CITY OF POWELL Ordinance 2017-13 Exhibit A

#### FINAL DEVELOPMENT PLAN ZONING TEXT FOR PLANNED RESIDENTIAL DISTRICT DEVELOPMENT IN THE CITY OF POWELL

#### CARPENTER'S MILL PULTE HOMES OF OHIO LLC

#### 2-21-2017

#### 1. Name, address, and phone number of applicant.

Matt Callahan Div. VP Land Acquisition PULTE Homes of Ohio, LLC <u>Matthew.Callahan@Pulte.com</u> 4900 Tuttle Crossing Blvd. Dublin Ohio, 43016 o. 614-376-1000

2. Name, address, and phone number of registered surveyor, registered engineer and/or urban planner assisting in the preparation of the final development plan.

Landscape Architect Gregory S. Chillog, RLA, Principal EDGE Greg Chillog <gchillog@edgela.com> 330 West Spring Street, Suite 350 Columbus, Ohio 43215 Desk: 614.487.3004 Mobile: 614.832.1156

<u>Civil Engineer</u> Michael C. Reeves, PE, CFM, LEED AP / Project Manager Civil & Environmental Consultants, Inc. 250 Old Wilson Bridge Road, Suite 250 • Worthington, OH 43085 Toll-Free: 888-598-6808 • Fax: 614-540-6638 Mobile: 317-407-2352 • http://www.cecinc.com

Attorney Thomas L. Hart, Esq. Isaac Wiles Burkholder & Teetor, LLC Two Miranova Place, Suite 700 Columbus, Ohio 43215 (614) 340-7415 thart@isaacwiles.com

## 3. A list containing the names and mailing addresses of all owners of property contiguous to, directly across the street from and within 250 ft. of the property in question.

See Exhibit A for Adjacent Property Owners

#### 4. Legal description of the property.

See Exhibit B for Legal Description

#### 5. A description of present use(s) on and of the land.

The property is currently located in Liberty Township, is farmed, or undeveloped and includes single family and agricultural structures under the Liberty Township Zoning Resolution.

6. Draft of proposed Ordinance, prepared with the advice and counsel of the Director of Law, establishing this specific Development Plan as an additional effective zoning control over the land in question, consistent with the continuing authorities of the current Planned District zoning in these areas provided for elsewhere in this Zoning Ordinance.

Will be submitted by City of Powell.

7. A vicinity map at a scale approved by the Zoning Inspector showing all property lines, existing streets and alleys, approved future streets and land uses on adjacent Planned District areas, transportation and land use elements of the Municipality's adopted Comprehensive Plan, current zoning classifications and boundaries, and current land uses on the site of the proposed Planned District development and in the surrounding areas to the physical extend deemed necessary by the Zoning Inspector, but no less than 250 ft. beyond the limits of the proposed Planned District Development Plan.

See Exhibit C-000 for Vicinity Map.

### 8. A preliminary/final development plan at a scale approved by the Zoning Administrator illustrating:

The Preliminary Development Plan was conditionally approved by Planning Commission on 1/25/2017. See Exhibit C-000 for Final Development Plan

#### A. The property line definition and dimensions of the perimeter of the site;

See Exhibit C-000 for Final Development Plan and annexation exhibit of 10-21-2016.

## B. Right-of-ways and paving widths of all existing, currently platted, and previously approved Planned District streets and alleys adjacent to, on, or abutting the site;

See Exhibits C-000, C-200, C-201, C-300, C-301 for Final Development Plan showing streets, rights-of-way and connections/stub-streets to future developments. As shown on the Plan, two Common Access Drives (CADs) are proposed to be created and approved with this PRD zoning. One CAD is to be serviced from the existing curb cut and driveway serving the existing Shelly residence from Steitz Road. The current Shelly driveway will be extended to serve lots 71 and 72. A second CAD is created to serve lots 35, 36 and 37 with access from the public street connection at the southwest corner of the site running between lots 34 and 38. Both CADs shall be based on the CAD standards in the Delaware County Subdivision Regulations and as approved by the City of Powell Engineer.

#### C. The area of the site and its subareas in acres;

#### Total site is +/- 108.85 acres, 183 total units, 1.68 gross du/ac

- 111 Traditional Single Family homes
- 67 Active Adult Patio homes
- 5 Estate Lot homes

Open space +/- 26.71 ac (24.5%)

Smith Property 111 total units, 70.32+/- acres, gross 1.58 du/ac, open space +/- 19.01 ac (27%)

Subarea A-1 Manors +/- 17.96 ac, 26 homes – 100' x 140' lots 1.44 du/ac Subarea A-2 Moors +/- 25.93 ac, 36 homes - 90' x 130' lots 1.39 du/ac Subarea A-3 Landings +/- 26.43 ac, 49 homes – 85' x 130' lots 1.85 du/ac (All units, Traditional Single Family homes)

Shelly Property 72 total units, 38.58+/- acres, 1.86 gross du/ac, open space +/- 7.6 ac

Subarea B Retreat +/- 28.72 ac, 67 homes – 70' x 120' lots (Active Adult Patio Homes) Open space +/- 7.33 ac, (25.5%), 2.33 du/ac

Subarea C Woods +/- 9.86 ac, 5 Estate Lots and Homes (1.33 to 3.15 acres) Open Space +/- .27 ac, (6.8%) .51 du/ac

Minimum Square Footages Per Sub-Area and Product Type

Sub-Area	Sub-Area Name	Ranch / One-Story	1-1/2 & Two- Story	
A-1	Manors	2,300	2,700	
A-2	Moors	2,200	2,400	
A-3	Landings	,	,	
В	Retreat	1,800	2,100	
C	Woods	2,200		

### D. The topography of the site and abutting areas at no more than five (5) foot contour intervals;

See Exhibit Sheets C 300 and C-301 for existing index and intermediate contours.

#### E. Existing surface drainage ways and surface sheet flow patterns;

See Storm Water and Drainage Exhibits C-300 and C-301.

### F. Flood plan areas, ravine-bottom areas, and areas of ground slope in excess of six (6) percent;

See Exhibit Sheets C-300 and C-301.

## G. Existing vegetation on the site with the specific tree spots for all trees six (6) inches in diameter or greater, measured twenty-four (24) inches from the ground;

The site has been carefully designed to protect, utilize and feature existing tree rows and wooded acreages, a majority of which are preserved on site. Stream and stream corridors are preserved on the Shelly property. Existing vegetation that will remain is depicted on the Final Development Plan. See attached Tree Survey Exhibit from CEC for details of condition, sizes and species of trees greater than six inches, and the Final Development Plan and/or Landscape Plan for tree replacements and enhancement areas. Added street trees and additional tree enhancements on the site are noted the Final Development Plan.

### H. Existing easements on the site with notations as to their type, extent, and nature;

See Exhibit Sheets C-300 and C-301. There is an existing thirty ft. electric easement on the east side of Steitz Road that is adjacent and contiguous to the existing right-of-way or any future right-of-way in the event of roadway realignment.

### I. The location and dimensions of existing utilities on and adjacent to the site, including the nearest sanitary sewer, with manhole invert elevations;

See Final Development Plan Exhibit C-300 and C-301, Grading and Utility Plans. See also utility service letters.

#### J. Calculation of the maximum residential units permitted on the site under the terms of the Zoning Ordinance, including delineation of the subdistricts of the site upon which these calculations have been made;

The proposed residential density is 1.68 du/gross acre for the overall site, including both the Smith and Shelly properties combined. This is slightly lower than recommended density of 1.7 du/gross acre and includes sixty-seven patio homes designed for mainly

first floor living with flexible second floor spaces. This "empty nester/active adult" subarea will involve less intense use and less impactful traffic patterns as compared to equivalent traditional single family development. The lower impact of empty nester property owners in terms of traffic trips, schools, daily living, and activities is well documented and will mitigate any perceived higher density proposed for this subarea. The traditional single family homes on the east side of Steitz Road (Smith property) are proposed at a lower gross density than the city code and neighboring city developments, at 1.44, 1.39 and 1.85 du/ac respectively, per subarea and 1.58 du/ac overall. The traditional single family density at 1.58 du/ac overall is also lower than the recently approved City of Powell development in the immediate area, the Reserve at Scioto Glenn, which was approved at 1.70 du/ac.

### K. A preliminary plan (now final development plan) for the first, or next, phase of the development illustrating:

### 1. New street centerlines, rights-of-ways, and street classification types;

See Exhibit C-200 and C-201 for Final Development Plan.

#### 2. Names of existing and proposed streets;

See street names on Final Development Plan.

## 3. Generalized lot and block layouts, indicating and illustrating property lines, minimum lot areas, minimum building setbacks and yards, location and extent of major off-street parking areas, etc.;

See Exhibit C-000 through C-301 of Final Development Plan .

## 4. Subareas of the site to be developed, by land use type, housing types, and housing densities, including subarea statistics;

See Section 8(C) above.

## 5. All proposed structures shall be located showing square footage, tenant or user types, and expected entranceways and service or loading areas;

See Landscape Plan exhibits for community structures and entry features.

#### Minimum Square Footages Per Sub-Area and Product Type

Sub-Area	Sub-Area Name	Ranch / One-Story	1-1/2 & Two- Story	
A-1	Manors	2,300	2,700	
A-2	Moors	2,200	2,400	
A-3	Landings	,	,	
В	Retreat	1,800	2,100	
C	Woods	2,200		

### 6. Common open areas, public lands, and natural scenic easements, including the area of each;

Open spaces are identified on the Final Development Plan with related landscape plan and detail exhibits. A key strategy of the proposed open space plan is to preserve the existing tree rows and mature forest areas as open space and connect these areas with multi-use paths. Saving tree rows will frame subareas, as well as buffer development on the property from neighboring subdivisions. The resulting connected "green belts" traverse the Smith property both north to south and east to west. Nearly eighteen acres of wooded areas or tree rows are to remain on site. The Shelly property is designed with a perimeter buffer strategy with wooded areas on all four borders as well as a central open space. See section (G) above for specific commitments on tree additions.

The Smith property includes substantial open space, wetlands, and pond placement along Steitz Road at the entry point to help maintain the existing rural character, open views to the site and forested areas in keeping with the Powell Comprehensive Plan. The entry feature itself will include a structure and water feature mimicking a historic mill in keeping with the theme of the community. The same building character is used again for a shelter structure in the central open space in Reserve K, along with a playground. Split rail fences further define and frame open space features where appropriate. Setbacks from the road will exceed the neighboring Liberty Village development. The entry to the Shelly property is designed to retain existing woods, provide a green viewshed into the community, and buffer the site from the road and adjacent neighborhoods. The entry feature includes a low key post-column sign, low shrubs, and split rail fences on the leading edges of mounds with tree plantings. On lots sixty-six through seventy, homes face Steitz Road in order to emphasize the front facades and replicate the historic and rural character of homes in the area that typically faced rural roads. The regional multi-use path system, both along Steitz Road and through the community and connecting to Wildflower Drive in the Golf Village subdivision at the northeast corner and Wolf Path Drive at the northwest corner of the Shelly property at Liberty Village, incorporates and connects preserved tree rows and wooded reserves throughout the site. Off-site path connection details are provided in the Landscape Plans. An exhibit is provided to show the multi-use path connections in a regional context. The substantial wetlands area that is mostly preserved on the Smith property and the large forested green spaces round out the natural features. Users of the multiuse path will parallel green space and trees for the majority of their trek on the east side and as they travel through open spaces on the west. Overall, approximately 26.71+/acres of open space are provided (24.5%), with 17.70 acres of forested area and 1.84 acres of wetlands.

#### 7. Proposed landscape treatment of the site;

See Landscape Plan, attached and description above.

## 8. Proposed utility patterns and provisions, including sanitary sewer, individual waste disposal systems, storm sewer, trash collection systems, outdoor lighting, and water supply, including relevant easements and engineering feasibility studies or other evidences of reasonableness;

See Utility Service Letters, as well as Utility Plans attached at Exhibit Sheets C-300 and C-301.

#### 9. Provisions for accommodating surface drainage runoff;

See Exhibit Sheets C-300 and C-301 attached as part of the Final Development Plan .

#### 10. Proposed architectural design criteria;

Primary siding materials shall be masonry, (stone, synthetic stone, stucco, brick or fiber cement exterior siding) and/or wood. Gutters, soffits and fascia may be man-made material. All sides of structures shall be articulated in a manner as to represent a similar character on all facades. Façade colors shall not be of excessively high chroma or intensity. Major roof elements shall have a minimum 6:12 pitch. Secondary or accent roofs may have 3:12 pitch. Roof materials shall be of a medium or dark color. Garage doors shall be paneled and of one color and material (windows shall be allowed if consistent with architectural character and theme).

Architecture shall be "four-sided", as defined as follows:

- Blank facades shall not be permitted.
- All sides of the house shall be articulated with a minimum of at least one (1) design element from the list below (except in "High Impact Areas" (identified below) where a minimum of two (2) elements shall be required on elevations which face Steitz Road.)
- The same materials and details used on front elevations are carried through to and utilized on the other three elevations in a manner that creates continuity and balance.
- All sides of the house will display a high level of quality and architectural interest.
- The following lot numbers shall be considered to be in the High Impact Areas; 1, 50, 66, 67, 68, 69, 70, 73, 141-142, 163-164, 183.
- The following elements and details shall be considered "design elements" for creating the standards for four-sided architecture:
  - Doors
  - Porches
  - A window or grouping of windows at least 6 sq. ft.
  - Window mullions
  - Window trim wrap
  - Bay window or bay elements
  - Chimney
  - Water table
  - Masonry covered foundation
  - Decorative louvers of at least 3 sq. ft.

Architectural elevations are attached hereto.

11. Proposed pedestrian/jogging/bicycle pathways and equestrian paths, including locations, dimensions, landscape and construction, including relationships of such pathways to existing and proposed future pathways on surrounding property;

See item 6 above, and Final Development Plan exhibits showing multi-use paths and Landscape Plan Exhibit depicting paths and connections and future connections to regional system, as well as the regional context exhibit attached.

#### 12. Overall site development statistics comparing this plan for development with requirements of this Zoning Ordinance and with the Comprehensive Plan and indicating that all requirements of this Zoning Ordinance and the Comprehensive Plan have been met in this preliminary plan and will be met in final development.

As reviewed with the City staff, the strategy for this plan was to maintain existing tree rows and wooded areas, connect open spaces with the multi-use path, and keep an open viewshed at the entry points to the community with the placement of detention ponds and green space on the Smith property, and maintaining existing woods and enhancements on the Shelly property. By maintaining the existing tree rows, a "sense of place" is intended to be created by further dividing the subareas and enclosing small pods with a "green frame." Significant wooded areas throughout the site, and the majority of the existing wetlands on the site, are also maintained. Common open spaces are depicted on the Final Development Plan and are equal to approximately 26.71 acres or 24.5%. Mixing housing types was also emphasized by staff and thus added to the plan.

Sub- Area	Sub-Area Name	Min. Lot Width (feet)	Min. Lot Depth	Min. Front Setback	Min. Side Yard One Side*	Min. Side Yard Total Setback	Min. Distance between buildings	Min. Pavement Setback to Side Yard	Min. Rear Yard**
A-1	Manors	100 ft.	140 ft.	25 ft.	8 ft. 5 ft.*	16 ft. 16 ft.		3 ft.	25 ft.
A-2	Moors	90 ft.	130 ft.	25 ft.	8 ft. 5 ft.*	16 ft.	16 ft.	3 ft.	25 ft.
A-3	Landings	85 ft.	130 ft.	25 ft.	6 ft. 5 ft.*	12 ft.	12 ft.	3 ft.	25 ft.
В	Retreat	70 ft.	120 ft.	20 ft.	6 ft.	12 ft.	12 ft.	3 ft.	20 ft.
С	Woods	1.3 A	.C.	30 ft.	15 ft.	35 ft.	35 ft.	35 ft.	30 ft.

\* Side yard setback in Sub-Areas A-1, A-2, and A-3 may be reduced to 5 ft. (on one side) when a side load garage entry is included on homes in these sub-areas, provided that the minimum distance between buildings shall not be less than as established herein for each such sub-area.

\*\* Decks and patios may encroach the rear setback in Sub-Areas A-1, A-2, A-3 and B, provided that no such structures shall be permitted to be located closer to the rear lot line than fifteen ft.

Sub-Area	Sub-Area Sub-Area Ra Name One		1-1/2 & Two- Story	
A-1	Manors	2,300	2,700	
A-2	Moors	2,200	2,400	
A-3	Landings	,	,	
В	Retreat	1,800	2,100	
С	Woods	2,200		

Decks and patios may encroach into rear yard setbacks, but not closer than fifteen ft. from lot line for single family and ten ft. for patio lots.

#### Lot Coverage

Single family homes, 27% lot coverage and patio homes, 40% lot coverage.

#### Lot Frontage

Lot frontage for single family homes are 85, 90, and 100 ft. Lot frontage for patio homes lots is 70 ft. Lot frontages for estate lots are varied with a minimum 1.33 acre lot size.

#### Lot Sizes

Single family lots sizes range from 11,050 sq. ft. to 14,000 sq. ft. Patio home lots are 8,400 sq. ft. minimum The overall average lot size for the entire community is .34 acres.

#### House Size & Materials:

All houses in this development will conform to the following standards:

- a) All homes shall include four-sided architectural designs and be articulated to carry out a similar design on all facades. The same home with same elevation will not be repeated on adjacent lots or those across the street.
- b) High quality brick, stone, wood, and cementitious fiber materials are utilized, with attention paid to installation and specifications.
- c) All homes shall have attached garages
- d) Single family homes shall not be less than 2,200 sq. ft. Patio homes shall not be less than 1,800 sq. ft. (excluding porches, basements, and garages).

Sub-Area	Sub-Area Name	Ranch / One-Story	1-1/2 & Two- Story	
A-1	Manors	2,300	2,700	
A-2	Moors	2,200	2,400	
A-3	Landings	,	,	
В	Retreat	1,800	2,100	
С	Woods	2,200		

The minimum ranges for square footage of the homes shall be as follows:

Maximum building height shall not exceed 35 ft. for principle buildings and 18 ft. for accessory structures.

The maximum gross density is 1.68 dwelling units per acre. This is slightly less than the maximum code density of 1.7 dwelling units per acre. Consideration is also requested based on code's formula for determining density at 1143.13(b) and site design features such as the multi-use path for public use, connection to the regional path system, and the setting aside of wooded open spaces and maintenance of tree rows inside the site and on the perimeter of the site. In addition, with the incorporation of active adult patio homes at the site, the intensity of land use for the western area (Shelly property) is lessened based on the lower peak traffic impact, utility use, school use, and actual residents per acre when active adult/empty nester housing is compared to equivalent traditional single family impact.

In terms of compliance with the Powell Comprehensive Plan, this property is designated as single family residential on the Future Land Use Map. (p. 29). The site is within the Strategic Annexation Policy zone identified on page 26 of the Plan. The site development would geographically fill out the area with similar single family that exists on the eastern and northern property boundary and allow Powell to control its own destiny in the area. This would be considered "in-fill" development under the terms of the Comprehensive Plan that would continue the community's character with a consistent development pattern as expressed in the Plan (page 27). Including upscale active adult patio homes, as well as estate housing, along with traditional single family homes supports the goal of diversifying housing options, which is a key theme throughout the Comprehensive Plan. The proposed development plan integrates the property with the adjacent, existing single family sites, while adding the mixed residential land use offering as an alternative housing type to accommodate changing market preferences (pages 38-39). This diversification also helps prevent over-saturation of one housing type, and helps preserve and enhance the value of existing housing stock, while at the same time offering newer and upgraded housing options to existing residents (page 42).

With regard to the single family design aspects of this development plan the following Comprehensive Plan Development Guidelines are met (pg 42).

- New single family streets are connected to existing neighborhoods where existing stub-connections are provided or stubbed for future connections.
- Cul-de-sac use is limited and is only used in two locations based on the attempt to protect natural features, maximize open spaces, and/or conform to road access standards. Within the active adultpatio home community, one cul-de-sac is provided based on the buyers' preferences for safety, security and privacy.
- The shared multi-use path offers the opportunity to connect the community to a greater public path system, allowing for recreational travel without cars. Sidewalks are also provided on all streets.
- Homes that back up to streets are limited and where placed are either substantially screened from roads and/or appropriately set back.
- Homes include four-sided architectural designs and are articulated to carry out a similar design on all facades. The same home with same elevation will not be repeated on adjacent lots or those across the street.
- High quality brick, stone, wood, and cementitious fiber materials are utilized, with attention paid to installation and specifications.

#### Divergences noted:

1143.13 Minimum street frontage for single family detached homes at 1.7 density is ninety ft. Minimum street frontages of 85 ft. are hereby requested to be diverged for

forty-nine lots in the single family subareas and divergence is also requested for sixtyseven, seventy ft. lots in Active Adult Patio Homes subarea B.

1143.13 Side yard setback minimum for single family detached homes at 1.7 density is eight ft. where the building on adjacent lot is known. Minimum distance between buildings at 1.7 density is twenty-four ft.

Divergences are hereby requested to allow the side yard setback and the minimum distance between buildings to be established as set forth in the table below (and in Section 12 above), including the provision for the reduced side yard setback when a side-loaded garage entry is utilized.

Sub- Area	Sub-Area Name	Min. Side Yard One Side*	Min. Side Yard Total Setback	Min. Distance between structures
A-1	Manors	8 ft. 5 ft.*	16 ft.	16 ft.
A-2	Moors	8 ft. 5 ft.*	16 ft.	16 ft.
A-3	Landings	6 ft. 5 ft.*	12 ft.	12 ft.
В	Retreat	6 ft.	12 ft.	12 ft.
С	Woods	15 ft.	35 ft.	35 ft.

\* Side yard setback in Sub-Areas A-1, A-2, and A-3 may be reduced to five ft. (on one side) when a side load garage entry is utilized on homes in these sub-areas, provided that the minimum distance between buildings shall not be less than as established herein for each such sub-area.

Lot Coverage: Divergences are requested for both single family and patio home lot coverage at 27% and 40% respectively.

Rationale: Divergences to allow a mix of lots sizes, shorter side yard setbacks, and the allowance for additional lot coverage on some lots, all support the preservation of greater open space and outstanding natural areas on this site.

Livestock fences are to be utilized on the Shelly property.

#### L. Projected development schedule and phasing.

See phasing plan Exhibit Sheet C-100 and narrative of development schedule below.

#### M. Overall Traffic Scheme.

See attached Exhibits for traffic and parking for this site. Refer to the Traffic Exhibit from Smart Services, Inc. for the Traffic Study for the development as initialed by the Delaware County Engineer's Office on November 7, 2016. Traffic improvements and commitments are outlined in the conclusions of the Traffic Study and include the installation of two left turn lanes approaching both site entrances on the east and west side of Steitz Road. The left turn lanes include tapers with lengths as depicted on the Final Development Plan traffic improvement exhibit. Supplemental traffic analysis on trips to/from existing communities is included in the February 15, 2017 letter from Smart Services, Inc.

#### N. Detailed phasing plans.

Phasing shall be per the attached Exhibit Sheet C-100. The site will be developed based upon the market driven factors. The phasing and timing of the development of the property will be dependent on economic and general housing market conditions, sales rates, and absorption of homes and other factors. Phasing of the site may be adjusted accordingly based on market conditions.

## 9. Evidences of the ability of the applicant to carry forth its plan by control of the land and the engineering feasibility of the plan, and that the applicant has sufficient control over the land and financing to initiate the proposed development plan phase within two (2) years.

The Applicant has contracts with the property owners and has extensive experience in executing projects of this nature.

## 10. Evidence of the applicant's ability to post a bond if the plan is approved assuring completion of public service facilities to be constructed within the project area by the developer.

The Applicant shall provide evidence that it has the ability to post bond for the City of Powell Council prior to Final Development Plan approval.

### 11. Verification by the owner of the property that all the information in the application is true and correct to the best of his knowledge.

The Applicant has reviewed the included information in the Final Development Plan submittal and believes it to be true and correct to the best of its knowledge.

## 12. A statement of the character and nature of the development including the cost range or rent levels for housing in residential development and the general types of business or industrial and commercial developments.

The Development Plan is intended to be in keeping with the recommendations of the Powell Comprehensive Plan as well as harmonious to existing and surrounding neighborhoods and land uses. The traditional single family homes will be consistent with homes to the north and east in Golf Village as well as those immediately to the north in Windsong and to the northwest (west of Steitz Rd.) in the Liberty Village subdivision. The community is proposed to be developed by Pulte Homes and includes consumer inspired innovative house plans with unique features such as its "Owners Entry" and "Planning Center" designed for the way people and families live their everyday lives. The selling prices of single family homes for community may begin in the mid-\$400,000s but are expected to range into the low-mid \$600,000s depending upon consumer choices for many of the design and finish features of the homes.

Consistent with Powell's Comprehensive Plan, this mixed-use development also provides an alternate housing choice for those seeking ranch or first floor owner's suite style homes and a low maintenance lifestyle. These homes are designed for the growing active adult or empty nester homebuyer segment, but do not exclude any buyers. This segment of the community provides a housing alternative for those seeking such lifestyle and housing choices but still the privacy of an individual, detached residence at an upscale price with significant square footage. Price points for these homes are expected to start in the mid - \$400,000s and range into the low \$500,000s.

Estate lots will have significantly higher home prices and offer upscale housing options consistent with area estate homes.

## 13. A statement of the general impact the development will have on the infrastructure, municipality and schools including projected demographics, a traffic impact study and a fiscal impact analysis may be required by the Planning and Zoning Commission.

In light of the surrounding single family developments, both in Powell and Liberty Township, the proposed development is very compatible and amounts to an "infill" site as defined in Powell's Comprehensive Plan. The homes will have architectural characteristics that meet or exceed existing developments. Site open space and multiuse path amenities provide existing communities with connectivity and the preservation of wooded areas. School impact should result in approximately one-hundred six five students from this community using standard district yield assumptions, however the market prices for the homes and assessed property values are expected to cover the cost to educate the additional students in terms of real property tax collections. (see attached worksheet.) The active adult patio homes do not restrict student population so no assumption was made in the student projection other than traditional single family home school yields. This is a conservative approach as the empty nester homes are designed for mainly first floor living and are expected to attract households with few school-aged children based on buyer preferences and area market demand.

A traffic impact study is completed and has been submitted to the City and County with the results reviewed. The study is based on the terms of an executed Traffic Memorandum of Understanding, and under City and County traffic engineering standards as applicable. The Applicant shall comply with the study outcome, including installing the required left turn lane improvements and lane tapers identified therein for Steitz Road.

#### 14. A fee as established by ordinance.

The fee has been submitted with this application.

3739242.1 : 01731 00023

#### EXPEDITED TYPE II PETITION FOR ANNEXATION (SECTION 709.023) TO THE CITY OF POWELLOF 108.851+/- ACRES, MORE OR LESS, FROM LIBERTY TOWNSHIP

#### TO THE BOARD OF COUNTY COMMISSIONERS OF DELAWARE COUNTY, OHIO

The undersigned, petitioners in the premises, and being THE SOLE OWNERS OF REAL ESTATE in the territory described, consisting of 108.851 acres, more or less, with a total length of the annexation perimeter of 10,772 feet, more or less, in the Township of Liberty, which area is contiguous along 2,629 feet, or 24.4% is contiguous to the City of Powell, do hereby pray that said territory be annexed to the City of Powell, according to the statutes of the State of Ohio and that no island of unincorporated area will be created by this annexation.

A full and accurate description and a plat of said territory so prayed to be annexed are attached hereto as Exhibit "A" and "B" and made part hereof.

In support of said Petition, the petitioners state that there are within the territory so prayed to be annexed THREE (3) OWNERS OF REAL ESTATE.

Thomas L. Hart, whose address is Isaac Wiles Burkholder & Teetor LLC, Two Miranova Place, Ste. 700, Columbus, Ohio 43215, is hereby appointed agent for the undersigned Petitioners, as required by Section 709.02 of the Revised Code of Ohio. Said agent is hereby authorized to make any amendment and/or deletion which in his absolute and complete discretion is necessary or proper under the circumstances then existing, and in particular to make such amendment in order to correct any discrepancy or mistake noted by the DELAWARE County Engineer in his examination of an amended plat and description to the Board of Commissioners on, before, or after the date set for hearing on this Petition.

"WHOEVER SIGNS THIS PETITION EXPRESSLY WAIVES THEIR RIGHT TO APPEAL IN LAW OR EQUITY FROM THE BOARD OF COUNTY COMMISSIONERS' ENTRY OF ANY RESOLUTION PERTAINING TO THIS SPECIAL ANNEXATION PROCEDURE, ALTHOUGH A WRIT OF MANDAMUS MAY BE SOUGHT TO COMPEL THE BOARD TO PERFORM ITS DUTIES REQUIRED BY LAW FOR THIS SPECIAL ANNEXATION PROCEDURE."

> Delaware County Commissioners 101 N Sandusky St. Delaware, OH 43015-1732

015-11-JMW 12-9-16 9:42 Ar

#### <u>NAME</u>

Smith

<u>Iniothy K. fla</u> Timothy K. Shelly

#### <u>ADDRESS</u>

<u>DATE</u>

27270 Claibourne Rd. Richwood, OH 43344

8126 Shannon Glen Blvd. Dublin, OH 43016

8260 Steitz Road Powell, OH 43065 12.6.2016

12.6.2016

12.6.2016

#### **EXHIBITS**

- Exhibit A= Legal Description
- Exhibit B= Plat Map
- Exhibit C= Adjacent Parcel Owner List

3570383.1 : 01731 00023

Civil & Environmental Consultants, Inc.

Exhibit

#### DESCRIPTION OF PROPOSED ANNEXATION OF 108.851 ACRE TRACT FROM LIBERTY TOWNSHIP TO CITY OF POWELL DELAWARE COUNTY, OHIO

Situated in the State of Ohio, County of Delaware, Township of Liberty, located in Farm Lots 5, 8, and 10, Section 2, Township 3, Range 19, United States Military Lands, and part of 32.794 acres and 5.001 acres, as described in deed to Jerry L. Smith and Robert L. Smith, of record in Official Record Volume 1352, Page 700, and part of that 32.807 acres as described in deed to Jerry L. Smith, of record in Official Record Volume 1352, Page 703, and part of that 44.9 acres described in deed to Timothy K. Shelly, of record in Deed Volume 547, Page 238, all being of record in the Recorder's Office, Delaware County, Ohio and being more particularly described as follows:

**BEGINNING** at a common corner of said 32.794 acre tract and the Golf Village Subdivision, Section 5 Phase B of record Plat Cabinet 3, Slide 597 and southerly line of Golf Village Section 7 Phase A of record in Plat Cabinet 3, Slide 3 and, said corner being an angle point in the existing City of Powell Corporation Line as established by Ordinance Number 2002-30 and of record in Cabinet 2, Slide 790;

Thence, South 03°06'16" West along the said corporation line and common line of said Golf Village Subdivision, Section 5 Phase B and Golf Village Section 5 Phase A of record in Plat Cabinet 3, Slide 387, a distance of 1316.47 feet to a common corner of said 32.807 acre tract and of a 23.11 acre tract conveyed to Glenna E. Miller in Deed Book 323, Page 74, and Deed Book 578, Page 972;

Thence North 86°16'16" West, along the common line of said 32.807 acre tract, 23.11 acre tract, and a 1.89 acre tract as conveyed to Glenna E Miller of record in Deed Volume 978, Page 972, and the proposed corporation line, a distance of 2298.54 feet to the East right of way line of Township Road 125 (Steitz Road);

Thence North 03°00'00" East, along said East right of way, and along the proposed corporation line, a distance of 150.34 feet a point;

Thence, North 86°33'10" West, leaving said East right of way and with the northerly line of a 5.001 acre tract, as described in deed to Timothy K. Shelly, of record in Deed Volume 781, Page 2874, and along the proposed corporation line, a distance of 560.00 feet to a point;

Thence, with said 5.001 acres, and along the proposed corporation line, the following courses:

North 03°54'35" East, a distance of 55.00 feet, to a point;

North 86°33'10" West, a distance of 479.53 feet, to a point;

South 03°54'35" West, a distance of 303.00 feet, to a point in the southerly line of said Farm Lot 10 and said 44.9 acres, and also being on a line common to said 5.001 acres, and Lot 3631, as shown in Double N Subdivision No. 1, of record in Plat Cabinet 2, Slide 563, and described in deed to Lawrence R. Alldritt, of record in Deed Volume 873, Page 2579;

Thence, South 90°00'00" West, with a line common to said 44.9 acres, and in part with said Lot 3631, and in part with a 5.001 acre tract described in deed to Gary M. Clark, of record in Deed Volume 1135, Page 2770, and along said farm lot line, and along the proposed corporation line, a distance of 425.97 feet, to a point;

Thence, North 03°30'00" East, along a line common to said 44.9 acres, and an original 20.527 acre tract as described in deed to Terry R. Imar, of record in Deed Volume 591, Page 15 to, a distance of 1367.85 feet, to a point at a corner common to said 44.9 acres, said 20.527 acres, and Lot 4730 as shown in Liberty Village, of record in Plat Cabinet 3, Slide 639, and also being on a line common to said Farm Lot 10, and said Farm Lot 11;

Thence, South 89°39'00" East, in part with said common lines, and along the proposed corporation line, a distance of 1465.50 feet, to a point in the East right-of-way of said Township Road 125 (Steitz Road);

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Thence, North 03°00'00" East, with said east right of way of Township Road 125 (Steitz Road) and along the proposed corporation line, a distance of 62.99 feet, to a point on a common line to said 32.794 acres and a 1.138 acre tract described in Official Record Volume 591, Page 15 and conveyed to Gregory K. Ackers;

Thence South 86°05'23" East, along the common line of said 32.794 acres, said 1.138 acres, Windsong Subdivision of record in Plat Cabinet 3, Slide 574, and said Golf Village Section 7 Phase A, and passing the angle point of the existing City of Powell Corporation Line at a distance of 990.39 feet, a total distance of 2301.04 feet to the **TRUE POINT OF BEGINNING**, containing 108.851 acres more or less.

There being approximately 50.31 acres in said Farm Lot 8 and approximately 20.15 acres in said Farm Lot 5, and 38.39 acres in said Farm Lot 10.

2629 lineal feet of the 10,772 lineal feet herein described (24.4%), is contiguous with the existing City of Powell corporation line.



**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.** 

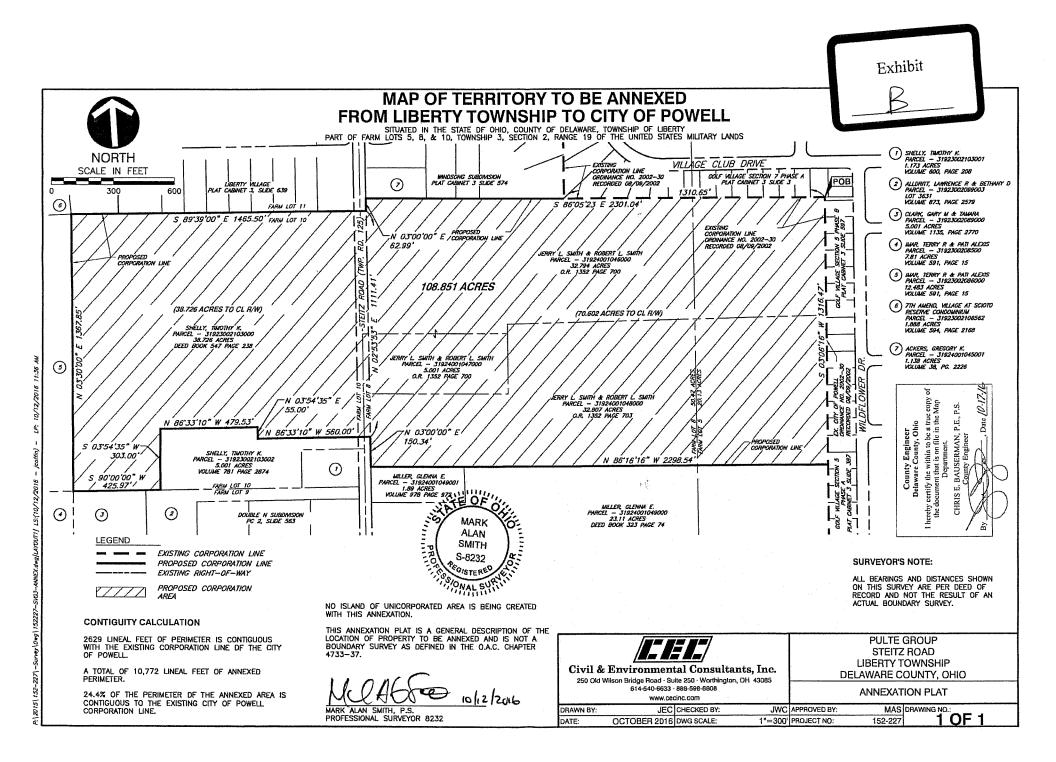
10/12/2016 Date

Mark Alan Smith P.S. Registered Surveyor No. 8232

**County Engineer** Delaware County, Ohio I hereby certify the within to be a true copy of the document that is on file in the Map Department. CHRIS E. BAUSERMAN, P.E., P.S. County Engineer Date 10-17

Date Prepared: August 15, 2016 File Name: 152-227-108.851 ACRES.docx

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#### Exhibit C - Annexation Petition 108.853 ac

#### Petition Parcel Owners

31924001046000 Smith, Robert & Smith, Jerry 31924001047000 Smith, Robert & Smith, Jerry 31924001048000 Smith, Robert & Smith, Jerry 31923002103000 Shelly, Timothy K.

#### Adjacent Parcel Owners

Parcel No. Owner 31924001045001 Ackers, Gregory & Annamaria Bory-Ackers 31923002099003 Aldritt, Lawrence & Bethany 31923023002000 Badiga, Vijaya & Madhuri Mushunuri 31923002106562 Baynton, Fay 31923002106561 Brubaker, A. Steele 31923002089000 Clark, Gary & Tamara Osborn-Clark 31923002106560 Fazio, Christopher 31923021009000 Fredell, Jeremy & Samantha 31923023004000 Fuller-Napier, Stormi 31923002086000 Imar, Terry & Pati, Alexis 31923002085000 Imar, Terry & Pati, Alexis 31923023006000 Lewis, Joseph & Andrea 31923023009000 Loeper, Sandra & Cox, Virginia 31923002106557 Mancinotti, Paul & Rebecca 31923002106563 Mort, Jane 31923002106559 Winner, Jaclyn & Stephen 31923002106559 Ross, James 31923023008000 Sapp, Andrew & Tara 31923002106558 Schwenk, Marlynn, Trustee 31923002103002 Shelly, Timothy K 31923002103001 Shelly, Timothy K 31923002103000 Shelly, Timothy K 31924001046000 Smith, Robert & Smith, Jerry 31924001048000 Smith, Robert & Smith, Jerry 31924001047000 Smith, Robert & Smith, Jerry

#### 3522559v1

Steitz Road, Powell, OH 43065 8213 Steitz Road, Powell, OH 43065 Steitz Road, Powell, OH 43065 Steitz Road, Powell, OH 43065

#### Address

8059 Steitz Road, Powell OH 43065 8304 Steitz Road, Powell, OH 43065 4388 Hunters Bend, Powell, OH 43065 8095 Farm Crossing Cir, Powell, OH 43065 8091 Farm Crossing Cir, Powell, OH 43065 4730 Rutherford Road, Powell, OH 43065 8099 Farm Crossing Cir., Powell, OH 43065 8090 Wolf Path Dr., Powell, OH 43065 4422 Hunters Bend, Powell, OH 43065 4808 Rutherford Road, Powell, OH 43065 4808 Rutherford Road, Powell, OH 43065 4460 Hunters Bend, Powell, OH 43065 4514 Hunters Bend, Powell, OH 43065 8121 Farm Crossing Cir., Powell, OH 43065 8083 Farm Crossing Cir., Powell, OH 43065 4364 Hunters Bend, Powell, OH 43065 8103 Farm Crossing Cir., Powell, OH 43065 4498 Hunters Bend, Powell, OH 43065 8125 Farm Crossing Cir., Powell, OH 43065 8260 Steitz Road, Powell, OH 43065 8296 Steitz Road, Powell, OH 43065 8213 Steitz Road, Powell, OH 43065

Exhibit

31923002106564 Summerhill, Eileen, Trustee 31923023005000 Sybert, Curtis & Robin 31923023007000 Walker, John & Kellie 31923023003000 Yaeger, Darren Trustee & Renee Yaeger, Tr 31924021009000 Barcus, Todd & Amy 31924021013000 Bryant, Gregory & Lisa 31924011035000 Cady, Robert & Lisa 31924011037000 Dewitt, Jason & Pritz, Jennifer 31924011038000 Flaugher, Ryan & Melissa 31924011034000 Kelly, Kenneth & Megan 31924021014000 Magistrale, Nicholas & Amy 31924001049000 Miller, Glenna 31924001049001 Miller, Glenna 31924011033000 Paruchuri, Trivenkata & Madalapu, Ashalatha 31924021012000 Schumick, Margery & Anton 31924021010000 Shear, Kathleen & Christopher 31924021011000 Taylor, Christopher & Monique 31924011036000 Wilson, Joshua & Kacey 31924011039000 Woerth, Brian & Elizabeth 31924026008000 Bosma, Karen & Cordell 31924011031000 Chu Ping-Lang & Ching-Yi 31924011023000 Churchill, Donald & Michelle, Trustees 31924027002000 Dozer, Timothy & Laura 31924011014000 Fogle, Rachael 31924011027000 Golf Village Property Owners Association 31924011025000 Green, John & Heather 31924011020000 Jennings, Brian & Gosnell, Amy 31924011029000 Johnson, Jean 31924011016000 Johnson, Stuart & Patricia 31924011015000 Kominiarek, Jeffrey & McDougall, Jennifer 31924026007000 Kuhns, Ross & Suzanne 31924011011000 McKee, Stephen & Susan 31924011019000 Mesewicz, Mark 31924011022000 Meyer, James & Rebecca 31924027004000 Miller, Christopher & Tracy 31924011024000 Osborne, Derric & Mary

8079 Farm Crossing Cir., Powell, OH 43065 4442 Hunters Bend, Powell, OH 43065 4480 Hunters Bend, Powell, OH 43065 4406 Hunters Bend, Powell, OH 43065 8276 Wildflower Dr., Powell, OH 43065 8218 Wildflower Dr., Powell, OH 43065 8134 Wildflower Dr., Powell, OH 43065 8160 Wildflower Dr., Powell, OH 43065 8174 Wildflower Dr., Powell, OH 43065 8120 Wildflower Dr., Powell, OH 43065 8204 Wildflower Dr., Powell, OH 43065 8349 Steitz Road, Powell, OH 43065 3299 Steitz Road, Powell, OH 43065 8106 Wildflower Dr., Powell, OH 43065 8232 Wildflower Dr., Powell, OH 43065 8262 Wildflower Dr., Powell, OH 43065 8248 Wildflower Dr., Powell, OH 43065 8146 Wildflower Dr., Powell, OH 43065 8186 Wildflower Dr., Powell, OH 43065 4194 Village Club Dr., Powell, OH 43065 8078 Wildflowedr Dr., Powell, OH 43065 4364 Village Club Dr., Powell, OH 43065 4273 Hunters Bend, Powell, OH 43065 4238 Village Club Dr., Powell OH 43065 c/o Real Property Mgnt, 9054 Cotter St., Lewis Center, OH 43035 4394 Village Club Dr., Powell, OH 43065 4320 Village Club Dr., Powell, OH 43065 8050 Wildflower Dr., Powell, OH 43065 4162 Village Club Dr., Powell, OH 43065 4248 Village Club Dr., Powell, OH 43065 4120 Hunters Bend, Powell, OH 43065 4198 Village Club Dr., Powell, OH 43065 4306 Village Club Dr., Powell, OH 43065 4349 Village Club Dr., Powell, OH 43065 4215 Hunters Bend, Powell, OH 43065 4380 Village Club Dr., Powell, OH 43065

31924011028000 Pechinak, Michael & Maureen
31924011013000 Penn, Nelson & Robyn
31924011032000 Ramakkagari, Chenna & Duttala, Neelima
31924011021000 Regits, Willie, Trustee
31924027003000 Repasky, Jennifer
31924011018000 Smith, Andrew & Carlyn
31924011030000 Tebeau, William & Jodi
31924011012000 Tordoff, William & Shari
31924027001000 Windsong Homeowners' Association

8038 Wildflower Dr., Powell, OH 43065
4224 Village Club Dr., Powell, OH 43065
8092 Wildflower Dr., Powell, OH 43065
4334 Village Club Dr., Powell, OH 43065
4251 Hunters Bend, Powell, OH 43065
4290 Village Club Dr., Powell, OH 43065
8064 Wildflower Dr., Powell, OH 43065
4212 Village Club Dr., Powell, OH 43065
c/o Kevin Yates, 4210 Hunters Bend, Powell, OH 43065

#### LEGAL DESCRIPTION:

<u>TRACT I</u>

REAL ESTATE SITUATED IN THE TOWNSHIP OF LIBERTY, COUNTY OF DELAWARE AND STATE OF OHIO BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A STONE ON A POST IN THE CENTER OF THE ROAD AT THE SOUTHEAST CORNER OF LOT 10, RANGE 19, TOWNSHIP 3, SECTION 2;

THENCE N. O' 30' EAST 82.27 POLES TO THE NORTHEAST CORNER OF LOT 10 TO "B" STONE ON A POST;

THENCE N. 89' 39' WEST 87 POLES ON THE LOT LINE TO "C" STONE ON A POST;

THENCE S. 0' 30' WEST 82.9 POLES ON TOWNSHIP LINE TO "E" STONE ON A POST AND LOT LINE; THENCE EAST 87 POLES TO THE PLACE OF BEGINNING.

CONTAINING 44.9 ACRES OF LAND, MORE OR LESS

**EXCEPTING THEREFROM:** 

SITUATED IN THE STATE OF OHIO, COUNTY OF DELAWARE, TOWNSHIP OF LIBERTY, LOCATED IN PART OF FARM LOT 10, SECTION 2, TOWNSHIP 3 NORTH, RANGE 19 WEST, AND BEING PART OF AN ORIGINAL 44.9 ACRE TRACT CONVEYED TO TIMOTHY K. AND JODI L. SHELLY IN DEED BOOK 547, PAGE 238, AS RECORDED IN THE DELAWARE COUNTY RECORDER'S OFFICE, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING, FOR REFERENCE, AT A RAILROAD SPIKE FOUND IN THE CENTERLINE OF STEITZ ROAD (CO. ROAD 125) MARKING THE SOUTHEAST COMER OF A 1.173 ACRE TRACT CONVEYED TO TIMOTHY K. AND JODI L. SHELLY IN DEED BOOK 600, PAGE 207 AND THE SOUTHEAST CORNER OF FARM LOT 10 AND NORTHEAST CORNER OF FARM LOT 9;

THENCE NORTH 03' 54' 35" EAST 188.00 FEET, ALONG THE CENTERLINE OF STEITZ ROAD, TO A RAILROAD SPIKE FOUND MARKING THE NORTHEAST CORNER OF SAID 1.173 ACRE TRACT AND BEING THE PRINCIPAL PLACE OF BEGINNING OF THE HEREIN DESCRIBED TRACT;

THENCE NORTH 86' 33 10" WEST 313.25 FEET, ALONG THE NORTH LINE OF SAID 1.173 ACRE TRACT, TO AN IRON PIN FOUND MARKING THE NORTHWEST CORNER OF SAID 1.173 ACRE TRACT;

THENCE SOUTH 03' 54 35" WEST 188.00 FEET, ALONG THE WEST LINE OF SAID 1.173 ACRE TRACT, TO AN IRON PIN FOUND IN THE NORTH LINE OF FARM LOT 9 AND THE SOUTH LINE OF FARM LOT 10, MARKING THE SOUTHWEST CORNER OF SAID 1.173 ACRE TRACT;

THENCE NORTH 86' 33' 10 " WEST 696.28, ALONG THE SOUTH LINE OF SAID FARM LOT 10 AND THE NORTH LINES OF FARM LOT 9 AND SAID ORIGINAL 44.9 ACRE TRACT, TO AN IRON PIN SET;

THENCE NORTH 03' 54' 35" EAST 303.00 FEET, ACROSS SAID ORIGINAL 44.9 ACRE TRACT, PARALLEL WITH STEITZ ROAD, TO AN IRON PIN SET;

THENCE SOUTH 86' 33' 10" EAST 479.53 FEET, ACROSS SAID ORIGINAL 44.9 ACRE TRACT, PARALLEL TO THE SOUTH LINE OF SAID LOT 10, TO AN IRON PIN SET;

THENCE SOUTH 03' 54' 35" WEST 55.00 FEET, ACROSS SAID ORIGINAL 44.9 ACRE TRACT, PARALLEL WITH STEITZ ROAD, TO AN IRON PIN SET;

THENCE SOUTH 86' 33' 10" EAST 530.00 FEET, ACROSS SAID ORIGINAL 44.9 ACRE TRACT, PARALLEL TO THE SOUTH LINE OF SAID LOT 10, TO A RAILROAD SPIKE SET IN THE CENTERLINE OF STEITZ ROAD;

THENCE SOUTH 0.3' 54' 35" WEST 60.00 FEET. ALONG THE CENTERLINE OF STEITZ ROAD TO THE PRINCIPAL PLACE OF BEGINNING CONTAINING 5.001 ACRES, MORE OR LESS. SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD.

ALSO THE RIGHT TO USE AN EXISTING EASEMENT OVER THE EXISTING DRIVEWAY AS SHOWN ON THE ATTACHED PLAT AND RECORDED IN DEED BOOK 643, PAGE IS.

BASIS OF BEARINGS FROM DEED BOOK 376, PAGE 643, BASED ON CENTERLINE OF STEITZ ROAD BEING SOUTH 03' 54' 35" WEST. ALL REFERENCE PLATS ON FILE AT DELAWARE COUNTY RECORDER'S OFFICE, DELAWARE, OHIO. A SURVEY OF THE ABOVE DESCRIBED PREMISES WAS DONE BY R.T. PARTRIDGE P.S. 4338, IN JANUARY 1999. ALL IRON PINS SET ARE CAPPED PARTRIDGE SURVEYING.

ALSO EXCEPTING THEREFROM:

SITUATED IN THE STATE OF OHIO, COUNTY OF DELAWARE, TOWNSHIP OF LIBERTY, LOCATED IN LOT 10, RANGE 19, NORTH TOWNSHIP 3, SECTION 2, AND BEING PART OF AN ORIGINAL 44.9 ACRE TRACT CONVEYED TO TIMOTHY K. AND JODI L. SHELLY (DEED BOOK 547, PAGE 238), AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A RAILROAD SPIKE SET IN THE CENTERLINE OF STEITZ ROAD (COUNTY ROAD 125) AT THE SOUTHEAST CORNER OF SAID LOT TEN ALSO BEING AT THE SOUTHEAST CORNER OF SAID 44.9 ACRE TRACT AND THE NORTHEAST CORNER OF A 0.192 ACRE TRACT CONVEYED TO MARY E. BODINE IN DEED BOOK 376, PAGE 643:

THENCE NORTH 86' 33' 10" WEST 311.72 FEET. IN THE SOUTH LINE OF SAID LOT 10, AND 44.9 ACRE TRACT. THE NORTH LINE OF SAID 0.192 ACRE TRACT, AND THE NORTH LINE OF A 4.81 ACRE TRACT CONVEYED TO MARY E. BODINE IN DEED BOOK 376, PAGE 643, TO AN IRON PIN SET; (PASSING AN IRON PIN SET AT 40.00 FEET AND AN IRON PIPE FOUND AT 140.00 FEET);

THENCE THE FOLLOWING THREE COURSES ACROSS SAID 44.9 ACRE TRACT;

THENCE NORTH 03' 54' 35" EAST 188.00 FEET, PARALLEL WITH THE EAST LINE OF SAID LOT 10, THE EAST LINE OF SAID 44.9 ACRE TRACT, TO AN IRON PIN SET;

THENCE SOUTH 86' 33' 10" EAST 311.72 FEET, PARALLEL WITH THE SOUTH LINE OF SAID LOT 10, THE SOUTH LINE OF SAID 44.9 ACRE TRACT, TO AN IRON PIN SET IN THE EAST LINE OF LOT 10, IN THE CENTERLINE OF STEITZ ROAD;

THENCE SOUTH 03' 54' 35" WEST 188.00 FEET, IN THE EAST LINE OF SAID LOT 10, IN THE CENTERLINE OF STEITZ ROAD TO THE PLACE OF BEGINNING, CONTAINING 1.173 ACRES MORE OR LESS, OF WHICH 0.173 ACRES ARE IN THE RIGHT-OF-WAY IN STEITZ ROAD. SUBJECT TO ALL EASEMENTS, RESTRICTIONS, AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS FROM DEED BOOK 376, PAGE 643, BASED ON THE CENTERLINE OF STEITZ ROAD (SOUTH 03' 54' 35" WEST). ALL REFERENCE DEEDS ON FILE AT DELAWARE COUNTY RECORDER'S OFFICE, DELAWARE, OHIO. A SURVEY OF THE ABOVE DESCRIBED PREMISES WAS DONE BY PARTRIDGE AND ASSOCIATES IN JANUARY 1996 BY ROBERT T. PARTRIDGE JR. P.S. #7462. ALL IRON PINS SET ARE CAPPED PARTRIDGE SURVEYING.

#### PARCEL II

SITUATED IN THE STATE OF OHIO, COUNTY OF DELAWARE, TOWNSHIP OF LIBERTY, LOCATED IN LOT 10, RANGE 19, NORTH TOWNSHIP 3, SECTION 2, AND BEING PART OF AN ORIGINAL 44.9 ACRE TRACT CONVEYED TO TIMOTHY K. AND JODI L. SHELLY (DEED BOOK 547, PAGE 238), AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A RAILROAD SPIKE SET IN THE CENTERLINE OF STEITZ ROAD (COUNTY ROAD 125) AT THE SOUTHEAST CORNER OF SAID LOT TEN ALSO BEING AT THE SOUTHEAST CORNER OF SAID 44.9 ACRE TRACT AND THE NORTHEAST CORNER OF A 0.192 ACRE TRACT CONVEYED TO MARY E. BODINE IN DEED BOOK 376. PAGE 643;

FEET AND AN IRON PIPE FOUND AT 140.00 FEET);

THENCE THE FOLLOWING THREE COURSES ACROSS SAID 44.9 ACRE TRACT;

THENCE NORTH 03' 54' 35" EAST 188.00 FEET, PARALLEL WITH THE EAST LINE OF SAID LOT 10, THE EAST LINE OF SAID 44.9 ACRE TRACT, TO AN IRON PIN SET;

THENCE SOUTH 86' 33' 10" EAST 311.72 FEET, PARALLEL WITH THE SOUTH LINE OF SAID LOT 10, THE SOUTH LINE OF SAID 44.9 ACRE TRACT, TO AN IRON PIN SET IN THE EAST LINE OF LOT 10, IN THE CENTERLINE OF STEITZ ROAD;

THENCE SOUTH 03' 54' 35" WEST 188.00 FEET, IN THE EAST LINE OF SAID LOT 10, IN THE CENTERLINE OF STEITZ ROAD TO THE PLACE OF BEGINNING, CONTAINING 1.173 ACRES MORE OR LESS, OF WHICH 0.173 ACRES ARE IN THE RIGHT-OF-WAY IN STEITZ ROAD. SUBJECT TO ALL EASEMENTS, RESTRICTIONS, AND RIGHTS-OF-WAY OF RECORD.

BASIS OF BEARINGS FROM DEED BOOK 376, PAGE 643, BASED ON THE CENTERLINE OF STEITZ ROAD (SOUTH 03' 54' 35" WEST). ALL REFERENCE DEEDS ON FILE AT DELAWARE COUNTY RECORDER'S OFFICE. DELAWARE, OHIO. A SURVEY OF THE ABOVE DESCRIBED PREMISES WAS DONE BY PARTRIDGE AND ASSOCIATES IN JANUARY 1996 BY ROBERT T. PARTRIDGE JR. P.S. #7462. ALL IRON PINS SET ARE CAPPED PARTRIDGE SURVEYING.

#### SURVEYOR'S NOTES:

- 1) FIELD WORK PERFORMED ON NOVEMBER 16, 2016.
- 2) THIS SURVEY REPRESENTS THE SAME PARCEL AS DESCRIBED IN TITLE COMMITMENT SHOWN ON THIS SURVEY.
- 3) THERE WAS NO OBSERVED EVIDENCE OF EARTH MOVING ACTIVITIES ON THE SUBJECT PARCEL.
- 4) THERE IS NO OBSERVED EVIDENCE OF WETLAND MARKERS ON SITE.
- 5) THERE IS NO EVIDENCE OF PROPOSED CHANGES IN THE RIGHT-OF-WAY LINES.
- 6) THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO STEITZ ROAD, A PUBLICLY DEDICATED ROADWAY.

#### UTILITY NOTE

INFORMATION AVAILABLE.

#### ZONING INFORMATION

NOT PROVIDED BY CLIENT.

#### **BASIS OF BEARINGS**

THE BEARINGS SHOWN ON THIS SURVEY ARE BASED ON THE CENTERLINE OF STEITZ ROAD (TOWNSHIP ROAD 125) AS DESCRIBED IN D.B. 1352, PAGES 700-702 AND BEING NORTH 03.00'00" EAST.

#### FLOOD NOTE

BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL NO. 39041C0236K, WHICH BEARS AN EFFECTIVE DATE OF APRL 16, 2009.

#### **IRON PINS**

WHERE INDICATED HEREON, UNLESS OTHERWISE NOTED, ARE TO BE SET AND ARE 5/8" SOLID REBAR, THIRTY INCHES LONG WITH YELLOW PLASTIC CAP BEARING THE INITIALS "CEC."

## **ALTA/NSPS LAND TITLE SURVEY**

STATE OF OHIO, TOWNSHIP OF LIBERTY, COUNTY OF DELAWARE, PART OF FARM LOT 10, SECTION 2, TOWNSHIP 3, RANGE 19, UNITED STATES MILITARY LANDS

#### THENCE NORTH 86' 33' 10" WEST 311.72 FEET, IN THE SOUTH LINE OF SAID LOT 10, AND 44.9 ACRE TRACT, THE NORTH LINE OF SAID 0.192 ACRE TRACT, AND THE NORTH LINE OF A 4.81 ACRE TRACT CONVEYED TO MARY E. BODINE IN DEED BOOK 376, PAGE 643, TO AN IRON PIN SET; (PASSING AN IRON PIN SET AT 40.00

7) THE SUBJECT PARCEL IS CONTIGUOUS ALONG IT'S COMMON LINES WITHOUT STRIPS, GAPS, GORES, OR OVERLAPS.

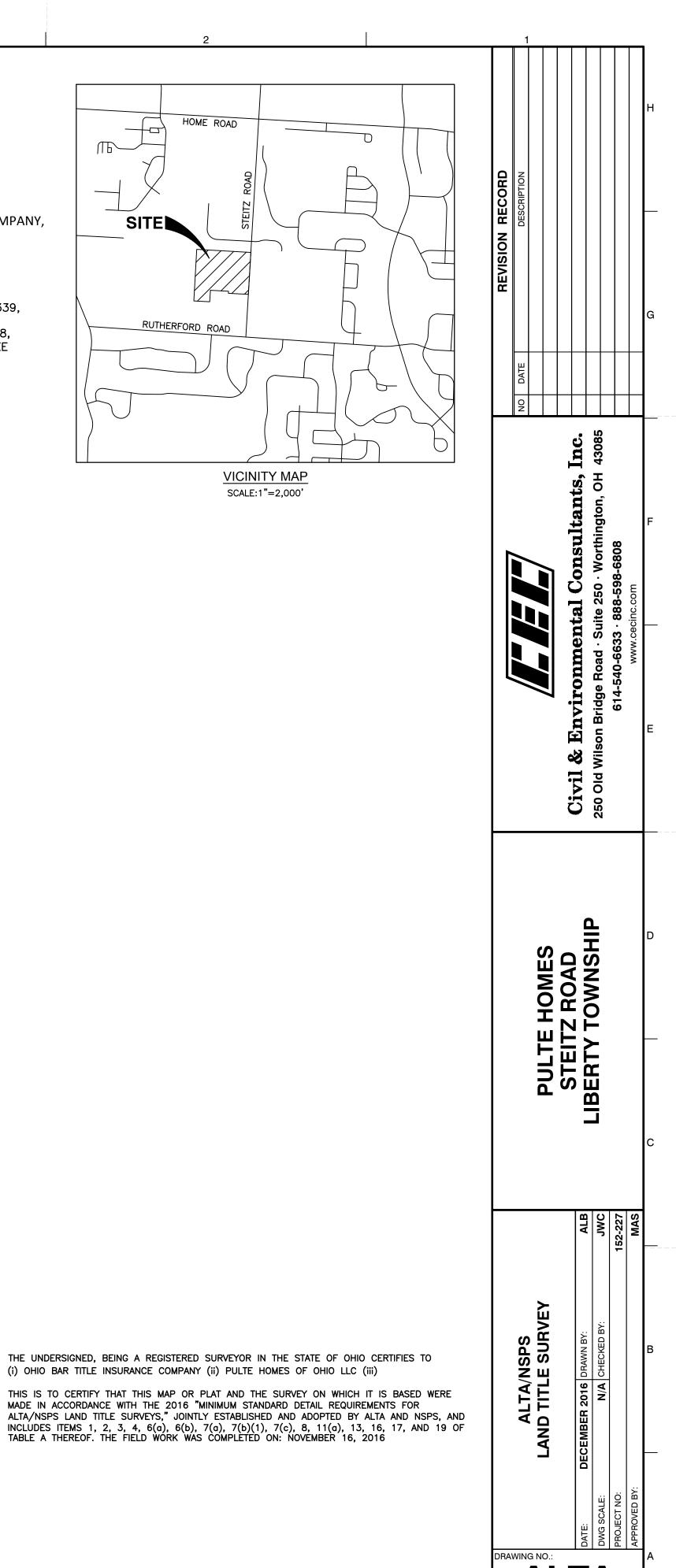
#### THE UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES LOCATED HERE ON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES LOCATED ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM

SCHEDULE B - SECTION II:

BASED UPON TITLE COMMITMENT FILE NO: 16-08-03 ATA. OHIO BAR TITLE INSURANCE COMPANY. EFFECTIVE DATE: AUGUST 3, 2016 AT 7:00AM

ITEMS 1-12 ARE NOT SURVEY RELATED.

13) OIL AND GAS LEASE TO B.M.HASTINGS AS DESCRIBED IN LEASE VOLUME 20 PAGE 339, DATED 12/10/1963, DELAWARE COUNTY, OHIO RECORDER'S OFFICE. "AFFIDAVIT OF FORFEITURE OF OIL AND GAS LEASE AS DESCRIBED IN LEASE VOLUME 46 PAGE 178, FILED FOR RECORD 9/20/1989, DELAWARE COUNTY, OHIO RECORDER'S OFFICE. "SEE SCHEDULE BI REGARDING REQUIREMENTS NECESSARY TO DELETE THIS EXCEPTION." LOCATED ON SUBJECT PARCEL. BLANKET IN NATURE.



