



FISCHER DEVELOPMENT COMPANY  
FISCHER DEVELOPMENT CO. II, INC.  
GRAND COMMUNITIES, LTD.

## **Ferguson Property Preliminary Development Plan Submittal**

**July 26<sup>th</sup>, 2016**

Submitted to: Pierce Township Zoning Commission

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Please find attached our Preliminary Development Plans for the Ferguson Property in fulfillment of the requirements set forth in the Pierce Township Zoning Code.

### **Contents:**

- Preliminary Development Plan
- Survey Plat
- Legal Description
- Adjacent Property Owner's List
- Signed Zoning Application (Evidence of Control)
- Base Map
- Drainage Analysis
- Grading Plan
- Utility Plan
- Traffic Impact Analysis
- Draft HOA articles of incorporation & declaration of covenants, commitments, and restrictions
- Draft Preservation Easement
- Architectural Guidelines

Thank you,

Mark Kinne

*Project Planner*  
Grand Communities Ltd.  
*A Fischer Group Company*



**DEVELOPMENT DATA**

|                           |                             |
|---------------------------|-----------------------------|
| PRESTWICK PLACE AREA:     | 109.547 ACRES               |
| EXISTING USE:             | ONE SINGLE FAMILY RESIDENCE |
| PRESENT ZONING DISTRICT:  | PUD-R DISTRICT              |
| PROPOSED USE:             | SINGLE-FAMILY RESIDENTIAL   |
| PROPOSED ZONING DISTRICT: | PUD-R DISTRICT              |

| AREA ACREAGE | DESCRIPTION       |
|--------------|-------------------|
| A            | 35.72 MANOR       |
| B            | 31.90 VILLAGE     |
| C            | 36.61 OPEN SPACE  |
| D            | 3.24 OPEN SPACE   |
| E            | 0.74 RIGHT-OF-WAY |
| F            | 1.34 RIGHT-OF-WAY |

|                            |                          |
|----------------------------|--------------------------|
| TOTAL RESIDENTIAL UNITS:   | 229                      |
| TOTAL AREA:                | 109.547 ACRES            |
| DENSITY:                   | 2.09 UNITS/ACRE (GROSS)  |
| OWNER OF OPEN SPACE:       | HOME OWNER'S ASSOCIATION |
| MAINTENANCE OF OPEN SPACE: | HOME OWNER'S ASSOCIATION |
| AREA OF OPEN SPACE:        | 39.85 ACRES              |
| PERCENTAGE OF OPEN SPACE:  | 36.38%                   |



- GENERAL NOTES:**
- BOUNDARY BASED UPON RECORDED SURVEYS, DEEDS OF RECORD, AND PUBLIC DOCUMENTS, AND A FIELD SURVEY BY MSP.
  - TOPOGRAPHY OBTAINED FROM MANN MAPPING.

- DENSITY:**
- A MAXIMUM NUMBER OF 229 RESIDENTIAL UNITS (AS PERMITTED IN THE APPROVED CONCEPT PLAN) SHALL BE CONSTRUCTED ON THE PROPERTY, LOCATED IN ACCORDANCE WITH THE TYPE AS SPECIFIED ON THE CONCEPT PLAN.

- HOUSING TYPES:**
- ALL DWELLINGS SHALL BE SINGLE FAMILY DETACHED HOMES WITH STREET, SIDE AND REAR YARDS THAT SIT GENERALLY IN THE MIDDLE OF THE LOT, AS INDICATED ON THE PRELIMINARY PUD PLAN. THE DEVELOPMENT WILL INCLUDE BOTH MANOR AND VILLAGE HOMES. SEE TABLE "A".

- PLAN MODIFICATIONS:**
- ANY DECREASE IN THE NUMBER OF UNITS OR LOTS PROPOSED TO BE CONSTRUCTED WITHIN ANY PARCEL, OR ANY INCREASE IN THE SIZE OF ANY LOT OR UNIT PROPOSED AT THE TIME OF THE FINAL PLAN APPROVAL FOR ANY SECTION OF THE COMMUNITY SHALL NOT BE CONSIDERED AS A CHANGE AS DEFINED IN THE PIERCE TOWNSHIP ZONING CODE. PROVIDED:
- THE GENERAL ROADWAY CIRCULATION PATTERN HAS NOT CHANGED.
  - THE AMOUNT OF OPEN SPACE TO BE INCLUDED IN THE OVERALL DEVELOPMENT DOES NOT FALL BELOW 35% OF THE GROSS PROPERTY ACREAGE (38.34 ACRES).

- PHASING:**
- ALL APPROVALS SHALL BE VALID FOR THREE (3) YEAR INCREMENTS THROUGHOUT THE DEVELOPMENT OF THE PROJECT. EACH APPROVAL OF A FINAL DEVELOPMENT PLAN FOR ANY SECTION OF THE DEVELOPMENT INITIATES THE START OF A NEW THREE YEAR APPROVAL INCREMENT. THE FOLLOWING SCHEDULE IS APPROXIMATE, AND THE DEVELOPER HAS THE ABILITY TO ACCELERATE OR DELAY THE SCHEDULE TO RESPOND TO MARKET CONDITIONS.
    - PHASE 1: DEVELOPMENT AND DELIVERY OF THE FIRST LOTS IN ALL PRODUCT LINES. SPRING/FALL 2018.
    - PHASE 2: DEVELOPMENT AND DELIVERY OF ADDITIONAL LOTS IN ALL PRODUCT LINES. FALL 2019/SPRING 2020. RECREATION CENTER TO BE CONSTRUCTED CONCURRENT WITH DEVELOPMENT OF PHASE 2.
    - PHASE 3: DEVELOPMENT AND DELIVERY OF ADDITIONAL LOTS IN ALL PRODUCT LINES. FALL 2020/FALL 2021.
    - PHASE 4-6: DEVELOPMENT OF ADDITIONAL LOTS ON AN AS-NEEDED BASIS. 2022 THROUGH 2026.

- TRAFFIC:**
- TRAFFIC IMPROVEMENTS ARE NOT REQUIRED AS A RESULT OF THIS PROPOSED DEVELOPMENT AS IDENTIFIED IN THE CHOICE ONE ENGINEERING TRAFFIC STUDY DATED FEBRUARY 17th, 2016.
  - SOFT DISTANCE STUDIES WILL BE COMPLETED FOR THE ENTRIES AT WHITE OAK AND MERWIN TEN MILE ROADS PER THE REQUIREMENTS OF THE CLERMONT COUNTY ENGINEER AS PART OF THE FINAL DEVELOPMENT PLAN.

- RECREATION CENTER, PARK AREAS AND OTHER OPEN SPACE:**
- A MINIMUM OF ONE RECREATIONAL CABANA, POOL, AND TOT LOT SHALL BE PROVIDED FOR THE BENEFIT AND USE OF THE RESIDENTS OF PRESTWICK PLACE. SUCH SERVICES SHALL BE CONSIDERED ACCESSORY TO THE RESIDENTIAL DEVELOPMENT AND MAY INCLUDE SOME BUSINESS SALES (VENDING, SNACK BAR, PHYSICAL EXERCISE CLASSES, AND THERAPY) AS A MINOR USE. SAID BUSINESS SALES SHALL REQUIRE APPROVAL BY THE ZONING COMMISSION.
  - THE RECREATION CENTER, PARK AREAS AND OTHER OPEN SPACE AREAS SHALL BE DEEDED TO A HOMEOWNERS ASSOCIATION WHO WILL BE RESPONSIBLE FOR THE MAINTENANCE OF THESE COMMON AREAS. THE TRANSFER OF THESE AREAS TO THE ASSOCIATION SHALL OCCUR IN PHASES AFTER THEY HAVE BEEN DEVELOPED.
  - DETENTION PONDS MAY BE LOCATED WITHIN THE RECREATION CENTER, PARK AREAS AND OTHER OPEN SPACE AREAS. THE HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF ALL STORMWATER INSTALLATIONS NOT MAINTAINED BY OTHER CLERMONT COUNTY OR PIERCE TOWNSHIP.

**DESIGN STANDARDS**

- THE STANDARDS IN TABLE "A" SHALL APPLY TO ALL UNITS IN THE COMMUNITY.

| LOT WIDTH (W/ BLDG. LINE)                       | MINOR VILLAGE |          | MANOR        |              |
|---|---------------|----------|--------------|--------------|
|   | 40'           | 50'      | 60'          | 80'          |
| MIN. LOT SIZE                                   | 9,600 SF      | 6,000 SF | 9,600 SF     | 9,600 SF     |
| SETBACKS  |               |          |              |              |
| FRONT YARD                                      | 25'           | 25'      | 25'          | 25'          |
| CORNER SIDE YARD                                | 12'           | 12'      | 12'          | 12'          |
| SIDE YARD                                       | 6'/15'        | 5'/12'   | 6'/15'       | 5'/12'       |
| REAR YARD                                       | 25'           | 25'      | 25'          | 25'          |
| MIN. RANCH HOME SIZE (A)                        | 1,800         | 1,400    | 1,800        | 1,800        |
| MIN. TWO-STORY HOME SIZE (B)                    | 2,100         | 1,800    | 2,100        | 2,100        |
| LANDSCAPING (C)                                 |               |          |              |              |
| CANOPY TREE                                     | 1             | 1        | 1            | 1            |
| ORNAMENTAL TREE / EVERGREEN                     | 2             | 0        | 2            | 2            |
| SOIL LIMITS                                     |               |          | FRONT CORNER | FRONT CORNER |
| MIN. ROOF SLOPE                                 | 1/2"          | 1/2"     | 1/2"         | 1/2"         |
| MAX. BUILDING HEIGHT                            | 35'           | 35'      | 35'          | 35'          |
| FRONT LOADING GARAGE (D)                        | NO            | YES      | NO           | YES          |
| CARRIAGE GARAGES SHALL BE CONSIDERED SIDE ENTRY |               |          |              |              |
| MIN. MASONRY (REQUIRED) (E)                     | 50%           | 50%      | 50%          | 50%          |

- SEE TABLE C FOR LISTING OF MASONRY MATERIALS.
- STREET TREES MAY BE PLANTED IN OR ADJACENT TO ALL PUBLIC OR PRIVATE RIGHTS-OF-WAY. THE NUMBER OF STREETS TREES TO BE PLANTED ON EACH SIDE OF THE ROAD SHALL BE DETERMINED BASED ON THE OVERALL STREET SCENE PROPOSED FOR THE PARTICULAR HOUSING TYPE. THE TREES MAY BE REGULARLY SPACED OR GROUPED.
- FENCING ALONG THE OPEN SPACE COMPLYING WITH OBJECTIVES APPROVED BY THE DEVELOPER AND INCLUDED WITHIN THE COVENANTS FOR THIS PROPERTY SHALL BE PERMITTED. THIS FENCING SHALL GENERALLY BE LIMITED TO A MAX HEIGHT OF 42 INCHES. THE DEVELOPER INTENDS TO CONSTRUCT HORSE-PARK TYPE FENCING ALONG CERTAIN AREAS OF EXISTING RIGHTS-OF-WAY AS A PART OF THE COMMUNITY THEME AND TO CREATE AN IDENTITY FOR THE PROJECT, SUBJECT TO APPROVALS FROM REGULATING AGENCIES.
- THE GENERAL CONCEPT FOR STORMWATER MANAGEMENT IS TO DIRECT DRAINAGE TO EXISTING AND PROPOSED LAKES AND PONDS. WHEN SUCH RESERVOIRS FOR IRRIGATION WATER OR WELL RETENTION BASINS FOR THE CONTROL OF RUN-OFF WHERE POSSIBLE. STORMWATER WILL BE DIRECTED TO THESE BASINS FROM THE CONTOUR OF THE NATURAL DRAINAGE PATTERN IS REQUIRED IN ORDER TO PROVIDE AN ABUNDANT VOLUME OF STORED WATER AS WELL AS TO PROVIDE A QUICK RELEASE OF THE RESERVES. THE CONTROL STRUCTURE FOR THE DOWNSTREAM FLOW OF THESE FACILITIES WILL BE DESIGNED TO CONFORM TO THE RULES AND REGULATIONS OF CLERMONT COUNTY FOR THE CONTROL OF STORMWATER DISCHARGES AND EROSION CONTROL.
- PERMANENT ENTRY IDENTIFICATION AT THE ENTRANCES FROM THE MAIN INTERNAL ROADS TO DEVELOPMENT PARCELS IS TO BE PROVIDED CONSISTENT WITH THE OVERALL THEME OF THE COMMUNITY.
- PROJECT IDENTIFICATION SIGNAGE MAY BE PROVIDED ALONG MAIN ROADWAYS ALONG THE PERIMETER OF THE PROJECT, AND FOR INDIVIDUAL NEIGHBORHOODS INTERNAL TO THE COMMUNITY. SIGNS SHALL NOT EXCEED 200 SQFT PER FACE WITH TWO FACES MAXIMUM PER LOCATION.
- A COORDINATED AND UNIFIED STREET SIGNAGE AND LIGHTING STANDARD WILL BE USED THROUGHOUT THE PROJECT.
- ROADWAY LIGHTING ON INTERSECTIONS AND PEDESTRIAN CROSSINGS SHALL BE DESIGNED BY THE LOCAL SERVICE PROVIDER.
- AS SHOWN SCHEMATICALLY ON THE PRELIMINARY PUD PLAN, THE DEVELOPER WILL CONSTRUCT A PAVED HIKER/BIKER TRAIL ALONG WHITE OAK AND TEN MILE ROADS. THE HIKER/BIKER TRAIL WILL BE A MINIMUM OF 5' X (8) FEET IN WIDTH, INTEGRATED INTO THE LANDSCAPE BUFFER YARD, AND PLACED WITHIN A 12' EASEMENT FOR CONSTRUCTION AND MAINTENANCE PURPOSES WHERE THE TRAIL IS OUTSIDE PUBLIC RIGHT-OF-WAY. THIS TRAIL WILL CONNECT WITH A FUTURE EXTENSION OF THE (LEGENDARY RUN) TRAIL AND THE PROPOSED AMENITY CENTER. THE TRAIL THROUGH OPEN SPACE AREAS SHALL BE DETERMINED DURING CONSTRUCTION THROUGH OPEN SPACE AREAS SHALL BE DETERMINED THROUGH OPEN SPACE AREAS THROUGH OPEN SPACE AREAS TO ACCOMMODATE AN AESTHETIC PLACEMENT TAKING INTO ACCOUNT TOPOGRAPHIC AND VEGETATIVE FEATURES.
- SIDEWALKS ARE REQUIRED ON BOTH SIDES OF ALL PUBLIC STREETS EXCEPT WHERE THE HIKER/BIKER TRAIL IS LOCATED. NO SIDEWALKS ARE REQUIRED ON THE OPPOSITE SIDE OF THE STREET WHERE THE HIKER/BIKER TRAIL IS LOCATED.
- SIDEWALKS SYSTEM IS TO CONNECT TO THE HIKER/BIKER TRAIL.
- 20' BUFFERBARS SHALL BE REQUIRED ALONG THE ENTIRE PERIMETER OF THE PUD. THIS BUFFERBAR SHALL BE PLANTED AS REQUIRED IN SECTION 10.05 PARAGRAPH 4A OR 4B OF THE PIERCE TOWNSHIP ZONING CODE. DETAILED LANDSCAPING PLANS WILL BE PROVIDED AT THE FINAL DEVELOPMENT PLAN STAGE.
- UNDERGROUND CABLE, ELECTRIC, SANITARY SEWER, TELEPHONE AND WATER MAINS TO BE INSTALLED TO SERVE THIS PLANNED UNIT DEVELOPMENT.
- CURBS WILL BE USED THROUGHOUT THE PUBLIC STREETS OF THE COMMUNITY.
- THERE SHALL BE "ON STREET PARKING" ON ONLY ONE SIDE OF THE PUBLIC STREETS AS DISCUSSED, WITH NO PARKING BEING POSTED ON THE FIRE HYDRANT SIDE OF THE STREET.

