



February 3, 2022

TO: Yellow Springs Village Council and Community Members

FROM: Marianne MacQueen

RE: Oberer development

I plan on voting for the Oberer Planned Unit Development (PUD) at our February 7th Council meeting and want to lay out my rationale. While the PUD does not meet some of our most pressing housing needs, it clearly will meet needs defined in the 2018 Housing Needs Assessment. I have been impressed that Oberer has been willing to work with Village Staff and the negotiating team to accommodate some of the requests we have made.

I don't believe we can expect more from a for-profit developer.

We are in the midst of a housing crisis in this country. The increased cost of housing has far outpaced household incomes. The median housing cost in the United States is now over \$350,000. It is very difficult to create housing that meets the needs of moderate and lower-income households. We don't have to look any further than our own downtown to see that some of our citizens have no housing. No one development will solve these problems.

At this point Council has two choices:

- 1) Vote for the PUD and allow development to start.
- 2) Vote NO and acknowledge that Oberer will begin a single family housing development, as is their right as property owners.

Village staff and the negotiating team worked for over a year to get to the place where we are. We have received value for that work and there is NO third option. Should a referendum overturn Council approval for the PUD, Oberer would continue to build the single-family development as is their right.

I believe that the PUD is the better choice between the two options. Here are the reasons I think the PUD is the better of the two options:

- 1) It will include duplexes that WILL be affordable to middle-income households and increase the number of this type of flexible housing stock in the Village. A household could purchase one part of a duplex with the other having a different owner; or they could purchase both sides and rent the other, as I do in my home. The latter is a way for moderate income households to support their home purchase and, or provide housing for family members.
- 2) It will provide a new type of housing option through the town houses, not currently available in Yellow Springs.
- 3) There will be a park available for the new neighborhood and the whole Village.



4) A set-aside for affordable housing will enable over 20 new housing units to be built for lower and/or moderate income households.

The land set-aside for affordable housing will be donated by Oberer to the Village. The Village Government will have the power to determine how it should be developed. Council will make the decision regarding the type of units and the targeted income range. As a Council member, I would ensure community involvement in those decisions.

Affordable housing is defined as housing for which people of moderate and lower-income pay no more than 30% of their income for housing related costs. Affordable housing typically has subsidies that restrict the income levels of the households who can rent or purchase the units. Should there be rental units? Should there be attached housing? Should it be a pocket neighborhood similar to the Home, Inc. Glen Cottages on Xenia Avenue? What income levels would the Village want to target? Would the Village involve an affordable housing provider to develop the parcel? What income and/or resale restrictions would be placed on those who might rent or purchase the homes? These are the types of questions and considerations that Council – with the input of the community and Village staff – would need to decide.

This development has both created confusion and misunderstanding about the Village zoning and property rights of landowners. It has also raised the criticality of zoning, property rights and housing in the Village.

Previous to the Oberer development, I asked that Council and Village Staff revisit our zoning code to make it easier for incremental development. A group of citizens have been working on recommendations in this regard. Changes that we will be recommending could have a long-term positive impact on affordable housing in Yellow Springs. Nonetheless, if we want to have larger developments that meet the values and most critical needs of Yellow Springs we need to be on the front end of planning. That means acquiring funding, purchasing properties or using Village-owned land, advocating and planning for what we do want. As we have now discovered, once property has been purchased by a developer, the Village has limited control over how it is developed.



TO: Village Council
FROM: Denise Swinger, Planning & Zoning Administrator
RE: Oberer PUD Preliminary Plan Determination
DATE: January 13, 2022

Planned Unit Development and Map Amendment (Rezoning) Application – R-A, Low Density Residential District – Oberer Land Developers, Ltd. (“Oberer”) has submitted a PUD application and a Map Amendment (Rezoning Application) for a major subdivision – Chapter 1226 Subdivision Regulations, Chapter 1254 Planned Unit Development, Chapter 1248 Residential Districts, Chapter 1280 Amendments and Rezoning.

Greene County Parcel ID#’s F19000100180007300; F19000100180000300; F19000100060013300; F19000100180001100; F19000100180001200; F19000100180001300; F19000100180003200; F19000100180003400; F19000100180003500; F19000100180002800; F19000100180002300; F19000100180002400; F19000100180002500; F19000100180002600; F19000100180002700

At their meeting November 9, 2021, Planning Commission voted unanimously to recommend to Council approval of the PUD rezoning and preliminary plan for 52.65 acres bordering Spillan Road and Southgate Avenue. Prior to the voting process, staff outlined the planning efforts over the past year (**PC 11/9/21 Minutes**). Greg Smith, planner/developer for Oberer then made a presentation of their proposed plan for development of the site. After Planning Commission finished asking their questions of Oberer, PC Chair Frank Doden opened the public hearing and 18 people participated. The number one issue raised, based on the communications received prior to and comments made during the hearing, was increased traffic. Other concerns included the proposed homeowners association (HOA), affordability, stormwater runoff, environmental concerns, gentrification, connectivity, increased taxes to pay for infrastructure, lighting and safety issues (**PC 11/9/21 Minutes**). The HOA ensures the maintenance of the open space areas, which includes the two detention ponds with fountains, the constructed wetlands, and the multi-modal pathways.

At the Council - Oberer work session held January 10, 2022, additional information was provided. An updated exhibit list is also included with this report. The additional information includes the environmental study, an updated traffic impact study for E.Hyde and U.S. 68, an alternative R-A, Low Density Residential site plan, and an EPA letter regarding sewer capacity for the proposed development.

Currently, there are three zoning districts represented in the 52.65 acres owned by Oberer, R-A, Low Density Residential, R-C, High-Density Residential and PUD. Per 1254.03(g), “*Within the Village there are previously approved planned unit developments, identified on the zoning map as “PUD.” These developments shall be exempt from the requirements of this chapter and shall conform to the prior approved development plans for each respective project.*” There is no underlying zoning for the PUD on this property (Ord. 79-30 – See Table of Exhibits). In this case, we consider the residential zoning that has the least impact, which is R-A.

In making its recommendation to Council, the Planning Commission considered the following:

- The qualifying conditions for a PUD (VCO 1254.02)
- The PUD requirements (VCO 1254.03)
- The general standards of VCO 1254.06

Chair Doden prepared Planning Commission members for the review by stating the purpose of the PUD zoning (see below). Doden reviewed the Qualifying Conditions (1254.02), the PUD Requirements (1254.03), and the Review Standards (1254.06).

In **bold type**, the decision of Planning Commission for each condition, requirement or standard within each section is presented below:

1254.01 PURPOSE

The Planned Unit Development (PUD) District is established as an optional development tool to permit flexibility in the regulation of land development; to encourage innovation in land use, form of ownership and variety of design, layout and type of structures constructed; to achieve economy and efficiency in the use of land; to preserve significant natural, historical and architectural features and open space; to promote efficient provision of public services and utilities; to minimize adverse traffic impacts; to provide better housing, employment and business opportunities particularly suited to residents; to encourage development of convenient recreational facilities; and to encourage the use and improvement of existing sites when the uniform regulations contained in other zoning districts alone do not provide adequate protection and safeguards for the property and surrounding areas. It is the further intent of the PUD regulations to promote a higher quality of development than can be achieved from conventional zoning requirements in furtherance of the vision and goals of the adopted Comprehensive Plan and Vision: Yellow Springs and Miami Township.

1254.02 QUALIFYING CONDITIONS

In order to qualify for PUD approval, the project must satisfy the conditions of this section. It is the applicant's responsibility to demonstrate, in writing, that each of the following criteria is or will be met by the proposed PUD:

(a) Recognizable Benefit. A PUD shall achieve recognizable and substantial benefits that would not be possible under the existing zoning classification(s). At least three of the following benefits shall be accrued to the community as a result of the proposed PUD:

- (1) Preservation of significant natural features;
- (2) A complementary mix of land uses or housing types;
- (3) Extensive open space and recreational amenities;
- (4) Connectivity of open space with new or existing adjacent greenway or trail corridors;
- (5) Preservation of small town appeal;
- (6) Improvements to public streets or other public facilities that mitigate traffic and/or other development impacts;
- (7) Coordinated development of multiple small parcels; or
- (8) Removal or renovation of blighted buildings, sites or contamination clean-up.

Planning Commission unanimously agreed that the PUD application as presented provides at least three of the benefits in 1254.02(a) Recognizable Benefit.

(b) Size. Each PUD shall contain a minimum of five acres; provided sites containing less than five acres may be considered for rezoning to PUD, if the Village Council determines that the site will advance the purposes of the PUD District. When determining the appropriateness of areas less than the applicable minimum required, the Village Council shall determine that:

- (1) Rezoning the area to PUD will not result in a significant adverse effect upon nearby or adjacent Village lands;
- (2) The proposed uses will complement the character of the surrounding area;
- (3) The purpose and qualifying conditions of the PUD District can be achieved within a smaller area; and
- (4) The PUD is not being used as a means to circumvent conventional zoning requirements.

The PUD contains more than five acres, therefore 1254.02 (b) is not applicable.

(c) Utilities. The PUD shall be served by public water and sanitary sewer.

Planning Commission affirmed agreement the application complies with this section.

(d) Ownership. The PUD application shall be filed by the property owner, lessee or other person with legal interest in the property and written consent by the owner. The proposed development shall be under unified ownership or control, so one person or entity has proprietary responsibility for the full completion of the project. The applicant shall provide sufficient documentation of ownership or control in the form of agreements, contracts, covenants, and/or deed restrictions indicating that the development will be completed in its entirety as proposed.

Planning Commission affirmed agreement the application complies with this section.

(e) Comprehensive Plan and Vision. Proposed uses and design of the PUD shall be substantially consistent with the Village's adopted Comprehensive Plan and the principles for land stewardship contained in the Vision: Yellow Springs and Miami Township.

Planning Commission affirmed agreement the application complies with this section by a 4-1 vote.

(f) Pedestrian Accommodation. The PUD shall provide for integrated, safe and abundant pedestrian and bicycle access and movement within the PUD and to adjacent properties.

Planning Commission affirmed agreement the application complies with this section by a 4-1 vote.

(g) Architecture. Building forms, relationships, scale and styles shall be harmonious and visually integrated.

Planning Commission affirmed agreement the application complies with this section.

(h) Traffic. The PUD shall provide for safe and efficient vehicular movement within, into and out of the PUD site. Traffic calming techniques, parking lot landscaping, and other sustainable design solutions shall be employed to improve traffic circulation, storm water management, pedestrian safety and aesthetic appeal.

Planning Commission affirmed agreement the application complies with this section.

- (i) Eligible Districts. Land within any zoning district may qualify for PUD zoning.

Planning Commission affirmed agreement the application complies with this section.

1254.03 PUD REQUIREMENTS.

(a) Permitted Uses. Any use permitted by right or conditional approval in any zoning district may be permitted within a PUD, subject to the provisions of Section [1254.02](#), Qualifying Conditions, and the requirements of this section.

(b) Minimum Lot Size and Zoning Requirements. Lot area, width, setbacks, height, lot coverage, minimum floor area, parking, landscaping, lighting and other requirements for the district applicable to the proposed use, as provided in [Table 1254.03](#), shall be applicable for all such uses within a PUD, unless modified in accordance with Section [1254.03](#)(d). In the case of a mix of uses, the zoning requirements applicable to each use category shall apply to that use.

Staff advised Planning Commission that the PUD complies with the minimum lot size and zoning requirements for an underlying zoning of R-C, High Density Residential.

(c) Connectivity. Pathways for bicycles and pedestrians shall be incorporated throughout the development and along all perimeter streets to ensure connectivity between uses and with adjacent properties. The pathways shall be paved and shall be designed to Village standards.

Planning Commission affirmed agreement that the application complies with this section.

(d) Modification of Minimum Requirements. District regulations applicable to a land use in the PUD may be altered from the requirements specified in [Table 1254.03](#), including but not limited to, modification from the lot area and width, building setbacks, height, lot coverage, signs and parking. The applicant for a PUD shall identify, in writing, all intended deviations from the zoning requirements. Modifications may be approved by the Village Council during the preliminary development plan review stage, after Planning Commission recommendation. These adjustments may be permitted only if they will result in a higher quality and more sustainable development consistent with the purposes of PUD expressed in Section [1254.01](#). The modifications shall also satisfy at least four of the following criteria:

- (1) Preserve the best natural features of the site;
- (2) Create, improve or maintain open space for the residents, employees and visitors beyond the minimum required by subsection (f) of this section;
- (3) Commit that at least ten percent of all dwelling units in the PUD will be "permanently" affordable units or 20% affordable units, or commit to a payment in lieu of constructing such units, as agreed to with the Village Council;
- (4) Provide a mix of residential types such as single family, townhome and/or multiple family;
- (5) Employ low impact design and/or other best practices to manage storm water and reduce the off-site impacts of runoff;
- (6) Employ practices in site layout, building construction and materials that will result in a measurable reduction in energy consumption;

- (7) Introduce new development concepts, such as co-housing; and/or
- (8) Include a mix of residential and nonresidential uses.

Not applicable. Staff advised Planning Commission that Oberer is not requesting any modification to the minimum requirements.

(e) Density Bonus. In addition to the modification of minimum requirements permitted in Section [1254.03](#)(d), the Village Council, after Planning Commission recommendation, may permit an increase in the total number of residential units allowed within a PUD where it is demonstrated that at least three of the following amenities will be included in the development:

- (1) More than 20% of the total units within the PUD will be committed as "permanently" affordable units;
- (2) Cool roof technology will be employed on all buildings within the PUD;
- (3) Fresh food market will be incorporated into the PUD;
- (4) Buildings will be designed and constructed to accommodate green roof gardens;
- (5) One or more of the buildings within the PUD will be LEED certified building(s);
- (6) Low-impact development (LID) design principles will be employed to minimize storm water runoff;
- (7) Solar panels will be installed on one or more of the buildings within the development and will yield a measurable reduction in energy usage;
- (8) Additional accommodation beyond the required pathways will be made for bicycles and pedestrians; and/or
- (9) A minimum of 25% open space will be dedicated within the development.

Not applicable. Staff advised Planning Commission that Oberer is not requesting a density bonus.

(f) Open Space. At least 15% of the area of a PUD site shall be preserved as open space, in accordance with the following requirements. For purposes of this requirement, "green roofs" shall be counted as open space.

(1) Areas not considered open space. The following land areas shall not be counted as required open space for the purposes of this section:

- A. The area within any public street right-of-way or private street easement;
- B. Any easement for overhead utility lines, unless adjacent to qualified open space;
- C. Storm water detention ponds; provided, rain gardens or ponds designed as water features that may also provide for storm water storage may be counted toward required open space;
- D. Fifty percent of any flood plain, wetland, water body or steep slope (15% or greater) area and 50% of the area of any golf course;
- E. The area within a platted lot, unless the lot has been dedicated to open space on the plat via conservation easement or other means of ensuring that the lot is permanent open space; and

F. Parking and loading areas.

(2) Specifications for required open space. Required open space areas shall meet the following specifications:

A. Shall be for use by all residents, employees and visitors of the PUD, subject to reasonable rules and regulations. In the case of a golf course, stable or similar facility, membership shall be available to all residents of the PUD, subject to charges, fees or assessments for use;

B. If the site contains a river, stream or other body of water, the Village may require that a portion of the required open space abuts the body of water;

C. Leaves scenic views and vistas unblocked or uninterrupted, particularly as seen from public street rights-of-way;

D. Protects the roadside character by establishing buffer zones along scenic corridors and improves public safety and vehicular carrying capacity by avoiding development that fronts directly onto existing roadways;

E. Shall be configured so the open space is reasonably usable by residents of the PUD;

F. Shall be of sufficient size and dimension and located, configured, or designed in such a way as to achieve the applicable purposes of this chapter and enhance the quality of the development. The open space shall neither be perceived nor function simply as an extension of the rear yard of those lots abutting it;

G. To the extent practical, open space areas shall be linked with adjacent open spaces, public parks, bicycle paths or pedestrian paths;

H. Pedestrian access points to the required open space areas from the interior of the PUD shall be provided and clearly identified by signs or a visible improved path for safe and convenient access;

I. Grading shall be minimal, with the intent to preserve existing topography and landscaping where practical; and

J. May contain ball fields, tennis courts, swimming pools and related buildings, community buildings, golf courses, and similar recreational facilities. However, no more than 50% of the required open space may contain any of these uses.

Staff indicated that Oberer is providing about 22% open space, exceeding the 15% requirement with 11.82 acres. This includes 3.1 acres for a dedicated park, and the remaining acreage for the multi-modal pathways, the two detention areas with fountain features, and the constructed wetlands area.

(g) Existing PUDs. Within the Village there are previously approved planned unit developments, identified on the zoning map as "PUD*". These developments shall be exempt from the requirements of this chapter and shall conform to the prior approved development plans for each respective project. However, any expansion to or modification of the existing approved developments that constitutes a major change, as defined in Section [1254.07](#), shall be subject to the following procedural requirements of this chapter:

(1) Major changes shall be subject to the Final Development Plan requirements of Section [1254.05\(d\)](#).

(2) The review standards of Section [1254.06\(c\)](#) through (h) shall apply.

(3) The general provisions of Section [1254.04](#) shall apply.

Not applicable, except to the extent one of the parcels is a previously approved PUD.

1254.06 REVIEW STANDARDS

In considering the PUD request, the reviewing body must find that the proposed development meets all of the following general standards:

(a) The PUD will comply with the standards, conditions, and requirements of this chapter.

Planning Commission affirmed agreement the application complies with this section.

(b) The PUD will promote the intent and purpose of this chapter.

Planning Commission affirmed agreement the application complies with this section.

(c) The proposed project will be compatible with adjacent uses of land, the natural environment, and the capacities of public services and facilities affected by the proposed project.

Planning Commission affirmed agreement the application complies with this section.

(d) The proposed project will be consistent with the public health, safety, and welfare needs of the Village.

Planning Commission affirmed agreement the application complies with this section.

(e) Granting the PUD rezoning will result in a recognizable and substantial benefit to ultimate users of the project and to the community, which would not otherwise be feasible or achievable under the conventional zoning districts.

Planning Commission affirmed agreement the application complies with this section.

(f) The PUD will not result in a significant increase in the need for public services and facilities and will not place a significant burden upon surrounding lands or the natural environment, unless the resulting adverse effects are adequately provided for or mitigated by features of the PUD as approved.

Public Works Director Johnnie Burns stated that he plans to test the existing sewer line, but it is made of concrete and he does not anticipate the need for extensive upgrades or repairs.

Burns further stated that this an area with one of the deepest sewer mains in the Village. The line was installed decades ago, possibly as far back as the 1960's, in anticipation of future development of the area.

Planning Commission affirmed agreement the application complies with this section.

(g) The PUD will be consistent with the Village's Comprehensive Plan and Vision: Yellow Springs and Miami Township. Specifically, the following planning principles shall be adhered to, as applicable:

- (1) Redevelopment and infill locations should be favored over greenfield development;
- (2) Natural features and resources should be preserved or at least conserved;
- (3) Future development/redevelopment shall strengthen the physical character of the Village;

(4) Quality design is emphasized for all uses to create an attractive, distinctive public and private realm;

(5) Places are created with an integrated mix of uses that contribute to the Village's identity and vitality;

(6) Diverse housing choices are found throughout the Village, including relatively high-density and affordable units;

(7) Parks, open space and recreational areas are incorporated into future development; and

(8) Places are connected and accessible throughout the community by transportation methods other than automobiles.

Doden noted the planning principles not applicable to this development. Planning Commission affirmed agreement with this section by a 4-1 vote.

(h) The PUD will respect or enhance the established or planned character, use, and intensity of development within the area of the Village where it is to be located.

Chair Doden affirmed that the PUD has met all required standards. Planning Commission's recommendation to Council can either be 1) approval, 2) approval with modifications, or 3) denial. Planning Commission affirmed agreement.

The Planning Commission recommended the following modifications:

- 1) Village staff work with Oberer to make the HOA more compliant with the Village zoning code requirements and values
- 2) 90-degree cutoff is required for all outdoor fixtures within the PUD

Chair Doden **MOVED** to **APPROVE THE PUD** with the modifications requested. Green **SECONDED**, and the **MOTION PASSED 5-0** on a **ROLL CALL VOTE**.

RECOMMENDATION:

The Planning Commission unanimously recommends to Council approval of the PUD preliminary plan and rezoning for the Oberer development.

Specific Benefits:

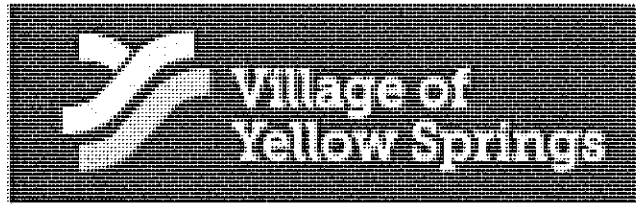
- 1) Variety of housing types (64 Single Family/52 Duplex Units/24 Townhome Units)
- 2) Dedicated land for an affordable housing development (1.75 acres – up to 28 units)
- 3) Dedicated land for a Village park (0.9 acre playground & 2.2 acres wooded area)
- 4) Additional users of the Village's electric, water and sewer utilities (140 to 168 new customer accounts)
- 5) Increased property and income taxes for the Village and Yellow Springs School District
- 6) Additional children for YS schools
- 7) Walkability and connectivity throughout the development

Respectfully submitted,

Denise Swinger
Planning & Zoning Administrator

EXHIBIT A

Case # PC21-28



Village of Yellow Springs - Application for Planned Unit Development

Applicant(s): Oberer Land Developers, LTD

Applicant's mailing address: 3445 Newmark Dr., Miamisburg, OH 45342

Phone: 937-531-5530

Property Owner(s): Same

Name of Development: Birch Creek

Greene County Parcel ID: See attached

Total acreage: 52.65 Current Zoning District: R-A, R-C and PUD

Type of PUD Proposed: ☒ Residential ☐ Business ☐ Industrial

Approval process shall be as stipulated in Chapter 1254

Applicant's Signature: [Signature] Date: 10/10/21
The applicant hereby certifies that all information on and attached to this application is true and correct.

.....
For Village use only:

Preliminary Plan

Date filed: 10/20/21 ☒ \$150 Fee Paid

Planning Commission Public Hearing Date: 11/9/2021 Action Date: _____

Action Taken: ☐ none ☐ approval ☐ denial ☐ modification

Village Council Public Hearing Date: _____ Action Date: _____

☐ none ☐ approval ☐ denial ☐ modification

Final Plan/PUD Agreement

Date filed: _____ ☐ \$75 Fee Paid

Planning Commission Public Hearing Date: _____ Action Date: _____

Action Taken: ☐ none ☐ approval ☐ denial ☐ modification

Village Council Public Hearing Date: _____ Action Date: _____

☐ none ☐ approval ☐ denial ☐ modification

[Signature], Zoning Admin.

RECEIVED:



Planning Commission
Hearing Request:
Map/Text Amendment

Planning & Zoning Department
100 Dayton St, 2nd Floor
Yellow Springs, OH 45387
Office: (937) 767-1702
Fax: (937) 767-3720

Case #: PC21-29 (FOR OFFICE USE ONLY)
Hearing Date: 11/9/2021

Applicant Information

Property Address:	See Attached				
Property Owner:	Oberer Land Developers, Ltd	Phone:	937-531-5530	Email:	gsmith@oberer.com
Applicant Name:	Same	Phone:		Email:	
Mailing Address:	3445 Newmark Dr., Miamisburg, OH 45342				

Project Information

Property Address	See Attached	Greene Co. Parcel #	See Attached
Current Zoning District	R-A and R-PUD	Proposed District	R-C

Required Attachments

Vicinity Map With:

<input checked="" type="checkbox"/> Survey	<input checked="" type="checkbox"/> Legal Description	<input checked="" type="checkbox"/> Petition
<input checked="" type="checkbox"/> Property Lines	<input checked="" type="checkbox"/> Streets	<input checked="" type="checkbox"/> Existing Zoning District
<input checked="" type="checkbox"/> Proposed Zoning District	<input checked="" type="checkbox"/> Existing Use of all buildings	
<input checked="" type="checkbox"/> Principal Use of all properties within 300 feet		

SEE REVERSE FOR MORE INFORMATION

Applicant Signature: [Signature] Date: 10/20/21

FOR OFFICE USE ONLY

Zoning District Change:	R-A to PUD	Hearing Date:	11/9/2021
Text Amendment Change:		Approved <input type="checkbox"/> Denied <input type="checkbox"/>	
Fee: \$ <u>200</u>	Date Paid: <u>10/20/2021</u>		
<u>[Signature]</u> Zoning Administrator			
		Date	

EXHIBIT B

56642

Oct. 27-10:20 A.M. 1965

Rec'd For Record

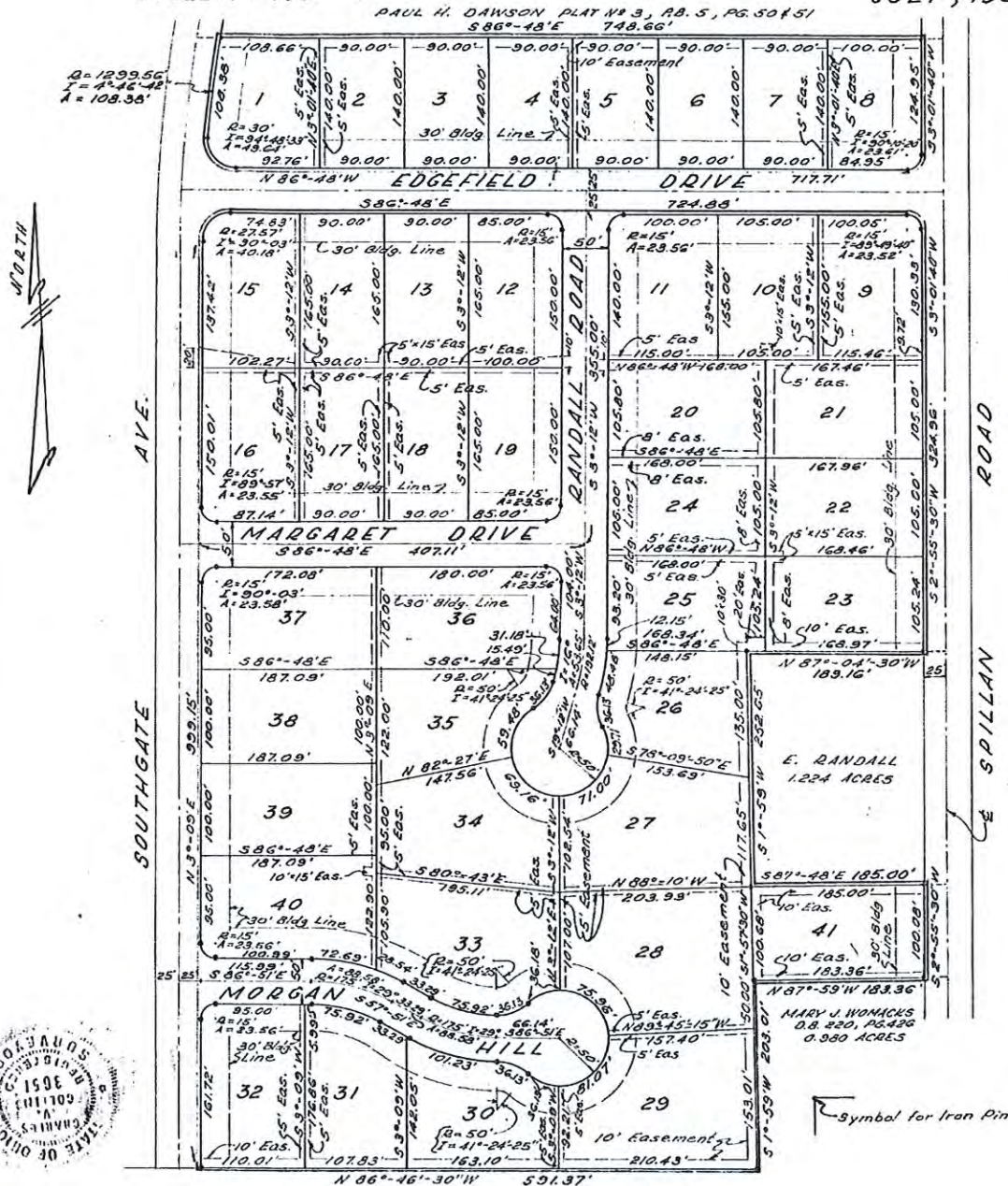
VICINITY SKETCH
No Scale

HILL PLAT

SITUATED IN SEC. 10 & SEC. 19, T4, R8, MRS. YELLOW SPRINGS, GREENE COUNTY, OHIO. BEING A REPLAT OF LOTS 93-110 INCLUSIVE OF PART OF THE PARTIAL REPLAT OF PAUL H. DAWSON PLAT #3 AS RECORDED IN R.B. 8, PG. 92, 93 & 94, AND A REPLAT OF LOTS 14-54 INCLUSIVE OF SOUTHGATE PLAT #2 AS RECORDED IN R.B. 8, PG. 89, 90, 91, ALL RECORDED IN THE PLAT RECORDS OF GREENE COUNTY, OHIO, CONTAINING 18.628 ACRES.

SCALE: 1" = 100'

JULY, 1965



THIS INSTRUMENT WAS PREPARED BY
CHARLES V. COLLINS, REGISTERED
SURVEYOR OF OHIO.

TRANSFERRED:

Transferred Oct. 27, 1965

Richard P. Dwyer
Auditor

RECORDED:

Received Oct. 27, 1965, AT 10:20 A.M.

Recorded Oct. 27, 1965.

Plat Book 11 Pages 62 and 63.

All measurements are certified correct
and monuments set as shown. Curve
distances are measured on the arc.

Charles V. Collins
Reg. Surveyor of Ohio #3651

350 IRVING AVE.

DAYTON, OHIO 45419

FEE \$ 5.60

Ernest A. Beatty
Recorder

HILL 56642 PLAT

SITUATED IN SEC. 10 & SEC. 10, T4, R8 MRS. YELLOW SPRINGS, GREENE COUNTY, OHIO

Rec'd for Record
OCT 27 10 20 AM 1965PROTECTIVE COVENANTS AND
RESTRICTIONS:

1. All lots in this plat will be known as Residential lots. No structure shall be erected or permitted to remain on any lot, other than one single family dwelling, not to exceed two stories.
2. No building shall be located nearer to the front lot line, or nearer to the side street line than the setback shown.
3. No lot shall hereinafter be subdivided for additional residential purposes.
4. No noxious or offensive trade shall be carried on upon any lot, nor shall anything be done thereon which may be or become an annoyance to the neighborhood.
5. No trailer, basement tent, shack, barn or other outbuilding shall be used as a residence either temporary or permanently.
6. No dwelling shall be permitted on any lot in this tract with a ground floor area finished and heated, less than 850 sq. ft., exclusive of porches and garages.
7. No sign of any kind shall be displayed to the public view on any lot except one professional sign of not more than one and one-half square feet, one sign of sign of not more than five square feet advertising the property for sale or rent, or signs used by a builder to advertise the property during the construction and sales period.
8. No animals, livestock or poultry of any kind shall be raised, bred or kept on any lot, except that dogs, cats or other household pets may be kept provided they are not kept, bred or maintained for any commercial purposes, and are to be confined on owners property.
9. These covenants and restrictions are to run with the land and shall be binding on all who claim under them until January 1, 1985, at which time said covenants and restrictions are automatically extended for successive ten year periods, unless by a vote of the owners of a majority of the lots in the plat these covenants and restrictions are amended or terminated.

DEDICATION:

We the undersigned, being all the owners and lienholders of the lands herein platted do hereby voluntarily consent to the execution of said plat and dedicate the streets as shown hereon to the public use forever.

Easements shown on the plat are for the construction, maintenance, repair, replacement or removal of water, gas, sewer, electric, telephone or other utility lines or services, and for the express privilege of removing any and all trees or other obstructions to the free use of said utilities and for providing of ingress and egress to the property for said purposes and are to be maintained as such forever.

Signed and acknowledged SOUTHGATE CORP. by:
in the presence of:

Katharine S. Edgar

R. B. Stewart
R. B. Stewart, President

Jack L. Kershner

STATE OF OHIO, COUNTY OF GREENE S.S.

Be it remembered that on this 30th day of August 1965, before me, the undersigned, a Notary Public in and for the said county and state personally came RUSSEL B. STEWART to me known, and acknowledged the signing of the within Plat to be his voluntary act and deed.

Jack L. Kershner
Notary Public in and for Greene County, Ohio

APPROVAL:

YELLOW SPRINGS
VILLAGE PLANNING
BOARD

Roger W. Brucker
Chairman
Rachelle J. Lawrence
Secretary

YELLOW SPRINGS
VILLAGE COUNCIL

William A. Beatty
President
John M. Gahan
Clerk

TRANSFER:

Transferred OCT 27 1965

Richard P. DeLong
Greene County Auditor

RECORD:

Received OCT. 27, 1965 AT 10:20 A.M.

Recorded OCT. 27, 1965

Plat Book 11 Pages 62 AND 63

Ernest A. Beatty
Greene County Recorder

STATE OF OHIO, COUNTY OF GREENE S.S.

R. B. Stewart being duly sworn says that all persons and corporations, to the best of his knowledge, interested in its dedication either as owners or lienholders have united in its execution.

R. B. Stewart
R. B. Stewart

In testimony whereof I have herewith set my hand and Notarial Seal on the day and date above written.

Jack L. Kershner
Notary Public in and for Greene County, Ohio

Charles V. Collins
Registered Surveyor of Ohio No 3651

950 IRVING AVE. DAYTON, OHIO 45419

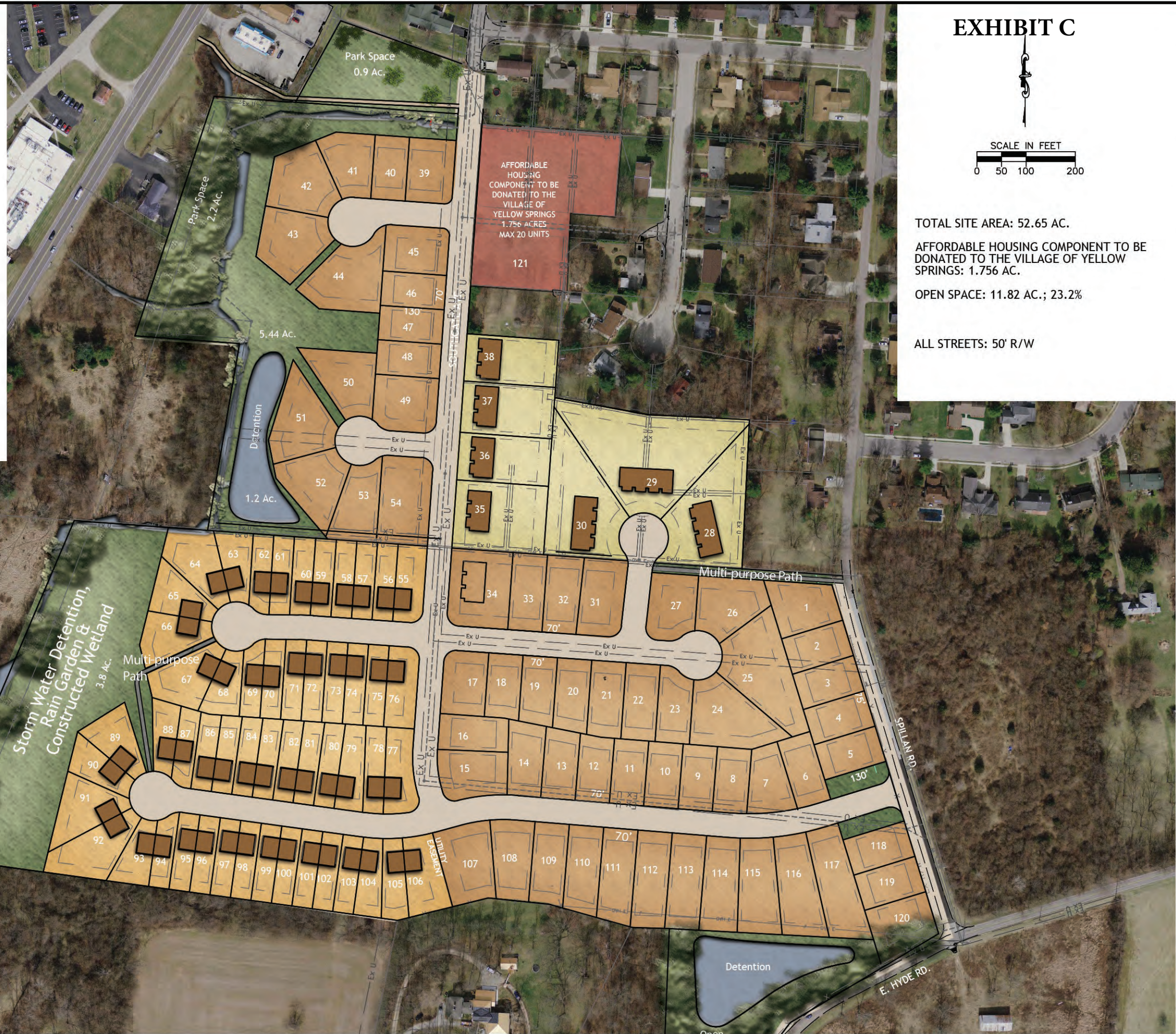
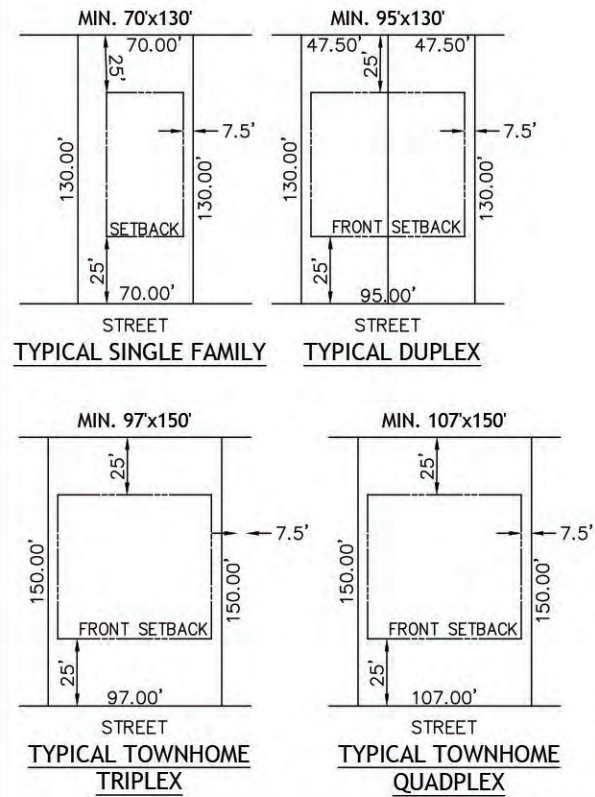
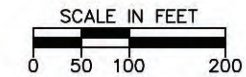


EXHIBIT C



TOTAL SITE AREA: 52.65 AC.

AFFORDABLE HOUSING COMPONENT TO BE DONATED TO THE VILLAGE OF YELLOW SPRINGS: 1.756 AC.

OPEN SPACE: 11.82 AC.; 23.2%

ALL STREETS: 50' R/W

EXHIBIT D

Residential Products

Single Family Housing

There will be three areas of the neighborhood developed as single family housing containing a total of 64 new homes. Oberer Homes offers a semi-custom home product with over 30 existing floor plans and over 120 different elevations. Character drawings and pictures of many of these elevations have been included with the submission. Oberer uses a variety of exterior materials to include stone, brick, wood, wood fiber, Cementitious and vinyl siding depending on the elevation and the material section of the customer. While price ranges have not yet been finalized for the community these homes sell for \$330,000 to \$565,000 in other Oberer communities. These homes range in size from smaller patio homes with square footages as small as 1,450 square feet to larger family oriented homes up to 3,700 square feet, with many options in-between.



Three Bedroom Duplexes

Oberer will offer 30 duplex units being built off the Hudson model currently being offered in our Cornerstone Development in Centerville. While price ranges have not yet been determined for the Yellow Springs community these homes sell for \$389,900 to \$500,000 in our currently ongoing

developments. These homes offer a standard floor plan with opportunities for an enclosed four season room, and or rear patio area. Square footages of the floor plans will range from 1,653 square feet, to 1,790 square feet.

Two Bedroom Duplexes

Oberer will offer 22 two bedroom duplex units which are new product to the Oberer product line. Originally designed for a senior housing concept, Oberer is adapting these designs for Yellow Springs to provide a lower price point home option within this neighborhood. Price ranges have not yet been determined for this product, but we are working towards a much lower price point than the three bedroom duplex. These homes offer a standard 1,012 square foot floor plan similar to the three bedroom duplex, but with smaller rooms and a one-car garage.



Town Homes

Our plan calls for seven townhome buildings anticipated to contain 24 units of housing. The current townhome concepts include two basic home floor plans, a two bedroom, one car garage unit, and a three bedroom, two car garage unit. Many details of this product are still being worked out, and we do not currently anticipate offering it in the first phase of the development giving us time to perfect the product before offering it for new home owners. As this product, is not anticipated to be offered to customers for at least a couple more years, identifying a sale price at this point is very difficult, but we anticipate them to be similar in price range as the two and three bedroom duplex units.





Village of Yellow Springs, Greene
County

Struewing Property Subdivision Traffic Impact Study

Revised: January 2022

W. Central Ohio/E. Indiana
440 E. Hoewisher Rd.
Sidney, OH 45365
937.497.0200 Phone

S. Ohio/N. Kentucky
8956 Glendale Milford Rd., Suite 1
Loveland, OH 45140
513.239.8554 Phone

www.CHOICEONEENGINEERING.com



Date

January 5, 2022

Attention

Greg Smith
gsmith@oberer.com

Address

Oberer Land Developers Ltd
3445 Newmark Drive
Miamisburg, OH 45342

Subject

Traffic Impact Study Submittal
Streuwing Property
GRE-YSP-2004

Dear Mr. Smith:

Enclosed is a Traffic Impact Study for the Struewing Property Subdivision. The results of the study indicate the following recommendations:

Layout 1

- Construct the proposed drive along Spillan Road approximately 315 feet north of East Hyde Road.
- Construct the proposed access tying into the existing subdivision at Southgate Avenue approximately 75 feet south of Edgefield Drive.

Layout 2

- Construct the proposed drive along Spillan Road approximately 315 feet north of East Hyde Road.
- Construct the proposed access tying into the existing subdivision at Southgate Avenue approximately 75 feet south of Edgefield Drive.
- Construct the proposed drive along Randall Road approximately 225 feet south of Edgefield Drive.

Layout 3

- Construct the proposed drive along Spillan Road approximately 315 feet north of East Hyde Road.
- Construct the proposed access typing into the existing subdivision at Southgate Avenue, approximately 75 feet south of Edgefield Drive.

If you have any questions, feel free to contact our office.

Sincerely,

A handwritten signature in blue ink, reading "Michael K. Goettemoeller".

Michael K. Goettemoeller, P.E. PTOE
Project Manager

W. Central Ohio/E. Indiana
440 E. Hoewisher Rd.
Sidney, OH 45365
937.497.0200 Phone

S. Ohio/N. Kentucky
8956 Glendale Milford Rd., Suite 1
Loveland, OH 45140
513.239.8554 Phone



Table of Contents

Traffic Impact Study	2
Analysis Snapshot	2
Existing Conditions	2
Existing Traffic Volumes	2
Proposed Development Layouts	3
Trip Generation	3
Directional Distribution	4
2022 Opening Year Build Traffic Volumes	4
2032 Design Year Build Traffic Volumes	4
Growth Rate	4
Capacity Analysis	4
Sight Distance Analysis	6
Turn Lane Analysis	7
Pedestrian Analysis	7
Recommendations	8
APPENDIX	9
APPENDIX A - Turning Movement Counts	10
APPENDIX B - Concept Plan	11
APPENDIX C - Build Traffic Volumes	12
APPENDIX D – 2022 Opening Year Capacity Analysis	13
APPENDIX E - 2032 Design Year Capacity Analysis	14
APPENDIX F – Sight Distance Analysis	15
APPENDIX G – Turn Lane Analysis	16

Traffic Impact Study

Analysis Snapshot

Choice One Engineering Corporation (COEC) was retained by Oberer Land Developers, Ltd. to analyze the traffic impact of a proposed residential development to be submitted to the Village of Yellow Springs. The Streuwing Property Subdivision is proposed to be on the northwest quadrant of Hyde Road and Spillan Road within the Village of Yellow Springs, Greene County, Ohio. This traffic impact study analyzes three (3) different potential layouts of the property. The purpose of this study is to identify the traffic-related impacts of the proposed development during typical weekday AM and PM Peak Hours.

This traffic impact study includes Existing Conditions, Existing Traffic Volumes, Proposed Layouts, Trip Generation, Directional Distribution, 2022 Opening Year Build Traffic Volumes, 2032 Design Year Build Traffic Volumes, Growth Rate, Capacity Analysis, Sight Distance Analysis, Turn Lane Analysis, and Pedestrian Analysis.

Existing Conditions

Hyde Road is a two-lane roadway segment (1 eastbound lane, 1 westbound lane) and is classified as a "Minor Collector" in ODOT's Functional Classification system. The speed limit on East Hyde Road is 35 mph and has a 2018 ADT of 1,957 at US Route 68 per the Greene County Traffic Count Database.

Spillan Road is a two-lane segment (1 northbound lane, 1 southbound lane) and is classified as a "Local Road" in ODOT's Functional Classification system. The speed limit on Spillan Road is 25 mph.

Because of potential impacts to US 68, which is just west of the proposed development, impacts to US 68 have also been included in this study. US 68 is a two-lane roadway segment (1 northbound lane, 1 southbound lane) and is classified as a "Principal Arterial" in ODOT's Functional Classification system. The speed limit on US 68 is 35 mph at Kahoe Lane and 55 mph at Hyde Road. US 68 has a 2018 ADT of 4,732 per ODOT's Transportation Information Mapping System (TIMS).

Existing Traffic Volumes

Video turning movement counts were collected by Choice One Engineering From 12:00 A.M. Tuesday, August 10, 2021, to 11:59 P.M. Wednesday, August 11, 2021, at the intersections of Spillan Road & Edgefield Drive and East Hyde Road & Spillan Road. Of the 48 hours of video data, it was determined to process the hours of 7:00 to 9:00 A.M. and 4:00 to 6:00 P.M. on Tuesday, August 10, 2021. Counts were also taken from 12:00 A.M. Wednesday, December 8, 2021, to 11:59 P.M. Thursday, December 9, 2021, at the intersections of US 68 & Kahoe Lane and US 68 & East Hyde Road. Of the 48 hours of video data, it was determined to process the hours of 6:00 A.M. to 7:00 P.M. on Wednesday, December 8, 2021. The 2021 existing traffic volumes are attached in [Appendix A](#). The peak hours of the intersections are summarized in the table below:

Intersection	A.M. Peak	P.M. Peak
Spillan Road & Edgefield Drive	7:15-8:15 A.M.	4:00-5:00 P.M.
East Hyde Road & Spillan Road	7:45-8:45 A.M.	4:30-5:30 P.M.
US 68 & Kahoe Lane	11:00 A.M.-12:00 P.M.	3:30-4:30 P.M.
US 68 & East Hyde Road	7:45-8:45 A.M.	3:15-4:15 P.M.

Proposed Development Layouts

Layout 1- The proposed site plan for Layout 1 has two (2) proposed access points. One (1) access point will be a full access drive along Spillan Road that is approximately 315 feet north of the intersection of Spillan Road & East Hyde Road. The site also has one (1) access point that will tie into the existing subdivision at Southgate Avenue, approximately 75 feet south of Edgefield Drive.

Layout 2- The proposed site plan for Layout 2 has three (3) proposed access points. One (1) access point will be a full access drive along Spillan Road that is approximately 315 feet north of the intersection of Spillan Road & East Hyde Road. The site also has one (1) access point that will tie into the existing subdivision at Southgate Avenue, approximately 75 feet south of Edgefield Drive, and one (1) access point along Randall Road, approximately 225 feet south of the intersection of Randall Road & Edgefield Drive.

Layout 3- The proposed site plan for Layout 3 has two (2) proposed access points. One (1) access point will be a full access drive along Spillan Road that is approximately 315 feet north of the intersection of Spillan Road & East Hyde Road. The site also has one (1) access point that will tie into the existing subdivision at Southgate Avenue, approximately 75 feet south of Edgefield Drive. The proposed site plan is attached in [Appendix B](#).

Trip Generation

Using the average trip-generation rates given in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*, the inbound and outbound trips for the proposed development were calculated for both proposed layouts.

Layout 1: The site generated trips were estimated using 60 Single-Family Detached Housing units (Land Use Code 210) and 91 Low-Rise Multifamily Housing units (Land Use Code 220). According to the *ITE Trip Generation Manual, 10th Edition*, the proposed development is estimated to generate 1,297 vehicular trips during a typical weekday, 91 trips during the A.M. Peak Hour (22 inbound and 69 outbound) and 116 trips during the P.M. Peak Hour (73 inbound and 43 outbound).

Layout 2: The site generated trips were estimated using 80 Single-Family Detached Housing units (Land Use Code 210) and 79 Low-Rise Multifamily Housing units (Land Use Code 220). According to the *ITE Trip Generation Manual, 10th Edition*, the proposed development is estimated to generate 1,403 Vehicular Trips during a typical weekday, 100 Trips during the A.M. Peak Hour (24 inbound and 76 outbound) and 130 trips during the P.M. Peak Hour (82 inbound and 48 outbound).

Layout 3: The site generated trips were estimated using 143 Single-Family Detached Housing units (Land Use Code 210). According to the *ITE Trip Generation Manual, 10th Edition*, the proposed development is estimated to generate 1,445 Vehicular Trips during a typical weekday, 106 Trips during the A.M. Peak Hour (27 inbound and 79 outbound) and 143 trips during the P.M. Peak Hour (90 inbound and 53 outbound).

Since Layout 3 is projected to produce the most trips out of all three layouts, to be conservative, the analysis for the proposed subdivision uses the trips proposed for Layout 3.

The forecasted generated trips are attached in [Appendix C](#).

Directional Distribution

COEC analyzed the existing traffic volumes and population density to formulate the directional distribution. The directional distributions are attached in [Appendix C](#); a summary is below.

Directional Distribution

Route	Approach/Departure Distribution
To/From the North on Spillan Road	5% / 5%
To/From the North on US 68	20% / 20%
To/From the South on US 68	50% / 50%
To/From the East on Hyde Road	15% / 15%
To/From the West on Hyde Road	10% / 10%
Total	100% / 100%

2022 Opening Year Build Traffic Volumes

The 2022 Opening Year Build Traffic Volumes were calculated from the Existing Traffic Volumes increased by an annual growth rate for one year and then adding the trips generated by the proposed development to each of the entering and exiting movements. The 2022 Opening Year Build Traffic Volumes are attached in [Appendix C](#).

2032 Design Year Build Traffic Volumes

The 2032 Design Year Build Traffic Volumes were calculated from the Existing Traffic Volumes increased by an annual growth rate for eleven years and then adding the additional trips generated by the proposed development to each of the entering and exiting movements. The 2032 Design Year Build Traffic Volumes are attached in [Appendix C](#).

Growth Rate

To be conservative, it was determined to use a 1.00% growth rate for the surrounding roadways. Per ODOT's Transportation Information Mapping System, US 68 has a growth rate of 0.70%; therefore a 1.00% growth rate was deemed to be realistic for the roadways surrounding the site. Utilizing this 1.00% growth rate was also applied to cover any potential existing traffic loss due to the COVID-19 pandemic.

Capacity Analysis

Utilizing the Design Hourly Traffic Volumes, capacity calculations were performed for the studied intersections. The calculations employed procedures documented in the *Highway Capacity Manual* (Transportation Research Board, Sixth Edition, Updated 2016). The capacity of an intersection (signalized or un-signalized) can best be described by its corresponding Level of Service (LOS). The LOS of an intersection is a qualitative measure of the various attributes of an intersection. There are six LOS ranging from "ideal" free flow conditions at LOS "A," to forced or "breakdown" conditions at LOS "F." The LOS for un-signalized intersections is based upon total delay. Total delay is defined in the *Highway Capacity Manual* 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.

Capacity calculations were performed in Synchro 10 software for the studied intersections analyzing the 2022 Opening Year No-Build, 2022 Opening Year Build, 2032 Design Year No-Build and 2032 Design Year Build Traffic Volumes. The tables below show a summary of the AM and PM

Design Hour Capacity Analysis. **All approaches during the Opening Year 2022 No-Build/Build and Design Year 2032 No-Build/Build traffic scenarios operate at an acceptable level of service.** The 2022 Opening Year Capacity Analysis is attached in [Appendix D](#). The 2032 Design Year Capacity Analysis is attached in [Appendix E](#).

Summary of A.M. Peak Hour Capacity Analysis

Direction	A.M. Peak Hour			
	2022 No-Build	2022 Build	2032 No-Build	2032 Build
1 – Spillan Road & Edgefield Drive				
Eastbound Approach	A(9)	A(9)	A(9)	A(9)
Northbound Approach	A(1)	A(1)	A(1)	A(1)
Southbound Approach	A(0)	A(0)	A(0)	A(0)
Total Intersection LOS (Delay*)	A(3)	A(2)	A(3)	A(2)
2 – Spillan Road & East Hyde Road				
Eastbound Approach	A(1)	A(4)	A(1)	A(3)
Westbound Approach	A(0)	A(0)	A(0)	A(0)
Southbound Approach	A(9)	A(9)	A(9)	A(9)
Total Intersection LOS (Delay*)	A(2)	A(5)	A(2)	A(5)
3 – Spillan Road & Proposed Drive				
Eastbound Approach	-	A(9)	-	A(9)
Northbound Approach	-	A(6)	-	A(6)
Southbound Approach	-	A(0)	-	A(0)
Total Intersection LOS (Delay*)	-	A(7)	-	A(7)
4 – US 68 & Hyde Road				
Eastbound Approach	B(12)	B(12)	B(12)	B(12)
Westbound Approach	B(12)	B(13)	B(12)	B(13)
Northbound Approach	A(1)	A(1)	A(1)	A(1)
Southbound Approach	A(0)	A(0)	A(0)	A(0)
Total Intersection LOS (Delay*)	A(4)	A(4)	A(3)	A(4)
5 – US 68 & Kahoe Lane				
Westbound Approach	A(10)	B(10)	B(10)	B(10)
Northbound Approach	A(0)	A(0)	A(0)	A(0)
Southbound Approach	A(1)	A(2)	A(1)	A(2)
Total Intersection LOS (Delay*)	A(2)	A(3)	A(2)	A(3)

**Delay is measured in seconds per vehicle.*

Summary of P.M. Hour Capacity Analysis

Direction	P.M. Peak Hour			
	2022 No-Build	2022 Build	2032 No-Build	2032 Build
1 – Spillan Road & Edgefield Drive				
Eastbound Approach	A(9)	A(9)	A(9)	A(9)
Northbound Approach	A(1)	A(1)	A(1)	A(1)
Southbound Approach	A(0)	A(0)	A(0)	A(0)
Total Intersection LOS (Delay*)	A(3)	A(2)	A(3)	A(2)
2 – Spillan Road & East Hyde Road				
Eastbound Approach	A(2)	A(5)	A(2)	A(5)
Westbound Approach	A(0)	A(0)	A(0)	A(0)
Southbound Approach	A(9)	A(9)	A(9)	A(9)
Total Intersection LOS (Delay*)	A(2)	A(5)	A(2)	A(5)
3 – Spillan Road & Proposed Drive				
Eastbound Approach	-	A(9)	-	A(9)
Northbound Approach	-	A(6)	-	A(6)
Southbound Approach	-	A(0)	-	A(0)
Total Intersection LOS (Delay*)	-	A(6)	-	A(6)
4 – US 68 & Hyde Road				
Eastbound Approach	B(13)	B(14)	B(13)	B(14)
Westbound Approach	B(14)	C(16)	B(15)	C(17)
Northbound Approach	A(1)	A(1)	A(0)	A(0)
Southbound Approach	A(0)	A(0)	A(0)	A(0)
Total Intersection LOS (Delay*)	A(4)	A(4)	A(4)	A(4)
5 – US 68 & Kahoe Lane				
Westbound Approach	B(11)	B(11)	B(11)	B(12)
Northbound Approach	A(0)	A(0)	A(0)	A(0)
Southbound Approach	A(1)	A(1)	A(1)	A(1)
Total Intersection LOS (Delay*)	A(2)	A(2)	A(2)	A(2)

*Delay is measured in seconds per vehicle.

Sight Distance Analysis

For the proposed driveway location along Spillan Road, a sight distance analysis was completed. Based on the analysis, **adequate horizontal and vertical sight distance is available for the proposed drive**. The sight distance analysis is attached in [Appendix F](#).

Turn Lane Analysis

Turn Lane Analyses were completed for the free flow movements along Spillan Road, East Hyde Road, and US 68 using the 2022 Opening Year No-Build and Build Traffic Volumes and 2032 Design Year No-Build and Build Traffic Volumes. Turn lane warrants were checked against the 2-Lane Highway Left (or Right) Turn Lane Warrants figures in the ODOT Access Management Manual. As a result of the analysis, **there are no warranted turn lanes for the proposed subdivision.**

The turn lane analyses are attached in [Appendix G](#).

Pedestrian Analysis

This subdivision will provide the opportunity for a pedestrian and cycling link between residents and local amenities with pedestrian access to various points within the Village. This network will also allow access to regional amenities due to the development's proximity to the Little Miami Scenic Trail (which has an ADT of 287 users in Yellow Springs). Amenities and points of interest reachable by walkers, joggers, and cyclists on the pedestrian network of the subdivision include:

- Downtown Yellow Springs, which includes restaurants, shopping, banking, and other service companies.
- Richard P. Eastman Covered Bridge.
- Cultural centers within in the Village including the John Bryan Community Center, Glen Helen Ecology Institute, Hopewell Indian Mound (at Glen Helen), YSAC Community Gallery, Senior Citizens Center, and the Trailside Museum.
- 340 miles of paved trails in the Miami Valley region including the Wolf Creek Trail, Mad River Trail, Stillwater Trail, Ohio-to-Indiana Trail, Miami-Little Trail, and Dayton-Kettering Connector via a nearby connection to the Little Miami Scenic Trail.
- Places of education including Yellow Springs Village Schools and Antioch College.
- Local and regional parks/recreation areas including Glen Helen Reserve and Gaunt Park.

This subdivision is situated within one mile of approximately 1,500 jobs within the Village, allowing local employees who reside in this new subdivision to use the pedestrian network to commute to work.

Recommendations

Based on the results of the analysis, the following recommendations are made for the surrounding roadway network:

Layout 1

- Construct the proposed drive along Spillan Road approximately 315 feet north of East Hyde Road.
- Construct the proposed access tying into the existing subdivision at Southgate Avenue approximately 75 feet south of Edgefield Drive.

Layout 2

- Construct the proposed drive along Spillan Road approximately 315 feet north of East Hyde Road.
- Construct the proposed access tying into the existing subdivision at Southgate Avenue approximately 75 feet south of Edgefield Drive.
- Construct the proposed drive along Randall Road approximately 225 feet south of Edgefield Drive.

Layout 3

- Construct the proposed drive along Spillan Road approximately 315 feet north of East Hyde Road.
- Construct the proposed access tying into the existing subdivision at Southgate Avenue, approximately 75 feet south of Edgefield Drive.

