CITY OF HUBER HEIGHTS
STATE OF OHIO

City Council Work Session

July 19, 2022
6:00 P.M.
City Hall – Council Chambers – 6131 Taylorsville Road

1. **Call Meeting To Order/Roll Call**

2. **Approval of Minutes**

   A. July 5, 2022

3. **Work Session Topics Of Discussion**

   A. City Manager Report/Water Infrastructure Update

   B. Supplemental Appropriations

   C. 2022 Sidewalk Program - Ordinance Of Assessment

   D. Chambersburg Road West - Engineering Design - Award Contract

   E. Increase Not To Exceed Amount - Maintenance Contract - Veolia Water

   F. CRA Agreement - Hayden Apartments, LLC - 5550 Huber Road

G. Case BDP 22-13 - Hartman I, LLC - Rezoning/Basic Development Plan - 7611 Old Troy Pike

H. Case RZ 22-17 - Michael Skilwies - Rezoning/Replat - 9416 Taylorsville Road

I. Case MJC 22-21 - Skilken Gold Real Estate Development - Major Change/Basic Development Plan - Old Troy Pike/Taylorsville Road.

J. Case BDP 22-25 - Homestead Development - Basic Development Plan - 6209 Brandt Pike

K. Case MJC 22-27 - Ruetschle Architects - Basic/Detailed Development Plans - 5400 Chambersburg Road

L. Water Main Replacement Program

M. East Water Main Extension Project - Award Contract

N. Ordinance To Appropriate Property - Well Field

O. A/V Equipment - Council Chambers

P. City Staffing Levels/Table Of Organization

Q. City Manager Search Process

4. **Adjournment**

AI-8533 **Topics of Discussion** **B.**

Council Work Session

Meeting Date: 07/19/2022

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 **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Supplemental Appropriations

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.
- $87,000 addition to the Chambersburg Road widening project for design contract that was above the budgeted amount.

Fiscal Impact

Source of Funds: Gas Tax and Capital Improvement Funds

Cost: $157,000

Recurring Cost? (Yes/No): No

Funds Available in Current Budget? (Yes/No): Yes

Financial Implications:

Attachments

Ordinance

CITY OF HUBER HEIGHTS
STATE OF OHIO

ORDINANCE NO. 2022-O-

AUTHORIZING ADVANCES AND TRANSFERS BETWEEN VAROUS 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 _____ day of _____ , 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	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 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.

Gasoline Tax Fund	$70,000.00
Capital Improvements Fund	$87,000.00

AI-8537 **Topics of Discussion** C.

Council Work Session

Meeting Date: 07/19/2022

2022 Sidewalk Program - Ordinance Of Assessment

Submitted By: Hanane Eisentraut

Department: Engineering **Division:** Engineering

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** Yes

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

2022 Sidewalk Program - Ordinance Of Assessment

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 8, 2022 to make payment. 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

CITY OF HUBER HEIGHTS
STATE OF OHIO

ORDINANCE NO. 2022-O-

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 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-R-7028 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 8, 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 _____ day of _____, 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8534 **Topics of Discussion** D.

Council Work Session

Meeting Date: 07/19/2022

Chambersburg Road West - Engineering Design - Award Contract

Submitted By: Hanane Eisentraut

Department: Engineering **Division:** Engineering

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Chambersburg Road West - Engineering Design - Award Contract

Purpose and Background

The City of Huber Heights has applied for and received a grant through Miami Valley Regional Planning Commission (MVRPC) to reconstruct and widen Chambersburg Road from Old Troy Pike west to the City limit. The project consists of adjusting the vertical alignment of the roadway to eliminate a crest area in the pavement, widening the roadway from 2 to 3 lanes, installing curb, handicap ramps, storm sewer, 10’ sidewalk/bikepath on the north side, 5’ sidewalk on the south side, and extending the water main.

This legislation will authorize the employment of Choice One Engineering, an ODOT qualified consulting engineering and land surveying firm, to prepare plans and specifications for the design of this needed improvement. The design process through ODOT is approximately 5 years. The construction should occur in 2026.

Fiscal Impact

Source of Funds: Street Capital Fund

Cost: $290,000

Recurring Cost? (Yes/No): No

Funds Available in Current Budget? (Yes/No): Yes

Financial Implications:

Attachments

Bid Results

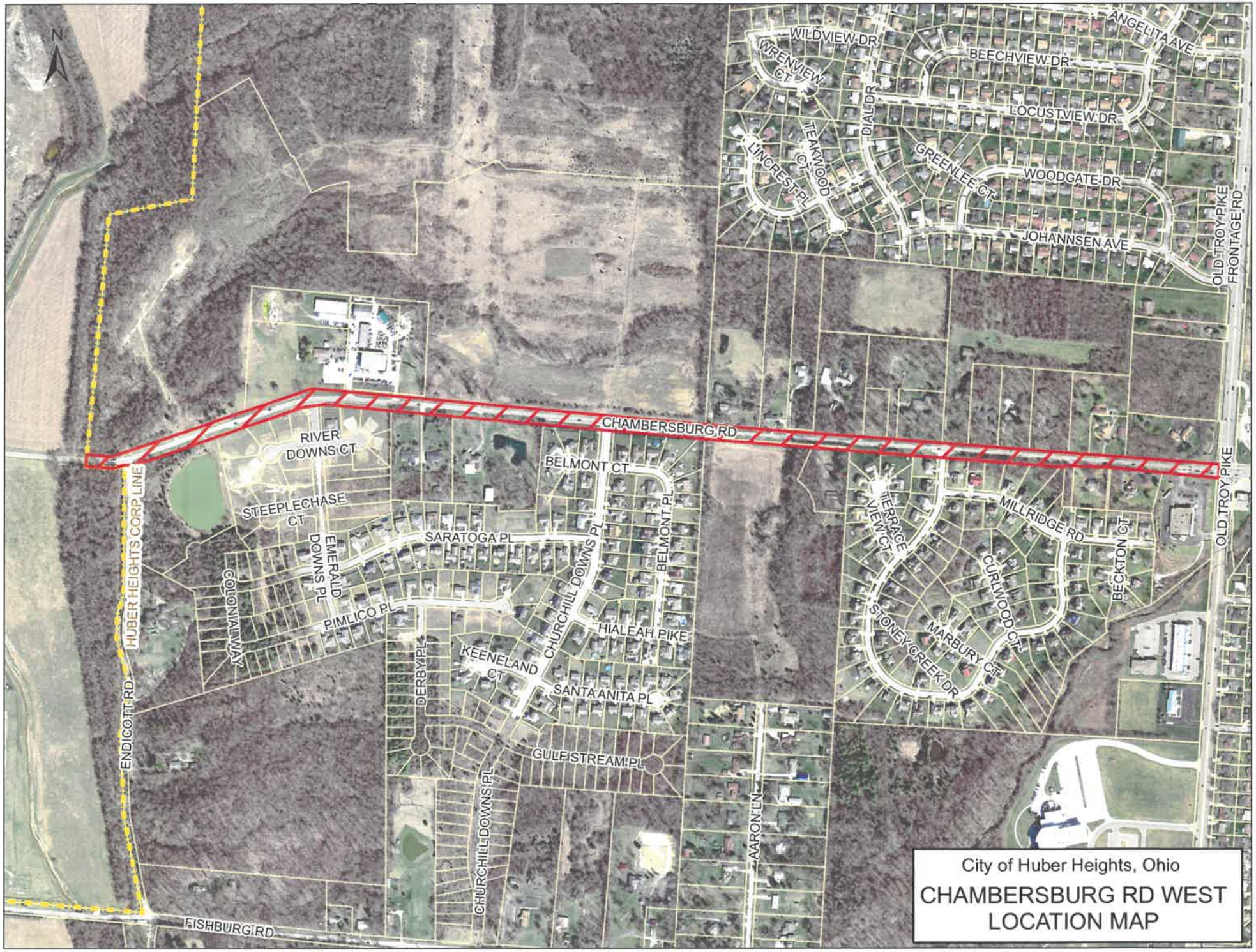
Map

Resolution

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 Cost of Requested Items


N
WILDVIEW DR
WRENVIEW CT
ANGELITA AVE
BEECHVIEW DR
LOCUST VIEW DR
DIAL DR
TEAKWOOD CT
LINCREST PL
GREENLEE CT
WOODGATE DR
JOHANNSEN AVE
OLD TROY PIKE FRONTAGE RD
CHAMBERSBURG RD
RIVER DOWNS CT
BELMONT CT
STEEPLECHASE CT
SARATOGA PL
EMERALD DOWNS PL
COLONIAL WAY
PIMLICO PL
CHURCHILL DOWNS PL
BELMONT PL
HIALEAH PIKE
KEENELAND CT
SANTA ANITA PL
DERBY PL
GULF STREAM PL
CHURCHILL DOWNS PL
AARON LN
HUBER HEIGHTS CORP LINE
ENDICOTT RD
FISHBURG RD
TERRACE VIEW CT
MILLRIDGE RD
CURLWOOD CT
BECKTON CT
STONEY CREEK DR
MARBURY CT
OLD TROY PIKE
City of Huber Heights, Ohio
CHAMBERSBURG RD WEST
LOCATION MAP

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 _____ day of _____, 2022;
_____Yeas; _____Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8535 **Topics of Discussion** **E.**

Council Work Session

Meeting Date: 07/19/2022

Increase Not To Exceed Amount - Maintenance Contract - Veolia Water

Submitted By: Hanane Eisentraut

Department: Engineering **Division:** Engineering

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Increase Not To Exceed Amount - Maintenance Contract - Veolia Water

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: Water/Sewer Funds

Cost: $420,000

Recurring Cost? (Yes/No): No

Funds Available in Current Budget? (Yes/No): Yes

Financial Implications:

Attachments

Maintenance Cap Expenditures

Resolution

Vendor		Amount	Description
Buckeye Pumps	$	2,726.00	New Carlisle 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
CCI	$	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		Amount	Description
National Water Services LLC	$	1,250.00	Well #1 motor removal & swap
National Water Services LLC	$	4,387.00	8" Butterfly valve replacement
OUPS	$	36.00	Monthly maintenance fee
Paulus Lawn and Landscape	$	451.50	Grounds maintenance at Plants
Lee Shellhaas	$	1,600.00	Concrete repair for mainbreak repair - Tuesday Villas & Troy Manor
Buckeye Pumps	$	5,648.00	Vitek pump replacement
United Rentals	$	811.83	Repair to shoring equipment from accident - equipment used for mainbreak repairs
M&R Electric	$	11,535.00	Motor for Well #6 at RRRWTP
Regal Plumbing	$	1,553.87	Repair to fan in high service area at Plant
Lee Shellhaas	$	1,500.00	Concrete repair for mainbreak repair - 7008 Brandt Pk (Firehouse)
Lee Shellhaas	$	1,600.00	Concrete repair for mainbreak repair - 8678 Baton Rouge
Lee Shellhaas	$	1,400.00	Concrete repair for mainbreak repair - 7813 Harshmanville Rd
Towner Filtration	$	6,171.75	Nano filtration cartridge filters
Best Equipment	$	2,817.26	Replacement hose reel for Vaccon
Core & Main	$	2,779.11	Mainbreak repair
Element	$	610.41	Vehicle maintenance
Grainger	$	821.56	Ball valves for plant maintenance
Grainger	$	488.77	Ball valves for plant maintenance
Grainger	$	848.93	Ball valves for plant maintenance
Gasser's Garage	$	1,357.03	Dirt hauling from mainbreak repair
Lavy Enterprises LLC	$	956.68	Vehicle maintenance - Backhoe repair
Pollard Water	$	549.65	Replacement pole grabber fro sewer cleaning
Core & Main	$	669.19	Mainbreak repair
Core & Main	$	654.88	Mainbreak repair
Metex Corporation Limited	$	1,664.00	Replacement fluoride pump
BL Anderson	$	1,097.00	Replacement tubes for chemical feed pumps
Grainger	$	438.18	Ball valves for plant maintenance
USA Bluebook	$	1,376.38	Pump set used for chemical transferring (replacement)
Green Velvet	$	38.09	Sod for mainbreak repair
Huber Stone & Recycling LLC	$	26.88	Yard repair due to mainbreak repair
Huber Stone & Recycling LLC	$	1,520.00	Dirt hauling from mainbreak repair
Core & Main	$	2,161.39	Mainbreak and water line repair
Core & Main	$	(23.79)	Return of water line repair supplies
May	**$**	**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 Maintenanc	$	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 _____ day of _____, 2022;
_____Yeas; _____Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8536 **Topics of Discussion** F.

Council Work Session

Meeting Date: 07/19/2022

CRA Agreement - Hayden Apartments, LLC - 5550 Huber Road

Submitted By: Bryan Chodkowski

Department: Economic Development

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

CRA Agreement - Hayden Apartments, LLC - 5550 Huber Road

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: 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/192-unit 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 _____ day of _____ , 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

EXHIBIT A

SYNERGY & MILLS DEVELOPMENT
PRE JULY 1994
COMMUNITY REINVESTMENT AREA
AND DEVELOPMENT AGREEMENT

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.

EXHIBIT A

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	Its: Managing Member
Date: _____	Date: _____

STATE OF OHIO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20___, by _____, City Manager of Huber Heights, Ohio, on behalf of the City of Huber Heights, Ohio.

_____
Printed Name:_____
Notary

STATE OF OHIO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____, _____ of _____, an Ohio _____, on behalf of the company

_____
Printed Name:_____
Notary

AI-8505 **Topics of Discussion** **G.**

Council Work Session

Meeting Date: 07/19/2022

Case BDP 22-13 - Hartman I, LLC - Rezoning/Basic Development Plan - 7611 Old Troy Pike

Submitted By: Geri Hoskins

Department: Planning **Division:** Planning

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: SmartBoard **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Case BDP 22-13 - Hartman I, LLC - Rezoning/Basic Development Plan - 7611 Old Troy Pike

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.

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

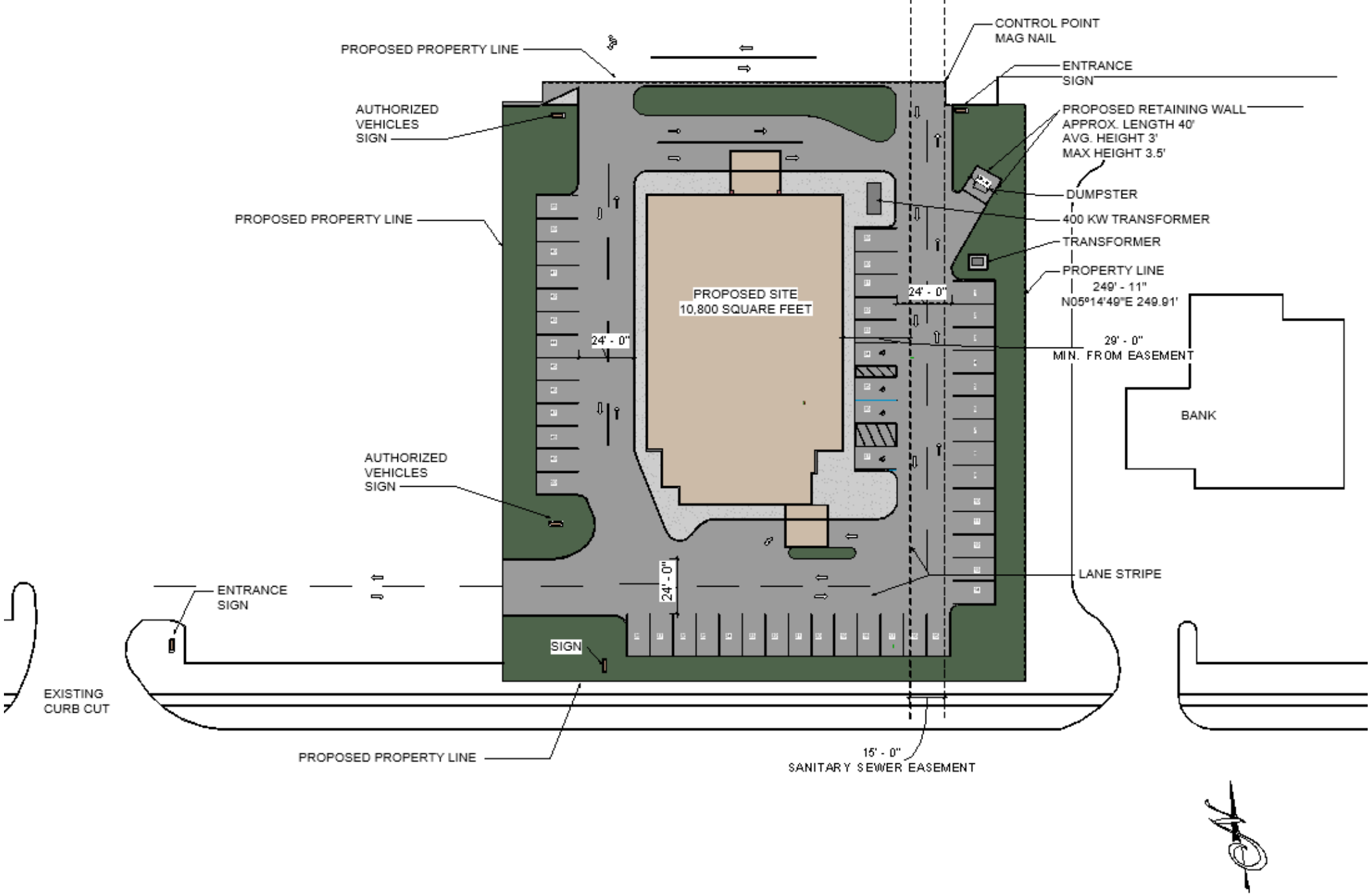
Fire Assessment

Staff Report

Decision Record

Minutes

Ordinance



TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

SCALE TO FIT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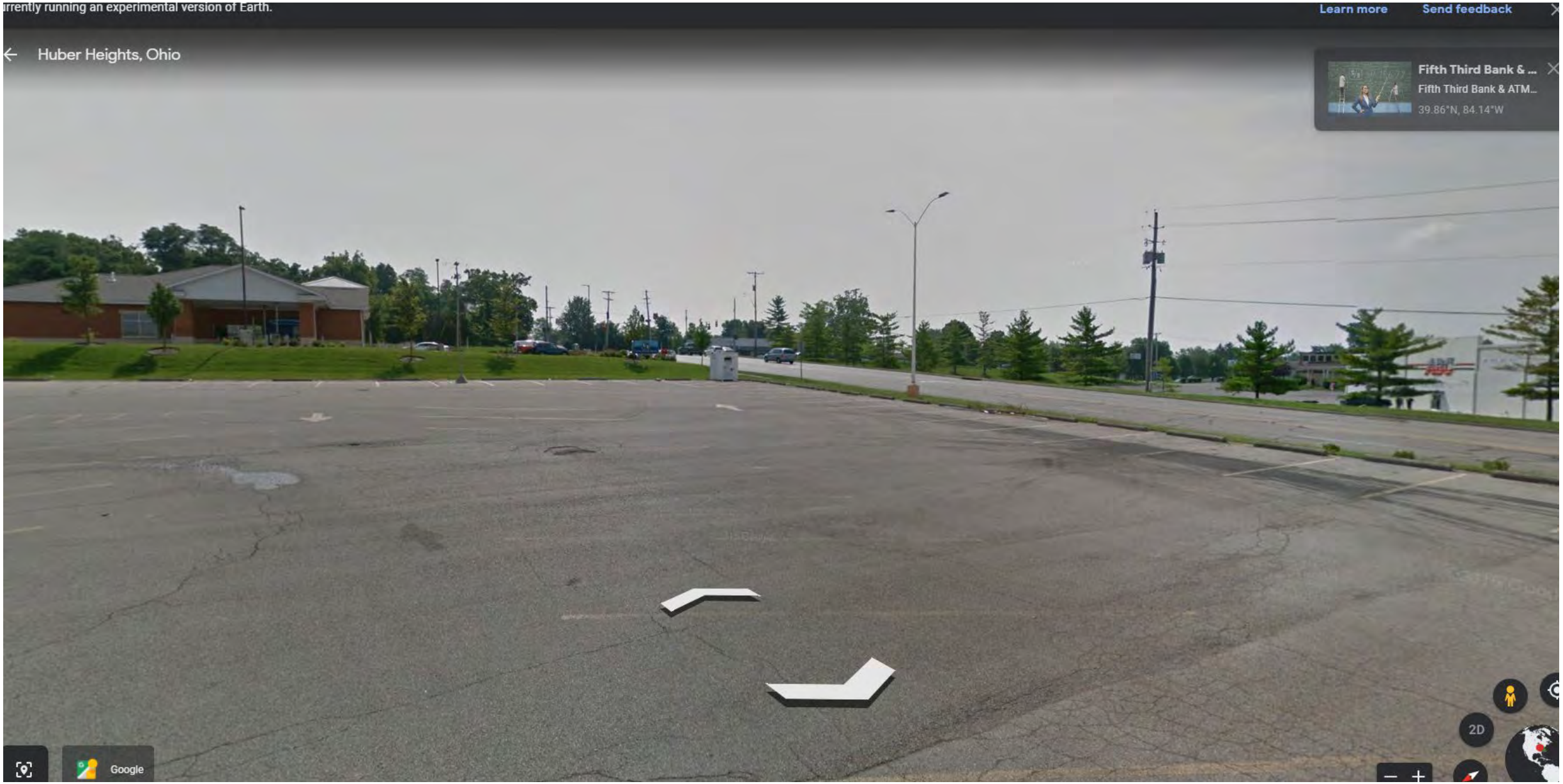
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Huber Heights Fire Division

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.

Administrative Office: 7008 Brandt Pike Huber Heights, Ohio 45424
Telephone: (937) 233 - 1564 Fax Number: (937) 233 - 4520

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
Community Planning Insights

Date: June 4, 2022

Subject: Basic Development Plan Review – Medical Facility
(7611 Old Troy Pike)

Application dated June 3, 2022

Department of Planning and Zoning City of Huber Heights

APPLICANT/OWNER: Hartman I, LLC – Applicant
Huber Heights ABG, LLC - Owners

DEVELOPMENT NAME: Huber Heights Medical Facility

ADDRESS/LOCATION: 7611 Old Troy Pike
(Currently Rural King parking/display area)

ZONING/ACREAGE: Planned Commercial - 1.1 acres

EXISTING LAND USE: Parking / Display Area

ZONING ADJACENT LAND: Planned Commercial

REQUEST: The applicant requests approval of a basic development plan and rezoning to Planned Office to construct a 10,800 SF emergency medical facility.

ORIGINAL APPROVAL: N/A

APPLICABLE HHCC: Chapter 1171, 1173, 1181,

CORRESPONDENCE: 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 3rd 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 5/3rd 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.

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 .

_____ _____

Terry Walton, Chair Date
Planning Commission

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 22-13).**

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 3rd 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 5/3rd 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 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. 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

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' 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.

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.

6/28/2022

Terry Walton, Chair — **Date**

6/28/22

Geri Hoskins, Administrative Secretary — **Date**

CITY OF HUBER HEIGHTS
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 04005 0140 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.

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 _____ day of _____, 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8539 **Topics of Discussion** **H.**

Council Work Session

Meeting Date: 07/19/2022

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 **Date(s) of Committee Review:** 07/05/2022 and 07/19/2022

Audio-Visual Needs: SmartBoard **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Case RZ 22-17 - Michael Skilwies - Rezoning/Replat - 9416 Taylorsville Road

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

Attachments

Drawings
Staff Report
Decision Record
Minutes
Presentation
Ordinance

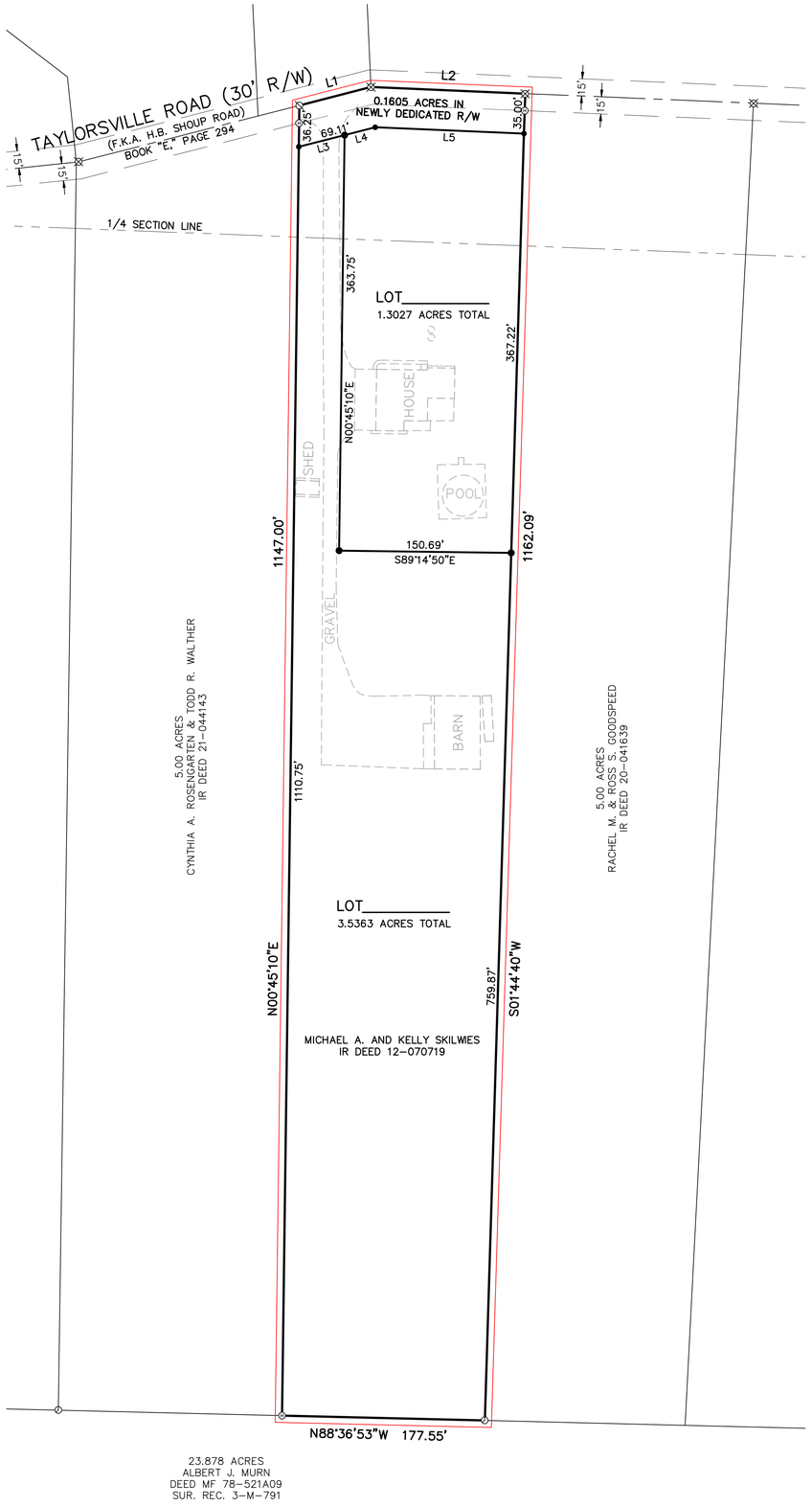
RECORD PLAN

SKILWIES PLAT NO. 1

AND BEING A PLAT OF A PARCEL
LOCATED IN SECTION 5, TOWN 2, RANGE 8 M.Rs.

CITY OF HUBER HEIGHTS
MONTGOMERY COUNTY, OHIO
CONTAINING 4.9995 ACRES

MAY 4, 2022



GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

BASIS OF BEARINGS:
- CENTERLINE OF TAYLORSVILLE ROAD – S87°34'44"E – SUR. VOL. 2014, PAGE 0393

SURVEY REFERENCES:
- ALL DEEDS, PLATS AND SURVEY RECORDS SHOWN ON THE FACE OF THIS SURVEY.

GENERAL NOTES:
- OCCUPATION, IN GENERAL, FITS THE SURVEY.
- ALL MONUMENTS WERE FOUND OR SET IN GOOD CONDITION.

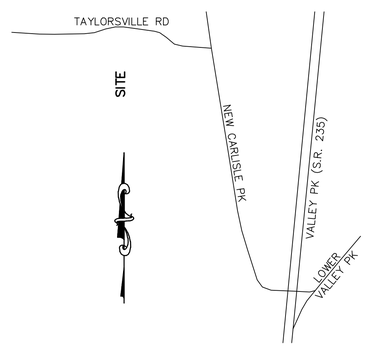
SUPERIMPOSED NOTE:
- ALL OF THE LANDS OF THE DEDICATORS, OF WHICH THIS PLAT IS DRAWN, ARE SHOWN HEREON.

DESCRIPTION:

SITUATE IN SECTION 5, TOWN 2, RANGE 8 M.Rs, CITY OF HUBER HEIGHTS, COUNTY OF MONTGOMERY, STATE OF OHIO AND BEING ALL OF A 5.000 ACRE TRACT CONVEYED TO MICHAEL A. AND KELLY SKILWIES IN DEED 12-070719.

CONTAINING 4.9995 TOTAL ACRES WITH 4.8390 ACRES IN LOTS AND 0.1605 ACRES IN NEWLY DEDICATED RIGHT-OF-WAY.

LINE TABLE		
LINE	BEARING	LENGTH
L1	N75°38'59"E	64.82'
L2	S87°34'44"E	135.13'
L3	N75°38'59"E	41.43'
L4	N75°38'59"E	27.68'
L5	S87°34'44"E	130.38'



VICINITY MAP
(NO SCALE)

DEDICATION:

We the undersigned, being all the owners and lien holders of the lands herein subdivided, do hereby acknowledge the making and signing of this instrument to be our voluntary act and deed and do hereby dedicate the street and reserve the easements as shown within the plat to the public use forever. New easements shown on the within plat are reserved for the construction, operation, maintenance, repair and replacement of water, sewer, gas, electric, telephone or other utility lines or services and for the express privileges of removing any and all trees or other obstructions to the free use of said utilities, and for providing ingress and egress from the premises for said purposes, and are to be maintained as such forever.

WITNESSES:

_____

Print Name: _____

_____

Print Name: _____

OWNERS:

_____
MICHAEL A. SKILWIES

_____
KELLY SKILWIES

Michael A. Skilwies, Owner, being duly sworn, says that all persons and corporations, to the best of his knowledge, interested in this dedication, either as owners or lien holders, have united in its execution.

_____
MICHAEL A. SKILWIES

LOT ACREAGE BREAKDOWN
4.8390 ACRES IN LOTS
0.1605 ACRES IN DEDICATED R/W
4.9995 ACRES TOTAL

SYMBOL LEGEND	
⊠	FOUND RAILROAD SPIKE
⊘	FOUND PK/MAG NAIL
⊘	FOUND 5/8" IRON PIN
⊙	FOUND 5/8" IRON PIN W/"HALEY-DUSA" CAP
Ø	SET MAG NAIL
●	SET 5/8" IRONP IN W/"HALEY-DUSA" CAP

STATE OF OHIO
THOMAS E. DUSA
S-7143
REGISTERED
SURVEYOR

APPROVED FOR DESCRIPTION

_____ 2022-0178RE
ENGINEER OF MONTGOMERY COUNTY JOB NO.

_____ _____
CHECKED BY DATE

PLANNING COMMISSION:
Approved by the City of Huber Heights Planning Commission on this_____day of_____, 20___.

_____

By: _____

STATE OF OHIO, COUNTY OF MONTGOMERY, SS:

Be it remembered that on this _____ day of _____, 2022, before me the undersigned, a notary public in and for said State of Ohio, personally came Michael A. and Kelly Skilwies, Owners, and acknowledged the signing and execution of the within plat to be their voluntary act and deed.

In testimony whereof, I hereunto set my hand and notary seal on the day and date above written.

_____

NOTARY PUBLIC _____

MY COMMISSION EXPIRES _____

In testimony whereof, I hereunto set my hand and notary seal on the day and date above written.

_____

NOTARY PUBLIC _____

MY COMMISSION EXPIRES _____

CERTIFICATION:

I hereby certify that this plat was prepared in accordance with Ohio Administrative Code Chapter 4733.37 Standards for Surveys and also conforms to the Ohio Revised Code Chapter 711 for Record Plans and was conducted under my supervision based on field work in March of 2022. All measurements are correct and monuments are to be set on all lot corners as shown.

_____
Thomas E. Dusa, P.S.
OHIO LICENSE NO. S-7143

PREPARED BY:

Haley-Dusa
Engineering & Surveying Group, LLC
270 Regency Ridge Drive, Suite 203
Dayton, Ohio 45459
Phone: (937) 439-4300 Fax: (937) 439-2005
Email: haleydusa@haleydusa.com
Website: www.haleydusa.com

Scale: 1"=60'	Drawn: SBM	Checked: TED
Date: 05-04-2022	Job No. S4916	

Memorandum

Staff Report for Meeting of May 24, 2022

To: Huber Heights City Planning Commission

From: 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: A – Agricultural (5 acres)

EXISTING LAND USE: Residential

ZONING ADJACENT LAND: Agricultural

REQUEST: 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.

ORIGINAL APPROVAL: N/A

APPLICABLE HHCC: Chapter 1109, 1171, 1177

CORRESPONDENCE: 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 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. 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.

(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, 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

(l) 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: 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.

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 ¼ to ½ 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.

(l) 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 03902 0018 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';

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 .

_____ _____

Terry Walton, Chair Date
Planning Commission

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: 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 ¼ to ½ 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 – 6pm 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 03902 0018 of the Montgomery County Auditor's Map (Case RZ 22-17) 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
9416 Taylorsville Rd

Request for Approval of Rezoning and Replat

July 11, 2022

Site Details:

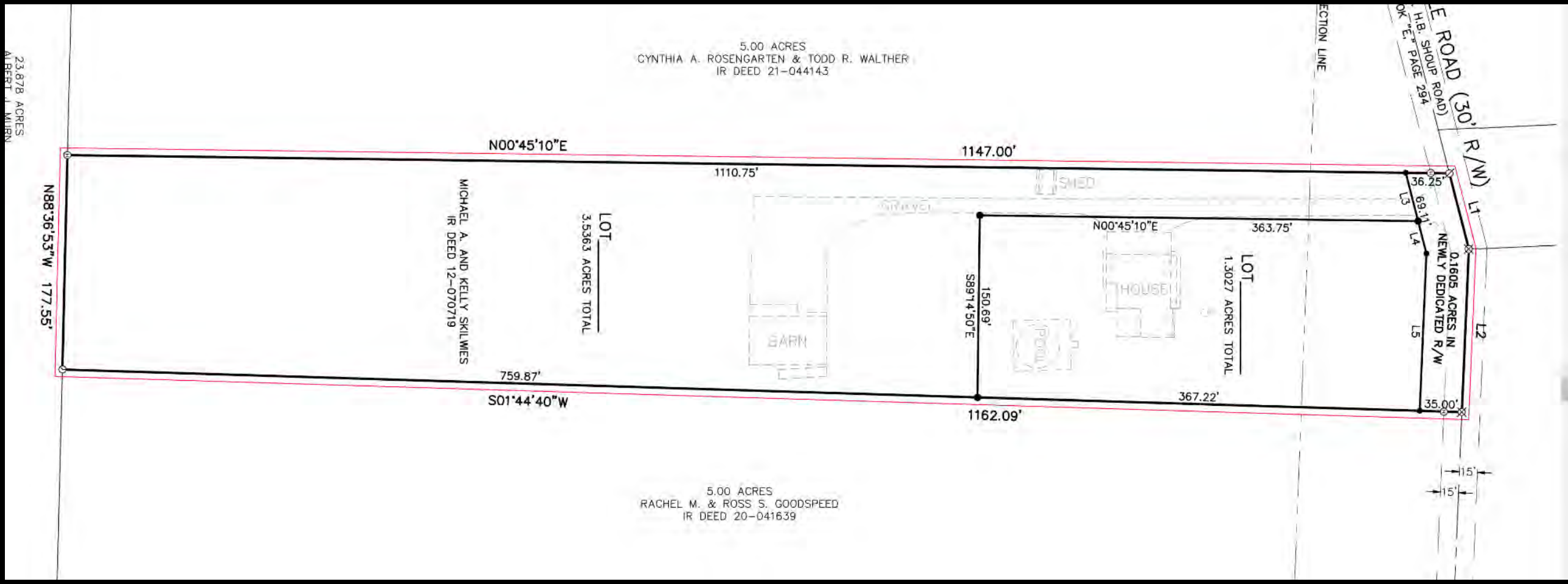
- 5 acres, zoned A (Agricultural)
- Existing land use is residential
- Surrounding property is zoned Agricultural

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


P70 03902 0001
TAYLORSVILLE RD
NEW CARLISLE PIKE
STATE ROUTE 4
STATE ROUTE 4
STATE ROUTE 23
P70 03902 0013
P70 03902 0056
P70 03902 0016
014 0008
P70 03902 0030
VALLEY PIKE


0 03902 0001
9303
P70 03902 0033
9459
9491
P70 02024 0001
7700
P70 03902 0036
SVILLE RD
I-1
9174
9266
9304
9378
9416
9454
9340
9550
R-1
7570
9220
P70 03902 0024
P70 03902 0025
P70 03902 0020
P70 03902 0049
P70 03902 0050
P70 03902 0052
P70 03902 0018
P70 03902 0051
P70 03902 0053
P70 03902 0009
A
7401
9492
NEW CARLISLE PIKE
P70 03902 0030
7340
3902 0016


5.00 ACRES
CYNTHIA A. ROSENGARTEN & TODD R. WALTHER
IR DEED 21-044143
23.878 ACRES
ALBERT J. MURN
N00°45'10"E
1147.00'
1110.75'
N88°36'53"W 177.55'
MICHAEL A. AND KELLY SKILWIES
IR DEED 12-070719
LOT
3.5363 ACRES TOTAL
759.87'
S01°44'40"W
GARAGE
BARN
SHED
150.69'
S89°14'50"E
1162.09'
N00°45'10"E
363.75'
HOUSE
POOL
LOT
1.3027 ACRES TOTAL
367.22'
5.00 ACRES
RACHEL M. & ROSS S. GOODSPEED
IR DEED 20-041639
ECTION LINE
E ROAD (30' R/W)
H.B. SHOUP ROAD)
OK "E", PAGE 294
36.25'
69.11'
35.00'
L1
L2
L3
L4
L5
0.1605 ACRES IN
NEWLY DEDICATED R/W
15'
15'

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, …….."

- 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 ¼ to ½ 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 – 6pm may reduce the impacts of this facility on the neighboring residents, especially in the evenings and weekends.

Staff Analysis

(l) 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
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 03902 0018 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 _____ day of _____ , 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8519 **Topics of Discussion** I.

Council Work Session

Meeting Date: 07/19/2022

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

Agenda Item Description or Legislation Title

Case MJC 22-21 - Skilken Gold Real Estate Development - Major Change/Basic Development Plan - Old Troy Pike/Taylorsville Road.

Purpose and Background

The applicant, Skilken Gold Real Estate Development, is requesting a Major Change to the Basic Development Plan.

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

CITY OF HUBER HEIGHTS, MONTGOMERY COUNTY, OHIO

SITE IMPROVEMENTS

FOR

COMMERCIAL SITE

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO 45424

DEVELOPER:
SKILKEN GOLD REAL ESTATE DEVELOPMENT
4270 MORSE ROAD
COLUMBUS, OH 43230
PHONE: (614) 282-0936
CONTACT: BETH COTNER

ENGINEER:
CESO, INC.
2800 CORPORATE EXCHANGE DR, SUITE 400
COLUMBUS, OH 43231
PHONE: (380) 799-5227
CONTACT: JOSH LONG
EMAIL: JOSH.LONG@CESOINC.COM

GOVERNING AGENCIES AND UTILITY COMPANIES:

SEWER:
CITY OF HUBER HEIGHTS
PHONE: (937) 233-1423
CONTACT: RUSS BERGMAN
EMAIL: RBERGMAN@HHOH.ORG

GAS SERVICE:
CENTER POINT ENERGY
PHONE: 1 (800) 227-1376

WATER:
CITY OF HUBER HEIGHTS
PHONE: (937) 233-1423
CONTACT: RUSS BERGMAN
EMAIL: RBERGMAN@HHOH.ORG

COMMUNICATIONS:
SPECTRUM
PHONE: (888) 406-7063

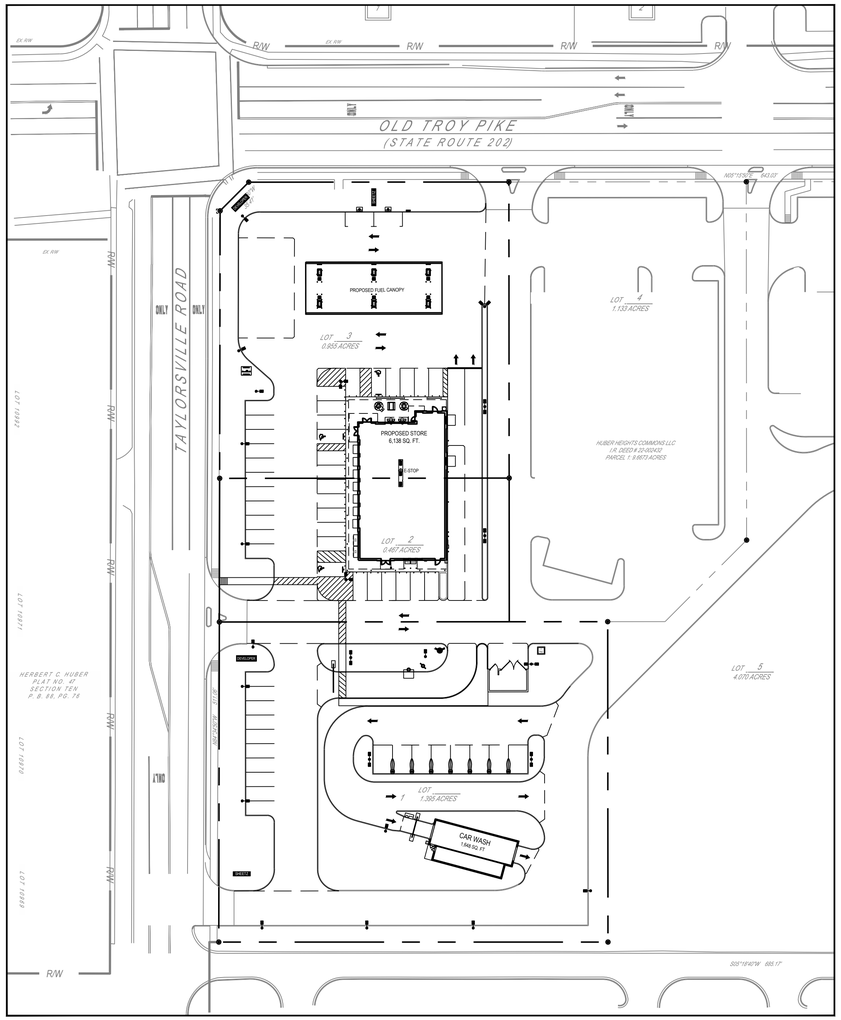
STORMWATER:
CITY OF HUBER HEIGHTS
PHONE: (937) 233-1423
CONTACT: RUSS BERGMAN
EMAIL: RBERGMAN@HHOH.ORG

ELECTRIC:
DAYTON POWER & LIGHT
PHONE: (937) 331-3900

ZONING:
CITY OF HUBER HEIGHTS
PHONE: (937) 237-5815
CONTACT: DON MILLARD
EMAIL: DMILLARD@HHOH.ORG

PROPERTY DATA:

PARCEL OWNER:	VINEBROOK HOMES, LLC
PARCEL ID:	P70040050015
ADDRESS:	OLD TROY PIKE & TAYLORSVILLE ROAD HUBER HEIGHTS, OH 45424
PROPERTY AREA:	2.82 AC
ZONING:	PUD (MIXED USE PLANNED UNIT DEVELOPMENT)
PROPOSED USE:	AUTOMOBILE SERVICE STATION AND CAR WASH
	PROPOSED
PARKING:	
TOTAL PARKING SPACES:	55
ADA PARKING SPACES:	3 (1 VAN)
FLOODPLAIN DESIGNATION:	ZONE X - AREA OF MINIMAL FLOOD HAZARD



INDEX MAP
SCALE: 1" = 50'

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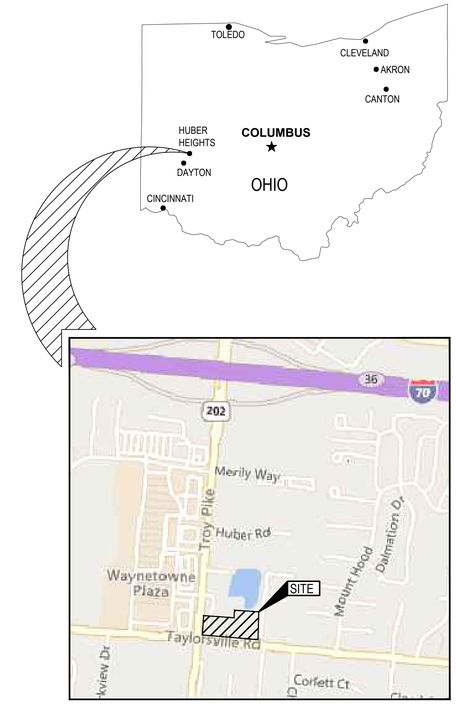
50 0 50 100

GRAPHIC SCALE (IN FEET)
1 in. = 50 ft.



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VICINITY MAP
NO SCALE

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
C1.0	TITLE SHEET
C1.1	GENERAL NOTES
C1.2	GENERAL NOTES
C2.0	SITE PLAN
C3.0	GRADING PLAN
C4.0	UTILITY PLAN
C4.1	STORM SEWER PROFILES
C5.0	EROSION & SEDIMENT CONTROL PLAN
C5.1	EROSION & SEDIMENT CONTROL DETAILS
C6.0	CONSTRUCTION DETAILS
C6.1	CONSTRUCTION DETAILS
C6.2	CONSTRUCTION DETAILS
C6.3	UTILITY DETAILS
C7.0	PHOTOMETRIC PLAN
C7.1	PHOTOMETRIC DETAILS
L1.0	PLANTING PLAN
L1.1	PLANTING PLAN
L2.0	PLANT DETAILS & NOTES

ODOT STANDARD DETAILS

CB 2-2A	CB 3A

OHIO Utilities Protection SERVICE
811 or 1-800-362-2764
Call Before You Dig

FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 1 (800) 362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF OHIO UTILITIES PROTECTION SERVICE

CESO
WWW.CESOINC.COM

NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
JOSHUA LONG
E-86142
REGISTERED PROFESSIONAL ENGINEER

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

TITLE SHEET

ISSUE: OWNER REVIEW
DATE: 04.29.2022
JOB NO.: 760396
DESIGN: MST
DRAWN: MST
CHECKED: BJH
SHEET NO. C1.0

GENERAL NOTES

DEMOLITION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. THE DEMOLITION, REMOVAL, AND DISPOSAL IS TO BE APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL FACILITIES SUCH AS: STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, WELLS, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL AS SPECIFIED BY A QUALIFIED PROFESSIONAL GEOTECHNICAL ENGINEER. IF UNDOCUMENTED FACILITIES ARE FOUND ON SITE, CONTRACTOR SHALL CONTACT THE OWNER AND UTILITY COMPANY PRIOR TO REMOVAL. ALL FACILITIES SHALL BE PLUGGED, ABANDONED, OR REMOVED PER STATE AND LOCAL REQUIREMENTS.
2. FEDERAL, STATE AND LOCAL CODE REQUIREMENTS SHALL GOVERN THE DISPOSAL OF DEBRIS INCLUDING ANY POTENTIALLY HAZARDOUS AND TOXIC MATERIALS. ALL MATERIALS AND STRUCTURES DESIGNATED AS "TO BE REMOVED" SHALL BE DISPOSED OF OFF SITE AND AT THE COST OF THE CONTRACTOR.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING JOB SITE SAFETY PER OSHA REQUIREMENTS AT ALL TIMES.
4. PRIOR TO DEMOLITION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL THE STATE 811 AND NOTIFY ALL UTILITY COMPANIES TO SCHEDULE UTILITY SERVICE REMOVAL AND/OR ABANDONMENT. ALL UTILITIES SHALL BE REMOVED/ELOCATED PER THE SPECIFICATIONS OF THE UTILITY COMPANIES. THE CONTRACTOR IS RESPONSIBLE TO PAY ALL FEES AND CHARGES ASSOCIATED WITH THIS WORK
5. CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO INHABITED BUILDINGS ON SITE AND ADJACENT PROPERTIES AT ALL TIMES. INTERRUPTIONS SHALL BE APPROVED BY THE OWNERS OF THE BUILDINGS/PROPERTIES.
6. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES. IF THE LOCATION OR ELEVATION OF THE EXISTING UTILITIES ARE FOUND TO BE DIFFERENT FROM THE PLANS, CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
7. CONTRACTOR SHALL PROTECT EXISTING SITE FEATURES TO REMAIN INSIDE AND OUTSIDE CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGES AND NOTIFY THE CITY/COUNTY PRIOR TO CONSTRUCTION START. ANY EXISTING SITE FEATURE TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, CURB, ETC. SHALL BE REPAIRED TO A CONDITION THAT IS EQUAL TO, OR BETTER THAN, THE EXISTING CONDITIONS. PRIOR TO BEING DAMAGED, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST.
8. CONTINUOUS ACCESS SHALL BE MAINTAINED TO THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL. ALL TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND LOCAL REGULATIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING CONSTRUCTION FENCE, SIGNS, ETC. TO WARN AND KEEP UNAUTHORIZED PEOPLE OFF SITE FOR THE DURATION OF THE PROJECT.
11. PRIOR TO DEMOLITION, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED PER THE GOVERNING AGENCIES GUIDELINES AND STANDARDS. DUST CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12. SAWCUT LINE PROVIDED IS FOR REFERENCE ONLY. CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE EXTENT OF THE SAWCUT THAT WILL BE REQUIRED AS WELL AS PAVEMENT REPAIRS TO INSTALL UTILITY TRENCHING. IF ANY DAMAGE OCCURS ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THAT WHICH IS NECESSARY TO COMPLETE THE INTENT OF THE PROPOSED IMPROVEMENTS. SAWCUT EXISTING PAVEMENT TO FULL DEPTH, USING CARE TO CUT NEAT, STRAIGHT LINES. CUT AT EXISTING JOINTS WHERE POSSIBLE.
13. THE CONTRACTOR SHALL MAINTAIN A WELL-DRAINED SITE, FREE OF STANDING WATER DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DRAINAGE MEASURES DURING CONSTRUCTION.
14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO STUDY THE PLANS AND VISIT THE SITE TO DETERMINE THE ITEMS THAT MUST BE REMOVED TO COMPLY WITH THE SITE DEVELOPMENT PLANS. NO EXTRA FEE WILL BE PAID FOR THE REMOVAL OF ANY ITEM NOT LISTED THAT IS VISIBLE UPON A SITE VISIT. THE DEMOLITION PLAN IS INTENDED TO PRESENT THE SCOPE OF THE DEMOLITION, AND DOES NOT GUARANTEE THAT ALL ITEMS ARE ADDRESSED.
15. THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR ALL SITE DEVELOPMENT WORK, PAY ALL FEES FOR PERMITS AND CHECK ALL GOVERNING AUTHORITIES' SPECIFICATIONS FOR BUT NOT LIMITED TO, GUTTERS, SIDEWALKS, POLES, AND OTHER STRUCTURES, INCLUDING THE REMOVAL OR RELOCATION OF EXISTING UTILITIES OR OTHER PHYSICAL OBJECTS SHOWN ON PLANS OR NOTED OTHERWISE.
16. THE CONTRACTOR SHALL CREATE AND IMPLEMENT AN EROSION AND SEDIMENTATION CONTROL PLAN FOR ALL SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT. THE PLAN MUST CONFORM TO THE EROSION AND SEDIMENTATION REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT OR LOCAL STANDARDS AND CODES, WHICHEVER IS MORE STRINGENT.
17. ALL COSTS FOR INSPECTIONS AND/OR TESTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS NOTED OTHERWISE.

SITE NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. ALL MATERIAL NOTED ON DRAWINGS WILL BE SUPPLIED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS TO COORDINATE ACCESS POINTS AND ELEVATIONS. REFER TO ARCHITECTURAL PLANS. FOR EXACT LOCATIONS AND DIMENSIONS OF DOORS, ENTRY RAMP, AND CANOPY.
4. THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR ALL SITE DEVELOPMENT WORK, PAY ALL FEES FOR PERMITS AND CHECK ALL GOVERNING AUTHORITIES' SPECIFICATIONS FOR BUT NOT LIMITED TO, GUTTERS, SIDEWALKS, POLES, AND OTHER STRUCTURES, INCLUDING THE REMOVAL OR RELOCATION OF EXISTING UTILITIES OR OTHER PHYSICAL OBJECTS SHOWN ON PLANS OR NOTED OTHERWISE.
5. THE CONTRACTOR SHALL CREATE AND IMPLEMENT AN EROSION AND SEDIMENTATION CONTROL PLAN FOR ALL SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT. THE PLAN MUST CONFORM TO THE EROSION AND SEDIMENTATION REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT OR LOCAL STANDARDS AND CODES, WHICHEVER IS MORE STRINGENT.
6. ALL COSTS FOR INSPECTIONS AND/OR TESTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS NOTED OTHERWISE.
7. ACCESSIBILITY STANDARDS SHALL BE IN ACCORDANCE WITH FEDERAL AND LOCAL REQUIREMENTS FOR HANDICAP ACCESSIBILITY, INCLUDING BUT NOT LIMITED TO THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES. ADA PARKING STALLS SHALL MEET ADA GRADE GUIDELINES. CONTRACTOR SHALL FIELD VERIFY EXISTING GRADES AT ACCESS POINTS, ACCESSIBLE ROUTES, AND EXISTING PARKING TO REMAIN TO DETERMINE COMPLIANCE WITH STANDARDS.
8. ALL DISTURBED AREAS ARE TO RECEIVE 6" OF TOPSOIL, SEED, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
9. ALL DIMENSIONS AND RADII ARE TO THE EDGE OF PAVEMENT OR FACE OF BUILDING, AS APPLICABLE, UNLESS OTHERWISE NOTED.
10. ALL CURB RADII ARE 5 FEET UNLESS OTHERWISE NOTED.
11. PROVIDE SIGNAGE AND STRIPING AS SHOWN. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL COMPLY WITH THE GOVERNING MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). PAVEMENT MARKINGS ON ASPHALT SHALL BE WHITE. PAVEMENT MARKINGS ON CONCRETE SHALL BE YELLOW.
12. REFER TO ARCHITECTURAL PLANS FOR PROPOSED BUILDING SIGNAGE.
13. REFER TO MECHANICAL PLANS FOR EQUIPMENT LAYOUT.
14. REFER TO ELECTRICAL PLANS FOR ELECTRICAL WORK.
15. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR SITE WORK PREPARATION/RECOMMENDATIONS AND PAVEMENT SECTIONS.
16. ALL LIGHT POLES TO BE LOCATED 3' FROM THE BACK OF CURB, AS MEASURED FROM THE FACE OF POLE FOUNDATION, UNLESS OTHERWISE DENOTED ON PLANS.
17. REFER TO ORIGINAL SURVEY PROVIDED BY BURKHARDT.
18. EXISTING CONDITIONS BASED ON PLANS BY BURKHARDT, DATED 02/16/2022.
19. RECORD PLAN BY BURKHARDT, DATED 02/07/2022.

GRADING NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. THE TOPOGRAPHIC SURVEY WAS PERFORMED BY A REGISTERED LAND SURVEYOR. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
3. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
4. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE EPA OR APPLICABLE STATE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
5. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS ARE SHOWN AT 1 FOOT INTERVALS.
6. ALL SPOT ELEVATIONS REFER TO FINISHED PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
7. ALL ADA ACCESSIBLE PARKING SPACED AND LOADING AREAS SHALL BE GRADED WITH A 2.0% MAXIMUM SLOPE IN ALL DIRECTIONS. ALL ADA ACCESSIBLE ROUTES SHALL BE GRADED WITH A 2.0% MAXIMUM CROSS SLOPE AND 5.0% MAXIMUM RUNNING SLOPE.
8. MAINTAIN EXISTING DRAINAGE PATTERN THROUGHOUT THE SITE, EXCEPT WITHIN THE LIMITS OF DISTURBANCE (LOD).
9. COORDINATE GRADES AT BUILDING ENTRIES WITH ARCHITECTURAL PLANS.
10. EXISTING DRAINAGE STRUCTURES SHALL BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES ARE TO BE CLEANED TO REMOVE ALL SILT AND DEBRIS AFTER CONSTRUCTION IS COMPLETE.
11. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO A CONDITION EQUAL TO OR BETTER THAN IT'S CONDITION PRIOR TO DAMAGE.
12. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND WITHIN PAVED AREAS.
13. ALL TOPSOIL MUST BE REMOVED BEFORE FILL MATERIAL IS PLACED.
14. ALL WET, OR OTHERWISE UNSUITABLE SOILS MUST BE STABILIZED. THIS MAY BE ACCOMPLISHED BY DRYING, REMOVAL & REPLACEMENT, REMOVAL & DRYING & RECOMPACTION, OR SOIL TREATMENT (LIME/CEMENT) UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL GEOTECHNICAL ENGINEER.
15. ALL UNSURFACED AREAS, DISTURBED BY GRADING, OPERATION SHALL RECEIVE 6" OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER AND SEED WITH LOW MAINTENANCE GRASS SEED MIX. CONTRACTOR SHALL SEED DISTURBED AREAS IN ACCORDANCE WITH SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. ALL EXPOSED SURFACE AREAS SHALL BE STABILIZED PER THE SWPPP AND LANDSCAPE REQUIREMENTS AS PART OF THIS PLAN SET.
16. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS SOIL TIGHT.
17. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
18. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:

MATERIAL	TYPE	PIPE SPEC	JOINT SPEC	INSTALLATION	ACCEPTABLE AREAS OF USE
REINFORCED CONCRETE PIPE (RCP)	CLASS III, IV, V	ASTM C-76	ASTM C443	ASTM C1479	WITHIN R/W, COVER VARIES WITH PIPE CLASS
HIGH DENSITY POLY-ETHYLENE (HDPE)	SMOOTH-WALLED CORRUGATED ADS-N12 OR EQUAL	AASHTO M294 (TYPE S)	ASTM F477	ASTM D2321	ON SITE, 12" TO 60" DIA.
POLY VINYL CHLORIDE (PVC)	SDR 35	ASTM D3034	ASTM D3212	ASTM D2321	ON SITE, 4" TO 10"

19. ALL STORM SEWER STRUCTURE GRATES AND FRAMES WITHIN PAVEMENT SHALL BE HEAVY DUTY.
20. ALL STORM DRAINAGE SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL COUNTY AND ODOT STANDARDS.
21. ALL DOWNSPOUT DRAIN LINES OR ROOF LEADERS SHALL HAVE A 1.0% MINIMUM SLOPE, UNLESS OTHERWISE NOTED. CONNECT ALL DOWNSPOUTS AND ROOF LEADERS TO THE STORM SEWER SYSTEM. REFER TO ARCHITECTURAL PLANS FOR DOWNSPOUT AND ROOF LEADER LOCATIONS. PROVIDE POSITIVE DRAINAGE AND PAVEMENT REPAIR AS NEEDED.
22. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
23. THE STORM SEWER GRADE WILL BE SUCH THAT A MINIMUM COVER IS MAINTAINED TO WITHSTAND AASHTO HS-25 LOADING ON THE PIPE. PROVIDE MINIMUM 2.0 FEET OF COVER FOR ALL STORM SEWERS UNLESS OTHERWISE NOTED.
24. WHEN A SANITARY SEWER MAIN LIES ABOVE A STORM SEWER, OR WITHIN 18 INCHES BELOW, THE SANITARY SEWER WILL HAVE AN IMPERVIOUS ENCASEMENT OR BE CONSTRUCTED OF STRUCTURAL SEWER PIPE FOR A MINIMUM OF 10 FEET ON EACH SIDE OF WHERE THE STORM SEWER CROSSES.
25. IF EXISTING FIELD TILES ARE ENCOUNTERED DURING CONSTRUCTION THEY SHALL BE REPAIRED AND/OR TIED INTO A STORM SEWER SYSTEM AS NEEDED TO MAINTAIN POSITIVE DRAINAGE.

UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
2. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF O.S.H.A. DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR O.S.H.A.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITY DURING CONSTRUCTION AT NO COST TO THE OWNER.
5. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
6. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY REGULATIONS AND THE OWNER'S INSPECTION AUTHORITIES.
7. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITY'S INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
8. WATER AND SANITARY UTILITIES SHALL HAVE TEN (10') FEET OF HORIZONTAL CLEARANCE WHEN PARALLEL OR 18" VERTICAL CLEARANCE WHEN CROSSING. ALL CLEARANCE DISTANCES SHALL BE MEASURE FROM OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SANITARY SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE JOINTS.
9. IF A WATER LINE PASSES UNDER THE SANITARY SEWER LINE, THE SEWER LINE SHOULD BE CONSTRUCTED OF A WATERTIGHT MATERIAL APPROVED BY THE REGULATORY AGENCY FOR USE IN WATER MAIN CONSTRUCTION AND SHALL EXTEND TEN (10') FEET ON BOTH SIDES OF THE CROSSING, AS MEASURED PERPENDICULAR TO THE WATER LINES. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE.
10. UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
11. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY REGULATIONS AND THE OWNER'S INSPECTION AUTHORITIES.
12. UTILITY TRENCHES WITHIN PAVED AREAS TO BE BACKFILLED PER UTILITY TRENCH DETAIL PROVIDED WITHIN THE CONSTRUCTION DETAILS SHEET.
13. ALL WATER LINE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY HUBER HEIGHTS CONSTRUCTION STANDARDS AND STATE REGULATIONS.
14. INSTALL ALL WATER LINES WITH A MINIMUM COVER OF 4'-0".
15. ON-SITE WATER LINE MATERIAL SHALL BE AS FOLLOWS:

MATERIAL	PRESSURE RATING	PIPE SPEC	FITTINGS	INSTALLATION	ACCEPTABLE AREAS OF USE
HIGH-DENSITY POLY-ETHYLENE (HPDE TUBING)	SDR 9 P.C. = 250 PSI	ASTM D2239 AWWA C901 ASTM F714	ASTM D3350 ASTM D3261	ASTM D2774	ON SITE, < 3" DIA.
COPPER 1"-3"	TYPE "K"	ASTM B88	AWWA C800	AWWA C800	DOMESTIC WATERLINES 1"-3"
PE 4710 POLY-ETHYLENE PLASTIC (IPS)	SDR 11 P.C. = 200 PSI	ASTM D3035 AWWA C901	ASTM D3350 ASTM D3261	ASTM D2774	ON SITE, 2" TO 3" DIA.
P.V.C. POLY VINYL CHLORIDE 4"- 8" C900	C900	AWWA C901 (RATED DR 14)	ASTM F-477 ASTM D3139	AWWA C900 C651	ON SITE, 4"-8" WATER LINES & FIRE LINES INSTALL W/ TRACER & TAPE #12 COPPER
DUCTILE IRON PIPE 4"-12"	CLASS 52 P.C. = 350PSI	AWWA C104, C110, C151, C500	AWWA C111	AWWA C600, C651	6" FIRE HYDRANT LEADS
PE 4710 POLY-ETHYLENE PLASTIC (DIPS)	SDR 9 P.C. = 250 PSI	ASTM D2239 ASTM F714 AWWA C906	ASTM D3350 ASTM D3261	ASTM D2774	ON SITE, 4" DIA. AND LARGER

16. ON-SITE SANITARY SEWER LINE MATERIAL SHALL BE AS FOLLOWS:

MATERIAL	PRESSURE RATING	PIPE SPEC	FITTINGS	INSTALLATION	ACCEPTABLE AREAS OF USE
POLY VINYL CHLORIDE (PVC)	SDR 35	ASTM D3034	ASTM D3212	ASTM D2321 WITH TYPE 1 BEDDING	ON SITE, 6" TO 8" DIA., LESS THAN 8.5' OF COVER
POLY VINYL CHLORIDE (PVC)	SDR 26	ASTM 3034	ASTM D3212	ASTM 2321 WITH TYPE 1 BEDDING	ON SITE, 6" TO 8" DIA., GREATER THAN OR EQUAL TO 8.5' OF COVER

17. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
18. CLEAN OUTS AND CURB BOXES WITHIN THE PAVED AREAS MUST HAVE TRAFFIC LOADING FRAMES AND COVERS.

LEGEND

EXISTING FEATURES LEGEND

APPLIES TO ALL CIVIL SHEETS

- R/W — RIGHT OF WAY LINE
- PARCEL LINE
- SUBJECT PROPERTY BOUNDARY LINE
- EASEMENT LINE
- CURB
- EDGE OF PAVEMENT
- EDGE OF WALK
- PAVEMENT MARKINGS
- STM — STORM SEWER
- SAN — SANITARY SEWER
- W — WATER LINE
- G — GAS LINE
- OHE — OVHD ELECTRIC LINE
- UGE — UGND ELECTRIC LINE
- UGT — UGND TELECOMM LINE
- 102 — MAJOR CONTOUR
- 102 — MINOR CONTOUR
- BENCHMARK
- SET 5/8" x 30" IRON REBAR WITH YELLOW CAP STAMPED "CESO"
- SANITARY MANHOLE
- TELEPHONE BOX
- CLEANOUT
- GUY WIRE ANCHOR
- CATCH BASIN
- CURB INLET
- LIGHT POLE
- POWER POLE
- ELECTRIC METER
- GAS METER
- SIGN
- ELECTRIC BOX
- TRAFFIC BOX
- WATER VALVE
- FIRE HYDRANT
- SIGNAL POLE

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NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
JOSHUA LONG
E-86142
REGISTERED PROFESSIONAL ENGINEER

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

GENERAL NOTES

ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

SHEET NO.
C1.1

GENERAL NOTES

DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
2. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
3. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. ALL EXISTING ABOVE AND BELOW GROUND STRUCTURES WITHIN THE LIMITS OF NEW CONSTRUCTION SHALL BE RAZED UNLESS NOTED OTHERWISE WITHIN THIS CONSTRUCTION SET, ARCHITECTURAL PLANS AND/OR PROJECT SPECIFICATIONS. THIS INCLUDES FOUNDATION SLABS, WALLS, AND FOOTINGS.
5. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
6. ALL UTILITY REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
7. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
8. UTILITY CONTACTS ARE LISTED ON THE TITLE SHEET.
9. EROSION AND SEDIMENTATION CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE INSTALLED PRIOR TO INITIATION OF DEMOLITION ACTIVITIES. REFER TO E&S PLAN FOR DETAILS.
10. ASBESTOS OR HAZARDOUS MATERIALS, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
11. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT AROUND UTILITIES.
13. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE (LIST HIGHWAY DEPARTMENT)STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
14. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION ACTIVITIES.
15. DEMOLITION CONTRACTOR SHALL COORDINATE EXISTING FACILITIES UTILITY DISCONNECTS WITH THE CONSTRUCTION REPRESENTATIVE A MINIMUM 7 DAYS PRIOR TO ANTICIPATED DEMOLITION OF STRUCTURES.
16. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

GRADING NOTES:

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY CESO. THE CURRENT REQUIREMENTS OF THE CITY OF HUBER HEIGHTS, THE APPLICABLE SECTIONS OF THE ODOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
4. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY OUPS. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
5. ALL EXISTING TREES, VEGETATION, PAVEMENTS, CONCRETE FOUNDATIONS, STRUCTURES AND ORGANIC TOPSOIL SHALL BE STRIPPED AND REMOVED FROM NEW CONSTRUCTION AREAS UNLESS NOTED OTHERWISE.
6. ALL SLOPES SHALL BE 2:1 (HORIZONTAL: VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE. ALL SLOPES GREATER THAN 3:1 TO PERMANENTLY STABILIZED WITH LANDSCAPE PLANTS.
7. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES MUST BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.
8. ALL AREAS NOT PAVED SHALL BE TOP SOILED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.
9. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT PRIOR TO INITIATION OF ANY EARTHWORK ACTIVITY.
10. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

STORMWATER MANAGEMENT NOTES:

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY CESO. THE CURRENT REQUIREMENTS OF THE CITY OF HUBER HEIGHTS, THE APPLICABLE SECTIONS OF THE ODOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
4. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY OUPS. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
5. CONTRACTOR SHALL COORDINATE PUMP ISLAND CANOPY DRAINS CONNECTION TO THE MAIN COLLECTOR PIPE WITH OWNER AND PROVIDE ALL NECESSARY FITTINGS TO MAKE THE CONNECTION TO THE MAIN COLLECTOR PIPE.
6. CONTRACTOR TO PROVIDE SHOP DRAWINGS ON ALL STORM SEWER MANHOLES AND INLETS.
7. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.
8. ALL STORM PIPE SHALL BE AS SPECIFIED. ALL JOINTS SHALL BE WATERTIGHT.
9. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

UTILITY NOTES:

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY CESO, THE CURRENT REQUIREMENTS OF THE CITY OF HUBER HEIGHTS, THE APPLICABLE SECTIONS OF THE ODOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
4. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY OUPS. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BID AND PERFORM ALL UTILITY WORK IN COMPLIANCE TO ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTION.
7. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY ON THE ADDITION, REMOVAL AND/OR RELOCATION OF UTILITIES AND UTILITY POLES AND THE EXTENSION OF ALL PROPOSED UTILITIES TO PROPOSED STORE AND CAR WASH.
8. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.
9. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE STORE OWNER UPON COMPLETION OF THE PROJECT.
10. UTILITY COMPANIES AND CONTACTS ARE LISTED ON THE TITLE SHEET.
11. CONDUIT LOCATIONS TO PYLON SIGNS AND SITE LIGHT POLES TO BE COORDINATED WITH SUPERINTENDENT.
12. CONTRACTOR SHALL COORDINATE WITH SUPERINTENDENT ON LOCATION AND SIZE OF THE GREASE TRAP. GREASE TRAP SHALL BE PROVIDED WITH "T" PIPE IN OUTFLOW CHAMBER. ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE NOTED.
13. CONTRACTOR SHALL COORDINATE WITH STORE OWNER ON CONDUIT ROUTE TO STORE FROM THE TRANSFORMER AND/OR SERVICE UTILITY POLE FOR TELEPHONE AND ELECTRICAL SERVICE.
14. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

LAYOUT NOTES:

1. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF UTILITY ENTRANCES, BUILDING DIMENSIONS, ROOF LEADERS, EXIT DOORS, EXIT RAMPS AND PORCHES.
2. ALL DIMENSIONS ARE TO BUILDING FACE, FACE OF CURB OR EDGE OF SIDEWALK UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS FOR THE INSTALLATION OF TRAFFIC SIGNAGE AND PAVEMENT MARKINGS AS SHOWN ON THE CONSTRUCTION PLANS.
4. ALL NON-LANDSCAPED ISLANDS SHALL BE PAINTED WITH STRIPES 4" WIDE, AT 45° AND 2 FEET O.C.
5. ALL STRIPING SHALL BE 4" WIDE UNLESS NOTED OTHERWISE.
6. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF THE PYLON SIGN WITH STORE OWNER.
7. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

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NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
JOSHUA LONG
E-86142
REGISTERED PROFESSIONAL ENGINEER

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

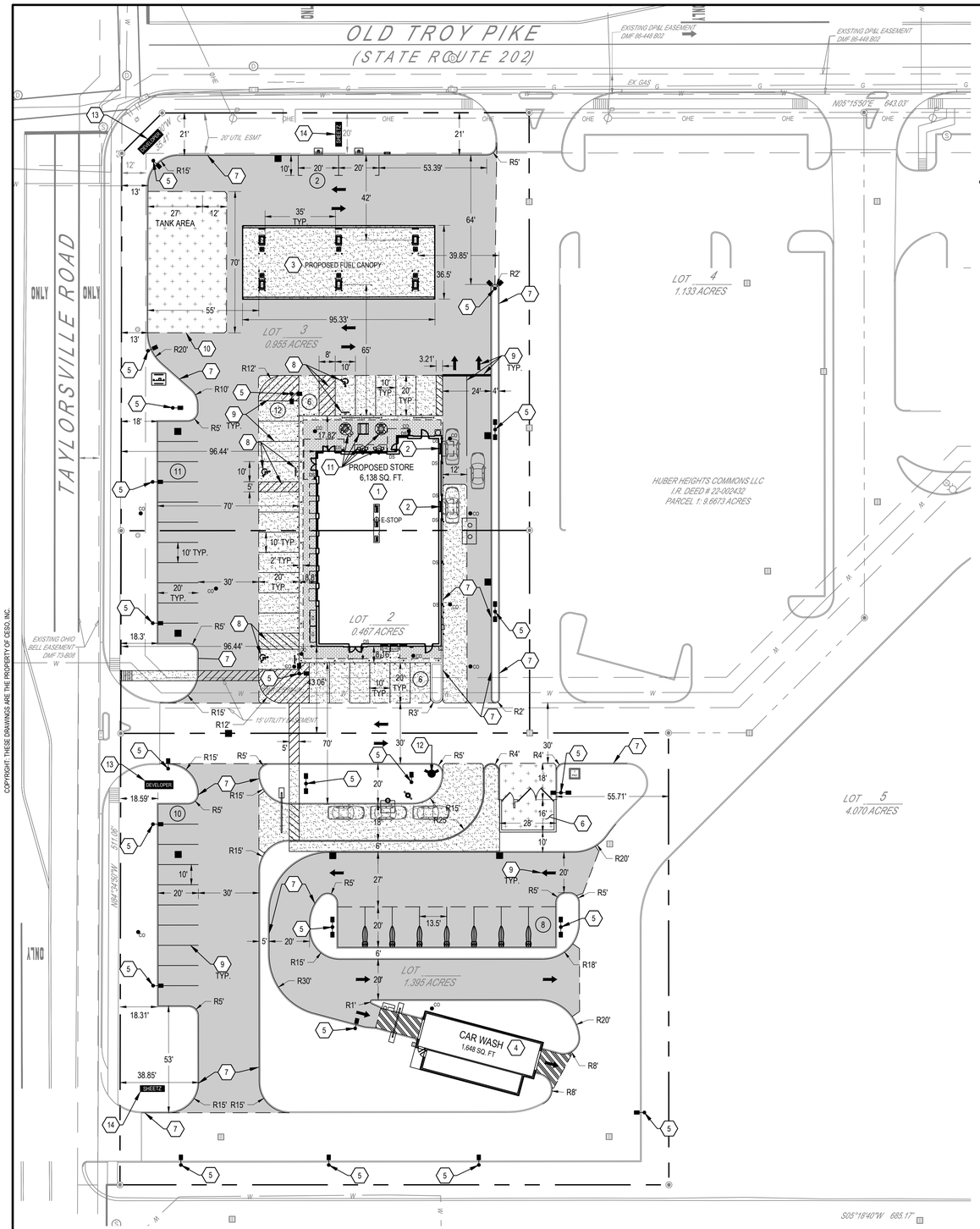
OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

GENERAL NOTES

ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

SHEET NO.
C1.2



GRAPHIC SCALE (IN FEET)
1 in. = 30 ft.

PARKING COUNT = 55 SPACES

CODED NOTES:

1. PROPOSED 6,138 SF STORE. REFER TO ARCHITECTURAL PLANS.
2. PROPOSED DRIVE-THRU WINDOW.
3. PROPOSED SIX (6) DISPENSER FUEL CANOPY. REFER TO ARCHITECTURAL PLANS.
4. PROPOSED 1,648 SF CAR WASH BUILDING. REFER TO ARCHITECTURAL PLANS.
5. PROPOSED LIGHT POLE. SEE DETAIL ON SHEET C7.1.
6. PROPOSED DUMPSTER ENCLOSURE AND PAD. SEE DETAIL ON SHEET C6.1.
7. PROPOSED 6" CONCRETE CURB. SEE DETAIL ON SHEET C6.2.
8. CONTRACTOR TO CONSTRUCT ADA PARKING SPACE PER DETAIL ON SHEET C6.2 AND ACCORDING TO ALL LOCAL, STATE AND FEDERAL REGULATIONS.
9. PROPOSED PAVEMENT MARKINGS.
10. PROPOSED UNDERGROUND FUEL TANK PAD.
11. PROPOSED PATIO SEATING. REFER TO ARCHITECTURAL PLANS.
12. FIRE HYDRANT BY DEVELOPER.
13. MONUMENT SIGN BY DEVELOPER.
14. PROPOSED SHEETZ MONUMENT SIGN.

SITE LEGEND

EXISTING

REFER TO C1.1 FOR EXISTING FEATURES LEGEND

PROPOSED

- PROPOSED BRICK PAVERS (REFER TO ARCHITECTURAL PLANS)
- PROPOSED STANDARD-DUTY ASPHALT PAVEMENT (SEE DETAIL ON SHEET C6.0)
- PROPOSED REINFORCED STANDARD-DUTY CONCRETE PAVEMENT (SEE DETAIL ON SHEET C6.0)
- PROPOSED INSULATED REINFORCED STANDARD-DUTY CONCRETE PAVEMENT (SEE DETAIL ON SHEET C6.0)
- PROPOSED REINFORCED HEAVY-DUTY CONCRETE PAVEMENT (SEE DETAIL ON SHEET C6.0)
- BUILDING
- CONCRETE CURB
- EDGE OF PAVEMENT / WALK
- PAVEMENT TRANSITION
- PARKING SPACE COUNT
- SIGN
- STOREFRONT BUMPER POST, SEE DETAIL ON SHEET C6.0
- 6" BOLLARD, SEE DETAIL ON SHEET C6.0
- AIR MACHINE, SEE DETAIL ON SHEET C6.0
- UNDERGROUND FUEL TANK VENT PAD, SEE DETAIL ON SHEET C6.0
- VACUUM, SEE DETAIL ON SHEET C6.1
- GREASE TANK, REFER TO PLUMBING PLANS
- PROPANE LOCKERS, SEE DETAIL ON SHEET C6.1
- ICE MERCHANDISER
- DRIVE-THRU CLEARANCE BAR, REFER TO ARCHITECTURAL PLANS
- DRIVE-THRU SPEAKER & MENU BOARD, REFER TO ARCHITECTURAL PLANS
- FUEL E-STOP (**ALL DISPENSERS FALL WITHIN A 100' RADIUS OF THE E-STOP**). SEE DETAIL ON SHEET C6.1

OHIO Utilities Protection SERVICE
811 or 1-800-362-2764 Call Before You Dig

FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 1 (800) 362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF OHIO UTILITIES PROTECTION SERVICE

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REVISION DESCRIPTION

NO.	DATE	
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
JOSHUA LONG
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REGISTERED PROFESSIONAL ENGINEER

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

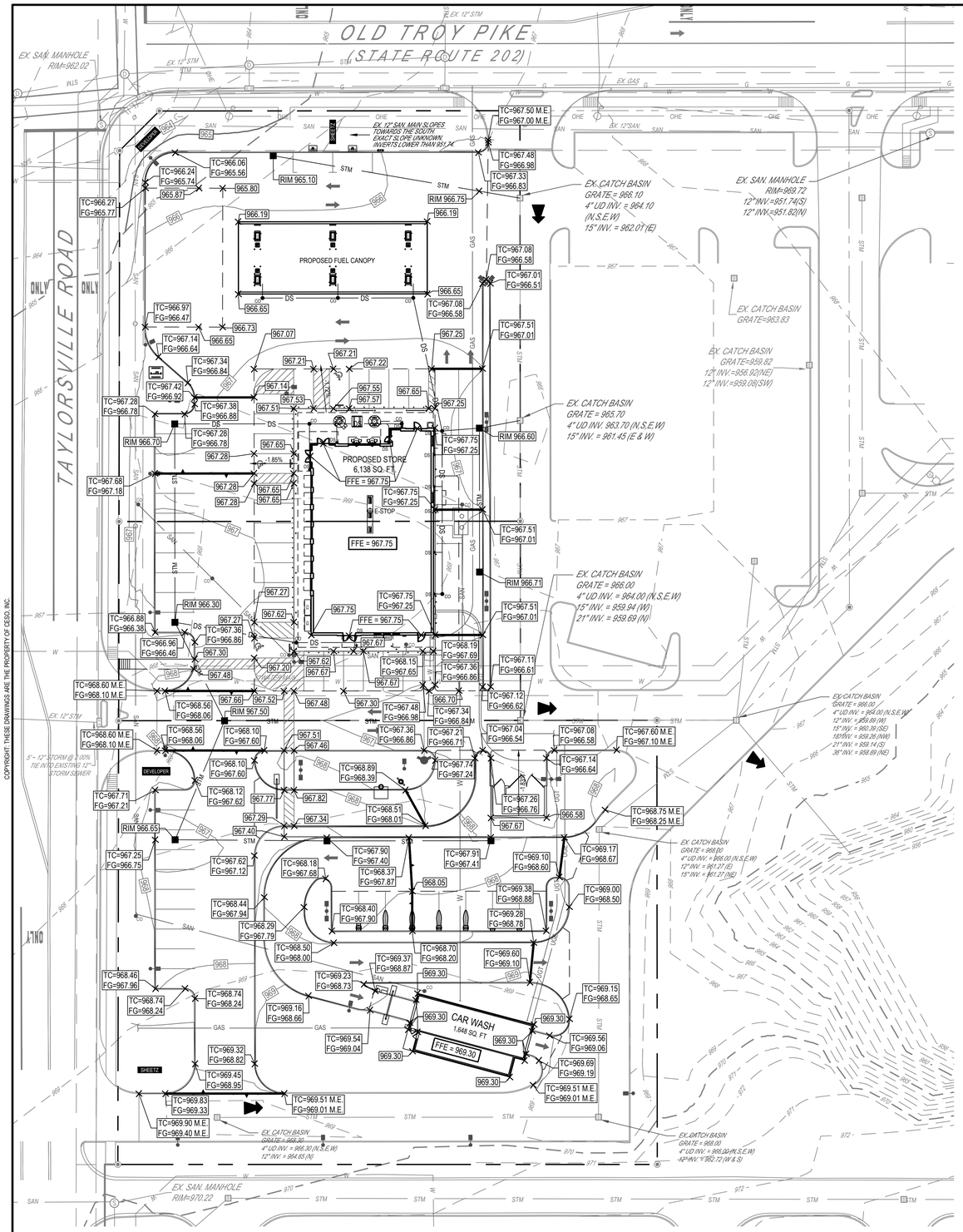
OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

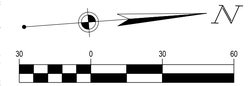
SITE PLAN

ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

SHEET NO.
C2.0





GRAPHIC SCALE (IN FEET)
1 in. = 30 ft.

GRADING PLAN NOTES:

1. CONTRACTOR SHALL REFER TO THE SITE DEVELOPMENT PLANS FOR HUBER HEIGHTS COMMON BROAD REACH RETAIL FOR EXISTING GRADES PREPARED BY BURKHARDT.
2. PROPOSED GRADING IS BASED ON THE SITE DEVELOPMENT PLANS FOR HUBER HEIGHTS COMMON BROAD REACH RETAIL ONSITE ROADS AND UTILITY PLANS PREPARED BY BURKHARDT.

GRADING LEGEND

EXISTING

REFER TO C1.1 FOR EXISTING FEATURES LEGEND

PROPOSED

- BUILDING
- 960 — MAJOR CONTOUR
- 962 — MINOR CONTOUR
- GRADE BREAK
- CATCH BASIN
- CO — CLEANOUT
- DS — DOWNSPOUT
- XXX.XX — FINISHED GRADE ELEVATION
- RIM=XXX.XX — RIM ELEVATION
- TC=XXX.XX / FG=XXX.XX — TOP OF CURB ELEVATION / FINISHED GRADE ELEVATION
- M.E. — MATCH EXISTING ELEVATION
- X.XX% — SLOPE ARROW
- FLOOD ROUTE

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REVISION DESCRIPTION

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STATE OF OHIO
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REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

GRADING PLAN

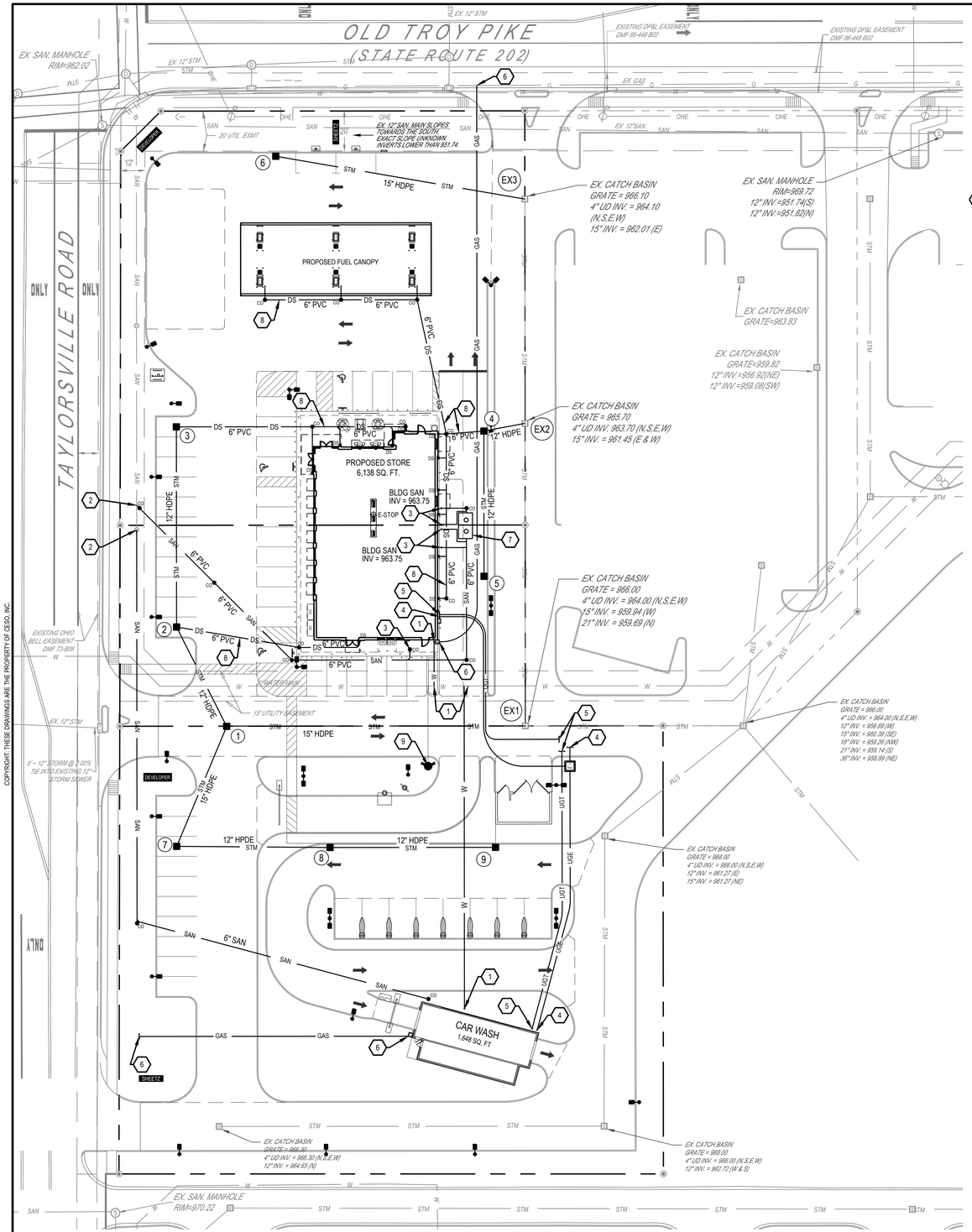
ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

SHEET NO.
C3.0

OHIO Utilities Protection SERVICE
811 or 1-800-362-2764 Call Before You Dig

FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 1 (800) 362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF OHIO UTILITIES PROTECTION SERVICE



GRAPHIC SCALE (IN FEET)
1 in. = 30 ft.

CONTRACTOR NOTE:

1. CONTRACTOR SHALL VERIFY ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES.

CODED NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL 2" COPPER TUBE SIZE POLYETHYLENE PIPING FROM METER IN BUILDING TO NEW 2" TAP. NEW WATER TAPS WILL NEED TO BE INSTALLED AT WATER MAIN.
2. CONNECT 6" SDR-35 PVC SANITARY SERVICE (MINIMUM 1.00% SLOPE) TO EXISTING SANITARY CLEANOUT PER CITY OF HUBER HEIGHTS STANDARDS. CONTRACTOR SHALL FIELD LOCATE AND VERIFY EXISTING SANITARY CLEANOUT PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS FOR FINAL CONNECTION.
3. COORDINATE UTILITIES WITH PLUMBING CONTRACTOR, CAP AND MARK FOR FUTURE CONNECTION. FINAL CONNECTION BY PLUMBING CONTRACTOR.
4. CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO VERIFY THE LOCATION, ORIGIN OF PRIMARY SERVICE, AND ALL STANDARDS FOR WORK. CONTRACTOR SHALL PROVIDE THE TRANSFORMER VAULT AND PAD, CT, METER SOCKET, CONDUIT AND CABLE, AND SECONDARY FINAL CONNECTION.
5. CONTRACTOR SHALL PROVIDE (2) 4" CONDUIT FOR TELEPHONE. CONTRACTOR SHALL VERIFY EXACT ROUTING AND TERMINATION REQUIREMENTS WITH UTILITY COMPANIES BEFORE STARTING WORK. CONTRACTOR SHALL COORDINATE WITH OTHER UTILITIES AND UTILIZE SHARED TRENCHING IF PERMITTED.
6. CONNECTION TO GAS MAIN. LOCAL GAS COMPANY SHALL FURNISH AND INSTALL GAS LINE FROM METER TO NEW TAP. THE CONTRACTOR SHALL INSTALL THE GAS LINE FROM THE METER TO THE BUILDING PER THE BUILDING DRAWINGS. CONTRACTOR SHALL FIELD LOCATE AND VERIFY EXISTING GAS MAIN PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
7. CONTRACTOR SHALL SUPPLY AND INSTALL BELOW GRADE 2000 GALLON GREASE INTERCEPTOR. REFER TO UTILITY DETAILS, SHEET C6.3.
8. PROPOSED 6" PVC STORM LINE FROM DOWNSPOUTS TO STORM CATCH BASINS (MIN. SLOPE 1.00%). REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DOWNSPOUT LOCATIONS.
9. FIRE HYDRANT BY DEVELOPER.

UTILITY LEGEND

EXISTING

REFER TO C1.1 FOR EXISTING FEATURES LEGEND

PROPOSED

	BUILDING
STM	STORM SEWER LINE
DS	STORM DOWNSPOUT LINE
SAN	SANITARY SEWER LINE
W	DOMESTIC WATER LINE
G	GAS SERVICE LINE
UGE	UNDERGROUND ELECTRIC LINE
UGT	UNDERGROUND TELEPHONE LINE
	CATCH BASIN
CO	CLEANOUT
DS	DOWNSPOUT
T PAD	ELECTRICAL TRANSFORMER PAD
G	GAS METER

OHIO Utilities Protection SERVICE
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NO.	DATE	REVISION DESCRIPTION
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SHEETZ

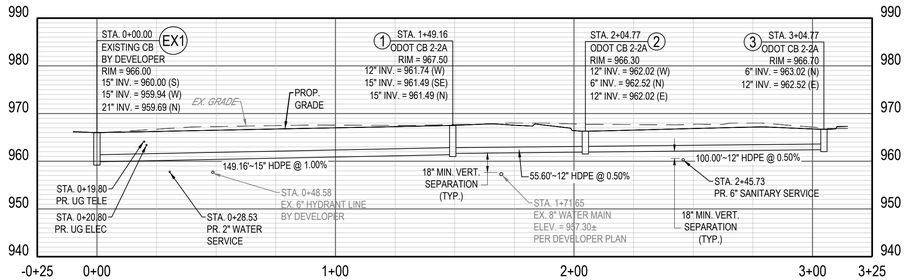
OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

UTILITY PLAN

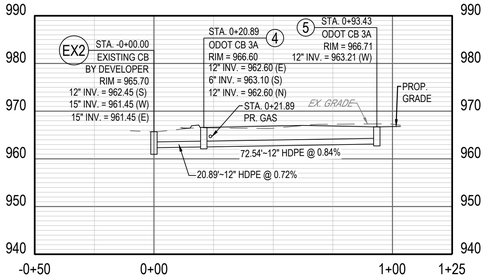
ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

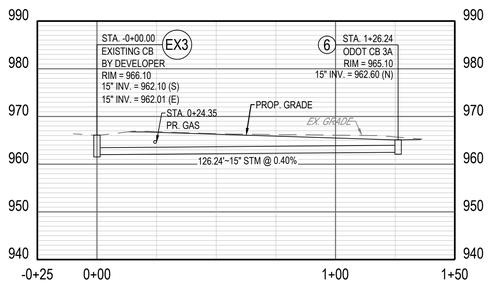
SHEET NO.
C4.0



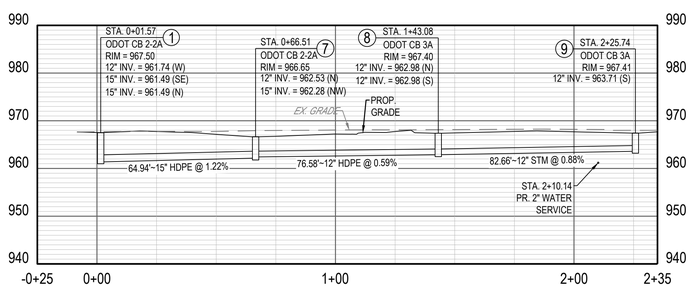
EX 1 - 3 STORM SEWER PROFILE
SCALE: 1" = 30' HORIZ.; 1" = 10' VERT.



EX 2 - 5 STORM SEWER PROFILE
SCALE: 1" = 30' HORIZ.; 1" = 10' VERT.

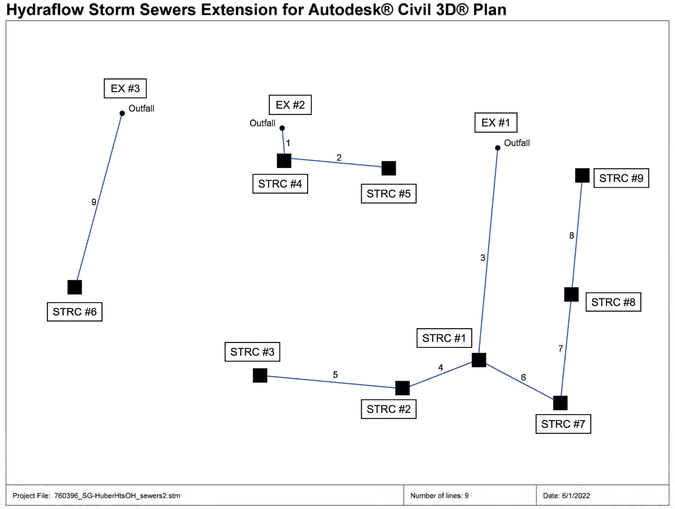


EX 3 - 6 STORM SEWER PROFILE
SCALE: 1" = 30' HORIZ.; 1" = 10' VERT.



1 - 9 STORM SEWER PROFILE
SCALE: 1" = 30' HORIZ.; 1" = 10' VERT.

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: 760396_SG-HuberHtsOH_sewers2.stm | Number of lines: 9 | Date: 6/1/2022

Storm Sewers v2022.00

Storm Sewer Tabulation - 10-YR Event Analysis

Page 1

Station Line	Station To Line	Len (ft)	Drng Area Incr (ac)	Drng Area Total (ac)	Rnoff coeff (C)	Area x C Incr	Area x C Total	Tc Inlet (min)	Tc Syst (min)	Rain (I) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe Size (in)	Pipe Slope (%)	Invert Elev Dn (ft)	Invert Elev Up (ft)	HGL Elev Dn (ft)	HGL Elev Up (ft)	Grnd / Rim Elev Dn (ft)	Grnd / Rim Elev Up (ft)	Line ID
1	End	20.889	0.09	0.12	0.90	0.08	0.11	10.0	16.6	4.2	0.45	3.02	1.63	12	0.72	962.45	962.60	963.19	962.88	965.70	966.60	EX2-4
2	1	72.542	0.03	0.03	0.90	0.03	0.03	10.0	10.0	5.3	0.14	3.27	1.33	12	0.84	962.60	963.21	962.88	963.36	966.60	966.71	4-5
3	End	149.165	0.02	1.12	0.90	0.02	0.89	10.0	13.4	4.6	4.13	6.45	4.34	15	1.00	960.00	961.49	961.02	962.31	966.00	967.50	EX1-1
4	3	55.604	0.23	0.35	0.88	0.20	0.31	10.0	12.4	4.8	1.48	2.53	3.30	12	0.50	961.74	962.02	962.31	962.56	967.50	966.30	1-2
5	4	100.000	0.12	0.12	0.87	0.10	0.10	10.0	10.0	5.3	0.55	2.52	1.70	12	0.50	962.02	962.52	962.70	962.85	966.30	966.70	2-3
6	3	64.941	0.27	0.75	0.74	0.20	0.56	10.0	12.9	4.7	2.66	7.12	3.60	15	1.22	961.49	962.28	962.31	962.93	967.50	966.65	1-7
7	6	76.578	0.38	0.48	0.73	0.28	0.36	10.0	12.4	4.8	1.75	2.73	3.69	12	0.59	962.53	962.98	963.11	963.56	966.65	967.40	7-8
8	7	83.000	0.10	0.10	0.86	0.09	0.09	10.0	10.0	5.3	0.46	3.34	1.66	12	0.88	962.98	963.71	963.67	963.99	967.40	967.41	8-9
9	End	126.000	0.51	0.51	0.89	0.45	0.45	10.0	10.0	5.3	2.40	4.07	3.20	15	0.40	962.10	962.60	962.92	963.27	965.70	965.10	EX3-6

Project File: 760396_SG-HuberHtsOH_sewers2.stm | Number of lines: 9 | Run Date: 6/1/2022

NOTES:Intensity = 55.04 / (Inlet time + 8.90) ^ 0.80; Return period =Yrs. 10 ; c = cir e = ellip b = box

Storm Sewers v2022.00

Storm Sewer Tabulation - Analysis with Pipes at Full Capacity

Page 1

Station Line	Station To Line	Len (ft)	Drng Area Incr (ac)	Drng Area Total (ac)	Rnoff coeff (C)	Area x C Incr	Area x C Total	Tc Inlet (min)	Tc Syst (min)	Rain (I) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe Size (in)	Pipe Slope (%)	Invert Elev Dn (ft)	Invert Elev Up (ft)	HGL Elev Dn (ft)	HGL Elev Up (ft)	Grnd / Rim Elev Dn (ft)	Grnd / Rim Elev Up (ft)	Line ID
1	End	20.889	0.09	0.12	0.90	0.08	0.11	10.0	16.6	4.2	3.02	3.02	4.58	12	0.72	962.45	962.60	963.19	963.43	965.70	966.60	EX2-4
2	1	72.542	0.03	0.03	0.90	0.03	0.03	10.0	10.0	5.3	3.27	3.27	4.16	12	0.84	962.60	963.21	963.86	964.47	966.60	966.71	4-5
3	End	149.165	0.02	1.12	0.90	0.02	0.89	10.0	13.4	4.6	6.45	6.45	6.00	15	1.00	960.00	961.49	961.02	962.52	966.00	967.50	EX1-1
4	3	55.604	0.23	0.35	0.88	0.20	0.31	10.0	12.4	4.8	2.53	2.53	3.22	12	0.50	961.74	962.02	963.30	963.58	967.50	966.30	1-2
5	4	100.000	0.12	0.12	0.87	0.10	0.10	10.0	10.0	5.3	2.52	2.52	3.21	12	0.50	962.02	962.52	963.70	964.20	966.30	966.70	2-3
6	3	64.941	0.27	0.75	0.74	0.20	0.56	10.0	12.9	4.7	7.12	7.12	5.80	15	1.22	961.49	962.28	963.30	964.09	967.50	966.65	1-7
7	6	76.578	0.38	0.48	0.73	0.28	0.36	10.0	12.4	4.8	2.73	2.73	3.48	12	0.59	962.53	962.98	964.87	965.32	966.65	967.40	7-8
8	7	83.000	0.10	0.10	0.86	0.09	0.09	10.0	10.0	5.3	3.34	3.34	4.25	12	0.88	962.98	963.71	965.42	966.15	967.40	967.41	8-9
9	End	126.000	0.51	0.51	0.89	0.45	0.45	10.0	10.0	5.3	4.07	4.07	4.13	15	0.40	962.10	962.60	962.92	963.73	965.70	965.10	EX3-6

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NOTES:Intensity = 55.04 / (Inlet time + 8.90) ^ 0.80; Return period =Yrs. 10 ; Total flows limited to full flow capacities ; c = cir e = ellip b = box

Storm Sewers v2022.00

OHIO Utilities Protection SERVICE
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REVISION DESCRIPTION

NO.	DATE	
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
JOSHUA LONG
E-86142
REGISTERED PROFESSIONAL ENGINEER

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

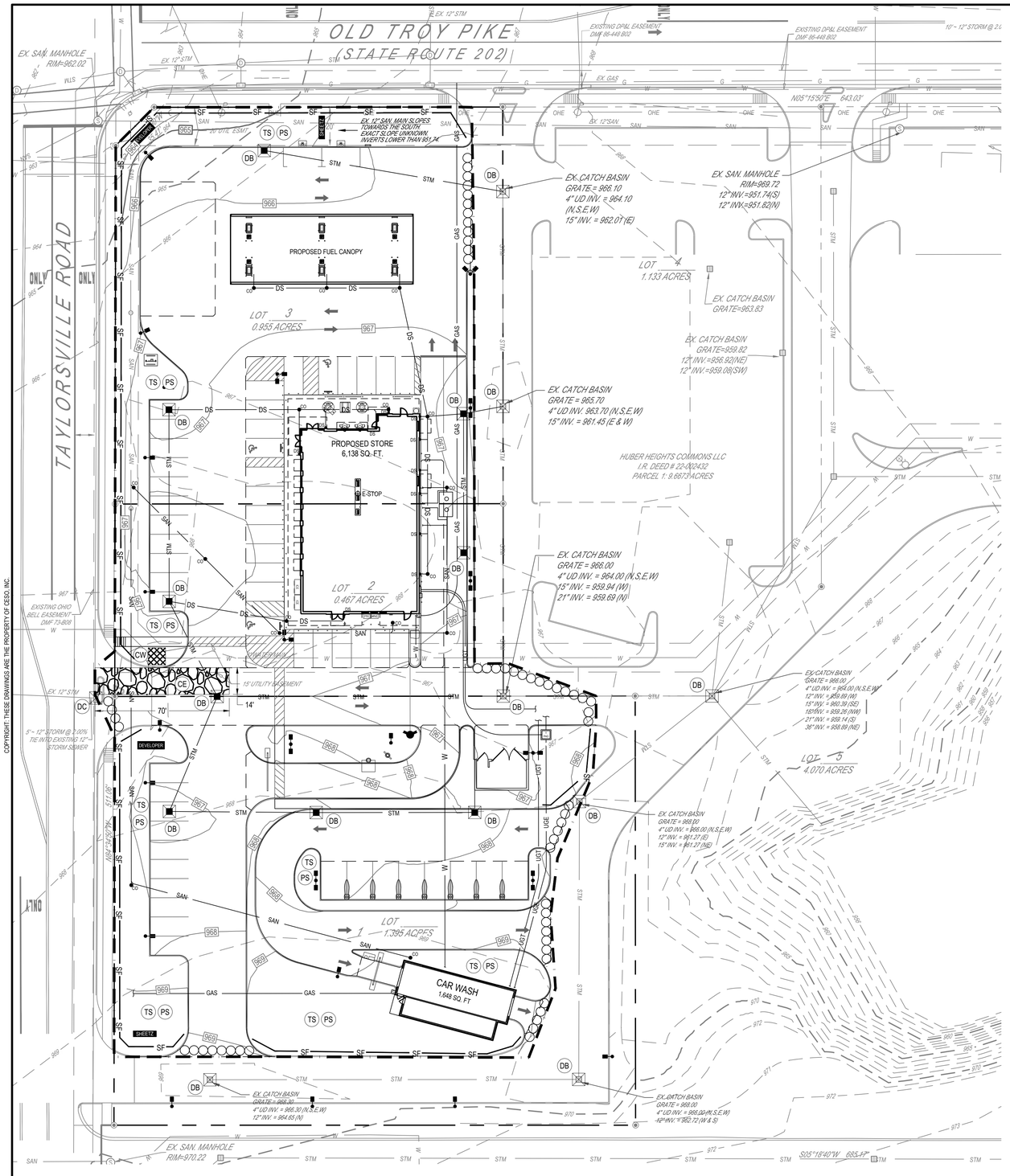
OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

STORM SEWER PROFILES

ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

SHEET NO.
C4.1



GRAPHIC SCALE (IN FEET)
1 in. = 30 ft.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PROJECT NARRATIVE:

DEVELOPER:
SKILKEN GOLD REAL ESTATE DEVELOPMENT
4270 MORSE ROAD
COLUMBUS, OH 43230
PHONE: (614) 282-0936
CONTACT: BETH COTNER

ENGINEER:
CESO, INC.
2800 CORPORATE EXCHANGE DR, SUITE 400
COLUMBUS, OH 43231
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CONTACT: JOSH LONG
EMAIL: JOSH.LONG@CESOINC.COM

THE PROPOSED PROJECT IS THE CONSTRUCTION OF GAS STATION AND CONVENIENCE STORE. THE SUBJECT PARCEL IS 2.82 ACRES. THE TOTAL DISTURBED AREA IS 2.35 ACRES.

THE ENTIRE SITE DRAINS NORTHEAST TOWARDS THE EXISTING RETENTION BASIN.

EXISTING ON-SITE CONDITIONS: THE ENTIRE DEVELOPMENT IS PAD READY FOR CONSTRUCTION.

SEQUENCE OF CONSTRUCTION

1. NOTIFY CITY OF HUBER HEIGHTS ADMINISTRATOR BEFORE WORK IS TO BEGIN.
2. INSTALL ALL TEMPORARY EROSION CONTROL MEASURES INCLUDING SILT FENCE, CONSTRUCTION EXIT, FILTER SACKS, CONCRETE WASHOUT.
3. SITE DEMOLITION AND CLEARING.
4. ROUGH GRADING. PROVIDE TEMPORARY SEEDING OF DISTURBED AREAS WHICH ARE INACTIVE.
5. STORM SEWER AND UNDERGROUND UTILITY CONSTRUCTION.
6. BUILDING PAD.
7. CURB CONSTRUCTION.
8. FINE GRADING AND PAVEMENT SUBGRADE PREPARATION
9. ASPHALT PAVING AND REMAINING CONCRETE FLATWORK.
10. FINAL SEEDING.

* CONTRACTOR SHALL MODIFY THE SEQUENCE OF CONSTRUCTION BASED ON SITE CONDITIONS. CONTRACTOR TO NOTIFY PROJECT MANAGER PRIOR TO CHANGING SEQUENCE OF CONSTRUCTION.

SWPPP LEGEND

EXISTING

REFER TO C1.1 FOR EXISTING FEATURES LEGEND

PROPOSED

- 960 — MAJOR CONTOUR
- 962 — MINOR CONTOUR
- PAVEMENT/WALK
- STM — STORM SEWER
- SF — SF — SANITARY SEWER LINE
- STRAW WATTLE
- LIMITS OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- BASIN SEDIMENT FILTER
- CATCH BASIN
- CE — STABILIZED CONSTRUCTION ENTRANCE
- TS — TEMPORARY SEEDING
- PS — PERMANENT SOD
- CW — CONCRETE WASHOUT AREA
- DC — DANDY CURB (INLET PROTECTION)
- DB — DANDY BAG (INLET PROTECTION)

E&SC GENERAL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED ACCORDING TO: SWPPP AND DETAIL PLANS; ACCORDING TO THE LATEST EPA AUTHORIZATION FOR CONSTRUCTION ACTIVITY UNDER THE "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM" (NPDES); ANY AND ALL REQUIRED PERMITS, REPORTS, AND RELATED DOCUMENTS. ALL CONTRACTORS AND SUBCONTRACTORS MUST BECOME FAMILIAR WITH ALL OF THE ABOVE.
2. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMPS) AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AND GRADE CHANGES TO THE SITE AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
3. CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE MAXIMUM EXTENT POSSIBLE OR AS REQUIRED BY THE GENERAL PERMIT.
4. SEDIMENT STRUCTURE AND PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED.
5. PERMANENT SOIL STABILIZATION OF DISTURBED AREAS BY MEANS OF VEGETATION, LANDSCAPE TYPE MULCHING, MATTING, SOD, RIP RAP, AND OTHER APPROVED LANDSCAPING TECHNIQUES TO BE APPLIED AS FOLLOWS:
   - WITHIN SEVEN (7) DAYS OF ANY AREA THAT WILL BE DORMANT FOR ONE (1) YEAR OR MORE.
   - WITHIN TWO (2) DAYS OF ANY AREA WITHIN 50 FEET OF A STREAM AT FINAL GRADE.
   - WITHIN SEVEN (7) DAYS FOR ANY OTHER AREA AT FINAL GRADE.
6. TEMPORARY SOIL STABILIZATION OF DISTURBED AREAS BY MEANS OF TEMPORARY VEGETATION, MULCHING, GEOTEXTILES, SOD, PRESERVATION OF EXISTING VEGETATION, AND OTHER APPROVED TECHNIQUES TO BE APPLIED AS FOLLOWS:
   - WITHIN TWO (2) DAYS OF ANY AREA WITHIN 50 FEET OF A STREAM NOT AT FINAL GRADE.
   - WITHIN SEVEN (7) DAYS OF ANY AREA THAT WILL BE DORMANT FOR MORE THAN TWENTY ONE (21) DAYS, BUT LESS THAN ONE (1) YEAR.
   - PRIOR TO THE ONSET OF WINTER WEATHER FOR AREAS THAT WILL BE IDLE OVER WINTER.
7. TEMPORARY SEEDING, MULCHING, AND FERTILIZER SPECIFICATIONS:

   SEEDING: ANNUAL RYEGRASS AT 2.02 POUNDS PER 1,000 S.F.

   MULCHING: STRAW MATERIAL SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT A RATE OF TWO (2) TON/ACRE, OR 80-100 POUNDS PER 1,000 S.F. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITIVE NOXIOUS WEEDS. MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICAL MEANS. FROM NOVEMBER 01 THRU MARCH 15 INCREASE THE RATE OF STRAW MULCH TO THREE (3) TON/ACRE.

   FERTILIZER: APPLY FERTILIZER AT HALF THE RATE OF PERMANENT APPLICATION AND AS PER ODOT SPECIFICATIONS. IF PROJECT CONDITIONS PREVENT FERTILIZING THE SOIL, THEN THIS ITEM MAY BE WAIVED.
8. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION. ALL SLOPES 3:1 OR GREATER THAN 3:1 SHALL BE FERTILIZED, SEEDED, AND CURLEX BLANKETS BY AMERICAN EXCELSIOR COMPANY, NORTH AMERICAN GREEN, INC. OR AN APPROVED EQUAL AS SPECIFIED IN THE PLANS SHALL BE INSTALLED ON THE SLOPES.
9. NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF. ALL NON-SEDIMENT POLLUTANTS MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN DESIGNATED PIT OR DIKED AREAS, WHERE WASHINGS CAN BE REMOVED AND PROPERLY DISPOSED OFF-SITE WHEN THEY HARDEN. STORAGE TANKS SHOULD ALSO BE LOCATED IN PIT OR DIKED AREAS. IN ADDITION, SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CLEAN AND CONTAIN FUEL AND CHEMICAL SPILLS MUST BE KEPT ON SITE.
10. IF THE ACTION OF VEHICLES TRAVELING OVER THE STABILIZED CONSTRUCTION EXIT DOES NOT SUFFICIENTLY REMOVE MOST OF THE DIRT AND MUD, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. PROVISIONS MUST BE MADE TO INTERCEPT THE WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. DUST CONTROL USING APPROVED MATERIALS MUST BE PERFORMED AT ALL TIMES. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
13. ON-SITE AND OFF-SITE STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION BY THE USE OF BEST MANAGEMENT PRACTICES. THESE AREAS MUST BE SHOWN IN THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS. AT A MINIMUM SILT FENCE TO BE PLACED AT PERIMETER OF STOCKPILE AREA TO PREVENT SOIL FROM LEAVING THE STOCKPILE AREA.
14. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE ROADWAYS OR INTO THE STORM SEWERS MUST BE REMOVED IMMEDIATELY.
15. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH DAY; THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR ASPHALT FOR ROAD CONSTRUCTION.
16. THE LAST LAYER OF SOIL, INCLUDING TOP SOIL SHOULD BE COMPACTED TO 80% - 85% OF THE MAXIMUM STANDARD PROCTOR DENSITY, IN AREAS OUTSIDE THE PARKING LOT THAT WILL RECEIVE VEGETATION. THIS IS PARTICULARLY IMPORTANT IN CUT SLOPE AND EMBANKMENT AREAS. IN PAVEMENT AND ISLAND AREAS, IT IS RECOMMENDED THAT THE SOIL BE COMPACTED TO 98% AND 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY RESPECTIVELY. THE LAST COMPACTED LAYER MAY BE SCARIFIED TO IMPROVE THE SOIL GROWTH CHARACTERISTICS.
17. ALL DEWATERING ACTIVITIES SUCH AS PUMPING DOWN OF FLOODED FOUNDATION AND UTILITY TRENCHES MUST PASS THROUGH THE RETROFITTED DETENTION BASIN OR A SEDIMENT CONTROL PRACTICE PRIOR TO LEAVING THE SITE.
18. SILT FENCE AND OTHER PERIMETER EROSION CONTROL MEASURES SHOWN OFF LIMITS OF DISTURBANCE FOR CLARITY PURPOSES ONLY. CONTRACTOR TO ENSURE PERIMETER EROSION CONTROL MEASURES ARE PLACED AT THE LIMITS OF DISTURBANCE. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ENGINEER PRIOR TO PLACEMENT OF ANY EROSION CONTROL MEASURES.

SWPPP MAINTENANCE NOTES

1. ALL CONTROL MEASURES STATED IN THE SWPPP SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY A QUALIFIED PERSON IN ACCORDANCE TO THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED ACCORDING TO THE FOLLOWING:
2. INLET PROTECTION DEVICES AND CONTROLS SHALL BE REPAIRED OR REPLACED WHEN THEY SHOW SIGNS OF UNDERMINING AND OR DETERIORATION. INLET PROTECTION DEVICES SHOULD BE ROUTINELY CLEANED AND MAINTAINED.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STANDING OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. MINIMIZE OFF-SITE SEDIMENT TRACKING OF VEHICLES BY THE USE OF STONE MATERIAL IN ALL CONSTRUCTION ENTRANCES, ALONG WITH REGULARLY SCHEDULED SWEEPING/GOOD HOUSEKEEPING. STABILIZED CONSTRUCTION ENTRANCES TO BE PROPERLY MAINTAINED BY GENERAL CONTRACTOR AND IN GOOD WORKING ORDER AT ALL TIMES; THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE STONE AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE) BY GENERAL CONTRACTOR. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. CONTRACTORS AND SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ALL SEDIMENT FROM THE SITE, AND STORM SEWER SYSTEMS. SEDIMENT DEPOSITION DURING SITE STABILIZATION MUST ALSO BE REMOVED.
7. STONE CONSTRUCTION EXIT TO BE MAINTAINED BY GENERAL CONTRACTOR UNTIL SITE HAS BEEN PAVED OR IS NO LONGER REQUIRED.
8. ALL CATCH BASIN GRATES ARE TO BE PROTECTED WITH INLET BAGS AFTER THEY ARE INSTALLED. THEY SHOULD BE ROUTINELY CLEANED AND MAINTAINED.
9. CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL
10. BRICKS, HARDENING CONCRETE AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE.
11. CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.
12. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE 3714. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN AN OHIO EPA APPROVED LANDFILL. ALSO, MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).
13. AREA SHALL BE DESIGNATED BY CONTRACTOR AND SHOWN ON SWPPP MAP FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.
14. EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.
15. A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.
16. ALL DESIGNATED CONCRETE WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS OR OTHER STORMWATER DRAINAGE AREAS.
17. ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES.
18. THE CONTRACTOR SHALL CONTACT THE OHIO EPA, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.
19. OPEN BURNING IS NOT PERMITTED ON THE SITE.
20. CONTRACTOR TO ENSURE STREETS SHALL BE CLEARED OF DEBRIS FROM SITE AND SWEPT CLEAN ON AN AS NEEDED BASIS.

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OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

EROSION & SEDIMENT CONTROL PLAN

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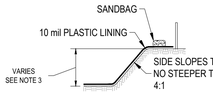

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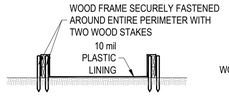

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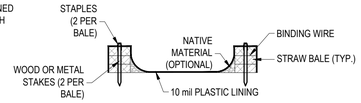

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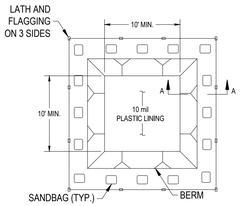
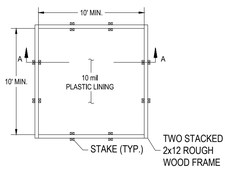
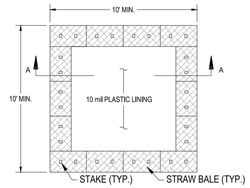


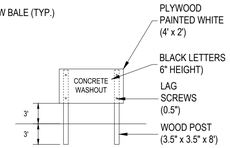
BELOW GRADE



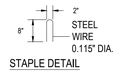
ABOVE GRADE WITH WOOD PLANKS



ABOVE GRADE W/ HAYBALES



CONCRETE WASHOUT SIGN DETAIL



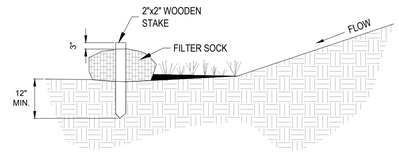
STAPLE DETAIL

NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING BUT NOT LIMITED TO OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.

CONCRETE WASHOUT

NTS



SECTION

NOTES:

1. MATERIALS - COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF A PARTICLES RANGING FROM 3/8" TO 2".
2. FILTER SOCKS SHALL BE 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.

INSTALLATION:

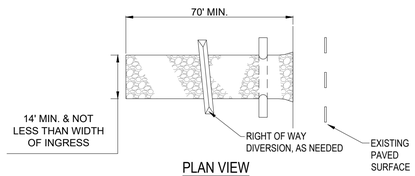
3. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MIDSLOPE.
4. FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
5. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

MAINTENANCE:

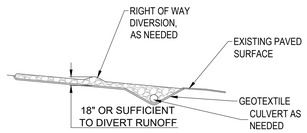
6. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
7. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
8. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
9. REMOVAL - FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.

FILTER SOCK

NTS



PLAN VIEW



PROFILE

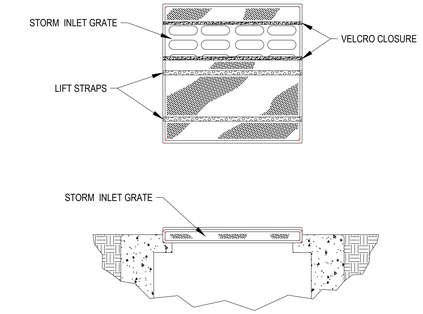
NOTES:

1. STONE SIZE - (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS.
3. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
4. WIDTH - THE ENTRANCE SHALL E AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE, IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:
6. TIMING - THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICAL BEFORE MAJOR GRADING ACTIVITIES.
7. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
8. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
9. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, ORA ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
11. REMOVAL - THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	200 lbs.
MINIMUM PUNCTURE STRENGTH	80 psi.
MINIMUM TEAR STRENGTH	50 lbs.
MINIMUM BURST STRENGTH	320 psi.
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 mm.
PERMITTIVITY	1x10-3 cm/sec.