| NATURAL RESOURCE              | PRESERVATION REQ. | PERCENTAGE - ACTUAL |
|-------------------------------|-------------------|---------------------|
| FLOODPLAINS (DEFINED BY FEMA) | 100.00%           | NONE ON SITE        |
| WETLANDS                      | PER ACOE/DEPA     | 0.00%               |
| UNSTABLE SLOPES               | 90.00%            | 71.92%              |
| STEEP SLOPES (30% OR MORE)    | 85.00%            | 87.85%              |
| STEEP SLOPES (20% TO 30%)     | 70.00%            | 78.73%              |
| YOUNG WOODLAND                | 25.00%            | N/A                 |
| MID-GROWTH WOODLAND           | 40.00%            | N/A                 |
| MATURE WOODLAND               | 50.00%            | 57.70%              |

\* BASED ON TABLE 7.04-3, RESOURCE PROTECTION STANDARDS IN PIERCE TOWNSHIP ZONING RESOLUTION.

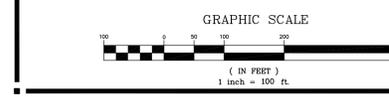
**PRESTWICK PLACE  
SITE PLAN**  
PIERCE TOWNSHIP  
CLERMONT COUNTY, OHIO

**MSP** McGill Smith Punshon, Inc.  
3700 Park 42 Drive - Suite 1908  
Cincinnati, Ohio 45241-2097  
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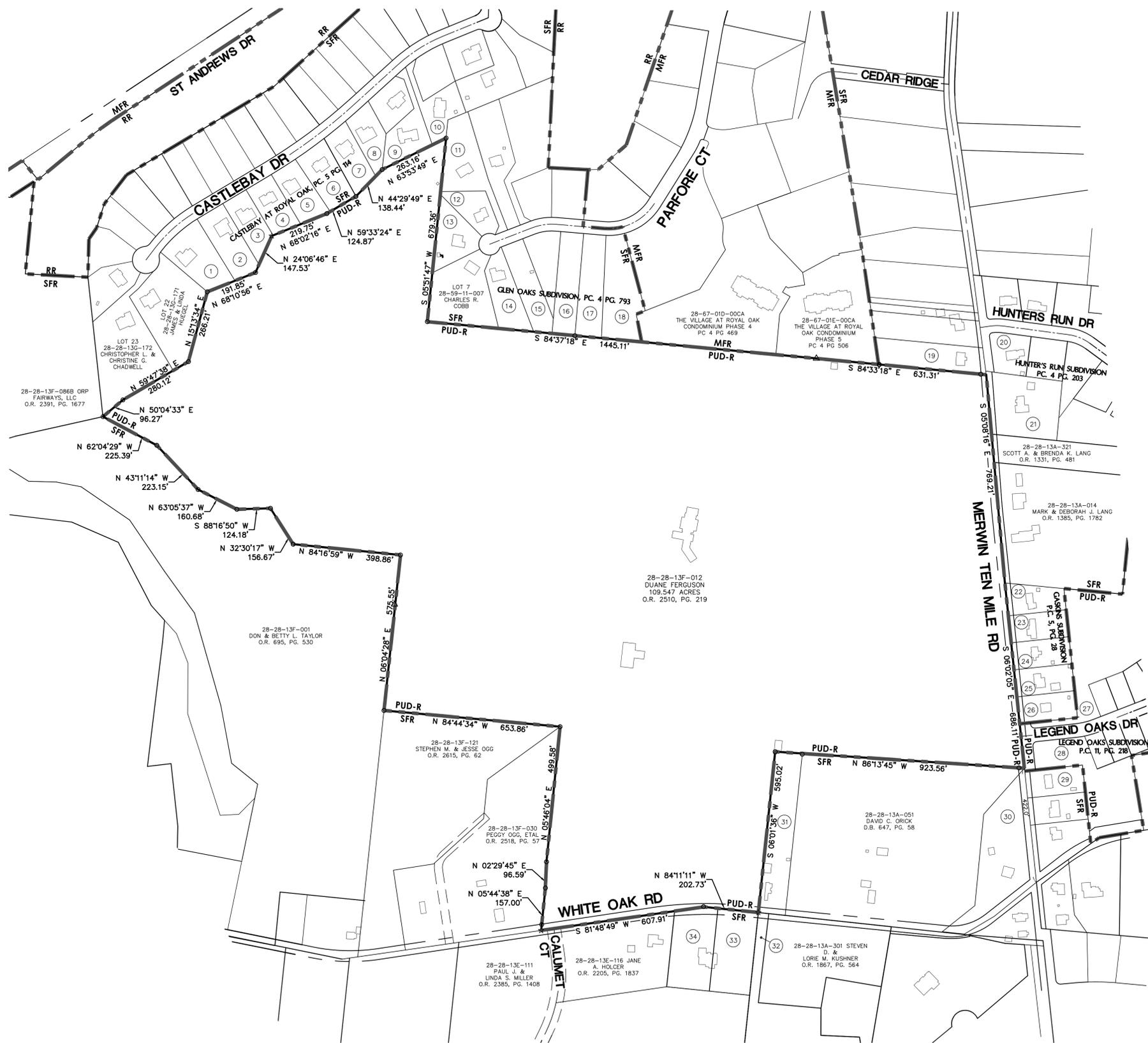
Engineers • Architects • Surveyors • Landscape Architects • Planners

Revision: \_\_\_\_\_ By: \_\_\_\_\_ Date: \_\_\_\_\_

Drawn By: STG | Date: 07/01/16 | Project No.: 00414.02 | Sheet No.: 1/1  
Project Mgr.: RA | Scale: 1"=100' | Points D.B.: 00414.02  
CAD: 00414014-GIS-00 | X-Ref.: Ferguson - Concept Plan 2015-12-08 | File No.: 00-41



McGill Smith Punshon, Inc. 3700 Park 42 Drive - Suite 1908 Cincinnati, Ohio 45241-2097 Tel 513.759.0004 • Fax 513.563.7099 www.mcgillsmithpunshon.com



NOTES:  
 BEARINGS BASED ON WGS84, GEOID 12A, GROUND SCALE FACTOR 1.0000828473  
 BOUNDARY BASED ON A SURVEY BY MCGILL SMITH PUNSHON, INC., OF WHICH THE FIELDWORK WAS COMPLETED ON MAY 3, 2016.  
 PLAT BASED ON DEEDS & PLATS OF RECORD NOTED HEREON AND IS THE RESULT OF A FIELD SURVEY COMPLETED ON MAY 3, 2016 BY MCGILL SMITH PUNSHON, INC. UNDER THE DIRECTION OF BRIAN JIMISON, OHIO REGISTRATION No. 8706.  
 EASEMENTS SHOWN HEREON WERE DISCOVERED DURING THE COURSE OF RESEARCH OF PUBLIC RECORDS AND MAY NOT COMPRISE ALL OF THE EASEMENTS AND/OR ENCUMBRANCES AFFECTING THE SUBJECT PROPERTY.



**GENERAL NOTES**

EXISTING ZONE: PUD-R (PLANNED RESIDENTIAL USE)  
 109.547 ACRES

**OWNER**

DUANE FERGUSON  
 4263 IVY POINTE BLVD.  
 CINCINNATI, OHIO 45245

**APPLICANT**

GRAND COMMUNITIES LIMITED  
 3940 OLYMPIC BOULEVARD, SUITE 100  
 ERLANGER, KENTUCKY 41018  
 PH: 859-341-4709



| REFERENCE | ADJOINING OWNERS                          | LOT PARCEL ID    | RECORDING INFO.     |
|-----------|---|------------------|---------------------|
| 1         | MARY C. LONGBOTTOM                        | 21 28-28-130-170 | P.C. 5, PG. 114     |
| 2         | STEVEN & CYNTHIA DREFAHL                  | 20 28-28-130-169 | P.C. 5, PG. 114     |
| 3         | SCOTT & KRISTA A. MOSCHEL                 | 19 28-28-130-168 | P.C. 5, PG. 114     |
| 4         | DONALD & MARY JOHNS                       | 18 28-28-130-167 | P.C. 5, PG. 114     |
| 5         | AARON C. & HEATHER L. MOLES               | 17 28-28-130-166 | P.C. 5, PG. 114     |
| 6         | JAMES A. & KRISTIE A. EARL                | 16 28-28-130-165 | P.C. 5, PG. 114     |
| 7         | LAVONNE E. & LESLIE NOMELAND, TR.         | 15 28-28-130-164 | P.C. 5, PG. 114     |
| 8         | CHARLES W. LANE, TR.                      | 14 28-28-130-163 | P.C. 5, PG. 114     |
| 9         | SAMUEL A. & JEANETTE E. SCOTT, III        | 12 28-28-130-161 | P.C. 5, PG. 114     |
| 10        | CHARLES & CARLETTA JOHNSTON               | 11 28-28-130-160 | P.C. 5, PG. 114     |
| 11        | BRUCE W. & BONITA R. LUNAFELTER           | 10 28-59-11-010  | P.C. 4, PG. 793     |
| 12        | ROBERT & MIKL GABBARD                     | 9 28-59-11-009   | P.C. 4, PG. 793     |
| 13        | JUDY K. BUCHANAN-HEWITT & DAVID A. HEWITT | 8 28-59-11-008   | P.C. 4, PG. 793     |
| 14        | MICHAEL A. GRANT                          | 6 28-59-11-006   | P.C. 4, PG. 793     |
| 15        | TODD & ALECIA GRAVES                      | 5 28-59-11-005   | P.C. 4, PG. 793     |
| 16        | JAMES & BRENDA J. RENFROE, JR.            | 3 28-59-11-003   | P.C. 4, PG. 793     |
| 17        | ROBERT B. & TAMARA G. CORRELL             | 2 28-59-11-002   | P.C. 4, PG. 793     |
| 18        | LISA & JEREMY SNIDER & PATRICIA SHELTON   | 1 28-59-11-001   | P.C. 4, PG. 793     |
| 19        | HOLLY HOLBROOK & ANDREW FARWICK           | 28-28-130-052    | O.R. 2533, PG. 1909 |
| 20        | THOMAS & THERESA APPLEGATE                | 28-57-13-001     | P.C. 4 PG. 203      |
| 21        | THOMAS A. & MARGARET N. FITE              | 28-28-130-027    | O.R. 1501, PG. 1314 |
| 22        | ALLISON L. KELCH                          | 28-28-13A-064    | O.R. 2036, PG. 1209 |
| 23        | JEFFREY C. SCHMIDT                        | 28-28-13A-067    | O.R. 2222, PG. 352  |
| 24        | ROBERT DAMERON                            | 28-28-13A-069    | O.R. 1310, PG. 2436 |
| 25        | BRENT H. JOHNSON                          | 28-28-13A-071    | O.R. 2630, PG. 1083 |
| 26        | RONALD E. THIEL                           | 28-45-13-005     | O.R. 1068, PG. 560  |
| 27        | LEGEND OAKS OWNERS ASSOCIATION            | 59 28-2813A-382  | P.C. 13, PG. 251    |
| 28        | LEGEND OAKS OWNERS ASSOCIATION            | 57 28-2813A-378  | P.C. 11, PG. 218    |
| 29        | SARAH MARIE LAWS                          | 28-45-13-007     | O.R. 2566, PG. 1552 |
| 30        | GREGORY T. BRESSER                        | 28-28-13A-011    | O.R. 2498, PG. 172  |
| 31        | DAVID C. ORICK                            | 28-28-13A-106    | O.R. 2212, PG. 1295 |
| 32        | PAMELA DAVIS FRENCH                       | 28-28-13A-380    | O.R. 1867, PG. 567  |
| 33        | ROBERTA WARD                              | 28-28-13E-124    | R.L. 9180-001066    |
| 34        | ROBERTA WARD                              | 28-28-13E-125    | R.L. 9181-001067    |