The following included attachments detail the findings of this report:

- A. [Turning Movement Counts](#)
- B. [Concept Plan](#)
- C. [Build Traffic Volumes](#)
- D. [2022 Opening Year Capacity Analysis](#)
- E. [2032 Design Year Capacity Analysis](#)
- F. [Sight Distance Analysis](#)
- G. [Turn Lane Analysis](#)

APPENDIX

APPENDIX A - Turning Movement Counts

Study Name Edgefield Dr and Spillian Rd
Start Date Tuesday, August 10, 2021 7:00 AM
End Date Tuesday, August 10, 2021 6:00 PM
Site Code

Report Summary

Time Period	Class.	Southbound				Northbound				Eastbound				Total
		R	T	I	O	T	L	I	O	R	L	I	O	
Peak 1	Lights	0	2	2	7	5	1	6	4	2	2	4	1	12
Specified Period	%	0%	100%	100%	88%	83%	100%	86%	100%	100%	100%	100%	100%	92%
7:00 AM - 9:00 AM	Other Vehicle:	0	0	0	1	1	0	1	0	0	0	0	0	1
One Hour Peak	%	0%	0%	0%	13%	17%	0%	14%	0%	0%	0%	0%	0%	8%
7:15 AM - 8:15 AM	Total	0	2	2	8	6	1	7	4	2	2	4	1	13
	PHF	0	0.25	0.25	0.67	0.75	0.25	0.88	0.33	0.5	0.5	1	0.25	0.65
	Approach %			15%	62%			54%	31%			31%	8%	
Peak 2	Lights	3	5	9	25	11	3	14	7	2	13	15	6	38
Specified Period	%	100%	100%	100%	96%	100%	100%	100%	100%	100%	93%	94%	100%	97%
4:00 PM - 6:00 PM	Other Vehicle:	0	0	0	1	0	0	0	0	0	1	1	0	1
One Hour Peak	%	0%	0%	0%	4%	0%	0%	0%	0%	0%	7%	6%	0%	3%
4:00 PM - 5:00 PM	Total	3	5	9	26	11	3	14	7	2	14	16	6	39
	PHF	0.75	0.62	0.75	0.65	0.69	0.38	0.7	0.58	0.5	0.7	0.8	0.5	0.75
	Approach %			23%	67%			36%	18%			41%	15%	

Study Name Hyde Rd & Spillan Rd
Start Date Tuesday, August 10, 2021 7:00 AM
End Date Tuesday, August 10, 2021 6:00 PM
Site Code

Report Summary

Time Period	Class.	Southbound				Westbound				Eastbound				Total
		R	L	I	O	R	T	I	O	T	L	I	O	
Peak 1	Lights	8	1	9	3	1	24	25	16	15	2	17	32	51
Specified Period	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
7:00 AM - 9:00 AM	Other Vehicle:	0	0	0	0	0	0	0	0	0	0	0	0	0
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7:45 AM - 8:45 AM	Total	8	1	9	3	1	24	25	16	15	2	17	32	51
	PHF	0.5	0.25	0.56	0.75	0.25	0.75	0.78	0.67	0.62	0.5	0.61	0.89	0.8
	Approach %			18%	6%			49%	31%			33%	63%	
Peak 2	Lights	7	1	8	14	0	27	27	34	33	14	47	34	82
Specified Period	%	100%	100%	100%	100%	0%	96%	96%	100%	100%	100%	100%	97%	99%
4:00 PM - 6:00 PM	Other Vehicle:	0	0	0	0	0	1	1	0	0	0	0	1	1
One Hour Peak	%	0%	0%	0%	0%	0%	4%	4%	0%	0%	0%	0%	3%	1%
4:30 PM - 5:30 PM	Total	7	1	8	14	0	28	28	34	33	14	47	35	83
	PHF	0.44	0.25	0.5	0.44	0	0.7	0.7	0.65	0.69	0.44	0.84	0.73	0.8
	Approach %			10%	17%			34%	41%			57%	42%	

Study Name US 68 & Hyde Road
Start Date Wednesday, December 08, 2021 6:00 AM
End Date Wednesday, December 08, 2021 7:00 PM
Site Code

Report Summary

Time Period	Class.	Southbound					Westbound					Northbound					Eastbound					Total
		R	T	L	I	O	R	T	L	I	O	R	T	L	I	O	R	T	L	I	O	
Peak 1	Lights	20	96	1	117	146	1	23	3	27	21	4	110	31	145	115	16	16	35	67	74	356
Specified Period	%	100%	91%	100%	93%	90%	100%	96%	100%	96%	91%	80%	87%	91%	88%	91%	89%	94%	100%	96%	95%	92%
6:00 AM - 12:00 PM	Other Vehicle:	0	9	0	9	16	0	1	0	1	2	1	16	3	20	11	2	1	0	3	4	33
One Hour Peak	%	0%	9%	0%	7%	10%	0%	4%	0%	4%	9%	20%	13%	9%	12%	9%	11%	6%	0%	4%	5%	8%
7:45 AM - 8:45 AM	Total	20	105	1	126	162	1	24	3	28	23	5	126	34	165	126	18	17	35	70	78	389
	PHF	0.83	0.85	0.25	0.85	0.84	0.25	0.55	0.38	0.58	0.72	0.62	0.85	0.61	0.86	0.79	0.56	0.71	0.8	0.8	0.63	0.82
	Approach %				32%	42%				7%	6%				42%	32%				18%	20%	
Peak 2	Lights	68	184	4	256	170	3	40	18	61	41	9	140	13	162	245	43	28	27	98	121	577
Specified Period	%	99%	96%	100%	97%	92%	100%	100%	100%	100%	100%	100%	92%	100%	93%	97%	100%	100%	93%	98%	99%	96%
12:00 PM - 7:00 PM	Other Vehicle:	1	8	0	9	15	0	0	0	0	0	0	13	0	13	8	0	0	2	2	1	24
One Hour Peak	%	1%	4%	0%	3%	8%	0%	0%	0%	0%	0%	0%	8%	0%	7%	3%	0%	0%	7%	2%	1%	4%
3:15 PM - 4:15 PM	Total	69	192	4	265	185	3	40	18	61	41	9	153	13	175	253	43	28	29	100	122	601
	PHF	0.82	0.84	0.5	0.86	0.77	0.38	0.71	0.41	0.56	0.79	0.75	0.75	0.54	0.74	0.81	0.54	0.78	0.81	0.76	0.76	0.85
	Approach %				44%	31%				10%	7%				29%	42%				17%	20%	

Study Name US 68 & Kahoe Lane
Start Date Wednesday, December 08, 2021 6:00 AM
End Date Wednesday, December 08, 2021 7:00 PM
Site Code

Report Summary

Time Period	Class.	Southbound				Westbound				Northbound				Total
		T	L	I	O	R	L	I	O	R	T	I	O	
Peak 1	Lights	100	23	123	151	29	16	45	35	12	122	136	118	304
Specified Period	%	94%	100%	95%	90%	97%	100%	98%	95%	86%	88%	88%	95%	92%
6:00 AM - 12:00 PM	Other Vehicle:	6	0	6	17	1	0	1	2	2	16	18	6	25
One Hour Peak	%	6%	0%	5%	10%	3%	0%	2%	5%	14%	12%	12%	5%	8%
11:00 AM - 12:00 PM	Total	106	23	129	168	30	16	46	37	14	138	154	124	329
	PHF	0.85	0.64	0.81	0.82	0.62	0.8	0.72	0.77	0.5	0.88	0.9	0.84	0.85
	Approach %			39%	51%			14%	11%			47%	38%	
Peak 2	Lights	210	32	242	215	35	13	48	52	20	180	201	224	491
Specified Period	%	96%	100%	96%	93%	97%	100%	98%	100%	100%	92%	93%	96%	95%
12:00 PM - 7:00 PM	Other Vehicle:	9	0	9	16	1	0	1	0	0	15	15	9	25
One Hour Peak	%	4%	0%	4%	7%	3%	0%	2%	0%	0%	8%	7%	4%	5%
3:30 PM - 4:30 PM	Total	219	32	251	231	36	13	49	52	20	195	216	233	516
	PHF	0.87	0.89	0.87	0.81	0.9	0.46	0.77	0.87	0.83	0.77	0.78	0.83	0.95
	Approach %			49%	45%			9%	10%			42%	45%	

APPENDIX B - Concept Plan

Alternate 1

Park Space
0.9 AC.

Park Space
2.2 AC.

Detention
1.2 AC.

Storm Water Detention,
Rain Garden &
Constructed Wetland
3.8 AC.

SOUTHGATE AVE.

SPILLAN RD.

E. HYDE RD.



SCALE IN FEET
0 50 100 200

GENERAL LOT SETBACKS
FRONT = 25'; REAR = 25'
EACH SIDE = 7.5'



SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
WWW.CHOICEONEENGINEERING.COM

SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
CONCEPT

REVISIONS:
FILE NAME CONCEPT
DRAWN BY JLH
CHECKED BY JSP
PROJECT No. GREYSP2004
DATE 03-22-2021
SHEET NUMBER 1 OF 1

Alternate 2

Park Space
0.9 Ac.

Park Space
2.2 Ac.

Detention
1.2 Ac.

Storm Water Detention,
Rain Garden &
Constructed Wetland
3.8 Ac.

SOUTHGATE AVE

SEATTLE RD

E. HYDE RD.



SCALE IN FEET
0 50 100 200

GENERAL LOT SETBACKS
FRONT = 25'; REAR = 25'
EACH SIDE = 7.5'

**SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
CONCEPT**

REVISIONS:

FILE NAME
CONCEPT

DRAWN BY
JLH

CHECKED BY
JSP

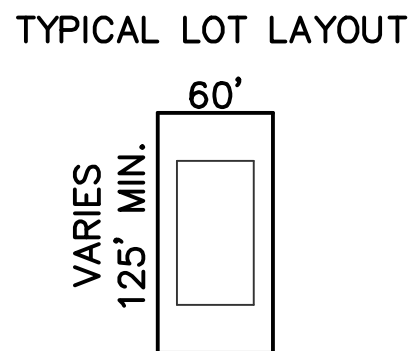
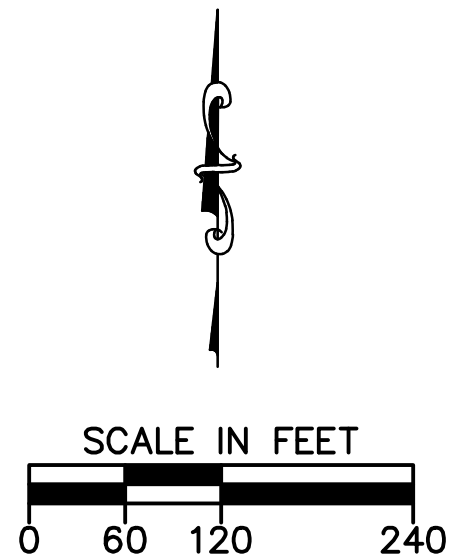
PROJECT No.
GREYSP2004

DATE
03-22-2021

SHEET NUMBER

1 OF 1

Alternate 3



PROPOSED ZONING: R-A
MIN. LOT SIZE: 7,500 S.F.
MIN. FRONTAGE: 60'
FRONT SETBACK: 25'
REAR SETBACK: 25'
SIDE SETBACK: 10' MINIMUM
NUMBER OF RESIDENTIAL LOTS: 143
NUMBER OF GREEN SPACE LOTS: 3
TYPICAL LOT SIZE: 60'X125' MINIMUM



SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
WWW.CHOICEONEENGINEERING.COM

SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
PRELIMINARY DEVELOPMENT PLAN

REVISIONS:

FILE NAME
CONCEPT
DRAWN BY
brg
CHECKED BY
JSP
PROJECT No.
GREYSP2004
DATE
12-22-2021
SHEET NUMBER

APPENDIX C - Build Traffic Volumes

STRUEWING PROPERTY SUBDIVISION
VILLAGE OF YELLOW SPRINGS, GREENE COUNTY, OHIO

Proposed Subdivision Trips - Layout 1

Land Use Description	ITE Code	Size	Unit	Weekday				AM Peak Hour				PM Peak Hour			
				Total Trips	Primary Trips			Total Trips	Primary Trips			Total Trips	Primary Trips		
					Total	Entering	Exiting		Total	Entering	Exiting		Total	Entering	Exiting
Single Family Detached Housing	210	60	Dwelling Units	650	650	325	325	47	47	12	35	62	62	39	23
<i>Directional Distributions</i>						50%	50%			25%	75%			63%	37%
Low-Rise Multifamily Housing	220	91	Dwelling Units	647	647	324	323	44	44	10	34	54	54	34	20
<i>Directional Distributions</i>						50%	50%			23%	77%			63%	37%
Totals				1,297	1,297	649	648	91	91	22	69	116	116	73	43

Proposed Subdivision Trips - Layout 2

Land Use Description	ITE Code	Size	Unit	Weekday				AM Peak Hour				PM Peak Hour			
				Total Trips	Primary Trips			Total Trips	Primary Trips			Total Trips	Primary Trips		
					Total	Entering	Exiting		Total	Entering	Exiting		Total	Entering	Exiting
Single Family Detached Housing	210	80	Dwelling Units	847	847	423	424	62	62	15	47	82	82	52	30
<i>Directional Distributions</i>						50%	50%			25%	75%			63%	37%
Low-Rise Multifamily Housing	220	79	Dwelling Units	556	556	278	278	38	38	9	29	48	48	30	18
<i>Directional Distributions</i>						50%	50%			23%	77%			63%	37%
Totals				1,403	1,403	701	702	100	100	24	76	130	130	82	48

Proposed Subdivision Trips - Layout 3

Land Use Description	ITE Code	Size	Unit	Weekday				AM Peak Hour				PM Peak Hour			
				Total Trips	Primary Trips			Total Trips	Primary Trips			Total Trips	Primary Trips		
					Total	Entering	Exiting		Total	Entering	Exiting		Total	Entering	Exiting
Single Family Detached Housing	210	143	Dwelling Units	1,445	1,445	722	723	106	106	27	79	143	143	90	53
<i>Directional Distributions</i>						50%	50%			25%	75%			63%	37%
Totals				1,445	1,445	722	723	106	106	27	79	143	143	90	53

TRIP ASSIGNMENT ROUTINGS - LAYOUT 3

ORIGIN	DESTINATION	TRIP ROUTINGS O-D PERCENT ROUTE SPLIT		AFFECTED MOVEMENTS BY TRIPS	AM TRIPS	PM TRIPS
<u>Entering Trips</u>						
Spillan Road (North)	3	5%	100%	1SBT 3SBR	1	5
US 68 (North)	Edgefield Drive (Connection)	20%	100%	5SBL	5	18
US 68 (South)	3	50%	75%	4NBR 2EBL 3NBL	10	34
US 68 (South)	Edgefield Drive (Connection)	50%	25%	4NBT 5NBR	3	11
Hyde Road (East)	3	15%	100%	2WBR 3NBL	4	14
Hyde Road (West)	3	10%	100%	4EBT 2EBL 3NBL	3	9
					26	91
TOTAL ENTERING TRIPS					26	91
<u>Exiting Trips</u>						
3	Spillan Road (North)	5%	100%	3EBL 1NBT	4	3
Edgefield Drive (Connection)	US 68 (North)	20%	100%	5WBR	16	11
3	US 68 (South)	50%	75%	3EBR 2SBR 4WBL	30	20
4	Edgefield Drive (Connection)	50%	25%	5WBL 4SBT	10	7
3	Hyde Road (East)	15%	100%	3EBR 2SBL	12	8
3	Hyde Road (West)	10%	100%	3EBR 2SBR 4WBT	8	5
					80	54
TOTAL EXITING TRIPS					80	54

Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane

TRAFFIC PROJECTIONS - AM PEAK HOUR

Int. #	Movement		2021	2022	Trips-Layout 3		2022	2032	2032
		Annual Growth Rate	Existing Counts	Opening Year No-Build Volumes	Primary Trips IN	Primary Trips OUT	Opening Year Build Volumes	Design Year No-Build Volumes	Design Year Build Volumes
1	EBL	1.00%	2	2			2	2	2
1	EBR	1.00%	2	2			2	2	2
1	NBL	1.00%	1	1			1	1	1
1	NBT	1.00%	6	6		4	10	7	11
1	SBT	1.00%	2	2	1		3	2	3
1	SBR	1.00%	0	0			0	0	0
2	EBL	1.00%	2	2	13		15	2	15
2	EBT	1.00%	15	15			15	17	17
2	WBT	1.00%	24	24			24	27	27
2	WBR	1.00%	1	1	4		5	1	5
2	SBL	1.00%	1	1		12	13	1	13
2	SBR	1.00%	8	8		38	46	9	47
3	EBL	0.00%	0	0		4	4	0	4
3	EBR	0.00%	0	0		50	50	0	50
3	NBL	0.00%	0	0	17		17	0	17
3	NBT	1.00%	3	3			3	3	3
3	SBT	1.00%	4	4			4	4	4
3	SBR	0.00%	0	0	1		1	0	1
4	EBL	0.00%	35	35			35	35	35
4	EBT	0.00%	17	17	3		20	17	20
4	EBR	0.00%	18	18			18	18	18
4	WBL	0.00%	3	3		30	33	3	33
4	WBT	0.00%	24	24		8	32	24	32
4	WBR	0.00%	1	1			1	1	1
4	NBL	0.00%	34	34			34	34	34
4	NBT	1.00%	126	127	3		130	140	143
4	NBR	0.00%	5	5	10		15	5	15
4	SBL	0.00%	1	1			1	1	1
4	SBT	1.00%	105	106		10	116	117	127
4	SBR	0.00%	20	20			20	20	20
5	WBL	0.00%	16	16		10	26	16	26
5	WBR	0.00%	30	30		16	46	30	46
5	NBT	1.00%	138	139			139	153	153
5	NBR	0.00%	14	14	3		17	14	17
5	SBL	0.00%	23	23	5		28	23	28
5	SBT	1.00%	106	107			107	118	118

Intersection Legend

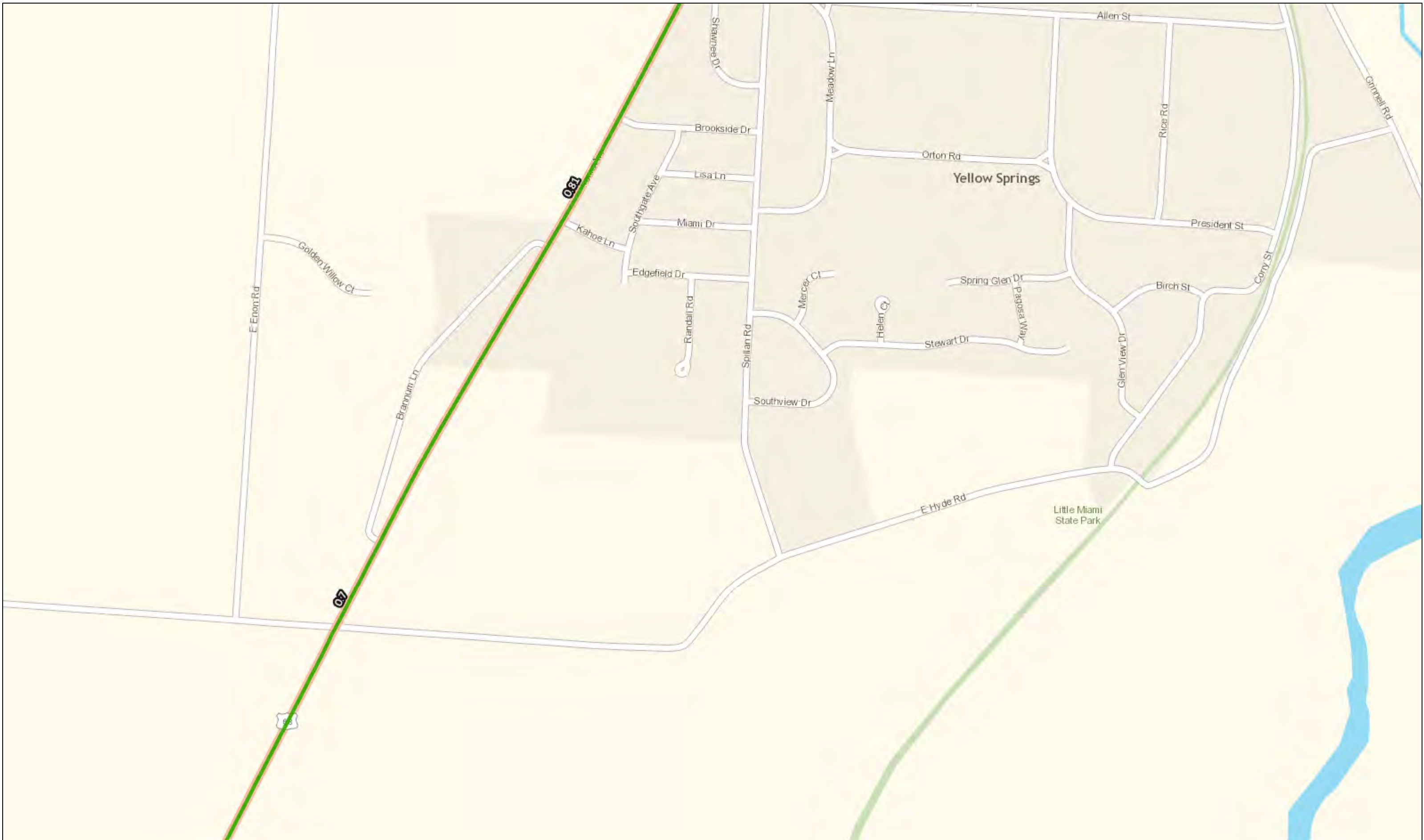
- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane

TRAFFIC PROJECTIONS - PM PEAK HOUR

Int. #	Movement		2021	2022	Trips-Layout 3		2022	2032	2032
		Annual Growth Rate	Existing Counts	Opening Year No-Build Volumes	Primary Trips IN	Primary Trips OUT	Opening Year Build Volumes	Design Year No-Build Volumes	Design Year Build Volumes
1	EBL	1.00%	2	2			2	2	2
1	EBR	1.00%	2	2			2	2	2
1	NBL	1.00%	1	1			1	1	1
1	NBT	1.00%	6	6		3	9	7	10
1	SBT	1.00%	2	2	5		7	2	7
1	SBR	1.00%	0	0			0	0	0
2	EBL	1.00%	14	14	43		57	16	59
2	EBT	1.00%	33	33			33	37	37
2	WBT	1.00%	28	28			28	31	31
2	WBR	1.00%	0	0	14		14	0	14
2	SBL	1.00%	1	1		8	9	1	9
2	SBR	1.00%	7	7		25	32	8	33
3	EBL	0.00%	0	0		3	3	0	3
3	EBR	0.00%	0	0		33	33	0	33
3	NBL	0.00%	0	0	57		57	0	57
3	NBT	1.00%	14	14			14	16	16
3	SBT	1.00%	4	4			4	4	4
3	SBR	0.00%	0	0	5		5	0	5
4	EBL	0.00%	29	29			29	29	29
4	EBT	0.00%	28	28	9		37	28	37
4	EBR	0.00%	43	43			43	43	43
4	WBL	0.00%	18	18		20	38	18	38
4	WBT	0.00%	40	40		5	45	40	45
4	WBR	0.00%	3	3			3	3	3
4	NBL	0.00%	13	13			13	13	13
4	NBT	1.00%	153	155	11		166	170	181
4	NBR	0.00%	9	9	34		43	9	43
4	SBL	0.00%	4	4			4	4	4
4	SBT	1.00%	192	194		7	201	213	220
4	SBR	0.00%	69	69			69	69	69
5	WBL	0.00%	13	13		7	20	13	20
5	WBR	0.00%	36	36		11	47	36	47
5	NBT	1.00%	195	197			197	216	216
5	NBR	0.00%	20	20	11		31	20	31
5	SBL	0.00%	32	32	18		50	32	50
5	SBT	1.00%	219	221			221	243	243

Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane






APPENDIX D – 2022 Opening Year Capacity Analysis

HCM 6th TWSC

1: Spillan Road & Edgefield Drive

01/05/2022

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	6	2	0
Future Vol, veh/h	2	2	1	6	2	0
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	-	-	-	-	-
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	2	2	1	7	2	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	11	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1009	1082	1620	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1008	1082	1620	-	-	-
Mov Cap-2 Maneuver	1008	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1620	-	1044	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	




HCM 6th TWSC

2: Hyde Road & Spillan Road

01/05/2022

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	15	24	1	1	8
Future Vol, veh/h	2	15	24	1	1	8
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	2	16	26	1	1	9

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	27	0	0 47 27
Stage 1	-	-	- - 27 -
Stage 2	-	-	- - 20 -
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	1587	-	- - 963 1048
Stage 1	-	-	- - 996 -
Stage 2	-	-	- - 1003 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1587	-	- - 962 1048
Mov Cap-2 Maneuver	-	-	- - 962 -
Stage 1	-	-	- - 995 -
Stage 2	-	-	- - 1003 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1587	-	-	-	1038
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.3	0	-	-	8.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0




HCM 6th TWSC
4: US 68 & Hyde Road

01/05/2022

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	17	18	3	24	1	34	127	5	1	106	20
Future Vol, veh/h	35	17	18	3	24	1	34	127	5	1	106	20
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	-	-	-	-	-	-	-	-	-	-	-	-
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	38	18	20	3	26	1	37	138	5	1	115	22
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	356	345	126	362	354	141	137	0	0	143	0	0
Stage 1	128	128	-	215	215	-	-	-	-	-	-	-
Stage 2	228	217	-	147	139	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	599	578	924	594	571	907	1447	-	-	1440	-	-
Stage 1	876	790	-	787	725	-	-	-	-	-	-	-
Stage 2	775	723	-	856	782	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	564	561	924	554	554	907	1447	-	-	1440	-	-
Mov Cap-2 Maneuver	564	561	-	554	554	-	-	-	-	-	-	-
Stage 1	851	789	-	765	705	-	-	-	-	-	-	-
Stage 2	725	703	-	817	781	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	11.5		11.8			1.5			0.1			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1447	-	-	626	562	1440	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.122	0.054	0.001	-	-				
HCM Control Delay (s)	7.6	0	-	11.5	11.8	7.5	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane




01/05/2022

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	30	139	14	23	107
Future Vol, veh/h	16	30	139	14	23	107
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	-	-	-	-	-
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	17	33	151	15	25	116
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	325	159	0	0	166	0
Stage 1	159	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	669	886	-	-	1412	-
Stage 1	870	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	656	886	-	-	1412	-
Mov Cap-2 Maneuver	656	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.9	0		1.3		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	790		1412	-	
HCM Lane V/C Ratio	-	0.063		0.018	-	
HCM Control Delay (s)	-	9.9		7.6	0	
HCM Lane LOS	-	A		A	A	
HCM 95th %tile Q(veh)	-	0.2		0.1	-	

HCM 6th TWSC

1: Spillan Road & Edgefield Drive




01/05/2022

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	10	3	0
Future Vol, veh/h	2	2	1	10	3	0
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	-	-	-	-	-
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	2	2	1	11	3	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	16	3	3	0	-	0
Stage 1	3	-	-	-	-	-
Stage 2	13	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1002	1081	1619	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1010	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1001	1081	1619	-	-	-
Mov Cap-2 Maneuver	1001	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1010	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1619	-	1039	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC

2: Hyde Road & Spillan Road




01/05/2022

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	15	24	5	13	46
Future Vol, veh/h	15	15	24	5	13	46
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	16	16	26	5	14	50
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	31	0	-	0	77	29
Stage 1	-	-	-	-	29	-
Stage 2	-	-	-	-	48	-
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	1582	-	-	-	926	1046
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	974	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1582	-	-	-	917	1046
Mov Cap-2 Maneuver	-	-	-	-	917	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	974	-
Approach	EB	WB		SB		
HCM Control Delay, s	3.6	0		8.8		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1582	-	-	-	1015	
HCM Lane V/C Ratio	0.01	-	-	-	0.063	
HCM Control Delay (s)	7.3	0	-	-	8.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 6th TWSC

3: Spillan Road & Proposed Drive

01/05/2022

Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	50	17	3	4	1
Future Vol, veh/h	4	50	17	3	4	1
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	-	-	-	-	-
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	4	54	18	3	4	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	44	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	967	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	956	1078	1616	-	-	-
Mov Cap-2 Maneuver	956	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	6.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1616	-	1068	-	-	
HCM Lane V/C Ratio	0.011	-	0.055	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	




HCM 6th TWSC
4: US 68 & Hyde Road

01/05/2022

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	20	18	33	32	1	34	130	15	1	116	20
Future Vol, veh/h	35	20	18	33	32	1	34	130	15	1	116	20
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	-	-	-	-	-	-	-	-	-	-	-	-
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	38	22	20	36	35	1	37	141	16	1	126	22
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	380	370	137	383	373	149	148	0	0	157	0	0
Stage 1	139	139	-	223	223	-	-	-	-	-	-	-
Stage 2	241	231	-	160	150	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	578	560	911	575	557	898	1434	-	-	1423	-	-
Stage 1	864	782	-	780	719	-	-	-	-	-	-	-
Stage 2	762	713	-	842	773	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	537	544	911	534	541	898	1434	-	-	1423	-	-
Mov Cap-2 Maneuver	537	544	-	534	541	-	-	-	-	-	-	-
Stage 1	840	781	-	758	699	-	-	-	-	-	-	-
Stage 2	703	693	-	800	772	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.9		12.7		1.4		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1434	-	-	600	541	1423	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.132	0.133	0.001	-	-				
HCM Control Delay (s)	7.6	0	-	11.9	12.7	7.5	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane




01/05/2022

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	46	139	14	28	107
Future Vol, veh/h	26	46	139	14	28	107
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	-	-	-	-	-
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	28	50	151	15	30	116
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	335	159	0	0	166	0
Stage 1	159	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	660	886	-	-	1412	-
Stage 1	870	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	645	886	-	-	1412	-
Mov Cap-2 Maneuver	645	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.1	0	1.6			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	781	1412	-	
HCM Lane V/C Ratio	-	-	0.1	0.022	-	
HCM Control Delay (s)	-	-	10.1	7.6	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

HCM 6th TWSC

1: Spillan Road & Edgefield Drive




01/05/2022

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	6	2	0
Future Vol, veh/h	2	2	1	6	2	0
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	-	-	-	-	-
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	2	2	1	7	2	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	11	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1009	1082	1620	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1008	1082	1620	-	-	-
Mov Cap-2 Maneuver	1008	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1014	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1620	-	1044	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC

2: Hyde Road & Spillan Road

01/05/2022

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	33	28	0	1	7
Future Vol, veh/h	14	33	28	0	1	7
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	15	36	30	0	1	8
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	30	0	-	0	96	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	66	-
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	1583	-	-	-	903	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1583	-	-	-	894	1044
Mov Cap-2 Maneuver	-	-	-	-	894	-
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	957	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.2	0		8.5		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1583	-	-	-	1023	
HCM Lane V/C Ratio	0.01	-	-	-	0.009	
HCM Control Delay (s)	7.3	0	-	-	8.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

HCM 6th TWSC




4: US 68 & Hyde Road

01/05/2022

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	28	43	18	40	3	13	155	9	4	194	69
Future Vol, veh/h	29	28	43	18	40	3	13	155	9	4	194	69
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	-	-	-	-	-	-	-	-	-	-	-	-
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	32	30	47	20	43	3	14	168	10	4	211	75
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	481	463	249	496	495	173	286	0	0	178	0	0
Stage 1	257	257	-	201	201	-	-	-	-	-	-	-
Stage 2	224	206	-	295	294	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	495	496	790	484	476	871	1276	-	-	1398	-	-
Stage 1	748	695	-	801	735	-	-	-	-	-	-	-
Stage 2	779	731	-	713	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	453	489	790	429	469	871	1276	-	-	1398	-	-
Mov Cap-2 Maneuver	453	489	-	429	469	-	-	-	-	-	-	-
Stage 1	739	693	-	791	726	-	-	-	-	-	-	-
Stage 2	721	722	-	639	668	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.8		14		0.6		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1276	-	-	569	467	1398	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.191	0.142	0.003	-	-				
HCM Control Delay (s)	7.9	0	-	12.8	14	7.6	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	0.5	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane

01/05/2022

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	36	197	20	32	221
Future Vol, veh/h	13	36	197	20	32	221
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	-	-	-	-	-
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	14	39	214	22	35	240
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	535	225	0	0	236	0
Stage 1	225	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	506	814	-	-	1331	-
Stage 1	812	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	491	814	-	-	1331	-
Mov Cap-2 Maneuver	491	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	722	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.6	0		1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		693	1331	-
HCM Lane V/C Ratio	-	-		0.077	0.026	-
HCM Control Delay (s)	-	-		10.6	7.8	0
HCM Lane LOS	-	-		B	A	A
HCM 95th %tile Q(veh)	-	-		0.2	0.1	-




HCM 6th TWSC

1: Spillan Road & Edgefield Drive

01/05/2022

Intersection

Int Delay, s/veh 2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	9	7	0
Future Vol, veh/h	2	2	1	9	7	0
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	-	-	-	-	-
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	2	2	1	10	8	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	20	8	8
Stage 1	8	-	-
Stage 2	12	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	997	1074	1612
Stage 1	1015	-	-
Stage 2	1011	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	996	1074	1612
Mov Cap-2 Maneuver	996	-	-
Stage 1	1014	-	-
Stage 2	1011	-	-




Approach	EB	NB	SB
HCM Control Delay, s	8.5	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1612	-	1034	-	-
HCM Lane V/C Ratio	0.001	-	0.004	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC

2: Hyde Road & Spillan Road

01/05/2022

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	57	33	28	14	9	32
Future Vol, veh/h	57	33	28	14	9	32
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	62	36	30	15	10	35
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	45	0	-	0	198	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	160	-
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	1563	-	-	-	791	1034
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	869	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1563	-	-	-	759	1034
Mov Cap-2 Maneuver	-	-	-	-	759	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	869	-
Approach	EB	WB		SB		
HCM Control Delay, s	4.7	0		8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1563	-	-	-	958	
HCM Lane V/C Ratio	0.04	-	-	-	0.047	
HCM Control Delay (s)	7.4	0	-	-	8.9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1	




HCM 6th TWSC

3: Spillan Road & Proposed Drive

01/05/2022

Intersection

Int Delay, s/veh 6.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	33	57	14	4	5
Future Vol, veh/h	3	33	57	14	4	5
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	-	-	-	-	-
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	3	36	62	15	4	5

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	146	7	9
Stage 1	7	-	-
Stage 2	139	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	846	1075	1611
Stage 1	1016	-	-
Stage 2	888	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	813	1075	1611
Mov Cap-2 Maneuver	813	-	-
Stage 1	976	-	-
Stage 2	888	-	-





Approach	EB	NB	SB
HCM Control Delay, s	8.6	5.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1611	-	1047	-	-
HCM Lane V/C Ratio	0.038	-	0.037	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

HCM 6th TWSC

4: US 68 & Hyde Road

01/05/2022




Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	37	43	38	45	3	13	166	43	4	201	69
Future Vol, veh/h	29	37	43	38	45	3	13	166	43	4	201	69
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	-	-	-	-	-	-	-	-	-	-	-	-
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	32	40	47	41	49	3	14	180	47	4	218	75
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	522	519	256	539	533	204	293	0	0	227	0	0
Stage 1	264	264	-	232	232	-	-	-	-	-	-	-
Stage 2	258	255	-	307	301	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	465	461	783	453	453	837	1269	-	-	1341	-	-
Stage 1	741	690	-	771	713	-	-	-	-	-	-	-
Stage 2	747	696	-	703	665	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	419	453	783	392	445	837	1269	-	-	1341	-	-
Mov Cap-2 Maneuver	419	453	-	392	445	-	-	-	-	-	-	-
Stage 1	731	687	-	761	704	-	-	-	-	-	-	-
Stage 2	683	687	-	620	662	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.7		15.8		0.5		0.1					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1269	-	-	530	426	1341	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.224	0.219	0.003	-	-				
HCM Control Delay (s)	7.9	0	-	13.7	15.8	7.7	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.8	0.8	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane

01/05/2022

Intersection

Int Delay, s/veh 2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	47	197	31	50	221
Future Vol, veh/h	20	47	197	31	50	221
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	-	-	-	-	-
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	22	51	214	34	54	240

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	579	231	0
Stage 1	231	-	-
Stage 2	348	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	477	808	-
Stage 1	807	-	-
Stage 2	715	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	455	808	-
Mov Cap-2 Maneuver	455	-	-
Stage 1	807	-	-
Stage 2	681	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	656	1318
HCM Lane V/C Ratio	-	-	0.111	0.041
HCM Control Delay (s)	-	-	11.2	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

APPENDIX E - 2032 Design Year Capacity Analysis




HCM 6th TWSC

1: Spillan Road & Edgefield Drive

01/05/2022

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	7	2	0
Future Vol, veh/h	2	2	1	7	2	0
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	-	-	-	-	-
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	2	2	1	8	2	0




Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	12	2	2
Stage 1	2	-	-
Stage 2	10	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	1008	1082	1620
Stage 1	1021	-	-
Stage 2	1013	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	1007	1082	1620
Mov Cap-2 Maneuver	1007	-	-
Stage 1	1020	-	-
Stage 2	1013	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1620	-	1043	-	-
HCM Lane V/C Ratio	0.001	-	0.004	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
2: Hyde Road & Spillan Road





01/05/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	17	27	1	1	9
Future Vol, veh/h	2	17	27	1	1	9
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	2	18	29	1	1	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	30	0	-	0	52	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	22	-
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	1583	-	-	-	957	1044
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1583	-	-	-	956	1044
Mov Cap-2 Maneuver	-	-	-	-	956	-
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	1001	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		8.5		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1583	-	-	-	1034	
HCM Lane V/C Ratio	0.001	-	-	-	0.011	
HCM Control Delay (s)	7.3	0	-	-	8.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

HCM 6th TWSC




4: US 68 & Hyde Road

01/05/2022

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	17	18	3	24	1	34	140	5	1	117	20
Future Vol, veh/h	35	17	18	3	24	1	34	140	5	1	117	20
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	-	-	-	-	-	-	-	-	-	-	-	-
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	38	18	20	3	26	1	37	152	5	1	127	22
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	382	371	138	388	380	155	149	0	0	157	0	0
Stage 1	140	140	-	229	229	-	-	-	-	-	-	-
Stage 2	242	231	-	159	151	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	576	559	910	571	552	891	1432	-	-	1423	-	-
Stage 1	863	781	-	774	715	-	-	-	-	-	-	-
Stage 2	762	713	-	843	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	542	543	910	532	536	891	1432	-	-	1423	-	-
Mov Cap-2 Maneuver	542	543	-	532	536	-	-	-	-	-	-	-
Stage 1	839	780	-	752	695	-	-	-	-	-	-	-
Stage 2	712	693	-	805	771	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.8		12		1.4		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1432	-	-	605	543	1423	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.126	0.056	0.001	-	-				
HCM Control Delay (s)	7.6	0	-	11.8	12	7.5	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.2	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane




01/05/2022

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	30	153	14	23	118
Future Vol, veh/h	16	30	153	14	23	118
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	-	-	-	-	-
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	17	33	166	15	25	128
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	352	174	0	0	181	0
Stage 1	174	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	646	869	-	-	1394	-
Stage 1	856	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	634	869	-	-	1394	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10	0	1.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	770	1394	-	
HCM Lane V/C Ratio	-	-	0.065	0.018	-	
HCM Control Delay (s)	-	-	10	7.6	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

HCM 6th TWSC

1: Spillan Road & Edgefield Drive

01/05/2022




Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	11	3	0
Future Vol, veh/h	2	2	1	11	3	0
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	-	-	-	-	-
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	2	2	1	12	3	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	17	3	3	0	-	0
Stage 1	3	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1001	1081	1619	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1000	1081	1619	-	-	-
Mov Cap-2 Maneuver	1000	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1619	-	1039	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC
2: Hyde Road & Spillan Road

01/05/2022

Intersection

Int Delay, s/veh 5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	17	27	5	13	47
Future Vol, veh/h	15	17	27	5	13	47
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	16	18	29	5	14	51

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	34	0	0 82 32
Stage 1	-	-	- - 32 -
Stage 2	-	-	- - 50 -
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	1578	-	- - 920 1042
Stage 1	-	-	- - 991 -
Stage 2	-	-	- - 972 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1578	-	- - 911 1042
Mov Cap-2 Maneuver	-	-	- - 911 -
Stage 1	-	-	- - 981 -
Stage 2	-	-	- - 972 -




Approach	EB	WB	SB
HCM Control Delay, s	3.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1578	-	-	-	1011
HCM Lane V/C Ratio	0.01	-	-	-	0.065
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th TWSC





3: Spillan Road & Proposed Drive

01/05/2022

Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	50	17	3	4	1
Future Vol, veh/h	4	50	17	3	4	1
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	-	-	-	-	-
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	4	54	18	3	4	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	44	5	5	0	-	0
Stage 1	5	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	967	1078	1616	-	-	-
Stage 1	1018	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	956	1078	1616	-	-	-
Mov Cap-2 Maneuver	956	-	-	-	-	-
Stage 1	1007	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	6.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1616	-	1068	-	-	
HCM Lane V/C Ratio	0.011	-	0.055	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	




HCM 6th TWSC
4: US 68 & Hyde Road

01/05/2022

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	20	18	33	32	1	34	143	15	1	127	20
Future Vol, veh/h	35	20	18	33	32	1	34	143	15	1	127	20
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	-	-	-	-	-	-	-	-	-	-	-	-
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	38	22	20	36	35	1	37	155	16	1	138	22
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	406	396	149	409	399	163	160	0	0	171	0	0
Stage 1	151	151	-	237	237	-	-	-	-	-	-	-
Stage 2	255	245	-	172	162	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	555	541	898	553	539	882	1419	-	-	1406	-	-
Stage 1	851	772	-	766	709	-	-	-	-	-	-	-
Stage 2	749	703	-	830	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	514	525	898	512	523	882	1419	-	-	1406	-	-
Mov Cap-2 Maneuver	514	525	-	512	523	-	-	-	-	-	-	-
Stage 1	826	771	-	744	688	-	-	-	-	-	-	-
Stage 2	690	683	-	788	763	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.2		13		1.3		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1419	-	-	578	521	1406	-	-				
HCM Lane V/C Ratio	0.026	-	-	0.137	0.138	0.001	-	-				
HCM Control Delay (s)	7.6	0	-	12.2	13	7.6	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.5	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane




01/05/2022

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	46	153	17	28	118
Future Vol, veh/h	26	46	153	17	28	118
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	-	-	-	-	-
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	28	50	166	18	30	128
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	363	175	0	0	184	0
Stage 1	175	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	636	868	-	-	1391	-
Stage 1	855	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	621	868	-	-	1391	-
Mov Cap-2 Maneuver	621	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	10.3		0		1.5	
HCM LOS	B					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	759	1391	-
HCM Lane V/C Ratio		-	-	0.103	0.022	-
HCM Control Delay (s)		-	-	10.3	7.6	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q(veh)		-	-	0.3	0.1	-

HCM 6th TWSC

1: Spillan Road & Edgefield Drive

01/05/2022

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	7	2	0
Future Vol, veh/h	2	2	1	7	2	0
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	-	-	-	-	-
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	2	2	1	8	2	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	12	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	1008	1082	1620	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1007	1082	1620	-	-	-
Mov Cap-2 Maneuver	1007	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.9		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1620	-	1043	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	




HCM 6th TWSC

2: Hyde Road & Spillan Road

01/05/2022

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	37	31	0	1	8
Future Vol, veh/h	16	37	31	0	1	8
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	17	40	34	0	1	9

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	34	0	0 108 34
Stage 1	-	-	- 34 -
Stage 2	-	-	- 74 -
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	1578	-	- 889 1039
Stage 1	-	-	- 988 -
Stage 2	-	-	- 949 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1578	-	- 879 1039
Mov Cap-2 Maneuver	-	-	- 879 -
Stage 1	-	-	- 977 -
Stage 2	-	-	- 949 -

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1578	-	-	-	1018
HCM Lane V/C Ratio	0.011	-	-	-	0.01
HCM Control Delay (s)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0




HCM 6th TWSC
4: US 68 & Hyde Road

01/05/2022

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	28	43	18	40	3	13	170	9	4	213	69
Future Vol, veh/h	29	28	43	18	40	3	13	170	9	4	213	69
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	-	-	-	-	-	-	-	-	-	-	-	-
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	32	30	47	20	43	3	14	185	10	4	232	75
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	519	501	270	534	533	190	307	0	0	195	0	0
Stage 1	278	278	-	218	218	-	-	-	-	-	-	-
Stage 2	241	223	-	316	315	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	467	472	769	457	453	852	1254	-	-	1378	-	-
Stage 1	728	680	-	784	723	-	-	-	-	-	-	-
Stage 2	762	719	-	695	656	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	425	464	769	403	445	852	1254	-	-	1378	-	-
Mov Cap-2 Maneuver	425	464	-	403	445	-	-	-	-	-	-	-
Stage 1	719	677	-	774	714	-	-	-	-	-	-	-
Stage 2	704	710	-	621	653	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	13.3		14.6			0.5			0.1			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1254	-	-	542	442	1378	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.201	0.15	0.003	-	-				
HCM Control Delay (s)	7.9	0	-	13.3	14.6	7.6	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	0.5	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane




01/05/2022

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	36	216	20	32	243
Future Vol, veh/h	13	36	216	20	32	243
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	-	-	-	-	-
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	14	39	235	22	35	264
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	580	246	0	0	257	0
Stage 1	246	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	477	793	-	-	1308	-
Stage 1	795	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	462	793	-	-	1308	-
Mov Cap-2 Maneuver	462	-	-	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.9	0		0.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		666	1308	-
HCM Lane V/C Ratio	-	-		0.08	0.027	-
HCM Control Delay (s)	-	-		10.9	7.8	0
HCM Lane LOS	-	-		B	A	A
HCM 95th %tile Q(veh)	-	-		0.3	0.1	-

HCM 6th TWSC

1: Spillan Road & Edgefield Drive

01/05/2022

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	10	7	0
Future Vol, veh/h	2	2	1	10	7	0
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	-	-	-	-	-
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	2	2	1	11	8	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	21	8	8	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	13	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	996	1074	1612	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1010	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	995	1074	1612	-	-	-
Mov Cap-2 Maneuver	995	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	1010	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	0.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1612	-	1033	-	-	
HCM Lane V/C Ratio	0.001	-	0.004	-	-	
HCM Control Delay (s)	7.2	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	




HCM 6th TWSC

2: Hyde Road & Spillan Road

01/05/2022

Intersection

Int Delay, s/veh 4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	59	37	31	14	9	33
Future Vol, veh/h	59	37	31	14	9	33
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	64	40	34	15	10	36

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	49	0	0 210 42
Stage 1	-	-	- 42 -
Stage 2	-	-	- 168 -
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	1558	-	- 778 1029
Stage 1	-	-	- 980 -
Stage 2	-	-	- 862 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1558	-	- 745 1029
Mov Cap-2 Maneuver	-	-	- 745 -
Stage 1	-	-	- 939 -
Stage 2	-	-	- 862 -




Approach	EB	WB	SB
HCM Control Delay, s	4.6	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1558	-	-	-	951
HCM Lane V/C Ratio	0.041	-	-	-	0.048
HCM Control Delay (s)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC

3: Spillan Road & Proposed Drive





01/05/2022

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	33	57	16	4	5
Future Vol, veh/h	3	33	57	16	4	5
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	-	-	-	-	-
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	3	36	62	17	4	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	148	7	9	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	844	1075	1611	-	-	-
Stage 1	1016	-	-	-	-	-
Stage 2	886	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	811	1075	1611	-	-	-
Mov Cap-2 Maneuver	811	-	-	-	-	-
Stage 1	976	-	-	-	-	-
Stage 2	886	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.6	5.7		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1611	-	1047	-	-	
HCM Lane V/C Ratio	0.038	-	0.037	-	-	
HCM Control Delay (s)	7.3	0	8.6	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-	

HCM 6th TWSC




4: US 68 & Hyde Road

01/05/2022

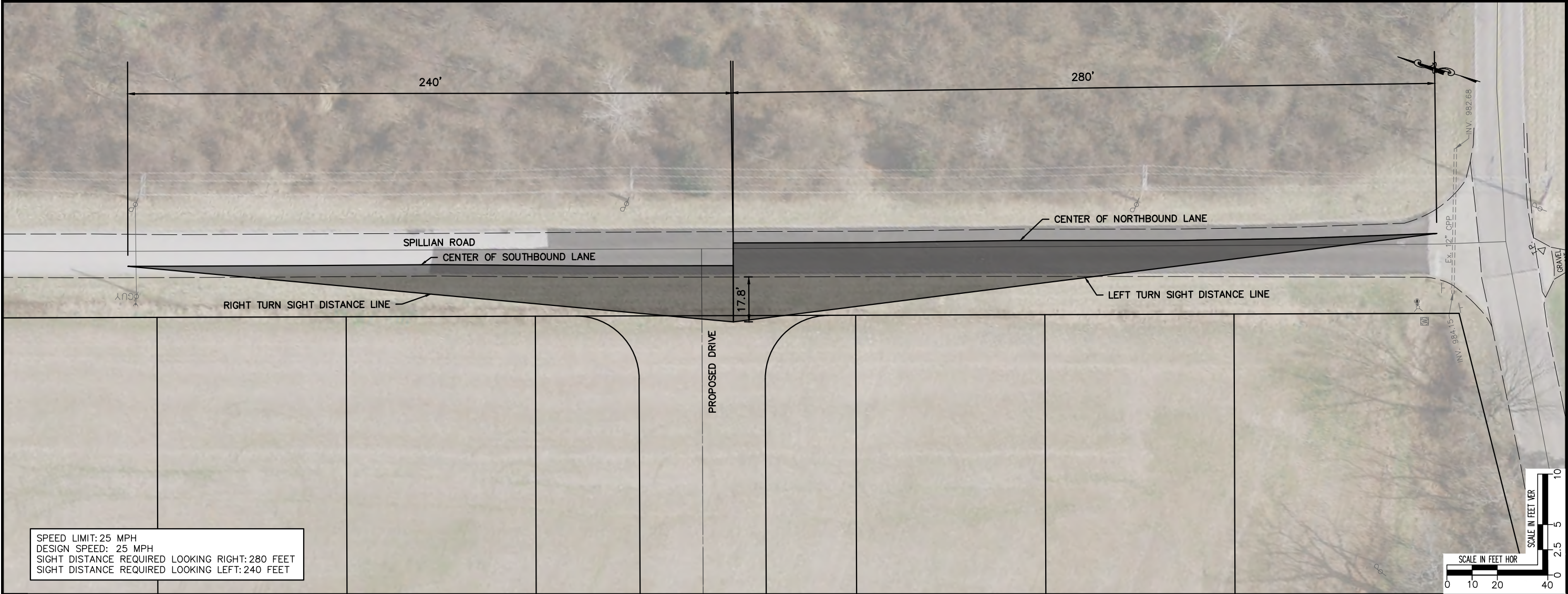
Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	37	43	38	45	3	13	181	43	4	220	69
Future Vol, veh/h	29	37	43	38	45	3	13	181	43	4	220	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	32	40	47	41	49	3	14	197	47	4	239	75
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	560	557	277	577	571	221	314	0	0	244	0	0
Stage 1	285	285	-	249	249	-	-	-	-	-	-	-
Stage 2	275	272	-	328	322	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	439	439	762	428	431	819	1246	-	-	1322	-	-
Stage 1	722	676	-	755	701	-	-	-	-	-	-	-
Stage 2	731	685	-	685	651	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	393	432	762	369	424	819	1246	-	-	1322	-	-
Mov Cap-2 Maneuver	393	432	-	369	424	-	-	-	-	-	-	-
Stage 1	713	673	-	745	692	-	-	-	-	-	-	-
Stage 2	668	676	-	602	648	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.3		16.6		0.4		0.1					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1246	-	-	505	404	1322	-	-				
HCM Lane V/C Ratio	0.011	-	-	0.235	0.231	0.003	-	-				
HCM Control Delay (s)	7.9	0	-	14.3	16.6	7.7	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.9	0.9	0	-	-				

HCM 6th TWSC
5: US 68 & Kahoe Lane

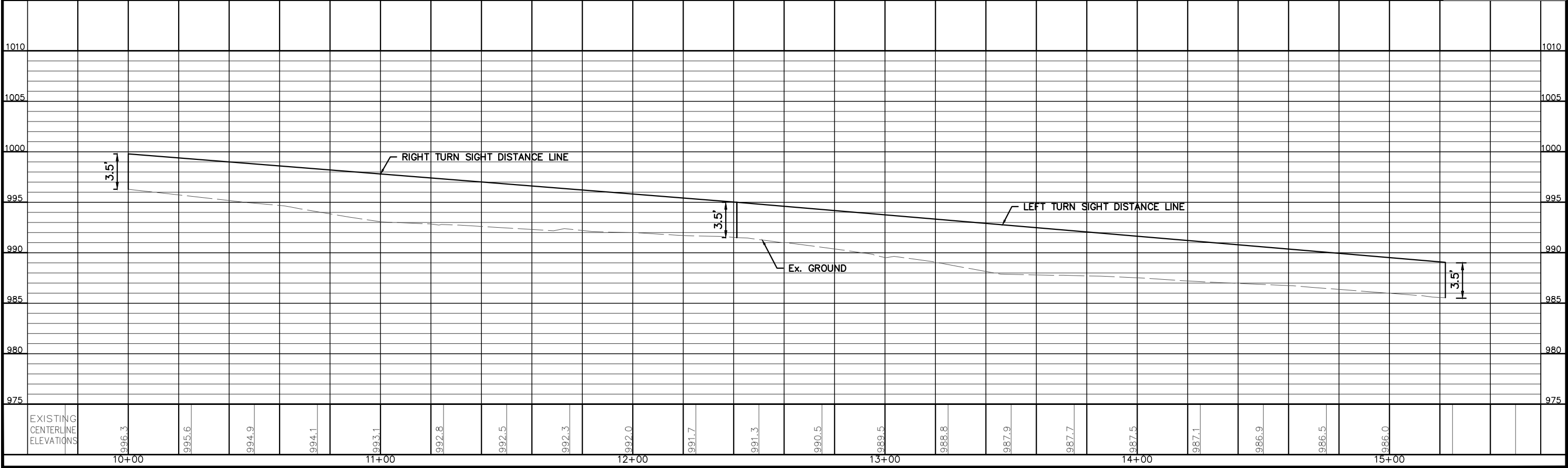
01/05/2022

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	47	216	31	50	243
Future Vol, veh/h	20	47	216	31	50	243
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	-	-	-	-	-
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	22	51	235	34	54	264
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	624	252	0	0	269	0
Stage 1	252	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	449	787	-	-	1295	-
Stage 1	790	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	427	787	-	-	1295	-
Mov Cap-2 Maneuver	427	-	-	-	-	-
Stage 1	790	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.5	0		1.3		
HCM LOS	B					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	629	1295	-
HCM Lane V/C Ratio		-	-	0.116	0.042	-
HCM Control Delay (s)		-	-	11.5	7.9	0
HCM Lane LOS		-	-	B	A	A
HCM 95th %tile Q(veh)		-	-	0.4	0.1	-

APPENDIX F – Sight Distance Analysis



SPEED LIMIT: 25 MPH
DESIGN SPEED: 25 MPH
SIGHT DISTANCE REQUIRED LOOKING RIGHT: 280 FEET
SIGHT DISTANCE REQUIRED LOOKING LEFT: 240 FEET



EXISTING
CENTERLINE
ELEVATIONS

10+00

11+00

12+00

13+00

14+00

15+00

996.3

995.6

994.9

994.1

993.1

992.8

992.5

992.3

992.0

991.7

991.3

990.5

989.5

988.8

987.9

987.7

987.5

987.1

986.9

986.5

986.0

STRU EWING PROPERTY TRAFFIC IMPACT STUDY
VILLAGE OF YELLOW SPRINGS
PROPOSED DRIVE SIGHT DISTANCE TRIANGLES

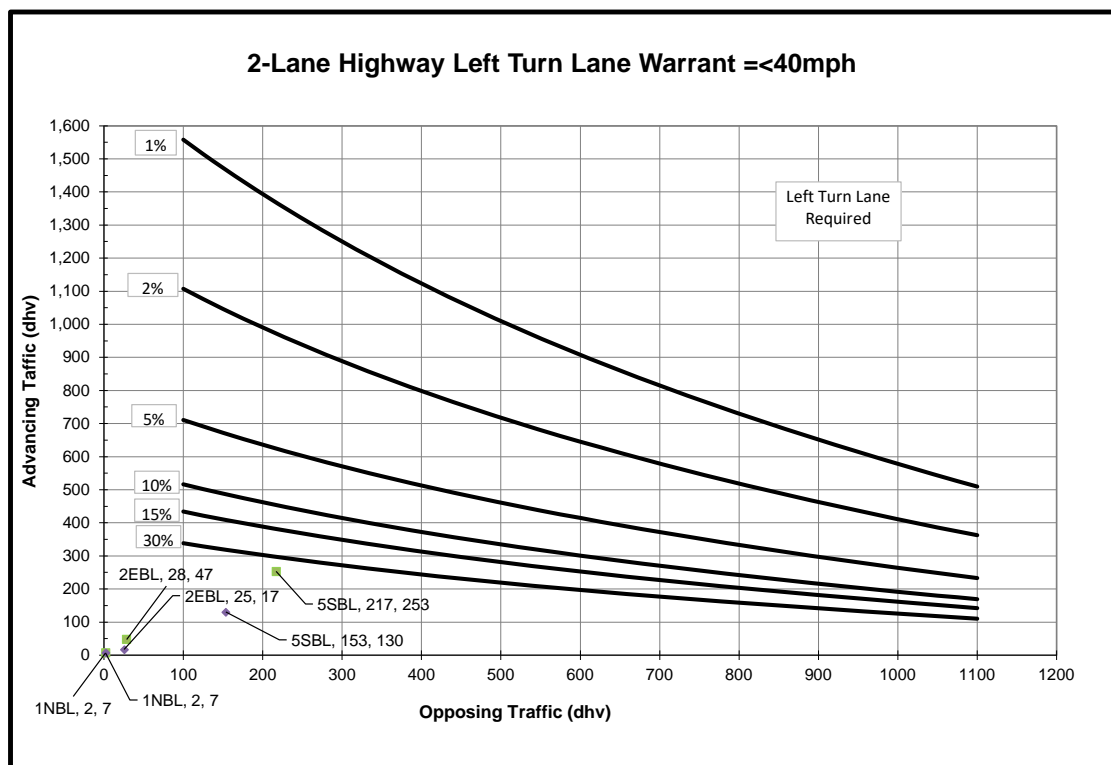
REVISIONS:
FILE NAME Sight Distance
DRAWN BY adg
CHECKED BY mkg
PROJECT No. GRE-YSP-2004
DATE 2021-09-08
SHEET NUMBER 1 OF 1

APPENDIX G – Turn Lane Analysis

Left Turn Lane Warrant				
Opening Year No-Build Volumes				

PM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	7	2	14%
2EBL	14	47	28	30%
5SBL	32	253	217	13%

AM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	7	2	14%
2EBL	2	17	25	12%
5SBL	23	130	153	18%



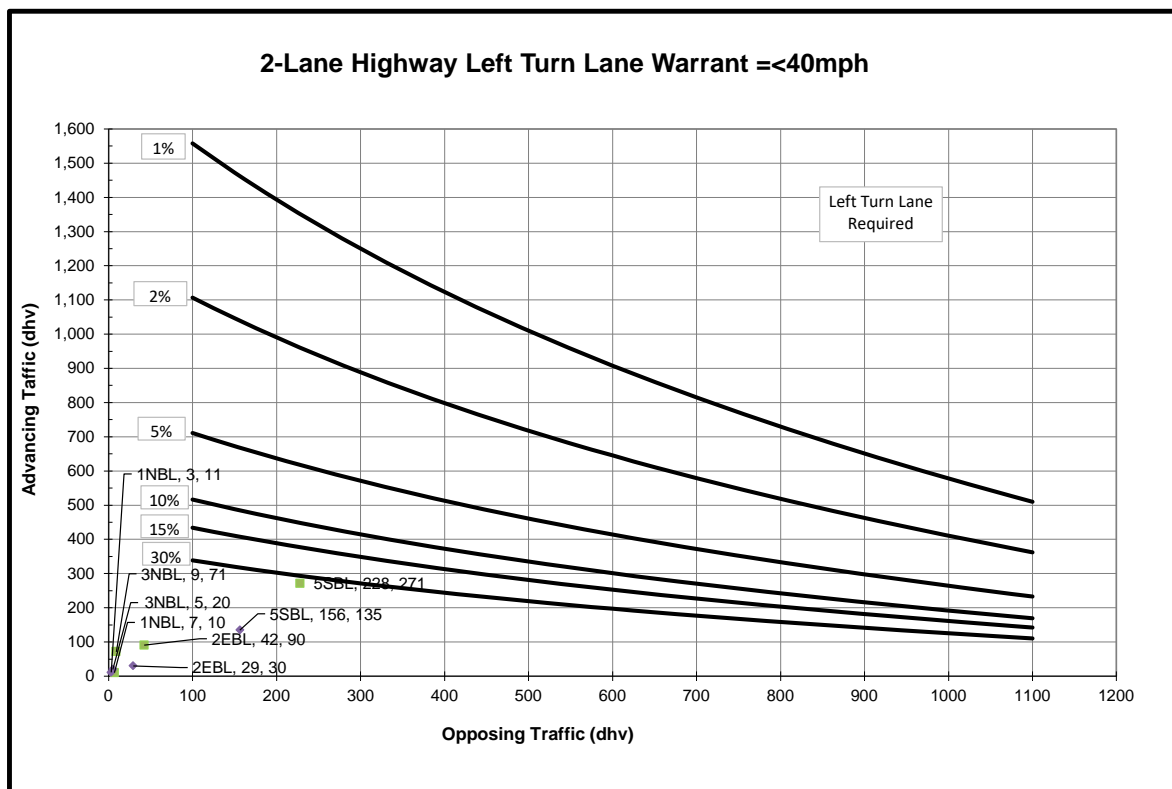
Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane

Left Turn Lane Warrant				
Opening Year Build Volumes				

PM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	10	7	10%
2EBL	57	90	42	63%
3NBL	57	71	9	80%
5SBL	50	271	228	18%

AM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	11	3	9%
2EBL	15	30	29	50%
3NBL	17	20	5	85%
5SBL	28	135	156	21%



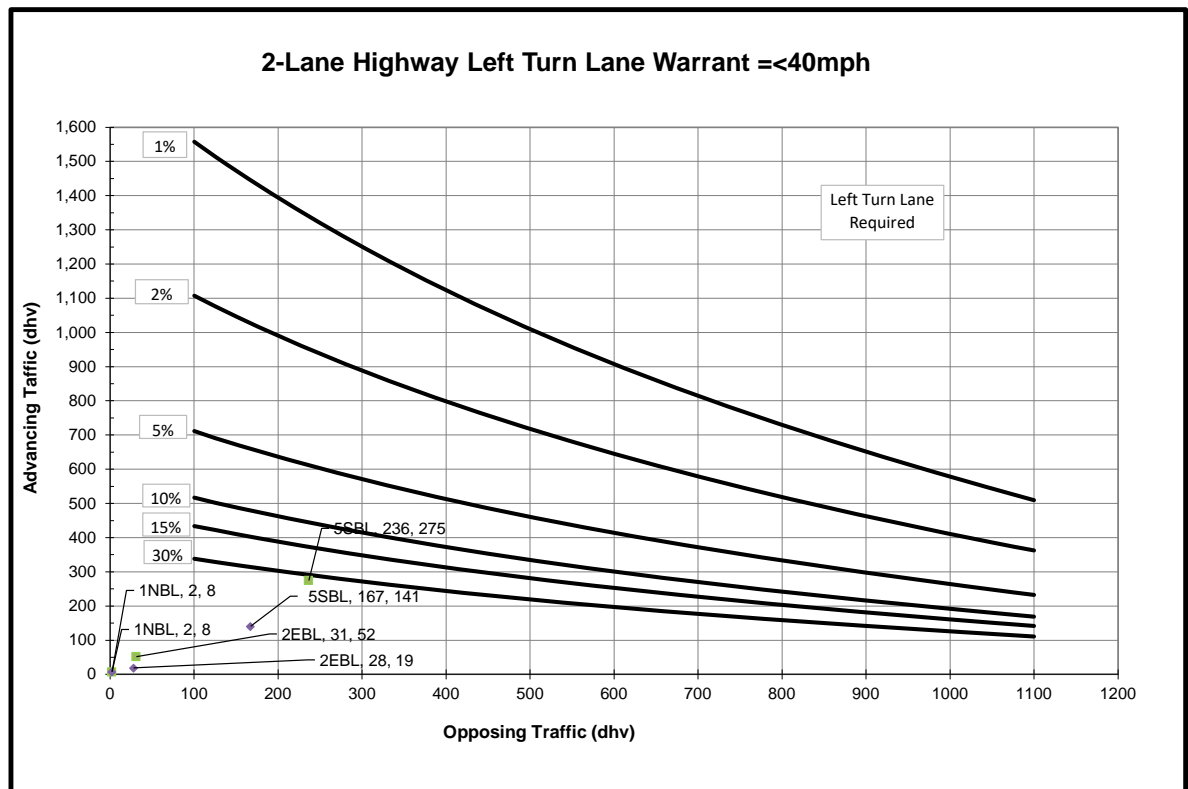
Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane

Left Turn Lane Warrant				
Design Year No-Build Volumes				

PM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	8	2	14%
2EBL	16	52	31	30%
5SBL	32	275	236	12%