STABILIZED CONSTRUCTION ENTRANCE

NTS

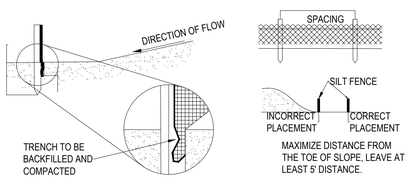


NOTE:

INLET PROTECTION SHALL BE DANDY BAG OR APPROVED OTHER.

INLET PROTECTION

NTS



SPECIFICATIONS FOR SILT FENCE

FABRIC PROPERTIES	VALUES	TEST METHODS
GRAB TENSILE STRENGTH	90 LB. MINIMUM	ASTM D-1682
MULEN BURST STRENGTH	190 PSI MINIMUM	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL/MIN/FT. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW 02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	ASTM - G 26

NOTES:

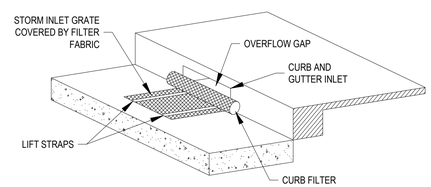
1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE ESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM F 6 IN. DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICES WHICH WILL ENSURE ADEQUATE UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT THE 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
10. MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONLY OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE:
    1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED,
    2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR
    3) OTHER PRACTICES SHALL BE INSTALLED.

CRITERIA FOR SILT FENCE MATERIALS

1. FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2 IN. X 2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
2. SILT FENCE FABRIC (SEE CHART BELOW)

SILT FENCE DETAIL

NTS



NOTE:

INLET PROTECTION SHALL BE DANDY CURB BAG OR APPROVED OTHER.

CURB INLET PROTECTION

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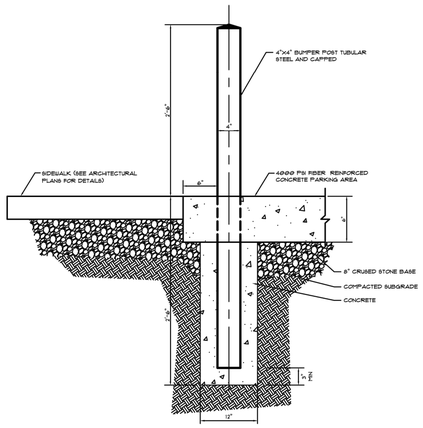
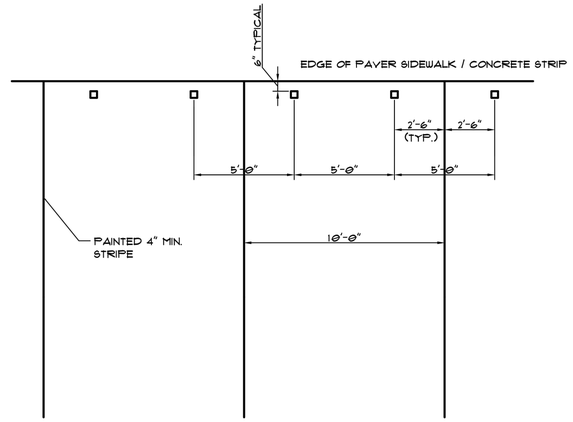


STOREFRONT BUMPER POST FLUSH SIDEWALK
SCALE: NO SCALE



BUMPER POST DETAIL
SCALE: NO SCALE

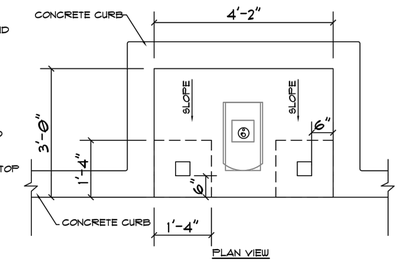
AIR MACHINE PAD NOTES:
ELECTRICAL NEEDS ARE A 120-VAC 30-AMP #10 WIRE CIRCUITS WITH GROUND

POWER CONDUIT FROM BUILDING TO AIR MACHINE IS TO BE RIGID PVC WITH FIRST AND LAST 10' IN RIGID METAL CONDUIT AND EYS FITTINGS AT BOTH ENDS. TERMINATED IN RECESSED 6" PVC SLEEVE UNDER AIR MACHINE.

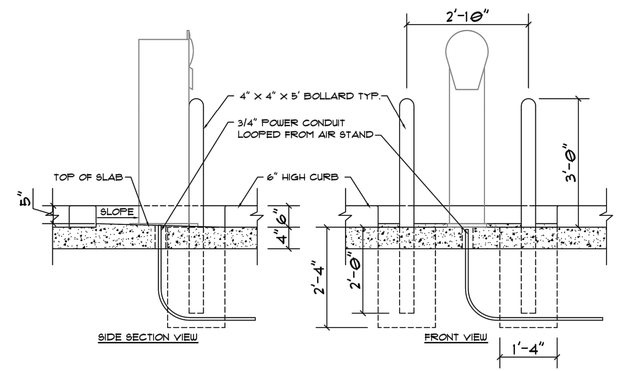
USE WEDGE ANCHOR BOLTS TO MOUNT AIR STAND.

BOLLARDS ARE 4" X 4" X 5'. TO BE PAINTED DARK BRONZE.

MAXIMUM DISTANCE FROM FINAL GRADE TO TOP BUTTON ON AIR MACHINE TO BE 48"



PLAN VIEW



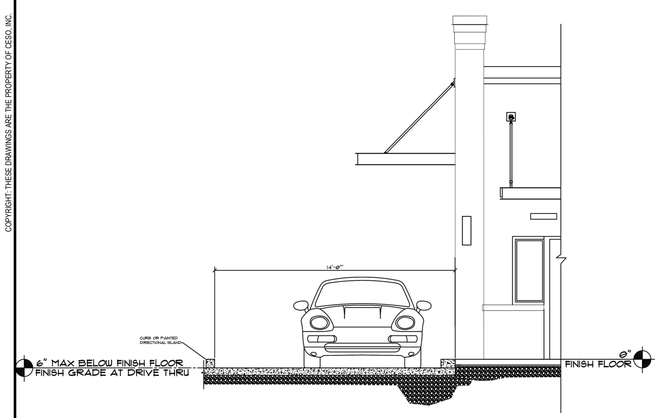
SIDE SECTION VIEW

FRONT VIEW

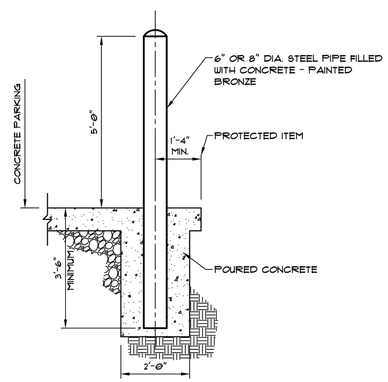
AIR MACHINE PAD
SCALE: NO SCALE

* 2'-3" FOR 9.5' WIDE PARKING SPACE
2'-0" FOR 9.0' WIDE PARKING SPACE

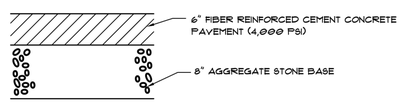
USE THIS DETAIL IF PAVEMENT IS PAVED UP TO TOP OF SIDEWALK



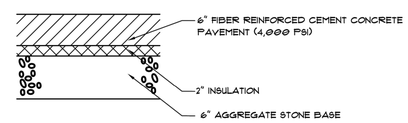
DRIVE THRU CURB AND PAD DETAIL
SCALE: NO SCALE



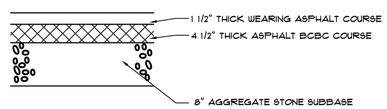
6" OR 8" DIAMETER PIPE BOLLARD
SCALE: NO SCALE



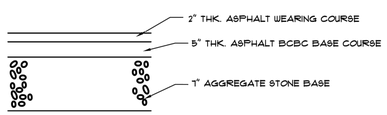
TYPICAL CONCRETE LOT PAVEMENT SECTION/ DUMPSTER PAD



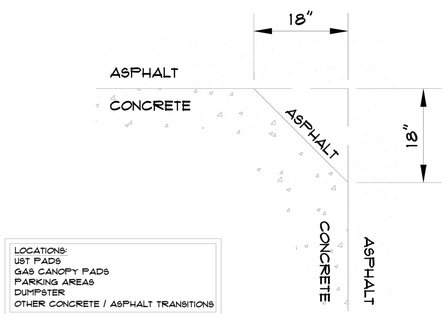
CARWASH ENTRANCE \EXIT CONCRETE SLAB SECTION



TYPICAL ASPHALT PAVING SECTION

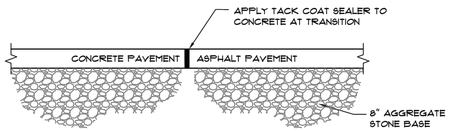


TYPICAL TRUCK DIESEL ASPHALT PAVING SECTION

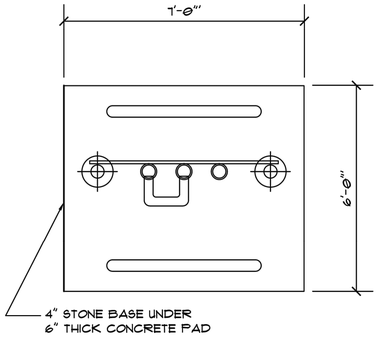


LOCATIONS:
UST PADS
GAS CANOPY PADS
PARKING AREAS
DUMPSTER
OTHER CONCRETE / ASPHALT TRANSITIONS

CONCRETE / ASPHALT TRANSITION
SCALE: NO SCALE



CONCRETE / ASPHALT PAVEMENT TRANSITION DETAIL
N.T.S.



UST VENT PAD

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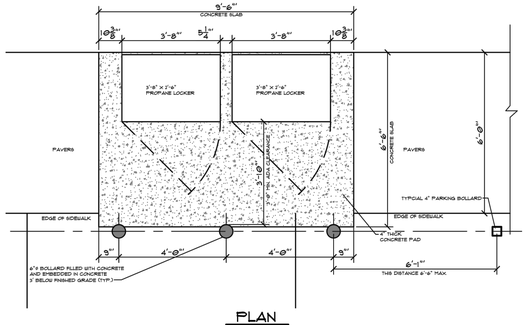
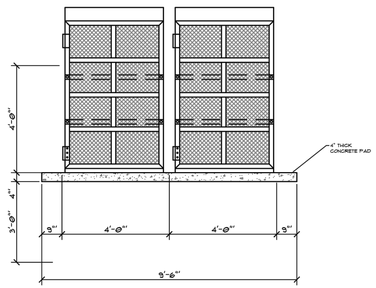
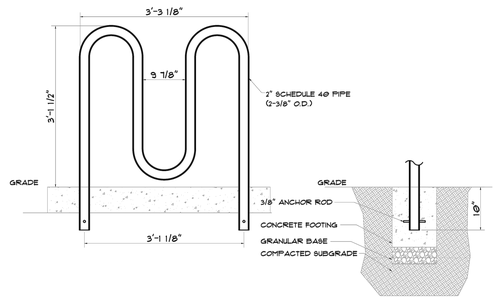


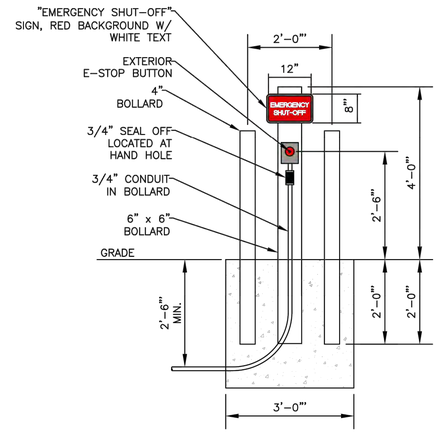
PLAN



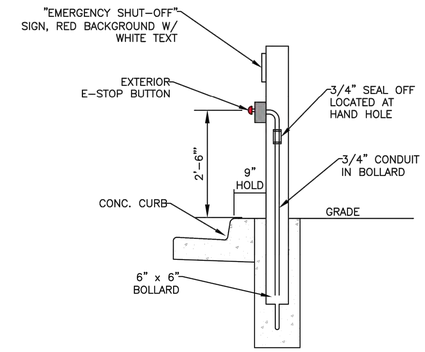
ELEVATION



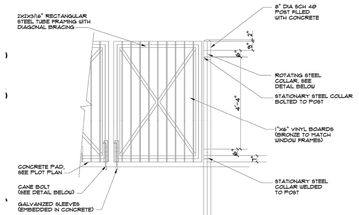
BIKE RACK
SCALE: NO SCALE



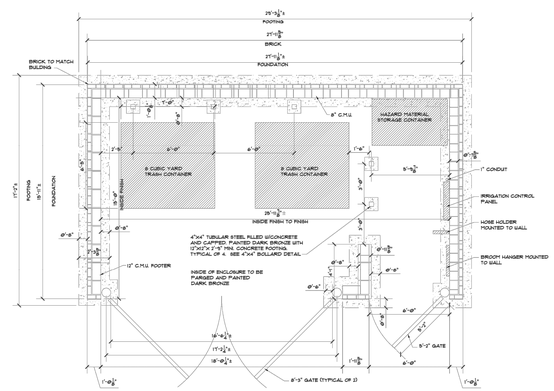
FRONT VIEW
N.T.S.



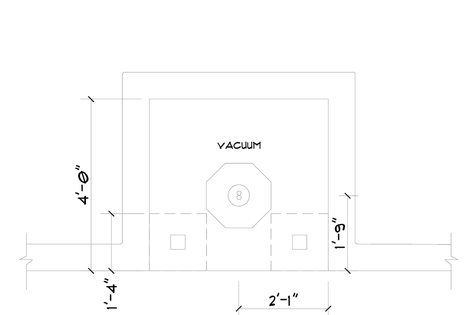
SIDE VIEW
N.T.S.



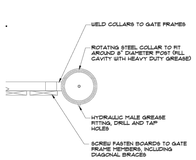
GATE AND POST DETAIL
FOR QUANTITIES OF GATES AND POSTS SEE PLOT PLAN



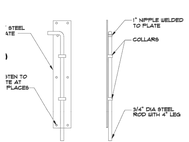
PLAN VIEW



PLAN VIEW
SCALE: NO SCALE

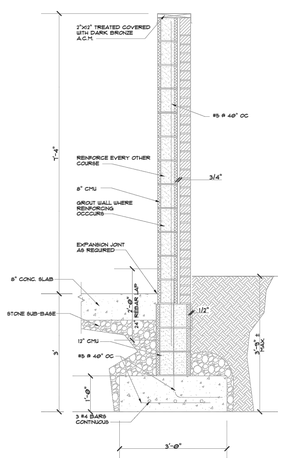


HINGE/COLLAR DETAIL
SCALE: NOT TO SCALE



CANE BOLT DETAIL

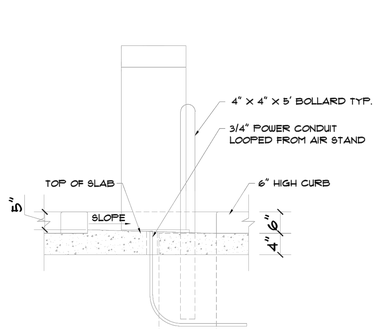
DUMPSTER GATE DETAILS
SCALE: NOT TO SCALE



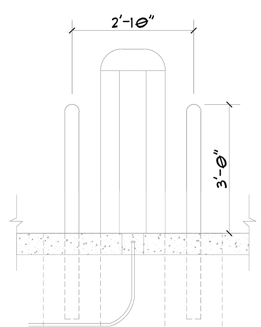
SECTION DETAIL
SCALE: 3/4" = 1'-0"

ELEVATION VIEW

DUMPSTER ENCLOSURE
SCALE: 3/8" = 1'-0"



SIDE SECTION VIEW
SCALE: NO SCALE



FRONT VIEW
SCALE: NO SCALE

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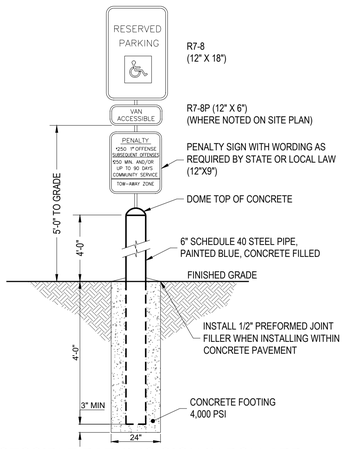
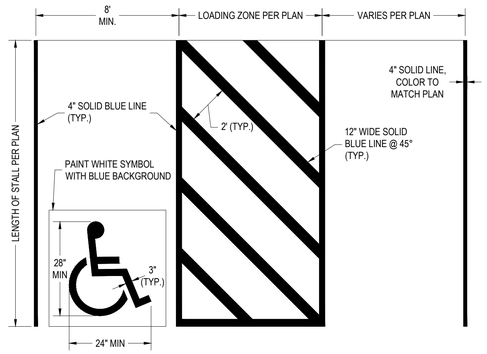


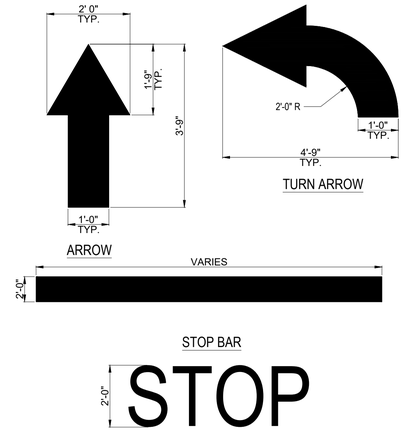
ACCESSIBLE PARKING SIGN IN BOLLARD

NTS



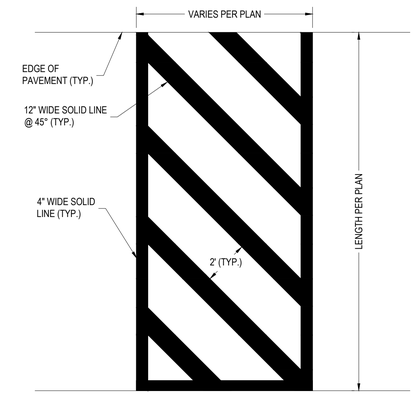
ACCESSIBLE PARKING SPACE STRIPING

NTS



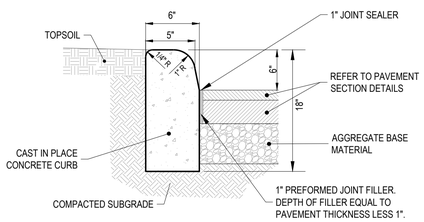
PAVEMENT MARKINGS

NTS



PAINTED ISLAND

NTS

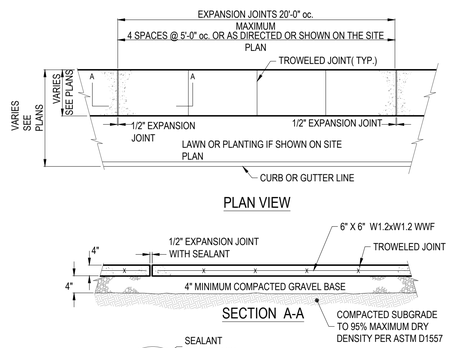


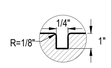
NOTES:

1. ALL CONCRETE CURBS TO BE 4,000 P.S.I. CONCRETE AT 28 DAYS.
2. TRANSVERSE EXPANSION JOINTS, 1/2" WIDE, SHALL BE INSTALLED IN THE CURB 20'-0" APART MAXIMUM.
3. EXPANSION JOINTS SHALL BE FILLED WITH 1/2" PREFORMED JOINT FILLER, RECESSED 1/4" FROM TOP AND FACE OF CURB.
4. MAXIMUM HEIGHT OF CURB TO PAVING IS 6".

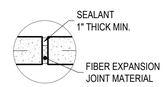
CONCRETE CURB

NTS





TROWELED JOINT



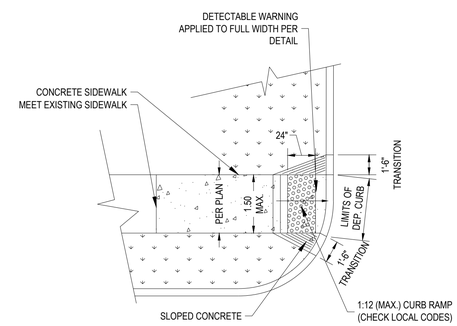
EXPANSION JOINT

NOTES:

1. ALL CONCRETE CURBS AND SIDEWALKS TO BE 4000 P.S.I. CONCRETE.
2. SIDEWALK TO BE SLOPED 2% MAX. AWAY FROM BUILDING.
3. ALL SIDEWALKS SHALL BE BROOM FINISHED.

CONCRETE SIDEWALK

NTS



ACCESSIBLE CURB RAMP (TYPE II)

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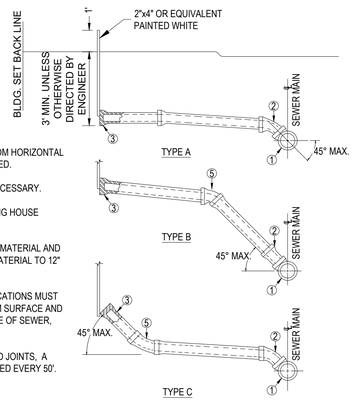


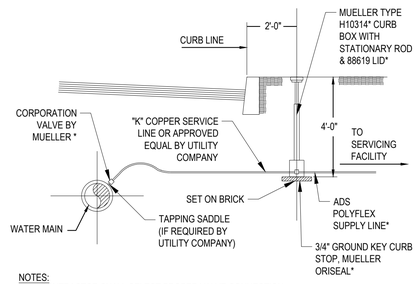
KEY NOTES:

1. TEE OR WYE-ROTATE 45° FROM HORIZONTAL UNLESS OTHERWISE SPECIFIED.
2. 1/8 BEND OR 1/16 BEND AS NECESSARY.
3. CAP UNLESS JOINING EXISTING HOUSE CONNECTION.
4. BED PIPE WITH 4" GRANULAR MATERIAL AND BACKFILL WITH GRANULAR MATERIAL TO 12" ABOVE PIPE.
5. EXACT RECORD OF BEND LOCATIONS MUST BE MADE, AS TO DEPTH FROM SURFACE AND DISTANCE FROM CENTER LINE OF SEWER, BACKFILL IS PLACED.
6. WHEN USING CHEMICAL WELD JOINTS, A RUBBER FITTING MUST BE USED EVERY 50'.

NOTES:
4" DAIM. PIPE MIN. SLOPE = 1/4"=1'
6" DAIM. PIPE MIN. SLOPE = 1/8"=1'

SANITARY LATERAL CONNECTIONS

NTS



NOTES:

1. CONTRACTOR SHALL SELECT PROPER VALVE CONNECTION FITTINGS FOR THE TYPE OF PIPE BEING UTILIZED.
2. FOR USE ON 1"-2" WATER SERVICE CONNECTIONS.

* OR APPROVED EQUAL.

WATER SERVICE CONNECTION

NTS

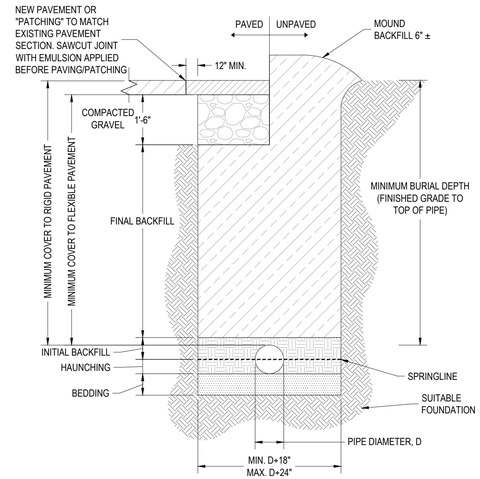


TABLE 1: BACKFILL AND EMBEDMENT MATERIALS	
SOIL CLASSIFICATIONS (AS DEFINED IN ASTM D2487 AND D2321)	
CLASS I	CRUSHED ROCK ANGULAR (CLEAN).
CLASS II	GRAVEL AND/OR SANDS, WITH LITTLE OR NO FINES.
CLASS III	SAND/SILT AND SAND/CLAY MIXTURES.
CLASS IV	INORGANIC CLAYS
CLASS V	ORGANIC SILTS, CLAYS, AND PEATS.
SOIL CLASSIFICATIONS (AS DEFINED IN ASCE 15-98)	
CATEGORY I	GRAVELLY SAND
CATEGORY II	SANDY SILT
CATEGORY III	SILTY CLAY

NOTES:

1. IN THE CASE OF TRENCH BOTTOM BEING UNSTABLE, THE CONTRACTOR SHALL REPLACE FOUNDATION WITH SUITABLE MATERIAL AS SPECIFIED BY GEOTECHNICAL ENGINEER.
2. COMPACTION PERCENTAGES SPECIFIED REFER TO STANDARD PROCTOR PERCENT COMPACTION.
3. CONTRACTOR TO MANDATE DEWATERING IN TRENCHES DURING CONSTRUCTION.
4. TRENCHING OPERATIONS SHALL CONFORM TO ALL OSHA REQUIREMENTS.
5. FOR HDPE AND PVC WATERLINES AND LONG SEWER LATERALS, INSTALL METALLIC LOCATOR TAPE 12" (MIN) AND 18" (MAX) BELOW FINISHED SUBGRADE ELEVATION. INSTALL TRACER WIRE LOCATED AT THE TOP OF THE PIPE WITHIN THE INITIAL BACKFILL.

PVC PIPE	
ZONE	DEPTH / SOIL MATERIAL
FINAL BACKFILL	CLASS I-V*
INITIAL BACKFILL	MINIMUM DEPTH = D/2 (12" COMMON)** CLASS I, II, AND III*
HAUNCHING	DEPTH = D/2** CLASS I, II, AND III COMPACTED*
BEDDING	DEPTH = 4-6" CLASS I, II, AND III COMPACTED*

NOTE: HAUNCHING ZONE MUST BE COMPACTED PRIOR TO PLACEMENT AND COMPACTION OF INITIAL AND FINAL BACKFILLS TO PREVENT PIPE DEFLECTION.

HDPE PIPE	
ZONE	DEPTH / SOIL MATERIAL
FINAL BACKFILL	MINIMUM COVER UNPAVED AREAS = 12" MINIMUM COVER PAVED AREAS (D <=48") = 12***,*** MINIMUM COVER PAVED AREAS (D>48") = 24***,*** CLASS I AND II (COMPACTED 90% SPD) AND CLASS III (COMPACTED 95% SPD)*
INITIAL BACKFILL	MINIMUM DEPTH = D/2 (CAN EXTEND TO THE CROWN OF THE PIPE)** CLASS I, II, AND III (TYPE IV CAN BE USED WITH THE APPROVAL OF GEOTECHNICAL ENGINEER)*
HAUNCHING	DEPTH = D/2** CLASS I, II, AND III (TYPE IV CAN BE USED WITH THE APPROVAL OF GEOTECHNICAL ENGINEER)*
BEDDING	DEPTH (D <= 24") = 4*** DEPTH (D > 24") = 6*** CLASS I, II, AND III (TYPE IV CAN BE USED WITH THE APPROVAL OF GEOTECHNICAL ENGINEER)*

NOTE: THE MIDDLE $\frac{1}{3}$ BENEATH THE PIPE INVERT IN THE BEDDING ZONE SHALL BE LOOSELY PLACED

RC PIPE	
ZONE	DEPTH / SOIL MATERIAL
FINAL BACKFILL	CATEGORY I, II, III*
INITIAL BACKFILL	DEPTH = D/2** CATEGORY I (85-95% COMPACTION), CATEGORY II (90-95% COMPACTION), OR CATEGORY III (85-95% COMPACTION)*
HAUNCHING	DEPTH = D/2** CATEGORY I (85-95% COMPACTION), CATEGORY II (90-95% COMPACTION), OR CATEGORY III (85-95% COMPACTION)*
BEDDING	MINIMUM DEPTH = D/24 (NOT LESS THAN 3")** IF ROCK FOUNDATION, MINIMUM DEPTH = D/12 (NOT LESS THAN 6")** CATEGORY I (85-95% COMPACTION), CATEGORY II (90-95% COMPACTION), OR CATEGORY III (85-95% COMPACTION)*

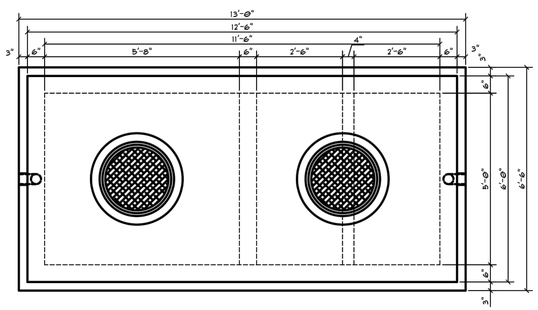
NOTE: FOR ELLIPTICAL AND ARCH PIPE, D SHALL REPRESENT HORIZONTAL SPAN OF PIPE.

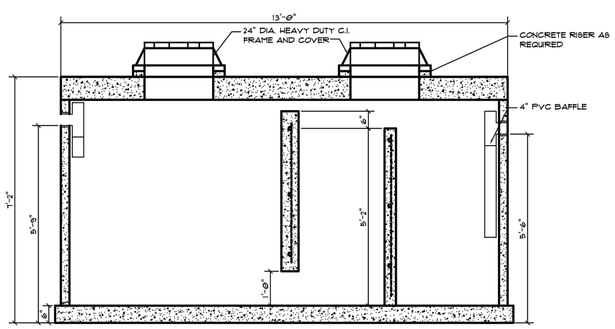
DI PIPE	
ZONE	DEPTH / SOIL MATERIAL
FINAL BACKFILL	CLASS I-V*
INITIAL BACKFILL	DEPTH = D/2** CLASS I, II, AND III (APPROX. 90% STANDARD PROCTOR PER AASHTO T-99)*
HAUNCHING	DEPTH = D/2** CLASS I, II, AND III*
BEDDING	MINIMUM DEPTH = 4" CLASS I, II, AND III*

*SEE TABLE 1 FOR SPECIFICATIONS ON SOIL MATERIALS
** D = PIPE DIAMETER
*** MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

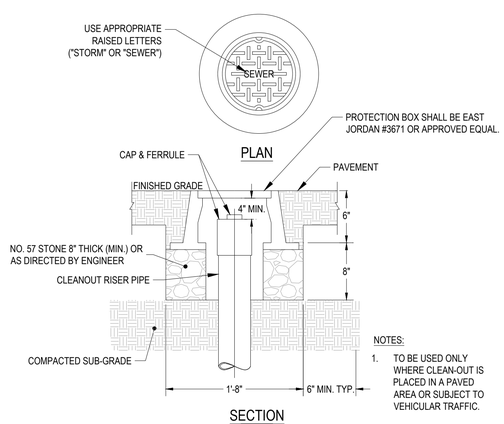
UTILITY PIPE TRENCH AND BEDDING

NTS





PRECAST CONCRETE 2000 GALLON GREASE INTERCEPTOR
SCALE: NO SCALE

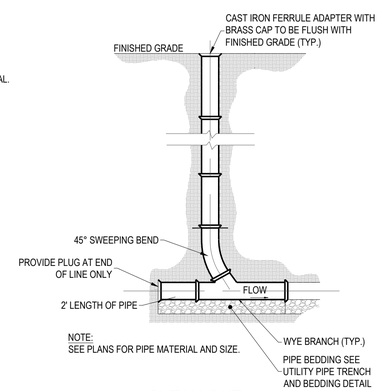


NOTES:

1. TO BE USED ONLY WHERE CLEAN-OUT IS PLACED IN A PAVED AREA OR SUBJECT TO VEHICULAR TRAFFIC.

CLEANOUT PROTECTION BOX

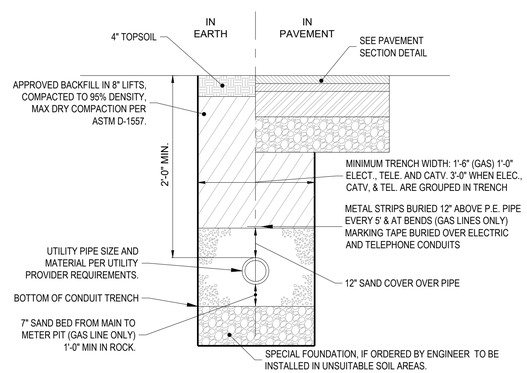
NTS



NOTE:
SEE PLANS FOR PIPE MATERIAL AND SIZE.

CLEAN OUT

NTS



NOTES:

1. CONTRACTOR TO VERIFY SPECIFIC REQUIREMENTS WITH UTILITY PROVIDERS PRIOR TO BEGINNING CONSTRUCTION.

DRY UTILITY TRENCH

NTS

CESO
WWW.CESOINC.COM

REVISION DESCRIPTION

NO.	DATE	
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
JOSHUA LONG
E-86142
REGISTERED
PROFESSIONAL ENGINEER

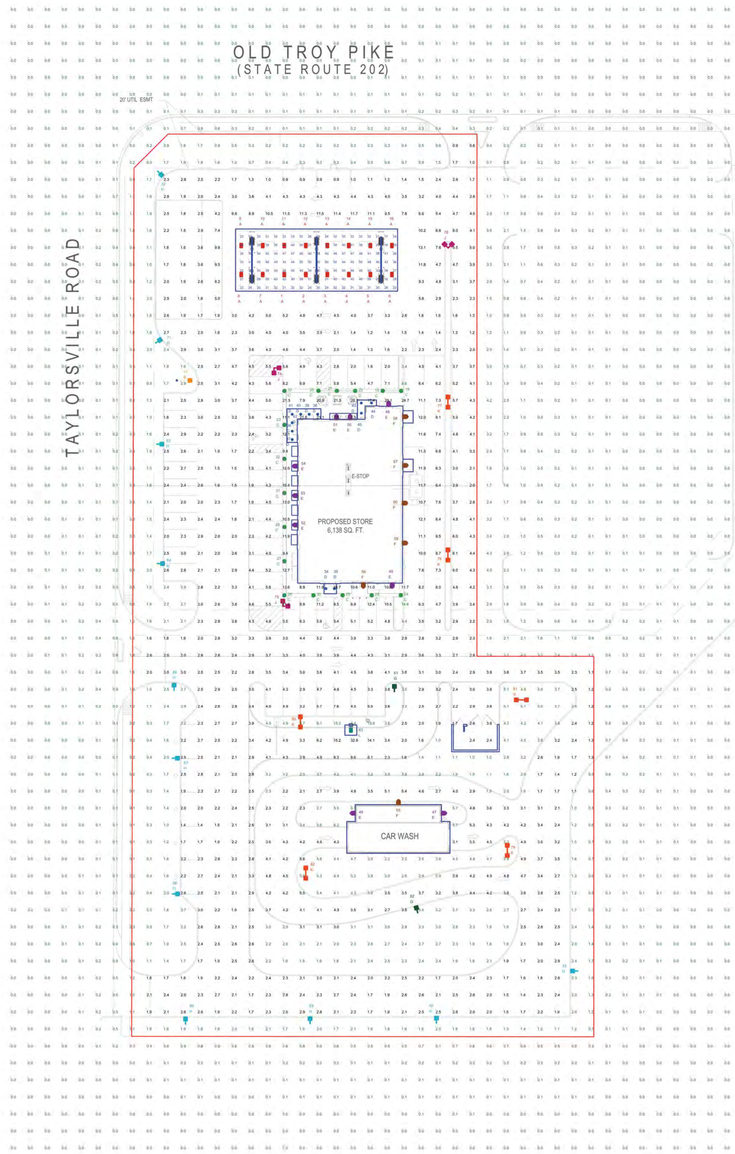
SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

UTILITY DETAILS

ISSUE: OWNER REVIEW
DATE: 04.29.2022
JOB NO.: 760396
DESIGN: MST
DRAWN: MST
CHECKED: BJH
SHEET NO.
C6.3



NORTH

GRAPHIC SCALE

0 40 80 120 160

THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES

LUMINAIRE LOCATION SUMMARY			
LUM NO.	LABEL	MTG. HT.	TILT
1	A	17.54	5
2	A	17.54	5
3	A	17.54	5
4	A	17.54	5
5	A	17.54	5
6	A	17.54	5
7	A	17.54	5
8	A	17.54	5
9	A	19.02	5
10	A	19.02	5
11	A	19.02	5
12	A	19.02	5
13	A	19.02	5
14	A	19.02	5
15	A	19.02	5
16	A	19.02	5
17	B	1	166
18	C	3	0
19	C	3	0
20	C	3	0
21	C	3	0
22	C	3	0
23	C	3	0
24	C	3	0
25	C	3	0
26	C	3	0
27	C	3	0
28	C	3	0
29	C	3	0
30	C	3	0
31	C	3	0
32	C	3	0
33	C	3	0
34	D	11.33	0
35	D	11.33	0
36	D	11.33	0
37	D	11.33	0
38	D	11.33	0
39	D	11.33	0
40	D	11.33	0
41	D	11.33	0

LUMINAIRE LOCATION SUMMARY (CONTINUED)			
LUM NO.	LABEL	MTG. HT.	TILT
42	D	11.33	0
43	D	11.33	0
44	D	11.33	0
45	D	11.33	0
46	E	9.33	0
47	E	9.33	0
48	E	9.33	0
49	E	9.33	0
50	E	12	0
51	E	12	0
52	E	12	0
53	E	12	0
54	E	12	0
55	F	12	0
56	F	12	0
57	F	10	0
58	F	10	0
59	F	12	0
60	F	12	0
61	G	23	0
62	G	23	0
63	H	23	0
64	H	23	0
65	H	23	0
66	H	23	0
67	H	23	0
68	H	23	0
69	H	23	0
70	H	23	0
71	H	23	0
72	H	23	0
73	H	23	0
74	J	23	0
75	J	23	0
76	J	23	0
77	K	23	0
78	K	23	0
79	K	23	0
80	K	23	0
81	K	23	0
82	K	23	0
83	L	11	0

NOTES:
- ALL AREA LIGHTS ON NEW 20 FT. POLE MOUNTED ON 3 FT. CONCRETE BASE

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
SITE PAVED AREA	3.99	32.8	0.6	6.65	54.67
UNDEFINED	0.53	15.2	0.0	N.A.	N.A.
UNDER CANOPY	35.67	50	15	2.38	3.33

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	16	A	SINGLE	11213	1.030	B3-U0-G0	99	1584	CREE, INC.	CAN-228-PS-RM-06-E-UL-XX-525-57K
	1	B	SINGLE	11950	1.040	B4-U0-G0	72	72	CREE, INC.	OSQ-ML-B-AA-XX w/PGM-1 + OSQM-B-11L-57K7-N3-UL-NM-XX
	16	C	SINGLE	1441	1.030	B1-U0-G1	22	352	CREE, INC.	PWY-EDG-3M-P3-02-E-UL-XX-350-57K
	12	D	SINGLE	484	1.000	N.A.	6.9	82.8	B-K LIGHTING, INC.	BKLT CH-LED-e69-FL-BZP-12 (BY OTHERS)
	9	E	SINGLE	2947	1.030	B1-U0-G1	36	324	CREE, INC.	SEC-EDG-3M-WM-02-E-UL-XX-525
	6	F	SINGLE	5893	1.030	B2-U0-G2	68	408	CREE, INC.	SEC-EDG-3M-WM-04-E-UL-XX-525
	2	G	SINGLE	11174	1.030	B2-U0-G2	72	144	CREE, INC.	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX
	11	H	SINGLE	8574	1.030	B1-U0-G2	72	792	CREE, INC.	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX-w_OSQ-BLSMF
	3	J	2 @ 90 DEGREES	11174	1.030	B2-U0-G2	72	432	CREE, INC.	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX
	6	K	BACK-BACK	11174	1.030	B2-U0-G2	72	864	CREE, INC.	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX
	1	L	SINGLE	13946	1.030	B3-U0-G1	132	132	CREE, INC.	BXCT9020&/CAN-228-SL-RM-06-E-UL-XX-700 (BRIGHT RED FINISH, ORDERED SEPARATELY)

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

SCALE: 1" = 40'
LAYOUT BY: DAR
DWG SIZE: D
DATE: 4/5/22

PROJECT NAME:
HUBER HEIGHTS, OH
DRAWING NUMBER:
RL-7986-S1

CESO
WWW.CESOINC.COM

NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

PHOTOMETRIC PLAN

ISSUE: OWNER REVIEW
DATE: 04.29.2022
JOB NO.: 760396
DESIGN: MST
DRAWN: MST
CHECKED: BJH
SHEET NO.
C7.0

	QTY	LABEL	DESCRIPTION
CANOPY	16	A	CAN-228-PS-RM-06-E-UL-XX-525-57K

	QTY	LABEL	DESCRIPTION
AREA	1	B	OSQ-ML-B-AA-XX W/PGM-1 + OSQM-B-11L-57K7-N3-UL-NM-XX
	2	G	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX
	11	H	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX-W_ OSQ-BLSMF
	3	J	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX
	6	K	OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX

	QTY	LABEL	DESCRIPTION
PATHWAY	16	C	PWY-EDG-3M-P3-02-E-UL-XX-350-57K

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	9	E	SEC-EDG-3M-WM-02-E-UL-XX-525
	6	F	SEC-EDG-3M-WM-04-E-UL-XX-525

228 Series™

LED Recessed Canopy Luminaire

Rev. Date: V3 04/05/2021

Product Description

Slim, low profile, easy mounting from below or above the deck. Luminaire sides are rugged cast aluminum with high performance extruded aluminum heat sink specifically designed for LED. Luminaire mounts directly to the canopy deck and is secured in place with compression molded trim frame. Luminaire is provided with factory applied foam gasket and provides for a weatherright seal between luminaire housing and canopy deck. Suitable for single or double skin canopies with 12" (305mm) or 14" (356mm) square junction box. Designed for canopies of 14-22 gauge (maximum 0.0281" (7.14mm) thickness). Weatherright driver compartment is constructed of anodized extruded aluminum for exceptional corrosion resistance and thermal performance. Integral weatherright junction box with 4-8" (114mm) 0-threaded conduit entry points. Rated for feed through 8 (4 in, 4 out) #12 AWG conductors. Below ceiling serviceable driver tray for ease of upgrade or replacement. Field adjustable drive current. Can't exceed drive current specified in ordering information. Exception is 98 LEDs at 350mA which can be adjusted to 525mA. Exclusive ColorTest DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available.

- **Weight:** See Dimensions and Weight chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- **Maximum 10V Source Current:** 35 mA LED; 1-15mA, 98 LED; 9-30mA
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC qualified with select SKUs. Refer to https://www.designlights.org/qpl for current information
- **CA RESIDENTS WARNING** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Accessories

Field-Installed

Upgrade Kit E2 – Cast
Cast aluminum canopy (removing factory supplied canopy trim plates) with integral wiring box and knockouts (supplied with Model E2). Finish to be match ordered.
(A-CE12UA) (B-CE12UB) (C-CE12UC) (D-CE12UD) (E-CE12UE) (F-CE12UF) (G-CE12UG) (H-CE12UH) (J-CE12UJ) (K-CE12UK) (L-CE12UL)
Use this kit with stainless canopy trim or less than 3.5" (89mm) canopy depth.

Upgrade Kit E3 – Metal
Metal plate (sand cast bronze) replacing factory mounted HID canopy trim plate (supplied with Model E3). Finish to be match ordered.
(A-CP12UA) (B-CP12UB) (C-CP12UC) (D-CP12UD) (E-CP12UE) (F-CP12UF) (G-CP12UG) (H-CP12UH) (J-CP12UJ) (K-CP12UK) (L-CP12UL)
Use this kit with stainless canopy trim or less than 3.5" (89mm) canopy depth.

Upgrade Kits E4 – Plastic
(A-E 4" (114mm) to 7" (178mm) adapter) (plastic canopy trim plates will be supplied with Model E4 to match the factory supplied HID canopy trim without requiring an optional HID canopy)
(A-CE12UA-CW) (B-CE12UB-CW) (C-CE12UC-CW) (D-CE12UD-CW) (E-CE12UE-CW) (F-CE12UF-CW) (G-CE12UG-CW) (H-CE12UH-CW) (J-CE12UJ-CW) (K-CE12UK-CW) (L-CE12UL-CW)
Not without factory plates for use with canopies that have 3.5" (89mm) or greater canopy depth.
(A-CP12UA-CW) (B-CP12UB-CW) (C-CP12UC-CW) (D-CP12UD-CW) (E-CP12UE-CW) (F-CP12UF-CW) (G-CP12UG-CW) (H-CP12UH-CW) (J-CP12UJ-CW) (K-CP12UK-CW) (L-CP12UL-CW)
Not with factory plates for use with 3" (76mm) or less canopy depth that have a minimum of 12" (305mm) of conduit between the canopy and the first J-Channel or hole.
(A-E12UA-CW) (B-E12UB-CW) (C-E12UC-CW) (D-E12UD-CW) (E-E12UE-CW) (F-E12UF-CW) (G-E12UG-CW) (H-E12UH-CW) (J-E12UJ-CW) (K-E12UK-CW) (L-E12UL-CW)
Not with factory plates for use with 3" (76mm) or less canopy depth that have a minimum of 12" (305mm) of conduit between the canopy and the first J-Channel or hole.

Hand-Held Remote
(A-HENH)
Hand-held remote for programmingmaintenance on programmable, dawn-to-dusk sensors, providing ease of use. Hand-Held Remote is required for programmingmaintenance on programmable sensors.

Ordering Information

Example: CAN-228-SA-840-E2-E-UL-XX-525

CAN-228							
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current
CAN-228	SM Type I Medium SQ Square Optimized Symmetric PS Type I Short Square Optimized Asymmetric	BW Recessed	03 Available with SA optic only. 04 09	E	UL Universal 347-480V	840 Neutral 4000K with 70 CRI only. 827 Warm 2700K	DM 0-10V Dimming Refer to Dimming spec sheet for details. Can't exceed specified drive current. PML Programmable Multi-Level Refer to PML spec sheet for details. ADM ADEM Color Temperature Color temperature per Selectronix. Maximum 10.4W.

Electrical Data*

LED Count (x10)	System Watts 120-480V	Total Current (A) 120V	208V	240V	277V	347V	480V
350mA							
09	99	0.82	0.48	0.42	0.36	0.29	0.22
525mA							
03	54	0.45	0.26	0.25	0.23	0.16	0.12
06	99	0.82	0.48	0.42	0.36	0.29	0.22
09	145	1.22	0.70	0.68	0.61	0.45	0.34
700mA							
03	78	0.59	0.35	0.32	0.28	0.23	0.16
04	112	1.11	0.66	0.57	0.50	0.39	0.28
09	201	1.66	0.96	0.86	0.75	0.59	0.44

* Expected drive at 25°C (77°F). Actual operating may differ up to +/- 10% when operating between 120-277V or 347-480V +/- 10%.

228 Series™ Ambient Adjusted Lumen Maintenance*

Ambient	Initial LMF	25K hr Reported* LMF	50K hr Reported* LMF	75K hr Estimated* LMF	100K hr Estimated* LMF
5°C (41°F)	1.06	1.01	0.99	0.96	0.94
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

* Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21based on IES LM-80 report data for the LED package and its only relevant stating. Luminaire ambient temperature factors & LED lifetime have not been applied to all values listed above. Please refer to the Temperature Zone Multiplier Worksheet for outdoor average nightime ambient temperature.
** In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to the lesser of 6 years or the IES LM-80 report for the LED.
*** Estimated values are calculated and represent time durations that exceed the six year duration of the LED.

US: creelighting.com (800) 236-4800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium & Large

Rev. Date: V3 07/14/2021

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and efficiency, clean aesthetics. Built for life, the housing is rugged cast aluminum with integral, weatherright LED driver compartment. Versatile mounting options allow for simple installation. Luminaire is rated for operation in ambient temperatures up to 50°C (122°F). Optics are available in a variety of distributions including forward throw, wide area, and two-way. Optics are also providing even, quality illumination. The XL lumen package is a scalable upgrade for HID applications up to 250 Watt, and the L1L lumen package is a scalable upgrade for HID applications up to 400 Watt. The 22L lumen package is a scalable upgrade for HID applications up to 704 Watts, and the 44L lumen package is a scalable upgrade for HID applications up to 1000 Watts.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, hamlets, neighborhoods, residential roadways.

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires.

Nanooptic® Precision Delivery Grid™ optic.

Assembled in the U.S.A. of U.S. and imported parts.

Initial Delivered Lumens: 4,000 - 30,000

Efficacy: Up to 131 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K), 90 CRI (3000K)

CCT: 3000K +/- 300K, 4000K +/- 300K, 5700K +/- 500K

Limited Warranty*: 10 years on luminaire/10 years on ColorTest DeltaGuard® finish

* Visit http://www.creelighting.com/warranties for warranty terms.

Ordering Information

Example: OSQ-ML-B-DA-XX-W-NM-XX-BLSMF

OSQ-ML-B-AA Adjustable Arm	Color Options: SM Silver BB Bronze
OSQ-ML-B-DA Direct Arm	BK Black WH White
OSQ-ML-B-TM Trunnion Mount	

Luminaire	Weight
OSQM-B-11L-57K7-N3-UL-NM-XX	18.5 lbs (13.5 kg)
OSQM-B-11L-57K7-4M-UL-NM-XX	18.4 lbs (14.7kg)

Note: Mounting arm is sold separately. Refer to the Accessories section for details. Luminaire ordering example: OSQ-ML-B-DA-XX-W-NM-XX-BLSMF

Mount Luminaire must be ordered separately!*

Product	Optic	Mounting	Voltage	Mount	Controls**	Options
OSQ-ML-B-AA Adjustable Arm OSQ-ML-B-DA Direct Arm OSQ-ML-B-TM Trunnion Mount	N Narrow Large Area	02 Medium Pole	U Universal 120-277V 347-480V	XL Extra Large L1L Large 22L Extra Large 44L Extra Large	NM Non-Motion Sensor (See specs sheet for details) MS Motion Sensor (See specs sheet for details)	BSL Bronze Shielded Lens CSL Clear Shielded Lens

* Luminaire ordering example: OSQ-ML-B-DA-XX-W-NM-XX-BLSMF
** Motion Sensor ordering example: OSQ-ML-B-DA-XX-W-MS-XX-BLSMF

Luminaire (Mount must be ordered separately)

Family	Size	Series	Lumen Package	Optic	Voltage	Mount	Controls**	Options
OSQ	M Medium Large	B Medium Large	11L 11L Lumens 22L 22L Lumens 44L 44L Lumens	Medium Large Area SM Type I Medium SQ Square Optimized Symmetric PS Type I Short Square Optimized Asymmetric Large Area N Narrow Large Area	U Universal 120-277V 347-480V	AA Adjustable Arm DA Direct Arm TM Trunnion Mount	NM Non-Motion Sensor (See specs sheet for details) MS Motion Sensor (See specs sheet for details)	BSL Bronze Shielded Lens CSL Clear Shielded Lens

* Latest Photometric files are available online at www.creelighting.com/luminaires/area-flood-luminaires/osq-series-medium-large
** Consult factory for availability of Motion Sensor controls.

Accessories

Field Installed

Flat Shield (Front Facing Optics)	Hand-Held Remote	Shorting Cap
OSQ-SF-DMF (Medium) OSQ-SF-DLF (Large)	(A-SENSORUM) For successful commissioning of the programmable multi-level option, a minimum of one Hand-Held remote is required	(A-ASC-SHRT)
Round Shield (Rotational Optics) OSQ-SF-DMR (Medium) OSQ-SF-DLR (Large)		
Anti-Glare Shield OSQ-ABSD-MEDIUM OSQ-LG-BRDSHL		

US: creelighting.com (800) 236-4800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

THE EDGE® Series

LED Pathway Luminaire

Rev.Date: V3 04/07/2021

Product Description

Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum housing (Z3 gray powder coat finish). Tenacious retaining cartridge allows for simple installation. Luminaire is rated for operation in ambient temperatures up to 50°C (122°F). Optics are available in a variety of distributions including forward throw, wide area, and two-way. Optics are also providing even, quality illumination. The XL lumen package is a scalable upgrade for HID applications up to 250 Watt, and the L1L lumen package is a scalable upgrade for HID applications up to 400 Watt. The 22L lumen package is a scalable upgrade for HID applications up to 704 Watts, and the 44L lumen package is a scalable upgrade for HID applications up to 1000 Watts.
Applications: Landscape, walk ways and general site lighting

Performance Summary

Patented NanoOptic® Product Technology.

Assembled in the U.S.A. of U.S. and imported parts.

CRI: Minimum 70 CRI.

CCT: 4000K +/- 300K, 5700K +/- 500K standard.

Limited Warranty*: 10 years on luminaire/10 years on ColorTest DeltaGuard® finish

* Visit http://www.creelighting.com/warranties for warranty terms.

Accessories

Field-Installed

Upgrade Kit
Upgrade kit consists of trimming factory with a bulkhead (covered by FT-Fitting). (A-UGPKTRIM) (B-UGPKTRIM) (C-UGPKTRIM) (D-UGPKTRIM) (E-UGPKTRIM) (F-UGPKTRIM)

Ordering Information

Example: EDG-P3-04-MM-N-E-UL-SV-700

EDG-P3							
Product	Optic	Mounting	LED Count (x4)	Series	Voltage	Color Options	Drive Current
EDG-P3	SM Type I Medium PS Type I Short SQ Square Optimized Symmetric	MM Mid-Mount	04	E	UL Universal 347-480V	840 Neutral 4000K with 70 CRI only. 827 Warm 2700K	700 700mA

Electrical Data*

LED Count (x4)	System Watts 120-277V	System Watts 347-480V	Total Current (A) 120V	208V	240V	277V	347V	480V
700mA								
04	29	29	0.27	0.15	0.13	0.11	0.10	0.07

* Expected drive at 25°C (77°F). Actual operating may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%.

THE EDGE® Series Ambient Adjusted Lumen Maintenance*

Ambient	CCT	Initial LMF	25K hr Reported** LMF	50K hr Reported** LMF	75K hr Estimated*** LMF	100K hr Estimated*** LMF
5°C (41°F)	4000/5700K	1.04	1.01	0.99	0.98	0.96
	3000K	1.08	1.06	1.04	1.04	1.04
10°C (50°F)	4000/5700K	1.03	1.00	0.98	0.97	0.95
	3000K	1.06	1.04	1.04	1.04	1.04
15°C (59°F)	4000/5700K	1.01	0.99	0.97	0.96	0.94
	3000K	1.04	1.02	1.02	1.02	1.02
20°C (68°F)	4000/5700K	1.01	0.98	0.96	0.95	0.93
	3000K	1.02	1.01	1.01	1.01	1.01
25°C (77°F)	4000/5700K	1.00	0.97	0.95	0.94	0.92
	3000K	1.00	1.00	1.00	1.00	1.00

* Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21based on IES LM-80 report data for the LED package and its only relevant stating. Luminaire ambient temperature factors & LED lifetime have not been applied to all values listed above. Please refer to the Temperature Zone Multiplier Worksheet for outdoor average nightime ambient temperature.
** In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to the lesser of 6 years or the IES LM-80 report for the LED.
*** Estimated values are calculated and represent time durations that exceed the six year duration of the LED.

US: creelighting.com (800) 236-4800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

THE EDGE® Series

LED Security Wall Pack Luminaire

Rev. Date: V8 04/05/2021

Product Description

THE EDGE® wall mount luminaire has a slim, low profile design. The luminaire and caps are made from rugged cast aluminum with integral, weatherright LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting box for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes louliteria guard.
Applications: General area and security lighting

Performance Summary

Patented NanoOptic® Product Technology.

Assembled in the U.S.A. of U.S. and imported parts.

CRI: Minimum 70 CRI (4000K & 5700K), 80 CRI (3000K), 90 CRI (3000K)

CCT: Turtle Friendly Amber, 3000K (+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on ColorTest DeltaGuard® finish/1 year on accessories

* Visit http://www.creelighting.com/warranties for warranty terms.

Accessories

Field-Installed

Bird Spikes
(A-BSSQPK)

Beauty Plate
(A-BP-SQ-E-U) 12" (305mm) Square
(A-BP-SQ-E-U-PMR) 12" (305mm) Square Covers holes left by incandescent wall packs

Hand-Held Remote
(A-HENH)
For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

Ordering Information

Example: SEC-EDG-3M-WM-02-E-UL-SV-700

SEC-EDG							
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current
SEC-EDG	3M Medium 2MW Type II Medium w/BLS 2SR Type II Short w/BLS 3M Type III Medium 4MW Type IV Medium w/BLS 4SR Type IV Short w/BLS	WM Wall Mount	02 03 04 08 09 12	E Universal 347-480V	UL Universal 120-277V UR 120-277V Rural UH 347-480V	BRZ Bronze SLV Silver WH White	350 350mA 525 525mA 700 700mA

Electrical Data*

LED Count (x10)	CCT	System Watts 120-277V	Total Current (A) 120V	208V	240V	277V	347V	480V
350mA								
03	3000K/4000K/5700K	26	0.21	0.13	0.11	0.10	0.07	0.07
	TRL	19	0.16	0.09	0.08	0.07	0.05	0.04
04	3000K/4000K/5700K	44	0.36	0.22	0.21	0.20	0.15	0.12
	TRL	35	0.29	0.17	0.15	0.13	0.10	0.07
08	3000K/4000K/5700K	66	0.55	0.31	0.28	0.26	0.20	0.15
	TRL	52	0.41	0.24	0.21	0.18	0.14	0.10
09	3000K/4000K/5700K	90	0.75	0.44	0.39	0.34	0.24	0.20
	TRL	68	0.57	0.33	0.28	0.25	0.20	0.14
12	3000K/4000K/5700K	110	0.92	0.53	0.47	0.41	0.32	0.24
	TRL	83	0.69	0.40	0.35	0.30	0.23	0.17
17	3000K/4000K/5700K	150	1.30	0.74	0.65	0.58	0.38	0.30
	TRL	99	0.82	0.48	0.41	0.36	0.28	0.21
525mA								
03	3000K/4000K/5700K	37	0.30	0.19	0.17	0.16	0.12	0.10
	TRL	27	0.22	0.14	0.12	0.11	0.08	0.07
04	3000K/4000K/5700K	62	0.51	0.32	0.29	0.26	0.20	0.15
	TRL	49	0.40	0.25	0.22	0.20	0.15	0.12
08	3000K/4000K/5700K	93	0.76	0.48	0.43	0.38	0.27	0.20
	TRL	73	0.60	0.37	0.33	0.29	0.21	0.17
09	3000K/4000K/5700K	127	1.04	0.65	0.57	0.50	0.37	0.29
	TRL	100	0.82	0.51	0.45	0.40	0.29	0.23
12	3000K/4000K/5700K	155	1.27	0.79	0.70	0.62	0.45	0.35
	TRL	122	1.00	0.62	0.55	0.49	0.35	0.28
700mA								
03	3000K/4000K/5700K	50	0.41	0.25	0.22	0.20	0.15	0.12
	TRL	39	0.32	0.20	0.17	0.16	0.12	0.09
04	3000K/4000K/5700K	83	0.68	0.42	0.36	0.32	0.23	0.20
	TRL	65	0.53	0.33	0.28	0.25	0.18	0.15
08	3000K/4000K/5700K	124	1.01	0.63	0.55	0.48	0.34	0.30
	TRL	97	0.79	0.49	0.43	0.38	0.27	0.23
09	3000K/4000K/5700K	170	1.38	0.86	0.75	0.66	0.47	0.39
	TRL	133	1.11	0.68	0.58	0.51	0.39	0.28
12	3000K/4000K/5700K	210	1.70	1.05	0.92	0.81	0.58	0.47
	TRL	165	1.33	0.82	0.72	0.63	0.45	0.37

* Expected drive at 25°C (77°F). Actual operating may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%.