**PLAT OF SURVEY**  
 SUPPLEMENT TO PRELIMINARY DEVELOPMENT PLAN  
 NOT FOR RECORDING  
**109.547 ACRES**  
 EDDIN'S M.S. NO. 1366  
 PIERCE TOWNSHIP, CLERMONT COUNTY, OHIO

**McGill Smith Punshon, Inc.**  
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Engineers • Architects • Surveyors • Landscape Architects • Planners

Drawn By: BJ Date: JUNE 22, 2016 Project No.: 00414.02 Sheet No.: 1/1  
 Project Mgr.: RJA Scale: 1" = 200' Points D.B.: 00414  
 CAD: 004140233-ZON-JUNE-2016 X-Ref.: N/A File No.: 00414

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**DESCRIPTION FOR: Grand Communities Limited**

**LOCATION: 3645 Merwin Ten Mile Road  
109.547 Acres**

**EXISTING ZONING "PUD-R"  
(Planned Residential Use)**

Situate in Eddin's Military Survey No. 1366, Pierce Township, Clermont County, Ohio and being the lands conveyed to Duane Ferguson by deed recorded in O.R. 2510, Page 219, Clermont County, Ohio Recorder's Office and more particularly described as follows:

Beginning a point in the centerline of Merwin Ten Mile Road, said point also being the northeast corner of the lands conveyed to David C. Orick in Deed Book 647, Page 58, Clermont County, Ohio Recorder's Office, and lies northerly 422.0 feet from the centerline intersection of said Merwin Ten Mile Road and White Oak Road;

Thence, with the north line of said Orick and the north line of the lands conveyed to David C. Orick in O.R. 2212, Page 1295, Clermont County, Ohio Recorder's Office, North  $86^{\circ}13'45''$  West, passing an existing  $5/8''$  iron pin at 20.30 feet, a total distance of 923.56 feet to an existing  $5/8''$  iron pin;

Thence with the west line of said Orick lands, South  $06^{\circ}01'36''$  West, passing a 1" bolt at 573.97, a total distance of 595.02 feet to an existing mag nail in the centerline of White Oak Road;

Thence, with said centerline, North  $84^{\circ}11'11''$  West, 202.73 feet to a point witnessed by an existing bent  $5/8''$  iron pin lying 1.0' north and 1.0' west and South  $81^{\circ}48'49''$  West, 607.91 feet to an existing mag nail at the southeast corner of the lands conveyed to Peggy Ogg, etal in Official Record 2518, Page 57, Clermont County, Ohio Recorder's Office;

Thence, with the east lines of said lands, the following three (3) courses and distances;

1. North  $05^{\circ}44'38''$  East, passing an existing  $5/8''$  iron pin at 21.67 feet, a total distance of 157.00 feet to an existing  $5/8''$  iron pin;
2. North  $02^{\circ}29'45''$  East, 96.59 feet to an existing  $5/8''$  iron pin;
3. North  $05^{\circ}46'04''$  East, 499.58 feet to an existing  $5/8''$  iron pin at the northeast corner of the lands conveyed to Stephen M. and Jesse Ogg in Official Record 2615, Page 62, Clermont County, Ohio Recorder's Office;



Thence, with the north line of said lands, North 84°44'34" West, 653.86 feet to an existing 5/8" iron pin in the east line of the lands conveyed to Don and Betty L. Taylor in Official Record 695, Page 530, Clermont County, Ohio Recorder's Office;

Thence, with the lines of said lands the following seven (7) courses and distances;

1. North 06°04'28" East, 575.55 feet to an existing 5/8" iron pin;
2. North 84°16'59" West, 398.86 feet to an existing 5/8" iron pin;
3. North 32°30'17" West, 156.67 feet to an existing 5/8" iron pin;
4. South 88°16'50" West, 124.18 feet to an existing 5/8" iron pin;
5. North 63°05'37" West, 160.68 feet to an existing 5/8" iron pin;
6. North 43°11'14" West, 223.15 feet to an existing 5/8" iron pin;
7. North 62°04'29" West, 225.39 feet to an existing 5/8" iron pin at the southwest corner of Lot 23, Castlebay at Royal Oak Subdivision as recorded in Plat Cabinet 5, Page 114, Clermont County, Ohio Recorder's Office;

Thence, with the southeasterly lines of said Subdivision the following nine (9) courses and distances;

1. North 50°04'33" East, 96.27 feet to an existing 5/8" iron pin;
2. North 59°47'38" East, 280.12 feet to an existing 5/8" iron pin;
3. North 15°13'34" East, 266.21 feet to an existing 5/8" iron pin;
4. North 68°10'56" East, 191.85 feet to an existing 5/8" iron pin;
5. North 24°06'46" East, 147.53 feet to an existing mag nail in the base of a tree;
6. North 68°02'16" East, 219.75 feet to an existing 5/8" iron pin;
7. North 59°33'24" East, 124.87 feet to a point witnessed by an existing bent 5/8" iron pin lying 0.3 feet south and 0.2 feet west;
8. North 44°29'49" East, 138.44 feet to an existing 5/8" iron pin;
9. North 63°53'49" East, 263.16 feet to an existing 5/8" iron pin in the west line of Lot 10, Glen Oaks Subdivision as recorded in Plat Cabinet 4, Page 793, Clermont County, Ohio Recorder's Office;

Thence, with the west line of said subdivision, South 05°51'47" West, 679.36 feet to an existing 1/2" iron pin at the southwest corner of Lot 7 of said subdivision;

Thence, with the south line of said subdivision and the south line of The Village at Royal Oak Condominium Phase 4, as recorded in Plat Cabinet 4, Page 469 and the south line of The Village at Royal Oak Condominium Phase 5, as recorded in Plat Cabinet 4, Page 506, Clermont County, Ohio Recorder's Office, South 84°37'18" East, 1445.11 feet to an existing stone;



Thence, continuing with the south line of said Phase 5 and the south line of the lands conveyed to Holly Holbrook and Andrew Farwick in Official Record 2533, Page 1909, Clermont County, Ohio Recorder's Office, South 84°33'18" East, passing an existing 5/8" iron pin at 610.96 feet, a total distance of 631.31 feet to a point in the centerline of aforesaid Merwin Ten Mile Road;

Thence, with said centerline, South 05°08'16" East, 769.21 feet to a point and South 06°02'05" East, 686.11 feet to the point of beginning.

Containing 109.547 acres of land.

Subject to all legal highways, easements and restrictions of record.

I hereby certify that the above description is a complete and proper legal description of the property herein. The above description is based on existing deeds and plats of record and is the result of a field survey completed on May 3, 2016 by McGill Smith Punshon, Inc. under the direction of Brian Jimison, Ohio Registration No. 8706.

Prepared by: McGill Smith Punshon, Inc.

Date: June 22, 2016

MSP No.: 00414.02

00414023-ZON-109.547 Acres



## NEIGHBORING PROPERTY OWNERS

List all property owners within two-hundred (200) feet of the subject property:

| Property Owner              | Property Address        | Mailing Address if Different  | City, State, Zip Code |
|-----------------------------|-------------------------|-------------------------------|-----------------------|
| FRECH PAMELA DAVIS          | 1087 WHITE OAK RD       | 1087 WHITE OAK RD             | CINCINNATI OH 45245   |
| WARD ROBERTA                | WHITE OAK RD            | 1073 WHITE OAK RD             | CINCINNATI OH 45245   |
| FERGUSON DUANE              | 3645 MERWIN TEN MILE RD | 4263 IVY POINTE BOULEVARD     | CINCINNATI OH 45245   |
| OGG PEGGY ETAL              | 1044 WHITE OAK RD       | 4803 FLINTLOCK DR             | CINCINNATI OH 45244   |
| HOLBROOK HOLLY &            | 3673 MERWIN TEN MILE RD | 3673 MERWIN TEN MILE RD       | CINCINNATI OH 45245   |
| JOHNSTON CHARLES A &        | CASTLEBAY DR            | 994 CASTLEBAY DR              | CINCINNATI OH 45245   |
| MOSCHEL SCOTT & KIRSTI      | 866 CASTLEBAY DR        | 866 CASTLEBAY DR              | CINCINNATI OH 45245   |
| GABBARD ROBERT W & MIKL L   | 3567 PARFORE CT         | 3567 PARFORE CT               | CINCINNATI OH 45245   |
| DAMERON ROBERT              | 3632 MERWIN TEN MILE RD | 3632 MERWIN TEN MILE RD       | CINCINNATI OH 45245   |
| LANG SCOTT A & BRENDA K     | MERWIN TEN MILE RD      | 6600 TIMBER MEADOWS CT        | MASON OH 45040        |
| FITE THOMAS A & MARGARET N  | 3668 MERWIN TEN MILE RD | 3668 MERWIN TEN MILE RD       | CINCINNATI OH 45245   |
| LEMING JOHN & KAREN         | 3677 MERWIN TEN MILE RD | 5 STURBRIDGE DR               | COLD SPRINGS KY 41076 |
| JOHNSTON CHARLES A &        | 994 CASTLEBAY DR        | 994 CASTLEBAY DR              | CINCINNATI OH 45245   |
| CHADWELL CHRISTOPHER        | 844 CASTLEBAY DR        | 844 CASTLEBAY DRIVE           | CINCINNATI OH 45245   |
| THIEL RONALD E              | 3620 MERWIN TEN MILE RD | 3620 MERWIN TEN MILE RD       | CINCINNATI OH 45245   |
| RENFROE JAMES JR & BRENDA J | 3588 PARFORE CT         | 966 LOST XING                 | CINCINNATI OH 45231   |
| KONIECZKA BRANDON           | 3575 PARFORE CT         | 3575 PARFORE CT               | CINCINNATI OH 45245   |
| ORICK DAVID C               | 1098 WHITE OAK RD       | 1098 WHITE OAK ROAD           | CINCINNATI OH 45245   |
| SCHMIDT JEFFREY C           | 3634 MERWIN TEN MILE RD | 3634 MERWIN TEN MILE RD       | CINCINNATI OH 45245   |
| LEGEND OAKS HOA             | WHITE OAK RD            | 11340 MONTGOMERY RD SUITE 202 | CINCINNATI OH 45249   |
| HOLCER JANE A               | 1065 WHITE OAK RD       | 1065 WHITE OAK RD             | CINCINNATI OH 45245   |
| CALLAHAN FRANCES & SHERRILL | 1074 CASTLEBAY DR       | 1074 CASTLEBAY DR             | CINCINNATI OH 45245   |