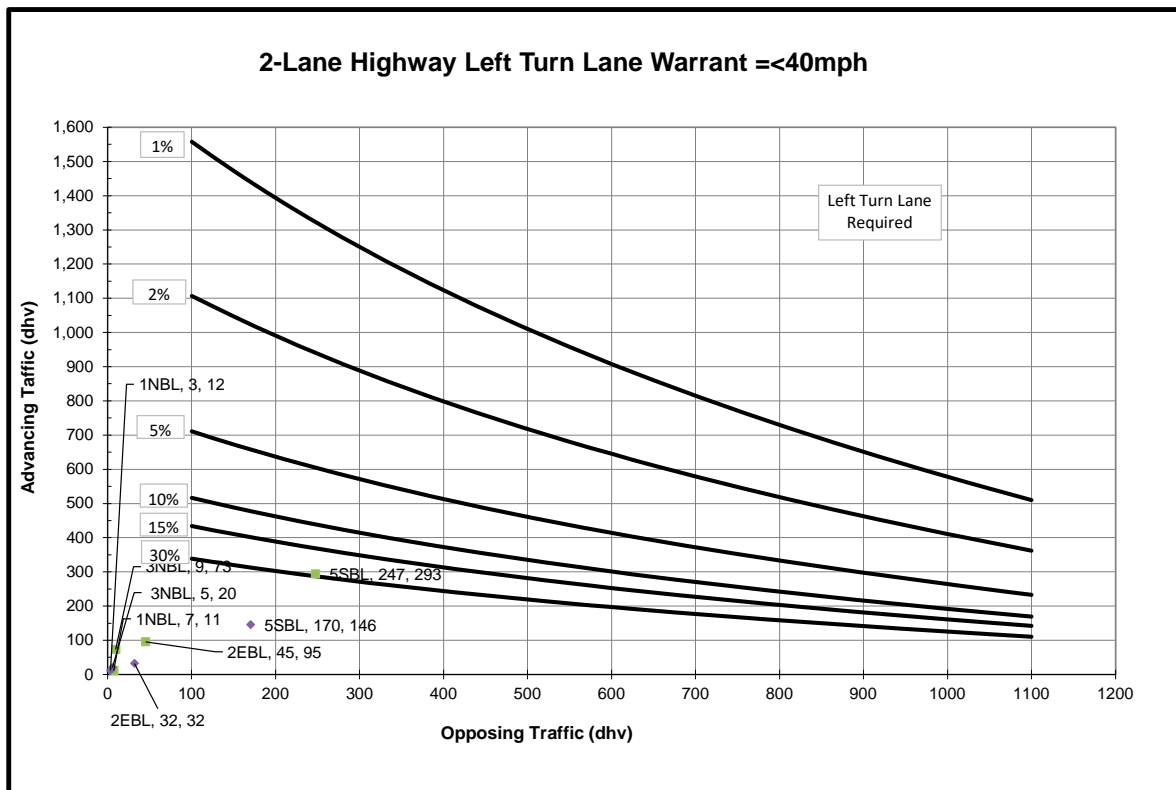
AM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	8	2	14%
2EBL	2	19	28	12%
5SBL	23	141	167	16%



Left Turn Lane Warrant				
Design Year Build Volumes				

PM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	11	7	10%
2EBL	59	95	45	62%
3NBL	57	73	9	79%
5SBL	50	293	247	17%

AM Peak Hour				
Intersection	Left Turning Vol	Advancing Vol	Opposing Vol	Left Turn %
1NBL	1	12	3	9%
2EBL	15	32	32	48%
3NBL	17	20	5	84%
5SBL	28	146	170	19%



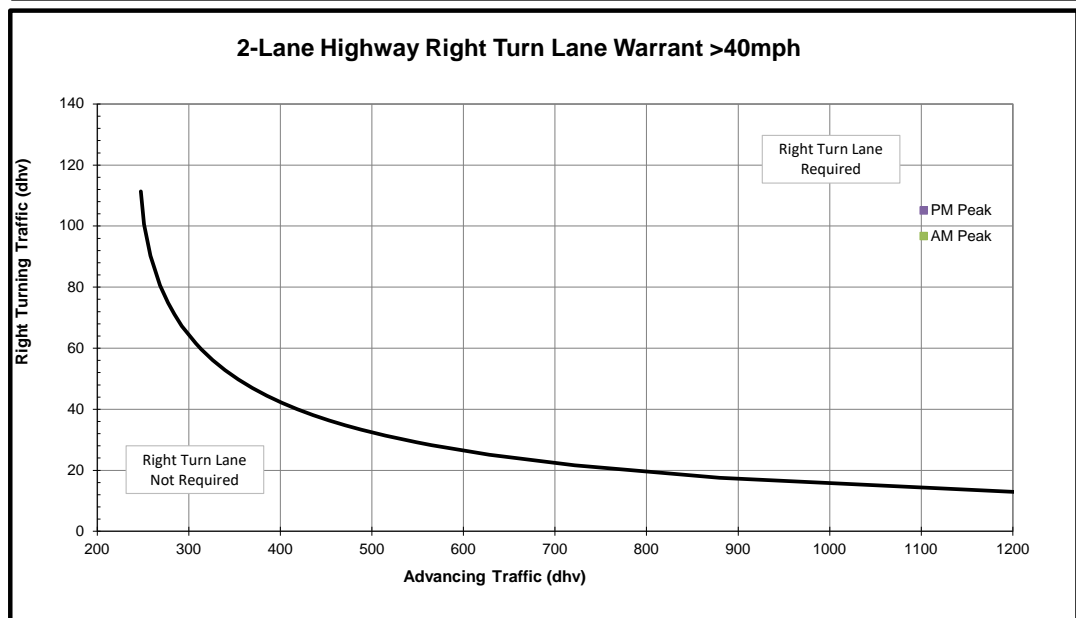
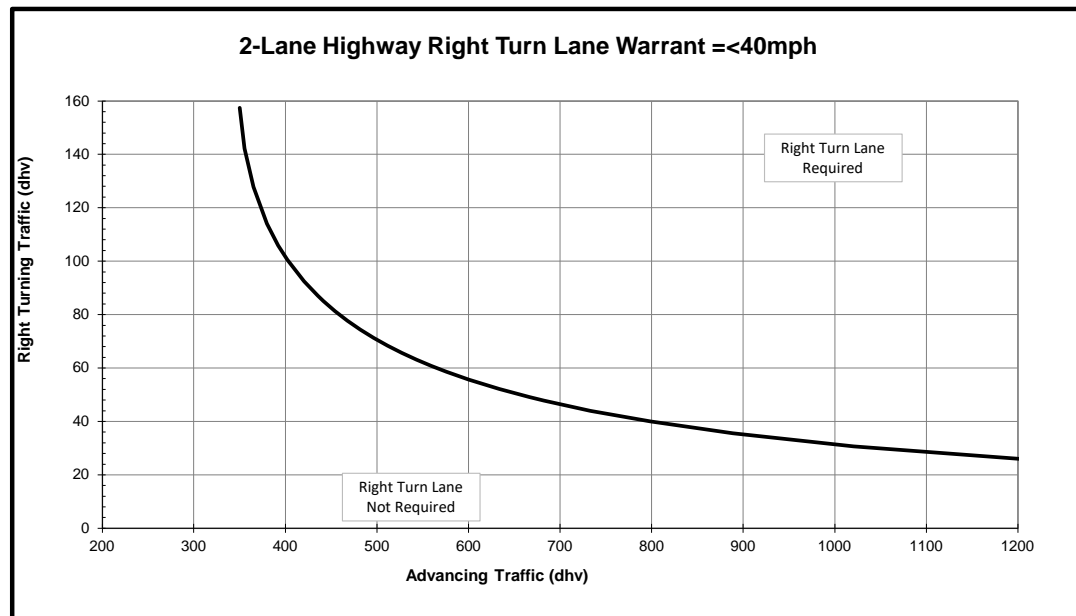
Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane

Right Turn Lane Warrant		
Opening Year No-Build Volumes		

PM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	2
2WBR	0	28
4NBR	9	177

AM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	2
2WBR	1	25
4NBR	5	166



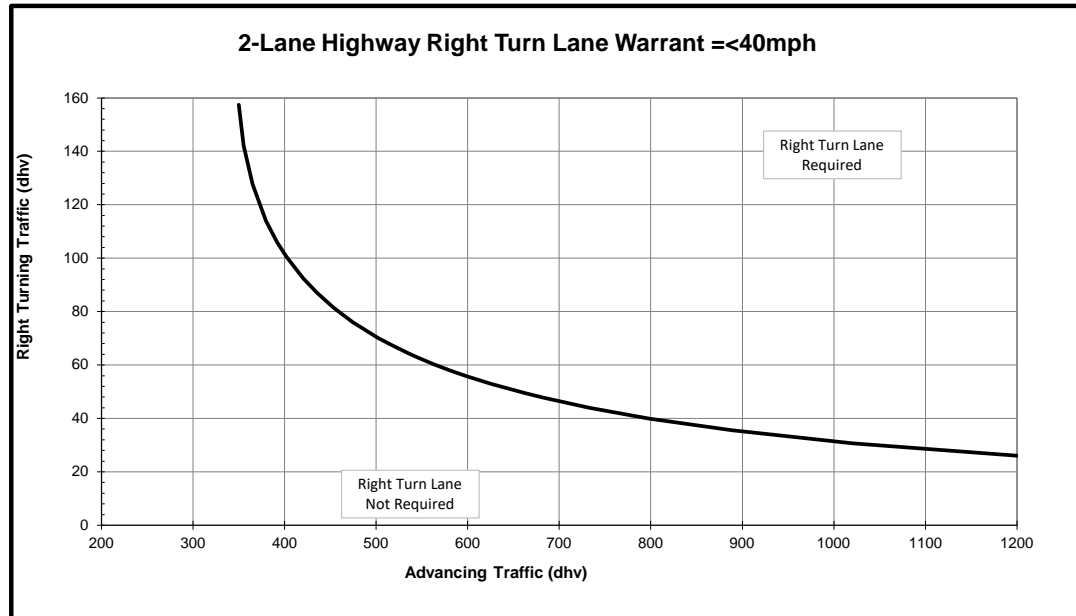
Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane

Right Turn Lane Warrant		
Opening Year Build Volumes		

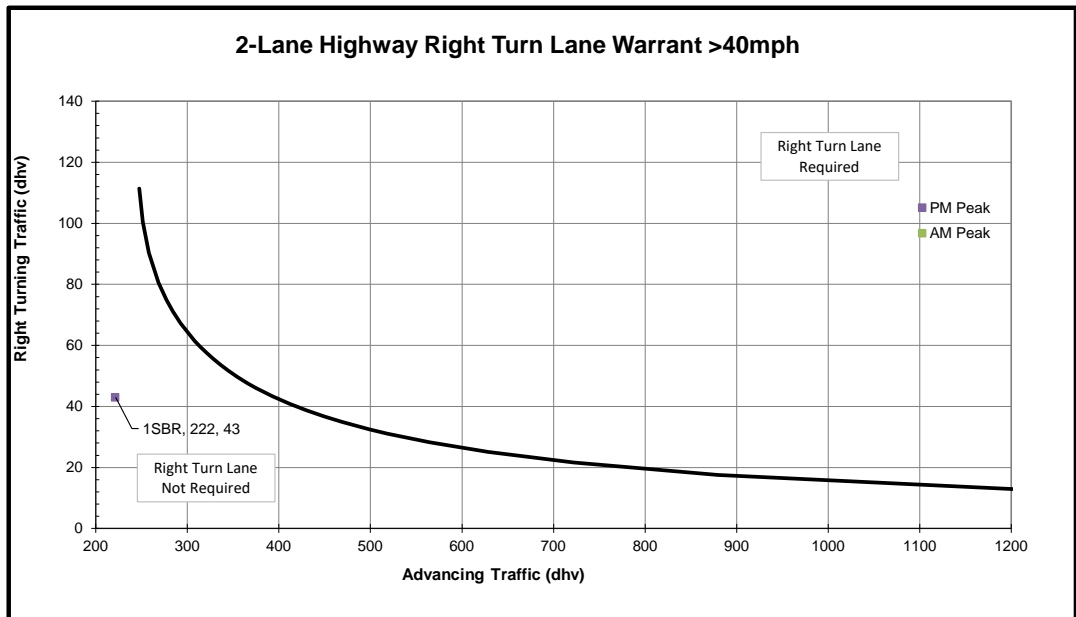
PM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	7
2WBR	14	42
3SBR	5	9
4NBR	43	222

AM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	3
2WBR	5	29
3SBR	1	5
4NBR	15	179



Intersection Legend

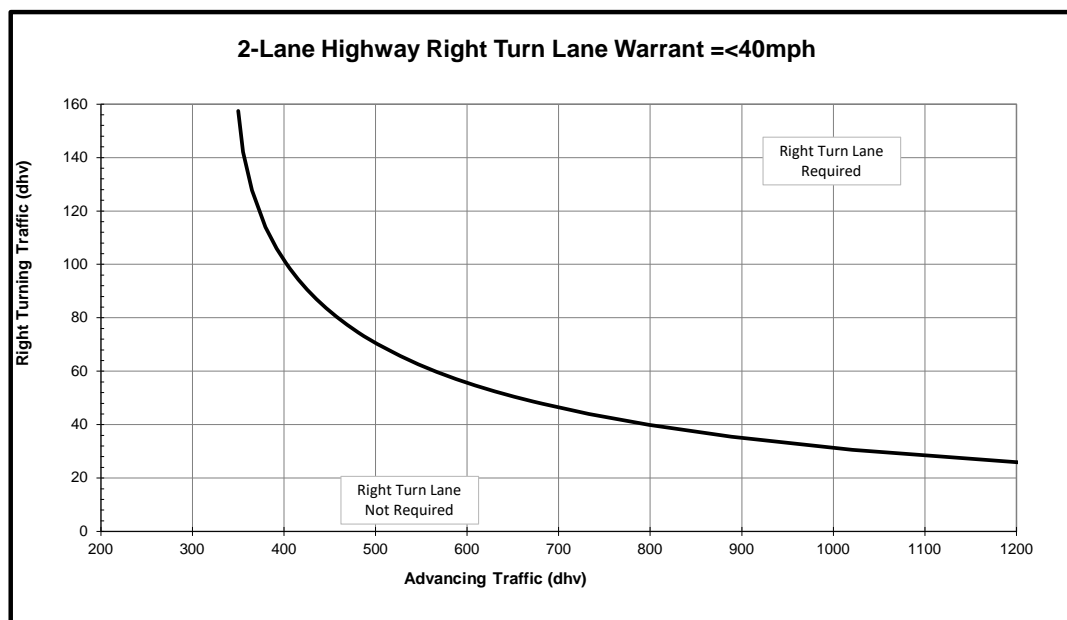
- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane



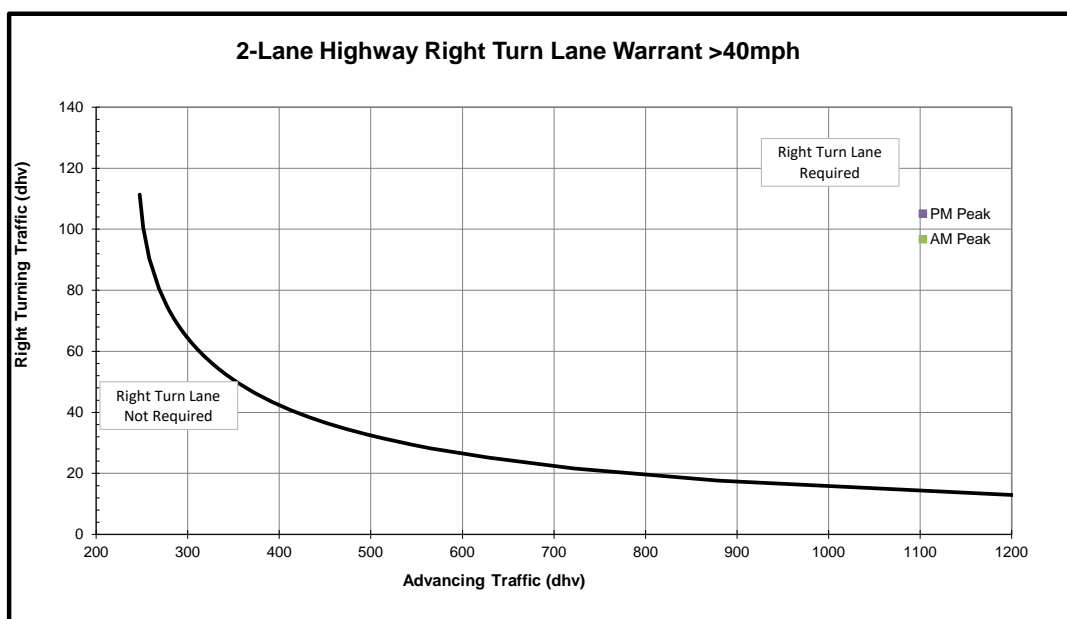
Right Turn Lane Warrant		
Design Year No-Build Volumes		

PM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	2
2WBR	0	31
4NBR	9	192

AM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	2
2WBR	1	28
4NBR	5	179



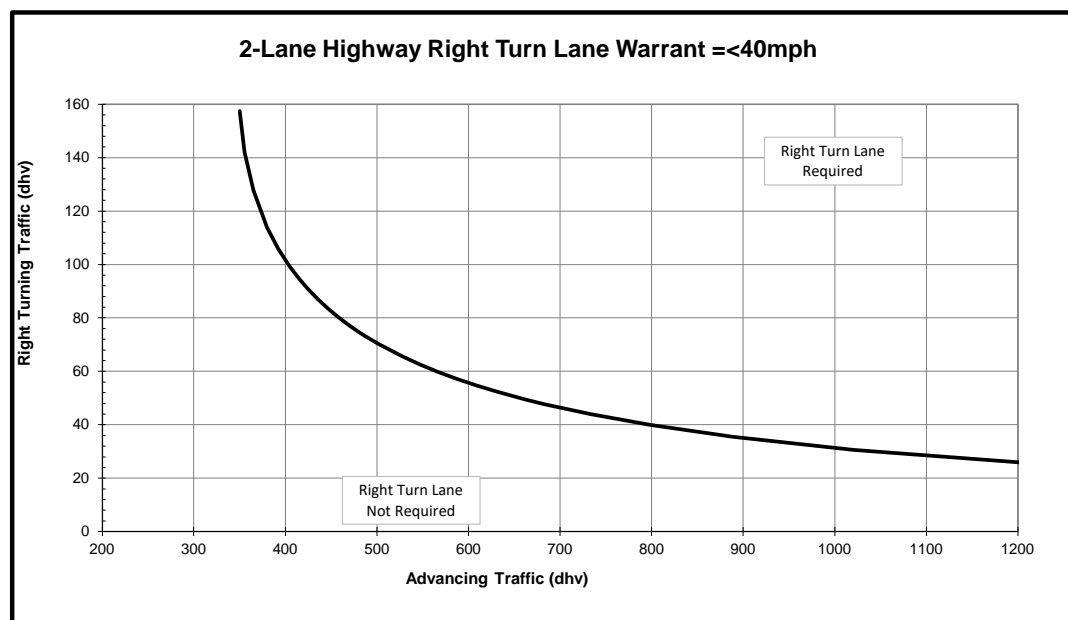
Intersection Legend
 1-Spillan Road & Edgefield Drive
 2-Spillan Road & Hyde Road
 3-Spillan Road & Proposed Drive
 4-US 68 & Hyde Road
 5-US 68 & Kahoe Lane



Right Turn Lane Warrant		
Design Year Build Volumes		

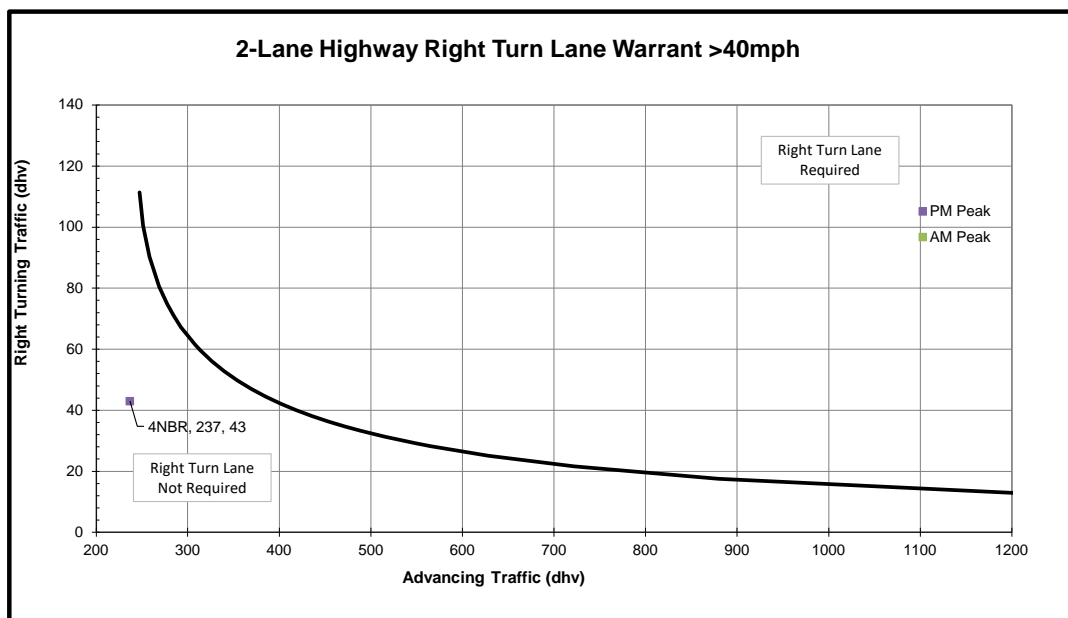
PM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	7
2WBR	14	45
3SBR	5	9
4NBR	43	237

AM Peak Hour		
Intersection	Right Turning Vol	Advancing Vol
1SBR	0	3
2WBR	5	32
3SBR	1	5
4NBR	15	192



Intersection Legend

- 1-Spillan Road & Edgefield Drive
- 2-Spillan Road & Hyde Road
- 3-Spillan Road & Proposed Drive
- 4-US 68 & Hyde Road
- 5-US 68 & Kahoe Lane





October 13, 2021

Updated January 5, 2022

Denise Swinger
Planning and Zoning Administrator
Village of Yellow Springs, Ohio
100 Dayton Street
Yellow Springs, OH 45387

RE: Application of Zoning Map Amendment and Preliminary PUD Plan

Dear Denise,

Oberer Land Developers, LTD is pleased to present our application for a Zoning Map Amendment accompanied by a Preliminary Development PUD Development Plan for our property in Yellow Springs. The included applications and information follow our preliminary submission made on September 23rd and discussed in workshop session with the Plan Commission on October 6th. This letter is intended to summarize the information provided to the Commission at that workshop session and to provide additional information that may have been requested at that time.

We have also prepared a response to comments received at the November 9, 2021 Plan Commission Meeting and the December 6, 2021 City Council Meeting. The additional information provided does not constitute a change in the proposed PUD submission, but rather additional information to provide answers to questions or responses to concerns received at these two public meetings.

Development Team

Oberer Land Developers is a part of the Oberer Companies, a multi-faceted real-estate company located in Miamisburg, Ohio. The Oberer Companies provides a wide range of real-estate services including land development, new home construction, commercial real estate sales and development, residential and commercial property management and affordable housing development. Our sister company, the Oberer Thompson Company, located in Beavercreek,

Ohio provides commercial construction, multi-family construction, residential and commercial rehabilitation and restoration services. The Oberer Companies were founded in 1949 by George R. Oberer, Sr. and his father George F. Oberer, and continues to be a family owned company currently managed by George R. Oberer, Jr., CEO and Michael F. Oberer, Vice President of Development and Residential Construction.

In addition to George and Mike Oberer, other members of the Oberer Companies who will be working on the Yellow Springs Development Team include Robert M. McCann "Bob", our CFO. In addition to his CFO duties, Bob assists with the financial projections and financing of developments within the Oberer Companies and is especially involved in our affordable housing development efforts.

Developer, Gregory Smith, will serve as the primary point for the development. Greg is educated as a Planner with degrees in Urban and Regional Planning and Environmental Design from Ball State University. He is a member of the American Institute of Certified Planners and has worked in the planning and development field for over 25 years, including almost 20 with the Oberer Companies.

Oberer has retained Choice One Engineering to provide subdivision design, engineering and landscaping design services for the neighborhood. Choice One was founded in 1994 with the goal of creating a consulting engineering company that had fun, was uber-responsive, provided stability, and did great work. Over 25 years later, Choice One has two offices with over 50 employees and has become a well-respected civil engineering firm not only used by dozens of developers (to include many Oberer communities) but also representing and providing services to dozens of municipalities and governmental bodies throughout Ohio. Choice One employees currently involved include Project Manager Jeff Puthoff, Civil Engineer Brian Goubeaux, Traffic Engineer Michael Gottemoeller, Surveyors Allen Bertke and Matt Lefeld, and Landscape Architect Jacqueline Huelskamp.

Project Overview

Oberer is proposing construction of a residential neighborhood offering a diverse range of housing opportunities. Our proposed development plan would provide housing products for a wide range of households. We are proposing five different housing types providing for a diverse neighborhood that fits with the values of the Village of Yellow Springs.

The Preliminary PUD plan that was shared with the Plan Commission at the September Workshop Session includes the following basic housing types; single family homes, three bedroom duplex homes, two bedroom duplex homes, three story town homes and an area for cottage home development. This wide variety of housing was encouraged by the Village's

Comprehensive Plan and through our meetings with staff and elected officials. We are excited to be a part of such a diverse proposed neighborhood. Please note that the southern 33.39 acres of the project, which was annexed into Yellow Springs from Miami Township in July, 2021 is currently zoned R-A, Low Density Residential, as that is the zoning classification that most closely matched the zoning within the Township. The remaining 19.26 acres which was already within the Village boundaries is currently zoned: 18.311 acres is Planned Unit Development and 0.949 acres is R-C High Density Residential.

The existing R-A zoning does not permit the development of a diverse neighborhood with multiple housing types as being proposed by the development, but rather would limit the neighborhood to single family housing. As such, Oberer is requesting a rezoning of the 33.39 acres that was zoned R-A in the July 2021 annexation to a base R-C High-Density Residential zoning with a Preliminary PUD Plan Overlay and incorporating the same R-C High-Density Residential as the base zoning for the 18.311 acres currently zoned PUD. The proposed PUD plan will also incorporate the 0.949 acre area already zoned R-C hence creating a unified cohesive neighborhood offering a variety of housing opportunities.

Many of the questions that arose in the public meetings focused on the density of the proposed development. In response to those comments Choice One has prepared a single family plan that would conform to the Village's R-A Single Family Zoning (the lowest density available under the Village's Zoning Ordinance). This plan resulted in 143 single family units.

As the proposed PUD plan shows 140 units (plus the Village's Affordable Component), an increase in permitted density is not being requested under this PUD, in fact Oberer is requesting 3 units less than which we could have achieved under straight R-A zoning.

We estimate that the proposed PUD will take +/- five years to develop (depending on market demand for housing). As such the proposed plan will result in an average of 28 new housing units per year, representing a 1.4% annual growth in units in the village (estimated at 1,961 total homes per 2019 U.S. Census) as a result in the development. While this may be more growth than the Village has seen in some time, it is well within the capacity of the Village's existing infrastructure and services to accommodate.

Existing Conditions

As shared with the Plan Commission in the workshop session is 52.65 acres is uniquely appropriate for development, but like all property has unique environmental and physical features that were recognized in the creation of this proposed neighborhood development plan.

The property is well served by utilities. A Village of Yellow Springs sanitary sewer trunk line runs directly through the center of the property, extending south from the terminus of Southgate Avenue and then turning east to Spillan Road. Village water and electrical service are both available at both the northern edge of the property at the end of Southgate Avenue and along eastern edge of the property along Spillan.

There is an unnamed creek along the western edge of the property which is a tributary to the Jacoby Creek. The area around this creek is fairly heavily wooded, creating a natural buffer between the property and the neighboring properties to the west. There is an area of organic fill on the northern part of the property and an area of high rock located on the southwestern part of the property. Finally there is an area of steep topography along the northeastern part of the property. The proposed neighborhood PUD plan has made accommodations to respect all of existing natural features, as well as to accommodate the existing sanitary line that runs through the community.

Oberer has provided two additional sources of information to support the existing conditions analysis of the property including an Environmental Phase 1 Report and a copy of the US Corps of Engineer's Stream Impact Permit for the extension of Southgate Avenue.

The Plan

Single Family Housing

There will be three areas of the neighborhood developed as single family housing containing a total of 64 new homes. Oberer Homes offers a semi-custom home product with over 30 existing floor plans and over 120 different elevations. Character drawings and pictures of many of these elevations have been included with the submission. Oberer uses a variety of exterior materials to include stone, brick, wood, wood fiber, Cementitious and vinyl siding depending on the elevation and the material section of the customer. While price ranges have not yet been finalized for the community these homes sell for \$330,000 to \$565,000 in other Oberer communities. These homes range in size from smaller patio homes with square footages as small as 1,450 square feet to larger family oriented homes up to 3,700 square feet, with many options in-between. Our in-house design staff allows for personalized customizations to be available for all of our single family customers to incorporate into their home designs. These modifications are available to both the interior and exterior of the homes that when combined with the variety of home plans, elevations, material and color options result in unique neighborhoods with a diverse, but coherent appearance and feel. Any requested ADA modifications or accommodations to the homes can be incorporated at this stage. Oberer typically builds a couple of accessible homes in each community upon customer request, but has often made more minor accessibility customizations when complete accessibility isn't required. Oberer currently offers

all of these home plans in our Washington Trace Development, located in Montgomery County, near Centerville and our nearly completed Woodland Ridge Development, located in Greene County, near Bellbrook.

All of the Single Family houses will be built on lots of at least 70 feet in width and 130 feet in depth, with 25 feet front and rear yard setbacks and 7.5 feet side yard setbacks. The first area of single family homes will be along the western edge of Spillan. These homes will face Spillan Road which will be widened to the west by the developer and include sidewalks, curbs and street trees along the western edge.

Two new streets located just west of Spillan will include 37 additional single family lots that will run along the east/west extension of the existing sanitary sewer line. The final area of single family lots will be along the western edge of the Southgate extension, the area that was previously noted as containing organic fill. All homes in this area will include basements.

Three Bedroom Duplexes

Oberer will offer 30 duplex units being built off the Hudson model currently being offered in our Cornerstone Development in Centerville. While price ranges have not yet been determined for the Yellow Springs community these homes sell for \$389,900 to \$500,000 in our currently ongoing developments. These homes offer a standard floor plan with opportunities for an enclosed four season room, and or rear patio area. Square footages of the floor plans will range from 1,653 square feet, to 1,790 square feet. While the number of customizations of the floorplan and layouts of the duplex units is more limited than our single family homes, we still offer a large range of selections and customizations in this product. Any requested ADA modifications or accommodations to the homes can be incorporated at this stage.

All of the duplex houses will be built on lots with a lot line down the center of the duplex unit providing for ownership of each unit without requiring a condominium arrangement. Each lot will be 47.5 feet in width (total of 95 feet for two units) and 130 feet in depth, with 25 feet front and rear yard setbacks and 7.5 feet side yard setbacks. As these units will not have basements they are being located in the southwestern part of the neighborhood which has the high rock.

Two Bedroom Duplexes

Oberer will offer 22 two bedroom duplex units which are new product to the Oberer product line. Originally designed for a senior housing concept, Oberer is adapting these designs for Yellow Springs to provide a lower price point home option within this neighborhood. Price ranges have not yet been determined for this product, but we are working towards a much lower price point than the three bedroom duplex. These homes offer a standard 1,012 square foot floor plan similar to the three bedroom duplex, but with smaller rooms and a one-car garage. In order to keep costs affordable the number of customizations of the floorplan and layouts of this duplex

will be very limited but we will still offer a large range of selections in this product. Any requested ADA modifications or accommodations to the homes can be incorporated at this stage. It is the Oberer's intent to continue to work on this product and making more detailed information available at the final development plan stage for this phase.

These duplex houses will be built on the same size lots as the three bedroom duplexes also located in the southwestern part of the neighborhood which has the high rock.

Town Homes

The area two the northeastern part of the community which adjoins the neighborhood to Randall Road is restricted by a steep topography that would limit the desirability of single family houses in this area as they would have steep sloping rear yards. To address these topography concerns Oberer is proposing two and three story town home products be built in this area which would have garages on the first level and primary living areas on the second and third level. Rear decks would be built off of the second level living areas, lessening the impact of the rear yard topography on the usability of the home. Our conceptual plan calls for seven townhome buildings anticipated to contain 24 units of housing. While Oberer has built several townhome products in our history, we have determined that those preexisting plans were a little dated and needed to be refreshed to meet current new housing requirements and customer expectations.

The current townhome concepts include two basic home floor plans, a two bedroom, one car garage unit, and a three bedroom, two car garage unit. Many details of this product are still being worked out, and we do not currently anticipate offering it in the first phase of the development giving us time to perfect the product before offering it for new home owners. As this product, is not anticipated to be offered to customers for at least a couple more years, identifying a sale price at this point is very difficult, but we anticipate them to be similar in price range as the two and three bedroom duplex units. It is the Oberer's intent to continue to work on this product and making more detailed information available at the final development plan stage for this phase.

Cottages

The cottage area is a result of discussions and negotiations with village staff and officials on the need to incorporate an affordable component into the development plan. Many different ideas regarding the incorporation of affordability were discussed and debated. The resulting proposal is for Oberer to donate a 1.75 acre area of land in the northeastern part of the community to the Village of Yellow Springs. The Village in turn would seek a Request for Proposals (RFP) for the development of an affordable housing product. Oberer would reserve the right to respond to, and or partner in a response to the RFP, but would not necessarily be the developer or contractor in this area. The design and the layout of the site and home design will be left to the village and their identified developer, but for the purposes of getting concept plan approval Oberer is

requesting a maximum density of 20 units in this area. Final development plan approval of this area is anticipated to be pursued at a later date once a development team has been selected by the Village. Oberer will bring sewer, water and other utilities to the boundary of the site, but will not provide for storm water retention. This area will not be included in the Home Owners Association (HOA).

The Village has asked for an estimated Value of this land donation. As of today we estimate that once the extension of Southgate is complete and utilities are extended to this location, this 1.75 acre area donation results in a loss of what would be 5 lots under R-A zoning and will have a land only value of \$150,000.

Open Space, Storm Water Retention and Village Park

The proposed neighborhood will provide 11.82 acres (23.2% of the overall) for dedicated open space to be used for storm water retention/detention purposes, tree and/or stream preservation, entry area features, pedestrian pathways and to include a 0.9 acre neighborhood park area that is being proposed to be donated to the Village. As previously mentioned there is an existing unnamed tributary of the Jacoby Creek running along the western edge of the property. This area currently has a significant number of trees that run along the common path of the creek. The developer is being respectful to the natural sensitivity of this creek feature by placing it within the designated open space.

Storm water control and water quality features will be built between the development and the creek to treat water runoff from the neighborhood homes and streets. A third such feature will be built at the southeastern corner of the community. Two of these features are anticipated to be traditional retention ponds of approximately 6' in depth and including small fountains. These ponds will be designed to incorporate water quality features common in current subdivision design to include outfall structures with controlled release designs that mitigate the impact of water runoff. The third feature will be located along the creek in an area of high rock. Due to the high rock a traditional pond is not an ideal storm water solution. Hence Oberer is proposing a constructed wetland detention area to treat storm water in this area. This constructed wetland will be designed by Choice One engineers and landscape architects and is expected to contain a variety of native Ohio wetland plants that will not only filter storm water from undesired contaminants, but also provide for habitat and visual beauty within the neighborhood.

In addition, Oberer has committed to retain and treat storm water from the existing drains in Randall Road which currently dead end into the property. As this water is a preexisting condition such retainage and treatment is not required under traditional storm water retention requirements for new development. This additional storm water treatment will require an

increase in one of the ponds by 40%. This increase results in an estimated \$10,000 in additional storm water treatment.

At the Spillan entrance to the neighborhood there will be a small area for placement of neighborhood monument signage as well as landscaping and a small flower bed area. A couple areas have been identified for multi-purpose paths. The multi-purpose paths are intended to create pedestrian and bicycle connections from one area of the neighborhood to the other, or from the neighborhood to adjacent areas. These paths are anticipated to be of concrete 6' in width so that they can serve both walking and bicycling. Additional information on the paths will be provided in the pedestrian traffic discussion section. The storm water, entry features and multi-purpose path areas are proposed to be owned managed by the HOA. A more detailed summary of the functions and purpose of the Home Owner's Association has been submitted as a supplement to this document.

The Plan also has identified a 0.9 acre area at the northwestern corner of the community for the creation of a Village owned park that will be donated by Oberer. This area is a good location for a neighborhood park as part of the unnamed creek runs through it. It not only adjacent to the proposed development, but is also in proximity to the planned area reserved for affordable housing and the existing neighborhood to the north. By donating the park to the Village this area will be available for enjoyment of the entire community. It is Oberer's intent to construct a playground and swing set feature within this park as well as add landscaping prior to completing the donation to the Village. A concept of what those features could look like, and do look like in other Oberer communities, have been included in the submission, but the final design of these features will incorporate comments and suggestions of Village staff and officials before being finalized.

The Village has asked us to provide an estimate to the value of this park donation. We estimate the 0.9 acres to be worth \$60,000 (equivalent to the land only value of two lots), the proposed equipment to be worth \$32,000 (installed price) and sidewalks, grading seeding and other site development work to be worth \$10,000, bringing the total estimated value of the donated park to \$102,000.

The U.S. Post Office currently requires new developments to provide cluster mail boxes to ease and reduce costs associated with mail delivery. Oberer has proposed several locations within the neighborhood for placement of these cluster boxes on the submitted landscape plan. These boxes will be the responsibility of the HOA to maintain, but are often assisted by the post office for lock replacement, etc. for a small fee.

Each new home will include a landscape package to include at least one street/front lawn tree, shrubs and perennial flowers. Oberer will offer more extensive landscape packages with each

home as alternatives, but most of our customers choose to add to and to personalize their homes landscaping after they move into the home.

A community wide landscaping plan has been created as part of the preliminary plan submission. This landscaping plan includes native Ohio plants to be installed as buffers and visual character building features throughout the neighborhood. This landscaping is in addition to the tree lines along the western and southern edge of the neighborhood which are being preserved as previously mentioned.

Circulation

One of the primary requirements of any new community is to provide for the efficient and safe movement of residents not only to and from the neighborhood, but also within it. The Plan proposes a street pattern that is sensitive to the existing neighborhood to the north. The Plan proposes two connections to the existing street pattern. One to the current terminus of Southgate Avenue and the other onto Spillan Road, just north of the E. Hyde Road intersection. Oberer hired Choice One to complete a traffic impact study to quantify what impact our development would have on the neighborhood and to recommend any warranted intersection improvements that may result from that impact. That study, which has been submitted to the Village, found that they studied intersections currently function very well and that the proposed development would have minimal impact on that functionality. The intersections studied were rated as an A in quality prior to the completion of the development, and are anticipated to remain as A's in quality after the development is completed. No warranted street improvements were recommended by the study as a result of the proposed neighborhood. That being the case, Oberer is proposing a half street widening of Spillan Road as previously mentioned in this letter.

The Village asked that the traffic study be expanded to include the intersection of E. Hyde Road and State Route 68. As this is the second intersection away from the development, this request is beyond traditional traffic study impact analysis practices. The expanded study found no significant impact and no warranted improvements to this intersection resulting from the proposed development. These results were provided to the developer on January 5, 2022 and are being included in the expanded report to the Village to be provided soon.

The neighborhood will contain several proposed neighborhood streets. The primary street will be an extension of Southgate that will turn eastward and connect into Spillan. This street will provide for all of the vehicle traffic coming from and two the neighborhood. Residents headed south (or southwest, southeast) are anticipated to use the Spillan entrance and those headed north (or northwest, northeast) are anticipated to use Southgate. The Study did not anticipate much traffic from the proposed development to use the existing neighborhood streets to the north, but

rather turn west from Southgate onto Kahoe Lane, to State Route 68 when heading north and turning west for Spillan Road onto E. Hyde Road, to State Route 68 when heading south.

Oberer is proposing a 50 foot wide right-of-way for all neighborhood streets. This right-of-way will contain a 28 feet wide street with curb and gutter on both sides. The gutters will drain into a storm water system that will be managed and treated by the storm water retention features previously mentioned. 28 feet is a bit narrower than many street sections. Oberer is proposing a narrower street section to reduce traffic speed traveling throughout the neighborhood and to reduce the amount of impervious surface within the community. Oberer currently has 28 foot wide streets within our Nathaniel's Grove community, also located within Greene County, and find that they work well for parking along the street, while still allowing for the slow movement of traffic throughout the neighborhood. Five foot tree lawns will be built on each side of the street providing sufficient room for street trees and for snow to be piled up during the winter months. Four foot wide concrete sidewalks will be built on each side of the neighborhood streets providing for pedestrian circulation within the entire neighborhood. These sidewalks will connect to the multiple Multi-Purpose trails to provide access through and in and out of the neighborhood. The sidewalks will include handicap ramps at each intersection providing for handicap accessibility throughout the neighborhood. The neighborhoods proximity to the pedestrian path along State Route 68 is an excellent amenity providing for walking the one mile into downtown Yellow Springs and all of the amenities and features within the Village.

Lighting

Oberer is sensitive to the impact of exterior lighting on the environment. We are proposing enough exterior lighting to provide for a secure safe environment in the evening hours, but not so much to create light spilling onto neighboring areas, or creating light pollution. No large street lights are being proposed as part of the development. Instead Oberer is proposing each home is equipped with a small 4 feet high front yard light to be lit with a single 840 lumens LED bulb which is roughly equal to that of a traditional 60 watt incandescent bulb. This light will be controlled by a light sensor and located within proximity of the sidewalk in order to provide sufficient lighting for pedestrians using the sidewalk in the evening and for visitors coming and going in the evening hours. In addition to the yard light, each home will be equipped with porch and garage lights which will be controlled from switches from within the homes and also equipped with the aforementioned 840 lumens LED bulbs. A picture of these lights on a typical home at night has been included with this submission.

Oberer will abide by the exterior lighting condition in the Plan Commission's approval requiring exterior lights to be night sky sensitive and include a cover to restrict upward light pollution.

Project Time Line

Oberer's goal is to be approved by the Plan Commission at your November meeting, in order to be heard by the Village Council in December of 2021. Work on civil engineering drawings and details will begin in early 2022 with the intent for approval and start of construction in the spring of 2022. Home construction on the first section could start in the late summer of 2022 with the first occupants moving into their homes in 2023. We anticipate the neighborhood to be developed in a number of phases over five or more years depending on local demand.

We hope that the additional information submitted will allow approval by the Village Council in late January, early February 2022.

Planned Unit Development Recognizable Benefit

Section 1254.02 of the Village's zoning ordinance requires identification of multiple recognizable benefits for pursuit of a Planned Unit Development Designation. Requiring at least three of the benefits be accrued to the community as a result of the PUD. The proposed Plan meets a number of these recognizable benefits.

1). Preservation of significant natural features: The Plan will preserve the unnamed tributary of Jacoby Creek which runs along the western edge of the neighborhood, as well as the tree lines along that creek and the southern edge of the neighborhood. It also respects the soil conditions in regards the existing organic fill and high rock areas, through identifying appropriate housing types for each area.

2). A complementary mix of lands uses or housing types: The Plan provides for a diverse mix of housing types that would not be permitted under traditional single family zoning including two styles of duplex units, town homes and the cottage homes. This mix provides housing for a larger segment of the village population than if only single family homes were proposed.

3). Extensive open space and recreational amenities: The Plan provides 11.82 acres (23.2%) of dedicated open space. This area includes the multi-purpose paths and donated village park which provide recreational amenities to the entire community under traditional zoning.

4). Connectivity of open space with new or existing adjacent greenway or trail corridors: The Plan contains several pedestrian connections which link new greenspaces being created, or preserved, as part of the neighborhood.

Please note that the Plan also meets the other requirements of Section 1254.02 including exceeding 5 acres in size, being served by public water and sewer, being substantially consistent with the Village's adopted Comprehensive Plan, providing for pedestrian accommodation, a variety of harmonious and visually integrated architecture and providing for safe and efficient vehicular movement within, into and out of the neighborhood, including the use of traffic calming techniques, storm water management, pedestrian safety and aesthetic appeal.

Conclusion

The Oberer Companies appreciates the Village's review and consideration of our rezoning and PUD Preliminary Plan application. The proposed Plan is the result of over a year of due diligence, internal planning and responding to comments received. We are pleased and proud to present this proposal to the Village and are looking forward to a long and successful partnership as we become part of the Village of Yellow Springs community.

Oberer remains committed to Village and the PUD Plan as submitted in October and recommended by the Village Plan Commission to the Village Council after their November public hearings. Most of the opposition to our proposal is opposition heard during that time was traditional anti-development and/or "Not in My Back Yard" based comments, as opposed to constructive input on the virtues of the existing zoning over the proposed PUD.

It should be noted that Oberer intends to develop the property starting in the Spring of 2022 under either an approved PUD plan in cooperation with the Village, or under the existing permitted R-A Zoning. As such the discussion should be focused on the merits of the proposed PUD plan vs. the existing R-A Zoning. Not on development vs. non-development.

Oberer prefers the submitted PUD plan as it offers a large number of benefits.

- Overall density between straight zoning and the PUD are similar with Oberer showing 140 units (plus the affordable component) under the proposed PUD plan and demonstrating that a 143 units could be built under traditional zoning.*
- The PUD plan provides for a variety of housing types and price points within the community that would not be achievable under a straight zoned single family plan.*
- The PUD plan provides significantly more open spaces and pedestrian connections well beyond that which would be required under a straight zoned single family plan.*
- The Developer has committed to an Affordable Housing land donation, developed park donation and storm water fix as part of the PUD development representing an estimated value of \$262,000 in Village benefit, which would not be achieved under traditional zoning.*

Oberer will participate in another City Council Workshop Session on January 10, 2022 and in a Village Town Hall Meeting on January 12, 2022 to continue to answer questions and provide information on the proposed PUD. We appreciate the Village Councils' review of the additional information submitted and the merits of the proposed PUD submission vs. traditional/existing zoning.

Thanks again for your continued consideration.

Sincerely,

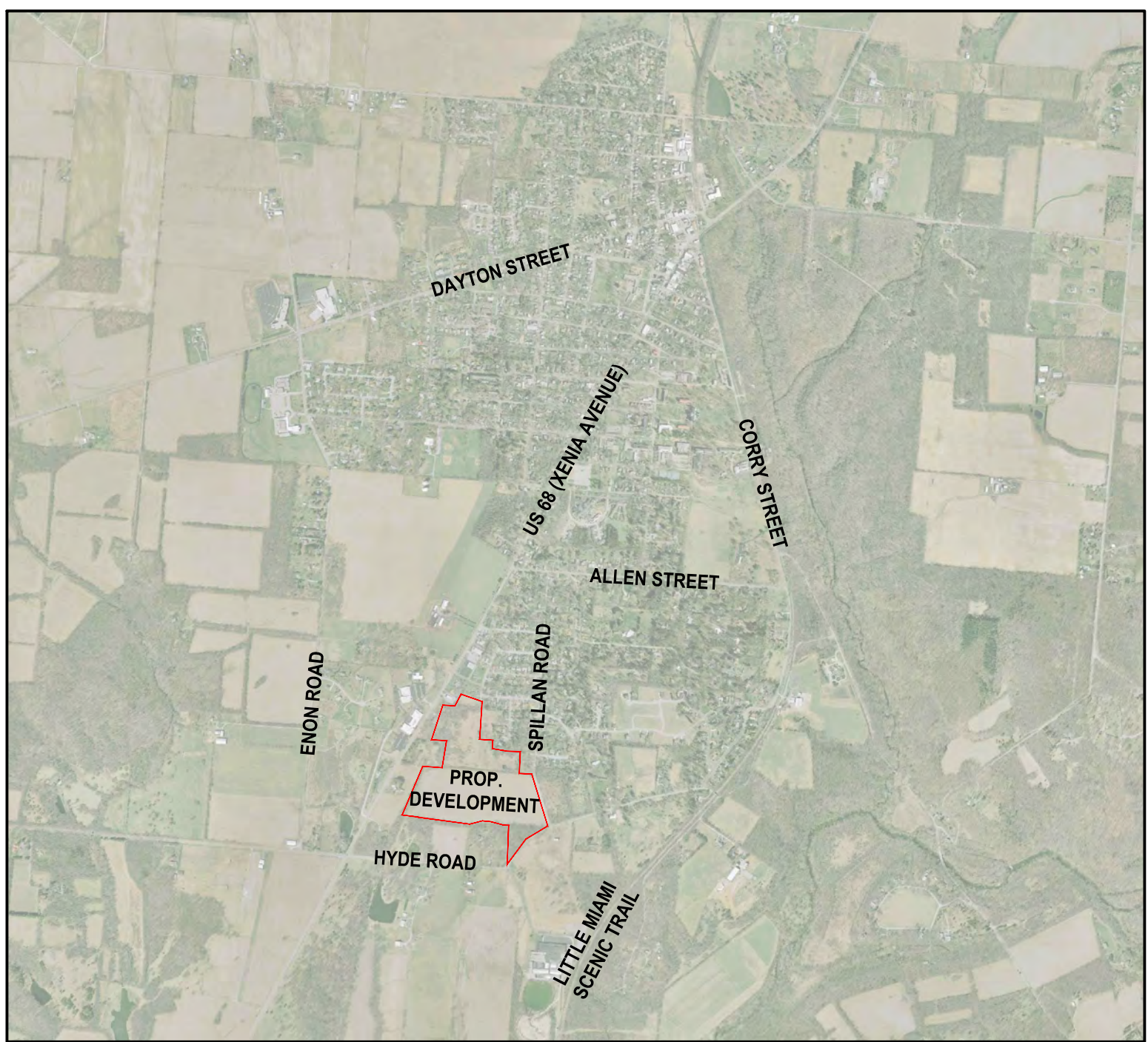
Oberer Land Developers, LTD

A handwritten signature in dark ink, appearing to read 'Gregory A. Smith', is written over the printed name.

Gregory A. Smith, AICP
Developer





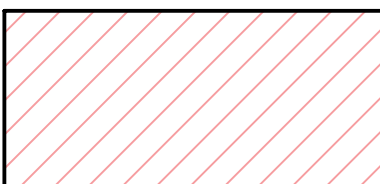
Cc: Jeff Puthoff, Choice One Engineering

EXHIBIT G

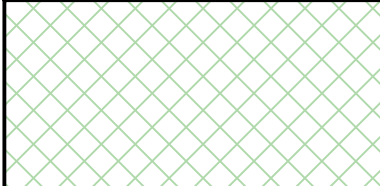
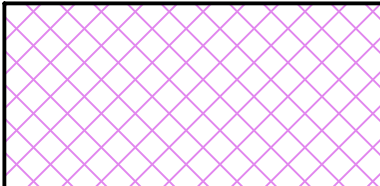
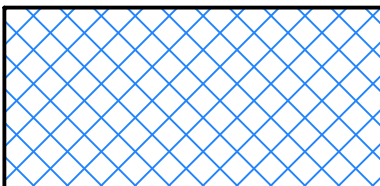
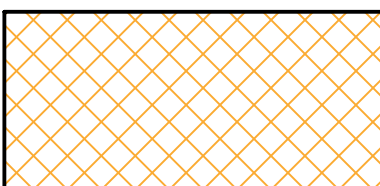

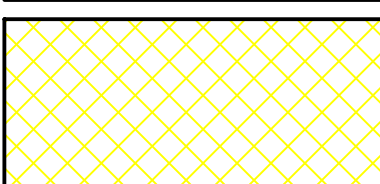


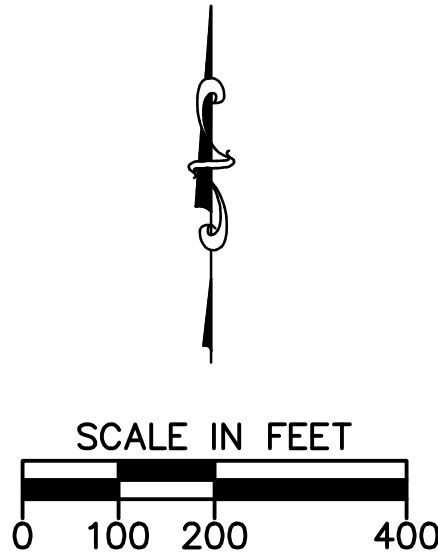
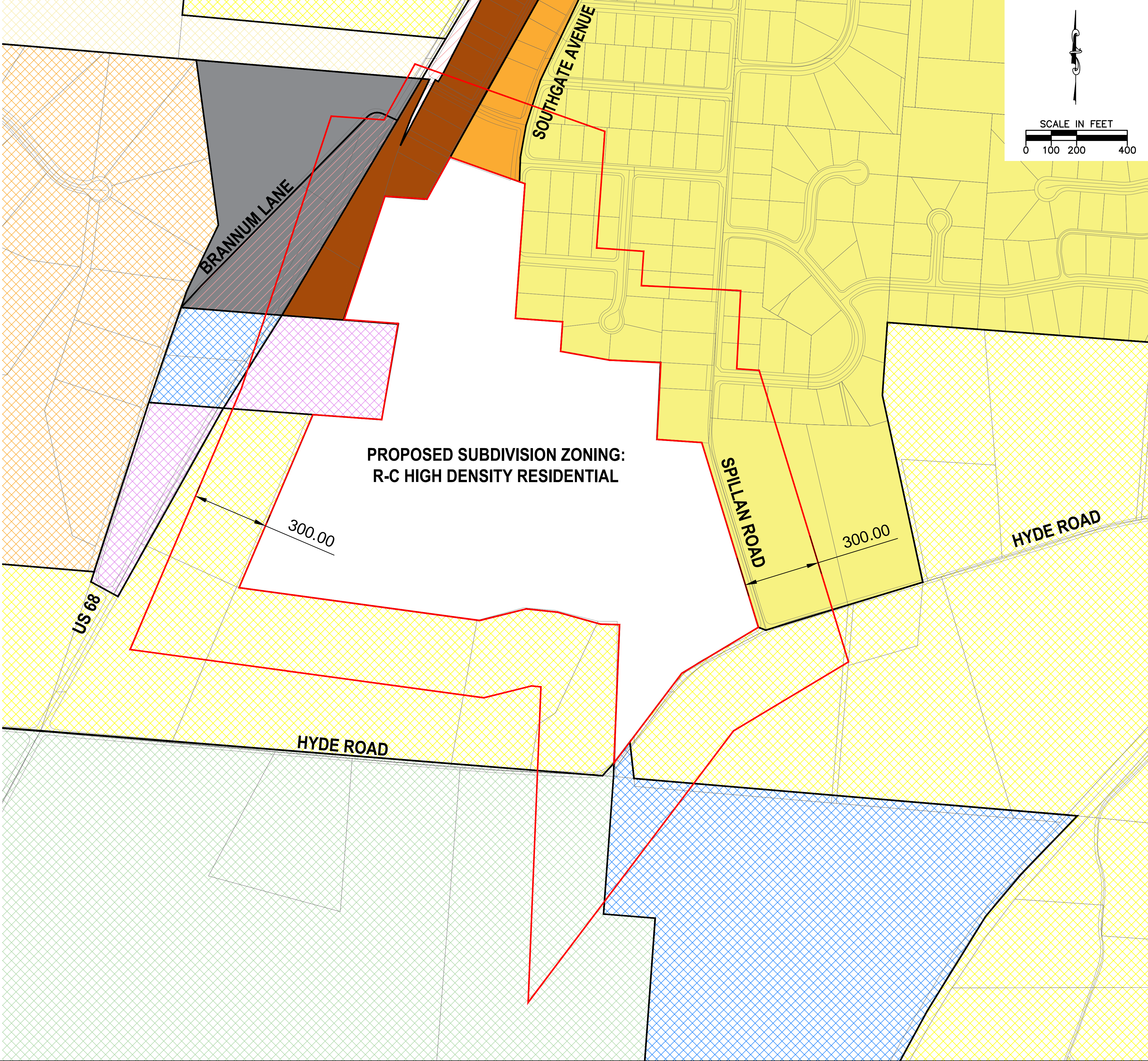
VICINITY MAP

VILLAGE OF YELLOW SPRINGS ZONING DISTRICTS

	R-A LOW DENSITY RESIDENTIAL
	R-C HIGH DENSITY RESIDENTIAL
	B-2 GENERAL BUSINESS
	I-2 INDUSTRIAL
	GATEWAY OVERLAY DISTRICT

MIAMI TOWN SHIP ZONING DISTRICTS

	A-1 AGRICULTURAL
	B-1 BUSINESS
	I-1 INDUSTRIAL
	PD-1 PLANNED DEVELOPMENT
	R-1A SINGLE FAMILY RESIDENCE
	R-1B SINGLE FAMILY RESIDENCE



SIDNEY, OHIO 4307-487-0200
LOVELAND, OHIO 513-239-8554
WWW.CHOICEONEENGINEERING.COM

SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
EXISTING ZONING MAP

REVISIONS:

FILE NAME	ZONING MAP
DRAWN BY	JLH
CHECKED BY	JSP
PROJECT No.	GREYSP2004
DATE	10-20-2021
SHEET NUMBER	1 OF 4

EXHIBIT "A"

LEGAL DESCRIPTION

PARCEL I:

Located in Section 19, Town 4, Range 8, M.R.S., Miami Township, Greene County, Ohio, and being further described as follows:

Beginning at a railroad spike found at the intersection of the centerlines of U.S. Route 68 and East Hyde Road, said spike being on the south line of Section 19, also being the north line of Section 24, of Miami Township, thence, in an eastwardly direction with the centerline of East Hyde Road and Section Line on a bearing of south eighty-six degrees twelve minutes twenty-nine seconds ($86^{\circ} 12' 29''$) east for a distance of one thousand six hundred twenty-two and $08/100$ (1622.80) feet to a P.K. spike set at a new division line by this survey, said spike being the true point of beginning for the land herein described;

Thence, in a northwardly direction with said new division line on a bearing of north ten degrees thirty minutes forty seconds ($10^{\circ} 30' 40''$) east for a distance of five hundred eighty-six and $06/100$ (586.06) feet to an iron pin set on the north side of an existing 8" post, this course passes an iron pin set at 20.14 feet;

Thence, continuing with a new division line in a westwardly direction on a bearing of north eighty-three degrees eleven minutes twenty-four seconds ($83^{\circ} 11' 24''$) west for a distance of nine hundred fifty-seven and $19/100$ (957.19) feet to an iron pin set in the east line of land conveyed to Merle and Gertrude Gasho by deed recorded in Volume 156, Page 626 of the Official Record of Greene County, Ohio;

Thence, in a northwardly direction with the east line of said Gasho land on a bearing of north twenty-two degrees five minutes twenty-four seconds ($22^{\circ} 05' 24''$) east for a distance of seven hundred forty-two and $32/100$ (742.32) feet to an iron pin found with a Surveyor's cap "Haley-Dusa", said pin also being in the south line of land conveyed to Nicholas and Nancy Chrome by deed recorded in Volume 512, Page 348 of the Deed Records of Greene County, Ohio;

Thence, in an eastwardly direction with the south line of said Chrome land on a bearing of south eighty-six degrees fifty-two minutes five seconds ($86^{\circ} 52' 05''$) east for a distance of one thousand five hundred sixty-six and $31/100$ (1566.31) feet to a railroad spike found in the centerline of Spillan Road, this course becomes the Village of Yellow Springs Corporation Line and south line of the Southgate Plat No. 2 as recorded in Plat Book 8, Pages 89-91 (Plat Cabinet 31/202A-203A) at 271.74 feet, this course also passes the southerly terminus of Southgate Avenue at 719.82 feet, and becomes the south line of the Hill Plat as recorded in Plat Book 11, Pages 62 and 63 (Plat Cabinet 33/58A and B) at 769.82 feet, and becomes the south line of land conveyed to Constance M. Richeson by deed recorded in Volume 902, Page 530 of said Official Records at 1361.19 feet, this course passes an iron pin with a Surveyor's cap "Haley-Dusa" at 1541.35 feet;

Thence, in a southwardly direction with the centerline of Spillan Road on a bearing of south fourteen degrees fifteen minutes fifty-two seconds ($14^{\circ} 15' 52''$) east for a distance of seven and $77/100$ (7.77) feet to a P.K. spike found at an angle point;

Thence, continuing in a southwardly direction with said centerline of Spillan Road on a bearing of south eighteen degrees one minute fifty-six seconds ($18^{\circ} 01' 56''$) east for a distance of seven hundred fifty-eight and $41/100$ (758.41) feet to a railroad spike found at the intersection of centerlines of Spillan Road and East Hyde Road, said spike being 0.40 feet below the existing pavement;

Thence, in a southwestwardly direction with the centerline of East Hyde Road for the following three courses:

1. South fifty-eight degrees two minutes twenty-one seconds ($58^{\circ} 02' 21''$) west for a distance of three hundred sixty-eight

EXHIBIT "A" Legal Description

and 97/100 (368.97) feet to a P.K. spike found at an angle point;

2. South thirty-six degrees five minutes forty seconds (36° 05' 40") west for a distance of four hundred sixty-nine and 26/100 (469.26) feet to a P.K. spike found at an angle point, and;

3. South eight degrees fifty-one minutes thirty seconds (08° 51' 30") east for a distance of thirty-two and 38/100 (32.38) feet to an iron pin found on said Section Line;

Thence, in a westwardly direction with said Section Line and centerline of East Hyde Road and crossing the east line of the Southwest Quarter of Section 19 at 237.76 feet on a bearing of north eighty-six degrees twelve minutes twenty-nine seconds (86° 12' 29") west for a distance of six hundred fifty-three and 21/100 (653.21) feet to the true point of beginning containing forty-two and 3212/10,000 (42.3212) acres.

The reference bearing for this survey is south eighty-six degrees fifty-two minutes five seconds (86° 52' 05") east, which is the bearing for the south line of the Southgate Plat No. 2 as recorded in Plat Book 8, Pages 89-91 (Plat Cabinet 31/202A-203A), also being the Village of Yellow Springs Corporation Line.

The above-described tract is out of land conveyed to Margaret W. Kahoe by deed recorded in Volume 2385, Page 863 of the Official Records of Greene County, Ohio.

The above description is based on a field survey performed by Louis A. Green, Registered Surveyor No. 6174, State of Ohio, completed August 16, 2005.

LESS AND EXCEPT the following described real estate:

Located in Section 19, Town 4, Range 8, M.R.S., Miami Township, Greene County, Ohio, and being further described as follows:

Beginning at a railroad spike found at the intersection of the centerlines of Spillan Road and East Hyde Road, a P.K. spike found bears north sixty-five degrees forty-nine minutes twenty-four seconds (65° 49' 24") west a distance of three and 40/100 (3.40) feet;

Thence, in a southwestwardly direction with said centerline of East Hyde Road on a bearing of south fifty-eight degrees two minutes twenty-one seconds (58° 02' 21") west for a distance of three hundred sixty-eight and 97/100 (368.97) feet to a P.K. spike found at an angle point;

Thence, continuing in a southwestwardly direction with said centerline of East Hyde Road on a bearing of south thirty-six degrees five minutes forty seconds (36° 05' 40") west for a distance of four hundred sixty-nine and 26/100 (469.26) feet to a P.K. spike found on the easterly edge of pavement of East Hyde Road, said P.K. also being a corner to land conveyed to the Morris Bean and Company, by deed recorded in Volume 206, Page 375, of the Deed Records of Greene County, said point being the true point of beginning for the land herein described;

Thence, continuing in a southwardly direction with a line to said Morris Bean land on a bearing of south eight degrees fifty-one minutes thirty seconds (08° 51' 30") east for a distance of thirty-two and 38/100 (32.38) feet to an iron pin found on the Section Line between Section 19, Town 4, Range 8, and Section 24, Town 4, Range 7, and being in the westerly line of land, said Morris Bean land;

Thence in a westwardly direction with said centerline of East Hyde Road, Section line, and Morris Bean northerly line,

EXHIBIT H

EXHIBIT "A"

Legal Description

EXHIBIT H

becoming the northerly line of land conveyed to Hydebrook Farms, by deed recorded in Volume 1778, Page 131, of the Official Records of Greene County, Ohio, on a bearing of north eighty-six degrees twelve minutes twenty-nine seconds (86° 12' 29") west for a distance of three hundred forty-three and 20/100 (343.20) feet to a P.K. spike set at a new division line by this survey, this course passes an existing 12" fence post at 11.33 feet, and crosses the east line of the Southwest Quarter of Section 19 at 237.76 feet;

Thence, in a northwardly direction with said new division line on a bearing of north ten degrees thirty minutes forty seconds (10° 30' 40") east for a distance of one hundred ninety and no/100 (190.00) feet to an iron pin set, this course passes an iron pin set on the northerly right-of-way line of East Hyde Road at 20.14 feet;

Thence, in a northeastwardly direction continuing with said new division line on a bearing of north fifty-seven degrees fifteen minutes thirty-five seconds (57° 15' 35") east for a distance of eighty-two and 22/100 (82.22) feet to an iron pin set;

Thence, continuing in a northeastwardly direction with said new division line on a bearing of north twenty-five degrees twenty-two minutes twenty-four seconds (25° 22' 24") east for a distance of three hundred ninety-eight and 42/100 (398.42) feet to an iron pin set, this course crosses said east line of the Southwest Quarter of Section 19 at 70.34 feet;

Thence, in an eastwardly direction with said new division line on a bearing of south eighty-nine degrees twenty minutes thirty-eight seconds (89° 20' 38") east for a distance of seventy-five and 75/100 (75.75) feet to an iron pin set;

Thence, in a southwardly direction with said new division line on a bearing of south one degree fifteen minutes fifty-four seconds (1° 15' 54") west for a distance of five hundred eighty-one and 24/100 (581.24) feet to the true point of beginning containing three and 457/10,000 (3.0457) acres, more or less.