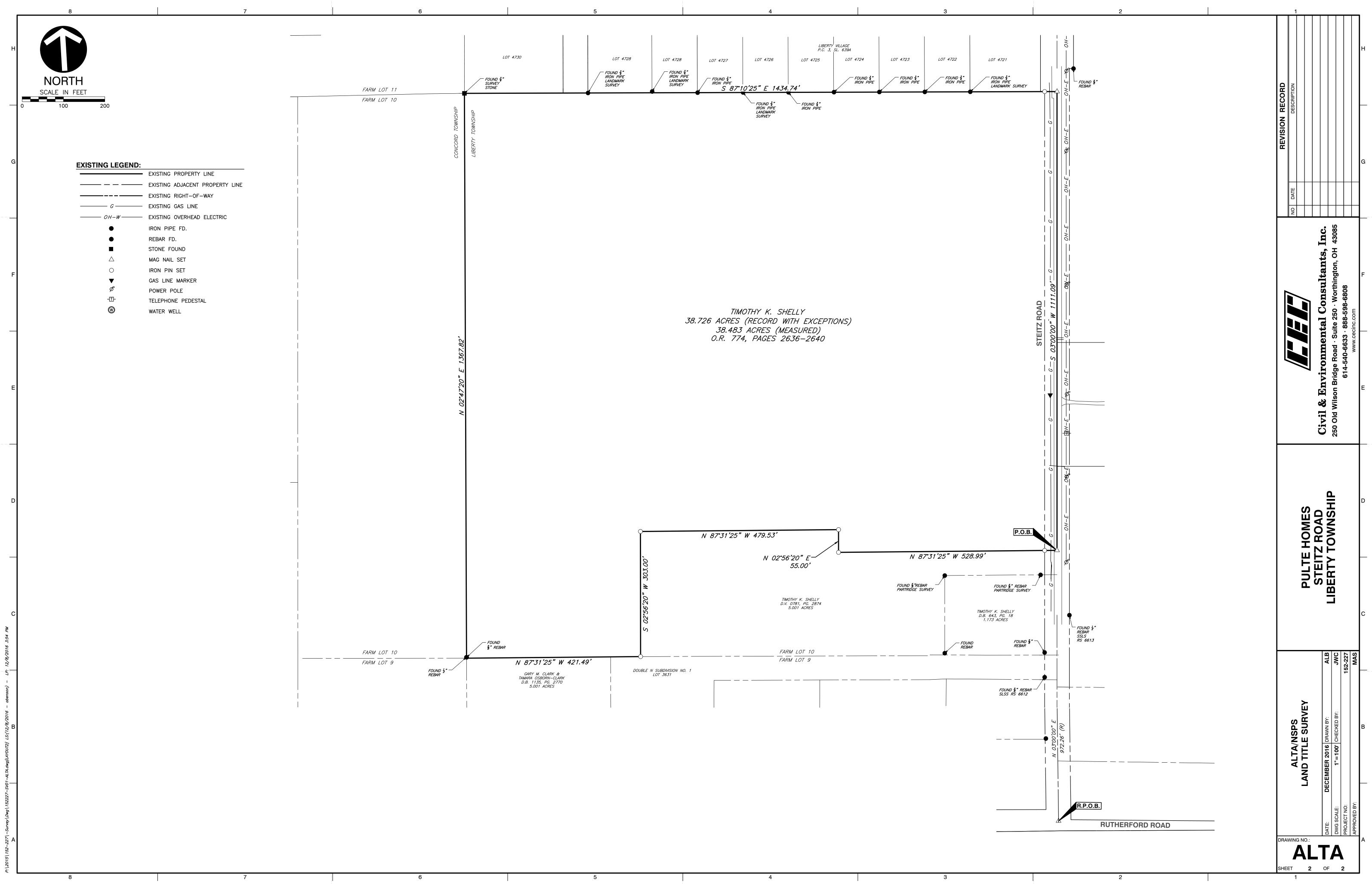
DATE

MARK ALAN SMITH OHIO REGISTRATION/LICENSE NO. S-8232

OF **2** 

HEET

1



#### LEGAL DESCRIPTION:

70 ACRES +/- STEITZ RD, LIBERTY TOWNSHIP 31924001046000, 047000, 048000 TRACT 1: (PARCEL 31924001046000)

SITUATED IN THE TOWNSHIP OF LIBERTY, COUNTY OF DELAWARE, STATE OF OHIO, BEING PART OF FARM LOTS 8 AND 5 IN SECTION 2, TOWNSHIP 3, RANGE 19 OF THE UNITED STATES MILITARY LANDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A RAILROAD SPIKE FOUND AT THE INTERSECTION OF THE CENTERLINES OF TOWNSHIP ROAD 122 (RUTHERFORD ROAD) AND TOWNSHIP ROAD 125 (STEITZ ROAD);

[HENCE NORTH 03" 00" 00" EAST, ALONG THE SAID CENTERLINE OF TOWNSHIP ROAD 125, A DISTANCE OF 1,632.26 FEET TO A P.K. NAIL SET, BEING THE TRUE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED TRACT;

[HENCE NORTH 03" 00" 00" EAST, CONTINUING ALONG THE SAID CENTERLINE OF TOWNSHIP ROAD 125, A DISTANCE OF 663.88 FEET TO A P.K. NAIL SET, BEING THE SOUTHWEST CORNER OF A 12.00 ACRE TRACT NOW OR FORMERLY OWNED BY EVALEE STRONG, AS DESCRIBED IN DEED BOOK 403, PAGE 275;

THENCE SOUTH 86° 05' 23" EAST, ALONG THE SOUTH LINE OF THE SAID 12.00 ACRE TRACT, AND ALONG THE SOUTH LINE OF A 43.4 ACRE TRACT NOW OR FORMERLY OWNED BY JOHN LANE, AS DESCRIBED AS TRACT ONE, PARCEL 3 IN DEED BOOK 323, PAGE 249, (PASSING AN IRON BAR SET AT 30.00 FEET) A TOTAL DISTANCE OF 2,331.04 FEET TO AN IRON PIPE FOUND. BEING THE SOUTHEAST CORNER OF THE SAID 43.4 ACRE TRACT. ALSO BEING ON THE WEST LINE OF A 51.244 ACRE TRACT NOW OR FORMERLY OWNED BY EDWARD COUGHLIN, AS DESCRIBED IN DEED BOOK 471, PAGE 620, ALL IRON BARS SET ARE SET WITH A PLASTIC CAP MARKED "SLSS RS 6612";

THENCE SOUTH 03" 06' 16" WEST, ALONG THE SAID WEST LINE OF THE 51.244 ACRE TRACT, A DISTANCE OF 579.88 FEET TO AN IRON BAR SET;

THENCE NORTH 87" 00' 00" WEST, A DISTANCE OF 1,603.49 FEET TO AN IRON BAR SET; THENCE SOUTH 3" 00' 00" WEST, A DISTANCE OF 46.97 FEET TO AN IRON BAR SET;

THENCE NORTH 87" 00'00" WEST (PASSING AN IRON BAR SET AT 696.20 FEET) A TOTAL DISTANCE OF 726.20 FEET TO THE TRUE POINT OF BEGINNNING;

CONTAINING 32.794 ACRES, MORE OR LESS BEING PART OF AN ORIGINAL 70 ACRE TRACT AS DESCRIBED IN DEED BOOK 213, PAGE 264;

THERE BEING APPROXIMATELY 23.823 ACRES IN SAID FARM LOT 8 AND APPROXIMATELY 8.971 ACRES IN SAID FARM LOT 5;

SUBJECT TO ALL EASEMENTS, RESTRICTIONS AND RIGHTS-OF-WAY, IF ANY, OF RECORD. SURVEYED BY FRANK CELIO, SURVEYOR, REGISTRATION NUMBER 6612 ON AUGUST 30, 1994. BASIS OF BEARINGS IS ASSUMED.

PRIOR DEED REFERENCE OFFICIAL RECORD VOLUME 1352 PAGE 700, DELAWARE COUNTY, OHIO RECORDER

TRACT 2: (PARCEL 31924001047000)

SITUATED IN THE TOWNSHIP OF LIBERTY, COUNTY OF DELAWARE, STATE OF OHIO, BEING PART OF FARM LOT 8 IN SECTION 2, TOWNSHIP 3, RANGE 19 OF THE UNITED STATES MILITARY LANDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A RAILROAD SPIKE FOUND AT THE INTERSECTION OF THE CENTERLINES OF TOWNSHIP ROAD 122 (RUTHERFORD ROAD) AND TOWNSHIP ROAD 125 (STEITZ ROAD);

THENCE NORTH 03" 00'00" EAST, ALONG THE SAID CENTERLINE OF TOWNSHIP ROAD 125, A DISTANCE OF 1,332.26 FEET TO A P.K. NAIL SET, BEING THE TRUE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED TRACT;

THENCE NORTH 03" 00' 00" EAST, CONTINUING ALONG THE SAID CENTERLINE OF TOWNSHIP ROAD 125, A DISTANCE DF 300.00 FEET TO A P.K. NAIL SET;

THENCE SOUTH 87" 00' 00" EAST. (PASSING AN IRON BAR SET AT 30.00 FEET) A TOTAL DISTANCE OF 726.20 FEET TO AN IRON BAR SET, ALL IRON BARS SET ARE SET WITH A PLASTIC CAP MARKED "SLSS RS 6612": THENCE SOUTH 03° 00' 00" WEST, A DISTANCE OF 300.00 FEET TO AN IRON BAR SET; THENCE NORTH 87" 00' 00" WEST, (PASSING AN IRON BAR SET AT 696.20 FEET) A TOTAL DISTANCE OF 726.20 FEET TO THE TRUE POINT OF BEGINNING;

CONTAINING 5.001 ACRES, MORE OR LESS BEING PART OF AN ORIGINAL 70 ACRE TRACT AS DESCRIBED IN DEED BOOK 213, PAGE 264;

SUBJECT TO ALL EASEMENTS, RESTRICTIONS AND RIGHTS-OF-WAY, IF ANY, OF RECORD.

SURVEYED BY FRANK CELIO, SURVEYOR, REGISTRATION NUMBER 6612 ON AUGUST 30, 1994. BASIS OF BEARINGS IS ASSUMED.

PRIOR DEED REFERENCE OFFICIAL RECORD VOLUME 1352 PAGE 700, DELAWARE COUNTY, OHIO RECORDER

TRACT 3: (PARCEL 31924001048000)

SITUATED IN THE TOWNSHIP OF LIBERTY, COUNTY OF DELAWARE, STATE OF OHIO, BEING PART OF FARM LOTS 8 AND DESCRIBED AS FOLLOWS:

COMMENCING AT A RAILROAD SPIKE FOUND AT THE INTERSECTION OF THE CENTERLINES OF TOWNSHIP ROAD 122 (RUTHERFORD ROAD) AND TOWNSHIP ROAD 125 (STEITZ ROAD);

THENCE NORTH 03" 00" EAST, ALONG THE SAID CENTERLINE OF TOWNSHIP ROAD 125, A DISTANCE OF 972.26 MILLER, AS DESCRIBED IN DEED BOOK 323, PAGE 74, ALSO BEING THE TRUE POINT OF BEGINNING OF THE FOLLOWING DESCRIBED TRACT:

THENCE NORTH 03" 00" EAST, CONTINUING ALONG THE SAID CENTERLINE OF TOWNSHIP ROAD 125, A DISTANCE OF 360.00 FEET TO A P.K. NAIL SET;

TO AN IRON BAR SET, ALL IRON BAR SET ARE SET WITH A PLASTIC CAP MARKED "SLSS RS 6612";

THENCE NORTH 03" 00" EAST, (PASSING AN IRON BAR SET AT 300.00 FEET) A TOTAL DISTANCE OF 346.97 FEET TO AN IRON BAR SET;

PAGE 620;

FEET TO A STONE FOUND, BEING THE NORTHEAST CORNER OF THE SAID 25 ACRE TRACT;

THENCE NORTH 86" 16' 16" WEST, ALONG THE NORTH LINE OF THE SAID 25 ACRE TRACT, (PASSING AN IRON BAR

BOOK 213, PAGE 264; THERE BEING APPROXIMATELY 21.602 ACRES IN SAID FARM LOT 8 AND APPROXIMATELY 11.205 ACRES IN SAID FARM

LOT 5 SUBJECT TO ALL EASEMENTS, RESTRICTIONS AND RIGHTS-OF-WAY, IF ANY, OF RECORD.

ASSUMED. PRIOR DEED REFERENCE OFFICIAL RECORD VOLUME 1352 PAGE 703, DELAWARE COUNTY, OHIO RECORDER

## **ALTA/NSPS LAND TITLE SURVEY**

STATE OF OHIO, TOWNSHIP OF LIBERTY, COUNTY OF DELAWARE, PART OF FARM LOTS 8 AND 5, SECTION 2, TOWNSHIP 3, RANGE 19, UNITED STATES MILITARY LANDS

#### SURVEYOR'S NOTES

- 1) FIELD WORK PERFORMED ON NOVEMBER 16, 2016.
- 2) THIS SURVEY REPRESENTS THE SAME PARCEL AS DESCRIBED IN TITLE COMMITMENT SHOWN ON THIS SURVEY.
- THERE WAS NO OBSERVED EVIDENCE OF EARTH MOVING ACTIVITIES ON THE SUBJECT PARCEL.
- THERE IS NO OBSERVED EVIDENCE OF WETLAND MARKERS ON SITE.
- THERE IS NO EVIDENCE OF PROPOSED CHANGES IN THE RIGHT-OF-WAY LINES. 5)
- 6) THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO STEITZ ROAD, A PUBLICLY DEDICATED ROADWAY.
- 7) THE SUBJECT PARCEL IS CONTIGUOUS ALONG IT'S COMMON LINES WITHOUT STRIPS, GAPS, GORES, OR OVERLAPS.

#### UTILITY NOTE

THE UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES LOCATED HERE ON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES LOCATED ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE.

ZONING INFORMATION

NOT PROVIDED BY CLIENT.

**BASIS OF BEARINGS** 

THE BEARINGS SHOWN ON THIS SURVEY ARE BASED ON THE CENTERLINE OF STEITZ ROAD (TOWNSHIP ROAD 125) AS DESCRIBED IN D.B. 1352, PAGES 700-702 AND BEING NORTH 03°00'00" EAST.

#### FLOOD NOTE

BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS IN ZONE "X" OF THE FLOOD INSURANCE RATE MAPS, COMMUNITY PANEL NO. 39041C0236K, WHICH BEARS AN EFFECTIVE DATE OF APRL 16, 2009.

#### **IRON PINS**

WHERE INDICATED HEREON, UNLESS OTHERWISE NOTED, ARE TO BE SET AND ARE 5/8" SOLID REBAR, THIRTY INCHES LONG WITH YELLOW PLASTIC CAP BEARING THE INITIALS "CEC."

#### SCHEDULE B - SECTION II:

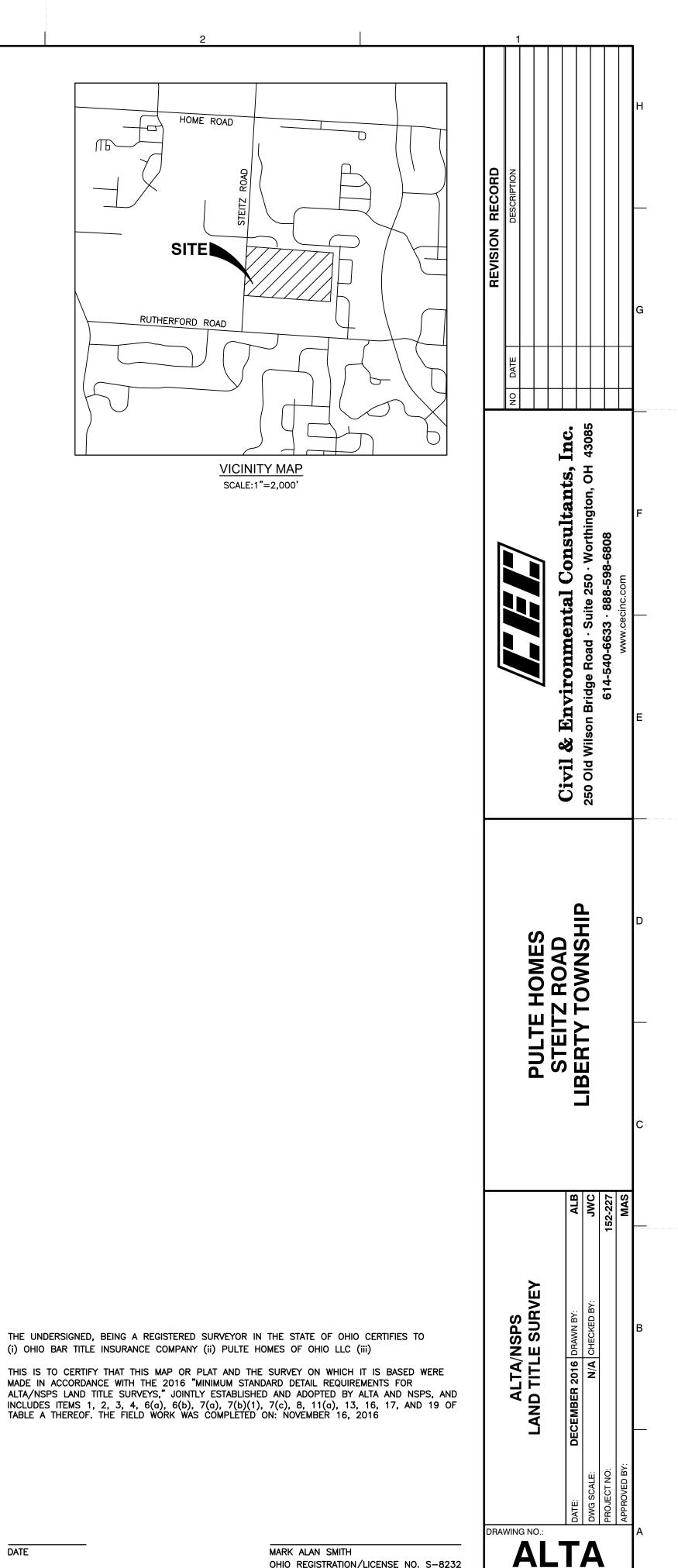
BASED UPON TITLE COMMITMENT FILE NO: 150504ATA, OHIO BAR TITLE INSURANCE COMPANY, EFFECTIVE DATE: JULY 1, 2015 AT 7:00AM

ITEMS 1-10 AND 12-18 ARE NOT SURVEY RELATED.

- 11) EASEMENT AS SET FORTH IN DEED VOLUME 203 PAGE 423, DELAWARE COUNTY, OHIO RECORDER. NOT LOCATED ON SUBJECT PARCEL.
- 12) LEASE AS SET FORTH IN LEASE VOLUME 7 PAGE 223 DELAWARE COUNTY, OHIO RECORDER. LOCATED ON SUBJECT PARCEL, BLANKET IN NATURE.
- 13) LEASE AS SET FORTH IN LEASE VOLUME 9 PAGE 222 DELAWARE COUNTY, OHIO RECORDER. LOCATED ON SUBJECT PARCEL, BLANKET IN NATURE.

- 5 IN SECTION 2, TOWNSHIP 3, RANGE 19 OF THE UNITED STATES MILITARY LANDS AND BEING MORE PARTICULARLY
- FEET TO A P.K. NAIL SET, BEING THE NORTHWEST CORNER OF A 25 ACRE TRACT NOW OR FORMERLY OWNED BY G.E.
- THENCE SOUTH 87" 00' 00" EAST, (PASSING AN IRON BAR SET AT 30.00 FEET) A TOTAL DISTANCE OF 726.20 FEET
- THENCE SOUTH 87" 00' 00" EAST, A DISTANCE OF 1603.49 FEET TO AN IRON BAR SET, BEING ON THE WEST LINE OF A 51.244 ACRE TRACT NOW OR FORMERLY OWNED BY EDWARD COUGHLIN, AS DESCRIBED IN DEED BOOK 471,
- THENCE SOUTH 03" 06' 16" WEST, ALONG THE SAID WEST LINE OF THE 51.244 ACRE TRACT, A DISTANCE OF 736.59
- SET AT 2,298.54 FEET) A TOTAL DISTANCE OF 2,328.54 FEET TO THE TRUE POINT OF BEGINNING;
- CONTAINING 32.807 ACRES, MORE OR LESS BEING PART OF AN ORIGINAL 70 ACRE TRACT AS DESCRIBED IN DEED

SURVEYED BY FRANK CELIO, SURVEYOR, REGSTRATION NUMBER 6612 ON AUGUST 30, 1994. BASIS OF BEARINGS IS



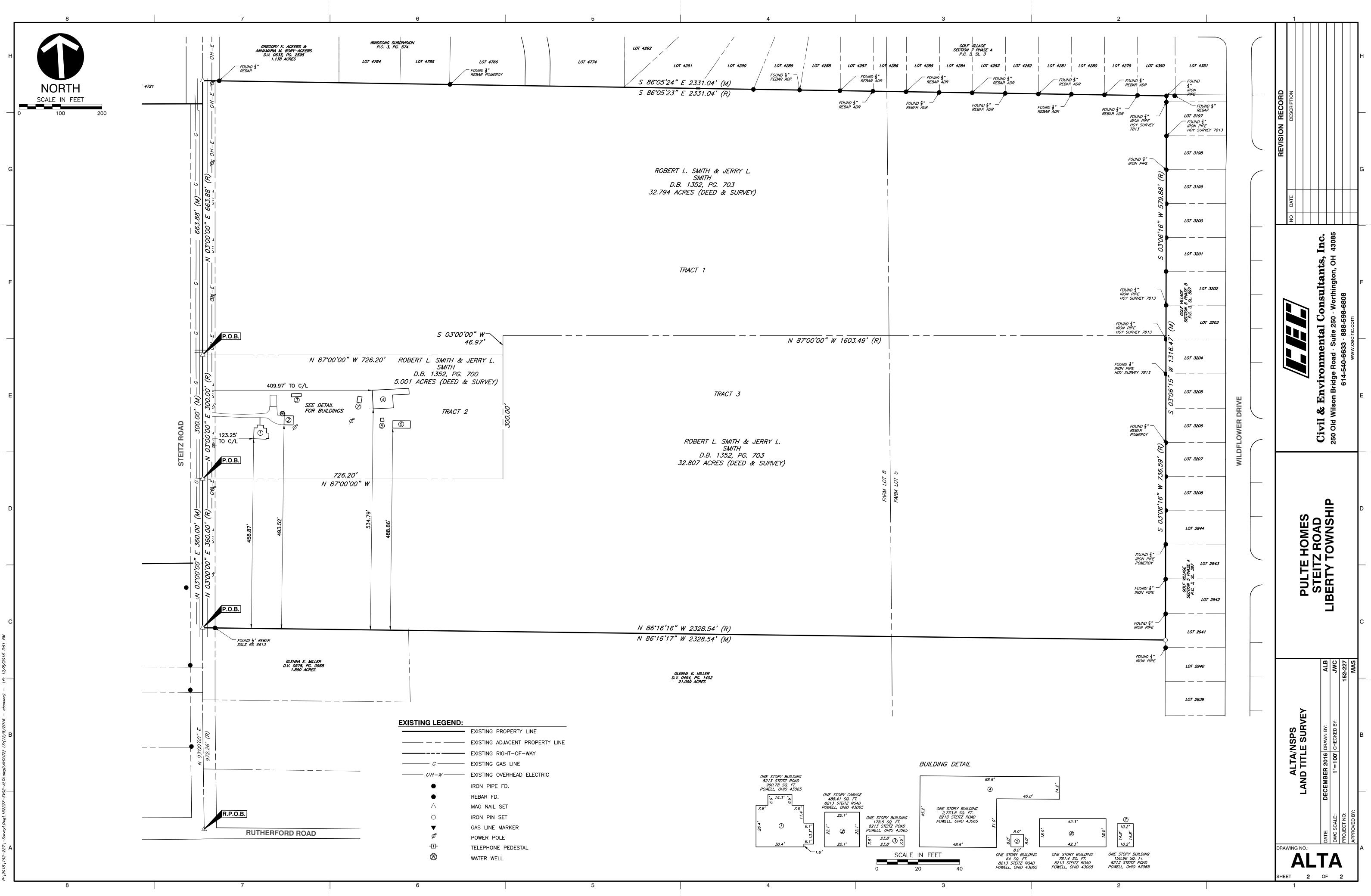
DATE

MARK ALAN SMITH OHIO REGISTRATION/LICENSE NO. S-8232

OF **2** 

SHEET

1













The Retreat at Carpenter's Mill Sample Building Elevations















### The Smith Farm at Carpenter's Mill Sample Building Elevations

			NORTH					
		0	SCALE IN FEET	400	CONCORD TOWNSHIP	LOT 4729		HUNTERS
	DRAV	VING INDEX			CONCOR	PAT		PLAT 09C36
UMBER	DESC	SHEET TITLE	4	FAY B BAYI PID 31923002	VTON 0 LOT 4730		0T LOT LOT 728 4727 4726	
1 2	C000 C100	COVER SHEET PHASING PLAN	-		RESERVE A	-⊧╡┯┯╸└╶	4727 4726	4725
3	C101	EXISTING CONDITIONS		IMAR TERRY R ALEXIS	16			
4	C200	SITE PLAN	4	PID 319230020	17	- 15	10 9	8 7
5 6	C201 C300	SITE PLAN GRADING & UTILITY PLAN	-					
7	C301	GRADING & UTILITY PLAN	-		19 RESE			— — RUPP
8	L1.01	LANDSCAPING PLAN			Ty (NESE	FOX TAIL CIRCLE	60 6	1 62 63
9	L1.02 L1.03		-					RESE
10 11	L1.03	LANDSCAPING PLAN	-		HSNMOL RESERVE	22 23 24 25		PROP
12	L1.05	LANDSCAPING PLAN				В 26		PHAS
13	L2.01	LANDSCAPING PLAN						<b>PHAS</b> 55 54
14 15	L2.02 L2.03	LANDSCAPING PLAN	-		dillagerty Township BERTY Township BERTY Township BERTY Township BERTY Township BERTY Township BERTY Township	28		5 54
16	L3.01	LANDSCAPING PLAN	-		31	27		COYOT
17	L4.01	LANDSCAPING PLAN					43	44 45
SITE S		<b>2S</b> ±108.85 AC				34 38 39 4 RESERVE C	41 42 40 41 42 7 (3.13	21 271 25 ac.)
NUMBE GROSS OPEN	R OF DWELLI DENSITY SPACE (PROV	NG UNITS 183 DWELLING 1.68 DWELLING 1DED) 26.71 AC (24.5	UNITS/AC					
GROSS MIN. L MAX. L AVG. L RESER RESER RESER RESER	R OF DWELLI DENSITY OT AREA OT AREA OT AREA /E G /E I /E J	1.44 DWELLING 14,000 SF 35,507 SF 17,286 SF 1.58 AC 0.25 AC 0.39 AC 2.51 AC	UNITS/AC	TERRY R & PATT & ALEXIS IMAR PID 31923002085000	36 (1.33 ac.) (	37 (1.42 ac.)	SHELLY TIMO PID 31923002	
GROSS MIN. L AVG. L RESER RESER RESER RESER RESER RESER	R OF DWELLI DENSITY OT AREA OT AREA OT AREA /E K /E L /E M /E N /E N /E Q	1.39 DWELLING 11,700 SF 20,133 SF 14,109 SF 2.66 AC 0.59 AC 4.37 AC 0.47 AC 0.11 AC 0.21 AC	UNITS/AC	TERRY R « ALEXIS PID 319230	CLARK GARY M & TAMARA OSBORN-CLA PID 3192300208900	RK   R & BETHANY D	MICHAEL T & MICHELLE R ULERY PID 31923002099002	AARON W L M PID 3192
UB AREA A NUMBE GROSS MIN. L MAX. L	R OF DWELLI DENSITY OT AREA .OT AREA .OT AREA	±26.43 AC	JNITS					

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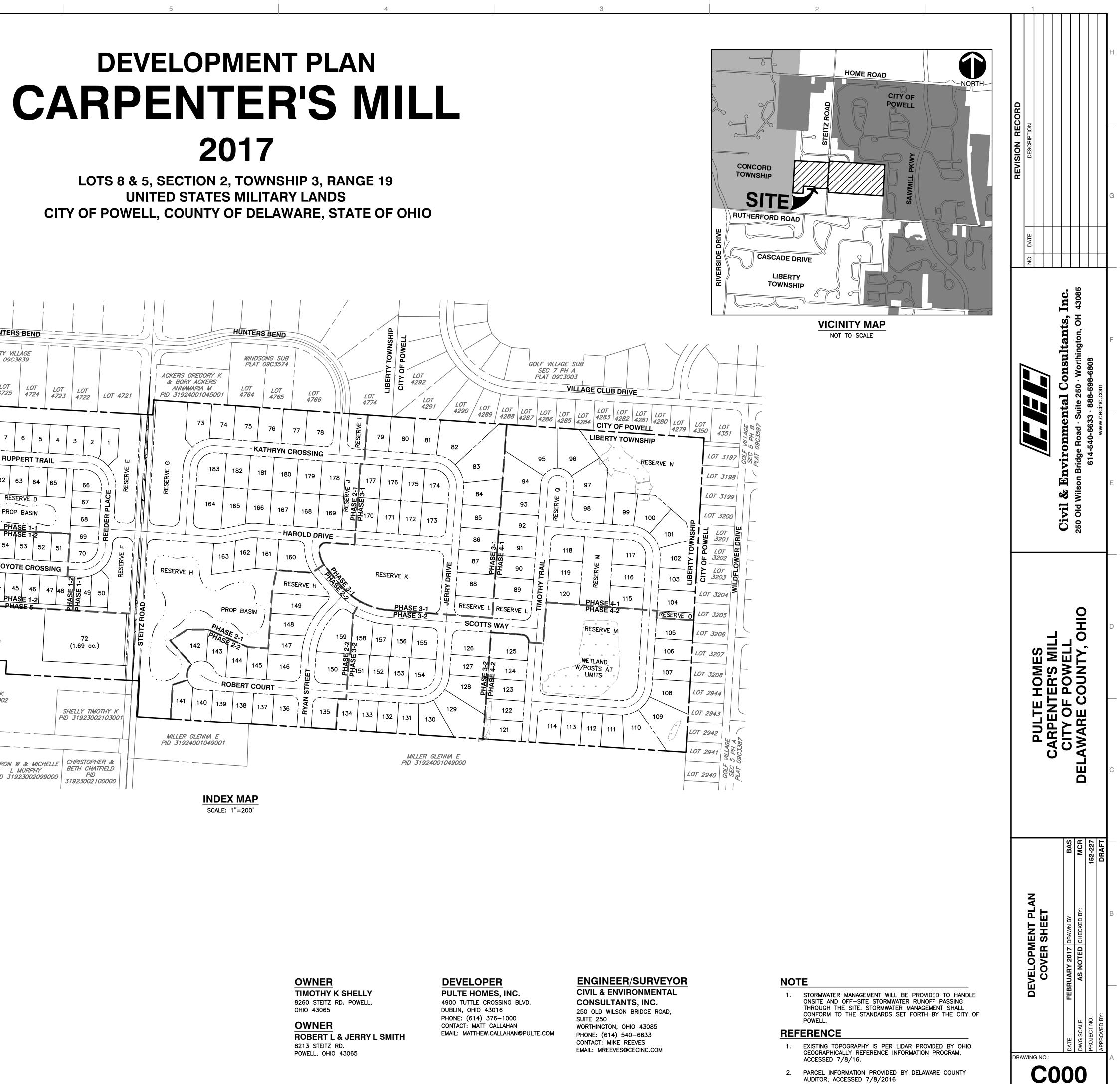
<u>511E 51A11511C5</u>
TOTAL ACREAGE: NUMBER OF DWELLING UNITS GROSS DENSITY OPEN SPACE (PROVIDED)
SUB AREA A-1: NUMBER OF DWELLING UNITS GROSS DENSITY MIN. LOT AREA MAX. LOT AREA AVG. LOT AREA RESERVE G RESERVE I RESERVE J RESERVE N OPEN SPACE PROVIDED:
SUB AREA A-2: NUMBER OF DWELLING UNITS GROSS DENSITY MIN. LOT AREA MAX. LOT AREA AVG. LOT AREA RESERVE K RESERVE L RESERVE M RESERVE N RESERVE O RESERVE Q OPEN SPACE PROVIDED:
SUB AREA A-3: NUMBER OF DWELLING UNITS GROSS DENSITY MIN. LOT AREA MAX. LOT AREA AVG. LOT AREA RESERVE H OPEN SPACE PROVIDED:
SUB AREA B: NUMBER OF DWELLING UNITS GROSS DENSITY MIN. LOT AREA MAX. LOT AREA AVG. LOT AREA RESERVE A RESERVE B RESERVE B RESERVE D RESERVE F RESERVE F RESERVE P OPEN SPACE PROVIDED:
SUB AREA C: NUMBER OF DWELLING UNITS GROSS DENSITY MIN. LOT AREA MAX. LOT AREA AVG. LOT AREA RESERVE C OPEN SPACE PROVIDED:

8

14,091 SF 5.87 AC 5.87 AC (22.2%) ±28.72 AC 67 DWELLING UNITS 2.33 DWELLING UNITS/AC 2.33 DWELLING UN 8,400 SF 18,671 SF 10,111 SF 0.55 AC 1.70 AC 1.61 AC 2.71 AC 0.68 AC 0.08 AC 7.33 AC (25.5%) ±9.86 AC 5 DWELLING UNITS 0.51 DWELLING UNITS/AC 45,348 SF 136,333 SF 75,235 SF 0.67 AC 0.27 AC (6.8%)

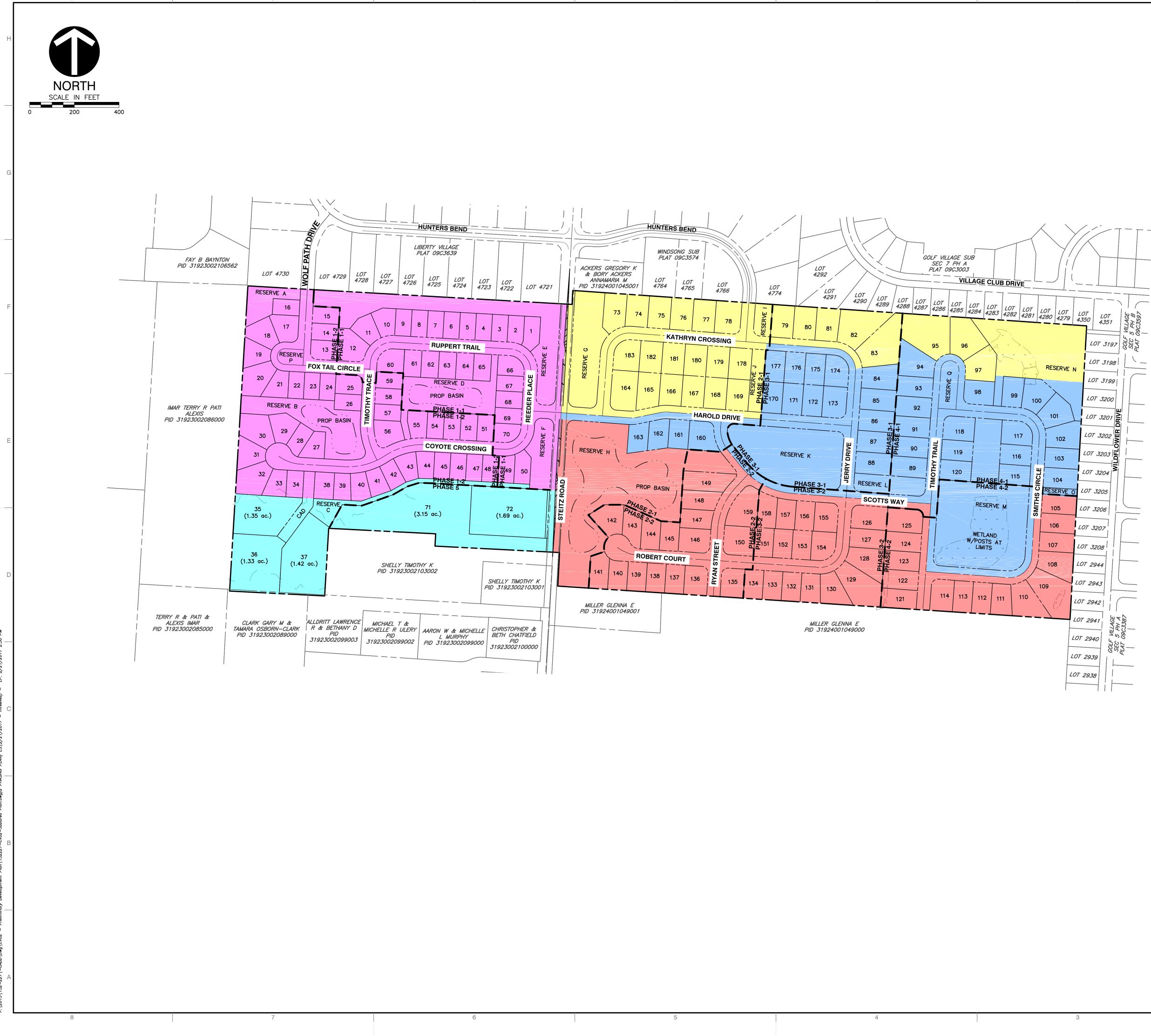
# **DEVELOPMENT PLAN** 2017

LOTS 8 & 5, SECTION 2, TOWNSHIP 3, RANGE 19 UNITED STATES MILITARY LANDS



2. PARCEL INFORMATION PROVIDED BY DELAWARE COUNTY AUDITOR, ACCESSED 7/8/2016

SHEET **1** OF **17** 



#### LEGEND


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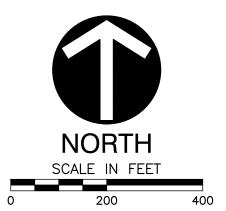
EXISTING PROPERTY BOUNDAR
EXISTING PROPERTY LINE
EXISTING RIGHT OF WAY
EXISTING STREAM
PROPOSED PROPERTY LINE
PROPOSED CENTER LINE
PROPOSED RIGHT OF WAY
PROPOSED FACE OF CURB
PROPOSED BASIN
PROPOSED PHASE LINE
SUBAREA A-1 (100x140)
SUBAREA A-2 (90x130)
SUBAREA A–3 (85x130)
SUBAREA B (70x120)
SUBAREA C

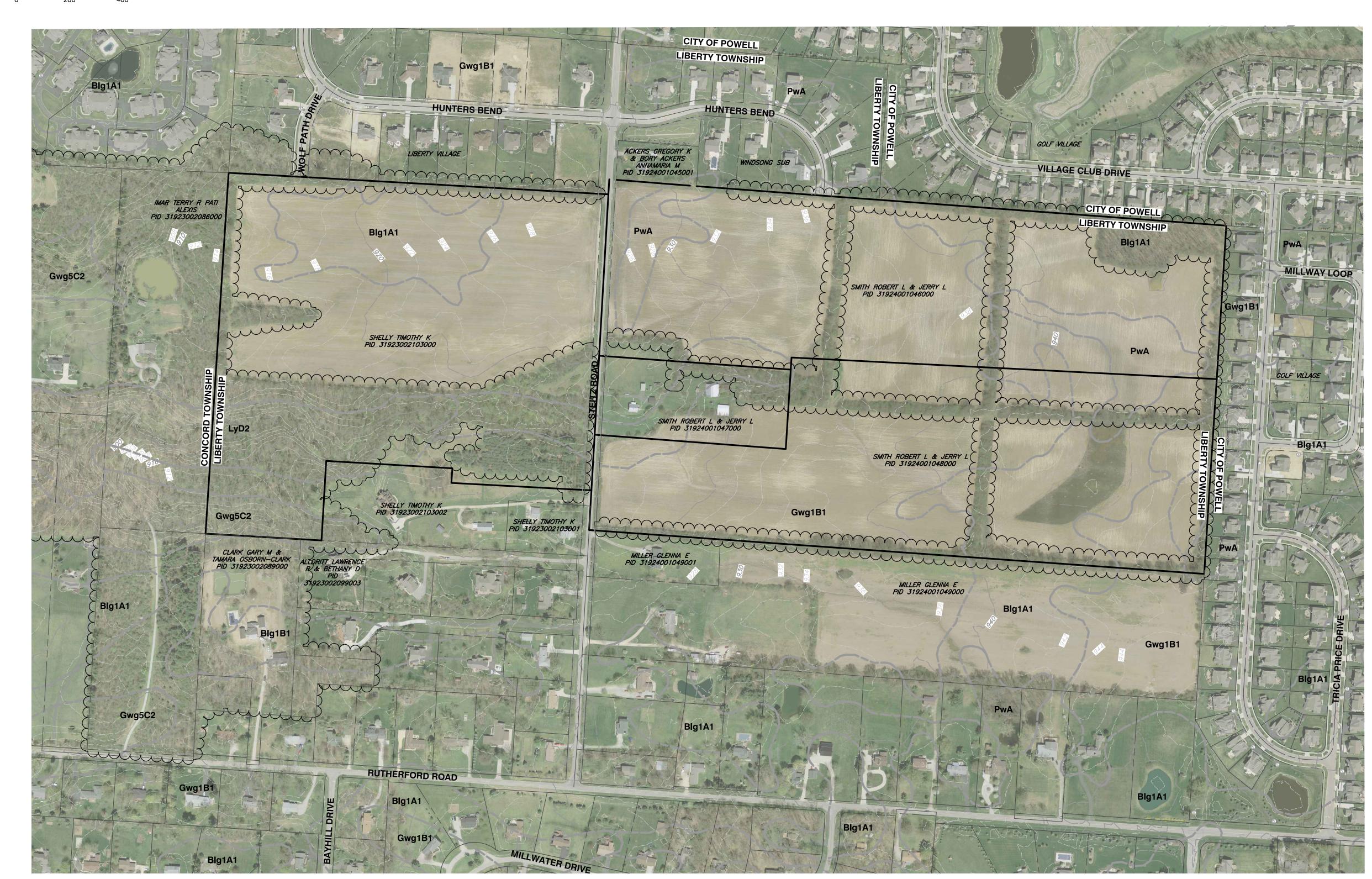


1. THE SITE WILL BE DEVELOPED BASED UPON THE MARKET DRIVEN FACTORS. THE PHASING AND TIMING OF THE DEVELOPMENT OF THE PROPERTY WILL BE DEPENDENT ON ECONOMIC AND GENERAL HOUSING MARKET CONDITIONS, SALES RATES AND ABSORPTION OF HOMES AND OTHER FACTORS. PHASING OF THE SITE MAY BE ADJUSTED ACCORDINGLY BASED ON MARKET CONDITIONS.

2

REVISION RECORD	NO DATE DESCRIPTION								G
				UIVII & ENVIRONMENTAI CONSULTANTS, INC.	250 Old Wilson Bridge Boad · Suite 250 · Worthington OH 43085		614-540-6633 · 888-598-6808	www.cecinc.com	F
				CIVIL & ENVIRON	250 Old Wilson Bridge Bog		614-540-	~	E
	PULTE HOMES CARPENTER'S MILL CITY OF POWELL DELAWARE COUNTY, OHIO							D	
								С	
				BAS		NCN NCN	152-227	DRAFT	
	DEVELOPMENT PLAN	PHASING PLAN		FEBRUARY 2017 DRAWN BY:					В
				DATE: FEBRI		DWG SCALE:	PROJECT NO:	APPROVED BY:	
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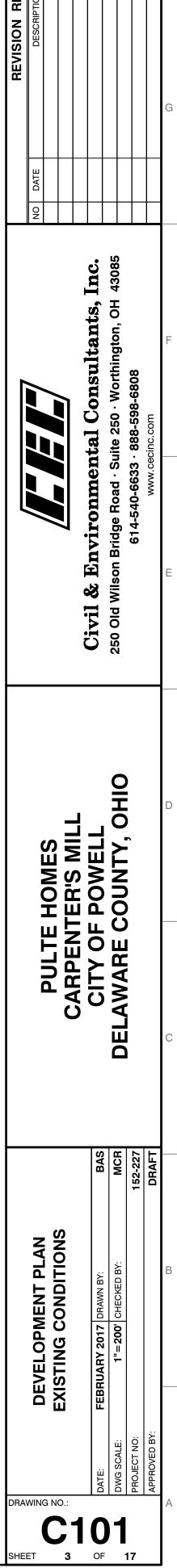


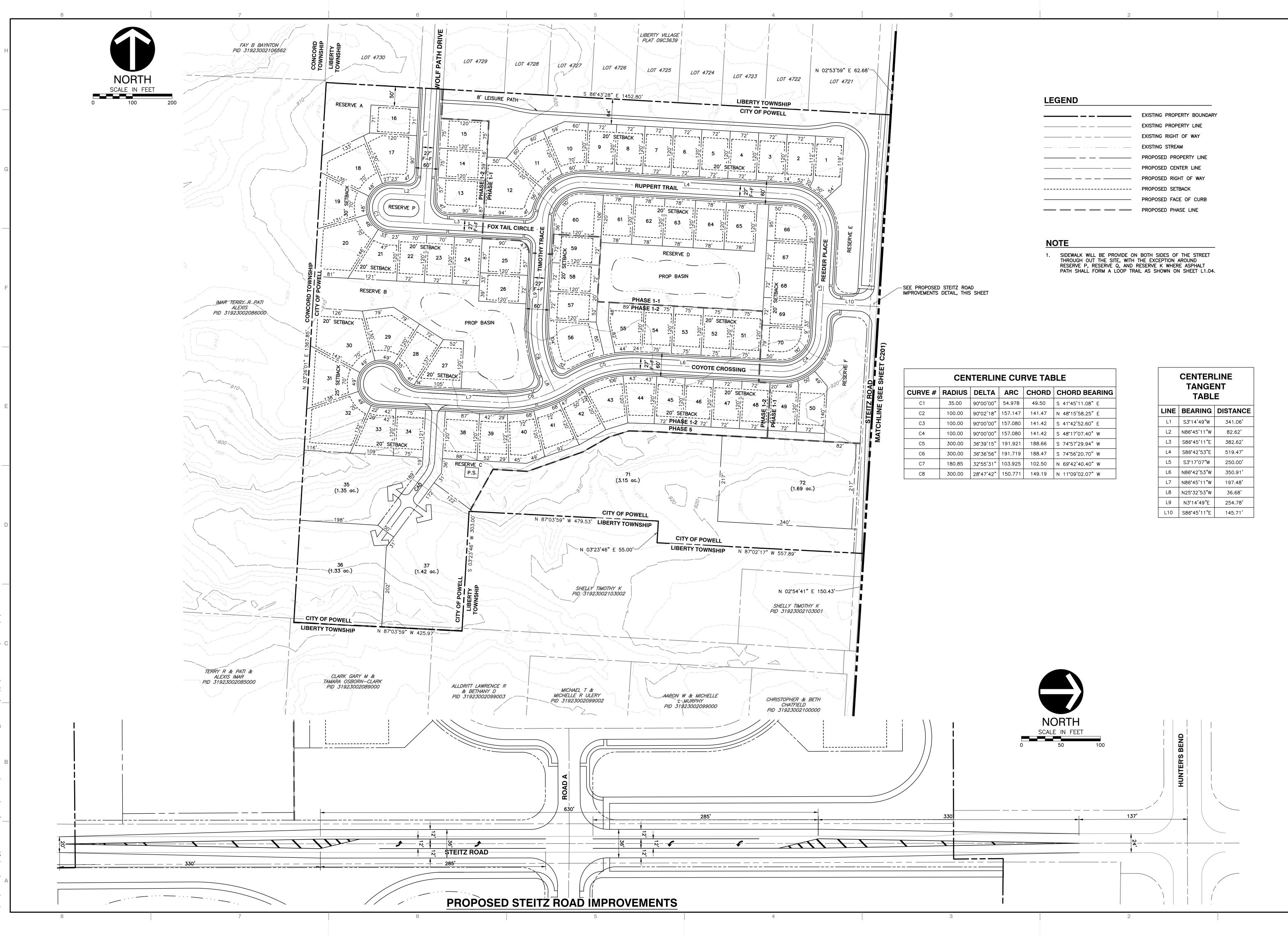


-:\2015\152-227\-CADD\Dwg\CV02 - Preliminary Development Plan\152227-CV02-Existing Conditions.dwg{3 EXISTING CONDITIONS} LS:(2/21/2017 - bsiembida) - LP: 2/21/2017 2:58

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SAN	EXISTING SANITARY SEWER LINE	Ľ
<i>ST</i>		
<i>W</i>		
<i>G</i>		Ĩ
S	EXISTING MANHOLE	
V	EXISTING FIRE HYDRANT	
	- EXISTING TREE LINE	
· · · · · · · ·		
	- SOIL BOUNDARY	
970		
971	EXISTING INTERMEDIATE CONTOUR	



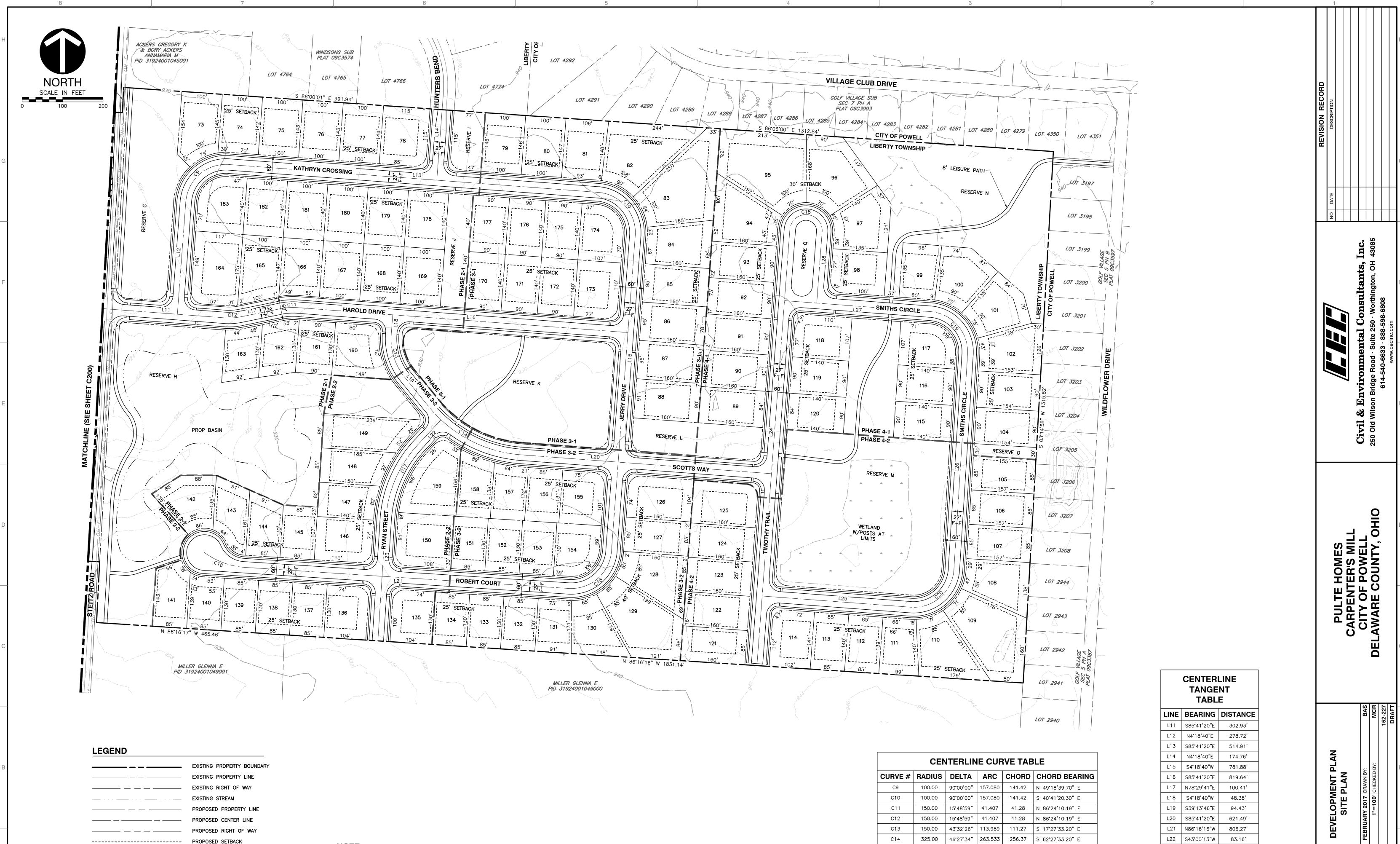


	EXISTING PROPERTY BOUNDARY
	EXISTING PROPERTY LINE
	EXISTING RIGHT OF WAY
· · · · · <u> </u>	EXISTING STREAM
	PROPOSED PROPERTY LINE
	PROPOSED CENTER LINE
	PROPOSED RIGHT OF WAY
	PROPOSED SETBACK
	PROPOSED FACE OF CURB
	PROPOSED PHASE LINE

ENTERLINE CURVE TABLE							
US	DELTA	ARC	CHORD	CHORD BEARING			
0	90°00'00"	54.978	49.50	S 41°45'11.08" E			
00	90°02'18"	157.147	141.47	N 48°15'58.25" E			
00	90°00'00"	157.080	141.42	S 41°42'52.60" E			
00	90°00'00"	157.080	141.42	S 48°17'07.40" W			
00	36°39'15"	191.921	188.66	S 74°57'29.94" W			
00	36 <b>°</b> 36'56"	191.719	188.47	S 74°56'20.70" W			
35	32°55'31"	103.925	102.50	N 69°42'40.40" W			
00	28°47'42"	150.771	149.19	N 11°09'02.07" W			

CENTERLINE TANGENT TABLE						
LINE	BEARING	DISTANCE				
L1	S3°14'49"W	341.06'				
L2	N86°45'11"W	82.62'				
L3	S86°45'11"E	382.62'				
L4	S86°42'53"E	519.47'				
L5	S3•17'07"W	250.00'				
L6	N86°42'53"W	350.91'				
L7	N86°45'11"W	197.48'				
L8	N25°32'53"W	36.68'				
L9	N3°14'49"E	254.78'				
L10	S86°45'11"E	145.71'				

# Inc **ts,** OH En Ś Civil 250 Old V **H** 0 PULTE HOMES CARPENTER'S MIL CITY OF POWELL ELAWARE COUNTY, ( Ш BAS MCR 2-227 Ц EVELOPMENT F Ξ DATE: DWG SCALE: PROJECT NO DRAWING NO.: **C200** SHEET **4** OF **17**



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PROPOSED SETBACK PROPOSED FACE OF CURB PROPOSED PHASE LINE

#### NOTE

SIDEWALK WILL BE PROVIDE ON BOTH SIDES OF THE STREET THROUGH OUT THE SITE, WITH THE EXCEPTION AROUND RESERVE P AND RESERVE Q.

8

CURVE #	RADIUS	DELTA	ARC	CHORD	CHORD BEARI
C9	100.00	90°00'00"	157.080	141.42	N 49°18'39.70" E
C10	100.00	90°00'00"	157.080	141.42	S 40°41'20.30" E
C11	150.00	15 <b>°</b> 48'59"	41.407	41.28	N 86°24'10.19" E
C12	150.00	15 <b>°</b> 48'59"	41.407	41.28	N 86°24'10.19" E
C13	150.00	43 <b>°</b> 32'26"	113.989	111.27	S 17°27'33.20" E
C14	325.00	46 <b>°</b> 27'34"	263.533	256.37	S 62°27'33.20" E
C15	100.00	89 <b>°</b> 25'04"	156.064	140.70	S 49°01'11.85" W
C16	192.25	30 <b>°</b> 54'44"	103.723	102.47	N 69°14'50.09" W
C17	300.00	39 <b>°</b> 16'29"	205.642	201.64	S 23°21'58.62" W
C18	40.00	180°00'00"	125.664	80.00	S 85°40'44.65" E
C19	100.00	89 <b>°</b> 18'30"	155.873	140.57	N 41°01'29.45" W
C20	100.00	90 <b>°</b> 40'54"	158.269	142.26	N 48°58'12.73" E

L26 N3°37'46"E L27 N85°40'45"W

L28 S4°19'15"W

L23 S3°43'44"W

L24 N4°19'15"E

L25 S85°41'20"E

301.14'

1075.89**'** 

367.96'

532.19**'** 

361.52'

176.03**'** 

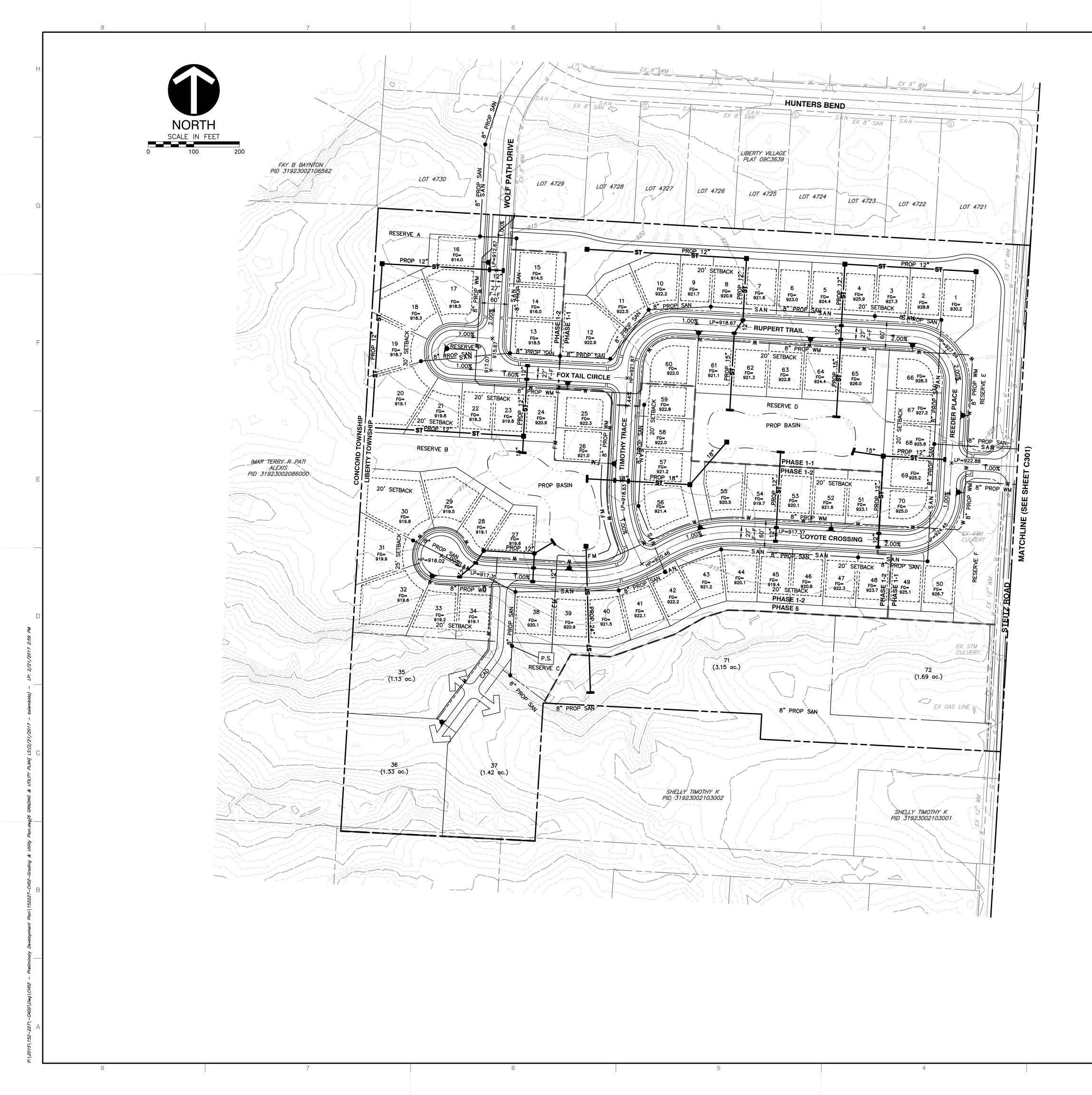
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DATE: DWG PROJI

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SHEET **5** OF **17** 

DRAWING NO .:



REVISION RECORD	DESCRIPTION				
	DATE				
	NO				

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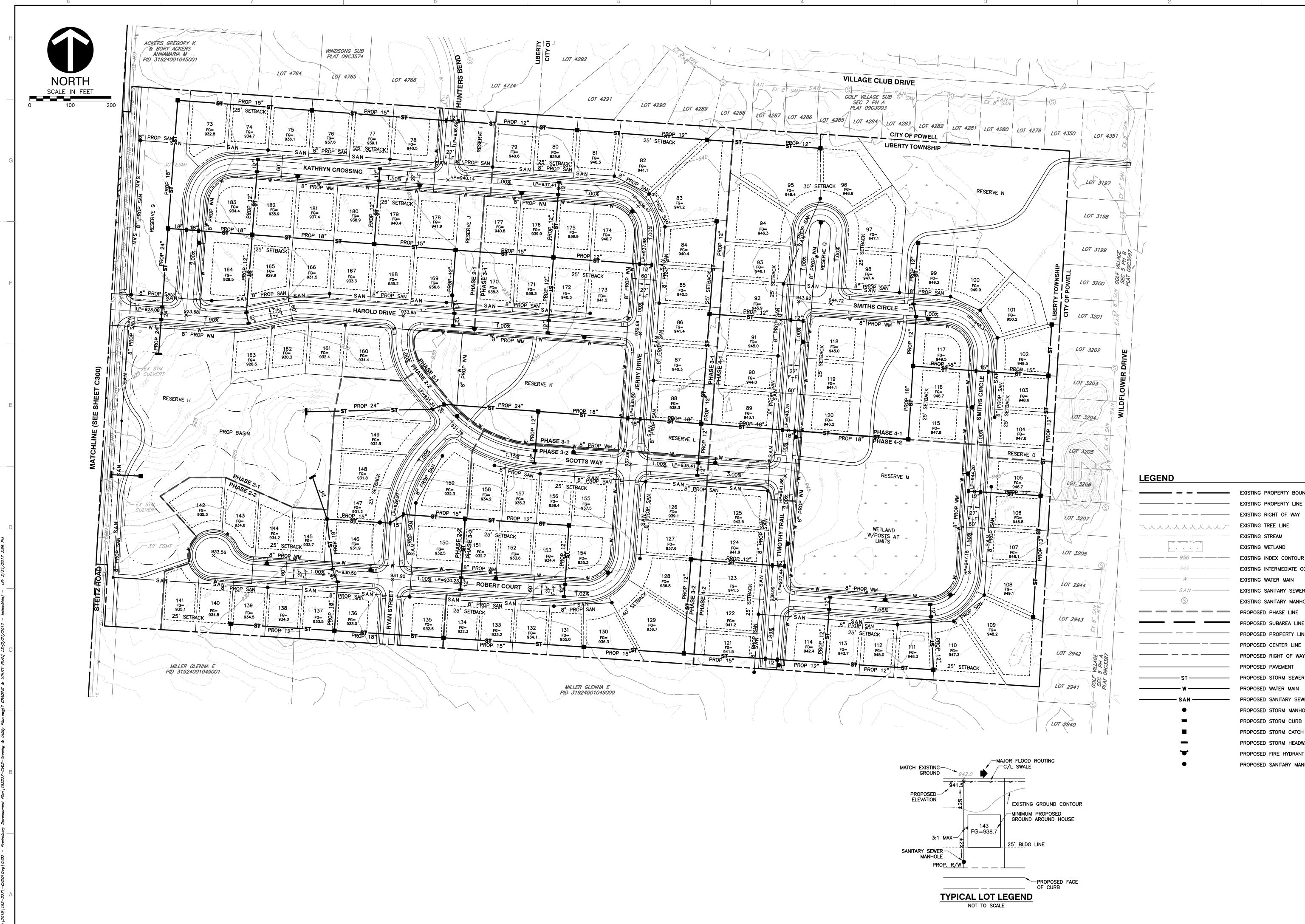
	BAS	MCR	152-227	DRAFT		
DEVELOPMENT PLAN GRADING & UTILITY PLAN	DRAWN BY:	1"=100' CHECKED BY:			В	
DEVELOPN GRADING & I	FEBRUARY 2017 DRAWN BY:	1"=100				
	DATE:	DWG SCALE:	PROJECT NO:	APPROVED BY:		
RAWING NO.:					А	
C:	30	O				
HEET 6	OF		17			

## LEGEND

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EXISTING PROPERTY BOUNDARY EXISTING PROPERTY LINE EXISTING RIGHT OF WAY EXISTING TREE LINE EXISTING STREAM EXISTING INDEX CONTOUR EXISTING INTERMEDIATE CONTOUR EXISTING WATER MAIN EXISTING SANITARY SEWER EXISTING SANITARY MANHOLE PROPOSED PHASE LINE PROPOSED SUBAREA LINE PROPOSED PROPERTY LINE PROPOSED CENTER LINE PROPOSED RIGHT OF WAY PROPOSED PAVEMENT PROPOSED STORM SEWER PROPOSED WATER MAIN PROPOSED SANITARY SEWER PROPOSED STORM MANHOLE PROPOSED STORM CURB INLET PROPOSED STORM CATCH BASIN PROPOSED STORM HEADWALL PROPOSED FIRE HYDRANT PROPOSED SANITARY MANHOLE

2



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3

# Inc. É Civil 250 Old V EXISTING PROPERTY BOUNDARY ОНЮ PULTE HOMES CARPENTER'S MILL CITY OF POWELL DELAWARE COUNTY, O Δ BAS MCR 2-227 DEVELOPMENT PLAN GRADING & UTILITY PLA

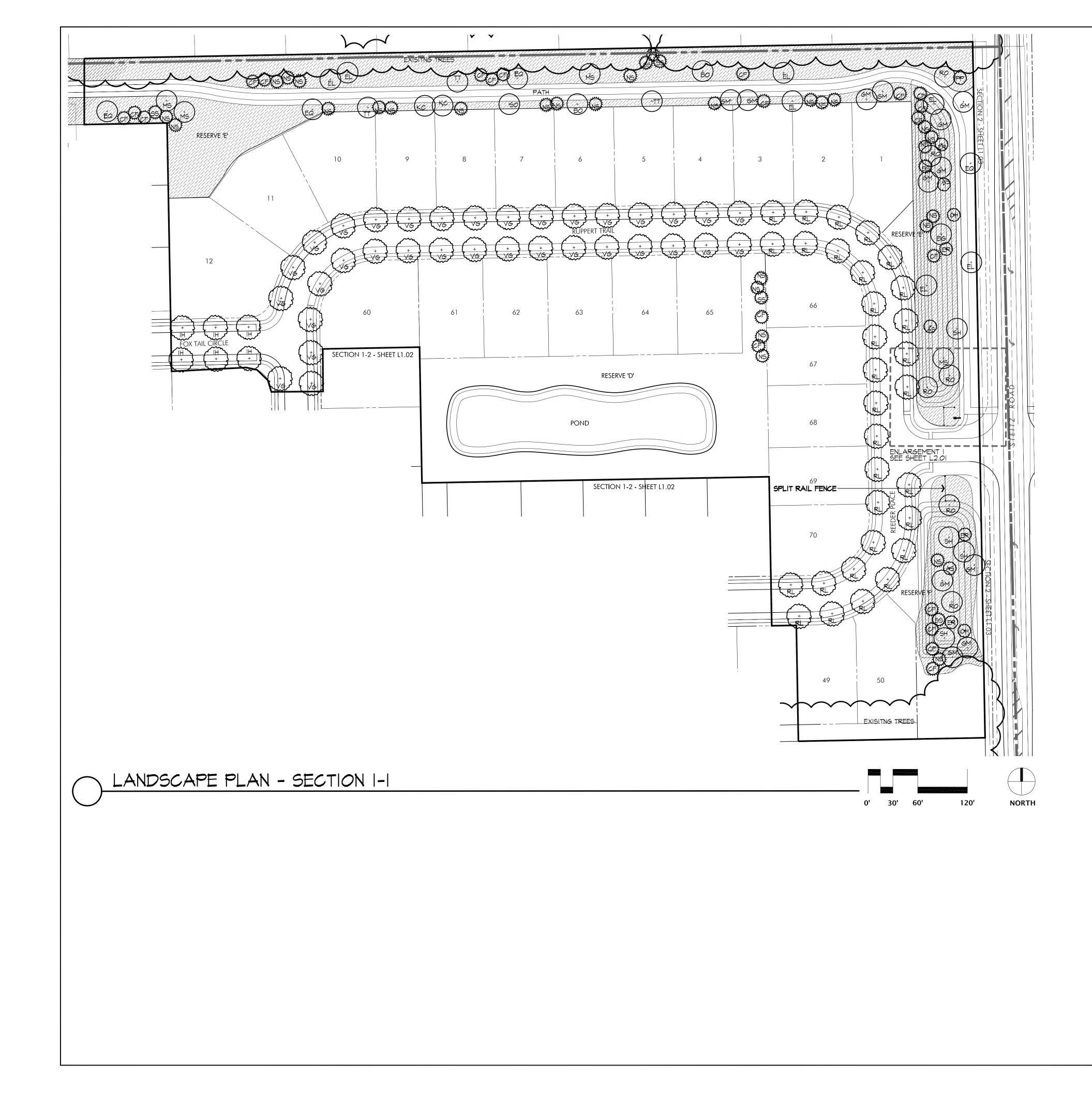
DATE: DWG SCALE: PROJECT NO:

**C301** 

SHEET **7** OF **17** 

DRAWING NO .:

EXISTING RIGHT OF WAY
EXISTING TREE LINE
EXISTING STREAM
EXISTING WETLAND
EXISTING INDEX CONTOUR
EXISTING INTERMEDIATE CONTOUR
EXISTING WATER MAIN
EXISTING SANITARY SEWER
EXISTING SANITARY MANHOLE
PROPOSED PHASE LINE
PROPOSED SUBAREA LINE
PROPOSED PROPERTY LINE
PROPOSED CENTER LINE
PROPOSED RIGHT OF WAY
PROPOSED PAVEMENT
PROPOSED STORM SEWER
PROPOSED WATER MAIN
PROPOSED SANITARY SEWER
PROPOSED STORM MANHOLE
PROPOSED STORM CURB INLET
PROPOSED STORM CATCH BASIN
PROPOSED STORM HEADWALL
PROPOSED FIRE HYDRANT
PROPOSED SANITARY MANHOLE



#### GENERAL NOTES

- I. EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
- 2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
- 3. CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
- 4. ALL PLANT MASSES TO BE CONTAINED WITHIN 3" DEEP HARDWOOD BARK MULCH BED.
- 5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
- 6. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
- 7. CONTRACTOR SHALL SEED OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION, SEE PLAN.
- 8. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY STOCK.
- 9. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
- IO. LANDSCAPE BUFFER PLANTINGS ON THE NORTHERN PERIMETER OF THE SITE (BOTH EAST AND WEST OF STEITZ ROAD) MAY BE ALTERED, BASED ON THE EXISTING VEGETATION, IN ORDER TO CREATE A CONSISTENT BUFFER.