## NEIGHBORING PROPERTY OWNERS

List all property owners within two-hundred (200) feet of the subject property:

| Property Owner                | Property Address        | Mailing Address if Different | City, State, Zip Code      |
|-------------------------------|-------------------------|------------------------------|----------------------------|
| MOLES AARON C &               | 874 CASTLEBAY DR        | 874 CASTLEBAY DRIVE          | CINCINNATI OH 45245        |
| HUEGEL JAMES E & LINDA J      | 848 CASTLEBAY DR        | 848 CASTLEBAY DR             | CINCINNATI OH 45245        |
| CORRELL ROBERT B & TAMARA G   | 3592 PARFORE CT         | 3592 PARFORE COURT           | CINCINNATI OH 45245        |
| GRANT MICHAEL A               | 3572 PARFORE CT         | 3572 PARFORE CT              | CINCINNATI OH 45245        |
| COBB CHARLES R                | 3568 PARFORE CT         | 3568 PARFORE CT              | CINCINNATI OH 45245        |
| BUCHANAN HEWITT JUDY K &      | 3563 PARFORE CT         | 3563 PARFORE COURT           | CINCINNATI OH 45245        |
| VILL AT ROYAL OAK CONDO       | CEDAR RIDGE DR          | NO ADDRESS                   |                            |
| ORICK DAVID                   | 1076 WHITE OAK RD       | 1098 WHITE OAK RD            | CINCINNATI OH 45245        |
| MILLER PAUL J &               | 1061 WHITE OAK RD       | 1061 WHITE OAK ROAD          | CINCINNATI OH 45245        |
| LINAFELTER BRUCE W & BONITA R | 3571 PARFORE CT         | 3571 PARFORE CT              | CINCINNATI OH 45245        |
| VILL AT ROYAL OAK CONDO       | CEDAR RIDGE DR          | NO ADDRESS                   |                            |
| VILL AT ROYAL OAK CONDO       | CEDAR RIDGE DR          | NO ADDRESS                   |                            |
| COURY GARY K & BEVERLY S      | 987 -2 CEDAR RIDGE DR   | 3744 FALLEN TREE WAY         | AMELIA OH 45102            |
| US BANK NATIONAL ASSOCIATION  | 3626 MERWIN TEN MILE RD | 200 SOUTH SIXTH ST           | SOUTH MINNEAPOLIS MN 55402 |
| DAVIES EDWIN I & LOIS J       | 888 CASTLEBAY DR        | 888 CASTLEBAY DRIVE          | CINCINNATI OH 45245        |
| NOMELAND LAVONNE E            | 882 CASTLEBAY DR        | 882 CASTLEBAY DR             | CINCINNATI OH 45245        |
| JOHNS DONALD D &              | 870 CASTLEBAY DR        | 870 CASTLEBAY DRIVE          | CINCINNATI OH 45245        |
| THORNTON SAMUEL & ERIN        | 3604 MERWIN TEN MILE RD | 3604 MERWIN TEN MILE RD      | CINCINNATI OH 45245        |
| M I HOMES OF CINCINNATI LLC   | LEGEND OAKS DR          | 9349 WATERSTONE BLVD STE 100 | CINCINNATI OH 45249-8324   |
| SCOTT SAMUEL A & JEANETTE E   | 992 CASTLEBAY DR        | 992 CASTLEBAY DR             | CINCINNATI OH 45245        |
| LAWS SARAH MARIE              | 3610 MERWIN TEN MILE RD | 3610 MERWIN TEN MILE RD      | CINCINNATI OH 45245        |
| MASSARI DONALD J JR           | 3584 PARFORE CT         | 3584 PARFORE CT              | CINCINNATI OH 45245        |

## NEIGHBORING PROPERTY OWNERS

List all property owners within two-hundred (200) feet of the subject property:

| Property Owner               | Property Address        | Mailing Address if Different | City, State, Zip Code |
|------------------------------|-------------------------|------------------------------|-----------------------|
| GRAVES TODD A & ALICIA M     | 3576 PARFORE CT         | 3576 PARFORE CT              | CINCINNATI OH 45245   |
| BRESSER GREGORY T            | 3597 MERWIN TEN MILE RD | 3597 MERWIN TEN MILE RD      | CINCINNATI OH 45245   |
| LANG MARK & DEBORAH J        | 3646 MERWIN TEN MILE RD | 3646 MERWIN TEN MILE RD      | CINCINNATI OH 45245   |
| MULVANEY ALLISON L           | 3638 MERWIN TEN MILE RD | 3638 MERWIN TEN MILE RD      | CINCINNATI OH 45245   |
| KUSHNER STEVEN D & LORIE M   | WHITE OAK RD            | 1095 WHITE OAK RD            | CINCINNATI OH 45245   |
| TAYLOR DON & BETTY L         | WHITE OAK RD            | 986 WHITE OAK ROAD           | CINCINNATI OH 45245   |
| ORP FAIRWAYS LLC             | 380 ST ANDREWS DR       | 500 LAKE COOK RD             | DEERFIELD IL 60015    |
| LANE CHARLES W               | 886 CASTLEBAY DR        | 886 CASTLEBAY DR             | CINCINNATI OH 45245   |
| EARL JAMES A & KRISTIE A     | 878 CASTLEBAY DR        | 878 CASTLEBAY DR             | CINCINNATI OH 45245   |
| DREFAHL STEVEN P & CYNTHIA L | 862 CASTLEBAY DR        | 862 CASTLEBAY DR             | CINCINNATI OH 45245   |
| LONGBOTTOM MARY C            | 852 CASTLEBAY DR        | 852 CASTLEBAY DR             | CINCINNATI OH 45245   |
| APPLEGATE THOMAS & THERESA   | 1109 HUNTERS RUN DR     | 1109 HUNTERS RUN DR          | AMELIA OH 45102       |
| JALLAQ MUSA & NAVART         | 1113 HUNTERS RUN DR     | 1113 HUNTERS RUN DRIVE       | AMELIA OH 45102       |
| WARD ROBERTA                 | 1073 WHITE OAK RD       | 1073 WHITE OAK RD            | CINCINNATI OH 45245   |
| SNIDER LISA & JEREMY         | 3596 PARFORE CT         | 3596 PARFORE CT              | CINCINNATI OH 45245   |

**BOARD OF TRUSTEES**

Bonnie J. Batchler  
Robert W. Pautke  
Allen M. Freeman

**Fiscal Officer**

Debbie S. Schwey

**Administrator**

Timothy P. Hershner



950 Locust Corner Road  
Cincinnati, Ohio 45245

(513) 752.6262  
Fax # (513) 752.8418  
[www.piercetownship.org](http://www.piercetownship.org)

**APPLICATION FOR ZONING AMENDMENT**

APPLICATION NUMBER: \_\_\_\_\_

NAME OF APPLICANT: Grand Communities, Ltd. c/o Jason Wisniewski

MAILING ADDRESS: 3940 Olympic Blvd., Erlanger, KY 41018

PHONE: 859-344-3136 FAX NUMBER: N/A

EMAIL: jwisniewski@fischerhomes.com

If agent, please explain relationship (architect, lawyer): Developer

Request zone change from: SFR to PUD

Total Area: 109.533 Acres

Addresses of property (if assigned): 3645 Merwin Ten Mile Road

List current owner of record, deed book and page and Auditor's parcel number of each parcel:

1. Owner - Duane Ferguson, Deed Book - 2510, Page - 219, Parcel Number - 282813F012
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

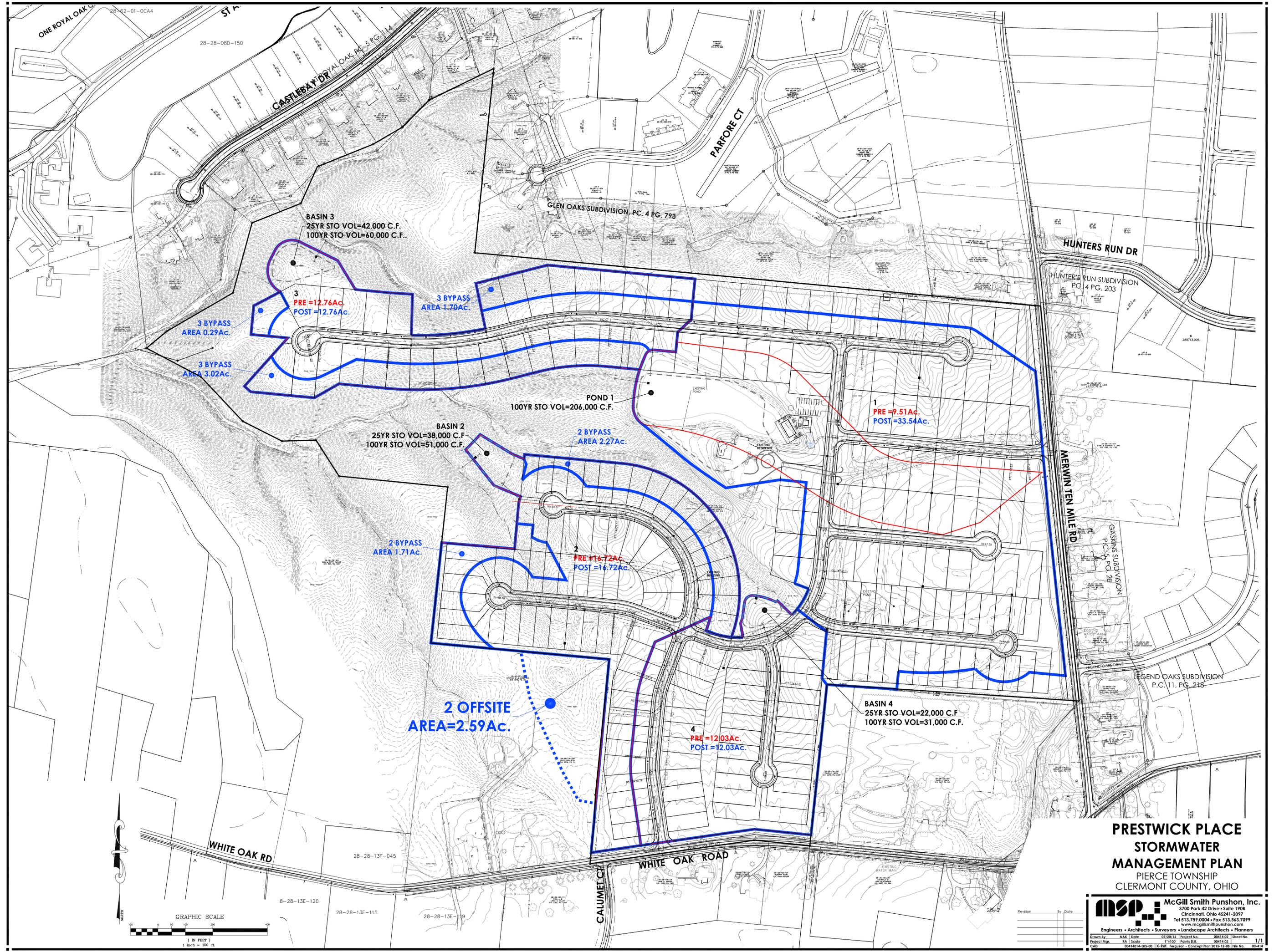
Attach additional listings if needed

Applicant: J. M. Hershner JASON M. WISNIEWSKI

Owner: Duane Ferguson  
Duane Ferguson

Note: Application is not complete until all information is received as required by the Zoning Resolution and Ohio Revised Code





**BASIN 3**  
 25YR STO VOL=42,000 C.F.  
 100YR STO VOL=60,000 C.F.

**3**  
 PRE=12.76Ac.  
 POST=12.76Ac.

**3 BYPASS**  
 AREA 1.70Ac.

**3 BYPASS**  
 AREA 0.29Ac.

**3 BYPASS**  
 AREA 3.02Ac.

**POND 1**  
 100YR STO VOL=206,000 C.F.

**2 BYPASS**  
 AREA 2.27Ac.

**BASIN 2**  
 25YR STO VOL=38,000 C.F.  
 100YR STO VOL=51,000 C.F.

**2 BYPASS**  
 AREA 1.71Ac.

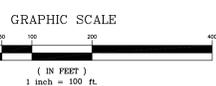
**2**  
 PRE=16.72Ac.  
 POST=16.72Ac.

