 | Yard repair due to mainbreak repair |
| Allied Supply | \$ | 78.48 | Elysian Fields lift station repair |
| M\&R | \$ | 43.00 | Elysian Fields lift station repair |
| Core \& Main | \$ | 1,121.52 | Mainbreak repair |
| Buckeye Power Sales | \$ | 110.81 | Parts for pump used for mainbreak repairs |
| Gasser's Garage | \$ | 612.85 | Yard repair due to mainbreak repair |
| January | \$ | 21,170.21 |  |
| Vendor |  | Amount | Description |
| Element | \$ | 322.99 | Vehicle maintenance |
| Martin Marietta | \$ | 3,618.60 | Gravel for mainbreak repair |
| Martin Marietta | \$ | 1,128.40 | Gravel for mainbreak repair |
| USA Bluebook | \$ | 4,186.13 | Replacement of dehumidifier for residual bldg at Plant |
| Regal Plumbing \& Heating Co | \$ | 1,270.62 | Preventative maintenance - nano filtration system |
| Aqua-line | \$ | 864.80 | Water leak detection services - 5415 Powell Rd |
| Cummins | \$ | 6,004.45 | PM for generator |
| Martin Marietta | \$ | 411.32 | Gravel for mainbreak repair |
| Commerce Controls Inc | \$ | 1,290.00 | Annual calibrations at Plant |
| Commerce Controls Inc | \$ | 774.00 | Annual calibrations at Plant |
| National Water Services LLC | \$ | 2,753.00 | HSP mechanical seal repair/replacement at Plant |
| Treasurer State of Ohio | \$ | 190.00 | SERC for RRRWTP for 2022 |
| OUPS | \$ | 3,197.30 | Monthly maintenance fee \& 2022 Annual Assessment Fee for OUPS |
| Core \& Main | \$ | 374.93 | Hydrant repair |
| Core \& Main | \$ | 1,359.11 | Mainbreak repair |
| Best One | \$ | 190.81 | Vehicle maintenance - Backhoe tire |
| Triad Technologies | \$ | 169.26 | Filters for Brandt Pk lift station |
| Core \& Main | \$ | 1,423.57 | Mainbreak repair |
| Gasser's Garage | \$ | 612.85 | Gravel for mainbreak repair |
| Core \& Main | \$ | 240.31 | Mainbreak repair |
| Fastenal | \$ | 156.23 | Sewer maintenance supplies for Cosner lift station |
| Atherton Plumbing | \$ | 98.00 | Backflow testing at RRRWTP |
| Terminix | \$ | 68.80 | Pest control at Admin Office |
| February | \$ | 30,705.48 |  |


| Vendor |  | Amount | Description |
| :---: | :---: | :---: | :---: |
| Element | \$ | 2,317.63 | Vehicle maintenance |
| Regal Plumbing \& Heating Co | \$ | 1,286.12 | Heat pump repair at Plant Office |
| SmartCover | \$ | 1,664.00 | Monitor devices with sewer |
| EJP | \$ | 2,056.00 | Valve replacement |
| Martin Marietta | \$ | 1,494.36 | Gravel for mainbreak repair |
| Lee Shellhaas | \$ | 1,100.00 | Concrete repair for mainbreak repair - 5901 Pennywell |
| Lee Shellhaas | \$ | 1,100.00 | Concrete repair for mainbreak repair - 5497 Chambersburg Rd |
| OUPS | \$ | 60.00 | Monthly maintenance fee |
| Towner Filtration | \$ | 6,048.65 | Nano filtration cartridges filters |
| EJP | \$ | 4,612.00 | Mainbreak repair |
| Core \& Main | \$ | 3,876.44 | Hydrant repair |
| Hach | \$ | 750.52 | Replacement of broken sensors at NF Bldgs |
| Win Supply Inc | \$ | 240.06 | Well Field maintenance |
| USA Bluebook | \$ | 1,356.85 | Plant maintenance - NF pipe gaskets, lab meter to measure parameters |
| Megacity | \$ | 483.75 | Recertification of backflow and annual inspection of sprinkler system at Plant |
| Chapel | \$ | 533.50 | Electrical repair at Well \#6 at Plant |
| EJP | \$ | 970.00 | Cut-in sleeves for valve exercising project |
| US Plastic Corp | \$ | 122.60 | Sewer maintenance at Lift Stations |
| Superbreakers | \$ | 112.96 | Schneider electric light module for water booster stations |
| Rural King | \$ | 134.32 | Yard repair due to mainbreak repair |
| Core \& Main | \$ | 688.36 | Mainbreak repair |
| Huber Stone \& Recycling LLC | \$ | 53.75 | Yard repair due to mainbreak repair |
| Huber Stone \& Recycling LLC | \$ | 53.75 | Yard repair due to mainbreak repair |
| Core \& Main | \$ | 193.56 | Mainbreak repair |
| Core \& Main | \$ | 535.00 | Hydrant repair |
| EJP | \$ | 1,116.85 | Hydrant repair |
| Best Equipment | \$ | 734.26 | Vehicle maintenance - Vac truck repair |
| Core \& Main | \$ | 1,967.14 | Mainbreak and angle valve repair |
| USA Bluebook | \$ | 443.94 | Float switches for sewer lift stations |
| Waterworks (Atherton Plumbing) | \$ | 98.00 | Recertification of backflow device at Admin Office |
| Megacity | \$ | 802.76 | Labor and materials to complete full rebuild on backflow device at Plant |
| Megacity | \$ | 741.30 | Annual inspection of portable fire extinguishers |
| RD Holder | \$ | 985.98 | Oil and grease for Plant maintenance |
| Core \& Main | \$ | 42.17 | Sewer repair |
| Huber Stone \& Recycling LLC | \$ | 26.88 | Yard repair due to mainbreak repair |
| Huber Stone \& Recycling LLC | \$ | 53.75 | Yard repair due to mainbreak repair |
| Core \& Main | \$ | (131.52) | Hydrant expenses reversed. Billed as Third Party Damages. |
| March | \$ | 38,725.69 |  |