THE EDGE® Series Ambient Adjusted Lumen Maintenance*

Ambient	CCT	Initial LMF	25K hr Reported** LMF	50K hr Reported** LMF	75K hr Estimated*** LMF	100K hr Estimated*** LMF
5°C (41°F)	3000K/4000K/5700K	1.04	1.03	1.02	1.02	1.03
	TRL	1.04	1.04	1.04	1.04	1.04
10°C (50°F)	3000K/4000K/5700K	1.03	1.02	1.02	1.02*	1.02
	TRL	1.04	1.04	1.04	1.04*	1.04
15°C (59°F)	3000K/4000K/5700K	1.02	1.01	1.01	1.01	1.01
	TRL	1.03	1.03	1.03	1.03	1.03
20°C (68°F)	3000K/4000K/5700K	1.01	0.99	0.99	0.99*	0.99
	TRL	1.01	1.01	1.01	1.01*	1.01
25°C (77°F)	3000K/4000K/5700K	1.00	0.98	0.98	0.98	0.98
	TRL	1.00	1.00	1.00	1.00*	1.00

* Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21based on IES LM-80 report data for the LED package and its only relevant stating. Luminaire ambient temperature factors & LED lifetime have not been applied to all values listed above. Please refer to the Temperature Zone Multiplier Worksheet for outdoor average nightime ambient temperature.
** In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to the lesser of 6 years or the IES LM-80 report for the LED.
*** Estimated values are calculated and represent time durations that exceed the six year duration of the LED.
* Extrapolated values are not recommended for use beyond the six year duration of the LED.

US: creelighting.com (800) 236-4800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

PROJECT NAME:

HUBER HEIGHTS, OH

DRAWING NUMBER:
RL-7986-S1

CESO
WWW.CESOINC.COM

REVISION DESCRIPTION

NO.	DATE	
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

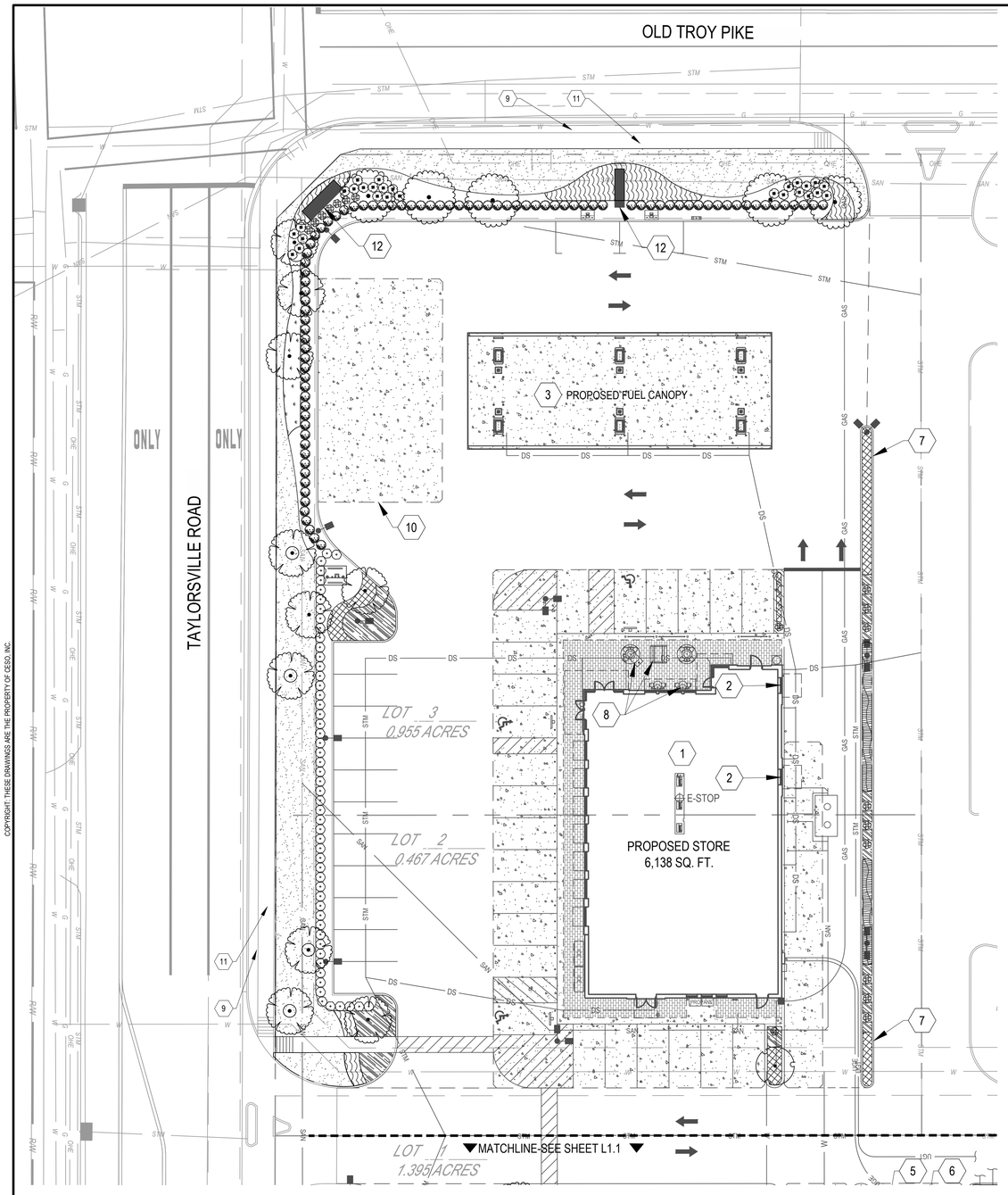
OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

PHOTOMETRIC DETAILS

ISSUE:
OWNER REVIEW
DATE:
04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	BJH

SHEET NO.
C7.1



LEGEND

- PROPOSED BRICK PAVERS (REFER TO ARCHITECTURAL PLANS)
- PROPOSED REINFORCED STANDARD-DUTY CONCRETE PAVEMENT
- BUILDING
- CONCRETE CURB
- EDGE OF PAVEMENT / WALK
- PAVEMENT TRANSITION
- SIGN
- 6" BOLLARD
- AIR MACHINE
- UNDERGROUND FUEL TANK VENT PAD
- VACUUM
- GREASE TANK, REFER TO PLUMBING PLANS
- PROPANE LOCKERS
- ICE MERCHANDISER
- SITE LIGHTING

CODED NOTES:

1. PROPOSED 6,138 SF STORE. REFER TO ARCHITECTURAL PLANS.
2. PROPOSED DRIVE-THRU WINDOW.
3. PROPOSED SIX (6) DISPENSER FUEL CANOPY. REFER TO ARCHITECTURAL PLANS.
4. PROPOSED 1,648 SF CAR WASH BUILDING. REFER TO ARCHITECTURAL PLANS.
5. PROPOSED VACUUM STORAGE SHED. REFER TO ARCHITECTURAL PLANS.
6. PROPOSED DUMPSTER ENCLOSURE AND PAD. SEE DETAIL ON SHEET C6.1.
7. CURBED MEDIAN.
8. PROPOSED PATIO SEATING. REFER TO ARCHITECTURAL PLANS.
9. EXISTING TURF TO REMAIN.
10. EXISTING LANDSCAPE TO REMAIN.
11. EXISTING SIDEWALK TO REMAIN.
12. PROPOSED MONUMENT SIGN.

PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	5	ACER BUERGERIANUM TRIDENT MAPLE	2.5" CAL	10' HT / 5' SPR	AS SHOWN
	5	ACER RUBRUM 'ARMSTRONG' ARMSTRONG RED MAPLE	2.5" CAL	10' HT / 5' SPR	AS SHOWN
	2	PICEA ABIES NORWAY SPRUCE	---	6' HT	AS SHOWN
	5	PRUNUS SERRULATA 'FIRST BLUSH' FIRST BLUSH CHERRY	1.5" CAL	7' HT / 4' SPR	AS SHOWN
	51	THUJA OCCIDENTALIS 'SMARAGD' EMERALD GREEN ARBORVITAE	---	6' HT	4'-0" OC
	32	THUJA STANDISHII X PLICATA 'GREEN GIANT' GREEN GIANT ARBORVITAE	---	6' HT	10'-0" OC
	21	TILIA CORDATA 'CORZAM' CORZAM LITTLE LEAF LINDEN	2.5" CAL	10' HT / 5' SPR	AS SHOWN

SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	126	ABELIA X 'EDWARD GOUCHER' EDWARD GOUCHER ABELIA	---	24" HT	3'-0" OC
	105	ILEX CRENATA JAPANESE HOLLY	---	24" HT	3'-0" OC
	21	ILEX CRENATA 'PIIIC-I' TM STRAIGHT AND NARROW JAPANESE HOLLY	---	60" HT	2'-6" O.C.
	50	JUNIPERUS X PFITZERIANA 'GOLD COAST' GOLD COAST PFITZER JUNIPER	---	24" HT	3'-0" OC
	62	PRUNUS LAUROCERASUS 'SCHIPKAENSIS' SCHIPKA ENGLISH LAUREL	---	24" HT	3'-0" OC
	55	RHODODENDRON X 'AUTUM BONFIRE' TM AUTUMN BONFIRE ENCORE AZALEA	---	24" HT	3'-0" OC

SHRUB AREAS	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	128	MISCANTHUS SINENSIS 'MORNING LIGHT' MORNING LIGHT EULALIA GRASS	---	12" HT	2'-6" OC
	99	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	---	12" HT	2'-0" OC
	302	ROSA X 'MEISENTML' TM LEMON DRIFT GROUNDCOVER ROSE	---	12" HT / SPR	2'-0" OC

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	354	HYPERICUM CALYCINUM CREEPING ST. JOHN'S WORT	1 GAL	6" HT	1'-6" OC
	601	LIRIOPE MUSCARI 'SUPER BLUE' SUPER BLUE LILYTURF	1 GAL	1' HT / SPR	1'-6" OC
	14,628 SF	POA PRATENSIS KENTUCKY BLUEGRASS	SOD		

MULCH

- ALL PLANT BEDS SHALL CONTAIN A 3" LAYER OF DOUBLE HAMMERED HARDWOOD MULCH
- CONTRACTOR TO PLACE 4' DIAMETER MULCH RING AROUND ALL TREES IN LAWN

IRRIGATION

- THE CONTRACTOR SHALL DESIGN, SUPPLY, AND INSTALL IRRIGATION SYSTEM FOR ALL SODDED AND PLANTING AREAS AS SHOWN ON THIS SHEET. DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION

LANDSCAPE REQUIREMENTS

PARKING BUFFERS ALONG PUBLIC RIGHTS-OF WAY

OLD TROY PIKE (175 LF, NOT INCL DRIVES)
REQUIRED WIDTH: 10'
PROPOSED WIDTH: 20.4'
REQUIRED CANOPY TREES (1 PER 35'): 5
PROPOSED CANOPY TREES: 5
REQUIRED SHRUBS (10 PER 35'): 50
PROPOSED SHRUBS: 73 (NOT INCL ORNAMENTAL GRASSES)

TAYLORSVILLE ROAD (440 LF, NOT INCL DRIVES)
REQUIRED WIDTH: 10'
PROPOSED WIDTH: 12.5' TO 18'
REQUIRED CANOPY TREES (1 PER 35'): 13
PROPOSED CANOPY TREES: 13
REQUIRED SHRUBS (10 PER 35'): 126
PROPOSED SHRUBS: 128 (NOT INCL ORNAMENTAL GRASSES)

PARKING LOT INTERIOR REQUIREMENTS
REQUIRED PERCENTAGE PERVIOUS AREA: 4
PROPOSED PERCENTAGE PERVIOUS AREA: 10

TERMINAL ISLAND PLANTING
REQUIRED COVERING OTHER THAN SOD: 75%
PROPOSED COVERING OTHER THAN SOD: 100%

SIDE YARD SCREENING
REQUIRED MINIMUM HEIGHT: 6'
PROPOSED MINIMUM HEIGHT: 6'

Ohio Utilities Protection Service
Call 811 before you dig

FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 1 (800) 362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF OHIO UTILITIES PROTECTION SERVICE

N

20 0 20 40
GRAPHIC SCALE (IN FEET)
1 in. = 20 ft.

CESO
WWW.CESOINC.COM

NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
ERIC LALONE
LA.2001534
REGISTERED
LANDSCAPE ARCHITECT
06-16-22

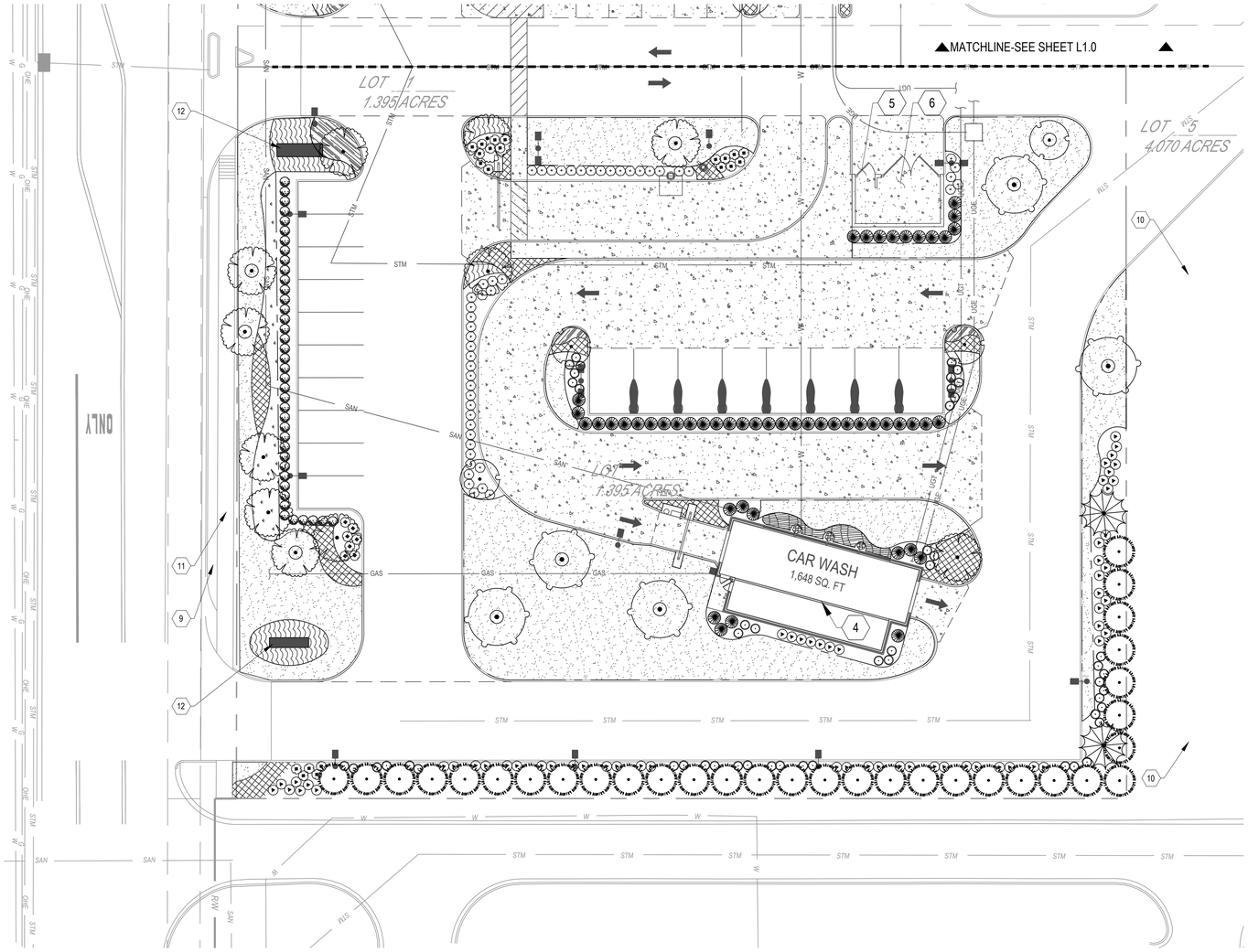
SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

PLANTING PLAN

ISSUE: OWNER REVIEW
DATE: 04.29.2022
JOB NO.: 760396
DESIGN: EAB
DRAWN: EAB
CHECKED: CJC
SHEET NO. L1.0



PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	5	ACER BUERGERIANUM 'TRIDENT' MAPLE	2.5" CAL	10' HT / 5' SPR	AS SHOWN
	5	ACER RUBRUM 'ARMSTRONG' ARMSTRONG RED MAPLE	2.5" CAL	10' HT / 5' SPR	AS SHOWN
	2	PICEA ABIES NORWAY SPRUCE	---	6' HT	AS SHOWN
	5	PRUNUS SERRULATA 'FIRST BLUSH' FIRST BLUSH CHERRY	1.5" CAL	7' HT / 4' SPR	AS SHOWN
	51	THUJA OCCIDENTALIS 'SMARAGD' EMERALD GREEN ARBORVITAE	---	6' HT	4'-0" OC
	32	THUJA STANDISHII X PLICATA 'GREEN GIANT' GREEN GIANT ARBORVITAE	---	6' HT	10'-0" OC
	21	TILIA CORDATA 'CORZAM' CORZAM LITTLE LEAF LINDEN	2.5" CAL	10' HT / 5' SPR	AS SHOWN

SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	126	ABELIA X 'EDWARD GOUCHER' EDWARD GOUCHER ABELIA	---	24" HT	3'-0" OC
	105	ILEX CRENATA JAPANESE HOLLY	---	24" HT	3'-0" OC
	21	ILEX CRENATA 'PIIC-I' TM STRAIGHT AND NARROW JAPANESE HOLLY	---	60" HT	2'-6" O.C.
	50	JUNIPERUS X PFITZERIANA 'GOLD COAST' GOLD COAST PFITZER JUNIPER	---	24" HT	3'-0" OC
	62	PRUNUS LAUROCERASUS 'SCHIPKAENSIS' SCHIPKA ENGLISH LAUREL	---	24" HT	3'-0" OC
	55	RHODODENDRON X 'AUTUM BONFIRE' TM AUTUMN BONFIRE ENCORE AZALEA	---	24" HT	3'-0" OC

SHRUB AREAS	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT/ SPR	SPACING
	128	MISCANTHUS SINENSIS 'MORNING LIGHT' MORNING LIGHT EULALIA GRASS	---	12" HT	2'-6" OC
	99	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	---	12" HT	2'-0" OC
	302	ROSA X 'MEISENTIML' TM LEMON DRIFT GROUNDCOVER ROSE	---	12" HT / SPR	2'-0" OC

GROUND COVERS	QTY	BOTANICAL / COMMON NAME	SIZE	MIN HT / SPR	SPACING
	354	HYPERICUM CALYCINUM CREEPING ST. JOHN'S WORT	1 GAL	6" HT	1'-6" OC
	601	LIRIOPE MUSCARI 'SUPER BLUE' SUPER BLUE LILYTURF	1 GAL	1' HT / SPR	1'-6" OC
	14,628 SF	POA PRATENSIS KENTUCKY BLUEGRASS	SOD		

MULCH

- ALL PLANT BEDS SHALL CONTAIN A 3" LAYER OF DOUBLE HAMMERED HARDWOOD MULCH
- CONTRACTOR TO PLACE 4' DIAMETER MULCH RING AROUND ALL TREES IN LAWN

IRRIGATION

- THE CONTRACTOR SHALL DESIGN, SUPPLY, AND INSTALL IRRIGATION SYSTEM FOR ALL SODDED AND PLANTING AREAS AS SHOWN ON THIS SHEET. DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION

LANDSCAPE REQUIREMENTS

PARKING BUFFERS ALONG PUBLIC RIGHTS-OF WAY

OLD TROY PIKE (175 LF, NOT INCL DRIVES)
REQUIRED WIDTH: 10'
PROPOSED WIDTH: 20.4'
REQUIRED CANOPY TREES (1 PER 35'): 5
PROPOSED CANOPY TREES: 5
REQUIRED SHRUBS (10 PER 35'): 50
PROPOSED SHRUBS: 73 (NOT INCL ORNAMENTAL GRASSES)

TAYLORSVILLE ROAD (440 LF, NOT INCL DRIVES)
REQUIRED WIDTH: 10'
PROPOSED WIDTH: 12.5' TO 18'
REQUIRED CANOPY TREES (1 PER 35'): 13
PROPOSED CANOPY TREES: 13
REQUIRED SHRUBS (10 PER 35'): 126
PROPOSED SHRUBS: 128 (NOT INCL ORNAMENTAL GRASSES)

PARKING LOT INTERIOR REQUIREMENTS
REQUIRED PERCENTAGE PERVIOUS AREA: 4
PROPOSED PERCENTAGE PERVIOUS AREA: 10

TERMINAL ISLAND PLANTING
REQUIRED COVERING OTHER THAN SOD: 75%
PROPOSED COVERING OTHER THAN SOD: 100%

SIDE YARD SCREENING
REQUIRED MINIMUM HEIGHT: 6'
PROPOSED MINIMUM HEIGHT: 6'

CODED NOTES:

1. PROPOSED 6,138 SF STORE. REFER TO ARCHITECTURAL PLANS.
2. PROPOSED DRIVE-THRU WINDOW.
3. PROPOSED SIX (6) DISPENSER FUEL CANOPY. REFER TO ARCHITECTURAL PLANS.
4. PROPOSED 1,648 SF CAR WASH BUILDING. REFER TO ARCHITECTURAL PLANS.
5. PROPOSED VACUUM STORAGE SHED. REFER TO ARCHITECTURAL PLANS.
6. PROPOSED DUMPSTER ENCLOSURE AND PAD. SEE DETAIL ON SHEET C6.1.
7. CURBED MEDIAN.
8. PROPOSED PATIO SEATING. REFER TO ARCHITECTURAL PLANS.
9. EXISTING TURF TO REMAIN.
10. EXISTING LANDSCAPE TO REMAIN.
11. EXISTING SIDEWALK TO REMAIN.
12. PROPOSED MONUMENT SIGN.

LEGEND

- PROPOSED BRICK PAVERS (REFER TO ARCHITECTURAL PLANS)
- PROPOSED REINFORCED STANDARD-DUTY CONCRETE PAVEMENT
- BUILDING
- CONCRETE CURB
- EDGE OF PAVEMENT / WALK
- PAVEMENT TRANSITION
- SIGN
- 6" BOLLARD
- AIR MACHINE
- UNDERGROUND FUEL TANK VENT PAD
- VACUUM
- GREASE TANK, REFER TO PLUMBING PLANS
- PROPANE LOCKERS
- ICE MERCHANDISER
- SITE LIGHTING

N

20 0 20 40

GRAPHIC SCALE (IN FEET)
1 in. = 20 ft.

Ohio Utilities Protection Service
Call 811 before you dig

FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTORS SHALL NOTIFY THE FOLLOWING AGENCIES: OHIO UTILITIES PROTECTION SERVICE AT 811 OR 1 (800) 362-2764 AND ALL OTHER AGENCIES WHICH MIGHT HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NONMEMBERS OF OHIO UTILITIES PROTECTION SERVICE

CESO
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REVISION DESCRIPTION

NO.	DATE	
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
ERIC LALONE
LA.2001534
REGISTERED
LANDSCAPE ARCHITECT

06-16-22

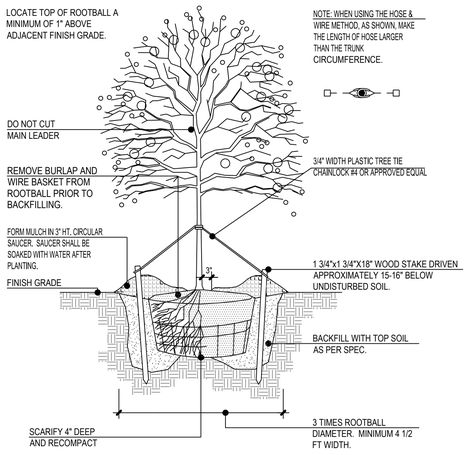
SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

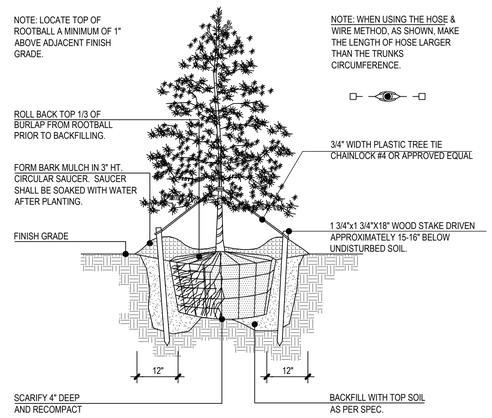
OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

PLANTING PLAN

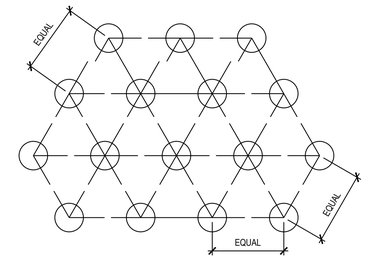
ISSUE:	OWNER REVIEW
DATE:	04.29.2022
JOB NO.:	760396
DESIGN:	EAB
DRAWN:	EAB
CHECKED:	CJC
SHEET NO.	L1.1



1 DECIDUOUS TREE STAKING N.T.S.



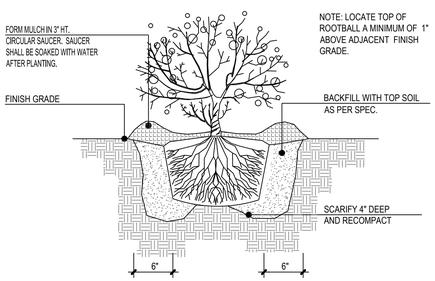
2 EVERGREEN TREE STAKING N.T.S.



ALL GROUND COVER SHALL BE PLANTED AT EQUAL TRIANGULAR SPACING PER ON CENTER SPACING AS SPECIFIED ON PLANTING PLAN.

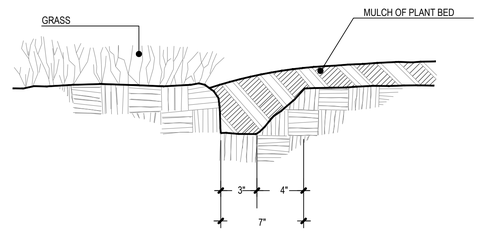
LOCATE GROUND COVER ONE HALF OF SPECIFIED SPACING DISTANCE FROM ANY CURB, SIDEWALK, OR OTHER HARD SURFACE, UNLESS OTHERWISE NOTED.

3 GROUND COVER SPACING N.T.S.



4 EVERGREEN / DECIDUOUS SHRUB N.T.S.

NOTE: USE TRENCH DETAIL ON ALL PLANTING BEDS TRANSITIONING TO TURF AREAS



5 TRENCH EDGING N.T.S.

GENERAL NOTES: LANDSCAPE PLAN

1. CONTRACTOR TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY LOCATE SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. SITE CONDITIONS BASED UPON SURVEY PROVIDED BY OWNER. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING CONSTRUCTION.
3. REFER TO SITE CIVIL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND COORDINATE WORK WITH OTHER SITE RELATED DEVELOPMENT DRAWING AS NEEDED.
4. REESTABLISH EXISTING TURF IN AREAS DISTURBED BY GRADING OR UTILITY TRENCHING, INCLUDING AREAS IN RIGHT-OF-WAY, TO MATCH EXISTING SPECIES.
5. CONTRACTOR SHALL EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
6. CONTRACTOR TO REPORT ALL DAMAGES TO EXISTING CONDITIONS AND INCONSISTENCIES WITH PLANS TO LANDSCAPE ARCHITECT.
7. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL LANDSCAPE BEDS AND ALL LAWN AREAS.
8. CONTRACTOR TO FINE GRADE AND ROCK-HOUND ALL TURF AREAS PRIOR TO SEEDING, TO PROVIDE A SMOOTH AND CONTINUAL SURFACE, FREE OF IRREGULARITIES (BUMPS OR DEPRESSIONS) & EXTRANEOUS MATERIAL OR DEBRIS.
9. REMOVE EXISTING WEEDS FROM PROJECT SITE PRIOR TO THE ADDITION OF ORGANIC AMENDMENTS AND FERTILIZER. APPLY AMENDMENTS AND FERTILIZER AS NEEDED.
10. QUANTITIES SHOWN ARE INTENDED TO ASSIST CONTRACTOR IN EVALUATING THEIR OWN TAKE OFFS AND ARE NOT GUARANTEED AS ACCURATE REPRESENTATIONS OF REQUIRED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS BID QUANTITIES AS REQUIRED BY THE PLANS AND SPECIFICATIONS. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER LABELED ON THE PLANT LEGEND AND THE QUANTITY OF GRAPHIC SYMBOLS SHOWN, THE GREATER QUANTITY SHALL GOVERN.
11. COORDINATE LANDSCAPE INSTALLATION WITH INSTALLATION OF UNDERGROUND SPRINKLER AND DRAINAGE SYSTEMS.
12. ALL SIZES AND QUALITY OF PLANT MATERIAL SHALL MEET THE MINIMUM SPECIFICATIONS OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014). THE LANDSCAPE CONTRACTOR SHALL INSTALL ALL PLANT MATERIAL IN SIZE AS INDICATED IN THE PLANT SCHEDULE UNLESS OTHERWISE SPECIFIED ON THE PLAN SET. ALL PLANTS THAT DO NOT MEET THE SIZE AND SPECIFICATIONS SET FORTH BY THE AMERICAN STANDARD FOR NURSERY STOCK WILL BE REJECTED BY LANDSCAPE ARCHITECT AT NO COST TO OWNER.
13. ONCE PROJECT IS AWARDED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PLANT MATERIAL IN THE SIZE SPECIFIED ON PLAN PRIOR TO INSTALLATION. IN THE EVENT THE PLANT MATERIAL IS NOT AVAILABLE IN THE SIZE SPECIFIED, THE CONTRACTOR SHALL INSTALL LARGER AT NO COST TO OWNER.
14. THE LANDSCAPE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ALL PLANT MATERIAL SUBSTITUTIONS FROM THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. PLANT SUBSTITUTIONS WITHOUT PRIOR WRITTEN APPROVAL THAT DO NOT COMPLY WITH THE DRAWINGS AND SPECIFICATIONS MAY BE REJECTED BY THE LANDSCAPE ARCHITECT AND REPLACED BY CONTRACTOR AT NO COST TO THE OWNER.
15. PRIOR TO MOBILIZATION THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, IN WRITING, IF HE/SHE BELIEVES ANY OF THE PLANT MATERIAL IDENTIFIED ON THE PLAN MAY NOT BE SUITABLE FOR THE SITE OR MAY DIE. SUBSTITUTION REQUESTS WILL BE GRANTED BY THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. IF NOTIFICATION IS NOT GIVEN TO THE LANDSCAPE ARCHITECT ALL PLANTING WHICH FAILS TO GROW (EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE AS DETERMINED BY THE OWNER, NEGLECT, OR VANDALISM) SHALL BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
16. WHERE PROPOSED TREE LOCATIONS OCCUR UNDER EXISTING OVERHEAD UTILITIES OR CROWD EXISTING TREES, NOTIFY LANDSCAPE ARCHITECT TO ADJUST TREE LOCATIONS.
17. ALL PLANT MASSES TO BE TOP DRESSED WITH MULCH AS SPECIFIED IN PLANT SCHEDULE, SPREAD UNIFORMLY IN DEPTH OVER THE PLANTING BEDS AS DELINEATED ON THE PLANS UNLESS OTHERWISE NOTED.
18. BED EDGE TO BE NO LESS THAN 12" AND NO MORE THAN 18" FROM OUTER EDGE OF PLANT MATERIAL BRANCHING. WHERE GROUND-COVER OCCURS, PLANT TO LIMITS OF AREA AS SHOWN.
19. ALL PLANTS SHALL BE GUARANTEED FOR 1 YEAR AFTER SUBSTANTIAL COMPLETION OCCURS AND FINAL ACCEPTANCE BY OWNER.
20. LANDSCAPE MAINTENANCE PERIOD BEGINS IMMEDIATELY AFTER THE COMPLETION OF ALL PLANTING OPERATIONS AND WRITTEN ACCEPTANCE FROM THE OWNER AND LANDSCAPE ARCHITECT. MAINTAIN TREES, SHRUBS, LAWNS, AND OTHER PLANTS AS PER THE PROJECT MANUAL AND/OR WRITTEN SPECIFICATIONS, IF APPLICABLE. LANDSCAPE MAINTENANCE IS THE LANDSCAPING CONTRACTORS RESPONSIBILITY UNTIL FINAL ACCEPTANCE BY THE OWNER.
21. ALL LANDSCAPE MAINTENANCE SHALL BE IN ACCORDANCE WITH LOCAL GOVERNING STANDARDS.
22. REFER TO PROJECT MANUAL OR WRITTEN SPECIFICATIONS, IF AVAILABLE, FOR ADDITIONAL REQUIREMENTS.

SOIL PLANTING MIXTURE (MIX ONSITE)

1. THE LANDSCAPE CONTRACTOR SHALL FURNISH FROM THEIR SOURCE A GOOD CLEAN, NATIVE SOIL WHICH SHALL MEET THE APPROVAL OF THE OWNER'S REPRESENTATIVE. THIS SOIL SHALL BE USED FOR THE PLANTING MIXTURE AS FOLLOWS:
A. ONE PART COMPOST/MANURE PLANTING MIX, TOPSOIL OR APPROVED EQUAL
B. ONE PART NATIVE SOIL

2. SOILS WITHIN PLANTING AREAS MUST BE SUITABLE FOR PROPOSED PLANTED MATERIAL & SOD WITH REGARD TO: pH, SOIL TEXTURE, SOIL STRUCTURE, AND SEASONAL HIGH WATER TABLE. THE CONTRACTOR SHALL ANALYZE EXISTING SOILS LOCATED IN PROXIMITY TO PROPOSED PLANT MATERIAL AND BE RESPONSIBLE TO AMEND THE SOIL TO OBTAIN ESSENTIAL REQUIREMENTS NECESSARY FOR THE ESTABLISHMENT AND GROWTH OF PLANT LIFE. LANDSCAPE CONTRACTOR TO PROVIDE SOILS REPORT AND APPROPRIATE RECOMMENDATIONS PRIOR TO INSTALLATION TO OWNER'S REPRESENTATIVE FOR REVIEW. FAILURE TO PROVIDE REPORT MAY RESULT IN PLANT MATERIAL BEING REJECTED BY OWNER'S REPRESENTATIVE AND REPLACED AT NO COST TO OWNER.

3. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO PLANTING, WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, POOR PLANTING SOIL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS.

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NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL
2	06/03/2022	MAJOR SITE PLAN - 2ND SUBMITTAL

STATE OF OHIO
ERIC LALONE
LA.2001534
REGISTERED
LANDSCAPE ARCHITECT
06-16-22

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

PLANT DETAILS & NOTES

ISSUE: OWNER REVIEW
DATE: 04.29.2022

JOB NO.:	760396
DESIGN:	EAB
DRAWN:	EAB
CHECKED:	CJC

SHEET NO.
L2.0

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 an item.

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

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)

- 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.

3601 Rigby Road, Suite 300
Miamisburg, OH 45342
(937) 435-8584
www.cesoinc.com

TRIP GENERATION COMPARISON

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

CC: Josh Long, P.E., Project Manager, CESO, Inc.
Robert Matko, PE, PS, PTOE, Senior Engineering Manager, CESO, Inc.
Beth Cotner, Project Manager, Skilken Gold

FROM: 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.

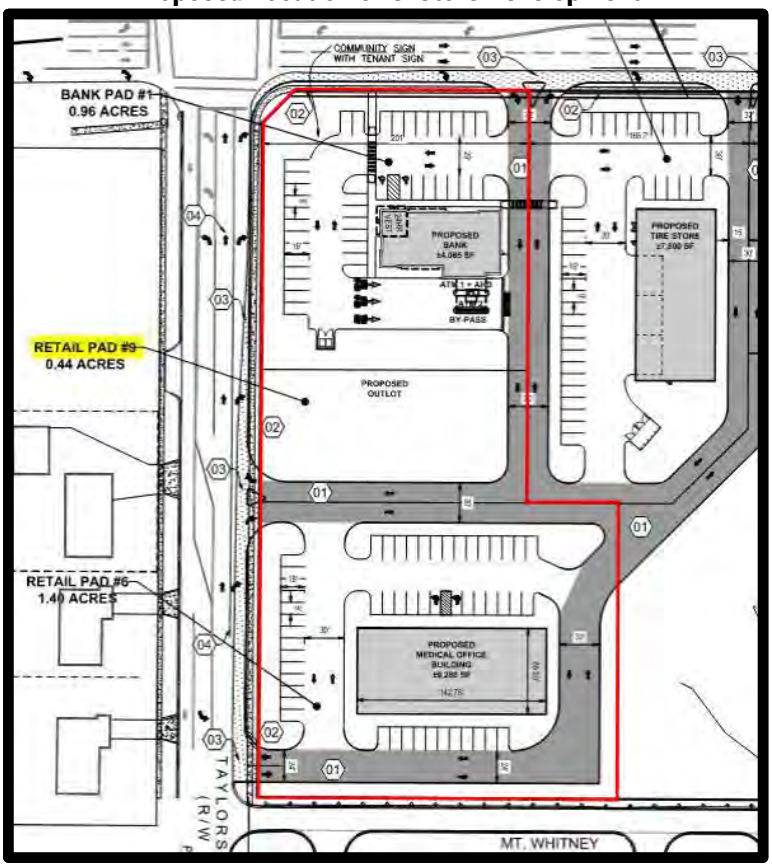
OVERVIEW

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 pass-by 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~~	~~11~~	~~11~~	~~12~~	~~9~~	~~21~~	~~21~~
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 Drive-Through Window	29	28	24	23	30	29	24	23
Fast Food Restaurant with Drive-Through 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 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, 3rd 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 Cat.	Size	Unit	Total Generated Trips										
				Weekday			Weekday AM Peak Hour				Weekday PM Peak Hour			
				Trips			Trips				Trips			
				Tot	In	Out	[A]Tot	In	Out	[B]PB	[A]Tot	In	Out	[B]PB
Automated Car Wash	948	1	Bays	776	388	388	---	---	---	---	78	39	39	0
ITE Cat. 948 Entering (%)/Exiting (%)				*100%*	*50%*	*50%*	---	---	---	---	*100%*	*50%*	*50%*	[C]0%
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%*	[C]*76%*	*100%*	*50%*	*50%*	[C]*76%*
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

[A] – Primary Trips + Pass-by Trips, [B] – Pass-by Trips Generated, [C] – Percent (%) of [A]Tot
* - 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.

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 I-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	≤ 10.0	Little or no delay.
B	> 10.0 and ≤ 15.0	Short traffic delays.
C	> 15.0 and ≤ 25.0	Average traffic delays.
D	> 25.0 and ≤ 35.0	Long traffic delays.
E	> 35.0 and ≤ 50.0	Very long traffic delays.
F	≥ 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 6th 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 ≤ 20.0	More vehicles stop than with LOS A.
C	> 20.0 and ≤ 35.0	The number of vehicles stopping is significant, although many pass through without stopping.
D	> 35.0 and ≤ 55.0	Many Vehicles stop. Individual cycle failures are noticeable.
E	> 55.0 and ≤ 80.0	Considered to be the limit of acceptable delay. Individual cycle failures are frequent.
F	> 80.0	Unacceptable delay.

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

Intersection →	Year →	2022 AM and PM Peak Hours				
	Volume →	Build– Year 2022				
	Geometry →	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 →		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 →		--	--	--	--
	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 →		--	--	--	--
	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 →		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 →		--	--	--	--
	Southbound	SBR	B (10.5)	B (10.7)	B (11.2)	B (11.3)
Taylorsville Road & Access #5 (Stop Sign Controlled)	Intersection Overall →		--	--	--	--
	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						

$ - Delay exceeds 300 seconds.

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

Intersection →	Year →	2042 AM and PM Peak Hours				
	Volume →	Build– Year 2042				
	Geometry →	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 →		C (29.2)	C (28.9)	E (77.9)	E (75.4)
	Eastbound	EBL	C (22.3)	C (22.1)	F (121.7)	F (123.2)
		EBT	C (26.2)	C (26.0)	D (49.8)	D (49.8)
		EBR	C (21.5)	C (21.3)	C (26.7)	C (26.7)
	Westbound	WBL	C (22.5)	C (22.6)	D (38.0)	D (40.7)
		WBT	C (27.3)	C (27.1)	D (42.9)	D (42.9)
		WBR	C (25.1)	C (25.2)	D (35.9)	D (36.3)
	Northbound	NBL	C (20.1)	C (20.2)	E (65.0)	E (65.0)
		NBT	C (32.6)	C (32.5)	E (56.1)	D (52.5)
		NBR	B (19.1)	B (19.5)	C (20.6)	C (20.9)
	Southbound	SBL	C (27.6)	C (25.8)	F (144.5)	F (140.8)
		SBT	D (36.2)	D (36.1)	F (112.3)	F (107.4)
		SBTR	D (36.3)	D (36.2)	F (116.1)	F (110.8)
Old Troy Pike & Access #1 (Stop Sign Controlled)	Intersection Overall →		--	--	--	--
	Westbound	WBR	C (15.4)	C (15.4)	C (22.0)	C (21.0)
Old Troy Pike & IHOP Driveway/Access #2 (Stop Sign Controlled)	Intersection Overall →		--	--	--	--
	Eastbound	EBLTR	F (62.3)	F (60.2)	F ($)	F ($)
	Westbound	WBLTR	F ($)	F ($)	F ($)	F ($)
	Northbound	NBL	B (10.4)	B (10.2)	C (16.3)	C (15.9)
	Southbound	SBL	D (32.9)	D (32.8)	F (61.3)	F (114.6)
Old Troy Pike & Burger King Driveway /Access #3 (Signal Controlled)	Intersection Overall →		B (16.6)	B (16.6)	E (57.6)	E (61.4)
	Eastbound	EBL	C (28.8)	C (28.8)	C (30.0)	C (29.9)
		EBTR	D (33.4)	D (33.4)	D (51.0)	D (51.0)
	Westbound	WBL	C (27.5)	C (27.8)	C (30.5)	C (30.8)
		WBTR	C (30.8)	C (29.9)	C (34.1)	C (32.6)
	Northbound	NBL	B (12.7)	B (12.6)	D (39.9)	D (39.9)
		NBT	A (7.6)	A (7.7)	C (30.1)	C (24.4)
		NBR	A (2.6)	A (2.6)	A (2.1)	A (1.9)
	Southbound	SBL	B (11.5)	B (11.8)	C (22.1)	C (20.8)
		SBT	C (24.3)	C (23.9)	F (86.6)	F (100.3)
		SBTR	C (24.1)	C (23.7)	F (94.8)	F (106.9)
Taylorsville Road & Access #4 (Stop Sign Controlled)	Intersection Overall →		--	--	--	--
	Southbound	SBR	B (11.1)	B (11.4)	B (12.2)	B (12.4)
Taylorsville Road & Access #5 (Stop Sign Controlled)	Intersection Overall →		--	--	--	--
	Eastbound	EBL	A (9.3)	A (9.3)	B (10.0)	B (10.1)
	Southbound	SBLR	C (17.6)	C (17.3)	C (23.8)	C (24.1)
*Delay in seconds L – Left T – Through R – Right						

$ - Delay exceeds 300 seconds.

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

3601 Rigby Road, Suite 300
Miamisburg, OH 45342
(937) 435-8584
www.cesoinc.com

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 → 50% Enter/50% Exit

77.50 x 1 Car Wash Tunnels = 77.50 ≈ 78 Trips

78 Trips x 0.50 (50%) = 39 Trips Enter/39 Trips Exit

ITE 960 – Super Convenience Market/Gas Station

For Weekday → 50% Enter/50% Exit

230.52 x 12 Fueling Positions = 2,766.24 ≈ 2,766 Trips

2,766 Trips x 0.50 (50%) = 1,383 Trips Enter/1,383 Trips Exit

Independent Study:

For AM Peak Hour → 50% Enter/50% Exit

26.18 x 12 Fueling Positions = 314.16 ≈ 314 Trips

Pass-by Trips = 314 Trips x 0.76 (76%) = 238 Trips for Even Number

Pass-by Trips = 238 Trips x 0.50 (50%) = 119 Trips Enter/119 Trips Exit

Primary Trips = 314 – 238 = 76 Trips

Primary Trips = 76 x 0.50 (50%) = 38 Trips Enter/38 Trips Exit

For PM Peak Hour → 50% Enter/50% Exit

26.55 x 12 Fueling Positions = 318.60 ≈ 318 Trips

Pass-by Trips = 318 Trips x 0.76 (76%) = 242 Trips for Even Number

Pass-by Trips = 242 Trips x 0.50 (50%) = 121 Trips Enter/121 Trips Exit

Primary Trips = 318 – 242 = 76 Trips

Primary Trips = 76 x 0.50 (50%) = 38 Trips Enter/38 Trips Exit

ATTACHMENT B
STUDY FIGURES

CESO
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DIRECTIONAL DISTRIBUTION OF MULTI-USE DEV. GENERATED TRAFFIC VOLUMES (CARS - PRIMARY)

C-STORE DEVELOPMENT

CITY OF HUBER HEIGHTS — MIAMI COUNTY, OHIO

FIGURE 1.A

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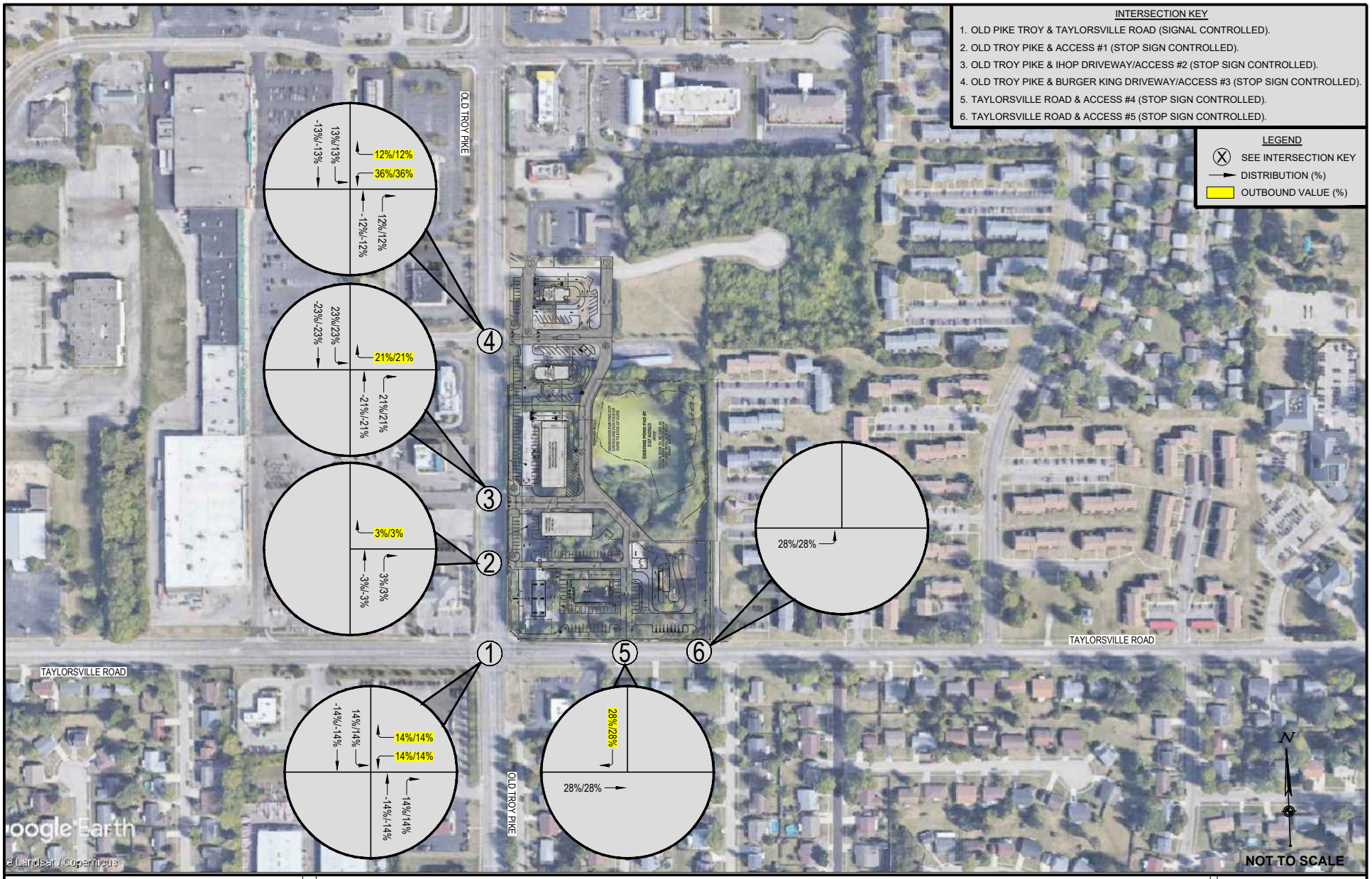
DRAWN:	TMC
CHECKED:	REM
PAGE:	XX



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DIRECTIONAL DISTRIBUTION OF MULTI-USE DEV. GENERATED TRAFFIC VOLUMES (CARS - PASS-BY)

C-STORE DEVELOPMENT

CITY OF HUBER HEIGHTS — MIAMI COUNTY, OHIO

FIGURE 1.B	
DATE:	05/26/2022
JOB NO.:	760396-01
DESIGN:	TMC
DRAWN:	TMC
CHECKED:	REM
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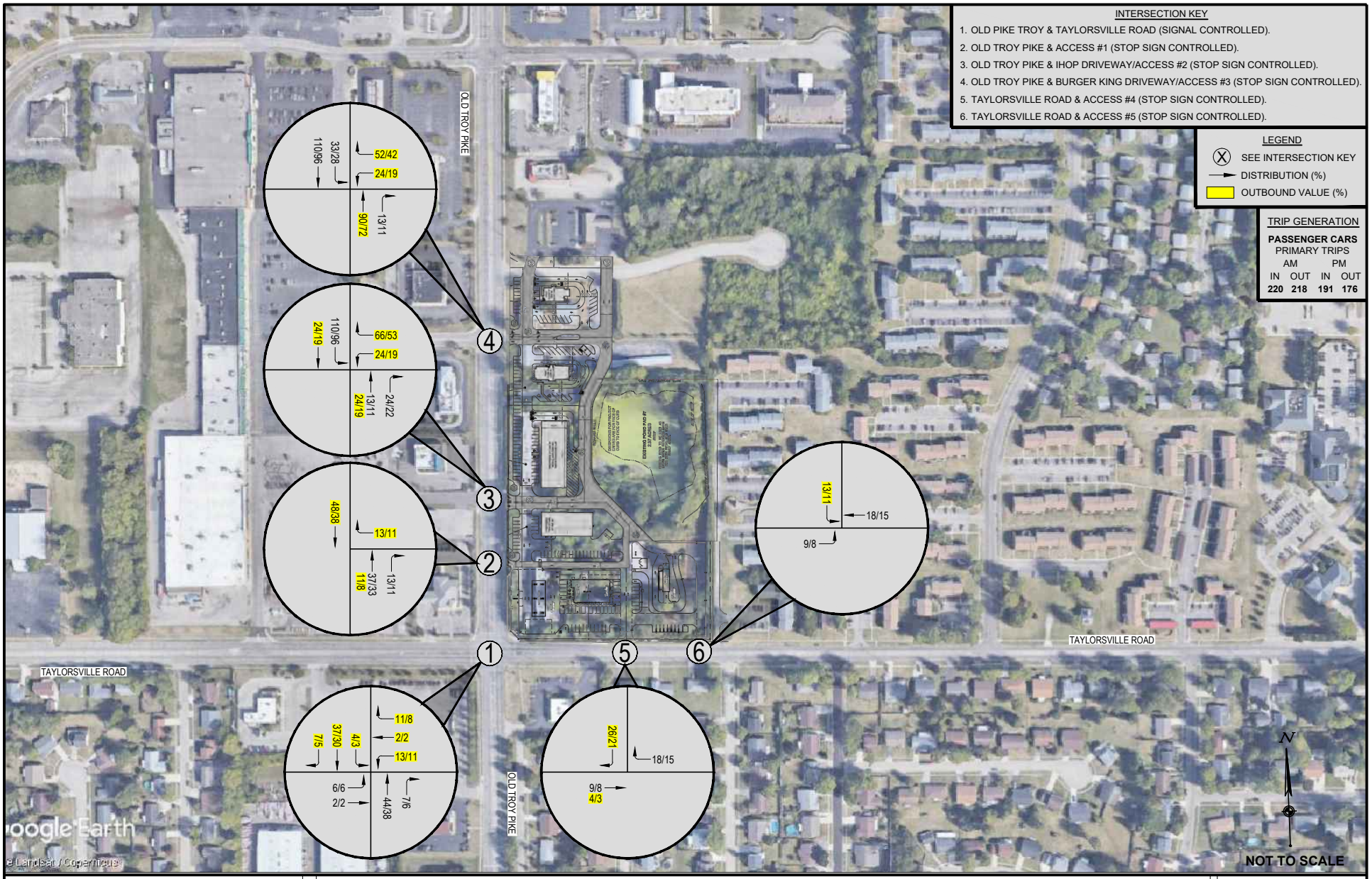

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TOTAL DEVELOPMENT WEEKDAY PEAK HOUR GENERATED TRAFFIC VOLUMES (CARS - PRIMARY)

C-STORE DEVELOPMENT

CITY OF HUBER HEIGHTS MIAMI COUNTY, OHIO

FIGURE 2.A

DATE:	05/26/2022
JOB NO.:	760396-01
DESIGN:	TMC
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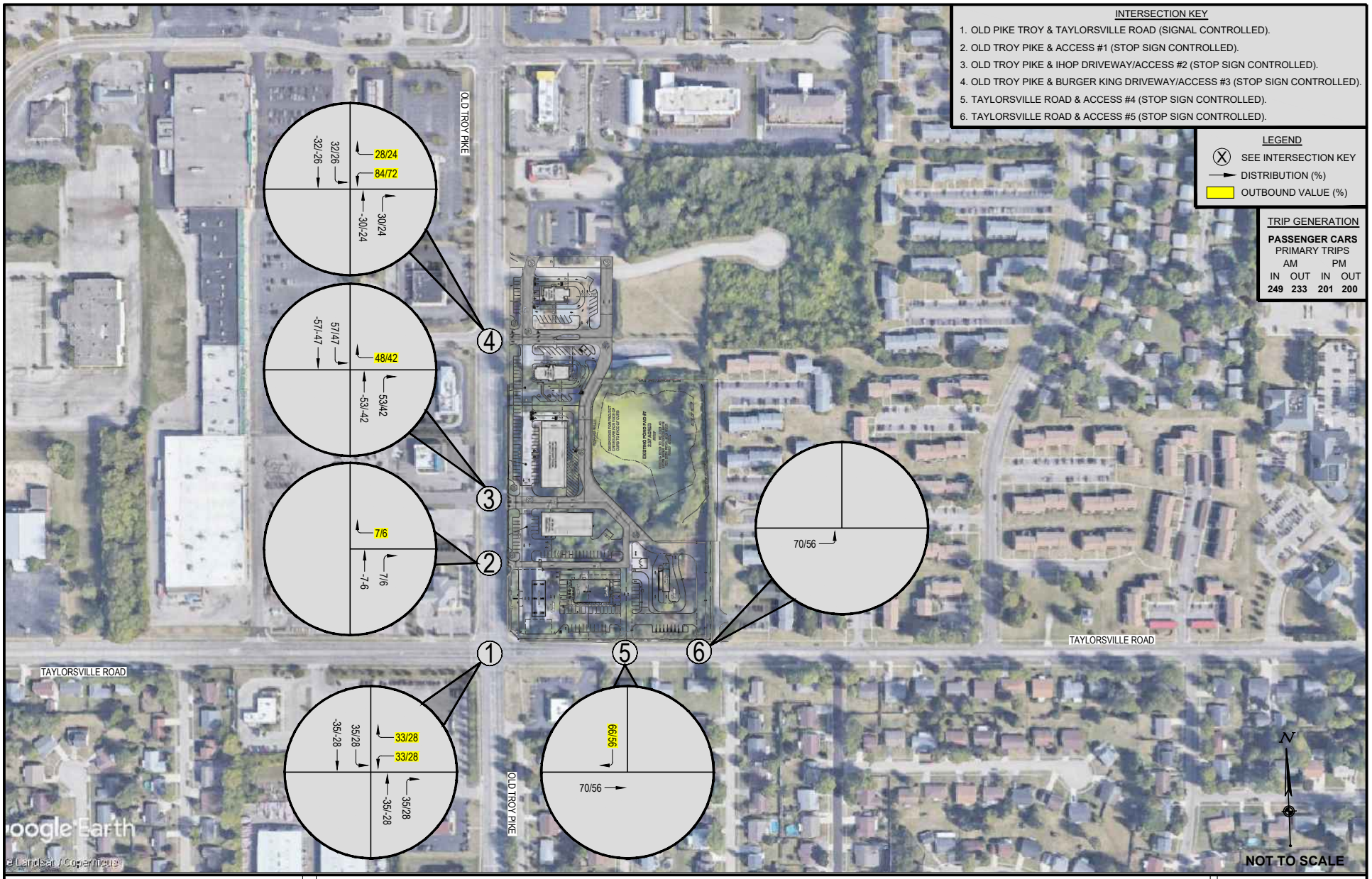

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TOTAL DEVELOPMENT WEEKDAY PEAK HOUR GENERATED TRAFFIC VOLUMES (CARS - PASS-BY)

C-STORE DEVELOPMENT

CITY OF HUBER HEIGHTS MIAMI COUNTY, OHIO

FIGURE 2.B

DATE:	05/26/2022
JOB NO.:	760396-01
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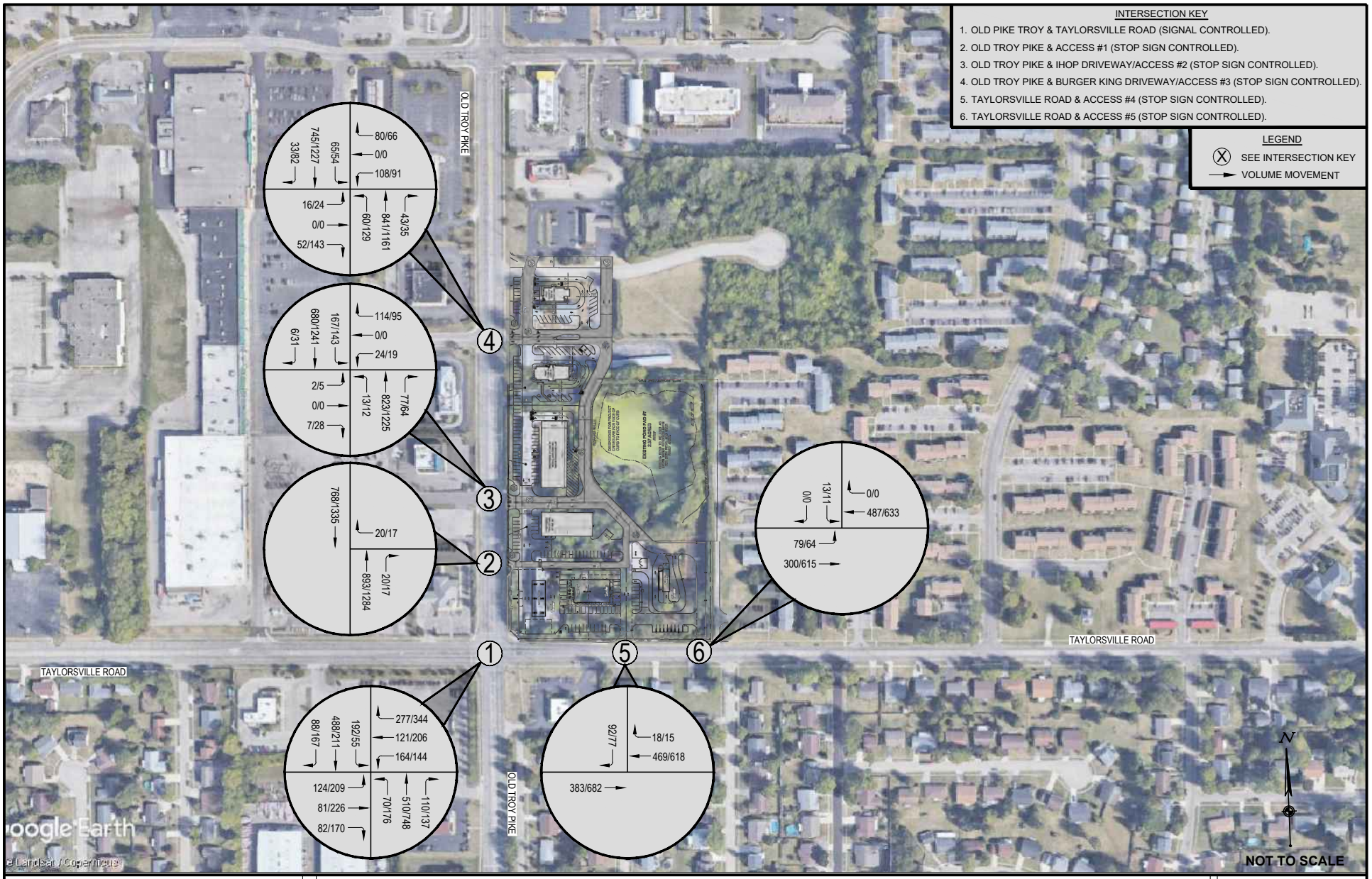