**1**  
 PRE=9.51Ac.  
 POST=33.54Ac.

**2 OFFSITE**  
 AREA=2.59Ac.

**4**  
 PRE=12.03Ac.  
 POST=12.03Ac.

**BASIN 4**  
 25YR STO VOL=22,000 C.F.  
 100YR STO VOL=31,000 C.F.



**PRESTWICK PLACE  
 STORMWATER  
 MANAGEMENT PLAN**  
 PIERCE TOWNSHIP  
 CLERMONT COUNTY, OHIO

**mSP** McGill Smith Punshon, Inc.  
 3700 Park 42 Drive • Suite 1908  
 Cincinnati, Ohio 45241-2097  
 Tel 513.759.0004 • Fax 513.563.7099  
 www.mcgillsmithpunshon.com  
 Engineers • Architects • Surveyors • Landscape Architects • Planners

|              |                 |        |                                    |             |          |           |     |
|--------------|-----------------|--------|------------------------------------|-------------|----------|-----------|-----|
| Drawn By     | NAK             | Date   | 07/20/14                           | Project No. | 00414.02 | Sheet No. | 1/1 |
| Project Mgr. | RA              | Scale  | 1"=100'                            | Points D.B. | 00414.02 |           |     |
| CAD          | 00414014-GIS-00 | X-Ref. | Ferguson - Concept Plan 2015-12-08 | File No.    | 00-414   |           |     |

28-28-08D-150

CASTLEBAY DR

PARFORE CT

HUNTERS RUN DR

BASIN 3

POND 1

BASIN 2

MERWIN TEN MILE RD

BASIN 4

WHITE OAK RD

28-28-13F-045

JMET CT

WHITE OAK ROAD

WHITE OAK RD

**PRESTWICK PLACE  
PRELIMINARY  
GRADING PLAN**  
PIERCE TOWNSHIP  
CLERMONT COUNTY, OHIO



GRAPHIC SCALE



SOURCE OF TOPOGRAPHY: MANN MAPPING  
CONTOUR INTERVAL: 1 FEET

 DENOTES RESOURCE PROTECTION AREA

| Revision | By | Date |
|----------|----|------|
|          |    |      |
|          |    |      |
|          |    |      |

**msp** McGill Smith Punshon, Inc.  
3700 Park 42 Drive • Suite 1908  
Cincinnati, Ohio 45241-2097  
Tel 513.759.0004 • Fax 513.563.7099  
www.mcgillsmithpunshon.com

Engineers • Architects • Surveyors • Landscape Architects • Planners

Drawn By: STG | Date: 07/25/14 | Project No.: 00414.02 | Sheet No.: 1/1  
Project Mgr.: RA | Scale: 1"=100' | Points D.B.: 00414.02  
CAD: 00414014-GIS-00 | X-Ref.: 00414023-BA3-00 | File No.: 00-414

28-28-08D-150

28-28-13F-045

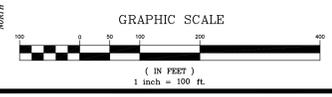
28-28-13F-120

28-13A-010

28571.006



**PRESTWICK PLACE**  
**PRELIMINARY UTILITY PLAN**  
 PIERCE TOWNSHIP  
 CLERMONT COUNTY, OHIO



| Revision | By | Date |
|----------|----|------|
|          |    |      |
|          |    |      |
|          |    |      |

**mSP** McGill Smith Punshon, Inc.  
 3700 Park 42 Drive • Suite 1908  
 Cincinnati, Ohio 45241-2097  
 Tel 513.759.0004 • Fax 513.563.7099  
 www.mcgillsmithpunshon.com  
 Engineers • Architects • Surveyors • Landscape Architects • Planners

Drawn By: STG | Date: 07/01/14 | Project No.: 00414.02 | Sheet No.: 1/1  
 Project Mgr.: RA | Scale: 1"=100' | Points D.B.: 00414.02  
 CAD: 00414014-GIS-00 | X-Ref.: 00414023-BA3-00 | File No.: 00-414



## CLERMONT COUNTY ENGINEER'S OFFICE

Patrick J. Manger, P.E.-P.S.  
Clermont County Engineer

*"Improving your commute"*

January 29, 2016

Grand Communities, Ltd./Fischer Development Company  
3940 Olympic Boulevard, Suite 100  
Erlanger, Kentucky 41018  
Attn: Jason M. Wisniewski, VP of Planning + Zoning

RE: Traffic Impacts of Proposed Pierce Twp Developments

Dear Mr. Wisniewski:

Based upon review of the two developments as currently proposed, we offer the following comments:

**Bradbury Road Property:**

- Because this development, as proposed, will generate less than 100 trips in the peak hour we will not require a traffic impact study to be submitted. As you probably know, these studies weigh the impact that the additional proposed traffic will have to the existing traffic utilizing the roadway. Historically, we have found that developments generating less than 100 trips in the peak hour do not have a significant enough impact to warrant improvements, which is why the threshold of 100 trips was established with the creation of the Clermont County Access Management Regulations in 2010.
- A sight distance study will be required for the access locations on Bradbury Road.

**Ferguson Property:**

- Because this development, as proposed, will generate more than 100 trips in the peak hour, a traffic impact study will be required to be submitted to our office for review. The study should include a full evaluation of the Merwin Ten Mile and White Oak Road intersection, turn lane evaluations at the proposed access locations on each Merwin Ten Mile and White Oak Roads, and a sight distance study for each of the proposed access locations.

Please let us know if you have any questions or need additional information.

Sincerely,

Jeremy Evans, P.E., P.S.  
Traffic Engineer

cc: File



February 17, 2016

Jason Wisniewski  
Fischer Development Company  
3940 Olympic Boulevard, Suite 100  
Erlanger, Kentucky 41018

Dear Mr. Wisniewski:

Subject: Ferguson Property Development Traffic Impact Study  
Pierce Township, Clermont County, Ohio

Enclosed is a traffic impact study for the proposed Ferguson Property development. The results of the study indicate no improvements to the roadway are needed as a result of this development.

Sincerely,

A handwritten signature in blue ink that reads "Matthew J. Hoying".

Matthew J. Hoying, P.E.  
Project Manager

**West Central Ohio**

440 E. Hoewisher Rd.  
Sidney, OH 45365  
937.497.0200 Phone

**S. Ohio/N. Kentucky**

203 W. Loveland Ave.  
Loveland, OH 45140  
513.239.8554 Phone

**Eastern Indiana**

607 N. Meridian St.  
Portland, IN 47371  
260.766.2500 Phone

[www.CHOICEONEENGINEERING.COM](http://www.CHOICEONEENGINEERING.COM)

## TRAFFIC IMPACT STUDY

### ANALYSIS SNAPSHOT

This document details the following items prepared for the proposed Ferguson Property development located on the northwest quadrant of Merwin Ten Mile Road & White Oak Road in Pierce Township, Clermont County, Ohio. The proposed Ferguson Property development will include 224 single family homes at full build-out. This Traffic Impact Study, prepared for the Fischer Development Company at the request of Clermont County, includes: Existing Traffic Volumes, Trip Generation, Directional Distribution, 2017 Opening Year No-Build Traffic Volumes, 2017 Opening Year Build Traffic Volumes, 2037 Design Year No-Build Traffic Volumes, 2037 Design Year Build Traffic Volumes, Capacity Analysis, Turn Lane Analysis, Signal Warrant Analysis and Recommendations. The purpose of this study is to identify the traffic-related impacts of the proposed residential development during typical weekday AM and PM peak hours. The proposed Ferguson Property development has two (2) access points: one (1) along Merwin Ten Mile Road and one (1) along White Oak Road.

### EXISTING TRAFFIC VOLUMES

Peak period manual turning movement counts were collected by Choice One Engineering on Tuesday, February 2, 2016 at the intersection of Merwin Ten Mile Road and White Oak Road. Data was collected from 7:00 to 9:00 AM and 4:30 to 6:30 PM. The peak hours were found to be from 7:15 to 8:15 AM and 5:15 to 6:15 PM. The 2016 Existing Traffic Volumes are attached.

### TRIP GENERATION

Studies of similar developments throughout North America have shown that the amount of traffic generated will be functionally related to some unit of activity (i.e., number of employees, number of dwelling units, gross floor area). The weekday AM and PM Peak hours were based on the existing counts.

Using the average trip-generation rates given in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9<sup>th</sup> Edition, the inbound and outbound trips for the proposed Ferguson Property development were calculated. The site generated trips were estimated using 224 Single-Family Detached Housing (Land Use Code 210) dwelling units. According to ITE Trip Generation Manual, 9<sup>th</sup> Edition, the proposed Ferguson Property development is estimated to generate 168 vehicular trips during the Weekday AM Peak Hour (42 inbound and 126 outbound) and 224 vehicular trip during the Weekday PM Peak Hour (141 inbound and 83 outbound). The forecasted generated trips are attached and summarized below.

**Table 1 – Summary of Trip Generation**

| Land Use Description             | ITE Code | Size | Unit           | Peak Hour     |            |            |               |            |            |
|----------------------------------|----------|------|----------------|---------------|------------|------------|---------------|------------|------------|
|                                  |          |      |                | AM Peak Hour  |            |            | PM Peak Hour  |            |            |
|                                  |          |      |                | Primary Trips |            |            | Primary Trips |            |            |
|                                  |          |      |                | Total         | Entering   | Exiting    | Total         | Entering   | Exiting    |
| Single-Family Detached Housing   | 210      | 224  | Dwelling Units | 168           | 42         | 126        | 224           | 141        | 83         |
| <i>Directional Distributions</i> |          |      |                |               | <i>25%</i> | <i>75%</i> |               | <i>63%</i> | <i>37%</i> |
| <b>Totals</b>                    |          |      |                | <b>168</b>    | <b>42</b>  | <b>126</b> | <b>224</b>    | <b>141</b> | <b>83</b>  |

### DIRECTIONAL DISTRIBUTION

Choice One analyzed the existing AM and PM Peak Hour traffic volumes at the intersection of Merwin Ten Mile Road and White Oak Road (turning movements) along with anticipating the direction in which traffic will approach and depart the development to formulate the directional distribution. The directional distribution is attached.

### 2017 OPENING YEAR BUILD TRAFFIC VOLUMES

The 2017 Opening Year Build Traffic Volumes were calculated from the 2016 Existing Traffic Volumes multiplied by a 1% growth rate for one year, multiplied by a seasonal adjustment factor of 1.122, and then adding the additional trips generated by the proposed Ferguson Property development to each of the entering and exiting movements at the intersection of Merwin Ten Mile Road and White Oak Road. The 1% annual growth rate was provided by the Clermont County Engineer and the seasonal adjustment factor was provided by the ODOT Office of Technical Services. The 2017 Opening Year Build Traffic Volumes are attached.

### 2037 DESIGN YEAR BUILD TRAFFIC VOLUMES

The 2037 Design Year Build Traffic Volumes were calculated from the 2016 Existing Traffic Volumes multiplied by a 1% growth rate for twenty-one years, multiplied by a seasonal adjustment factor of 1.122, and then adding the additional trips generated by the proposed Ferguson Property development to each of the entering and exiting movements at the intersection of Merwin Ten Mile Road and White Oak Road. The 1% annual growth rate was provided by the Clermont County Engineer and the seasonal adjustment factor was provided by the ODOT Office of Technical Services. The 2037 Design Year Build Traffic Volumes are attached.

### CAPACITY ANALYSIS

Utilizing the Peak Hour Traffic Volumes, capacity calculations were performed for the intersection of Merwin Ten Mile Road and White Oak Road. The calculations employed procedures documented in the Highway Capacity Manual (Transportation Research Board, Fifth Edition, Updated 2010). The capacity of an intersection (signalized or unsignalized) can best be described by its corresponding Level of Service (LOS). The LOS of an intersection is a qualitative measure of the various attributes of an intersection. There are six LOS ranging from "ideal" free flow conditions at LOS "A," to forced or "breakdown" conditions at LOS "F." The LOS for unsignalized intersections is based upon total delay. Total delay is defined in the Highway Capacity Manual as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

Capacity calculations were performed in HCS 2010 for the intersection of Merwin Ten Mile Road and White Oak Road analyzing the 2016 Existing, 2017 Opening Year No-Build, 2017 Opening Year Build, 2037 Design Year No-Build Traffic Volumes and 2037 Design Year Build Traffic Volumes. The intersection is not significantly degraded by the proposed development so the chart below only displays a summary of the Existing and Build Year scenarios. All capacity analysis summaries are attached.

**Table 2 – Summary of AM & PM Peak Hour Capacity Analysis**

| Direction   | AM Peak Hour   |                         |                        | PM Peak Hour   |                         |                        |
|---|----------------|-------------------------|------------------------|----------------|-------------------------|------------------------|
|   | 2016 Existing  | 2017 Opening Year Build | 2037 Design Year Build | 2016 Existing  | 2017 Opening Year Build | 2037 Design Year Build |
| <b>1: Merwin Ten Mile Road and White Oak Road</b> |                |                         |                        |                |                         |                        |
| <b>White Oak Road</b>                             |                |                         |                        |                |                         |                        |
| Eastbound Approach                                | A(8.08)        | A(8.47)                 | A(8.94)                | B(10.09)       | B(11.75)                | B(14.60)               |
| Westbound Approach                                | A(8.64)        | A(9.32)                 | B(10.24)               | A(9.06)        | B(10.33)                | B(12.06)               |
| <b>Merwin Ten Mile Road</b>                       |                |                         |                        |                |                         |                        |
| Northbound Approach                               | A(8.40)        | A(9.02)                 | A(9.76)                | A(9.54)        | B(11.33)                | B(13.93)               |
| Southbound Approach                               | A(8.10)        | A(8.81)                 | A(9.46)                | A(10.14)       | B(12.33)                | C(15.40)               |
| <b>Total LOS (Delay)</b>                          | <b>A(8.38)</b> | <b>A(8.99)</b>          | <b>A(9.74)</b>         | <b>A(9.80)</b> | <b>B(11.47)</b>         | <b>B(14.22)</b>        |

All approaches during the studied traffic scenarios will operate at an acceptable LOS. A summary of the results of the analyses are attached.

## TURN LANE ANALYSIS

Turn Lane Analysis were completed for the free flow approaches along Merwin Ten Mile Road and White Oak Road at the proposed access points using the 2017 Opening Year Build Traffic Volumes and 2037 Design Year Build Traffic Volumes. Turn lane warrants were checked against the 2-Lane Highway Left (or Right) Turn Lane Warrants figures for a 45 MPH roadway in the ODOT Access Management Manual.

**Neither left nor right turn lanes were found to be warranted along Merwin Ten Mile Road and White Oak Road at the proposed access points.** The turn lane analyses are attached.

## SIGNAL WARRANT ANALYSIS

In accordance with the *2012 OMUTCD*, Chapter 4C, the studied intersection was tested against the following signal warrant:

### Warrant 3 – Peak Hour

The Peak Hour Vehicular Volume warrants require that an intersection has a single hour where the volume of vehicles approaching the intersection is above a given threshold determined by the Ohio Department of Transportation (ODOT).