| Vendor |  | Amount | Description |
| :---: | :---: | :---: | :---: |
| Core \& Main | \$ | 193.83 | Hydrant repair |
| EJP | \$ | 87.11 | Mainbreak repair |
| OUPS | \$ | 68.00 | Monthly maintenance fee |
| National Water Services LLC | \$ | 5,900.00 | Well \#6 inspection |
| National Water Services LLC | \$ | 2,194.00 | Well \#6 air relief valve replacement |
| Chapel | \$ | 4,453.55 | Replaced contactor for Well \#6 |
| Lee Shellhaas | \$ | 1,900.00 | Concrete repair for mainbreak repair - Camerford (corner of Charnwood and Camerford) |
| Lee Shellhaas | \$ | 2,100.00 | Concrete repair for mainbreak repair - Corner of Buckman \& Harshmanville |
| Lee Shellhaas | \$ | 800.00 | Concrete repair for mainbreak repair - 7301 Charnwood |
| Micro Motion Inc | \$ | 4,979.78 | Replacement rosemount 8750W utility magnetic flow meter system |
| Martin Marietta | \$ | 877.24 | Gravel for mainbreak repair |
| Martin Marietta | \$ | 667.80 | Gravel for mainbreak repair |
| Amazon.com | \$ | 343.90 | Filters for VFD's |
| Brehob | \$ | 579.98 | Inspect system for water/moisture |
| Filter Element | \$ | 239.22 | Filters for Plant maintenance |
| Pickrel Bros | \$ | 121.94 | Plant maintenance |
| National Water Services LLC | \$ | 600.00 | Standby backwash basin pump inspection |
| Core \& Main | \$ | 1,347.45 | Mainbreak repair |
| Great Lakes Services \& Supplies | \$ | 575.36 | Vehicle maintenance - Vac truck repair |
| Gasser's Garage | \$ | 1,081.70 | Vehicle maintenance - Windshield replacement on Transit |
| Waterworks (Atherton) | \$ | 2,276.01 | Backflow device maintenance at Plant |
| Core \& Main | \$ | 1,255.53 | Hydrant repair |
| Core \& Main | \$ | 458.52 | Angle valve repair |
| Core \& Main | \$ | 1,114.96 | Water line repair |
| Huber Stone | \$ | 26.88 | Yard repair due to mainbreak repair |
| Southern Sewer Equipment Sales | \$ | 129.98 | Sewer cleaning |
| Chapel | \$ | 1,033.19 | Cooling fan for VFD for NF Skid \#1 |
| Chapel | \$ | 663.07 | Temp pump removed and replaced for Well \#6 |
| Huber Stone | \$ | 53.75 | Yard repair due to mainbreak repair |
| Gasser's Garage | \$ | 612.00 | Gravel for mainbreak repair |
| Chapel | \$ | 282.00 | Repair to motor on VFD at Plant |
| Core \& Main | \$ | $(3,929.49)$ | Hydrant expenses reversed. Billed as Third Party Damages. |
| April | \$ | 33,087.26 |  |