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2022 BUILD WEEKDAY PEAK HOUR TRAFFIC VOLUMES - TOTAL VOLUMES

C-STORE DEVELOPMENT

CITY OF HUBER HEIGHTS — MIAMI COUNTY, OHIO

FIGURE 3	
DATE:	05/26/2022
JOB NO.:	760396-01
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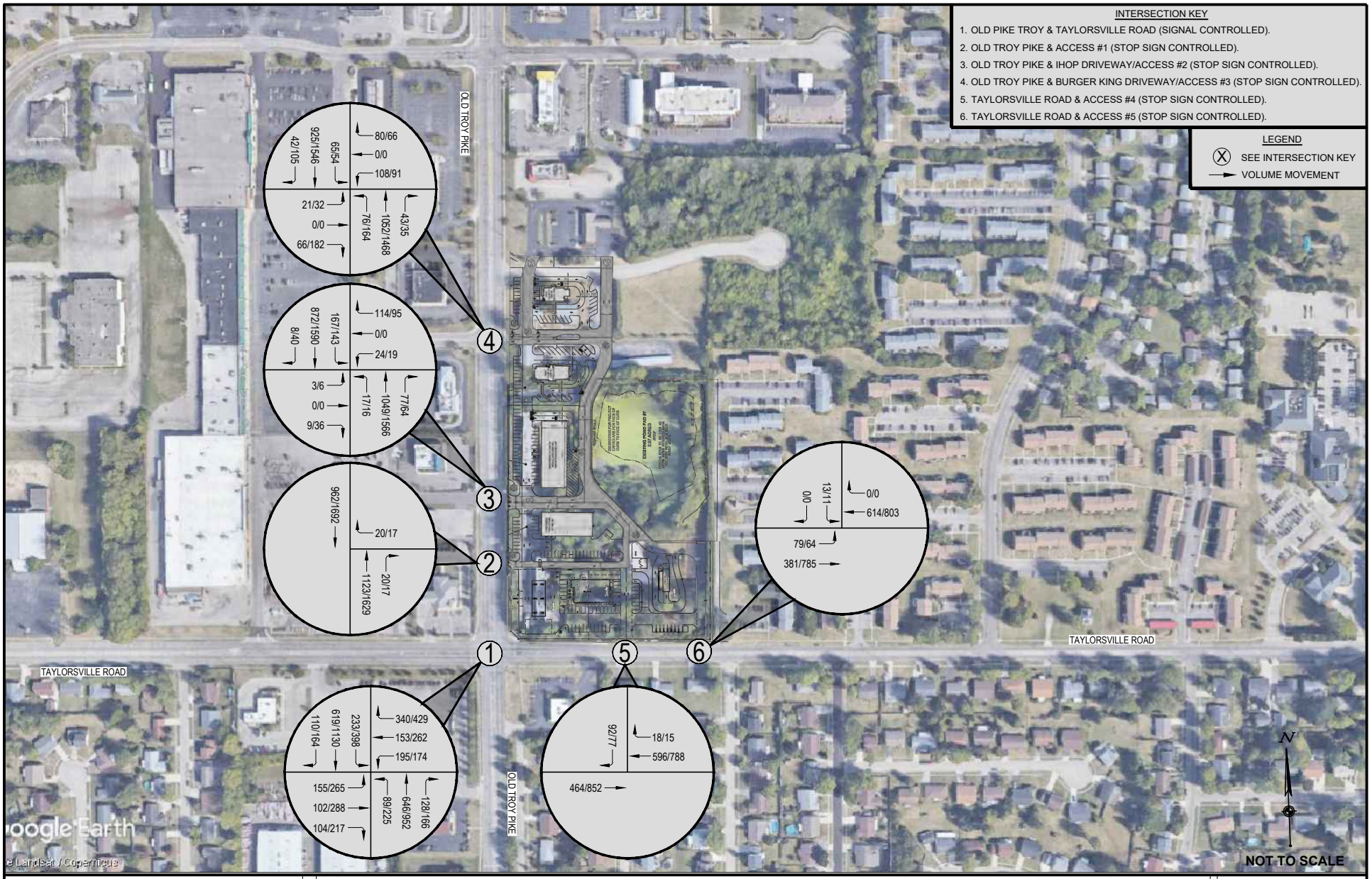

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2042 BUILD WEEKDAY PEAK HOUR TRAFFIC VOLUMES - TOTAL VOLUMES

C-STORE DEVELOPMENT

CITY OF HUBER HEIGHTS — MIAMI COUNTY, OHIO

FIGURE 4	
DATE:	05/26/2022
JOB NO.:	760396-01
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ATTACHMENT C
CAPACITY ANALYSIS SUMMARY SHEETS

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

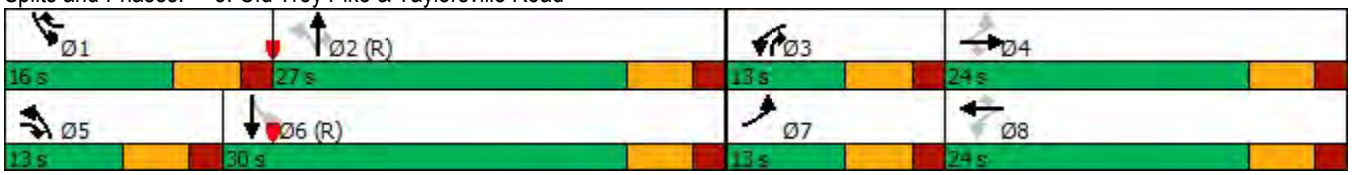
05/26/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Flt 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	Cl+Ex	Cl+Ex	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	13.0	13.0	24.0	16.0	13.0	27.0	13.0	16.0	30.0	
Total Split (%)	16.3%	30.0%	16.3%	16.3%	30.0%	20.0%	16.3%	33.8%	16.3%	20.0%	37.5%	
Maximum Green (s)	7.0	18.0	7.0	7.0	18.0	10.0	7.0	21.0	7.0	10.0	24.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	16.7	11.7	22.2	16.7	11.7	24.9	37.7	30.1	43.1	44.4	35.4	
Actuated g/C Ratio	0.21	0.15	0.28	0.21	0.15	0.31	0.47	0.38	0.54	0.56	0.44	
v/c Ratio	0.44	0.33	0.17	0.53	0.49	0.47	0.17	0.43	0.12	0.46	0.42	
Control Delay	26.1	33.4	2.4	28.9	37.2	9.7	11.1	22.2	2.8	13.0	18.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.1	33.4	2.4	28.9	37.2	9.7	11.1	22.2	2.8	13.0	18.6	
LOS	C	C	A	C	D	A	B	C	A	B	B	
Approach Delay		21.4			21.3			18.3			17.2	
Approach LOS		C			C			B			B	

Intersection Summary	
Area Type:	Other
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: 0.53	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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 (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	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(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	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 (G+Y+Rc), s	14.5	31.5	13.0	20.9	11.7	34.4	12.7	21.3
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	10.0	21.0	7.0	18.0	7.0	24.0	7.0	18.0
Max Q Clear Time (g_c+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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)	2	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(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
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	36.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1533	2159	395	1727	2125	497	789	0	0	993	0	0
Stage 1	1138	1138	-	984	984	-	-	-	-	-	-	-
Stage 2	395	1021	-	743	1141	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	99	47	604	73	49	444	827	-	-	394	-	-
Stage 1	210	275	-	209	325	-	-	-	-	-	-	-
Stage 2	569	312	-	363	274	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	47	26	604	~ 46	27	444	827	-	-	394	-	-
Mov Cap-2 Maneuver	47	26	-	~ 46	27	-	-	-	-	-	-	-
Stage 1	206	152	-	205	319	-	-	-	-	-	-	-
Stage 2	413	307	-	198	152	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28	$ 412.1	0.1	3.9
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	827	-	-	166	108	394	-	-
HCM Lane V/C Ratio	0.017	-	-	0.059	1.681	0.447	-	-
HCM Control Delay (s)	9.4	-	-	28	$ 412.1	21.3	-	-
HCM Lane LOS	A	-	-	D	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	14	2.2	-	-

Notes

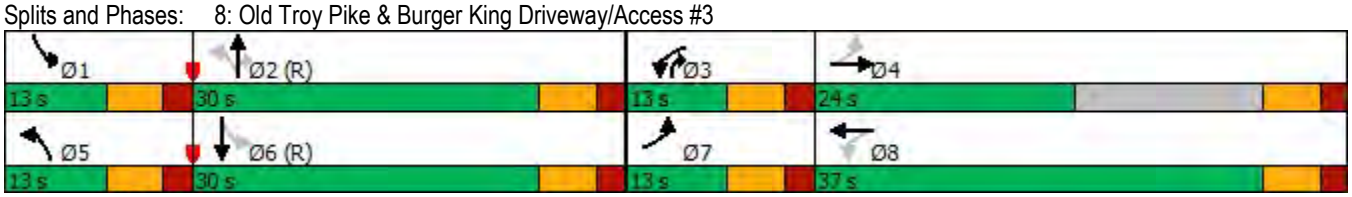
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	0	52	69	0	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	
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	0.697			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 (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	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		

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		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: Other	
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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	52	69	0	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 (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	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	0	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(I)	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 (G+Y+Rc), s	12.1	53.0	12.0	15.9	11.7	53.5	8.5	19.4
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	7.0	24.0	7.0	18.0	7.0	24.0	7.0	31.0
Max Q Clear Time (g_c+I1), 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 Delay	18.2
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	17	908	21	0	795
Future Volume (vph)	0	17	908	21	0	795
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	5070	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5070	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		5.5			3.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	987	23	0	864
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	18	1010	0	0	864
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	908	21	0	795
Future Vol, veh/h	0	17	908	21	0	795
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	18	987	23	0	864

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	505	0	0	1010	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	439	-	-	387	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	439	-	-	387	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	439	387	-
HCM Lane V/C Ratio	-	-	0.042	-	-
HCM Control Delay (s)	-	-	13.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	84	303	485	5	16	0
Future Volume (vph)	84	303	485	5	16	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1861	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1861	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	30.2		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	329	527	5	17	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	329	532	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 43.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	303	485	5	16	0
Future Vol, veh/h	84	303	485	5	16	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	91	329	527	5	17	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	532	0	-	0	1041	530
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	511	-
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	1036	-	-	-	255	549
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	602	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1036	-	-	-	233	549
Mov Cap-2 Maneuver	-	-	-	-	365	-
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	602	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1036	-	-	-	365
HCM Lane V/C Ratio	0.088	-	-	-	0.048
HCM Control Delay (s)	8.8	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑↱			↱
Traffic Vol, veh/h	0	387	470	15	0	72
Future Vol, veh/h	0	387	470	15	0	72
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	421	511	16	0	78

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

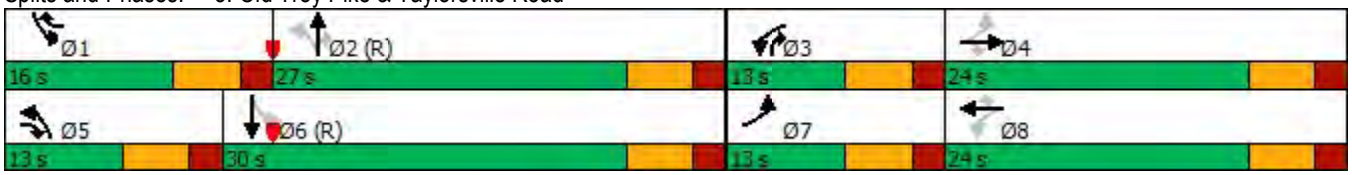
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	735
HCM Lane V/C Ratio	-	-	-	0.106
HCM Control Delay (s)	-	-	-	10.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
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	0.673			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	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	13.0	13.0	24.0	16.0	13.0	27.0	13.0	16.0	30.0	
Total Split (%)	16.3%	30.0%	16.3%	16.3%	30.0%	20.0%	16.3%	33.8%	16.3%	20.0%	37.5%	
Maximum Green (s)	7.0	18.0	7.0	7.0	18.0	10.0	7.0	21.0	7.0	10.0	24.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	16.7	11.7	22.2	16.7	11.7	24.7	37.9	30.3	43.3	44.2	35.4	
Actuated g/C Ratio	0.21	0.15	0.28	0.21	0.15	0.31	0.47	0.38	0.54	0.55	0.44	
v/c Ratio	0.44	0.32	0.17	0.57	0.49	0.49	0.17	0.41	0.13	0.42	0.40	
Control Delay	26.1	33.3	2.4	30.3	37.2	9.9	11.1	21.9	3.1	12.5	18.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.1	33.3	2.4	30.3	37.2	9.9	11.1	21.9	3.1	12.5	18.4	
LOS	C	C	A	C	D	A	B	C	A	B	B	
Approach Delay		21.4			21.8			17.8			17.0	
Approach LOS		C			C			B			B	

Intersection Summary	
Area Type:	Other
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: 0.57	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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 (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	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 (Y+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+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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)	2	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(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
Sign Control		Stop			Stop			Free			Free	

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

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	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	26	0	124	14	895	84	182	739	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1493	2114	373	1699	2075	490	746	0	0	979	0	0
Stage 1	1107	1107	-	965	965	-	-	-	-	-	-	-
Stage 2	386	1007	-	734	1110	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	105	50	624	76	53	448	858	-	-	401	-	-
Stage 1	219	284	-	215	331	-	-	-	-	-	-	-
Stage 2	576	317	-	367	283	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	48	27	624	48	28	448	858	-	-	401	-	-
Mov Cap-2 Maneuver	48	27	-	48	28	-	-	-	-	-	-	-
Stage 1	215	155	-	212	326	-	-	-	-	-	-	-
Stage 2	410	312	-	198	155	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.5	78.5	0.1	4.1
HCM LOS	D	F		

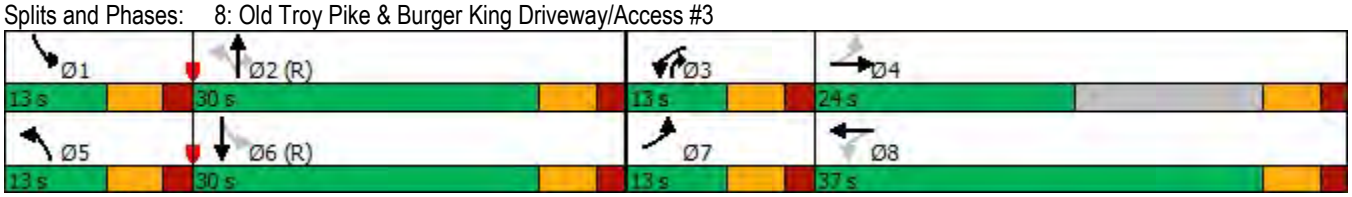
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	858	-	-	170	183	401	-	-
HCM Lane V/C Ratio	0.016	-	-	0.058	0.82	0.453	-	-
HCM Control Delay (s)	9.3	-	-	27.5	78.5	21.2	-	-
HCM Lane LOS	A	-	-	D	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	5.7	2.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	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		

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: Other	
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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	52	108	0	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 (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	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(I)	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 (G+Y+Rc), s	11.9	52.3	13.0	15.8	11.7	52.5	8.5	20.3
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	7.0	24.0	7.0	18.0	7.0	24.0	7.0	31.0
Max Q Clear Time (g_c+I1), 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 Delay	18.7
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	893	20	0	768
Future Volume (vph)	0	20	893	20	0	768
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	5070	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5070	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		5.5			3.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	22	971	22	0	835
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	22	993	0	0	835
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	893	20	0	768
Future Vol, veh/h	0	20	893	20	0	768
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	22	971	22	0	835

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	497	0	0	993	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	444	-	-	394	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	444	-	-	394	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	444	394	-
HCM Lane V/C Ratio	-	-	0.049	-	-
HCM Control Delay (s)	-	-	13.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	79	300	487	0	13	0
Future Volume (vph)	79	300	487	0	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	30.2		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	326	529	0	14	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	86	326	529	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 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						
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
Stage 1	-	-	-	-	529	-
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
Stage 1	-	-	-	-	591	-
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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑↱			↱
Traffic Vol, veh/h	0	383	469	18	0	92
Future Vol, veh/h	0	383	469	18	0	92
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	416	510	20	0	100

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	WBR	SBLn1
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

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

05/26/2022

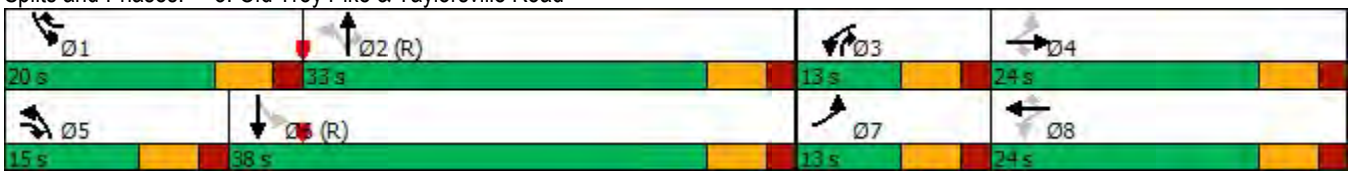
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	226	170	137	206	341	176	765	123	318	902	130
Future Volume (vph)	208	226	170	137	206	341	176	765	123	318	902	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	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	
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			0.143		
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	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	15.0	13.0	24.0	20.0	15.0	33.0	13.0	20.0	38.0	
Total Split (%)	14.4%	26.7%	16.7%	14.4%	26.7%	22.2%	16.7%	36.7%	14.4%	22.2%	42.2%	
Maximum Green (s)	7.0	18.0	9.0	7.0	18.0	14.0	9.0	27.0	7.0	14.0	32.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	22.7	15.7	30.8	22.7	15.7	36.7	37.3	28.3	41.3	48.7	34.2	
Actuated g/C Ratio	0.25	0.17	0.34	0.25	0.17	0.41	0.41	0.31	0.46	0.54	0.38	
v/c Ratio	0.81	0.76	0.30	0.57	0.69	0.52	0.73	0.75	0.17	0.88	0.84	
Control Delay	48.7	50.3	10.2	32.1	46.0	16.4	35.8	33.2	3.3	52.4	32.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	48.7	50.3	10.2	32.1	46.0	16.4	35.8	33.2	3.3	52.4	32.4	
LOS	D	D	B	C	D	B	D	C	A	D	C	
Approach Delay		38.5			28.5			30.1			37.1	
Approach LOS		D			C			C			D	

Intersection Summary

Area Type: Other
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: 0.88
Intersection Signal Delay: 33.7 Intersection LOS: C
Intersection Capacity Utilization 81.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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(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	26.4	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+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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(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 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	44.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	28	42	0	73	12	1276	32	94	1277	31
Future Vol, veh/h	5	0	28	42	0	73	12	1276	32	94	1277	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	46	0	79	13	1387	35	102	1388	34

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2190	3057	711	2329	3057	711	1422	0	0	1422	0	0
Stage 1	1609	1609	-	1431	1431	-	-	-	-	-	-	-
Stage 2	581	1448	-	898	1626	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	35	12	375	~ 28	12	322	475	-	-	244	-	-
Stage 1	107	162	-	101	198	-	-	-	-	-	-	-
Stage 2	438	195	-	293	159	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	17	7	375	~ 17	7	322	475	-	-	244	-	-
Mov Cap-2 Maneuver	17	7	-	~ 17	7	-	-	-	-	-	-	-
Stage 1	104	94	-	98	193	-	-	-	-	-	-	-
Stage 2	321	190	-	157	93	-	-	-	-	-	-	-

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	EBLn1	WBLn1	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

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic 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
Flt 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 (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	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		

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 Effct 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: Other	
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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	143	49	0	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 (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	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/ln	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(I)	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 (G+Y+Rc), s	12.5	49.4	11.1	17.0	12.8	49.1	9.4	18.7
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	7.0	34.0	7.0	18.0	7.0	34.0	7.0	18.0
Max Q Clear Time (g_c+I1), 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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	27	1291	23	0	1350
Future Volume (vph)	0	27	1291	23	0	1350
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	5070	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5070	0	1863	3539
Link Speed (mph)	30		35			35
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		4.7			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	29	1403	25	0	1467
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	29	1428	0	0	1467
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	27	1291	23	0	1350
Future Vol, veh/h	0	27	1291	23	0	1350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	29	1403	25	0	1467

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	714	0	0	1428	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	321	-	-	242	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	321	-	-	242	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	321	242	-
HCM Lane V/C Ratio	-	-	0.091	-	-
HCM Control Delay (s)	-	-	17.3	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	50	617	633	2	13	0
Future Volume (vph)	50	617	633	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	0	1770	0
Link Speed (mph)		30	35		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	25.9		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	671	688	2	14	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	671	690	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	617	633	2	13	0
Future Vol, veh/h	50	617	633	2	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	54	671	688	2	14	0

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑			↗
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

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	344
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	653
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	653
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	653
HCM Lane V/C Ratio	-	-	-	0.105
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

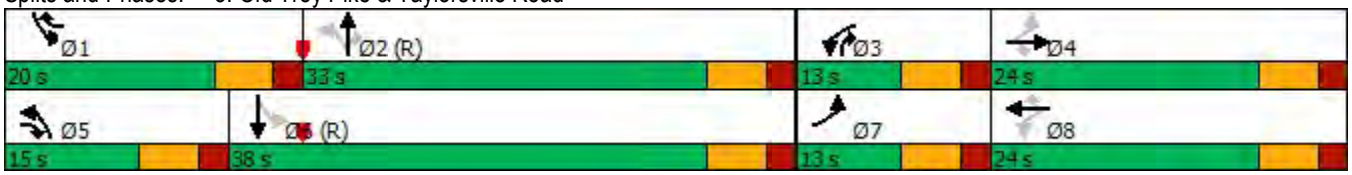
05/26/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	Cl+Ex	Cl+Ex	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	15.0	13.0	24.0	20.0	15.0	33.0	13.0	20.0	38.0	
Total Split (%)	14.4%	26.7%	16.7%	14.4%	26.7%	22.2%	16.7%	36.7%	14.4%	22.2%	42.2%	
Maximum Green (s)	7.0	18.0	9.0	7.0	18.0	14.0	9.0	27.0	7.0	14.0	32.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	22.7	15.7	30.8	22.7	15.7	36.6	37.4	28.4	41.4	48.7	34.2	
Actuated g/C Ratio	0.25	0.17	0.34	0.25	0.17	0.41	0.42	0.32	0.46	0.54	0.38	
v/c Ratio	0.81	0.76	0.30	0.60	0.69	0.53	0.73	0.73	0.18	0.87	0.83	
Control Delay	49.1	50.3	10.2	33.5	46.0	16.6	35.7	32.5	3.3	49.7	32.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	49.1	50.3	10.2	33.5	46.0	16.6	35.7	32.5	3.3	49.7	32.1	
LOS	D	D	B	C	D	B	D	C	A	D	C	
Approach Delay		38.6			28.8			29.2			36.3	
Approach LOS		D			C			C			D	

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
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: 0.87	
Intersection Signal Delay: 33.2	Intersection LOS: C
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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 (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	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 (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+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	28	19	0	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		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			0.888			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 Traffic (%)												
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	

Intersection	
Int Delay, s/veh	28.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2235	3104	692	2378	3086	701	1383	0	0	1402	0	0
Stage 1	1676	1676	-	1393	1393	-	-	-	-	-	-	-
Stage 2	559	1428	-	985	1693	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	32	11	386	26	12	327	491	-	-	249	-	-
Stage 1	97	150	-	107	207	-	-	-	-	-	-	-
Stage 2	452	199	-	260	147	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	11	4	386	~ 12	4	327	491	-	-	249	-	-
Mov Cap-2 Maneuver	11	4	-	~ 12	4	-	-	-	-	-	-	-
Stage 1	94	57	-	104	202	-	-	-	-	-	-	-
Stage 2	301	194	-	90	56	-	-	-	-	-	-	-

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	EBLn1	WBLn1	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	-	-	120.3	$ 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

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic 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
Flt 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 (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	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		

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 Effct 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: Other	
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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	0	143	91	0	66	129	1161	35	54	1227	82
Future Volume (veh/h)	24	0	143	91	0	66	129	1161	35	54	1227	82
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	26	0	155	99	0	72	140	1262	38	59	1334	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	300	0	194	240	0	248	257	1705	874	369	1571	105
Arrive On Green	0.04	0.00	0.12	0.07	0.00	0.16	0.15	0.96	0.96	0.06	0.46	0.46
Sat Flow, veh/h	1781	0	1585	1781	0	1585	1781	3554	1585	1781	3382	225
Grp Volume(v), veh/h	26	0	155	99	0	72	140	1262	38	59	699	724
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1781	0	1585	1781	1777	1585	1781	1777	1830
Q Serve(g_s), s	1.1	0.0	8.6	4.3	0.0	3.6	3.5	4.4	0.1	1.5	31.3	31.5
Cycle Q Clear(g_c), s	1.1	0.0	8.6	4.3	0.0	3.6	3.5	4.4	0.1	1.5	31.3	31.5
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	300	0	194	240	0	248	257	1705	874	369	825	850
V/C Ratio(X)	0.09	0.00	0.80	0.41	0.00	0.29	0.54	0.74	0.04	0.16	0.85	0.85
Avail Cap(c_a), veh/h	373	0	317	252	0	317	262	1705	874	401	825	850
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(I)	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	32.3	0.0	38.4	31.4	0.0	33.6	16.8	1.0	0.7	10.6	21.3	21.3
Incr Delay (d2), s/veh	0.1	0.0	7.4	1.1	0.0	0.6	2.2	2.9	0.1	0.2	10.5	10.5
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	0.5	0.0	3.7	1.9	0.0	1.4	1.3	1.2	0.0	0.6	14.3	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	0.0	45.9	32.6	0.0	34.2	19.1	4.0	0.8	10.8	31.8	31.8
LnGrp LOS	C	A	D	C	A	C	B	A	A	B	C	C
Approach Vol, veh/h		181			171			1440			1482	
Approach Delay, s/veh		43.9			33.3			5.3			31.0	
Approach LOS		D			C			A			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	49.2	12.4	17.0	12.8	47.8	9.3	20.1
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	7.0	34.0	7.0	18.0	7.0	34.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	3.5	6.4	6.3	10.6	5.5	33.5	3.1	5.6
Green Ext Time (p_c), s	0.0	10.9	0.0	0.5	0.0	0.4	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	17	1284	17	0	1335
Future Volume (vph)	0	17	1284	17	0	1335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	5075	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5075	0	1863	3539
Link Speed (mph)	30		35			35
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		4.7			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	1396	18	0	1451
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	18	1414	0	0	1451
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	1284	17	0	1335
Future Vol, veh/h	0	17	1284	17	0	1335
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	18	1396	18	0	1451

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	707	0	0	1414	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	324	-	-	246	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	324	-	-	246	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	324	246	-
HCM Lane V/C Ratio	-	-	0.057	-	-
HCM Control Delay (s)	-	-	16.8	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	64	615	633	0	11	0
Future Volume (vph)	64	615	633	0	11	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	0	1770	0
Link Speed (mph)		30	35		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	25.9		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	668	688	0	12	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	668	688	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 50.2%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	615	633	0	11	0
Future Vol, veh/h	64	615	633	0	11	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	70	668	688	0	12	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	688	0	-	0	1496	688
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	808	-
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	906	-	-	-	135	446
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	438	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	906	-	-	-	125	446
Mov Cap-2 Maneuver	-	-	-	-	262	-
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	438	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	19.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	906	-	-	-	262
HCM Lane V/C Ratio	0.077	-	-	-	0.046
HCM Control Delay (s)	9.3	-	-	-	19.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑			↱
Traffic Vol, veh/h	0	682	618	15	0	77
Future Vol, veh/h	0	682	618	15	0	77
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	741	672	16	0	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	344
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	653
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	653
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.3
HCM LOS			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	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

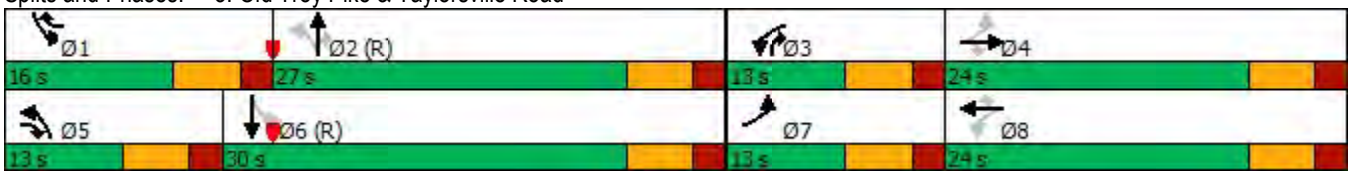
05/26/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Flt 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	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	13.0	13.0	24.0	16.0	13.0	27.0	13.0	16.0	30.0	
Total Split (%)	16.3%	30.0%	16.3%	16.3%	30.0%	20.0%	16.3%	33.8%	16.3%	20.0%	37.5%	
Maximum Green (s)	7.0	18.0	7.0	7.0	18.0	10.0	7.0	21.0	7.0	10.0	24.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	17.8	12.8	23.3	21.0	12.8	30.8	31.9	24.2	40.4	40.5	28.5	
Actuated g/C Ratio	0.22	0.16	0.29	0.26	0.16	0.38	0.40	0.30	0.50	0.51	0.36	
v/c Ratio	0.53	0.38	0.21	0.56	0.56	0.52	0.31	0.67	0.15	0.68	0.65	
Control Delay	27.7	33.0	3.9	28.0	37.9	14.1	14.0	29.2	3.3	36.1	28.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	27.7	33.0	3.9	28.0	37.9	14.1	14.0	29.2	3.3	36.1	28.1	
LOS	C	C	A	C	D	B	B	C	A	D	C	
Approach Delay		22.4			23.4			24.1			30.1	
Approach LOS		C			C			C			C	

Intersection Summary	
Area Type: Other	
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: 0.68	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 70.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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 (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	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(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	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 (Y+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+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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(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
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	

Intersection	
Int Delay, s/veh	89.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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
Mvmt Flow	3	0	10	65	0	116	18	1165	75	176	990	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1849	2623	500	2086	2590	620	999	0	0	1240	0	0
Stage 1	1347	1347	-	1239	1239	-	-	-	-	-	-	-
Stage 2	502	1276	-	847	1351	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	60	24	516	~ 41	25	369	689	-	-	299	-	-
Stage 1	156	218	-	138	246	-	-	-	-	-	-	-
Stage 2	490	236	-	314	217	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	21	10	516	~ 21	10	369	689	-	-	299	-	-
Mov Cap-2 Maneuver	21	10	-	~ 21	10	-	-	-	-	-	-	-
Stage 1	152	90	-	134	240	-	-	-	-	-	-	-
Stage 2	327	230	-	127	89	-	-	-	-	-	-	-

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	EBLn1	WBLn1	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	-	-	62.8	$ 1252.9	32.9	-	-
HCM Lane LOS	B	-	-	F	F	D	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	19.5	3.5	-	-

Notes

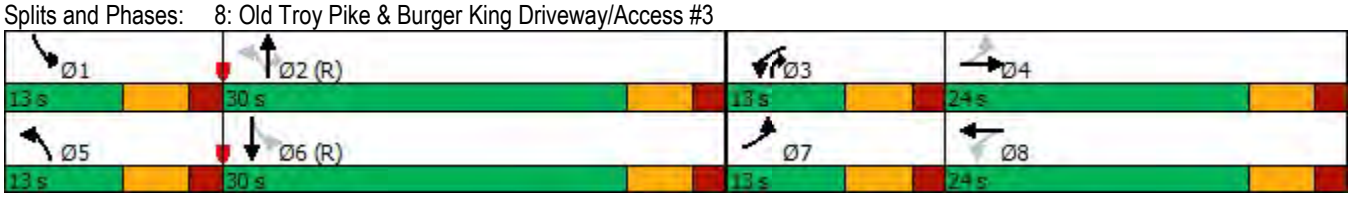
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic 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	
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	0.697			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 (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	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		

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: Other	
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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	66	74	0	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 (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	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	0	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(I)	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 (G+Y+Rc), s	11.9	40.4	11.8	15.8	11.9	40.4	8.8	18.9
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	7.0	24.0	7.0	18.0	7.0	24.0	7.0	18.0
Max Q Clear Time (g_c+I1), 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 Delay	16.6
HCM 6th LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	17	1138	21	0	989
Future Volume (vph)	0	17	1138	21	0	989
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	5070	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5070	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		5.5			3.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	1237	23	0	1075
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	18	1260	0	0	1075
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	1138	21	0	989
Future Vol, veh/h	0	17	1138	21	0	989
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	18	1237	23	0	1075

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	630	0	0	1260	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	364	-	-	293	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	364	-	-	293	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	364	293	-
HCM Lane V/C Ratio	-	-	0.051	-	-
HCM Control Delay (s)	-	-	15.4	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	84	384	612	5	16	0
Future Volume (vph)	84	384	612	5	16	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.999			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1861	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1861	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	30.2		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	417	665	5	17	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	417	670	0	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 50.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	384	612	5	16	0
Future Vol, veh/h	84	384	612	5	16	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	91	417	665	5	17	0

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑			↱
Traffic Vol, veh/h	0	468	597	15	0	72
Future Vol, veh/h	0	468	597	15	0	72
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	509	649	16	0	78

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	333
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	664
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	664
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	664
HCM Lane V/C Ratio	-	-	-	0.118
HCM Control Delay (s)	-	-	-	11.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

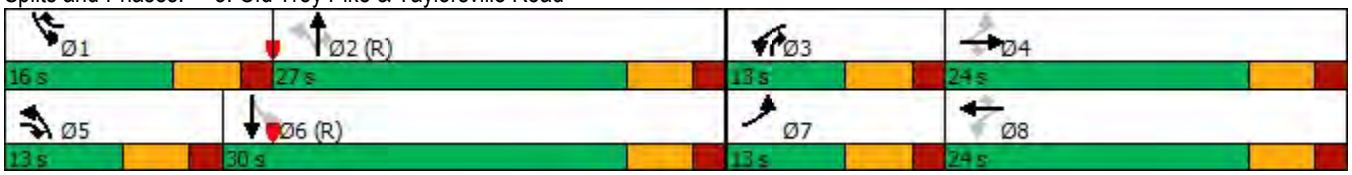
05/26/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	Cl+Ex	Cl+Ex	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	13.0	13.0	24.0	16.0	13.0	27.0	13.0	16.0	30.0	
Total Split (%)	16.3%	30.0%	16.3%	16.3%	30.0%	20.0%	16.3%	33.8%	16.3%	20.0%	37.5%	
Maximum Green (s)	7.0	18.0	7.0	7.0	18.0	10.0	7.0	21.0	7.0	10.0	24.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	17.8	12.8	23.3	21.0	12.8	30.2	32.5	24.8	41.0	39.9	28.5	
Actuated g/C Ratio	0.22	0.16	0.29	0.26	0.16	0.38	0.41	0.31	0.51	0.50	0.36	
v/c Ratio	0.53	0.37	0.21	0.59	0.56	0.54	0.30	0.64	0.16	0.65	0.63	
Control Delay	27.7	32.9	3.9	29.3	37.9	14.7	13.8	27.9	3.3	32.7	27.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	27.7	32.9	3.9	29.3	37.9	14.7	13.8	27.9	3.3	32.7	27.3	
LOS	C	C	A	C	D	B	B	C	A	C	C	
Approach Delay		22.3			24.0			22.8			28.6	
Approach LOS		C			C			C			C	

Intersection Summary	
Area Type:	Other
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: 0.65	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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 (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	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(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	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 (Y+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+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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(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
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	

Intersection	
Int Delay, s/veh	23.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1809	2577	479	2056	2539	612	957	0	0	1224	0	0
Stage 1	1317	1317	-	1218	1218	-	-	-	-	-	-	-
Stage 2	492	1260	-	838	1321	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	64	25	533	43	27	374	714	-	-	305	-	-
Stage 1	163	225	-	143	251	-	-	-	-	-	-	-
Stage 2	497	240	-	318	224	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	22	10	533	~ 22	11	374	714	-	-	305	-	-
Mov Cap-2 Maneuver	22	10	-	~ 22	11	-	-	-	-	-	-	-
Stage 1	159	91	-	139	245	-	-	-	-	-	-	-
Stage 2	324	234	-	126	90	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	60.2	$ 352.8	0.2	5.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	714	-	-	78	99	305	-	-
HCM Lane V/C Ratio	0.026	-	-	0.167	1.515	0.595	-	-
HCM Control Delay (s)	10.2	-	-	60.2	$ 352.8	32.8	-	-
HCM Lane LOS	B	-	-	F	F	D	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	11.3	3.6	-	-

Notes

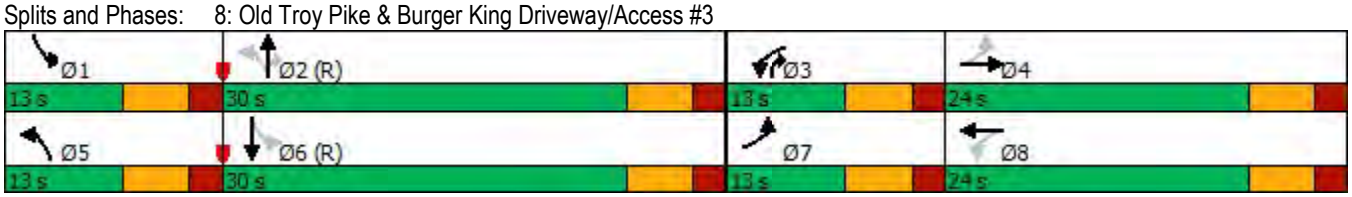
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic 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	
Flt 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 Traffic (%)												
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 (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	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		

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: Other	
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												
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 (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	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/ln	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(I)	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+Rc), s	11.6	40.1	12.5	15.8	11.9	39.8	8.8	19.5
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	7.0	24.0	7.0	18.0	7.0	24.0	7.0	18.0
Max Q Clear Time (g_c+I1), 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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	20	1123	20	0	962
Future Volume (vph)	0	20	1123	20	0	962
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.997			
Flt Protected						
Satd. Flow (prot)	0	1611	5070	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5070	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		5.5			3.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	22	1221	22	0	1046
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	22	1243	0	0	1046
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1123	20	0	962
Future Vol, veh/h	0	20	1123	20	0	962
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	22	1221	22	0	1046

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	622	0	0	1243	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	368	-	-	298	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	368	-	-	298	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	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	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	79	381	614	0	13	0
Future Volume (vph)	79	381	614	0	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	30.2		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	414	667	0	14	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	86	414	667	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 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						
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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	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		↑	↑↱			↱
Traffic Vol, veh/h	0	464	596	18	0	92
Future Vol, veh/h	0	464	596	18	0	92
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	504	648	20	0	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	334
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	663
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	663
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	663
HCM Lane V/C Ratio	-	-	-	0.151
HCM Control Delay (s)	-	-	-	11.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

05/26/2022

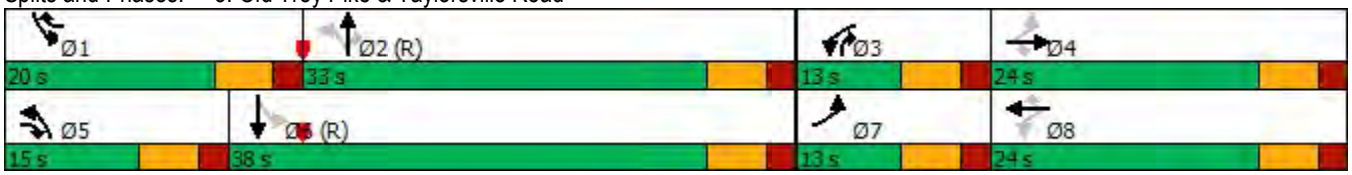
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	288	217	167	262	426	225	969	152	397	1146	164
Future Volume (vph)	264	288	217	167	262	426	225	969	152	397	1146	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	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	
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		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	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	15.0	13.0	24.0	20.0	15.0	33.0	13.0	20.0	38.0	
Total Split (%)	14.4%	26.7%	16.7%	14.4%	26.7%	22.2%	16.7%	36.7%	14.4%	22.2%	42.2%	
Maximum Green (s)	7.0	18.0	9.0	7.0	18.0	14.0	9.0	27.0	7.0	14.0	32.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	24.4	17.4	33.0	24.4	17.4	38.0	36.6	27.0	40.0	46.6	32.0	
Actuated g/C Ratio	0.27	0.19	0.37	0.27	0.19	0.42	0.41	0.30	0.44	0.52	0.36	
v/c Ratio	1.13	0.87	0.36	0.78	0.79	0.63	0.90	0.99	0.22	1.16	1.14	
Control Delay	123.2	60.5	12.7	48.2	52.0	20.0	57.7	58.5	6.3	118.3	98.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	123.2	60.5	12.7	48.2	52.0	20.0	57.7	58.5	6.3	118.3	98.0	
LOS	F	E	B	D	D	B	E	E	A	F	F	
Approach Delay		68.5			35.3			52.5			102.7	
Approach LOS		E			D			D			F	

Intersection Summary

Area Type: Other
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: 1.16
Intersection Signal Delay: 70.3 Intersection LOS: E
Intersection Capacity Utilization 97.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	288	217	167	262	426	225	969	152	397	1146	164
Future Volume (veh/h)	264	288	217	167	262	426	225	969	152	397	1146	164
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	287	313	236	182	285	463	245	1053	165	432	1246	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	359	1111	158
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	3123	444
Grp Volume(v), veh/h	287	313	236	182	285	463	245	1053	165	432	706	718
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	14.5	11.0	7.0	12.9	18.0	8.6	26.5	6.5	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	26.5	6.5	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	359	632	637
V/C Ratio(X)	1.11	0.84	0.50	0.72	0.76	0.82	0.95	0.99	0.28	1.20	1.12	1.13
Avail Cap(c_a), veh/h	259	374	476	252	374	564	258	1066	599	359	632	637
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(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	33.1	34.6	25.9	28.3	34.0	26.4	22.8	31.3	19.4	30.1	39.7	39.7
Incr Delay (d2), s/veh	88.6	15.2	0.8	9.7	8.9	9.5	42.1	24.8	1.1	114.4	72.6	76.3
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	8.6	7.9	4.1	3.7	6.6	10.0	6.4	14.4	2.5	18.0	27.8	28.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.7	49.8	26.7	38.0	42.9	35.9	65.0	56.1	20.6	144.5	112.3	116.1
LnGrp LOS	F	D	C	D	D	D	E	E	C	F	F	F
Approach Vol, veh/h		836			930			1463			1856	
Approach Delay, s/veh		68.0			38.4			53.6			121.3	
Approach LOS		E			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	33.0	13.0	24.0	15.0	38.0	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+I1), s	16.0	28.5	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	77.9
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	36	42	0	73	16	1618	32	94	1627	40
Future Volume (vph)	6	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(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 73.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	180.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	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

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2732	3822	906	2899	3826	897	1811	0	0	1794	0	0
Stage 1	1994	1994	-	1811	1811	-	-	-	-	-	-	-
Stage 2	738	1828	-	1088	2015	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	14	4	279	~ 11	4	243	335	-	-	159	-	-
Stage 1	61	104	-	54	129	-	-	-	-	-	-	-
Stage 2	351	126	-	225	101	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 4	1	279	~ 4	1	243	335	-	-	159	-	-
Mov Cap-2 Maneuver	~ 4	1	-	~ 4	1	-	-	-	-	-	-	-
Stage 1	58	37	-	51	122	-	-	-	-	-	-	-
Stage 2	224	120	-	69	36	-	-	-	-	-	-	-

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	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	335	-	-	26	11	159	-	-
HCM Lane V/C Ratio	0.052	-	-	1.756	11.364	0.643	-	-
HCM Control Delay (s)	16.3	-	-	$ 685.5	$ 5330.7	61.3	-	-
HCM Lane LOS	C	-	-	F	F	F	-	-
HCM 95th %tile Q(veh)	0.2	-	-	5.5	17	3.6	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic 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	
Flt 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	0.702			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 Traffic (%)												
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 (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	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		

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 Effct 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: Other	
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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	0	182	52	0	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 (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	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/ln	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(I)	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 (G+Y+Rc), s	12.6	46.7	11.3	19.4	12.9	46.4	10.1	20.6
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	7.0	34.0	7.0	18.0	7.0	34.0	7.0	18.0
Max Q Clear Time (g_c+I1), 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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	27	1636	23	0	1708
Future Volume (vph)	0	27	1636	23	0	1708
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	5075	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5075	0	1863	3539
Link Speed (mph)	30		35			35
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		4.7			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	29	1778	25	0	1857
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	29	1803	0	0	1857
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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		9	15	
Sign Control	Stop		Free			Free

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

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	27	1636	23	0	1708
Future Vol, veh/h	0	27	1636	23	0	1708
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	29	1778	25	0	1857

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	902	0	0	1803	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	241	-	-	157	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	241	-	-	157	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	241	157	-
HCM Lane V/C Ratio	-	-	0.122	-	-
HCM Control Delay (s)	-	-	22	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	50	787	803	2	13	0
Future Volume (vph)	50	787	803	2	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	0	1770	0
Link Speed (mph)		30	35		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	25.9		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	855	873	2	14	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	855	875	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 52.4%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	787	803	2	13	0
Future Vol, veh/h	50	787	803	2	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	54	855	873	2	14	0

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑↱			↱
Traffic Vol, veh/h	0	837	792	11	0	63
Future Vol, veh/h	0	837	792	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	910	861	12	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	437
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	568
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	568
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	568
HCM Lane V/C Ratio	-	-	-	0.121
HCM Control Delay (s)	-	-	-	12.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Lanes, Volumes, Timings
3: Old Troy Pike & Taylorsville Road

05/26/2022

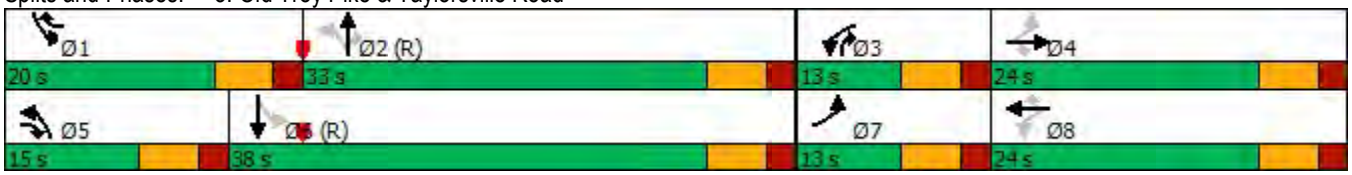
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	265	288	217	174	262	429	225	952	166	398	1130	164
Future Volume (vph)	265	288	217	174	262	429	225	952	166	398	1130	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	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	Cl+Ex	Cl+Ex	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	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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	20.0	7.0	7.0	20.0	
Minimum Split (s)	13.0	24.0	13.0	13.0	24.0	13.0	13.0	26.0	13.0	13.0	26.0	
Total Split (s)	13.0	24.0	15.0	13.0	24.0	20.0	15.0	33.0	13.0	20.0	38.0	
Total Split (%)	14.4%	26.7%	16.7%	14.4%	26.7%	22.2%	16.7%	36.7%	14.4%	22.2%	42.2%	
Maximum Green (s)	7.0	18.0	9.0	7.0	18.0	14.0	9.0	27.0	7.0	14.0	32.0	
Yellow Time (s)	4.0	4.0	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	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	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	6.0	6.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	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	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	
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)	24.4	17.4	33.0	24.4	17.4	38.0	36.6	27.0	40.0	46.6	32.0	
Actuated g/C Ratio	0.27	0.19	0.37	0.27	0.19	0.42	0.41	0.30	0.44	0.52	0.36	
v/c Ratio	1.13	0.87	0.36	0.81	0.79	0.64	0.90	0.98	0.23	1.17	1.13	
Control Delay	124.5	60.5	12.7	51.8	52.0	20.1	57.7	54.7	7.1	119.8	92.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	124.5	60.5	12.7	51.8	52.0	20.1	57.7	54.7	7.1	119.8	92.1	
LOS	F	E	B	D	D	C	E	D	A	F	F	
Approach Delay		69.1			36.2			49.3			98.6	
Approach LOS		E			D			D			F	

Intersection Summary

Area Type: Other
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: 1.17
Intersection Signal Delay: 68.0 Intersection LOS: E
Intersection Capacity Utilization 97.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 3: Old Troy Pike & Taylorsville Road



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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 (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	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/ln	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(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	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 (G+Y+Rc), s	20.0	33.0	13.0	24.0	15.0	38.0	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+I1), 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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	0	36	19	0	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		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 Traffic (%)												
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		9	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	

Intersection	
Int Delay, s/veh	366

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	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

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2775	3866	886	2945	3852	886	1771	0	0	1772	0	0
Stage 1	2060	2060	-	1771	1771	-	-	-	-	-	-	-
Stage 2	715	1806	-	1174	2081	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	13	3	288	~ 10	4	247	348	-	-	163	-	-
Stage 1	56	96	-	57	135	-	-	-	-	-	-	-
Stage 2	362	129	-	199	94	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 1	0	288	~ 1	0	247	348	-	-	163	-	-
Mov Cap-2 Maneuver	~ 1	0	-	~ 1	0	-	-	-	-	-	-	-
Stage 1	53	5	-	54	128	-	-	-	-	-	-	-
Stage 2	200	123	-	~ 8	5	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 3508.9	$ 10039.5	0.2	9.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	348	-	-	7	6	163	-	-
HCM Lane V/C Ratio	0.05	-	-	6.522	20.652	0.954	-	-
HCM Control Delay (s)	15.9	-	-	$ 3508.9	$ 10039.5	114.6	-	-
HCM Lane LOS	C	-	-	F	F	F	-	-
HCM 95th %tile Q(veh)	0.2	-	-	7.2	17.4	7.2	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Flt 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	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		

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 Effct 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: Other	
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	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	0	182	91	0	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 (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	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/ln	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(I)	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 (G+Y+Rc), s	11.4	46.8	12.4	19.4	12.9	45.3	10.1	21.7
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	7.0	34.0	7.0	18.0	7.0	34.0	7.0	18.0
Max Q Clear Time (g_c+I1), 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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	17	1629	17	0	1692
Future Volume (vph)	0	17	1629	17	0	1692
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.91	0.91	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1611	5075	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1611	5075	0	1863	3539
Link Speed (mph)	30		35			35
Link Distance (ft)	296		241			158
Travel Time (s)	6.7		4.7			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	18	1771	18	0	1839
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	18	1789	0	0	1839
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			12
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		9	15	
Sign Control	Stop		Free			Free

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

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	1629	17	0	1692
Future Vol, veh/h	0	17	1629	17	0	1692
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	25	-
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	18	1771	18	0	1839

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	895	0	0	1789	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	5.34	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	0	244	-	-	160	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	244	-	-	160	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	244	160	-
HCM Lane V/C Ratio	-	-	0.076	-	-
HCM Control Delay (s)	-	-	21	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	64	785	803	0	11	0
Future Volume (vph)	64	785	803	0	11	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	65			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	0	1770	0
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	0	1770	0
Link Speed (mph)		30	35		30	
Link Distance (ft)		194	1330		345	
Travel Time (s)		4.4	25.9		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	853	873	0	12	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	853	873	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
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 59.1%	ICU Level of Service B
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	785	803	0	11	0
Future Vol, veh/h	64	785	803	0	11	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	70	853	873	0	12	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	873	0	-	0	1866	873
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	993	-
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	773	-	-	-	80	349
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	359	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	773	-	-	-	73	349
Mov Cap-2 Maneuver	-	-	-	-	200	-
Stage 1	-	-	-	-	372	-
Stage 2	-	-	-	-	359	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	773	-	-	-	200
HCM Lane V/C Ratio	0.09	-	-	-	0.06
HCM Control Delay (s)	10.1	-	-	-	24.1
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.2

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic 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
Flt 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 (ft)		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(ft)		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%	ICU Level of Service A
Analysis Period (min) 15	

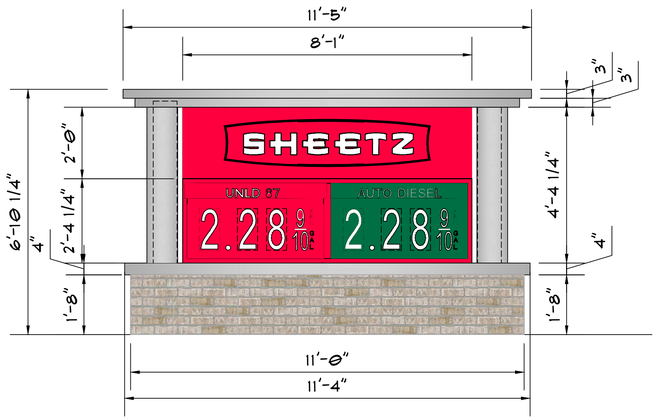
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↑↱			↱
Traffic Vol, veh/h	0	852	788	15	0	77
Future Vol, veh/h	0	852	788	15	0	77
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	926	857	16	0	84

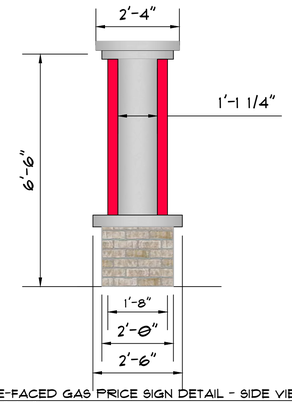
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	437
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	-	0	568
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	568
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.4
HCM LOS			B

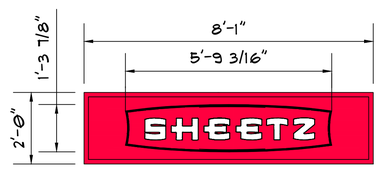
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	568
HCM Lane V/C Ratio	-	-	-	0.147
HCM Control Delay (s)	-	-	-	12.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5



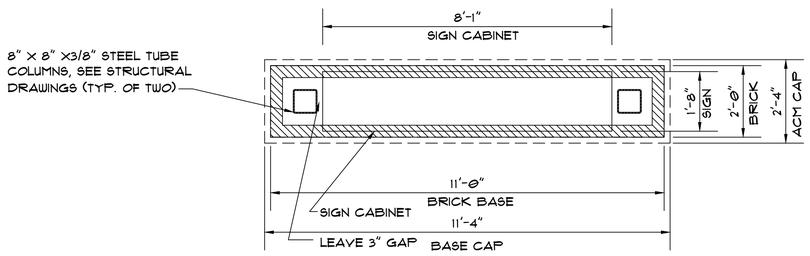
DOUBLE-FACED GAS PRICE SIGN DETAIL - PARTIAL ELEVATION
SCALE: 1/2"=1'-0" SIGN AREA: 35.19 SQ.FT.