It is optional to use the 70 percent reduction factor when the posted speed limit is equal to or greater than 40 mph or if the intersection lies within an isolated community with a population of less than 10,000. The proposed development's location meets the criteria for both speed limit and population so 70 percent reduction factor was used.

**The volume of vehicles approaching this intersection on both the major and minor street approaches does not meet the required volume to satisfy Warrant 3 – Peak Hour.** The signal warrant analysis is attached.

## RECOMMENDATIONS

The proposed Ferguson Property development does not significantly impact the surrounding roadway network and no improvements are recommended at this time.

The following included attachments detail the findings of Choice One:

1. Turning Movement Counts
2. Concept Plan
3. Trip Generation and Directional Distribution
4. Seasonal Adjustment Factor
5. Existing Traffic Volumes, 2017 Opening Year Build Traffic Volumes and 2037 Design Year Build Traffic Volumes
6. Capacity Analysis
7. Turn Lane Warrant Analyses
8. Signal Warrant Analysis



File Name : TMC 2016-02-03  
 Site Code : 00000000  
 Start Date : 2/2/2016  
 Page No : 1

Choice One Engineering  
 Ferguson Property TIS  
 Merwin 10 Mile & White Oak  
 TMC: 2/3/2016

Groups Printed- Unshifted - Bank 1

| Start Time    | White Oak Eastbound |      |      |      | White Oak Westbound |       |      |      | Merwin 10 Mile Northbound |            |       |      | Merwin Ten Mile Southbound |      |            |       |      |      |      |            |            |
|---------------|---------------------|------|------|------|---------------------|-------|------|------|---------------------------|------------|-------|------|----------------------------|------|------------|-------|------|------|------|------------|------------|
|               | Right               | Thru | Left | Peds | App. Total          | Right | Thru | Left | Peds                      | App. Total | Right | Thru | Left                       | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:55 AM      | 0                   | 5    | 3    | 0    | 8                   | 9     | 23   | 10   | 0                         | 42         | 5     | 19   | 7                          | 0    | 31         | 15    | 11   | 4    | 0    | 30         | 111        |
| 07:10 AM      | 0                   | 5    | 5    | 0    | 10                  | 12    | 20   | 7    | 0                         | 39         | 3     | 16   | 5                          | 0    | 24         | 14    | 18   | 3    | 0    | 35         | 108        |
| 07:25 AM      | 0                   | 3    | 4    | 0    | 7                   | 5     | 32   | 4    | 0                         | 41         | 4     | 26   | 2                          | 0    | 32         | 7     | 11   | 7    | 0    | 25         | 105        |
| 07:40 AM      | 1                   | 8    | 8    | 0    | 17                  | 10    | 23   | 4    | 0                         | 37         | 10    | 29   | 4                          | 0    | 43         | 10    | 10   | 2    | 0    | 22         | 119        |
| 07:55 AM      | 1                   | 5    | 4    | 0    | 10                  | 6     | 22   | 12   | 0                         | 40         | 7     | 22   | 2                          | 0    | 31         | 10    | 13   | 3    | 0    | 26         | 107        |
| 08:10 AM      | 0                   | 3    | 3    | 0    | 6                   | 8     | 16   | 5    | 0                         | 29         | 3     | 19   | 3                          | 0    | 25         | 5     | 14   | 5    | 0    | 24         | 84         |
| 08:25 AM      | 0                   | 6    | 11   | 0    | 17                  | 5     | 24   | 4    | 0                         | 33         | 4     | 18   | 6                          | 0    | 28         | 14    | 10   | 7    | 0    | 31         | 109        |
| 08:40 AM      | 0                   | 18   | 23   | 0    | 41                  | 10    | 18   | 1    | 0                         | 29         | 6     | 21   | 1                          | 0    | 28         | 9     | 14   | 3    | 0    | 26         | 124        |
| 08:55 AM      | 0                   | 2    | 2    | 0    | 4                   | 2     | 4    | 1    | 0                         | 7          | 1     | 4    | 0                          | 0    | 5          | 2     | 4    | 1    | 0    | 7          | 23         |
| *** BREAK *** |                     |      |      |      |                     |       |      |      |                           |            |       |      |                            |      |            |       |      |      |      |            |            |
| 04:25 PM      | 1                   | 18   | 9    | 0    | 28                  | 6     | 3    | 9    | 0                         | 18         | 8     | 14   | 1                          | 0    | 23         | 10    | 20   | 3    | 0    | 33         | 102        |
| 04:40 PM      | 2                   | 16   | 9    | 0    | 27                  | 11    | 12   | 16   | 0                         | 39         | 13    | 23   | 1                          | 0    | 37         | 10    | 43   | 13   | 0    | 66         | 169        |
| 04:55 PM      | 2                   | 26   | 8    | 0    | 36                  | 16    | 9    | 6    | 0                         | 31         | 21    | 30   | 1                          | 0    | 52         | 8     | 31   | 6    | 0    | 45         | 164        |
| 05:10 PM      | 2                   | 26   | 14   | 0    | 42                  | 12    | 8    | 10   | 0                         | 30         | 12    | 24   | 0                          | 0    | 36         | 9     | 36   | 10   | 0    | 55         | 163        |
| 05:25 PM      | 6                   | 25   | 15   | 0    | 46                  | 8     | 11   | 7    | 0                         | 26         | 13    | 28   | 1                          | 0    | 42         | 11    | 36   | 4    | 0    | 51         | 165        |
| 05:40 PM      | 4                   | 28   | 20   | 0    | 52                  | 14    | 8    | 6    | 0                         | 28         | 11    | 27   | 4                          | 0    | 42         | 9     | 40   | 6    | 0    | 55         | 177        |
| 05:55 PM      | 6                   | 22   | 12   | 0    | 40                  | 15    | 9    | 4    | 1                         | 29         | 7     | 40   | 2                          | 0    | 49         | 8     | 29   | 13   | 0    | 50         | 168        |
| 06:10 PM      | 1                   | 13   | 17   | 0    | 31                  | 13    | 4    | 5    | 1                         | 23         | 17    | 27   | 0                          | 0    | 44         | 10    | 35   | 10   | 0    | 55         | 153        |
| 06:25 PM      | 0                   | 5    | 2    | 0    | 7                   | 2     | 3    | 1    | 0                         | 6          | 3     | 12   | 0                          | 0    | 15         | 1     | 8    | 3    | 0    | 12         | 40         |
| Grand Total   | 26                  | 234  | 169  | 0    | 429                 | 164   | 249  | 112  | 2                         | 527        | 148   | 399  | 40                         | 0    | 587        | 162   | 383  | 103  | 0    | 648        | 2191       |
| Approch %     | 6.1                 | 54.5 | 39.4 | 0    |                     | 31.1  | 47.2 | 21.3 | 0.4                       |            | 25.2  | 68   | 6.8                        | 0    |            | 25    | 59.1 | 15.9 | 0    |            |            |
| Total %       | 1.2                 | 10.7 | 7.7  | 0    | 19.6                | 7.5   | 11.4 | 5.1  | 0.1                       | 24.1       | 6.8   | 18.2 | 1.8                        | 0    | 26.8       | 7.4   | 17.5 | 4.7  | 0    | 29.6       |            |
| Unshifted     | 26                  | 234  | 168  | 0    | 428                 | 164   | 247  | 110  | 2                         | 523        | 147   | 397  | 39                         | 0    | 563        | 162   | 382  | 103  | 0    | 647        | 2181       |
| % Unshifted   | 100                 | 100  | 99.4 | 0    | 99.8                | 100   | 99.2 | 98.2 | 100                       | 99.2       | 99.3  | 99.5 | 97.5                       | 0    | 99.3       | 100   | 99.7 | 100  | 0    | 99.8       | 99.5       |
| Bank 1        | 0                   | 0    | 1    | 0    | 1                   | 0     | 2    | 2    | 0                         | 4          | 1     | 2    | 1                          | 0    | 4          | 0     | 1    | 0    | 0    | 1          | 10         |
| % Bank 1      | 0                   | 0    | 0.6  | 0    | 0.2                 | 0     | 0.8  | 1.8  | 0                         | 0.8        | 0.7   | 0.5  | 2.5                        | 0    | 0.7        | 0     | 0.3  | 0    | 0    | 0.2        | 0.5        |



Choice One Engineering  
 Ferguson Property TIS  
 Merwin 10 Mile & White Oak  
 TMC: 2/3/2016

File Name : TMC 2016-02-03  
 Site Code : 00000000  
 Start Date : 2/2/2016  
 Page No : 2

| Start Time  | White Oak Eastbound |      |      |      |            | White Oak Westbound |      |      |      |            | Merwin 10 Mile Northbound |      |      |      |            | Merwin Ten Mile Southbound |      |      |      |            | Int. Total |
|---|---------------------|------|------|------|------------|---------------------|------|------|------|------------|---------------------------|------|------|------|------------|----------------------------|------|------|------|------------|------------|
|   | Right               | Thru | Left | Peds | App. Total | Right               | Thru | Left | Peds | App. Total | Right                     | Thru | Left | Peds | App. Total | Right                      | Thru | Left | Peds | App. Total |            |
| Peak Hour Analysis From 7:00:00 AM to 12:00:00 PM - Peak 1 of 1 |                     |      |      |      |            |                     |      |      |      |            |                           |      |      |      |            |                            |      |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 7:15:00 AM          |                     |      |      |      |            |                     |      |      |      |            |                           |      |      |      |            |                            |      |      |      |            |            |
| 7:15:00 AM  | 0                   | 5    | 5    | 0    | 10         | 12                  | 20   | 7    | 0    | 39         | 3                         | 16   | 5    | 0    | 24         | 14                         | 18   |      |      | 35         | 108        |
| 7:30:00 AM  | 0                   | 3    | 4    | 0    | 7          | 5                   | 32   | 4    | 0    | 41         | 4                         | 26   | 2    | 0    | 32         | 7                          | 11   | 7    |      |            |            |
| 7:45:00 AM  | 1                   | 8    | 8    | 0    | 17         | 10                  | 23   | 4    | 0    | 37         | 10                        | 29   | 4    | 0    | 43         | 10                         | 10   | 2    | 0    | 22         | 119        |
| 8:00:00 AM  | 1                   | 5    | 4    | 0    | 10         | 6                   | 22   | 12   | 0    | 40         | 7                         | 22   | 2    | 0    | 31         | 10                         | 13   | 3    | 0    | 26         | 107        |
| Total Volume  | 2                   | 21   | 21   | 0    | 44         | 33                  | 97   | 27   | 0    | 157        | 24                        | 93   | 13   | 0    | 130        | 41                         | 52   | 15   | 0    | 108        | 439        |
| % App. Total  | 4.5                 | 47.7 | 47.7 | 0    |            | 21                  | 61.8 | 17.2 | 0    |            | 18.5                      | 71.5 | 10   | 0    |            | 38                         | 48.1 | 13.9 | 0    |            |            |
| PHF   | .500                | .656 | .656 | .000 | .647       | .688                | .758 | .563 | .000 | .957       | .600                      | .802 | .650 | .000 | .756       | .732                       | .722 | .536 | .000 | .771       | .922       |



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 Ferguson Property TIS  
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File Name : TMC 2016-02-03  
 Site Code : 00000000  
 Start Date : 2/2/2016  
 Page No : 3

| Start Time  | White Oak Eastbound |             |             |             |             | White Oak Westbound |             |             |             |             | Merwin 10 Mile Northbound |             |             |             |             | Merwin Ten Mile Southbound |             |             |             |             | Int. Total  |
|---|---------------------|-------------|-------------|-------------|-------------|---------------------|-------------|-------------|-------------|-------------|---------------------------|-------------|-------------|-------------|-------------|----------------------------|-------------|-------------|-------------|-------------|-------------|
|   | Right               | Thru        | Left        | Peds        | App. Total  | Right               | Thru        | Left        | Peds        | App. Total  | Right                     | Thru        | Left        | Peds        | App. Total  | Right                      | Thru        | Left        | Peds        | App. Total  |             |
| Peak Hour Analysis From 12:00:00 PM to 6:30:00 PM - Peak 1 of 1 |                     |             |             |             |             |                     |             |             |             |             |                           |             |             |             |             |                            |             |             |             |             |             |
| Peak Hour for Entire Intersection Begins at 5:15:00 PM          |                     |             |             |             |             |                     |             |             |             |             |                           |             |             |             |             |                            |             |             |             |             |             |
| 5:15:00 PM  | 2                   | 26          | 14          | 0           | 42          | 12                  | 8           | 10          | 0           | 30          | 12                        | 24          | 0           | 0           | 36          | 9                          | 36          | 10          | 0           | 55          | 163         |
| 5:30:00 PM  | 6                   | 25          | 15          | 0           | 46          | 8                   | 11          | 7           | 0           | 26          | 13                        |             |             |             |             | 11                         | 36          | 4           | 0           | 51          | 165         |
| 5:45:00 PM  | 4                   | 28          | 20          |             | 52          | 14                  | 8           | 6           | 0           | 28          | 11                        | 27          | 4           | 0           | 42          | 9                          | 40          |             |             |             | 177         |
| 6:00:00 PM  | 6                   | 22          | 12          | 0           | 40          | 15                  | 9           | 4           | 1           |             |                           | 40          | 2           | 0           | 49          | 8                          | 29          | 13          |             |             |             |
| <b>Total Volume</b>   | <b>18</b>           | <b>101</b>  | <b>61</b>   | <b>0</b>    | <b>180</b>  | <b>49</b>           | <b>36</b>   | <b>27</b>   | <b>1</b>    | <b>113</b>  | <b>43</b>                 | <b>119</b>  | <b>7</b>    | <b>0</b>    | <b>169</b>  | <b>37</b>                  | <b>141</b>  | <b>33</b>   | <b>0</b>    | <b>211</b>  | <b>673</b>  |
| <b>% App. Total</b>   | <b>10</b>           | <b>56.1</b> | <b>33.9</b> | <b>0</b>    |             | <b>43.4</b>         | <b>31.9</b> | <b>23.9</b> | <b>0.9</b>  |             | <b>25.4</b>               | <b>70.4</b> | <b>4.1</b>  | <b>0</b>    |             | <b>17.5</b>                | <b>66.8</b> | <b>15.6</b> | <b>0</b>    |             |             |
| <b>PHF</b>  | <b>.750</b>         | <b>.902</b> | <b>.763</b> | <b>.000</b> | <b>.865</b> | <b>.817</b>         | <b>.818</b> | <b>.675</b> | <b>.250</b> | <b>.942</b> | <b>.827</b>               | <b>.744</b> | <b>.438</b> | <b>.000</b> | <b>.862</b> | <b>.841</b>                | <b>.881</b> | <b>.635</b> | <b>.000</b> | <b>.959</b> | <b>.951</b> |