## Vendor

National Water Services LLC
National Water Services LLC OUPS
Paulus Lawn and Landscape Lee Shellhaas
Buckeye Pumps
United Rentals
M\&R Electric
Regal Plumbing
Lee Shellhaas
Lee Shellhaas
Lee Shellhaas
Towner Filtration
Best Equipment
Core \& Main
Element
Grainger
Grainger
Grainger
Gasser's Garage
Lavy Enterprises LLC
Pollard Water
Core \& Main
Core \& Main
Metex Corporation Limited
BL Anderson
Grainger
USA Bluebook
Green Velvet
Huber Stone \& Recycling LLC
Huber Stone \& Recycling LLC
Core \& Main
Core \& Main

| Amount | Description |
| :---: | :---: |
| 1,250.00 | Well \#1 motor removal \& swap |
| 4,387.00 | 8" Butterfly valve replacement |
| 36.00 | Monthly maintenance fee |
| 451.50 | Grounds maintenance at Plants |
| 1,600.00 | Concrete repair for mainbreak repair - Tuesday Villas \& Troy Manor |
| 5,648.00 | Vitek pump replacement |
| 811.83 | Repair to shoring equipment from accident - equipment used for mainbreak repairs |
| 11,535.00 | Motor for Well \#6 at RRRWTP |
| 1,553.87 | Repair to fan in high service area at Plant |
| 1,500.00 | Concrete repair for mainbreak repair - 7008 Brandt Pk (Firehouse) |
| 1,600.00 | Concrete repair for mainbreak repair - 8678 Baton Rouge |
| 1,400.00 | Concrete repair for mainbreak repair - 7813 Harshmanville Rd |
| 6,171.75 | Nano filtration cartridge filters |
| 2,817.26 | Replacement hose reel for Vaccon |
| 2,779.11 | Mainbreak repair |
| 610.41 | Vehicle maintenance |
| 821.56 | Ball valves for plant maintenance |
| 488.77 | Ball valves for plant maintenance |
| 848.93 | Ball valves for plant maintenance |
| 1,357.03 | Dirt hauling from mainbreak repair |
| 956.68 | Vehicle maintenance - Backhoe repair |
| 549.65 | Replacement pole grabber fro sewer cleaning |
| 669.19 | Mainbreak repair |
| 654.88 | Mainbreak repair |
| 1,664.00 | Replacement fluoride pump |
| 1,097.00 | Replacement tubes for chemical feed pumps |
| 438.18 | Ball valves for plant maintenance |
| 1,376.38 | Pump set used for chemical transferring (replacement) |
| 38.09 | Sod for mainbreak repair |
| 26.88 | Yard repair due to mainbreak repair |
| 1,520.00 | Dirt hauling from mainbreak repair |
| 2,161.39 | Mainbreak and water line repair |
| (23.79) | Return of water line repair supplies |