#### PLANT KEY

AB AUTUMN BLAZE MAPLE (S) MS MORAINE SWEETGUM (S) AS AUTUMN BRILLIANCE SERVICEBERRY MV MOHAWK VIBURNUM AY AMERICAN YELLOWWOOD NS NORWAY SPRUCE BC BALD CYPRESS (S) OH OAKLEAF HYDRANGEA PC PRAIRIFIRE CRABAPPLE BG BLACKGUM BL BLOODGOOD LONDON PLANETREE (S) PP PURPLE PRINCE CRABAPPLE RB RIVER BIRCH BO BUR OAK RL REDMOND LINDEN (S) CF CONCOLOUR FIR CH CRUSADER HAWTHORN RO RED OAK (S) SC SUGAR TYME CRABAPPLE CS COMMEMORATION SUGAR MAPLE (S) SH SHINGLE OAK EL EMERALD LUSTRE MAPLE SN SUPERFORM NORWAY MAPLE (S) EQ EMERALD QUEEN MAPLE (S) ER EASTERN REDBUD SO SHUMARD OAK (S) GL GREENSPIRE LITTLELEAF LINDEN (S) SS SERBIAN SPRUCE SAWTOOTH OAK GM GREEN MOUNTAIN SUGAR MAPLE ST SM SWAMP WHITE OAK HM HEDGE MAPLE TT TULIP TREE IH IMPERIAL HONEYLOCUST (S) VG VILLAGE GREEN ZELKOVA (S) KC KENTUCKY COFFEETREE WH WINTER KING HAWTHORN KP KALLAY PFITZER JUNIPER MS WHITESPIRE BIRCH MG MAGYAR GINKGO (S)

\* SEE SHEET L3.01 FOR A COMPLETE PLANT LIST AND PLANTING DETAILS.

STREET TREE

#### LEGEND



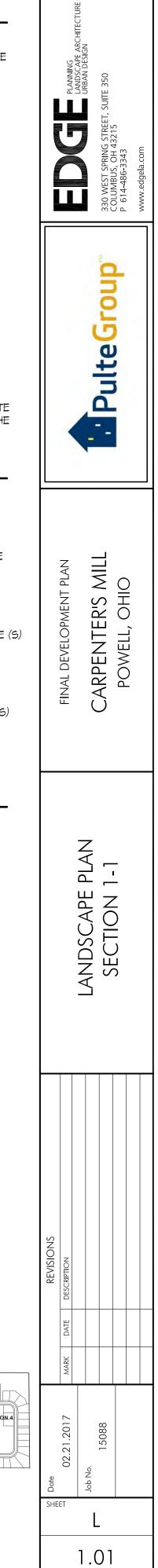
DECIDUOUS SHADE TREE

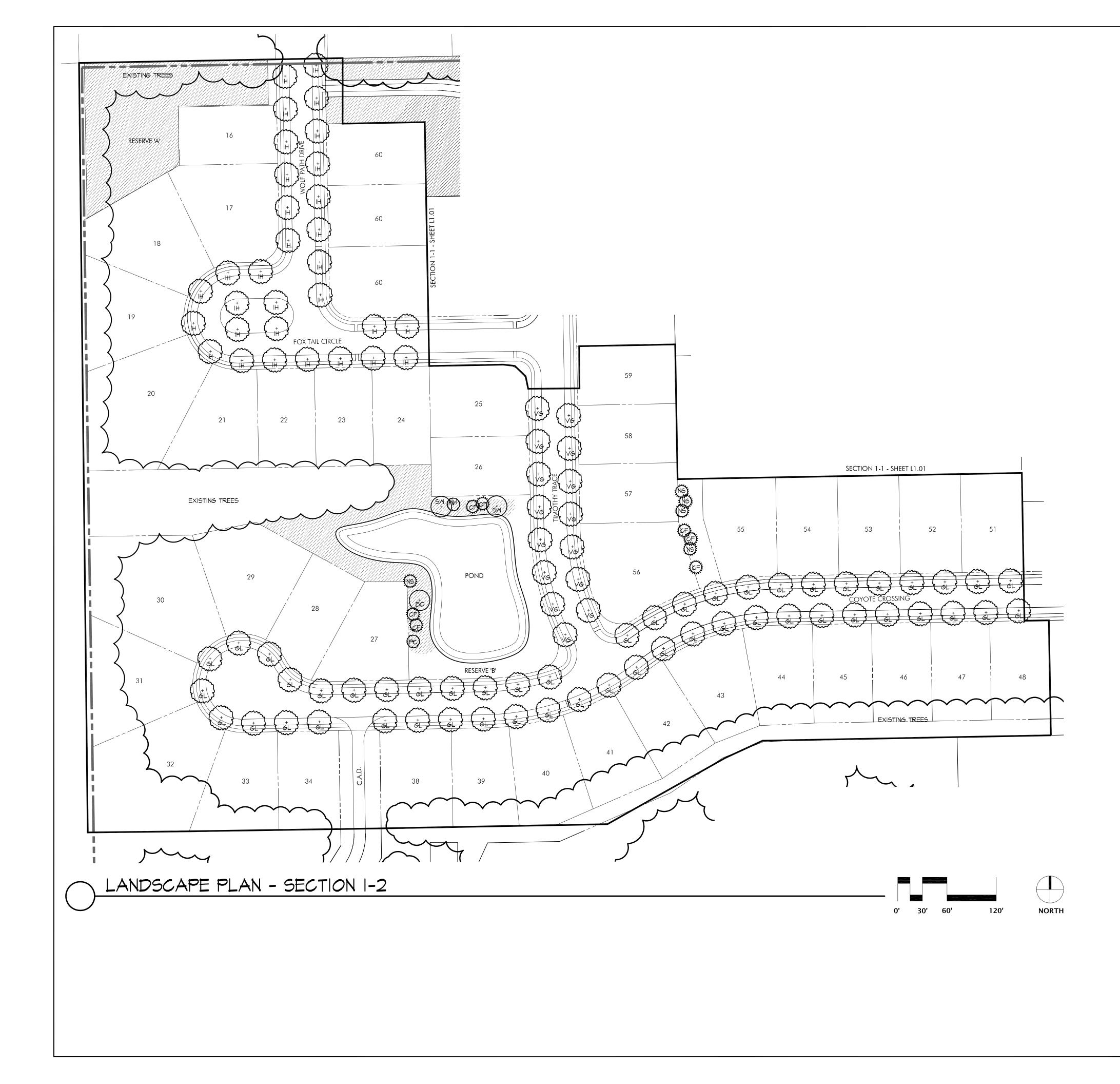
ORNAMENTAL TREE

EVERGREEN TREE NATURALIZED / NO-MOW AREA

SECTION 3

KEY MAP





#### GENERAL NOTES

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\* SEE SHEET L3.01 FOR A COMPLETE PLANT LIST AND PLANTING DETAILS.

STREET TREE

#### LEGEND

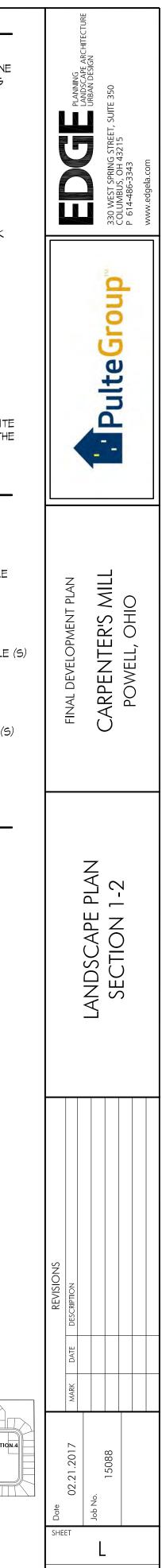
DECIDUOUS SHADE TREE

ORNAMENTAL TREE

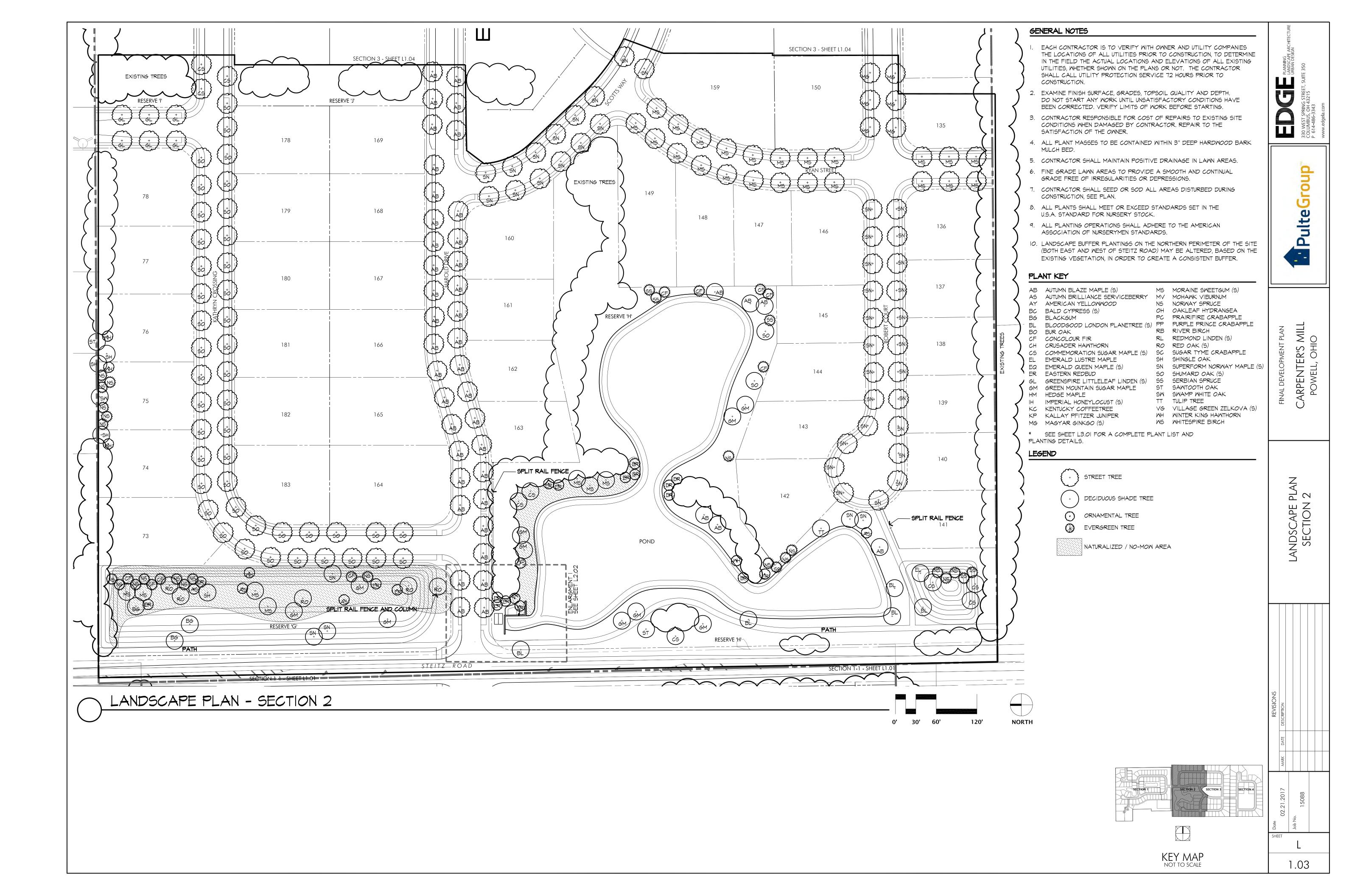
NATURALIZED / NO-MOW AREA

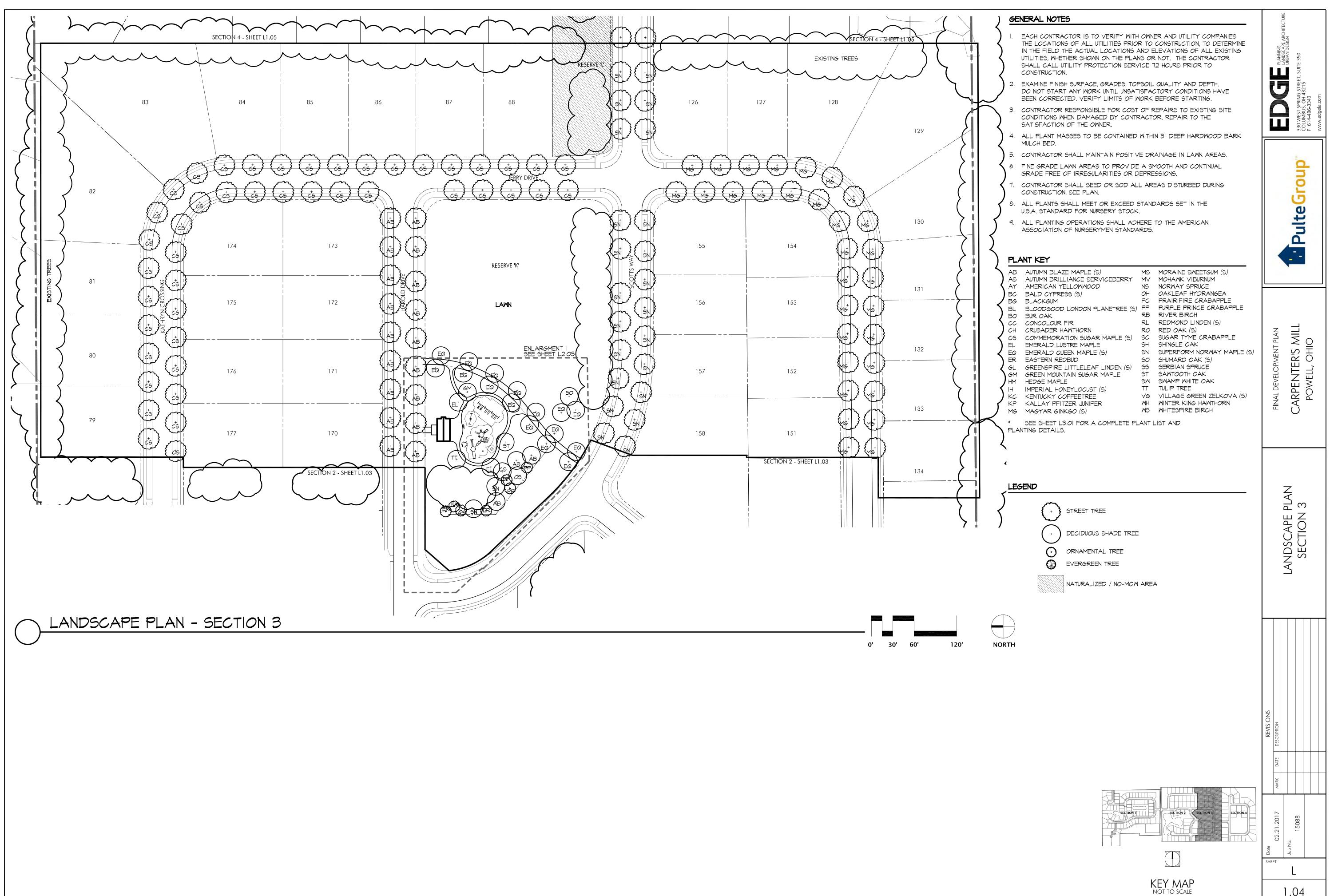
SECTION 3

KEY MAP

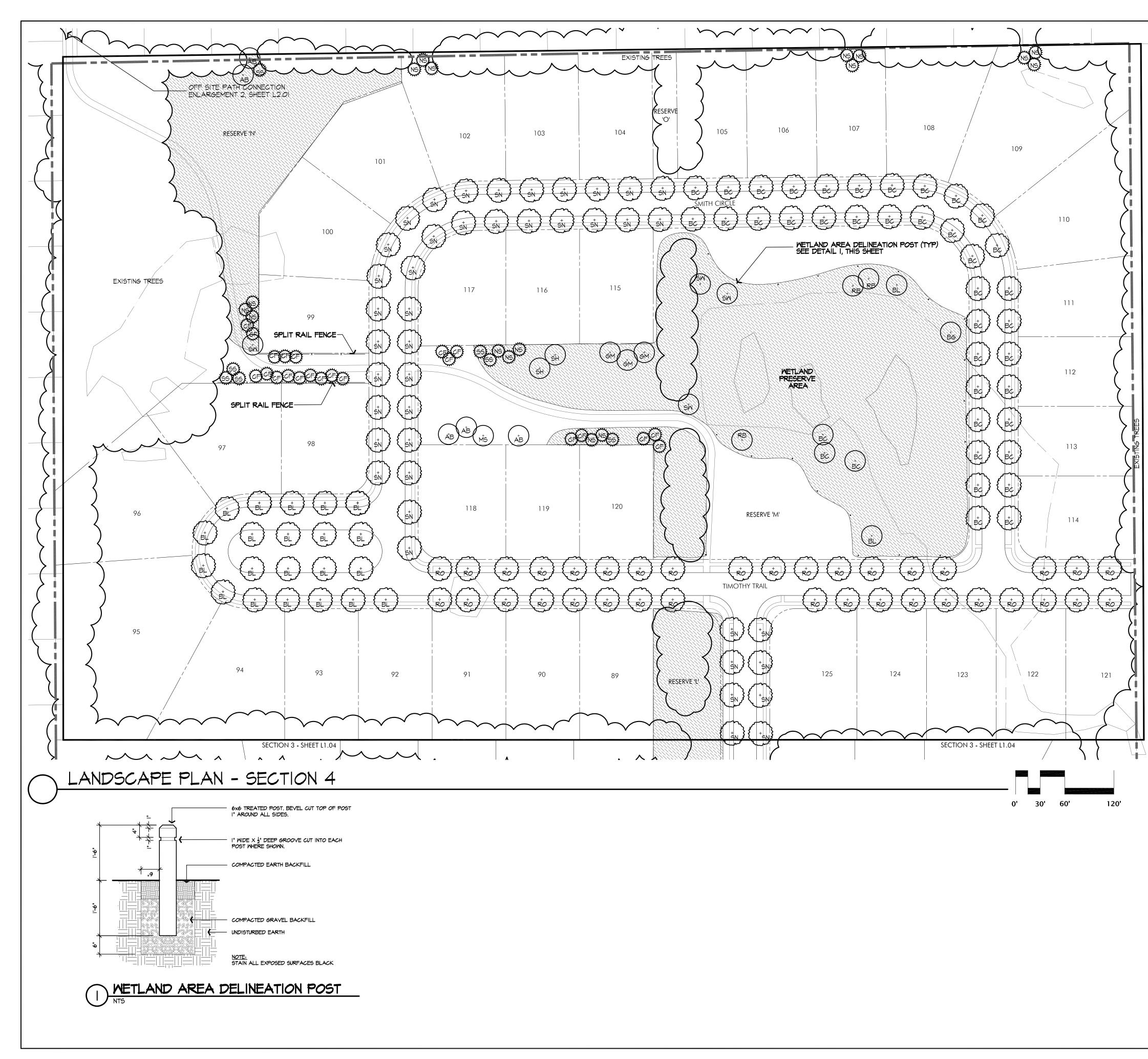


1.02





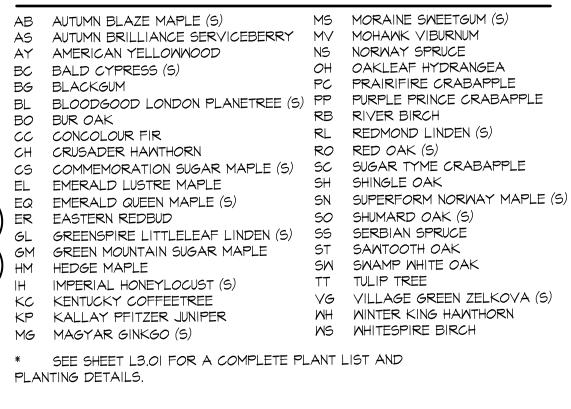
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#### PLANT KEY



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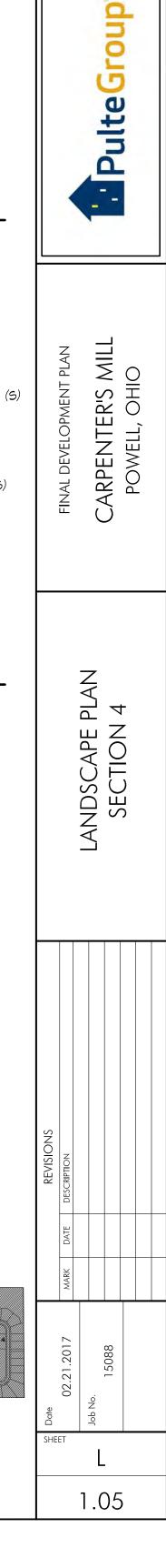
LEGEND

STREET TREE

DECIDUOUS SHADE TREE



EVERGREEN TREE NATURALIZED / NO-MOW AREA

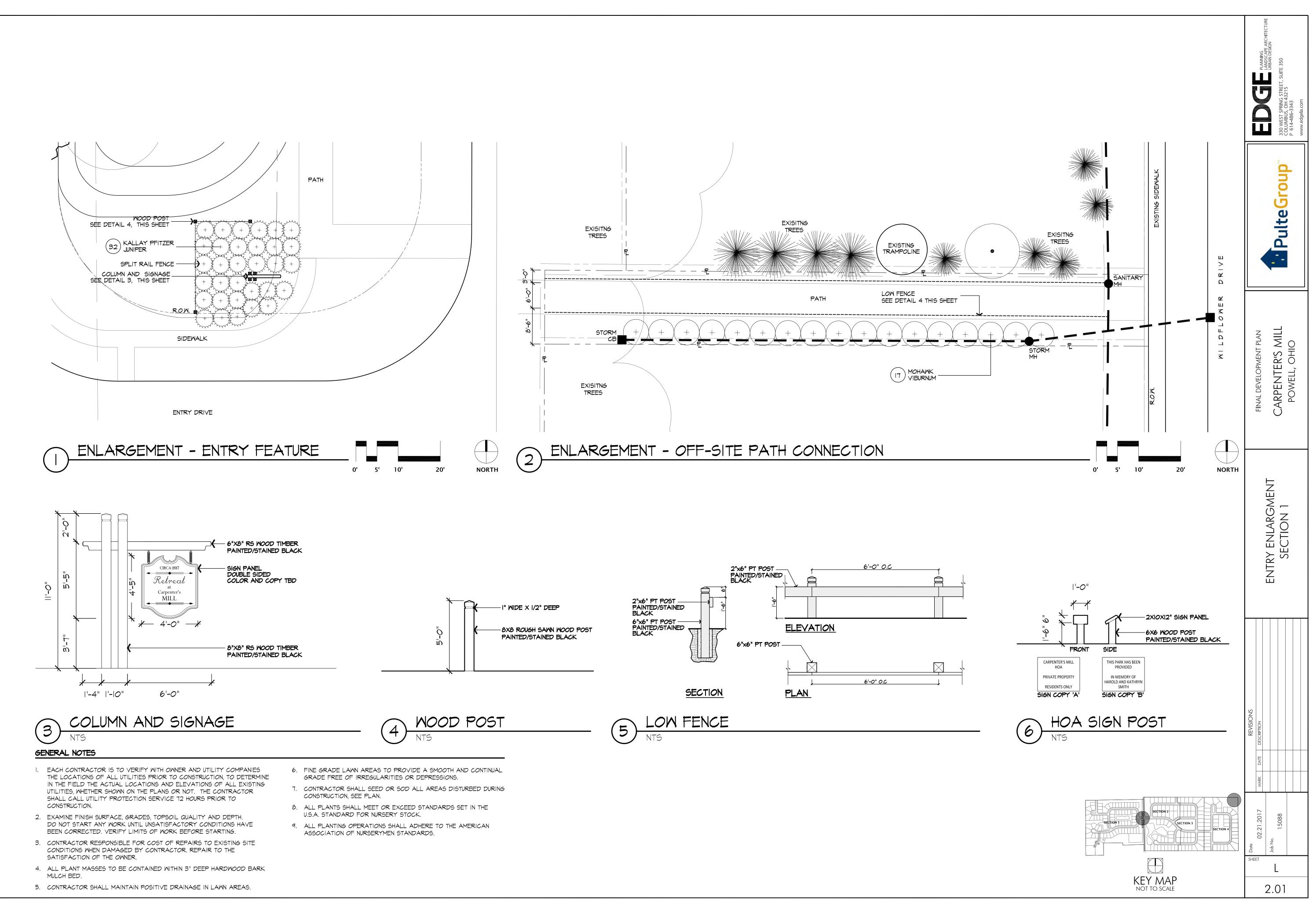


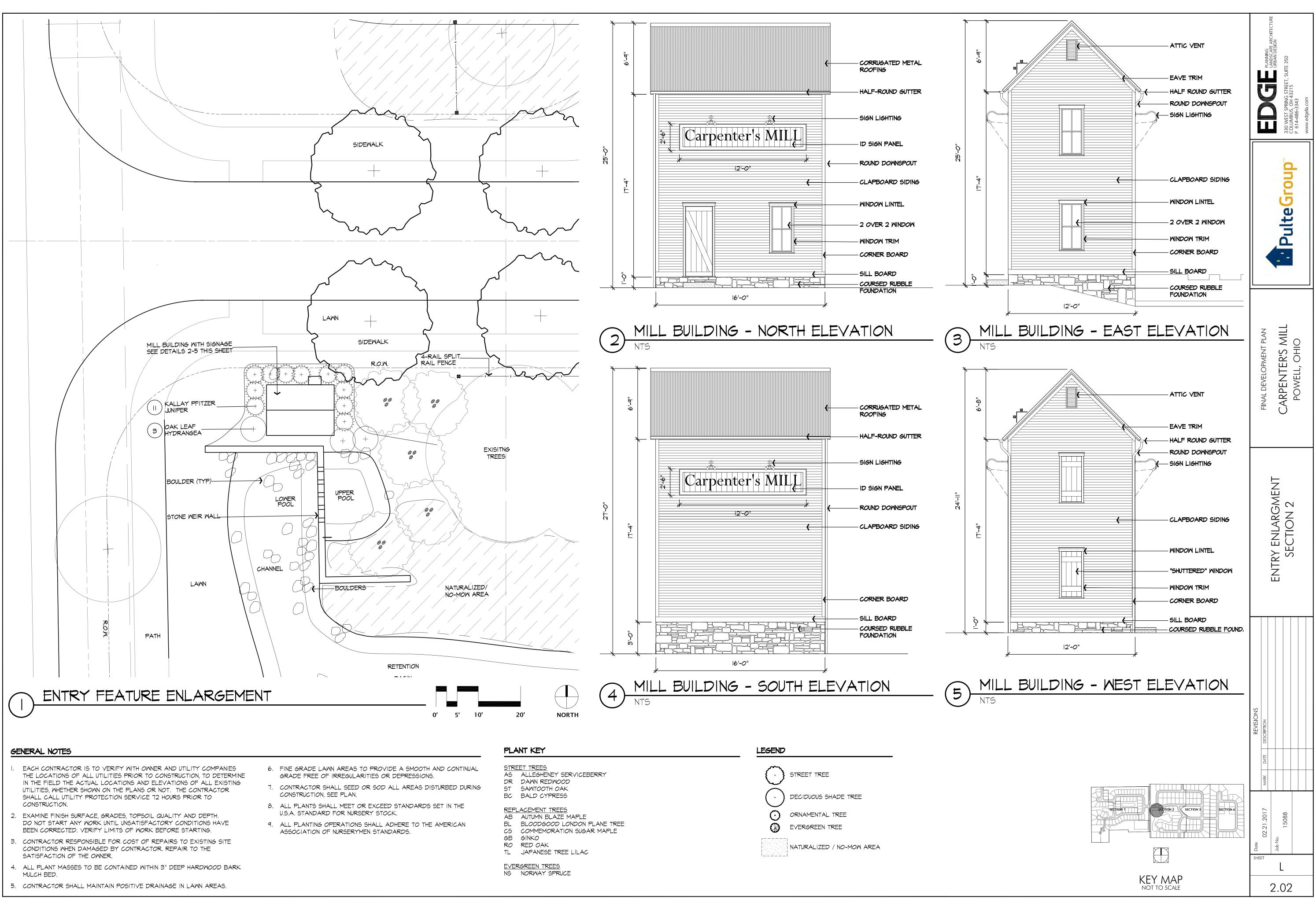
SECTION 2 SECTION 3

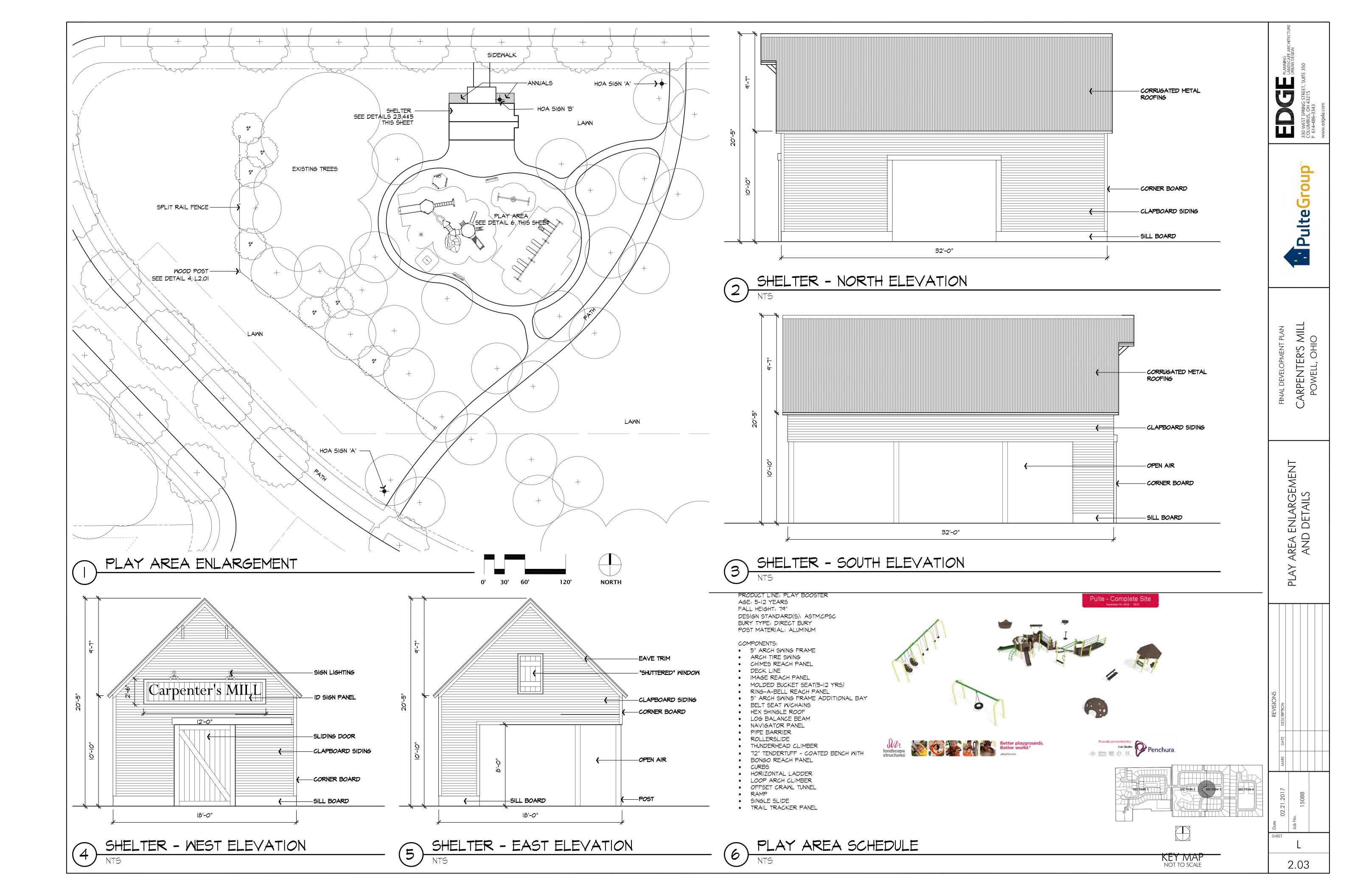
 $\square$ 

KEY MAP NOT TO SCALE

U







PLAN		TERIALS LIST											
QTY.	SYM.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	LI.OI	LI.02	LI.03	LI.04	LI.05	L2.01	L2.02	NOTES
STR	EET TRE	ES .				<u> </u>	<b> </b>	<b> </b>		<u> </u>		<b></b>	
56	AB	AUTUMN BLAZE MAPLE	Acer x freemanii 'Jeffers Red'	2  /2" Cal.	B≰B	-	-	38	18	-	-	-	
37	BC	BALD CYPRESS	Taxodium distichum	2  /2" Cal.	B₿B	-	-	-	-	37	-	-	
21	BL	BLOODGOOD LONDON PLANETREE	Platanus x acerifolia	2  /2" Cal.	B≰B	-	-	-	-	21	-	-	
48	CS	COMMEMORATION SUGAR MAPLE	Acer saccharum 'Commemoration'	2  /2" Cal.	B≰B	-	-	З	45	-	-	-	
-	EQ	EMERALD QUEEN MAPLE	Acer platanoides 'Emerald Queen'	2  /2" Cal.	B₿B	-	-	-	-	-	-	-	
23	MS	MORAINE SWEETGUM	Liquidambar styraciflua 'Moraine'	2  /2" Cal.	B≰B	-	-	23	-	-	-	-	
57	GL	GREENSPIRE LITTLELEAF LINDEN	Tilia cordata 'Greenspire'	2  /2" Cal.	B≰B	-	51	6	-	-	-	-	
37	IH	IMPERIAL HONEYLOCUST	Gleditsia triacanthos inermis 'Imperial'	2  /2" Cal.	B₿B	6	31	-	-	-	-	-	
37	MG	MAGYAR GINKGO	Ginkqo biloba 'Maqyar'	2  /2" Cal.	B≰B	-	-	6	31	-	-	-	
31	RL	REDMOND LINDEN	Tilia americana 'Redmond'	2  /2" Cal.	B≰B	31	-	-	-	-	-	-	
36	RO	RED OAK	Quercus rubra	2  /2" Cal.	B≰B	-	-	-	-	36	-	-	
104	SN	SUPERFORM NORWAY MAPLE	Acer platanoides 'Superform'	2  /2" Cal.	B₿B	-	-	38	24	42	-	-	
44	50	SHUMARD OAK	Quercus shumardii	2  /2" Cal.	B≰B	-	-	44	-	-	-	-	
49	VG	VILLAGE GREEN ZELKOVA	Zelkova serrata 'Village Green'	2  /2" Cal.	B≰B	34	15	-	-	-	-	-	
DEC	DUOUS	TREES								II			
4	AB	AUTUMN BLAZE MAPLE	Acer x freemanii 'Jeffers Red'	2  /2" Cal.	B≰B	-	-	6	З	5	-	-	
٩	AS	AUTUMN BRILLIANCE SERVICEBERRY	Amelanchier x qrandiflora 'Autumn Brilliance'	2  /2" Cal.	B₿B	З	-	5		-	-	-	
-	ΑΥ	AMERICAN YELLOWWOOD	Cladrastis lutea	2  /2" Cal.	B₿B	-	-	-	-	-	-	-	
3	BC	BALD CYPRESS	Taxodium distichum	2  /2" Cal.	B₿B	_	_	-	-	З	-	-	
5	BG	BLACKGUM	Nyssa syl∨atica	2  /2" Cal.	B₿B		-	З	-		-	-	
٦	BL	BLOODGOOD LONDON PLANETREE	Platanus x acerifolia	2  /2" Cal.	B≰B	-	-	5	-	2	-	-	
З	BO	BUR OAK	Quercus macrocarpa	2  /2" Cal.	B₿B	2		-	-	-	-	-	
2	СН	CRUSADER HAWTHORN	Crataegus crus-galli 'Cruzam'	2  /2" Cal.	B₿B	2	_	-	_	_	_	-	
8	CS	COMMEMORATION SUGAR MAPLE	Acer saccharum 'Commemoration'	2  /2" Cal.	B≰B	-	-	6	2	-	-	-	
10	EL	EMERALD LUSTRE MAPLE	Acer platanoides 'Emerald Lustre'	2  /2" Cal.	B₿B	7	-		2	-	-	-	
18	EQ	EMERALD QUEEN MAPLE	Acer platanoides 'Emerald Queen'	2  /2" Cal.	B≰B	4	-	-	4	-	-	-	
26	ER	EASTERN REDBUD	Cercis canadensis	2  /2" Cal.	B≰B	4	-	19	З	-	-	-	
-	GL	GREENSPIRE LITTLELEAF LINDEN	Tilia cordata 'Greenspire'	2  /2" Cal.	B≰B	-	-	-	-	-	-	-	
26	GM	GREEN MOUNTAIN SUGAR MAPLE	Acer saccharum 'Green Mountain'	2  /2" Cal.	B≰B	2	-	10		З	-	-	
-	HM	HEDGE MAPLE	Acer campestre	2  /2" Cal.	B₿B	-	-	-	-	-	-	-	
-	IH	IMPERIAL HONEYLOCUST	Gleditsia triacanthos inermis 'Imperial'	2  /2" Cal.	B≰B	-	-	-	-	-	-	-	
2	КС	KENTUCKY COFFEETREE	Gymnocladus dioicus	2  /2" Cal.	B≰B	2	-	-	_	-	-	-	
-	MG	MAGYAR GINKGO	Ginkqo biloba 'Maqyar'	2  /2" Cal.	B₿B	- 1	_	-	_	_	_	-	
	MS	MORAINE SWEETGUM	Liquidambar styraciflua 'Moraine'	2  /2" Cal.	B≰B	4	-	7	-	-	-	-	
	PC	PRAIRIFIRE CRABAPPLE	Malus 'Prairifire'	2  /2" Cal.	B₿B	-		-	-	-	-	-	
4	pp	PURPLE PRINCE CRABAPPLE	Malus 'Purple Prince'	2  /2" Cal.	B≰B	1	-	-	З	-	-	-	
3	RB	RIVER BIRCH	Betula nigra	2  /2" Cal.	B₿B	-	-	-	_	З	-	-	
-	RL	REDMOND LINDEN	Tilia americana 'Redmond'	2  /2" Cal.	B₿B	-	-	-	-	-	-	-	
	RO	RED OAK	Quercus rubra	2  /2" Cal.	B≰B	6	-	5	_	-	-	-	
-	SC	SUGAR TYME CRABAPPLE	Malus 'Sutyzam' SUGAR TYME	2  /2" Cal.	B≰B	-	-	-	-	-	-	-	
10	SH	SHINGLE OAK	Quercus imbricaria	2 1/2" Cal.	B≰B	4	-	4	-	2	-	-	
7	SN	SUPERFORM NORWAY MAPLE	Acer platanoides 'Superform'	2  /2" Cal.	B≰B	-	-	5	2	-	-	-	
5	50	SHUMARD OAK	Quercus shumardii	2  /2" Cal.	B≰B		-	2		-	-	-	
4	ST	SAWTOOTH OAK	Quercus accutissima	2  /2" Cal.	B≰B	-	-	2	2	-	-	-	
7	SM	SWAMP WHITE OAK	Quercus bicolor	2  /2" Cal.	B≰B	-	2		-	4	-	-	
5	TT	TULIP TREE	Liriodendron tulipifera	2  /2" Cal.	B≰B	З	-			-	_	-	
-	VG	VILLAGE GREEN ZELKOVA	Zelkova serrata 'Village Green'	2  /2" Cal.	B∉B	-	-	-	-	-	-	-	
6	MH	WINTER KING HAWTHORN	Crataegus viridis 'Winter King'	2  /2" Cal.	B∉B	-		5	-	-	-	-	
_	MS	WHITESPIRE BIRCH	Betula papyrifera	2  /2" Cal.	B¢B	-	-	-	-	-	-	-	
EVE	ERGREEN	N TREES			<u> </u>	1	<u>ı</u>	<u> </u>		ıl		I	
71	NS	NORWAY SPRUCE	Picea abies	8-10' Hgt.	B₿B	28	5	21	-	٦I	-	-	
59	CF	CONCOLOR FIR	Abies concolor	7-8' Hgt.	B\$B	21	7	٩	-	22	_	-	
20	55	SERBIAN SPRUCE	Picea omorika	8-10' Hqt.	B≰B	7	_	6	-	7	_	-	
	RUBS			· · · J. ·	<u> </u>		1	· ·				1	
17	BV	MOHAWK VIBURNUM	Viburnum x burkwoodii 'Mohawk'	24 - 30" Hgt.	B≰B	-	_	_	-	_	17	-	
43	KP	KALLAY PFITZER JUNIPER	Juniperus chinensis 'Pfitzeriana Kallay'	24 - 30" Hqt.		-	-	-	-	-	32	1	
3	OH	OAKLEAF HYDRANGEA	Hydrangea quercifolia	24 - 30" Hgt.		-	_	_	_	_	_	3	
										<u> </u>		1	

QTY	COMPONENTS	SEEDING RATE	PLANTING DATES	SOURCE
-	LAWN MIXTURE			-
	60% Perennial Ryegrass - 3 equal parts Applaud, IG2 and Integra	200 lbs./acre	March 15 - June 1	Pennington Seed Incorporated
	40% Kentucky Bluegrass - 2 equal parts Royale and Mallard		August 15 - October 15	P.O. Box 290 Madison, GA 30650 Summer Stress Mix I-800-285-SEED
-	NATIVE ROUGH GRASS MIXTURE			
	60% Hard Fescue	100 lbs./acre	March 15 - June 1	Pennington Seed Incorporated
	20% Little Blue Stem		August 15 - October 15	P.O. Box 290 Madison, GA 30650
	10% Chewing Fescue		Dormant Seeding	Reclaim Native Rough Mixture
	10% Blue Fescue			
-	NATIVE GRASS AND MEADOW MIX			
	30% Blue Fescue	40 lbs./acre	April I - June 15	Pennington Seed Incorporated
	20% Side Oats Grama		August 15 - October 15	P.O. Box 290 Madison, GA 30650
	20% Litle Bluestem		Dormant Seeding	Reclaim Songbird Native Grass/Wildflower Mixture
	8% Indian Blanket			1-800-285-SEED
	5% Lance-leaved Coreopsis			
	4% Purple Coneflower			
	4% Gayfeather			
	3% Chickory			
	2% Goldenrod			
	1% Joe Pyeneed			
	1% Evening Primrose			
	1% New England Aster			
	1% Black-Eyed Susan			

FINISH GRADE - BACKFILL - UNDISTURBED SOIL OR COMPACTED BACKFILL SHRUB PLANTING NTS

- HARDWOOD BARK MULCH

NOTES:

NOTES:

I. TOP OF ROOT BALL TO BE 2"-3" ABOVE ADJACENT FINISH GRADE

HARDWOOD BARK MULCH

EXISTING SOIL UNDISTURBED SOIL OR COMPACTED BACKFILL

FINISH GRADE

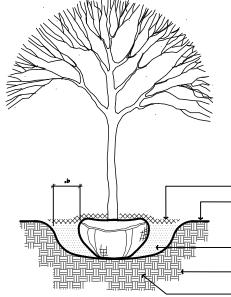
BACKFILL

2 EVERGREEN TREE PLANTING

2. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL. CUT TOP 1/3 OF WIRE BASKET FROM ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM LIMBS.

- 2"X 2"X 8' STAKE (DRIVEN 3'-0" INTO GROUND) ANGLE STAKE TOWARD PREVAILING WIND

I. TOP OF ROOT BALL TO BE 2"-3" ABOVE ADJACENT FINISH GRADE 2. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM LIMBS.



NOTES:

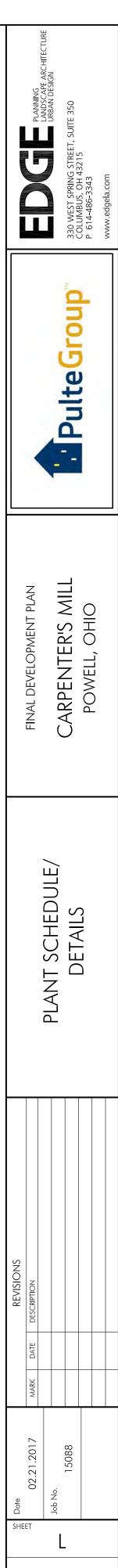
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2. REMOVE ROPE AND BURLAP FROM TOP 1/3 OF ROOT BALL CUT TOP 1/3 OF WIRE BASKET FROM ROOT BALL. REMOVE ALL LABELS, TAGS OR OTHER FOREIGN MATERIALS FROM LIMBS.

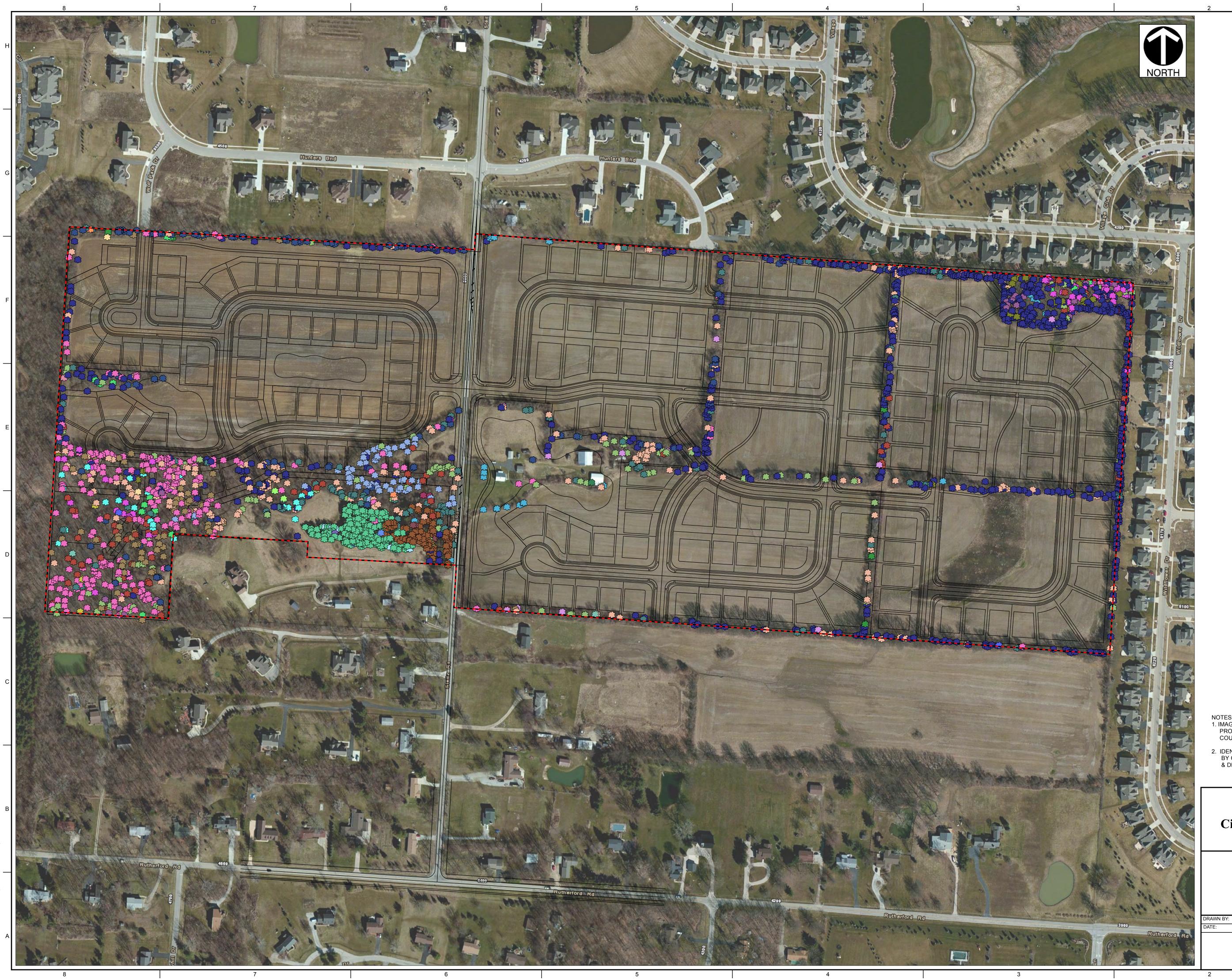
HARDWOOD BARK MULCH FINISH GRADE

BACKFILL EXISTING SOIL 3 TREE PLANTING

UNDISTURBED SOIL OR COMPACTED BACKFILL



3.01



2015/152-227\-GIS\Maps\TreeSurvey\15227\_TreesSurvey\_ALL.mxd LS;(2/21/2017 - mdeliberato) - LP:3/23/2016 2:40:24 PM - LExported:2/21/2017 11:13:3

	APPROXIMATE SITE BOUNDARY
	AMERICAN BASSWOOD
	AMERICAN BEECH
*	AMERICAN ELM
	AMERICAN HOPHORNBEAM
*	APPLE
	BITTERNUT HICKORY
	BLACK CHERRY
	BLACK LOCUST
	BLACK WALNUT
	BLACK WILLOW
	BOXELDER
-	EASTERN COTTONWOOD
	GREEN ASH
*	HACKBERRY
	HAWTHORNE
	HONEY LOCUST
	IRONWOOD
	LARGE TOOTHED ASPEN
	NORWAY SPRUCE
	OSAGE-ORANGE
	PIGNUT HICKORY
	PIN OAK
	RED MAPLE
	RED OAK
	SCOTCH PINE
	SHAGBARK HICKORY
	SILVER MAPLE
	SLIPPERY ELM
	SUGAR MAPLE
	SWAMP WHITE OAK
	SWEET GUM
	TULIP TREE
	WHITE ASH
*	WHITE PINE
	PROPOSED SITE DESIGN

 SCALE IN FEET

 0
 150
 300

NOTES: 1. IMAGE REFERENCE: OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP), OHIO STATEWIDE IMAGERY PROGRAM (OSIP), UNION COUNTY 12-INCH RESOLUTION ORTHOPHOTO, IMAGERY DATE: 2015.

 IDENTIFICATION OF TREES ON THE SUBJECT PROPERTY WAS PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) ON NOVEMBER 18-28, & DECEMBER 5-7,2016.