**FERGUSON PROPERTY**  
**PIERCE TOWNSHIP, CLERMONT COUNTY, OHIO**

| Land Use Description             | ITE Code | Size | Unit           | Weekday      |               |              |              | AM Peak Hour |               |           | PM Peak Hour |             |               |            |           |
|----------------------------------|----------|------|----------------|--------------|---------------|--------------|--------------|--------------|---------------|-----------|--------------|-------------|---------------|------------|-----------|
|                                  |          |      |                | Total Trips  | Primary Trips |              |              | Total Trips  | Primary Trips |           |              | Total Trips | Primary Trips |            |           |
|                                  |          |      |                |              | Total         | Entering     | Exiting      |              | Total         | Entering  | Exiting      |             | Total         | Entering   | Exiting   |
| Single-Family Detached           | 210      | 224  | Dwelling Units | 2,132        | 2,132         | 1,066        | 1,066        | 168          | 168           | 42        | 126          | 224         | 224           | 141        | 83        |
| <i>Directional Distributions</i> |          |      |                |              |               | 50%          | 50%          |              |               | 25%       | 75%          |             |               | 63%        | 37%       |
| <b>Totals</b>                    |          |      |                | <b>2,132</b> | <b>2,132</b>  | <b>1,066</b> | <b>1,066</b> | <b>168</b>   | <b>168</b>    | <b>42</b> | <b>126</b>   | <b>224</b>  | <b>224</b>    | <b>141</b> | <b>83</b> |

**SEASONAL ADJUSTMENT FACTORS  
ALL VEHICLE CLASSES  
RURAL MAJOR COLLECTOR, MINOR COLLECTOR, LOCAL  
FUNCTIONAL CLASSIFICATION = Rural 05, 06, 07  
STATION: 7, 56, 67, 171, 205, 516, 520, 548, 549, 772, 773, 774, 776**

| <b>MONTHLY AVERAGE</b> |                    |                          |               |               |                |                  |                 |               |                 |
|------------------------|--------------------|--------------------------|---------------|---------------|----------------|------------------|-----------------|---------------|-----------------|
| <b>MONTH</b>           | <b>DAY OF WEEK</b> | <b>WEEK DAY MON-THUR</b> | <b>Sunday</b> | <b>Monday</b> | <b>Tuesday</b> | <b>Wednesday</b> | <b>Thursday</b> | <b>Friday</b> | <b>Saturday</b> |
| January                | 1.280              | 1.206                    | 1.731         | 1.247         | 1.202          | 1.169            | 1.132           | 1.074         | 1.400           |
| February               | 1.198              | 1.125                    | 1.632         | 1.133         | 1.122          | 1.120            | 1.065           | 1.017         | 1.298           |
| March                  | 1.118              | 1.061                    | 1.498         | 1.097         | 1.038          | 1.049            | 1.022           | 0.944         | 1.179           |
| April                  | 1.012              | 0.983                    | 1.254         | 1.001         | 0.975          | 0.972            | 0.937           | 0.884         | 1.063           |
| May                    | 0.923              | 0.910                    | 1.115         | 0.953         | 0.891          | 0.888            | 0.865           | 0.799         | 0.947           |
| June                   | 0.925              | 0.905                    | 1.128         | 0.915         | 0.900          | 0.900            | 0.880           | 0.814         | 0.942           |
| July                   | 0.930              | 0.903                    | 1.121         | 0.914         | 0.897          | 0.897            | 0.878           | 0.822         | 0.978           |
| August                 | 0.918              | 0.903                    | 1.110         | 0.911         | 0.906          | 0.893            | 0.863           | 0.797         | 0.947           |
| September              | 0.956              | 0.944                    | 1.180         | 0.987         | 0.928          | 0.916            | 0.893           | 0.815         | 0.974           |
| October                | 0.989              | 0.976                    | 1.228         | 0.990         | 0.984          | 0.952            | 0.916           | 0.844         | 1.010           |
| November               | 1.096              | 1.019                    | 1.421         | 1.041         | 1.009          | 1.007            | 1.067           | 0.959         | 1.168           |
| December               | 1.165              | 1.092                    | 1.531         | 1.088         | 1.094          | 1.094            | 1.065           | 1.008         | 1.275           |

BASED ON 2012-2014 AUTOMATIC TRAFFIC RECORDERS DATA

24-hour count times (factor) = ADT

OHIO DEPARTMENT OF TRANSPORTATION  
DIVISION OF PLANNING  
OFFICE OF TECHNICAL SERVICES  
January 2015

**TRAFFIC PROJECTIONS - AM PEAK HOUR**

| Int. # | Movement | SA Factor | 2016            |                  | 2017                          |                  | Trips             |                            | 2017                         |                           | 2037 |  |
|--------|----------|-----------|-----------------|------------------|-------------------------------|------------------|-------------------|----------------------------|------------------------------|---------------------------|------|--|
|        |          |           | Existing Counts | Adjusted Volumes | Opening Year No-Build Volumes | Primary Trips IN | Primary Trips OUT | Opening Year Build Volumes | Design Year No-Build Volumes | Design Year Build Volumes |      |  |
| 1      | EBL      | 1.122     | 21              | 24               | 24                            |                  |                   | 24                         | 29                           | 29                        |      |  |
| 1      | EBT      | 1.122     | 21              | 24               | 24                            |                  | 9                 | 33                         | 29                           | 38                        |      |  |
| 1      | EBR      | 1.122     | 2               | 2                | 2                             |                  | 13                | 15                         | 3                            | 16                        |      |  |
| 1      | WBL      | 1.122     | 27              | 30               | 31                            |                  |                   | 31                         | 37                           | 37                        |      |  |
| 1      | WBT      | 1.122     | 97              | 109              | 110                           | 3                |                   | 113                        | 132                          | 135                       |      |  |
| 1      | WBR      | 1.122     | 33              | 37               | 37                            | 3                |                   | 40                         | 45                           | 48                        |      |  |
| 1      | NBL      | 1.122     | 13              | 15               | 15                            | 4                |                   | 19                         | 18                           | 22                        |      |  |
| 1      | NBT      | 1.122     | 93              | 104              | 105                           | 4                |                   | 109                        | 126                          | 130                       |      |  |
| 1      | NBR      | 1.122     | 24              | 27               | 27                            |                  |                   | 27                         | 33                           | 33                        |      |  |
| 1      | SBL      | 1.122     | 15              | 17               | 17                            |                  | 9                 | 26                         | 20                           | 29                        |      |  |
| 1      | SBT      | 1.122     | 52              | 58               | 59                            |                  | 13                | 72                         | 71                           | 84                        |      |  |
| 1      | SBR      | 1.122     | 41              | 46               | 46                            |                  |                   | 46                         | 56                           | 56                        |      |  |
| 2      | EBL      | 1.000     | 0               | 0                | 0                             | 13               |                   | 13                         | 0                            | 13                        |      |  |
| 2      | EBT      | 1.122     | 44              | 49               | 50                            |                  |                   | 50                         | 60                           | 60                        |      |  |
| 2      | WBT      | 1.122     | 151             | 169              | 171                           |                  |                   | 171                        | 205                          | 205                       |      |  |
| 2      | WBR      | 1.000     | 0               | 0                | 0                             | 7                |                   | 7                          | 0                            | 7                         |      |  |
| 2      | SBL      | 1.000     | 0               | 0                | 0                             |                  | 22                | 22                         | 0                            | 22                        |      |  |
| 2      | SBR      | 1.000     | 0               | 0                | 0                             |                  | 38                | 38                         | 0                            | 38                        |      |  |
| 3      | EBL      | 1.000     | 0               | 0                | 0                             |                  | 44                | 44                         | 0                            | 44                        |      |  |
| 3      | EBR      | 1.000     | 0               | 0                | 0                             |                  | 22                | 22                         | 0                            | 22                        |      |  |
| 3      | NBL      | 1.000     | 0               | 0                | 0                             | 7                |                   | 7                          | 0                            | 7                         |      |  |
| 3      | NBT      | 1.122     | 147             | 165              | 167                           |                  |                   | 167                        | 200                          | 200                       |      |  |
| 3      | SBT      | 1.122     | 108             | 121              | 122                           |                  |                   | 122                        | 147                          | 147                       |      |  |
| 3      | SBR      | 1.000     | 0               | 0                | 0                             | 15               |                   | 15                         | 0                            | 15                        |      |  |

**Intersection Legend**

- 1 - Merwin Ten Mile Road & White Oak Road
- 2 - White Oak Drive
- 3 - Merwin Ten Mile Drive

**Seasonal Adjustment Factors**

FC 5,7 1.122

**Annual Growth Rate**

Merwin & White 1%

**TRAFFIC PROJECTIONS - PM PEAK HOUR**

| Int. # | Movement | SA Factor | 2016            |                  | 2017                          | Trips            |                   | 2017                       | 2037                         | 2037                      |
|--------|----------|-----------|-----------------|------------------|-------------------------------|------------------|-------------------|----------------------------|------------------------------|---------------------------|
|        |          |           | Existing Counts | Adjusted Volumes | Opening Year No-Build Volumes | Primary Trips IN | Primary Trips OUT | Opening Year Build Volumes | Design Year No-Build Volumes | Design Year Build Volumes |
| 1      | EBL      | 1.122     | 61              | 68               | 69                            |                  |                   | 69                         | 83                           | 83                        |
| 1      | EBT      | 1.122     | 101             | 113              | 114                           |                  | 8                 | 120                        | 137                          | 143                       |
| 1      | EBR      | 1.122     | 18              | 20               | 20                            |                  | 8                 | 28                         | 24                           | 32                        |
| 1      | WBL      | 1.122     | 27              | 30               | 31                            |                  |                   | 31                         | 37                           | 37                        |
| 1      | WBT      | 1.122     | 36              | 40               | 41                            | 11               |                   | 52                         | 49                           | 60                        |
| 1      | WBR      | 1.122     | 49              | 55               | 58                            | 11               |                   | 67                         | 67                           | 78                        |
| 1      | NBL      | 1.122     | 7               | 8                | 8                             | 14               |                   | 22                         | 10                           | 24                        |
| 1      | NBT      | 1.122     | 119             | 134              | 135                           | 14               |                   | 149                        | 162                          | 176                       |
| 1      | NBR      | 1.122     | 43              | 48               | 49                            |                  |                   | 49                         | 58                           | 58                        |
| 1      | SBL      | 1.122     | 33              | 37               | 37                            |                  | 6                 | 43                         | 45                           | 61                        |
| 1      | SBT      | 1.122     | 141             | 158              | 160                           |                  | 8                 | 168                        | 191                          | 199                       |
| 1      | SBR      | 1.122     | 37              | 42               | 42                            |                  |                   | 42                         | 50                           | 50                        |
| 2      | EBL      | 1.000     | 0               | 0                | 0                             | 42               |                   | 42                         | 0                            | 42                        |
| 2      | EBT      | 1.122     | 180             | 202              | 204                           |                  |                   | 204                        | 244                          | 244                       |
| 2      | WBT      | 1.122     | 80              | 90               | 91                            |                  |                   | 91                         | 109                          | 109                       |
| 2      | WBR      | 1.000     | 0               | 0                | 0                             | 25               |                   | 25                         | 0                            | 25                        |
| 2      | SBL      | 1.000     | 0               | 0                | 0                             |                  | 14                | 14                         | 0                            | 14                        |
| 2      | SBR      | 1.000     | 0               | 0                | 0                             |                  | 25                | 25                         | 0                            | 25                        |
| 3      | EBL      | 1.000     | 0               | 0                | 0                             |                  | 29                | 29                         | 0                            | 29                        |
| 3      | EBR      | 1.000     | 0               | 0                | 0                             |                  | 14                | 14                         | 0                            | 14                        |
| 3      | NBL      | 1.000     | 0               | 0                | 0                             | 25               |                   | 25                         | 0                            | 25                        |
| 3      | NBT      | 1.122     | 229             | 257              | 260                           |                  |                   | 260                        | 311                          | 311                       |
| 3      | SBT      | 1.122     | 211             | 237              | 239                           |                  |                   | 239                        | 286                          | 286                       |
| 3      | SBR      | 1.000     | 0               | 0                | 0                             | 49               |                   | 49                         | 0                            | 49                        |