    1,250.00 Wescription
    1,250.00 \(\mathrm{B} \mathrm{\prime} \mathrm{\prime}\) B 1 fly
            36.00 Monthly maintenance fee
            451.50 Grounds maintenance at Plants
    1,600.00 Concrete repair for mainbreak repair - Tuesday Villas \& Troy Manor
    5,648.00 Vitek pump replacement
        811.83 Repair to shoring equipment from accident - equipment used for mainbreak repairs
    11,535.00 Motor for Well \#6 at RRRWTP
    1,553.87 Repair to fan in high service area at Plant
    1,500.00 Concrete repair for mainbreak repair - 7008 Brandt Pk (Firehouse)
    1,600.00 Concrete repair for mainbreak repair - 8678 Baton Rouge
    1,400.00 Concrete repair for mainbreak repair - 7813 Harshmanville Rd
    , 171.75 Nano filtration cartridge filters
    Replacement hose reel for Vaccon
    ,779.11 Mainbreak repair
        610.41 Vehicle maintenance
        821.56 Ball valves for plant maintenance
        488.77 Ball valves for plant maintenance
        848.93 Ball valves for plant maintenance
        956.68 Vehicle maintenance - Backhoe repair
        549.65 Replacement pole grabber fro sewer cleaning
        669.19 Mainbreak repair
        654.88 Mainbreak repair
    1,097.00 Replacement tubes for chemical feed pumps
        438.18 Ball valves for plant maintenance
        38.09 Sod for mainbreak repair
        26.88 Yard repair due to mainbreak repair
    1,520.00 Dirt hauling from mainbreak repair
        (23.79) Return of water line repair supplies
    58,796.55
    | Vendor | Amount |  | Description |
| :---: | :---: | :---: | :---: |
| OUPS | \$ | 52.00 | Monthly maintenance fee |
| Lee Shellhaas | \$ | 800.00 | Concrete repair for mainbreak repair - 5776 Pennywell |
| Paulus Lawn and Landscape | \$ | 1,032.00 | Grounds maintenance at Plants |
| Carey Electric | \$ | 1,270.00 | Repair at 6405 Old Troy Pk lift station - Installed new coil on starter |
| American Scaffolding Inc | \$ | 5,514.78 | Scaffolding for RRRWTP caustic soda tanks |
| USA Bluebook | \$ | 3,555.99 | Fluoride/pH meter replacement |
| Buckeye Power Sales Co Inc | \$ | 2,263.00 | Work performed at cooling system at RRRWTP |
| BL Anderson | \$ | 2,273.00 | Replacement chemical feed pump parts |
| BL Anderson | \$ | 1,456.80 | Replacement tubes for chemical pumps |
| Martin Marietta | \$ | 1,533.56 | Gravel for mainbreak repair |
| Lee Shellhaas | \$ | 2,190.00 | Concrete repair for mainbreak repair - 6819 Dial |
| M\&R Electric Motor Service | \$ | 4,300.00 | Pump/parts needed to repair WTP lift station |
| Core \& Main | \$ | 661.11 | Angle valve and water line repair |
| Huber Stone \& Recycling LLC | \$ | 26.88 | Topsoil for yard repair due to mainbreak repair |
| Core \& Main | \$ | 1,064.94 | Water line and mainbreak repair |
| Core \& Main | \$ | 235.88 | Mainbreak repair |
| Best One Tire \& Services | \$ | 575.66 | Vehicle maintenance - backhoe tire replacement |
| Core \& Main | \$ | 471.74 | Mainbreak repair |
| Terminix | \$ | 75.14 | Pest control for Admin Office |
| Grainger | \$ | 509.72 | Adapters to put on chemical feed lines for chlorine |
| Professional Property Maintenancı | \$ | 42.85 | Topsoil for yard repair due to mainbreak repair |
| Rural King | \$ | 111.79 | Grass seed for yard repair due to mainbreak repair |
| Green Velvet | \$ | 154.44 | Sod for yard repair due to mainbreak repair |
| Core \& Main | \$ | 2,525.53 | Mainbreak repair |
| Grainger | \$ | 12.92 | Fuse for Carriage Trail lift station |
| Core \& Main | \$ | 196.11 | Valve box risers for valve repair |
| Core \& Main | \$ | 1,114.36 | Mainbreak repair |
| M\&R Electric Motor Service | \$ | 43.00 | Lift station parts |
| Midway Trailers | \$ | 25.47 | Vehicle maintenance - wheel for trailer |
| Huber Stone \& Recycling LLC | \$ | 30.10 | Topsoil for yard repair due to mainbreak repair |
| Gasser's Garage | \$ | 727.70 | Gravel for mainbreak repair |
| Core \& Main | \$ | 2,049.63 | Mainbreak repair |
| Core \& Main | \$ | 571.87 | Mainbreak repair |
| Habegger | \$ | 26.19 | Capacitors for NF bldg lift station |
|  | \$ | (436.68) | Hydrant expenses reversed. Billed as Third Party Damages. |
| June | \$ | 37,057.48 |  |
|  | \$ | 10,713.43 | Lift Station maintenance |
|  | \$ | 109,069.20 | Water Plant |
|  | \$ | 70,095.26 | Distribution Water main breaks |
|  | \$ | 6,512.68 | Collection |
|  | \$ | 23,152.10 | Maintenance for billing software/gnerator/scada programming/vehicles/OUPS and Grounds |
|  | \$ | 219,542.67 | Grand Total (JANUARY - JUNE) |

## CITY OF HUBER HEIGHTS

STATE OF OHIO
RESOLUTION NO. 2022-R-

## TO INCREASE THE NOT TO EXCEED MAINTENANCE CONTRACT AMOUNT AND AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT MODIFICATION WITH VEOLIA ENVIRONMENT.