The reference bearing for this survey is south eighty-six degrees fifty-two minutes five seconds (86° 52' 05") east, which is the bearing for the south line of the Southgate Plat No. 2, as recorded in Plat Book 8, Pages 89-91, of the Plat Records of Greene County, Ohio, said line also being the Village of Yellow Springs Corporation Line. The above-described tract contains three and 457/10,000 (3.0457) acres out of forty-two and 3212/10,000 (42.3212) acres conveyed to Kenneth L. and R. Betheen Struewing by deed recorded in Volume 2474, Page 129 of the Official Records of Greene County, Ohio.

The above-description is based on a field survey performed by Louis A. Green, Registered Surveyor No. 6147, State of Ohio, completed August 9, 2006.

ALSO LESS AND EXCEPT the following described real estate:

Located in Section 19, Town 4, Range 8, M.R.S., Miami Township, Greene County, Ohio, and being further described as follows:

Beginning at a railroad spike found at the intersection of the centerlines of Spillan Road and East Hyde Road, a P.K. spike found bears north sixty-five degrees forty-nine minutes twenty-four seconds (65° 49' 24") west a distance of three and 40/100 (3.40) feet;

Thence, in a southwestwardly direction with said centerline of East Hyde Road on a bearing of south fifty-eight degrees two minutes twenty-one seconds (58° 02' 21") west for a distance of three hundred sixty-eight and 97/100 (368.97) feet to a P.K. spike found at an angle point;

Thence, continuing in a southwestwardly direction with said centerline of East Hyde Road on a bearing of south thirty-six degrees five minute forty seconds (36° 05' 40") west for a distance of four hundred sixty-nine and 26/100 (469.26) feet to a

EXHIBIT H

EXHIBIT "A"

Legal Description

EXHIBIT H

P.K. spike found on the easterly edge of pavement of East Hyde Road, said P.K. also being a corner to land conveyed to the Morris Bean and Company, by deed recorded in Volume 206, Page 375, of the Deed Record of Greene County, Ohio, and an easterly corner of land conveyed to James Ritter and Bonnie S. Werner, by deed recorded in Volume 2625, Page 239, of the Official Record of Greene County, Ohio;

Thence, in a westwardly direction with said centerline of East Hyde Road, the north line of said Morris Bean and Company land, and also becoming the north line of land conveyed to Hydebrook Farms, LLC, by deed recorded in Volume 1778, Page 131 of said Official Records on a bearing of north eighty-six degrees twelve minutes twenty-nine seconds ($86^{\circ} 12' 29''$) west for a distance of three hundred forty-three and $20/100$ (343.20) feet to a P.K. spike found at the true point of beginning for the land herein described, this course crosses the East Line of the Southwest Quarter of Section 19 at 237.76 feet;

Thence, continuing in a westwardly direction with said centerline of East Hyde Road, north line of said Hydebrook Farms, LLC land, and becoming the north line of a second tract of land as conveyed to Hydebrook Farms, L.L.C. by deed recorded in Volume 1778, Page 126 of said Official Records on the last described courses for a distance of three hundred ten and $01/100$ (310.01) feet to a P.K. spike found at the southeast corner of a third tract of land as conveyed to Hydebrook Farms, LLC, by deed recorded in Volume 2473, Page 577 of said Official Records;

Thence, in the northwardly direction with the east line of said third tract of Hydebrook Farms, LLC, land on a bearing of north ten degrees thirty minutes forty seconds ($10^{\circ} 30' 40''$) east for a distance of five hundred eighty-six and $06/100$ (586.06) feet to an iron pin found in the south line of land conveyed to Kenneth and R. Betheen Struewing by deed recorded in Volume 2474, Page 129 of said Official Records, this course passes an iron pin found on the northerly right-of-way line of East Hyde Road at 20.14 feet;

Thence, in an eastwardly direction with a new division line by this survey on a bearing of north seventy-five degrees one minute ten seconds ($75^{\circ} 01' 10''$) east for a distance of one hundred eighty-nine and $98/100$ (189.98) feet to an iron pin set;

Thence, continuing with a new division line in an eastwardly direction on a bearing of south eighty-five degrees six minutes forty-nine seconds ($85^{\circ} 06' 49''$) east for a distance of one hundred twenty-four and $59/100$ (124.59) feet to an iron pin set;

Thence, continuing with a new division line in an eastwardly direction on a bearing of south seventy-five degrees twenty-six minutes forty-four seconds ($75^{\circ} 26' 44''$) east for a distance of one hundred seventy-four and $92/100$ (174.92) feet to an iron pin found at the northwest corner of said Ritter and Werner land;

Thence, in a southwardly direction with the west line of said Ritter and Werner land on a bearing of south twenty-five degrees twenty-two minutes twenty-four seconds ($25^{\circ} 22' 24''$) west for a distance of three hundred ninety-eight and $42/100$ (398.42) feet to an iron pin found;

Thence, in a southwestwardly direction continuing with the west line of said Ritter and Werner land on a bearing of south fifty-seven degrees fifteen minutes thirty-five seconds ($57^{\circ} 15' 35''$) west for a distance of eighty-two and $22/100$ (82.22) feet to an iron pin found;

Thence, in a southwardly direction continuing with the west line of said Ritter and Werner land on a bearing of south ten degrees thirty minute forty seconds ($10^{\circ} 30' 40''$) west for a distance of one hundred ninety and $no/100$ (190.00) feet to the true point of beginning containing five and $4930/10,000$ (5.4930) acres, more or less. This course passes an iron pin set on said northerly right-of-way line at 169.86 feet.

The referenced bearing for this survey is south eighty-six degrees fifty-two minutes five seconds ($86^{\circ} 52' 05''$) east, which

EXHIBIT H

EXHIBIT "A"

Legal Description

EXHIBIT H

is the bearing for the south line of the Southgate Plat No. 2, as recorded in Plat Book 8, Pages 89-91, (Plat Cab. 31, Slide 202A-203A) of the Plat Records of Greene County, Ohio, said line also being the Village of Yellow Springs Corporation Line.

The above-described tract contains five and 4930/10,000 (5.4930) acres out of an original 39.2755 acre tract conveyed to Kenneth and R. Betheen Struewing by, deed recorded in Volume 2474, Page 129, of the Official Records of Greene County, Ohio.

The above description is based on a field survey performed by Louis A. Green, Registered Surveyor No. 6147, State of Ohio, completed September 8, 2008, and revised April 15, 2009.

For Informational Purposes Only:

Parcel ID: F16000100100005800

PARCEL II:

Tract One:

Situate in the Village of Yellow Springs, County of Greene, and State of Ohio, and being described as follows:

Being all of Lot Number Thirteen (13) of Southgate Plat #2 to the Village of Yellow Springs, being recorded in Plat Book 8, Pages 89, 90 and 91, now known as Plat Cabinet 31, Pages 202A - 203A, of the Plat Records of Greene County, Ohio.

For Informational Purposes Only:

Parcel ID: F19000100180000300

Tract Two:

Situate in the Village of Yellow Springs, County of Greene, and State of Ohio, and being described as follows:

Being all of Lots Nos. 16, 17, 18, 28, 29, 30, 31, 32, 33, 37, 39 and 40 of the Hill Plat Addition to said Village of Yellow Springs, being recorded in Plat Book 11, Pages 62 and 63, now known as Plat Cabinet 33, Pages 58A - 58B, of the Plat Records of Greene County, Ohio.

For Informational Purposes Only:

Parcel IDs: F19000100180001100, F19000100180001200, F19000100180001300, F19000100180002300, F19000100180002400, F19000100180002500, F19000100180002600, F19000100180002700, F19000100180002800, F19000100180003200, F19000100180003400, and F190001001800035

PARCEL III:

Situate in the Village of Yellow Springs, County of Greene and State of Ohio:

Situate in Section 19, Town 4, Range 8, M.R.S., Village of Yellow Springs, Greene County, Ohio and being part of Business Lot 83 on the Partial Replat of Paul H. Dawson Plat No. 3 as recorded in Volume 5, Pages 50 and 51, now known as Plat Cabinet 32, Pages 82B - 83A, in the Plat Records of Greene County, Ohio and described as follows:

Beginning at an iron pin at the Southwest corner of said Business Lot 83; Thence with the West line of said Business Lot

EXHIBIT H

EXHIBIT "A"

Legal Description

EXHIBIT H

83, North 28° 05' East 189.49 feet to an iron pin; Thence South 71° 20' 40" East 261.13 feet to an iron pin in the West
right-of-way line of Southgate Avenue; Thence with said West right-of-way line, South 3° 09' West 102.11 feet to a point at the Southeast corner of said Business Lot 83; Thence with the South line of said Business Lot 83, North 86° 51' West
331.37 feet to the place of beginning, containing 0.949 acres.

For Informational

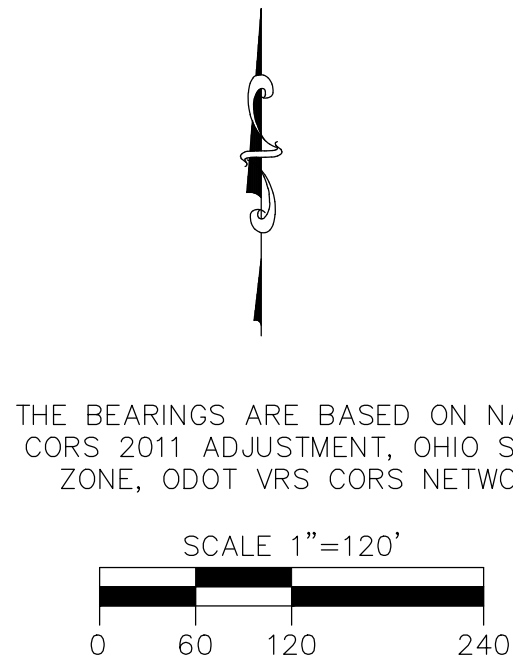
Purposes Only:

Parcel ID:

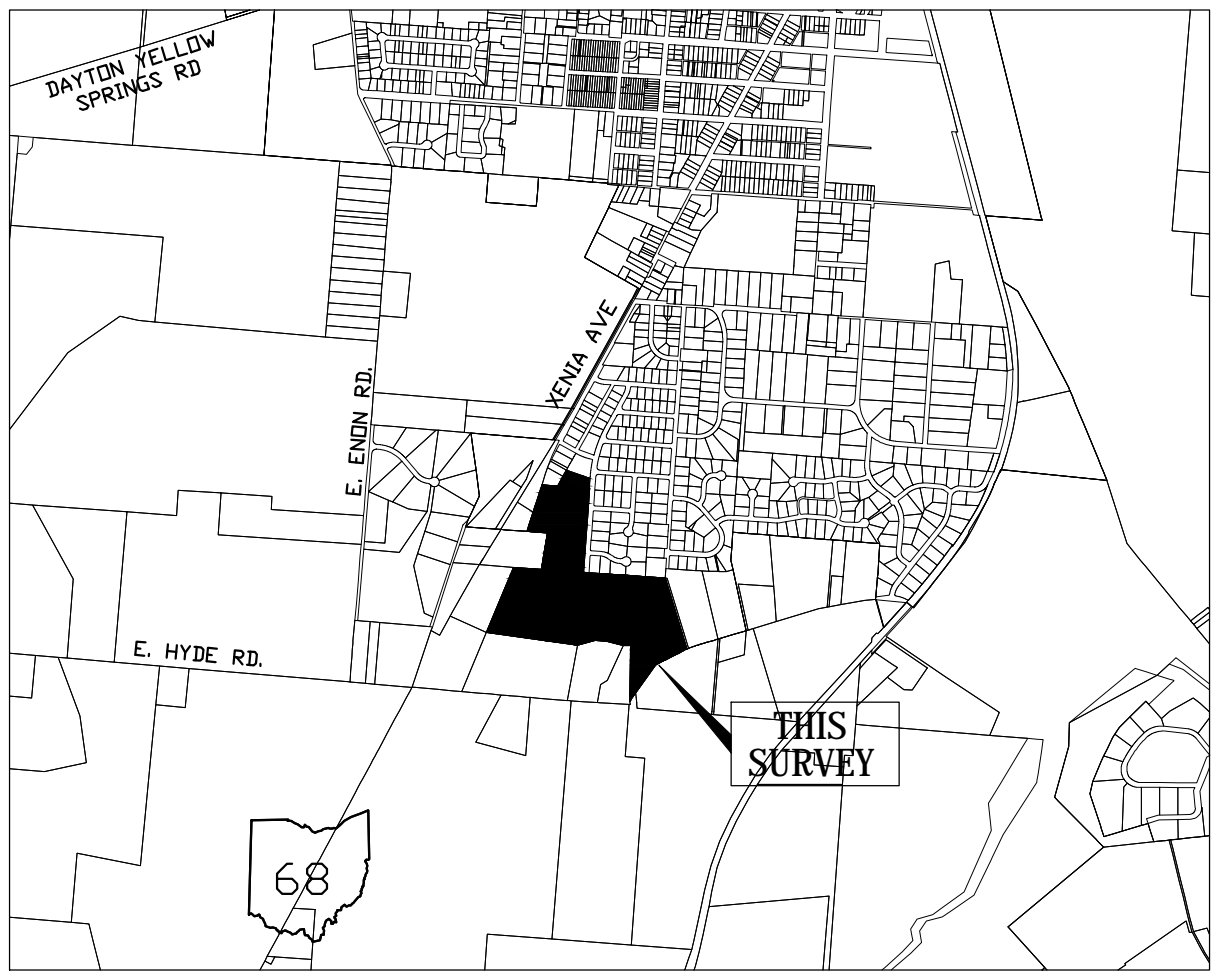
F19000100060013

300

EXHIBIT I



THE BEARINGS ARE BASED ON NAD 83
CORS 2011 ADJUSTMENT, OHIO SOUTH
ZONE, ODOT VRS CORS NETWORK



VICINITY MAP

SURVEY NOTE
MARGARET DRIVE, SOUTHGATE AVENUE AND
MORGAN HILL ARE UNDEVELOPED ROADWAYS

LEGEND

- I.P.S. 5/8" X 30" REBAR W/CAP SET
- I.P.F. IRON PIN FOUND
- M.N.S. MAG NAIL SET
- M.N.F. MAG NAIL FOUND
- ⊙ EXISTING UTILITY POLE
- ⊙ EXISTING LIGHT POLE
- ⊙ EXISTING GUY ANCHOR
- ⊙ EXISTING FIRE HYDRANT
- ⊙ EXISTING WATER VALVE
- ⊙ EXISTING WATER FAUCET
- W — EXISTING WATER MAIN
- ⊙ EXISTING SANITARY CLEAN OUT
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING ROUND CATCH BASIN
- ⊙ EXISTING CATCH BASIN
- ⊙ EXISTING STORM MANHOLE
- ⊙ EXISTING DOWNSPOUT
- ⊙ PAD EXISTING ELECTRICAL TRANS. PAD
- ⊙ EXISTING ELECTRIC RISER
- ⊙ EXISTING ELECTRIC MANHOLE
- ⊙ EXISTING ELECTRIC METER
- E — EXISTING ELECTRIC LINE
- OVH E — EXISTING OVERHEAD ELECTRIC LINES
- T — EXISTING TELEPHONE LINE
- ⊙ EXISTING TELEPHONE METER
- ⊙ EXISTING CABLE RISER
- C — EXISTING UG TELEPHONE LINE
- CTV — EXISTING UG CABLE TV LINE
- ⊙ EXISTING GAS REGULATOR
- G — EXISTING GAS LINE
- ⊙ EXISTING GAS METER
- ⊙ EXISTING GAS VALVE
- X — EXISTING FENCE
- ⊙ CONIFEROUS SHRUBS
- ⊙ DECIDUOUS TREE

LOT #	OWNERS NAME
LOT 12	DOUGLAS L. MCKINLEY
LOT 13	PHILIP L. MILLER
LOT 14	WALTER SIKES
LOT 15	BROOKE E. OBRINGER
LOT 16	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 17	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 18	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 19	BERNICE A KIRK
LOT 27	BONNIE RAHIMUDDIN
LOT 28	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 29	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 30	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 31	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 32	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 33	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 34	ALPHONSO LEHMAN SMITH
LOT 35	OLIVER T. CLEMENS
LOT 36	PATRICIA EVE FLECK
LOT 37	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 38	OLIVER T. CLEMENS
LOT 39	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 40	KENNETH L. STRUEWING AND R. BETHEEN STRUEWING
LOT 41	ARLO D. IHRIG TRUSTEE

UTILITY STATEMENT
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. CHOICE ONE ENGINEERING FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH CHOICE ONE ENGINEERING DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

ALLEN J. BERTKE, P.S. #8629

DATE

PRO FORMA



ALTANSPS LAND TITLE SURVEY
50.540 ACRES SOUTHGATE AVENUE
VILLAGE OF YELLOW SPRINGS, GREENE COUNTY, OHIO

REVISIONS:

FILE NAME
GREYSP2004

DRAWN BY
AJB

CHECKED BY
WDG

PROJECT No.
GREYSP2004

DATE
05-06-2020

SHEET NUMBER


1 OF 2

Choice One
Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
WWW.CHOICEONEENGINEERING.COM

EXHIBIT J





SIDNEY, OHIO 4307-497-0200
LOVELAND, OHIO 513-239-8554
WWW.CHOICEONEENGINEERING.COM

SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
UTILITY CONCEPT

REVISIONS:

FILE NAME	CONCEPT
DRAWN BY	JLH
CHECKED BY	JSP
PROJECT No.	GREYSP2004
DATE	09-21-2021
SHEET NUMBER	1 OF 1

EXHIBIT K

Oberer Yellow Springs Home Owner's Association Summary 10/12/21

As the Developer for the community the Oberer Companies will create a Home Owners Association ("HOA") upon the onset of the development to serve a number of purposes to include: maintenance of common area, set expectations of maintenance and upkeep of the homes in the community and preserve the value of homes in the community.

In the early 1970's the EPA formed and developed regulations for managing storm water runoff and water quality which are now common elements in most subdivision ordinances. As a result, detention and/or retention basins became necessary with all new developments. HOAs quickly became the primary method to provide for the long term ownership and maintenance for the basins.

The Oberer Companies has been developing and managing communities with HOAs since their inception. We have managed and continue to manage countless HOAs. Oberer Companies will oversee the formation of a new HOA and manage it until the last lot is developed. At which time the HOA will be turned over to a three member Board of Trustees. Many boards continue to contract with Oberer Management Services for years after the development and construction are finished.

The HOA will be created by a yet to be written set of documents to include Articles of Incorporation, Bi-laws and a Declaration of Covenants and Restrictions that are typically done during the development of final plans, record plats, etc. and are filed along with or simultaneously with a plat of record. As this neighborhood and community is unique Oberer has chosen not to use its standard Declaration and to instead start the process with a HOA outline and summary which will be used to craft the Declaration during final development plan process. We typically give the attorney a similar outline and an approved plan and the documents are customized for each new community. The outline below is the start of that process.

Section 1. Definitions: This section will define the terms anticipated to be used in the document.

Section 2. Membership, Voting Rights: All property owners will automatically become members of the HOA and one vote per property. The members will elect three Trustees to serve on the HOA Board. Each Board Member will serve a three year term with one new member being elected each year at the required annual meeting. As is customary in the industry, the Developer will appoint the Trustees during the Development Period. The Development Period is the time from inception of the community until the sale of the last home.

Section 3. Assessments: The HOA create a budget each year which will include the cost to the maintain the HOA owned property, which is anticipated to include two storm water retention ponds, a storm water wetland area, cluster mailboxes and entry area features. The budget will be used to generate an annual charge for every owner in the community referred to as an Assessment.

It is the Developer's intent for the HOA to mow and maintain the yard areas in the section of the communities containing the duplexes and townhomes. Snow removal on driveways and sidewalks in these areas is also anticipated to be an HOA funded activity. Each home will be assessed a separate, additional assessment for those services.

Section 4. Covenants and Restrictions on Use and Occupancy:

- All lots will be restricted to residential uses.
- An owner may use a portion of the residence for his or her office or studio as long as those activities do not interfere with the neighbor's normal residential use of their properties.
- Parking will be limited to licensed and operable vehicles and all trailers, boats or other recreational vehicles shall be restricted to within the garages.
- Boarding or raising of livestock or poultry will not be permitted and pets are not to be kept of bred for commercial purposes. No more than a total of three dogs and/or cats shall be permitted as pets on any lot.
- Trash cans shall be kept in sanitary containers and screened from visibility from the streets of the Property.
- No above ground swimming pools shall be permitted, in ground swimming pools are permitted with written approval of the Design Review Committee
- Fences shall be in the rear yard only and not exceed 48" in height. Fences are not anticipated to be permitted in the duplex and/or townhome areas where the HOA will maintain the yards.
- Swingsets, Play Equipment shall in in the rear yard of the home
- Sheds shall be limited to 1 per lot and not exceeding 120 square feet, painted to match the primary structure
- Decks shall not extend into the side yard

Section 5. Common Elements: This section sets up the rules for enjoyment of and maintenance of the Common HOA owned Elements within the community. In this case anticipated to include two storm water retention ponds, a storm water wetland area, cluster mailboxes and entry area features.

Section 6. Maintenance: This section creates the maintenance standards for both the owner and HOA owned areas. As well as creates the opportunity for additional HOA services, such as the lawn mowing and snow removal anticipated for the duplex and townhome lots.

Section 7. Easements: This section identifies the easements that will be required for storm water, utilities and common maintenance that will be incorporated with the HOA.

Section 9. Review of Alteration Plans: This section creates the design standards for the property and structures within the subdivision and the process for which such improvements shall be regulated and approved by a HOA Design Review Committee. The Design Guidelines are anticipated to do the following:

- Set exterior material restrictions on structures within the community such as brick, stone, stucco type material, and wood, Vinyl or cementous siding.
- Set minimum Dwelling Size standards anticipated at 1,000 square feet
- Set minimum landscape requirements to include preservation of the tree line in the front of the homes, requirements for all yards to be seeded or sodded and limiting gardens to the rear of the property.

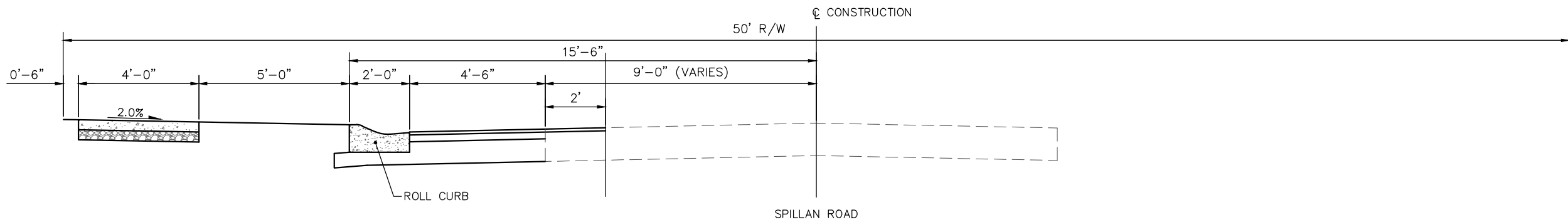
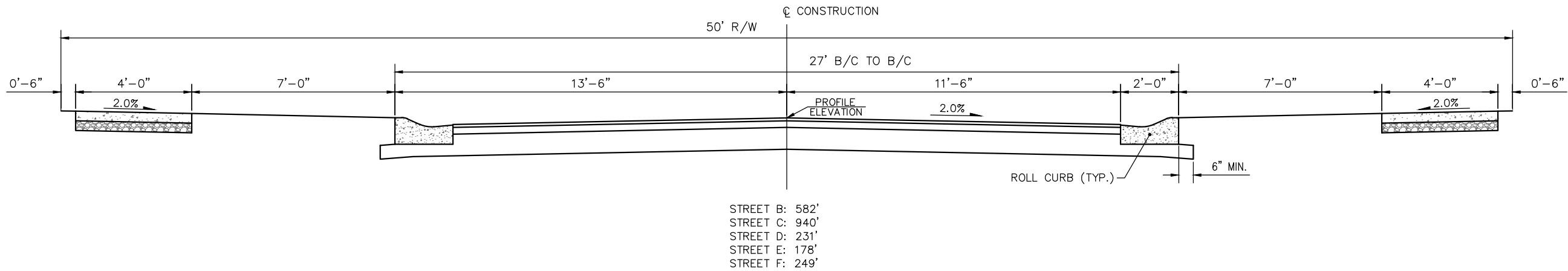
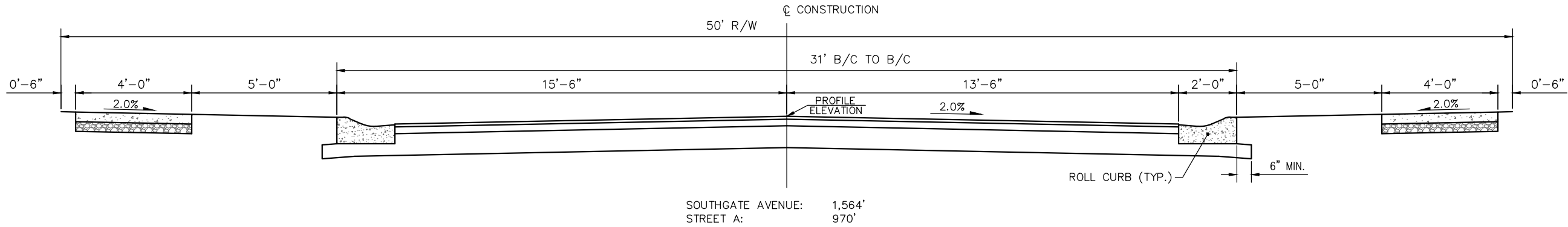
Section 10. Condemnation: This section creates an expectation for the Association in the event that any of the Common property is acquired by a condemning authority.

Section 11. Enforcement: This section gives the HOA the power to place a lien on a Lot which is in default of one or more of the HOA covenants and restrictions.

Section 12. Duration, Amendment and Termination: This section sets up the rules for amending or terminating the Covenants and Restrictions for the HOA.

Section 13. Covenant for Staged Development: Sets expectations for the development to be built within stages or phases.

EXHIBIT L



REVISIONS:

FILE NAME TYP. SEC.
DRAWN BY JLH
CHECKED BY JSP
PROJECT No. GREYSP2004
DATE 10-20-2021
SHEET NUMBER 3 OF 4



EXHIBIT M
Oberer Home at Night1.jpg

Save as... ▾





Oberer Home at Night2.jpg



+ Save as... ▾





Oberer Home at Night3.jpg



Save as... ▾





Oberer Home at Night4.jpg




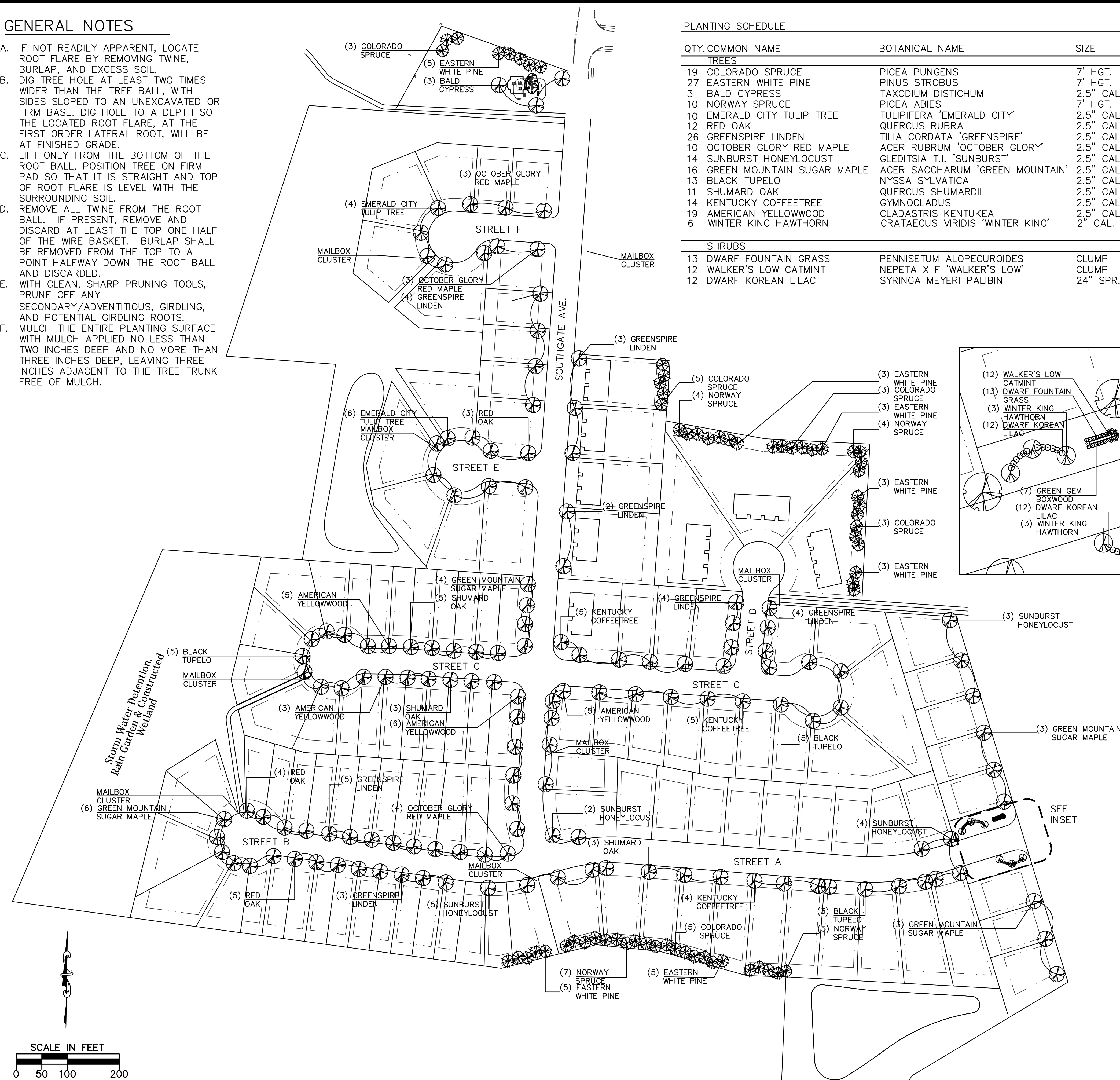
 Save as... ▾



EXHIBIT N - PART 1

GENERAL NOTES

- A. IF NOT READILY APPARENT, LOCATE ROOT FLARE BY REMOVING TWINE, BURLAP, AND EXCESS SOIL.
- B. DIG TREE HOLE AT LEAST TWO TIMES WIDER THAN THE TREE BALL, WITH SIDES SLOPED TO AN UNEXCAVATED OR FIRM BASE. DIG HOLE TO A DEPTH SO THE LOCATED ROOT FLARE, AT THE FIRST ORDER LATERAL ROOT, WILL BE AT FINISHED GRADE.
- C. LIFT ONLY FROM THE BOTTOM OF THE ROOT BALL, POSITION TREE ON FIRM PAD SO THAT IT IS STRAIGHT AND TOP OF ROOT FLARE IS LEVEL WITH THE SURROUNDING SOIL.
- D. REMOVE ALL TWINE FROM THE ROOT BALL. IF PRESENT, REMOVE AND DISCARD AT LEAST THE TOP ONE HALF OF THE WIRE BASKET. BURLAP SHALL BE REMOVED FROM THE TOP TO A POINT HALFWAY DOWN THE ROOT BALL AND DISCARDED.
- E. WITH CLEAN, SHARP PRUNING TOOLS, PRUNE OFF ANY
SECONDARY/ADVENTITIOUS, GIRDLING, AND POTENTIAL GIRDLING ROOTS.
- F. MULCH THE ENTIRE PLANTING SURFACE WITH MULCH APPLIED NO LESS THAN TWO INCHES DEEP AND NO MORE THAN THREE INCHES DEEP, LEAVING THREE INCHES ADJACENT TO THE TREE TRUNK FREE OF MULCH.

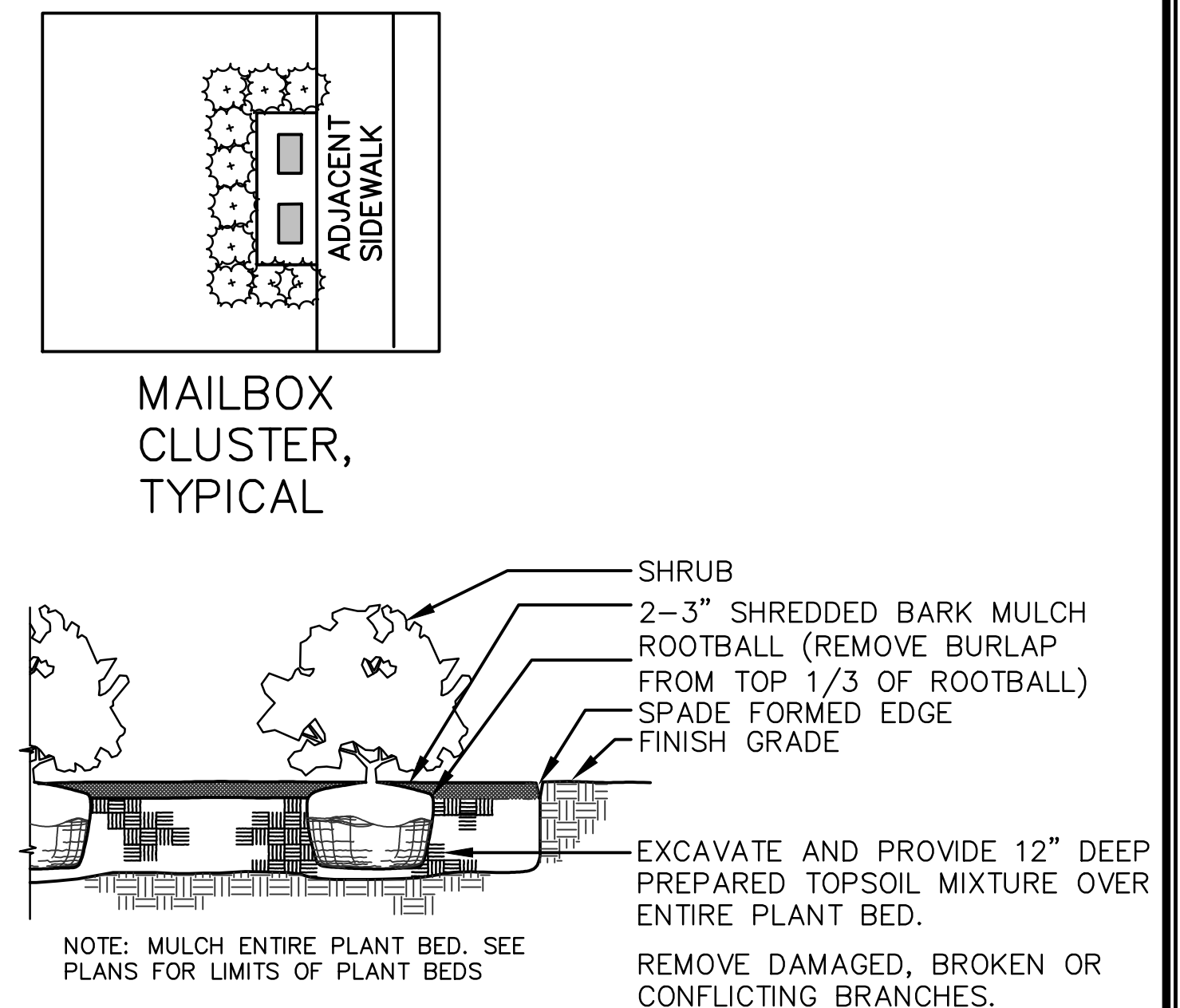


PLANTING SCHEDULE

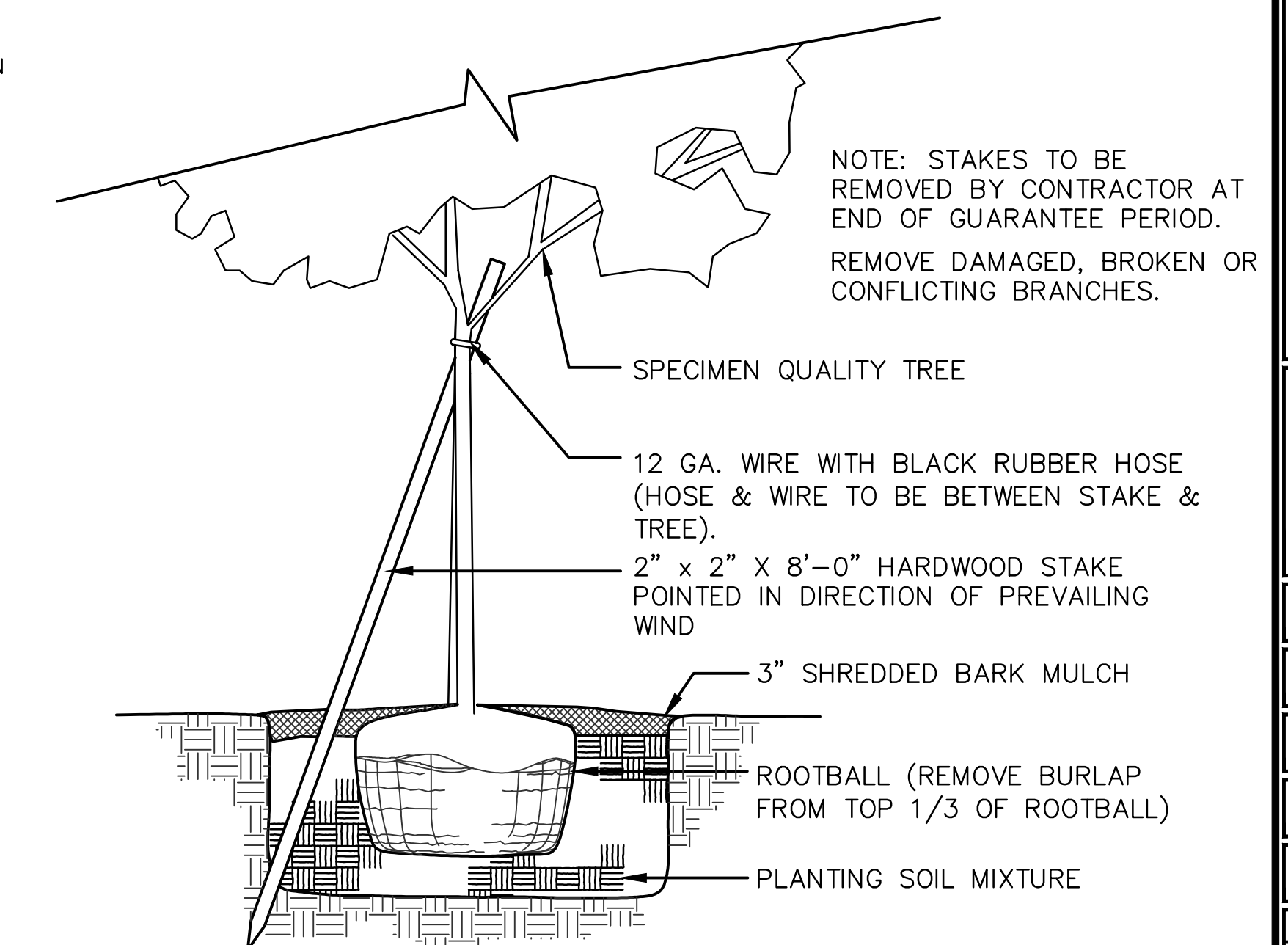
QTY.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT
TREES				
19	COLORADO SPRUCE	PICEA PUNGENS	7' HGT.	B&B
27	EASTERN WHITE PINE	PINUS STROBUS	7' HGT.	B&B
3	BALD CYPRESS	TAXODIUM DISTICHUM	2.5" CAL.	B&B
10	NORWAY SPRUCE	PICEA ABIES	7' HGT.	B&B
10	EMERALD CITY TULIP TREE	TULIPIFERA 'EMERALD CITY'	2.5" CAL.	B&B
12	RED OAK	QUERCUS RUBRA	2.5" CAL.	B&B
26	GREENSPIRE LINDEN	TILIA CORDATA 'GREENSPIRE'	2.5" CAL.	B&B
10	OCTOBER GLORY RED MAPLE	ACER RUBRUM 'OCTOBER GLORY'	2.5" CAL.	B&B
14	SUNBURST HONEYLOCUST	GLEDITSIA T.I. 'SUNBURST'	2.5" CAL.	B&B
16	GREEN MOUNTAIN SUGAR MAPLE	ACER SACCHARUM 'GREEN MOUNTAIN'	2.5" CAL.	B&B
13	BLACK TUPELO	NYSSA SYLVATICA	2.5" CAL.	B&B
11	SHUMARD OAK	QUERCUS SHUMARDII	2.5" CAL.	B&B
14	KENTUCKY COFFEETREE	GYMNOCLADUS	2.5" CAL.	B&B
19	AMERICAN YELLOWWOOD	CLADASTRIS KENTUCKEA	2.5" CAL.	B&B
6	WINTER KING HAWTHORN	CRATAEGUS VIRIDIS 'WINTER KING'	2" CAL.	B&B
SHRUBS				
13	DWARF FOUNTAIN GRASS	PENNISSETUM ALOPECUROIDES	CLUMP	NO. 2 CONT.
12	WALKER'S LOW CATMINT	NEPETA X F 'WALKER'S LOW'	CLUMP	NO. 3 CONT.
12	DWARF KOREAN LILAC	SYRINGA MEYERI PALIBIN	24" SPR.	NO. 5 CONT.

PLANTS

- A. SPECIES AND SIZE IDENTIFIED IN PLANT SCHEDULE, GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE WORK.
1. PROVIDE HEALTHY, SOUND, VIGOROUS PLANT MATERIALS, FREE FROM PLANT DISEASES, INSPECT PESTS, HEALTHY WELL-DEVELOPED ROOT SYSTEMS, FRESHLY DUG, NURSERY GROWN, WELL-BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND WELL-PROPORTIONED, PARTICULARLY WITH RESPECT TO THE WIDTH-HEIGHT RELATIONSHIP.
2. DAMAGED OR BROKEN BRANCHES, BROKEN BALL AND LOOSE TOP BALL ARE NOT ACCEPTABLE.
- B. MULCH MATERIALS
1. HARDWOOD SPECIES WOOD SHAVINGS, FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS CONTAINING NO STICKS LARGER THAN $\frac{1}{4}$ INCH IN DIAMETER, STONES, CLAY OR OTHER FOREIGN MATERIAL THAT WILL PREVENT EVENTUAL DECAY OF THE MULCH NECESSARY FOR ITS COMPLETE EFFECTIVENESS.
- C. PLANTING
1. SET PLANTS IN CENTER OF HOLE, PLUMB AND STRAIGHT. REMOVE $\frac{1}{2}$ TOP OF BURLAP (IF APPLICABLE).
2. SATURATE SOIL WITH WATER WHEN THE HOLE IS HALF FULL OF TOPSOIL AND AGAIN WHEN FULL.
3. DO NOT INSTALL PLANT LIFE WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F OR RISE ABOVE 90 DEGREES F.

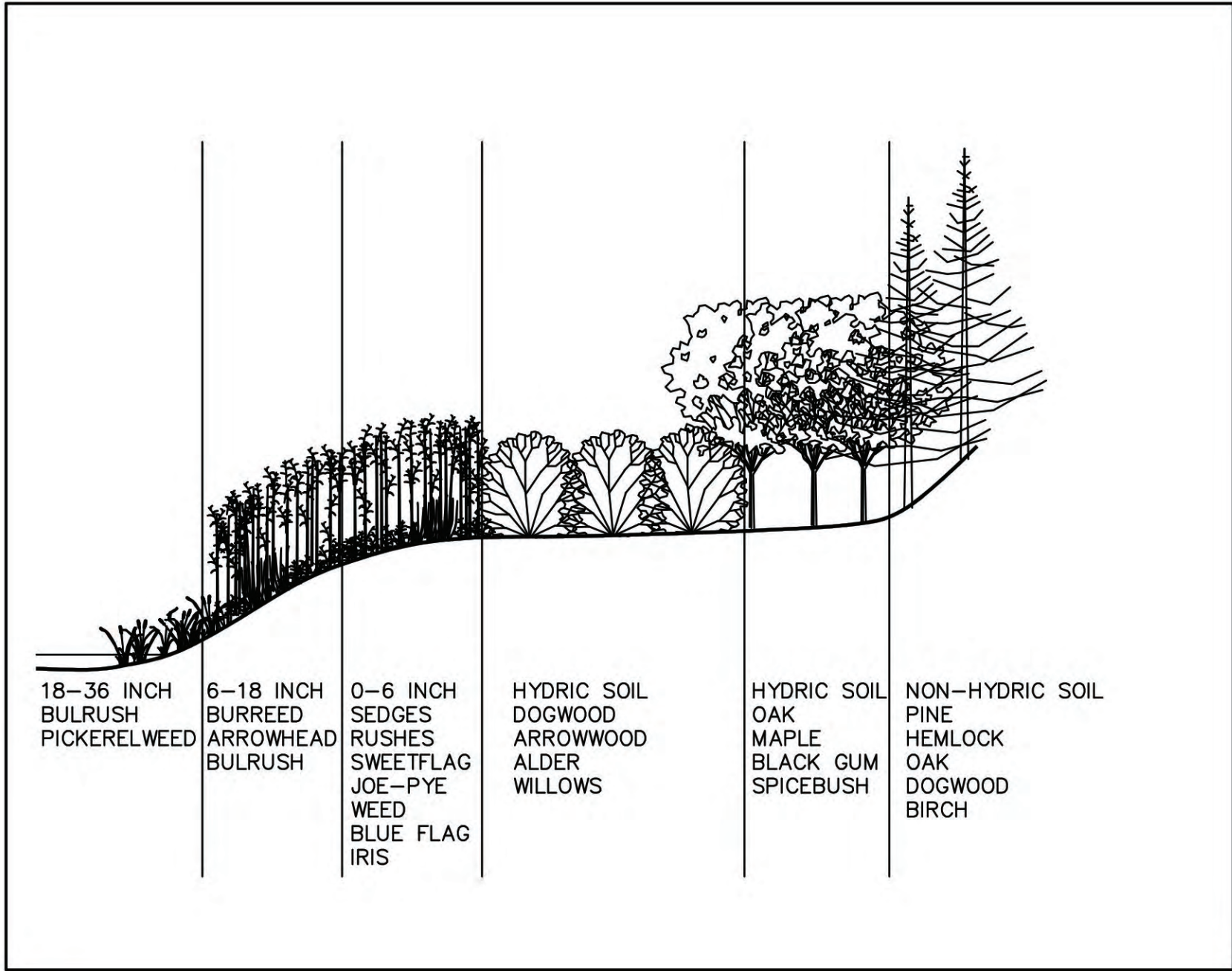


SHRUB PLANTING DETAIL

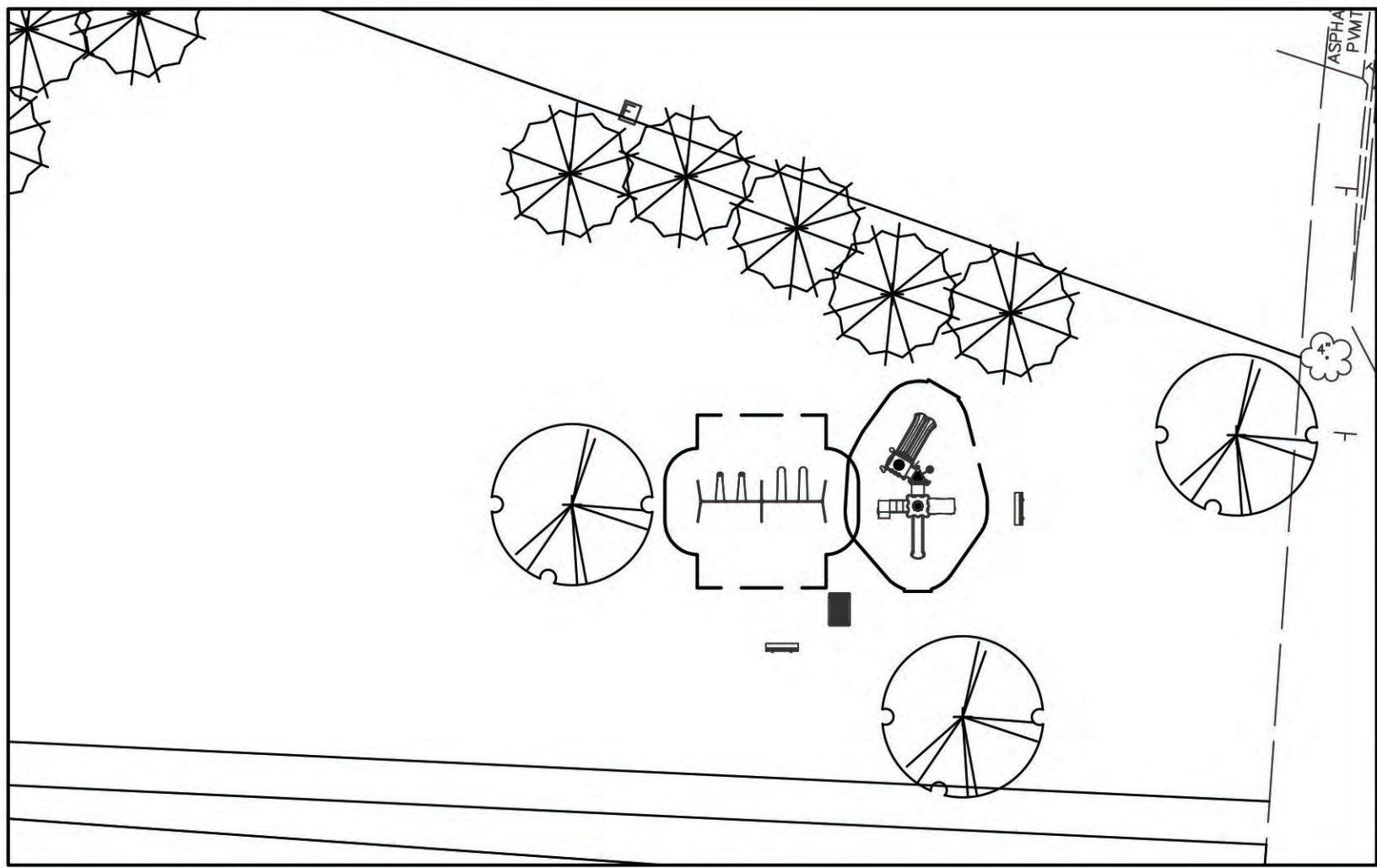


TREE PLANTING DETAIL

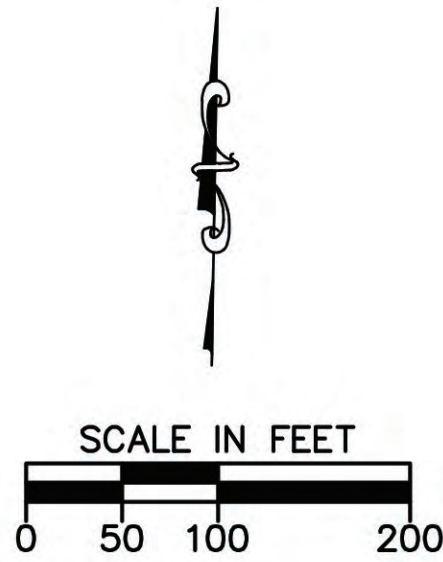
EXHIBIT N- Part 2



TYPICAL WETLAND SECTION



PARK SPACE



ChoiceOne
Engineering

SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 913.239.8554
WWW.CHOICEONEENGINEERING.COM

SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
LANDSCAPE PLAN

REVISIONS:

FILE NAME	RENDERING
DRAWN BY	JLH
CHECKED BY	JSP
PROJECT No.	GREYSP2004
DATE	10-20-2021
SHEET NUMBER	4 OF 4

EXHIBIT O



Signature: _____

Note: Colors above are for representational purposes only. Actual colors may vary slightly.
Standard Swing Set (Corner Juntions, Seats: Green)

EXHIBIT O



Signature: _____

Note: Colors above are for representational purposes only. Actual colors may vary slightly.
Standard Swing Set (Corner Juntions, Seats: Green)

EXHIBIT P

Village of Yellow Springs, Ohio

Ordinance Number 79- 30

ORDINANCE AMENDING THE ZONING DISTRICT MAP AND REPEALING CHAPTER 1139 — PLANNED UNIT DEVELOPMENT — OF TITLE THREE — ZONING — OF PART ELEVEN — PLANNING AND ZONING CODE — OF THE CODIFIED ORDINANCES OF YELLOW SPRINGS, OHIO AND ADOPTING IN LIEU THEREOF A NEW CHAPTER 1139 — PLANNED UNIT DEVELOPMENT — OF TITLE THREE OF PART ELEVEN OF THE CODIFIED ORDINANCES OF YELLOW SPRINGS, OHIO.

THE COUNCIL OF THE VILLAGE OF YELLOW SPRINGS, OHIO HEREBY ORDAINS:

Section 1. That the Zoning District Map be amended to incorporate a Planned Unit Development District in accord with Exhibit A attached.

Section 2. That Chapter 1139 - Planned Unit Development - of Title Three - Zoning - of Part Eleven - Planning and Zoning Code - of the Codified Ordinances of Yellow Springs, Ohio be repealed.

Section 3. That a new Chapter 1139 - Planned Unit Development - of Title Three - Zoning - of Part Eleven - Planning and Zoning Code - of the Codified Ordinances of Yellow Springs, Ohio be, and the same is, hereby adopted to read as follows:

Chapter 1139
Planned Unit Development

1139.01 DEFINITIONS.

(a) "Planned unit development" (PUD) means:

- (1) Land under unified control, planned and developed as a whole; and
- (2) In a single development operation or a definitely programmed series of development operations including all lands and buildings; and
- (3) According to comprehensive and detailed plans which include not only streets, utilities, lots or building sites, but also site plans and design principles for all buildings as intended to be located, constructed, used and related to each other; and detailed plans for uses and improvements on the land as related to the buildings; and
- (4) With a program for provision, operation and maintenance of such areas, improvements and facilities necessary for common use by some or all of the occupants of the development, but which will not be provided, operated or maintained at general public expense.

1139.02 PURPOSES.

Planned unit developments must be compatible with the adopted Village Plan. Some specific purposes of the planned development procedure are:

- (a) To take advantage of advances in technology, architectural design and functional land use design;
- (b) To recognize the problems of population density, distribution and circulation, and to allow a deviation from rigid established patterns of land use, but controlled by defined policies, standards and objectives;
- (c) To produce a comprehensive development equal to or better than that resulting from traditional lot-by-lot land use development;
- (d) To permit flexibility of design in the placement, height and uses of buildings and open space, circulation facilities and off-street parking area;
- (e) To more efficiently utilize potentials of site, characterized by special features of geography, topography, size or shape; and
- (f) To encourage innovations in residential development so that the growing demands for housing at all economic levels may be met by greater variety in type, design and siting of dwellings, and by conservation through more efficient use of land in such developments.

1139.03 ELIGIBILITY AND GENERAL STANDARDS.

(a) Planned unit development is:

- (1) a floating, permissive zoning classification throughout residentially zoned areas of Yellow Springs. Where planned unit development is elected as the desired development vehicle, a two (2) acre minimum tract size shall qualify the development for PUD review. Upon successful review, the project shall be zoned "Planned Unit Development".

- (2) Planned unit development, where designated a zoning district by Village Council, and without petition or submission of plans by a private developer, may allow both residential and commercial/light industrial land uses in accord with an agreed upon plan to be initiated by the developer and endorsed by Village Council after recommendation by the Planning Commission.
- (b) The standards for residential planned unit developments shall be the same as those for the zoning districts in which such PUD's are proposed to exist. In cases where exceptional design has been demonstrated in providing open space, circulation, and other amenities, and where it has been determined that surrounding neighborhoods will not be adversely affected, the Village may grant density increases and a waiver of otherwise applicable standards up to twenty-five (25) percent or the standard for a Residence "C" zone, whichever standard offers the lesser deviation. Exceptional design will be judged on the basis of creation of meaningful recreation space, protection of environmental features such as streams and woodlots, or other enhancement of physical site characteristics justifying a bonus in density. The size of buildings may vary where the number of units and the amount of open space are in harmony with the surrounding area.
- (c) The standards for planned unit development areas designated as zoning districts upon initiative of Village Council, shall neither exceed the standards for residential development contained within Residence "C" districts nor the standards for commercial development enumerated within the General Business district nor the industrial standards enumerated in the Industrial District.

1139.04 SPECIFIC PUD STANDARDS

- (a) The standards which follow shall be in addition to other applicable standards referred to by this chapter.
- (b) Density. In each stage of construction, the average density of dwelling units shall not be substantially greater than the average allowable for the total site.
- (c) Utilities. All electrical and telephone facilities, street light wiring and other wiring conduits and similar facilities shall be placed underground by the developer, unless waived by the Planning Commission for technical reasons.
- (d) Site Design. All housing shall be sited to preserve privacy and to ensure natural light. Lot widths may be varied to permit variety of structural designs. It is also recommended that setbacks be varied. A clustering of dwelling is encouraged to allow housing units to abut common open space.
- (e) Structure Spacing. A minimum of fifteen feet shall be maintained between principal structures.

- (f) Height. The height of any residential structure within a planned unit development shall not exceed thirty-five feet.
- (g) Setback and screening. A setback of thirty-five (35) feet shall be provided along the entire perimeter of the development and retained in natural woods, or be suitably landscaped with grass and/or ground cover, shrubs and trees. The amount of setback may be varied at the discretion of the Planning Commission if the location, shape, size, topography or adjacent uses of the site justify the variation. Residential developments located adjacent to commercial or industrial zones shall provide screening facilities comprising landscaping, walls or both, which will provide suitable protection to the residential development as adjudged by the Planning Commission and Council. Commercial and industrial developments shall provide minimum screening per requirements in commercial and industrial zoning districts. Screening facilities shall not obscure traffic visibility within fifty feet of an intersection.
- (h) Common Open Space. A minimum of twenty-five percent of the land in any primarily residential planned unit development shall be reserved for permanent common open space and recreational or other related community facilities for the residents or users of the area being developed. Only areas having minimum dimensions of fifty by one hundred (50 x 100) feet shall qualify for computation as usable open space. The Planning Commission shall approve the location, shape, topography and size of any common open space within the planned development, and shall approve the plans for improvement and maintenance.
- (i) Dedicated Open Space. Dedicated open space shall be in accord with the Subdivision Regulations of the Village and Section 1331.02 of the Building Code.
- (j) Parking Requirements. See Chapter 1147.
- (k) Signs. See Chapter 1153.

1139.05 PRE-APPLICATION CONFERENCE.

- (a) Prior to filing a formal application for approval of a planned unit development, the developer shall request a pre-application conference with the Zoning Administrator.
- (b) The developer shall be prepared to present a general concept of proposed development prior to preparation of detailed plans. For this purpose, the pre-application conference shall include but not be limited to the following:
 - (1) Location map;
 - (2) Topographic sketch;
 - (3) Sketch plans and ideas regarding land use, dwelling types and density, street and lot arrangement, and tentative lot sizes;
 - (4) Tentative proposals regarding water supply, sewage disposal, surface drainage and street improvements.

- 4
- (c) The Zoning Administrator shall advise the developer of the zoning requirements and Village plans which might affect the proposed development, as well as the procedural steps for approval.
 - (d) Before presentation of a formal preliminary plan, the same elements outlined by 1139.05(b) above shall also be discussed with the Planning Commission.

1139.06 PRELIMINARY PLAN REVIEW AND ACTION.

- (a) Presentation of the preliminary plan for a proposed PUD shall be a process with two (2) phases. Both phases may be accomplished and presented concurrently, but normally, the developer will seek approval of phase one before proceeding to phase two.
- (b) Phase One, Concept Plan.
 - (1) Application shall be made to the Zoning Administrator for transmittal to the Planning Commission. Ten (10) copies of all materials shall be required including maps, sketch plans, and supporting narratives.
 - (2) Application materials shall include, but not be limited to the following:
 - A. Letter of transmittal identifying all property owners within the proposed district and demonstrating tentative agreement of all owners to proceed with development according to plans and to bind their successors in title to abide by any final commitments made.
 - B. A location map indicating the relation of the proposed district to the surrounding area showing locations and widths of contiguous streets, relation to surrounding walkway systems, and the approximate locations, sizes, and depths of existing public sanitary and storm sewers. The approximate location and size of nearby and existing water lines shall also be shown.
 - C. Topographic sketch map with contour lines.
 - D. Map of wooded areas, streams, lakes, marshes, and any other physical conditions affecting the site.
 - E. If deemed necessary by the Planning Commission or Zoning Administrator, indications of subsurface conditions on the site, including the location and results of tests made to ascertain the condition of subsurface soil, rock and ground water, and the existing depth of ground water.
 - (3) Application materials shall also include a preliminary development plan and report, with supporting artist's renderings, with maps at a scale of 100 feet or less to the inch, including as appropriate to the kind of planned development proposed the following information, presented in generalized form:

- 5
- A. Proposed land uses and approximate height, bulk and location of principal structures sufficient to permit an understanding of the style of the development. Proposals shall specify the number of housing units by size and type proposed within the overall development. If development is to be staged, the number of housing units by size and type in each stage shall be specified. If non-residential uses are proposed, gross floor area shall be specified.
 - B. Proposed automotive, bicycle and pedestrian circulation patterns, including streets by type (major, collector or minor), width, public or private bicycle and pedestrian ways. Existing or platted streets proposed to be vacated. A report shall be provided, if appropriate, in a particular development, containing proposals for improvement and continuing maintenance and management of any private streets.
 - C. Planned off-street parking areas.
 - D. Proposed parks, playgrounds, school sites, pedestrian pathways, dedicated open space, and other major open spaces. Landscaping and tree-planting plan. Report of the general form of organization proposed to own and maintain any common open space.
 - E. General location of utilities installations and easements.
 - F. A phasing plan for any development which will require more than twenty-four months to complete. The phasing plan shall indicate the order and timing of the development, and shall demonstrate that each stage, when completed, will complement any development completed earlier, and will form a reasonably independent unit even though succeeding stages are delayed. The phasing plan shall indicate the amount and location of common open space to be provided at each stage.
 - G. The substance of covenants, grants or easements, or other restrictions existing or proposed to be imposed upon the use of the land, buildings or structures, including proposed easements or grants for public utilities.
 - H. Estimates of the social characteristics of the development, stage by stage, such as the purchase price and/or rental scale and the size and demographic composition of the future population of the development by stage.
 - I. Estimates of the environmental consequences of the development as related to water need, availability of adequate sewerage, and amounts of off-site storm drainage to be expected.