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

## PULTE HOMES CARPENTERS MILL LIBERTY TOWNSHIP DELAWARE COUNTY, OHIO

 MAD
 CHECKED BY:
 MRL
 APPROVED BY:

 2/21/2017
 SCALE:
 1 inch = 150 feet
 PROJECT NO:

T NO: **152-227** SHEET NO:

2

\* Hand signature on file

TREE SURVEY MAP

JCD\*

Green Ash Erovinus consultania: 0	250 Pin Oak Quercus palustris Good 13	500 Pin Oak Quercus palustris Good 13	unk DBH (Inches) Label Common Name Scientific Name Condition DBH (Inches) Multiple Trunk DBH 750 Pin Oak Quercus palustris Good 15 751 Pin Oak Quercus palustris Good 15	1000 Red Maple Acer rubrum Good 10	1250 American Elm Ulmus americana Good 10	1500 Pin Oak Quercus palustris Good 40	1750 Sugar Maple Acer saccharum Good 10
Green Ash         Fraxinus pennsylvanica         Good         8         8,6           Red Maple         Acer rubrum         Good         29	251         Pin Oak         Quercus palustris         Good         12           252         Pin Oak         Quercus palustris         Good         18         10           253         Pin Oak         Quercus palustris         Good         16         10           254         Pin Oak         Quercus palustris         Good         19         10	501         Pin Oak         Quercus palustris         Good         7           6         502         Slippery Elm         Ulmus rubra         Good         14           503         Pin Oak         Quercus palustris         Good         10           504         Pin Oak         Quercus palustris         Good         11	T51         Pin Oak         Quercus palustris         Good         15           752         Pin Oak         Quercus palustris         Good         6           753         Pin Oak         Quercus palustris         Good         6           753         Pin Oak         Quercus palustris         Good         6           754         Pin Oak         Quercus palustris         Good         10	1001         Pin Oak         Ouerous palustris         Good         13           1002         American Elm         Ulmus americana         Good         7           1003         Pin Oak         Quercus palustris         Good         6           1004         American Elm         Ulmus americana         Good         6           1004         American Elm         Ulmus americana         Good         18           1007         Romana continea         Good         14	1251         Black Cherry         Prunus serotina         Good         6           1252         Red Oak         Ouercus rubra         Good         6           1253         Black Cherry         Prunus serotina         Good         7           16         1254         American Elm         Ulmus americana         Good         6           12         1255         American Elm         Ulmus americana         Good         8	1501         Sugar Maple         Acer saccharum         Good         6           1502         Pin Oak         Quercus palustris         Good         10           1503         Hackberry         Cettis occidentalis         Good         7           1504         Sugar Maple         Acer saccharum         Good         7	1751         Boxelder         Acer negundo         Good         10           1752         Pin         Quercus palustris         Good         20           1753         Boxelder         Acer negundo         Good         9           1754         Boxelder         Acer negundo         Good         8           1754         Boxelder         Acer negundo         Good         8
Green Ash         Fraxinus pennsylvanica         Good         12         11           Pin Oak         Quercus palustris         Good         17         11           Black Cherry         Prunus serotina         Good         9         11           Green Ash         Fraxinus pennsylvanica         Good         9         11	255         Pin Oak         Quercus palustris         Good         9           256         Pin Oak         Quercus palustris         Good         17           257         Pin Oak         Quercus palustris         Good         23           258         Pin Oak         Quercus palustris         Good         18         1'	505         Pin Oak         Quercus palustris         Good         6           506         Pin Oak         Quercus palustris         Good         28           507         Pin Oak         Quercus palustris         Good         28           7         508         Slippery Elm         Ulmus rubra         Good         20	755         Pin Oak         Quercus palustris         Good         20           756         Pin Oak         Quercus palustris         Good         20           757         Pin Oak         Quercus palustris         Good         20           10         758         Pin Oak         Quercus palustris         Good         19	1005         Black Cherry         Prunus serotina         Good         11           1006         Pin Oak         Quercus palustris         Good         7           1007         American Elm         Ulmus americana         Good         8           1008         Pin Oak         Quercus palustris         Good         8	12         1255         American Elm         Ulmus americana         Good         8           1256         American Hophombeam         Ostrya virginiana         Good         6           1257         American Hophombeam         Ostrya virginiana         Good         10           1258         Sugar Maple         Acer saccharum         Good         7	1505         Sugar Maple         Acer saccharum         Good         10           1506         Pin Oak         Quercus palustris         Good         15           1507         Pin Oak         Quercus palustris         Good         12           1508         Slippery Elm         Ulmus rubra         Good         20	1755         Boxelder         Acer negundo         Good         7           1756         Boxelder         Acer negundo         Good         8           1757         Hackberry         Cettis occidentalis         Good         17           1758         Boxelder         Acer negundo         Good         7
Pin Oak Quercus palustris Good 6 Pin Oak Quercus palustris Good 6 Slinnegy Elm Ullims rubra Good 6	259         Silver Maple         Acer saccharinum         Good         16           260         Silver Maple         Acer saccharinum         Good         13           261         Pin Oak         Quercus palustris         Good         11           262         Pin Oak         Quercus palustris         Good         19           263         Pin Oak         Quercus palustris         Good         19           263         Pin Oak         Quercus palustris         Good         19	509         Slippery Elm         Ulmus rubra         Good         9           510         Slippery Elm         Ulmus rubra         Good         10           511         Pin Oak         Guercus palustris         Good         30	759         Pin Oak         Quercus palustris         Good         18           760         Green Ash         Fraxinus pennsylvanica         Good         6           761         Swamp White Oak         Quercus bicolor         Dead         6           762         Pin Oak         Quercus palustris         Good         17           763         Pin Oak         Quercus palustris         Good         11           764         Fin Gould         Ouercus palustris         Good         11	1009         Pin Oak         Ouercus palustris         Good         18           1010         Pin Oak         Ouercus palustris         Good         12           1011         Hackberry         Celtis occidentalis         Good         6           1012         Apple         Malus sp.         Good         7	8         1259         Red Oak         Quercus rubra         Good         10           1260         Sugar Maple         Acer saccharum         Good         6           1261         Red Oak         Quercus rubra         Good         12           1262         Black Cherry         Prunus serotina         Good         7           1263         Red Oak         Quercus rubra         Good         14	1509         Sugar Maple         Acer saccharum         Good         9           1510         Sugar Maple         Acer saccharum         Good         9           1511         Hackberry         Cettis occidentalis         Good         9           1512         Hackberry         Cettis occidentalis         Good         12           1512         Hackberry         Cettis occidentalis         Good         12           1512         Hackberry         Cettis occidentalis         Good         12	1759         Hackberry         Celtis occidentalis         Good         11           1760         Boxelder         Acer negundo         Good         13           1761         Boxelder         Acer negundo         Good         7
Green Ash         Fraxinus pennsylvanica         Good         6           Pin Oak         Quercus palustris         Good         14           Black Cherry         Prunus serotina         Good         15	Zo6         Pin Oak         Quercus palustris         Good         17           Zo5         Pin Oak         Quercus palustris         Good         9           Zo6         Pin Oak         Quercus palustris         Good         9	513         Slippery Elm         Ulmus rubra         Good         14           514         Slippery Elm         Ulmus rubra         Good         6           515         Slippery Elm         Ulmus rubra         Good         6           516         Pin Oak         Quercus palustris         Good         9           516         Pin Oak         Quercus palustris         Good         9	764         Pin Oak         Quercus palustris         Good         6           765         American Elm         Ulmus americana         Good         6           766         Pin Oak         Quercus palustris         Good         18	1013 Pin Oak Quercus palustris Good 9 1014 Pin Oak Quercus palustris Good 6 1015 Pin Oak Quercus palustris Good 6 1016 Black Cherny Pranus sentina Good 12	1264  American Hophombeam  Ostrya virginiana         Good         12           1265  American Hophombeam         Ostrya virginiana         Good         8           1266  Black Cherry         Prunus serotina         Good         6	1015 Practicenty Cettis occulentaiis Good 7 1014 Pin Oak Quercus palustris Good 9 1015 Hackberry Cettis occidentalis Good 10 1016 Hackberry Cettis occidentalis Good 10	1763         Boxelder         Acer negundo         Good         9           1764         Boxelder         Acer negundo         Good         8           1765         Boxelder         Acer negundo         Good         10         7           1766         Boxelder         Acer negundo         Good         6         6
Hackberry         Celtis occidentalis         Good         9           Hackberry         Celtis occidentalis         Good         12           Slippery Elm         Ulinus rubra         Good         31         21           Pin Oak         Quercus palustris         Good         6	267         Pin Oak         Quercus palustris         Good         16           268         Pin Oak         Quercus palustris         Good         17           269         Pin Oak         Quercus palustris         Good         17           270         Pin Oak         Quercus palustris         Good         13	517         Pin Oak         Quercus palustris         Good         10           518         Pin Oak         Quercus palustris         Good         7           519         Pin Oak         Quercus palustris         Good         10           520         Pin Oak         Quercus palustris         Good         8	767         Black Cherry         Prunus serotina         Poor         6           768         Pin Oak         Quercus palustris         Good         7           769         Pin Oak         Quercus palustris         Good         6           770         Pin Oak         Quercus palustris         Good         8	1018 Pin Oak Quercus palustris Good 20 1019 Pin Oak Quercus palustris Good 17 1020 Pin Oak Quercus palustris Good 6	1267         American Hophombeam         Ostrya virginiana         Good         7           1268         Bitternut Hickory         Carya cordiformis         Good         14           1269         Pin Oak         Quercus palustris         Good         9           1270         American Hophombeam         Ostrya virginiana         Good         8	6         1516 (PackDerly)         Detris Occloentais         Good         10           6         1517 (Pin Oak         Quercus palustris         Good         6           6         1518 (Pad Oak         Quercus nubra         Good         20           1519 (Pin Oak         Quercus palustris         Good         6           1519 (Pin Oak         Quercus palustris         Good         6	1767         Green Ash         Fraxinus pennsylvanica         Good         17           1768         Boxelder         Acer negundo         Good         7           1769         Boxelder         Acer negundo         Good         7           1770         Boxelder         Acer negundo         Good         9
Pin Oak         Quercus palustris         Good         14           Pin Oak         Quercus palustris         Good         10           Pin Oak         Quercus palustris         Good         7	271         Silver Maple         Acer saccharinum         Good         27           272         Pin Oak         Quercus palustris         Good         13           273         Silver Maple         Acer saccharinum         Good         6           274         Pin Oak         Quercus palustris         Good         6           274         Pin Oak         Quercus palustris         Good         25           275         Pin Oak         Quercus palustris         Good         12         11	521         Pin Oak         Ouercus palustris         Cood         12           522         Pin Oak         Ouercus palustris         Good         14           523         Pin Oak         Ouercus palustris         Good         24           524         Pin Oak         Ouercus palustris         Good         24           525         Pin Oak         Umus rubra         Good         22           0         525         Pin Oak         Quercus palustris         Good         9	771         Bitternut Hickory         Carya cordiformis         Good         8         6,6           772         Pin Oak         Quercus palustris         Good         10         8           773         Pin Oak         Quercus palustris         Good         12           774         Pin Oak         Quercus palustris         Good         9           775         Pin Oak         Quercus palustris         Good         9           775         Pin Oak         Quercus palustris         Good         13	1021         IPin Oak         Quercus palustris         Good         15           1022         IPin Oak         Quercus palustris         Good         15           1023         IPin Oak         Quercus palustris         Good         14           1024         IPin Oak         Quercus palustris         Good         18           1024         IPin Oak         Quercus palustris         Good         14           1024         IPin Oak         Quercus palustris         Good         14	1271         Sugar Maple         Acer saccharum         Good         6           1272         Sugar Maple         Acer saccharum         Good         6           1273         Sugar Maple         Acer saccharum         Good         10           1274         Sugar Maple         Acer saccharum         Good         6	1522   10-06a. Laderdas plausional (Social 1 1522   lackberry Cettis cocidentalis Good 10 1522   lackberry Cettis cocidentalis Good 7 1523   Black Cherry Prunus serotina Good 8 1524   Bittemut Hickory Carya cordiformis Good 10 1525   Backberry Cettis cocidentalis Good 9	1770         Dixeller         Alter regulation         Docidity           1771         Bixelder         Alter regulation         Good         6           1772         Biack Cherry         Prunus serotina         Good         1         7           1773         Hackberry         Cettis occidentalis         Good         10         1         7           1774         Hackberry         Cettis occidentalis         Good         9         1         1775           1775         Bispery Elm         Ulmus rubra         Good         9         1         1
	276         Pin Oak         Quercus palustris         Good         10         11           2777         Pin Oak         Quercus palustris         Good         20         11           2778         Pin Oak         Quercus palustris         Good         6         11           278         Pin Oak         Quercus palustris         Good         6         11	0         526         Sliver Maple         Acer saccharinum         Good         12           7         527         Pin Oak         Quercus palustris         Good         13           528         Shagbark Hickory Carya oveta         Good         10	775         Pin Oak         Quercus palustris         Good         13           776         Pin Oak         Quercus palustris         Good         18           777         Pin Oak         Quercus palustris         Good         12           777         Bitternut Hickory         Carya cordiformis         Good         6	1029 [FIII Oak Cuercus patisitis Good 18     1027 [Hackberry Celtis occidentalis Good 13     1027 [Hackberry Celtis occidentalis Good 12	1276 Sugar Maple Acer saccharum Good 6 1277 Slippery Elm Ulmus rubra Good 6 1278 Black Wainut Juglans nigra Good 7	1528 Pin Oak Quercus palustris Good 9 1527 [Black Cherry Punus serotina Good 9 1528 [Hackberry Cettis occidentalis Good 9	1776         Black Cherry         Prunus serotina         Good         11           1777         Black Cherry         Prunus serotina         Good         10           1778         Black Cherry         Prunus serotina         Good         10
Black Cherry         Prunus serotina         Good         10           Black Cherry         Prunus serotina         Good         10           Black Cherry         Prunus serotina         Good         8           Red Maple         Acer rubrum         Good         9	279         Pin Oak         Quercus palustris         Good         8         6           280         Silver Maple         Acer saccharinum         Poor         14         12,10           281         Pin Oak         Quercus palustris         Good         10         7           282         Pin Oak         Quercus palustris         Good         15	5         5.29         Shagbark Hickory         Carya ovata         Cood         9           /10,8         530         Shagbark Hickory         Carya ovata         Good         9           7         531         Shagbark Hickory         Carya ovata         Good         6           532         Shagbark Hickory         Carya ovata         Good         11	779         Pin Oak         Quercus palustris         Good         9           780         Pin Oak         Quercus palustris         Good         17         7.6           781         American Elm         Ulmus americana         Good         6         782           782         Pin Oak         Quercus palustris         Good         17         7.6	1029         Green Ash         Fraxinus pennsylvanica         Poor         6           1030         Hackberry         Cellis occidentalis         Good         10           1031         Hackberry         Cellis occidentalis         Good         9           1032         Hackberry         Cellis occidentalis         Good         9           1032         Hackberry         Cellis occidentalis         Good         7           1032         Istackberry         Cellis occidentalis         Good         7	1279 American Hophombeam Ostrya virginiana     Good     6       1280 Black Walnut     Juglans nigra     Good     13       1281 Sugar Maple     Acer saccharum     Good     6       1282 American Elm     Ulmus americana     Good     6	122         Stugal Maple         Pruce sacCutat/UII         Socd         0           11530         Black Cherry         Pruce sacCutat/UII         Socd         8           11531         Slippery Elm         Ulmus rubra         Good         18           11532         Slippery Elm         Ulmus rubra         Good         9	1779         Slippery Elm         Ulmus rubra         Good         12           1780         Black Cherry         Prunus serotina         Good         12           1781         Black Cherry         Prunus serotina         Good         12           6         1782         Black Cherry         Prunus serotina         Good         6
Red Maple Acer rubrum Good 6	283         Pin Oak         Quercus palustris         Good         25           284         Pin Oak         Quercus palustris         Good         12         7           285         Pin Oak         Quercus palustris         Good         15         9           286         Pin Oak         Quercus palustris         Good         15         9           286         Pin Oak         Quercus palustris         Good         8           000         Dir Oak         Quercus palustris         Good         8	533         Pin Oak         Quercus palustris         Good         17           7         534         Black Cherry         Prunus serotina         Good         9           9         535         Black Cherry         Prunus serotina         Good         6           536         Black Cherry         Prunus serotina         Good         6           536         Black Cherry         Prunus serotina         Good         6	783         Pin Oak         Quercus palustris         Good         14         12           784         Pin Oak         Quercus palustris         Good         15           785         Pin Oak         Quercus palustris         Good         17           786         Pin Oak         Quercus palustris         Good         17           786         Pin Oak         Quercus palustris         Good         12         8	1033     Hackberry     Celtis occidentalis     Good     7       1034     Hackberry     Celtis occidentalis     Good     13       1035     Hackberry     Celtis occidentalis     Good     13       1036     Hackberry     Celtis occidentalis     Good     13       1037     Hackberry     Celtis occidentalis     Good     7       1037     Hackberry     Celtis occidentalis     Good     12       1030     Index/berry     Celtis occidentalis     Good     12	1283 [Black Walnut Judgars nigra Good 8 1284 American Hophomean Ostrya virginiana Good 6 1285 [Black Cherry Prunus serotina Good 14 1286 [Sugar Maple Acer saccharum Good 12	1633         Hackberry         Cettis occidentalis         Good         6           1534         Green Ash         Fraxinus pennsylvanica         Good         6           1635         Boxelder         Acer negundo         Good         10           1535         Boxelder         Acer negundo         Good         7	1783         Green Ash         Fraxinus pennsylvanica         Good         13           1784         Slippery Elm         Ulmus rubra         Good         6           1785         Black Cherry         Prunus serotina         Good         10           1786         Black Cherry         Prunus serotina         Good         12
Silver Maple Acer saccharinum Good 36 Silver Maple Acer saccharinum Good 35 Silver Maple Acer saccharinum Good 7	287         Pin Oak         Quercus palustris         Good         19           288         Pin Oak         Quercus palustris         Good         17           289         Pin Oak         Quercus palustris         Good         21           290         Sipperv Elm         Ulmus rubra         Good         9	500         In Oak         Quercus palustris         Good         I           537         Black Cherry         Prinus serotina         Good         11           538         Pin Oak         Quercus palustris         Good         16           539         Pin Oak         Quercus palustris         Good         32           540         Pin Oak         Quercus palustris         Good         25	9         787         Pin Oak         Quercus palustris         Good         10           788         Pin Oak         Quercus palustris         Good         11           789         Pin Oak         Quercus palustris         Good         6           790         Pin Oak         Quercus palustris         Good         18	1037         Hackberry         Celtis occidentalis         Good         12           1038         Black Walnut         Juglans nigra         Good         8           1039         Pin Oak         Quercus palustris         Good         6           1040         Hackberry         Celtis occidentalis         Good         8	1287         American Elm         Ulmus americana         Good         6           1288         American Elm         Ulmus americana         Good         8           1289         Sugar Maple         Acer saccharum         Good         8           1290         Bitternut Hickory         Carva cordiformis         Good         12	1537 American Elm Ulmus americana Good 6 1538 Boxelder Acer negundo Good 6 1539 Boxelder Acer negundo Good 11 1540 Boxelder Acer negundo Good 11	1787         Black Cherry         Prunus serotina         Good         10           1788         Black Cherry         Prunus serotina         Good         11           7         1789         Black Cherry         Prunus serotina         Good         9           1780         Slack Cherry         Umus rubra         Good         9           1790         Släpery Elm         Ulmus rubra         Good         9
Silver Maple         Acer saccharinum         Good         14         12,9,8           Silver Maple         Acer saccharinum         Good         14         12,12,9,8           Silver Maple         Acer saccharinum         Good         14         12,12,9,8           Silver Maple         Acer saccharinum         Good         20         18,12           Silver Maple         Acer saccharinum         Good         10         9,8	291         Pin Oak         Quercus palustris         Good         9           292         Pin Oak         Quercus palustris         Good         9           293         Black Cherry         Punus serotina         Good         11           294         Pin Oak         Ouerrus palustris         Good         11           294         Pin Oak         Ouerrus palustris         Good         11	541         Pin Oak         Quercus palustris         Good         7           542         Black Cherry         Prunus serotina         Good         10           543         Slippery Elm         Ulmus rubra         Good         20           544         Pin Oak         Ouercus palustris         Good         20	T91         Black Cherry         Prunus serotina         Good         9           792         Pin Oak         Quercus palustris         Good         9         6,6           793         Pin Oak         Quercus palustris         Good         14	1041         Hackberry         Cellis occidentalis         Good         10           1042         Hackberry         Cellis occidentalis         Good         9           1043         Jamerican Elm         Ulmus americana         Good         6	1291         American Elm         Ulmus americana         Good         7           1292         American Beech         Fagus grandifolia         Good         6           1293         Slippery Elm         Ulmus rubra         Good         9           1294         Americana Horborcheam         Datroa Horborcheam         Good         9	1541         Boxelder         Acer negundo         Good         11           1542         Boxelder         Acer negundo         Good         13           1543         Boxelder         Acer negundo         Good         7           6         1563         Bixelder         Acer negundo         Good         7	1791         Black Cherry         Prunus serotina         Good         11           1792         Black Cherry         Prunus serotina         Good         8           1793         Hackberry         Celtis occidentalis         Good         7           1794         Boxelder         Acer negundo         Good         6
Silver Maple         Acer saccharium         Good         6           Sugar Maple         Acer saccharum         Good         28           Sugar Maple         Acer saccharum         Good         18         14,10,9,8	296         Silppery Elm         Ulmus rubra         Good         20           296         Pin Oak         Quercus palustris         Good         7           297         Pin Oak         Quercus palustris         Good         20           298         Pin Oak         Quercus palustris         Good         17	545         Pin Oak         Quercus palustris         Good         11           546         Pin Oak         Quercus palustris         Good         17           547         Sippery Elm         Ulmus rubra         Good         6	795         Pin Oak         Quercus palustris         Good         9           796         Pin Oak         Quercus palustris         Good         14         9,9           797         Pin Oak         Quercus palustris         Good         18	1044         Sugar Maple         Acer saccharum         Good         6           1045         Green Ash         Fraxinus pennsylvarica         Poor         9           1046         Green Ash         Fraxinus pennsylvarica         Poor         10           1047         Green Ash         Fraxinus pennsylvarica         Poor         10           1047         Green Ash         Fraxinus pennsylvarica         Poor         12           1048         Sugar Maple         Acer saccharum         Good         6	1295         American Hophombeam         Ostrya virginiana         Good         7           1296         Scotch Pine         Pinus sylvestris         Good         6           1297         Scotch Pine         Pinus sylvestris         Good         7	C         Totol Coordination         Social           11645         Sugar Maple         Acer saccharum         Good         6           11546         American Elm         Ulmus americana         Good         7           11547         Boxelder         Acer negundo         Good         7           11548         Boxelder         Acer negundo         Good         11	1795 Slippery Elm Ulmus rubra Good 8 1796 Sugar Maple Acer saccharum Good 7 1797 Slippery Elm Ulmus rubra Good 9 1798 Slippery Elm Ulmus rubra Good 8
Hackberry Celtis occidentalis Good 14 12 Slippery Elm Ulmus rubra Good 18 Black Chery Panue servina Good 11	299         Pin Oak         Quercus palustris         Good         25           300         Pin Oak         Quercus palustris         Good         9           301         Pin Oak         Quercus palustris         Good         16           302         Pin Oak         Quercus palustris         Good         30	549         Pin Oak         Quercus palustris         Good         7           550         Apple         Malus sp.         Good         8           551         IPin Oak         Quercus palustris         Good         8           551         IPin Oak         Quercus palustris         Good         16           552         Pin Oak         Quercus palustris         Good         9	Type         Pin Oak         Cuercus patisms         Good         9           800         Pin Oak         Quercus patisms         Good         9           801         Pin Oak         Quercus patisms         Good         13	1049         Sugar Maple         Acer saccharum         Good         6           1050         Sugar Maple         Acer saccharum         Good         8           1051         American Beech         Fagus grantifolia         Poor         21           1052         Sugar Maple         Acer saccharum         Good         8	1298         Scotch Pine         Pinus sylvestris         Good         7           1299         Scotch Pine         Pinus sylvestris         Good         9           1300         Scotch Pine         Pinus sylvestris         Good         6           1301         Scotch Pine         Pinus sylvestris         Good         7           1302         Scotch Pine         Pinus sylvestris         Good         7           1302         Scotch Pine         Pinus sylvestris         Good         9	1549         Boxelder         Acer negundo         Good         11           1550         Green Ash         Fraxinus pensylvanica         Good         9           1551         Boxelder         Acer negundo         Good         15           1552         American Elm         Ulmus americana         Good         8	9.9         1799         Boxelder         Acer regundo         Good         8           1800         Boxelder         Acer regundo         Good         17           1801         Pin Oak         Ouercus palustris         Good         24           1802         Boxen Aeb         Erzvinus panesuhenica Box         14
Green Ash         Fraxinus pennsylvanica         Good         16           Osage-Orage         Maclura pomifera         Good         8           Silver Maple         Acer saccharinum         Good         6	303         Pin Oak         Quercus palustris         Good         15           304         Slippery Elm         Ulimus rubra         Good         8           305         Slippery Elm         Ulimus rubra         Good         8	554         Pin Oak         Quercus palustris         Good         21           555         Green Ash         Fraxinus pennsylvanica         Good         18	803         Pin Oak         Quercus palustris         Good         6           804         Pin Oak         Quercus palustris         Good         9           805         Pin Oak         Quercus palustris         Good         12         6	1053         Sugar Maple         Acer saccharum         Good         6           1054         Sugar Maple         Acer saccharum         Good         7           1055         Green Ash         Fraxinus pennsylvanica         Poor         13	1303 Scotch Pine Pinus sylvestris Good 7 1304 Sweet Gum Liquidambar styraciflua Good 6 1305 Scotch Pine Pinus sylvestris Good 6	6         1553         Boxelder         Acer negundo         Good         6           6         1554         Hackberry         Cettis occidentalis         Good         15           11555         Hackberry         Cettis occidentalis         Good         9	1803         Pin Oak         Ouercus palustris         Good         15           13         1804         American Elm         Ulmus americana         Good         6           1806         Black Cherry         Prunus serotina         Good         8
Slippery Elm         Ulmus rubra         Good         10           Slippery Elm         Ulmus rubra         Good         8           Pin Oak         Quercus palustris         Good         14           Silver Maple         Acer saccharinum         Good         7         6,6           Bileo Mark         Good         0         0         0	Job         Diack         Durrus         servina         Sodd         5           307         Pin Oak         Quercus palustris         Good         11           308         Pin Oak         Quercus palustris         Good         24           309         Pin Oak         Quercus palustris         Good         25	556         Slippery Elm         Ulmus rubra         Good         7           557         Slippery Elm         Ulmus rubra         Good         12           568         Slippery Elm         Ulmus rubra         Good         8           559         Slippery Elm         Ulmus rubra         Good         6           569         Slippery Elm         Ulmus rubra         Good         6           550         Slippery Elm         Ulmus rubra         Good         6	806         Pin Oak         Quercus palustris         Good         6           807         Pin Oak         Quercus palustris         Good         6           808         Pin Oak         Quercus palustris         Good         6           809         Pin Oak         Quercus palustris         Good         6           809         Pin Oak         Quercus palustris         Good         18           810         Pin Oak         Quercus palustris         Good         16	1056         Black Walnut         Juglans nigra         Good         14           1057         Green Ash         Fraxinus pennsylvanica         Poor         7           1058         Black Walnut         Juglans nigra         Good         28           1059         Green Ash         Fraxinus pennsylvanica         Good         28           1059         Green Ash         Fraxinus pennsylvanica         Good         7           4089         General Math Coll         Good         7         7	1306         Scotch Pine         Pinus sylvestris         Good         6           1307         Sweet Gum         Liquidambar styraciflua         Good         8           1308         Sweet Gum         Liquidambar styraciflua         Good         9           1309         Scotch Pine         Pinus sylvestris         Good         6           1310         Scotch Pine         Pinus sylvestris         Good         6	1556 [Boxelder         Acer negundo         Good         14           1557 [Boxelder         Acer negundo         Good         9           1558 [American Elm         Ulmus americana         Good         9           1559 [American Elm         Ulmus americana         Good         9           1559 [Creen Ash         Fraxinus pennsylvanica         Poor         10	1806         American Elm         Ulmus americana         Good         9           1807         American Elm         Ulmus americana         Good         9           1808         Swamp White Oak         Quercus bicolor         Good         24           1809         Pin Oak         Quercus palustris         Good         9           1909         Pin Oak         Quercus palustris         Good         9
Silver Maple         Acer saccharinum         Good         9           Silver Maple         Acer saccharinum         Good         6	311         Slippery Elm         Ulmus rubra         Good         12           312         Slippery Elm         Ulmus rubra         Good         8           313         Pin Oak         Quercus palustris         Good         7	561         Apple         Malus sp.         Good         9           562         Slippery Elm         Ulmus rubra         Good         10           563         Slippery Elm         Ulmus rubra         Good         8	811     Pignut Hickory     Carya glabra     Good     6       812     Pin Oak     Quercus palustris     Good     18       813     Bittemut Hickory     Carya cordiformis     Good     6	1060         Swamp White Oak         Quercus bicolor         Good         7           1061         American Elm         Ulmus americana         Good         6           1062         Swamp White Oak         Quercus bicolor         Poor         6           1063         Green Ash         Fraxinus pennsylvanica         Poor         13	1311         Scotch Pine         Pinus sylvestris         Good         7           1312         Scotch Pine         Pinus sylvestris         Good         6           1313         Scotch Pine         Pinus sylvestris         Good         6	1561 Green Ash Fraxinus pennsylvanica Poor 9 1562 Green Ash Fraxinus pennsylvanica Good 6 1563 Green Ash Fraxinus pennsylvanica Poor 9	1810         American Hophombeam         Ostrya virginiana         Good         7           1811         Pin Oak         Quercus palustris         Good         14           1812         American Em         Ulmus americana         Good         6           1813         American Hophombeam         Ostrya virginiana         Good         6           1813         American Hophombeam         Ostrya virginiana         Good         16         14
Slippery Elm Ulmus rubra Good / Black Cherry Prunus serotina Good 8	314         Honey Locust         Gieldisia triacanthos         Good         7           315         Pin Oak         Quercus palustris         Good         23         16           316         Pin Oak         Quercus palustris         Good         19         9           317         Pin Oak         Quercus palustris         Good         20         20	564         Black Cherry         Prunus serotina         Good         10           8         565         Slippery Elm         Ulmus rubra         Good         8           566         Slippery Elm         Ulmus rubra         Good         9           567         Green Ash         Fraxinus pennsylvanica         Poor         13	814         Bitternut Hickory         Carya cordiformis         Good         11         6           815         Green Ash         Fraxinus pennsylvanica         Dead         8           816         Green Ash         Fraxinus pennsylvanica         Poor         8           817         Bitternut Hickory         Carya cordiformis         Good         8	1064         Green Ash         Fraxinus pennsylvanica         Poor         13           1065         Sugar Maple         Acer saccharum         Good         6           1066         Sugar Maple         Acer saccharum         Good         6           1067         Swamp White Oak         Quercus bicclor         Good         7	1314         Scotch Pine         Pinus sylvestris         Good         6           1315         Scotch Pine         Pinus sylvestris         Good         8           1316         Scotch Pine         Pinus sylvestris         Good         6           1317         Scotch Pine         Pinus sylvestris         Good         6           1317         Scotch Pine         Pinus sylvestris         Good         6	1564         Green Ash         Fraxinus pennsylvanica         Poor         9           1565         American Elm         Ulmus americana         Good         7           1566         Green Ash         Fraxinus pennsylvanica         Poor         7           1567         Green Ash         Fraxinus pennsylvanica         Poor         6	1814         Black Cherry         Prunus serotina         Good         11           1815         Black Cherry         Prunus serotina         Good         10           1816         Black Cherry         Prunus serotina         Good         12           1816         Black Cherry         Puruus serotina         Good         12           1817         American Elm         Ulmus americana         Good         15
Slippery Elm         Ulmus rubra         Good         8           Pin Oak         Quercus palustris         Good         8           Pin Oak         Quercus palustris         Good         10           Pin Oak         Quercus palustris         Good         16	318         Pin Oak         Quercus palustris         Good         9           319         Black Cherry         Prunus serotina         Good         8           320         Slippery Elm         Ulmus rubra         Good         15         10,           321         Pin Oak         Quercus palustris         Good         17	568         Pin Oak         Quercus palustris         Good         20           569         Pin Oak         Quercus palustris         Good         8           ,7         570         Pin Oak         Quercus palustris         Good         22           ,7         571         Pin Oak         Quercus palustris         Good         40	818         Bittemut Hickory         Carya cordiformis         Good         6           819         Sugar Maple         Acer saccharum         Good         12           820         Sugar Maple         Acer saccharum         Good         7           821         Pin Oak         Quercus palustris         Good         15           920         Extra ultification         Corea sectification         6	1068         Sugar Maple         Acer saccharum         Good         10           1069         Sugar Maple         Acer saccharum         Good         6           1070         Green Ash         Fraxinus pennsylvarica         Poor         12           1071         Swamp White Oak         Quercus bicolor         Good         21           1073         Crean Ash         Generus bicolor         Good         21	1318     Scotch Pine     Pinus sylvestris     Good     6       1319     Scotch Pine     Pinus sylvestris     Good     9       1320     Scotch Pine     Pinus sylvestris     Good     6       1321     American Basswood     Tilia americana     Good     6	1568         Green Ash         Fraxinus pennsylvanica         Poor         9           1569         Pin Oak         Quercus palustris         Good         9           1570         Green Ash         Fraxinus pennsylvanica         Poor         11           6         1571         Slippery Elm         Ulmus rubra         Good         9	1818         Boxelder         Acer negundo         Good         9           1819         Slippery Elm         Ulmus rubra         Good         8           1820         Pin Oak         Quercus palustris         Good         22           1821         Pin Oak         Quercus palustris         Good         15
Pin Oak         Quercus palustris         Good         7           Pin Oak         Quercus palustris         Good         25           Hackberry         Cettis occidentalis         Good         17           Pin Oak         Quercus palustris         Good         19	322         Pin Oak         Quercus palustris         Good         6           323         Pin Oak         Quercus palustris         Good         26           324         Pin Oak         Quercus palustris         Good         28           325         Pin Oak         Quercus palustris         Good         60	572         Slippery Elm         Ulmus rubra         Good         7           573         Slippery Elm         Ulmus rubra         Good         7           574         Green Ash         Fraxinus pennsylvanica         Good         13           575         Slippery Elm         Ulmus rubra         Good         31	822     Pin Oak     Ouercus palustris     Good     5       824     Shagbark Hickory     Carya oxeta     Good     11       825     Pin Oak     Quercus palustris     Good     12	1072         Stear Asin         Fraxinus perinsylvanica         From         13           1073         Sugar Maple         Acer saccharum         Good         7           1074         Sugar Maple         Acer saccharum         Good         6           1075         Green Ash         Fraxinus pennsylvanica         Poor         14	1322         Socich Pine         Pinus sylvestris         Good         6           1323         Socich Pine         Pinus sylvestris         Good         6           1324         Socich Pine         Pinus sylvestris         Good         6           124         Socich Pine         Pinus sylvestris         Good         6           12         1325         Socich Pine         Pinus sylvestris         Good         6	1572         Green Ash         Fraxinus pennsylvanica         Good         10           1573         Black Cherry         Prunus serotina         Good         7           1574         Slippery         Umus rubra         Good         10           1575         Slippery Elm         Ulmus rubra         Good         8	1822 Sugar Maple         Acer saccharum         Good         14           1823 Black Cherry         Prunus serotina         Good         8           10,9         1824 Pin Oak         Quercus palustris         Good         27           1825 Slippery Elm         Ulmus rubra         Good         10
Hackberry         Cettis occidentalis         Good         14           Pin Oak         Quercus palustris         Good         30           Hackberry         Cettis occidentalis         Good         7           Pin Oak         Quercus palustris         Good         24         13	326         Hackberry         Celtis occidentalis         Good         11           327         Hackberry         Celtis occidentalis         Good         6           328         Pin Oak         Quercus palustris         Good         7           329         Pin Oak         Quercus palustris         Good         29	576         Pin Oak         Quercus palustris         Good         8           577         Green Ash         Fraxinus pennsylvanica         Poor         22           578         Green Ash         Fraxinus pennsylvanica         Poor         13           579         Pin Oak         Quercus palustris         Good         11	826         Pin Oak         Quercus palustris         Good         15           827         Bitternut Hickory         Carya cordiformis         Good         12         8           828         Shagbark Hickory         Carya covata         Good         8           829         Bitternut Hickory         Carya covatiformis         Good         7	1076         Sugar Maple         Acer saccharum         Good         8           1077         Red Oak         Quercus rubra         Good         14           1078         Black Walnut         Juglans nigra         Good         12           1079         Pin Oak         Quercus palustris         Good         7	1326         Scotch Pine         Pinus sylvestris         Good         6           1327         Scotch Pine         Pinus sylvestris         Good         9           1328         Scotch Pine         Pinus sylvestris         Good         9           1328         Scotch Pine         Pinus sylvestris         Good         9           1329         Scotch Pine         Pinus sylvestris         Good         7	6         1576         Boxelder         Acer negundo         Good         8           1577         Boxelder         Acer negundo         Good         7           1578         Boxelder         Acer negundo         Good         7           1577         Boxelder         Acer negundo         Good         11           1579         Eastern Cottonwood         Populus deltoides         Good         44	1826         Hackberry         Celtis occidentalis         Good         10           1827         Pin Oak         Quercus palustris         Good         31           1828         Slippery Elm         Ulmus rubra         Good         6           1829         Slippery Elm         Ulmus rubra         Good         8
Pin Oak Quercus palustris Good 19 Pin Oak Quercus palustris Good 14 Hackberry Cettis occidentalis Good 11 Black Cherry Prunus serotina Good 8	330         Pin Oak         Ouercus palustris         Good         14           331         Hackberry         Celtis occidentalis         Good         8           332         Hackberry         Celtis occidentalis         Good         12           333         Sugar Maple         Acer saccharum         Good         7	580         Green Ash         Fraxinus pennsylvanica         Poor         20           581         Pin Oak         Quercus palustris         Good         19           582         Green Ash         Fraxinus pennsylvanica         Poor         16           583         Pin Oak         Quercus palustris         Good         6	830         Bitternut Hickory         Carya cordiformis         Good         7         7           831         Pin Oak         Quercus palustris         Good         12         32         Swamp White Oak         Quercus bicolor         Good         18         33         Bitternut Hickory         Carya cordiformis         Good         18         33         Bitternut Hickory         Carya cordiformis         Good         9         33         33         33         34 </td <td>1080         Sugar Maple         Acer saccharum         Good         9           1081         Sugar Maple         Acer saccharum         Good         6           1082         Sugar Maple         Acer saccharum         Good         6           1083         Sugar Maple         Acer saccharum         Good         6           1083         Sugar Maple         Acer saccharum         Good         6</td> <td>1330         Scotch Pine         Pinus sylvestris         Good         10           1331         Scotch Pine         Pinus sylvestris         Good         12           1332         Scotch Pine         Pinus sylvestris         Good         6           1333         Tulip Tree         Lindendron tulipfera         Good         6</td> <td>1580         Eastern Cottonwood         Populus deltoides         Good         30           1581         Boxelder         Acer negundo         Good         6           1582         Eastern Cottonwood         Populus deltoides         Good         6           6         1583         Black Cherry         Prunus serotina         Good         7</td> <td>1830         Hackberry         Cettis occidentalis         Good         9           11831         Hackberry         Cettis occidentalis         Good         14           11832         Bippery Elm         Ulmus rubra         Good         6           11833         Pin Oak         Quercus palustris         Good         26</td>	1080         Sugar Maple         Acer saccharum         Good         9           1081         Sugar Maple         Acer saccharum         Good         6           1082         Sugar Maple         Acer saccharum         Good         6           1083         Sugar Maple         Acer saccharum         Good         6           1083         Sugar Maple         Acer saccharum         Good         6	1330         Scotch Pine         Pinus sylvestris         Good         10           1331         Scotch Pine         Pinus sylvestris         Good         12           1332         Scotch Pine         Pinus sylvestris         Good         6           1333         Tulip Tree         Lindendron tulipfera         Good         6	1580         Eastern Cottonwood         Populus deltoides         Good         30           1581         Boxelder         Acer negundo         Good         6           1582         Eastern Cottonwood         Populus deltoides         Good         6           6         1583         Black Cherry         Prunus serotina         Good         7	1830         Hackberry         Cettis occidentalis         Good         9           11831         Hackberry         Cettis occidentalis         Good         14           11832         Bippery Elm         Ulmus rubra         Good         6           11833         Pin Oak         Quercus palustris         Good         26
Hackberry Celtis occidentalis Good 16 Hackberry Celtis occidentalis Good 6 Black Cherry Prunus serotina Good 12 Pin Oak Quercus palustris Good 9	334         Hackberry         Celtis occidentalis         Good         7           335         Hackberry         Celtis occidentalis         Good         12           336         Hackberry         Celtis occidentalis         Good         6           337         Hackberry         Celtis occidentalis         Good         8	554         Slippery Elm         Ulmus rubra         Good         12           585         Green Ash         Fraxinus pennsylvarica         Poor         13           586         Pin Oak         Quercus palustris         Good         20           587         Pin Oak         Quercus palustris         Good         8	834         Bitternut Hickory         Carya cordiformis         Good         9         9           835         Bitternut Hickory         carya cordiformis         Good         7           836         Pinternut Hickory         Carya cordiformis         Good         7           836         Pinternut Hickory         Carya cordiformis         Good         17           837         Bitternut Hickory         Carya cordiformis         Good         8	1084         Sugar Maple         Acer saccharum         Good         6           1085         Swamp White Oak         Quercus bicolor         Good         7           1086         Sugar Maple         Acer saccharum         Good         7           1087         Green Ash         Fraxinus pennsylvanica         Good         14	1334     Scotch Pine     Pinus sylvestris     Good     6       1335     Scotch Pine     Pinus sylvestris     Good     6       1336     Scotch Pine     Pinus sylvestris     Good     8       1337     Large Toothed Aspen     Populus grandidentata     Good     10	1584         American Elm         Ulmus americana         Good         9           1585         Black Cherry         Prunus serotina         Good         9           1586         Black Cherry         Prunus serotina         Good         6           1587         Black Cherry         Prunus serotina         Good         7	1834         Slippery Elm         Ulmus rubra         Good         9           1835         Slippery Elm         Ulmus rubra         Good         10           1836         Pin Oak         Ouercus palustris         Good         24           1837         Slippery Elm         Ulmus rubra         Good         9
Pin Oak         Quercus palustris         Good         25           Pin Oak         Quercus palustris         Good         22           Pin Oak         Quercus palustris         Good         19           Pin Oak         Quercus palustris         Good         19           Pin Oak         Quercus palustris         Good         24	338         Hackberry         Celtis occidentalis         Good         16           339         Pin Oak         Duercus palustris         Good         18           340         Pin Oak         Duercus palustris         Good         22           341         Hackberry         Celtis occidentalis         Good         12	588         Pin Oak         Quercus palustris         Good         18           589         Pin Oak         Quercus palustris         Good         18           590         Pin Oak         Quercus palustris         Good         20           591         Pin Oak         Quercus palustris         Good         20           591         Pin Oak         Quercus palustris         Good         8	838         Bitternut Hickory         Carya cordiformis         Good         8           839         Bitternut Hickory         Carya cordiformis         Good         11           840         Bitternut Hickory         Carya cordiformis         Good         7           841         Pin Oak         Quercus palustris         Good         12	1088         Green Ash         Fraxinus pennsylvanica         Poor         15           1089         Sugar Maple         Acer saccharum         Good         6           1090         Sugar Maple         Acer saccharum         Good         6           1091         American Elm         Ulmus americana         Good         7	1338         Sotich Pine         Pinus sylvestris         Good         7           1339         Sotich Pine         Pinus sylvestris         Good         7           1340         Sotich Pine         Pinus sylvestris         Good         7           1341         Sotich Pine         Pinus sylvestris         Good         6           1341         Sotich Pine         Pinus sylvestris         Good         6	1588         Boxelder         Acer negundo         Good         8           1589         Black Cherry         Prunus serotina         Good         9           1590         Black Cherry         Prunus serotina         Good         9           1591         Black Cherry         Prunus serotina         Good         9           1591         Black Cherry         Prunus serotina         Good         6	1838         Pin Oak         Quercus palustris         Good         24           1839         Sugar Maple         Acer saccharum         Good         6           1840         Boxelder         Acer negundo         Good         6           1841         Biack Williow         Salik nigra         Good         32
Pin Oak         Quercus palustris         Good         18           Pin Oak         Quercus palustris         Good         19           Pin Oak         Quercus palustris         Good         10           Pin Oak         Quercus palustris         Good         21	342         Pin Oak         Duercus palustris         Good         26           343         Hackberry         Celtis occidentalis         Good         13           344         Honey Locust         Sleditsia triacanthos         Good         20           345         Hackberry         Celtis occidentalis         Good         17	592         Black Cherry         Prunus serotina         Good         8           593         Pin Oak         Quercus palustris         Good         21           594         Slippery Elm         Jumes rubra         Good         8           595         Pin Oak         Quercus palustris         Good         26	842         Pin Oak         Quercus palustris         Good         8           843         Pin Oak         Quercus palustris         Dead         11           844         Swamp White Oak         Quercus bicolor         Good         15           845         Pin Oak         Quercus palustris         Good         14	1092         Sugar Maple         Acer saccharum         Good         6           1093         Black Walnut         Juglans nigra         Good         14           1094         Green Ash         Fraxinus pennsylvanica         Poor         21           1095         Hackberry         Cettis occidentalis         Poor         7	1342         Scotch Pine         Pinus sylvestris         Good         7           1343         Scotch Pine         Pinus sylvestris         Good         9           1344         Scotch Pine         Pinus sylvestris         Good         6           1345         Scotch Pine         Pinus sylvestris         Good         7	1592         Black Cherry         Prunus serotina         Good         9           1593         Black Cherry         Prunus serotina         Good         6           1594         Black Cherry         Prunus serotina         Good         11           1595         Black Cherry         Prunus serotina         Good         12	1842         Black Cherry         Prunus serotina         Good         11           1843         American Hophombeam         Ostrya virginiana         Good         6           1844         American Hophombeam         Ostrya virginiana         Good         8           1845         Slippery Elm         Ulmus rubra         Good         15
Pin Oak         Quercus palustris         Good         10           Pin Oak         Quercus palustris         Good         40           Pin Oak         Quercus palustris         Good         67           Hackberry         Cettis ocidentalis         Good         67	346         Honey Locust         Seditisia triacanthos         Sood         18           347         Hackberry         Celtis occidentalis         Good         13           348         Slippery Elm         Jimus rubra         Good         8           349         Hackberry         Celtis occidentalis         Good         12	596         Pin Oak         Quercus palustris         Good         7           597         Slippery Elm         Ulmus rubra         Poor         16           598         Green Ash         Fraxinus pennsylvarica         Poor         8           599         Green Ash         Fraxinus pennsylvarica         Poor         7	846         Pin Oak         Quercus palustris         Good         12           847         Pin Oak         Quercus palustris         Good         16           848         Pin Oak         Quercus palustris         Good         13           849         Pin Oak         Quercus palustris         Good         13           849         Pin Oak         Quercus palustris         Good         17	1096         Slippery Elm         Ulmus rubra         Good         7           1097         Hackberry         Cettis occidentalis         Good         6           1098         Black Cherry         Prunus serotina         Good         7           1099         Hackberry         Cettis occidentalis         Good         7           1099         Hackberry         Cettis occidentalis         Good         6	1346         Sweet Gum         Liquidambar styraciflua         Sood         9           1347         Scotch Pine         Pinus sylvestris         Good         9           1348         Sweet Gum         Liquidambar styraciflua         Good         7           1348         Stotch Pine         Pinus sylvestris         Good         7           1349         Scotch Pine         Pinus sylvestris         Good         6	1596         Green Ash         Fraxinus pennsylvanica         Good         9           1597         Black Cherry         Prunus serotina         Good         12           1598         Black Cherry         Prunus serotina         Good         7           1598         Black Cherry         Prunus serotina         Good         9	1846         Pin Oak         Quercus palustris         Good         13           1847         American Hophornbeam         Sstrya virginiana         Good         8           1848         American Hophornbeam         Dstrya virginiana         Good         7           1849         American Hophornbeam         Dstrya virginiana         Good         7           1849         American Hophornbeam         Dstrya virginiana         Good         7
Pin Oak         Duercus palustris         Good         10           Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         17	350         Pin Oak         Duercus palustris         Good         18           351         Pin Oak         Duercus palustris         Good         12           352         Pin Oak         Duercus palustris         Good         21	600         Black Cherry         Prunus serotina         Good         7           601         Green Ash         Fraxinus pennsylvarica         Good         7           602         Black Cherry         Prunus serotina         Good         6	B50         Bittemut Hickory         Carya cordiformis         Good         7           851         Pin Oak         Ouercus palustris         Good         6           852         Pin Oak         Quercus palustris         Good         17	1100         Sugar Maple         Acer saccharum         Poor         21           1101         Black Cherry         Prurus serotina         Good         9           1102         Hackberry         Cettis occidentalis         Good         6	1350         Scotch Pine         Pinus sylvestris         Good         6           1351         Scotch Pine         Pinus sylvestris         Good         7           1352         Scotch Pine         Pinus sylvestris         Good         7	1600         Slippery Elm         Ulmus rubra         Good         7           1601         Slippery Elm         Ulmus rubra         Good         19           1602         Black Cherry         Prunus serotina         Good         6	1850         Black Cherry         Prunus serotina         Good         9           1851         Hackberry         Cettis occidentalis         Good         6           1852         Hackberry         Cettis occidentalis         Good         7
Pin Oak         Duercus palustris         Good         17           Pin Oak         Duercus palustris         Good         12           Slippery Elm         Ulmus rubra         Good         7           Pin Oak         Duercus palustris         Good         7           Pin Oak         Duercus palustris         Good         9           Hackberry         Celtis occidentalis         Good         8	354         Hackberry         Cettis occidentalis         Good         12           355         Hackberry         Dettis occidentalis         Good         10           356         Sugar Maple         Acer saccharum         Good         6	604         Black Cherry         Prunus serotina         Good         8           605         Silippery Elm         Ulmus rubra         Good         7           606         Silippery Elm         Ulmus rubra         Good         12	853         Pin Oak         Quercus palustris         Good         13           854         Pin Oak         Quercus palustris         Good         18           855         Pin Oak         Quercus palustris         Good         9           856         Pin Oak         Quercus palustris         Good         6           856         Pin Oak         Quercus palustris         Good         6           857         Merican Elim         Ulmus americana         Good         6	1104 Black Walnut         Juglans nigra         Good         6           1105 Black Walnut         Juglans nigra         Good         8           1106 Black Walnut         Juglans nigra         Good         7	1354         Sootch Pine         Pinus sylvestris         Good         8           1355         Soctch Pine         Pinus sylvestris         Good         6           1356         Soctch Pine         Pinus sylvestris         Good         6	1603         Black Cherry         Prinus serotina         Good         8           1604         Silver Maple         Acer saccharinum         Good         16           1605         White Pine         Pinus strobus         Good         6           1606         White Pine         Pinus strobus         Good         9           1607         White Pine         Pinus strobus         Good         9	1854         Pin Oak         Quercus palustris         Good         10           1855         Black Cherry         Prunus serotina         Good         16           1856         Black Cherry         Limus rubra         Good         9
Pin Oak         Duercus palustris         Bood         10           Pin Oak         Duercus palustris         Bood         9           Sippery Elm         Umus rubra         Bood         10	357         Pin Oak         Duercus palustris         Good         6           358         American Elm         Jimus americana         Good         22           359         American Elm         Jimus americana         Good         6           360         Red Maple         Acer rubrum         Good         6           360         Red Maple         Acer rubrum         Good         6	608         Pin Oak         Duercus palustris         Good         6           609         Pin Oak         Duercus palustris         Good         23           610         Pin Oak         Duercus palustris         Good         23           610         Pin Oak         Duercus palustris         Good         10	858         Pin Oak         Duercus palustris         Good         13         12           859         Pin Oak         Duercus palustris         Good         13         10           11         860         Pin Oak         Duercus palustris         Good         9         10	1108         Sugar Maple         Acer saccharum         Good         7           1109         Bitternut Hickory         Carya cordiformis         Good         12           1110         Bitternut Hickory         Carya cordiformis         Good         7	1357         Scotch Pine         Pinus sylvestris         Good         6           1358         Scotch Pine         Pinus sylvestris         Good         6           1359         Scotch Pine         Pinus sylvestris         Good         6           1369         Scotch Pine         Pinus sylvestris         Good         6           1360         Scotch Pine         Pinus sylvestris         Good         6	1608         White Pine         Pinus strobus         Good         8           1609         White Pine         Pinus strobus         Good         8           1610         White Pine         Pinus strobus         Good         9	1857         Slippery Elm         Ulmus rubra         Good         9           1858         Slippery Elm         Ulmus rubra         Good         8           1859         Pin Oak         Quercus palustris         Good         18           1860         Pin Oak         Quercus palustris         Good         13           1990         Pin Oak         Quercus palustris         Good         13
Sippery Lim         Ulmus rubra         Good         6           Pin Oak         Duercus palustris         Good         24           Pin Oak         Duercus palustris         Good         7           Pin Oak         Duercus palustris         Good         13	361         Ked Maple         Ccer rubrum         Good         7           362         Black Walnut         Juglans nigra         Good         6           363         Bippery Elm         Jimus rubra         Good         8           364         Green Ash         Fraxinus pennsylvanica         Good         10	611         Slippery Elm         Jimus rubra         Good         11           612         Slippery Elm         Jimus rubra         Good         10           613         Slippery Elm         Jimus rubra         Good         9           614         Slippery Elm         Jimus rubra         Good         9           614         Slippery Elm         Jimus rubra         Good         8	861         Bitternut Hickory         Carya cordiformis         Good         9         7,6           862         Pin Oak         Quercus palustris         Good         12           863         Pin Oak         Quercus palustris         Good         15           864         Pin Oak         Quercus palustris         Good         10         6,6	1111         Bitternut Hickory         Carya cordiformis         Good         7           1112         American Elm         Ulmus americana         Good         6           1113         Bitternut Hickory         Carya cordiformis         Good         6           1114         Green Ash         Fraxinus pennsylvanica         Poor         13	1361         Scotch Pine         Pinus sylvestris         Scod         6           1362         Scotch Pine         Pinus sylvestris         Scod         6           1363         Large Toothed Aspen         Populus grandidentata         Scod         7           1364         Scotch Pine         Pinus sylvestris         Scod         6	1611         White Pine         Pinus strobus         Good         10           1612         White Pine         Pinus strobus         Good         10           1613         White Pine         Pinus strobus         Good         7           1614         White Pine         Pinus strobus         Good         7	T865         Bitppery Elm         Ulmus rubra         Good         6           1862         Bippery Elm         Ulmus rubra         Good         7           1863         Black Willow         Salix nigra         Good         15           1864         Slippery Elm         Ulmus rubra         Good         6
Slippery Elm         Ulmus rubra         Good         9           Slippery Elm         Ulmus rubra         Good         18           Pin Oak         Quercus palustris         Good         12           Slippery Elm         Ulmus rubra         Good         7	36b         Ked Maple         Acer rubrum         Good         8           366         Green Ash         Fraxinus pennsylvanica         Poor         7           367         Green Ash         Fraxinus pennsylvanica         Poor         8           368         Green Ash         Fraxinus pennsylvanica         Poor         12	615         Slippery Elm         Ulmus rubra         Good         7           616         Slippery Elm         Ulmus rubra         Good         10           617         Hackberry         Celtis occidentalis         Good         9           618         Hackberry         Celtis occidentalis         Good         13	865         Pin Oak         Quercus palustris         Good         9           866         Pin Oak         Quercus palustris         Sood         9           867         Pin Oak         Quercus palustris         Good         9           12         868         Pin Oak         Quercus palustris         Good         8	1115         Sugar Maple         Acer saccharum         Good         6           1116         Sugar Maple         Acer saccharum         Good         6           1117         Sugar Maple         Acer saccharum         Good         6           1117         Sugar Maple         Acer saccharum         Good         6           1118         American Elm         Ulmus americana         Good         14	1365         Scotch Pine         Pinus sylvestris         Good         9           1366         Scotch Pine         Pinus sylvestris         Good         12           1367         Scotch Pine         Pinus sylvestris         Good         6           12         1368         Scotch Pine         Pinus sylvestris         Good         10	1615         White Pine         Pinus strobus         Good         11           1616         White Pine         Pinus strobus         Good         12           1617         Red Pine         Pinus resinosa         Good         7           1618         Red Pine         Pinus resinosa         Good         7	1865         Pin Oak         Quercus palustris         Good         18           1866         Bippery Elm         Ulmus rubra         Good         9           1867         Pin Oak         Quercus palustris         Good         27           1868         Pin Oak         Quercus palustris         Good         13
Pin Oak         Duercus palustris         Good         6           Pin Oak         Duercus palustris         Good         9         9           Pin Oak         Duercus palustris         Good         14           Pin Oak         Duercus palustris         Good         6	360         Blippery Eim         Ulmus rubra         Good         11           370         White Ash         Fraxinus americana         Poor         12           371         Bippery Eim         Jimus rubra         Good         9           372         Slippery Eim         Jimus rubra         Good         13	619         Slippery Elm         Ulmus rubra         Good         15           620         Slippery Elm         Ulmus rubra         Good         9           621         Slippery Elm         Ulmus rubra         Good         6           622         Slippery Elm         Ulmus rubra         Good         6           622         Slippery Elm         Ulmus rubra         Good         7	869         Pin Oak         Quercus palustris         Good         6           870         Pin Oak         Quercus palustris         Good         21           871         Pin Oak         Quercus palustris         Dead         8           872         Pin Oak         Quercus palustris         Dead         9         9	1119 Green Ash         Fraxinus pennsylvanica         Good         13           1120 Black Walnut         Juglans nigra         Good         7           1121 Black Walnut         Juglans nigra         Good         6           1122 American Elm         Jimus americana         Good         7	1369         Scotch Pine         Pinus sylvestris         Poor         6           1370         White Pine         Pinus strobus         Good         8           1371         White Pine         Pinus strobus         Good         7           1372         White Pine         Pinus strobus         Good         6	1619         Red Pine         Pinus resinosa         Good         6           1620         White Pine         Pinus strobus         Good         11           1621         Red Pine         Pinus resinosa         Good         10           1622         White Pine         Pinus resinosa         Good         11	1869         Pin Oak         Quercus palustris         Good         12           1870         Slippery Elm         Ulmus rubra         Good         7           1871         Hackberry         Celtis occidentalis         Good         7           1872         Pin Oak         Quercus palustris         Good         7           1872         Pin Oak         Quercus palustris         Good         17
Pin Oak         Duercus palustris         Good         11         9           Pin Oak         Duercus palustris         Good         8         Black Cherry         Prunus serotina         Good         11           Pin Oak         Quercus palustris         Good         11         9           Pin Oak         Quercus palustris         Good         8         9	373         Pin Oak         Duercus palustris         Good         7           374         Pin Oak         Duercus palustris         Good         7           375         Black Cherry         Prunus serotina         Good         9           376         Pin Oak         Duercus palustris         Good         9	623         Green Ash         Fraxinus pennsylvanica         Poor         12           624         Pin Oak         Duercus palustris         Good         10           625         Hackberry         Celtis occidentalis         Good         16           626         Green Ash         Fraxinus pennsylvanica         Good         9	873         Pin Oak         Quercus palustris         Good         22         13,6           874         Pin Oak         Quercus palustris         Good         8           875         Pin Oak         Quercus palustris         Good         18           876         Bitternut Hickory         Carya cordiformis         Good         9	1123         American Elm         Ulmus americana         Good         12           1124         Sugar Maple         Acer saccharum         Good         6           1125         Sugar Maple         Acer saccharum         Good         6           1126         Sugar Maple         Acer saccharum         Good         6	1373         White Pine         Pinus strobus         Good         10           1374         White Pine         Pinus strobus         Good         9           1375         White Pine         Pinus strobus         Good         10           1376         White Pine         Pinus strobus         Good         10           1376         White Pine         Pinus strobus         Good         10	1623         White Pine         Pinus strobus         Good         12           1624         White Pine         Pinus strobus         Good         10           1625         White Pine         Pinus strobus         Good         6           1626         Red Pine         Pinus strobus         Good         6	1873         Bilippery         Ulmus rubra         Good         8           1874         Pin Oak         Quercus palustris         Good         24           1875         Sugar Maple         Acer saccharum         Good         10           1876         Sugar Maple         Acer saccharum         Good         7
Black Cherry         Prunus serotina         Good         7           Pin Oak         Duercus palustris         Good         10           Pin Oak         Duercus palustris         Good         13           Pin Oak         Duercus palustris         Good         15	377         Pin Oak         Duercus palustris         Good         7           378         Pin Oak         Duercus palustris         Good         7           379         Pin Oak         Duercus palustris         Good         24           380         Pin Oak         Duercus palustris         Good         13	627         American Elm         Ulmus americana         Good         9           628         Red Maple         Acer rubrum         Good         17           629         Green Ash         Fraxinus pennsylvanica         Poor         11           630         Green Ash         Fraxinus pennsylvanica         Poor         9	877         Pin Oak         Duercus palustris         Good         15           9         878         Bitternut Hickory         Carya cordiformis         Good         7           879         Bitternut Hickory         Carya cordiformis         Good         6           880         Shagbark Hickory         Carya oveta         Good         7	1127         Sugar Maple         Acer saccharum         Good         6           1128         Sugar Maple         Acer saccharum         Good         17           1129         American Elm         Jimus americana         Good         6           1130         American Elm         Jimus americana         Good         6	1377         White Pine         Pinus strobus         Good         10           1378         White Pine         Pinus strobus         Good         10           1379         White Pine         Pinus strobus         Good         9           1380         White Pine         Pinus strobus         Good         7	1627         Red Pine         Pinus resinosa         Good         7           1628         Red Pine         Pinus resinosa         Good         7           1629         Red Pine         Pinus resinosa         Good         7           1620         Red Pine         Pinus resinosa         Good         7           1630         Red Pine         Pinus resinosa         Good         9	1877         Slippery Elm         Ulmus rubra         Good         7           1878         Pin Oak         Quercus palustris         Good         11           1879         Pin Oak         Quercus palustris         Good         12           1879         Pin Oak         Quercus palustris         Good         12           1880         Pin Oak         Quercus palustris         Good         18
Black Cherry         Prunus serotina         Good         7           Pin Oak         Duercus palustris         Good         7           Pin Oak         Duercus palustris         Good         14           Pin Oak         Duercus palustris         Good         16	381         Pin Oak         Duercus palustris         Good         6           382         Pin Oak         Duercus palustris         Good         11           383         Pin Oak         Duercus palustris         Good         18           384         Pin Oak         Duercus palustris         Good         7	631         Pin Oak         Quercus palustris         Poor         7           632         Hackberry         Cettis occidentalis         Poor         10           633         Pin Oak         Quercus palustris         Sood         7           634         Slippery Elm         Jimus rubra         Good         9	B81         Pin Oak         Quercus palustris         Good         15           882         Bitternut Hickory         Carya cordiformis         Good         7         6           9         B83         Green Ash         Fraxinus pennsylvanica         Dead         9           884         Sugar Maple         Acer saccharum         Good         6	1131         Sugar Maple         Acer saccharum         Sood         7           1132         Green Ash         Fraxinus pennsylvanica         Good         8           1133         Sugar Maple         Acer saccharum         Good         6           1134         Sugar Maple         Acer saccharum         Good         6           1134         Sugar Maple         Acer saccharum         Good         6	1381         White Pine         Pinus strobus         Good         11           1382         White Pine         Pinus strobus         Good         9           1383         White Pine         Pinus strobus         Good         12           1384         Tulip Tree         Liriodendron tulipfera         Good         9	1631         Red Pine         Pinus resinosa         Good         9           1632         Red Pine         Pinus resinosa         Good         10           1633         Red Pine         Pinus resinosa         Good         9           1633         Red Pine         Pinus resinosa         Good         9           1634         Pin Oak         Quercus palustris         Good         13	1881 Pin Oak         Quercus palustris         Good         8           1882 Slippery Elm         Ulmus rubra         Good         16           1883 Pin Oak         Quercus palustris         Good         14           1884 Green Ash         Fraxinus pennsylvanica         Good         9
Black Cherry         Prunus serotina         God         12           Black Cherry         Prunus serotina         God         6           Black Cherry         Prunus serotina         God         8           Black Cherry         Prunus serotina         God         7	385         Bippery Elm         Jimus rubra         Good         13           386         Pin Oak         Duercus palustris         Good         7           387         Pin Oak         Duercus palustris         Good         10           388         Black Cherry         Prunus serotina         Good         9	655         Green Ash         Fraxinus pennsylvanica         Good         8           636         Pin Oak         Duercus palustris         Good         10           637         Pin Oak         Duercus palustris         Good         8           638         Pin Oak         Duercus palustris         Good         9	885         Sugar Maple         Acer saccharum         Good         6           886         Shagbark Hickory         Carya oveta         Good         6           887         Pin Oak         Quercus palustris         Good         18           888         Pin Oak         Quercus palustris         Good         15	1135         Slippery Elm         Ulmus rubra         Good         6           1136         Sugar Maple         Acer saccharum         Good         6           1137         American Elm         Ulmus americana         Good         9           1138         Pin Oak         Quercus palustris         Good         12	1385         Sotch Pine         Pinus sylvestris         Good         6           1386         Sotch Pine         Pinus sylvestris         Good         6           1387         Sotch Pine         Pinus sylvestris         Good         7           1388         Sotch Pine         Pinus sylvestris         Good         6	1635         Pin Oak         Quercus palustris         Good         11           1636         Red Pine         Pinus resinosa         Good         9           1637         Red Pine         Pinus resinosa         Good         9           1638         Red Pine         Pinus resinosa         Good         9           1638         Red Pine         Pinus resinosa         Good         9	1885         Pin Oak         Quercus palustris         Good         7           1886         Slippery Elm         Ulmus rubra         Good         7           1887         Green Ash         Fraxinus pennsylvarica         Poor         7           1888         Green Ash         Fraxinus pennsylvarica         Poor         11
Pin Oak         Duercus palustris         God         63           Slippery Elm         Ulmus rubra         Good         8           Pin Oak         Duercus palustris         Good         11           Pin Oak         Duercus palustris         Good         8	389         Black Cherry         Prunus serotina         Good         9           390         Pin Oak         Duercus palustris         Good         8           391         Pin Oak         Duercus palustris         Good         8           392         Red Maple         Acer rubrum         Good         8	639         Pin Oak         Duercus palustris         Good         25           640         Pin Oak         Duercus palustris         Good         13           641         Pin Oak         Duercus palustris         Good         18           642         Pin Oak         Duercus palustris         Good         17	889         Shagbark Hickory         Carya ovela         Good         7           890         Swamp White Oak         Quercus bicolor         Good         9           891         Bitternut Hickory         Carya cordiformis         Good         7           892         Red Oak         Quercus rubra         Good         14         14,14,14,14	1139         Sugar Maple         Acer saccharum         Good         9           1140         Black Walnut         Jugians nigra         Good         10           1141         Sugar Maple         Acer saccharum         Good         6           1142         Sugar Maple         Acer saccharum         Good         6	1389         Scotch Pine         Pinus sylvestris         Good         6           1390         Scotch Pine         Pinus sylvestris         Good         6           1391         Scotch Pine         Pinus sylvestris         Good         6           1392         Scotch Pine         Pinus sylvestris         Good         6	1639         Red Pine         Pinus resinosa         Good         9           1640         Pin Oak         Quercus palustris         Good         6           1641         Red Pine         Pinus resinosa         Good         11           1642         White Pine         Pinus strobus         Good         6	1889         Green Ash         Fraxinus pennsylvarica         Poor         6           1890         Black Cherry         Prunus serotina         Good         13           1891         Jackberry         Celtis occidentalis         Good         7           1892         Green Ash         Fraxinus pennsylvarica         Good         15         13
Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         13           Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         10	393         Slippery Elm         Jimus rubra         Good         11           394         Slippery Elm         Jimus rubra         Good         10           395         Pin Oak         Detrcus palustris         Good         9           396         Pin Oak         Detrcus palustris         Good         9	643         Pin Oak         Duercus palustris         Good         21           644         Pin Oak         Duercus palustris         Good         15           645         Pin Oak         Duercus palustris         Good         10           646         Pin Oak         Duercus palustris         Good         10           646         Pin Oak         Duercus palustris         Good         14	893         Swamp White Oak         Quercus bicolor         Good         11           894         Pin Oak         Quercus palustris         Sood         10           895         Bitternut Hickory         Carya cordiformis         Good         7           896         Bitternut Hickory         Carya cordiformis         Good         7	1143         American         Dimus americana         Good         6           1144         Black         Walnut         Juglans nigra         Good         6           1145         Green Ash         Fraxinus pennsylvanica         Good         8           1146         Green Ash         Fraxinus pennsylvanica         Good         11	1333         Scotch Pine         Pinus sylvestris         Good         6           1394         Scotch Pine         Pinus sylvestris         Good         9           1395         Scotch Pine         Pinus sylvestris         Good         9           1396         White Pine         Pinus strobus         Good         9	1643         White Pine         Pinus strobus         Good         6           1644         Red Pine         Pinus resinosa         Good         6           1645         Norway Spruce         Picea abies         Good         8           1646         Red Pine         Pinus resinosa         Good         8	1893         Green Ash         Fraxinus pennsylvanica         Good         8           1894         Pin Oak         Quercus palustris         Good         20           1895         Silpoper JElm         Ulmus rubra         Good         9           1896         Silpoper VElm         Ulmus rubra         Good         8
Swamp White Oak         Duercus bicolor         Good         11           Pin Oak         Duercus palustris         Good         8           Pin Oak         Duercus palustris         Good         11           Pin Oak         Duercus palustris         Good         11           Pin Oak         Duercus palustris         Good         10	397         Pin Oak         Duercus palustris         Good         8           398         Pin Oak         Duercus palustris         Good         19           399         Pin Oak         Duercus palustris         Good         13           400         Pin Oak         Duercus palustris         Good         26	647         Pin Oak         Duercus palustris         Good         6           648         Pin Oak         Duercus palustris         Good         7           649         Pin Oak         Duercus palustris         Good         11           650         Sugar Maple         Acer saccharum         Good         10	897         American Elm         Ulnus americana         Good         6           898         Green Ash         Fraxinus pennsylvanica         Dead         9           899         Fino Oak         Quercus palustris         Good         14           900         Pin Oak         Quercus palustris         Good         18	1147         Black Walnut         Juglans nigra         Good         7           1148         Black Walnut         Juglans nigra         Good         8           1149         Black Walnut         Juglans nigra         Good         11           1150         Sugar Maple         Acer saccharum         Good         6	1397         Scotch Pine         Pinus sylvestris         Good         7           1398         White Pine         Pinus strobus         Good         6           1399         White Pine         Pinus strobus         Good         12           1400         White Pine         Pinus strobus         Good         10	1647     Red Pine     Pinus resinosa     Good     7       1648     Red Pine     Pinus resinosa     Good     7       1649     Red Pine     Pinus resinosa     Good     7       1650     Red Pine     Pinus resinosa     Good     7	1897         Bilppery Elm         Ulmus rubra         Good         10           1898         Black Walnut         Juglans nigra         Good         20           1898         Black Walnut         Juglans nigra         Good         7           1990         Bilppery Elm         Ulmus rubra         Good         6
Pin Oak         Duercus palustris         Good         7           Pin Oak         Duercus palustris         Good         13         8           Pin Oak         Duercus palustris         Good         17         17           Pin Oak         Duercus palustris         Good         22         17	401         Bippery Eim         Jimus rubra         Good         9           402         Pin Oak         Duercus palustris         Good         6           403         Bippery Eim         Jimus rubra         Good         9           404         Pin Oak         Duercus palustris         Good         9	661         Pin Oak         Duercus palustris         Good         8           662         Sugar Maple         Acer saccharum         Good         14           663         Slippery Elm         Jimus rubra         Good         6           654         Hackberry         Cettis occidentalis         Good         6	901         Pin Oak         Duercus palustris         Good         13           902         Swamp White Oak         Duercus bicolor         Sood         12           903         Shagbark Hickory         Carya ovata         Good         9           904         Bitternut Hickory         Carya cordiformis         Good         9         6	1151         Hackberry         Cettis occidentalis         Sood         6           1152         Black Walnut         Juglans nigra         Good         6           1153         Black Walnut         Juglans nigra         Sood         6           1154         Black Walnut         Juglans nigra         Sood         6           1154         Black Walnut         Juglans nigra         Sood         8	1401         Scotch Pine         Pinus sylvestris         Good         6           1402         Scotch Pine         Pinus sylvestris         Good         6           1403         Scotch Pine         Pinus sylvestris         Good         6           1404         Scotch Pine         Pinus sylvestris         Good         8	1651         Red Pine         Pinus resinosa         Good         11           1652         Red Pine         Pinus resinosa         Good         8           1653         Red Pine         Pinus resinosa         Good         8           1654         Red Pine         Pinus resinosa         Good         8           1654         Red Pine         Pinus resinosa         Good         9	1901         Pin Oak         Quercus palustris         Good         16           1902         Slippery Elm         Ulmus rubra         Good         11           1903         Slippery Elm         Ulmus rubra         Good         7           1904         Hackberry         Celtis occidentalis         Good         9
Pin Oak         Duercus palustris         Good         13           Pin Oak         Duercus palustris         Good         27         13           Pin Oak         Duercus palustris         Good         8            Pin Oak         Duercus palustris         Good         7	405         Pin Oak         Duercus palustris         Good         12           406         Slippery Elm         Jimus rubra         Good         12           407         Pin Oak         Duercus palustris         Good         18           408         Slippery Elm         Jimus rubra         Good         18         16,	655         Pin Oak         Duercus palustris         Good         18           656         Hackberry         Celtis occidentalis         Good         7           657         Pin Oak         Duercus palustris         Good         12           7         658         Pin Oak         Duercus palustris         Good         10	905         Bitternut Hickory         Carya cordiformis         Good         6           906         Red Oak         Quercus rubra         Sood         18         15           907         Pin Oak         Quercus palustris         Sood         16           908         Bitternut Hickory         Carya cordiformis         Sood         8         6	1155         Sugar Maple         Acer saccharum         Good         11           1156         Sugar Maple         Acer saccharum         Good         6           1157         Sugar Maple         Acer saccharum         Good         6           1157         Sugar Maple         Acer saccharum         Good         6           1158         Bitternut Hickory         Carya cordiformis         Good         6	1405         Scotch Pine         Pinus sylvestris         Good         6           1406         Scotch Pine         Pinus sylvestris         Good         8           1407         Scotch Pine         Pinus sylvestris         Good         6           1408         Scotch Pine         Pinus sylvestris         Good         8	1655         Red Pine         Pinus resinosa         Good         11           1656         Pin Oak         Duercus palustris         Good         6           1657         White Pine         Pinus strobus         Good         7           1658         White Pine         Pinus strobus         Good         7	1905         Black Walnut         Juglans nigra         Good         17           1906         Black Walnut         Juglans nigra         Good         16           1907         Black Walnut         Juglans nigra         Good         16           1907         Black Walnut         Juglans nigra         Good         16           1907         Black Walnut         Juglans nigra         Good         16           1908         Sugar Maple         Acer saccharum         Good         7
Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         9         6           Pin Oak         Duercus palustris         Good         10         10           Sippery Elm         Jimus rubra         Good         17         17	409         Pin Oak         Duercus palustris         Good         14           410         Pin Oak         Duercus palustris         Good         7           411         Pin Oak         Duercus palustris         Good         8           412         Pin Oak         Duercus palustris         Good         6	669         Pin Oak         Duercus palustris         Good         14           660         Black Cherry         Prunus serotina         Good         8           661         Pin Oak         Duercus palustris         Good         16           662         Pin Oak         Duercus palustris         Good         18	909         Swamp White Oak         Quercus bicolor         Good         9           910         Pin Oak         Duercus palustris         Good         13           911         Shagbark Hickory         Carya ovata         Good         7           912         Shagbark Hickory         Carya ovata         Good         8	1159         Bitternut Hickory         Carya cordiformis         Good         9           1160         Bitternut Hickory         Carya cordiformis         Good         7           1161         American Elm         Jitnus americana         Good         7           1162         Bitternut Hickory         Carya cordiformis         Good         7           1162         Bitternut Hickory         Carya cordiformis         Good         8	1409         Scotch Pine         Pinus sylvestris         Good         6           1410         Scotch Pine         Pinus sylvestris         Good         6           1411         Scotch Pine         Pinus sylvestris         Good         6           1412         Scotch Pine         Pinus sylvestris         Good         6           1412         Scotch Pine         Pinus sylvestris         Good         6	1659         White Pine         Pinus strobus         Good         12           1660         White Pine         Pinus strobus         Good         11           1661         Pin         Oak         Quercus palustris         Good         12           1662         White Pine         Pinus strobus         Good         12           1662         White Pine         Pinus strobus         Good         7	1909         Black Walnut         Juglans nigra         Good         18           1910         Sugar Maple         Acer saccharum         Good         7           1911         Black Walnut         Juglans nigra         Good         15           1912         Black Walnut         Juglans nigra         Good         18
Swamp White Oak         Duercus bicolor         Good         17           Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         9           Pin Oak         Duercus palustris         Good         9           Pin Oak         Duercus palustris         Good         9	413         Pin Oak         Duercus palustris         Good         29           414         Pin Oak         Duercus palustris         Good         29           415         Pin Oak         Duercus palustris         Good         15           416         Pin Oak         Duercus palustris         Good         15           416         Pin Oak         Duercus palustris         Good         16	663         Pin Oak         Quercus palustris         Good         11           664         Hackberry         Celtis occidentalis         Good         6           665         Pin Oak         Quercus palustris         Good         11           666         Pin Oak         Quercus palustris         Good         11           666         Pin Oak         Quercus palustris         Good         11	913         Pin Oak         Quercus palustris         Good         12           914         Pin Oak         Quercus palustris         Sood         15           915         Snagbark Hickory         Carya oveta         Good         7           916         Pin Oak         Quercus palustris         Poor         7	1163         Bitternut Hickory         Carya cordiformis         Good         10           1164         Ironwood         Acacia stenophylla         Good         6           1165         Slippery Elm         Jimus rubra         Good         12         12           1166         American Elm         Jimus americana         Good         12         7	1413         Sottch Pine         Pinus sylvestris         Good         6           1414         Sottch Pine         Pinus sylvestris         Good         7           2,6,6         1415         Sottch Pine         Pinus sylvestris         Good         6           ,6,6,         1416         Sottch Pine         Pinus sylvestris         Good         6	1663         Pin Oak         Quercus palustris         Good         12           1664         White Pine         Pinus strobus         Good         6           1665         Green Ash         Fraxinus pennsylvanica         Good         8           1666         White Pine         Pinus strobus         Good         6	1913         Slippery Elm         Ulmus rubra         Good         18           1914         Slippery Elm         Ulmus rubra         Good         9           1915         Sugar Maple         Acer saccharum         Good         6           1916         Sugar Maple         Acer saccharum         Good         6
Pin Oak         Duercus palustris         Good         17           Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         9           Pin Oak         Duercus palustris         Good         9           Pin Oak         Duercus palustris         Good         20	417         Pin Oak         Duercus palustris         Good         9           418         Silippery Elm         Jimus rubra         Good         8           419         Pin Oak         Duercus palustris         Good         9           420         Pin Oak         Duercus palustris         Good         17	667         Slippery Elm         Ulmus rubra         Good         12           668         Pin Oak         Quercus palustris         Good         21           669         Pin Oak         Quercus palustris         Good         7           670         Pin Oak         Quercus palustris         Good         11	917         Pin Oak         Quercus palustris         Good         15         9           918         Pin Oak         Quercus palustris         Sood         6           919         Pin Oak         Quercus palustris         Good         8           920         Pin Oak         Quercus palustris         Good         8	1167         Black Walnut         Juglans nigra         Good         20         12           1168         American Elm         Ulmus americana         Good         6         1109         Black Walnut         Juglans nigra         Good         6         1110         American Elm         Ulmus americana         Good         6         1170         American Elm         1170         American Elm         Ulmus americana         Good         6         1170         American Elm         1170         American Elm         1170         American Elm         1170	2,6,6         1417         Scotch Pine         Pinus sylvestris         Good         7           1418         Scotch Pine         Pinus sylvestris         Good         11           1419         Scotch Pine         Pinus sylvestris         Good         7           1420         Scotch Pine         Pinus sylvestris         Good         6	1667         White Pine         Pinus strobus         Good         9           1668         White Pine         Pinus strobus         Good         9           1669         Sreen Ash         Fraxinus pennsylvanica         Good         7           1670         White Pine         Pinus strobus         Good         7	1917         Black Walnut         Juglans nigra         Good         10           1918         Pin Oak         Quercus palustris         Good         6           1919         Black Walnut         Juglans nigra         Good         16           1920         Sugar Maple         Acer saccharum         Good         6
Pin Oak         Duercus palustris         Good         12           Pin Oak         Duercus palustris         Good         25           Pin Oak         Duercus palustris         Good         22           Pin Oak         Duercus palustris         Good         23	421         Pin Oak         Duercus palustris         Good         15           422         Pin Oak         Duercus palustris         Good         13           423         Pin Oak         Duercus palustris         Good         39           424         Pin Oak         Duercus palustris         Good         12	671         Pin Oak         Duercus palustris         Good         25           672         Hackberry         Cettis occidentalis         Good         8           673         Pin Oak         Quercus palustris         Good         9           674         Slippery Elm         Jimus rubra         Good         10	24,12         921         Black Locust         Robina pseudoacacia         Good         12         9           922         Pin Oak         Quercus palustris         Good         14         9           923         Pin Oak         Quercus palustris         Good         13           924         Bitternut Hickory         Carya cordiformis         Good         8	1171         Black Walnut         Juglans nigra         Good         7           1172         Black Walnut         Juglans nigra         Good         9           1173         Mereican         Imus americana         Good         7           1174         Hackberry         Dettis occidentalis         Good         6	1421         Scotch Pine         Pinus sylvestris         Good         6           1422         Scotch Pine         Pinus sylvestris         Good         6           1423         Scotch Pine         Pinus sylvestris         Good         6           1424         Scotch Pine         Pinus sylvestris         Good         6           1424         Scotch Pine         Pinus sylvestris         Good         6	1671         White Pine         Pinus strobus         Good         9           1672         White Pine         Pinus strobus         Good         7           1673         White Pine         Pinus strobus         Good         9           1674         White Pine         Pinus strobus         Good         9           1674         White Pine         Pinus strobus         Good         17	1921         Bugar Maple         Acer saccharum         Good         8           1922         Bugar Maple         Acer saccharum         Good         6           1923         Bugar Maple         Acer saccharum         Good         6           1923         Bugar Maple         Ulmus rubra         Good         6           1924         Sugar Maple         Acer saccharum         Good         12
Pin Oak         Duercus palustris         Sood         18           Shagbark Hickory         Carya oxeta         Sood         10           Shagbark Hickory         Carya oxeta         Sood         12           Pin Oak         Duercus palustris         Sood         22           Pin Oak         Duercus palustris         Sood         22	425         korowood         Acacia stenophylla         Good         8           426         Black Cherry         Prunus serotina         Good         8           427         Pin Oak         Quercus palustris         Good         20           428         Sugar Maple         Acer saccharum         Good         6	675         Pin Oak         Quercus palustris         Good         6           676         Pin Oak         Quercus palustris         Good         14           677         Hackberry         Cettis occidentalis         Good         7           678         Slippery Elm         Jimus rubra         Good         6	925         Bitternut Hickory         Carya cordiformis         Good         8           926         Swamp White Oak         Quercus bicclor         Good         18         6           927         Pin Oak         Quercus palustris         Good         13         6           928         Pin Oak         Quercus palustris         Good         6           928         Pin Oak         Quercus palustris         Good         6	1175         Sugar Maple         Acer saccharum         Good         7           1176         Black Walnut         Juglans nigra         Good         6           1177         Black Walnut         Juglans nigra         Good         6           1178         Sugar Maple         Acer saccharum         Good         6           1178         Sugar Maple         Acer saccharum         Good         6           1178         Sugar Maple         Acer saccharum         Good         6	1425         Scotch Pine         Pinus sylvestris         Good         6           1426         Scotch Pine         Pinus sylvestris         Good         8           1427         Scotch Pine         Pinus sylvestris         Good         6           1428         Scotch Pine         Pinus sylvestris         Good         6	1675         White Pine         Pinus strobus         Good         6           1676         White Pine         Pinus strobus         Good         9           1677         White Pine         Pinus strobus         Good         9           1677         White Pine         Pinus strobus         Good         9           1678         White Pine         Pinus strobus         Good         9           1678         White Pine         Pinus strobus         Good         9	1925         Sugar Maple         Acer saccharum         Good         9           1926         Black Walnut         Juglans nigra         Good         14           1927         Sugar Maple         Acer saccharum         Good         6           1927         Bugar Maple         Acer saccharum         Good         6           1928         Slippery Elm         Ulmus rubra         Good         12
Shagbark Hickory         Carya ovata         Good         8           Pin Oak         Quercus palustris         Good         11           Pin Oak         Quercus palustris         Good         22           Slippery Elm         Ulmus rubra         Good         6	429         Pin Oak         Duercus palustris         Good         10           430         Pin Oak         Duercus palustris         Sood         24         17,16           431         Pin Oak         Duercus palustris         Sood         23         14           432         Pin Oak         Duercus palustris         Sood         6         16	679         Hackberry         Cettis occidentalis         Good         6           6,12         680         Pin Oak         Duercus palustris         Good         10           681         Hackberry         Cettis occidentalis         Good         10           682         Hackberry         Cettis occidentalis         Good         6	929         Green Ash         Fraxinus pennsylvanica         Good         9           930         Green Ash         Fraxinus pennsylvanica         Good         9           931         Green Ash         Fraxinus pennsylvanica         Good         9           932         Pin Oak         Quercus palustris         Good         27         10	1179 Green Ash     Fraxinus pennsylvanica Poor     16       1180 Sugar Maple     Acer saccharum     Good     7       1181 Hackberry     Cettis occidentalis     Good     6       1182 Black Walnut     Juglans nigra     Good     6	1429         Scotch Pine         Pinus sylvestris         Good         6           1430         Hackberry         Cettis occidentalis         Good         16           1431         Pin Oak         Quercus palustris         Good         15           1432         Jugar Maple         Acer saccharum         Good         7	1679         White Pine         Pinus strobus         Good         8           1680         White Pine         Pinus strobus         Good         8           1681         White Pine         Pinus strobus         Good         10           1682         White Pine         Pinus strobus         Good         7	1929         Green Ash         Fraxinus pennsylvanica         Poor         6           1930         Pin Oak         Quercus palustris         Poor         10           1931         Black Cherry         Prunus serotina         Poor         11           1932         Black Walnut         Juglans nigra         Good         13
Pin Oak         Duercus palustris         Sood         7           Pin Oak         Duercus palustris         Sood         6           Pin Oak         Duercus palustris         Sood         7           Pin Oak         Duercus palustris         Sood         7           Pin Oak         Duercus palustris         Sood         9           Pin Oak         Image: Filme Interview of Pin Oak         Pin Oak         Pin Oak	433         Pin Oak         Duercus palustris         Sood         10           434         Pin Oak         Duercus palustris         Sood         8         7           435         Pin Oak         Duercus palustris         Sood         8         7           436         Pin Oak         Duercus palustris         Sood         8         11	683         Red Maple         Acer rubrum         Good         12           684         Slippery Elm         Ulmus rubra         Good         14           685         Pin Oak         Quercus palustris         Good         6           686         Pin Oak         Quercus palustris         Good         14	11,10         933         Pin Oak         Quercus palustris         Good         14         6,6,6           10         934         Pin Oak         Quercus palustris         Good         7           935         Pin Oak         Quercus palustris         Good         9           936         Pin Oak         Quercus palustris         Good         9           936         Pin Oak         Quercus palustris         Good         9         9,9	1183         Sugar Maple         Acer saccharum         Good         6           1184         Sugar Maple         Acer saccharum         Good         7           1185         Sugar Maple         Acer saccharum         Good         7           1185         Sugar Maple         Acer saccharum         Good         7           1186         Bitternut Hickory         Carya cordiformis         Good         6           1195         Surgar Maple         Acer saccharum         Cood         7	1433     Sugar Maple     Acer saccharum     Good     8       1434     Black Walnut     Juglans nigra     Good     9       1435     Hackberry     Celtis occidentalis     Good     12       1436     Hackberry     Celtis occidentalis     Good     8	1683         White Pine         Pinus strobus         Good         6           1684         White Pine         Pinus strobus         Good         8           1685         White Pine         Pinus strobus         Good         7           1686         White Pine         Pinus strobus         Good         7           1686         White Pine         Pinus strobus         Good         7	1933         Bugar Maple         Acer saccharum         Good         9           1934         Sugar Maple         Acer saccharum         Good         7           1935         Sugar Maple         Acer saccharum         Good         9           1936         Pin Oak         Quercus palustris         Good         6           1037         Expert Maple         Acer saccharum         Good         6
Bippery Elm         Ulmus rubra         Good         6           Shagbark Hickory         Carya oxeta         Good         9         8           Pin Oak         Ouercus palustris         Good         9         9           Pin Oak         Ouercus palustris         Good         16         16	437         Pin Oak         Duercus palustris         Good         6           438         Pin Oak         Duercus palustris         Good         10           439         Pin Oak         Duercus palustris         Good         18           440         Silppery Elm         Jimus rubra         Good         6	687         Sugar Maple         Acer saccharum         Good         9           688         Pin Oak         Quercus palustris         Good         9           689         Hackberry         Cettis occidentalis         Good         7           690         Pin Oak         Quercus palustris         Good         10	937         Pin Oak         Quercus palustris         Good         9           938         Pin Oak         Quercus palustris         Poor         6           939         Pin Oak         Quercus palustris         Poor         13           940         Green Ash         Fraxinus pennsylvanica         Poor         11	1187         Sugar Maple         Acer saccharum         Good         6           1188         Sugar Maple         Acer saccharum         Good         6           1189         Sugar Maple         Acer saccharum         Good         8           1190         Sugar Maple         Acer saccharum         Good         8           1190         Sugar Maple         Acer saccharum         Good         7	1437         Black Walnut         Juglans nigra         Good         20           1438         Hackberry         Celtis occidentalis         Good         6           1439         Hackberry         Celtis occidentalis         Good         12           1440         Hackberry         Celtis occidentalis         Good         8	1687         White Pine         Pinus strobus         Good         10           1688         White Pine         Pinus strobus         Good         11           1688         White Pine         Pinus strobus         Good         7           1690         White Pine         Pinus strobus         Good         10	1937         Bugar Maple         Acer saccharum         Good         10           1938         Green Ash         Fraxinus pennsylvanica         Poor         12           1939         Bippery Elm         Ulmus rubra         Good         7           1940         \$lippery Elm         Ulmus rubra         Good         8
Pin Oak         Duercus palustris         Good         14           Pin Oak         Duercus palustris         Good         8           Pin Oak         Duercus palustris         Good         6           Pin Oak         Duercus palustris         Good         18	441         In Oak         Duercus palustris         Good         9           442         Pin Oak         Duercus palustris         Good         7           443         Pin Oak         Duercus palustris         Good         19           444         Green Ash         Fraxinus pennsylvanica         Good         19         17	691         Black Cherry         Prunus servitina         Good         8           692         Pin Oak         Quercus palustris         Good         7           693         Pin Oak         Quercus palustris         Good         22           7         694         Green Ash         Fraxinus pennsylvanica         Poor         7	941         Pin Oak         Quercus palustris         Poor         11           942         Pin Oak         Quercus palustris         Poor         9           943         Pin Oak         Quercus palustris         Sood         12         9,6           944         Pin Oak         Quercus palustris         Good         11         944	1191         Black Cherry         Prunus serotina         Good         6           1192         Sugar Maple         Acer saccharum         Good         6           1193         Sugar Maple         Acer saccharum         Good         7           1194         American Beech         Fagus grandifolia         Good         12	1441         Apple         Malus sp.         Good         7           1442         Red Oak         Quercus rubra         Good         8           1443         Red Oak         Quercus rubra         Good         13           1444         Hackberry         Cettis occidentalis         Good         6	1691         White Pine         Pinus strobus         Good         11           1692         White Pine         Pinus strobus         Good         20           1693         White Pine         Pinus strobus         Good         19           1694         White Pine         Pinus strobus         Good         22	1941     Sugar Maple     Acer saccharum     Good     8       17     1942     Sugar Maple     Acer saccharum     Good     7       1943     American Hophombeam     Dstray wignilana     Good     6       1944     Sugar Maple     Acer saccharum     Good     9
Wamp White Oak         Decress bicolor         Sood         10           Swamp White Oak         Decress bicolor         Sood         10           Swamp White Oak         Decress bicolor         Bood         20         17,14           Pin Oak         Decress palsetris         Bood         9         Pin Oak         Decress palsetris         Bood         16	Att         Pin Oak         Duence pailustris         Sood         10           445         Pin Oak         Duencus pailustris         Sood         12           446         Pin Oak         Duencus pailustris         Sood         11           447         Pin Oak         Duencus pailustris         Sood         22           448         Silppery Elm         Jimus rubra         Sood         10	Solari Dati         Frakinus pennsylvarica         Solari         Solari         Frakinus pennsylvarica         Solari         Solari	945 Shaqbark Hickory Carya oveta Good 9 946 American Elm Ulmus americana Good 9 947 Pin Oak Quercus palustris Good 7 948 Green Ash Fraxinus pensylvanica Dead 10	Instruction         Logics         Joint Structure         Locid         Tz           1195         Sugar Maple         Acer saccharum         Good         9           1196         Sugar Maple         Acer saccharum         Good         7           1197         Sugar Maple         Acer saccharum         Good         7           1197         Sugar Maple         Acer saccharum         Good         7           1198         Sugar Maple         Acer saccharum         Good         6	1445         Bippery Elm         Ulmus rubra         Scood         7           1446         Hackberry         Celtis occidentalis         Good         13           1447         Hackberry         Celtis occidentalis         Good         22           1448         Hackberry         Celtis occidentalis         Good         21	1665         White         Pinus         Strobus         Good         22           1695         White         Pinus         strobus         Good         21           1696         White         Pinus         strobus         Good         21           9         1697         White         Pinus         strobus         Good         16           20         1696         White         Pine         Pinus         strobus         Good         18	Total         Sugar Maple         Acer saccharum         Good         6           1945         Sugar Maple         Acer saccharum         Good         6           1946         Sugar Maple         Acer saccharum         Good         7           1947         Slippery Elm         Ulmus rubra         Good         12           1948         Sugar Maple         Acer saccharum         Good         6
In Oak         Deurcus palustris         Dood         10           Pin Oak         Deurcus palustris         Bood         9           Pin Oak         Deurcus palustris         Bood         20           Swamp White Oak         Deurcus palustris         Bood         15         10           Pin Oak         Deurcus palustris         Bood         20         20,12	Hospital         Difference         Difference <thdifference< th="">         Differenc         Difference&lt;</thdifference<>	Social Xam         Tranus serutina         Social	949 Pin Oak Quercus palustris Dead 18 950 Bitternut Hickory Carya cordiformis Dead 10 9 951 Pin Oak Quercus palustris Dead 10 9 952 Bhagbark Hickory Carya ovata Good 8	Trop Sugar Maple         Accer saccharum         Good         6           1199         Sugar Maple         Accer saccharum         Good         6           1200         Sugar Maple         Accer saccharum         Good         8           1201         Sugar Maple         Accer saccharum         Good         8           1201         Sugar Maple         Accer saccharum         Good         8           1202         Sugar Maple         Accer saccharum         Good         8	1449         Hackberry         Celtis occidentalis         Sood         21           1450         Sugar Maple         Acer saccharum         Sood         6           1451         Hackberry         Celtis occidentalis         Sood         6           1451         Hackberry         Celtis occidentalis         Good         8           1451         Hackberry         Celtis occidentalis         Good         8           1452         Hackberry         Celtis occidentalis         Good         6	20         Hose White Pine         Pinus strobus         Good         9           1700         White Pine         Pinus strobus         Good         9           1700         White Pine         Pinus strobus         Good         20           1701         White Pine         Pinus strobus         Good         20           1701         White Pine         Pinus strobus         Good         18           1702         American Elm         Ulnus americana         Good         6	1949 Bippery Elm Unus rubra Good 6 1950 Sugar Maple Acer saccharum Good 6 1951 Black Walnut Juglans nigra Good 16 1952 Black Walnut Juglans nigra Good 16
Pin Oak         Duercus palustris         Sodu         20         20,12           Pin Oak         Duercus palustris         Sood         10           Pin Oak         Duercus palustris         Sood         7           Pin Oak         Duercus palustris         Sood         27           Pin Oak         Duercus palustris         Sood         27	442         Initiation         Duencus patustris         5000         17           453         Pin Oak         Duencus patustris         6ood         22           454         Pin Oak         Duencus patustris         6ood         18           455         Pin Oak         Duencus patustris         6ood         8           456         Pin Oak         Duencus patustris         6ood         27	1702     Hackberry     Cellis occidentalis     Good     7       1703     Hackberry     Cellis occidentalis     Good     7       1704     Hackberry     Cellis occidentalis     Good     6       1705     Hackberry     Cellis occidentalis     Good     6       1706     Hack Locust     Robinia pseudoacacia     Good     8	952 Pinguain Finckuy Carya tokia 5000 o 953 Pin Oak Quercus palustris Good 13 954 Bitternut Hickory Carya cordiformis Good 12 955 American Elim Ulinus americana Good 6 956 Bitternut Hickory Carya cordiformis Good 9	1202 Sugar Maple Acer saccharum Good 6 1203 Sugar Maple Acer saccharum Good 6 1204 Black Cheny Prunus serotina Good 6 1205 Sugar Maple Acer saccharum Good 7 1206 Sugar Maple Acer saccharum Good 6	1435     Ligar Maple     Acer saccharum     Good     18       1453     Hackberry     Celtis occidentalis     Good     12       1455     Black Walnut     Juglans nigra     Good     18       1455     Black Kebrry     Celtis occidentalis     Good     18       1456     Hackberry     Celtis occidentalis     Good     10	1702         Animical Film         Diffus animical as 5000         6           1703         White Pine         Pinus strobus         Good         20           1704         White Pine         Pinus strobus         Good         17           1705         White Pine         Pinus strobus         Good         19           1705         White Pine         Pinus strobus         Good         19           1705         Bippery Elm         Ulmus rubra         Good         7	1952 bick valut augusts miga 5000 10 1953 bick valut August miga 5000 10 1954 bicgar Maple Acer saccharum 600d 8 1955 bilpery Elm Ulmus rubra 600d 11 1956 bick Walnut Jugians nigra 600d 12
Pin Oak         Ouercus palustris         Sood         10           Pin Oak         Duercus palustris         Sood         15           Pin Oak         Duercus palustris         Sood         18	457         Pin Oak         Quercus palustris         Sood         17           458         Pin Oak         Quercus palustris         Sood         13           459         Pin Oak         Quercus palustris         Sood         14	707         Sugar Maple         Acer saccharum         Good         9           708         Sugar Maple         Acer saccharum         Good         21           709         Sugar Maple         Acer saccharum         Good         8	957         Pin Oak         Quercus palustris         Good         13           958         Green Ash         Fraxinus pennsylvanica         Dead         11           959         Bitternut Hickory         Carya cordformis         Good         6         6	1207         Sugar Maple         Acer saccharum         Good         9           1208         Sugar Maple         Acer saccharum         Good         6           1209         Sugar Maple         Acer saccharum         Good         6	1457         Hackberry         Celtis occidentalis         Good         10           1458         Hackberry         Celtis occidentalis         Good         18           1459         Hackberry         Celtis occidentalis         Good         11	1707         Slippery Elm         Ulmus rubra         Good         9           1708         White Pine         Pinus strobus         Good         16           1709         White Pine         Pinus strobus         Good         20	1957 Black Walnut Juglans nigra Good 18 1958 Black Walnut Juglans nigra Good 10 1959 Şugar Maple Acer saccharum Good 7
Pin Oak         Ouercus palustris         Sood         16           Pin Oak         Ouercus palustris         Sood         14           Pin Oak         Ouercus palustris         Sood         19           Shagbark Hickory         Zarya oxeta         Sood         7           Pin Oak         Ouercus palustris         Sood         7	460         Pin Oak         Quercus palustris         Sood         14           461         Pin Oak         Quercus palustris         Sood         10           462         Pin Oak         Quercus palustris         Sood         9           463         Pin Oak         Quercus palustris         Sood         9           463         Pin Oak         Quercus palustris         Sood         16           464         Pin Oak         Quercus palustris         Sood         16	T10         Sugar Maple         Acer saccharum         Good         12           711         Sugar Maple         Acer saccharum         Good         6           712         Pin Oak         Quercus palustris         Good         7           713         Pin Oak         Quercus palustris         Good         7           713         Pin Oak         Quercus palustris         Good         7           713         Pin Oak         Quercus palustris         Good         35	7         960         Pin Oak         Quercus palustris         Good         6           961         Pin Oak         Quercus palustris         Good         10           962         Pin Oak         Quercus palustris         Good         13           963         Green Ash         Fraxinus pennsylvanica         Dead         9         9           964         Pin Oak         Ouercus palustris         Good         18	1/210         Sugar Maple         Acer saccharum         Good         6           1/211         American Elm         Umus americana         Good         6           1/212         Sugar Maple         Acer saccharum         Good         7           1/213         Black Cherry         Puruus serotina         Good         6           1/213         Black Cherry         Puruus serotina         Good         6           1/214         Sugar Maple         Acer saccharum         Good         6	1461         Hackberry         Celtis occidentalis         Good         8           1462         Hackberry         Celtis occidentalis         Good         26           1463         Hackberry         Celtis occidentalis         Good         25	1711         Black Oherry         Prunus serotina         Good         6           1712         Silver Maple         Acer saccharinum         Good         27           1713         Norway Spruce         Picea ables         Good         11	1991         Black Walnut         Juglans nigra         Good         13           12         1962         Black Walnut         Juglans nigra         Good         25           1963         Sugar Magle         Acer saccharum         Good         7
Pin Oak Quercus palustris 6 ood 7 \$hagbark Hickory Carya oxata 6 ood 7 Pin Oak Quercus palustris 6 ood 7 \$wamp White Oak Quercus bicolor 6 ood 11 \$pin Oak Quercus palustris 6 ood 11 \$pin Oak Quercus palustris 6 ood 11 \$pin Oak Quercus palustris 6 ood 17 \$pin Oak	464         Pin Oak         Quercus palustris         Good         26           465         Pin Oak         Quercus palustris         Good         25           466         Pin Oak         Quercus palustris         Good         16           4767         Pin Oak         Quercus palustris         Good         16           486         Pin Oak         Quercus palustris         Good         10           467         Pin Oak         Quercus palustris         Good         10	1714         Pin Oak         Quercus palustris         Good         7           1715         Pin Oak         Quercus palustris         Good         12           1716         Pin Oak         Quercus palustris         Good         46           1         717         Pin Oak         Quercus palustris         Good         46           1         717         Pin Oak         Quercus palustris         Good         12           1         716         Pin Oak         Quercus palustris         Good         12           1         718         Pin Oak         Quercus palustris         Good         12	965         American Elm         Ulmus americana         Good         11           966         Pin Oak         Quercus paiustris         Good         10         8,6,6           967         Pin Oak         Quercus paiustris         Good         13	1214         Sugar Maple         Acer saccharum         Good         6           1215         Sugar Maple         Acer saccharum         Good         6           1216         Sugar Maple         Acer saccharum         Good         8           1217         Sugar Maple         Acer saccharum         Good         7           1218         American Elm         Illumis americana         Good         7	1464         Hackberry         Celtis occidentalis         Good         7           1465         Hackberry         Celtis occidentalis         Good         9           1466         Hackberry         Celtis occidentalis         Good         25           1467         Apple         Malus sp.         Good         9           1468         Hackberry         Celtis occidentalis         Good         25           1467         Apple         Malus sp.         Good         9	1714     Norway Spruce     Picea ables     Good     6       1715     White Pine     Pinus strobus     Good     20       1716     White Pine     Pinus strobus     Good     20       1717     Black Cherry     Prunus serotina     Good     9       1717     Black Cherry     Prunus serotina     Good     9	1964         Black Walnut         Juglans nigra         Good         17           1965         Sugar Maple         Acer saccharum         Good         6           1966         Sugar Maple         Acer saccharum         Good         6           1967         Sugar Maple         Acer saccharum         Good         9           1968         Sugar Maple         Acer saccharum         Good         9           1968         Sugar Maple         Acer saccharum         Good         7
Pin Oak         Ouercus palustris         6ood         17           Pin Oak         Ouercus palustris         6ood         15           \$wamp White Oak         Ouercus bicolor         6ood         20           \$wamp White Oak         Ouercus bicolor         6ood         16           \$in Oak         Ouercus palustris         6ood         16	468         Pin Oak         Quercus palustris         Good         9           469         Pin Oak         Quercus palustris         Good         13           470         Pin Oak         Quercus palustris         Good         9           470         Pin Oak         Quercus palustris         Good         9           471         Pin Oak         Quercus palustris         Good         9           471         Pin Oak         Quercus palustris         Good         12           472         Pin Oak         Quercus palustris         Good         12	1718         Pin Oak         Quercus palustris         Good         30           1719         Pin Oak         Quercus palustris         Good         9           720         Black Cherry         Prunus serotina         Good         9           721         Black Cherry         Prunus serotina         Good         9           722         Black Cherry         Prunus serotina         Good         9	968         Pin Oak         Quercus palustris         Good         14           969         Pin Oak         Quercus palustris         Good         8           970         Pin Oak         Quercus palustris         Good         9           977         Pin Oak         Quercus palustris         Good         9           977         Pin Oak         Quercus palustris         Good         1           970         Pin Oak         Quercus palustris         Good         11           970         Pin Oak         Quercus palustris         Good         11	1218         American Elm         Ulmus americana         Good         7           1219         Sugar Maple         Acer saccharum         Good         6           1220         American Elm         Ulmus americana         Good         6           1221         American Elm         Ulmus americana         Good         6           1222         American Elm         Ulmus americana         Good         6           1222         American Elm         Ulmus americana         Good         6	1468         Honey Locust         Gleditisia triacanthos         Good         9           1469         Black Cherry         Prunus serotina         Good         11           1470         Hawthorne         Cratagus sp.         Good         11           1470         Black Cherry         Prunus serotina         Good         11           1471         Black Cherry         Prunus serotina         Good         11           1472         Black Cherry         Prunus serotina         Good         11	1718         Black Cherry         Prunus serotina         Good         8           1719         Slippery Elm         Ulmus rubra         Good         13           1720         White Pine         Pinus strobus         Good         20           1721         Black Cherry         Prunus serotina         Good         10           1722         Sineev Fine         Ilmus rubra         Good         11	1968         Şugar Maple         Acer saccharum         Good         7           1969         Şilippery Elm         Ulmus vubra         Good         6           1970         Şugar Maple         Acer saccharum         Good         7           1971         Şlack Walnut         Juglans nigra         Good         10           1972         Şuar Maple         Acer saccharum         Good         9
Pin Oak         Quercus palustris         Good         9           Pin Oak         Quercus palustris         Good         15           Pin Oak         Quercus palustris         Good         21         20           Shagbark Hickory         Zarya oveta         Good         10         20           Pin Oak         Quercus palustris         Good         10         20	472         Pin Oak         Quercus palustris         60od         12         12           473         Pin Oak         Quercus palustris         6ood         17         10           474         Pin Oak         Quercus palustris         6ood         22         12           474         Pin Oak         Quercus palustris         6ood         6         17           475         Pin Oak         Quercus palustris         6ood         6         19           476         Pin Oak         Quercus palustris         6ood         19         10	Przz         Black Cherry         Prunus serotina         Good         12           1723         Pin Oak         Quercus palustris         Good         10           724         Pin Oak         Quercus palustris         Good         15           725         Pin Oak         Quercus palustris         Good         15           725         Pin Oak         Quercus palustris         Good         15           726         Pin Oak         Quercus palustris         Good         18	972         Red Maple         Acer rubrum         Good         14         13,6,6,6           973         Pin Oak         Quercus palustris         Good         8         8,8,8           974         Pin Oak         Quercus palustris         Good         12           8         975         Pin Oak         Quercus palustris         Good         9         9           8         975         Pin Oak         Quercus palustris         Good         6         9	1222         American Elm         Ulmus americana         Good         8           1223         American Elm         Ulmus americana         Good         6           1224         White Ash         Fraxinus americana         Poor         6           1225         Hackberry         Cettis occidentalis         Good         6           1225         Hackberry         Cettis occidentalis         Good         6	1472         Hackberry         Celtis occidentalis         Good         15           1473         Hackberry         Celtis occidentalis         Good         13           1474         Pin Oak         Quercus palustris         Good         32           1475         Slippery Elm         Ulmus rubra         Good         6           1476         Sugar Magle         Aper saccham         Good         8	1722         Şlippery Elm         Ulmus rubra         Good         11           1723         Green Ash         Fraxilus pensylvanica         Good         16           1724         Black Cherry         Prunus serotina         Good         13           1725         Şlippery Elm         Ulmus rubra         Good         14           1726         Şlaveny Elm         Crataeuis sn         Good         12	1972         Sugar Maple         Acer saccharum         Good         9           1973         Sugar Maple         Acer saccharum         Good         9           9         1974         Black Walnut         Juglans nigra         Good         18           1975         Sugar Maple         Acer saccharum         Good         6         7         1976         Black Walnut         Juglans nigra         Good         6         7
Pin Oak     Quercus palustris     6ood     12       Pin Oak     Quercus palustris     6ood     17       Pin Oak     Quercus palustris     6ood     13       Swamp White Oak     Quercus bicolor     6ood     7       Pin Oak     Quercus palustris     6ood     7	477         Black Cherry         Prunus serotina         Good         7           478         Pin Oak         Quercus palustris         Sood         11           479         Pin Oak         Quercus palustris         Good         14	T26         Pin Oak         Quercus palustris         Good         12           727         Pin Oak         Quercus palustris         Good         9           728         Pin Oak         Quercus palustris         Good         13           729         Pin Oak         Quercus palustris         Good         13           729         Pin Oak         Quercus palustris         Good         18           730         Pin Oak         Quercus palustris         Good         18	8         977         \$hagbark         Hickory         Çarya oveta         Çood         6           8         978         Pin Oak         Quercus palustris         Çood         12           8         979         Pin Oak         Quercus palustris         Çood         15         12	1226         Black Cherry         Prunus serolina         Good         6           1227         Sugar Maple         Acer saccharum         Good         7           1228         Sugar Maple         Acer saccharum         Good         9           1229         Sugar Maple         Acer saccharum         Good         9           1229         Sugar Maple         Acer saccharum         Good         9           1229         Sugar Maple         Acer saccharum         Good         9	1476         Sugar Maple         Acer saccharum         Good         8           1477         Pin Oak         Quercus palustris         Good         7           1478         Pin Oak         Quercus palustris         Good         33           1479         Pin Oak         Quercus palustris         Good         24           1479         Pin Oak         Quercus palustris         Good         24           1480         Pin Oak         Quercus palustris         Good         6	1726         Hawthome         Cratagus sp.         Good         12           1727         Boxelder         Acer negundo         Good         9           1728         Boxelder         Acer negundo         Good         19           1729         Boxelder         Acer negundo         Good         14           1720         Bioxelder         Acer negundo         Good         14           1720         Bioxelder         Acer negundo         Good         26	1977 \$lippery Elm Ulmus rubra Good 6 1978 Black Walnut Juglans nigra Good 17 1979 Black Walnut Juglans nigra Good 10
Pin Oak         Ouercus palustris         Good         18           Pin Oak         Ouercus palustris         Good         11           Pin Oak         Ouercus palustris         Good         15           Pin Oak         Ouercus palustris         Good         20           Pin Oak         Ouercus palustris         Good         20	480         Pin Oak         Ouercus palustris         Good         9           481         Pin Oak         Ouercus palustris         Good         11           482         Pin Oak         Ouercus palustris         Good         21           483         Pin Oak         Ouercus palustris         Good         21           483         Pin Oak         Ouercus palustris         Good         21           483         Pin Oak         Ouercus palustris         Good         9	730         Pin Oak         Quercus palustris         Good         20           731         Pin Oak         Quercus palustris         Good         27           732         Pin Oak         Quercus palustris         Good         18           733         American Elm         Umus americana         Good         12           734         Pin Oak         Ouercus palustris         Good         12	14         980         Bitternut Hickory         Carya cordiformis         Good         6           981         Red Oak         Quercus rubra         Good         13           982         Pin Oak         Quercus rubra         Good         8           6         983         Bitternut Hickory         Carya cordiformis         Good         6           082         Pin Oak         Quercus palustris         Good         6           083         Bitternut Hickory         Carya cordiformis         Good         6	1230         American Elm         Ulmus americana         Good         7           1231         Sugar Maple         Acer saccharum         Good         21           1232         American Elm         Ulmus americana         Good         10           1233         Black Walnut         Juglans nigra         Good         8           1234         American Elm         Ulmus americana         Good         8	1480         Pin Oak         Quercus palustris         Good         6           1481         Pin Oak         Quercus palustris         Good         17           1482         Sippery Elm         Ulmus nubra         Good         7           1483         Pin Oak         Quercus palustris         Good         7           1483         Pin Oak         Quercus palustris         Good         34           1484         Pin Oak         Quercus palustris         Good         34	1730         Pin Oak         Quercus palustris         Good         26           1731         \$lippery Elm         Ulmus rubra         Good         7           1732         \$lippery Elm         Ulmus rubra         Good         9           1733         \$lippery Elm         Ulmus rubra         Good         6           1733         \$lippery Elm         Ulmus rubra         Good         6           1733         \$lippery Elm         Long concentrum         Good         6	1990         Black Wahnut         Juglans nigra         Good         9           1981         \$lippery Elm         Ulmus rubra         Good         7           1982         \$lugar Maple         Juglans nigra         Good         10           1983         \$lugar Maple         Acer saccharum         Good         6           1984         Warder         Acer saccharum         Good         6
Swamp         White Oak         Quercus bicolor         Good         14           Swamp         White Oak         Quercus bicolor         Good         6           Pin Oak         Quercus palustris         Good         11           Pin Oak         Quercus palustris         Good         14	484         Pin Oak         Quercus palustris         Good         27           485         Silippery Elm         Wimus rubra         Good         8           486         Pin Oak         Quercus palustris         Good         21           487         Pin Oak         Quercus palustris         Good         8	734         Pin Oak         Quercus palustris         Good         15           735         Pin Oak         Quercus palustris         Good         20           736         Pin Oak         Quercus palustris         Good         20           736         Pin Oak         Quercus palustris         Good         20           737         Pin Oak         Quercus palustris         Good         12	984         Pin Oak         Quercus palustris         Good         18           985         American Elm         Ulmus americana         Good         10           20,20         988         American Elm         Ulmus americana         Good         6           987         Green Ash         Fraxinus pennsylvanica         Good         22	1234         American Elm         Ulmus americana         Good         7           1235         Black Walnut         Juglans nigra         Good         12           1236         Sugar Maple         Accer saccharum         Good         6           1237         Sugar Maple         Accer saccharum         Good         6	1494         Pin Oak         Quercus palustris         Good         18           1485         Pin Oak         Quercus palustris         Good         20           1496         Sugar Maple         Acer saccharum         Good         17           1487         Sugar Maple         Acer saccharum         Good         8	1734 \$ugar Maple     Acer saccharum     \$ood     13       1735 \$oxelder     Acer negundo     \$ood     7       1736 \$oxelder     Acer negundo     \$ood     8       1737 \$oxelder     Acer negundo     \$ood     7	1984         Boxelder         Acer negundo         Good         11           1985         \$ugar Maple         Acer saccharum         Good         8           1986         \$ugar Maple         Acer saccharum         Good         6           1987         \$ugar Maple         Acer saccharum         Good         6
Pin Oak         Quercus palustris         Good         13           Pin Oak         Quercus palustris         Good         19	488         Pin Oak         Quercus palustris         Sood         7           489         Pin Oak         Quercus palustris         Sood         7           490         Pin Oak         Quercus palustris         Sood         11           491         Pin Oak         Quercus palustris         Sood         7	738         Pin Oak         Quercus palustris         Good         8           739         Pin Oak         Quercus palustris         Good         6           740         Green Ash         Fraxinus pennsylvarica         Poor         8           741         Pin Oak         Quercus palustris         Good         7	988         Pignut Hickory         Çarya glabra         Sood         7           988         Bitternut Hickory         Çarya cordiformis         Çood         8           990         Bitternut Hickory         Çarya cordiformis         Çood         6           991         Pin Oak         Quercus palustris         Good         12         13,12,6	1238     Hackberry     Četis occidentalis     Good     6       1239     \$ugar Maple     Acer saccharum     Good     6       1240     American Elm     Ulmus americana     Good     7       1241     American Hophombeam     Ostrya virginiana     Good     6	1488         Pin Oak         Quercus palustris         Good         9           1489         Green Ash         Fraxinus pennsylvanica         Good         15           1490         Biack Cherry         Prunus serotina         Good         6           1491         Pin Oak         Quercus palustris         Good         9	1738         Boxelder         Acer negundo         Good         9           1739         Boxelder         Acer negundo         Good         8           1740         Green Ash         Fraxinus pennsylvanica         Poor         10           1741         Boxelder         Acer negundo         Poor         10	1988         \$ugar Maple         Acer saccharum         \$cod         6           1999         \$ugar Maple         Acer saccharum         \$cod         6           1990         \$ugar Maple         Acer saccharum         \$cod         9           1990         \$lagar Maple         Acer saccharum         \$cod         9           1991         \$lack Cherry         Prunus serotina         \$cod         11
Pin Oak         Quercus palustris         Good         10           Pin Oak         Quercus palustris         Good         8           Pin Oak         Quercus palustris         Good         8           Pin Oak         Quercus palustris         Good         12	492         Apple         Malus sp.         Good         6           493         Pin Oak         Quercus palustris         Good         21           494         Slippery Elm         Umus rubra         Good         13           495         Pin Oak         Quercus palustris         Good         16	742         Pin Oak         Quercus palustris         Good         6           743         Pin Oak         Quercus palustris         Good         26           744         Pin Oak         Quercus palustris         Good         15           744         Pin Oak         Quercus palustris         Good         15           745         Pin Oak         Quercus palustris         Good         25	992         Bitternut Hickory         Carya cordiformis         Good         6           993         Pin Oak         Quercus palustris         Good         18           994         Pin Oak         Quercus palustris         Good         8           10         995         Pin Oak         Quercus palustris         Good         15	1242         Red Oak         Quercus rubra         Good         13           1243         American Elm         Ulmus americana         Good         11           1244         Black Walnut         Juglasn nigra         Good         9           1245         American Elm         Ulmus americana         Good         7	1492         Pin Oak         Quercus palustris         Good         13           1493         Pin Oak         Quercus palustris         Good         10           1494         Pin Oak         Quercus palustris         Good         25           1495         Pin Oak         Quercus palustris         Good         27	1742         Sugar Maple         Acer saccharum         Good         7           1743         Boxelder         Acer negundo         Good         9           1744         Boxelder         Acer negundo         Good         10           1745         Pin Oak         Quercus palustris         Good         29	1992     Black Cherry     Prunus serotina     €ood     9       1993     Boxelder     Acer negundo     Good     19       1994     Sugar Maple     Acer saccharum     Good     6       1995     Sugar Maple     Acer saccharum     Good     8
Pin Oak Quercus palustris Good 19 Pin Oak Quercus palustris Good 9 Pin Oak Quercus palustris Good 9	496         Pin Oak         Φμercus palustris         €ood         16           497         Pin Oak         Φμercus palustris         €ood         24           498         Pin Oak         Φμercus palustris         €ood         28         28	746         ₱in Oak         Quercus palustris         ©ood         14           747         ₱in Oak         Quercus palustris         ©ood         27           748         ₱in Oak         Quercus palustris         ©ood         14	10         135         Code         13           990         Pin Oak         Quercus palustris         Good         27           997         American Elm         Ulmus americana         Good         27           998         American Elm         Ulmus americana         Good         7           998         American Elm         Ulmus americana         Good         9           22         999         Pin Oak         Quercus palustris         Good         13	1249 American Lorin Control and Contr	1496         Red Oak         Quercus jubra         Good         9           1496         Red Oak         Quercus jubra         Good         9           1497         Red Oak         Quercus jubra         Good         20           1498         Hackberry         Celtis occidentalis         Good         11           1499         Freen Ash         Fraxinus pennsylvarica         Poor         16	1743         In Oak         Querus pausiis         5000         29           1744         Boxelder         Acer negundo         Good         11           1747         Boxelder         Acer negundo         Good         9           1748         Pin Oak         Quercus palustris         Good         22           1749         Hackberry         Čettis occidentalis         Good         9	9         1995         Sugar Maple         Acta saccharum         Good         8           1997         Silopery Elm         Ulmus rubra         Good         6           1998         Silopery Elm         Ulmus rubra         Good         8           1998         Silopery Elm         Ulmus rubra         Good         8           1998         Silopery Elm         Ulmus rubra         Good         6
Pin Oak         Quercus palustris         Good         17         16,14,7           Pin Oak         Quercus palustris         Good         13	499 Pin Oak Quercus palustris Good 17	749 Pin Oak Quercus palustris Good 22		pero gogo mobio - mon outranti - mini - mini			