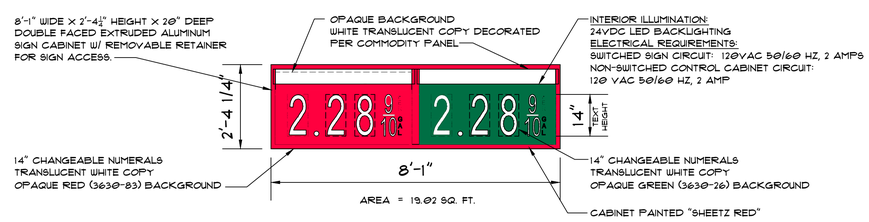
DOUBLE-FACED GAS PRICE SIGN DETAIL - SIDE VIEW
SCALE: 1/2"=1'-0"



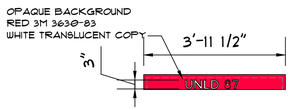
SIGN AREA = 16.17 SQ.FT.
PANEL HAS OPAQUE (NON-LIT) BACKGROUND

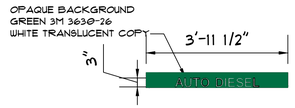


SECTION VIEW
SCALE: 1/2"=1'-0"



"UNLD 87" TO BE ON STREET SIDE OF SIGN FOR BOTH SIDES





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PROJECT NAME:
NEW SHEETZ SITE

HUBER HEIGHTS

Int. of Old Troy Pike, State Route 202
and Taylorsville Road
Huber Heights
Ohio

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE: 05-24-22
PROJECT NO:
AUTHOR BY: NMI
REVIEW BY:
SHEET TITLE

MONUMENT SIGN DETAILS

SIGN

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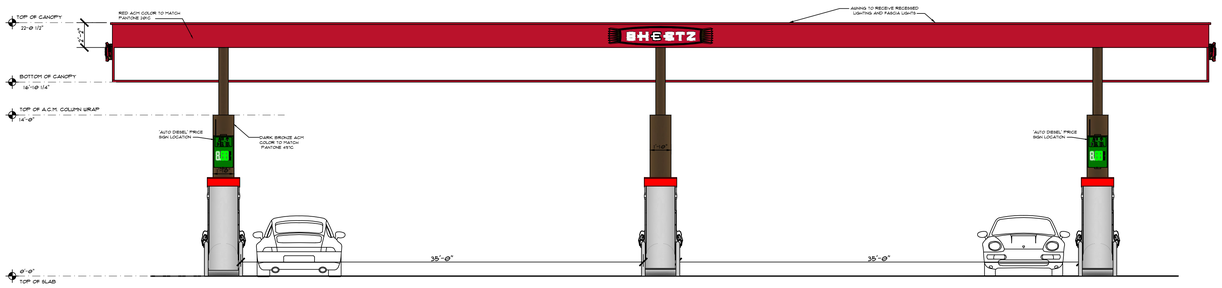
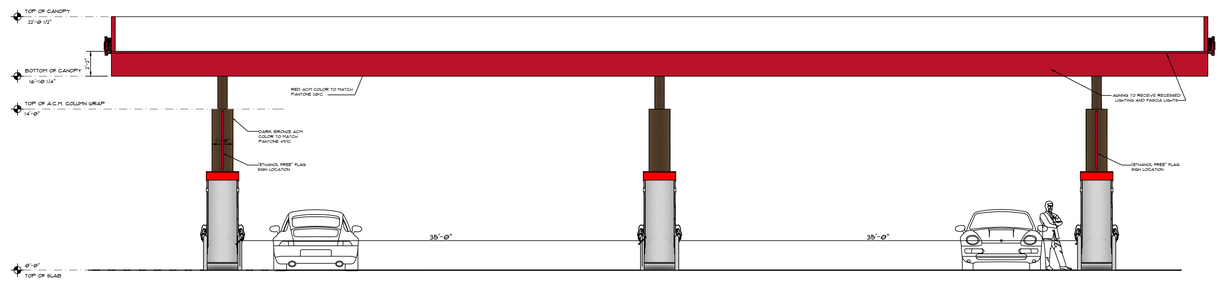
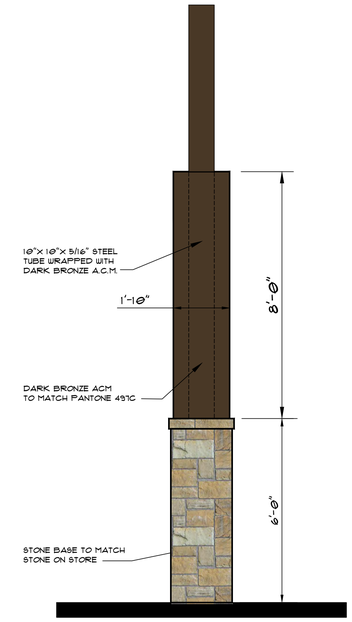


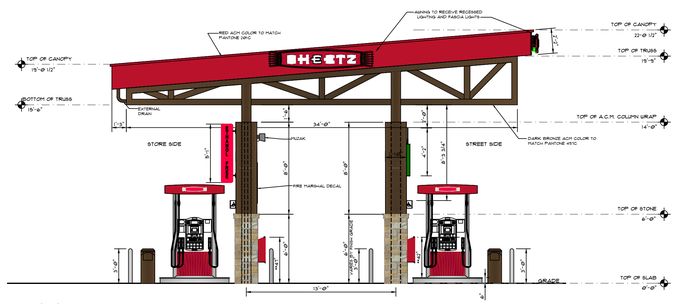
SIDE 'B' STREET SIDE ELEVATION
SCALE: 3/16" =1'-0"



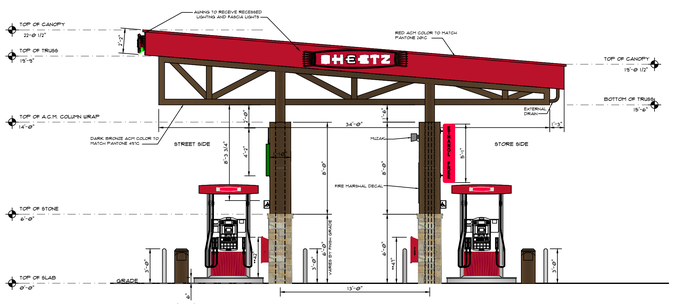
SIDE 'D' STORE SIDE ELEVATION
SCALE: 3/16" =1'-0"



COLUMN ELEVATION
SCALE: 1/2" =1'-0"

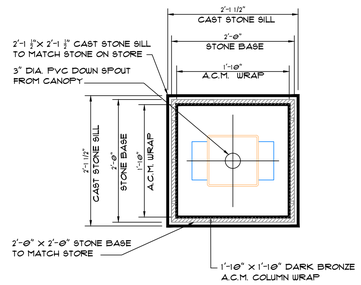


SIDE 'A' LEFT SIDE ELEVATION
SCALE: 3/16" =1'-0"

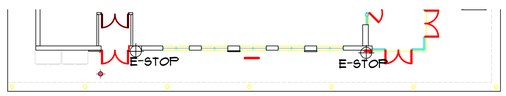


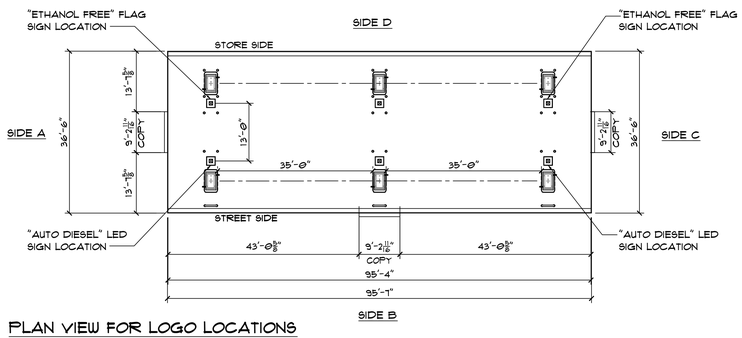
SIDE 'C' RIGHT SIDE ELEVATION
SCALE: 3/16" =1'-0"

CANOPY MOUNTED SHEETZ SIGN DETAIL
SCALE: 1/2" =1'-0"

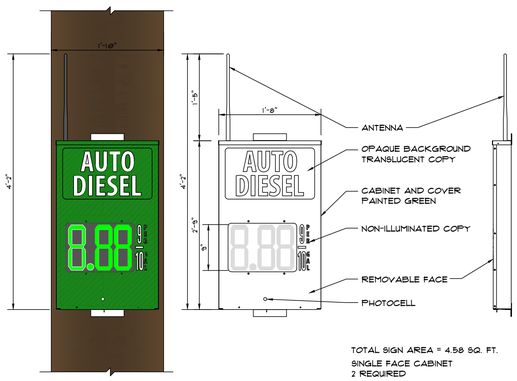


STONE COLUMN BASE DETAIL
SCALE: 1/4" =1'-0"



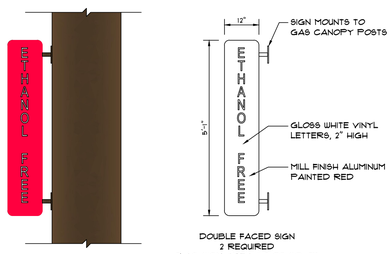


PLAN VIEW FOR LOGO LOCATIONS



TOTAL SIGN AREA = 4.58 SQ. FT.
SINGLE FACE CABINET
2 REQUIRED

"AUTO DIESEL" LED SIGN ELEVATION AND DETAIL
SCALE: 1/4" =1'-0"



DOUBLE FACED SIGN
2 REQUIRED
FLAG SIGN AREA = 5.08 SQ. FT.

"ETHANOL FREE" FLAG SIGN ELEVATION AND DETAIL
SCALE: 1/4" =1'-0"

Convenience . rchitecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

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GAS AWNING DETAILS

AWNING

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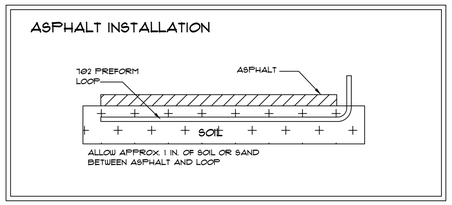


INSTRUCTIONS

1. POSITION PREFORM LOOP APPROXIMATELY 1'-3' FROM CURB, CENTERED IN FRONT OF THE MENUBOARD OR SPEAKER POST.

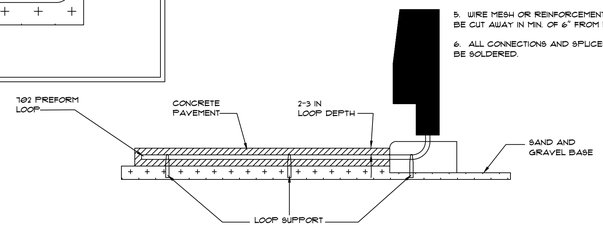
2. LOOP SHOULD BE INSTALLED 2" - 3" BELOW THE SURFACE OF THE PAVEMENT. (5" MAX. DEPTH)

3. IF INSTALLED IN ASPHALT, COVER LOOP WITH 1" MIN. SOIL OR SAND TO PROTECT FROM HOT ASPHALT.

4. CONNECT LOOP TO 1/2" CONDUIT STUBBING UP IN MENUBOARD/SPEAKER POST.

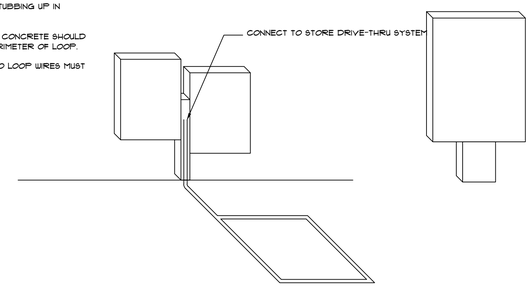
5. WIRE MESH OR REINFORCEMENT IN CONCRETE SHOULD BE CUT AWAY IN MIN. OF 6" FROM PERIMETER OF LOOP.

6. ALL CONNECTIONS AND SPLICES TO LOOP WIRES MUST BE SOLDERED.

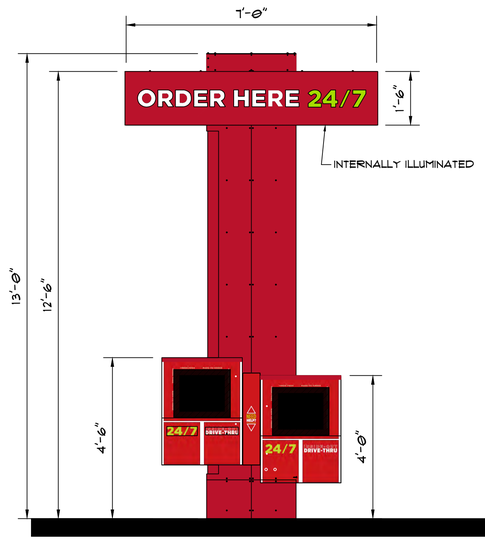


SIDE VIEW INSTALLED

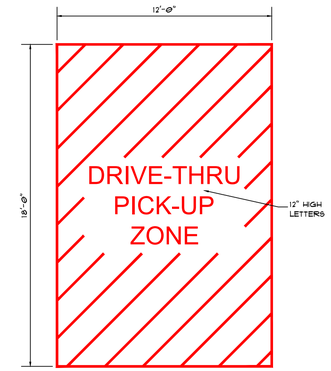
CONCRETE INSTALLATION
NO SCALE



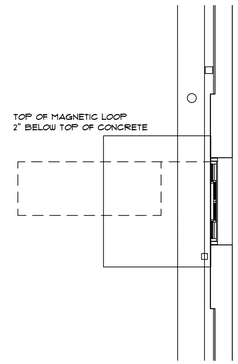
MENUBOARD W/ SPEAKER POST INSTALLATION
NO SCALE



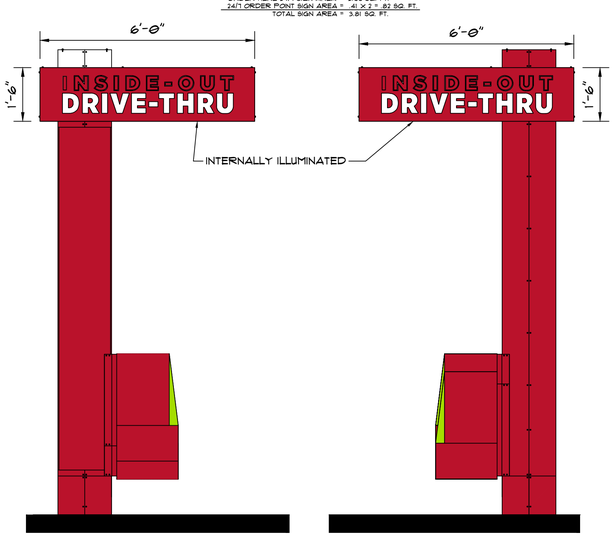
FRONT ELEVATION
ORDER HERE 24/7 SIGN AREA = 2.59 SQ. FT.
24/7 ORDER POINT SIGN AREA = .61 X 2 = .82 SQ. FT.
TOTAL SIGN AREA = 3.81 SQ. FT.



PARKING SPACE PAINTING DIAGRAM



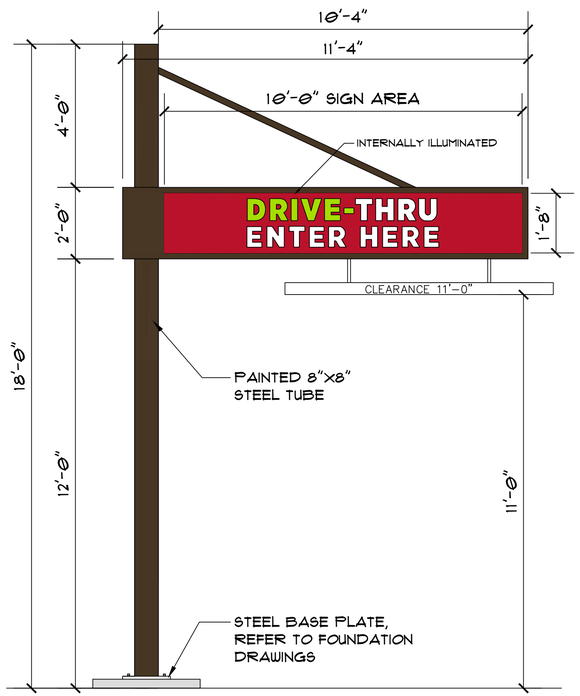
DRIVE THRU WINDOW DETAIL
SCALE: ½" = 1'-0"



LEFT ELEVATION
SIGN AREA = 4.69 SQ. FT.

RIGHT ELEVATION
SIGN AREA = 4.69 SQ. FT.

ORDER POINT ELEVATIONS
SCALE: 3/8"=1' 0"



CANTILEVERED CLEARANCE BAR DETAILS
SIGN AREA = 6.36 SQ. FT.

Convenience . rchitecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625

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B

ISSUE: 04-27-22
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DRIVE THRU SIGN DETAILS

DT-1

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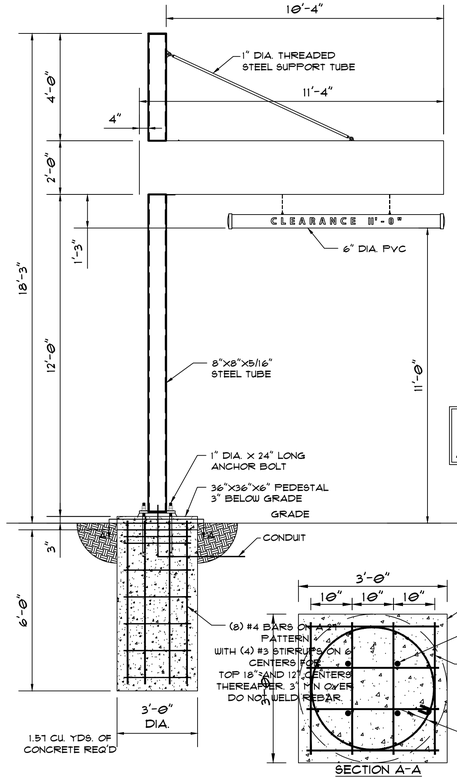
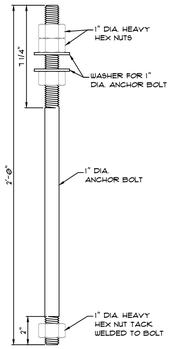


NOTES:

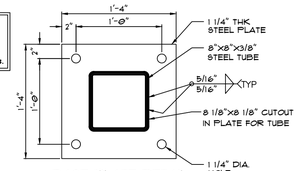
1. DESIGN IS BASED ON 90 MPH 3 SEC GUST DESIGN WIND SPEED PER NCBC 2009. EXPOSURE C.
2. CAISSON FOUNDATION ANALYSIS IS BASED ON A SAFE LATERAL SOIL BEARING PRESSURE OF 958 PER FOOT OF DEPTH. SOIL REPORT WAS NOT FURNISHED. ALLOWABLE BEARING PRESSURE SHOULD BE VERIFIED PRIOR TO PLACEMENT OF CONCRETE. DO NOT PLACE CONCRETE IN FILL.
3. CONCRETE SHALL BE MIXED TO ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS.
4. SUPPORT MEMBERS SHALL BE FREE FROM DEFECTS AND SHALL MEET ASTM A500 GRADE B WITH A MINIMUM YIELD STRENGTH OF 46000 PSI FOR TUBE. PLATE AND ANGLE SHALL MEET ASTM A36. ALUMINUM SHALL BE FABRICATED FROM 5005-H14 SHEET OR EXTRUDED FROM 6063-T6 ALLOY.
5. STRUCTURAL BOLTS SHALL BE ZINC COATED A325 UNLESS OTHERWISE NOTED.
6. ANCHOR BOLTS SHALL BE CUT FROM A36 ROUND STOCK. EXPOSED SURFACES SHALL BE GALVANIZED OR COATED TO PREVENT CORROSION.
7. ALL VOIDS BETWEEN COLUMN BASE PLATE AND FOUNDATION SURFACE SHALL BE COMPLETELY FILLED WITH HIGH STRENGTH, NON-SHRINK GROUT.
8. WELDS SHALL BE MADE WITH E10XX ELECTRODES BY PERSONS QUALIFIED IN ACCORDANCE WITH AWS STANDARDS WITHIN THE PAST TWO YEARS.
9. STEEL REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 WITH DEFORMATIONS IN ACCORDANCE WITH ASTM A-305. WELDING OF REINFORCING BARS IS PROHIBITED.
10. THIS DESIGN IS INTENDED TO BE INSTALLED AT THE ADDRESS SHOWN BELOW AND SHOULD NOT BE USED AT OTHER LOCATIONS.

ALL STEEL BELOW GRADE (INCLUDING EXPOSED ANCHOR BOLTS) SHALL BE COATED WITH CARBOLINE BITUMASTIC 50 COAL TAR OR EQUAL AFTER INSTALLATION AND PRIOR TO LANDSCAPING.

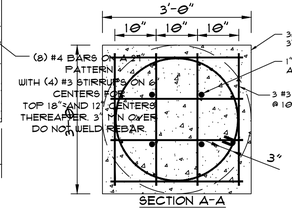
FOUNDATION & PEDESTAL SHALL BE PLACED MONOLITHICALLY IN ONE CONTINUOUS POUR



ANCHOR BOLT DETAIL
NO SCALE



BASE PLATE DETAIL
NO SCALE



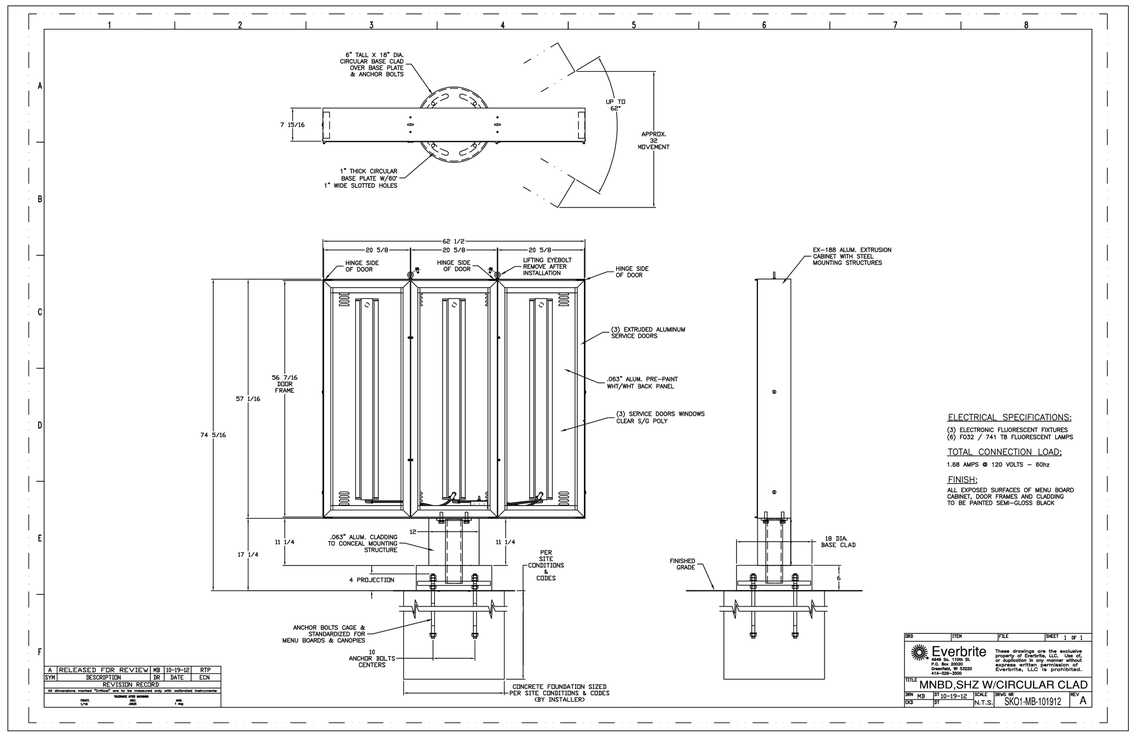
SECTION A-A

CANTILEVERED CLEARANCE BAR DETAILS
SCALE: 3/8" = 1'-0"

PROJECT: SHEETZ CANTILEVERED CLEARANCE BAR

CLIENT: BLAIR SIGN COMPANY
5107 KISSELL AVENUE, ALTOONA, PENNSYLVANIA 16601
PHONE: (814) 949-8287 FAX: (814) 949-8293

SHT.	4	BY:	TMD	Project Number: 11-0930
OF	4	DATE:	12/12/11	Drawing Number: B107326



ELECTRICAL SPECIFICATIONS:
(3) ELECTRONIC FLUORESCENT FIXTURES
(6) F032 / 741 T8 FLUORESCENT LAMPS

TOTAL CONNECTION LOAD:
1.68 AMPS @ 120 VOLTS – 60hz

FINISH:
ALL EXPOSED SURFACES OF MENU BOARD CABINET, DOOR FRAMES AND CLADDING TO BE PAINTED SEMI-GLOSS BLACK

SYM	DESCRIPTION	BY	DATE	ECN
A	RELEASED FOR REVIEW	MB	10-19-12	RTP

REVISION RECORD
All dimensions marked "critical" are to be checked only with calibrated instruments

Everbrite
2409 So. 170th St.
P.O. Box 1436
Milwaukee, WI 53201
414-328-2800

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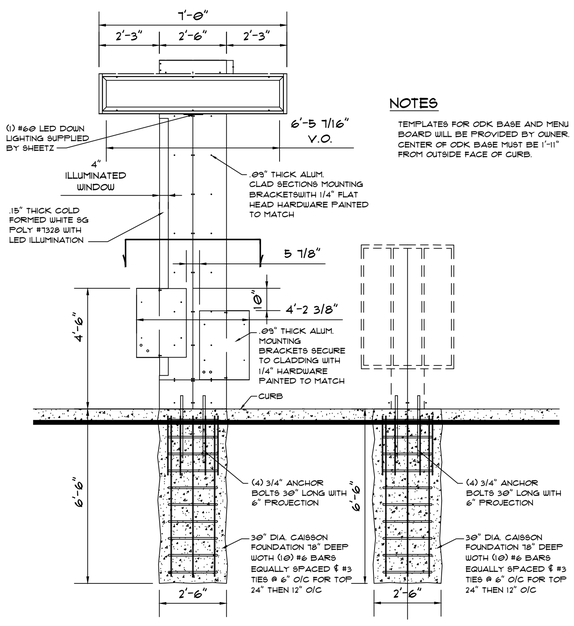
TITLE MNBD,SHZ W/CIRCULAR CLAD
DRN MB 10-19-12 SCALE N.T.S. DRAW # SK01-MB-101912 REV A
CKD BY

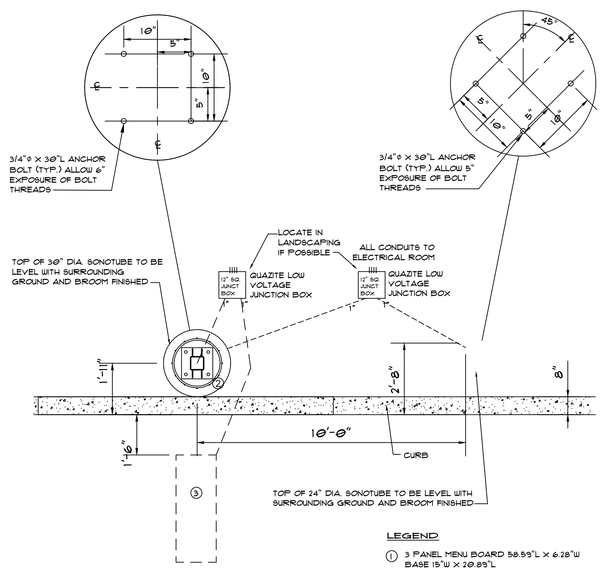
MENUBOARD DETAILS
NO SCALE AREA = 24.81 SQ. FT



NOTES

TEMPLATES FOR ODK BASE AND MENU BOARD WILL BE PROVIDED BY OWNER. CENTER OF ODK BASE MUST BE 1'-11" FROM OUTSIDE FACE OF CURB.

DRIVE THRU ORDER POINT PAD ELEVATION
SCALE: 3/8" = 1'-0"



LEGEND

1. 3 PANEL MENU BOARD 58.59"L X 6.28"W BASE 15"W X 20.89"L
2. ODK'S 50@ 3/4" L X 11" W ODK BASE 12" SQ.
3. TOP OF 54"X 18" MAGNETIC LOOP 2" BELOW TOP OF CONCRETE

DRIVE THRU ORDER POINT LAYOUT
SCALE 3/8"=1'-0"

DRIVE THRU ORDER POINT ELEVATION
SCALE 3/8"=1'-0"

Convenience . rchitecture and Design P.C.
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DRIVE THRU SIGN DETAILS

DT-2

NOTES:

1. DESIGN IS BASED ON 90 MPH 3 SEC GUST DESIGN WIND SPEED PER NCBC 2009. EXPOSURE C.
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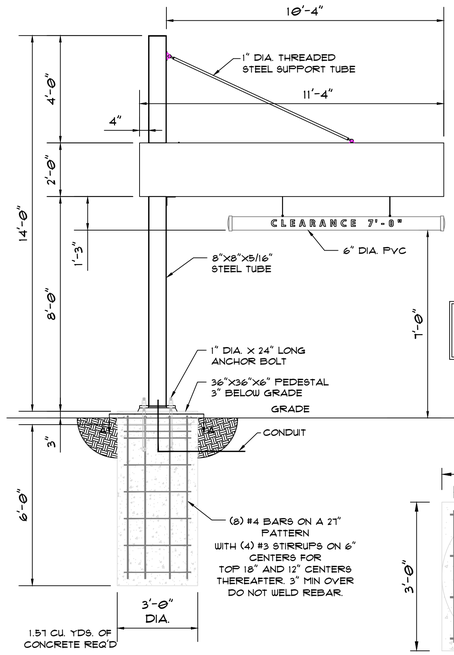
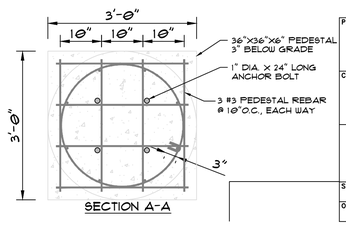
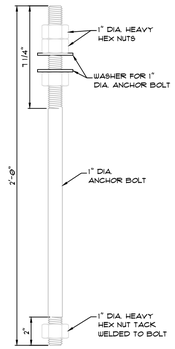
FOUNDATION & PEDESTAL SHALL BE PLACED MONOLITHICALLY IN ONE CONTINUOUS POUR



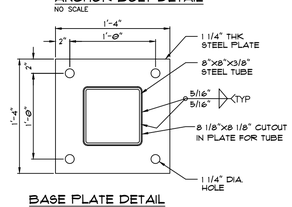
CANTILEVERED CLEARANCE BAR DETAILS
SCALE: 3/8" = 1'-0"



SECTION A-A

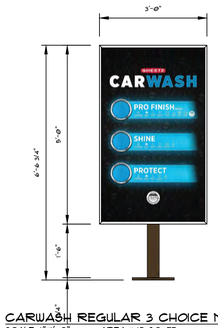


ANCHOR BOLT DETAIL
NO SCALE

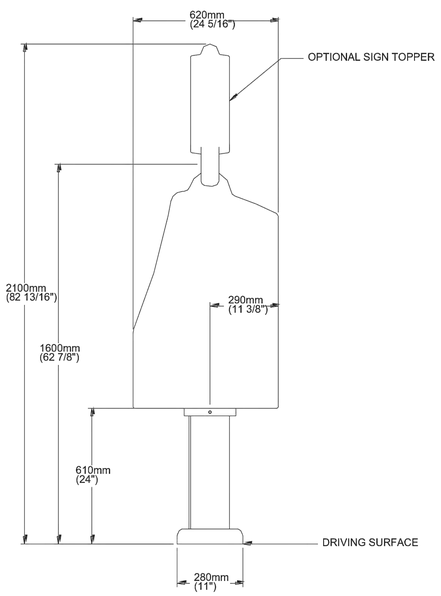


BASE PLATE DETAIL
NO SCALE

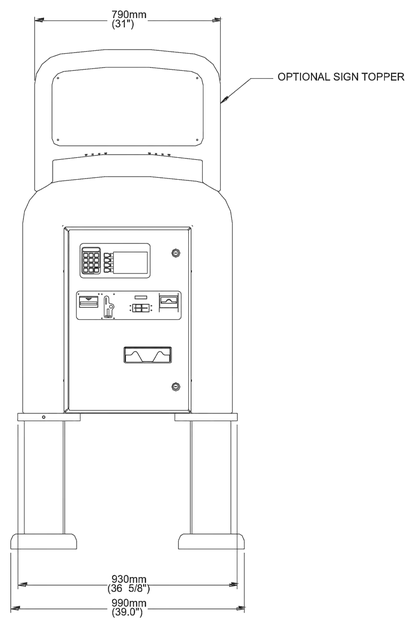
PROJECT: SHEETZ CANTILEVERED CLEARANCE BAR		
CLIENT: BLAIR SIGN COMPANY 5107 KISSELL AVENUE, ALTOONA, PENNSYLVANIA 16601 PHONE: (814) 949-8287 FAX: (814) 949-8293		
SHT.	BY:	Project Number:
OF	DATE:	Drawing Number:



CARWASH REGULAR 3 CHOICE MENU BOARD
SCALE: 1"=1'-0" AREA = 15 SQ. FT.
SIGN TO BE BACK LIT

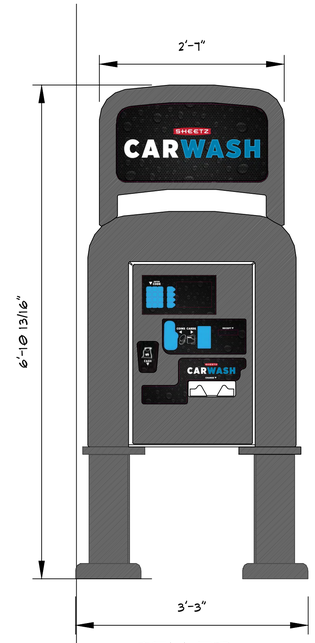


SIDE VIEW

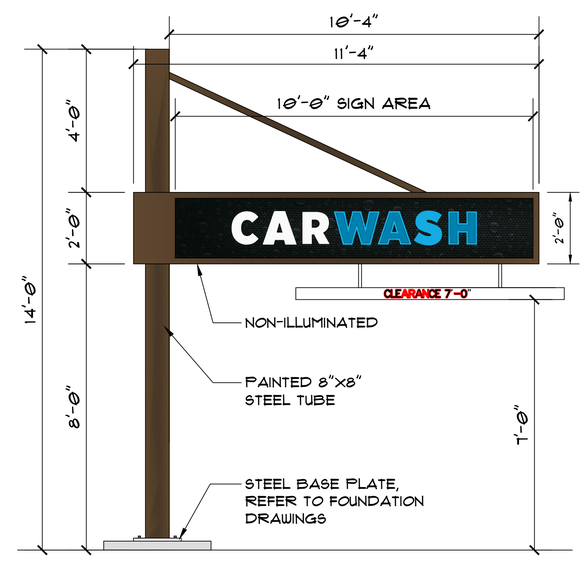


FRONT VIEW

TELLER DETAILS
SCALE: NO SCALE



TELLER
SCALE: 1"=1'-0"



CANTILEVERED CLEARANCE SIGN ELEVATION
SCALE: 1/2"=1'-0"

CARWASH TEXT AREA: 6.41 SQ.FT.

Convenience . rchitecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625
phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ SITE

HUBER HEIGHTS

Int. of Old Troy Pike, State Route 202 and Taylorsville Road
Huber Heights
Ohio

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

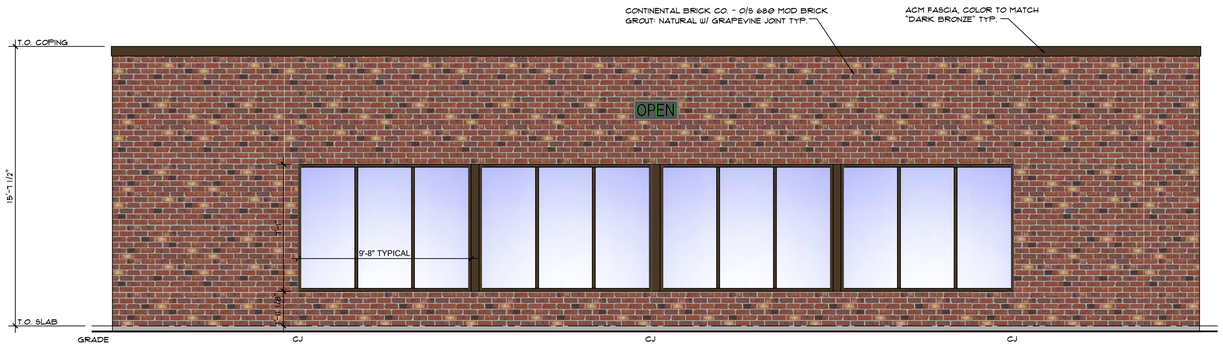
KEYPLAN

MARK	DATE	DESCRIPTION

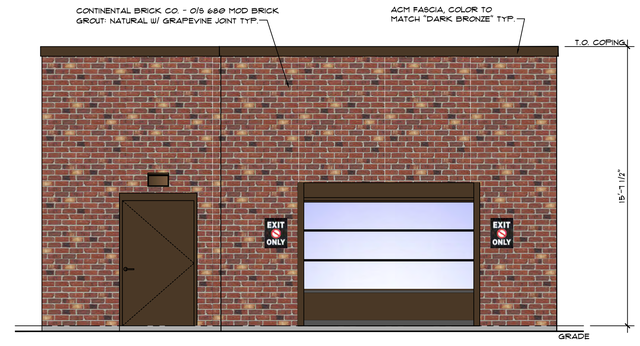
ISSUE: 04-30-20
PROJECT NO:
AUTHOR BY: NMI
REVIEW BY:
SHEET TITLE

CARWASH SIGN DETAILS

SIGN

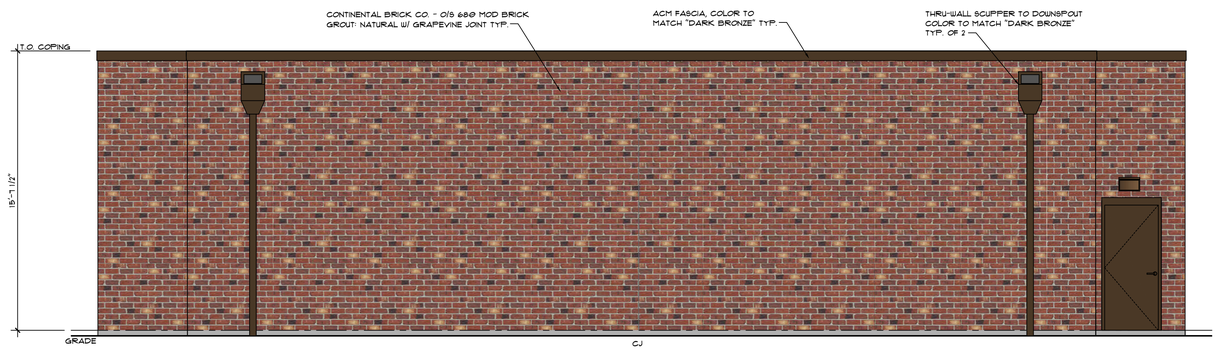


FRONT ELEVATION
SCALE: 1/4" =1'-0"

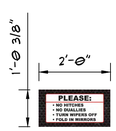


EXIT SIDE ELEVATION
SCALE: 1/4" =1'-0"

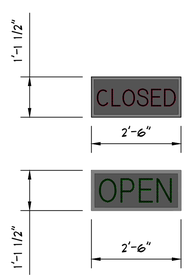
ENTRANCE SIDE ELEVATION
SCALE: 1/4" =1'-0"



REAR ELEVATION
SCALE: 1/4" =1'-0"

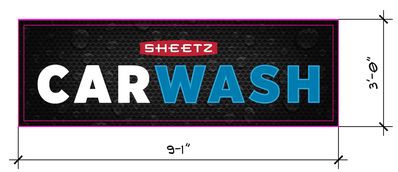


CARWASH WARNINGS WALL SIGN
SCALE: 1/2" = 1'-0" AREA = 2.06 SQ. FT.



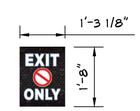
LED OPEN/CLOSED WALL SIGN
AREA = 2.81 SQ. FT.
TYPICAL OF 2

CARWASH INSTRUCTIONS WALL SIGN
SCALE: 1/2" = 1'-0" AREA = 2.75 SQ. FT.



BUILDING WALL SIGN
AREA = 27.25 SQ. FT.
TYPICAL OF 1
CARWASH TEXT AREA = 8.36 SQ. FT.

CARWASH DISCLAIMER WALL SIGN
SCALE: 1"=1'-0" AREA = 6.00 SQ. FT.



CARWASH EXIT ONLY WALL SIGN
SCALE: 1"=1'-0" AREA = 2.09 SQ. FT.
TYPICAL OF TWO

Convenience , rchitecture
and Design P.C.
351 Sheetz Way, Claysburg, PA 16625

phone (814) 239-6013
email tcolumbu@sheetz.com
web site www.sheetz.com

PROJECT NAME:
NEW SHEETZ SITE

HUBER HEIGHTS

Int. of Old Troy Pike, State Route 202
and Taylorsville Road
Huber Heights
Ohio

OWNER:
SHEETZ, INC.

5700 SIXTH AVE.
ALTOONA, PA 16602

CONSULTANT

PROFESSIONAL

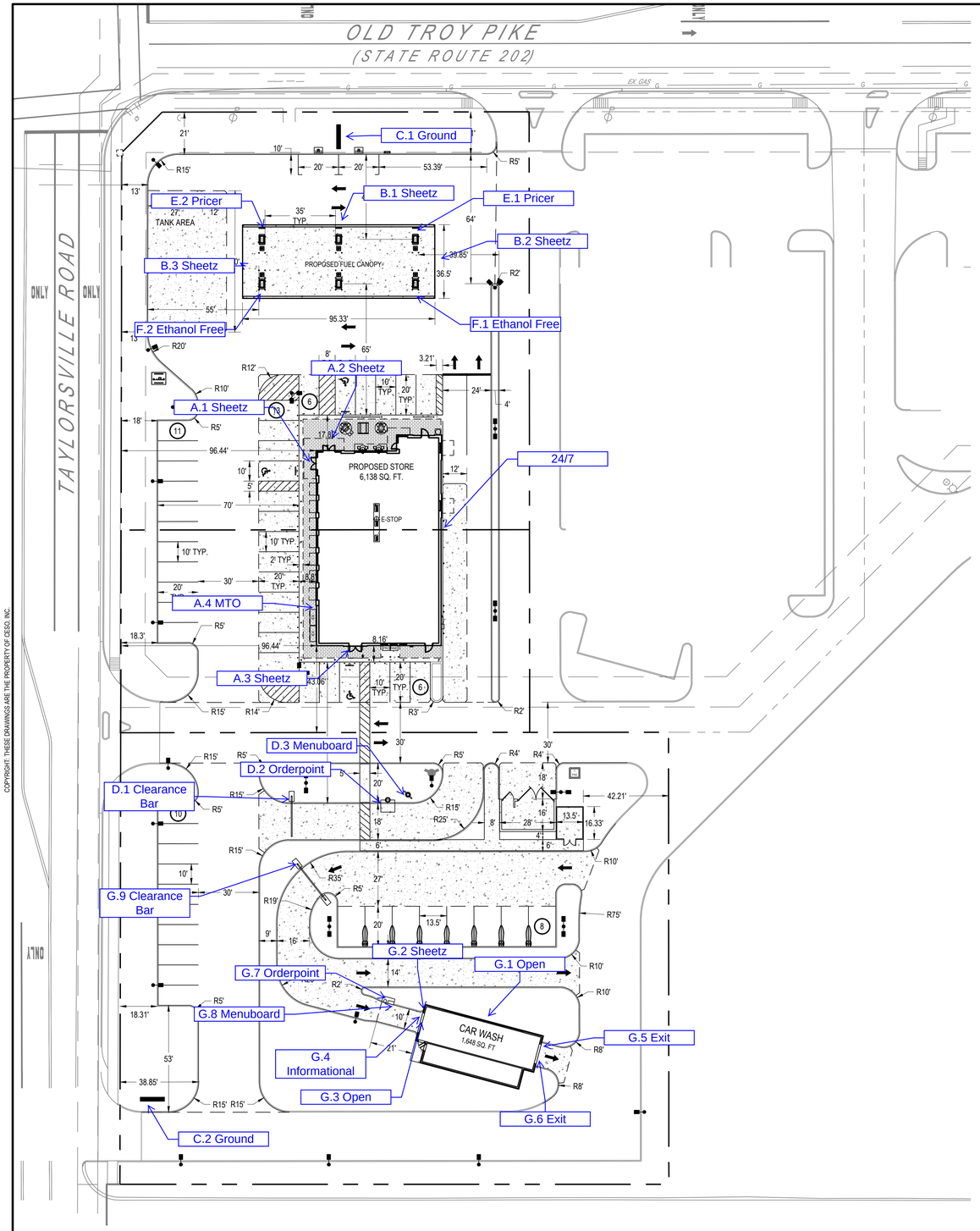
KEYPLAN

MARK	DATE	DESCRIPTION

ISSUE: 04-27-2022
PROJECT NO:
AUTHOR BY: NMI
REVIEW BY:
SHEET TITLE

CARWASH
EXTERIOR ELEVATIONS

CEE-1



N

GRAPHIC SCALE (IN FEET)
1 in. = 30 ft.

PARKING COUNT = 54 SPACES

SITE LEGEND

- BRICK PAVERS
- CONCRETE PAVEMENT
- BUILDING
- CONCRETE CURB
- EDGE OF PAVEMENT / WALK
- PAVEMENT TRANSITION
- PARKING SPACE COUNT

CESO
WWW.CESOINC.COM

NO.	DATE	REVISION DESCRIPTION
1	04/29/2022	MAJOR SITE PLAN - 1ST SUBMITTAL

SKILKEN | GOLD
REAL ESTATE DEVELOPMENT

SHEETZ

OLD TROY PIKE & TAYLORSVILLE ROAD
HUBER HEIGHTS, OHIO

SITE LAYOUT

ISSUE:
NOT FOR CONSTRUCTION

DATE:
04.29.2022

JOB NO.:	760396
DESIGN:	MST
DRAWN:	MST
CHECKED:	JPL

SHEET NO.
1 OF 1

Memorandum

Staff Report for Meeting of June 28, 2022

To: Huber Heights City Planning Commission

From: 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:	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:	Vacant
ZONING ADJACENT LAND:	PM (North), R-6 (East), R-4 (South), PC (West)
REQUEST:	The applicant requests 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.
ORIGINAL APPROVAL:	The Broad Reach basic development plan and rezoning was approved by the Planning Commission on May 11, 2021, and subsequently approved by City Council on June 14, 2021.
APPLICABLE HHCC:	Chapter 1171, 1179
CORRESPONDENCE:	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 14th 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.

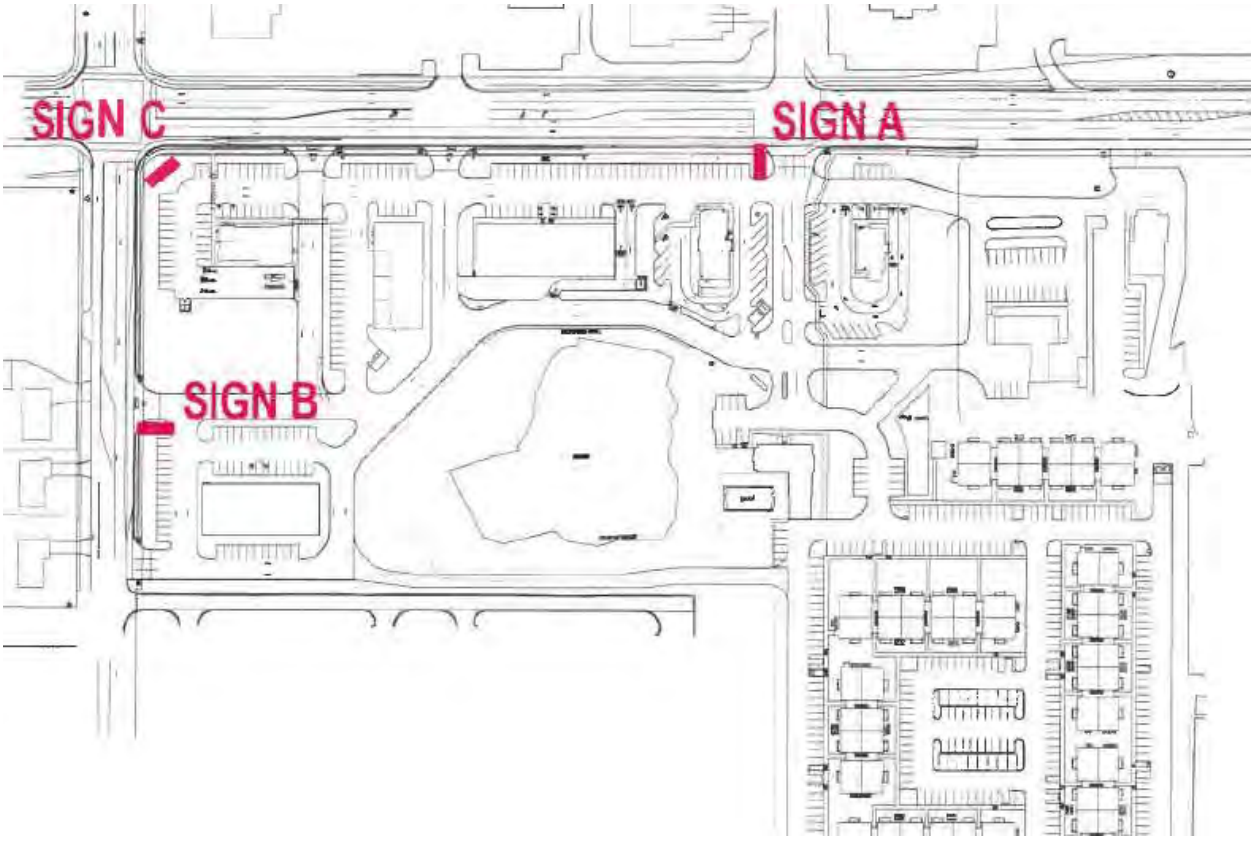
The applicant is now proposing a convenience store and fueling station on the western parcels and a car wash on the eastern parcel in place of the illustrated bank, medical building and future outparcel.

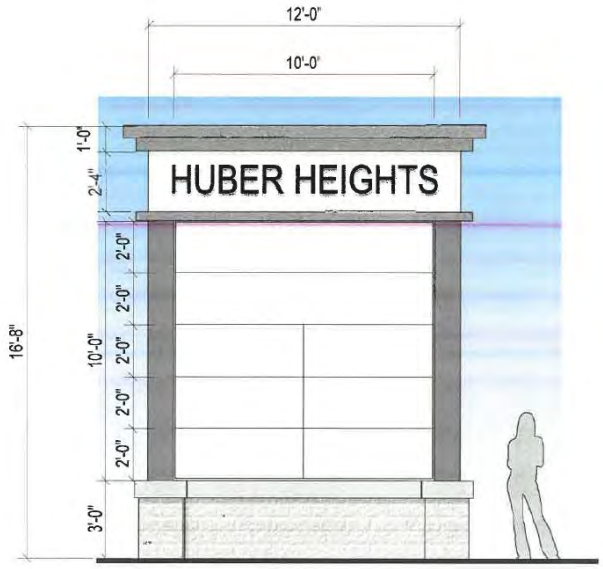
Chapter 1179.02 states: *"The uses outlined as permitted uses in the (PR) Planned Residential District, (PO) Planned Office District, (PP) Planned Public and Private Buildings and Grounds District, and (PC) Planned Commercial District are principal uses permitted in the (PM) Planned Mixed Use District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

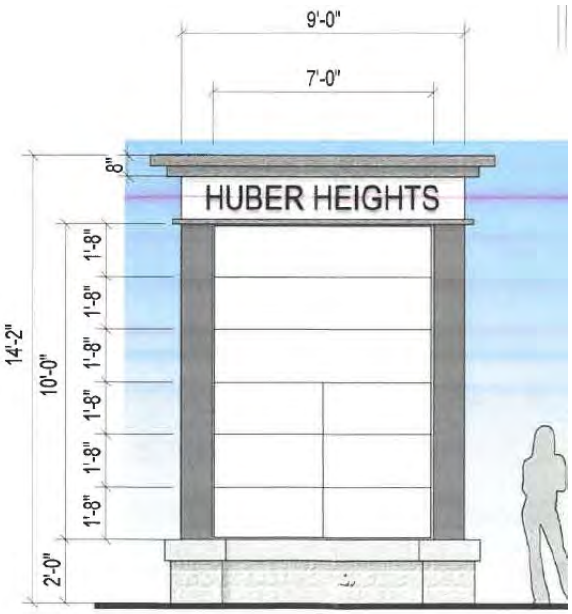
The proposed uses are permitted within this adopted basic development plan.

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’-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.

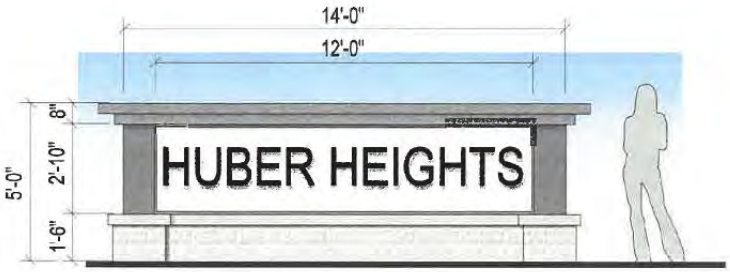




SIGN A

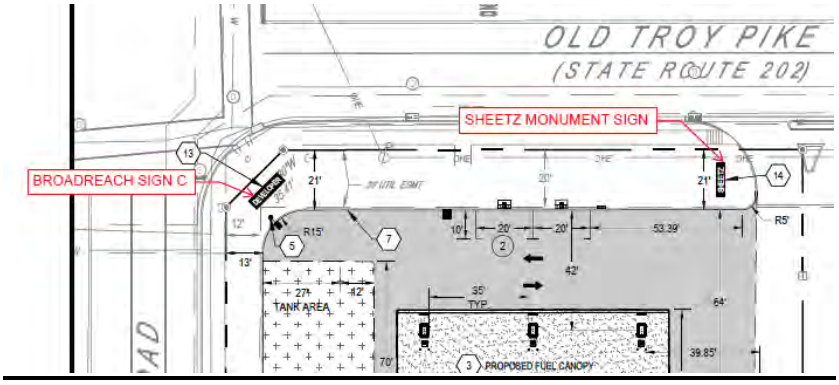


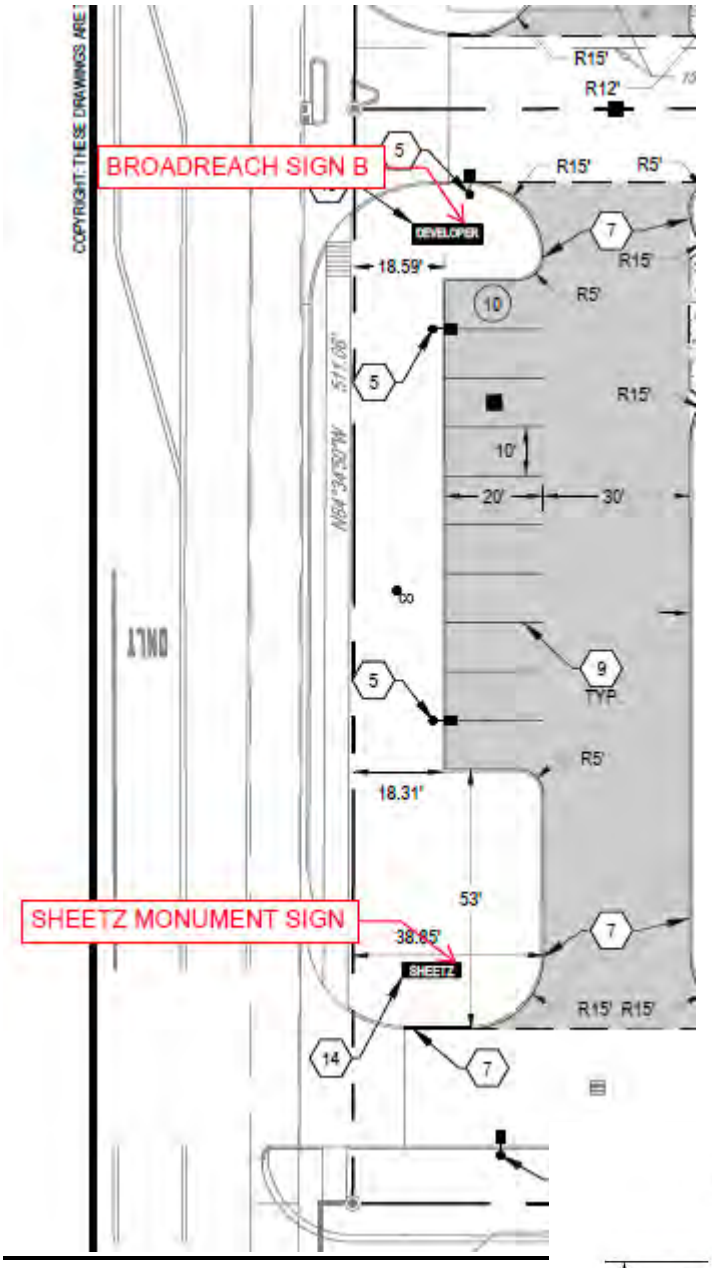
SIGN B

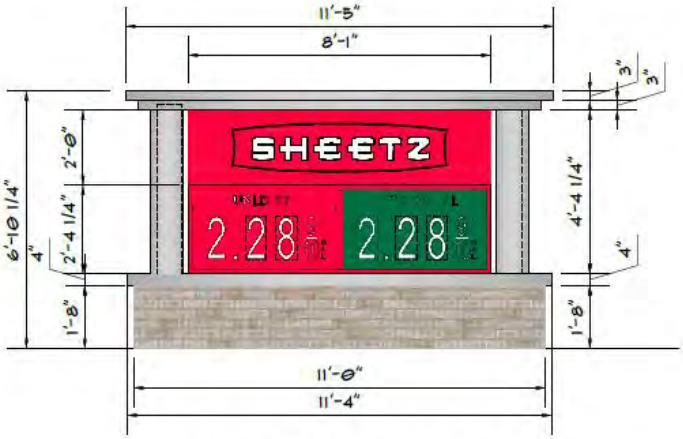


SIGN C

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. <u>The two ground mounted gas price signs are the only substantial changes being proposed to the approved basic development plan.</u>







DOUBLE-FACED GAS PRICE SIGN DETAIL - PARTIAL ELEVATION
SCALE: 1/2"=1'-0" SIGN AREA: 38.15 SQ.FT.

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

(l) 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. <u>The two-ground mounted gas price signs are the only substantial change being proposed to the approved basic development plan.</u>

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.

1. Canopies, awnings, arcades, covered walkways or porticos.

2. Recesses, projections, columns, pilasters projecting from the planes, offsets, reveals or projecting ribs used to express architectural or structural bays.

3. Varies roof heights for pitched, peaked, sloped or flat roof styles.

4. Articulated cornice line.

5. Arches.

6. Display windows, faux windows or decorative windows.

7. *Architectural details (such as tile work and molding) or accent materials integrated into the building facade.*
8. *Integrated planted or wing walls that incorporate landscaping and sitting areas or outdoor patios.*
9. *Integrated water features.*
10. *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'-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;
- 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 04005 0015 and P70 04005 0043 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 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.

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.

_____ _____

Terry Walton, Chair Date
Planning Commission

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.

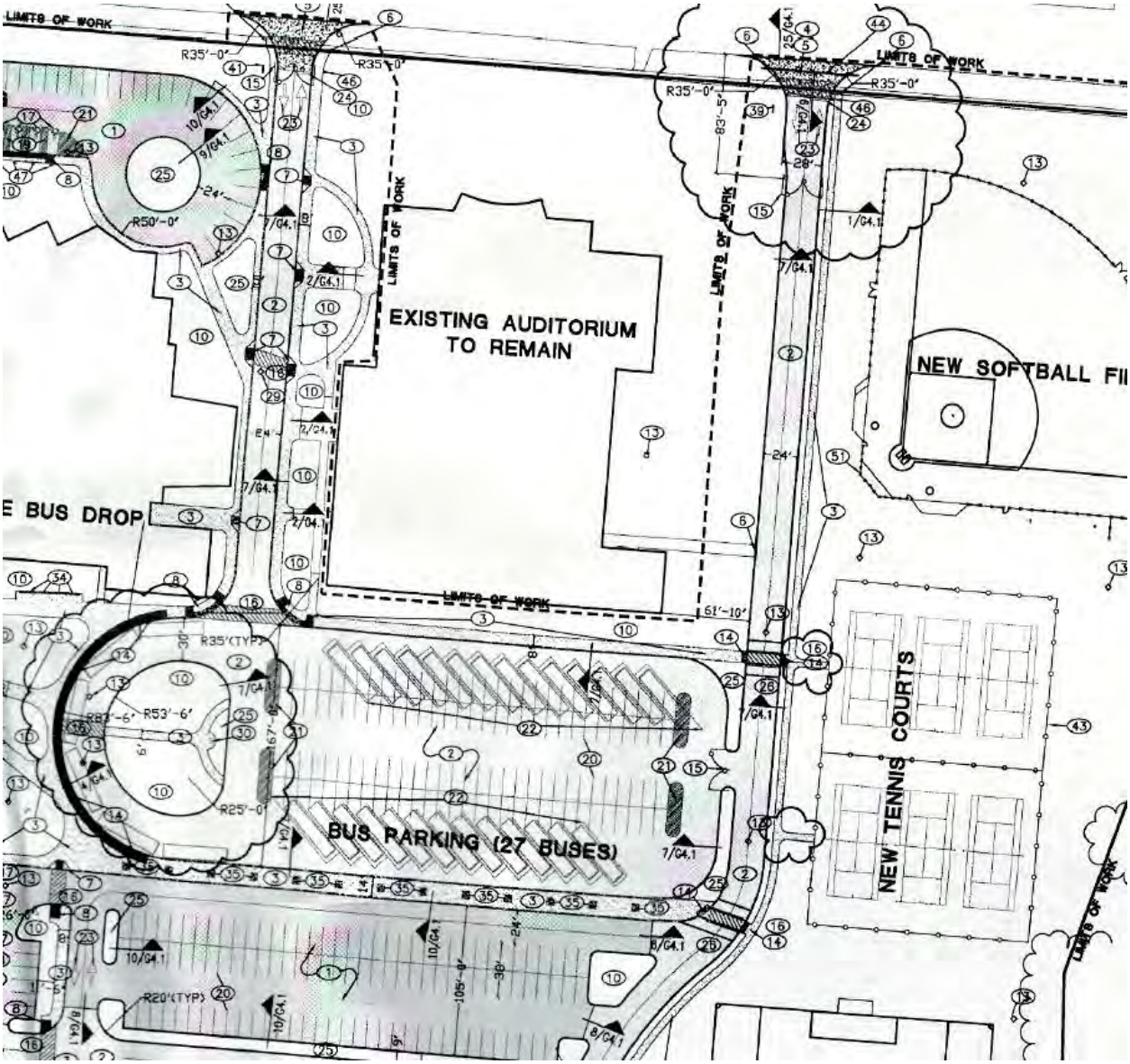
1. JOE NICKEL FROM YARD COMPANY gave a brief presentation on their help to develop the Comprehensive Plan.

Library
Alematic
Pool
Music Nights
Farmer's Market
Final Recommendation

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 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 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

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 14th 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’-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' 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'-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;

- 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
DDP – Medical Facility

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	**Date**
Geri Hoskins, Administrative Secretary	**Date**

CITY OF HUBER HEIGHTS
STATE OF OHIO

ORDINANCE NO. 2022-O-

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'-10".
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 _____ day of _____, 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8507 **Topics of Discussion** J.