(c) Phase Two, Detailed Plans.

After Planning Commission has reviewed the phase one, concept plan submissions, the developer shall proceed to prepare detailed plans in accord with regulations for the subdivision of land contained within Chapters 1101 and 1102. Such detailed plans shall constitute phase two of the planned unit development process, and such plans shall address the specifics of engineering for new utility line extensions, streets construction, surveying, lot layout, et cetera.

6

(d) Operational Standards for Review of Application. The Planning Commission shall not approve a request for a planned unit development unless it shall, in each specific case, make specific findings of facts directly based upon the particular evidence presented to it, which supports the conclusion that:

- (1) The planned unit development can be substantially completed within the period of time specified in the schedule of development submitted by the developer.
- (2) The site will be accessible from public roads that are adequate to carry the traffic which will be imposed on them by the proposed development. The streets and bike-ways on the site of the proposed development will be adequate to serve both the residents of the proposed development and the community at large. On-site and abutting thoroughfares shall be brought into conformity with the Yellow Springs Thoroughfare Plan.
- (3) The development will not impose any undue burden on public facilities and services, such as fire and police protection.
- (4) The development plan contains such proposed covenants, easements, and other provisions relating to the proposed development as are reasonably required for the public health, safety, and welfare.
- (5) The location and arrangement of structures, parking areas, walks, lighting and appurtenant facilities shall be compatible with the surrounding land uses. Any part of a planned unit development not used for structures, parking and loading areas, or access ways shall be landscaped or otherwise improved.
- (6) Natural features such as water courses, trees and rock out-crops will be preserved, to the degree possible, so that they can be incorporated into the layout to enhance the overall design of the planned development.
- (7) The layout 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 the provision of proposed services.
- (8) The development pattern preserves and utilizes natural topography and geologic features, scenic vistas, trees and other vegetation, and prevents the disruption of natural drainage patterns.
- (9) Identifiable negative environmental, social or economic effects on surrounding areas and on the community at large will be minimized.

(e) Procedure for Consideration and Approval of Preliminary Plan.

- (1) The Planning Commission shall study material received and confer with other agencies of government as appropriate in the case to determine general acceptability of the proposal as submitted. In the course of such preliminary considerations, the Planning Commission may request, and the applicant shall supply, additional material needed to make specific determinations.

- 7
- (2) Following such study, the Planning Commission or its staff shall hold a conference or conferences with the applicant to discuss desirable changes in the first or succeeding drafts of the preliminary development plan and report.
 - (3) Recommendations of the Planning Commission to the applicant shall be in writing and following any such conference, agreements between the applicant and the Planning Commission as to changes in the preliminary plan and report or other matters shall be recorded and acknowledged by the Commission and the applicant. On items on which no agreement is reached, or there is specific disagreement, this fact shall be recorded, and the applicant may place in the record his reasons for any disagreement.
 - (4) When the preliminary development plan and report have been approved in principle (as a whole or with reservations duly noted), or when the applicant indicates in writing that no further negotiations with the Planning Commission are desired before proceeding, the Commission shall, within forty-five days, schedule the proposed plan for public hearing and shall make its recommendations to Council thereafter. Notice of such hearing shall be published in the newspaper at least ten days in advance of the hearing. Such recommendations shall indicate approval, approval with specific reservations, or disapproval with reasons. With such recommendations, the Commission shall transmit to Council, and make available to the public, the latest draft of the preliminary plan and report submitted by the applicant, a record of agreements reached and matters on which there was no specific agreement, including any reasons recorded by the applicant for any such disagreement.
 - (5) Council shall schedule a public hearing for the preliminary plan after receiving the proposal from the Planning Commission. Within thirty (30) days of receipt of the proposal Council shall approve the proposal, approve subject to conditions or deny the proposal. If approved, the area of land marked shall be redesignated Planned Unit Development (PUD), and shall be used only in accordance with the uses and densities shown on the approved preliminary plan.

1139.07 FINAL PLAN APPROVAL PROCESS.

- (a) Submittal Requirements. The final development plan shall conform substantially to the preliminary plan as approved, and shall be filed within six months after approval by Council of the preliminary plan. If desired, the developer may submit it in stages, with each stage reflecting a portion of the approved preliminary plan which is proposed to be recorded and developed; provided, however, that such portion conforms to all requirements of these regulations. The final plan and supporting data shall be filed with the Zoning Administrator, who in turn, shall forward copies to the Planning Commission.

8

(b) Materials to be Submitted. Final development plans and reports shall include:

- (1) A map or maps in the form required by the Subdivision Regulations for final plats of subdivisions, with such modifications and additions as required concerning such items as building sites when used as a substitute for lots, common open space not dedicated for public use, dedicated open space and other matters as appropriate to planned developments generally, or to the specific planned development.
- (2) A general site and land use plan for the planned development as a whole, indicating subareas for phased development, if any, and showing location and use of structures and portions of structures in relation to building site lines, building sites reserved for future use and uses for which such sites are reserved; automotive, bicycle and pedestrian circulatory systems; principal parking areas; open space not in building sites; and uses for which it is intended; and such other matters as are required to establish a clear pattern of the relationship to exist between structures, uses, circulation and land.

(c) Procedures for Consideration and Approval of Final Plan.

- (1) The Planning Commission, upon receipt from the Zoning Administrator, shall deal with the final plan as it would with a final plan of a subdivision.
- (2) The Planning Commission shall then forward the final plan together with its recommendations to Council. Council shall review the recommendations of the Planning Commission in accord with regulations for final plat, and shall approve, approve subject to conditions, or deny the final application.

(d) Recording of the Final Development Plan. After approval of the final plan by Council the final plan shall be presented to the Greene County Recorder for recording within sixty (60) days or Village approvals shall become null and void.

The purpose of such recording is to designate with particularity the land subdivided into conventional lots as well as the dimensions of other lands, not so treated, into common open areas and building areas, and to designate each building or structure, as well as the use of the land in general. No final development plan within the corporate limits of Yellow Springs shall be so recorded unless it has the approval of Council inscribed thereon.

1139.08 EFFECT OF DENIAL OF A PLANNED DEVELOPMENT PLAN.

No application for a planned development which has been denied wholly or in part by the Planning Commission and Council shall be re-submitted for a period of one year from the date of such order or denial, except on the ground of new evidence or proof of change of conditions found to be valid by the Commission and Council.

9

1139.09 BUILDING PERMIT.

No building permit shall be issued until the final development plan has been approved and duly recorded.

1139.10 CHANGES IN THE PLANNED DEVELOPMENT.

A planned development shall be developed only in accordance with the approved and recorded final development plan and all supporting data. The recorded final plan and supporting data, together with all recorded amendments, shall be binding on the applicants, their successors, grantees and assigns and shall limit and control the use of premises and including the internal use of buildings and structures and the location of structures in the planned development as set forth therein.

- (a) Major Changes. Changes which alter the concept or intent of the planned development, including increases in the number of units per acre, change in location or amount of nonresidential land uses, more than fifteen percent modification in proportion of housing types, reductions of proposed open space, significant re-design of roadways, bicycle ways, utilities or drainage, may be approved only by submission of a new preliminary plan and supporting data, and following preliminary approval procedure provided in Section 1139.06 and subsequent amendment of the final planned development plan. Any major changes which are approved for the final plan must be recorded as amendments to the recorded copy of the final plan by the Greene County Recorder, and no building permit shall be issued until such recording is accomplished.
- (b) Minor Changes. The Zoning Administrator, upon notifying the Planning Commission, may approve minor changes in the planned development which do not change the concept or intent of the development, without going through the preliminary approval procedure provided in Section 1139.06. Minor changes are defined as any change not defined herein as a major change.

1139.11 REVOCATION.

- (a) The Planning Commission shall consider the planned development authorization subject to revocation if construction falls more than one year behind the phasing schedule filed with the final plan.
- (b) In any case where a planned development has not been established or substantially underway within one year from the date of the granting thereof, then, without further action from the Planning Commission, the planned development authorization therefor shall be null and void.

1139.12 GUIDELINES FOR CONVEYANCE AND MAINTENANCE OF COMMON OPEN SPACE.

- (a) All land shown on the Final development plan as specified in this chapter as common open space must be conveyed under one of the following options:
 - (1) It may be conveyed to a public agency which will agree to maintain the common open space and any buildings, structures or improvements which have been placed on it.

- (2) It may be conveyed to trustees provided in an indenture establishing a neighborhood association or similar organization for the maintenance of the planned development. The common open space must be conveyed to the trustees subject to covenants to be approved by the Planning Commission which restrict the common open space to the uses specified on the final development plan, and which provide for the maintenance of the common open space in a manner which assures its continuing use for its intended purpose.
- (b) No common open space may be put to any use not specified in the final development plan unless the final development plan has been amended to permit that use. However, no authorized change of use may be considered as a waiver to any of the covenants limiting uses of common open space areas, and all rights to enforce these covenants against any permitted use are expressly reserved to the Village.

1139.13 ESTABLISHMENT AND RESPONSIBILITIES OF NEIGHBORHOOD ASSOCIATION

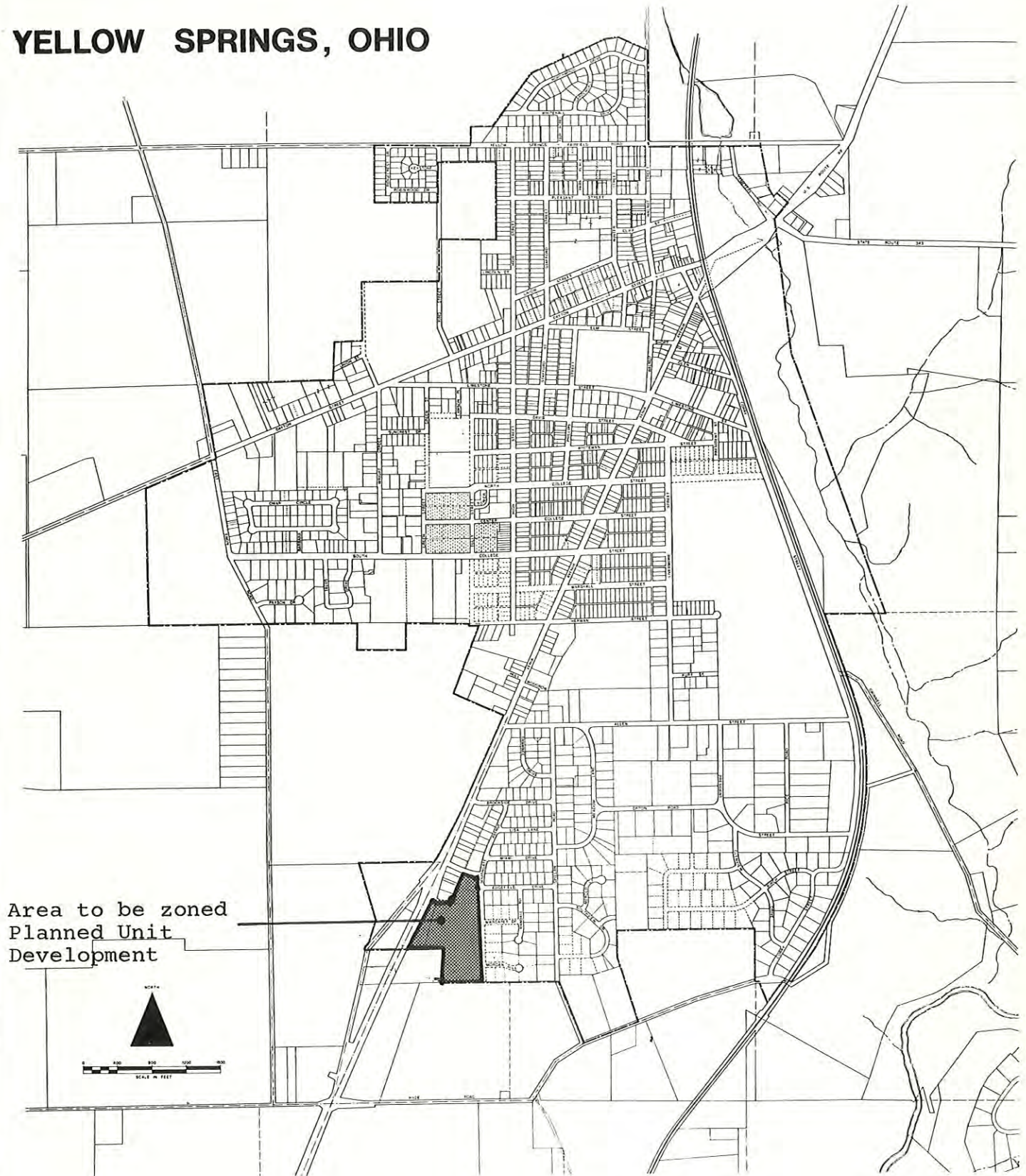
- (a) Covenants for mandatory membership in a neighborhood association, setting forth the owners' rights and interest and privileges in the association and the common open space, shall be approved by the Planning Commission and included in the deed for each lot.
- (b) This neighborhood association shall have the responsibility of maintaining the common open space and operating and maintaining local neighborhood recreational facilities within such common open space.
- (c) The association shall be empowered to levy annual charges against the property owners to defray the expenses connected with the maintenance of open spaces and neighborhood recreational facilities. Such charges shall become a lien against any property which may be in default.
- (d) Trustees of such associations may be replaced by recall action of association members, but in no case shall an association or its trustees fail to discharge its duties; nor shall it dispose of any common open space by sale or otherwise, except to an organization conceived and established to own and maintain the common open space for the uses specified in covenants and deed restrictions, or to the Village or other governmental agency designated by Council.
- (e) The developer or subdivider shall maintain control of such open spaces and be responsible for their maintenance until development sufficient to support the association has taken place. Such determination shall be made by the Planning Commission upon request of the neighborhood association or the developer or subdivider.

- 11
- (f) In the event that the organization established to own and maintain common open space, or any successor organization, shall at any time after establishment of the planned unit development fail to maintain the common open space in reasonable order and condition in accordance with the plan, the Village may serve written notice upon such organization or upon the residents and owners of the planned unit development setting forth the manner in which the organization has failed to maintain the common open space in reasonable condition, and such notice shall contain a demand that such deficiencies of maintenance be cured within thirty days of receipt of such notice, and shall state the date and place of a hearing thereon which shall be held before Village Council within fourteen days of the notice. At such hearing the Village may modify the terms of the original notice of deficiencies and may give an extension of time within which they shall be cured. If the deficiencies set forth in the original notice or in modifications thereof shall not be cured within thirty days or any extension thereof, the Village, in order to preserve the taxable values of the properties within the planned unit development and to prevent the common open space from becoming a public nuisance, may enter upon such common open space and maintain the same for a period of one year.
- (f) The cost of such maintenance by the Village shall be assessed proportionately against the properties within the planned unit development which have a right of enjoyment of the common open space, and thereby made a lien upon each lot, parcel or unit of the planned unit development. The Village at the time of entering upon such common open space for the purpose of maintenance shall, every three months, bill the owners for their share of the maintenance cost. If the same is not paid within thirty days after such billing, the cost shall be certified by the Village Manager to the Greene County Auditor, who shall place the same on the tax duplicate as a tax lien or assessment against the owner's property with the interest and penalties allowed by law to be collected in the same manner and at the same time as other taxes are collected.

1139.99 PENALTY.

See Section 1125.99 for penalties incurred by violation of any section of this chapter.

YELLOW SPRINGS, OHIO



Village of Yellow Springs, Ohio
Ordinance Number 79- 30

Exhibit A

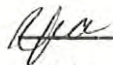

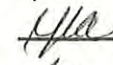

Section 4. That this Ordinance take effect and be in force from and after the earliest period allowed by law.


President of Council

Passed: November 19, 1979

Effective: December 19, 1979

Attest: 
Veronica M. Meyers, Clerk of Council

Roll Call:	King	
	Newman	
	Schwerner	
	Simpson	

APPROVED AS TO FORM
AND SUBSTANCE:

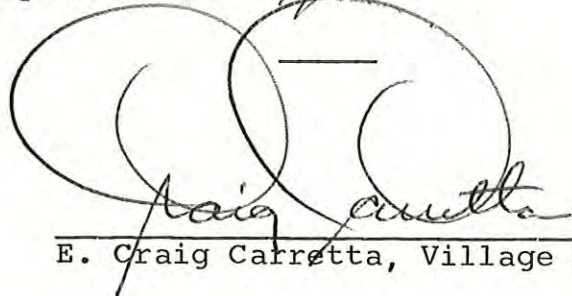

E. Craig Carretta, Village Solicitor

EXHIBIT Q

PHASE I ENVIRONMENTAL SITE ASSESSMENT STRUEWING PROPERTY

Project No. 23151(1)

Prepared for:

Oberer Land Developers Ltd.



Prepared by:

KILBANE ENVIRONMENTAL

May 12, 2020

PHASE I ENVIRONMENTAL SITE ASSESSMENT

STRUEWING PROPERTY

Project No. 23151(1)

*Oberer Land Developers Ltd.
05/12/2020*



**KILBANE
ENVIRONMENTAL**

6236A Centre Park Drive
Cincinnati, OH 45069
Phone: (513) 874-6650
Fax: (513) 554-0394
Email: info@kilbaneenv.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
ACRONYMS	i
EXECUTIVE SUMMARY	1
1.0 INTRODUCTION	2
1.1 PURPOSE AND SCOPE OF WORK	2
1.2 LIMITATIONS, ASSUMPTIONS, ADDITIONS AND EXCEPTIONS OF THE ASSESSMENT	3
1.3 ASSESSMENT AUTHORIZATION AND RELIANCE	4
2.0 SITE DESCRIPTION	5
2.1 SITE LOCATION	5
2.2 CURRENT SITE USE AND GENERAL SITE DESCRIPTION.....	5
2.3 STRUCTURES, ROADS, IMPROVEMENTS	5
2.4 ADJACENT LAND USES	5
3.0 USER PROVIDED INFORMATION	6
3.1 TITLE RECORDS, ENVIRONMENTAL LIENS, AND SITE USE LIMITATIONS	6
3.2 REASON FOR PERFORMING PHASE I ENVIRONMENTAL SITE ASSESSMENT	7
3.3 SPECIALIZED KNOWLEDGE, COMMONLY KNOWN, OR REASONABLY ASCERTAINABLE INFORMATION	7
3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES	7
3.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION.....	7
4.0 RECORDS REVIEW	8
4.1 REGULATORY FILE REVIEW	8
4.2 PHYSICAL SETTING	13
Regional Geology	13
Regional Hydrogeology.....	13
4.3 HISTORICAL INFORMATION	14
Aerial Photographs	14
Fire Insurance Maps	15
City Directories	15
Previous Environmental Reports.....	15
5.0 SITE RECONNAISSANCE	16
5.1 METHODOLOGY AND LIMITATING CONDITIONS	16
5.2 GENERAL SITE SETTING	16
5.3 SITE OBSERVATIONS	16
Exterior Observations	16
Interior Observations.....	17
Miscellaneous Debris.....	17
Utilities	17
Storage Tanks	17
PCBs	17
Vapor Encroachment Screen	18

6.0 INTERVIEWS	19
6.1 INTERVIEWS WITH OWNER, SITE MANAGER, AND OCCUPANTS	19
Owner	19
6.2 INTERVIEWS WITH GOVERNMENT OFFICIALS	19
Fire Department	19
Health Department	20
7.0 FINDINGS	20
8.0 OPINION	22
9.0 CONCLUSIONS	23
10.0 DATA GAPS & DEVIATIONS	24
11.0 BIBLIOGRAPHY	25
12.0 ENVIRONMENTAL PROFESSIONAL(S) SIGNATURE	27

FIGURES

Figure 1 Site Location Map

Figure 2 Site Vicinity Map (2018)

APPENDIX A

Database Report

APPENDIX B

Aerial Photographs

APPENDIX C

Site Photographs and Descriptions

APPENDIX D

Interview Documentation

APPENDIX E

Qualifications of Environmental Professionals

ACRONYMS

AST	Aboveground Storage Tank
ASTM	American Society for Testing Materials
BUSTR	Bureau of Underground Storage Tank Regulation
CAP	Corrective Actions in Progress
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation Liability Information System
CFR	Code of Federal Regulations
CLO	Closure
DEF	Deficiency
DERR	Division of Emergency and Remedial Response
ERNS	Emergency Response Notification System
LUST	Leaking Underground Storage Tank
msl	mean sea level
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NPL	National Priority List
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OSFMO	Ohio State Fire Marshal's Office
PCBs	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
RCRA CORRACTS	RCRA facilities subject to Corrective Action
RCRA non-CORRACTS TSD	RCRA Treatment, Storage, and Disposal facilities not subject to Corrective Action
RCRIS	Resource Conservation and Recovery Act Information System
RPT	Reported
SABR	Site Assessment and Brownfield Revitalization Program
SAC	Site Assessment Completed
SCS	Soil Conservation Service
SEMS	Superfund Enterprise Management System
SHWS	State Hazardous Waste Sites
SWL	Solid Waste Landfills
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank

EXECUTIVE SUMMARY

The purpose of this investigation was to identify potential environmental liabilities associated with the project Site ("Site"), based on review of available public documentation and a Site reconnaissance performed on April 20, 2020. The Site is irregular in shape and consists of fifteen parcels totaling 50.7301 acres of vacant, undeveloped agricultural and residential property. The Site is both Miami Township and Yellow Springs in Greene County, Ohio. One parcel (the southern portion of the Site) is located on E. Hyde Road in Miami Township. The remaining fourteen parcels (the northern portion of the Site) have addresses of Margaret Drive, Morgan Hill and Southgate Avenue in Yellow Springs. Based on county auditor information, aerial photographs, and interviews, the Site has been undeveloped/agricultural property since at least 1948.

A review of state and federal databases identified twelve listings within the applicable search radius of the Site. The database results are summarized below:

Summary of Regulatory File Review

<u>Database</u>	<u>Search Radius</u>	<u>Total Identified</u>
SEMS/CERCLIS	½-mile	1
SEMS/CERCLIS Archive	½-mile	1
NPL	1-mile	0
RCRA	Site & Adjacent	3
RCRA CORRACTS	1-mile	1
RCRA non-CORRACTS TSD	½-mile	0
ERNS	Site	0
STATE/FEDERAL IC/EC	½-mile	0
SHWS/DERR	1-mile	2
SWL	½-mile	0
UST	Site & Adjacent	1
LUST	½-mile	1
Brownfield/VCP	½-mile	0
Spills	Site	1
Other	½-mile	1

The Site consists of 50.7301 acres of vacant undeveloped agricultural and residential property. Based on distance, status, location and/or local topography, the potential for the facilities identified by the database to impact the Site is considered unlikely. No recognized environmental conditions (RECs) were identified for the Site.

1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment prepared for the Site. This report contains general information that may not be specific to the Site, however the information is included for completeness.

1.1 PURPOSE AND SCOPE OF WORK

The purpose of this investigation was to identify potential environmental liabilities associated with the Site. Kilbane Environmental personnel performed a Site reconnaissance on April 20, 2020. The scope of work for this assessment included the following:

- A Site "walk-over" inspection of surface conditions and potential problems or suspect contamination areas (e.g., chemical spills, PCB, fill areas, noxious odors, pools of liquid, stained soils or stressed vegetation). This walkover included an internal inspection of any existing buildings or structures to assess the potential for contamination and/or hazardous practices that could adversely impact the environment.
- A visual survey of the properties in the Site vicinity to evaluate the potential for impact to the Site from these properties.
- The assessment included a review of available property records and/or other field information to establish past land usage (e.g., ownership records, aerial photographs, Sanborn maps, city directories, USGS and Soil Conservation Service publications, foundation borings, and prior environmental assessment reports, if available). The current and past property owners were also interviewed, if available.
- A review of available state and federal files pertaining to this Site and surrounding area. Unless otherwise specified, we have provided the following information from review of available public files and regulatory agencies.
 1. Local Health and Fire Department records for the Site.
 2. SEMS/CERCLIS facilities within a ½-mile radius of the Site.
 3. NPL facilities within a one-mile radius of the Site.
 4. RCRA facilities on or adjacent to the Site.
 5. RCRA CORRACTS facilities within a one-mile radius of the Site.
 6. RCRA non-CORRACTS TSD facilities within a ½-mile radius of the Site.
 7. ERNS records for the Site.

8. IC/EC Registries within a ½-mile radius of the Site.
9. SHWS/DERR facilities within a one-mile radius of the Site.
10. SWL facilities within a ½-mile radius of the Site.
11. USTs on or adjacent to the Site.
12. LUST facilities within a ½-mile radius of the Site.
13. Brownfield locations within a ½-mile radius of the Site.
14. State Spills records for the Site.

1.2 LIMITATIONS, ASSUMPTIONS, ADDITIONS AND EXCEPTIONS OF THE ASSESSMENT

The information presented in this report represents observations and other data available at the time of our reconnaissance and the preparation of this report. This report has been prepared for the exclusive use of Oberer Land Developers Ltd. and any affiliate(s) of Oberer Land Developers Ltd. designated by Oberer Land Developers Ltd. in connection with the real estate transaction of the subject property. This report is designed to satisfy the requirements for the innocent landowner defense to CERCLA liability as defined in 42 USC 9601(34)B. The conclusions provided by Kilbane Environmental are based solely on the scope of work conducted and the sources of information referenced in this report. Kilbane Environmental relied on interviews with Site representative, regulatory officials and documentation from state and local agencies. Kilbane Environmental assumed, where reasonable to do so, that the information is true and accurate. The independent conclusions represent the best professional judgment of the Environmental Professional based on the conditions that existed and the information and data available to Kilbane Environmental during this assessment. Any additional information that becomes available concerning this Site should be provided to Kilbane Environmental so that our conclusions may be reviewed and modified as necessary. This report is not an audit of regulatory compliance or detailed condition survey for the presence of asbestos, lead paint, PCBs, radon or other naturally occurring non-disposed materials.

It is our understanding that this report is to be used and distributed for purposes connected with the real estate transaction of this Site. The contents of this report may not be copied, provided or otherwise relied upon in whole or part, by any other party than Oberer Land Developers Ltd. and any affiliate(s) of Oberer Land Developers Ltd. designated by Oberer Land Developers Ltd.

and their designees without the prior written consent of Oberer Land Developers Ltd. and Kilbane Environmental.

1.3 ASSESSMENT AUTHORIZATION AND RELIANCE

This investigation was performed for Oberer Land Developers Ltd. Authorization to perform this assessment was in the form of a written agreement between Mr. Greg Smith and Kilbane Environmental. Oberer Land Developers Ltd. and any affiliate(s) designated by Oberer Land Developers Ltd. and their designees can rely upon the information in this report as of the date of this report.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

The Site is located in both Miami Township and Yellow Springs in Greene County, Ohio. One of the parcels is comprised of 33.8530 acres (parcel number F16000100100005800) having an address of E. Hyde Road in Miami Township, Greene County, Ohio. The remaining fourteen parcels are comprised of 16.8771 acres having an address of Margaret Drive (parcel numbers F19000100180001100, F19000100180001200 and F19000100180001300), Morgan Hill (parcel numbers F19000100180002300, F19000100180002400, F19000100180002500, F19000100180002600, F19000100180002700 and F19000100180002800) and Southgate Avenue (parcel numbers F19000100180000300, F190001001800003200, F190001001800003400, F190001001800003500 and F19000100060013300) in Yellow Springs, Greene County, Ohio. The Site is shown on the Yellow Springs 7½-minute quadrangle map (Figure 1).

2.2 CURRENT SITE USE AND GENERAL SITE DESCRIPTION

The Site is irregular in shape and consists of fifteen parcels totaling 50.7301 acres of vacant, undeveloped agricultural and residential property.

2.3 STRUCTURES, ROADS, IMPROVEMENTS

No structures are located on the Site. Southgate Avenue ends at the northern portion of the Site and E. Hyde Road is located at the southern boundary of the Site. Several storm water lines and associated manholes cross the Site.

2.4 ADJACENT LAND USES

The Site is located in an area that generally consists of residential and agricultural properties. Commercial properties (restaurant and office) are located adjacent to the northwestern portion of the Site. Figure 2 shows the Site and surrounding properties.

3.0 USER PROVIDED INFORMATION

The historical uses of the Site were established by evaluation of available public records and interviews. This evaluation assists in determining past usage or practices that may have generated, stored, or accepted for disposal, hazardous materials or wastes.

3.1 TITLE RECORDS, ENVIRONMENTAL LIENS, AND SITE USE LIMITATIONS

Potential environmental concerns may be identified by a review of past ownership records; however, these records are not a guarantee of actual historical activities. The following information was reviewed by Kilbane Environmental from the Greene County Auditor's website regarding ownership of the Site:

Parcel Number F1600010000005800:

<u>Owner</u>	<u>Date of Transfer</u>
Struewing, Kenneth L and R. Betheen	09/2005
Kahoe, Margaret W. and Patsy	02/2005

Parcel Numbers F19000100180001100, F19000100180001200, F19000100180001300, F19000100180002300, F1900100180002400, F1900100180002500, F1900100180002600, F19000100180002700, F19000100180002800, F1900100180000300, F1900100180003200, F19000100180003400 and F19000100180003500:

<u>Owner</u>	<u>Date of Transfer</u>
Struewing, Kenneth L and R. Betheen	09/2005
Struewing, William J and Mary E	prior

Parcel Number: F19000100060013300:

<u>Owner</u>	<u>Date of Transfer</u>
Struewing, Kenneth L ETAL	05/1998

Kilbane Environmental did not perform a lien search. Kilbane Environmental was not provided a Chain of Title by the User. The User did not indicate any known environmental liens or Activity and Use Limitations associated with the Site. No environmental concerns were identified with the historical ownership of the Site.

3.2 REASON FOR PERFORMING PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment is required as part of a real estate transaction, financing and due diligence.

3.3 SPECIALIZED KNOWLEDGE, COMMONLY KNOWN, OR REASONABLY ASCERTAINABLE INFORMATION

The User did not indicate any specialized knowledge or experience that is evidence of recognized environmental concerns at the Site.

3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The User indicated that the purchase price does reflect fair market value.

3.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

Owner

Mr. and Mrs. Ken and Betheen Struewing, Owners of the property, were interviewed as part of this assessment. Mr. and Mrs. Struewing indicated that the property located in Miami Township is wooded and tillable acres and that the property was leased for agricultural use and agricultural chemicals were likely used. They also indicated that an old inactive well is located on the property 30-50 feet north of the northeast corner of the 734 E. Hyde Road property and that it is the possible site of an old windmill. According information provided by the Struewings a well was located on the eastern portion of this property related to an investigation by YSI. The well was removed under approval from OEPA based on a review of sampling results. Mr. and Mrs. Struewing indicated that the property located in Yellow Springs is vacant land with no buildings present. They did not indicate any knowledge of environmental conditions associated with this portion of the Site.

User

Mr. Greg Smith, Representative of the User, was interviewed as part of this assessment. Mr. Smith did not indicate any knowledge of environmental conditions associated with the Site.

4.0 RECORDS REVIEW

4.1 REGULATORY FILE REVIEW

Brief descriptions of federal and state programs have been included for reference. The search criteria was initiated using the Site zip code and either expanded or narrowed as necessary in an effort to identify properties or facilities with environmental concerns that may impact the Site. A copy of the database report prepared by Envirosearch Corporation for the Site on April 7, 2020 is provided in Appendix A. The databases searched are listed in the attached report and include the Standard Environmental Record Sources and Additional Record Sources referred to in the ASTM standard, including Tribal Record Sources, where appropriate. Other databases were reviewed but only mentioned if a potential environmental concern is identified. Facilities listed in the database report are not always mapped in the correct locations or may be listed as unmappable because of incomplete or incorrect address information. KEI field observations and research are used in this section to verify and correct some location information as identified in the database report.

The Site is not listed on any of the environmental databases searched.

A description of the various databases is as follows:

- Superfund Enterprise Management System (SEMS) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of the United States Environmental Protection Agency (USEPA) Superfund Program across the United States. The list was formerly known as Comprehensive Environmental Response, Compensation Liability Information System (CERCLIS) renamed to SEMS by the USEPA in 2015. The SEMS list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites that are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL. A review of the USEPA listings identified one SEMS facility within a ½-mile search radius of the Site.

SEMS-ARCHIVE tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS/NFRAP (No Further Remedial Action Planned) renamed to SEMS-ARCHIVE by the USEPA in 2015. Archive status indicates that to the best of USEPA's knowledge, assessment at the site has been completed and that USEPA has

determined no further steps will be taken to list the site on the NPL, unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. A review of the USEPA listings identified one SEMS-ARCHIVE facility within a ½-mile search radius of the Site.

- National Priority List (NPL) facilities are sites that are listed by USEPA under CERCLA with the highest priority for cleanup. A review of the USEPA listings identified no NPL facilities within a one-mile search radius of the Site.
- The Resource Conservation and Recovery Act (RCRA), passed in 1976, established a regulatory system to track hazardous substances from the time of generation to disposal. It also requires safe and secure procedures to be used in treating, storing, and disposing of hazardous materials. A listing under RCRIS (Resource Conservation and Recovery Information System) is not a direct indication of environmental concerns with a facility. A review of the USEPA listings identified three RCRA generators within ¼-mile search radius of the Site.
- CORRACTS are RCRA facilities with reported violations which are subject to Corrective Action. A review of the USEPA listings identified one RCRA CORRACTS facility within a one-mile search radius of the Site.
- Non-CORRACTS TSD are RCRA facilities which treat, store or dispose of hazardous materials and are not subject to Corrective Action. A review of the USEPA listings identified no RCRA TSD facilities within a ½-mile search radius of the Site.
- IC/EC (Institutional Control/Engineering Control) sites are federally and state managed sites that have either institutional or engineering controls. Institutional controls (IC) are those controls that seek to prevent exposure to contaminants remaining on a site (groundwater use restrictions, construction restrictions, property use restrictions, deed restrictions and post remediation care requirements). Engineering controls (EC) include caps, building foundations, liners and treatment methods to eliminate the means by which regulated substances can enter into the environment or affect human health. A review of the USEPA and OEPA records identified no IC/EC facilities within the ½-mile search radius of the Site.
- The USEPA maintains a database of reportable spills called the Emergency Response Notification System (ERNS). A reportable spill is "any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge or other loss of oil, hazardous substances and/or otherwise objectionable substance which enters or threatens to enter the waters of the State." According to spill regulations, reporting is required for spills "of such volume or mass as to cause or threaten to cause damage to the public health, safety and welfare, aquatic biota, animal life, plant life or recreation, domestic, commercial, industrial or agricultural uses." A review of the USEPA records identified no ERNS listings within the search radius of the Site.

- The Ohio Environmental Protection Agency (OEPA) Division of Emergency and Remedial Response (DERR) maintains a database of State Hazardous Waste Sites (SHWS). State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where potentially responsible parties will pay for cleanup. A review of the OEPA records identified two SHWS/DERR facilities within a one-mile search radius of the Site.
- Solid Waste Landfills (SWL) are any facilities included on the OEPA Division of Solid and Infectious Waste Management databases of all Compost and Demolition Debris, Industrial and Residual Waste, Municipal Solid Waste Landfills and Municipal and Solid Waste Transfer Facilities. A review of the OEPA listings identified no SWL facilities within a ½-mile search radius of the Site.
- The Ohio State Fire Marshal's Office (OSFMO) maintains a database of all registered Underground Storage Tanks (USTs). USTs which are not regulated include, heating oil USTs used for heating the premises, residential and farm USTs of less than 1,100 gallons in size. A review of OSFMO records identified one UST facility within a ¼-mile search radius of the Site.
- The OSFMO maintains a database of regulated Leaking Underground Storage Tanks (LUSTs). A review of OSFMO records identified one LUST facility within a ½-mile search radius of the Site.
- Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. A review of sites that have voluntarily submitted information to the Brownfield inventory as part of the Site Assessment and Brownfield Revitalization Program (SABR) identified no Brownfields within a ½-mile radius of the Site.
- A database of spills reported to the US Department of Transportation (USDOT). A review of the USDOT database identified one Spill listing within the search radius of the Site.
- Other listings of the databases searched identified one "Other" listing within the search radius of the Site.

Listing	Address	Distance from Site & Direction	SEMS	SEMS ARCHIVE	NPL	RCRA GENERATOR	RCRA CORRACTS	RCRA TSD	ERNS	IC/EC	SHWS/DERR	SWL	UST/AST	LUST	BROWNFIELD/VCP	SPILLS	OTHER	STATUS / DATA
Morris Bean & Co Inc., Yellow Springs	777 E. Hyde Rd	0.002 mi SSE									√							Remedial Response
Bean Morris And Co	777 E Hyde Rd	0.002 mi SSE				√												SQG
N/R	777 E Hyde Rd	0.009 mi SSE														√		Air Particulates, Ammonia, Human Sewage, Waste Water
YSI Inc, Yellow Springs	1700 & 1725 Brannum Ln	0.054 mi NNW									√							Remedial Response
Yellow Springs Instrument Co Inc	1725 Brannum Lane	0.054 mi NNW				√	√											SQG; CORRACTS:CA Performance Standards Attained
Yellow Springs Instruments (YSI) Area Wells	US 68 and Brannum Road	0.091 mi WSW	√	√														State-Lead Cleanup
Village Auto	1455 Xenia Ave	0.155 mi N				√												RCRA NonGen
James Shattuck	1435 Xenia	0.178 mi N											√	√				UST: REM(5); LUST: CLO(1)
00435	394638, 835347	0.356 mi SSE															√	Sludge

SQG: Small Quantity Generator – generates between 100 – 1000
kg/month of hazardous wastes

RCRA NonGen: RCRA Non-Generator – no longer generates
hazardous wastes

REM: Removed

CLO: Closure

Based on distance, status, location, local topography and/or other available information, the potential for the facilities identified by the database to impact the Site is considered unlikely. A review of OEPA files indicated that monitoring wells had been installed on the Site to evaluate impacted groundwater from the YSI, Inc. facility located west of the Site. Although a few chemicals were detected in these wells during the sampling periods (decreasing over time) none of the levels were reported above the USEPA drinking water standards. The wells have since been removed from the Site under permission from OEPA.

4.2 PHYSICAL SETTING

The Yellow Springs, Ohio 7½-minute quadrangle map and Greene County CAGIS were reviewed to determine the physical setting of the Site (Figure 1). The elevation of the Site is generally level at approximately 1,000 feet above mean sea level (msl) along the northwest property boundary of the Site sloping slightly down to an approximate elevation of 970 feet above mean sea level in the southeastern portion of the Site. The migration of compounds that may pose environmental concern to the Site from adjoining or nearby properties is typically associated with shallow groundwater flow. Shallow groundwater flow is expected to mimic local topography. As such, properties that are at a lower elevation, hydraulically downgradient or cross-gradient are not expected to pose an environmental concern to the Site.

Regional Geology

The Site lies in the Southern Ohio Loamy Till Plan physiographic region of the State of Ohio. Topsoil on the Site is labeled as Miamian Series Silt loam, Miamian Series Clay loam and Brookston Silty clay loam. A description of the soil is included with the environmental database included in Appendix A.

Regional Hydrogeology

According to the Ohio Department of Natural Resources (ODNR), "Available Ground Water in Green County, Ohio," the Site is a poor source of groundwater, producing 3 to 10 gallons per minute (gpm). Bedrock consists of limestone bedrock.

Based on the surface topography of the Site vicinity, it is likely that shallow groundwater on the Site will flow toward the west and south and unnamed tributaries of the Little Miami River.

4.3 HISTORICAL INFORMATION

The objective of consulting historical sources is to develop a history of the previous uses of the Site and Site vicinity in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the Site. Historical use information describing the Site and vicinity was obtained from a variety of available sources as summarized in the following tables and discussed below.

Aerial Photographs

Aerial photographs of developed and undeveloped land have been produced since approximately 1930. Where available through local and federal government agencies, aerial photographs can be used to evaluate the historical use of a Site and vicinity. Aerial photographs were provided by EnviroSite Corporation for the following years; 2017, 2015, 2013, 2011, 2009, 2004, 2000, 1994, 1989, 1984, 1979, 1975, 1973, 1968, 1964, 1960 and 1948. A review of these aerial photographs shows the Site as agricultural land from 1948 to present. Significant observations noted in the aerial photographs are described below:

<u>Date</u>	<u>Observations</u>
2017	The Site is shown as undeveloped agricultural land with wooded areas in the south and northwestern portions of the Site. Cropland is shown in the southcentral portion of the Site with grassland in the northern portion of the Site. Residential properties are located to the north and east of the Site. A few commercial properties are shown northwest of the Site with other commercial properties further to the west.
1979	The Site and surrounding properties appear generally the same as 2017; however, an area of fill appears to be located in the northcentral portion of the Site.
1968	The residential development to the east and north of the Site appears to be under construction. An area of potential fill appears to be located on and adjacent to the northern portion of the Site.
1964	The commercial properties further to the east are shown smaller and possibly under construction.
1948	The Site and surrounding properties appear as undeveloped and agricultural land.

Review of readily available aerial photographs for the Site from 2017 through 1948 did not identify usage of the Site or vicinity that is considered evidence of environmental concern.

Fire Insurance Maps

Sanborn Fire Insurance Maps were developed from the late 1800s through the 1980s, to provide information on locations of structures and operations during the time of the specific survey. When available, these maps are reviewed for further documentation of the historical use of the Site and vicinity. Sanborn Fire Insurance Maps were not identified for the Site and vicinity.

City Directories

City directories are arranged by address and provide a listing of past usage of a Site and adjacent properties. Where available, city directories are reviewed to determine historical Site use and adjacent property use in a minimum of five-year intervals. City directories were not identified for the Site and vicinity.

Previous Environmental Reports

Kilbane Environmental was not provided any environmental reports previously prepared for the Site.

5.0 SITE RECONNAISSANCE

5.1 METHODOLOGY AND LIMITATING CONDITIONS

This assessment was performed using the standard practices for Phase I Environmental Site Assessments in conformance with the scope and limitations of ASTM Practice E 1527-13. The Site was walked in order to observe any abnormalities. Kilbane Environmental was not accompanied during the Site reconnaissance conducted on April 20, 2020. The weather at the time of the reconnaissance was approximately 57 degrees Fahrenheit and sunny. The observations noted below apply to the Site as it was observed during the reconnaissance. Photographs taken during the Site reconnaissance are included in Appendix C.

5.2 GENERAL SITE SETTING

The Site is irregular in shape and consists of fifteen parcels totaling 50.7301 acres of vacant, undeveloped agricultural and residential property. The Site is located in area of generally residential and agricultural properties with some commercial properties adjacent to the northwest corner of the Site.

5.3 SITE OBSERVATIONS

Exterior Observations

The Site consists of 50.7301 acres of vacant undeveloped agricultural property. The northern portion of the Site is grass covered with residential lots to the east. A storm sewer extends from Southgate Avenue to the beginning of an agricultural field in the central portion of the Site. A pit was observed along the storm sewer that contained a discharge point for a storm sewer coming from areas to the east. A powerline crossed the Site along the northern portion of the agricultural field. A wooded area along E. Hyde Road is present in the southern portion of the Site. This area included fencing debris and construction equipment attachments. A stream was observed originating from a storm pipe near the end of Southgate Avenue continuing west and then south, generally along the property boundary on the western portion of the Site. No evidence of hazardous waste producing or storage activities was observed on the Site at the time of the reconnaissance.

Interior Observations

No structures were present on the Site at the time of the reconnaissance.

Miscellaneous Debris

Very limited miscellaneous trash and debris (plastics, paper, concrete, fencing, etc.) were observed in the wooded areas and adjacent to the roads. A few tires were observed in the northwestern portion of the Site.

Utilities

The following utilities were identified by the Owner as being available to the Site:

<u>Service</u>	<u>Provider</u>
Water	Village of Yellow Springs
Sewer	Village of Yellow Springs
Electric	Village of Yellow Springs
Gas	Vectren

Storage Tanks

No physical evidence of USTs, such as vent pipes or fill ports, was observed on the Site at the time of the reconnaissance. No above ground storage tanks (ASTs) were observed on the Site or in the vicinity of the Site at the time of the reconnaissance.

PCBs

Polychlorinated Biphenyls (PCBs) have not been domestically produced since the mid-1970s. The Toxic Substance Control Act regulation 40 CFR 761, 49 Federal Register 44683, has restricted the use of PCBs in any equipment and oils unless specifically approved by the USEPA. Five pole-mounted transformers on three poles were observed in the northern portion of the Site. The transformers were observed to be in good condition with no visible signs of leakage. The transformers were not observed with a Non-PCB label, therefore if a release were to occur any release should be considered PCB containing. No other potential PCB-containing equipment was observed on the Site at the time of the reconnaissance.

Vapor Encroachment Screen

In accordance with ASTM Standard 2600-10 (Vapor Encroachment Screening), a Tier 1 Screening has been conducted as part of this Phase I ESA. It has been considered that a Vapor Encroachment Condition (VEC) can be ruled out at the Site based on the absence of known potential facilities within the specified critical distances.

6.0 INTERVIEWS

Interviews were conducted with various individuals knowledgeable of the Site. The interviews were conducted in order to determine an awareness of any recognized environmental concerns. Questionnaires, completed by the user, owner, manager or occupant of the Site and logs of telephone calls with Site contacts are included in Appendix D.

6.1 INTERVIEWS WITH OWNER, SITE MANAGER, AND OCCUPANTS

Owner

Mr. and Mrs. Ken and Betheen Struewing, Owners of the property, were interviewed as part of this assessment. Mr. and Mrs. Struewing indicated that the property located in Miami Township is wooded and tillable acres and that the property was leased for agricultural use and agricultural chemicals were likely used. They also indicated that an old inactive well is located on the property 30-50 feet north of the northeast corner of the 734 E. Hyde Road property and that it is the possible site of an old windmill. According information provided by the Struewings a well was located on the eastern portion of this property related to an investigation by YSI. The well was removed under approval from OEPA based on a review of sampling results. Mr. and Mrs. Struewing indicated that the property located in Yellow Springs is vacant land with no buildings present. They did not indicate any knowledge of environmental conditions associated with this portion of the Site.

6.2 INTERVIEWS WITH GOVERNMENT OFFICIALS

Copies of correspondence with the Miami Township Fire-Rescue and Greene County Combined Health District are included in Appendix C.

Fire Department

The Miami Township Fire-Rescue has been contacted as part of this assessment. As of the date of this report, the Miami Township Fire-Rescue has not yet responded to the request for information. If relevant Site information is provided by the Miami Township Fire-Rescue within 30-days of the date of this report, an addendum will be issued.

Health Department

The Greene County Combined Health District has been contacted as part of this assessment. As of the date of this report, the Greene County Combined Health District has not yet responded to the request for information. If relevant Site information is provided by the Greene County Combined Health District within 30-days of the date of this report, an addendum will be issued.

7.0 FINDINGS

During this assessment of the Site, the following conditions were observed or identified during the review of public records and interviews:

- The Site consists of fifteen parcels consisting of 50.7301 acres of vacant undeveloped agricultural and residential property.
- The Site has been undeveloped/agricultural property since at least 1948.
- A review of the USEPA listings identified one SEMS facility within a ½-mile search radius of the Site.
- A review of the USEPA listings identified one SEMS-ARCHIVE facility within a ½-mile search radius of the Site.
- A review of the USEPA listings identified three RCRA generators within ¼-mile search radius of the Site.
- A review of the USEPA listings identified one RCRA CORRACTS facility within a one-mile search radius of the Site.
- A review of the OEPA records identified two SHWS/DERR facilities within a one-mile search radius of the Site.
- A review of OSFMO records identified one UST facility within a ¼-mile search radius of the Site.
- A review of OSFMO records identified one LUST facility within a ½-mile search radius of the Site.
- A review of the USDOT database identified one Spill listing within the search radius of the Site.
- Other listings of the databases searched identified one “Other” listing within the search radius of the Site.
- Aerial photographs dated 2017, 2015, 2013, 2011, 2009, 2004, 2000, 1994, 1989, 1984, 1979, 1975, 1973, 1968, 1964, 1960 and 1948 were reviewed.

8.0 OPINION

Based on the findings of this assessment, our opinion of the potential impact is as follows:

- The potential for the facilities identified by the database to impact the Site is considered unlikely based on distance, status, location, local topography and/or other available information available for review.
- Review of the aerial photographs for the Site from 2017 through 1948 did not identify specific usage of the Site that is considered evidence of environmental concern. A couple of areas of potential fill was noted in aerial photographs from 1979 and 1968.
- Information provided indicates that some chemicals were detected in the groundwater on the Site. However, the concentrations reported did not exceed the USEPA maximum contaminate levels for drinking water. No evidence of recognized environmental conditions (RECs) were identified for the Site or immediate vicinity.

Our opinion is based on generally accepted practices designed to minimize environmental liability. In addition, our opinion is based on information received and observations made during the Site reconnaissance.

9.0 CONCLUSIONS

Available OEPA and USEPA records, geologic maps, and published reports have been reviewed to determine the environmental compatibility of the Site. On April 20, 2020, Kilbane Environmental personnel performed a Site reconnaissance to evaluate the potential for environmental concerns that may impact the Site.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of parcel number F16000100100005800 in Miami Township, Greene County, Ohio, and parcel numbers F19000100180001200, F19000100180001300, F19000100180002300, F19000100180002400, F19000100180002500, F19000100180002600, F19000100180002700, F19000100180002800, F19000100180000300, F19000100180003200, F19000100180003400, F19000100180003500 and F19000100060013300 in Yellow Springs, Greene County, Ohio, the Site. Any exceptions to, or deletions from, this practice are described in the sections titled "Limitations, Assumptions, Additions, and Exceptions of the Assessment" and "Methodology and Limiting Conditions" of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with parcel number F16000100100005800 in Miami Township, Greene County, Ohio, and parcel numbers F19000100180001200, F19000100180001300, F19000100180002300, F19000100180002400, F19000100180002500, F19000100180002600, F19000100180002700, F19000100180002800, F19000100180000300, F19000100180003200, F19000100180003400, F19000100180003500 and F19000100060013300 in Yellow Springs, Greene County, Ohio, the Site.

Within the scope of an investigation such as this assessment, the potential for unintentional omission of data may exist. Our opinion is based on generally accepted practices designed to minimize environmental liability.

10.0 DATA GAPS & DEVIATIONS

- Sanborn Fire Insurance Maps were not identified for the Site. This is not considered a significant data gap due to other historical resources available.
- City directories were not identified for the Site. This is not considered a significant data gap due to other historical resources available.
- The Miami Township Fire-Rescue has not yet responded to the request for information. This is not considered a significant data gap based on other historical information available.
- The Greene County Combined Health District has not yet responded to the request for information. This is not considered a significant data gap based on other historical information available.

11.0 BIBLIOGRAPHY

References

- Greene County Auditor's Office.
- Greene County CAGIS.
- Google Earth Website, Aerial Photograph 2018.
- Envirosite Corporation Aerial Photographs 217, 2015, 2013, 2011, 2009, 2004, 2000, 1994, 1989, 1984, 1979, 1975, 1973, 1968, 1964, 1960 and 1948.
- USEPA, SEMS/CERCLIS Database, Updated Quarterly.
- USEPA, NPL Database, Updated Quarterly.
- USEPA, RCRIS Database, Updated Quarterly.
- USEPA, ERNS Database, Updated Annually.
- USEPA, Federal IC/EC Registry, Updates vary.
- OEPA, SHWS/DERR Database.
- OEPA, SWL, Updated Annually.
- OSFMO, UST Section, UST Files Updated Quarterly.
- OSFMO, LUST Section, LUST Files Updated Quarterly.
- USEPA Brownfield Management System, Updated Semi-Annually.
- USDOT Spills, Updated Quarterly.
- Ohio Public Library Information Network (OPLIN) Website.
- U.S. Department of Agriculture, Natural Resource Conservation Service, WebSoil Survey.
- USGS, Yellow Springs, Topographic Map 1965, revised/updated 1981.
- Ohio Department of Natural Resources, Ground Water Resources Greene County, 1986.
- OEPA files for YSI through the OEPA website.

Interviews

- Mr. Greg Smith, Representative of User
- Mr. and Mrs. Ken and Betheen Struewing, Owners
- Miami Township Fire-Rescue – No response
- Greene County Combined Health District – No response

12.0 ENVIRONMENTAL PROFESSIONAL(S) SIGNATURE

Kilbane Environmental prepared this Phase I Environmental Site Assessment report in accordance with the American Society for Testing Materials (ASTM) Standard E-1527-13 requirements for Phase I Environmental Site Assessments. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property (Appendix E). We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. If you have any questions or comments regarding our findings, please do not hesitate to contact us.

Sincerely,
KILBANE ENVIRONMENTAL



Environmental Professional:

Thomas J. Kilbane, CPG
President

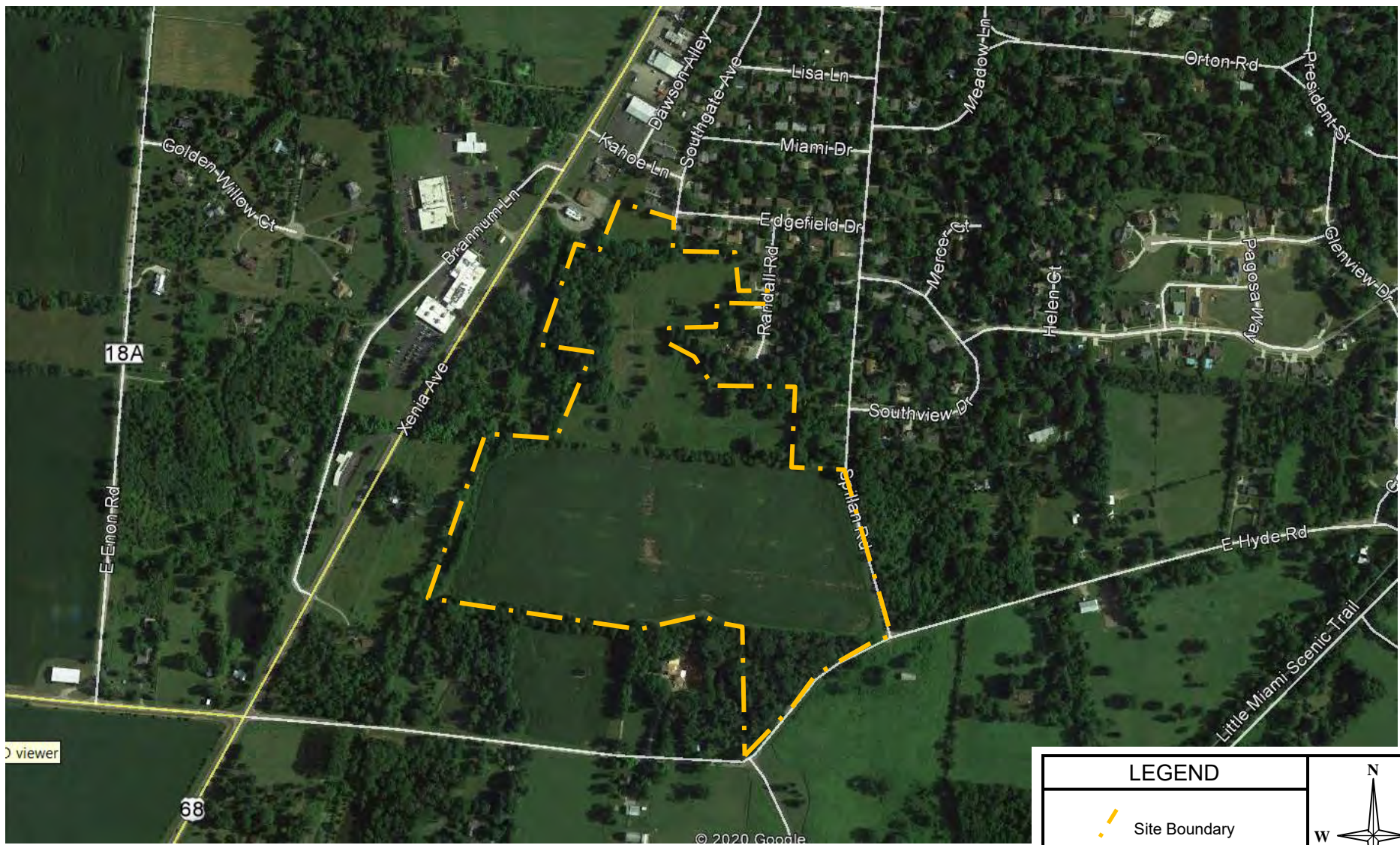


TJK
c:/doc/reports/ 23151(1).doc

FIGURES

FIGURES

Copyright (C) 1997, Maptech, Inc.



© 2020 Google

LEGEND	
	Site Boundary
Not to Scale Locations are approximate	

Source: Google Earth

FIGURE 2
SITE VICINITY MAP
(2018)

KILBANE
ENVIRONMENTAL
6236A Centre Park Drive
Cincinnati, OH 45069

Struwing Property
Miami Township
Yellow Springs, Ohio

KEI Project No: 23151

Prepared By	No.	Date
tjk	00	May 2020

APPENDIX A
Database Report



Government Records Report | 2020

Order Number: 40586

Report Generated: 04/07/2020

Project Name: Struewing Property

Project Number: 23151(1)

Struewing Property
Miami Township
Yellow Springs, OH 45387

2 Corporate Drive
Suite 450
Shelton, CT 06484
Toll Free: 866-211-2028
www.envirositecorp.com

Section	Page
<u>Executive Summary</u>	<u>1</u>
<u>Executive Summary by Distance</u>	<u>2</u>
<u>Executive Summary by Database</u>	<u>3</u>
<u>Property Proximity Map</u>	<u>10</u>
<u>Area Map</u>	<u>11</u>
<u>Map Findings Summary</u>	<u>12</u>
<u>Map Findings</u>	<u>18</u>
<u>Unmappable Summary</u>	<u>49</u>
<u>Environmental Records Searched</u>	<u>50</u>
<u>Geological Landscape Section</u>	<u>68</u>
<u>Geological Landscape Section Soil Map</u>	<u>71</u>
<u>Geological Landscape Section Summary</u>	<u>72</u>
<u>Geological Findings Map</u>	<u>118</u>
<u>Geological Landscape Section Map Findings</u>	<u>119</u>
<u>Geological Landscape Section Map Findings Radon</u>	<u>125</u>
<u>Geological Landscape Records Searched</u>	<u>126</u>

Disclaimer - Copyright and Trademark Notice

All information contained in this report are based on data available from various public, government and other sources and are based upon the best data available from those sources. The information available in this report may be available from other sources and is not exclusive or the exclusive property of Envirosite Corporation.

NO WARRANTY EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH THIS REPORT, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL RISK IS ASSUMED BY USER AND Envirosite assumes no liability for faulty or inaccurate information. The Reports may utilize a variety of public and other sources reasonably available to Envirosite. Envirosite cannot, and does not assure, warrant, guarantee or assume any liability for the correctness, comprehensiveness, timeliness or completeness of any of such information, nor is the information in any Report to be construed as legal advice with respect to environmental risks associated with any property. Envirosite shall not be liable to anyone for any claims, causes of action, suits, damages, losses, costs and expenses (including, without limitation, attorneys' fees and costs) arising out of or caused by this report regardless of the acts, errors or omissions, or negligence of Envirosite. Any damages shall be limited to the purchase price of the report.

Purchaser of the report accepts the report "As Is". The report is intended only to provide information only and should not be considered as providing any legal advice, prediction, forecast, or fact as to the environmental risk for any specific property. Reports are proprietary to Envirosite, and contain copyrighted material and trademarks of Envirosite. All other trademarks used herein are the property of their respective owners. All rights of Envirosite as to the Reports are reserved.

Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-13 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Struewing Property
Miami Township
Yellow Springs, OH 45387

COORDINATES:

Latitude (North):	39.785679 - 39°47'8.4"
Longitude (West):	-83.898493 - -83°53'54.6"
Universal Transverse Mercator:	Zone 17N
UTM X (Meters):	251794.32
UTM Y (Meters):	4407989.50

ELEVATION:

Elevation:	988.491 ft. above sea level
------------	-----------------------------

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 39083-G8 Yellow Springs, OH
Most Recent Revision: 2016

<u>MAP ID</u>	<u>SITE NAME</u>	<u>ADDRESS</u>	<u>DATABASE(S)</u>	<u>RELATIVE ELEVATION</u>	<u>DIRECTION / DISTANCE</u>
A1	Morris Bean & Co Inc, Yellow Springs	777 E Hyde Rd	DERR - OH	Lower	SSE / 0.002 mi.
A2	BEAN MORRIS AND CO	777 E HYDE RD	RCRA_SQG	Lower	SSE / 0.002 mi.
A3	N/R	777 E HYDE RD	SPILLS - OH	Lower	SSE / 0.009 mi.
B4	YSI Inc, Yellow Springs	1700 & 1725 Brannum Ln	DERR - OH	Higher	NNW / 0.054 mi.
B5	YELLOW SPRINGS INSTRUMENT CO INC	1725 BRANNUM LANE	Corrective Actions_2020, ECHO, FRS	Higher	NNW / 0.054 mi.
B6	YELLOW SPRINGS INSTRUMENT CO INC	1725 BRANNUM LANE	CORRACTS, RCRA_SQG	Higher	NNW / 0.054 mi.
7	YELLOW SPRINGS INSTRUMENTS (YSI)...	US 68 AND BRANNUM ROAD	CERCLIS-HIST, FRS, SEMS_8R_ACTIVE SITES	Lower	WSW / 0.091 mi.
C8	VILLAGE AUTO	1455 XENIA AVE	ECHO, FRS, RCRA_NONGEN	Higher	N / 0.155 mi.
C9	JAMES SHATTUCK	1435 XENIA	ARCHIVE UST - OH, LUST - OH	Higher	N / 0.178 mi.
10	00435	394638, 835347	SLUDGE - OH	Lower	SSE / 0.356 mi.

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosearch Corporation.