015/152-227\-GIS\Maps\TreeSurvey\152227\_TreeSUrvey\_TABLE.mxd LS:( 12/13/2016 - mdeliberato) - LP:3/23/2016 2:40:24 PM - LExported:12/13/2016

I Common Name J Sugar Maple Ametican Hophorni S Silppery Elm S Sugar Maple Bitternut Hickory S Silppery Elm S Sugar Maple S Sugar Maple	Scientific Name Acer saccharum eam Ostrya viginiana Ulimus rubra Acer saccharum Carya cordiformis Ulimus rubra Acer saccharum Acer saccharum	Good Good Good Good Good Good Good Good		3 3 3 0 0 0 3 3 3 3	Multiple Trunk DBH (Inches)	
Elsippery Elm Siguar Maple Bitternut Hickory Silippery Elm Siguar Maple Siguar Maple	Ulmus rubra Acer saccharum Carya cordiformis Ulimus rubra Acer saccharum Acer saccharum	Good Good Good Good Good Good Good Good		0 0 3 2 3 3		
Sugar Maple Sugar Mapl	Acer saccharum Acer saccharum Acer saccharum Acer saccharum Ulmus rubra Acer saccharum Acer saccharum	Good Good Good Good Good Good Good Good	1 8 8 22 6	9 2 3 3		
Slippery Eim Sugar Maple Sugar Maple Sugar Maple Sugar Maple Black Walnut Sugar Maple Sugar Maple Sugar Maple Sugar Maple Pin Cak Sugar Maple Pin Cak Sugar Maple Sugar Maple	Ulmus rubra Acer saccharum Acer saccharum Acer saccharum Acer saccharum Juglans nigra Acer saccharum Acer saccharum Acer saccharum Prunus serotina Acer saccharum Quercus palustris Acer saccharum	Good Good Good Good Good Good Good	2			
Sugar Maple Black Walnut Sugar Maple Black Walnut Sugar Maple Sugar Maple Sugar Maple Black Cheny Black Cheny Black Cheny Black Cheny Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Juglans nigra Acer saccharum Acer saccharum Acer saccharum Prunus serotina Acer saccharum Quercus palustris Acer saccharum	Good Good Good Good	(	5 7		
Sugar Maple Sugar Maple Sugar Maple Black Cherry Sugar Maple Pin Cak Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum Prunus serotina Acer saccharum Quercus palustris Acer saccharum Acer saccharum		1	6 6 4 2		
Sugar Maple Pin Oak Sugar Maple Sugar Maple Sugar Maple Sugar Maple Sugar Maple Sugar Maple Sugar Maple Sugar Maple Green Ash Sugar Maple Sugar Maple Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Quercus palustris Acer saccharum Acer saccharum	Good Good Good	1	1 5 7		
Sugar Maple     Green Ash     Sugar Maple	Acer saccharum	Good Good Good Good	1	0 7 7 7		
Sugar Maple	Acer saccharum	Good Good Good	6	7 6		
Sugar Maple Green Ash Sugar Maple Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum Acer saccharum	Good Good Good Good	9	6 7 9 7		
5 Sugar Maple 5 Sugar Maple	Acer saccharum Fraxinus pennsylvani Acer saccharum	Good		6 7		
Sugar Maple	Acer saccharum Acer saccharum Acer saccharum	Good Good Good	1	6 7 7		
3 Sugar Maple 9 Sugar Maple 1 Sugar Maple	Acer saccharum Acer saccharum Acer saccharum Acer saccharum	Good Good Good Good	8	7		
Black Walnut Black Walnut Sugar Maple	Juglans nigra Juglans nigra Acer saccharum	Good Good Good	1	4		
Sugar Maple Black Walnut Sugar Maple	Acer saccharum Juglans nigra Acer saccharum	Good Good Good	1	6		
Sugar Maple Sugar Maple Slippery Elm Slippery Elm	Acer saccharum Acer saccharum Ulmus rubra Ulmus rubra	Good Good Good Good	6	) 3 3		
Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum	Good Good Good	<u>و</u> 1	7 ) 0 )	7	
Sugar Maple Black Walnut Black Walnut Sugar Maple	Acer saccharum Juglans nigra Juglans nigra Acer saccharum	Good Good Good Good	1	7 6		
Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum	Good Good Good	6	6 8		
Slippery Elm Sugar Maple Pin Oak Bitternut Hickory	Acer saccharum Quercus palustris Carya cordiformis	Good Good Good Good	7	, 1		
Sugar Maple Slippery Elm Sugar Maple	Acer saccharum Ulmus rubra Acer saccharum	Good Good Good	6 6 1	6 6 1		
Slippery Elm Shagbark Hickory Bitternut Hickory Bitternut Hickory	Ulmus rubra Carya ovata Carya cordiformis Carya cordiformis	Good Good Good Good	2	6 1		
Black Walnut Bitternut Hickory Pin Oak	Juglans nigra Carya cordiformis Quercus palustris	Good Good Good	1 1 9	0 1		
Sugar Maple Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum Acer saccharum	Good Good Good Good	6	5		
Pin Oak Sugar Maple Sugar Maple	Quercus palustris Acer saccharum Acer saccharum	Good Good Good	2	5 4 7	14	
Pin Oak American Hophomb Shagbark Hickory	Carya ovata	Good Good Good	3 8 1	5 9		
Sugar Maple Sugar Maple Bitternut Hickory	Acer saccharum Acer saccharum Carya cordiformis	Good Good Good	6 6 8			
Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum	Good Good Good	1 1 6	6 9	13 17	
Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum	Good Good Good	8	2		
Sugar Maple Slippery Elm Sugar Maple	Acer saccharum Ulmus rubra Acer saccharum	Good Good Good	7	0		
Sugar Maple Sugar Maple Sugar Maple	Acer saccharum Acer saccharum Acer saccharum	Good Good Good	9 6 8			
Pin Oak Sugar Maple Pin Oak	Quercus palustris Acer saccharum Quercus palustris	Good Good Good	1- 7 1:	4 B		
Pin Oak American Hophomb Bitternut Hickory	Quercus palustris eam Ostrya virginiana Carya cordiformis	Good Good Good	21 6 9	8		
Slippery Elm Black Walnut Slippery Elm	Ulmus rubra Juglans nigra Ulmus rubra	Good Good Good	6 9 7			
Sugar Maple Bitternut Hickory Sugar Maple	Acer saccharum Acer saccharum Carya cordiformis Acer saccharum	Good Good Good Good	6			
Sugar Maple Sugar Maple Bitternut Hickory	Acer saccharum Acer saccharum Carya cordiformis	Good Good Good	8	B		
Slippery Elm Sugar Maple	Ulmus rubra Acer saccharum	Good Good	6			
Slippery Elm Black Walnut Slippery Elm	Ulmus rubra Juglans nigra Ulmus rubra	Good Good Good	2	7		
American Hophomb Sugar Maple	eam Ostrya virginiana Acer saccharum	Good Good	7	_		
American Hophornb Sugar Maple Sugar Maple	eam Ostrya virginiana Acer saccharum Acer saccharum	Good Good Good	6 8	1		
Sugar Maple Black Walnut Slippery Elm	Acer saccharum Juglans nigra Ulmus rubra	Good Good Good	6 9 8			
Sugar Maple Slippery Elm Slippery Elm	Acer saccharum Ulmus rubra Ulmus rubra	Good Good Good	9 9 7			
Slippery Elm Slippery Elm Slippery Elm	Ulmus rubra Ulmus rubra Ulmus rubra	Good Good Good	7			
American Hophornb Sugar Maple Sugar Maple	eam Ostrya virginiana Acer saccharum Acer saccharum	Good Good Good	6 1 1	1 D		
Sugar Maple Pin Oak Swamp White Oak	Acer saccharum Quercus palustris Quercus bicolor	Good Good Good	9 1: 9	3		
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 6 6			
Scotch Pine Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 7 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 6 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	7 6 6			
Scotch Pine Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good Good	10	)		
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	7 8 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 7 8			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	7 6 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 12 8	2		
Scotch Pine White Pine White Pine White Pine	Pinus sylvestris Pinus strobus Pinus strobus Pinus strobus	Good Good Good Good	1:	3		
White Pine White Pine White Pine	Pinus strobus Pinus strobus Pinus strobus	Good Good Good	12 9 9	2		
White Pine White Pine Scotch Pine Scotch Pine	Pinus strobus Pinus strobus Pinus sylvestris Pinus sylvestris	Good Good Good Good	8			
Tulip Tree Scotch Pine Scotch Pine	Liriodendron tulipfera Pinus sylvestris Pinus sylvestris	Good Good Good	11 6 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 7 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good Good	6			NOTES:
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 6 6			1. IMAGE REFERENCE: OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP), OHIO STATEWIDE IMAGERY PROGRAM (OSIP), UNION
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 9 7			COUNTY 12-INCH RESOLUTION ORTHOPHOTO, IMAGERY DATE: 2015.
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 6 6			2. IDENTIFICATION OF TREES ON THE SUBJECT PROPERTY WAS PERFORMED
White Pine White Pine White Pine White Pine	Pinus strobus Pinus strobus Pinus strobus Pinus strobus	Good Good Good Good	9	)		BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) ON NOVEMBER 18-28, & DECEMBER 5-7, 2016.
White Pine White Pine White Pine	Pinus strobus Pinus strobus Pinus strobus	Good Good Good	6 11 11			·
White Pine Scotch Pine Scotch Pine	Pinus strobus Pinus sylvestris Pinus sylvestris	Good Good Good	11 11 11			
Scotch Pine Sugar Maple Scotch Pine Scotch Pine	Pinus sylvestris Acer saccharum Pinus sylvestris Pinus sylvestris	Good Good Good Good	6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 6 6			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 8 9			Civil & Environmental Consultants, Inc.
Scotch Pine Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good Good	6			250 Old Wilson Bridge Road, Suite 250, Worthington, OH 43085
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 7 6			614-540-6633 • 888-598-6808 www.cecinc.com
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	6 7 7			
Scotch Pine Scotch Pine Scotch Pine	Pinus sylvestris Pinus sylvestris Pinus sylvestris	Good Good Good	7			PULTE HOMES
						CARPENTERS MILL
						LIBERTY TOWNSHIP
						DELAWARE COUNTY, OHIO
						DRAWN BY:         MAD         CHECKED BY:         MRL         APPROVED BY:         JCD           DATE:         12/13/2016         SCALE:         1 inch = 50 feet         PROJECT NO:         152-22
						SHEET NO:
						TREE SURVEY TABLE
	Sugar Maple Sugar Maple Sugar Maple Sugar Maple Silpper Pilm Sinternut Hickory Silpper Pilm Sinternut Hickory Silpper Pilm Sinternut Hickory Silpper Pilm Sinternut Hickory Silpper Pilm Sinternut Hickory Silternut Hickory Silternut Hickory Silternut Hickory Silternut Hickory Silternut Hickory Silternut Hickory Silger Maple Sugar	Back Wahud Ager saccharum Sugar Maple Acer saccharum Sug	Back Wartu         Jugar Singer         Acer ascharum         Good           Sugar Maple         Acer ascharum         Good           Stagar Maple         Acer ascharum         Good           Sugar Maple         Acer ascharum         Good           Sugar Maple         Acer ascharum         Good           Stagar Maple         Acer ascharum         Good           Sugar Maple         Acer ascharum         Good	Back. Weak         Apper mays         Bood         I           Sign Mugic         Acer ascelanion         Good         I           Pin Oak         Acer ascelanion         Good         I           Sign Mugic         Acer ascelanion         Good         I     <	Biol. Wards         Apple migs         Bood         4.00           Sign Wards         Apple standards         Good         4.00           Sign Mupic         Acts scalutum         Good         4.00           Sign Mupic         Acts scalutum         Good         4.00           Sign Mupic         Acts scalutum         Good         4.00           Binner Mickory         Cars scalutum         Good         4.00           Sign Mupic         Acts scalutum         Good <td></td>	



## **LEGEND** APPROXIMATE SITE BOUNDARY [\_\_\_\_] SHEET MATCHLINE TREE SURVEY AMERICAN ELM APPLE BLACK CHERRY Ê BLACK LOCUST ŝ BLACK WALNUT ß **GREEN ASH** 3 HACKBERRY HAWTHORNE HONEY LOCUST $\bigcirc$ PIN OAK RED OAK ŝ SLIPPERY ELM (SUGAR MAPLE 3 SCALE IN FEET 50 100 NOTES: 1. IMAGE REFERENCE: OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP), OHIO STATEWIDE IMAGERY PROGRAM (OSIP), UNION COUNTY 12-INCH RESOLUTION ORTHOPHOTO, IMAGERY DATE: 2015. IDENTIFICATION OF TREES ON THE SUBJECT PROPERTY WAS PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) ON NOVEMBER 18-28, & DECEMBER 5-7, 2016. Civil & Environmental Consultants, Inc. 250 Old Wilson Bridge Road, Suite 250, Worthington, OH 43085 614-540-6633 · 888-598-6808 www.cecinc.com **PULTE HOMES CARPENTERS MILL** LIBERTY TOWNSHIP DELAWARE COUNTY, OHIO MAD CHECKED BY: MRL APPROVED BY: 12/13/2016 SCALE: 1 inch = 50 feet PROJECT NO: DRAWN BY: JCD\* 152-227 SHEET NO: TREE SURVEY MAP 2-1



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## <u>LEGEND</u> APPROXIMATE SITE BOUNDARY SHEET MATCHLINE TREE SURVEY **BITTERNUT HICKORY** BLACK CHERRY ŝ **GREEN ASH** ŝ HACKBERRY PIN OAK RED MAPLE SILVER MAPLE SLIPPERY ELM ŝ SUGAR MAPLE <sup>2</sup> SCALE IN FEET 50 100 NOTES: 1. IMAGE REFERENCE: OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP), OHIO STATEWIDE IMAGERY PROGRAM (OSIP), UNION COUNTY 12-INCH RESOLUTION ORTHOPHOTO, IMAGERY DATE: 2015. IDENTIFICATION OF TREES ON THE SUBJECT PROPERTY WAS PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) ON NOVEMBER 18-28, & DECEMBER 5-7,2016. Civil & Environmental Consultants, Inc. 250 Old Wilson Bridge Road, Suite 250, Worthington, OH 43085 614-540-6633 · 888-598-6808 www.cecinc.com **PULTE HOMES CARPENTERS MILL** LIBERTY TOWNSHIP DELAWARE COUNTY, OHIO MAD CHECKED BY: MRL APPROVED BY: 12/13/2016 SCALE: 1 inch = 50 feet PROJECT NO: JCD\* 152-227 SHEET NO:

TREE SURVEY MAP

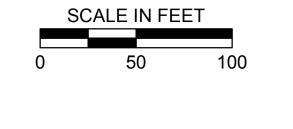
2-2

\* Hand signature on f



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#### **LEGEND** APPROXIMATE SITE BOUNDARY SHEET MATCHLINE TREE SURVEY AMERICAN ELM Ê APPLE **BITTERNUT HICKORY** BLACK CHERRY BLACK LOCUST $\overset{\frown}{\hookrightarrow}$ **GREEN ASH** HACKBERRY HONEY LOCUST (**PIGNUT HICKORY** PIN OAK B RED MAPLE $\overleftrightarrow$ RED OAK SHAGBARK HICKORY Ê SILVER MAPLE ß SLIPPERY ELM $\overset{\frown}{\hookrightarrow}$ SUGAR MAPLE (SWAMP WHITE OAK ŝ



NOTES: 1. IMAGE REFERENCE: OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP), OHIO STATEWIDE IMAGERY PROGRAM (OSIP), UNION COUNTY 12-INCH RESOLUTION ORTHOPHOTO, IMAGERY DATE: 2015.