WHEREAS, Veolia Environment has operated the City's water and wastewater systems since September 29, 1995; and

WHEREAS, the City Charter requires that City Council approve all work performed by a single contractor in excess of $\$ 25,000.00$ in any given year; and

WHEREAS, the City has determined to increase the not to exceed amount of the contract to pay the auditors fees for this year's audit outside the contract and also to allow the company to perform additional work for the City due to emergency measures and additional services as needed, without delay; and

WHEREAS, City Council agrees that it is prudent and cost effective to increase Veolia Environment contract to allow the company to perform additional work for the City due to emergency measures and additional services as needed, without delay.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Huber Heights, Ohio that:
Section 1. The City Manager is hereby authorized to enter into a contract modification to increase the maintenance cost of the Veolia Environment by $\$ 420,000.00$.

Section 2. 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 this Council and that all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

Section 3. This Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ , 2022;
$\qquad$
Effective Date:
AUTHENTICATION:

Clerk of Council

Date

Mayor

Date

| Al-8563 |  |  | New Business |
| :---: | :---: | :---: | :---: |
| City Council Meeting |  |  | City Manager |
| Meeting Date: | 07/25/2022 |  |  |
| East Water Main Extension Project - Award Contract |  |  |  |
| Submitted By: | Hanane Eisentraut |  |  |
| Department: | Engineering | Division: | Engineering |
| Council Committee Review?: | Council | Date(s) of Committee Review: | 07/05/2022 and |
|  | Work |  | 07/19/2022 |
|  | Session |  |  |
| Audio-Visual Needs: | None | Emergency Legislation?: | No |
| Motion/Ordinance/ Resolution No: |  |  |  |

Agenda Item Description or Legislation Title
A Resolution Increasing The Not To Exceed Amount And Authorizing The City Manager To Enter Into A Contract For The East Water Main Extension Project.
(first reading)

## Purpose and Background

This legislation will authorize the City Manager to enter into a contract with C. G. Construction \& Utilities Inc. as the lowest and best bidder for the East Water Main Extension Project. Federal grant dollars as part of the American Rescue Plan Act (ARPA) will be utilized to construct this project at a cost not to exceed $\$ 3,000,000$ that will be appropriated in the Water Utility Reserve Fund. The proposed improvement of the East Water Main Extension Project includes the installation of approximately 7890 linear feet of 16" water main, complete with appurtenances, along Bellefontaine Road from 7060 Bellefontaine Road to a connection point at the intersection of Bellefontaine Road and Center Point 70 Boulevard.

## Fiscal Impact

Source of Funds:
Cost:
Recurring Cost? (Yes/No):

## Financial Implications:

The ARPA Fund will reimburse the Water Utility Reserve Fund for this project.

| Bid Results |
| :--- |
| Resolution |

## CITY OF HUBER HEIGHTS EAST WATER MAIN EXTENSION BID RESULT <br> BID DATE: JUNE 24, 2022

| CONTRACTOR'S NAME | BID AMOUNT |  |
| :---: | :---: | :---: |
| Brackney, Inc | \$3,902,976.00 | 365 Calendar Days |
|  | Bid Bond - Yes |  |
| C.G.Construction | \$ 2,936,765.00 | 500 Calendar Days |
|  | Bid Bond - Yes |  |
| Outdoor | \$ 3,118,605.50 | 677 Calendar Days |
|  | Bid Bond - Yes |  |
| Kinnison Excavating | \$4,134,390.00 | 300 Calendar Days |
|  | Bid Bond - Yes |  |

## CITY OF HUBER HEIGHTS <br> STATE OF OHIO

RESOLUTION NO. 2022-R-

## INCREASING THE NOT TO EXCEED AMOUNT AND AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT FOR THE EAST WATER MAIN EXTENSION PROJECT

WHEREAS, City Council under Resolution No. 2022-R-7129, dated May 23, 2022, has previously authorized the securing of bids for the East Water Main Extension Project; and

WHEREAS, construction bids were received on June 24, 2022; and

WHEREAS, there are adequate funds available to cover the cost of this work.
NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Huber Heights, Ohio that:

Section 1. The City Manager is hereby authorized to enter into a contract for the East Water Main Extension Project with C.G. Construction \& Utilities, Inc. as the lowest and best bidder at a cost not to exceed $\$ 3,000,000.00$ on the terms and conditions as substantially set forth in the specifications of the contract.