SEARCH RESULTS:**FEDERAL CERCLIS LIST**

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013. **1**

SITE FOUND WITHIN .5 MILE**LOWER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
7	YELLOW SPRINGS INSTRUMENTS (YSI) AREA WELLS	US 68 AND BRANNUM ROAD	WSW / 0.091 mi.	36
	- ID: OHN000508224	Status: Other Cleanup Activity: State-Lead Cleanup	Date: 09/30/2002	

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided. **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
7	YELLOW SPRINGS INSTRUMENTS (YSI) AREA WELLS	US 68 AND BRANNUM ROAD	WSW / 0.091 mi.	36
	- ID: 0508224	Status: Other Cleanup Activity: State-Lead Cleanup	Date: N/A	

FEDERAL RCRA CORRECTS FACILITIES LIST

CORRECTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases **1 SITE FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
B6	YELLOW SPRINGS INSTRUMENT CO INC	1725 BRANNUM LANE	NNW / 0.054 mi.	27
	- ID: OHD004246716	Status: N/A	Date: N/A	
	- ID: YSI, INC.	Status: CA PERFORMANCE STANDARDS ATTAINED - NO CONTROLS NECESSARY	Date: 07/29/2019	
	- ID: YSI, INC.	Status: REMEDY CONSTRUCTION- NO REMEDY CONSTRUCTED	Date: 07/29/2019	
	- ID: YSI, INC.	Status: FINAL RFI REPORT DUE/RECEIVED	Date: 08/07/2017	
	- ID: YSI, INC.	Status: INVESTIGATION COMPLETE	Date: 08/07/2017	
	There are an additional 7 status records, see site details.			

FEDERAL RCRA GENERATORS LISTRCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators **1 SITE FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C8	VILLAGE AUTO	1455 XENIA AVE	N / 0.155 mi.	39
	- ID: OHR000184580	Status: No Violation/Inspections	Date: N/A	
	- ID: OHR000184580	Status: Used Oil - Generators	Date: Violation 06/20/2014 - Achieved Compliance 03/13/2015	

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators **2 SITES FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
B6	YELLOW SPRINGS INSTRUMENT CO INC	1725 BRANNUM LANE	NNW / 0.054 mi.	27
	- ID: OHD004246716	Status: No Violation/Inspections	Date: N/A	
	- ID: OHD004246716	Status: Generators - Manifest	Date: Violation 07/02/2002 - Achieved Compliance 07/10/2003	
	- ID: OHD004246716	Status: Generators - Pre-transport	Date: Violation 06/14/1999 - Achieved Compliance 07/19/1999	
	- ID: OHD004246716	Status: Generators - Pre-transport	Date: Violation 07/02/2002 - Achieved Compliance 09/24/2002	
	- ID: OHD004246716	Status: Universal Waste - General	Date: Violation 07/02/2002 - Achieved Compliance 09/24/2002	
<i>There are an additional 3 status records, see site details.</i>				

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A2	BEAN MORRIS AND CO	777 E HYDE RD	SSE / 0.002 mi.	18
	- ID: OHD004241071	Status: Generators - General	Date: Violation 03/13/1990 - Achieved Compliance 07/09/1991	
	- ID: OHD004241071	Status: No Violation/Inspections	Date: N/A	

STATE AND TRIBAL REGISTERED STORAGE TANK LISTSARCHIVE UST - OH: Underground Storage Tanks that have been removed **1 SITE FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C9	JAMES SHATTUCK	1435 XENIA	N / 0.178 mi.	43
	- ID: Facility Number 29000874	Status: N/A	Date: N/A	
	- ID: Tank Number T00001	Status: REM - Removed	Date: 10/31/2002	
	- ID: Tank Number T00002	Status: REM - Removed	Date: 10/31/2002	
	- ID: Tank Number T00003	Status: REM - Removed	Date: 10/31/2002	
	- ID: Tank Number T00004	Status: REM - Removed	Date: 10/31/2002	
<i>There is an additional 1 status record, see site details.</i>				

STATE AND TRIBAL LEAKING STORAGE TANK LISTSLUST - OH: Listing of leaking tanks **1 SITE FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C9	JAMES SHATTUCK	1435 XENIA	N / 0.178 mi.	43
	- ID: 29000874-N00001	Status: Active - CLO: Closure	Date: 09/09/2019	

RECORDS OF EMERGENCY RELEASE REPORTSSPILLS - OH: Incidents reported to the Emergency Response Unit **1 SITE FOUND WITHIN .125 MILE****LOWER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A3	N/R	777 E HYDE RD	SSE / 0.009 mi.	21
	- ID: 1806EPA0001140	Status: N/A	Date: Date Reported 06/19/2018	
	- ID: 1811EPA0002151	Status: N/A	Date: Date Reported 11/30/2018	

OTHER ASCERTAINABLE RECORDS

CORRECTIVE ACTIONS 2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination. **1 SITE FOUND WITHIN .5 MILE**

EQUAL/HIGHER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
B5	YELLOW SPRINGS INSTRUMENT CO INC	1725 BRANNUM LANE	NNW / 0.054 mi.	24

DERR - OH: Sites listed in the DERR database **2 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
B4	YSI Inc, Yellow Springs	1700 & 1725 Brannum Ln	NNW / 0.054 mi.	24

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A1	Morris Bean & Co Inc, Yellow Springs	777 E Hyde Rd	SSE / 0.002 mi.	18

SLUDGE - OH: Database of sludge pits, ponds and lagoon sites. The SIABASE data was published by US EPA in 1980. **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
10	00435	394638, 835347	SSE / 0.356 mi.	48

No unmappable sites reported.

DATABASE(S) WITH NO MAPPED SITES:**FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST**

ARCHIVED RCRA TSDF

Archived Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

RCRA_TSDF

Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

FEDERAL CERCLIS LIST

CERCLIS NFRAP

Comprehensive Environmental Response Compensation and Liability Act
No Further Remedial Action Planned

FEDERAL FACILITY

Federal Facility sites

SEMS_8R_ARCHIVED SITES

Sites on SEMS Archived Site Inventory

FEDERAL RCRA CORRACTS FACILITIES LIST

HIST CORRACTS 2

Historical Hazardous Waste Corrective Action

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL

Delisted National Priority List

DELISTED PROPOSED NPL

Delisted proposed National Priority List

SEMS_DELETED NPL

Sites Deleted from National Priorities List

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP

EPA Landfill Methane Outreach Project Database

FEDERAL ERNS LIST

ERNS

Emergency Response Notification System

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG

Historical Resource Conservation and Recovery Act_Conditionally Exempt
Small Quantity Generators

HIST RCRA_LQG

Historical Resource Conservation and Recovery Act_Large Quantity
Generators

HIST RCRA_NONGEN

Historical Resource Conservation and Recovery Act_Non Generators

HIST RCRA_SQG

Historical Resource Conservation and Recovery Act_Small Quantity
Generators

RCRA_LQG

Resource Conservation and Recovery Act_Large Quantity Generators

RCRA_VSQG

Resource Conservation and Recovery Act_Very Small Quantity Generator

FEDERAL NPL SITE LIST

NPL

National Priority List

NPL EPA R1 GIS

GIS for EPA Region 1 NPL

NPL EPA R3 GIS

GIS for EPA Region 3 NPL

NPL EPA R6 GIS

GIS for EPA Region 6 NPL

NPL EPA R8 GIS

GIS for EPA Region 8 NPL

NPL EPA R9 GIS

GIS for EPA Region 9 NPL

PART NPL

Part National Priority List

PROPOSED NPL

Proposed National Priority List

SEMS_FINAL NPL

Sites included on the Final National Priorities List

SEMS_PROPOSED NPL

Sites Proposed to be Added to the National Priorities List

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

RCRA IC_EC

RCRA sites with Institutional and Engineering Controls

FED E C

Engineering Controls

FED I C

Institutional Controls

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST

FEMA Underground Storage Tanks

INDIAN UST R1

Underground Storage Tanks on Indian Land in EPA Region 1

INDIAN UST R10

Underground Storage Tanks on Indian Land in EPA Region 10

INDIAN UST R2

Underground Storage Tanks on Indian Land in EPA Region 2

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
UST - OH	Underground Storage Tanks

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
LAST - OH	Leaking Aboveground Storage Tanks
UNREG LTANKS - OH	Oil and Other releases

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS	Tribal Brownfields
BROWNFIELDS - OH	Brownfields

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

E C - OH	Engineering Controls
I C - OH	Institutional Controls
IC LUC - OH	Land Use and Institutional Control

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - OH	Historical Landfills
HIST LF-LD - OH	Historical Land Disposal Sites
SWF/LF - OH	Solid Waste Facilities and Landfills

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - OH	Voluntary Cleanup Program
----------	---------------------------

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES	EPA ACRES Brownfields
FED BROWNFIELDS	Federal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8	Historical Open Dump Inventory
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites
SWRCY - OH	Solid Waste Recycling

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems
-------------	---

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information
---------	-------------------------

OTHER ASCERTAINABLE RECORDS

AFS	Air Facility Systems
-----	----------------------

OTHER ASCERTAINABLE RECORDS (cont.)

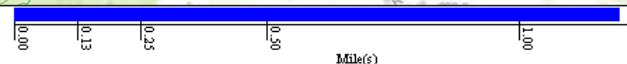
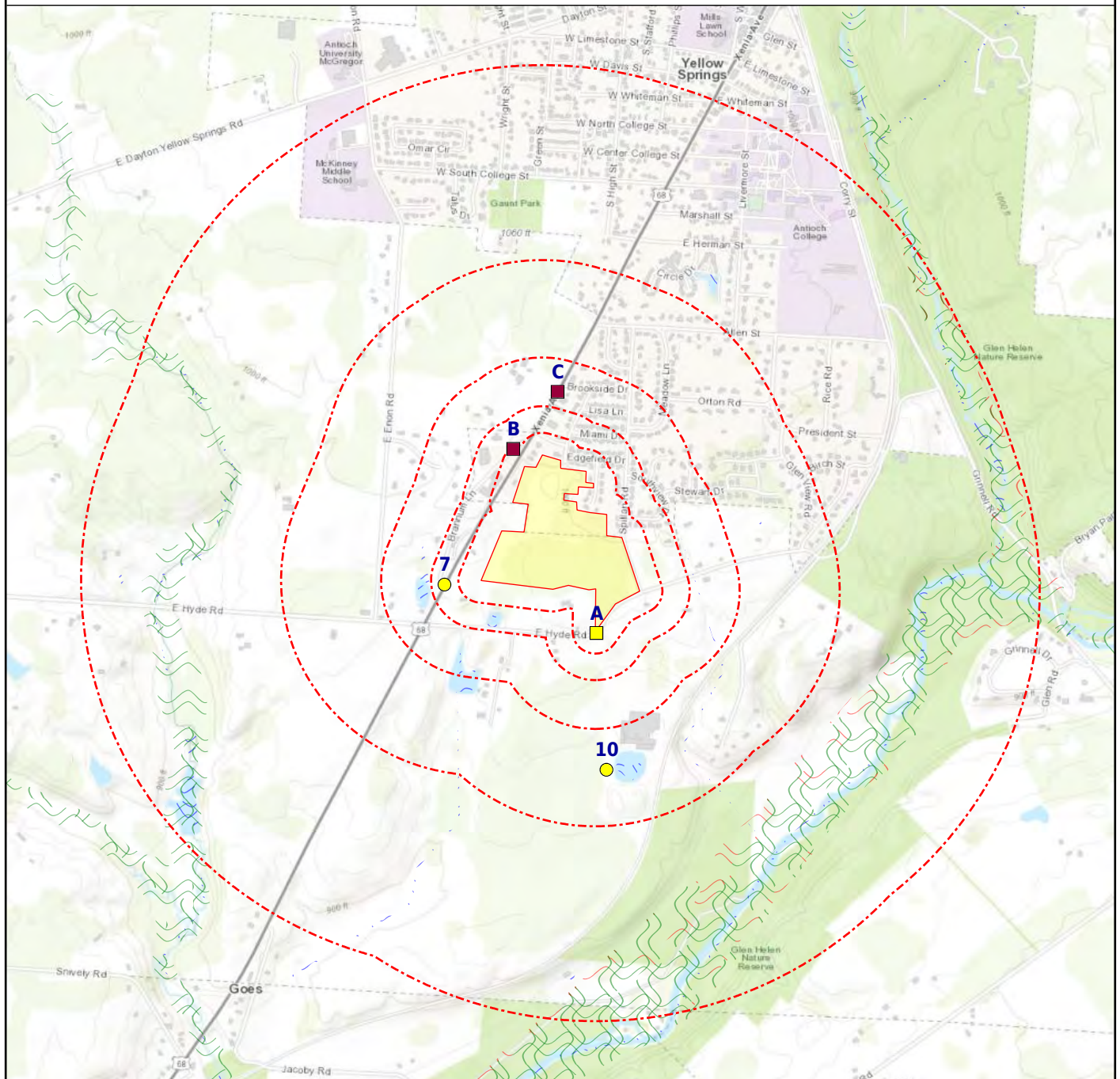
ALT FUELING	Alternative Fueling Stations
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
CONSENT (DECREEES)	Superfund Consent Decree
DEBRIS R5 LF	Disaster Debris Landfill Data
DEBRIS R5 SWRCY	Disaster Debris Recovery Data
DOD	Department of Defense
DOT OPS	Department of Transportation Office of Pipeline Safety
ECHO	EPA Enforcement and Compliance History Online
ENOI	Electronic Notice of Intent
EPA FUELS	EPA Fuels Registration, Reporting, and Compliance List
EPA OSC	EPA On-Site Coordinator
EPA WATCH	EPA Watch List
FA HWF	Financial Assurance for Hazardous Waste Facilities
FEDLAND	Federal Lands
FRS	Facility Index Systems
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	FIFRA/TSCA Tracking System: Inspections
FUDS	Formerly Used Defense Sites
HIST AFS	Historical Air Facility Systems
HIST AFS 2	Historical Air Facility Systems
HIST DOD	Department of Defense historical sites
HIST LEAD_SMELTER	Historical Lead Smelter Sites
HIST MLTS	Historical Material Licensing Tracking Systems
HIST PCB TRANS	Historical Polychlorinated Biphenyl (PCB) Facilities
HIST PCS ENF	Historical Enforced Permit Compliance Facilities
HIST PCS FACILITY	Historical Permit Compliance Facilities
HIST SSTS	Historical Section 7 Tracking Systems
HWC DOCKET	Hazardous Waste Compliance Docket
ICIS	Integrated Compliance Information System
INACTIVE PCS	Inactive Permit Compliance Facilities
INDIAN RESERVATION	Indian Reservations
LUCIS	Land Use Control Information Systems
LUCIS 2	Land Use Control Information Systems 2
MINES	Mines
MINES USGS	Mines list from USGS
MLTS	Material Licensing Tracking Systems
NPL AOC	Areas related to NPL remediation sites
NPL LIENS	National Priority List Liens
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyl (PCB) Waste
PCS ENF	Enforced Permit Compliance Facilities
PCS FACILITY	Permit Compliance Facilities
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCRD DRYCLEANERS	SCRD Drycleaners
SEMS_SMELTER	Sites on SEMS Potential Smelter Activity
SSTS	Section 7 Tracking Systems
STORMWATER	Storm Water Permits
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites

OTHER ASCERTAINABLE RECORDS (cont.)

VAPOR	EPA Vapor Intrusion
AIRS - OH	Air Permits
COAL ASH - OH	Coal Ash Disposal Facilities
COAL ASH 2 - OH	Coal Ash Disposal Facilities
CRO - OH	Cessation of Regulated Operations
DAYCARE - OH	Daycare listing
DRYCLEANERS - OH	Drycleaners
HIST NPDES - OH	Historical National Pollutant Discharge Elimination System
HIST USD - OH	Urban Setting Designation Sites: Withdrawn
NPDES - OH	State Wastewater and NPDES Permits
TOWN GAS - OH	Town Gas
UIC - OH	Underground Injection Controls
USD - OH	Urban Setting Designation Sites

SUBJECT NAME: Struewing Property
 ADDRESS: Miami Township, Yellow Springs, OH, 45387
 LAT/LONG: 39.785679 / -83.898493

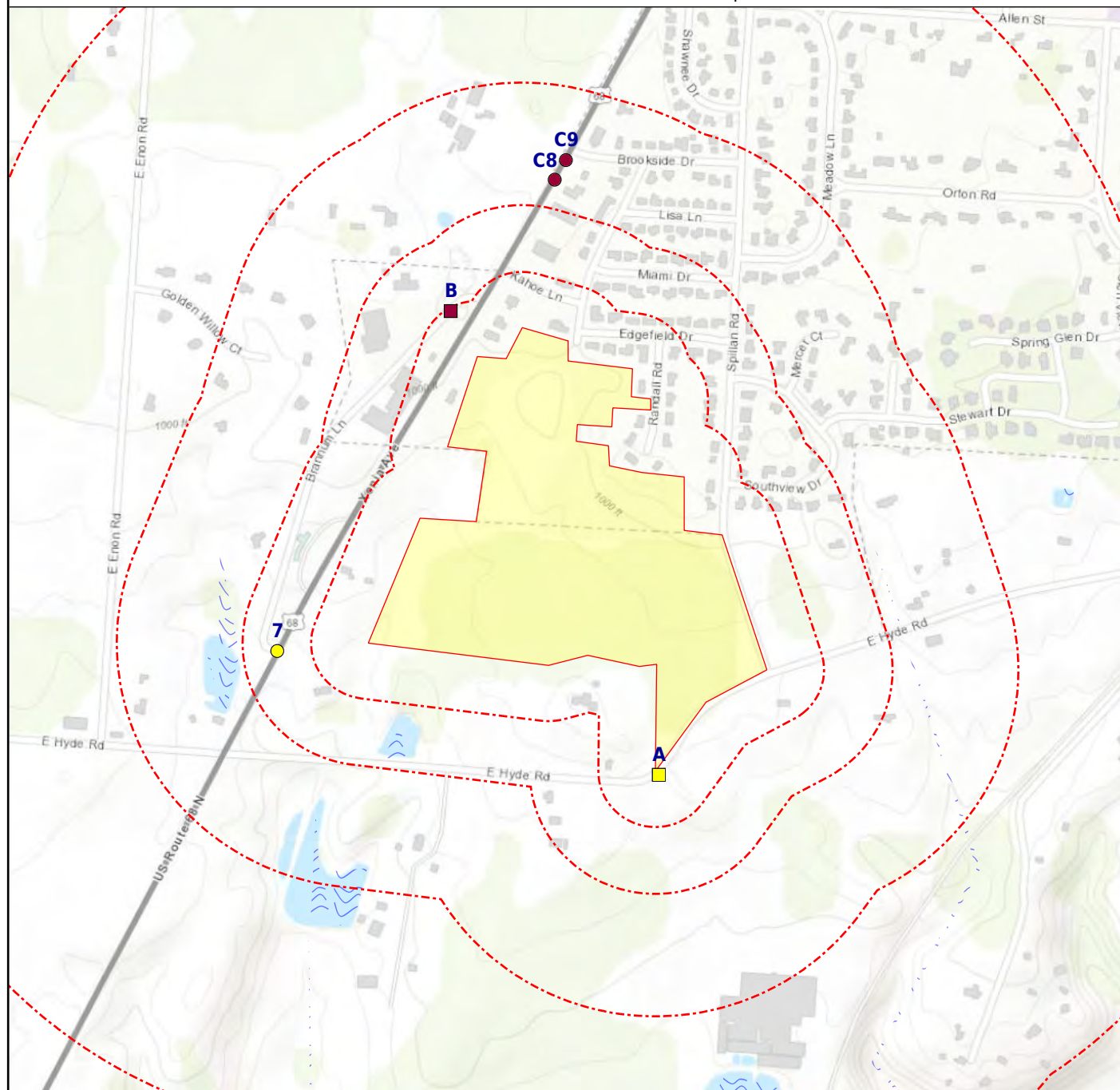
PREPARED FOR: Kilbane Environmental
 ORDER #: 40586
 REPORT DATE: April 07, 2020



- | | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> Subject Property Department of Defense (No Data) FEMA FloodZone 100 National Priority List (No Data) | <ul style="list-style-type: none"> Equal/Higher Elevation DFIRM FloodZone 100 FEMA FloodZone 500 NWI | <ul style="list-style-type: none"> Lower Elevation DFIRM FloodZone 500 Historical DOD (No Data) | <ul style="list-style-type: none"> CDC HAZDAT (No Data) Federal Lands (No Data) Indian Reservation (No Data) |
|---|--|--|---|

SUBJECT NAME: Struewing Property
ADDRESS: Miami Township, Yellow Springs, OH, 45387
LAT/LONG: 39.785679 / -83.898493

PREPARED FOR: Kilbane Environmental
ORDER #: 40586
REPORT DATE: April 07, 2020



- | | | | |
|------------------------------------|--------------------------|----------------------------|--------------------------------|
| ★ Subject Property | ● Equal/Higher Elevation | ● Lower Elevation | ⚠ CDC HAZDAT (No Data) |
| ■ Department of Defense (No Data) | ⚡ DFIRM Floodzone 100 | ⚡ DFIRM Floodzone 500 | ■ Federal Lands (No Data) |
| ⚡ FEMA FloodZone 100 | ⚡ FEMA FloodZone 500 | ■ Historical DOD (No Data) | ▲ Indian Reservation (No Data) |
| ■ National Priority List (No Data) | ⚡ NWI | | |

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
ARCHIVED RCRA TSDF		0.500	0	0	0	--	--	0
RCRA_TSDF		0.500	0	0	0	--	--	0
FEDERAL CERCLIS LIST								
CERCLIS NFRAP		0.500	0	0	0	--	--	0
CERCLIS-HIST		0.500	1	0	0	--	--	1
FEDERAL FACILITY		1.000	0	0	0	0	--	0
SEMS_8R_ACTIVE SITES		0.500	1	0	0	--	--	1
SEMS_8R_ARCHIVED SITES		0.500	0	0	0	--	--	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	1	0	0	0	--	1
HIST CORRACTS 2		1.000	0	0	0	0	--	0
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	--	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_DELETED NPL		1.000	0	0	0	0	--	0
FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
EPA LF MOP		0.500	0	0	0	--	--	0
FEDERAL ERNS LIST								
ERNS		SP	0	--	--	--	--	0
FEDERAL RCRA GENERATORS LIST								
HIST RCRA_CESQG		0.250	0	0	--	--	--	0
HIST RCRA_LQG		0.250	0	0	--	--	--	0
HIST RCRA_NONGEN		0.250	0	0	--	--	--	0
HIST RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_LQG		0.250	0	0	--	--	--	0
RCRA_NONGEN		0.250	0	1	--	--	--	1
RCRA_SQG		0.250	2	0	--	--	--	2
RCRA_VSQG		0.250	0	0	--	--	--	0
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	--	0
NPL EPA R1 GIS		1.000	0	0	0	0	--	0
NPL EPA R3 GIS		1.000	0	0	0	0	--	0
NPL EPA R6 GIS		1.000	0	0	0	0	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>
-----------------	-----------------------------	--	----------------	------------------	------------------	----------------	--------------	-------------------------

FEDERAL NPL SITE LIST (cont.)

NPL EPA R8 GIS		1.000	0	0	0	0	--	0
NPL EPA R9 GIS		1.000	0	0	0	0	--	0
PART NPL		1.000	0	0	0	0	--	0
PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_FINAL NPL		1.000	0	0	0	0	--	0
SEMS_PROPOSED NPL		1.000	0	0	0	0	--	0

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

RCRA IC_EC		0.250	0	0	--	--	--	0
FED E C		0.500	0	0	0	--	--	0
FED I C		0.500	0	0	0	--	--	0

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST		0.250	0	0	--	--	--	0
INDIAN UST R1		0.250	0	0	--	--	--	0
INDIAN UST R10		0.250	0	0	--	--	--	0
INDIAN UST R2		0.250	0	0	--	--	--	0
INDIAN UST R4		0.250	0	0	--	--	--	0
INDIAN UST R5		0.250	0	0	--	--	--	0
INDIAN UST R6		0.250	0	0	--	--	--	0
INDIAN UST R7		0.250	0	0	--	--	--	0
INDIAN UST R8		0.250	0	0	--	--	--	0
INDIAN UST R9		0.250	0	0	--	--	--	0
ARCHIVE UST - OH		0.250	0	1	--	--	--	1
UST - OH		0.250	0	0	--	--	--	0

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1		0.500	0	0	0	--	--	0
INDIAN LUST R10		0.500	0	0	0	--	--	0
INDIAN LUST R2		0.500	0	0	0	--	--	0
INDIAN LUST R4		0.500	0	0	0	--	--	0
INDIAN LUST R5		0.500	0	0	0	--	--	0
INDIAN LUST R6		0.500	0	0	0	--	--	0
INDIAN LUST R7		0.500	0	0	0	--	--	0
INDIAN LUST R8		0.500	0	0	0	--	--	0
INDIAN LUST R9		0.500	0	0	0	--	--	0
LAST - OH		0.500	0	0	0	--	--	0
LUST - OH		0.500	0	1	0	--	--	1

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>
STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)								
UNREG LTANKS - OH		0.500	0	0	0	--	--	0
STATE AND TRIBAL BROWNFIELD SITES								
TRIBAL BROWNFIELDS		0.500	0	0	0	--	--	0
BROWNFIELDS - OH		0.500	0	0	0	--	--	0
STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
E C - OH		0.500	0	0	0	--	--	0
I C - OH		0.500	0	0	0	--	--	0
IC LUC - OH		0.500	0	0	0	--	--	0
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
HIST LF - OH		0.500	0	0	0	--	--	0
HIST LF-LD - OH		0.500	0	0	0	--	--	0
SWF/LF - OH		0.500	0	0	0	--	--	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - OH		0.500	0	0	0	--	--	0
LOCAL BROWNFIELD LISTS								
BROWNFIELDS-ACRES		0.500	0	0	0	--	--	0
FED BROWNFIELDS		0.500	0	0	0	--	--	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		SP	0	--	--	--	--	0
US HIST CDL		SP	0	--	--	--	--	0
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
HIST INDIAN ODI R8		0.500	0	0	0	--	--	0
INDIAN ODI R8		0.500	0	0	0	--	--	0
ODI		0.500	0	0	0	--	--	0
TRIBAL ODI		0.500	0	0	0	--	--	0
SWRCY - OH		0.500	0	0	0	--	--	0
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		SP	0	--	--	--	--	0
SPILLS - OH		0.125	1	--	--	--	--	1
LOCAL LAND RECORDS								
LIENS 2		SP	0	--	--	--	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>
OTHER ASCERTAINABLE RECORDS								
AFS		SP	0	--	--	--	--	0
ALT FUELING		0.250	0	0	--	--	--	0
BRS		SP	0	--	--	--	--	0
CDC HAZDAT		1.000	0	0	0	0	--	0
COAL ASH DOE		0.500	0	0	0	--	--	0
COAL ASH EPA		0.500	0	0	0	--	--	0
COAL GAS		1.000	0	0	0	0	--	0
CONSENT (DECREEES)		1.000	0	0	0	0	--	0
DEBRIS R5 LF		0.500	0	0	0	--	--	0
DEBRIS R5 SWRCY		0.500	0	0	0	--	--	0
DOD		1.000	0	0	0	0	--	0
DOT OPS		SP	0	--	--	--	--	0
ECHO		SP	0	--	--	--	--	0
ENOI		SP	0	--	--	--	--	0
EPA FUELS		SP	0	--	--	--	--	0
EPA OSC		0.125	0	--	--	--	--	0
EPA WATCH		SP	0	--	--	--	--	0
FA HWF		SP	0	--	--	--	--	0
FEDLAND		1.000	0	0	0	0	--	0
FRS		SP	0	--	--	--	--	0
FTTS		SP	0	--	--	--	--	0
FTTS INSP		SP	0	--	--	--	--	0
FUDS		1.000	0	0	0	0	--	0
HIST AFS		SP	0	--	--	--	--	0
HIST AFS 2		SP	0	--	--	--	--	0
HIST DOD		1.000	0	0	0	0	--	0
HIST LEAD_SMELTER		SP	0	--	--	--	--	0
HIST MLTS		SP	0	--	--	--	--	0
HIST PCB TRANS		SP	0	--	--	--	--	0
HIST PCS ENF		SP	0	--	--	--	--	0
HIST PCS FACILITY		SP	0	--	--	--	--	0
HIST SSTS		SP	0	--	--	--	--	0
HWC DOCKET		SP	0	--	--	--	--	0
ICIS		SP	0	--	--	--	--	0
INACTIVE PCS		SP	0	--	--	--	--	0
INDIAN RESERVATION		1.000	0	0	0	0	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>
OTHER ASCERTAINABLE RECORDS (cont.)								
LUCIS		0.500	0	0	0	--	--	0
LUCIS 2		0.500	0	0	0	--	--	0
MINES		0.250	0	0	--	--	--	0
MINES USGS		0.250	0	0	--	--	--	0
MLTS		SP	0	--	--	--	--	0
NPL AOC		1.000	0	0	0	0	--	0
NPL LIENS		SP	0	--	--	--	--	0
OSHA		SP	0	--	--	--	--	0
PADS		SP	0	--	--	--	--	0
PCB TRANSFORMER		SP	0	--	--	--	--	0
PCS ENF		SP	0	--	--	--	--	0
PCS FACILITY		SP	0	--	--	--	--	0
RAATS		SP	0	--	--	--	--	0
RADINFO		SP	0	--	--	--	--	0
RMP		0.500	0	0	0	--	--	0
ROD		1.000	0	0	0	0	--	0
SCRD DRYCLEANERS		0.250	0	0	--	--	--	0
SEMS_SMELTER		SP	0	--	--	--	--	0
SSTS		SP	0	--	--	--	--	0
STORMWATER		SP	0	--	--	--	--	0
TOSCA-PLANT		SP	0	--	--	--	--	0
TRIS		SP	0	--	--	--	--	0
UMTRA		0.500	0	0	0	--	--	0
VAPOR		0.500	0	0	0	--	--	0
CORRECTIVE ACTIONS_2020		0.500	1	0	0	--	--	1
AIRS - OH		SP	0	--	--	--	--	0
COAL ASH - OH		0.500	0	0	0	--	--	0
COAL ASH 2 - OH		0.500	0	0	0	--	--	0
CRO - OH		0.250	0	0	--	--	--	0
DAYCARE - OH		SP	0	--	--	--	--	0
DERR - OH		0.500	2	0	0	--	--	2
DRYCLEANERS - OH		0.250	0	0	--	--	--	0
HIST NPDES - OH		SP	0	--	--	--	--	0
HIST USD - OH		SP	0	--	--	--	--	0
NPDES - OH		SP	0	--	--	--	--	0
SLUDGE - OH		0.500	0	0	1	--	--	1

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>
-----------------	-----------------------------	--	----------------	------------------	------------------	----------------	--------------	-------------------------

OTHER ASCERTAINABLE RECORDS (cont.)

TOWN GAS - OH		1.000	0	0	0	0	--	0
UIC - OH		SP	0	--	--	--	--	0
USD - OH		SP	0	--	--	--	--	0

Map Id: A1
 Direction: SSE
 Distance: 0.002 mi.
 Actual: 10.742 ft.
 Elevation: 0.186 mi. / 980.177 ft.
 Relative: Lower

Site Name : Morris Bean & Co Inc, Yellow Springs
 777 E Hyde Rd
 Yellow Springs, OH 45387
Database(s) : [DERR - OH]

Envirosite ID: 2764813
EPA ID: N/R

DERR - OH

Facility Name :
 Facility Address :
 County :
 Morris Bean & Co Inc, Yellow Springs
 777 E Hyde Rd, Yellow Springs, 45387
 Greene

Site Details

DERR ID : 529001292
 Alias : N/R
 Activity : Remedial Response
 CERCLIS ID : N/R
 District : Southwest District Office
 Latitude : 39.779004
 Longitude : -83.893737
 Last Date in Agency List : 11/14/2019

Map Id: A2
 Direction: SSE
 Distance: 0.002 mi.
 Actual: 10.742 ft.
 Elevation: 0.186 mi. / 980.177 ft.
 Relative: Lower

Site Name : BEAN MORRIS AND CO
 777 E HYDE RD
 YELLOW SPRINGS, OH 45387
Database(s) : [RCRA_SQG]

Envirosite ID: 415012655
EPA ID: OHD004241071

RCRA_SQG

Facility Name :
 Facility Address :
 County :
 BEAN MORRIS AND CO
 777 E HYDE RD, YELLOW SPRINGS, OH 45387
 GREENE

Date Form Received by Agency : 02/15/1991
 EPA ID : OHD004241071
 Mailing Address : 777 E HYDE RD, YELLOW SPRINGS, OH 45387
 Contact : GUNTIS BLACHINS
 Contact Address : 777 E HYDE RD, YELLOW SPRINGS, OH 45387
 Contact Country : US
 Contact Telephone : 513-767-7301
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Small Quantity Generator

Description : Handlers that generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.

Last Date in Agency List : 12/06/2019

Map Id: A2
 Direction: SSE
 Distance: 0.002 mi.
 Actual: 10.742 ft.
 Elevation: 0.186 mi. / 980.177 ft.
 Relative: Lower

Site Name : BEAN MORRIS AND CO
 777 E HYDE RD
 YELLOW SPRINGS, OH 45387
Database(s) : [RCRA_SQG] (**cont.**)

Envirosite ID: 415012655
EPA ID: OHD004241071

RCRA_SQG (**cont.**)

Owner/Operator Summary

Owner/Operator Name :	MORRIS BEAN AND COMPANY
Owner/Operator Address :	777 E HYDE RD, YELLOW SPRINGS, OH 45387
Owner/Operator Country :	N/R
Owner/Operator Telephone :	513-767-7301
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	01/01/1979
Facility Name :	BEAN MORRIS AND CO
Classification :	Large Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE
	D002 - CORROSIVE WASTE

Waste Code / Name :

F001 - THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Map Id: A2
 Direction: SSE
 Distance: 0.002 mi.
 Actual: 10.742 ft.
 Elevation: 0.186 mi. / 980.177 ft.
 Relative: Lower

Site Name : BEAN MORRIS AND CO
 777 E HYDE RD
 YELLOW SPRINGS, OH 45387
Database(s) : [RCRA_SQG] (**cont.**)

Envirosite ID: 415012655
EPA ID: OHD004241071

RCRA_SQG (**cont.**)

Notices of Violations Summary

Date of Violation :	03/13/1990
Date Achieved Compliance :	07/09/1991
Regulation Violated :	Y
Area of Violation :	Generators - General
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	04/30/1990
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R

Date of Violation :	03/13/1990
Date Achieved Compliance :	07/09/1991
Regulation Violated :	Y
Area of Violation :	Generators - General
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	07/30/1990
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R

Evaluation Action Summary

Evaluation Date :	07/03/1996
Evaluation :	FOCUSED COMPLIANCE INSPECTION
Area of Violation :	N/R
Date Achieved Compliance :	N/R
Evaluation Lead Agency :	State

Evaluation Date :	03/13/1990
Evaluation :	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of Violation :	Generators - General
Date Achieved Compliance :	07/09/1991
Evaluation Lead Agency :	State

Map Id: A3
 Direction: SSE
 Distance: 0.009 mi.
 Actual: 45.473 ft.
 Elevation: 0.186 mi. / 979.875 ft.
 Relative: Lower

Site Name : N/R
 777 E HYDE RD
 MIAMI TWP, OH
Database(s) : [SPILLS - OH]

Envirosite ID: 406635097
EPA ID: N/R

SPILLS - OH

Facility Address : 777 E Hyde Rd, MIAMI TWP
 County : Greene

Site Details

Date Reported : 11/30/2018
 Incident Date : N/R
 Spill Number : 1811EPA0002151
 Spiller Report : N/R
 Month : November
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R
 Product Spilled : AIR ODOR ALL OTHER
 Actual Amount : N/R
 Unit of Measure : N/R
 Incident Type : CITIZEN
 Spill Type : OTHER, DESCRIPTION REQUIRED
 Spill Size : UNKNOWN AMOUNT
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585
 Last Date in Agency List : 01/02/2020

Date Reported : 11/30/2018
 Incident Date : N/R
 Spill Number : 1811EPA0002151
 Spiller Report : N/R
 Month : November
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R
 Product Spilled : AIR PARTICULATES / SMOKE / DUST
 Actual Amount : N/R
 Unit of Measure : N/R
 Incident Type : CITIZEN
 Spill Type : WASTE CHEMICALS AFTER USE CYCLE, ABANDONED MATERIALS
 Spill Size : UNKNOWN AMOUNT
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585
 Last Date in Agency List : 01/02/2020

Date Reported : 11/30/2018
 Incident Date : N/R
 Spill Number : 1811EPA0002151

Map Id: A3
 Direction: SSE
 Distance: 0.009 mi.
 Actual: 45.473 ft.
 Elevation: 0.186 mi. / 979.875 ft.
 Relative: Lower

Site Name : N/R
 777 E HYDE RD
 MIAMI TWP, OH
Database(s) : [SPILLS - OH] (**cont.**)

Envirosite ID: 406635097
EPA ID: N/R

SPILLS - OH (**cont.**)

Spiller Report : N/R
 Month : November
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R
 Product Spilled : AMMONIA (NH3)
 Actual Amount : N/R
 Unit of Measure : N/R
 Incident Type : CITIZEN
 Spill Type : WASTE CHEMICALS AFTER USE CYCLE, ABANDONED MATERIALS
 Spill Size : UNKNOWN AMOUNT
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585
 Last Date in Agency List : 01/02/2020

Date Reported : 11/30/2018
 Incident Date : N/R
 Spill Number : 1811EPA0002151
 Spiller Report : N/R
 Month : November
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R
 Product Spilled : SEWAGE HUMAN
 Actual Amount : N/R
 Unit of Measure : N/R
 Incident Type : CITIZEN
 Spill Type : SEWAGE
 Spill Size : UNKNOWN AMOUNT
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585
 Last Date in Agency List : 01/02/2020

Date Reported : 11/30/2018
 Incident Date : N/R
 Spill Number : 1811EPA0002151
 Spiller Report : N/R
 Month : November
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R

Map Id: A3
 Direction: SSE
 Distance: 0.009 mi.
 Actual: 45.473 ft.
 Elevation: 0.186 mi. / 979.875 ft.
 Relative: Lower

Site Name : N/R
 777 E HYDE RD
 MIAMI TWP, OH
Database(s) : [SPILLS - OH] (**cont.**)

Envirosite ID: 406635097
EPA ID: N/R

SPILLS - OH (**cont.**)

Product Spilled : SOLID WASTE NOS (NOT SPECIFIED)
 Actual Amount : N/R
 Unit of Measure : N/R
 Incident Type : CITIZEN
 Spill Type : OTHER, DESCRIPTION REQUIRED
 Spill Size : UNKNOWN AMOUNT
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585
 Last Date in Agency List : 01/02/2020

Date Reported : 11/30/2018
 Incident Date : N/R
 Spill Number : 1811EPA0002151
 Spiller Report : N/R
 Month : November
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R
 Product Spilled : WASTE WATER
 Actual Amount : N/R
 Unit of Measure : N/R
 Incident Type : CITIZEN
 Spill Type : WASTE WATER WITHOUT CHEMICAL CONTAMINATION OR SEWAGE
 Spill Size : UNKNOWN AMOUNT
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585
 Last Date in Agency List : 01/02/2020

Date Reported : 06/19/2018
 Incident Date : N/R
 Spill Number : 1806EPA0001140
 Spiller Report : N/R
 Month : June
 Year : 2018
 Responsible Party : N/R
 Phone Follow-up : N/R
 Data Base Change Stamp : N/R
 Reported by : N/R
 Reporter Affiliation : N/R
 Employee Number : N/R
 Product Spilled : MATERIAL UNKNOWN
 Actual Amount : N/R
 Unit of Measure : UNK
 Incident Type : CITIZEN
 Spill Type : WASTE CHEMICALS AFTER USE CYCLE, ABANDONED MATERIALS
 Spill Size : SMALL: 500 GAL/4000 LBS
 District : SWDO
 Latitude : 39.78225768
 Longitude : -83.89683585

Map Id: A3
 Direction: SSE
 Distance: 0.009 mi.
 Actual: 45.473 ft.
 Elevation: 0.186 mi. / 979.875 ft.
 Relative: Lower

Site Name : N/R
 777 E HYDE RD
 MIAMI TWP, OH
Database(s) : [SPILLS - OH] (**cont.**)

EnviroSite ID: 406635097
EPA ID: N/R

SPILLS - OH (**cont.**)

Last Date in Agency List : 01/02/2020

Map Id: B4
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YSI Inc, Yellow Springs
 1700 & 1725 Brannum Ln
 Yellow Springs, OH 45387
Database(s) : [DERR - OH]

EnviroSite ID: 2764815
EPA ID: OHN000508224

DERR - OH

Facility Name : YSI Inc, Yellow Springs
 Facility Address : 1700 & 1725 Brannum Ln, Yellow Springs, 45387
 County : Greene

Site Details

DERR ID : 529001974
 Alias : N/R
 Activity : Remedial Response
 CERCLIS ID : OHN000508224
 District : Southwest District Office
 Latitude : 39.788108
 Longitude : -83.901748
 Last Date in Agency List : 11/14/2019

DERR ID : 529001974
 Alias : Yellow Springs Instruments
 Activity : Remedial Response
 CERCLIS ID : OHN000508224
 District : Southwest District Office
 Latitude : 39.788108
 Longitude : -83.901748
 Last Date in Agency List : 11/14/2019

Map Id: B5
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRECTIVE ACTIONS_2020, ECHO, FRS]

EnviroSite ID: 20041828
EPA ID: OHD004246716

Corrective Actions_2020

Facility Name : YELLOW SPRINGS INSTRUMENT CO INC

Map Id: B5
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRECTIVE ACTIONS_2020, ECHO, FRS]
(cont.)

Envirosite ID: 20041828
EPA ID: OHD004246716

Corrective Actions_2020 (cont.)

Facility Address : 1725 BRANNUM LANE, YELLOW SPRINGS, OH 45387

EPA ID : OHD004246716
 Region : 5
 Remedy Construction : N/R
 Federal Facility : N/R
 CA725 : YE
 CA750 : YE
 CA550 : N/R
 CA900 : N/R

ECHO

Facility Name : YELLOW SPRINGS INSTRUMENT CO INC
 Facility Address : 1725 BRANNUM LANE, YELLOW SPRINGS, OH 45387
 County : GREENE

Site Details

Last Inspection Date : 09/24/2002
 Registry ID : 110004593869
 FIPS Code : 39057
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : 6277
 Informal Count : 0
 Last Informal Action Date : 09/24/2002
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : ENTRANCE POINT OF A FACILITY OR STATION
 Accuracy Meters : 50
 Derived Tribes : N/R
 Derived HUC : 05090202
 Derived WBD : 050902020104
 Derived STCTY FIPS : 39057
 Derived Zip : 45387
 Derived CD113 : 10
 Derived CB2010 : 390572550001012
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R

Map Id: B5
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRECTIVE ACTIONS_2020, ECHO, FRS]
(cont.)

EnviroSite ID: 20041828
EPA ID: OHD004246716

ECHO (cont.)

CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC Codes :	N/R
Facility NAICS Codes :	N/R
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	09/24/2002
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	09/24/2002
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	39.789246
Longitude :	-83.900702
Last Date in Agency List :	12/02/2019

FRS

Facility Name :	YELLOW SPRINGS INSTRUMENT CO INC
Facility Address :	1725 BRANNUM LANE, YELLOW SPRINGS, OH 45387-1107
County :	GREENE
Registry ID :	110004593869
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	12/12/2019

Map Id: B5
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRECTIVE ACTIONS_2020, ECHO, FRS]
(cont.)

EnviroSite ID: 20041828
EPA ID: OHD004246716

FRS (cont.)

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Source Description :

The database that supports the Toxic Substances Control Act (TSCA) of 1976, which provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon and lead-based paint.

Source Description :

The OH-CORE database contains information commonly shared among the Ohio EPA environmental programs. The information is facility-based, general in nature, and used to support specific programmatic systems while simultaneously maintaining an inventory of common facility-related data. Specific programmatic details are maintained in programmatic databases.

FRS Environmental Interest

Source and System ID :

API - TSCA10021136
 OH-CORE - 239860
 RCRAINFO - OHD004246716

Map Id: B6
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG]

EnviroSite ID: 414228958
EPA ID: OHD004246716

CORRACTS

Facility Name :
 Facility Address :
 County :

YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE, YELLOW SPRINGS, OH 45387
 GREENE

Map Id: B6
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

CORRACTS (**cont.**)

EPA ID : OHD004246716
 EPA Region : 05
 Last Date in Agency List : 12/06/2019

HNAICS Code : N/R
 HNAICS Code Description : N/R

Area Name : YSI, INC.
 Actual Date : 07/29/2019
 Action : CA PERFORMANCE STANDARDS ATTAINED - NO CONTROLS NECESSARY
 Original Schedule Date : N/R
 Schedule End Date : N/R

Area Name : YSI, INC.
 Actual Date : 07/29/2019
 Action : REMEDY CONSTRUCTION-NO REMEDY CONSTRUCTED
 Original Schedule Date : N/R
 Schedule End Date : N/R

Area Name : YSI, INC.
 Actual Date : 08/07/2017
 Action : FINAL RFI REPORT DUE/RECEIVED
 Original Schedule Date : N/R
 Schedule End Date : N/R

Area Name : YSI, INC.
 Actual Date : 08/07/2017
 Action : INVESTIGATION COMPLETE
 Original Schedule Date : N/R
 Schedule End Date : N/R

Area Name : YSI, INC.
 Actual Date : 06/20/2016
 Action : INVESTIGATION REPORT RECEIVED
 Original Schedule Date : N/R
 Schedule End Date : N/R

Area Name : YSI, INC.
 Actual Date : 09/14/2011
 Action : RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
 Original Schedule Date : N/R
 Schedule End Date : N/R

Area Name : YSI, INC.
 Actual Date : 06/28/2010
 Action : HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
 Original Schedule Date : N/R

Map Id: B6
Direction: NNW
Distance: 0.054 mi.
Actual: 283.484 ft.
Elevation: 0.189 mi. / 999.852 ft.
Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
1725 BRANNUM LANE
YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

CORRACTS (cont.)

Schedule End Date : N/R

Area Name : YSI, INC.
Actual Date : 11/02/2005
Action : INVESTIGATION REPORT RECEIVED
Original Schedule Date : N/R
Schedule End Date : N/R

Area Name : YSI, INC.
Actual Date : 09/21/2004
Action : INVESTIGATION COMPLETE
Original Schedule Date : N/R
Schedule End Date : N/R

Area Name : YSI, INC.
Actual Date : 08/19/2004
Action : INVESTIGATION WORKPLAN NOTICE OF DEFICIENCY ISSUED
Original Schedule Date : N/R
Schedule End Date : N/R

Area Name : YSI, INC.
Actual Date : 03/18/2004
Action : INVESTIGATION WORKPLAN RECEIVED
Original Schedule Date : N/R
Schedule End Date : N/R

RCRA_SQG

Facility Name : YELLOW SPRINGS INSTRUMENT CO INC
Facility Address : 1725 BRANNUM LANE, YELLOW SPRINGS, OH 45387
County : GREENE

Date Form Received by Agency : 07/02/2002
EPA ID : OHD004246716
Mailing Address : PO BOX 279, YELLOW SPRINGS, OH 45387
Contact : RICK OMLOR
Contact Address : PO BOX 279, YELLOW SPRINGS, OH 45387
Contact Country : US
Contact Telephone : 937-767-7241
Contact Email : N/R
EPA Region : 05
Land Type : Not Reported
Source Type : Implementer
Classification : Small Quantity Generator

Description : Handlers that generate more than 100 and less than 1000 kilograms of hazardous waste during any calendar month and accumulate less than 6000 kg of hazardous waste at any time; or generate 100 kg or less of hazardous waste during any calendar month, and accumulate more than 1000 kg of hazardous waste at any time.

Last Date in Agency List : 12/06/2019

Map Id: B6
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (**cont.**)

Owner/Operator Summary

Owner/Operator Name :	MALTE VON MATTHIESSEN
Owner/Operator Address :	ADDRESS NOT REPORTED, CITY NOT REPORTED, AK 99998
Owner/Operator Country :	US
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Owner/Operator Name :	NAME NOT REPORTED
Owner/Operator Address :	ADDRESS NOT REPORTED, CITY NOT REPORTED, AK 99998
Owner/Operator Country :	N/R
Owner/Operator Telephone :	312-555-1212
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	04/13/1984
Facility Name :	YELLOW SPRINGS INSTRUMENT CO INC
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE
	D002 - CORROSIVE WASTE
	D006 - CADMIUM
	D007 - CHROMIUM

Map Id: B6
Direction: NNW
Distance: 0.054 mi.
Actual: 283.484 ft.
Elevation: 0.189 mi. / 999.852 ft.
Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
1725 BRANNUM LANE
YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (**cont.**)

Waste Code / Name :

D008 - LEAD
D009 - MERCURY
D037 - PENTACHLOROPHENOL
F003 - THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005 - THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
U098 - 1,1-DIMETHYLHYDRAZINE (OR) HYDRAZINE, 1,1-DIMETHYL-
U201 - 1,3-BENZENEDIOL (OR) RESORCINOL

Corrective Action Summary

Date / Status / CA Event Description:

07/29/2019 (Active) CA550NR - REMEDY CONSTRUCTION-NO REMEDY CONSTRUCTED
07/29/2019 (Active) CA900NC - CA PERFORMANCE STANDARDS ATTAINED - NO CONTROLS NECESSARY
08/07/2017 (Active) CA197 - FINAL RFI REPORT DUE/RECEIVED
08/07/2017 (Active) CA200 - INVESTIGATION COMPLETE
06/20/2016 (Active) CA190 - INVESTIGATION REPORT RECEIVED
09/14/2011 (Active) CA750YE - RELEASE TO GW CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
06/28/2010 (Active) CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE
11/02/2005 (Active) CA190 - INVESTIGATION REPORT RECEIVED
09/21/2004 (Active) CA200 - INVESTIGATION COMPLETE
08/19/2004 (Active) CA140 - INVESTIGATION WORKPLAN NOTICE OF DEFICIENCY ISSUED
03/18/2004 (Active) CA110 - INVESTIGATION WORKPLAN RECEIVED

Notices of Violations Summary

Date of Violation : 09/24/2002
Date Achieved Compliance : 05/05/2003
Regulation Violated : Y
Area of Violation : Generators - General
Enforcement Action : WRITTEN INFORMAL
Enforcement Action Date : 07/25/2002
Enf. Disposition Status : N/R
Enf. Disp. Status Date : N/R
Violation Lead Agency : State

Map Id: B6
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (**cont.**)

Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	09/24/2002
Date Achieved Compliance :	05/05/2003
Regulation Violated :	Y
Area of Violation :	Generators - General
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	09/24/2002
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	09/24/2002
Date Achieved Compliance :	07/10/2003
Regulation Violated :	Y
Area of Violation :	Generators - Manifest
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	07/25/2002
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	09/24/2002
Date Achieved Compliance :	07/10/2003
Regulation Violated :	Y
Area of Violation :	Generators - Manifest
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	09/24/2002
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	07/02/2002
Date Achieved Compliance :	05/05/2003
Regulation Violated :	Y
Area of Violation :	Generators - General
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	07/25/2002

Map Id: B6
Direction: NNW
Distance: 0.054 mi.
Actual: 283.484 ft.
Elevation: 0.189 mi. / 999.852 ft.
Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
1725 BRANNUM LANE
YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (cont.)

Enf. Disposition Status : N/R
Enf. Disp. Status Date : N/R
Violation Lead Agency : State
Enforcement Lead Agency : State
Proposed Penalty Amount : N/R
Final Penalty Amount : N/R
Paid Penalty Amount : N/R

Date of Violation : 07/02/2002
Date Achieved Compliance : 05/05/2003
Regulation Violated : Y
Area of Violation : Generators - General
Enforcement Action : WRITTEN INFORMAL
Enforcement Action Date : 09/24/2002
Enf. Disposition Status : N/R
Enf. Disp. Status Date : N/R
Violation Lead Agency : State
Enforcement Lead Agency : State
Proposed Penalty Amount : N/R
Final Penalty Amount : N/R
Paid Penalty Amount : N/R

Date of Violation : 07/02/2002
Date Achieved Compliance : 07/02/2002
Regulation Violated : Y
Area of Violation : Generators - Pre-transport
Enforcement Action : WRITTEN INFORMAL
Enforcement Action Date : 07/25/2002
Enf. Disposition Status : N/R
Enf. Disp. Status Date : N/R
Violation Lead Agency : State
Enforcement Lead Agency : State
Proposed Penalty Amount : N/R
Final Penalty Amount : N/R
Paid Penalty Amount : N/R

Date of Violation : 07/02/2002
Date Achieved Compliance : 07/10/2003
Regulation Violated : Y
Area of Violation : Generators - Manifest
Enforcement Action : WRITTEN INFORMAL
Enforcement Action Date : 07/25/2002
Enf. Disposition Status : N/R
Enf. Disp. Status Date : N/R
Violation Lead Agency : State
Enforcement Lead Agency : State
Proposed Penalty Amount : N/R
Final Penalty Amount : N/R
Paid Penalty Amount : N/R

Date of Violation : 07/02/2002
Date Achieved Compliance : 07/10/2003
Regulation Violated : Y

Map Id: B6
Direction: NNW
Distance: 0.054 mi.
Actual: 283.484 ft.
Elevation: 0.189 mi. / 999.852 ft.
Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
1725 BRANNUM LANE
YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (cont.)

Area of Violation :	Generators - Manifest
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	09/24/2002
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	07/02/2002
Date Achieved Compliance :	09/24/2002
Regulation Violated :	Y
Area of Violation :	Generators - Pre-transport
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	07/25/2002
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	07/02/2002
Date Achieved Compliance :	09/24/2002
Regulation Violated :	Y
Area of Violation :	Universal Waste - General
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	07/25/2002
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R
Date of Violation :	06/14/1999
Date Achieved Compliance :	07/19/1999
Regulation Violated :	Y
Area of Violation :	Generators - Pre-transport
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	06/18/1999
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R

Map Id: B6
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (**cont.**)

Date of Violation : 03/21/1989
 Date Achieved Compliance : 06/01/1989
 Regulation Violated : Y
 Area of Violation : Generators - General
 Enforcement Action : WRITTEN INFORMAL
 Enforcement Action Date : 03/28/1989
 Enf. Disposition Status : N/R
 Enf. Disp. Status Date : N/R
 Violation Lead Agency : State
 Enforcement Lead Agency : State
 Proposed Penalty Amount : N/R
 Final Penalty Amount : N/R
 Paid Penalty Amount : N/R

Evaluation Action Summary

Evaluation Date : 09/24/2002
 Evaluation : FOLLOW-UP INSPECTION
 Area of Violation : Generators - General
 Date Achieved Compliance : 05/05/2003
 Evaluation Lead Agency : State

Evaluation Date : 09/24/2002
 Evaluation : FOLLOW-UP INSPECTION
 Area of Violation : Generators - Manifest
 Date Achieved Compliance : 07/10/2003
 Evaluation Lead Agency : State

Evaluation Date : 07/02/2002
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Generators - General
 Date Achieved Compliance : 05/05/2003
 Evaluation Lead Agency : State

Evaluation Date : 07/02/2002
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Generators - Manifest
 Date Achieved Compliance : 07/10/2003
 Evaluation Lead Agency : State

Evaluation Date : 07/02/2002
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Generators - Pre-transport
 Date Achieved Compliance : 07/02/2002
 Evaluation Lead Agency : State

Evaluation Date : 07/02/2002
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Generators - Pre-transport
 Date Achieved Compliance : 09/24/2002
 Evaluation Lead Agency : State

Map Id: B6
 Direction: NNW
 Distance: 0.054 mi.
 Actual: 283.484 ft.
 Elevation: 0.189 mi. / 999.852 ft.
 Relative: Higher

Site Name : YELLOW SPRINGS INSTRUMENT CO INC
 1725 BRANNUM LANE
 YELLOW SPRINGS, OH 45387
Database(s) : [CORRACTS, RCRA_SQG] (**cont.**)

Envirosite ID: 414228958
EPA ID: OHD004246716

RCRA_SQG (**cont.**)

Evaluation Date : 07/02/2002
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Universal Waste - General
 Date Achieved Compliance : 09/24/2002
 Evaluation Lead Agency : State

Evaluation Date : 06/14/1999
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Generators - Pre-transport
 Date Achieved Compliance : 07/19/1999
 Evaluation Lead Agency : State

Evaluation Date : 05/31/1989
 Evaluation : COMPLIANCE SCHEDULE EVALUATION
 Area of Violation : N/R
 Date Achieved Compliance : N/R
 Evaluation Lead Agency : State

Evaluation Date : 03/21/1989
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : Generators - General
 Date Achieved Compliance : 06/01/1989
 Evaluation Lead Agency : State

Evaluation Date : 06/10/1985
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : N/R
 Date Achieved Compliance : N/R
 Evaluation Lead Agency : State

Map Id: 7
 Direction: WSW
 Distance: 0.091 mi.
 Actual: 477.880 ft.
 Elevation: 0.184 mi. / 969.721 ft.
 Relative: Lower

Site Name : YELLOW SPRINGS INSTRUMENTS (YSI)
 AREA WELLS
 US 68 AND BRANNUM ROAD
 YELLOW SPRINGS, OH 45387
Database(s) : [CERCLIS-HIST, FRS, SEMS_8R_ACTIVE
 SITES]

Envirosite ID: 1331861
EPA ID: OHN000508224

CERCLIS-HIST

Facility Name : YELLOW SPRINGS INSTRUMENTS (YSI) AREA WELLS
 Facility Address : US 68 AND BRANNUM ROAD, YELLOW SPRINGS, OH 45387
 County : GREENE

Site ID : 0508224
 Epa ID : OHN000508224

Map Id: 7
 Direction: WSW
 Distance: 0.091 mi.
 Actual: 477.880 ft.
 Elevation: 0.184 mi. / 969.721 ft.
 Relative: Lower

Site Name : YELLOW SPRINGS INSTRUMENTS (YSI)
 AREA WELLS
 US 68 AND BRANNUM ROAD
 YELLOW SPRINGS, OH 45387
Database(s) : [CERCLIS-HIST, FRS, SEMS_8R_ACTIVE
 SITES] **(cont.)**

EnviroSite ID: 1331861
EPA ID: OHN000508224

CERCLIS-HIST (cont.)

Short Name :	YELLOW SPRINGS INSTRUMENT
Congressional District :	07
IFMS ID :	N/R
SMSA Number :	N/R
USGS Hydro Unit :	N/R
Federal Facility :	N
DMNSN Number :	N/R
Site Orphan Flag :	N/R
RCRA ID :	N/R
USGS Quadrangle :	N/R
Site Init by Prog :	S
NFRAP Flag :	N/R
Parent ID :	N/R
RST Code :	N/R
EPA Region :	05
Classification :	N/R
Site Settings Code :	N/R
NPL Status :	Not on the NPL
DMNSN Unit Code :	N/R
RBRAC Code :	N/R
RResp Fed Agency Code :	N/R
Non NPL Status :	Other Cleanup Activity: State-Lead Cleanup
Non NPL Status Date :	09/30/2002
Site Fips Code :	39057
CC Concurrence Date :	N/R
CC Concurrence FY :	N/R
Alias EPA ID :	N/R
Site FUDS Flag :	N/R

CERCLIS Site Contact Name(s)

Contact ID :	N/R
Contact Name :	N/R
Contact Tel. :	N/R
Contact Title :	N/R
Contact Email :	N/R

Alias Comments :	N/R
Site Description :	N/R

CERCLIS Assessment History

Action Code :	001
Action :	COMBINED PRELIMINARY ASSESSMENT/SITE INSPECTION
Date Started :	12/05/2001
Date Completed :	09/30/2002
Priority Level :	1
Operational Unit :	00
Primary Responsibility :	S
Planning Status :	N/R
Urgency Indicator :	N/R
Action Anomaly :	N/R

Map Id: 7
 Direction: WSW
 Distance: 0.091 mi.
 Actual: 477.880 ft.
 Elevation: 0.184 mi. / 969.721 ft.
 Relative: Lower

Site Name : YELLOW SPRINGS INSTRUMENTS (YSI)
 AREA WELLS
 US 68 AND BRANNUM ROAD
 YELLOW SPRINGS, OH 45387
Database(s) : [CERCLIS-HIST, FRS, SEMS_8R_ACTIVE
 SITES] **(cont.)**

EnviroSite ID: 1331861
EPA ID: OHN000508224

CERCLIS-HIST (cont.)

Action Code : 001
 Action : DISCOVERY
 Date Started : N/R
 Date Completed : 10/01/2001
 Priority Level : 1
 Operational Unit : 00
 Primary Responsibility : F
 Planning Status : N/R
 Urgency Indicator : N/R
 Action Anomaly : N/R

FRS

Facility Name : YELLOW SPRINGS INSTRUMENTS (YSI) AREA WELLS
 Facility Address : US 68 AND BRANNUM ROAD, YELLOW SPRINGS, OH 45387
 County : GREENE

Registry ID : 110013799096
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 12/12/2019

Source Description :

The Superfund Enterprise Management System (SEMS) integrates multiple legacy systems into a comprehensive tracking and reporting tool, providing data on the inventory of active and archived hazardous waste sites evaluated by the Superfund program. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

FRS Environmental Interest

Source and System ID : SEMS - OHN000508224

SEMS_8R_ACTIVE SITES

Facility Name : YELLOW SPRINGS INSTRUMENTS (YSI) AREA WELLS
 Facility Address : US 68 AND BRANNUM ROAD, YELLOW SPRINGS, OH 45387
 County : GREENE

Site Details

Site ID : 0508224
 EPA ID : OHN000508224
 Region : 05
 Congressional District : 07
 Federal Facility : N
 NPL Status : Not on the NPL
 Non NPL Status : Other Cleanup Activity: State-Lead Cleanup
 FIPS Code : 39057

Map Id: 7
 Direction: WSW
 Distance: 0.091 mi.
 Actual: 477.880 ft.
 Elevation: 0.184 mi. / 969.721 ft.
 Relative: Lower

Site Name : YELLOW SPRINGS INSTRUMENTS (YSI)
 AREA WELLS
 US 68 AND BRANNUM ROAD
 YELLOW SPRINGS, OH 45387
Database(s) : [CERCLIS-HIST, FRS, SEMS_8R_ACTIVE
 SITES] **(cont.)**

EnviroSite ID: 1331861
EPA ID: OHN000508224

SEMS_8R_ACTIVE SITES (cont.)