 IDENTIFICATION OF TREES ON THE SUBJECT PROPERTY WAS PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) ON NOVEMBER 18-28, & DECEMBER 5-7, 2016.



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

### PULTE HOMES CARPENTERS MILL LIBERTY TOWNSHIP DELAWARE COUNTY, OHIO

 MAD
 CHECKED BY:
 MRL
 APPROVED BY:

 12/13/2016
 SCALE:
 1 inch = 50 feet
 PROJECT NO:

TREE SURVEY MAP

DRAWN BY:

JCD\* 152-227

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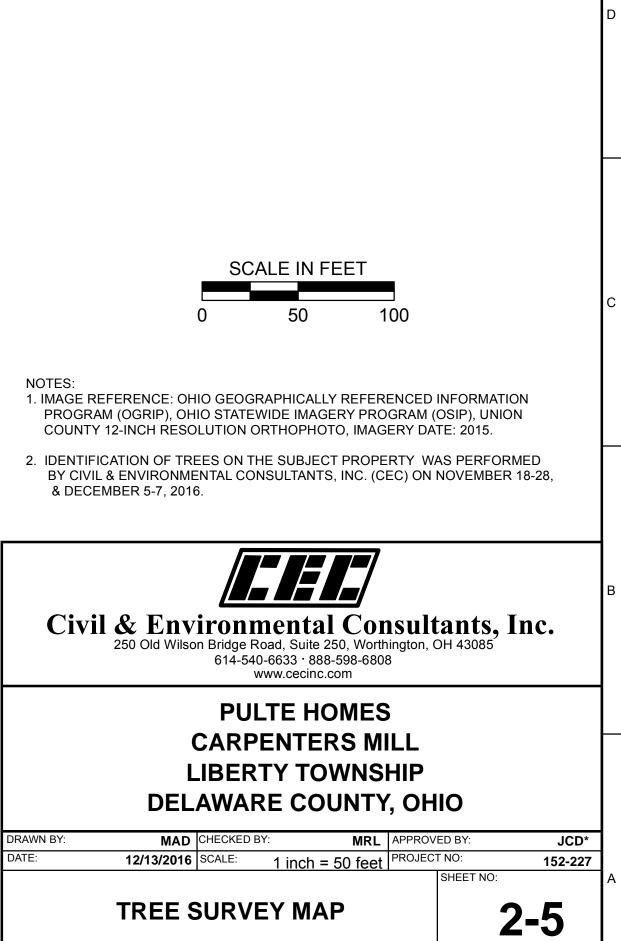
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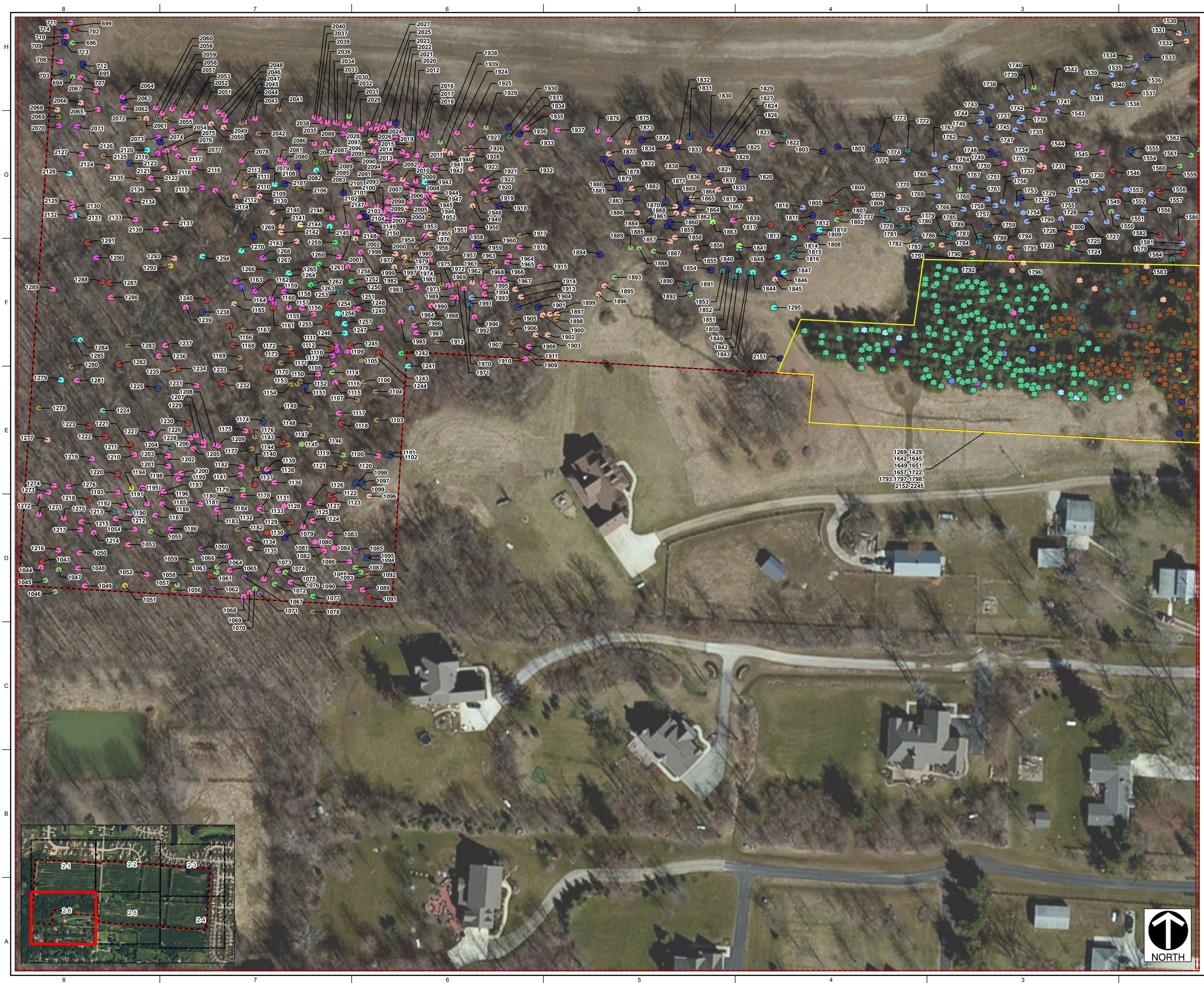


#### **LEGEND**

	APPROXIMATE SITE BOUNDARY
	SHEET MATCHLINE
TREE SURVEY	
	AMERICAN ELM
	BLACK CHERRY
	BLACK WALNUT
	BOXELDER
	GREEN ASH
*	HACKBERRY
	NORWAY SPRUCE
*	OSAGE-ORANGE
	PIN OAK
	RED MAPLE
	RED PINE
	SILVER MAPLE
	SLIPPERY ELM
	SUGAR MAPLE
	WHITE ASH
	WHITE PINE



\* Hand signature on file



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## SHEET MATCHLINE TREE SURVEY AMERICAN BASSWOOD AMERICAN BEECH AMERICAN ELM AMERICAN HOPHORNBEAM **BITTERNUT HICKORY** BLACK CHERRY BLACK WALNUT **BLACK WILLOW** BOXELDER EASTERN COTTONWOOD **GREEN ASH** HACKBERRY HAWTHORNE HONEY LOCUST IRONWOOD LARGE TOOTHED ASPEN NORWAY SPRUCE PIN OAK RED OAK SCOTCH PINE SHAGBARK HICKORY SILVER MAPLE SLIPPERY ELM SUGAR MAPLE SWAMP WHITE OAK

APPROXIMATE SITE BOUNDARY

<u>LEGEND</u>

NOTES: 1. IMAGE REFERENCE: OHIO GEOGRAPHICALLY REFERENCED INFORMATION PROGRAM (OGRIP), OHIO STATEWIDE IMAGERY PROGRAM (OSIP), UNION COUNTY 12-INCH RESOLUTION ORTHOPHOTO, IMAGERY DATE: 2015.

SWEET GUM

TULIP TREE

WHITE ASH

WHITE PINE

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## PULTE HOMES CARPENTERS MILL LIBERTY TOWNSHIP DELAWARE COUNTY, OHIO

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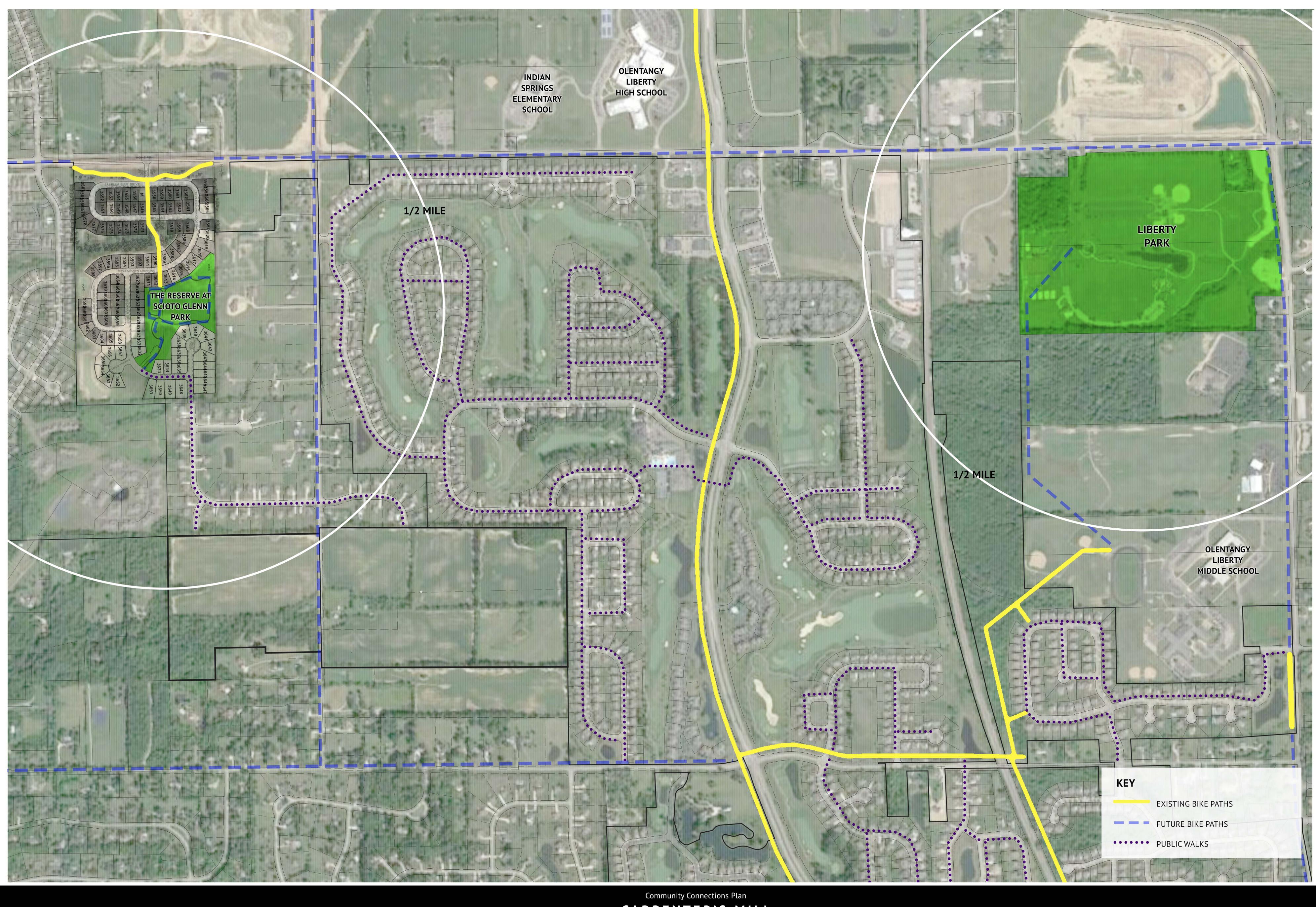
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 1 inch = 50 feet
 PROJECT NO:

TREE SURVEY MAP

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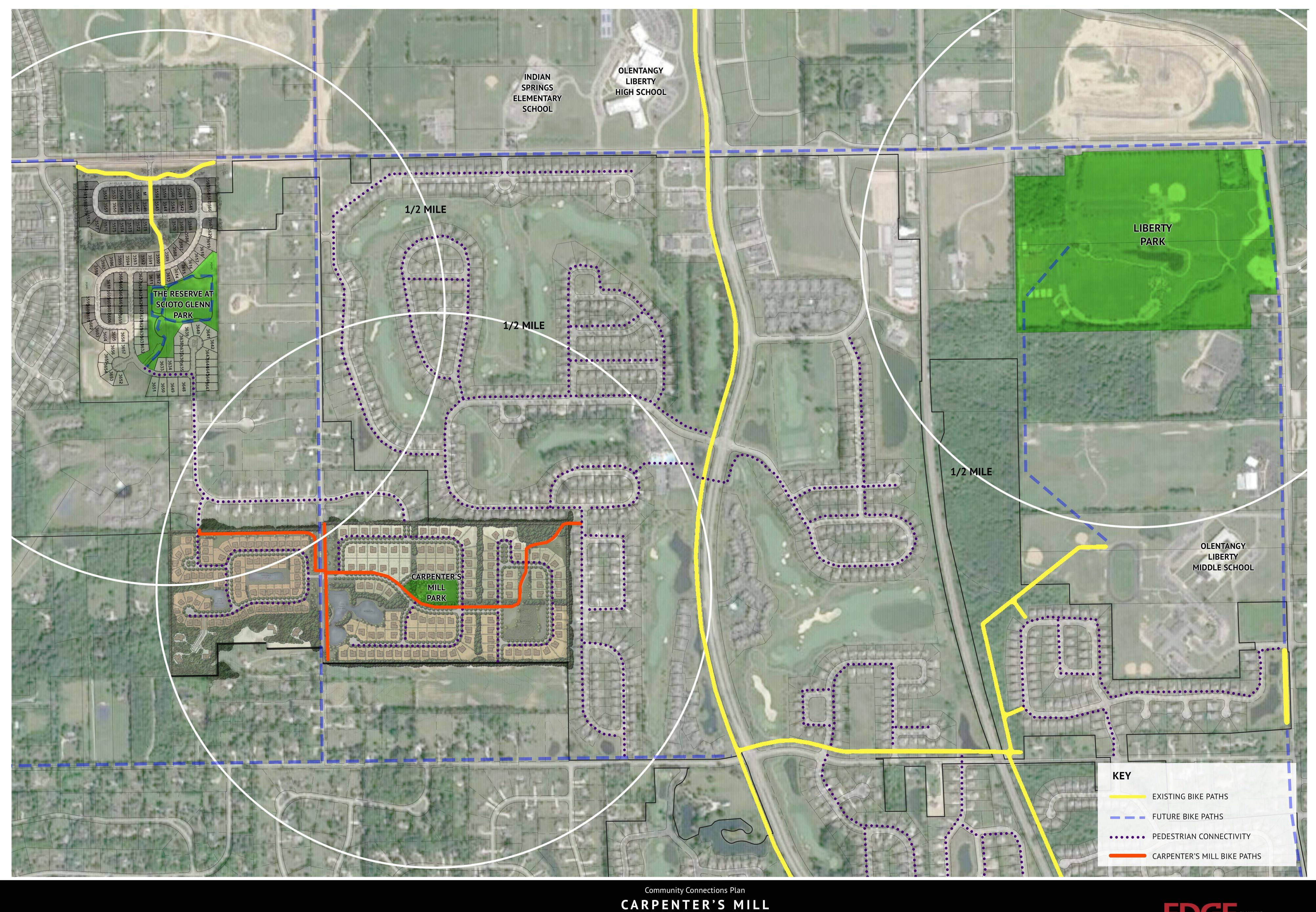
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CARPENTER'S MILL POWELL, OHIO Prepared for the Pulte Group January 25, 2017

**G PLANNING LANDSCAPE ARCHITECTURE URBAN DESIGN** 

ED



POWELL, OHIO Prepared for the Pulte Group January 25, 2017



P.O. Box 2553 Columbus, Ohio 43216 Tel. (614) 481-5263 Fax (614) 255-6428



December 1, 2016

Michael Reeves Civil & Enviromental Consultants, Inc. 250 Old Wilson Bridge Rd Suite 250 Worthington, OH 43085

RE: Shelly/Smith Property - Steitz Rd, Liberty Township, Delaware County, OH

Dear Mr. Reeves:

This letter is to confirm that Charter Communications has the capacity and ability to provide advanced cable, high speed internet and digital phone services to the proposed Shelly/Smith Property – Steitz Rd, Liberty Township, Delaware County, OH.

If you have any questions give me a call at 614-481-5263 and I will be happy to discuss this project with you.

Thank You!

Kevin D. Rich Construction Manager kevin.rich1@charter.com



AEP Ohio 850 Tech Center Drive Gahanna, OH 43230 AEPOhio.com

November 14, 2016

Civil & Environmental Consultants, Inc. 250 Old Wilson Bridge Road, Suite 250 Worthington, OH 43085

#### **RE: AVAILABILITY OF ELECTRICAL SERVICE**

Smith Fields Single Family Development - Steitz Road, City of Powell

To Whom It May Concern:

This letter will confirm that American Electric Power has electric service facilities adjacent to your new project. These facilities will be made available to serve your project with some Contribution-In-Aid-To-Construction charged to the project developer.

Our records indicate your project, a residential development which will consist of approximately 183 units on a 109.42 (+/-) acre site, is located on Steitz Road south of Hunters Run, Liberty Township, Delaware County, Ohio.

American Electric Power anticipates providing your new project the best possible service. I look forward to working with you and remain available to coordinate your project needs. Please contact me to discuss any questions you may have or other assistance you may require.

Sincerely,

Gary D. Hays, P.E. Customer Design Manager

October 26, 2016



Michael C. Reeves, PE, CFM, LEED AP / Project Manager Civil & Environmental Consultants, Inc. 250 Old Wilson Bridge Road, Suite 250 · Worthington, OH 43085

Re: Smith Fields Single Family Development – Off Steitz Rd., South of Hunters Bend, North of Rutherford Rd. located in Powell, Ohio

Michael,

Thank you for your interest in clean, efficient natural gas. This letter is to confirm that Columbia Gas of Ohio, Inc. currently has facilities available in the vicinity of the proposed referenced above project. We currently have a medium pressure main line running north and south along Steitz Rd. between Hunters Bend and Rutherford Rd.

This is a preliminary study only and is not a legally binding project (capital) cost commitment on behalf of Columbia. Any changes from the information submitted may change the study for the Facilities necessary to provide the service. Other factors beyond Columbia's control, include, but are not limited to upstream load requirements, and available capacity at the time an agreement is reached.

Once mechanical drawings are available, please forward them to my attention so that we may complete our feasibility study; as well as determine any costs that may be required. Please note that availability is contingent upon a cost benefit analysis. If the project is not deemed economically feasible for Columbia Gas, a deposit may be necessary

If you have any questions regarding availability, please feel free to contact me at 614.460.5416. I look forward to partnering with you on this and future projects.

Sincerely,

Donna Young

Donna Young New Business Development Manager | Columbia Gas of Ohio, Inc. 290 W. Nationwide Blvd, Columbus, Ohio 43215 | 614.460.5416 donnayoung@nisource.com



#### DELAWARE COUNTY REGIONAL SEWER DISTRICT

MICHAEL A. FROMMER, P.E., EXECUTIVE DIRECTOR

July 12, 2016

Civil & Environmental Consultants, Inc. Michael C. Reeves, P.E. 250 Old Wilson Bridge Road, Suite 250 Worthington, OH 43085

#### Re: Request for Sewer Capacity Smith & Shelly Properties Parcels: 31923002103000, 31924001046000, 31924001047000, 31924001048000

Dear Mr. Reeves:

The Delaware County Regional Sewer District (the "County") has considered your request for approval to discharge sanitary sewage into the Delaware County Sanitary Sewer System from the above referenced location, representing 183 Equivalent Residential Unit(s) (ERU).

It is our understanding that a single pump station will be constructed, which will convey all flows from the development to an existing sanitary outlet. Capacity is conditionally available at two existing outlet locations to serve the proposed project provided that the following conditions are met:

**Option 1:** Outlet to manhole 8 in Liberty Village Section 1 along Wolf Path Drive. This option will require an upgrade or parallel to 250 feet of 8" sanitary between manholes 6 and 7 in Scioto Reserve Section 1, Phase 4 along Maple Run Lane to the corner of Maple Run Lane/Stone View Court and Tree Lake Boulevard.

**Option 2:** Outlet to manhole 7 in Scioto Reserve Section 1, Phase 7 along Tree Lake Boulevard. This option will not require additional downstream upgrades.

Please be aware that downstream improvements to the Scioto Reserve pump station and tributary sewer are necessary to serve the proposed development regardless of which option is used. These downstream improvements are planned to be completed by Village Communities concurrent to the proposed development and construction sequencing might be necessary between the two developments.

The current assessment of capacity availability is subject to periodic reevaluation by the County and shall not be valid after 18 months from the date of this letter.

If you have any questions, please feel free to contact me.

Sincerely,

Kelly Thul

Kelly Thiel Staff Engineer II Delaware County Regional Sewer District

la da secondo de composicionales. No contentar contra acomposiciones

cc: Mike Frommer Project File Correspondence File

> 50 Channing Street (South Wing), P.O. Box 8006, Delaware, Ohio 43015-8006 (740) 833-2240 Fax: (740) 833-2239 www.co.delaware.oh.us

Officers TIMOTHY D. McNAMARA President BRUCE A. BLACKSTON Vice President ROBERT W. JENKINS Secretary G. MICHAEL DICKEY Treasurer GLENN MARZLUF General Manager/CEO SHANE CLARK Deputy General Manager



6658 OLENTANGY RIVER ROAD DELAWARE, OHIO 43015 www.delcowater.com Phone (740) 548-7746 • Fax (740) 548-6203 Directors WILLIAM E. COLE DOUGLAS D. DAWSON DAVID A. BENDER J. MICHAEL SHEETS BRIAN P. COGHLAN PERRY K. TUDOR

December 9, 2016

Michael C. Reeves, P.E. Civil & Environmental Consultants, Inc. 250 Old Wilson Bridge Road, Suite 250 Worthington, Ohio 43085

Via Email: mreeves@cecinc.com

RE: Water Availability Shelly/Smith Property – Steitz Road

Dear Mr. Reeves:

As requested, this is to inform you that Del-Co Water is able to provide water service to the site described below upon plan approval and payment of the required fees:

Proposed Land Use:  $\pm$  183 single-family homes Location: East and West sides of Steitz Road,  $\pm$ 4,000 feet south of Home Road Acreage:  $\pm$ 109.42 acres

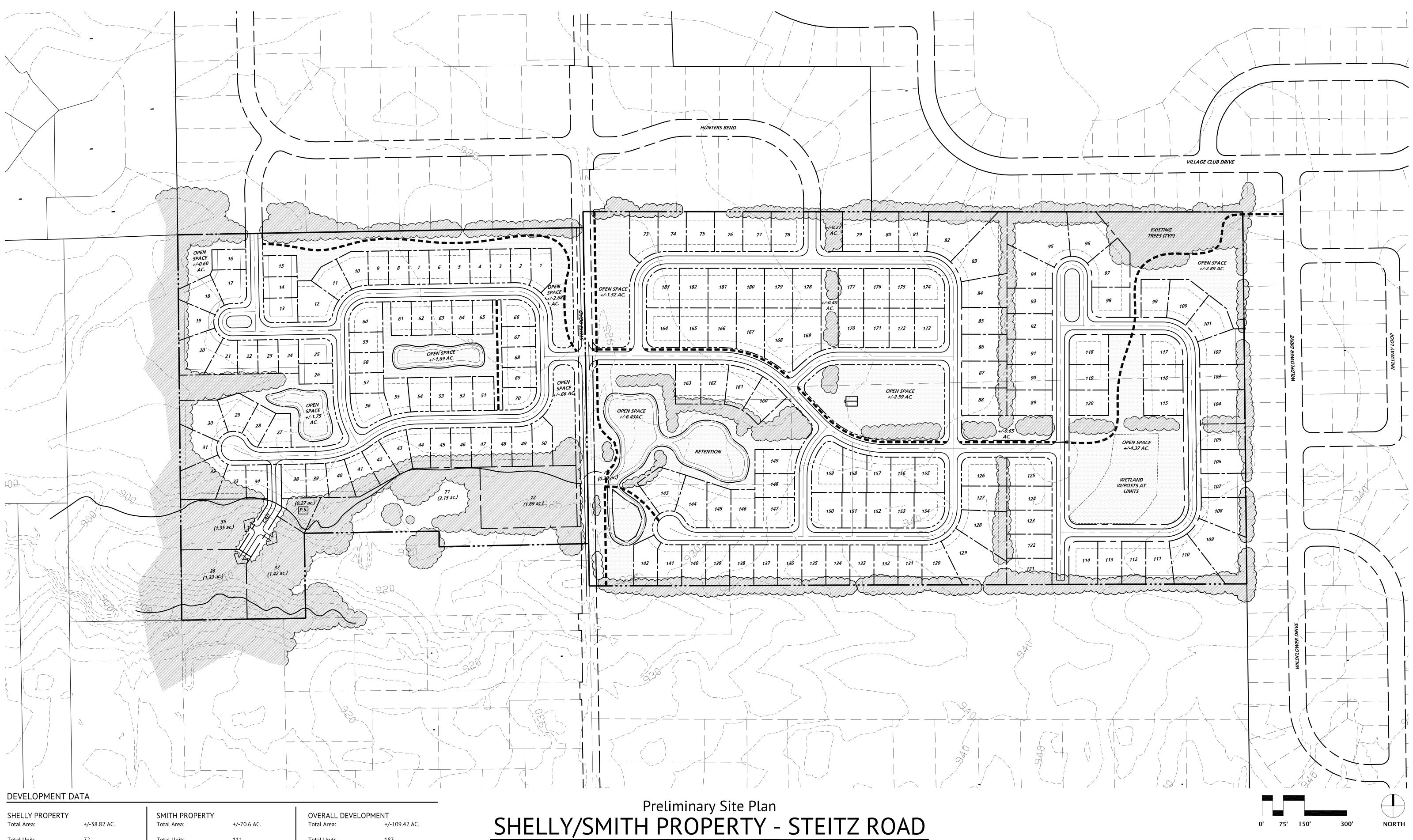
This site can be served from an existing 10-inch water line located on Steitz Road and other lines from connecting subdivisions.

This letter of water availability is valid for a period of one year from the date of this letter. Del-Co makes no guarantee of water availability beyond this period. Contact our Engineering Department if you have any questions on the plan review process, or our Customer Service Department for information on tap fees.

Sincerely, DEL-CO WATER COMPANY, INC.

Shan 7

Shane F. Clark, P.E. Deputy General Manager



SHELLY PROPERTY		SMITH PROPERTY		OVERALL DEVELOPMEN	
Total Area:	+/-38.82 AC.	Total Area:	+/-70.6 AC.	Total Area:	
Total Units	72 <i>67 - 70'X120' LOTS</i> 5 - ESTATE LOTS	Total Units	111 49 - 85'X130' LOTS 31- 90'X130' LOTS 4 - 95'X130' LOTS	Total Units	1
Gross Density:	1.85 DU/AC.		27 - 100'X140' LOTS		-
Open Space Provided:	+/- 7.38 AC. (19%)	Gross Density:	1.57 DU/AC.		ے -

Open Space Provided: +/- 18.47 AC. (26%)

183 <i>67 - 70'X120' LOTS 49 - 85'X130' LOTS 31 - 90'X130' LOTS</i>
4 - 95'X130' LOTS 27 - 100'X140' LOTS 5 - ESTATE LOTS
1.67 DU/AC.

+/<del>-</del> 25.85 AC. (24%)

Gross Density:

Open Space Provided:

LIBERTY TOWNSHIP, DELAWARE COUNTY, OHIO

Prepared for Pulte Homes Prepared by EDGE September 21, 2016

#### **DECLARATION OF COVENANTS**

## EASEMENTS, RESTRICTIONS AND ASSESSMENTS AND ASSESSMENT LIENS FOR

#### **CARPENTER'S MILL**

[DRAFT-Submitted for Zoning purposes only. February, 2017]

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Exhibits Exhibit A.....Subject Property

## DECLARATION OF COVENANTS, EASEMENTS, RESTRICTIONS AND ASSESSMENTS AND ASSESSMENT LIENS FOR CARPENTER'S MILL

This Declaration of Covenants, Easements, Restrictions and Assessments and Assessment Liens (the "**Declaration**") is made on or as of this \_\_\_\_\_ day of \_\_\_\_\_, 2017, by PULTE HOMES OF OHIO LLC, a Michigan limited liability company, whose address is 4900 Tuttle Crossing Boulevard, Dublin, Ohio 43016 ("**Developer**").

#### **Background**

1. Developer is the owner in fee simple of the real estate identified and described on Exhibit A, attached hereto and made a part hereof by this reference (the "**Subject Property**").

2. The Subject Property is being developed and built as a residential subdivision of lots for single-family homes and active adult patio homes known as Carpenter's Mill, City of Powell, Delaware County, (the "**Community**") and may include public or private streets, associated improvements, landscaped areas, entranceway and community border features, reserves, open or green spaces, and storm water drainage facilities.

3. Developer desires hereby to restrict the use and occupancy of the Subject Property and provide for the preservation of the values of and amenities in the Community for the benefit of the present and future Owners of the Lots and the Improvements constructed on them.

4. Developer hereby declares that all of the Subject Property shall be encumbered with the following covenants, easements, restrictions and conditions which shall run with the land and be binding on all parties having any right, title or interest in the Subject Property, or any part thereof, their heirs, successors and assigns, including the future Owners of any Lot, the Developer, the Developer's successors and assigns, and any utility companies, whether public or private, who are granted rights herein.

5. Further, Developer deems it desirable for the accomplishment of these objectives to create an association, and/or separate sub-associations, to which is delegated and assigned the non-exclusive right and obligation to administer and enforce the provisions hereof, to own certain property, to have easement rights with respect to certain property, to administer such property, and to collect and disburse funds necessary to accomplish these objectives. Accordingly, Developer shall cause to be incorporated a homeowners' association under and pursuant to the laws of Ohio, whose Members are and will be all of the Owners of a Lot or Lots in the Community.

#### COVENANTS, EASEMENTS, RESTRICTIONS, ASSESSMENTS AND ASSESSMENT LIENS

NOW THEREFORE, in pursuance of a general plan for the protection, benefit, and mutual advantages of the property in the Community, Developer hereby declares that all of the Subject

Property shall be held, developed, improved, encumbered, sold, conveyed and occupied subject to the following covenants, easements, and restrictions:

#### 1. DEFINITIONS.

The following terms used in this Declaration shall have these meanings, unless the context requires otherwise:

- (a) "Additional Easement Areas"-- those areas, whether or not shown on the plat of the Community, which Developer has determined shall be subject to further easements for the benefit of the Community.
- (b) "Additional Property" -- property that may in the future be subjected to the plan for the Community provided hereby, and consists of such property as Developer, in its sole discretion, may from time to time determine and designate as Additional Property.
- (c) "Architectural Review Committee" -- the group of individuals having the power and authority to establish and enforce architectural standards governing the construction of Improvements in the Community.
- (d) "Articles" and "Articles of Incorporation" -- the articles, when filed with the Secretary of State of Ohio, incorporating Carpenter's Mill Homeowners' Association (the "Association") as a non-profit corporation under the provisions of Chapter 1702 of the Revised Code of Ohio ("Chapter 1702").
- (e) "Assessments" charges levied by the Association on Lots and their Owners, consisting of Operating Assessments, Special Assessments, and Individual Lot Assessments.
- (f) "Association" -- an association of all of the Owners of Lots in the Community, at any time, except Owners of Exempt Property with respect to that property. The Association is being incorporated as an Ohio non-profit corporation named "Carpenter's Mill Homeowners' Association" (the Association).
- (g) "Code of Regulations" and "Code" -- the Code of Regulations of the Association (sometimes referred to as "bylaws") created under and pursuant to the provisions of Chapter 1702, providing certain operating rules and procedures for the Association.
- (h) "Common Elements" -- all real and personal property now or hereafter acquired by the Association, or benefited by easement to it, pursuant to the provisions hereof, or otherwise, for the common use and the enjoyment of the Owners, or for the operation of the Association. The Common Elements may include open spaces, Reserves, entranceway and community border features, detention areas, and other property designated by Developer or the Board (as the Board will be constituted following the Turnover Date) to be Common Elements, and benefiting the Owners of the Lots in the Community.
- (i) "**Common Expense**" costs and expenses incurred by the Association in fulfilling its functions pursuant to the provisions of the Governing Documents.

- (j) "**Community**" or ""Carpenter's Mill" all property that at any time has been subjected to the provisions of this Declaration, and initially includes all of the property described in <u>Exhibit A</u>, and which may be expanded to encompass all or any part of the Additional Property.
- (k) "**Developer**" the Pulte Group and any successor or assign to which it specifically assigns any of its rights and which assumes its obligations hereunder by a written instrument.
- (l) "Exempt Property" -- means the portion of the real property comprising the Community (a) now or hereafter dedicated to common public use or owned by the United States, the State of Ohio, the County, the City, any school board, or similar governmental body, or any instrumentality or agency or any such entity, for so long as any such entity or any such instrumentality or agency shall be the owner thereof, or (b) owned by the Association; provided in either such case, the same is not utilized as a residence.
- (m) "Governing Documents" -- the Association's Articles of Incorporation, Code of Regulations, its Rules, and all amendments thereto, this Declaration, and all amendments thereto, and applicable building and zoning laws and ordinances.
- (n) "**Improvements**" -- all buildings, outbuildings, garages and structures; overhead, aboveground and underground installations, including without limitation, utility facilities and systems, lines, pipes, wires, towers, cables, conduits, poles, antennae and satellite dishes; flagpoles; swimming pools; swing-sets, playground equipment, playhouses and forts; tennis and all other types of permanently installed recreational courts, fixtures and facilities; slope and drainage features, structures and conditions; roads, driveways, uncovered parking areas and other paved areas; fences, trellises, walls, retaining walls, exterior stairs, decks, patios and porches; planted trees, hedges, shrubs and other forms of landscaping; and all other improvements and/or structures of every type.
- (o) "Individual Lot Assessment" -- an assessment that the Board may levy upon a Lot and its Owners to reimburse the Association for costs incurred solely on behalf of that Lot, or the Owners thereof, including without limitation, costs associated with making repairs that are the responsibility of the Owner of that Lot; costs of additional insurance premiums reasonably allocable to an Owner because of use of Improvements on that Lot; costs of any utility expenses chargeable to an Owner but not separately billed by the utility company; administrative charges for violations of the Governing Documents, late charges, and interest on delinquent assessments, and costs of collection of delinquent obligations to the Association, including attorneys' fees and court costs, and all other charges reasonably determined to be chargeable solely to a Lot and its Owners.
- (p) "Lot" -- a separate parcel of real property now or hereafter identified upon a recorded subdivision plat of property in the Community, or any portion thereof, or recorded resubdivision thereof, and any other separate parcel of real property designated as a Lot by Developer, and subjected to the provisions of this Declaration, excluding the Common Elements and any portion of the Community dedicated for public use.

- (q) "**Manager**" -- the person or entity retained by the Board to assist in the management of the Association.
- (r) "**Member**" -- any person or entity meeting the requirement for membership in the Association.
- (s) "**Occupant**" -- a person lawfully residing in a dwelling on a Lot, regardless of whether that person is an Owner.
- (t) "**Operating Assessments**" -- an assessment that the Board may levy upon all Lots, other than Exempt Property, and their Owners, pursuant to the terms of this Declaration, to provide funds to pay Common Expenses, that is, funds needed to meet cash requirements of the Association for its operations and reasonable reserves.
- (u) "**Owner**" and "Lot **Owner**" -- the record Owner, whether one or more Persons, of fee simple title to a Lot, excluding vendors under recorded land installment contracts, but including the vendees, and excluding the Developer and all others having an interest merely as security for performance of an obligation.
- (v) "**Person**" -- a natural individual, trustee, corporation, partnership, limited liability company, or other legal entity capable of holding title to real property.
- (w) "**Reserves**" -- one or more of the Reserves or open spaces in the Community, as delineated and shown on a recorded plat and subjected to the provisions hereof.
- (x) "**Rules**" -- the rules and regulations governing use of property in the Community as may be established by the Board from time to time.
- (y) "Special Assessment" -- an assessment that the Board may levy upon all Lots, except Exempt Property, to pay for unanticipated operating deficiencies, or to pay for capital expenditures not regularly budgeted and not to be paid out of monetary reserves, such as costs for major capital improvement replacements and for major new capital improvements, or any other similar purpose determined appropriate by the Board.
- (z) "**Turnover Date**" -- the date on which Developer relinquishes its exclusive right to appoint all members of the Board, which date shall be no later than the date when the Community has been fully developed, and 95% of homes are built and occupied by residents, provided Developer reserves the right, in its sole and unfettered discretion, to turn over control of the Association, or selected functions thereof, at such earlier time as it determines in its sole discretion.
- 2. GOALS.

The covenants, easements, conditions and restrictions contained in this Declaration are declared to be in furtherance of the following purposes:

- (a) Promotion of the health, safety and welfare of all Owners and Occupants of property in the Community;
- (b) Ownership, administration, preservation, beautification and maintenance of the Community's Common Elements and all Improvements thereon;
- (c) Enforcement of architectural controls and restrictions applicable to the Community;
- (d) Compliance with all zoning and similar governmental regulations applicable to the Community; and
- (e) Provide for mandatory membership of Lot Owners in the Community, as it may be constituted, from time to time, in the Association, and the assessment and collection of funds to fulfill its objectives.
- 3. THE ASSOCIATI ON.
  - 3.1. Purposes.

The Association shall apply all funds received by it pursuant hereto, and all other funds and property received by it from any source, to the fulfillment of the purposes of the Association as herein provided. The purposes of the Association are to:

- (a) To own, repair, maintain, regulate the use of, and to have easements with respect to various facilities and amenities in the Community that benefit all of the Community and its Owners and Occupants, including, without limiting the generality of the foregoing, the Common Elements and such other Improvements and amenities as designated to be Common Elements by Developer, and after the Turnover Date, by the Board;
- (b) administer and enforce the provisions of the Governing Documents; and
- (c) assess, collect and disburse funds necessary to fulfill these purposes.
  - 3.2. Mandator y Membership.

Every Lot Owner shall be a Member of the Association. In the case of a Lot that is the subject of a recorded land installment contract, the vendee or vendees under that installment contract and not the vendor shall, while holding such interest, be a Member of the Association. There shall only be one membership per Lot. In the event the fee simple interest in a Lot, or ownership of the vendee interest in a Lot, is held by more than one Person, the co-interest holders of such interests while holding such interests shall have only one membership in the Association as tenants-in-common, with respect to that Lot. Such membership is appurtenant to and inseparable from such interests. Status as a Member shall automatically transfer to the transferee of that interest at the time the fee simple interest is transferred of record. Initially those Lots to which these membership provisions apply shall be those Lots that are subjected hereby to the provision of this Declaration, but as portions of the Additional Property or additional portions of the Community are subdivided and platted into Lots, and the Lots therein subjected by

amendments hereto to the plan hereof, membership in the Association shall extend to and encompass the holders of fee simple interests in those Lots, and holders of vendee interests under recorded land installment contracts with respect to those Lots, on the same basis as set forth herein for membership. The foregoing is not intended to include Persons who hold an interest merely as security for the performance of an obligation and the giving of a security interest or mortgage shall not terminate the membership of any Owner, provided further, there shall not be a membership appurtenant to a Lot dedicated to common public use or owned by any governmental body, instrumentality or agency for so long as such body, instrumentality or agency owns that Lot and so long as it is not utilized as a residence, nor for a Lot, if any, that becomes a Common Element, for so long as it remains a Common Element. Voting and all other matters regarding the governance and operation of the Association shall be as set forth in the Governing Documents.

#### 3.3. Powers; Authority; Duties.

The Association shall have all the rights, powers, and duties established, invested, or imposed in it pursuant to the Governing Documents, and the laws of the State of Ohio applicable with respect to Ohio non-profit corporations. Among other things, the Association, through its Board, shall have the power to acquire, own and convey real estate, hold easements with respect to, and maintain the Common Elements, enforce and administer the Declaration, Rules, Restrictions and Covenants applicable to the Community, sue and be sued, levy and collect assessments, collect, and maintain reserves for replacements or anticipated expenditures, enter into contracts, mortgage and pledge all revenue received and to be received and/or to assign and pledge all revenues received or to be received by it under any provisions of these covenants, including, but not limited to, the proceeds of the assessments payable hereunder, and take such other actions as it deems appropriate to its purposes. The Association shall not be obligated to spend in any particular time period all the sums collected or received by it in such time period or in any other time period and may carry forward, as surplus, any balances remaining; nor shall the Association be obligated to apply any such surpluses to the reduction of the amount of the assessment in any year, but may carry forward from year to year and time to time such surplus as the Board in its absolute discretion may determine to be desirable for the greater financial security of the Association and the effectuation of its purposes.

#### 3.4. Other Agreements.

The Association shall have the power and authority to contract with any person, corporation, firm or other entity, for the exercise of any one or more of the various powers and authority granted to and duties to be performed by the Association hereunder, and to delegate such powers and authority to any agent or employee of the Association, and the exercise of those powers and authority by such person, corporation, firm, entity, agent, or employee shall be deemed the exercise of those powers and authority by the Association, except that no independent contractor shall be deemed by virtue of these provisions to be the agent, of the Association. There shall be no requirement of any bond or surety for the Association, its agents, employees, or others assuring the exercise of the powers and authority granted hereunder, except as the Board shall in its sole discretion deem necessary or desirable for the safeguarding of any funds received by the Association. The Association may enter into agreements with other community, subdivision, and condominium associations and/or master associations pursuant to which the Association agrees (i) to share in the cost of maintaining, repairing, and replacing landscaping, storm water retention

facilities, mounding, fencing and any other improvements or services that benefit the Community or the Members; and (ii) grant reciprocal rights, licenses and/or easements to members of each such associations to use and enjoy each other's common elements, subject to such rules and regulations, restrictions and fees as the Association may determine from time to time.

#### 3.5. Rules and Regulation s.

The Association may make and enforce reasonable Rules governing the use, operation, and/or maintenance of the property which is a part of the Community, which shall be consistent with the other provisions of the Governing Documents. The Association shall have the power to impose sanctions on Members and Owners for any infraction of the Governing Documents, including the provisions hereof and the Rules, which such sanctions may include without limitation: (i) reasonable monetary administrative charges which shall be considered Individual Lot Assessments; (ii) suspension of the right to vote as a Member of the Association; and (iii) suspension of the right of the Owner and that Owner's Occupants, licensees, and invitees, to use the Common Elements or any part thereof. In addition, the Board shall have the power to seek relief, including injunctive relief, in any court for violations or to abate violations of the provisions of the Governing Documents. If the Board expends funds for attorneys' fees or litigation expenses in connection with the enforcement of any provision of the Governing Documents, the amount so expended shall be due and payable by the Owner of the Lot whose Owner, Occupant, licensee or invitee violated the provisions of the Governing Document's Lot.

#### 3.6. Implied Rights.

The Association may exercise any other right or privilege given to it expressly by the laws of the State of Ohio or any provision of the Governing Documents, and every other right or privilege reasonably implied from the existence of any right or privilege granted thereby, or reasonably necessary to effect any such right or privilege.

3.7. Managing Agent.

The Board may retain and employ on behalf of the Association a Manager, which may be theDeveloper, and may delegate to the Manager such duties as the Board might otherwise be authorized or obligated to perform. The compensation of the Manager shall be a Common Expense. The term of any management agreement shall not exceed one year and shall allow for termination by either party, without cause and without penalty, upon no more than ninety (90) days prior written notice.

#### 3.8. Insurance.

(a) <u>Fire and Extended (Special Form) Coverage</u>. The Association shall, with respect to insurable property or interests owned by it, obtain and maintain insurance for all buildings, structures, fixtures and equipment and common personal property, now or at any time hereafter constituting a part of the Common Elements, against loss or damage by fire, lightning, and such other perils as are ordinarily insured against by standard coverage

endorsements, with such limits, deductibles, and coverage as is deemed appropriate by the Board. This insurance:

- (i) shall provide that no assessment may be made against a first mortgage lender, or its insurer or guarantor, and that any assessment under such policy made against others may not become a lien on any Lot, or other property, and its appurtenant interest, superior to the lien of a first mortgage;
- (ii) shall be obtained from an insurance company authorized to write such insurance in the State of Ohio which has a current rating of Class A-/VIII, or better, as determined by the then latest edition of Best's Insurance Reports or its successor guide;
- (iii) shall be written in the name of the Association;
- (iv) shall not be cancelled upon less than thirty (30) days notice to the Association; and
- (v) unless otherwise determined by the Board, shall contain a waiver of subrogation of rights by the carrier as to the Association, its officers and directors, and all Owners.
- (b) Liability Coverage. The Association shall obtain and maintain a Commercial General Liability policy of insurance covering all of the Common Elements and the functions of the Association insuring the Association, the directors, and its Members, with such limits as the Board may determine, but no less than the greater of (a) the amounts generally required by private institutional mortgage investors for projects similar in construction, location and use, and (b) \$1,000,000, for bodily injury, including deaths of persons, and property damage, arising out of a single occurrence. This insurance shall contain a "severability of interest" endorsement which shall preclude the insurer from denying the claim of any Member because of negligent acts of the Association, the Board, or other Members, and shall include, without limitation, coverage for legal liability of the insureds for property damage, bodily injuries and deaths of persons in connection with the operation, maintenance or use of the Common Elements, and other legal liability, including liability under contractual indemnity clauses and liability arising out of lawsuits related to any employment contracts of the Association. Each such policy must provide that it may not be canceled or substantially modified by any party, without at least thirty (30) days prior written notice to the Association.
- (c) <u>Other</u>. The Association may, in the Board's discretion, obtain and maintain the following insurance: (a) fidelity bond coverage for all officers, directors, Board members and employees of the Association and all other persons handling or responsible for handling funds of the Association, (b) officers' and directors' liability insurance, (c) workers' compensation insurance, (d) additional insurance against such other hazards and casualties as is required by law, and (e) any other insurance the Board deems necessary.
- (d) <u>Use of Proceeds</u>. In the event of damage or destruction of any portion of the Common Elements, the Association shall promptly repair or replace the same, to the extent that insurance proceeds are available. Each Member hereby appoints the Association as its attorney-in-fact for such purpose. If such proceeds are insufficient to cover the cost of the

repair or replacement, then the Board may levy a Special Assessment pursuant to the provisions hereof to cover the additional costs.

#### 3.9. Condemnation.

The Association shall represent the Members in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority for acquisition of the Common Elements, or any portion thereof. Each Member hereby irrevocably appoints the Association as its attorney-in-fact for such purpose. The awards or proceeds of any condemnation action shall be payable to the Association, to be held and used for the benefit of the Members, as determined by the Board.

#### 3.10. Books; Records.

Upon reasonable request of any Member, the Association shall be required to make reasonably available for inspection by any Member all books, records and financial statements of the Association, except for those items deemed privileged, protected, or confidential in accordance with applicable law, rules or regulations. The Association may charge a reasonable fee to cover the administrative costs of handling, copying, delivering, etc., the requested documents.

#### 4. THE COMMON ELEMENTS.

Developer may, from time to time, at Developer's option, convey to the Association, for the use and benefit of the Association and the Owners and Occupants, real or personal property, or any interest therein, as part of the Common Elements, provided that property is free and clear of all encumbrances except real estate taxes and assessments, if any, not presently due and payable, zoning and building laws, ordinances and regulations, legal highways and restrictions, conditions, easements of record, including, to the extent Developer so determines, those contained herein, and all other liens and encumbrances of record or otherwise affecting the property. All such Common Elements shall consist solely of property (i) benefiting two or more Lots, Owners, and/or Occupants in the Community, as the same may from time to time be constituted; or (ii) as required by zoning. In addition, the Developer may also grant such easements to the Association as the Developer, in its sole discretion, determines to be of benefit to the Community, as the Community may be constituted from time to time. The Association may also acquire, hold, manage, operate, maintain, improve, mortgage and dispose of tangible and intangible personal property and real property in addition to that property conveyed to it by Developer.

#### 5. ASSESSMENTS.

#### 5.1. Types of Assessments.

Subject to the provisions of this Article, each Lot Owner, shall be subject to the following Assessments, which by acceptance of a deed to a Lot (whether or not it shall be so expressed in such deed) covenants and agrees to pay to: (a) Operating Assessments, (b) Special Assessments, and (c) Individual Lot Assessments, all of which are to be established and collected as hereinafter provided. No Owner may gain exemption from liability for any Assessment by waiving or

foregoing the use or enjoyment of any of the Common Elements or by abandoning that Owner's Lot.

5.2. Operating Assessments.

For the purposes of providing funds to pay:

- the cost of the maintenance, repair, replacement, and other services to be provided by the Association;
- the costs for insurance and bond premiums to be provided and paid for by the Association;
- the cost for utility services, if any, charged to or otherwise properly payable by the Association;
- the costs for construction of new capital improvements on Common Elements not replacing capital improvements installed by Developer;
- the estimated amount required to be collected to maintain a general operating reserve to assure availability of funds for normal operations of the Association, in an amount deemed adequate by the Board;
- an amount deemed adequate by the Board to maintain a reserve for the cost of unexpected repairs and replacements of capital improvements and for the repair and replacement of major improvements for which cash reserves over a period of time in excess of one year ought to be maintained; and
- the costs for the operation, management and administration of the Association, including, but not limited to, fees for property management, landscaping, mowing, planting, lighting, pavement maintenance, snow and ice removal and mitigation, fees for legal and accounting services, costs of mailing, postage, supplies and materials for operating the Association, and the salaries, wages, payroll charges and other costs to perform these services, and any other costs of operations of the Association not otherwise specifically excluded;

the Board shall establish, levy and collect Operating Assessments against each Lot and its Owners subject to the same, an equal pro rata share of such costs, in accordance with the following:

(a) <u>Initial Period</u>. Commencing the first day of the first full month after a Lot with a dwelling constructed thereon has been conveyed by Developer to a home purchaser, each Lot Owner shall be subject to and pay to the Association an Operating Assessment for the remainder of the calendar year, as determined by the Board, prorated in the proportion that the number of full calendar months remaining in the calendar year from the date of the closing of the conveyance of the Lot is to twelve (12). This amount may have been prepaid by the Developer and if so, a credit back to the Developer will be collected at the closing on the Lot.

- (b) <u>Subsequent Calendar Year</u>. Prior to January 1 (or a reasonable time thereafter) of each calendar year thereafter, the Board shall establish a budget for anticipated operating expenses for the next following Operating Assessment period commencing January 1 and ending the following December 31, and apportion the amount so determined in equal shares among all Lots in the Community that have had a dwelling constructed thereon and that have been conveyed to a bona fide home purchaser, and assess each such Lot and its Owner or Owners for the apportioned amount.
- (c) <u>Due Dates</u>. The Operating Assessments shall be due in monthly, quarterly, semi-annual, or annual installments, as the Board may determine. Except for the initial payment of Operating Assessments, notice of Operating Assessments, or if payable in installments, the dates those installments are due, shall be given to a Lot Owner not less than thirty (30) days prior to the date the Operating Assessment, or first installment thereof, is due.

#### 5.3. Special Assessments.

The Board may levy against all Lots subject to Operating Assessments, and their Owners, Special Assessments to pay for capital expenditures, interest expense on indebtedness incurred for the purpose of making capital expenditures and not to be paid out of reserves, unanticipated operating deficiencies or any other purpose determined appropriate by the Board in furtherance of its functions hereunder. Those Special Assessments shall be allocated among Lots on the same basis as Operating Assessments are to be allocated, and shall be due and payable on such basis and at such times as the Board directs, provided that no such Special Assessment shall be due and payable on fewer than thirty (30) days written notice.

5.4. Individual Lot Assessments.

The Board may levy an Individual Lot Assessment against any Lot Owner to reimburse the Association for costs incurred on behalf of that Lot, or as a consequence of any act or omission by any Owner, Occupant, or invitee thereof, including without limitation, costs associated with making repairs that are the responsibility of the Owner; costs of additional insurance premiums specifically allocable to an Owner; costs of any utility expenses chargeable to an Owner but not separately billed by the utility company; and all other administrative and enforcement charges, including attorneys' fees, incurred by the Association reasonably determined to be an Individual Lot Assessment by the Board. By way of illustration, and not of limitation, the Board may levy an Individual Lot Assessment in the nature of an administrative charge reasonably determined by the Board against any Lot Owner who violates any provision of the Governing Documents, or who suffers or permits the Members, guests, invitees or tenants of that Owner's Lot to violate the same or any provision of the Governing Documents, including the restrictions contained herein and in the Rules. Upon its determination to levy an Individual Lot Assessment, the Board shall give the affected Lot Owner written notice and the right to be heard by the Board or a duly appointed committee thereof in connection with such Individual Lot Assessment no fewer than ten (10) days prior to the effective date of the levy of any such Lot Assessment.

5.5. Remedies.

- (a) <u>Acceleration</u>. If any installment of an Assessment, or portion thereof, is not paid within ten (10) days after the same has become due, the Board, at its option, without demand or notice, may call the entire balance of the Assessment due.
- (b) <u>Late Charge</u>. If any portion of any Assessment remains unpaid for ten (10) days after all or any part thereof shall become due and payable, the Board may charge interest on the entire unpaid balance from and after that date at the lesser of (i) the "prime rate" charged locally by a nationally recognized bank in the Columbus area plus five percent (5%) per annum or (ii) the highest rate permitted by law, together with a reasonable administrative collection charge, as established by the Board.
- (c) <u>Liability for Unpaid Assessments</u>. Each Assessment or installment of an Assessment, together with interest thereon and any and all costs of collection, including reasonable attorneys' fees, shall become the joint and several personal obligation of the Owners of the Lot charged the same, beginning on the date the Assessment or installment thereof becomes due and payable. The Board may authorize the Association to institute and prosecute to completion an action at law on behalf of the Association against the Owner or Owners personally obligated to pay any delinquent Assessment, and/or an action to foreclose the Association's lien or liens against a Lot or Lots for unpaid Assessments owed by that Lot and the Owner or Owners thereof. In any such action, interests and costs of such action, including reasonable attorneys' fees, shall be added to the amounts owed by the Owner or Owners and the Lot to the extent permitted by Ohio law.
- (d)Liens. All unpaid Assessments, or portions thereof, together with any interest and charges thereon or costs of collection, shall constitute a continuing charge in favor of the Association and a lien on the Lot against which the Assessment was levied. If any Assessment, or portion thereof, remains unpaid for ten (10) days after it is due, then the Board may authorize any Officer or appointed agent of the Association to file a certificate of lien for all or any part of the unpaid balance of that Assessment, together with interest and collection costs, including attorneys' fees, with the appropriate governmental office. The certificate shall contain a description of the Lot which the lien encumbers, the name of the Owner or Owners of that Lot, and the amount of the unpaid portion of the Assessment. The certificate may be signed by any Officer, authorized agent or the Manager of the Association or its authorized representative. Upon the filing of the certificate, the subject Lot shall be encumbered by a continuing lien in favor of the Association. The Assessment lien shall remain valid for a period of five (5) years from the date such certificate is duly filed, unless the lien is released earlier or satisfied in the same manner provided by the law of the State of Ohio for the release and satisfaction of mortgages on real property, or until the lien is discharged by the final judgment or order of any court having jurisdiction.
- (e) <u>Subordination of Lien</u>. The lien of the Assessments provided for herein shall be subject and subordinate to the lien of any duly executed first mortgage on a Lot recorded prior to the date on which such lien of the Association is perfected by recording a certificate of lien, and any holder of such first mortgage which comes into possession of a Lot pursuant to the

remedies provided in the mortgage, foreclosure of the mortgage, or deed or assignment in lieu of foreclosure, and any purchaser at a foreclosure sale, shall take the property free of any claims for unpaid Assessments against the mortgaged Lot which became due and payable prior, in the case of foreclosure, to the date of the sale, and, in all other cases, to the date legal title vested in the successor Owner.

- (f) <u>Contested Lien</u>. Any Owner or Owners who believe that an Assessment chargeable to that Owner or Owner's Lot, and for which a certificate of lien has been filed by the Association has been improperly charged against that Lot or Unit, may bring an action in the Court of Common Pleas in the county where the Subject Property is located for the discharge of that lien and/or for a declaratory judgment that such Assessment was unlawful. The filing of such action shall not be grounds for an offset or to withhold payment. In any such action, if it is finally determined that all or a portion of the Assessment has been improperly charged to that Lot, the Court shall make such order as is just, which may provide for a discharge of record of all or a portion of that lien and a refund of an Assessment or portion thereof determined to be unlawful.
- (g) <u>Estoppel Certificate</u>. The Board shall, within a reasonable time following receipt of a written demand and for a reasonable charge, furnish a certificate signed by the President or other designated representative of the Association, setting forth whether the Assessments on a specified Lot have been paid. This certificate shall be conclusive evidence of payment of any Assessment therein stated to have been paid.
- (h) Suspension of Vote and Use of Common Elements. If any Assessment remains unpaid for thirty (30) days after it becomes due, then the delinquent Owner's voting rights upon Association matters and privileges to use the Common Elements, shall be suspended until such Assessment is paid. In any case, suspension of any such rights shall be subject to the right of an Owner, Occupant, or their licensees or invitees, to necessary ingress and egress to and from that Owner's Lot.

#### 6. MAINTENANCE.

6.1. Maintenance by Association.

Subject only to budgetary limitations and the right of the Board to exercise reasonable business judgment, the Association shall maintain and keep the Common Elements in good, clean, attractive, and sanitary condition, order and repair. This maintenance shall include, without limitation, maintenance, repair, and replacement of all Improvements situated upon the Common Elements, including but not limited to the Reserves, any open spaces, signage, entranceways, community border areas, the maintenance, repair and replacement of any Additional Easement Areas, and the maintenance, repair and replacement of all personal property used in connection with the operation of the Association.

6.2. Maintenance by Owner.

Each Owner or Occupant shall repair, replace, and maintain in good order and condition, at that Person's expense, all portions of Improvements on and equipment and components located

upon that Owner's Lot. This maintenance responsibility includes, without limitation, promptly furnishing all necessary materials and performing or causing to be performed at that Owner's expense all maintenance, repairs and replacements of Improvements on such Lot. No Lot or other Improvement shall be permitted to become overgrown, unsightly or fall into disrepair. Each Owner shall maintain that Owner's Lot in accordance with the Rules and the requirements set forth by the Association as provided for herein.

#### 6.3. Right of Association to Repair Lot.

In the event any Owner fails to maintain that Owner's Lot in the manner required herein, and that Lot remains in disrepair for a period of thirty (30) days after notification by Developer or the Association to said Owner, and if the Board or Developer determines that any maintenance of that Lot or Improvements thereon is necessary to ensure public safety, to permit reasonable use or enjoyment of the Common Elements by Owners, to prevent damage to or destruction of any other part of the Common Elements, to preserve the value of the Community, or to comply with the Rules or the terms of this Declaration, then the Board or Developer may authorize its employees or agents to enter the Lot at any reasonable time to complete the necessary maintenance, and the Board may levy an Individual Lot Assessment for all reasonable expenses incurred or, if performed by Developer, those expenses shall be reimbursed by the Owner to Developer.

#### 6.4. Damage to Common Elements By Owner or Occupant.

In the event the need for maintenance or repair of any part of any Common Element is caused by the negligent or intentional act of any Lot Owner or Occupant, or that Person's licensees or invitees, or in the event any Common Element is damaged by any Owner or Occupant, or that Person's licensees, or invitees, then the Board may maintain, repair, and\or replace the same and the cost thereof shall constitute an Individual Lot Assessment against such Lot and its Owner. The determination that such maintenance, repair or replacement is necessary and\or has been caused so caused, shall be made by the Board in its sole discretion. The Association shall be entitled to enter a Lot to repair or maintain any Common Elements adjacent to such Lot.

#### 7. ARCHIT ECTUR AL STANDARDS.

All property at any time subject to the provisions hereof shall be governed and controlled by the following:

#### 7.1. Architectur al Review Committee.

The Architectural Review Committee shall be a committee consisting of three (3) persons. Until the Turnover Date, Developer shall have the sole and exclusive right to appoint and remove all three (3) members of the Architectural Review Committee, at will. After that date, the Board shall have the right to appoint all three (3) members to the Architectural Review Committee. The Architectural Review Committee shall have the exclusive authority, by action of two (2) or more of the members thereof, at a private or public meeting, to determine the architectural standards which shall govern the construction of Improvements on a Lot. Each Owner covenants and agrees by acceptance of a deed to a Lot, to comply with, and to cause that Owner's Lot and any Occupant thereof to comply with the standards adopted by the Architectural Review Committee. No Improvement shall be placed, erected or installed on a Lot, and no construction (which term shall include in its definition staking, clearing, excavation, grading and other site work) shall be commenced or continued until and unless the Owner first obtains the written approval thereof by the Architectural Review Committee and otherwise complies with any zoning and building regulations and all provisions hereof.