Section 2. 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 this Council and all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of Ohio Revised Code.

Section 3. This Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:

## AUTHENTICATION:

## Clerk of Council

Date

## Mayor

New Business R.
City Manager

City Council Meeting
Meeting Date: 07/25/2022
2022 Water Main Replacement - Contract Modification
Submitted By: Hanane Eisentraut
Department: Engineering Division: Engineering
Council Committee Review?: Council Date(s) of Committee Review: 07/19/2022
Work
Session
Audio-Visual Needs: None Emergency Legislation?: No

## Motion/Ordinance/

Resolution No.:
Agenda Item Description or Legislation Title
A Resolution Amending Resolution No. 2022-R-7141 To Modify The Contract With M \& T Excavating, LLC For The 2022 Water Main Replacement Program.
(first reading)
Purpose and Background
This legislation will authorize the modification of the contract with M \& T Excavating, LLC to replace the water main on Cruxten Drive from Chesham Drive to Tilbury Road. Federal grant as part of the American Rescue Plan Act (ARPA) Fund will be utilized for this work at a cost not to exceed \$380,000.00.

Fiscal Impact
Source of Funds:
Cost:
Recurring Cost? (Yes/No):
Funds Available in Current Budget? (Yes/No): YES
Financial Implications:

## Attachments

Map
Resolution


## CITY OF HUBER HEIGHTS <br> STATE OF OHIO

RESOLUTION NO. 2022-R-

## AMENDING RESOLUTION NO. 2022-R-7141 TO MODIFY THE CONTRACT WITH M \& T EXCAVATING, LLC FOR THE 2022 WATER MAIN REPLACEMENT PROGRAM.

WHEREAS, City Council under Resolution No. 2022-R-7120, dated April 25, 2022, has previously authorized the securing of bids for the 2022 Water Main Replacement Program; and

WHEREAS, City Council under Resolution No. 2022-R-7141, dated June 27, 2022, has previously authorized the City Manager to enter into a contract with M \& T Excavating, LLC to construct water mains on only three streets out of five that were bid; and

WHEREAS, the replacement of water main on Cruxten Drive from Chesham Drive to Tilbury Road was originally deferred to next year's work when more funding will be available; and

WHEREAS, City Council has determined to use the federal grant as part of the American Rescue Plan Act (ARPA) Fund for the replacement of water main on Cruxten Drive and include it in the 2022 Water Main Replacement Program.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Huber Heights, Ohio that:
Section 1. Resolution No. 2022-R-7141 is hereby amended to modify the contract with M \& T Excavating, LLC to replace the water main on Cruxten Drive from Chesham Drive to Tilbury Road at a cost not to exceed $\$ 380,000.00$ on the terms and conditions as substantially set forth in the specifications of the contract.

Section 2. 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 this Council and all deliberations of this Council and of any of its Committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements including Section 121.22 of Ohio Revised Code.

Section 3. This Resolution shall go into effect upon its passage as provided by law and the Charter of the City of Huber Heights.

Passed by Council on the $\qquad$ day of $\qquad$ 2022;
$\qquad$ Yeas; $\qquad$ Nays.

Effective Date:

## AUTHENTICATION:

Clerk of Council

Date

Mayor

Date


[^0]:    - Primary Trips + Pass-by Tips, - Pass-by Trips Generated, - Percent (\%) of ${ }^{\text {ATo }}$
    *     - Taken from ITE LUC 960 based on Vehicle Fueling Positions
    ** - No internal ITE capture rate. Internal Capture rate estimated at $75 \%$ since most car washes come directly from fueling customers.

[^1]:    \$ - Delay exceeds 300 seconds.

[^2]:    \$ - Delay exceeds 300 seconds.

[^3]:    Plans reviewed by the Huber Heights Fire Division are reviewed with the intent they comply in ALL respects to this code, as prescribed in SECTION (D) $\mathbf{1 0 4 . 1}$ of the $\mathbf{2 0 1 7}$ Ohio Fire Code. Any omissions or errors on the plans or in this review do not relieve the applicant of complying with ALL applicable requirements of this code. These plans have been reviewed for compliance with the Ohio Fire Code adopted by this jurisdiction. There may be other regulations applicable under local, state, or federal statues and codes, which this department has no authority to enforce and therefore have not been evaluated as part of this plan review.