Superfund Alternative Agreement : N
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 12/19/2019

Additional Information

Start Date : 09/30/2002
 Finish Date : N/R
 OU : 00
 Action Code : VA
 Action Name : OTHR CLEANUP
 Sequence : 1
 Quality : N/R
 Current Action Lead : St Perf

Start Date : 12/05/2001
 Finish Date : 09/30/2002
 OU : 00
 Action Code : NX
 Action Name : COMB PA/SI
 Sequence : 1
 Quality : H
 Current Action Lead : St Perf

Start Date : 10/01/2001
 Finish Date : 10/01/2001
 OU : 00
 Action Code : DS
 Action Name : DISCVRY
 Sequence : 1
 Quality : N/R
 Current Action Lead : EPA Perf

Map Id: C8
 Direction: N
 Distance: 0.155 mi.
 Actual: 819.812 ft.
 Elevation: 0.192 mi. / 1016.02 ft.
 Relative: Higher

Site Name : VILLAGE AUTO
 1455 XENIA AVE
 YELLOW SPRINGS, OH 45387
Database(s) : [ECHO, FRS, RCRA_NONGEN]

EnviroSite ID: 414848125
EPA ID: OHR000184580

ECHO

Facility Name : VILLAGE AUTO
 Facility Address : 1455 XENIA AVE, YELLOW SPRINGS, OH 45387
 County : GREENE

Map Id: C8
 Direction: N
 Distance: 0.155 mi.
 Actual: 819.812 ft.
 Elevation: 0.192 mi. / 1016.02 ft.
 Relative: Higher

Site Name : VILLAGE AUTO
 1455 XENIA AVE
 YELLOW SPRINGS, OH 45387
Database(s) : [ECHO, FRS, RCRA_NONGEN] **(cont.)**

Envirosite ID: 414848125
EPA ID: OHR000184580

ECHO **(cont.)**

Site Details

Last Inspection Date :	03/13/2015
Registry ID :	110060283385
FIPS Code :	39057
EPA Region :	05
Inspection Count :	1
Last Inspection Days :	1724
Informal Count :	0
Last Informal Action Date :	07/30/2014
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	05090202
Derived WBD :	050902020104
Derived STCTY FIPS :	39057
Derived Zip :	45387
Derived CD113 :	10
Derived CB2010 :	390572550001010
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC Codes :	N/R
Facility NAICS Codes :	N/R
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	03/13/2015
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R

Map Id: C8
Direction: N
Distance: 0.155 mi.
Actual: 819.812 ft.
Elevation: 0.192 mi. / 1016.02 ft.
Relative: Higher

Site Name : VILLAGE AUTO
1455 XENIA AVE
YELLOW SPRINGS, OH 45387
Database(s) : [ECHO, FRS, RCRA_NONGEN] (*cont.*)

EnviroSite ID: 414848125
EPA ID: OHR000184580

ECHO (*cont.*)

Facility Last Informal Act State Date:	07/30/2014
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	39.790942
Longitude :	-83.898972
Last Date in Agency List :	12/02/2019

FRS

Facility Name : VILLAGE AUTO
Facility Address : 1455 XENIA AVE, YELLOW SPRINGS, OH 45387
County : GREENE

Registry ID : 110060283385
FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
Last Date in Agency List : 12/12/2019

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest
Source and System ID :

RCRAINFO - OHR000184580

RCRA_NONGEN

Facility Name : VILLAGE AUTO
Facility Address : 1455 XENIA AVE, YELLOW SPRINGS, OH 45387
County : GREENE

Map Id: C8
 Direction: N
 Distance: 0.155 mi.
 Actual: 819.812 ft.
 Elevation: 0.192 mi. / 1016.02 ft.
 Relative: Higher

Site Name : VILLAGE AUTO
 1455 XENIA AVE
 YELLOW SPRINGS, OH 45387
Database(s) : [ECHO, FRS, RCRA_NONGEN] **(cont.)**

Envirosite ID: 414848125
EPA ID: OHR000184580

RCRA_NONGEN (cont.)

Date Form Received by Agency :	06/20/2014
EPA ID :	OHR000184580
Mailing Address :	1455 XENIA AVE, YELLOW SPRINGS, OH 45387
Contact :	TODD FRITSCHIE
Contact Address :	1455 XENIA AVE, YELLOW SPRINGS, OH 45387
Contact Country :	US
Contact Telephone :	937-767-2088
Contact Email :	N/R
EPA Region :	05
Land Type :	Private
Source Type :	Implementer
Classification :	Not a generator, verified
Description :	Not a generator, verified
Last Date in Agency List :	12/06/2019

Owner/Operator Summary

Owner/Operator Name :	N/R
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	N/R
Owner/Operator Type :	N/R
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Notices of Violations Summary

Date of Violation :	06/20/2014
Date Achieved Compliance :	03/13/2015
Regulation Violated :	Y
Area of Violation :	Used Oil - Generators
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	07/30/2014

Map Id: C8
 Direction: N
 Distance: 0.155 mi.
 Actual: 819.812 ft.
 Elevation: 0.192 mi. / 1016.02 ft.
 Relative: Higher

Site Name : VILLAGE AUTO
 1455 XENIA AVE
 YELLOW SPRINGS, OH 45387
Database(s) : [ECHO, FRS, RCRA_NONGEN] **(cont.)**

Envirosite ID: 414848125
EPA ID: OHR000184580

RCRA_NONGEN (cont.)

Enf. Disposition Status : N/R
 Enf. Disp. Status Date : N/R
 Violation Lead Agency : State
 Enforcement Lead Agency : State
 Proposed Penalty Amount : N/R
 Final Penalty Amount : N/R
 Paid Penalty Amount : N/R

Evaluation Action Summary

Evaluation Date : 03/13/2015
 Evaluation : FOLLOW-UP INSPECTION
 Area of Violation : N/R
 Date Achieved Compliance : N/R
 Evaluation Lead Agency : State

Evaluation Date : 06/20/2014
 Evaluation : FOCUSED COMPLIANCE INSPECTION
 Area of Violation : Used Oil - Generators
 Date Achieved Compliance : 03/13/2015
 Evaluation Lead Agency : State

Map Id: C9
 Direction: N
 Distance: 0.178 mi.
 Actual: 938.647 ft.
 Elevation: 0.193 mi. / 1017.546 ft.
 Relative: Higher

Site Name : JAMES SHATTUCK
 1435 XENIA
 YELLOW SPRINGS, OH 45387
Database(s) : [ARCHIVE UST - OH, LUST - OH]

Envirosite ID: 2774291
EPA ID: N/R

ARCHIVE UST - OH

Facility Name : JAMES SHATTUCK
 Facility Address : 1435 XENIA, YELLOW SPRINGS, Ohio 45387
 County : Greene

Site Details

Facility Number : 29000874
 Facility Type : Gas Station
 Owner Name : N/R
 Owner Address : N/R
 Last Date in Agency List : 01/17/2020

Tank Information

Installation Date : N/R
 Tank Number : T00001
 Tank Type : UST

Map Id: C9
 Direction: N
 Distance: 0.178 mi.
 Actual: 938.647 ft.
 Elevation: 0.193 mi. / 1017.546 ft.
 Relative: Higher

Site Name : JAMES SHATTUCK
 1435 XENIA
 YELLOW SPRINGS, OH 45387
Database(s) : [ARCHIVE UST - OH, LUST - OH] (**cont.**)

Envirosite ID: 2774291
EPA ID: N/R

ARCHIVE UST - OH (**cont.**)

Status :	REM - Removed
Date Last Used :	10/31/2002
Date TCL Closed :	N/R
Date Removed :	10/31/2002
Tank Content :	Gasoline
UST Capacity :	6000
Construction :	Other
CAS Number :	8006-61-9
Abandoned Approved :	N/R
Comments :	N/R
Regulated :	YES
Sensitive Area :	NO
Date of Sensitivity :	N/R
UST Configurations :	N/R
Construction Comments :	Other
Corrosion Protections :	N/R
Corrosion Protection Comments :	N/R
Primary Release Detection :	AMO - Alternative Method (Other, explain)
Secondary Release Detection :	N/R
Release Detection Comments :	RDTank: / RDLine:
Piping Configuration :	N/R
Piping Configuration Comments :	N/R
Piping Styles :	NA - Not Applicable
Piping Constructions :	OTH - Other (explain)
Piping Construction Comments :	Unknown
Piping Corrosion Protections :	OTH - Other (explain)
Piping Corrosion Protection Comments:	N/R
Piping Release Detections :	OTH - Other(explain)
Piping Release Detection Comments :	N/R
Spill Prevention Manholes :	NP - None Present
Spill Prevention Manhole Comments :	No
Overfill Prevention :	N/R
Overfill Prevention Comment :	OverFill Spill: No
Latitude :	39.79124
Longitude :	-83.89837

Installation Date :	N/R
Tank Number :	T00002
Tank Type :	UST
Status :	REM - Removed
Date Last Used :	10/31/2002
Date TCL Closed :	N/R
Date Removed :	10/31/2002
Tank Content :	Gasoline
UST Capacity :	3000
Construction :	Other
CAS Number :	8006-61-9
Abandoned Approved :	N/R
Comments :	N/R
Regulated :	YES
Sensitive Area :	NO
Date of Sensitivity :	N/R
UST Configurations :	N/R
Construction Comments :	Other
Corrosion Protections :	N/R
Corrosion Protection Comments :	N/R

Map Id: C9
 Direction: N
 Distance: 0.178 mi.
 Actual: 938.647 ft.
 Elevation: 0.193 mi. / 1017.546 ft.
 Relative: Higher

Site Name : JAMES SHATTUCK
 1435 XENIA
 YELLOW SPRINGS, OH 45387
Database(s) : [ARCHIVE UST - OH, LUST - OH] **(cont.)**

Envirosite ID: 2774291
EPA ID: N/R

ARCHIVE UST - OH (cont.)

Primary Release Detection :	AMO - Alternative Method (Other, explain)
Secondary Release Detection :	N/R
Release Detection Comments :	RDTank: / RDLine:
Piping Configuration :	N/R
Piping Configuration Comments :	N/R
Piping Styles :	NA - Not Applicable
Piping Constructions :	OTH - Other (explain)
Piping Construction Comments :	Unknown
Piping Corrosion Protections :	OTH - Other (explain)
Piping Corrosion Protection Comments:	N/R
Piping Release Detections :	OTH - Other(explain)
Piping Release Detection Comments :	N/R
Spill Prevention Manholes :	NP - None Present
Spill Prevention Manhole Comments :	No
Overfill Prevention :	N/R
Overfill Prevention Comment :	OverFill Spill: No
Latitude :	39.79124
Longitude :	-83.89837

Installation Date :	N/R
Tank Number :	T00003
Tank Type :	UST
Status :	REM - Removed
Date Last Used :	10/31/2002
Date TCL Closed :	N/R
Date Removed :	10/31/2002
Tank Content :	Gasoline
UST Capacity :	3000
Construction :	Other
CAS Number :	8006-61-9
Abandoned Approved :	N/R
Comments :	N/R
Regulated :	YES
Sensitive Area :	NO
Date of Sensitivity :	N/R
UST Configurations :	N/R
Construction Comments :	Other
Corrosion Protections :	N/R
Corrosion Protection Comments :	N/R
Primary Release Detection :	AMO - Alternative Method (Other, explain)
Secondary Release Detection :	N/R
Release Detection Comments :	RDTank: / RDLine:
Piping Configuration :	N/R
Piping Configuration Comments :	N/R
Piping Styles :	NA - Not Applicable
Piping Constructions :	OTH - Other (explain)
Piping Construction Comments :	Unknown
Piping Corrosion Protections :	OTH - Other (explain)
Piping Corrosion Protection Comments:	N/R
Piping Release Detections :	OTH - Other(explain)
Piping Release Detection Comments :	N/R
Spill Prevention Manholes :	NP - None Present
Spill Prevention Manhole Comments :	No
Overfill Prevention :	N/R
Overfill Prevention Comment :	OverFill Spill: No
Latitude :	39.79124

Map Id: C9
 Direction: N
 Distance: 0.178 mi.
 Actual: 938.647 ft.
 Elevation: 0.193 mi. / 1017.546 ft.
 Relative: Higher

Site Name : JAMES SHATTUCK
 1435 XENIA
 YELLOW SPRINGS, OH 45387
Database(s) : [ARCHIVE UST - OH, LUST - OH] (**cont.**)

Envirosite ID: 2774291
EPA ID: N/R

ARCHIVE UST - OH (**cont.**)

Longitude : -83.89837

Installation Date : N/R
 Tank Number : T00004
 Tank Type : UST
 Status : REM - Removed
 Date Last Used : 10/31/2002
 Date TCL Closed : N/R
 Date Removed : 10/31/2002
 Tank Content : Gasoline
 UST Capacity : 2000
 Construction : Other
 CAS Number : 8006-61-9
 Abandoned Approved : N/R
 Comments : N/R
 Regulated : YES
 Sensitive Area : NO
 Date of Sensitivity : N/R
 UST Configurations : N/R
 Construction Comments : Other
 Corrosion Protections : N/R
 Corrosion Protection Comments : N/R
 Primary Release Detection : AMO - Alternative Method (Other, explain)
 Secondary Release Detection : N/R
 Release Detection Comments : RDTank: / RDLine:
 Piping Configuration : N/R
 Piping Configuration Comments : N/R
 Piping Styles : NA - Not Applicable
 Piping Constructions : OTH - Other (explain)
 Piping Construction Comments : Unknown
 Piping Corrosion Protections : OTH - Other (explain)
 Piping Corrosion Protection Comments: N/R
 Piping Release Detections : OTH - Other(explain)
 Piping Release Detection Comments : N/R
 Spill Prevention Manholes : NP - None Present
 Spill Prevention Manhole Comments : No
 Overfill Prevention : N/R
 Overfill Prevention Comment : OverFill Spill: No
 Latitude : 39.79124
 Longitude : -83.89837

Installation Date : N/R
 Tank Number : T00005
 Tank Type : UST
 Status : REM - Removed
 Date Last Used : 10/31/2002
 Date TCL Closed : N/R
 Date Removed : 10/31/2002
 Tank Content : Gasoline
 UST Capacity : 2000
 Construction : Other
 CAS Number : 8006-61-9
 Abandoned Approved : N/R
 Comments : N/R
 Regulated : YES

Map Id: C9
Direction: N
Distance: 0.178 mi.
Actual: 938.647 ft.
Elevation: 0.193 mi. / 1017.546 ft.
Relative: Higher

Site Name : JAMES SHATTUCK
1435 XENIA
YELLOW SPRINGS, OH 45387
Database(s) : [ARCHIVE UST - OH, LUST - OH] (**cont.**)

Envirosite ID: 2774291
EPA ID: N/R

ARCHIVE UST - OH (**cont.**)

Sensitive Area :	NO
Date of Sensitivity :	N/R
UST Configurations :	N/R
Construction Comments :	Other
Corrosion Protections :	N/R
Corrosion Protection Comments :	N/R
Primary Release Detection :	AMO - Alternative Method (Other, explain)
Secondary Release Detection :	N/R
Release Detection Comments :	RD Tank: / RD Line:
Piping Configuration :	N/R
Piping Configuration Comments :	N/R
Piping Styles :	NA - Not Applicable
Piping Constructions :	OTH - Other (explain)
Piping Construction Comments :	Unknown
Piping Corrosion Protections :	OTH - Other (explain)
Piping Corrosion Protection Comments :	N/R
Piping Release Detections :	OTH - Other (explain)
Piping Release Detection Comments :	N/R
Spill Prevention Manholes :	NP - None Present
Spill Prevention Manhole Comments :	No
Overfill Prevention :	N/R
Overfill Prevention Comment :	OverFill Spill: No
Latitude :	39.79124
Longitude :	-83.89837

LUST - OH

Facility Name :	JAMES SHATTUCK
Facility Address :	1435 XENIA, YELLOW SPRINGS, OH 45387
County :	Greene

Site Details

Review Date :	09/09/2019
Release Date :	11/20/2002
Release Number :	29000874-N00001
LTF Status :	6 Closure of regulated UST
FR Status :	CLO: Closure
Facility Status :	Active
Priority :	2
Class :	B
Latitude :	39.79124
Longitude :	-83.89837
Last Date in Agency List :	12/25/2019

Map Id: 10
 Direction: SSE
 Distance: 0.356 mi.
 Actual: 1877.158 ft.
 Elevation: 0.176 mi. / 930.459 ft.
 Relative: Lower

Site Name : 00435
 394638, 835347
 OH
Database(s) : [SLUDGE - OH]

Envirosite ID: 353810279
EPA ID: N/R

SLUDGE - OH

SIA Number :	00435
Category :	IND
State ID :	SW 057 130SW
SIC Code :	336
NPDES Number :	OH0040576
Impound :	003
Rpt Date :	101278
Owner :	MORRIS BEAN AND COMPANY
Owner Address :	777 EAST HYDE ROAD, YELLOW SPRINGS, OH 45387
Purpose :	x
Purpose Description :	SETTLING
Age 1980 :	30
SURF AR AL :	0000335
Influ All :	000217000
Influ Year :	1979
Liner Type :	01
Linter Thknes :	000
Liner Other :	N/R
GW Mon Wel :	N
GW Cnt Pot :	23
County :	Greene
Latitude :	394638
Longitude :	835347

No unmappable sites reported.

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 12/06/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/14/2020

RCRA_TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 12/06/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/14/2020

FEDERAL CERCLIS LIST

CERCLIS NFRAP: The CERCLIS sites with No Further Remedial Action Planned from the CERCLIS program database. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 03/16/2020

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 03/16/2020

FEDERAL FACILITY: Sites where Federal Facilities Restoration and Reuse Office (FFRRO) arranged cleanup for Base Closure and Property Transfer at Federal Facilities

Agency Version Date: 12/19/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8712
Most Recent Contact: 03/16/2020

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided.

Agency Version Date: 12/19/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

SEMS_8R_ARCHIVED SITES: The Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

Agency Version Date: 12/06/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 02/14/2020

HIST CORRACTS 2: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/26/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 03/30/2020

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL: National Priority List of sites that were delisted and no longer require action

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

DELISTED PROPOSED NPL: Sites that have been delisted from the proposed National Priority List

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

SEMS_DELETED NPL: All Deleted National Priority List Sties

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP: Sites in the EPA Landfill Methane Outreach Program

Agency Version Date: 02/10/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/20/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 02/10/2020

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills

Agency Version Date: 01/08/2020
Agency Update Frequency: Annually
Planned Next Contact: 05/20/2020

Agency: National Response Center United States Coast Guard
Agency Contact: N/R
Most Recent Contact: 03/18/2020

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG: List of Resource Conservation and Recovery Act licensed conditionally exempt small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/26/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 03/30/2020

FEDERAL RCRA GENERATORS LIST (cont.)

HIST RCRA_LQG: List of Resource Conservation and Recovery Act licensed large quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/26/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 03/30/2020

HIST RCRA_NONGEN: List of Resource Conservation and Recovery Act licensed non-generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/26/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 03/30/2020

HIST RCRA_SQG: List of Resource Conservation and Recovery Act licensed small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/26/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 03/30/2020

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

Agency Version Date: 12/06/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/14/2020

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

Agency Version Date: 12/06/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/14/2020

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

Agency Version Date: 12/06/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/14/2020

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators.

Agency Version Date: 12/06/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/24/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/14/2020

FEDERAL NPL SITE LIST

NPL: List of priority contaminated sites among identified releases or threatened releases of hazardous substances pollutants or contaminants nationally

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

NPL EPA R1 GIS: Geospatial data for the Environmental Protection Agency Region 1 National Priority List subject to environmental regulation

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 03/16/2020

FEDERAL NPL SITE LIST (cont.)

NPL EPA R3 GIS: Geospatial data for the Environmental Protection Agency Region 3 National Priority List subject to environmental regulation

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 03/16/2020

NPL EPA R6 GIS: Geospatial data for the Environmental Protection Agency Region 6 National Priority List subject to environmental regulation

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 03/16/2020

NPL EPA R8 GIS: Geospatial data for the Environmental Protection Agency Region 8 National Priority List subject to environmental regulation

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 03/16/2020

NPL EPA R9 GIS: Geospatial data for the Environmental Protection Agency Region 9 National Priority List subject to environmental regulation

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 03/16/2020

PART NPL: Sites that are a part of an National Priority List site referred to as the parent site

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

PROPOSED NPL: Sites that have been proposed for the National Priority List

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

SEMS_FINAL NPL: All Included National Priority List Sites

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

SEMS_PROPOSED NPL: All Proposed National Priority List Sites

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

RCRA IC_EC: Sites with institutional or engineering controls related to Resource Conservation and Recovery Act

Agency Version Date: 01/14/2020
Agency Update Frequency: Varies
Planned Next Contact: 06/02/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 03/24/2020

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES (cont.)

Fed E C: Federal listing of remediation sites with engineering controls

Agency Version Date: 09/30/2013
Agency Update Frequency: Varies
Planned Next Contact: 06/29/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 04/01/2020

Fed I C: Federal listing of remediation sites with institutional controls

Agency Version Date: 09/30/2013
Agency Update Frequency: Varies
Planned Next Contact: 06/29/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 04/01/2020

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST: FEMA underground storage tank listing

Agency Version Date: 06/21/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/30/2020

Agency: FEMA
Agency Contact: 202-212-5283
Most Recent Contact: 02/04/2020

INDIAN UST R1: Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 03/03/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2020

Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 03/03/2020

INDIAN UST R10: Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 10/11/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 06/08/2020

Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 03/30/2020

INDIAN UST R2: Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 05/18/2020

Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 03/09/2020

INDIAN UST R4: Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 04/12/2019
Agency Update Frequency: Semi Annually
Planned Next Contact: 06/08/2020

Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 03/30/2020

INDIAN UST R5: Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 10/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/28/2020

Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 03/19/2020

INDIAN UST R6: Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 01/23/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 06/29/2020

Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 04/02/2020

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R7: Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 10/11/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/28/2020

Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 03/19/2020

INDIAN UST R8: Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 10/03/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/11/2020

Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 03/02/2020

INDIAN UST R9: Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 04/08/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/11/2020

Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 03/02/2020

ARCHIVE UST - OH: Underground Storage Tanks that have been removed

Agency Version Date: 01/17/2020
Agency Update Frequency: Varies
Planned Next Contact: 06/05/2020

Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 03/27/2020

UST - OH: Registered Underground Storage Tanks

Agency Version Date: 01/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 06/09/2020

Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 03/31/2020

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 03/03/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2020

Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 03/03/2020

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 10/11/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 06/08/2020

Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 03/30/2020

INDIAN LUST R2: Leaking Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 05/18/2020

Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 03/09/2020

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 04/12/2019
Agency Update Frequency: Semi Annually
Planned Next Contact: 06/08/2020

Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 03/30/2020

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 10/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/28/2020

Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 03/19/2020

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 01/13/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 06/01/2020

Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 03/23/2020

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 07/02/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/28/2020

Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 03/19/2020

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 10/03/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/29/2020

Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 03/20/2020

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 10/04/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/11/2020

Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 03/02/2020

LAST - OH: Leaking Aboveground Storage Tanks

Agency Version Date: 01/10/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/20/2020

Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 02/24/2020

LUST - OH: Listing of leaking tanks

Agency Version Date: 12/25/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/13/2020

Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 03/04/2020

UNREG LTANKS - OH: Oil and other releases from the Ohio Department of Commerce

Agency Version Date: 01/10/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/20/2020

Agency: Ohio Department of Commerce
Agency Contact: 614-387-7412
Most Recent Contact: 02/24/2020

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS: Tribal brownfield remediation site listing

Agency Version Date: 02/10/2014
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/15/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/17/2020

STATE AND TRIBAL BROWNFIELD SITES (cont.)

BROWNFIELDS - OH: Sites with Brownfields

Agency Version Date: 01/30/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2285
Most Recent Contact: 01/30/2020

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

E C - OH: Sites with Engineering Controls

Agency Version Date: 11/15/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/10/2020

Agency: Division of Environmental Response and Revitalization
Agency Contact: (614) 644-2309
Most Recent Contact: 01/31/2020

I C - OH: Sites with Institutional Controls

Agency Version Date: 11/15/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/10/2020

Agency: Division of Environmental Response and Revitalization
Agency Contact: (614) 644-2309
Most Recent Contact: 01/31/2020

IC LUC - OH: State Remedial Response Sites with Land Use Institutional Controls in Place.

Agency Version Date: 06/28/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/30/2020

Agency: Division of Environmental Response and Revitalization
Agency Contact: (614) 644-2924
Most Recent Contact: 04/03/2020

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - OH: Old/abandoned Solid Waste Facilities

Agency Version Date: 01/24/2020
Agency Update Frequency: Varies
Planned Next Contact: 06/30/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 04/03/2020

HIST LF-LD - OH: Database developed from Ohio EPA staff notebooks and other information dating from the mid-1970s.

Agency Version Date: 10/23/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 06/16/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 03/18/2020

SWF/LF - OH: Solid Waste Landfills

Agency Version Date: 12/17/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/05/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2306
Most Recent Contact: 03/27/2020

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - OH: Sites with Voluntary Cleanup Program

Agency Version Date: 11/15/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/10/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2309
Most Recent Contact: 01/31/2020

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES: EPA Brownfields Assessment, Cleanup and Redevelopment Exchange System.

Agency Version Date: 12/13/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/09/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/30/2020

Fed Brownfields: Federal brownfield remediation sites

Agency Version Date: 12/31/2019
Agency Update Frequency: Semi Annually
Planned Next Contact: 05/19/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 03/10/2020

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL: The U.S. Department of Justice listing of clandestine drug lab locations

Agency Version Date: 12/23/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/11/2020

Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 03/02/2020

US HIST CDL: The U.S. Department of Justice historical listing of clandestine drug lab locations

Agency Version Date: 08/05/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 06/19/2020

Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 03/23/2020

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8: List of Region 8 Indian land open dump inventory sites maintained within the STARS program that is no longer in current agency list.

Agency Version Date: 11/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/15/2020

Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 02/19/2020

INDIAN ODI R8: Region 8 Indian land open dump inventory sites maintained within the STARS program

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 03/16/2020

ODI: Open dump inventory sites

Agency Version Date: 10/03/2017
Agency Update Frequency: No Update
Planned Next Contact: 06/09/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 03/31/2020

TRIBAL ODI: Indian land open dump inventory for all regions

Agency Version Date: 06/27/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/29/2020

Agency: Indian Health Service
Agency Contact: 301-443-3593
Most Recent Contact: 04/02/2020

SWRCY - OH: Recycling Facilities

Agency Version Date: 01/07/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/16/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 01/20/2020

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT): Hazardous Material spills reported by the Department of Transportation

Agency Version Date: 11/27/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/15/2020

Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 02/05/2020

SPILLS - OH: Incidents reported to the Emergency Response Unit

Agency Version Date: 01/02/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/21/2020

Agency: Ohio EPA
Agency Contact: N/R
Most Recent Contact: 03/12/2020

LOCAL LAND RECORDS

LIENS 2: Comprehensive Environmental Response Compensation and Liability Act sites with liens

Agency Version Date: 05/11/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/15/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 01/17/2020

OTHER ASCERTAINABLE RECORDS

AFS: Air Facility Systems Quarterly Extract

Agency Version Date: 01/10/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/29/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 03/20/2020

ALT FUELING: Alternative Fueling Stations by fuel type.

Agency Version Date: 02/12/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/22/2020

Agency: U.S. Department of Energy
Agency Contact: N/R
Most Recent Contact: 02/12/2020

BRS: Reporting of hazardous waste generation and management from large quantity generators

Agency Version Date: 12/06/2019
Agency Update Frequency: Biennial
Planned Next Contact: 04/24/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/14/2020

CDC HAZDAT: The Agency for Toxic Substances and Disease Registry's Hazardous Substance Release/Health Effects Database.

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: Agency for Toxic Substances and Disease Registry
Agency Contact: 770-488-6399
Most Recent Contact: 03/16/2020

COAL ASH DOE: List of existing and planned generators with 1 megawatt or greater of combined capacity that are utilizing coal ash impoundments.

Agency Version Date: 11/28/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/16/2020

Agency: Department of Energy
Agency Contact: (202) 586-8800
Most Recent Contact: 02/06/2020

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Agency Version Date: 07/31/2014
Agency Update Frequency: Varies
Planned Next Contact: 06/01/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 03/23/2020

OTHER ASCERTAINABLE RECORDS (cont.)

COAL GAS: Manufactured Gas Plant locations

Agency Version Date: 02/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/04/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 02/05/2020

CONSENT (DECREES): Legal decisions regarding responsibility for Superfund locations

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 03/16/2020

DEBRIS R5 LF: US EPA Region 5 Disaster Debris Recovery Database is a list of public facilities for disaster construction and demolition materials, electronics, household hazardous waste, metals, tires, and vehicles in EPA Region 5.

Agency Version Date: 03/15/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/08/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 02/28/2020

DEBRIS R5 SWRCY: US EPA Region 5 Disaster Debris Recovery Database is a list of public facilities for disaster construction and demolition materials, electronics, household hazardous waste, metals, tires, and vehicles in EPA Region 5.

Agency Version Date: 03/15/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/08/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 02/28/2020

DOD: Department of Defense sites

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 03/16/2020

DOT OPS: Incident Data Report

Agency Version Date: 01/20/2020
Agency Update Frequency: Varies
Planned Next Contact: 06/08/2020

Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 03/30/2020

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA.

Agency Version Date: 12/02/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/20/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 02/10/2020

ENOI: The Electronic Notice of Intent (eNOI) database contains construction sites and industrial facilities that submit permit requests to EPA for Construction General Permits (CGP) and Multi-Sector General Permits (MSGP).

Agency Version Date: 11/15/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 06/30/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 04/03/2020

EPA FUELS: List of companies and facilities registered to participate in EPA Fuel Programs under Title 40 CFR Part 80.

Agency Version Date: 01/10/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/29/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 03/20/2020

OTHER ASCERTAINABLE RECORDS (cont.)

EPA OSC: Listing of oil spills and hazardous substance release sites requiring EPA On-Site Coordinators.

Agency Version Date: 02/05/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/15/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 02/05/2020

EPA WATCH: The EPA Watch List was used to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. EPA maintained the lists from 2011 - 2013.

Agency Version Date: 02/09/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/14/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 01/16/2020

FA HWF: Hazardous Waste Facilities with Financial Assurance

Agency Version Date: 12/17/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/05/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 02/25/2020

FEDLAND: Federal land locations

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 03/16/2020

FRS: Facility Registry Systems

Agency Version Date: 12/12/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/04/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 03/26/2020

FTTS: Tracking of administrative and enforcement activities related to FIFRA/TSCA

Agency Version Date: 04/16/2013
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 05/06/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 02/10/2020

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

Agency Version Date: 05/08/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/29/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 01/31/2020

FUDS: Defense sites that require cleanup

Agency Version Date: 09/30/2015
Agency Update Frequency: Varies
Planned Next Contact: 06/01/2020

Agency: US Army Corps of Engineering
Agency Contact: (202) 761-0011
Most Recent Contact: 03/23/2020

HIST AFS: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 06/14/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/15/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/17/2020

OTHER ASCERTAINABLE RECORDS (cont.)

HIST AFS 2: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 11/26/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 05/19/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/21/2020

HIST DOD: Department of Defense historical sites

Agency Version Date: 08/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 05/26/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 02/28/2020

HIST LEAD_SMELTER: List of former lead smelter sites that is no longer in current agency list.

Agency Version Date: 12/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/04/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/06/2020

HIST MLTS: List of sites in possession/use of radioactive materials regulated by NRC that is no longer in current agency list.

Agency Version Date: 07/13/2016
Agency Update Frequency: Annually
Planned Next Contact: 05/15/2020

Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 02/19/2020

HIST PCB TRANS: List of PCB Disposal Facilities that are no longer in current agency list.

Agency Version Date: 01/18/2018
Agency Update Frequency: No Update
Planned Next Contact: 06/01/2020

Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 03/03/2020

HIST PCS ENF: List of permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/08/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/22/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 03/24/2020

HIST PCS FACILITY: List of Permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/18/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/22/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 03/24/2020

HIST SSTs: List of tracking of facilities who produce pesticides and their quantity that are no longer in current agency list.

Agency Version Date: 02/13/2019
Agency Update Frequency: Annually
Planned Next Contact: 06/05/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 03/09/2020

HWC DOCKET: Listing of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste.

Agency Version Date: 10/28/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/29/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 03/20/2020

OTHER ASCERTAINABLE RECORDS (cont.)

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS)

Agency Version Date: 12/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/21/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/11/2020

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater

Agency Version Date: 12/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/21/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 02/11/2020

INDIAN RESERVATION: Indian Reservation sites

Agency Version Date: 12/17/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/05/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 02/25/2020

LUCIS: Land Use Control Information Systems

Agency Version Date: 01/23/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/17/2020

Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 01/21/2020

LUCIS 2: Land Use Control Information Systems

Agency Version Date: 01/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 06/01/2020

Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 03/03/2020

MINES: Mines Master Index Files

Agency Version Date: 02/12/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/22/2020

Agency: Department of Labor
Agency Contact: (202) 693-9400
Most Recent Contact: 02/12/2020

MINES USGS: Listing of all active mines and mineral plants in 2003

Agency Version Date: 02/17/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/27/2020

Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 02/17/2020

MLTS: Sites in possession/use of radioactive materials regulated by NRC

Agency Version Date: 10/03/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/19/2020

Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 02/21/2020

NPL AOC: Areas of Concern related to NPL remediation sites

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 03/16/2020

NPL LIENS: National Priority List of sites with Liens

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

OTHER ASCERTAINABLE RECORDS (cont.)

OSHA: OSHA's listing of inspections violations and fatality information

Agency Version Date: 02/11/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/21/2020

Agency: Occupational Safety & Health Administration
Agency Contact: 800-321-6742
Most Recent Contact: 02/11/2020

PADS: Listing of generators transporters commercial store/ brokers and disposers of PCB

Agency Version Date: 01/03/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/22/2020

Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 03/13/2020

PCB TRANSFORMER: Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste

Agency Version Date: 01/15/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 06/03/2020

Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 03/25/2020

PCS ENF: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 12/03/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/21/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 02/11/2020

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 12/03/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/21/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 02/11/2020

RAATS: Listing of major violators with enforcement actions issued under RCRA. Includes administrative and civil actions filed by the EPA. This dataset is no longer maintained.

Agency Version Date: 09/23/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/18/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/20/2020

RADINFO: EPA regulated facilities with radiation and radioactive materials

Agency Version Date: 08/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/07/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/27/2020

RMP: Facilities producing/handling/ process/ distribute/ store specific chemicals report plans required by the Clean Air Act

Agency Version Date: 12/10/2019
Agency Update Frequency: Monthly
Planned Next Contact: 04/30/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 564-2534
Most Recent Contact: 02/04/2020

ROD: Permanent remedy at an NPL site

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/25/2020

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 03/16/2020

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners

Agency Version Date: 01/23/2020
Agency Update Frequency: No Update
Planned Next Contact: 06/29/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 04/02/2020

OTHER ASCERTAINABLE RECORDS (cont.)

SEMS_SMELTER: This report includes sites that have smelting-related, or potentially smelting-related, indicators in the SEMS database. The report includes information on the site location as well as contaminants of concern.

Agency Version Date: 01/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/25/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 03/16/2020

SSTS: Tracking of facilities who produce pesticides and their quantity

Agency Version Date: 01/29/2020
Agency Update Frequency: Annually
Planned Next Contact: 04/08/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/29/2020

STORMWATER: Permitted storm water sites

Agency Version Date: 12/03/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/21/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/11/2020

TOSCA-PLANT: Plants controlled by the Toxic Substance Control Act

Agency Version Date: 01/29/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/08/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/29/2020

TRIS: Information regarding toxic chemicals that are being used/manufactured/ treated/ transported/released into the environment

Agency Version Date: 12/02/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/20/2020

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/10/2020

UMTRA: Uranium Recovery Sites

Agency Version Date: 07/18/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/23/2020

Agency: United States Nuclear Regulatory Commission
Agency Contact: (301) 415-8200
Most Recent Contact: 02/13/2020

VAPOR: EPA Vapor Intrusion Database

Agency Version Date: 02/08/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/30/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 04/03/2020

Corrective Actions_2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination.

Agency Version Date: 12/21/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 05/18/2020

Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 02/20/2020

AIRS - OH: Title V Permit listings

Agency Version Date: 02/13/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/23/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2270
Most Recent Contact: 02/13/2020

OTHER ASCERTAINABLE RECORDS (cont.)

COAL ASH - OH: Sites with Coal Ash Disposal Facilities

Agency Version Date: 01/22/2018
Agency Update Frequency: Varies
Planned Next Contact: 04/13/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 01/15/2020

COAL ASH 2 - OH: Sites with Coal Ash Disposal Facilities

Agency Version Date: 01/22/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 04/13/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 01/15/2020

CRO - OH: Cessation of Regulated Operations Facility Listing

Agency Version Date: 09/26/2018
Agency Update Frequency: Varies
Planned Next Contact: 04/29/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2621
Most Recent Contact: 02/19/2020

DAYCARE - OH: Daycare listing

Agency Version Date: 01/27/2020
Agency Update Frequency: Varies
Planned Next Contact: 07/03/2020

Agency: Department of Job and Family Services
Agency Contact: (800) 686-1556
Most Recent Contact: 04/06/2020

DERR - OH: Sites listed in the DERR database

Agency Version Date: 11/14/2019
Agency Update Frequency: Varies
Planned Next Contact: 06/29/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2304
Most Recent Contact: 04/02/2020

DRYCLEANERS - OH: Sites with Drycleaners

Agency Version Date: 02/14/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/12/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2924
Most Recent Contact: 02/14/2020

HIST NPDES - OH: List of Industrial & Municipal water discharge permits that are no longer in current agency list.

Agency Version Date: 07/13/2018
Agency Update Frequency: Annually
Planned Next Contact: 06/02/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2001
Most Recent Contact: 03/04/2020

HIST USD - OH: Withdrawn sites

Agency Version Date: 01/03/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 05/22/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2924
Most Recent Contact: 03/13/2020

NPDES - OH: Listing of facilities with wastewater and NPDES permits

Agency Version Date: 01/02/2020
Agency Update Frequency: Varies
Planned Next Contact: 05/21/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2001
Most Recent Contact: 03/12/2020

SLUDGE - OH: Database of sludge pits, ponds and lagoon sites. The SIABASE data was published by US EPA in 1980.

Agency Version Date: 12/25/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 06/10/2020

Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 03/12/2020

OTHER ASCERTAINABLE RECORDS (cont.)

TOWN GAS - OH: A list of 82 sites of coal gas generators in Ohio.

Agency Version Date: 12/25/2017

Agency Update Frequency: No Longer Maintained

Planned Next Contact: 06/09/2020

Agency: Ohio EPA

Agency Contact: (614) 644-2782

Most Recent Contact: 03/11/2020

UIC - OH: Regulated Underground Injection Controlled wells

Agency Version Date: 12/04/2019

Agency Update Frequency: Varies

Planned Next Contact: 04/22/2020

Agency: Ohio EPA

Agency Contact: (614) 644-2752

Most Recent Contact: 02/12/2020

USD - OH: Sites with Urban Setting Designation Sites

Agency Version Date: 01/03/2020

Agency Update Frequency: Varies

Planned Next Contact: 05/22/2020

Agency: Ohio EPA

Agency Contact: (614) 644-2924

Most Recent Contact: 03/13/2020

SUBJECT PROPERTY ADDRESS:

Struewing Property
Miami Township
Yellow Springs, OH 45387

SUBJECT PROPERTY COORDINATES:

Latitude(North):	39.785679 - 39°47'8.4"
Longitude(West):	-83.898493 - -83°53'54.6"
Universal Transverse Mercator:	Zone 17N
UTM X (Meters):	251794.32
UTM Y (Meters):	4407989.50

ELEVATION:

Elevation: 988.491 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	39083-G8 Yellow Springs, OH
Most Recent Revision:	2016

GEOHYDROLOGY DATA:**SUBJECT PROPERTY TOPOGRAPHY:**

Topographic Gradient: Southwest

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
GREENE	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	39057C
Additional Panels in search area:	No available data

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
GREENE	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	3906400002B 3901930030B
Additional Panels in search area:	3906400001B 3901930010B 3901930015B 3901930035B

NATIONAL WETLAND INVENTORY:

NWI Electronic	
<u>NWI Quad at Subject Property:</u>	<u>Data Coverage:</u>
Yellow Springs	Yes - refer to the Geological Findings Map

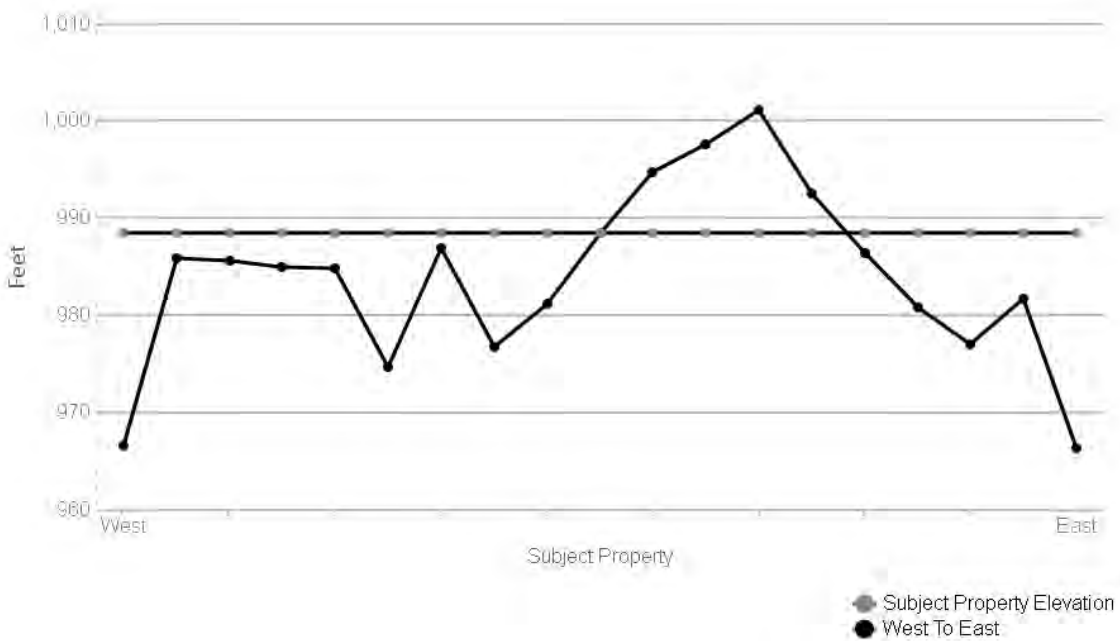
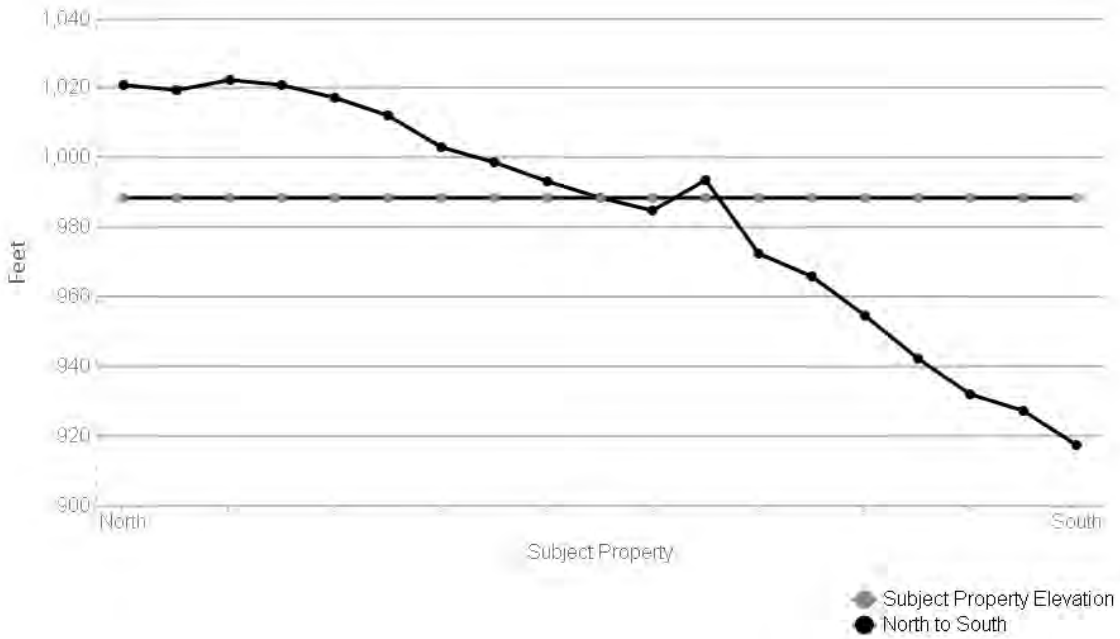
LITHOSTRATIGRAPHIC INFORMATION:

ROCK STRATIGRAPHIC UNIT:

GEOLOGIC AGE IDENTIFICATION

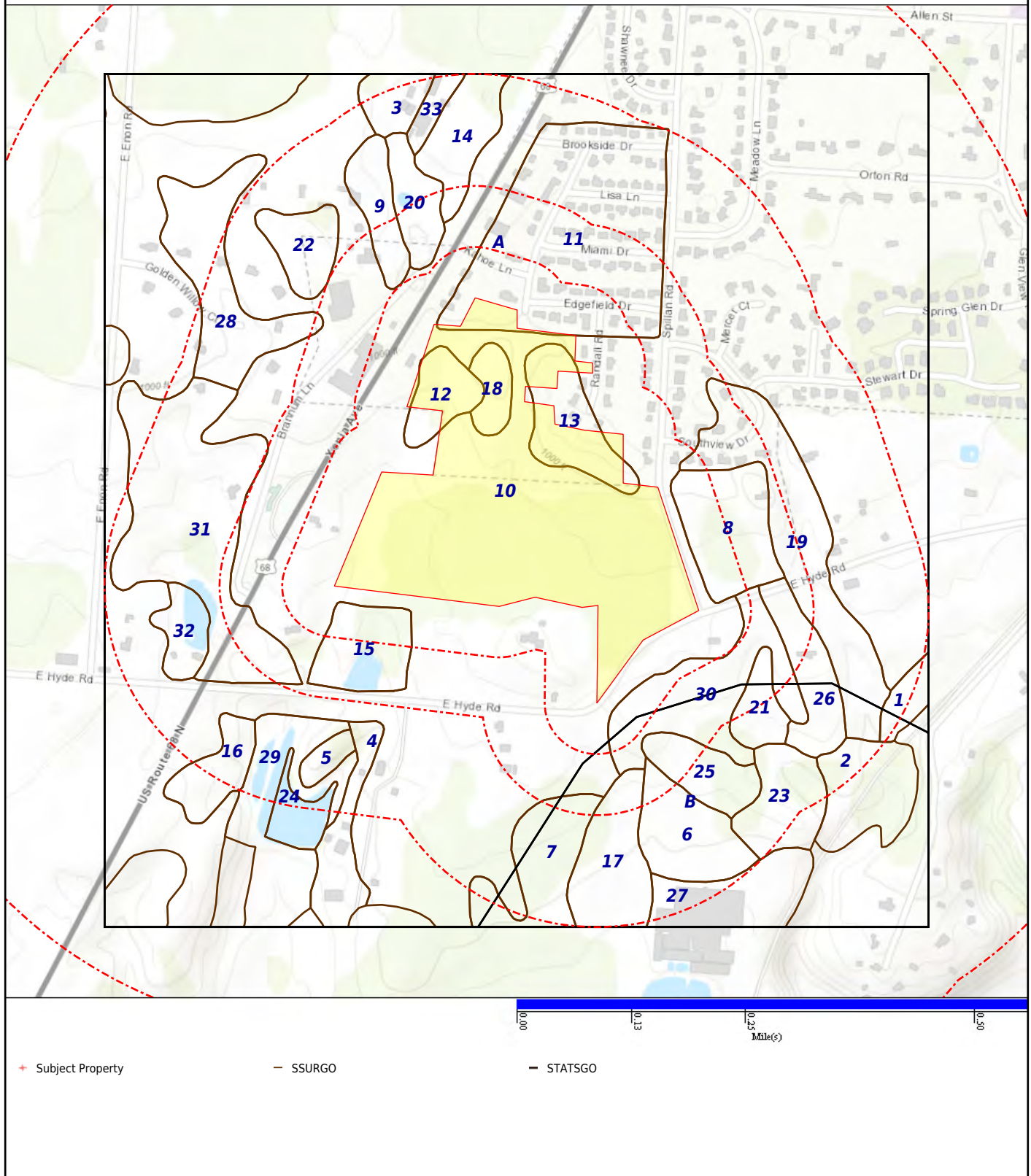
Era:	N/R	Category: 118 S2 Middle Silurian (Niagaran)
System:	N/R	
Series:	Middle Silurian (Niagaran)	
Code:	S2	

SURROUNDING ELEVATION PROFILES:



SUBJECT NAME: Struewing Property
ADDRESS: Miami Township, Yellow Springs, OH, 45387
LAT/LONG: 39.785679 / -83.898493

PREPARED FOR: Kilbane Environmental
ORDER #: 40586
REPORT DATE: April 07, 2020



SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY:

Agency source: Soil Conservation Service, US Department of Agriculture

SOIL MAP ID 1

USDA Soil Name	Celina, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-7.3
2	9-25	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	4.5-7.8
3	25-30	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials,	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and	0.42-1.41	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	25-30	Loam	1984.	the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-1.41	6.6-8.4
4	30-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 2

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-6	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	1.41-4.23	5.6-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-6	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.6-7.3
2	6-22	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	4.5-7.3
3	22-27	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-8.4
4	27-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in	0.42-1.41	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
4	27-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-1.41	7.4-8.4

SOIL MAP ID 3

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75	1.41-4.23	5.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.3
3	12-24	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.8
4	24-33	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	6.6-7.8
5	33-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM,	0.07-1.41	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
5	33-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 4

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction	1.41-4.23	5.1-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	7-38	Clay loam	and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 5

USDA Soil Name	Ritchey, Taxadjunct
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in	4.23-14.11	5.6-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.8
2	7-18	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-8.4
3	18-20		No data	No data	0-4.23	0-0

SOIL MAP ID 6

USDA Soil Name	Eldean, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent	4.23-14.11	5.6-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	10-31	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	5.6-7.8
3	31-38	Loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-7.8
4	38-79	Sand	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141.14	7.4-8.4

SOIL MAP ID 7

USDA Soil Name	Raub, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B/D
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	10
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-14	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-6.5
2	14-27	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-6.5
3	27-44	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	4.23-14.11	6.1-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	27-44	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.8
4	44-60	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.423-1.41	7.4-8.4

SOIL MAP ID 8

USDA Soil Name	Miamian, Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	C
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	5.1-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Clay loam	of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 9

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 10

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	10-14	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.3
3	14-36	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-4.23	5.1-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	14-36	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.8
4	36-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-1.41	7.4-8.4

SOIL MAP ID 11

USDA Soil Name	Miamian, Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	C
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	5.1-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Clay loam	of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 12

USDA Soil Name	Brookston,Taxadjunct
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Poorly drained
Hydric Classification	90
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
2	12-39	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
3	39-60	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 13

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-4.23	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 14

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	1.41-4.23	5.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.3
3	12-24	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.8
4	24-33	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	6.6-7.8
5	33-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 15

USDA Soil Name	Pits, gravel,Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

SOIL MAP ID 16

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-6	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.6-7.3
2	6-22	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	4.5-7.3
3	22-27	Clay loam	Reference: This is a	FINE-GRAINED SOILS,	1.41-4.23	5.1-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	22-27	Clay loam	classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-8.4
4	27-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-1.41	7.4-8.4

SOIL MAP ID 17

USDA Soil Name	Ragsdale, Series
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	B/D
Soil Drainage Class	Poorly drained
Hydric Classification	90
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-13	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials,	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent	4.23-14.11	6.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-13	Silty clay loam	1984.	on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
2	13-50	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
3	50-79	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	7.4-8.4

SOIL MAP ID 18

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 19

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-4.23	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 20

USDA Soil Name	Brookston, Taxadjunct
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Poorly drained
Hydric Classification	90
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
2	12-39	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	6.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	12-39	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
3	39-60	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 21

USDA Soil Name	Brookston,Taxadjunct
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Poorly drained
Hydric Classification	90
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	4.23-14.11	6.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
2	12-39	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.3
3	39-60	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 22

USDA Soil Name	Celina, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-7.3
2	9-25	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	4.5-7.8
3	25-30	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	0.42-1.41	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	25-30	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	0.42-1.41	6.6-8.4
4	30-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 23

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	5.1-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 24

USDA Soil Name	Water,Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

SOIL MAP ID 25

USDA Soil Name	Eldean, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-13	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	13-33	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.8
3	33-38	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	4.23-42.34	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	33-38	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	4.23-42.34	6.6-8.4
4	38-60	Loamy coarse sand	Granular materials (35% or less passing No. 200 sieve), silty or clayey gravel and sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141.14	6.6-8.4

SOIL MAP ID 26

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	5.6-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-10	Silt loam	of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	10-14	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.3
3	14-36	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.8
4	36-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-1.41	7.4-8.4

SOIL MAP ID 27

USDA Soil Name	Miamian, Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	C
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-4.23	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 28

USDA Soil Name	Celina, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-7.3
2	9-25	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	1.41-4.23	4.5-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	9-25	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984).	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	4.5-7.8
3	25-30	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984).	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-1.41	6.6-8.4
4	30-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984).	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 29

USDA Soil Name	Sloan, Series
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	B/D
Soil Drainage Class	Very poorly drained
Hydric Classification	88
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-24	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.8
2	24-45	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.8
3	45-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-7.8

SOIL MAP ID 30

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.3
3	12-24	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-4.23	5.1-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	12-24	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.8
4	24-33	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	6.6-7.8
5	33-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 31

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-7	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	7-38	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-4.23	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	38-60	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 32

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	1.41-4.23	5.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	9-12	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.3
3	12-24	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-7.8
4	24-33	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	6.6-7.8
5	33-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID 33

USDA Soil Name	Celina, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C/D
Soil Drainage Class	Moderately well drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-7.3
2	9-25	Clay	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	4.5-7.8
3	25-30	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	0.42-1.41	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	25-30	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	0.42-1.41	6.6-8.4
4	30-79	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.07-1.41	7.4-8.4

SOIL MAP ID A

USDA Soil Name	Miamian, Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	10
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Silt loam	No data	No data	4.2343-14.1143	5.6-7.3
2	9-12	No data	No data	No data	1.4114-4.2343	5.1-7.3
3	12-33	No data	No data	No data	1.4114-4.2343	5.1-7.8
4	33-80	No data	No data	No data	1.4114-4.2343	7.4-8.4

SOIL MAP ID B

USDA Soil Name	Eldean, Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	10
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Clay loam	No data	No data	4.2343-14.1143	5.6-7.3
2	12-23	No data	No data	No data	1.4114-14.1143	5.6-7.8
3	23-30	No data	No data	No data	4.2343-14.1143	6.6-8.4
4	30-60	Sand	No data	No data	42.343-141.1433	7.4-8.4

WATER AGENCY DATA:**WATER AGENCY SEARCH DISTANCES:**

<u>DATABASE:</u>	<u>SEARCH DISTANCE (MILES):</u>
NWIS	1.000
OIL & GAS WELLS - OH	1.000
PWS	1.000

<u>DISTANCE TO NEAREST:</u>	<u>DISTANCE:</u>
NWIS	0.795 mi / 4199 ft
OIL & GAS WELLS - OH	0.082 mi / 433 ft
PWS	N/A

FEDERAL WATER AGENCY DATA SUMMARY:

<u>MAP ID:</u>	<u>WELL ID:</u>	<u>LOCATION FROM SP:</u>
6	93905700365030	1/2 - 1 Mile S
8	394727083523000	1/2 - 1 Mile ENE

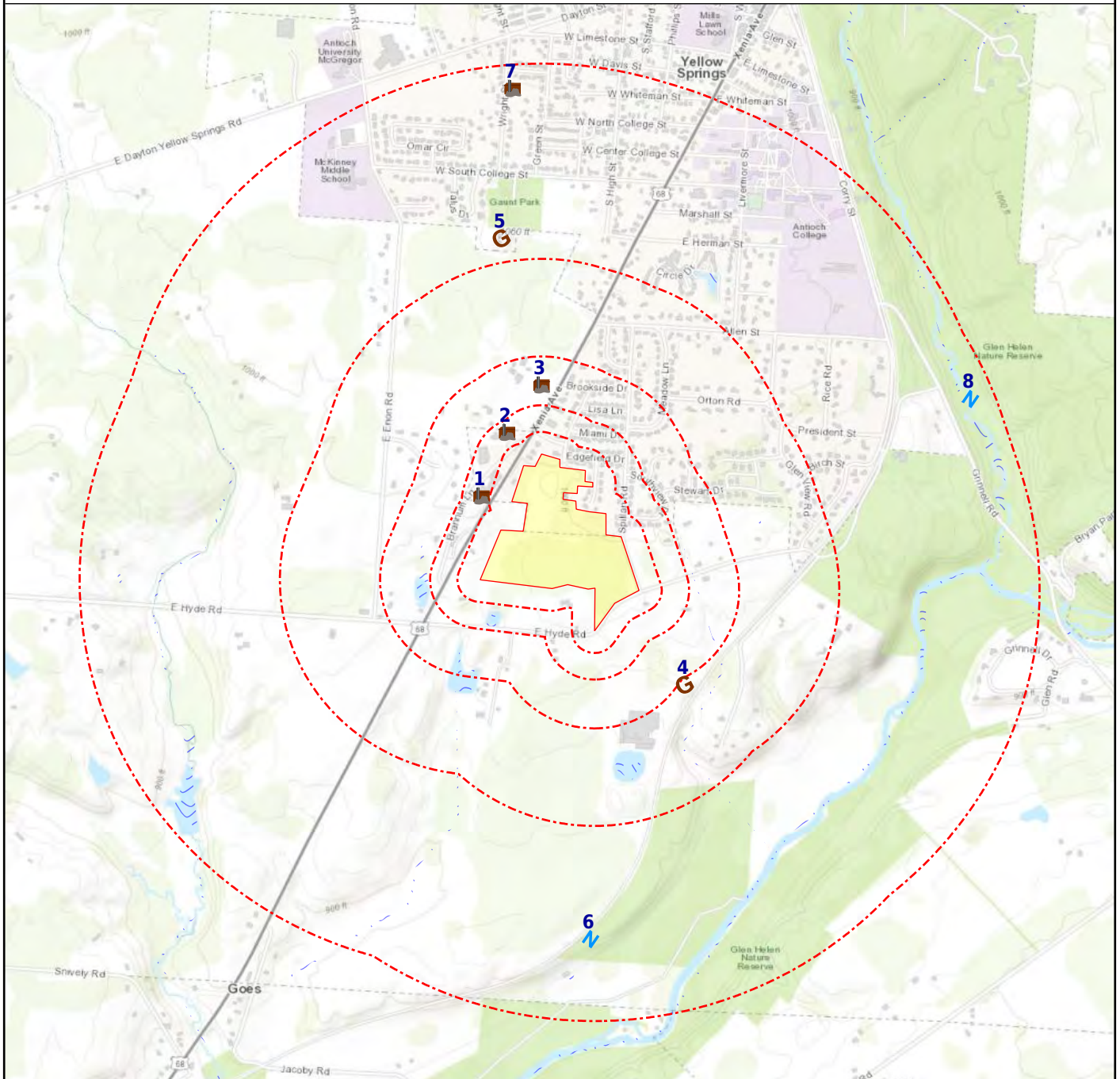
Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

<u>MAP ID:</u>	<u>WELL ID:</u>	<u>LOCATION FROM SP:</u>
1	34057600320000	< 1/8 Mile WNW
2	34057600330000	< 1/8 Mile NW
3	34057600040000	1/8 - 1/4 Mile N
7	34057600350000	1/2 - 1 Mile N

SUBJECT NAME: Struewing Property
 ADDRESS: Miami Township, Yellow Springs, OH, 45387
 LAT/LONG: 39.785679 / -83.898493

PREPARED FOR: Kilbane Environmental
 ORDER #: 40586
 REPORT DATE: April 07, 2020



- Subject Property
- NWIS
- Basins (No Data)
- Oil & Gas Wells
- Geological Site
- NWIS

Map Id: 1
Direction: WNW
Distance: 0.082 mi.
Actual: 432.691 ft.
Elevation: 0.191 mi. / 1005.984 ft.
Relative: Higher

Site Name : 34057600320000
39.7873017, -83.90234351
MIAMI, OH
Database(s) : [OIL & GAS WELLS - OH]

Envirosite ID: 424999765
EPA ID: N/R

OIL & GAS WELLS - OH

API Number :	34057600320000
Permit Issued :	N/R
Completion Date :	N/R
Plug Date :	N/R
Well Number :	MW-7I & 7D
Well Type :	Stratigraphic
WL Symbol :	pl_stratigraphic
Map Symbol :	N/R
Township :	MIAMI
County :	GREENE
Lease Name :	N/R
Operator :	HISTORIC OWNER
Operator Address :	2045 Morse Rd., Bldg F-2 COLUMBUS, OH 43229
Operator Phone :	6148885080
Initial Production Gas :	0
Initial Production Oil :	0
Total Depth :	0
Production Formation 1 :	N/R
Production Formation 2 :	N/R
Deepest Formation :	N/R
Ground Elevation :	1004
Acreage :	0
Slant :	Vertical
BH Latitude :	0
BH Longitude :	0
Latitude :	39.7873017
Longitude :	-83.90234351
Last Date in Agency List :	01/15/2020

Map Id: 2
Direction: NW
Distance: 0.093 mi.
Actual: 489.829 ft.
Elevation: 0.19 mi. / 1002.851 ft.
Relative: Higher

Site Name : 34057600330000
39.78965272, -83.90113808
MIAMI, OH
Database(s) : [OIL & GAS WELLS - OH]

Envirosite ID: 424998845
EPA ID: N/R

OIL & GAS WELLS - OH

API Number :	34057600330000
Permit Issued :	N/R
Completion Date :	N/R
Plug Date :	N/R
Well Number :	MW-4I & 4D
Well Type :	Stratigraphic
WL Symbol :	pl_stratigraphic
Map Symbol :	N/R
Township :	MIAMI
County :	GREENE
Lease Name :	N/R
Operator :	HISTORIC OWNER
Operator Address :	2045 Morse Rd., Bldg F-2 COLUMBUS, OH 43229
Operator Phone :	6148885080

Map Id: 2
 Direction: NW
 Distance: 0.093 mi.
 Actual: 489.829 ft.
 Elevation: 0.19 mi. / 1002.851 ft.
 Relative: Higher

Site Name : 34057600330000
 39.78965272, -83.90113808
 MIAMI, OH
Database(s) : [OIL & GAS WELLS - OH] (**cont.**)

Envirosite ID: 424998845
EPA ID: N/R

OIL & GAS WELLS - OH (**cont.**)

Initial Production Gas :	0
Initial Production Oil :	0
Total Depth :	0
Production Formation 1 :	N/R
Production Formation 2 :	N/R
Deepest Formation :	N/R
Ground Elevation :	1003
Acreage :	0
Slant :	Vertical
BH Latitude :	0
BH Longitude :	0
Latitude :	39.78965272
Longitude :	-83.90113808
Last Date in Agency List :	01/15/2020

Map Id: 3
 Direction: N
 Distance: 0.171 mi.
 Actual: 904.094 ft.
 Elevation: 0.192 mi. / 1015.007 ft.
 Relative: Higher

Site Name : 34057600040000
 39.79140205, -83.89950405
 MIAMI, OH
Database(s) : [OIL & GAS WELLS - OH]

Envirosite ID: 424999750
EPA ID: N/R

OIL & GAS WELLS - OH

API Number :	34057600040000
Permit Issued :	N/R
Completion Date :	02/02/1938
Plug Date :	N/R
Well Number :	1
Well Type :	Oil & Gas
WL Symbol :	dry_oilgas_show
Map Symbol :	Dry hole with oil and gas show
Township :	MIAMI
County :	GREENE
Lease Name :	PETERSON ARCHIE E
Operator :	HISTORIC OWNER
Operator Address :	2045 Morse Rd., Bldg F-2 COLUMBUS, OH 43229
Operator Phone :	6148885080
Initial Production Gas :	1
Initial Production Oil :	2
Total Depth :	1846
Production Formation 1 :	N/R
Production Formation 2 :	N/R
Deepest Formation :	KNOX ""B"" ZONE
Ground Elevation :	1020
Acreage :	0
Slant :	Vertical
BH Latitude :	0
BH Longitude :	0
Latitude :	39.79140205
Longitude :	-83.89950405
Last Date in Agency List :	01/15/2020

Map Id: 4
Direction: SE
Distance: 0.263 mi.
Actual: 1390.569 ft.
Elevation: 0.182 mi. / 960.361 ft.
Relative: Lower

Site Name : TOWER
39.78027778, -83.89277778
YELLOW SPRINGS, OH
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 440718545
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	01/12/2018
Action :	Change
FAA Study Number :	2012AGL045360E
OBS Number :	39-002151
Obstacle Type :	TOWER
City Name :	YELLOW SPRINGS
State Identifier :	OH
Country Identifier :	US
Type of Lighting :	Medium Intensity White Strobe & Red
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00300
Above Mean Sea Level Height (Feet) :	01263
Horizontal Accuracy :	+/-50'
Vertical Accuracy :	+/-20'
Latitude :	39 46 49.00N
Longitude :	083 53 34.00W

Map Id: 5
Direction: NNW
Distance: 0.556 mi.
Actual: 2936.231 ft.
Elevation: 0.2 mi. / 1054.708 ft.
Relative: Higher

Site Name : TANK
39.79684167, -83.90135833
YELLOW SPRINGS, OH
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 440632057
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	01/08/2019
Action :	Add
FAA Study Number :	2017AGL159200E
OBS Number :	39-100627
Obstacle Type :	TANK
City Name :	YELLOW SPRINGS
State Identifier :	OH
Country Identifier :	US
Type of Lighting :	None
Verification Status :	Unverified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00102
Above Mean Sea Level Height (Feet) :	01158
Horizontal Accuracy :	+/-250'
Vertical Accuracy :	+/-50'
Latitude :	39 47 48.63N
Longitude :	083 54 04.89W

Site Name : 93905700365030
39.7708333, -83.8972222
OH
Database(s) : [NWIS]

NWIS

Page 122 of 128

Map Id: 7
 Direction: N
 Distance: 0.935 mi.
 Actual: 4935.354 ft.
 Elevation: 0.194 mi. / 1022.362 ft.
 Relative: Higher

Site Name : 34057600350000
 39.80242334, -83.90086832
 MIAMI, OH
Database(s) : [OIL & GAS WELLS - OH]

Envirosite ID: 424998848
EPA ID: N/R

OIL & GAS WELLS - OH

API Number :	34057600350000
Permit Issued :	N/R
Completion Date :	N/R
Plug Date :	N/R
Well Number :	MW-02-08CS
Well Type :	Stratigraphic
WL Symbol :	pl_stratigraphic
Map Symbol :	N/R
Township :	MIAMI
County :	GREENE
Lease Name :	N/R
Operator :	HISTORIC OWNER
Operator Address :	2045 Morse Rd., Bldg F-2 COLUMBUS, OH 43229
Operator Phone :	6148885080
Initial Production Gas :	0
Initial Production Oil :	0
Total Depth :	0
Production Formation 1 :	N/R
Production Formation 2 :	N/R
Deepest Formation :	N/R
Ground Elevation :	1026
Acreage :	0
Slant :	Vertical
BH Latitude :	0
BH Longitude :	0
Latitude :	39.80242334
Longitude :	-83.90086832
Last Date in Agency List :	01/15/2020

Map Id: 8
 Direction: ENE
 Distance: 0.935 mi.
 Actual: 4938.312 ft.
 Elevation: 0.163 mi. / 860.279 ft.
 Relative: Lower

Site Name : 394727083523000
 39.7908931, -83.8793736
 OH
Database(s) : [NWIS]

Envirosite ID: 436890875
EPA ID: N/R

NWIS

Site Identification Number :	394727083523000
Site Type :	Stream
Station Name :	YELLOW SPRINGS CREEK AB WWTP AT E HYDE RD
Agency :	U.S. Geological Survey
District :	Ohio
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	858
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5

Site Name : 394727083523000
39.7908931, -83.8793736
OH

Database(s) : [NWIS] (**cont.**)

NWIS (cont.)