Council Work Session

Meeting Date: 07/19/2022

Case BDP 22-25 - Homestead Development - Basic Development Plan - 6209 Brandt Pike

Submitted By: Geri Hoskins

Department: Planning **Division:** Planning

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: SmartBoard **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Case BDP 22-25 - Homestead Development - Basic Development Plan - 6209 Brandt Pike

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.

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

GENERAL DEMOLITION NOTES

1. Within the subject property, the intent is to have a clean, clear site, free of all existing items noted to be removed in order to allow for the construction of the new project.
2. All items noted to be removed shall be done as part of the contract for general construction.
3. Remove and dispose of any materials requiring removal from the work area in an approved off-site landfill.
4. The Contractor shall secure all permits for demolition and disposal of demolition material to be removed from the site. The Contractor shall post all bonds and pay all permit fees as required.
5. The Contractor shall cut and plug, or arrange for the appropriate utility company to cut and plug service piping at the property line or at the main (as required). All services may not be shown on this plan.
6. For all items noted to be removed, remove not only above ground elements, but all underground elements as well, including, but not necessarily limited to: foundations, slabs, gravel fills, tree roots, pipes, wires, unsuitable materials, etc.
7. The Contractor shall sawcut existing pavement to provide a clean edge between existing pavement to remain and existing pavement to be removed.
8. Limits of removal shown on demolition plan are approximate only. Actual quantities may vary due to construction activities. Contractor is responsible for all demolition, removal and restoration work necessary to allow for the construction of the new project.
9. Backfill excavations resulting from demolition work to meet the requirements for fill outlined in the Geotechnical / Soils Report.

GRAPHIC SCALE
100 0 50 100
1 inch = 100 ft.

811
Know what's below.
Call before you dig.

Item	Description	Date

EXISTING CONDITIONS FOR
MARIAN MEADOWS RESIDENTIAL
6007-6054 & 6061-6119 BRANDT PIKE
HUBER HEIGHTS, MONTGOMERY COUNTY, OHIO

BURKHARDT
ENGINEERS ▾ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-9060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

Design: HB	Proj: 22.112
Draw: HB	Dwg: 22.112.dwg
Check: JDB	Tab: C1-EC
Scale: 1" = 100'	

Date: 06.03.2022

Sheet: EXISTING CONDITIONS

Sheet No.: C-1.0

GENERAL SITE NOTES

1. Building dimensions shown on the Civil Engineering Plans are for reference purposes only.
2. All site and radii dimensions are referenced to the face of curbs or edge of paving unless otherwise noted.
3. All dimensions to the building are referenced to the outside face of the structure's facade.
4. All sidewalks, curb and gutter, street paving, curb cuts, driveway approaches, handicap ramps, etc. constructed outside the property line in the right-of-way shall conform to all Local and/or State specifications and requirements.
5. All proposed handicap ramps, parking areas, and accessible routes shall strictly comply with current Local, State, and Federal regulations, including but not necessarily limited to the ADA Accessibility Guidelines (ADAAG).
6. All ADA accessible routes shall have detectable warnings installed as required by the ADAAG. Detectable warnings shall consist of raised truncated domes which contrast visually with the adjoining surfaces, either light-on-dark, or dark-on-light.
7. Contractor shall sawcut existing pavement and concrete to provide a clean, straight joint where new pavement meets existing pavement and ensure positive drainage.
8. All concrete pavement shall have joints in accordance with ACI 330R-08, Section 3.7 and Appendix C. Contraction joints shall be 1/4 of the slab thickness. Isolation joints shall be placed between pavement and foundations, inlets, and other fixed structures. Contraction joints shall be tool finished and spaced as follows:

   Curbing: 10'-0" (max) spacing.
   Sidewalks: 5'-0" (max) spacing.
   Vehicular Traffic Areas: 24 x Concrete Pavement Thickness (feet), 15'-0" (max) spacing.

PARKING COUNT

-357 FOR MULTIFAMILY AREA (16 ADA)
184 TOTAL UNITS, 84 ONE BEDROOM
AND 100 TWO BEDROOMS (284 BEDROOMS)
PARKING SPACES PER BEDROOM = 1.24

-134 FOR 55+ FACILITY (6 ADA)

GRAPHIC SCALE
100 0 50 100
1 inch = 100 ft.

811
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Item	Description	Date

SITE DEVELOPMENT PLANS FOR
MARIAN MEADOWS RESIDENTIAL
6007-6054 & 6061-6119 BRANDT PIKE
HUBER HEIGHTS, MONTGOMERY COUNTY, OHIO

BURKHARDT
ENGINEERS ▾ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

Design: JDB	Proj: 22.112
Draw: HB	Dwg: 22.112.dwg
Check: KZ	Tab: C2-SP
Scale: 1" = 100'	
Date: 06.03.2022	
Sheet: SITE PLAN	
Sheet No.: C-2.0	

GENERAL GRADING, EARTHWORK & DRAINAGE NOTES

1. All spot elevations indicated in pavement areas are at bottom face of curb and/or finished pavement grade unless noted otherwise. All spot elevations indicated in grass or landscape areas are finished grade unless noted otherwise.
2. The Contractor shall be responsible for the removal and disposal of all vegetation and organic materials from the site that results from clearing & grubbing activities.
3. The Contractor shall be responsible for stripping and removal of all excess topsoil from the site. All topsoil that cannot be used on site shall be removed from the site at the Contractor's expense. The Contractor may dispose of excess topsoil by burying topsoil in landscape areas only at the direction of the Owner or the Owner's Representative.
4. The Contractor will be responsible for all safety requirements and for the protection of all existing and proposed utilities or structures during earthwork procedures.
5. The Contractor shall be responsible for the import of structural fill materials if suitable material is not available on site. The location and testing of suitable material shall be the Contractor's responsibility. The Contractor shall be responsible for the export and disposal of all excess or unsuitable materials.
6. The Contractor shall provide construction dewatering as necessary to complete construction as outlined in plans.
7. The Contractor shall exercise extreme care in establishing all grades and slopes in pavement areas, ramps and sidewalks in the vicinity of handicap parking and access areas and shall comply with Federal, State, and Local Codes.
8. In areas where sheet drainage flows from grass or landscape areas onto paved areas, the finished grade in grass or landscape areas shall be 1/2 inch above the top of curb or above the pavement in areas without curb. In areas where sheet drainage flows from pavement to grass or landscaped areas, the finished grade in grass or landscape areas shall be 1/2 inch below the pavement.
9. The Contractor shall provide positive drainage in all areas and away from all buildings.
10. All pavement shall be laid on a straight, even, and uniform grade with a minimum of 1:100 (1.0%) slope toward the collection points unless otherwise specified on plans. Cut or fill slopes in unpaved areas shall not exceed 3:1 (33.3%) maximum grade unless otherwise noted on plans.
11. ADA accessible areas shall not exceed the following slopes:
    Ramps - 1:12 (8.3%) max.
    Routes - 1:20 (5.0%) max.
    Parking - 1:50 (2.0%) max.
    Cross Slopes - 1:50 (2.0%) max.
12. The Contractor shall adjust tops/lids/grates of all existing and proposed cleanouts, manholes, inlets, valves, etc. to match final grade.
13. Following grading of subsoil to subgrade elevations, the Contractor shall provide 4" of topsoil (minimum) in all disturbed areas which are not to be paved. Final grades should be smoothly finished to surrounding areas and ensure positive drainage. Stockpiled topsoil shall be screened prior to respreading and should be free of subsoil, debris, and stones.
14. The Contractor shall be responsible for determining exact quantities of cut and/or fill for estimating and construction and should alert the Engineer of any excessive cut and/or fill, especially if additional cut and/or fill will be required due to poor existing soil conditions discovered during earthwork operations.
15. Refer to the Architectural and Structural Plans for information regarding any perimeter foundation drains.
16. The Contractor shall obtain a copy of the Geotechnical / Soils Report and become thoroughly familiar with site and subgrade information and fully implement recommendations given therein.
17. Proposed spot elevations are provided in a truncated form to save space, add 900' to each spot elevation to convert the elevation to NAVD88 datum.
18. Refer to the Landscape Plans for finish material specifications (topsoil, seed, sod, mulch, etc.) in all landscape and open space areas.

GRADING LEGEND

INV	INVERT
TC	TOP-OF-CURB
TG	GRATE/RIM ELEVATION
	PROP. SHEET FLOW
+00.00	PROP. SPOT ELEVATION
+00.00	EXIST. SPOT ELEVATION
970	PROP. CONTOUR
969	EXISTING CONTOUR
	PROP. CATCH BASIN
	GRADE BREAK

ADD 900' TO SPOT ELEVATIONS
ALL GRADES IN PAVEMENT AREAS ARE TOP OF PAVEMENT ELEVATIONS UNLESS OTHERWISE CALLED OUT.

GRAPHIC SCALE
100 0 50 100
1 inch = 100 ft.

811
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Item	Description	Date

SITE DEVELOPMENT PLANS FOR
MARIAN MEADOWS RESIDENTIAL
6007-6054 & 6061-6119 BRANDT PIKE
HUBER HEIGHTS, MONTGOMERY COUNTY, OHIO

BURKHARDT
ENGINEERS ▾ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-9060 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

Design: HB	Proj: 22.112
Draw: HB	Dwg: 22.112.dwg
Check: JDB	Tab: C3-GP
Scale: 1" = 100'	

Date: 06.03.2022

Sheet: GRADING PLAN

Sheet No.: C-3.0

GENERAL UTILITY NOTES:

1. All utilities shown are approximate locations only and have been compiled from the latest available mapping. The exact location of all underground utilities shall be verified by the Contractor prior to the start of construction.
2. Contractor to coordinate with the local utility companies for all locations and connections. A preconstruction meeting with the various utility companies may be required prior to the start of any construction activity.
3. The Contractor shall visit the site and verify the location, elevation, and condition of all existing utilities by various means prior to beginning any excavation. Test pits shall be dug at all locations where existing and proposed utility lines cross, and the horizontal and vertical locations of the utilities shall be determined. The Contractor shall contact the Engineer in the event of any unforeseen conflicts between existing and proposed utilities so that an appropriate modification may be made.
4. The Contractor shall ensure that all utility companies and local standards for materials and construction methods are met. The Contractor shall perform proper coordination with the respective utility company. The Contractor shall coordinate work to be performed by the various utility companies and shall pay all fees for connections, disconnection, relocations, inspections, and demolition.
5. This plan details pipes up to 5' from the building face. Refer to the building drawings for building connections. Supply and install pipe adapters as necessary.
6. All valve boxes and curb boxes shall be adjusted to the final grades and located in grassed areas unless indicated otherwise on the plans.
7. The Contractor shall provide traffic bearing concrete collars and lids for all cleanouts, manholes, inlets, valves, etc. which are located in paved areas.
8. All existing pavement within the rights-of-way where utility piping is to be installed shall be saw cut and replaced or directionally bored in accordance with Local and/or State requirements. Existing pavement shall be repaired as necessary.
9. All utility lines and trenches shall be installed, bedded and backfilled according to manufacturer's specifications and to the satisfaction of Local and State Authorities.
10. Sanitary sewer laterals shall maintain (10' min. horizontal, 1.5' min. vertical) separation distance from water lines unless otherwise shown, or additional protection measures will be required. Where water line crosses above sanitary lateral by less than 2' vertical, a concrete encasement shall be installed, Contractor shall center one joint of pipe at crossing.
11. Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.

UTILITY LEGEND

▢ ◯ ○CO	PROP. INLET/MANHOLE/CLEANOUT
(DS)	PROP. DOWNSPOUT @ BUILDING
—SS— —SS—	PROP. SANITARY SEWER
—W— —W—	PROP. WATER SERVICE
—— ——	PROP. STORM SEWER

GRAPHIC SCALE
100 0 50 100
1 inch = 100 ft.

811
Know what's below. Call before you dig.

Item	Description	Date

SITE DEVELOPMENT PLANS FOR
MARIAN MEADOWS RESIDENTIAL
6007-6054 & 6061-6119 BRANDT PIKE
HUBER HEIGHTS, MONTGOMERY COUNTY, OHIO

BURKHARDT
ENGINEERS ▾ SURVEYORS
28 North Cherry Street | Germantown, Ohio 45327 | Phone: 937-388-0660 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

Design: JDB	Proj: 22.112
Draw: HB	Dwg: 22.112.dwg
Check: KZ	Tab: C4-UP
Scale: 1" = 100'	
Date: 06.03.2022	
Sheet: UTILITY PLAN	
Sheet No.: C-4.0	

Southpoint Crossing

HOMESTEAD
COMPANIES

site overview

SCALE: N.T.S.

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

55+ community

site area	6.0 acres
parking provided	134 spaces

Homestead Apartment Community

site area	8.1 acres
parking provided	320 spaces

Retail + Restaurant

site area	1.3 acres
parking provided	81 spaces

Library, Public Use, Senior Center

site area	9.1 acres
parking provided	219 spaces

Medical Offices

site area	4.7 acres
parking provided	306 spaces

N

site plan // parcels

SCALE: 1" = 200'-0"

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

55+ Community

area	6.0 acres
units	135
parking	134 spaces

Homestead Apartment Community

area	8.1 acres
units	192
parking	320 spaces
parking ratio	1.67/ unit

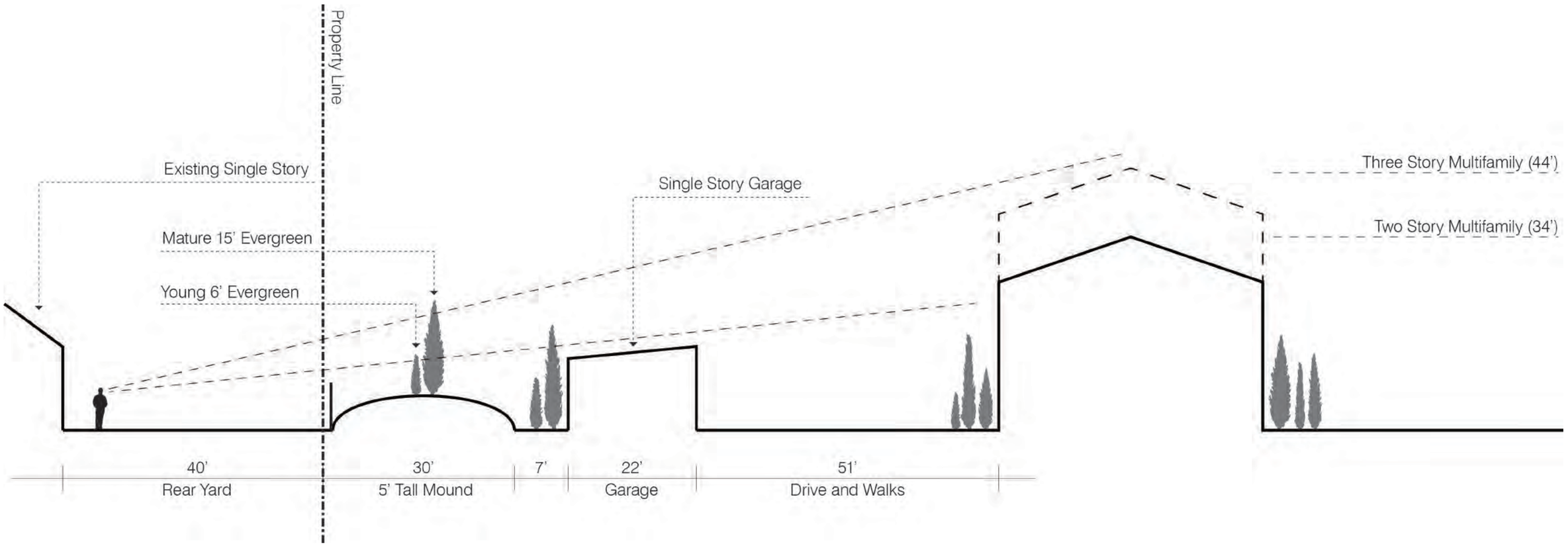
site plan // homestead

SCALE: 1" = 100'-0"

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall



sightline // west property line

SCALE: NTS

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

FRONT/BACK ELEVATION

SIDE ELEVATION

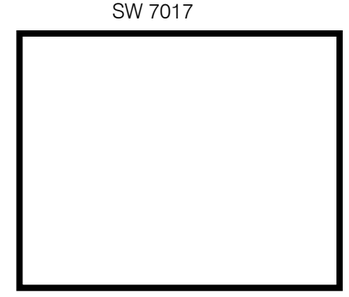
STONE 01
product // provia
color // lakepointe - dry stack
// no grout

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

SIDING 03
product // shake siding
color // white

ROOF
product // tamko
// dimensional asphalt
shingle
color // weathered wood

SHUTTERS
product // na
color // night owl
SW 7061



TRIM
product // na
color // white

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

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

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

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

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

SHUTTERS
product// na
color // black

TRIM
product// na
color // arctic white

ROOF
product // asphalt shingle

FRONT ELEVATION

REAR ELEVATION

SIDE ELEVATION

southpoint crossing
PROPOSED MASTERPLAN | JUNE 3, 2022

HOMESTEAD COMPANIES

archall

Memorandum

Staff Report for Meeting of June 14, 2022

To: Huber Heights City Planning Commission

From: Aaron K. Sorrell, Interim City Planner

Date: 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 03912 0140
ZONING/ACREAGE:	PM – Planned Mixed Use / 15.56 Acres 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

(l) 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 off-street 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 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.

(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-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 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.

(l) 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-of-way. 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 second-floor 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.

(l) 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' 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 03912 0140 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.

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

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 22-13).**

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 3rd 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 5/3rd 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 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. 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

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' 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.

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 **Date**

Geri Hoskins, Administrative Secretary **Date**

CITY OF HUBER HEIGHTS
STATE OF OHIO

ORDINANCE NO. 2022-O-

TO APPROVE A BASIC DEVELOPMENT PLAN FOR THE PROPERTY LOCATED AT 6209 BRANDT PIKE AND FURTHER IDENTIFIED AS PARCEL NUMBER P70 03912 0140 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 02002 0001	P70 02015 0001	P70 02015 0002
P70 02015 0004	P70 02015 0005	P70 02015 0008
	P70 03912 0082	

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 _____ day of _____, 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8517 **Topics of Discussion** **K.**

Council Work Session

Meeting Date: 07/19/2022

Case MJC 22-27 - Ruetschle Architects - Basic/Detailed Development Plans - 5400 Chambersburg Road

Submitted By: Geri Hoskins

Department: Planning **Division:** Planning

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: SmartBoard **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Case MJC 22-27 - Ruetschle Architects - Basic/Detailed Development Plans - 5400 Chambersburg Road

Purpose and Background

The applicant, Ruetschle Architects, is requesting a Major Change to the Basic and Detailed Development Plans.

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 ARCHITECTS
222 LINWOOD STREET
DAYTON, OHIO 45405
T: 937.461.5390

RUETSCHLE.COM

Gilbane Building Company	One South St. Clair Street	419.322.9017	Construction Manager Toledo, Ohio 43604
Burkhardt Engineering	28 North Cherry Street	937.388.0060	Civil Engineer Germantown, Ohio 45327
Shell + Meyer Associates, Inc.	2202 South Patterson Blvd.	937.298.4631	Structural Engineer Dayton, Ohio 45409
Heapy Engineering LLC	1400 West Dorothy Lane	937.224.0861	Consulting Engineers Dayton, Ohio 45409
Heapy Engineering LLC	1400 West Dorothy Lane	937.224.0861	Technology Engineers Dayton, Ohio 45409

INDEX TO DRAWINGS

222 LINWOOD STREET
DAYTON, OHIO 45405
TEL: 937-461-5390
FAX: 937-461-8829
RUETSCHLE.COM

RUETSCHLE

STATE OF OHIO
MARK S. RUETSCHLE
9837
REGISTERED ARCHITECT
MARK S. RUETSCHLE LICENSE # 9837
ARCHITECTURE INTERIORS

Issued:
05.16.2022
Bidding/Permit

Revisions:

Career Tech Addition For
WAYNE HIGH SCHOOL
Huber Heights City Schools
5400 Chambersburg Rd.
Huber Heights, OH 45424

Comm. No.
32119

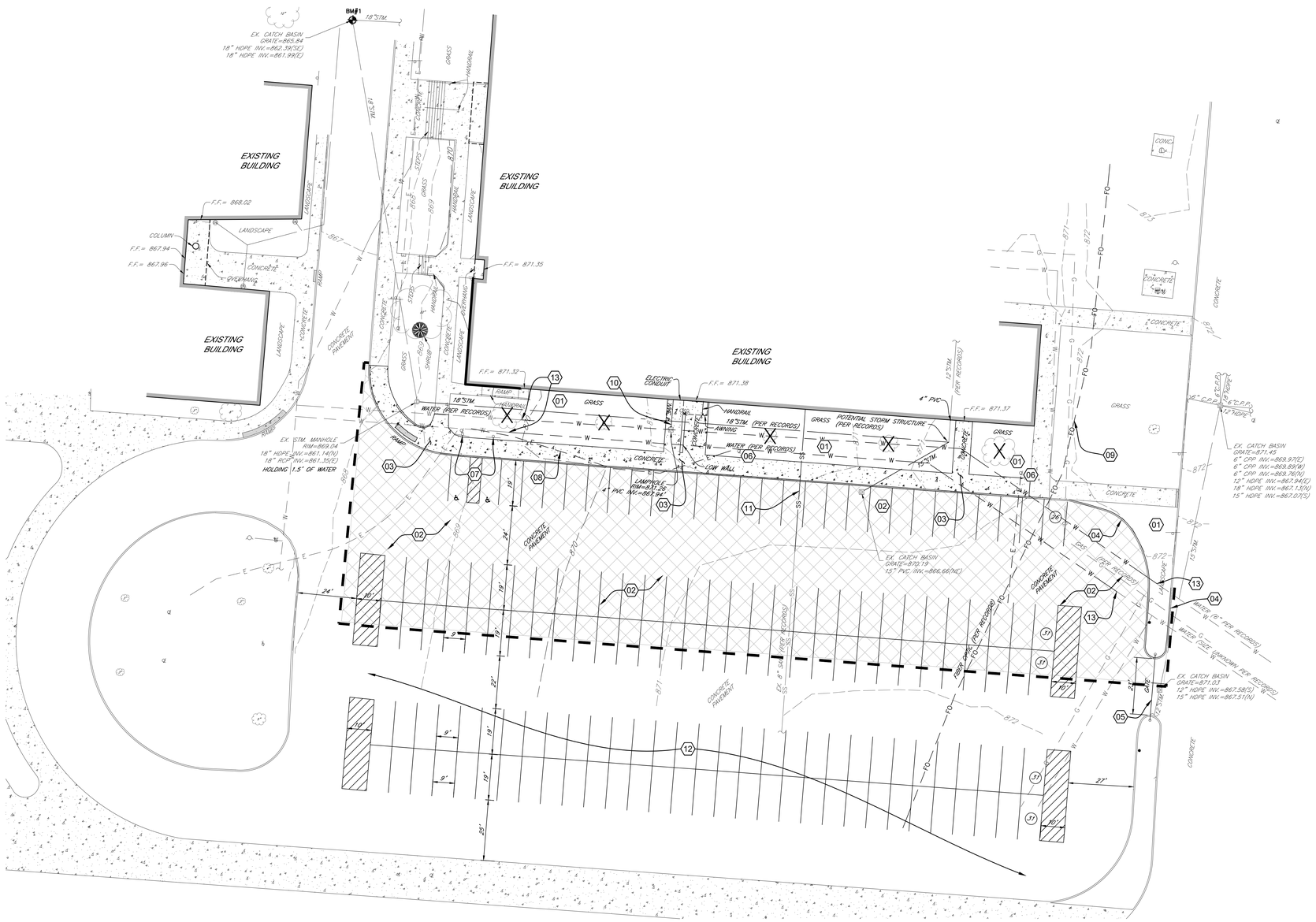
Cover Sheet

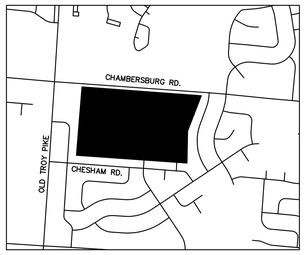
Sheet No.
1

GRAPHIC SCALE

20 0 10 20

1 inch = 20 ft.





VICINITY MAP
Not to Scale

GENERAL DEMOLITION NOTES

1. Within the subject property, the intent is to have a clean, clear site, free of all existing items noted to be removed in order to allow for the construction of the new project.
2. All items noted to be removed shall be done as part of the contract for general construction.
3. Remove and dispose of any materials requiring removal from the work area in an approved off-site landfill.
4. The Contractor shall secure all permits for demolition and disposal of demolition material to be removed from the site. The Contractor shall post all bonds and pay all permit fees as required.
5. The Contractor shall cut and plug, or arrange for the appropriate utility company to cut and plug service piping at the property line or at the main (as required). All services may not be shown on this plan.
6. For all items noted to be removed, remove not only above ground elements, but all underground elements as well, including, but not necessarily limited to: foundations, slabs, gravel fills, tree roots, pipes, wires, unsuitable materials, etc.
7. The Contractor shall sawcut existing pavement to provide a clean edge between existing pavement to remain and existing pavement to be removed.
8. Limits of removal shown on demolition plan are approximate only. Actual quantities may vary due to construction activities. Contractor is responsible for all demolition, removal and restoration work necessary to allow for the construction of the new project.
9. Backfill excavations resulting from demolition work to meet the requirements for fill outlined in the Geotechnical / Soils Report.

DEMOLITION KEYNOTES

01 REMOVE TOPSOIL, GRASS, TREES, SHRUBS, AND ANY OTHER UNSUITABLE MATERIALS IN PROJECT AREA AND PREPARE SITE.

X REMOVE TREE/BUSH

02 REMOVE EXISTING CONCRETE PAVEMENT AND SAWCUT PAVEMENT FOR CLEAN EDGE

— — — — SAWCUT LINE

03 REMOVE EXISTING CONCRETE SIDEWALK

04 REMOVE EXISTING CURB

05 REMOVE EXISTING GATE

06 REMOVE EXISTING LIGHT POLE. RETURN TO OWNER.

07 REMOVE EXISTING SIGN

08 EXISTING ELECTRIC LINE TO BE REMOVED PER OWNER REQUIREMENTS

09 EXISTING FIBER OPTIC LINE TO BE REROUTED OUTSIDE OF PROPOSED BUILDING FOOTPRINT.

10 EXISTING SANITARY LINE TO BE REMOVED. VERIFY WITH OWNER THAT LINE IS NO LONGER IN USE.

11 EXISTING SANITARY LINE UNDER PROPOSED BUILDING TO BE REMOVED AND REPLACED PER MEP PLANS.

12 EXISTING PAVEMENT AREA TO BE RESTRIPED.

13 REMOVE AND RE-ROUTE EXISTING WATER LINES. SEE UTILITY PLAN.

DEMOLITION LEGEND

AREA OF PAVEMENT REMOVAL

EXISTING CONDITIONS LEGEND

DOWNSPOUT	BOLLARD
SANITARY LAMP HOLE	FLAG POLE
CATCH BASIN	SIGN
STORM MANHOLE	TREE W/SIZE
FIRE HYDRANT	ELECTRIC CABINET
WATER MAIN VALVE	GATE POST
WATER METER PIT	SANITARY CLEANOUT
POST INDICATOR VALVE	LIGHT POLE

STORM LINE
W WATER LINE
E UG ELECTRIC LINE
SS SANITARY LINE
FO UG FIBER OPTIC LINE
000 CONTOUR

GENERAL CONSTRUCTION NOTES

1. All work shall strictly comply with all Local, State, and Federal regulations and requirements.
2. Prior to the start of construction, the Contractor shall be responsible for ensuring that all required permits and approvals have been obtained. No construction or fabrication shall begin until the Contractor has received and reviewed all plans and other documents approved by all the permitting authorities. The Contractor shall post all bonds, pay all fees, and provide proof of insurance as required to obtain permits.
3. All sediment and erosion control measures, as shown on Sheet C-3.0, shall be in place prior to the start of any demolition, clearing and grubbing, or construction operations. Erosion control measures shall conform to all Local, State, and Federal regulations and requirements.
4. North arrow, existing topography, and bearings based on field survey of the subject property prepared by Burkhardt Engineering dated January, 2020.
5. Information on existing utilities has been compiled from available information including utility company and municipal records and field survey and is not guaranteed correct and complete. Utilities are shown to alert the Contractor to their presence and the Contractor is solely responsible for determining actual locations and elevations of all utilities. Prior to demolition or construction, the Contractor shall contact "811", 72 hours before commencement of work and verify all utility locations.
6. The Contractor shall provide and maintain traffic control devices for protection of vehicles and pedestrians consisting of drums, barriers, signs, lights, fences and uniformed traffic officers as required by Local and State Authorities.
7. The Contractor shall protect all iron pins, monuments and property corners during construction. Any Contractor disturbed pins, monuments, etc. shall be reset by a Professional Land Surveyor (Registered with the State) at the expense of the Contractor.
8. Any disturbance incurred to any adjacent properties or public right-of-way during demolition and construction shall be restored to its original condition or better, in accordance with and to the satisfaction of Local and State Authorities.
9. The Contractor shall abide by all OSHA, Federal, State, and Local regulations when operating cranes, booms, hoists, etc. in close proximity to overhead electric lines. If Contractor must operate equipment close to electrical lines, contact the local Utility Provider to make arrangements for proper safeguards.
10. All material schedules shown on the plans are for general information only. The Contractor shall prepare their material schedules based upon their plan review. All schedules shall be verified in the field by the Contractor prior to ordering materials or performing work.
11. All work within public rights-of-way shall be in accordance with Local, State, and/or Federal requirements and specifications.

SITE BENCHMARKS

BM#1 Description: Existing Catch Basin
Grate Elevation: 865.84

222 LINWOOD STREET
DAYTON, OHIO 45405
TEL: 937-461-5300
FAX: 937-461-5029
RUETSCHLE.COM

RUETSCHLE

STATE OF OHIO
KURT M. ZIESSLER
E-62910
REGISTERED PROFESSIONAL ENGINEER
05-16-2022

BURKHARDT
ENGINEERS + SURVEYORS
26 North Dorty Street | Jamestown, Ohio 45307 | Phone: 937-675-9003 | BURKHARDTINC.COM
CIVIL ENGINEERING | LAND SURVEYING | NATIONAL RETAIL SITE DEVELOPMENT

Issued
05.16.2022
Bidding/Permit

Revisions:

Career Tech Addition for
WAYNE HIGH SCHOOL

Huber Heights City Schools
5400 Chambersburg Rd.
Huber Heights, OH 45424

Comm No.
32119

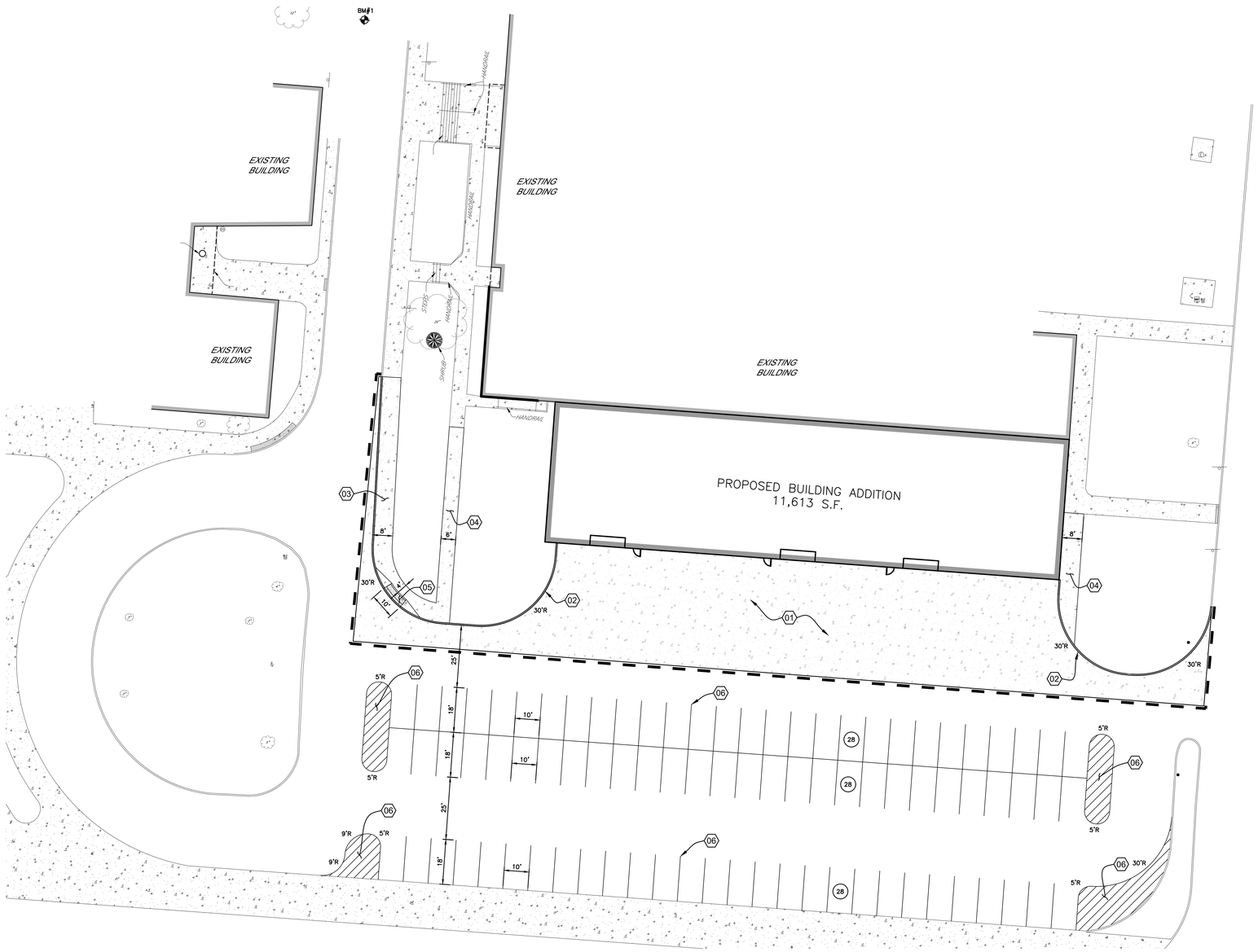
EXISTING CONDITIONS AND DEMOLITION PLAN

Sheet No.
C-1.0

GRAPHIC SCALE

20 0 10 20

1 inch = 20 ft.



GENERAL SITE NOTES

1. Building dimensions shown on the Civil Engineering Plans are for reference purposes only.
2. All site and radii dimensions are referenced to the face of curbs or edge of paving unless otherwise noted.
3. All dimensions to the building are referenced to the outside face of the structure's facade.
4. All sidewalks, curb and gutter, street paving, curb cuts, driveway approaches, handicap ramps, etc. constructed outside the property line in the right-of-way shall conform to all Local and/or State specifications and requirements.
5. All proposed handicap ramps, parking areas, and accessible routes shall strictly comply with current Local, State, and Federal regulations, including but not necessarily limited to the ADA Accessibility Guidelines (ADAAG).
6. All ADA accessible routes shall have detectable warnings installed as required by the ADAAG. Detectable warnings shall consist of raised truncated domes which contrast visually with the adjoining surfaces, either light-on-dark, or dark-on-light.
7. Contractor shall sawcut existing pavement and concrete to provide a clean, straight joint where new pavement meets existing pavement and ensure positive drainage.
8. All concrete pavement shall have joints in accordance with ACI 330R-08, Section 3.7 and Appendix C. Contraction joints shall be 1/4 of the slab thickness. Isolation joints shall be placed between pavement and foundations, inlets, and other fixed structures. Contraction joints shall be tool finished and spaced as follows:

   Curbing: 10'-0" (max) spacing.
   Sidewalks: 5'-0" (max) spacing.
   Vehicular Traffic Areas: 24 x Concrete Pavement
   Thickness (feet), 15'-0" (max) spacing.

SITE KEYNOTES

01 CONCRETE PAVEMENT
- PER DETAIL / SHEET C5.0

02 CONCRETE BARRIER CURB
- PER DETAIL / SHEET C5.0

03 CONCRETE SIDEWALK WITH INTEGRAL CURB
- PER DETAIL / SHEET C5.0

04 CONCRETE SIDEWALK
- PER DETAIL / SHEET C5.0

05 ADA ACCESSIBLE RAMP
- PER ODOT STD. DWG. BP-7.1, TYPE D RAMP

06 PARKING STRIPE / HATCH
- 4" WIDE PAINTED STRIPES. HATCHING TO BE AT 45° AND 2'-0" O.C.
- STRIPING ON CONCRETE PAVEMENT TO BE PAINTED YELLOW.

SITE AND PAVEMENT LEGEND	
#	NUMBER OF PARKING SPACES
	CONCRETE

SITE BENCHMARKS

BM#1 Description: Existing Catch Basin
Grate Elevation: 865.84

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Huber Heights City Schools
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Huber Heights, OH 45424

Comm No.
32119

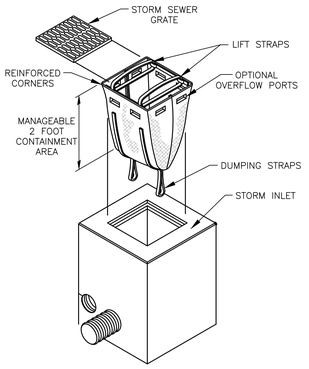
SITE PLAN

Sheet No.
C-2.0

GRAPHIC SCALE

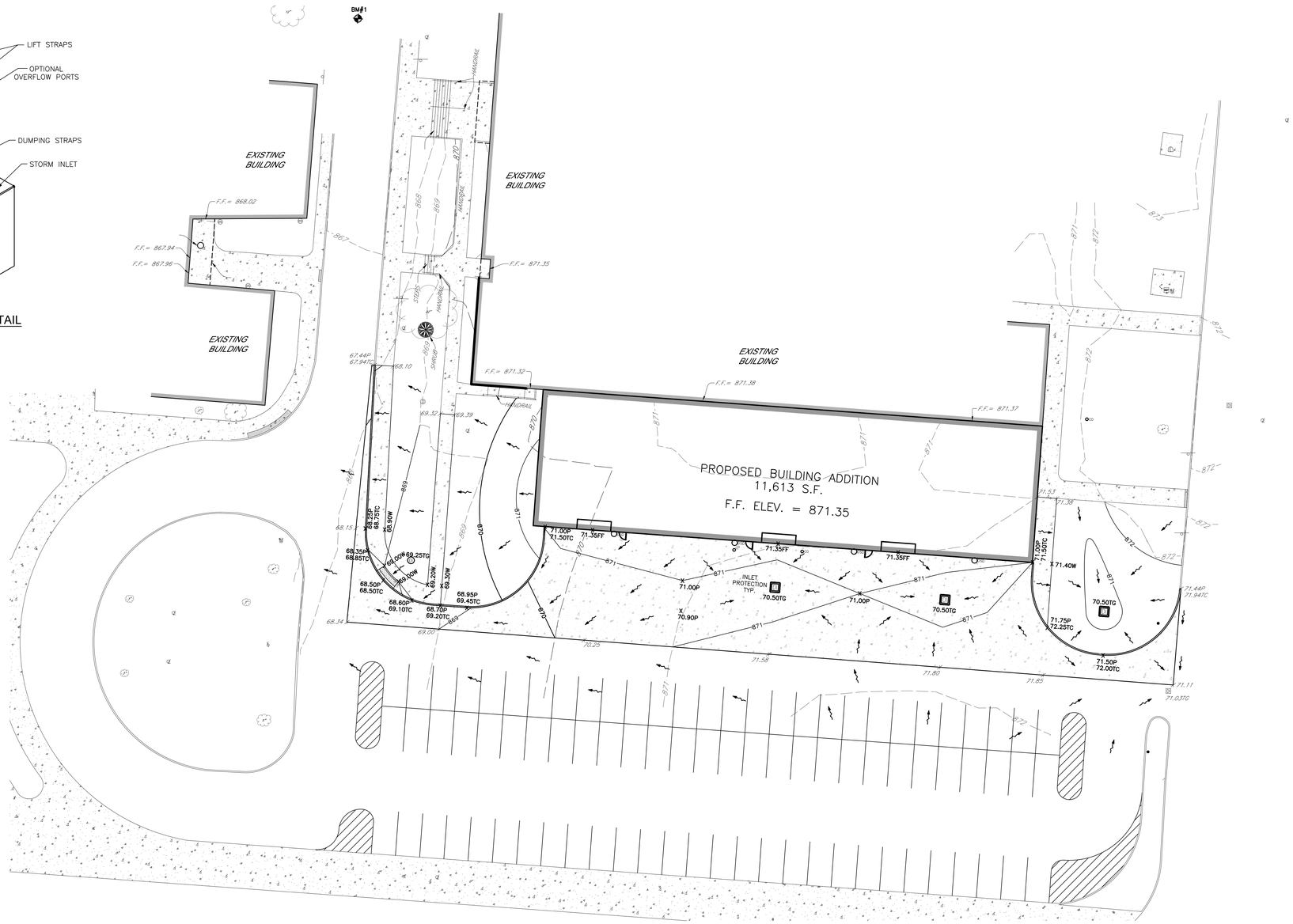
20 0 10 20

1 inch = 20 ft.



DANDY SACK™ DETAIL

NOT TO SCALE



GENERAL GRADING, EARTHWORK & DRAINAGE NOTES

1. All spot elevations indicated in pavement areas are at bottom face of curb and/or finished pavement grade unless noted otherwise. All spot elevations indicated in grass or landscape areas are finished grade unless noted otherwise.
2. The Contractor shall be responsible for the removal and disposal of all vegetation and organic materials from the site that results from clearing & grubbing activities.
3. The Contractor shall be responsible for stripping and removal of all excess topsoil from the site. All topsoil that cannot be used on site shall be removed from the site at the Contractor's expense. The Contractor may dispose of excess topsoil by burying topsoil in landscape areas only at the direction of the Owner or the Owner's Representative.
4. The Contractor will be responsible for all safety requirements and for the protection of all existing and proposed utilities or structures during earthwork procedures.
5. The Contractor shall be responsible for the import of structural fill materials if suitable material is not available on site. The location and testing of suitable material shall be the Contractor's responsibility. The Contractor shall be responsible for the export and disposal of all excess or unsuitable materials.
6. The Contractor shall provide construction dewatering as necessary to complete construction as outlined in plans.
7. The Contractor shall exercise extreme care in establishing all grades and slopes in pavement areas, ramps and sidewalks in the vicinity of handicap parking and access areas and shall comply with Federal, State, and Local Codes.
8. In areas where sheet drainage flows from grass or landscape areas onto paved areas, the finished grade in grass or landscape areas shall be 1/2 inch above the top of curb or above the pavement in areas without curb. In areas where sheet drainage flows from pavement to grass or landscaped areas, the finished grade in grass or landscape areas shall be 1/2 inch below the pavement.
9. The Contractor shall provide positive drainage in all areas and away from all buildings.
10. All pavement shall be laid on a straight, even, and uniform grade with a minimum of 1:100 (1.0%) slope toward the collection points unless otherwise specified on plans. Cut or fill slopes in unpaved areas shall not exceed 3:1 (33.3%) maximum grade unless otherwise noted on plans.
11. ADA accessible areas shall not exceed the following slopes:
    Ramps - 1:12 (8.3%) max.
    Routes - 1:20 (5.0%) max.
    Parking - 1:50 (2.0%) max.
    Cross Slopes - 1:50 (2.0%) max.
12. The Contractor shall adjust tops/lids/grates of all existing and proposed cleanouts, manholes, inlets, valves, etc. to match final grade.
13. Following grading of subsoil to subgrade elevations, the Contractor shall provide 4" of topsoil (minimum) in all disturbed areas which are not to be paved. Final grades should be smoothly finished to surrounding areas and ensure positive drainage. Stockpiled topsoil shall be screened prior to respreading and should be free of subsoil, debris, and stones.
14. The Contractor shall be responsible for determining exact quantities of cut and/or fill for estimating and construction and should alert the Engineer of any excessive cut and/or fill, especially if additional cut and/or fill will be required due to poor existing soil conditions discovered during earthwork operations.
15. Refer to the Architectural and Structural Plans for information regarding any perimeter foundation drains.
16. The Contractor shall obtain a copy of the Geotechnical / Soils Report and become thoroughly familiar with site and subgrade information and fully implement recommendations given therein.
17. Proposed spot elevations are provided in a truncated form to save space, add 800' to each spot elevation to convert the elevation to NAVD88 datum.
18. Refer to the Landscape Plans for finish material specifications (topsoil, seed, sod, mulch, etc.) in all landscape and open space areas.

GRADING LEGEND	
	PROP. SHEET FLOW
+00.00	PROP. SPOT ELEVATION
+00.00	EXIST. SPOT ELEVATION
870	PROP. CONTOUR
871	EXISTING CONTOUR

ADD 800' TO SPOT ELEVATIONS

ALL GRADES IN PAVEMENT AREAS ARE TOP OF PAVEMENT ELEVATIONS UNLESS OTHERWISE CALLED OUT.

SEE SHEET C-5.0 FOR GENERAL STORMWATER POLLUTION PREVENTION NOTES

SOIL EROSION CONTROL SEQUENCE OF CONSTRUCTION

1. Stone tracking pad atop geotextile liner.
2. Install silt fence and protection fencing.
3. Initial clearing, grubbing, and demolition.
4. Strip and stockpile top soil.
5. Rough grade and balance site.
6. Install underground utilities (i.e. Sanitary, Storm & Water)
7. Place inlet filters on all storm inlets.
8. Install franchise utilities (i.e. Gas, Electric, Telephone & Cable TV).
9. Final grade site.
10. Install pavement, curb, and other hardscape structures/surfaces.
11. Stabilize ditches, swales, common areas and slopes.
12. Establish permanent vegetation for all disturbed areas.
13. Erosion and sediment control devices to be removed after inspection approval from the city that permanent vegetation is sufficient and site is adequately stabilized.
14. Clean out storm sewer system and disturbed areas upon completion.

SOIL EROSION CONTROL MAINTENANCE

- Inlet protection devices and barriers shall be repaired or replaced if they show signs of undermining or deterioration.
- All seeded areas shall be checked regularly to see that a good stand is maintained. Areas should be fertilized, watered, and reseeded as necessary.
- Silt fences shall be repaired to their original conditions if damaged. Sediment shall be removed from the silt fences when it reaches one-half the height of the silt fence.
- The construction entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way.
- Sediment from the detention area shall be removed as necessary to maintain proper functionality.

SOIL EROSION CONTROL NOTES

All stormwater inlets shall be protected with Geotextile Inlet Protection or Inlet Filters (Dandy Products, Flexstorm, or equivalent).

SOIL EROSION CONTROL LEGEND	
	INLET PROTECTION / DANDY SACK
	STABILIZE ALL AREAS AS NECESSARY

SITE BENCHMARKS

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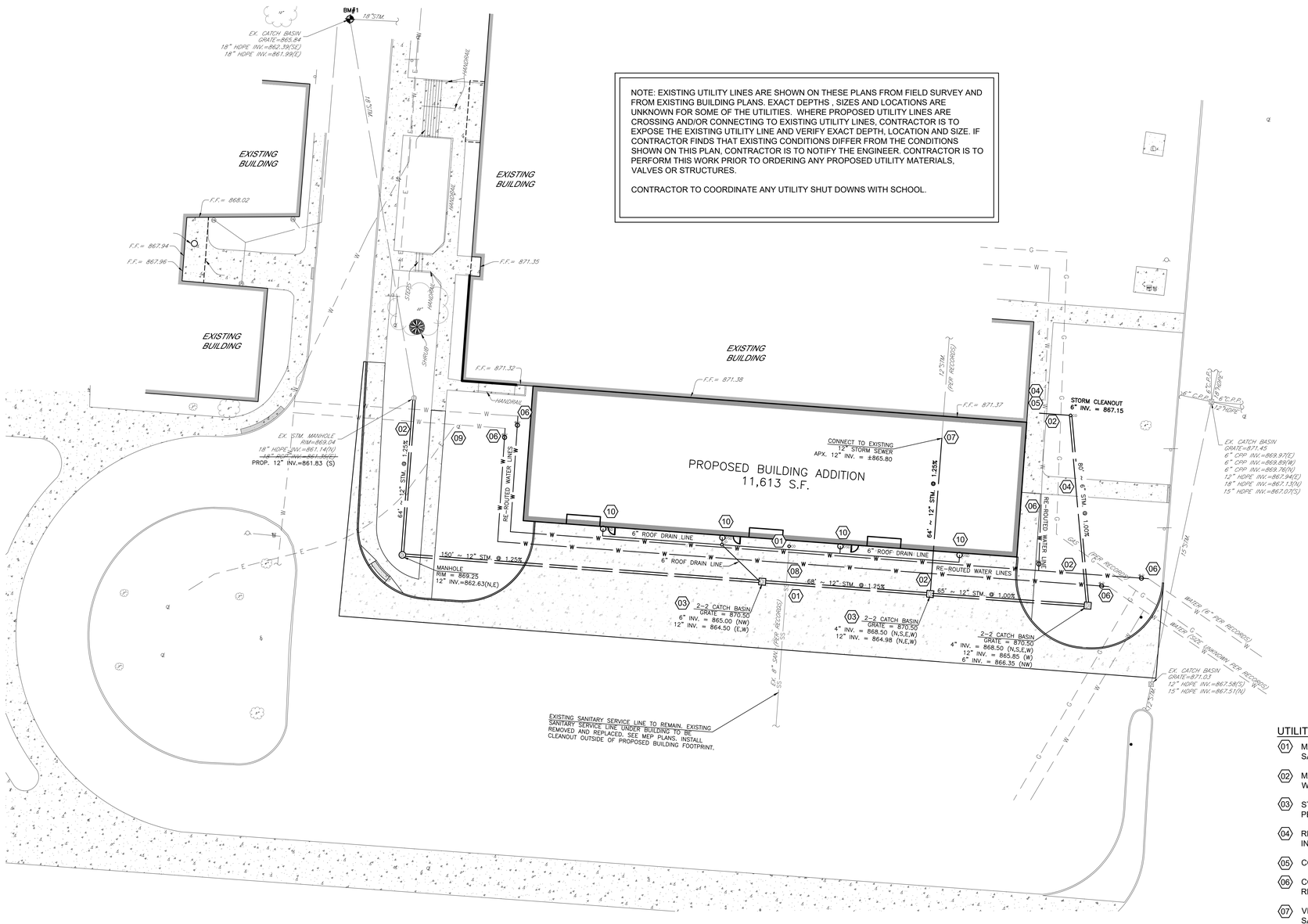
GRADING AND EROSION CONTROL PLAN

Sheet No.
C-3.0

GRAPHIC SCALE

20 0 10 20

1 inch = 20 ft.



NOTE: EXISTING UTILITY LINES ARE SHOWN ON THESE PLANS FROM FIELD SURVEY AND FROM EXISTING BUILDING PLANS. EXACT DEPTHS , SIZES AND LOCATIONS ARE UNKNOWN FOR SOME OF THE UTILITIES. WHERE PROPOSED UTILITY LINES ARE CROSSING AND/OR CONNECTING TO EXISTING UTILITY LINES, CONTRACTOR IS TO EXPOSE THE EXISTING UTILITY LINE AND VERIFY EXACT DEPTH, LOCATION AND SIZE. IF CONTRACTOR FINDS THAT EXISTING CONDITIONS DIFFER FROM THE CONDITIONS SHOWN ON THIS PLAN, CONTRACTOR IS TO NOTIFY THE ENGINEER. CONTRACTOR IS TO PERFORM THIS WORK PRIOR TO ORDERING ANY PROPOSED UTILITY MATERIALS, VALVES OR STRUCTURES.

CONTRACTOR TO COORDINATE ANY UTILITY SHUT DOWNS WITH SCHOOL.

GENERAL UTILITY NOTES:

1. All utilities shown are approximate locations only and have been compiled from the latest available mapping. The exact location of all underground utilities shall be verified by the Contractor prior to the start of construction.
2. Contractor to coordinate with the local utility companies for all locations and connections. A preconstruction meeting with the various utility companies may be required prior to the start of any construction activity.
3. The Contractor shall visit the site and verify the location, elevation, and condition of all existing utilities by various means prior to beginning any excavation. Test pits shall be dug at all locations where existing and proposed utility lines cross, and the horizontal and vertical locations of the utilities shall be determined. The Contractor shall contact the Engineer in the event of any unforeseen conflicts between existing and proposed utilities so that an appropriate modification may be made.
4. The Contractor shall ensure that all utility companies and local standards for materials and construction methods are met. The Contractor shall perform proper coordination with the respective utility company. The Contractor shall coordinate work to be performed by the various utility companies and shall pay all fees for connections, disconnection, relocations, inspections, and demolition.
5. This plan details pipes up to 5' from the building face. Refer to the building drawings for building connections. Supply and install pipe adapters as necessary.
6. All valve boxes and curb boxes shall be adjusted to the final grades and located in grassed areas unless indicated otherwise on the plans.
7. The Contractor shall provide traffic bearing concrete collars and lids for all cleanouts, manholes, inlets, valves, etc. which are located in paved areas.
8. All existing pavement within the rights-of-way where utility piping is to be installed shall be saw cut and replaced or directionally bored in accordance with Local and/or State requirements. Existing pavement shall be repaired as necessary.
9. All utility lines and trenches shall be installed, bedded and backfilled according to manufacturer's specifications and to the satisfaction of Local and State Authorities.
10. Sanitary sewer laterals shall maintain (10' min. horizontal, 1.5' min. vertical) separation distance from water lines unless otherwise shown, or additional protection measures will be required. Where water line crosses above sanitary lateral by less than 2' vertical, a concrete encasement shall be installed, Contractor shall center one joint of pipe at crossing.
11. Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.

STORM SEWER NOTES:

All storm sewer shall be reinforced concrete pipe (RCP, ASTM C76 - Class III, minimum) or high-density polyethylene pipe (ADS N-12 or equivalent), unless otherwise noted on plans. All pipe shall be installed according to Local, State, and manufacturer's specifications.

Contractor to provide downspout collection system to connect building downspouts / roof drains to storm sewer system. See architectural/plumbing plans for downspout locations and connection details.

Downspout collection pipe (DCP) may be HDPE (ADS N-12 or equivalent) or Schedule 40 PVC pipe. All downspout collector pipes to be at 2.00% minimum slope. All pipe shall be installed according to Local, State, and manufacturer's specifications. Provide cleanouts at all bends, angles, and junctions. All cleanouts in pavement areas shall be installed with traffic bearing lids and concrete collars, per detail / Sheet C-5.0.

Storm sewer connection, permit and construction to be coordinated with City of Huber Heights.

ELECTRIC NOTES:

Coordinate electric service lines, transformer, meter, and connections with electrical plans and local utility provider. Contractor shall verify both location and availability of service prior to the start of construction.

Coordinate site lighting, signage wiring, conduit locations, connections, etc. with electrical plans. Notify Engineers of any potential conflicts.

TELECOM NOTES:

Coordinate telecommunication service lines and connections with electrical plans and local utility provider. Contractor shall verify both location and availability of service prior to the start of construction.

SANITARY SEWER NOTES:

All sanitary sewer pipe shall be P.V.C. SDR-26 with joints conforming to ASTM 3212. All sanitary lines shall be installed in accordance with the manufacturer's recommended procedures. 6" lines shall maintain a minimum slope of 1.00%.

WATER NOTES:

Water lines shall be per City of Huber Heights & Montgomery County requirements, installed per manufacturer's recommended procedures. >2" waterlines to be Class 52 Ductile Iron. 2" and smaller service lines to be K Copper with Ford Meter Valves and a curb stop valve in a box in front of meter pit. Tapping Sleeve to be Stainless Steel or Ductile Iron. Main line valves to be Mueller. Lines shall be installed with a minimum cover of 48" or below frost line, whichever is greater.

Water service connection, meter, permit and construction to be coordinated with City of Huber Heights.

UTILITY KEYNOTES

(01) MAINTAIN 1.5' VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER. SANITARY SERVICE WILL BE BELOW STORM SEWER.

(02) MAINTAIN 1.5' VERTICAL CLEARANCE BETWEEN WATER SERVICE AND STORM SEWER. WATER SERVICE WILL BE BELOW STORM SEWER.

(03) STORM STRUCTURES IN PAVEMENT AREAS ARE TO HAVE 4" UNDERDRAINS INSTALLED PER DETAIL ON SHEET C-5.0.

(04) REMOVE AND REPLACE SIDEWALK AS NECESSARY TO INSTALL STORM SEWER. COST INCLUDED IN STORM SEWER ITEMS.

(05) CONNECT 6" STORM LINE TO 4" STORM LINE EXITING BUILDING. SEE PLUMBING PLANS.

(06) CONNECT TO EXISTING WATER LINE WITH VALVE. PROPOSED WATER LINE TO BE RE-ROUTED OUTSIDE OF PROPOSED BUILDING FOOTPRINT.

(07) VERIFY THAT EXISTING AND PROPOSED STORM SEWER PIPE MATERIAL AND DEPTH SATISFY LOCAL BUILDING CODES FOR PLACING STORM SEWER BENEATH BUILDING FOUNDATIONS. IF EXISTING PIPE DOES NOT MEET BUILDING CODES, REMOVE AND REPLACE EXISTING PIPE WITH AN ACCEPTABLE MATERIAL AT THE EDGE OF THE EXISTING BUILDING.

(08) MAINTAIN 1.5' VERTICAL CLEARANCE BETWEEN WATER SERVICE AND SANITARY SEWER. WATER SERVICE WILL BE ABOVE SANITARY SEWER.

(09) EXISTING LIGHT POLE TO REMAIN.

(10) DOWNSPOUT CONNECTION PER DETAIL ON SHEET C-5.0.

UTILITY LEGEND

CO	PROP. INLET/MANHOLE/CLEANOUT
DSD	PROP. DOWNSPOUT @ BUILDING
—SS—	PROP. SANITARY SEWER SERVICE
—W—	PROP. WATER SERVICE
	PROP. STORM SEWER

SITE BENCHMARKS

BM#1 Description: Existing Catch Basin
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Comm No.
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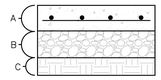
UTILITY PLAN

Sheet No.
C-4.0

GENERAL STORMWATER POLLUTION PREVENTION NOTES

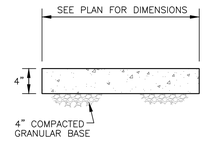
1. All erosion and sediment control practices must conform to the standards and specifications set forth by the Local, State, and Federal Authorities.
2. Construction activities shall be scheduled such that a minimum area of the site is disturbed at a time. Construction operation shall be scheduled and performed so that preventative soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling operations. Contractor shall reduce effects of storm water by using and/or maintaining grassed swales, infiltration structures, or water diversions.
3. Special precautions will be taken in the use of construction equipment to prevent situations that promote erosion.
4. Cleanup will be done in a manner to ensure that erosion control measures are not disturbed.
5. The soil erosion controls are to be inspected once a week and within 24 hours of a 0.25 inch or greater rain event. A written log of these inspections and improvements to controls shall be kept on site. The logs shall include the date of inspection, name of the inspector, weather conditions, actions taken to correct any problems and the date corrective actions were taken.
6. Temporary soil stabilization shall occur within 7 days after rough grading if the area will remain idle longer than 21 days. Any disturbed area that is not going to be worked for 21 days or more must be seeded and mulched.
7. Trenches for underground utility lines and pipes shall be temporarily stabilized within 7 days if they are to remain inactive for 21 days. Trench dewatering devices shall discharge in a manner that filters soil-laden water before discharging it to a receiving drainage ditch or pond. If seeding, mulching or other erosion and sediment control measures were previously installed; these protective measures shall be reinstalled. Pipelines with joints that allow a manufactured length of pipe to be placed in the trench with the pipe joint assembled/made in the trench require an open pipeline trench that is only slightly longer than the length of pipe being installed. The total length of excavated trench open at any time should not be greater than the total length of pipeline/utility that can be placed in the trench and backfilled in one working day. No more than 50 linear feet of open trench should exist when pipeline/utility line installation ceases at the end of the work day.
8. Soil stockpiles shall be stabilized or protected to prevent soil loss.
9. All disturbed areas shall be permanently stabilized within 7 days of final grading. Further, soil erosion control measures shall be maintained until permanent stabilization is complete, at which time temporary measures will be removed. Permanent vegetation is a ground cover dense enough to cover 80% of the soil surface and mature enough to survive winter weather conditions.
10. Silt fence to be 2' minimum from property lines in areas where work is near adjacent properties.
11. The Contractor shall establish a permanent on-site benchmark prior to clearing, grubbing and/or demolition. .
12. Haul Routes - The Contractor shall be responsible for the cleanup of any mud, dirt, or debris deposited on haul roads as a result of his operations. Soil shall be removed from roads and paved surfaces at the end of each day in such a manner that does not create off-site sedimentation in order to ensure safety and abate off-site soil loss. Collected sediments shall be placed in a stable location on site or taken off-site to a stable location. Contractor shall use State Routes (and shortest distance non-state routes) for project haul route.
13. No solid or liquid waste shall be discharged into storm water runoff.
14. Disposal of solid, sanitary and toxic waste - Solid, sanitary and toxic waste must be disposed of in a proper manner in accordance with local, state and federal regulations. It is prohibited to burn, bury or pour out onto ground or into storm sewer any solvents, paint, stains, gasoline, diesel fuel, used motor oil, hydraulic fluid, antifreeze, cement curing compounds and other such toxic or hazardous waste.
15. Wash out of cement trucks should occur in the designated area where the washing can collect and be disposed of properly when it hardens.
16. If a concrete washout area, and/or a stockpile area are needed, a delineated area for each must be provided and maintained for them. Areas can be located in an alternate location than that shown on the plans if necessary due to construction operations and other field considerations.
17. No fuel storage is permitted on-site.
18. All disturbed areas shall be cleared of construction sediment upon completion of construction.
19. The General Contractor shall be responsible for submitting a Notice of Intent (NOI) and Notice of Termination (NOT) as required by the OEPA.