#### 7.2. Modifications.

Except as otherwise provided herein, the Architectural Review Committee shall have jurisdiction over all construction, modifications, additions or alterations of Improvements on or to a Lot. No person shall construct any Improvement on any Lot, including without limitation, alter surfaces of existing Improvements, change paint colors or roofing materials, construct or modify fencing, install any permanent recreational device, swing-set, playground, basketball hoop, or other similar Improvement, change the grade or contour of any Lot, change the material of any driveway, modify the exterior lighting, change the mailbox or address marker, construct any porch, deck, patio, gazebo, or pool, modify any landscaping, install any signs or satellite dishes not otherwise permitted herein or by federal law, without the prior written consent of the Architectural Review Committee. Owners shall submit plans and specifications showing the nature, kind, shape, color, size, materials and location of Improvements and alterations to the Architectural Review Committee for its approval. Nothing contained herein shall be construed to limit the right of an Owner to remodel or decorate interior Improvements without such approval.

#### 7.3. Var ian ces.

To avoid unnecessary hardship and/or to overcome practical difficulties in the application of the provisions of these provisions, the Architectural Review Committee shall have the authority to grant reasonable variances from the provisions hereof, provided that the activity or condition is not prohibited by applicable law, including but not limited to township zoning or county building regulations; and provided further that, in the judgment of the Architectural Review Committee, the variance is in the best interests of the community and is within the spirit of the standards of the Architectural Review Committee. No variance granted pursuant hereto shall constitute a waiver of any provision hereof as applied to any other person or any other part of the Community.

#### 7.4. Improvements by Developer.

Notwithstanding the foregoing to the contrary, all Improvements and landscaping constructed by the Developer, its agents, or its successors and/or assigns shall be deemed to comply in all respects with this Declaration and the requirements of the Architectural Review Committee, and the Developer, its successors and assigns, shall have the exclusive right to approve the initial construction of a residence upon any Lot even following the Turnover Date.

#### 7.5. Liability Relating to Approvals.

Neither Developer, the Association, the Board, the Architectural Review Committee, nor any member thereof, nor any of their respective heirs, personal representatives, successors and assigns, shall be liable to anyone submitting plans and specifications for approval by reason of mistakes of judgment, negligence, or nonfeasance arising out of, or in connection with the approval or disapproval or failure to approve the same. Every Person and Lot Owner who submits plans and/or specifications or otherwise requests approval from the Architectural Review Committee agrees, by submission thereof, that they will not bring any action or suit, seek damages, or otherwise attempt to compel the approval of the same. Each Lot Owner shall be responsible for ensuring that any Improvements constructed on their Lot comply with any zoning ordinances and any easements, covenants and conditions of record.

#### 8. USE RESTRICTIONS.

The following restrictions and covenants concerning the use of each Lot and occupancy of Improvements thereon shall run with the land and be binding upon the Developer and every Owner or Occupant, their respective heirs, successors and assigns, as well as their family members, guests, licensees and invitees:

8.1. Use of Lots.

Except as otherwise specifically provided in this Declaration, no dwelling on a Lot, nor any portion of any Lot, shall be used for any purpose other than that of a residence for individuals living together as a single housekeeping unit, and uses customarily incidental thereto, Specifically, no dwelling may be used as a rooming house, group home, commercial foster home, fraternity or sorority house, or any similar type of lodging, care or treatment facility. In addition, no building shall be erected, altered, placed, or permitted to remain on any Lot other than one single-family dwelling not to exceed two and one-half stories in height, and each such dwelling shall have an attached two car garage. No home shall be constructed on any Lot having a garage with a lower elevation than the street elevation such that the garage and/or driveway are depressed below the finished grade of the Lot. No structure of a temporary character, such as a trailer, tent, shack, vehicle port, barn, pet dwelling including pet fenced in pet areas behind houses, or other outbuilding shall be used on any Lot at any time as a residence either temporarily or permanently; provided, however, that nothing herein shall prevent the use of trailers or temporary buildings by Developer or builders approved by Developer, for sales and construction management and related uses during the construction and sale of homes in the Community or home remodeling after initial construction. All homes shall comply with material standards as approved under the applicable zoning text and/or by the City of Powell or Delaware County for this Community and by the Architectural Review Committee.

8.2. Minimum Squar e Footages.

No dwelling shall be permitted on any Lot on which the floor area of the main structure is less than what is required by the applicable zoning and subdivision control requirements governing Lots located in the Community.

8.3. Use of Common Elements.

The Common Elements may be used only in accordance with the purposes for which intended and for any reasonable purposes incidental to the residential use of Lots. All uses of the Common Elements shall benefit or promote the health, safety, welfare, convenience, comfort,

recreation, and/or enjoyment of the Owners and/or Occupants, and shall comply with the provisions of this Declaration and all other Governing Documents, and the laws of the State.

#### 8.4. Hazar dous Actions or Materials.

Nothing shall be done or kept in or on any Lot or in or on any portion of the Common Elements that is unlawful or hazardous, that might reasonably be expected to increase the cost of casualty or public liability insurance covering the Common Elements, or that might or that does unreasonably disturb the quiet occupancy of any Person residing on any other Lot. These provisions shall not be construed so as to prohibit Developer or any other builder in the Community from construction activities consistent with reasonable or customary residential construction practices.

#### 8.5. Signs.

No signs of any character shall be erected, posted or displayed upon property in the Community, except: (i) marketing signs installed by Developer while marketing Lots and residences for sale; (ii) street and identification signs installed by the Association, Developer, or any governmental agency; (iii) on the Common Elements, signs regarding and regulating the use of the Common Elements, provided they are approved by the Board; (iv) on any Lot, one temporary real estate sign not to exceed six (6) square feet in area advertising that such Lot is for sale; and (v) except to the extent preempted by federal law, up to three (3) temporary political signs of not more than six (6) square feet each, expressing support for or opposition to an individual candidate or issue which is the subject of a current election, provided the same comply with any local ordinances and any Rules established by the Board. No signs shall be placed in the Common Elements.

#### 8.6. Animals.

Except as hereinafter provided, no animals, reptiles, livestock or poultry of any kind shall be raised, bred or kept on any Lot, or in or upon any part of the Common Elements. Notwithstanding the foregoing, household domestic pets, not bred or maintained for commercial purposes, may be maintained in a dwelling on a Lot, provided that: (i) the maintaining of animals shall be subject to such rules and regulations as the Board may from time to time promulgate, including, without limitation, the right to place limitations on the size, number and type of such pets, and the right to levy administrative and enforcement charges against persons who do not clean up after their pets; and (ii) the right of an Owner or Occupant to maintain an animal in a dwelling on a Lot shall be subject to termination if the Board, in its full and complete discretion, determines that maintenance of the animal constitutes a nuisance, creates a detrimental effect on the Community or other Lots or Occupants, or possession of which violates any law, rule or ordinance promulgated by a governmental or quasi-governmental entity. Any animal defined as "vicious" or "dangerous" pursuant to the provisions of Ohio Revised Code Chapter 955, as the same may be amended from time to time, is specifically prohibited. Outdoor doghouses, animal cages or runs are prohibited without the express prior approval of the Architectural Review Committee.

#### 8.7. Nuisances.

No noxious or offensive trade or activity shall be permitted on any property in the Community or within any dwelling located on any Lot. No soil shall be removed for any commercial purpose.

8.8. Business.

No industry, business, trade, occupation or profession of any kind may be conducted, operated or established on any Lot, without the prior written approval of the Board. Notwithstanding the foregoing, (i) a "home office" use is permitted, provided such use does not entail any non-resident employees, generate any traffic or additional parking, require any signage, and is operated in compliance with all laws including any Rules established by the Board and applicable City of Powell regulations; (ii) an Owner or Occupant may maintain a personal or professional library, keep personal business or professional records or accounts, conduct personal business, make professional telephone calls or correspond in or from a residence; and (iii) during the construction and initial sales period, Lots, including dwellings and Improvements constructed thereon, and Common Elements may be used for construction and sales purposes, including the construction and operation of sales models and/or trailers by Developer and by builders and developers as approved by Developer, in its sole discretion, until dwellings have been constructed on all Lots with dwellings on them have been conveyed to bona fide residential home purchasers.

8.9. Stor age.

No storage buildings, barns or sheds of any kind are permitted on any Lot. This section shall not apply to any storage as may be necessary during the construction or remodeling of homes on the Lots.

8.10. Hotel/Transient Uses.

No Lot or Improvement thereon may be used for hotel or transient uses, including without limitation, uses in which an Occupant is provided customary hotel services such as room service for food and beverage, maid service, furnishing laundry and linen, or similar services, or leases to roomers or boarders.

#### 8.11. Vehicles.

The Board is granted the power and the authority to create and enforce reasonable Rules concerning placement and the parking of any vehicle permitted on or in the Community. In addition to its authority to levy Individual Lot Assessments as administrative charges for the violation of the Rules, the Board shall be authorized to cause the removal of any vehicle violating this Declaration or such Rules.

Except as specified below, no trucks, no prohibited commercial vehicles, no boats, no trailers, no campers and no mobile homes shall be parked or stored on any street or on any Lot in the Community (except in the attached garage) for any time period longer than forty-eight (48)

hours in any thirty (30) day period, provided, however, that nothing contained herein shall prohibit the reasonable use of such vehicles as may be necessary during construction of residences on the Lots.

For the purpose of this section, the terms "truck" and "prohibited commercial vehicle" shall include all vehicles that have a length of more than 21 feet and all vehicles that include any visible exterior storage of tools or materials; provided, however, that up to two (2) ladders may be visible. Dump trucks, tow trucks, flat bed car hauling trucks, panel trucks and vans larger than one-ton capacity, pickup trucks larger than one ton capacity, and semi type tractors and trailers, shall in every instance be considered to be to be a prohibited truck and/or a prohibited commercial vehicle. For the purpose of this section, the word "trailer" shall include landscaping trailer, open bed trailer, trailer coach, house trailer, mobile home, automobile trailer, camp car, camper or any other vehicle, whether or not self-propelled, constructed or existing in such a manner as would permit use and occupancy thereof, or for storage or the conveyance of personal property, whether resting on wheels, jacks, tires or other foundation.

Furthermore, no automobile, truck, or other motor-driven vehicle, or trailer, in a condition where it is unlicensed, unregistered, apparently inoperable, extensively damaged, disabled, dismantled, or otherwise not in a condition to be lawfully operated upon the public highway, or any vehicle component or part, shall be placed, parked or stored in any visible location on or in front of a Lot or residence for a period of time longer than thirty (30) days. After this time the vehicle, trailer or part shall be deemed to be a nuisance, and shall be removed.

#### 8.12. Trash.

Except for the reasonably necessary activities of Developer during the original development of the Community, no burning or storage of trash of any kind shall be permitted in the Community. All trash shall be deposited in covered, sanitary containers, and these containers shall at all times be screened from view from any other Lot or street, except when temporarily placed outside for trash collection. No emptied trash containers shall be allowed to remain visible for more than eight hours following the trash pick-up.

#### 8.13. Antennae.

No outside television or radio aerial or antenna, or other aerial or antenna, including satellite receiving dishes, for reception or transmission, shall be maintained on a Lot, to the extent permissible under applicable statutes and regulations, including those administered by the Federal Communications Commission, except that this restriction shall not apply to satellite dishes with a diameter less than one (1) meter, erected or installed to minimize visibility from the street which the dwelling fronts. Notwithstanding the foregoing, roof-mounted satellite dishes are to be limited to the maximum extent possible by law.

#### 8.14. Utility Lines.

All new utility lines in the Community shall be underground, subject only to the exceptions required by governmental authorities having jurisdiction, utility companies, Developer, and the Board.

#### 8.15. Tanks.

No tanks for the storage of propane gas, fuel oil or any other combustible substance shall be permitted to be located above or beneath the ground of any Lot except that propane gas grills are permitted. This section shall not apply during the construction of any homes on the Lots or to any Lot containing Developer's sales trailer.

#### 8.16. Street Tree.

Developer may designate one or more trees as deemed necessary by Developer along the street in front of each Lot at a ratio of 2 trees per lot and 4 trees per corner lot as "street tree". If Developer determines to designate street tree(s) then each Lot Owner agrees to care for, and, if necessary, replace such tree or trees at the Owner's expense with a like type of tree having a caliper greater than or equal to 2 1/2".

#### 8.17. Mailbox.

Developer may designate and require a curbside mailbox for each Lot, with a design and composition that will provide uniformity to the subdivision. Each mailbox shall have the street numbers for the Lot on each side of such mailbox. If the mailbox is damaged, destroyed or deteriorates, then each Owner, at such Owner's expense, shall repair or replace such mailbox with an identical mailbox, or if unavailable, with another of a like kind, design, pattern and color as the initial mailbox.

#### 8.18. Yard Lights and Lamp Posts.

All yard lights and lamp posts, if any, shall conform to the standards set forth by the Architectural Review Committee. If a yard light or lamp post is damaged, destroyed or deteriorates, then each Owner, at such Owner's expense, shall repair or replace such yard light and/or lamp post with an identical yard light or lamppost, or if unavailable, with another of a like kind, design, pattern and color as the initial yard light and/or initial lamp post.

#### 8.19. Fencing.

No perimeter fencing shall be allowed on any Lot. Fencing may be permitted for privacy around decks, patios, hot tubs, etc., and shall not exceed 42 inches in height, but may be required to include landscaping screening where utilitized by the Architectural Review Committee. No chain link and no wire fencing shall be permitted. Fence posts may be no higher than 6 inches above the top rail, with the exception of fencing around swimming pool which shall be a minimum of 54 inches in height. Fences shall be at least 50% open. Pool fencing may be aluminum or wrought iron and must comply with applicable Township and County Codes. The Developer may install fencing as part of entry feature improvements and landscape buffering and/or screening along adjacent properties, which shall be maintained by the Association.

8.20. Swimming Pools/Hot Tu bs.

No above-ground swimming pool extending twelve (12) inches or more above the finished grade of the Lot shall be permitted upon any Lot except that this restriction shall not prohibit the installation of a hot tub that is properly screened. In the event that an in-ground swimming pool is permitted to be installed on a Lot and applicable governmental safety regulations require a fence, then such fence shall be permitted notwithstanding any provision of Section 8.19 to the contrary, provided such fence shall be subject to prior written approval of the Architectural Review Committee as to design and location on the Lot.

#### 8.21. Compliance with Zoning.

Certain provisions of this Declaration may have been included herein as a result of governmental requirements established through the zoning and development plan approval processes in the State, County, and/or City of Powell in which the Subject Property is located. Compliance with all such governmental requirements, for so long as such requirements are effective and binding, and as such requirements may be amended or modified, is required by this Declaration.

#### 8.22. Miscellaneous.

The following Improvements shall not be permitted on any Lot in the Community:

- (a) outdoor clotheslines;
- (b) window air conditioning units on any window facing a street;
- (c) wind turbines or similar wind-powered energy generating equipment;
- (d) solar panels
- 9. EASEMENTS AND LICENSES.
  - 9.1. Easement of Access and Enjoyment Over Common Elements.

Every Owner shall have a right and easement (in common with all other Owners) of enjoyment in, over, and upon the Common Elements, which rights shall be appurtenant to, and shall pass with the title to, that Person's Lot, subject to the terms and limitations set forth herein, and subject to the Rules. An Owner may delegate that Person's rights of access and enjoyment to Occupants, licensees and invitees.

9.2. Right of Entry for Repair.

The duly authorized agents, officers, contractors, and employees of the Association shall have a right of entry and access to the property subject hereto, including without limitation the Lots, for the purpose of exercising the Association's rights, or performing the Association's obligations as set forth herein. The Association may enter any Lot to remove or correct any violation of any provision hereof, or any Rule, or to maintain, repair, and replace the Common Elements and/or Additional Easement Areas, but only during reasonable hours and after providing reasonable advance notice to the Owner, except in cases of an emergency.

#### 9.3. Easement for Utilities and Other Purposes.

The Board or Developer may convey easements over the Common Elements to any entity for the purpose of constructing, installing, maintaining, and operating poles, pipes, conduit, wires, ducts, cables, and other equipment necessary to furnish electrical, gas, sewer, water, telephone, cable television, and other similar utility or security services, whether of public or private nature, to the Community and to any entity for such other purposes as the Board or Developer deems appropriate; provided that such equipment or the exercise of such easement rights shall not unreasonably interfere with any Owners' use and enjoyment of that Owner's Lot. The Board or Developer may grant such easements over all portions of the Community for the benefit of adjacent properties as the Board or Developer deems appropriate; provided that the grant of such easements imposes no undue, unreasonable, or material burden or cost upon any property in the Community, and further provided that the Board or Developer may not convey any easement over a Lot without the prior written consent of the Owner of such Lot (which consent shall not be unreasonably withheld, delayed or conditioned).

#### 9.4. Easement for Services.

A non-exclusive easement is hereby granted to all police, firemen, ambulance operators, mail carriers, delivery persons, cable and television repair personnel, garbage removal personnel, and all similar persons, and to the local governmental authorities and the Association (but not to the public in general) to enter upon the Common Elements and the Lots to perform their duties.

#### 9.5. General.

Unless specifically limited herein otherwise, the easements described herein shall run with the land and pass with the title to the benefited and burdened properties, shall be appurtenant to the properties benefited and burdened thereby, shall be enforceable by the owners of the properties benefited thereby, and shall be perpetual. The easements and grants provided herein shall in no way affect any other recorded grant or easement. Failure to refer specifically to any or all of the easements and/or rights described in this Declaration in any deed of conveyance or in any mortgage or other evidence of obligation shall not defeat or fail to reserve said rights or easements but the same shall be deemed conveyed or encumbered, as the case may be, along with the Lot.

#### 10. UTIL IT Y SERVICE S.

Each Lot Owner by acceptance of a deed to a Lot agrees to pay for utility services separately metered or separately charged by the utility company to that Lot, and to reimburse the Association for that Owner's Lot's share of any utility cost that the Board, or its designee, reasonably determines is attributable to use by the occupants of that Owner's Lot. The Association shall arrange for the provision of utility services, if any, to the Common Elements and shall pay the costs of such services separately metered to the Association.

#### 11. MISCEL LANEOUS.

#### 11.1. Term.

The provisions hereof shall bind and run with the land for a term of thirty (30) years from and after the date that this Declaration is filed for recording with the Recorder of Delaware County, Ohio and thereafter shall automatically renew forever for successive periods of ten (10) years each, unless earlier terminated with the consent of Members exercising not less than seventy-five percent (75%) of the voting power of all Members.

#### 11.2. Enforcement.

The provisions hereof may be enforced by any proceeding at law or in equity by Developer, any Owner, the Association, the Architectural Review Committee, and each of their respective heirs, successors and assigns, against any Person(s) violating, or attempting to violate, any covenant, restriction, or Rule to restrain and/or to enjoin any violation, to obtain a decree for specific performance as to removal of any nonconforming Improvement, and to recover all damages, costs of enforcement and any other costs incurred (including without limitation reasonable attorneys' fees) in connection with any violation. The failure or forbearance to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of these rights.

#### 11.3. Amendments.

Until the Turnover Date, Developer may, in its sole and absolute discretion, unilaterally amend the provisions hereof at any time and from time to time, without the consent of any other Owners. Any such amendment may impose covenants, conditions, restrictions and easements in addition to those set forth herein including, without limitation, restrictions on use and covenants to pay additional charges with respect to the maintenance and improvement of any property in the Community. After the Turnover Date, Developer may unilaterally amend the provisions hereof, without the consent of any other Owners, if such amendment is: (a) necessary to bring any provision hereof into compliance with any applicable governmental statute, rule, regulation or judicial order; (b) necessary to enable any reputable title insurance company to issue title insurance coverage on the Lots; (c) necessary to conform to the requirements of the United States Federal Housing Administration or the Veterans Administration, or (d) necessary to correct errors; provided, however, any such amendment shall not materially adversely affect the title to any Lot unless the Owner or Owners have thereof consented to such amendment in writing. Developer may amend the provisions hereof for the specific purpose of establishing sub-associations to govern any number of lots, including but not limited to estate lot communities, and activeadult/empty nester areas. Such sub-associations may, but shall not be required to, establish covenants and restrictions regarding snow removal, landscaping, entry feature maintenance, vard maintenance, and maintenance of the exterior of units, and/or other services. Prior to final platting such services shall be determined. Developer may also amend to provide for sub-associations and/or services as Developer in its sole discretion deems necessary after final platting. No amendment may remove, revoke, or modify any right or privilege of Developer without the written consent of Developer or the assignee of such right or privilege. Developer shall have the right and power, but neither the duty nor the obligation, in its sole and absolute discretion and by its sole act, to subject all or any part of the Additional Property to the provisions hereof at any time and

from time to time by executing and recording in the appropriate governmental office an amendment to this Declaration specifying that such Additional Property is part of the Community. An amendment hereby made by Developer shall not require the joinder or signature of the Association, other Owners, mortgagees, or any other person. In addition, such amendments to this Declaration may contain such supplementary, additional, different, new, varied, revised or amended provisions and memberships as may be necessary or appropriate, as determined by Developer, to reflect and address the different character or intended development of any such Additional Property.

In addition, this Declaration may be amended or modified after the Turnover Date with the approval of Owners holding not less than seventy-five percent (75%) of the voting power of all Owners in the Association; provided, however, that the consent of Developer shall be required for any amendment or modification which affects Developer's rights hereunder, and further provided that the consent of all Owners shall be required for any amendment which effects a change in the voting power of any Owner, the method of allocating Common Expenses among Owners, or the fundamental purpose for which the Association is organized. Any amendment to this Declaration adopted with the aforesaid consent shall be executed with the same formalities as to execution as observed in this Declaration by the president and the secretary of the Association, and shall contain their certifications that the amendment was duly adopted in accordance with the requirements of this paragraph. Any amendment so adopted and executed shall be effective upon the filing of the same with the County Recorder of the County in which the Community is located.

#### 11.4. Developer's Rights to Complete Development.

Developer shall have the unrestricted right to: (a) complete the development, construction, promotion, marketing, sale, resale and leasing of properties; (b) construct or alter Improvements on any property owned by Developer; (c) construct, maintain and operate model homes, offices for construction, sales or leasing purposes, storage areas, construction yards or similar facilities on any property owned by Developer or the Association; or (d) post signs incidental to the development, construction, promotion, marketing, sale and leasing of property within the Community, in compliance with Township regulations. Further, Developer shall have the right of ingress and egress through the streets, paths and walkways located in the Community for any purpose whatsoever, including, but not limited to, purposes related to the construction, maintenance and operation of Improvements. Nothing contained herein shall limit the rights of Developer or require Developer to obtain approval to: (i) excavate, cut, fill or grade any property owned by Developer; (ii) construct, alter, remodel, demolish, replace, or use any Improvements on any Common Elements or any property owned by Developer as a construction office, model home or real estate sales or leasing office in connection with the sale of any property or Lot; or (iii) require Developer to seek or obtain the approval of the Association or the Architectural Review Committee for any activity or Improvement on any Common Elements or any property owned by Developer. Nothing in this Section shall limit or impair the reserved rights of Developer as elsewhere provided in this Declaration.

#### 11.5. Mortgagee Rights.

A holder or insurer of a first mortgage upon any Lot, upon written request to the Association (which request shall state the name and address of such holder or insurer and a description of the Lot) shall be entitled to timely written notice of:

- (a) Any proposed amendment of this Declaration;
- (b) Any proposed termination of the Association; and
- (c) Any default under the provisions hereof which gives rise to a cause of action by the Association against the Owner of the Lot subject to the mortgage of such holder or insurer, where the default has not been cured in sixty (60) days following the date a notice describing a default is sent to an Owner.

Each holder and insurer of a first mortgage on any Lot shall be entitled, upon written request and at such mortgagee's expense, to inspect the books and records of the Association during normal business hours.

#### 11.6. Indemnification.

The Association shall indemnify, defend and hold every Officer, Director, and agent of the Association harmless against any and all claims, liabilities, and expenses, including attorneys' fees, reasonably incurred by or imposed upon any Officer, Director, or agent in connection with any action, suit, or other proceeding (including settlement of any suit or proceeding, if approved by the Board) to which he/she may be a party by reason of being or having been an Officer, Director, or agent. The Officers, Directors, and agents of the Association shall not be liable for any mistake of judgment, negligent or otherwise, except for their own individual willful misconduct, bad faith or gross negligence. The Officers, Directors, and agents of the Association shall have no personal liability with respect to any contract or other commitment made by them, in good faith, on behalf of the Association, and the Association shall indemnify and forever hold each such Officer, Director, and agent free from and harmless against any and all liability to others on account of any such contract or commitment. Any right to indemnification provided herein shall not be exclusive of any other rights to which any Officer, Director, or agent, or former Officer, Director, or agent may be entitled by law or the provisions of any other Governing Document.

#### 11.7. Mutual ity.

All restrictions, conditions and covenants contained herein are made for the direct, mutual, and reciprocal benefit of Developer, the Association, and the present and future Owners of Lots in the Community, and each part thereof, and their respective personal representatives, heirs, successors, and assigns; the provisions hereof shall create mutual equitable servitudes upon the property submitted to these restrictions and each part thereof in favor of each other part thereof; and any property referred to herein as benefited hereby; the provisions hereof shall create reciprocal rights and obligations between the respective Owners of all such property and privity of contract and estate between all Owners thereof; and the provisions hereof shall, as to the Owner

of any such property and those Owners respective heirs, personal representatives, successors and assigns, operate as covenants running with the land for the benefit of all such property and the Owners thereof.

#### 11.8. Severability.

If any article, section, paragraph, sentence, clause or word herein is held by a court of competent jurisdiction to be in conflict with any law, or unenforceable, then the requirements of such law shall prevail and the conflicting provision or language shall be deemed void in such circumstance; provided that the remaining provisions or language of this Declaration shall continue in full force and effect.

#### 11.9. Enforcement; Waiver.

Failure of Developer, the Association or any Owner to enforce any provision of this Declaration or the Rules in any manner shall not constitute a waiver of any right to enforce any violation of such provision. By accepting a deed to a Lot, each Owner is deemed to waive the defenses of laches and statute of limitations in connection with the enforcement by the Association of the provisions hereof or the Rules.

#### 11.10. Notices.

Notices, demands or other communications to an Owner shall be given in writing by personal delivery, or posting at the Lot if a residence has been constructed on such Lot, or by depositing such notice in the United States Mail, first class, postage prepaid, to the address of the Owner of the Lot as shown by the records of the Association, or as otherwise designated in writing by the Owner. Any demand, notice or other communication or action given or taken hereunder or by one of the joint Owners of a Lot shall be deemed to be given, taken, or received by all such joint Owners.

#### 11.11. Exhibits.

The Exhibits hereto are a part of this Declaration as if set forth in full herein.

#### 11.12. Construction.

In interpreting words and phrases herein, unless the context shall otherwise provide or require, the singular shall include the plural, the plural shall include the singular, and the use of any gender shall include all genders. Any rule of construction to the effect that any ambiguities are to be resolved against the party who drafted the document shall not be utilized in interpreting this Declaration and the Exhibits hereto.

#### 11.13. Caption s.

The caption of each article, section and paragraph of this Declaration is inserted only for convenience and does not define, limit or describe the scope or intent of its provisions.

11.14. Additional Disclosures.

IN TESTIMONY WHEREOF, Developer has caused the execution of this Declaration on the date first set forth above.

Pulte Homes of Ohio LLC A Michigan limited liability company

By: /DRAFT/

STATE OF \_\_\_\_\_ : COUNTY OF \_\_\_\_\_ :

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2017, by \_\_\_\_\_\_, on behalf of Pulte Homes of Ohio LLC, a

Michigan limited liability company.

Notary Public

This instrument prepared by: Molly R. Gwin, Esq. ISAAC WILES BURKHOLDER & TEETOR LLC Two Miranova Place, Ste. 700 Columbus, OH 43215 (614) 221-2121

# EXHIBIT A

3737591.1 : 10648 00001



December 8, 2016

Mr. Chris Huber, PE City of Powell 47 Hall Street Powell, OH 43065

#### **Re: Shelly-Smith Properties Traffic Impact Study**

City of Powell, Delaware County, Ohio

Dear Chris:

With this letter, we are submitting two copies of the subject traffic impact study. We have already provided the PDF version of the study via e-mail.

If you have any questions, please contact me. Thank you!

Sincerely,

# SMART SERVICES, INC.

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

Submitted: Two copies of traffic access study

cc: M. Love – Delaware County Engineer's Office (1 copy) M. Reeves – Civil & Environmental Consultants

# Shelly-Smith Properties Traffic Impact Study

Prepared For:

Pulte Group, Inc.

Prepared By:



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

December 2016

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# **Shelly-Smith Properties Traffic Impact Study**

**Prepared For:** 

Pulte Group, Inc. 4900 Tuttle Crossing Boulevard Dublin, OH 43016

Telephone: (614) 356-1000

**Prepared By:** 

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

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

Under the direction of:

Registered Engineer No. E-64507, Ohio

OF "ODF υ

December 2016



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#### APPENDIX

General Correspondence Traffic Counts Growth Factor Correspondence Referenced Exhibits Signal Warrant Supporting Documentation and Worksheets Turn Lane Warrant Graphs Synchro Capacity Reports Turn Lane Length Calculations Sight Distance Exhibits

# BACKGROUND

The Pulte Group is developing a site with 183 single family lots, 72 of which will be an "empty nester" product. The site is located on both sides of Steitz Road just south of Hunters Bend between Home Road and Rutherford Road. Figure 1 shows the location of the site. One full access is proposed on Steitz Road for access both east and west of Steitz Road. There are also connections on the east to Hunters Bend to the north and a connection to a future development to the south. On the west, there is a connection to Wolf Path Drive to the north. Figure 2 shows a site plan.

The site is part of a planned annexation to the City of Powell. When the annexation occurs, the proposed access on Steitz Road will be in the City of Powell so the City of Powell is the permitting agency. The City of Powell is requiring a Traffic Impact Study (TIS). The study area extends outside the City of Powell so the Delaware County Engineer's Office (DCEO) will also review the study. A TIS pre-meeting was held at the City of Powell on October 17, 2016 to discuss the specific requirements of the study. The study area is the proposed site accesses and the intersections of Home Road & Steitz Road and Rutherford Road & Steitz Road.

A formal memo of understanding (MOU) dated November 1, 2016 was submitted to the City of Powell and the DCEO and comments were received on November 22, 2016. A copy of the MOU with comments is in the Appendix.

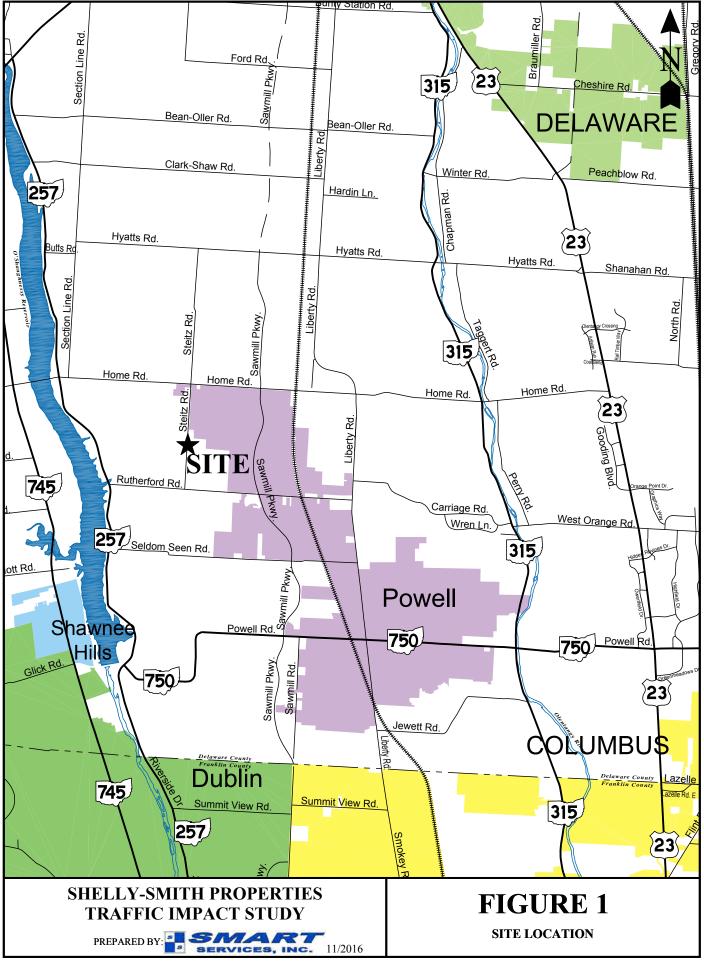
# **EXISTING CONDITIONS**

The intersection of Rutherford Road & Steitz Road is currently controlled by "Stop" signs on the Steitz Road approach. The intersection of Home Road & Steitz Road is controlled by a traffic signal which was recently installed. Table 1 shows the speed limit and classification of each roadway in the study area.

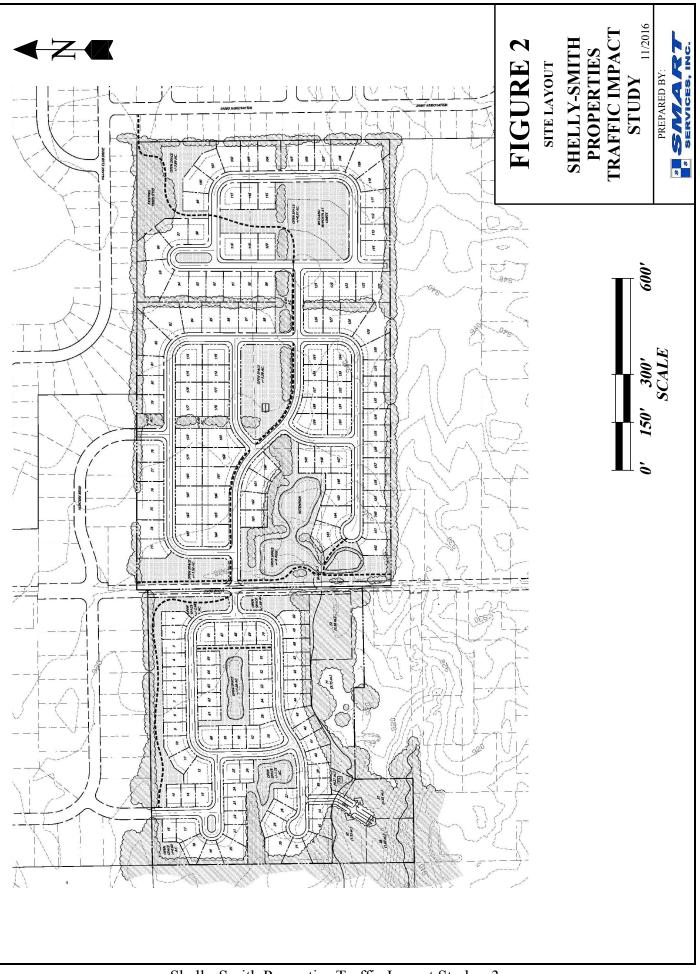
Street	Speed Limit	Delaware County Thoroughfare Plan Classification
Home Road	55 mph	Major Arterial
Steitz Road	55 mph	Major Collector
Rutherford Road	45 mph	Minor Collector

TABLE 1 – Summary of Roadway Designations

The DCEO provided a 2013 count at Home Road & Steitz Road for use in the study. A 14-hour turning movement count was be performed at the intersection of Rutherford Road & Steitz Road. The volumes on the Steitz Road leg were transferred north and used as the basis of the through traffic in front of the site. The count reports for these counts are in the Appendix. Based on the results of the counts, the analysis hours for both intersection in the AM Peak was 7:00-8:00 AM. In the PM Peak, the counts showed 5:15-6:15 PM as the analysis hour of Home Road & Steitz Road.



Shelly-Smith Properties Traffic Impact Study - 2



# **PROJECTED SITE TRAFFIC**

Trip Generation

Site traffic was computed using *Trip Generation Manual, 9th Edition* published by ITE. The relevant land use will be "Single-Family Detached Housing" (ITE Code #210). It is noted that "Senior Adult Housing-Detached" (ITE Code #251) could represent the "empty nester" product. Since there are no restrictions, the direction for this project was to use the most conservative trip generation which is "Single-Family Detached Housing" (ITE Code #210). There are 183 single family units proposed. Table 2 shows a summary of the trip generation calculations.

#### Trip Distribution

Per the City of Powell's comment on the MOU, the trip distribution was reassessed for this site. The general trip distribution is based on the existing AM counts in the peak direction (away from the site) of the site. The calculations are in the Appendix and the resulting distribution is as follows:

039% north on Steitz Road
-3% north of Home Road on Steitz Road
-5% west on Home Road
-31% east on Home Road
061% south on Steitz Road
-14% west on Rutherford Road
-47% east on Rutherford Road

Because of the connection to the subdivisions to the north, there is anticipated to be some interaction between the site and the adjacent subdivisions. Since access along Steitz Road will be evenly spaced, it is not anticipated that this would significantly affect the volumes in the study.

# **2027 ADJACENT PARCELS TRAFFIC**

Per the MOU, an estimate of the traffic generated by the two undeveloped parcels (Parcel # 31924001049000 and Parcel #31924001049001) to the south need to be included in the background traffic. The two parcels are a total of 25 acres.

The Shelly and Smith Properties are a total of 109.42 acres. Table 3 shows the trip generation calculations for the adjacent area based on the trips per acre of the Shelly and Smith Properties. The trips generated were assigned to the network with the same distribution as the site traffic. Approximately two thirds of the traffic was assumed to use a potential access on Steitz Road.

		Data Set from:		Overide Regression Equation from:			Entering		Exiting	
Traffic Study Subarea	Land Use	Time of Day	Trip Generation Manual, 9th Edition (Unless noted Otherwise)	with Average	Trip Generation Manual 9th Edition	Total Trips	%	Total Trips	%	Total Trips
Single-Family Detached Housing (Based on 183	Daily	Weekday		Average Rate= 10.01	721	50%	361	50%	360	
Shelly Prop.	Dwelling Units) (Non ITE Source)		Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM		Average Rate= 0.75	54	25%	14	75%	40
	Ind. Variable $(X) = 72$ Each	PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM		Average Rate= 0.99	71	63%	45	37%	26
Single-Family Detached Housing (Based on 183	Daily	Weekday		Average Rate= 10.01	1111	50%	556	50%	555	
Smith Prop.	Dwelling Units) (Non ITE Source)	AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM		Average Rate= 0.75	84	25%	21	75%	63
	Ind. Variable (X) = 111 Each		Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM		Average Rate= 0.99	110	63%	69	37%	41
	Daily			1832		917		915		
	TOTALS		AM Peak			138		35		103
		PM Peak				181		114		67

Shelly-Smith Properties Traffic Impact Study - 12/2016

 TABLE 2 SITE TRIP GENERATION SUMMARY



Traffic Study Subarea	Land Use	Time of Day	Data Set from:	Regression Equation from:		Entering		Exiting	
			Trip Generation Manual, 9th Edition     Trip Generation Manual       (Unless noted Otherwise)     9th Edition	Total Trips	%	Total Trips	%	Total Trips	
Single-F	Single-Family Detached Housing (Based on Shelly- Smith Trips/Acre) (Non ITE Source)	Daily	Weekday	Average Rate= 16.74	419	50%	210	50%	209
A I' Decent		AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	Average Rate= 1.26	32	25%	8	75%	24
Adj Property		PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	Average Rate= 1.65	41	63%	26	37%	15
	Ind. Variable (X) = $25.0$ Acres								

Shelly-Smith Properties Traffic Impact Study - 12/2016

TABLE 3 - ADJACENT PROPERTY SITE TRIP GENERATION SUMMARY



# **2017 AND 2027 TRAFFIC**

A 10-year horizon is required for the traffic study. Opening day is assumed to occur in 2017, therefore the design year is 2027. The DCEO provided Design Designation Data to compute growth rates on Home Road which is as follows:

DESIGN DESIGNATION - T.R. 125	
CURRENT ADT (2015)	_ 1890
DESIGN YEAR ADT (2035L	_ 4470
DESIGN HOURLY VOLUME (20351	_ 715
DIRECTIONAL DISTRIBUTION	_ 45%
TRUCKS (24 HOUR B&C)	_ 2%
DESIGN SPEED	_ 55
LEGAL SPEED	_ 55
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN COLLECTOR	
NHS PROJECT	_ NO

The Mid-Ohio Regional Planning Commission (MORPC) provided linear annual growth rates on all legs of the Rutherford Road & Steitz Road intersection for use in the study. The correspondence from MORPC is in the Appendix. Table 4 shows the growth rate and corresponding factors applied to the 2013 counts. Table 5 shows the growth rate and corresponding factors applied to the 2016 counts.

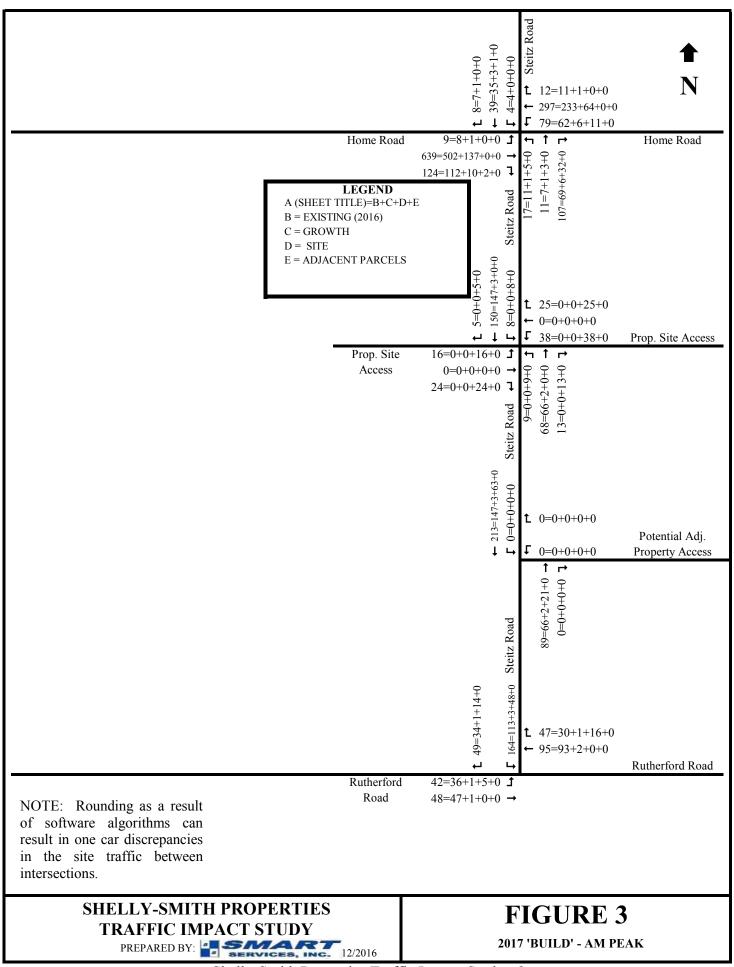
Sagmant	Linear Annual	2013 to 2017	2013 to 2027
Segment	Growth Rate	Factor	Factor
Home Road	6.83%	1.273	1.956
Steitz Road	*2.30%	1.092	1.322

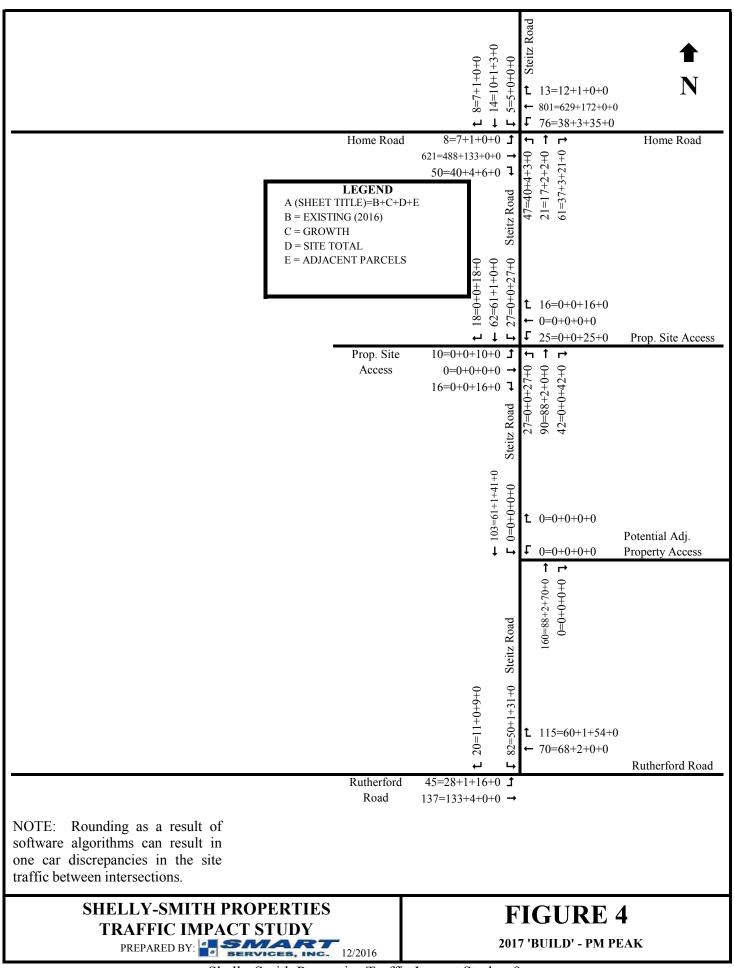
\*=Based on growth rate north of Rutherford Road TABLE 4 – 2013 Based Growth Factor Summary

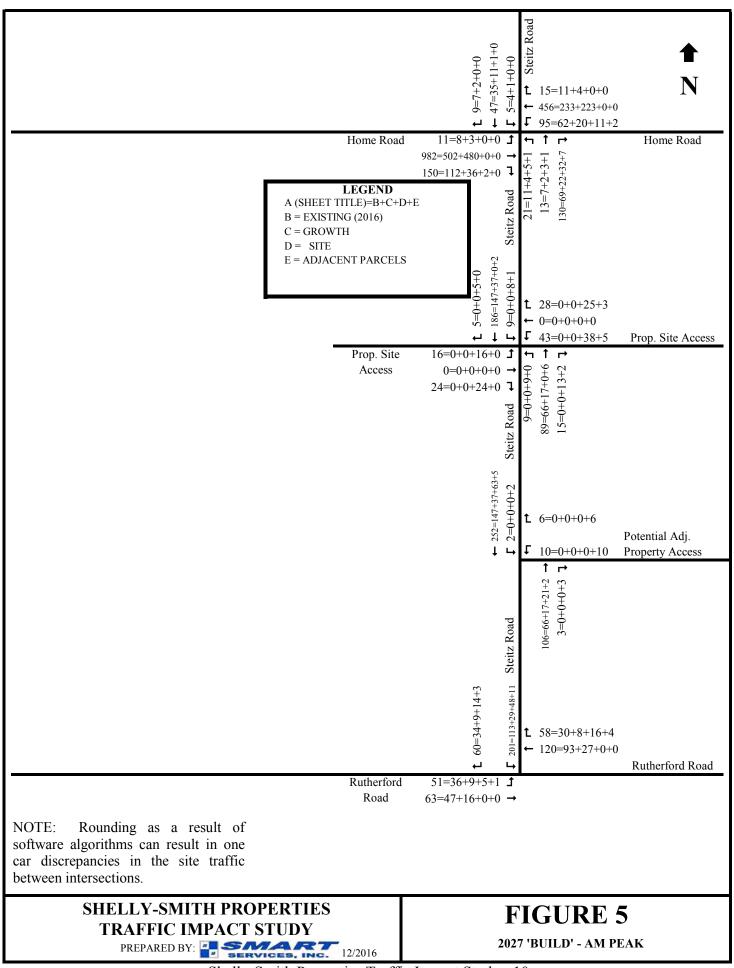
Segment	Linear Annual Growth Rate	2016 to 2017 Factor	2016 to 2027 Factor
Rutherford Rd east of Steitz Rd	2.60%	1.026	1.286
Steitz Rd north of Rutherford Rd	2.30%	1.023	1.253
Rutherford Rd west of Steitz Rd	3.00%	1.030	1.330
		•	•

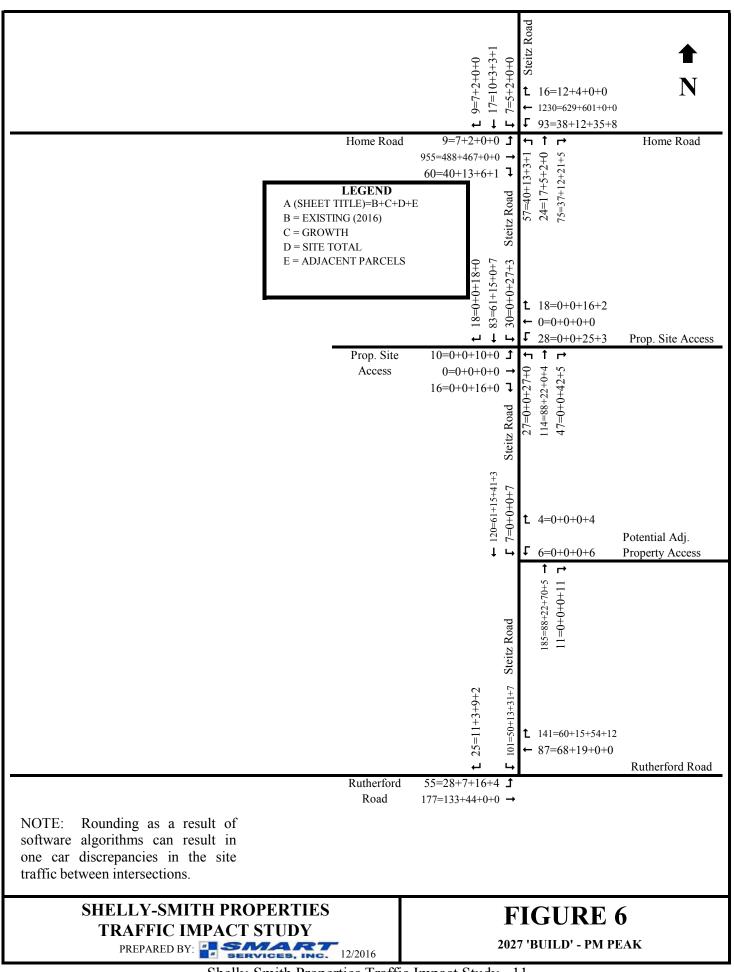
 TABLE 5 – 2016 Based Growth Factor Summary

Figures 3 and 4 show the components of the 2017 traffic. Figures 5 and 6 show the components of the 2027 traffic. To assist with the review, exhibits showing the 2017 and 2027 'No Build' volumes have been provided in the Appendix.









### **TRAFFIC ANALYSES**

### Signal Warrant Analysis

A signal warrant analysis was performed for the intersection of Rutherford Road & Steitz Road. There are a total of 9 warrants in the Ohio Manual of Uniform Traffic Control Devices, 2012 Edition (OMUTCD). If any of these are met, a signal is "warranted." If a signal is warranted, it means it is above the minimum level that a signal is desirable and may or may not be recommended for installation. A listing of the 9 warrants follows:

- Warrant # 1 Eight-Hour Vehicular Volume Warrant # 5 School Crossing
- Warrant # 2 Four-Hour Vehicular Volume Warrant # 6 Coordinated Signal System
- Warrant # 3 Peak Hour

- Warrant # 7 Crash Experience • Warrant # 8 – Roadway Network
- Warrant # 4 Pedestrian Volume • Warrant # 9 – Intersection near a Grade Crossing

For the vehicular volume based warrants, the OMUTCD specifies two levels of volume criteria depending on the 85th percentile speed and the population of the municipality. The volumes necessary are lower for speeds greater than 40 MPH or for communities with a population less than 10,000. For the higher speed or lower population criteria, traffic volumes required to meet the warrants are 70 percent of the volumes required for a lower speed or high population community. When speed data is not collected as part of the study, it is common practice to use the speed limit, which for Rutherford Road is 45 MPH.

For the analysis, daily distributions for the site had to be projected for use in the warrant analyses. For the residential distribution for both the site and the adjacent parcels considered in the study, the data was based on a count Smart Services, Inc. had on file. Supporting calculations of the daily distribution are in the Appendix.

The OMUTCD states under "guidance" that engineering judgment should be used to determine what portion of the right-turn vehicles from the minor street approach should be deducted in the analysis. The most conservative way to test the warrants is to not discount the right turn movements. If the signal warrants are met without the right turn discount, the effect of right turns would need to be considered in a final analysis.

The results showed that the Eight-Hour and Four-Hour signal warrants are not met in the 2027 'Build' condition so signal warrants would not be met in any of the conditions in the study. The warrant worksheets are in the Appendix. It is noted that the growth factors on Rutherford Road east and west of Steitz Road are different. To take the most conservative test of the signal warrants, the higher growth factor was applied to Rutherford Road.

### Turn Lane Warrant Analysis

**Left Turn Lanes** – Because only a small portion of the Steitz Road right-of-way is currently in the City of Powell, the City has directed that the Delaware County Engineer's Office *TIS Standards* be used to assess the warrants. According to the *TIS Standards*, there are three criteria to examine in order to determine if left turn lanes are warranted at the site access. The first criterion is the procedure found in the *State Highway Access Management Manual (AMM)* published by ODOT. The second criterion is on roadways classified as Major or Minor Arterials with speeds greater than 40 MPH. The third criterion is on Major Collectors with speeds greater than 40 MPH and more than 10 left turning vehicles during the peak hour for full build-out of the development. For Steitz Road at the Prop. Site Access, criterion 3 would apply and be met in both the northbound and southbound direction. Table 6 shows a summary of the results of the left turn lane warrants. The graphs from the *AMM* is in the Appendix.

**Right Turn Lanes -** Per the *TIS Standards*, the procedure for determining whether a right turn lane is required is according to the procedures found in the *AMM*. Table 6 also shows a summary of the results of the right turn lane warrants. The graphs from the *AMM* are in the Appendix.

Intersection	Direction	Peak Hour	2017 'Build'	2027 'Build'
		AM Peak	Warrant Not Met	Warrant Not Met
	NB LT	PM Peak	Warranted (Criteria 3)	Warranted (Criteria 3)
		AM Peak	Warrant Not Met	Warrant Not Met
Steitz Road &	SB LT	PM Peak	Warranted (Criteria 3)	Warranted (Criteria 3)
Prop. Site Access	NDDT	AM Peak	Warrant Not Met	Warrant Not Met
	NB RT	PM Peak	Warrant Not Met	Warrant Not Met
	SD DT	AM Peak	Warrant Not Met	Warrant Not Met
	SB RT	PM Peak	Warrant Not Met	Warrant Not Met

TABLE 6 - Summary of Turn Lane Warrant Analyses

### Signalized Capacity Analyses

Signalized capacity analyses were performed at the existing signalized intersection of Home Road & Steitz Road to determine if the existing signal timing needs to be adjusted and confirm that recent improvements will accommodate the site traffic. The analyses were performed using the computer software *Synchro 9*. In the analyses, delays are computed which correspond to a Level of Service (LOS) "A" through "F". In an urban area, Level of Service (LOS) "D" and above is generally considered an acceptable LOS. Since driver expectations are different for various types of traffic control, there are different LOS criteria for unsignalized intersections versus signalized intersections. LOS criteria for signalized intersections are shown in Table 7.

Level of Service	Delay Range (seconds/vehicle)
А	$\leq 10$
В	$> 10 \text{ and } \le 20$
С	$> 20 \text{ and } \le 35$
D	$> 35 \text{ and } \le 55$
E	$> 55 \text{ and } \le 80$
F	> 80

Source: Highway Capacity Manual 2010

TABLE 7 - Level of Service Criteria for Signalized Intersections

The following comprises the background of the signalized capacity analyses:

- •Synchro 9 was used to perform the analyses.
- •The existing intersection peak hour factor was applied.
- The existing lane configuration and phasing were used in the analyses.
- •Heavy vehicle percentage was assumed to be 2%.
- •Signal splits were optimized at a minimum cycle of 80 seconds.

The results of the 2017 'Build' analysis show that the optimal signal timing is very close to the existing. The DCEO should ensure phase 1 has a sufficient split time. The results of the 2027 'Build' analysis show that the intersection and all approaches operate at LOS "C" or above. Therefore, the recent improvements at the intersection will also accommodate the site traffic. The detailed reports from *Synchro* are in the Appendix.

### Turn Lane Length Analysis

Turn lane lengths for the warranted intersection's turn lanes were calculated. The calculations were performed per Section 400 of the *ODOT L&D Manual*. Per the comments in the MOU, the design speed on Steitz Road is 55 MPH. The results are shown in the Conclusions section. The calculations are in the Appendix.

### Intersection Sight Distance

The site engineer, Civil & Environmental Consultants, Inc., provided sight distance exhibits for the site access on Steitz Road and the intersection of Rutherford Road & Steitz Road. The exhibits are in the Appendix.

### CONCLUSIONS

2017 and 2027 'No Build' and 'Build' volumes were developed for use in signal warrant, turn lane warrant, and signalized capacity analyses. The following is a summary of the conclusions for each analysis condition:

### 2017 'No Build'

•Rutherford Road & Steitz Road •A traffic signal is not warranted.

### 2017 'Build'

•Home Road & Steitz Road

 $\circ$  The optimal signal timing is very close to the existing signal timing. The DCEO should ensure phase 1 (WBLT) has a sufficient split time.

• Steitz Road & Prop. Site Access

 $\circ$ A northbound left turn lane is warranted on Steitz Road. The length of the lane would be 285 feet which includes the 50' diverging taper.

 $\circ$ A southbound left turn lane is warranted on Steitz Road. The length of the lane would be 285 feet which includes the 50' diverging taper.

oA northbound right turn lane is not warranted.

oA southbound right turn lane is not warranted.

•Rutherford Road & Steitz Road

•A traffic signal is not warranted.

### 2027 'No Build'

•Rutherford Road & Steitz Road •A traffic signal is not warranted.

### 2027 'Build'

•Home Road & Steitz Road

•The intersection and all approaches operate at LOS "C" or above. Therefore, the recent improvements at the intersection will also accommodate the site traffic.

• Steitz Road & Prop. Site Access

 $\circ$ An northbound left turn lane is warranted on Steitz Road. The length of the lane would be 285 feet which includes the 50' diverging taper.

 $\circ$ An southbound left turn lane is warranted on Steitz Road. The length of the lane would be 285 feet which includes the 50' diverging taper.

oA northbound right turn lane is not warranted.

oA southbound right turn lane is not warranted.

•Rutherford Road & Steitz Road

oA traffic signal is not warranted.

### APPENDIX





Include Site plan Surveying . Environmental . Traffic . CA/CM An Ohio EDGE Certified Firm

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November 1, 2016

Mr. Chris Huber, PE City of Powell 47 Hall Street Powell, OH 43065

Re: Shelly-Smith Properties Traffic Impact Study MOU City of Powell, Delaware County, Ohio

Please consider this letter as a Memo of Understanding (MOU) for the subject Traffic Impact Study. The site is proposed to be developed with 183 single family lots 72 of which will be an "empty nester" product. The site is located on both sides of Steitz Road just south of Hunters Bend between Home Road and Rutherford Road. One full access is proposed on Steitz Road for access both east and west of Steitz Road. There are also connections on the east to Hunters Bend to the north and a connection to a future development to the south. On the west, there is a connection to Wolf Path Drive to the north. The site is part of a planned annexation to the City of Powell. When the annexation occurs, the proposed access on Steitz Road will be in the City of Powell so the City of Powell is the permitting agency.

The City of Powell is requiring a Traffic Impact Study (TIS). The study area extends outside the City of Powell so the Delaware County Engineer's Office (DCEO) will also review the study. A TIS pre-meeting was held at the City of Powell on October 17, 2016 to discuss the specific requirements of the study. The scope is based on the following which is Smart Services' understanding of what will be required for this site and relevant follow up information:

- The study area is the proposed site accesses and the intersections of Home Road & Steitz Road and Rutherford Road & Steitz Road.
- Design speed is 55 mph
- Data Collection The DCEO will provide design traffic at the intersection of Home ö Road & Steitz Road. A peak hour turning movement count will be performed at the intersection of Rutherford Road & Steitz Road. The DCEO had previously indicated that volumes on the Steitz Road leg can be transferred north and used as the basis of the through traffic in front of the site.
- Trip Generation Site traffic will be computed using Trip Generation Manual, 9th è Edition published by ITE. The relevant land uses will be "Single-Family Detached Housing" (ITE Code #210). It is noted that "Senior Adult Housing-Detached" (ITE Code #251) could represent the "empty nester" product but the direction for this project was to use the most conservative trip generation which is "Single-Family Detached Housing" (ITE Code #210). Since there are no restructions

88 W. Church Street Newark, Ohio 43055 740.345.4700

1900 Crown Park Court Columbus, Ohio 43235 614.914.5543

Shelly-Smith Properties Traffic Impact Study MOU City of Powell, Delaware County, Ohio

- An estimate of the traffic generated by the undeveloped parcel to the south will be included in the background traffic. The ratio of trips generated for this site to the acreage will be applied to the acreage of the adjacent parcels.
- Trip Distribution will be based on the *Home Road Site (S. of Home; W. of Steitz) Traffic Impact Study* prepared by Smart Services, Inc. and is proposed as follows:

58% north on Steitz Road
-25% west on Home Road at Site Access
-33% east on Home Road at Site Access
042% south on Steitz Road
-15% west on Rutherford Road
-27% east on Rutherford Road

- Design Year Traffic Development A 10-year design horizon will be required. Growth rates will be developed based on the design traffic (to be provided by the DCEO) at the Home Road & Steitz Road intersection.
- Analyses
  - Left and right turn lane warrant analyses will be performed at the proposed site access on Steitz Road. Because only a small portion of the Steitz Road right-of-way is currently in the City of Powell, the City has directed that the DCEO *TIS Standards* be used to assess the warrants. The length of any warranted turn lanes will be calculated in the study.
  - A signalized capacity analysis will be performed at the intersection of Home Road & Steitz Road for the horizon year 'Build' condition which will consider the recent improvement by the DCEO. The purpose of this analysis is to confirm that the planned improvements are sufficient to accommodate the site traffic.
  - A signalized capacity analysis will be performed at the intersection of Home Road & Steitz Road for the opening day 'Build' condition which will evaluate existing signal timing. The purpose of this analysis is to confirm that the planned improvements are sufficient to accommodate the site traffic. The DCEO will provide the existing signal timing.
  - A signal warrant analysis will be performed at the intersection of Rutherford Road & Steitz Road.
  - An intersection sight distance assessment will be made at Rutherford Road & Steitz Road.



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

Sincerely, SMART SERVICES, INC.

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

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

cc: M. Love – Delaware County Engineer's Office M. Reeves - CEC, Inc.