Page 124 of 128

RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: 45387

NUMBER OF SAMPLE SITES: 2

<u>Area:</u>	<u>Average Activity:</u>	<u>% <4 pCi/L:</u>	<u>% 4-20 pCi/L:</u>	<u>% >20 pCi/L:</u>
first floor	1.25 pCi/L	100%	0%	0%

HIST PWS ENF

Historical Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS

National Water Information Systems

United States Geological Society

(703) 648-5953

Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS

Public Water Supply

Environmental Protection Agency

(800) 426-4791

Safe drinking water information Systems

PWS ENF

Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

Safe drinking water information Systems with enforcement violations

FLOOD Q3

Flood data

Environmental Protection Agency

(202) 566-1667

Q3 Flood Data

HYDROLOGIC UNIT

Hydrologic Unit Maps

USGS

The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, sub-regions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI

National Wetland Inventory

U.S. Fish and Wildlife Service

(703) 358-2171

Wetland Inventory for the United States

SSURGO

Detailed Soil Data Map

Natural Resources Conservation Service: U.S. Department of Agriculture

(202) 690-4985

Detailed Soil Data Map

STATSGO & MUI

General Soil Data Map

Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985

General Soil Data Map

USGS GEOLOGIC AGE

USGS Digital Data Series DDS

Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985

USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

RADON

National Radon Database

USGS

703-605-6008

A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

OIL & GAS WELLS - OH

Oil and Gas Well Data

Division of Oil & Gas Resources

614.265.6923

Oil and gas well locations and detail for all 6 districts

AIRPORT FACILITIES

Airport landing facilities

Federal Aviation Administration

(866) 835-5322

Airport landing facilities

BASINS

Better Assessment Science Integrating point & Non-point Sources

U.S. Environmental Protection Agency

855-246-3642

Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE

Obstacles of interest to aviation users

Federal Aviation Administration

855-379-6518

The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EPICENTERS

National Geographical Data Center

National Geographical Data Center

303-497-6826

List of recent and historic earthquakes and information.

FLOOD DFIRM

National Flood Hazard Layer Database

Federal Emergency Management Agency

The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMA's Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.

APPENDIX B
Aerial Photographs



Historical Aerial Photo Report | 2020

Order Number: 40586

Report Generated: 04/09/2020

Project Name: Struewing Property

Project Number: 23151(1)

Struewing Property

Miami Township

Yellow Springs, OH, 45387

2 Corporate Dr

Suite 450

Shelton, CT 06484

Toll Free: 866-211-2028

www.envirositecorp.com

Envirosite's Historical Aerial Photo Report is designed to assist in evaluating a subject property resulting from past activities. EnviroSite's Historical Aerial Photo Report includes a search of available historical aerial photographs, dating back to the 1930s, or earliest available photographs.

ENVIROSITE SEARCHED SOURCES

SUBJECT PROPERTY:

Struewing Property
Miami Township
Yellow Springs, OH, 45387

YEAR:

1948
1960
1964
1968
1973
1975
1979
1984
1989
1994
2000
2004
2009
2011
2013
2015
2017

SCALE:

1" = 1,000'
1" = 1,000'
1" = 500'
1" = 500'
1" = 1,000'
1" = 1,000'
1" = 1,000'
1" = 1,000'
1" = 1,000'
1" = 500'
1" = 1,000'
1" = 500'
1" = 500'
1" = 500'
1" = 500'
1" = 500'
1" = 500'

SOURCE:

U.S.G.S
U.S.G.S
U.S.G.S
U.S.G.S
U.S.G.S
U.S.G.S
U.S.G.S
NHAP
NAPP
DOQ
NAPP
NAIP
NAIP
NAIP
NAIP
NAIP
NAIP
NAIP

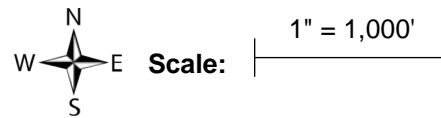
Disclaimer - Copyright and Trademark Notice

All information contained in this report are based on data available from various public, government and other sources and are based upon the best data available from those sources. The information available in this report may be available from other sources and is not exclusive or the exclusive property of EnviroSite Corporation.

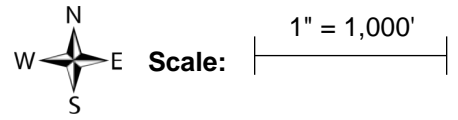
NO WARRANTY EXPRESSED OR IMPLIED, IS MADE IN CONNECTION WITH THIS REPORT, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL RISK IS ASSUMED BY USER AND EnviroSite assumes no liability for faulty or inaccurate information. The Reports may utilize a variety of public and other sources reasonably available to EnviroSite. EnviroSite cannot, and does not assure, warrant, guarantee or assume any liability for the correctness, comprehensiveness, timeliness or completeness of any of such information, nor is the information in any Report to be construed as legal advice with respect to environmental risks associated with any property. EnviroSite shall not be liable to anyone for any claims, causes of action, suits, damages, losses, costs and expenses (including, without limitation, attorneys' fees and costs) arising out of or caused by this report regardless of the acts, errors or omissions, or negligence of EnviroSite. Any damages shall be limited to the purchase price of the report.

Purchaser of the report accepts the report "As Is". The report is intended only to provide information only and should not be considered as providing any legal advice, prediction, forecast, or fact as to the environmental risk for any specific property. Reports are proprietary to EnviroSite, and contain copyrighted material and trademarks of EnviroSite. All other trademarks used herein are the property of their respective owners. All rights of EnviroSite as to the Reports are reserved.

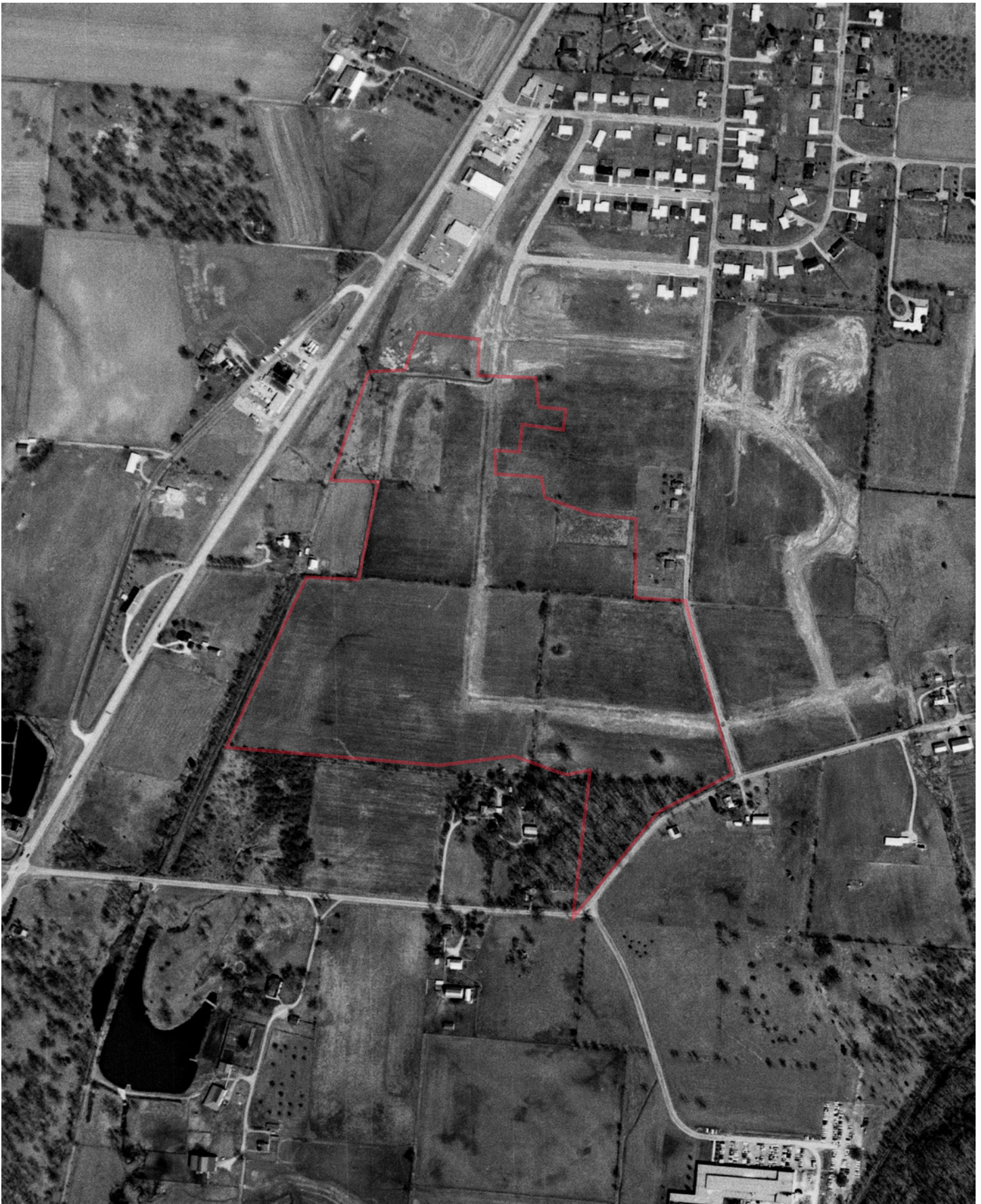
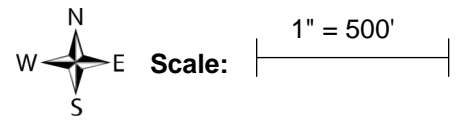
FLIGHT YEAR:
1948



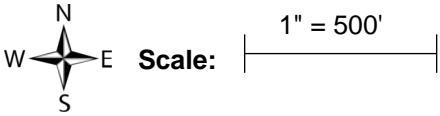
FLIGHT YEAR:
1960



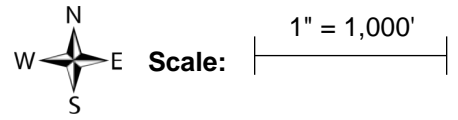
FLIGHT YEAR:
1964



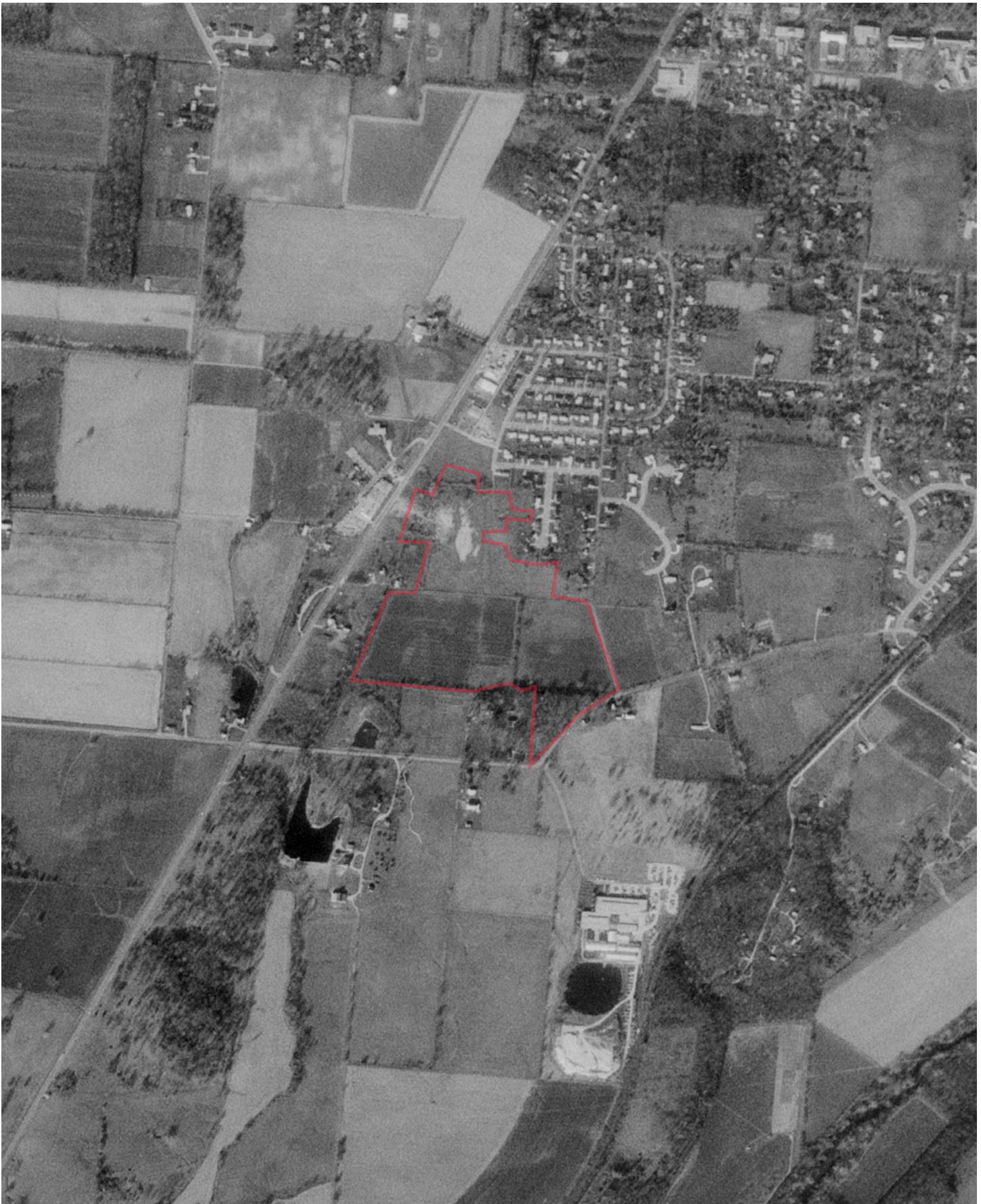
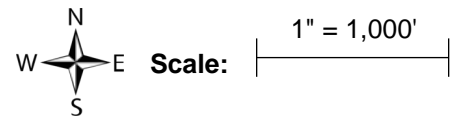
FLIGHT YEAR:
1968



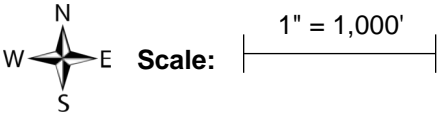
FLIGHT YEAR:
1973



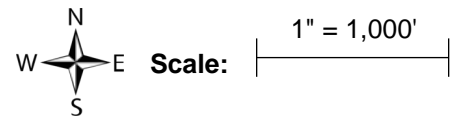
FLIGHT YEAR:
1975



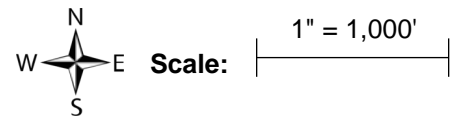
FLIGHT YEAR:
1979



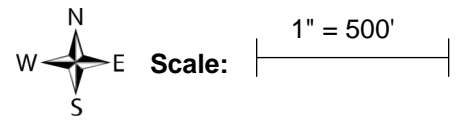
FLIGHT YEAR:
1984



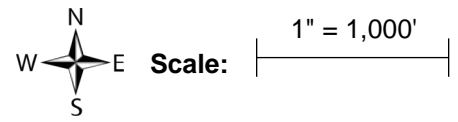
FLIGHT YEAR:
1989



FLIGHT YEAR:
1994



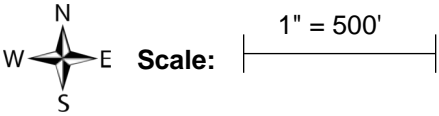
FLIGHT YEAR:
2000



FLIGHT YEAR:
2004



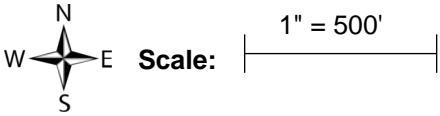
FLIGHT YEAR:
2009



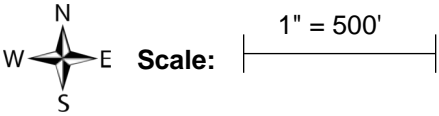
FLIGHT YEAR:
2011



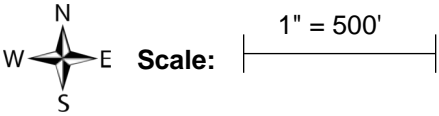
FLIGHT YEAR:
2013



FLIGHT YEAR:
2015



FLIGHT YEAR:
2017



APPENDIX C
Site Photographs and Descriptions



Photograph #1 – Looking south across the northern portion of the Site



Photograph #2 – Another view of the northern portion of the Site



Photograph #3 – View of the agricultural field on the southcentral portion of the Site looking southeast



Photograph #4 – View of the agricultural field looking west



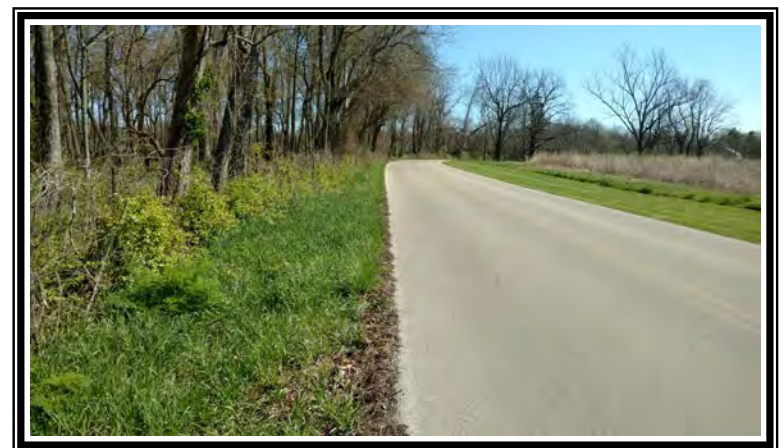
Photograph #5 – Looking north along Spillan Road



Photograph #6 – Looking south along Spillan Road



Photograph #7 – Old fencing and equipment in the northern portion of the wooded area in the southern portion of the Site



Photograph #8 – Looking east along E. Hyde Road



Photograph #9 – Adjacent property south of E. Hyde Road



Photograph #10 – Old well location on or adjacent to the southcentral portion of the agricultural field



Photograph #11 – Storm sewer pipe on or adjacent to the west central portion of the Site



Photograph #12 – Pole mounted transformers and commercial properties located along and west of the northern portion of the Site

APPENDIX D
Interview Documentation

X3 USER QUESTIONNAIRE

INTRODUCTION

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the *User* must conduct the following inquiries required by 40CFR312.25, 312.28, 312.29, 312.30 and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The *User* should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental liens against the *property* that are filed or recorded under federal, tribal, state or local law? Yes or No (circle one).

If Yes, please explain.

(2.) Activity and Use Limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the Site and/or have been filed or recorded in a registry under federal, tribal, state, or local law? Yes or No (circle one).

If Yes, please explain.

(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the *User* of this *ESA* do you have any specialized knowledge or experience related to the Site or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an *adjoining property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? Yes or No (circle one).

If Yes, please explain.

(4.) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? Yes or No (circle one).

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? Yes or No (circle one). Please explain.

(5.) Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example,

(a.) Do you know the past uses of the *property*? Yes or No (circle one).
If Yes, please provide.

(b.) Do you know of specific chemicals that are present or once were present at the *property*? Yes or No (circle one).
If Yes, please provide.

(c.) Do you know of spills or other chemical releases that have taken place at the *property*? Yes or No (circle one).
If Yes, please explain.

(d.) Do you know of any environmental cleanups that have taken place at the *property*? Yes or No (circle one).
If Yes, please explain.

(6.) The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *User* of this *ESA*, based on your knowledge and experience related to the *property*, are there any *obvious* indicators that point to the presence or likely presence of releases at the *property*? Yes or No (circle one).

If Yes, please explain.

X3.1 In addition, certain information should be collected if available, and provided to the *environmental professional* conducting the *Phase I Environmental Site Assessment*. This information is intended to assist the *environmental professional*, but is not necessarily required to qualify for one of the *LLPs*. The information includes:

(Please answer the following questions using the lines that immediately follow each.)

- (a.) the reason why the Phase I is being performed,

Acquire site & Development

- (b.) the type of *property* and type of *property* transaction, for example, sale, purchase, exchange, etc.

for Purchase

- (c.) the complete and correct address for the *property* (a map or other documentation showing *property* location and boundaries is helpful),

See Attached

- (d.) the scope of services desired for the Phase I (including whether any parties to the *property* transaction may have required standard scope of services or whether any considerations beyond the requirements of Practice E1527 are to be considered),

Standard

- (e.) identification of all parties who will rely on the Phase I *report*,

General Land Development Corp

- (f.) identification of the site contact and how the contact can be reached,

Ken Streawing

- (g.) any special terms and conditions which must be agreed upon by the *environmental professional*, and

None

- (h.) any other knowledge or experience with the *property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental site assessment reports*, documents, correspondence, etc., concerning the *property* and its environmental condition).

None

This questionnaire was completed by:

Name Greg Smith
Address 3445 Newmark Dr.
Email gsmith@uberinc.com
Phone Number 937-531-5520
Date 4/2/20

OWNER QUESTIONNAIRE

Please answer to the best of your knowledge

1. Please list previous and current uses of the *property*.
2. Are there currently or do you have any prior knowledge of previous registered or unregistered storage tanks (above or underground) located on the *property*?
3. Are any hazardous substances or petroleum products stored on the *property* or have they been stored in the past?
4. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste material have been dumped above grade, buried and/or burned on the *property*?
5. Are there currently any active or filled wells or septic tanks on the *property*? If a septic tank is present, please provide approximate age.
6. If the *property* is serviced by a private well or non-public water system, is there evidence or do you have any prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system? Has the well been designated as contaminated by any government environmental/health agency?
7. Do you have any prior knowledge that the *property* or an *adjoining property* has been used for manufacturing or industrial purposes in the past?
8. Is any *adjoining property* used as a gas station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable identify which)?
9. Do you have any prior knowledge that the *property* or any *adjoining properties* have been used as any of the above facilities in the past (if applicable identify which)?

Property Address: Miami Township, Corner of
Spilan & E. Hyde Rd. Yellow Springs, OH
wooded ! tillable acres

Yes ☒ No ☐ Unknown ☐ If yes, provide size, contents, & approx. age _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

☒ Yes ☐ No ☐ Unknown ☐ If yes, explain
old, inactive well - see Comments
no septic system known

Yes ☐ No ☒ Unknown ☐ If yes, explain _____

see USE info

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

10. Are there currently or to the best of your knowledge have there been previously any damaged or discarded automotive or industrial batteries or pesticides, paints or other chemicals in individual containers of greater than 5 gal (19L) in volume or 50 gal (190L) in the aggregate stored or used on the *property*?

Yes ☒ No ☐ Unknown ☐ If yes, explain

11. Are there currently or to the best of your knowledge have there been previously any industrial drums (typically 55 gal (208L) or sacks of chemicals located on the *property*?

Yes ☒ No ☐ Unknown ☐ If yes, explain

12. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought on to the *property* from a contaminated site or from an unknown origin?

Yes ☒ No ☐ Unknown ☐ If yes, explain

13. Are there currently or do you have any prior knowledge that there have been previously any *pits, ponds* or *lagoons* located on the *property* in connection with waste treatment or waste disposal?

Yes ☒ No ☐ Unknown ☐ If yes, explain

14. Is there currently or do you have any prior knowledge of stained soil on the *property*?

Yes ☒ No ☐ Unknown ☐ If yes, explain

15. Do you have any knowledge of *environmental liens* or government notifications relating to past or recurrent violations of environmental laws with respect to the *property*?

Yes ☐ No ☐ Unknown ☐ If yes, explain

see 45F info

16. Do you have knowledge of any environmental site assessment of the *property* that indicated the presence of hazardous substances or petroleum products on the *property* or recommended further assessment of the *property*?

Yes ☐ No ☐ Unknown ☐ If yes, explain

see 45F info

17. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of *PCB*?

Yes ☒ No ☐ Unknown ☐ If yes, explain

18. Are vent pipes protruding from the ground at the property or adjacent to any structure located on the *property*?

Yes ☒ No ☐ Unknown ☐ If yes, explain

19. Does the *property* discharge waste water, other than storm water, directly to a ditch or stream on or adjacent to the *property*?

Yes ☒ No ☐ Unknown ☐ If yes, explain

20. Please provide the approximate age of any buildings present on the *property*. If any structures have previously been located on the *property*, please indicate the approximate location, use of structure, and approximate date of demolition.

Yes No Unknown If yes, explain

21. Does the *property* or any buildings located on the *property* contain any *asbestos*?

Yes No Unknown If yes, explain

22. Has the *property* or any buildings located on the *property* been tested for *radon*?

Yes No Unknown If yes, explain

23. Does the *property* or any buildings located on the *property* contain any *urea-formaldehyde materials*?

Yes No Unknown If yes, explain

24. Does the *property* or any buildings located on the *property* contain any *lead-based paint* or *lead plumbing*?

Yes No Unknown If yes, explain

25. Have pesticides, herbicides or other agricultural chemicals been stored on, mixed on or applied to the *property*?

Yes No Unknown If yes, explain
agriculture-managed thru lease - likely used

26. Has there ever been any recreational shooting activities on the *property*?

Yes No Unknown If yes, explain
seasonal deer bow hunting

27. Please indicate any utility providers for the *property*.

Water Village of Yellow Springs

Sewer Village of Yellow Springs

Gas Vectren

Electric Village of Yellow Springs

Additional Comments

#5. old inactive well located 30-50 ft north of northeast corner of 734 E. Hyde St. property possible site of old windmill

#15, 16 - see Yellow Springs Instruments documents

This questionnaire was completed by:

Name

Ken and Bethen Struwing

Address

8100 Tanyard Rd

Yellow Springs, Oh

E-Mail

Kenandbethen@yahoo.com

Phone Number

(937) 767-1388 Home 937-234-5927 Ken's cell

Connection to property

owners

OWNER QUESTIONNAIRE

Please answer to the best of your knowledge

1. Please list previous and current uses of the *property*.
2. Are there currently or do you have any prior knowledge of previous registered or unregistered storage tanks (above or underground) located on the *property*?
3. Are any hazardous substances or petroleum products stored on the *property* or have they been stored in the past?
4. Did you observe evidence or do you have any prior knowledge that any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or any other waste material have been dumped above grade, buried and/or burned on the *property*?
5. Are there currently any active or filled wells or septic tanks on the *property*? If a septic tank is present, please provide approximate age.
6. If the *property* is serviced by a private well or non-public water system, is there evidence or do you have any prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system? Has the well been designated as contaminated by any government environmental/health agency?
7. Do you have any prior knowledge that the *property* or an *adjoining property* has been used for manufacturing or industrial purposes in the past?
8. Is any *adjoining property* used as a gas station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing or recycling facility (if applicable identify which)?
9. Do you have any prior knowledge that the *property* or any *adjoining properties* have been used as any of the above facilities in the past (if applicable identify which)?

Property Address: Southgate Ave
Yellow Springs, Oh
vacant land

Yes ☒ No ☐ Unknown ☐ If yes, provide size, contents, & approx. age _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

Yes ☒ No ☐ Unknown ☐ If yes, explain _____

10. Are there currently or to the best of your knowledge have there been previously any damaged or discarded automotive or industrial batteries or pesticides, paints or other chemicals in individual containers of greater than 5 gal (19L) in volume or 50 gal (190L) in the aggregate stored or used on the *property*?

Yes ☒ No Unknown If yes, explain

11. Are there currently or to the best of your knowledge have there been previously any industrial drums (typically 55 gal (208L) or sacks of chemicals located on the *property*?

Yes ☒ No Unknown If yes, explain

12. Did you observe evidence or do you have any prior knowledge that fill dirt has been brought on to the *property* from a contaminated site or from an unknown origin?

Yes ☒ No Unknown If yes, explain

13. Are there currently or do you have any prior knowledge that there have been previously any *pits, ponds* or *lagoons* located on the *property* in connection with waste treatment or waste disposal?

Yes ☒ No Unknown If yes, explain

14. Is there currently or do you have any prior knowledge of stained soil on the *property*?

Yes ☒ No Unknown If yes, explain

15. Do you have any knowledge of *environmental liens* or government notifications relating to past or recurrent violations of environmental laws with respect to the *property*?

Yes ☒ No Unknown If yes, explain

16. Do you have knowledge of any environmental site assessment of the *property* that indicated the presence of hazardous substances or petroleum products on the *property* or recommended further assessment of the *property*?

Yes ☒ No Unknown If yes, explain

17. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of *PCB*?

Yes ☒ No Unknown If yes, explain

18. Are vent pipes protruding from the ground at the property or adjacent to any structure located on the *property*?

Yes ☒ No Unknown If yes, explain

19. Does the *property* discharge waste water, other than storm water, directly to a ditch or stream on or adjacent to the *property*?

Yes ☒ No Unknown If yes, explain

20. Please provide the approximate age of any buildings present on the *property*. If any structures have previously been located on the *property*, please indicate the approximate location, use of structure, and approximate date of demolition.

Yes No Unknown If yes, explain

No Structures

21. Does the *property* or any buildings located on the *property* contain any *asbestos*?

Yes ☒ No Unknown If yes, explain

22. Has the *property* or any buildings located on the *property* been tested for *radon*?

Yes ☒ No Unknown If yes, explain

NON applicable

23. Does the *property* or any buildings located on the *property* contain any *urea-formaldehyde materials*?

Yes ☒ No Unknown If yes, explain

24. Does the *property* or any buildings located on the *property* contain any *lead-based paint* or *lead plumbing*?

Yes ☒ No Unknown If yes, explain

25. Have pesticides, herbicides or other agricultural chemicals been stored on, mixed on or applied to the *property*?

Yes ☒ No Unknown If yes, explain

26. Has there ever been any recreational shooting activities on the *property*.

Yes ☒ No Unknown If yes, explain

27. Please indicate any utility providers for the *property*.

Water Village of Yellow Springs

Sewer " "

Gas Vectren

Electric Village of Yellow Springs

Additional Comments

This questionnaire was completed by:

Name Ken and Bethreen Struwing

Address 8100 Tanyard Bl.
Yellow Springs, OH 45387

E-Mail Kenandbethreen@yahoo.com

Phone Number 937-767-1388 Home 937-239-5927 Ken's cell

Connection to property owners

April 7, 2020

Miami Township Fire-Rescue
225 Corry Street
Yellow Springs, OH 45387
Attn: Fire Chief Colin Altman

RE: Data Request for Environmental Review
Fifteen parcels of undeveloped agricultural/residence land totaling 50.7301 acres
E. Hyde Road, Parcel Number: F160001000100005800, 33.8530 acres
Margaret Drive, Parcel Number: F19000100180001100, 0.3864 acres
Margaret Drive, Parcel Number: F19000100180001200, 0.3864 acres
Margaret Drive, Parcel Number: F19000100180001300, 0.3409 acres
Morgan Hill, Parcel Number: F19000100180002300, 0.6200 acres
Morgan Hill, Parcel Number: F19000100180002400, 0.4388 acres
Morgan Hill, Parcel Number: F19000100180002500, 0.4486 acres
Morgan Hill, Parcel Number: F19000100180002600, 0.4015 acres
Morgan Hill, Parcel Number: F19000100180002700, 0.4444 acres
Morgan Hill, Parcel Number: F19000100180002800, 0.4745 acres
Southgate Avenue, Parcel Number: F19000100180003000, 10.6000 acres
Southgate Avenue, Parcel Number: F19000100180003200, 0.4722 acres
Southgate Avenue, Parcel Number: F19000100180003400, 0.4293 acres
Southgate Avenue, Parcel Number: F19000100180003500, 0.4851 acres
Southgate Avenue, Parcel Number: F19000100060013300, 0.9490 acres

Dear Fire Chief Altman:

This is a request for any environmental/health concerns (such as underground storage tanks, solid waste, chemical use or storage, complaints and any accidents with possible contamination release) associated with the property or surrounding properties located on E. Hyde Road, Margaret Drive, Morgan Hill and Southgate Avenue in Miami Township and Yellow Springs, Greene County, Ohio. The addresses and parcel numbers for the fifteen properties are listed in the table below.

SITE LOCATION					
Map Point	Street Address	City/Township Jurisdiction	Zoned	Parcel Number	Acreage
1	E. Hyde Road	Miami Township	Agricultural	F16000100100005800	33.8530
2	Margaret Drive	Yellow Springs	Residential	F19000100180001100	0.3864
3	Margaret Drive	Yellow Springs	Residential	F19000100180001200	0.3864
4	Margaret Drive	Yellow Springs	Residential	F19000100180001300	0.3409
5	Morgan Hill	Yellow Springs	Residential	F19000100180002300	0.6200
6	Morgan Hill	Yellow Springs	Residential	F19000100180002400	0.4388
7	Morgan Hill	Yellow Springs	Residential	F19000100180002500	0.4486

Map Point	Street Address	City/Township Jurisdiction	Zoned	Parcel Number	Acreage
8	Morgan Hill	Yellow Springs	Residential	F19000100180002600	0.4015
9	Morgan Hill	Yellow Springs	Residential	F19000100180002700	0.4444
10	Morgan Hill	Yellow Springs	Residential	F19000100180002800	0.4745
11	Southgate Avenue	Yellow Springs	Residential	F19000100180000300	10.6000
12	Southgate Avenue	Yellow Springs	Residential	F19000100180003200	0.4722
13	Southgate Avenue	Yellow Springs	Residential	F19000100180003400	0.4293
14	Southgate Avenue	Yellow Springs	Residential	F19000100180003500	0.4851
15	Southgate Avenue	Yellow Springs	Residential	F19000100060013300	0.9490
Total Acreage					50.7301

Please fax back any information to 513-554-0394, attention Tom Kilbane. Please refer to Project No: 23151(1) when submitting any information regarding this site. I have attached a map showing the location of the site as a reference.

If you have any questions, please contact me at 513-874-6650, ext. 302, or you can email to: kilbane@kilbaneenv.com. Thank you for your time.

Sincerely,
KILBANE ENVIRONMENTAL



Thomas J. Kilbane, CPG
President

c:/doc/reports/ 23151(1) MiamiTwpFireLtr.doc

SITE LOCATION					
Map Point	Street Address	City/Township Jurisdiction	Zoned	Parcel Number	Acreage
1	E. Hyde Road	Miami Township	Agricultural/Undeveloped	F16000100100005800	33.8530
2	Margaret Drive	Yellow Springs	Residential/Undeveloped	F19000100180001100	0.3864
3	Margaret Drive	Yellow Springs	Residential/Undeveloped	F19000100180001200	0.3864
4	Margaret Drive	Yellow Springs	Residential/Undeveloped	F19000100180001300	0.3409
5	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002300	0.6200
6	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002400	0.4388
7	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002500	0.4486
8	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002600	0.4015
9	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002700	0.4444
10	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002800	0.4745
11	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180000300	10.6000
12	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180003200	0.4722
13	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180003400	0.4293
14	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180003500	0.4851
15	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100060013300	0.9490
Total Acreage					50.7301
Kilbane Environmental Project Number: 23151(1)					



April 7, 2020

Greene County Combined Health District
360 Wilson Drive
Xenia, OH 45385
Attn: Ms. Deborah Leopold, RS

RE: Data Request for Environmental Review
Fifteen parcels of undeveloped agricultural/residence land totaling 50.7301 acres
E. Hyde Road, Parcel Number: F160001000100005800, 33.8530 acres
Margaret Drive, Parcel Number: F19000100180001100, 0.3864 acres
Margaret Drive, Parcel Number: F19000100180001200, 0.3864 acres
Margaret Drive, Parcel Number: F19000100180001300, 0.3409 acres
Morgan Hill, Parcel Number: F19000100180002300, 0.6200 acres
Morgan Hill, Parcel Number: F19000100180002400, 0.4388 acres
Morgan Hill, Parcel Number: F19000100180002500, 0.4486 acres
Morgan Hill, Parcel Number: F19000100180002600, 0.4015 acres
Morgan Hill, Parcel Number: F19000100180002700, 0.4444 acres
Morgan Hill, Parcel Number: F19000100180002800, 0.4745 acres
Southgate Avenue, Parcel Number: F19000100180003000, 10.6000 acres
Southgate Avenue, Parcel Number: F19000100180003200, 0.4722 acres
Southgate Avenue, Parcel Number: F19000100180003400, 0.4293 acres
Southgate Avenue, Parcel Number: F19000100180003500, 0.4851 acres
Southgate Avenue, Parcel Number: F19000100060013300, 0.9490 acres

Dear Ms. Leopold:

This is a request for any environmental/health concerns (such as underground storage tanks, solid waste, chemical use or storage, complaints and any accidents with possible contamination release) associated with the property or surrounding properties located on E. Hyde Road, Margaret Drive, Morgan Hill and Southgate Avenue in Miami Township and Yellow Springs, Greene County, Ohio. The addresses and parcel numbers for the fifteen properties are listed in the table below.

SITE LOCATION					
Map Point	Street Address	City/Township Jurisdiction	Zoned	Parcel Number	Acreage
1	E. Hyde Road	Miami Township	Agricultural	F16000100100005800	33.8530
2	Margaret Drive	Yellow Springs	Residential	F19000100180001100	0.3864
3	Margaret Drive	Yellow Springs	Residential	F19000100180001200	0.3864
4	Margaret Drive	Yellow Springs	Residential	F19000100180001300	0.3409
5	Morgan Hill	Yellow Springs	Residential	F19000100180002300	0.6200
6	Morgan Hill	Yellow Springs	Residential	F19000100180002400	0.4388
7	Morgan Hill	Yellow Springs	Residential	F19000100180002500	0.4486

Map Point	Street Address	City/Township Jurisdiction	Zoned	Parcel Number	Acreage
8	Morgan Hill	Yellow Springs	Residential	F19000100180002600	0.4015
9	Morgan Hill	Yellow Springs	Residential	F19000100180002700	0.4444
10	Morgan Hill	Yellow Springs	Residential	F19000100180002800	0.4745
11	Southgate Avenue	Yellow Springs	Residential	F19000100180000300	10.6000
12	Southgate Avenue	Yellow Springs	Residential	F19000100180003200	0.4722
13	Southgate Avenue	Yellow Springs	Residential	F19000100180003400	0.4293
14	Southgate Avenue	Yellow Springs	Residential	F19000100180003500	0.4851
15	Southgate Avenue	Yellow Springs	Residential	F19000100060013300	0.9490
Total Acreage					50.7301

Please fax back any information to 513-554-0394, attention Tom Kilbane. Please refer to Project No: 23151(1) when submitting any information regarding this site. I have attached a map showing the location of the site as a reference.

If you have any questions, please contact me at 513-874-6650, ext. 302, or you can email to: kilbane@kilbaneenv.com. Thank you for your time.

Sincerely,
KILBANE ENVIRONMENTAL



Thomas J. Kilbane, CPG
President

SITE LOCATION					
Map Point	Street Address	City/Township Jurisdiction	Zoned	Parcel Number	Acreage
1	E. Hyde Road	Miami Township	Agricultural/Undeveloped	F16000100100005800	33.8530
2	Margaret Drive	Yellow Springs	Residential/Undeveloped	F19000100180001100	0.3864
3	Margaret Drive	Yellow Springs	Residential/Undeveloped	F19000100180001200	0.3864
4	Margaret Drive	Yellow Springs	Residential/Undeveloped	F19000100180001300	0.3409
5	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002300	0.6200
6	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002400	0.4388
7	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002500	0.4486
8	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002600	0.4015
9	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002700	0.4444
10	Morgan Hill	Yellow Springs	Residential/Undeveloped	F19000100180002800	0.4745
11	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180000300	10.6000
12	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180003200	0.4722
13	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180003400	0.4293
14	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100180003500	0.4851
15	Southgate Avenue	Yellow Springs	Residential/Undeveloped	F19000100060013300	0.9490
Total Acreage					50.7301
Kilbane Environmental Project Number: 23151(1)					



APPENDIX E
Qualifications of Environmental Professionals

Thomas J. Kilbane, CPG – President

Summary of Capabilities

- Project Management
- Phase I/Phase II Environmental Site Assessments
- Underground Storage Tank (UST) Assessments, Remediation Services, Removals, and Closures
- Soil and Groundwater Contamination Assessments
- Environmental Audits
- Wetlands Reconnaissance, Delineation, Permitting and Mitigations
- Asbestos Surveys and Management Plans

Education

- B.S. Geology, Wright State University, 1986

Professional Registrations/Affiliations

- Certified Professional Geologist, AIPG 2002, CPG-10679
- Professional Geologist, Tennessee, since 1995, TN 3691
- Certified Asbestos Hazard Evaluation Specialist, Ohio and Kentucky since 1993

Professional Memberships

- Member National Groundwater Association
- Full Member American Industrial Hygiene Association
- Member American Indoor Air Quality Council

Health and Safety Training

- 40-hrs. Hazardous Materials Incident Response Operations, USEPA
- 8-hrs. Supervisors HAZMAT Training

Professional Capabilities

Mr. Kilbane has more than 25 years of experience providing geological and environmental services to industry and governmental agencies on a variety of projects. These projects have included site investigations, environmental audits, wetlands permitting and mitigations, asbestos surveys and management plans, underground storage tank management, remediation and operation and maintenance. Reporting has included proposal and report preparation for audits, site investigations, work plans, RCRA and CERCLA reports. All Phase I and II Environmental Site Assessments are performed in general accordance with ASTM and AAI guidelines, and to meet client and lender specific requirements.

Mr. Kilbane is also responsible for business development and client relations. In this role he markets existing services and develops and markets new services including all levels of client contacts.

Select Project Experience

- Management and technical oversight for over 50 underground storage tanks, closures, investigations, and remediations in Ohio, Indiana and Kentucky.
- Final review and reporting for five part environmental assessment at DOE's Miamisburg Mound Plant. \$775,000 investigation covered various areas of Operating Unit OU-2.
- Managed several wetland reconnaissance and delineation projects throughout Ohio and Kentucky. In addition, prepared and provided oversight for the creation of several wetlands from 0.75 to 4 acres in size.
- Manager for a VOC remediation under DOE's Interim Response Actions for impacted soil in Mounds B-Building courtyard. Remediation included the installation of a soil vapor extraction system to remove the VOCs.
- Managed a site investigation and asbestos survey of a ceramics manufacturer in northeast Ohio. The project investigated included two lagoons, and numerous buried disposal areas.
- Managed and performed an environmental audit and site investigation at two facilities of an automotive parts manufacturer. Investigation included sampling over 20 borings, 15 PCB wipe samples and numerous paint chip samples.
- Ohio coordinator and primary proposal author for site investigations at 42 sites nationwide. Primary contact with client in identifying the scope of the project and developing the work plan and field sampling plan. Directly managed investigation activities at eight facilities in Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia.
- Managed and provided oversight for a RCRA closure related to a release of spent trichloroethene. Project included defining the extent of contamination, excavation of impacted soils and proper disposal at a permitted hazardous waste landfill.
- Managed the completion of a large site investigation and remediation project for a major airline. Remedial activities included thermal treatment of excavated soils.
- Assembled data from field investigations and prepared a CERCLA Interim Measures Work Plan for a former textile dye facility in Virginia. The work plan included surface soils impacted with high lead concentrations, discolored soil associated with metals, a landfill, a building demolition, and storm water control.
- Task manager for a SVE remedial system used to remediate VOC impacted soils. The system successfully remediated over 90 percent of the reported VOCs in the remedial area

Thomas J. Kilbane, CPG – President

Page 3

Select Project Experience, cont.,

- Assisted in the preparation of various CERCLA RI/FS documents for a former tar product facility. Documents prepared included work plan, field sampling plan, and QAPP.
- Coordinated and performed O&M activities for two CERCLA sites in Kentucky. One site contains a groundwater pump and treat system that includes reinjection of the groundwater. The other site pumps groundwater into a 25,000-gallon holding tank for off-site disposal.
- Various environmental audits have been performed for clients such as Aetna, the U.S. Postal Service, and various financial institutions.
- Management and performance of numerous asbestos surveys in Ohio and Kentucky. One project included collected samples of refractory by coring through an electric furnace at an operating steel mill.

Professional Experience

- President, Kilbane Environmental, Inc., 05/2001 to present
- Environmental Manager, Alt & Witzig Engineering, Inc., 01/1996 to 05/2001
- Project Manager, ICF Kaiser Engineers, Inc., 08/1994 to 10/1995
- Project Manager, Dames & Moore, Inc., 03/1992 to 08/1994
- Environmental Scientist, State of Ohio, BUSTR, 10/1990 to 03/1992
- Project Manager/Cartographer, Department of Defense, 01/1987 to 10/1990



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

July 1, 2021

Regulatory Division
North Branch
LRH-2020-731-LMR-UT Jacoby Creek

NATIONWIDE PERMIT 29 VERIFICATION

Mr. Greg Smith
Oberer Land Developers, LTD.
3445 Newmark Drive
Miamisburg, Ohio 45342

Dear Mr. Smith:

I refer to the pre-construction notification (PCN), submitted on your behalf by Kilbane Environmental and received in this office on March 15, 2021, with additional information received on 24 June 2021, concerning the Struewing Residential Project. You have requested a Department of the Army (DA) authorization for the discharge of dredged and/or fill material into waters of the United States located at the southern end of Southgate Avenue, in Yellow Springs, Greene County, Ohio at approximately 39.788 latitude, -83.8986 longitude. Construction activities would occur within the unnamed tributary (UT) to Jacoby Creek, a tributary of the Little Miami River, a navigable water of the United States. We have assigned the following file number to your PCN: LRH-2020-731-LMR-UT Jacoby Creek. Please reference this file number on all future correspondence related to this subject proposal.

The United States Army Corps of Engineers' (Corps) authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328, including the amendment to 33 CFR 328.3 (85 Federal Register 22250), and 33 CFR 329. Section 404 of the Clean Water Act (Section 404) requires a DA permit be obtained prior to discharging dredged and/or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires a DA permit be obtained for any work in, on, over or under a navigable water.

The proposed project, as described in the submitted information, has been reviewed in accordance with Section 404 and Section 10. Based on your description of the proposed work, and other information available to us, it has been determined that this project will not involve activities subject to the requirements of Section 10. However, this project will include the discharge of dredged and/or fill material into waters of the United States subject to the requirements of Section 404.

In the submitted PCN materials and additional information received in this office on June 24, 2021, you have requested a DA authorization for the discharge of dredged and/or fill material into a total of approximately 43.5 linear feet (0.0039 acre) of one (1) intermittent stream in

conjunction with the Struewing Residential development as described in Table 1 below. The project will involve the construction of single-family lots, roadways, and attendant features and will be conducted in accordance with the information submitted in the pre-construction notification (PCN).

Based on the provided information, it has been determined the proposed discharges of dredged and/or fill material into waters of the United States in conjunction with the construction of the proposed project, meet the criteria for Nationwide Permit (NWP) No. 29 under the January 13, 2021 Federal Register, Notice of Reissuance of NWPs (86 FR 2744) provided you comply with all terms and conditions of the NWPs, and the enclosed special conditions. Copies of this NWP can be found on our website at <http://www.lrh.usace.army.mil/Missions/Regulatory.aspx>

This verification is valid until the expiration date of the NWPs, unless the NWP authorization is modified, suspended, or revoked. The verification will remain valid if the NWP authorization is reissued without modification or the activity complies with any subsequent modification of the NWP authorization. The 2021 NWPs published January 13, 2021 in the Federal Register (86 FR 2744), are scheduled to be modified, reissued, or revoked on March 14, 2026. Prior to this date, it is not necessary to contact this office for re-verification of your project unless the plans for the proposed activity are modified. Furthermore, if you commence or under contract to commence this activity before March 14, 2026, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

A copy of the NWP and this verification letter must be kept at the site during construction. Upon completion of the activities authorized by this NWP verification, the enclosed certification must be signed and returned to this office. If you have any questions concerning the above, please contact Laurie Moore of the North Branch at 937-271-9942, by mail at the above address, or by email at laurie.a.moore@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Kyle M. Moore".

Kyle M. Moore
Regulatory Project Manager
North Branch

cc:
Tom Kilbane, Kilbane Environmental (via email)

Table 1. Proposed Discharges of Dredged/Fill Material into Waters of the United States associated with the Struewing Residential Development Project, LRH-2020-731-LMR-Unnamed Tributary to Jacoby Creek

Aquatic Resource	Latitude & Longitude (°N) (°W)		Length lf on-site	Width feet	Flow Regime or Cowardin Class	Class based on HHEI	Length (lf) and/or Acres (ac) of Fill	Activity
Stream 1	39.7874	-83.9005	2,471 lf	9 ft	Intermittent	Class II PHWH	-	No discharge of dredged/fill material
Stream 2	39.7880	-83.8986	490 lf	4 ft	Intermittent	Class III PHWH	43.5 lf (0.0039 ac)	Road Crossing
Stream 3	39.7873	-83.9008	120 lf	4 ft	Intermittent	Class II PHWH	-	No discharge of dredged/fill material
Total							43.5 lf (0.0039 ac)	

SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 29 VERIFICATION
STRUEWING RESIDENTIAL DEVELOPMENT PROJECT
LRH-2020-731-LMR-UT JACOBY CREEK
PAGE 1 OF 2

1. All work will be conducted in accordance with the submitted pre-construction notification (PCN) and the additional information received on June 24, 2021 for the Struewing Property Project and drawings titled *Figure 4: Development Plan and Subdivision Concept Village of Yellow Springs Exhibit*, prepared by Choice One Engineering, dated June 10, 2021 and submitted with the PCN materials.
2. Enclosed is a copy of Nationwide Permit 29, which will be kept at the site during construction. A copy of the nationwide permit verification, special conditions, and the submitted construction plans must be kept at the site during construction. The permittee will supply a copy of these documents to their project engineer responsible for construction activities.
3. Upon completion of the activity authorized by this Nationwide Permit verification, the enclosed certification must be signed and returned to this office along with as-built drawings showing the location and configuration, as well as all pertinent dimensions and elevations of the activity authorized under this Nationwide Permit verification.
4. Construction activities will be performed during low flow conditions to the greatest extent practicable. Additionally, appropriate site specific best management practices for sediment and erosion control will be fully implemented during construction activities at the site.
5. No area for which grading has been completed will be unseeded or unmulched for longer than 14 days. All disturbed areas will be seeded and/or revegetated with native species and approved seed mixes (where practicable) after completion of construction activities for stabilization and to help preclude the establishment of non-native invasive species.
6. The project site lies within the range of the Indiana bat (*Myotis sodalis*), a federally-listed endangered species and the northern long-eared bat (*Myotis septentrionalis*), a federally-listed threatened species. Several factors have contributed to the two species decline, including habitat loss, fragmentation of habitat and the disease White Nose Syndrome. During winter, the two bat species hibernate in caves and abandoned mines. Suitable summer habitat for the Indiana bats and the northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. The permittee will preserve wooded/forested habitats exhibiting any of the characteristics listed above wherever possible. Should suitable habitat be present that cannot

**SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 29 VERIFICATION
STRUEWING RESIDENTIAL DEVELOPMENT PROJECT
LRH-2020-731-LMR-UT JACOBY CREEK**

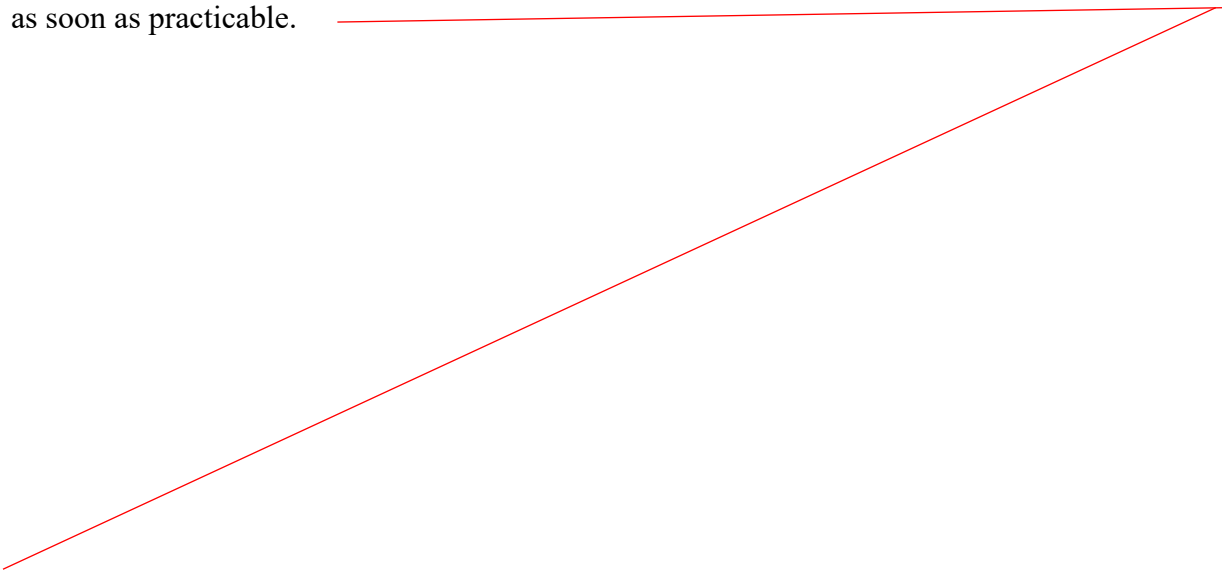
PAGE 2 OF 2

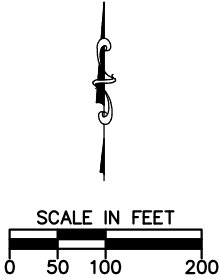
be saved during construction activities, any trees ≥ 3 inches dbh will only be cut between October 1 – March 31.

7. Section 7 obligations under Endangered Species Act must be reconsidered if new information reveals impacts of the project that may affect federally listed species or critical habitat in a manner not previously considered, the proposed project is subsequently modified to include activities which were not considered during Section 7 consultation with the United States Fish and Wildlife Service, or new species are listed or critical habitat designated that might be affected by the subject project.

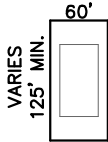
8. In the event any previously unknown historic or archaeological sites or human remains are uncovered while accomplishing the activity authorized by this nationwide permit authorization, the permittee must cease all work in waters of the United States immediately and contact local, state and county law enforcement offices (only contact law enforcement on findings of human remains), the Corps at 304-399-5210 and Ohio State Historic Preservation Office at 614-298-2000. The Corps will initiate the Federal, state and tribal coordination required to comply with the National Historic Preservation Act and applicable state and local laws and regulations. Federally recognized tribes are afforded a government-to-government status as sovereign nations and consultation is required under Executive Order 13175 and 36 CFR Part 800.

9. Should new information regarding the scope and/or impacts of the project become available that was not submitted to this office during our review of the proposal, the permittee will submit written information concerning proposed modification(s) to this office for review and evaluation, as soon as practicable.





TYPICAL LOT LAYOUT

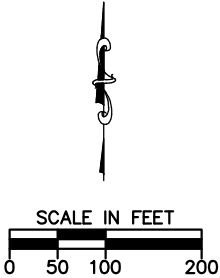


PROPOSED ZONING: R-A
MIN. LOT SIZE: 7,500 S.F.
MIN. FRONTAGE: 60'
FRONT SETBACK: 25'
REAR SETBACK: 25'
SIDE SETBACK: 20' TOTAL, 10' MINIMUM
NUMBER OF RESIDENTIAL LOTS: 133
NUMBER OF GREEN SPACE LOTS: 4
TYPICAL LOT SIZE: 60'X125' MINIMUM

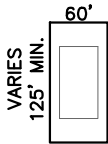
**SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
PRELIMINARY DEVELOPMENT PLAN**

REVISIONS:

FILE NAME CONCEPT
DRAWN BY KTS
CHECKED BY JSP
PROJECT NO. GREYSP2004
DATE 12-21-2021
SHEET NUMBER



TYPICAL LOT LAYOUT



PROPOSED ZONING: R-A
MIN. LOT SIZE: 7,500 S.F.
MIN. FRONTAGE: 60'
FRONT SETBACK: 25'
REAR SETBACK: 25'
SIDE SETBACK: 20' TOTAL, 10' MINIMUM
NUMBER OF RESIDENTIAL LOTS: 133
NUMBER OF GREEN SPACE LOTS: 4
TYPICAL LOT SIZE: 60'X125' MINIMUM

**SUBDIVISION CONCEPT
VILLAGE OF YELLOW SPRINGS
PRELIMINARY DEVELOPMENT PLAN**

REVISIONS:

FILE NAME CONCEPT
DRAWN BY KTS
CHECKED BY JSP
PROJECT No. GREYSP2004
DATE 12-21-2021
SHEET NUMBER

EXHIBIT T

Dear Council Members,

I want to share the email from the EPA regarding the improvements of our sanitary system. In the last two years, we have reduced our sanitary flows by 35%, removing 230K gallons per day in average flows. This is information we had shared with Council, but the email below is the validation of the our work to improve the system.

Please let me know if you have any questions.

Thanks,

Josué Salmerón

Village Manager



Village of Yellow Springs

100 Dayton Street

Yellow Springs, OH 45387

937-767-1279 (O) | 937-469-2485 (C) | www.yso.com
jsalmeron@yso.com

From: Amy.Wilcox@epa.ohio.gov <Amy.Wilcox@epa.ohio.gov>

Sent: Monday, January 10, 2022 8:16 AM

To: Brad Ault, Superintendent of Water & Waste Water Treatment <BAult@vil.yellowsprings.oh.us>

Cc: Johnnie Burns, Director of Public Works <JBurns@vil.yellowsprings.oh.us>;
Joseph.Miller@epa.ohio.gov

Subject: RE: Yellow Springs wastewater improvements

Hello Brad,

Thank you for sending the list of improvements the Village of Yellow Springs has made to the collection system. There have been many improvements to the system. The efforts the village has made has apparently resulted in reduced flows to the plant. The proposed development (based upon 140 four-bedroom houses) will gradually add up to 67,200 gpd over the next five years. In 2020 the Yellow Springs WWTP average ADF was 0.49 MGD. In 2021 it was 0.42 MGD. It is going down from a peak of 0.65 MGD in 2019. Once the development is complete, the increase would put the plant right at 80% of the design flow, which is the point at which we generally recommend that the municipality start planning to upgrade the plant treatment capability. The village should keep an eye to the future, but there is not an imminent reason for the development not to happen.

Please feel free to contact me if you have any questions.

Sincerely,

Amy Wilcox

Environmental Specialist II

Ohio EPA

Southwest District Office

Division of Surface Water

401 East Fifth Street

Dayton, OH 45402

Direct: 937-285-6103

SWDO: 937-285-6357



From: Brad Ault, Superintendant of Water & Waste Water Treatment <BAult@vil.yellowsprings.oh.us>

Sent: Thursday, January 6, 2022 2:16 PM

To: Wilcox, Amy <Amy.Wilcox@epa.ohio.gov>

Cc: Johnnie Burns, Director of Public Works <JBurns@vil.yellowsprings.oh.us>

Subject: Yellow Springs wastewater improvements

Hello Amy, Per our conversation earlier this week I have attached a list of items completed on the collection system since 2019. Also, the housing development will be 140 houses all 4 bedroom houses. They will build 28 houses a year for the next 5 years. If you could let us know your thoughts we'd appreciate it.

Thanks,

Bradley Ault

Superintendent, Water and Wastewater Treatment

Village of Yellow Springs

100 Dayton Street

Yellow Springs, OH. 45387

Office # 937.767.7208

E-mail bault@vil.yellowsprings.oh.us