KEY
A – 6" CONCRETE W/ #4 BARS @ 1'–6" O.C. EACH WAY TO MATCH EXISTING CONCRETE PAVEMENT.
B – 8" ODOT ITEM 304, COMPACTED AGGREGATE BASE
C – ODOT ITEM 204 SUBGRADE COMPACTION



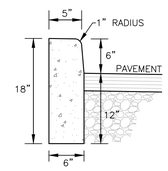
PAVEMENT SECTION IS BASED ON RECORD PLAN DETAILS AND IS TO BE OWNER APPROVED. NO TESTING OR DESIGN WAS PERFORMED BY CIVIL ENGINEER IN SELECTING THIS SECTION.

CONCRETE PAVEMENT SECTION
NOT TO SCALE



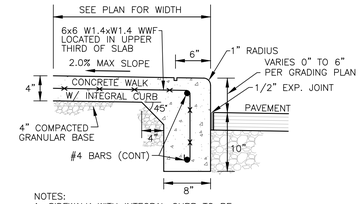
NOTES:
1. SIDEWALK TO BE CONSTRUCTED USING 4000 PSI CONCRETE.
2. SIDEWALK TO HAVE TOOLED CONTROL JOINTS NOT EXCEEDING 5 FT. SPACING IN ANY DIRECTION.
3. PROVIDE EXPANSION JOINTS WHERE SIDEWALK MEETS BUILDING.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



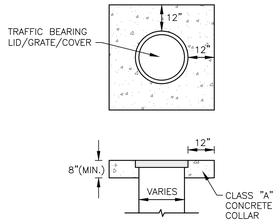
NOTES:
1. CURB TO BE CONSTRUCTED OF 4000 PSI CONCRETE.
2. PROVIDE A SMOOTH AND EVEN FINISH PLUS ROUNDED EDGING TO ALL EXPOSED SURFACES.

BARRIER CURB DETAIL
NOT TO SCALE



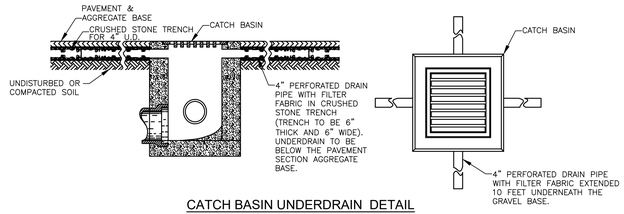
NOTES:
1. SIDEWALK WITH INTEGRAL CURB TO BE CONSTRUCTED OF 4000 PSI CONCRETE (MIN.).
2. SIDEWALK TO HAVE JOINTS NOT EXCEEDING 5 FT. SPACING IN ANY DIRECTION.

CONCRETE SIDEWALK WITH INTEGRAL CURB
NOT TO SCALE

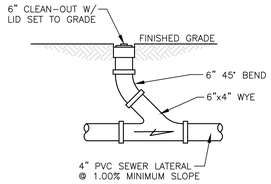


NOTE: COLLAR TO BE INSTALLED AROUND ALL STORM INLETS, MANHOLES, CLEANOUTS, PULL BOXES, VALVES, ETC. WHICH ARE LOCATED IN PAVEMENT AREAS.

CONCRETE COLLAR
NOT TO SCALE

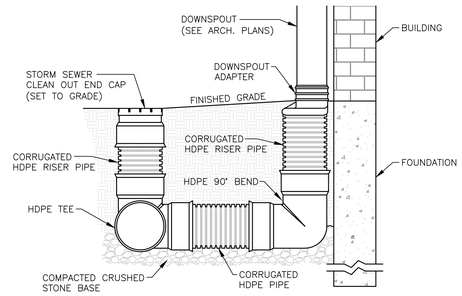


CATCH BASIN UNDERDRAIN DETAIL
NOT TO SCALE
TO BE USED FOR CATCH BASINS IN PAVEMENT AREAS



NOTE: CLEAN OUT TO HAVE TRAFFIC BEARING LID AND CONCRETE COLLAR IF INSTALLED IN PAVEMENT AREAS.

SANITARY CLEAN-OUT
NOT TO SCALE



NOTES:
1. HDPE PIPE MAY BE SUBSTITUTED WITH PVC PIPE.
2. ALL JOINTS ARE TO BE WATERTIGHT.
3. CLEAN OUT TO HAVE TRAFFIC BEARING LID AND CONCRETE COLLAR IF INSTALLED IN PAVEMENT AREAS.

DOWNSPOUT COLLECTION DETAIL
NOT TO SCALE

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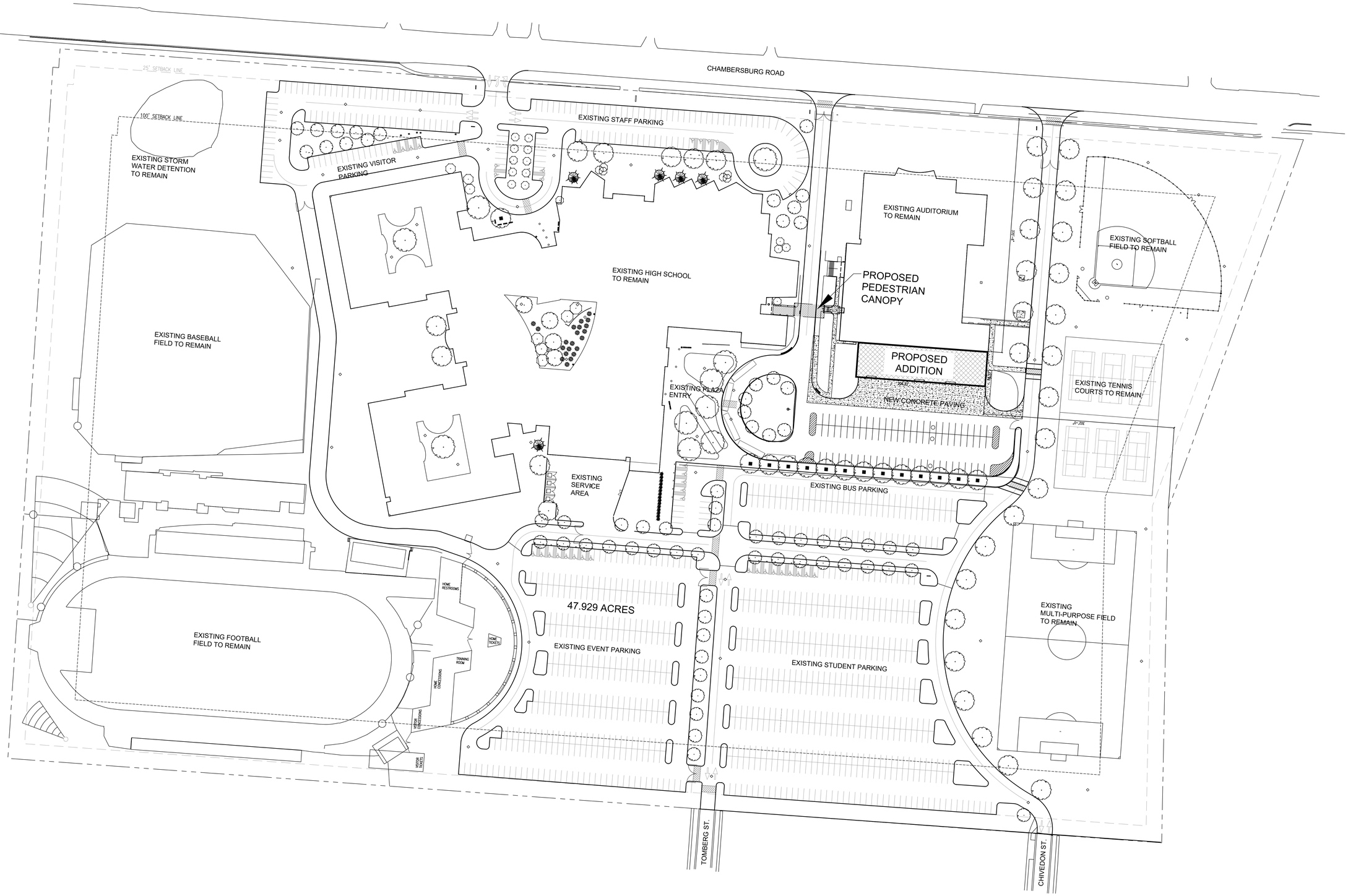
DETAILS

Sheet No.
C-5.0



NORTH

OVERALL SITE PLAN

SCALE: 1" = 60'-0"

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EXPIRATION DATE: 12/31/2023

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05.16.2022
Bidding/Permit

Revisions:

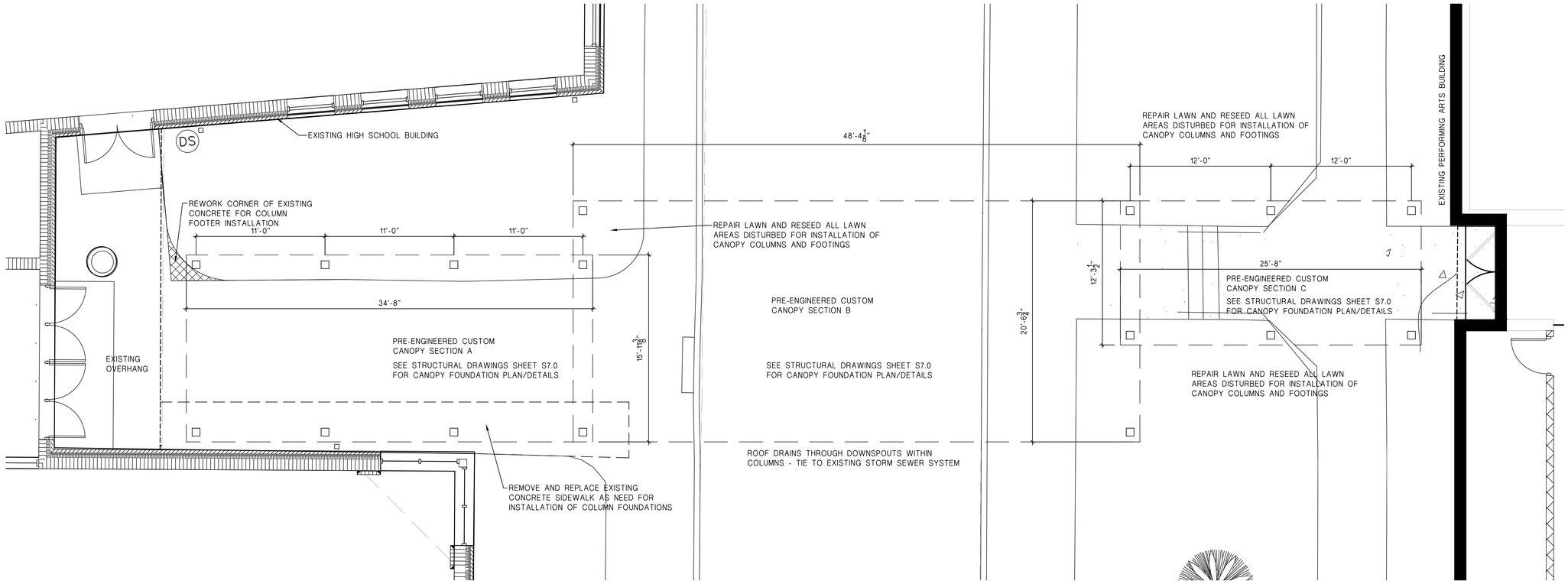
Career Tech Addition for
WAYNE HIGH SCHOOL

Huber Heights City Schools
5400 Chambersburg Rd.
Huber Heights, OH 45424

Comm No.
32119

Overall Site Plan

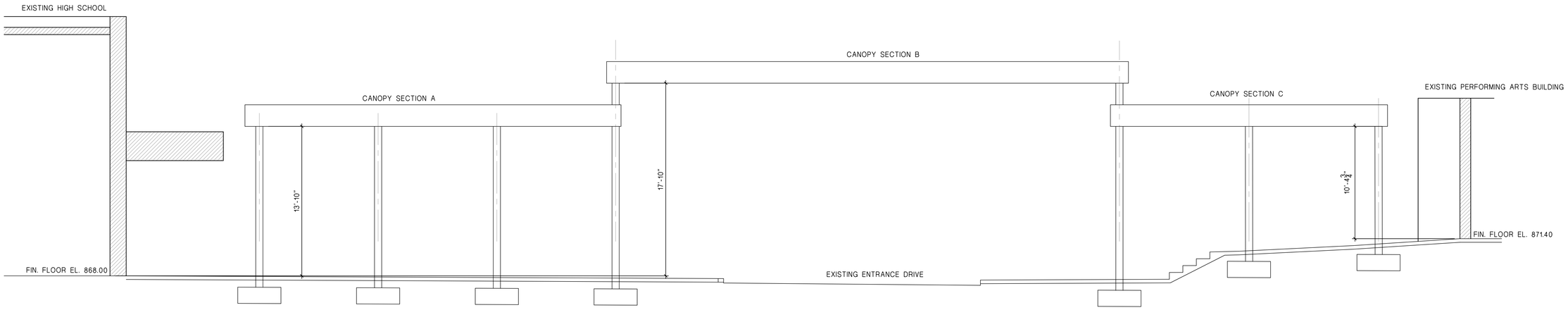
Sheet No.
AS1.1



NORTH

PEDESTRIAN CANOPY PLAN

SCALE: 1/4" = 1'-0"



PEDESTRIAN CANOPY ELEVATION

SCALE: 1/4" = 1'-0"

PEDESTRIAN CANOPY RENDERING

NOT TO SCALE

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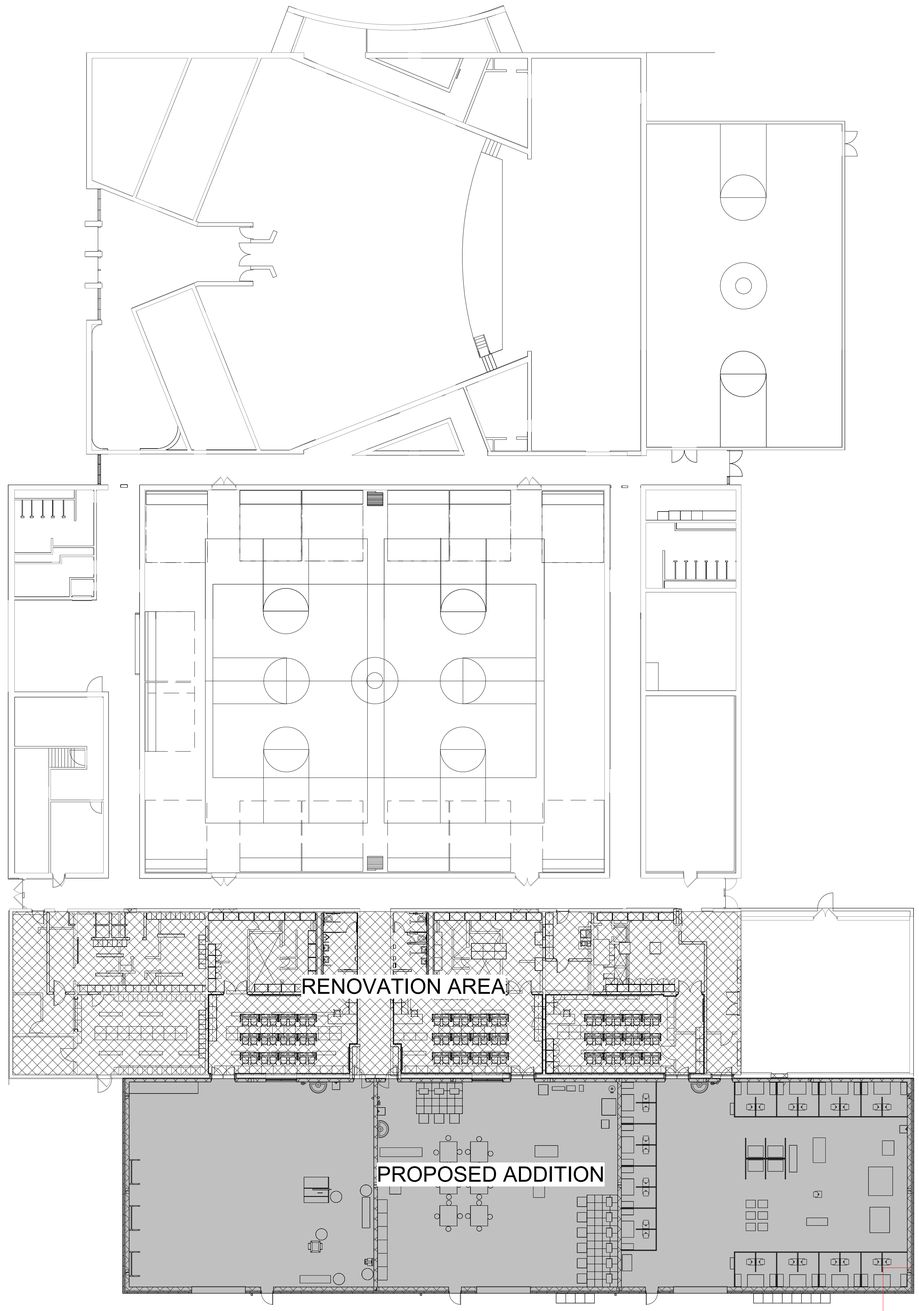
32119

Pedestrian Canopy

Sheet No.
AS1.2



NORTH

OVERALL FLOOR PLAN

SCALE: 1/16" = 1'-0"

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Comm. No.
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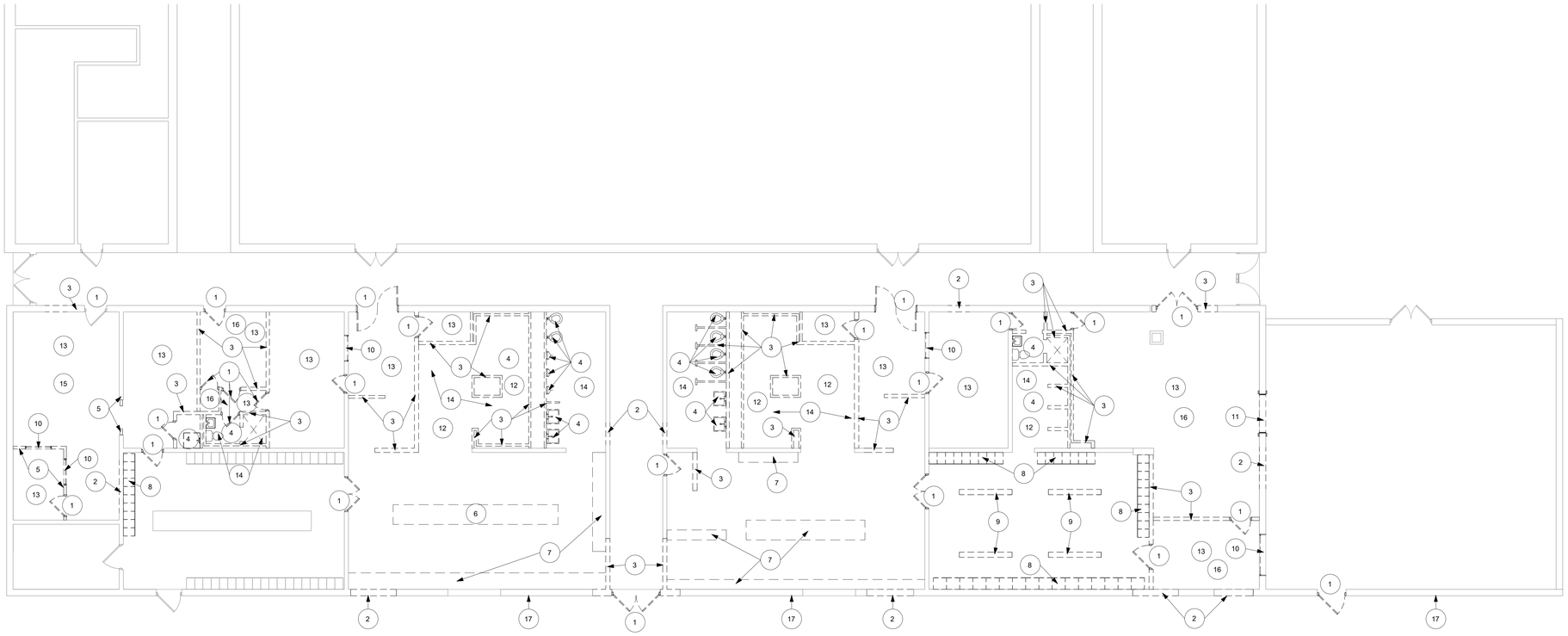
Overall Floor Plan

Sheet No.
A1.0



NORTH

PARTIAL DEMOLITION FLOOR PLAN

SCALE: 1/8" = 1'-0"

DEMOLITION NOTES

1 REMOVE EXISTING DOOR , FRAME AND HARDWARE
2 REMOVE EXISTING MASONRY WALL FOR INSTALLATION OF NEW DOOR AND FRAME
3 REMOVE EXISTING MASONRY WALL
4 REMOVE EXISTING PLUMBING FIXTURE - SEE PLUMBING DRAWINGS
5 REMOVE EXISTING WOOD STUD PARTITION
6 REMOVE EXISTING CONCRETE AND MASONRY LOCKER BASE
7 REMOVE EXISTING LOCKERS AND CONCRETE AND MASONRY LOCKER BASE
8 REMOVE RELOCATE EXISTING LOCKERS. REMOVE CONCRETE AND MASONRY LOCKER BASES
9 REMOVE EXISTING PADDED BENCHES. RELOCATE BENCH TOPS TO NEW LOCKER ROOM, REMOVE BENCH BASES
10 REMOVE EXISTING INTERIOR WINDOW UNIT
11 REMOVE EXISTING HOLLOW METAL DOOR FRAME
12 REMOVE EXISTING CERAMIC TILE SHOWER FLOORING
13 REMOVE EXISTING LAY-IN ACOUSTIC TILE CEILING
14 REMOVE EXISTING GYPSUM BOARD CEILING
15 REMOVE EXISTING VCT TILE
16 REMOVE EXISTING CARPET AND BASE
17 REMOVE EXISTING METAL COPING AND FASCIA SYSTEM AT TOP OF EXISTING WALL FOR LENGTH OF NEW ADDITION

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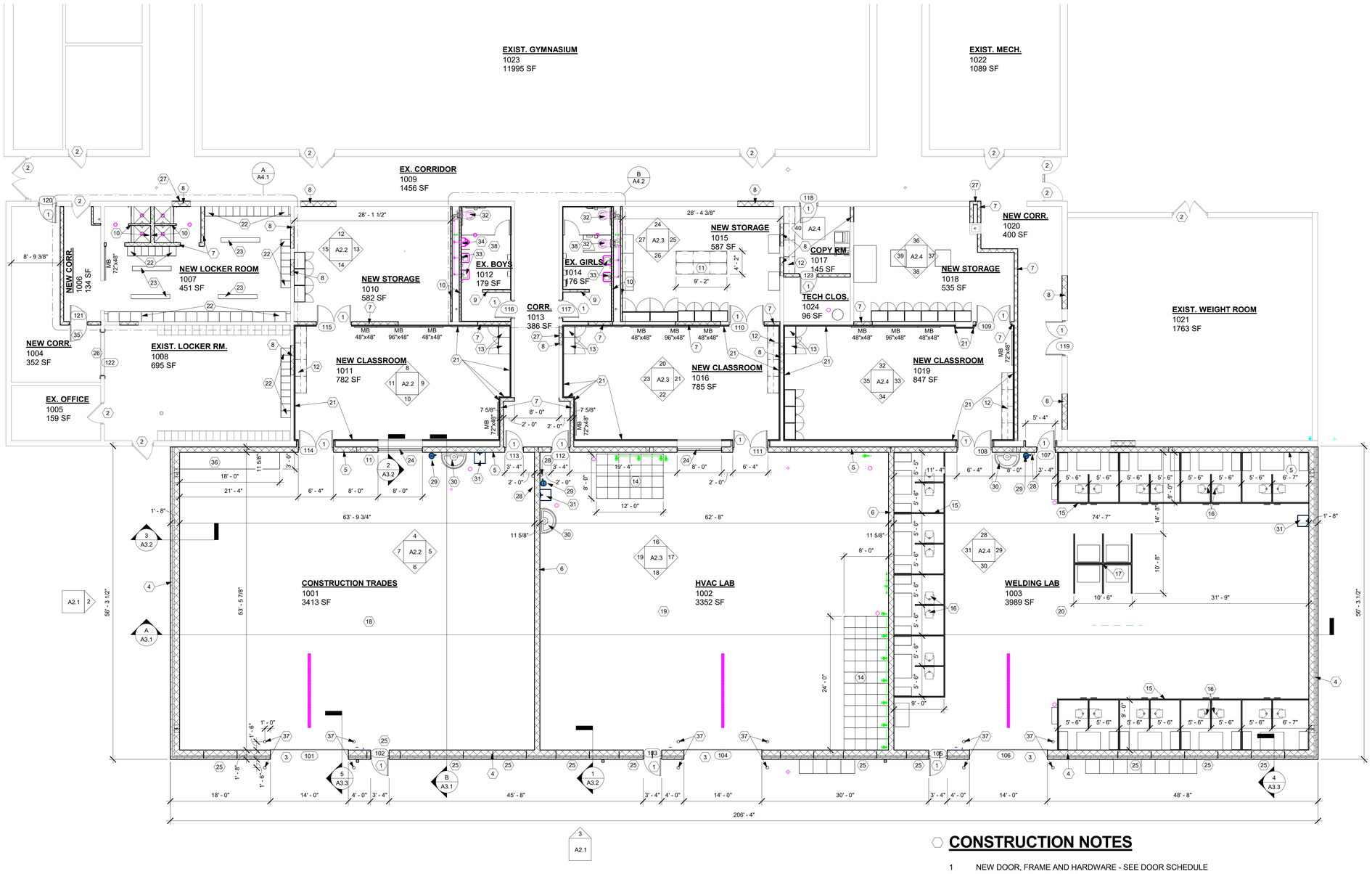
Huber Heights, OH 45424

Comm. No.
32119

Demolition Floor Plan

Sheet No.
AD1.1



NORTH

PARTIAL REVISED FLOOR PLAN

SCALE: 1/8" = 1'-0"

FLOOR PLAN LEGEND

- EXISTING WALL
- NEW WALL
- EXISTING DOOR AND FRAME
- NEW DOOR AND FRAME
- MB 48"x48" — NEW MARKER BOARDS

CONSTRUCTION NOTES

1. NEW DOOR, FRAME AND HARDWARE - SEE DOOR SCHEDULE
2. EXISTING DOOR TO REMAIN
3. NEW INSULATED OVERHEAD SECTIONAL DOOR
4. NEW EXTERIOR WALL - NORMAN SIZE BRICK VENEER ON 12" CONCRETE MASONRY BLOCK BACK UP - SEE WALL SECTIONS
5. 12" CONCRETE MASONRY WALL - 2 HOUR RATED FIRE WALL
6. 12" CONCRETE MASONRY WALL TO UNDERSIDE OF ROOF DECK. SEAL WALL TO ROOF DECK
7. 8" CONCRETE MASONRY WALL TO UNDERSIDE OF ROOF DECK. SEAL WALL TO ROOF DECK
8. FILL IN EXISTING OPENING WITH 8" CONCRETE MASONRY WALL TO UNDERSIDE OF EXISTING OPENING
9. 6" CONCRETE MASONRY WALL TO 4" ABOVE FINISH CEILING
10. 4" CONCRETE MASONRY BLOCK TO 4" ABOVE FINISH CEILING
11. 1-1/2" THICK BUTCHER BLOCK COUNTER TOP, SUPPORTED BY METAL CABINETS
12. PLASTIC LAMINATE BASE AND WALL CABINETS - SEE ROOM ELEVATIONS
13. PLASTIC LAMINATE TALL STORAGE CABINETS - SEE ROOM ELEVATIONS
14. 12" HIGH ACCESS FLOORING. PROVIDE CLOSURE PANELS ON ALL EXPOSED SIDES
15. FABRICATED STEEL WELDING STATIONS - SEE DETAILS ON SHEET A5.2
16. FABRICATED STEEL WELDING STAND - SEE DETAILS ON SHEET A5.2
17. FABRICATED STEEL TORCH CUTTING BOOTHS - SEE DETAILS ON SHEET A5.2
18. SEE SHEET A9.1 FOR EQUIPMENT PLAN FOR THIS AREA
19. SEE SHEET A9.2 FOR EQUIPMENT PLAN FOR THIS AREA
20. SEE SHEET A9.3 FOR EQUIPMENT PLAN FOR THIS AREA
21. 5/8" ABUSE RESISTANT GYPSUM BOARD ON 1-1/2" METAL FURRING STRIPS AT 16" O.C., TOP OF WALL AT 4" ABOVE FINISH CEILING
22. RELOCATED ATHLETIC LOCKERS ON NEW 8" HIGH MASONRY BASE FILLED WITH CONCRETE
23. RELOCATED PADDED BENCH TOPS, PROVIDE NEW BENCH BASES
24. NEW FIRE RATED HOLLOW METAL FRAME WINDOW UNIT WITH FIRE RATED GLASS - SEE ELEVATION ON SHEET A6.1
25. ALUMINUM STOREFRONT WINDOW ABOVE - SEE EXTERIOR ELEVATIONS
26. NEW 8'-0" WIDE x 7'-4" HIGH HOLLOW METAL CASED FRAME
27. FIRE EXTINGUISHER CABINET
28. WALL MOUNTED FIRE EXTINGUISHER ON BRACKET
29. NEW EYE WASH UNIT - SEE PLUMBING DRAWINGS
30. NEW WASH FOUNTAIN - SEE PLUMBING DRAWINGS
31. NEW MOP SINK - SEE PLUMBING DRAWINGS
32. NEW WATER CLOSET - SEE PLUMBING DRAWINGS
33. NEW LAVATORY - SEE PLUMBING DRAWINGS
34. NEW URINAL - SEE PLUMBING DRAWINGS
35. NEW ADJOINING ROOM DOORS AND FRAME WITH LOCK ON BOTH SIDES
36. NEW 2" THICK BUTCHER BLOCK COUNTER TOP WITH RAKKS POLE-SUPPORTED COUNTER BRACKET WITH OPTIONAL SHELF
37. 6" STEEL BOLLARD FILLED WITH CONCRETE - SEE DETAIL 3/A5.4
38. ALL WALLS OF THIS ROOM - FULL HEIGHT CERAMIC TILE ON 1/2" CEMENT BOARD LAMINATED TO EXISTING MASONRY WALLS. TOP OF CEMENT BOARD AT 4" ABOVE FINISH CEILING.

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Revisions:

Career Tech Addition For
WAYNE HIGH SCHOOL
Huber Heights City Schools
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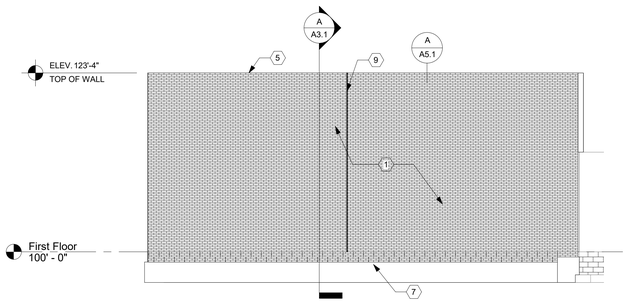
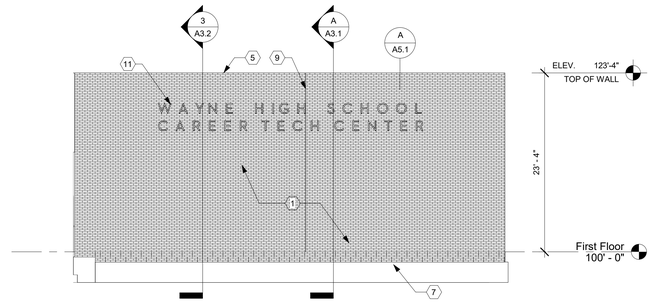
Comm. No.
32119

Revised Floor Plan

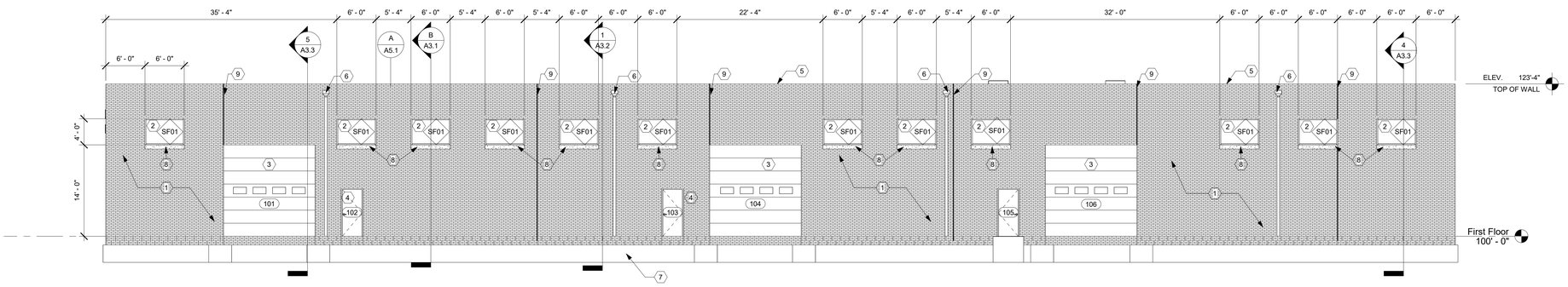
Sheet No.
A1.1



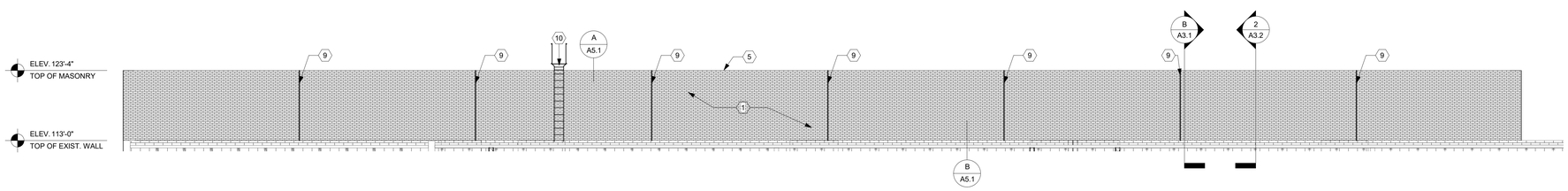
1 EAST ELEVATION
SCALE: 1/8" = 1'-0"



2 WEST ELEVATION
SCALE: 1/8" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



4 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION CONSTRUCTION NOTES

1 BRICK VENEER - NORMAN SIZE BRICK IN 1/3 RUNNING BOND
2 ALUMINUM STOREFRONT WINDOW SYSTEM WITH 1" INSULATED GLASS
3 INSULATED SECTIONAL OVERHEAD DOOR
4 INSULATED HOLLOW METAL DOOR
5 PRE-FINISHED STEEL COPING
6 PRE-FINISHED SCUPPER AND DOWNSPOUT - SEE DETAILS ON SHEET A5.1
7 CONCRETE FOOTER - SEE STRUCTURAL DRAWINGS
8 LIMESTONE WINDOW SILL
9 MASONRY CONTROL JOINT - SEE DETAIL ON SHEET A5.4
10 ROOF LADDER - SEE DETAIL 1/A5.4
11 18" HIGH CAST ALUMINUM LETTERS - EACH LETTER MOUNTED INDIVIDUALLY TO FACE OF MASONRY WALL

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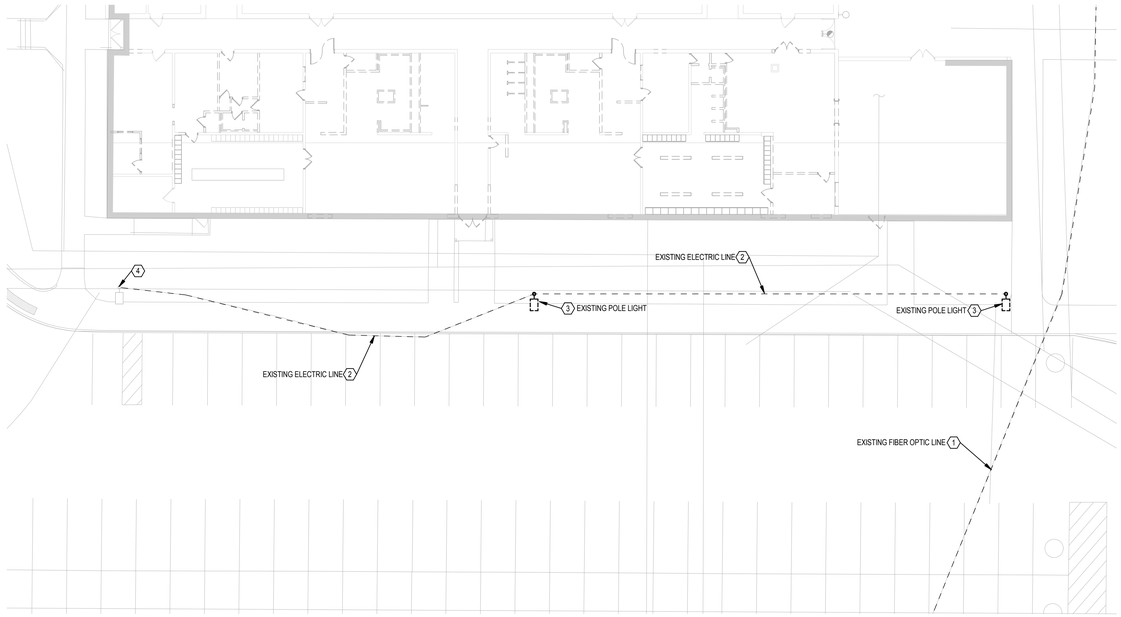
Comm. No.
32119

Exterior Elevations

Sheet No.
A2.1

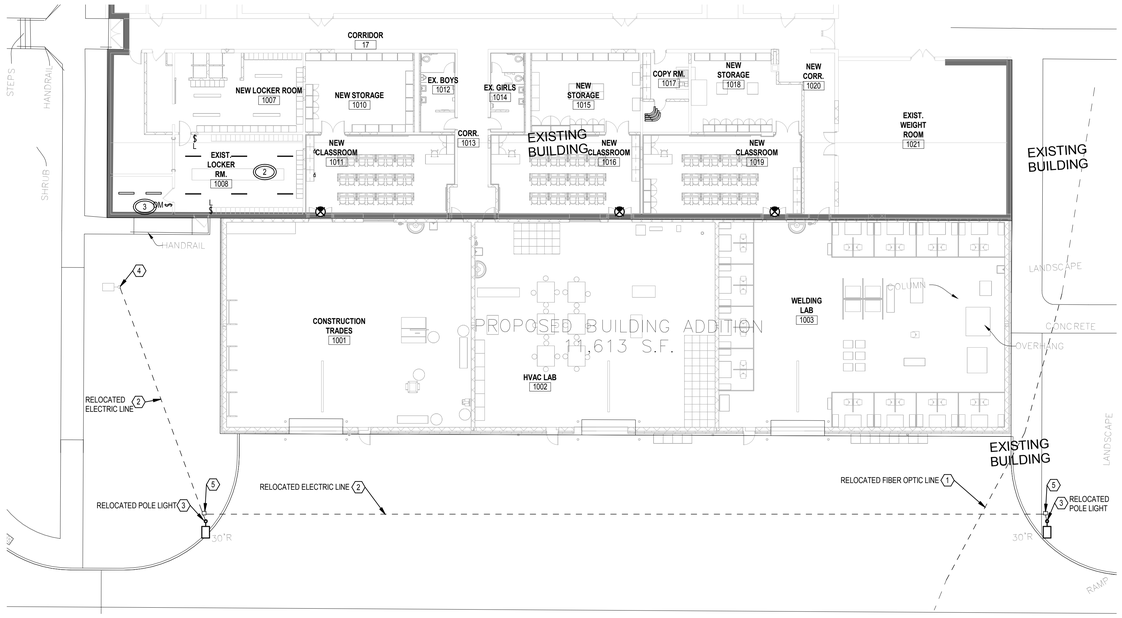


1 ELECTRICAL DEMO SITE PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32 48

N



2 ELECTRICAL NEW WORK SITE PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32 48

N

GENERAL NOTES

A. THIS EXISTING SPACE IN WAYNE HIGH SCHOOL WILL BE REMODELED UNDER THIS CONTRACT AND A NEW ADDITION WILL BE ADDED ONTO BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR AREAS WHERE DEMO AND NEW WORK WILL OCCUR. E.C. SHALL REMOVE LIGHTING, ELECTRICAL DEVICES, SYSTEM COMPONENTS AND OTHER EQUIPMENT ASSOCIATED WITH DIVISION 26, 27, AND 28 TO ACCOMMODATE ALL NEW CONSTRUCTION AND REMODELING IN THESE AREAS. ONLY EXISTING RECESSED DEVICES, DEVICES SERVING EXISTING EQUIPMENT TO REMAIN, AND DEVICES INDICATED AS EXISTING SHALL BE MAINTAINED ACTIVE (UNLESS INDICATED OTHERWISE).

B. PROVIDE EXTERIOR MOUNTED WEATHERPROOF FIRE ALARM AUDIOVISUAL DEVICE ON THE OUTSIDE OF THE BUILDING AT LOCATION(S) DIRECTED BY THE LOCAL FIRE DEPARTMENT, OWNER, AND ARCHITECT. REFER TO SPEC SECTION 28 31 00.

C. WHERE CONDUITS ARE EXPOSED THEY SHALL BE MOUNTED TIGHT TO THE CEILING STRUCTURE IN CORNERS AND PAINTED TO MATCH WALL SURFACES.

D. WHERE NEW DEVICE(S) ARE TO BE PROVIDED ON EXISTING SOLID WALL, PROVIDE WITH SURFACE RACEWAY PER GENERAL NOTE G, SHEET E004. WHERE NEW DEVICES ARE SHOWN ON NEW WALL OR EXISTING STUD WALLS DEVICE(S) SHALL BE RECESSED. INTENT IS THAT WHERE EVER POSSIBLE DEVICES SHALL BE RECESSED.

E. ALL UNDERGROUND CONDUITS AND DUCTBANKS SHALL BE DIRECT BURIED UNLESS INDICATED OTHERWISE. ALL PRIMARY AND SECONDARY CONDUITS AND DUCTBANKS SHALL HAVE LONG SWEEPING BENDS. ALL CONDUITS BURIED UNDER DRIVEWAYS AND PARKING AREAS WHERE AUTOMOBILE TRAFFIC PASSES THROUGH SHALL BE CONCRETE ENCASED. PROVIDE ALL CONDUIT WITH PULLWIRE. ALL CONDUIT SHALL BE 1" UNLESS INDICATED OTHERWISE. E.C. SHALL UTILIZE COMMON TRENCH(ES) WHERE EVER FEASIBLE.

F. NEW BUIULDING SHALL BE PROVIDED WITH AN EXTENSION OF THE LIGHTING PROTECTION SYSTEM PER SPEC SECTION 26 41 00.

G. E.C SHALL COORDINATE EXACT LOCATION OF LIGHT FIXTURE POLE BASES WITH ARCHITECT PRIOR TO ROUGH IN AND PROVIDE ACCORDINGLY.

⬡ PLAN NOTES

1. RELOCATE EXISTING FIBER LINE TO OUTSIDE OF PROPOSED BUILDING FOOTPRINT. COORDINATE EXACT ROUTE WITH UTILITY PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY.
2. RELOCATE EXISTING ELECTRIC LINES TO OUTSIDE OF PROPOSED BUILDING FOOTPRINT. COORDINATE EXACT ROUTE WITH UTILITY PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY. REFER TO DETAILS 15 & 16 ON SHEET E002 FOR MORE INFORMATION.
3. REMOVE AND RELOCATE EXISTING LIGHT POLE. PROVIDE NEW BASE IN NEW LOCATION TO MATCH EXISTING POLE BASE TYPE AND CHARACTERISTICS. EXTEND CIRCUIT AND CONDUIT AND PROVIDE NEW WIRING TO NEW LOCATION AS REQUIRED MATCHING EXISTING WIRING RATING, CONDUIT SIZE, TYPE AND CHARACTERISTICS. REFER TO DETAIL 10, SHEET E002 FOR BASE INFORMATION.
4. LIGHT POLE IS EXISTING TO REMAIN. ROTATE FIXTURE HEAD TO BE ORIENTED TO SIDEWALK AND AWAY FROM NEW BUILDING ADDITION. SEE PLANS FOR ORIENTATION.
5. PROVIDE FLUSH GRADE QUAZITE PULL BOX ENCLOSURE WITH GREEN GASKETED COVER WITH APPROPRIATE LOGO PER DETAIL 14 ON SHEET E002. COORDINATE EXACT LOCATION WITH CIVIL ENGINEER PRIOR TO ROUGH-IN AND PROVIDE ACCORDINGLY.

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Career Tech Addition For
WAYNE HIGH SCHOOL

Huber Heights City Schools
5400 Chambersburg Rd.
Huber Heights, OH 45424

Comm. No.
32119

SITE PLAN

Sheet No.
E006

HEAPY
20 N Gay Street, Suite 400, Baltimore, MD 21202
PROJECT NO. 2021-07143

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.

Administrative Office: 7008 Brandt Pike Huber Heights, Ohio 45424
Telephone: (937) 233 - 1564 Fax Number: (937) 233 - 4520

Memorandum

Staff Report for Meeting of June 28, 2022

To: Huber Heights City Planning Commission

From: 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

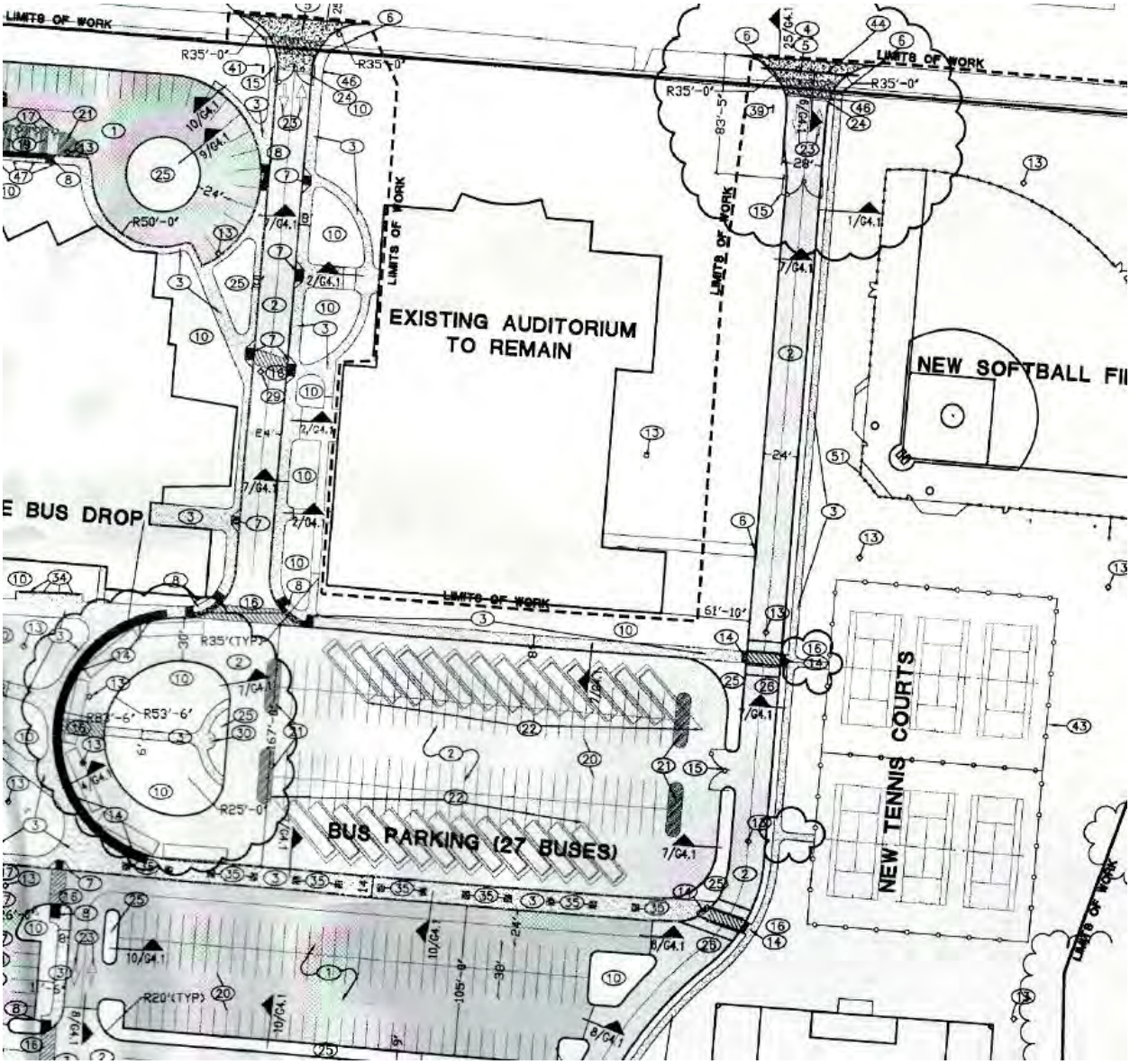
APPLICANT/OWNER:	Ruetschle Architects – Applicant Huber Height City Schools - Owners
DEVELOPMENT NAME:	Wayne High School – Career Tech Addition
ADDRESS/LOCATION:	5400 Chambersburg Road
ZONING/ACREAGE:	Planned Public and Private Buildings and Grounds (PP) / 47.8 Acres
EXISTING LAND USE:	Wayne High School
ZONING ADJACENT LAND:	R-4 (West, South and East) PP (North)
REQUEST:	The applicant requests a change to the combined basic and detailed development plan to construct an 11,623 SF career technology addition to the existing auditorium facility.
ORIGINAL APPROVAL:	The Wayne High School combined basic and detailed development plan was approved in October, 2009.
APPLICABLE HHCC:	Chapter 1171, 1174
CORRESPONDENCE:	In Favor – None Received In Opposition – None Received

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

(l) 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 04004 0032 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.

_____ _____

Terry Walton, Chair Date
Planning Commission

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.

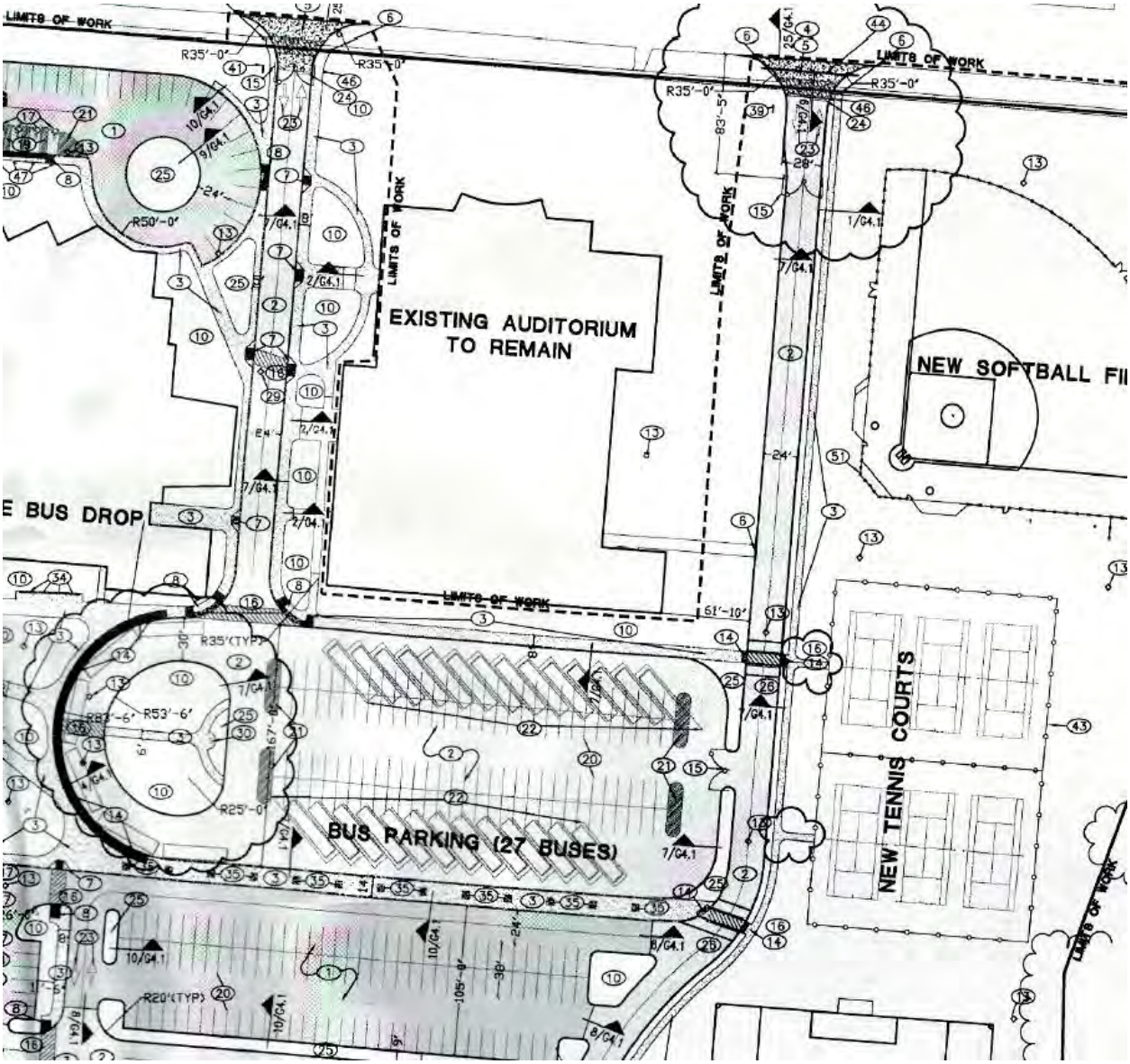
1. JOE NICKEL FROM YARD COMPANY gave a brief presentation on their help to develop the Comprehensive Plan.

Library
Alematic
Pool
Music Nights
Farmer's Market
Final Recommendation

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 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 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

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 14th 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’-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' 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'-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;

- 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
DDP – Medical Facility

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	**Date**
Geri Hoskins, Administrative Secretary	**Date**

CITY OF HUBER HEIGHTS
STATE OF OHIO

ORDINANCE NO. 2022-O-

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 04004 0032 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 _____ day of _____, 2022;
_____ Yeas; _____ Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8543 **Topics of Discussion** L.

Council Work Session

Meeting Date: 07/19/2022

Water Main Replacement Program

Submitted By: Anthony Rodgers

Department: City Council

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

Water Main Replacement Program

Purpose and Background

Councilmembers Anita Kitchen, Richard Shaw, and Glenn Otto requested this agenda item for discussion about the Water Main Replacement Program.

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.

AI-8544 **Topics of Discussion** **M.**

Council Work Session

Meeting Date: 07/19/2022

East Water Main Extension Project - Award Contract

Submitted By: Hanane Eisentraut

Department:	Engineering	**Division:**	Engineering
Council Committee Review?:	Council Work Session	**Date(s) of Committee Review:**	07/05/2022 and 07/19/2022
Audio-Visual Needs:	None	**Emergency Legislation?:**	No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

East Water Main Extension Project - Award Contract

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:	See Financial Implications
Cost:	$3,000,000
Recurring Cost? (Yes/No):	No
Funds Available in Current Budget? (Yes/No):	Yes

Financial Implications:

The ARPA Fund will reimburse the Water Utility Reserve Fund for this project.

Attachments

Bid Results

Resolution

CITY OF HUBER HEIGHTS
EAST WATER MAIN EXTENSION
BID RESULT
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
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 _____ day of _____, 2022;
_____Yeas; _____Nays.

Effective Date:

AUTHENTICATION:

_____	_____
Clerk of Council	Mayor
_____	_____
Date	Date

AI-8540 **Topics of Discussion** **O.**

Council Work Session

Meeting Date: 07/19/2022

A/V Equipment - Council Chambers

Submitted By: Anthony Rodgers

Department: City Council

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

A/V Equipment - Council Chambers

Purpose and Background

Councilmembers Don Webb, Richard Shaw, and Anita Kitchen requested this agenda item for discussion about the issues experienced with the A/V equipment in the Council Chambers.

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:

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.

AI-8542 **Topics of Discussion** **P.**

Council Work Session

Meeting Date: 07/19/2022

City Staffing Levels/Table Of Organization

Submitted By: Bryan Chodkowski

Department: Human Resources

Council Committee Review?: None **Date(s) of Committee Review:** 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

City Staffing Levels/Table Of Organization

Purpose and Background

At the July 11, 2022 City Council Meeting, Mayor Gore recommended that an additional staff position be created to support the needs of the current staffing structure. Based on the Mayor's recommendation, it would be City Staff"s suggestion to establish the position of Assistant to the City Manager. This position would be considered an intermediate-level exempt position with an expectation of a post-secondary education and some professionally relevant experience. This position would be valuable in addressing issues such as grant identification and application, support of professional projects, performance of complex research, analysis of data, and performance of other similar types of advanced managerial support functions.

While not available at the time of the Council Work Session meeting packet deadline, a draft job description and suggested salary range will be presented to the City Council at the July 19, 2022 Council Work Session.

Fiscal Impact

Source of Funds: TBD

Cost: TBD

Recurring Cost? (Yes/No): Yes

Funds Available in Current Budget? (Yes/No): No

Financial Implications:

Attachments

No file(s) attached.

AI-8541 **Topics of Discussion** **Q.**

Council Work Session

Meeting Date: 07/19/2022

City Manager Search Process

Submitted By: Anthony Rodgers

Department: City Council

Council Committee Review?: Council Work Session **Date(s) of Committee Review:** 06/21/2022 and 07/19/2022

Audio-Visual Needs: None **Emergency Legislation?:** No

Motion/Ordinance/ Resolution No.:

Agenda Item Description or Legislation Title

City Manager Search Process

Purpose and Background

Councilmembers Ed Lyons, Glenn Otto, and Anita Kitchen requested this agenda item for discussion about the City Manager search process.

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.