City of Powell

Approved:

Date:\_\_\_\_\_



### Smart Services, Inc.

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

File Name : Steitz\_Rd\_and\_Rutherford\_Rd\_360029\_10-20-2016

Site Code : 360029 Start Date : 10/20/2016 Page No : 1 **Groups Printed- Cars - Trucks** Steitz Rd Rutherford Rd **Rutherford Rd** Southbound Westbound Eastbound Start Time Left App. Total Thru Right Left App. Total Int. Total Right App. Total Thru 06:00 AM 06:15 AM 06:30 AM 06:45 AM Total 07:00 AM 07:15 AM 07:30 AM 07:45 AM Total 08:00 AM 08:15 AM 08:30 AM 08:45 AM Total 09:00 AM 09:15 AM 09:30 AM 09:45 AM Total 10:00 AM 10:15 AM 10:30 AM 10:45 AM Total 11:00 AM 11:15 AM 11:30 AM 11:45 AM Total 12:00 PM 12:15 PM 12:30 PM 

12:45

01:00

01:15

01:30

01:45

02:00

02:15

02:30

02:45

03:00

	-	-	-				-	-	-	
45 PM	10	3	13	9	3	12	1	11	12	
Total	25	13	38	36	20	56	3	37	40	
00 PM	9	4	13	9	7	16	2	6	8	
15 PM	9	1	10	12	3	15	4	5	9	
30 PM	9	2	11	6	11	17	4	7	11	
45 PM	16	9	25	11	13	24	2	10	12	
Total	43	16	59	38	34	72	12	28	40	
00 PM	8	4	12	9	9	18	0	5	5	
15 PM	8	0	8	14	12	26	4	8	12	
30 PM	21	5	26	5	6	11	1	17	18	
45 PM	30	11	41	14	9	23	5	15	20	
Total	67	20	87	42	36	78	10	45	55	
00 PM	12	4	16	15	13	28	5	12	17	
			- 1			- 1				

## Smart Services, Inc. 88 W. Church Street Newark, OH 43055

(740) 345-4700

File Name : Steitz_Rd_and_Rutherford_Rd_360029_10-20-2016
Site Code : 360029

Start Date : 10/20/2016

			_			Page No : 2				
		Steitz Rd Southboun			ed- Cars - itherford   Vestboun	Rd		therford astbound		
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
03:15 PM	13	5	18	10	10	20	5	20	25	63
03:30 PM	9	4	13	19	21	40	3	18	21	74
03:45 PM	13	2	15	13	21	34	5	21	26	75
Total	47	15	62	57	65	122	18	71	89	273
04:00 PM	6	2	8	18	16	34	8	25	33	75
04:15 PM	10	1	11	20	28	48	9	29	38	97
04:30 PM	18	1	19	15	12	27	4	36	40	86
 04:45 PM	10	4	14	19	7	26	8	39	47	87
Total	44	8	52	72	63	135	29	129	158	345
05:00 PM	12	5	17	14	13	27	7	29	36	80
05:15 PM	14	5	19	20	9	29	6	37	43	91
05:30 PM	17	4	21	12	13	25	7	33	40	86
 05:45 PM	17	5	22	12	9	21	6	35	41	84
Total	60	19	79	58	44	102	26	134	160	341
06:00 PM	10	5	15	14	12	26	6	17	23	64
06:15 PM	11	3	14	18	16	34	11	24	35	83
06:30 PM	11	4	15	10	13	23	2	21	23	61
 06:45 PM	9	1	10	14	5	19	10	15	25	54
Total	41	13	54	56	46	102	29	77	106	262
07:00 PM	10	5	15	13	8	21	4	13	17	53
07:15 PM	7	5	12	9	8	17	5	8	13	42
07:30 PM	6	3	9	4	9	13	2	12	14	36
 07:45 PM	1	2	3	8	4	12	2	11	13	28
Total	24	15	39	34	29	63	13	44	57	159
Grand Total	686	224	910	697	466	1163	243	799	1042	3115
Apprch %	75.4	24.6		59.9	40.1		23.3	76.7		
 Total %	22	7.2	29.2	22.4	15	37.3	7.8	25.7	33.5	
Cars	678	218	896	675	459	1134	237	782	1019	3049
 % Cars	98.8	97.3	98.5	96.8	98.5	97.5	97.5	97.9	97.8	97.9
Trucks	8	6	14	22	7	29	6	17	23	66
% Trucks	1.2	2.7	1.5	3.2	1.5	2.5	2.5	2.1	2.2	2.1

## Smart Services, Inc. 88 W. Church Street Newark, OH 43055

(740) 345-4700

File Name : Steitz\_Rd\_and\_Rutherford\_Rd\_360029\_10-20-2016 Site Code : 360029

Start Date : 10/20/2016 Page No : 3

		Steitz Rd			Itherford I			therford		
Otart Time		outhbound			Vestbound			astbound		lat Tatal
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
eak Hour Analysis Fron				1						
Peak Hour for Entire Inte		0								
07:00 AM	45	8	53	13	17	30	13	12	25	108
07:15 AM	26	10	36	23	4	27	7	12	19	82
07:30 AM	22	10	32	30	3	33	6	12	18	83
07:45 AM	20	6	26	27	6	33	10	11	21	80
Total Volume	113	34	147	93	30	123	36	47	83	353
% App. Total	76.9	23.1		75.6	24.4		43.4	56.6		
PHF	.628	.850	.693	.775	.441	.932	.692	.979	.830	.817
01:00 PM 01:15 PM	9 9	4 1	13 10	9 12	7 3	16 15	2 4	6 5	8 9	37 34
	•	4	-		1	-			-	÷.
01:30 PM	9	2	11	6	11	17	4	7	11	39
01:45 PM	16	9	25	11	13	24	2	10	12	61
Total Volume	43	16	59	38	34	72	12	28	40	171
% App. Total	72.9	27.1	00	52.8	47.2		30	70		
PHF	.672	.444	.590	.792	.654	.750	.750	.700	.833	.701
Peak Hour Analysis From Peak Hour for Entire Inte	n 02:00 PM ersection Be	to 07:45 P	M - Peak 1 of 1 15 PM	1						
04:15 PM	10	1	11	20	28	48	9	29	38	97
				4 -	12	27	4	36	40	86
04:30 PM	18	1	19	15	12					
04:30 PM 04:45 PM	18 10	1 4	19 14	15 19	7	26	8	39	47	87
•		1 4 5	-	-			8 7	39 29	47 36	87
04:45 PM	10		14	19	7	26				
04:45 PM 05:00 PM	10 12	5	14 17	19 14	7 13	26 27	7	29	36	87 80

# CM Transportation 7007 Discovery Blvd. Dublin, OH 43017

File Name : 10302013 Home and Steitz AM Peak Site Code : Start Date : 10/30/2013 Page No : 1

								Group	s Printed- Ca	rs - Truck	5							
			Ste	eitz			Ho	me			Ste	eitz			Но	me		
			From	North			From	East			From	South			From	West		
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
	06:30 AM	1	2	2	5	1	12	0	13	2	1	2	5	0	77	3	80	103
	06:45 AM	1	4	1	6	2	30	3	35	0	3	11	14	1	102	18	121	176
	Total	2	6	3	11	3	42	3	48	2	4	13	19	1	179	21	201	279
	07:00 AM	0	9	0	9	25	52	5	82	2	1	30	33	0	139	19	158	282
	07:15 AM	1	6	5	12	20	66	4	90	2	Ö	8	10	3	119	18	140	252
	07:30 AM	2	12	2	16	9	59	0	68	3	4	3	10	3	133	46	182	276
	07:45 AM	1	8	0	9	8	56	2	66	4	2	28	34	2	111	29	142	251
	Total	4	35	7	46	62	233	11	306	11	7	69	87	8	502	112	622	1061
т	08:00 AM	0	4	1	5	5	56	1	62	4	2	6	12	1	82	32	115	194
Page	08:15 AM	õ	4	2	6	3	41	2	46	5	1	6	12	2	89	24	115	179
	Grand Total	6	49	13	68	73	372	17	462	22	14	94	130	12	852	189	1053	1713
A2	Apprch %	8.8	72.1	19.1		15.8	80.5	3.7		16.9	10.8	72.3		1.1	80.9	17.9		
of	Total %	0.4	2.9	0.8	4	4.3	21.7	1	27	1.3	0.8	5.5	7.6	0.7	49.7	11	61.5	
	Cars	6	49	11	66	73	354	17	444	22	14	94	130	12	838	189	1039	1679
	% Cars	100	100	84.6	97.1	100	95.2	100	96.1	100	100	100	100	100	98.4	100	98.7	98
	Trucks	0	0	2	2	0	18	0	18	0	0	0	0	0	14	0	14	34
	% Trucks	0	0	15.4	2.9	0	4.8	0	3.9	0	0	0	0	0	1.6	0	1.3	2

		Ste	itz			Но	me			Ste	eitz			Но	me		
		From	North			From	East			From	South			From	West		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis I	From 06:30	AM to 08:	15 AM - I	Peak 1 of 1													
Peak Hour for Entire	Intersection	Begins a	t 07:00 A	M													
07:00 AM	0	9	0	9	25	52	5	82	2	1	30	33	0	139	19	158	282
07:15 AM	1	6	5	12	20	66	4	90	2	0	8	10	3	119	18	140	252
07:30 AM	2	12	2	16	9	59	0	68	3	4	3	10	3	133	46	182	276
07:45 AM	1	8	0	9	8	56	2	66	4	2	28	34	2	111	29	142	251
Total Volume	4	35	7	46	62	233	11	306	11	7	69	87	8	502	112	622	1061
% App. Total	8.7	76.1	15.2		20.3	76.1	3.6		12.6	8	79.3		1.3	80.7	18		
PHF	.500	.729	.350	.719	.620	.883	.550	.850	.688	.438	.575	.640	.667	.903	.609	.854	.941

# CM Transportation 7007 Discovery Blvd. Dublin, OH 43017

File Name : 11072013 Home and Steitz PM Peak Site Code : Start Date : 11/7/2013 Page No : 1

								Groups	s Printed- Ca	rs - Truck	S							
			Ste	itz			Но	me			Ste	eitz				me		
			From	North			From	East			From	South			From	West		
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
	04:00 PM	0	1	1	2	2	111	1	114	9	7	0	16	6	74	12	92	224
	04:15 PM	0	0	1	1	1	121	2	124	11	2	4	17	2	97	5	104	246
	04:30 PM	0	3	0	3	3	112	4	119	9	8	2	19	3	91	8	102	243
	04:45 PM	3	2	0	5	1	105	3	109	12	4	12	28	1	126	6	133	275
	Total	3	6	2	11	7	449	10	466	41	21	18	80	12	388	31	431	988
	05:00 PM	3	2	1	6	6	128	3	137	12	3	15	30	1	105	8	114	287
	05:15 PM	2	4	0	6	11	164	3	178	9	3	12	24	1	123	8	132	340
	05:30 PM	0	3	3	6	12	149	3	164	8	5	11	24	2	138	9	149	343
	05:45 PM	3	1	2	6	6	159	3	168	13	6	7	26	2	126	10	138	338
Page	Total	8	10	6	24	35	600	12	647	42	17	45	104	6	492	35	533	1308
ge A3	06:00 PM	0	2	2	4	9	157	3	169	10	3	7	20	2	101	13	116	309
	06:15 PM	0	1	0	1	5	106	4	115	4	3	9	16	1	91	12	104	236
of 6	Grand Total	11	19	10	40	56	1312	29	1397	97	44	79	220	21	1072	91	1184	2841
0,	Apprch %	27.5	47.5	25		4	93.9	2.1		44.1	20	35.9		1.8	90.5	7.7		
	Total %	0.4	0.7	0.4	1.4	2	46.2	1	49.2	3.4	1.5	2.8	7.7	0.7	37.7	3.2	41.7	
	Cars	11	19	10	40	56	1311	28	1395	97	44	79	220	21	1071	91	1183	2838
	% Cars	100	100	100	100	100	99.9	96.6	99.9	100	100	100	100	100	99.9	100	99.9	99.9
	Trucks	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	3
	% Trucks	0	0	0	0	0	0.1	3.4	0.1	0	0	0	0	0	0.1	0	0.1	0.1

		Ste	eitz			Но	me			Ste	eitz			Ho	ome		
		From	North			From	East			From	South			From	West		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis I	From 04:00	PM to 06:	15 PM -	Peak 1 of 1			-				-				-		
Peak Hour for Entire	Intersection	n Begins a	t 05:15 P	M													
05:15 PM	2	4	0	6	11	164	3	178	9	3	12	24	1	123	8	132	340
05:30 PM	0	3	3	6	12	149	3	164	8	5	11	24	2	138	9	149	343
05:45 PM	3	1	2	6	6	159	3	168	13	6	7	26	2	126	10	138	338
06:00 PM	0	2	2	4	9	157	3	169	10	3	7	20	2	101	13	116	309
Total Volume	5	10	7	22	38	629	12	679	40	17	37	94	7	488	40	535	1330
% App. Total	22.7	45.5	31.8		5.6	92.6	1.8		42.6	18.1	39.4		1.3	91.2	7.5		
PHF	.417	.625	.583	.917	.792	.959	1.00	.954	.769	.708	.771	.904	.875	.884	.769	.898	.969

			Data Set from:	Regression Equation from:		Ent	ering	Ex	iting
Traffic Study Subarea	Land Use	Time of Day	Trip Generation Manual, 9th Edition (Unless noted Otherwise)	Trip Generation Manual 9th Edition	Total Trips	%	Total Trips	%	Total Trips
	Single-Family Detached Housing (ITE Code #210)	Daily	Weekday	ln(T)=0.92ln(X)+2.72	1831	50%	916	50%	915
22	Single-raining Detached Housing (TE Code #210)	AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	T=0.70(X)+9.74	138	25%	35	75%	103
23	Ind. Variable (X) = 183 Dwelling Units	PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	ln(T)=0.90ln(X)+0.51	181	63%	114	37%	67
	niu. vanabie (X) – 165 Dwening Units								

Shelly-Smith Properties Traffic Impact Study - 12/2016

### APPENDIX EXHIBIT - SITE TRIP GENERATION SUMMARY



From:	<u>Hwashik Jang</u>
То:	Todd Stanhope
Cc:	CHuber@cityofpowell.us; mlove@co.delaware.oh.us; Zhuojun Jiang; Nick Gill
Subject:	RE: Steitz Road / Rutherford Road Growth Rate Request
Date:	Tuesday, November 29, 2016 11:36:43 AM

Todd,

We have completed processing growth rates on the intersection of Steitz Rd and Rutherford Rd. Please use a linear annual growth rate as summarized in the following table below.

- Location	Linear Annual Growth Rate
Rutherford Rd e/o Steitz Rd	2.60%
Steitz Rd n/o Rutherford Rd	2.30%
Rutherford Rd w/o Steitz Rd	3.00%

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

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

Thanks,

Hwashik

Hwashik Jang | <u>hjang@morpc.org</u> | MORPC Tel 614.233.4145 | Fax 614.233.4245

From: Todd Stanhope [mailto:tstanhope@smartservices-inc.com]
Sent: Friday, November 04, 2016 4:37 PM
To: Zhuojun Jiang <zjiang@morpc.org>
Cc: Nick Gill <NGILL@morpc.org>; Hwashik Jang <hjang@morpc.org>; CHuber@cityofpowell.us; mlove@co.delaware.oh.us
Subject: Steitz Road / Rutherford Road Growth Rate Request

Zhuojun

- We are performing a traffic study for the above site which is being annexed into the City of Powell. Please provide a growth rate for all legs of the Rutherford Road & Steitz Road intersection. Below is MORPC's requested information about the study.
- 1. <u>Traffic Data</u> upon which you would be applying these growth rates (preferably 24 hour counts). As part of the project, a 14-hour turning movement count was taken at the intersection of Rutherford Road & Steitz Road which is attached.
- 2. <u>Open Year & Design Year</u>, for this study: 2017 and 2027
- 3. <u>Roadway network assumptions</u>: Any roadway assumptions/changes in the vicinity, such as

change in number of lanes or roadway alignments, etc: None anticipated

- 4. <u>Land use assumptions</u>: General info on proposed site location & development, such as: site map, Trip Generation (excel file, preferably). The site is located on both sides of Steitz Road just south of Hunters Bend. Trip generation for the 183 lots (72 of the lots are an "empty nester" product) will be calculated as part of the study and is not available at this time.
- 5. <u>Project Review Contact Person</u>: Chris Huber from the City of Powell and Mike Love from the Delaware County Engineer's Office will be reviewing the study. Their e-mail addresses are in the cc: line.

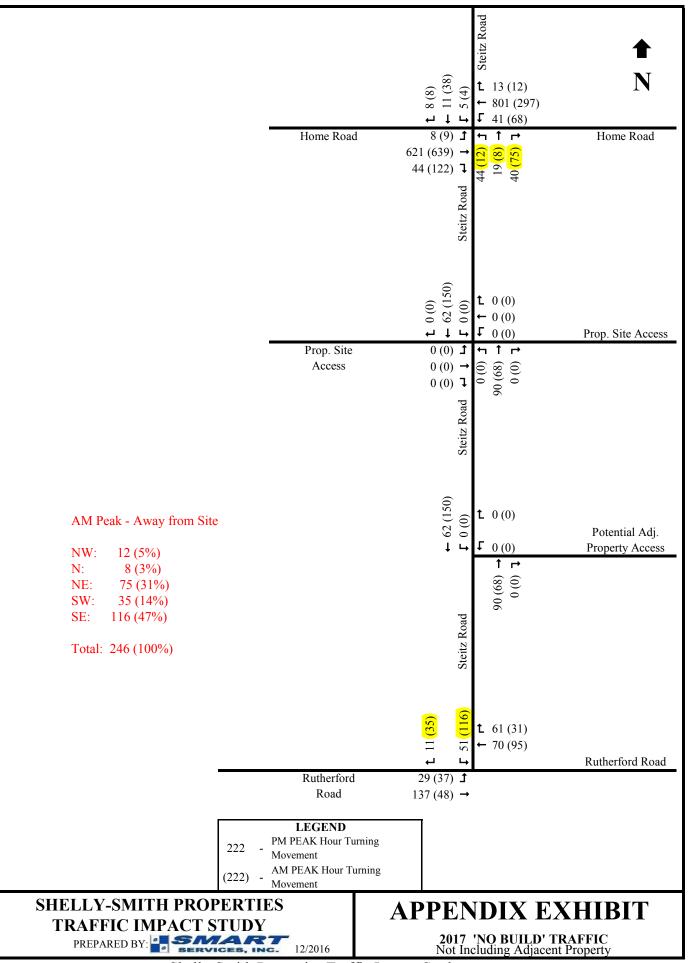
### Todd J. Stanhope, PE, PTOE

Director of Traffic Engineering

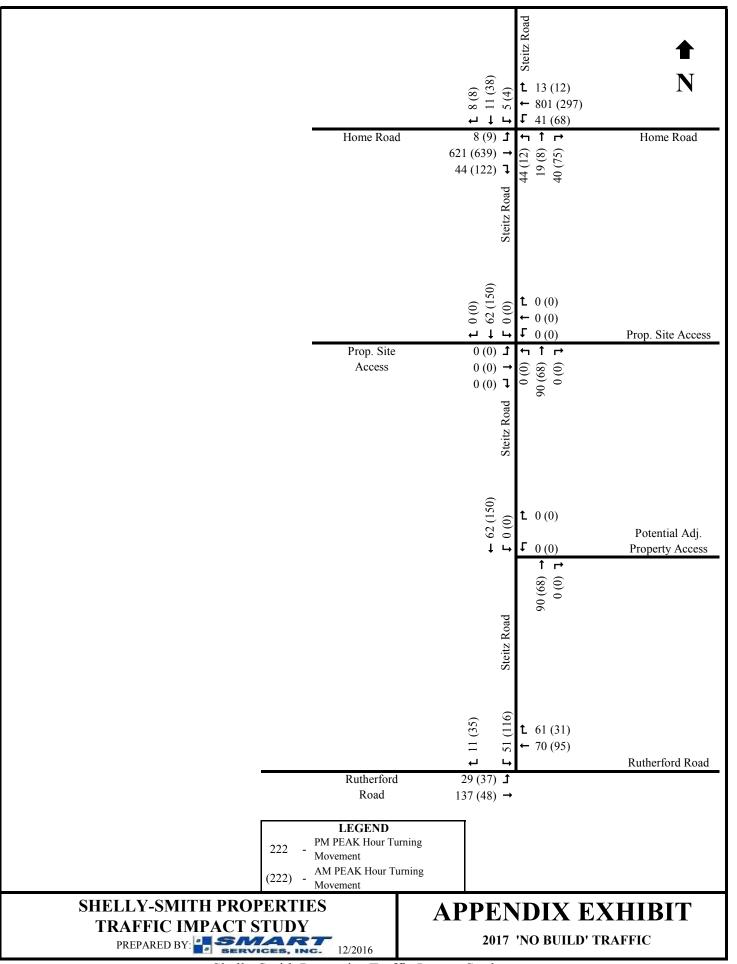
### Smart Services, Inc. (Columbus Office)

A **DBE / EDGE** Certified Business

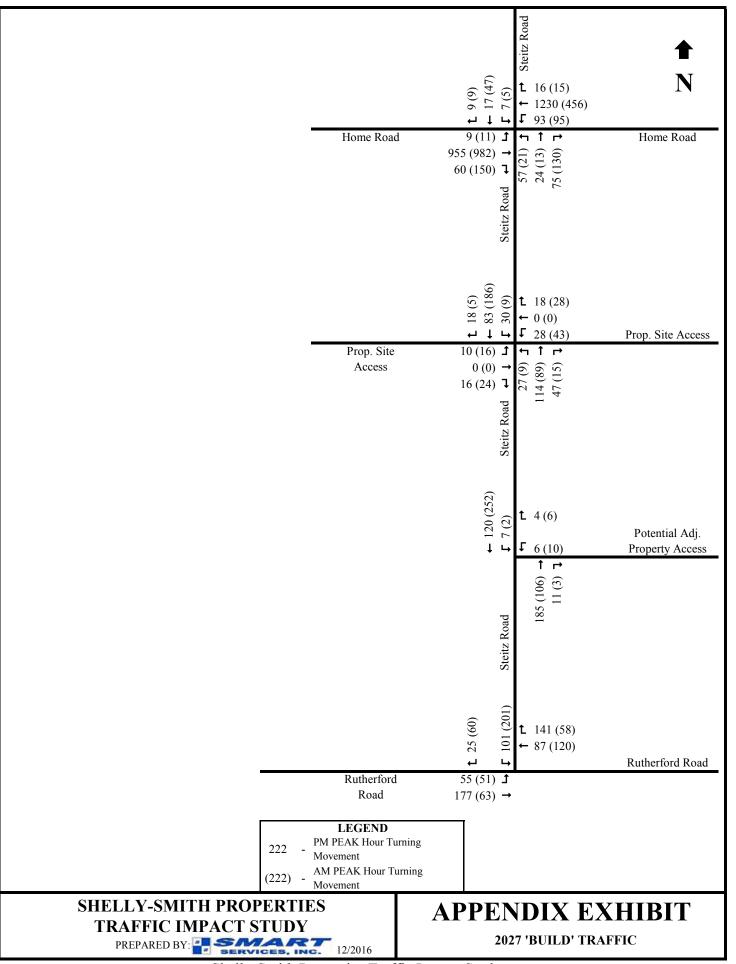
1900 Crown Park Court, Suite E Columbus, Ohio 43235 Ph: 614-914-5543 <u>www.SmartServices-Inc.com</u>



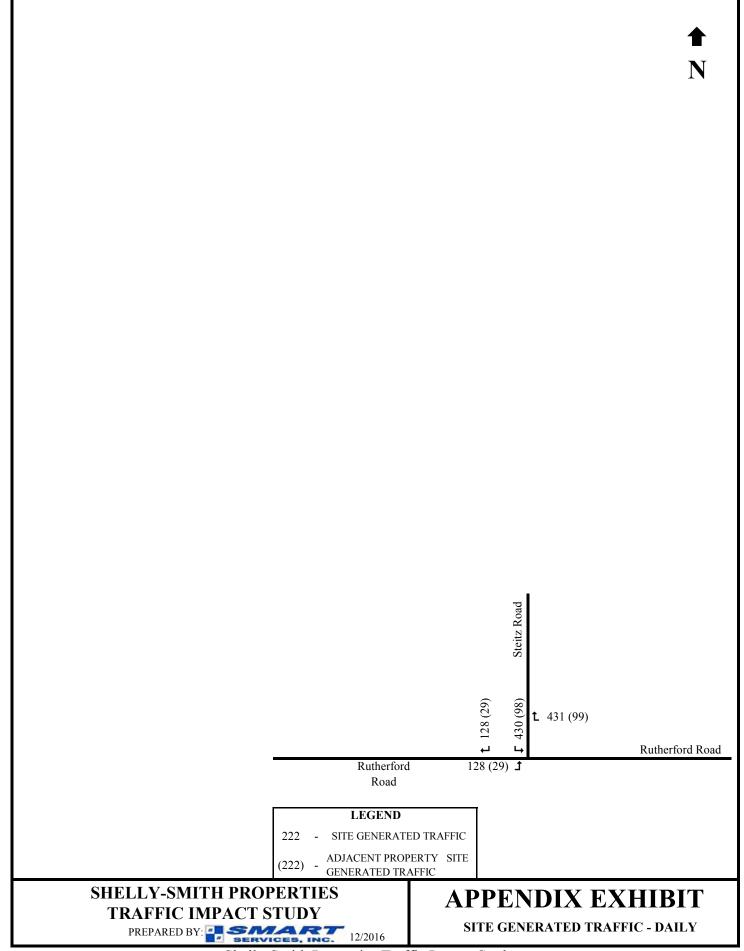
Shelly-Smith Properties Traffic Impact Study -



Shelly-Smith Properties Traffic Impact Study -



Shelly-Smith Properties Traffic Impact Study -



Shelly-Smith Properties Traffic Impact Study -

Time		Residential Source: Locust Curve Drive - Delaware, Ohio Volume Entering (Weekday) Volume Exiting (Weekday)											DISTRIBU	ΓΙΟΝ
Thine			V	olume Enter	ing (Weekda	ıy)	V	olume Exiti	ng (Weekday	y)		Vol	lume	
	% of 24 Hour	Hour Hour SB SB		В	EB	WB	S	В						
	Entering (Weekday)	Exiting (Weekday)	EB	wв	LT	RT	ЕВ	WB	LT	RT	EB	wВ	LT	RT
	(	(	128	431	0	0	0	0	430	128	128	431	430	128
000	0.2%	0.1%	0	1	0	0	0	0	0	0	0	1	0	0
100	0.3%	0.0%	0	1	0	0	0	0	0	0	0	1	0	0
200	0.5%	0.1%	1	2	0	0	0	0	0	0	1	2	0	0
300	0.2%	0.1%	0	1	0	0	0	0	0	0	0	1	0	0
400	0.0%	0.3%	0	0	0	0	0	0	1	0	0	0	1	0
500	0.1%	1.5%	0	0	0	0	0	0	6	2	0	0	6	2
600	1.2%	5.7%	2	5	0	0	0	0	25	7	2	5	25	7
700	3.3%	13.5%	4	14	0	0	0	0	58	17	4	14	58	17
800	5.0%	9.5%	6	21	0	0	0	0	41	12	6	21	41	12
900	4.4%	6.4%	6	19	0	0	0	0	27	8	6	19	27	8
1000	4.6%	4.5%	6	20	0	0	0	0	19	6	6	20	19	6
1100	5.5%	5.2%	7	24	0	0	0	0	22	7	7	24	22	7
1200	5.4%	7.1%	7	23	0	0	0	0	30	9	7	23	30	9
1300	4.5%	4.6%	6	19	0	0	0	0	20	6	6	19	20	6
1400	5.3%	4.8%	7	23	0	0	0	0	21	6	7	23	21	6
1500	6.9%	4.9%	9	30	0	0	0	0	21	6	9	30	21	6
1600	7.4%	6.8%	10	32	0	0	0	0	29	9	10	32	29	9
1700	11.8%	6.7%	15	51	0	0	0	0	29	9	15	51	29	9
1800	8.7%	6.3%	11	37	0	0	0	0	27	8	11	37	27	8
1900	8.3%	4.8%	11	36	0	0	0	0	21	6	11	36	21	6
2000	7.9%	3.8%	10	34	0	0	0	0	16	5	10	34	16	5
2100	4.6%	2.0%	6	20	0	0	0	0	9	3	6	20	9	3
2200	2.8%	1.1%	4	12	0	0	0	0	5	1	4	12	5	1
2300	1.0%	0.1%	1	4	0	0	0	0	0	0	1	4	0	0
TOTAL	100.00%	100.0%	128	431	0	0	0	0	430	128	128	431	430	128

TABLE - Daily Site Traffic Distribution-Steitz Road & Rutherford Road (Ref. #4)

												TOTAL DAILY DISTRIBUTION					
Time			V	olume Enter	ing (Weekda	ıy)	V	olume Exiti	ng (Weekday	y)	Volume						
	% of 24 % of 24 Hour Hour		EB	WB	S	В	EB	WB	S	В	EB	WB	S	SB			
	Entering (Weekday)	Exiting (Weekday)	EB	WB	LT	RT	EB	wВ	LT	RT	EB	wВ	LT	RT			
			29	99	0	0	0	0	98	29	29	99	98	29			
000	0.2%	0.1%	0	0	0	0	0	0	0	0	0	0	0	0			
100	0.3%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0			
200	0.5%	0.1%	0	0	0	0	0	0	0	0	0	0	0	0			
300	0.2%	0.1%	0	0	0	0	0	0	0	0	0	0	0	0			
400	0.0%	0.3%	0	0	0	0	0	0	0	0	0	0	0	0			
500	0.1%	1.5%	0	0	0	0	0	0	1	0	0	0	1	0			
600	1.2%	5.7%	0	1	0	0	0	0	6	2	0	1	6	2			
700	3.3%	13.5%	1	3	0	0	0	0	13	4	1	3	13	4			
800	5.0%	9.5%	1	5	0	0	0	0	9	3	1	5	9	3			
900	4.4%	6.4%	1	4	0	0	0	0	6	2	1	4	6	2			
1000	4.6%	4.5%	1	5	0	0	0	0	4	1	1	5	4	1			
1100 1200	5.5% 5.4%	5.2% 7.1%	2	5	0	0	0	0	5	1	2	5	5	1			
1200	<u> </u>	4.6%	2	5 4	0	0	0	0	7 5	2	2	5	7 5	2			
1300	4.3% 5.3%	4.8%	2	5	0	0	0	0	5	1	2	5	5	1			
1400	6.9%	4.8%	2	7	0	0	0	0	5	1	2	7	5	1			
1600	7.4%	6.8%	2	7	0	0	0	0	7	2	2	7	7	2			
1700	11.8%	6.7%	3	12	0	0	0	0	7	2	3	12	7	2			
1800	8.7%	6.3%	3	9	0	0	0	0	6	2	3	9	6	2			
1900	8.3%	4.8%	2	8	0	0	0	0	5	1	2	8	5	1			
2000	7.9%	3.8%	2	8	0	0	0	0	4	1	2	8	4	1			
2100	4.6%	2.0%	1	5	0	0	0	0	2	1	1	5	2	1			
2200	2.8%	1.1%	1	3	0	0	0	0	1	0	1	3	1	0			
2300	1.0%	0.1%	0	1	0	0	0	0	0	0	0	1	0	0			
TOTAL	TOTAL 100.00% 100.0% 29 99 0 0 0 0 98 29 29 99 98 29																
				FABLE - Da	aily Site Tra	affic Distrib	ution-Steitz	Road & R	utherford R	oad (Ref. #	5)						

Adjacent Parcels

### Signal Warrant #1 Worksheet (Ref. #4689)

### Steitz Road & Rutherford Road

2027 'Build' Traffic

#### Speed Limit on Rutherford Road: 55 MPH (Community Population >10,000)

						RUTH	ERFORD	ROAD							ST	EITZ RO	AD										
						MA	JOR STR	EET							MI	NOR STR	EET										
CONDITION	# OF LANES	Exis	ting	Gro	owth	Si	ite	Adjacen Backg			Total		Existing	Growth	Site	Adjacent Parcels Backgroun d	Right Turn Reductio n	Total	MAX	WAR	WARRANT #1 - CONDITION A			WARRANT #1 - CONDITION B		ION B	
		EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	2-WAY	SB	SB	SB	SB	SB	SB	1-WAY	MA	JOR	MIN	NOR	MA	JOR	MD	NOR
																				100%	80%	100%	80%	100%	80%	100%	80%
Warrant	1																			500	400	150	120	750	600	75	60
Warrant	2																			600	480	200	160	900	720	100	80
70% Warrant	1											x							X	350	280	105	84	525	420	53	42
70% Warrant	2																			420	336	140	112	630	504	70	56
6-7 AM		49	44	16	15	2	5	0	1	67	65	132	41	10	32	7	0	91	91	NO	NO	NO	YES	NO	NO	YES	YES
7-8 AM		83	123	27	41	4	14	1	3	116	181	296	147	37	75	17	0	276	276	NO	YES	YES	YES	NO	NO	YES	YES
8-9 AM		72	110	24	36	6	21	1	5	104	173	276	128	32	53	12	0	226	226	NO	NO	YES	YES	NO	NO	YES	YES
9-10 AM		46	65	15	21	6	19	1	4	68	110	178	48	12	36	8	0	104	104	NO	NO	NO	YES	NO	NO	YES	YES
10-11 AM		46	38	15	13	6	20	1	5	68	75	143	28	7	25	6	0	66	66	NO	NO	NO	NO	NO	NO	YES	YES
11-12 Noo		41	53	14	17	7	24	2	5	63	100	163	48	12	29	7	0	95	95	NO	NO	NO	YES	NO	NO	YES	YES
12-1 PM		40	56	13	18	7	23	2	5	62	103	165	38	10	39	9	0	96	96	NO	NO	NO	YES	NO	NO	YES	YES
1-2 PM		40	72	13	24	6	19	1	4	60	120	180	59	15	26	6	0	105	105	NO	NO	YES	YES	NO	NO	YES	YES
2-3 PM		55	78	18	26	7	23	2	5	81	132	213	87	22	27	6	0	142	142	NO	NO	YES	YES	NO	NO	YES	YES
3-4 PM		89	122	29	40	9	30	2	7	129	199	328	62	16	28	6	0	111	111	NO	YES	YES	YES	NO	NO	YES	YES
4-5 PM 5-6 PM		158 160	135 102	52 53	45 34	10 15	32 51	2	12	222 231	219 198	441 430	52 79	13 20	38 38	9	0	112 145	112 145	YES YES	YES YES	YES YES	YES YES	NO NO	YES YES	YES YES	YES YES
5-6 PM 6-7 PM		100	102	35	34	15	37	3	0	155	198	430 336	54	14	38 35	8	0	145	145	NO	YES	YES	YES	NO	NO	YES	YES
7-8 PM		57	63	19	21	11	36	2	8	89	128	217	39	10	27	6	0	82	82	NO	NO	NO	NO	NO	NO	YES	YES
<u></u>						•												WARRANT 2 Hours Met (8 Required)			0 Hours Met (8 Required)						
																		STA	TUS		ONDITIO	· ·	'		ONDITIO	· ·	· ·

	WARRANT #1 -
	COMBINATION OF 80% CONDITION A & 80% CONDITION B
WARRANT	2 Hours Met (8 Required)
STATUS	CONDITION NOT MET

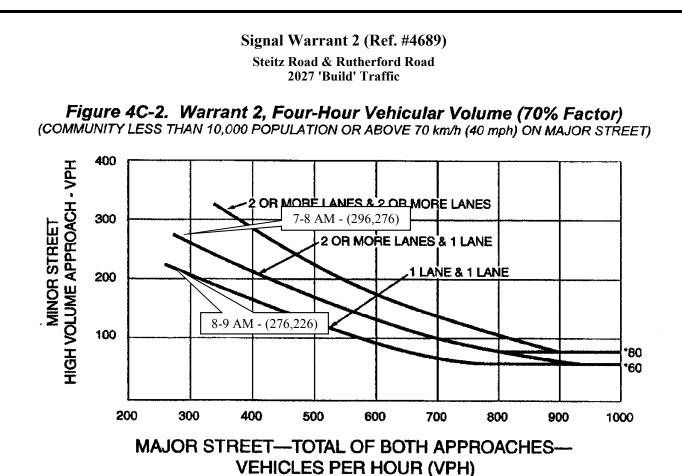
### WARRANT #1 : NOT MET

<u>NOTE(S)</u> Existing traffic component on Rutherford Road is based on count taken 10/20/2016. Existing traffic component on Steitz Road is based on count taken 10/20/2016.

A growth factor of 1.33 was applied to the existing Rutherford Road counts. A growth factor of 1.253 was applied to the existing Steitz Road counts.



12/2016



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Lanes	Time	Major Street Volume (2- Way)	Minor Street Volume (1- Way)	Criteria Met in Hour	Warrant Result
	6-7 AM	132	91	NO	
	7-8 AM	296	276	YES	
	8-9 AM	276	226	YES	
	9-10 AM	178	104	NO	
	10-11 AM	143	66	NO	
	11-12 Noon	163	95	NO	
	12-1 PM	165	96	NO	
1 Lane & 1 Lane	1-2 PM	180	105	NO	NOT MET
	2-3 PM	213	142	NO	
	3-4 PM	328	111	NO	
	4-5 PM	441	112	NO	
	5-6 PM	430	145	NO	
	6-7 PM 336 111 NO	NO			
	7-8 PM	217	82	NO	

NOTE(S)

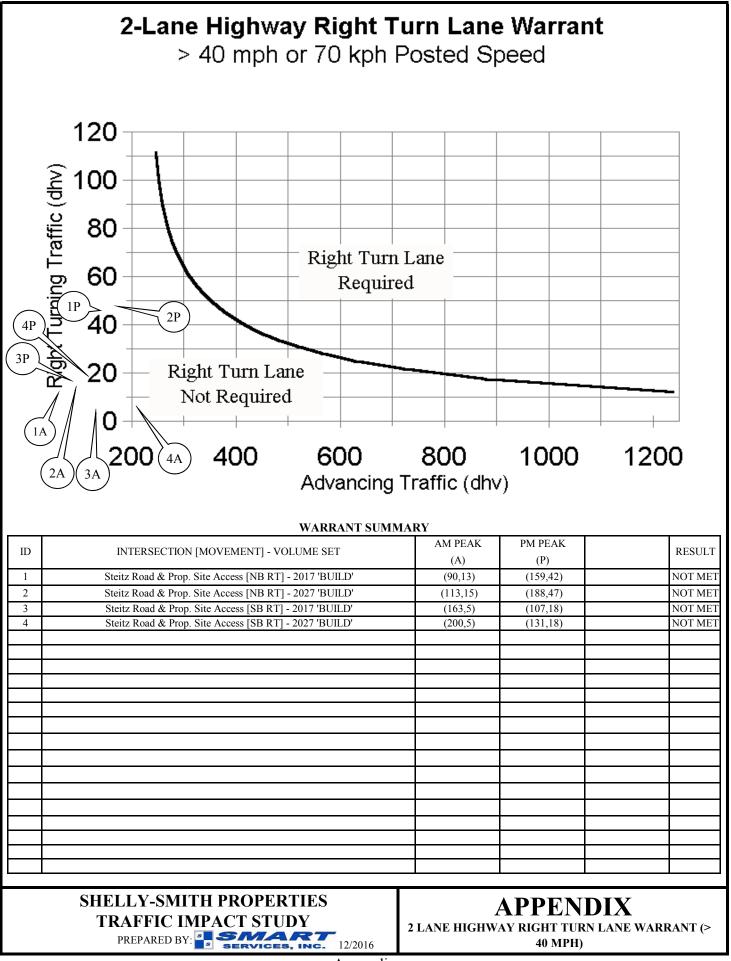
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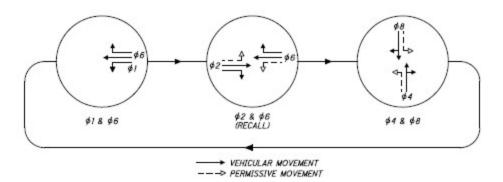


**APPENDIX** FOUR HOUR SIGNAL WARRANT 70% FACTOR (REF. #4689)

Appendix



PROPOSED PHASING DIAGRAM



	INTEL	SIGNAL CONTROLLI RSECTION: HOME R INTAINING AGENCY:	OAD A	T STE	ITZ I	ROAD					
<u>s</u> start in:@y/	TART UP	DUAL ENTRY⊗ REST IN RED: ○ RING I ○ RING 2									
TIME FOR FLAS	OV	ERLAP		A	В	C		D			
FIRST PHASES: COLOR DISPLAY	PH	ASES									
PHASE		1	2	3	4	5	6	7	8		
MOVEMENT	WBLT	EBT		NBT		WBT	1	SBT			
MINIMUM GREE	7.0	30.0		10.0		30.0		10.0			
ADDED INITIA	2.12				2		3				
MAXIMUM INIT											
PASSAGE (PRE	SET GAP)	8	3.0	3.0		3.0		3.0		3.0	
TIME BEFORE	REDUCTI C	W	8 8	1		2	÷		8	2	
MINIMUM GAP									1		
TIME TO REDU	ICE		0.0	- 9					1	3	
MAX. GREEN I			10.0	50.0		17.0		60.0		17.0	
MAX. GREEN I	I		8.3				1		(	2	
YELLOW CHANG	ε		3.0	4.0		4.0		4.0		4.0	
ALL RED CLEA	2.0	2.0		2.0	<u></u>	2.0	ŝ	2.0			
WALK											
PEDESTRI AN C											
RECALL	OFF	MIN		OFF		MIN	8	OFF			
	OFF	OFF		OFF		OFF	1	OFF			
MEMORY				OFF		OFF		OFF	1	OFF	
CALL TO NON A	ALL TO NON ACTUATED NO. 1										
SHEE TO HOR P	is romited	NO. 2	8 8				i				

11/30/2016
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	1	1	۲	1	1	٦	4Î		٦	4Î	
Traffic Volume (vph)	9	639	124	79	297	12	17	11	107	4	39	8
Future Volume (vph)	9	639	124	79	297	12	17	11	107	4	39	8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	2	2	2	1	6	6	4	4		8	8	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	7.0	30.0	30.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	12.0	36.0	36.0	16.0	16.0		16.0	16.0	
Total Split (s)	52.0	52.0	52.0	12.0	64.0	64.0	16.0	16.0		16.0	16.0	
Total Split (%)	65.0%	65.0%	65.0%	15.0%	80.0%	80.0%	20.0%	20.0%		20.0%	20.0%	
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Recall Mode	Min	Min	Min	None	Min	Min	None	None		None	None	
Act Effct Green (s)	39.7	39.7	39.7	48.4	48.9	48.9	10.2	10.2		10.2	10.2	
Actuated g/C Ratio	0.60	0.60	0.60	0.74	0.74	0.74	0.16	0.16		0.16	0.16	
v/c Ratio	0.02	0.60	0.13	0.18	0.23	0.01	0.09	0.36		0.02	0.17	
Control Delay	8.1	14.7	2.1	4.1	4.3	0.1	29.2	11.7		28.5	25.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.1	14.7	2.1	4.1	4.3	0.1	29.2	11.7		28.5	25.7	
LOS	A	В	А	A	A	А	С	В		С	С	
Approach Delay		12.6			4.2			13.9			25.9	
Approach LOS		В			А			В			С	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 65.7												
Natural Cycle: 65												
Control Type: Actuated-Uncoo	rdinated											
Maximum v/c Ratio: 0.60												
Intersection Signal Delay: 10.8				In	tersection	LOS: B						
Intersection Capacity Utilization	n 73.3%			IC	CU Level of	Service D						
Analysis Period (min) 15												
Splits and Phases: 6343: St	eitz Road & H	Iome Road	ł									
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	1	1	٦	•	1	۲	eî 🗧		٦	eî 🗧	
Traffic Volume (vph)	8	621	50	76	801	13	47	21	61	5	14	8
Future Volume (vph)	8	621	50	76	801	13	47	21	61	5	14	8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	2	2	2	1	6	6	4	4		8	8	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	7.0	30.0	30.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	12.0	36.0	36.0	16.0	16.0		16.0	16.0	
Total Split (s)	52.0	52.0	52.0	12.0	64.0	64.0	16.0	16.0		16.0	16.0	
Total Split (%)	65.0%	65.0%	65.0%	15.0%	80.0%	80.0%	20.0%	20.0%		20.0%	20.0%	
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Recall Mode	Min	Min	Min	None	Min	Min	None	None		None	None	
Act Effct Green (s)	38.1	38.1	38.1	46.8	47.3	47.3	10.2	10.2		10.2	10.2	
Actuated g/C Ratio	0.59	0.59	0.59	0.73	0.74	0.74	0.16	0.16		0.16	0.16	
v/c Ratio	0.02	0.58	0.05	0.16	0.60	0.01	0.22	0.27		0.02	0.08	
Control Delay	8.6	14.5	0.3	4.1	8.1	0.2	29.4	14.2		26.8	21.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.6	14.5	0.3	4.1	8.1	0.2	29.4	14.2		26.8	21.5	
LOS	А	В	А	А	А	А	С	В		С	С	
Approach Delay		13.4			7.7			19.7			22.5	
Approach LOS		В			А			В			С	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 64.1												
Natural Cycle: 65												
Control Type: Actuated-Uncoor	dinated											
Maximum v/c Ratio: 0.60												
Intersection Signal Delay: 11.0				In	tersection	LOS: B						
Intersection Capacity Utilization	า 82.4%			IC	CU Level of	Service E						
Analysis Period (min) 15												
Splits and Phases: 6343: Ste	eitz Road & F	Iome Road	1									
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12 s 52 s									1	5 s		
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16 s

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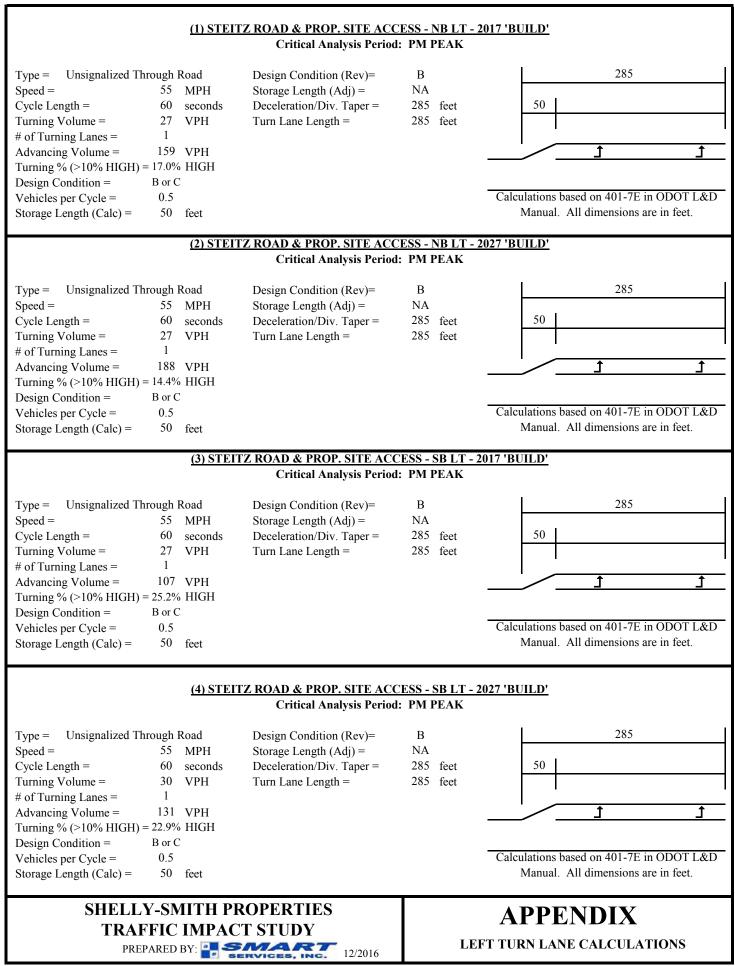
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	1	1	۲.	•	1	۲	eî 🗧		٦	4	
Traffic Volume (vph)	11	982	150	95	456	15	21	13	130	5	47	9
Future Volume (vph)	11	982	150	95	456	15	21	13	130	5	47	9
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4			8		
Detector Phase	2	2	2	1	6	6	4	4		8	8	
Switch Phase												
Minimum Initial (s)	30.0	30.0	30.0	7.0	30.0	30.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	12.0	36.0	36.0	16.0	16.0		16.0	16.0	
Total Split (s)	52.0	52.0	52.0	12.0	64.0	64.0	16.0	16.0		16.0	16.0	
Total Split (%)	65.0%	65.0%	65.0%	15.0%	80.0%	80.0%	20.0%	20.0%		20.0%	20.0%	
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	N 4'	ь <i>4</i> 1	NI	N		N 1	NI	
Recall Mode	Min	Min	Min	None	Min	Min	None	None		None	None	
Act Effct Green (s)	45.5	45.5	45.5 0.59	55.8	54.7	54.7	10.1	10.1		10.1	10.1	_
Actuated g/C Ratio v/c Ratio	0.59 0.02	0.59	0.59	0.73 0.40	0.71	0.71 0.01	0.13	0.13 0.46		0.13 0.03	0.13 0.24	
	0.02 7.5	0.95	1.8	10.2	0.37 5.1		0.13 33.2	12.9		0.03 31.4	30.3	
Control Delay Queue Delay	0.0	34.9	0.0	0.0		0.3	33.Z 0.0	0.0		0.0	30.3 0.0	
Total Delay	0.0 7.5	0.0 34.9	0.0	10.2	0.0 5.1	0.0 0.3	33.2	12.9		0.0 31.4	30.3	
LOS	7.5 A	54.9 C	1.0 A	10.2 B	5.1 A	0.3 A	33.2 C	12.9 B		51.4 C	30.3 C	
Approach Delay	A	30.3	A	D	5.8	A	C	15.5		C	30.4	
Approach LOS		50.5 C			J.0 A			13.3 B			50.4 C	
		C			7			D			C	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 76.9												
Natural Cycle: 80												
Control Type: Actuated-Uncoord	linated											
Maximum v/c Ratio: 0.95												
Intersection Signal Delay: 21.9	00.40/				tersection							
Intersection Capacity Utilization Analysis Period (min) 15	80.4%			IC	CU Level of	Service D						
	tz Road & F	lome Road										]
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64 s

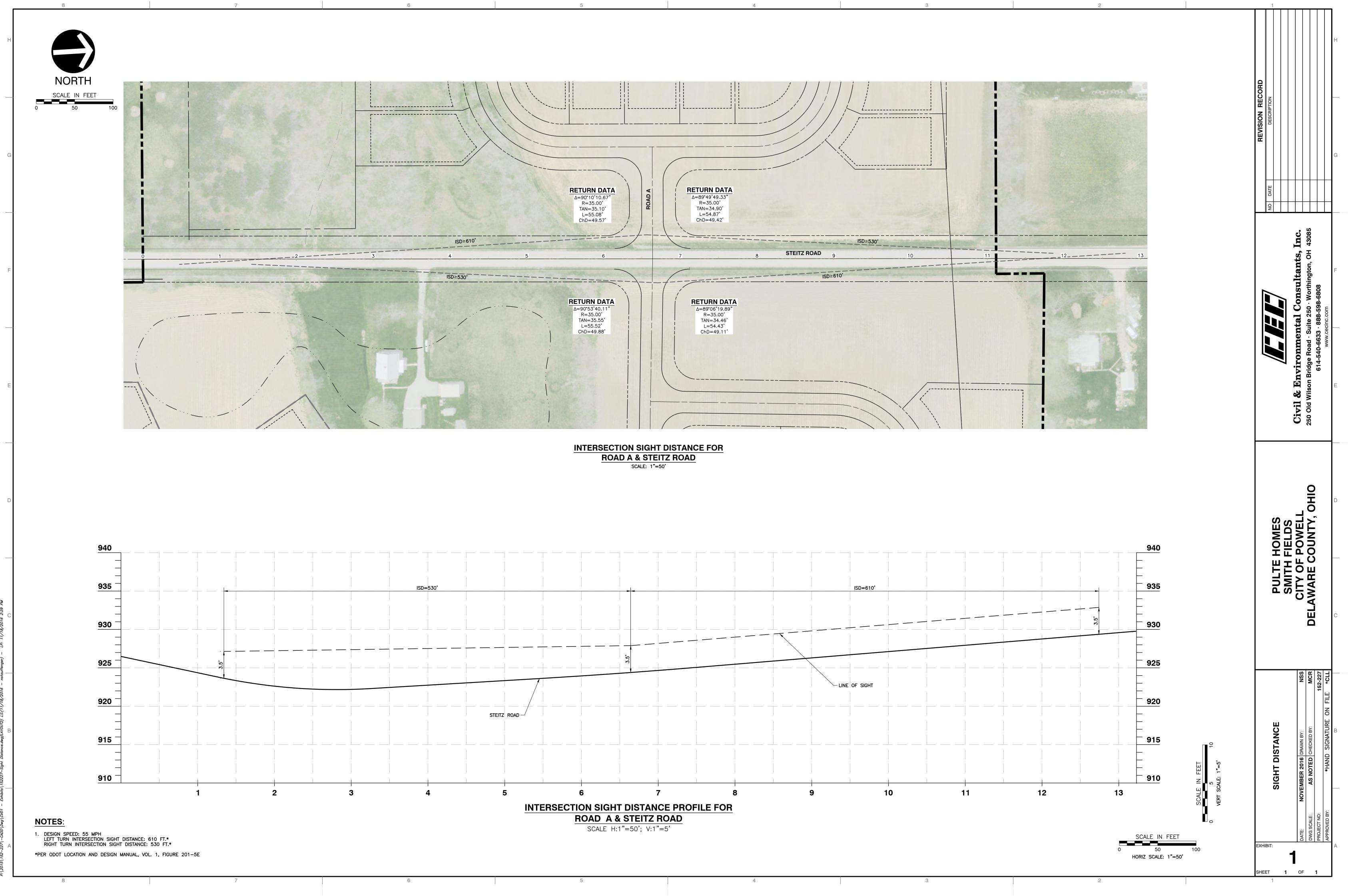
16 s

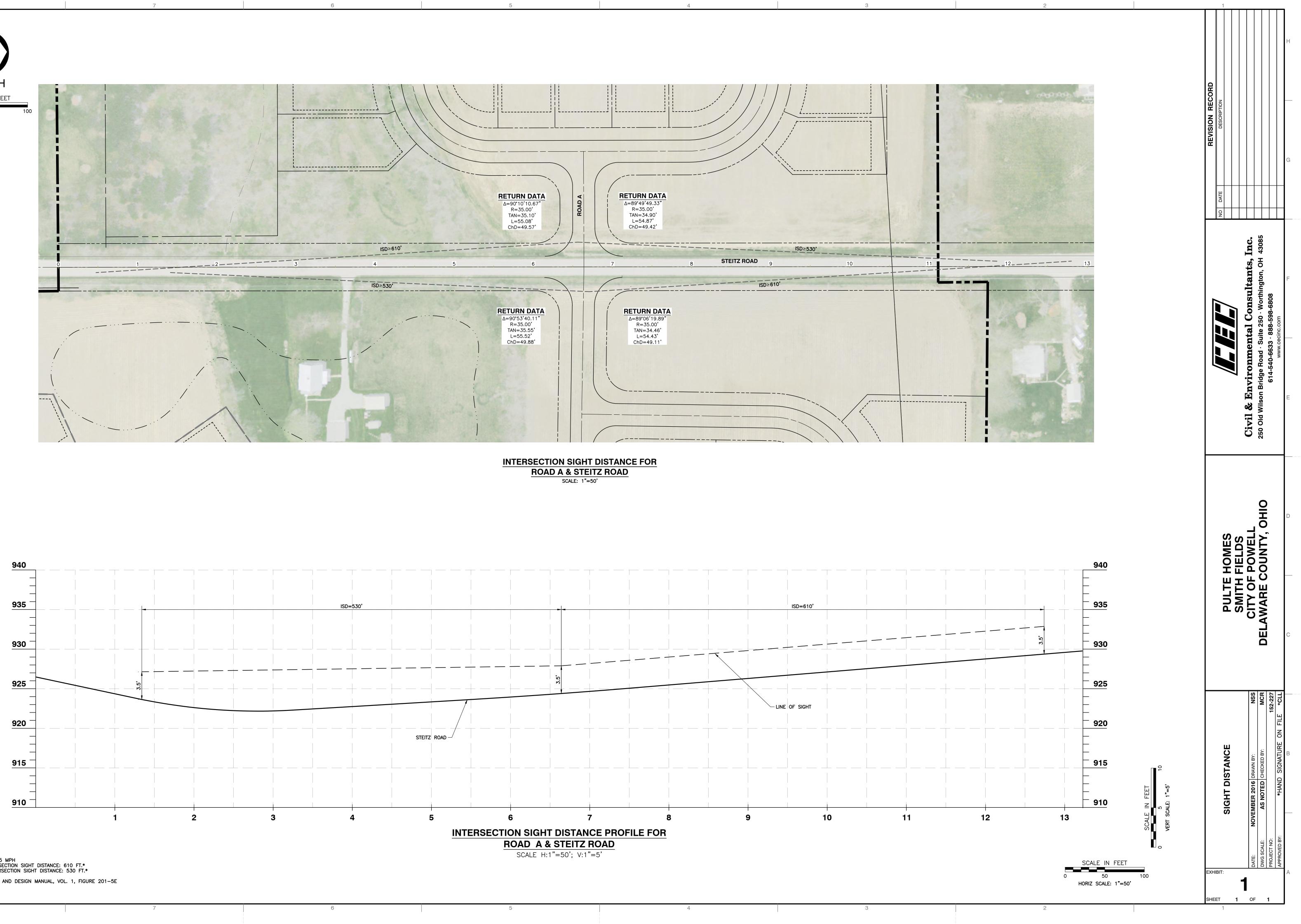
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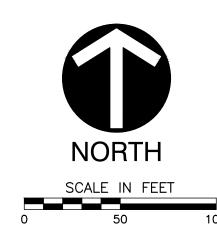
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	1	1	ľ	•	1	۲	et 🗧		۲	ef 🗧	
Traffic Volume (vph)	9	955	60	93	1230	16	57	24	75	7	17	9
Future Volume (vph)	9	955	60	93	1230	16	57	24	75	7	17	9
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	Ŭ	Ŭ	Ū	0	Ū	Ű	Ű	Ū	Ŭ	Ū	Ű
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)		070			070			070			070	
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	renn	2	r ciiii	pm+pt 1	6	renn	r cim	4		renn	8	
Permitted Phases	2	2	2	6	0	6	4	7		8	U	
Detector Phase	2	2	2	1	6	6	4	4		8	8	
Switch Phase	Z	Z	Z	I	0	0	4	4		0	0	
	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0		10.0	10.0	_
Minimum Initial (s)	30.0	30.0	30.0	7.0	30.0	30.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	12.0	36.0	36.0	16.0	16.0		16.0	16.0	
Total Split (s)	52.0	52.0	52.0	12.0	64.0	64.0	16.0	16.0		16.0	16.0	
Total Split (%)	65.0%	65.0%	65.0%	15.0%	80.0%	80.0%	20.0%	20.0%		20.0%	20.0%	_
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.0	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Recall Mode	Min	Min	Min	None	Min	Min	None	None		None	None	
Act Effct Green (s)	49.0	49.0	49.0	57.2	57.9	57.9	10.3	10.3		10.3	10.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.77	0.78	0.78	0.14	0.14		0.14	0.14	
v/c Ratio	0.09	0.80	0.06	0.32	0.87	0.01	0.31	0.35		0.04	0.11	
Control Delay	10.3	21.2	0.6	5.8	18.2	0.3	36.9	16.1		31.6	24.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.3	21.2	0.6	5.8	18.2	0.3	36.9	16.1		31.6	24.9	
LOS	В	С	А	А	В	А	D	В		С	С	
Approach Delay		19.9			17.1			23.7			26.3	
Approach LOS		В			В			С			С	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 74.2												
Natural Cycle: 80												
Control Type: Actuated-Uncoor	rdinated											
Maximum v/c Ratio: 0.87	lanatoa											
Intersection Signal Delay: 18.7				In	tersection	LOS <sup>,</sup> B						
Intersection Capacity Utilization					CU Level of							
Analysis Period (min) 15												
Splits and Phases: 6343: Ste	eitz Road & F	lomo Door	4									
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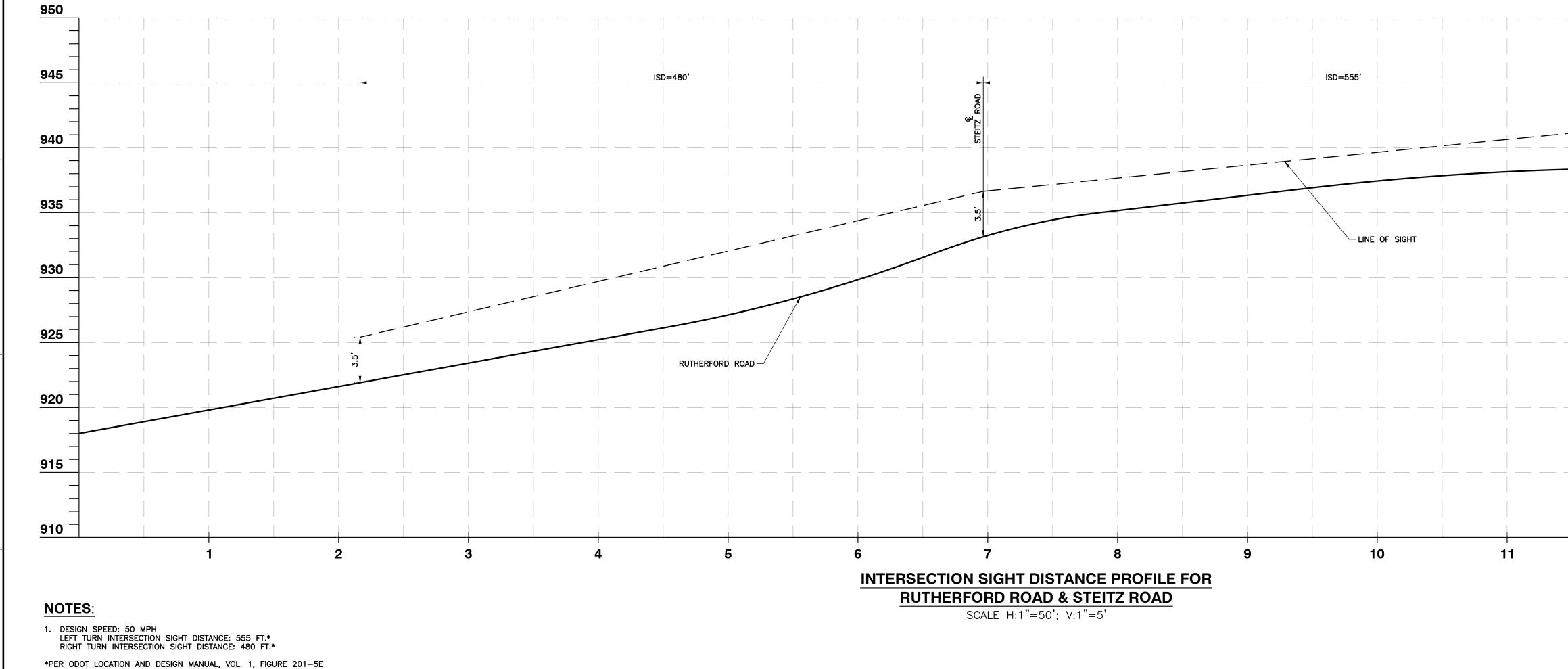
Appendix











INTERSECTION SIGHT DISTANCE FOR RUTHERFORD ROAD & STEITZ ROAD SCALE: 1"=50'

		NO DATE DESCRIPTION				G
			Civil & Environmental Consultants, Inc.	250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085	www.cecinc.com	F
	950 945 945 940 935 935	Ŭ Ŭ Ŭ		DELAWARE COUNTY, OHIO		c
	920 920 915 915 910	SIGHT DISTANCE	NOVEMBER 2016 DRAWN BY: NSS	CHECKED BY: MCR	*HAND SIGNATURE ON FILE *CLL	
13 14	SCALE IN FEET	EXHIBIT:	DATE: 1 OŁ	DWG SCALE: PRO IECT NO:	APPROVED BY:	А