**Intersection Legend**

- 1 - Merwin Ten Mile Road & White Oak Road
- 2 - White Oak Drive
- 3 - Merwin Ten Mile Drive

**Seasonal Adjustment Factors**

FC 5.7 1.122

**Annual Growth Rate**

Merwin & White 1%

## ALL-WAY STOP CONTROL ANALYSIS

| General Information                         |                        |      |           | Site Information                         |                             |      |            |      |
|---|------------------------|------|-----------|--|-----------------------------|------|------------|------|
| Analyst                                     | MKG                    |      |           | Intersection                             | White Oak & Merwin Ten Mile |      |            |      |
| Agency/Co.                                  | Choice One Engineering |      |           | Jurisdiction                             | County                      |      |            |      |
| Date Performed                              | 2/11/2016              |      |           | Analysis Year                            | 2016 Existing               |      |            |      |
| Analysis Time Period                        | AM Peak                |      |           |  |                             |      |            |      |
| Project ID CLEPIE1602                       |                        |      |           |  |                             |      |            |      |
| East/West Street: White Oak Road            |                        |      |           | North/South Street: Merwin Ten Mile Road |                             |      |            |      |
| Volume Adjustments and Site Characteristics |                        |      |           |  |                             |      |            |      |
| Approach                                    | Eastbound              |      |           | Westbound                                |                             |      |            |      |
| Movement                                    | L                      | T    | R         | L  | T                           | R    |            |      |
| Volume (veh/h)                              | 21                     | 21   | 2         | 27                                       | 97                          | 33   |            |      |
| %Thrus Left Lane                            |                        |      |           |  |                             |      |            |      |
| Approach                                    | Northbound             |      |           | Southbound                               |                             |      |            |      |
| Movement                                    | L                      | T    | R         | L  | T                           | R    |            |      |
| Volume (veh/h)                              | 13                     | 93   | 24        | 15                                       | 52                          | 41   |            |      |
| %Thrus Left Lane                            |                        |      |           |  |                             |      |            |      |
|   | Eastbound              |      | Westbound |  | Northbound                  |      | Southbound |      |
|   | L1                     | L2   | L1        | L2                                       | L1                          | L2   | L1         | L2   |
| Configuration                               | LTR                    |      | LTR       |  | LTR                         |      | LTR        |      |
| PHF   | 0.92                   |      | 0.92      |  | 0.92                        |      | 0.92       |      |
| Flow Rate (veh/h)                           | 46                     |      | 169       |  | 141                         |      | 116        |      |
| % Heavy Vehicles                            | 0                      |      | 0         |  | 0                           |      | 0          |      |
| No. Lanes                                   | 1                      |      | 1         |  | 1                           |      | 1          |      |
| Geometry Group                              | 1                      |      | 1         |  | 1                           |      | 1          |      |
| Duration, T                                 | 0.25                   |      |           |  |                             |      |            |      |
| Saturation Headway Adjustment Worksheet     |                        |      |           |  |                             |      |            |      |
| Prop. Left-Turns                            | 0.5                    |      | 0.2       |  | 0.1                         |      | 0.1        |      |
| Prop. Right-Turns                           | 0.0                    |      | 0.2       |  | 0.2                         |      | 0.4        |      |
| Prop. Heavy Vehicle                         | 0.0                    |      | 0.0       |  | 0.0                         |      | 0.0        |      |
| hLT-adj                                     | 0.2                    | 0.2  | 0.2       | 0.2                                      | 0.2                         | 0.2  | 0.2        | 0.2  |
| hRT-adj                                     | -0.6                   | -0.6 | -0.6      | -0.6                                     | -0.6                        | -0.6 | -0.6       | -0.6 |
| hHV-adj                                     | 1.7                    | 1.7  | 1.7       | 1.7                                      | 1.7                         | 1.7  | 1.7        | 1.7  |
| hadj, computed                              | 0.1                    |      | -0.1      |  | -0.1                        |      | -0.2       |      |
| Departure Headway and Service Time          |                        |      |           |  |                             |      |            |      |
| hd, initial value (s)                       | 3.20                   |      | 3.20      |  | 3.20                        |      | 3.20       |      |
| x, initial                                  | 0.04                   |      | 0.15      |  | 0.13                        |      | 0.10       |      |
| hd, final value (s)                         | 4.77                   |      | 4.46      |  | 4.46                        |      | 4.38       |      |
| x, final value                              | 0.06                   |      | 0.21      |  | 0.17                        |      | 0.14       |      |
| Move-up time, m (s)                         | 2.0                    |      | 2.0       |  | 2.0                         |      | 2.0        |      |
| Service Time, t <sub>s</sub> (s)            | 2.8                    |      | 2.5       |  | 2.5                         |      | 2.4        |      |
| Capacity and Level of Service               |                        |      |           |  |                             |      |            |      |
|   | Eastbound              |      | Westbound |  | Northbound                  |      | Southbound |      |
|   | L1                     | L2   | L1        | L2                                       | L1                          | L2   | L1         | L2   |
| Capacity (veh/h)                            | 296                    |      | 419       |  | 391                         |      | 366        |      |
| Delay (s/veh)                               | 8.08                   |      | 8.64      |  | 8.40                        |      | 8.10       |      |
| LOS   | A                      |      | A         |  | A                           |      | A          |      |
| Approach: Delay (s/veh)                     | 8.08                   |      | 8.64      |  | 8.40                        |      | 8.10       |      |
| LOS   | A                      |      | A         |  | A                           |      | A          |      |
| Intersection Delay (s/veh)                  | 8.38                   |      |           |  |                             |      |            |      |
| Intersection LOS                            | A                      |      |           |  |                             |      |            |      |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information                         |                        |      |           | Site Information                         |                             |      |            |      |
|---|------------------------|------|-----------|--|-----------------------------|------|------------|------|
| Analyst                                     | MKG                    |      |           | Intersection                             | White Oak & Merwin Ten Mile |      |            |      |
| Agency/Co.                                  | Choice One Engineering |      |           | Jurisdiction                             | County                      |      |            |      |
| Date Performed                              | 2/11/2016              |      |           | Analysis Year                            | 2017 No-Build               |      |            |      |
| Analysis Time Period                        | AM Peak                |      |           |  |                             |      |            |      |
| Project ID CLEPIE1602                       |                        |      |           |  |                             |      |            |      |
| East/West Street: White Oak Road            |                        |      |           | North/South Street: Merwin Ten Mile Road |                             |      |            |      |
| Volume Adjustments and Site Characteristics |                        |      |           |  |                             |      |            |      |
| Approach                                    | Eastbound              |      |           | Westbound                                |                             |      |            |      |
| Movement                                    | L                      | T    | R         | L  | T                           | R    |            |      |
| Volume (veh/h)                              | 24                     | 24   | 2         | 31                                       | 110                         | 37   |            |      |
| %Thrus Left Lane                            |                        |      |           |  |                             |      |            |      |
| Approach                                    | Northbound             |      |           | Southbound                               |                             |      |            |      |
| Movement                                    | L                      | T    | R         | L  | T                           | R    |            |      |
| Volume (veh/h)                              | 15                     | 105  | 27        | 17                                       | 59                          | 46   |            |      |
| %Thrus Left Lane                            |                        |      |           |  |                             |      |            |      |
|   | Eastbound              |      | Westbound |  | Northbound                  |      | Southbound |      |
|   | L1                     | L2   | L1        | L2                                       | L1                          | L2   | L1         | L2   |
| Configuration                               | LTR                    |      | LTR       |  | LTR                         |      | LTR        |      |
| PHF   | 0.92                   |      | 0.92      |  | 0.92                        |      | 0.92       |      |
| Flow Rate (veh/h)                           | 54                     |      | 192       |  | 159                         |      | 131        |      |
| % Heavy Vehicles                            | 0                      |      | 0         |  | 0                           |      | 0          |      |
| No. Lanes                                   | 1                      |      | 1         |  | 1                           |      | 1          |      |
| Geometry Group                              | 1                      |      | 1         |  | 1                           |      | 1          |      |
| Duration, T                                 | 0.25                   |      |           |  |                             |      |            |      |
| Saturation Headway Adjustment Worksheet     |                        |      |           |  |                             |      |            |      |
| Prop. Left-Turns                            | 0.5                    |      | 0.2       |  | 0.1                         |      | 0.1        |      |
| Prop. Right-Turns                           | 0.0                    |      | 0.2       |  | 0.2                         |      | 0.4        |      |
| Prop. Heavy Vehicle                         | 0.0                    |      | 0.0       |  | 0.0                         |      | 0.0        |      |
| hLT-adj                                     | 0.2                    | 0.2  | 0.2       | 0.2                                      | 0.2                         | 0.2  | 0.2        | 0.2  |
| hRT-adj                                     | -0.6                   | -0.6 | -0.6      | -0.6                                     | -0.6                        | -0.6 | -0.6       | -0.6 |
| hHV-adj                                     | 1.7                    | 1.7  | 1.7       | 1.7                                      | 1.7                         | 1.7  | 1.7        | 1.7  |
| hadj, computed                              | 0.1                    |      | -0.1      |  | -0.1                        |      | -0.2       |      |
| Departure Headway and Service Time          |                        |      |           |  |                             |      |            |      |
| hd, initial value (s)                       | 3.20                   |      | 3.20      |  | 3.20                        |      | 3.20       |      |
| x, initial                                  | 0.05                   |      | 0.17      |  | 0.14                        |      | 0.12       |      |
| hd, final value (s)                         | 4.91                   |      | 4.57      |  | 4.57                        |      | 4.50       |      |
| x, final value                              | 0.07                   |      | 0.24      |  | 0.20                        |      | 0.16       |      |
| Move-up time, m (s)                         | 2.0                    |      | 2.0       |  | 2.0                         |      | 2.0        |      |
| Service Time, t <sub>s</sub> (s)            | 2.9                    |      | 2.6       |  | 2.6                         |      | 2.5        |      |
| Capacity and Level of Service               |                        |      |           |  |                             |      |            |      |
|   | Eastbound              |      | Westbound |  | Northbound                  |      | Southbound |      |
|   | L1                     | L2   | L1        | L2                                       | L1                          | L2   | L1         | L2   |
| Capacity (veh/h)                            | 304                    |      | 442       |  | 409                         |      | 381        |      |
| Delay (s/veh)                               | 8.30                   |      | 9.04      |  | 8.73                        |      | 8.38       |      |
| LOS   | A                      |      | A         |  | A                           |      | A          |      |
| Approach: Delay (s/veh)                     | 8.30                   |      | 9.04      |  | 8.73                        |      | 8.38       |      |
| LOS   | A                      |      | A         |  | A                           |      | A          |      |
| Intersection Delay (s/veh)                  | 8.71                   |      |           |  |                             |      |            |      |
| Intersection LOS                            | A                      |      |           |  |                             |      |            |      |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co            | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2017 Build                  |
| Analysis Time Period | AM Peak                |                  |                             |

Project ID CLEPIE1602

East/West Street: *White Oak Road*      North/South Street: *Merwin Ten Mile Road*

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |    |    | Westbound |     |    |
|------------------|-----------|----|----|-----------|-----|----|
|                  | L         | T  | R  | L         | T   | R  |
| Movement         |           |    |    |           |     |    |
| Volume (veh/h)   | 24        | 33 | 15 | 31        | 113 | 40 |
| %Thrus Left Lane |           |    |    |           |     |    |

| Approach         | Northbound |     |    | Southbound |    |    |
|------------------|------------|-----|----|------------|----|----|
|                  | L          | T   | R  | L          | T  | R  |
| Movement         |            |     |    |            |    |    |
| Volume (veh/h)   | 19         | 109 | 27 | 26         | 72 | 46 |
| %Thrus Left Lane |            |     |    |            |    |    |

|                   | Eastbound  |    | Westbound  |    | Northbound |    | Southbound |    |
|-------------------|------------|----|------------|----|------------|----|------------|----|
|                   | L1         | L2 | L1         | L2 | L1         | L2 | L1         | L2 |
| Configuration     | <i>LTR</i> |    | <i>LTR</i> |    | <i>LTR</i> |    | <i>LTR</i> |    |
| PHF               | 0.92       |    | 0.92       |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 77         |    | 198        |    | 167        |    | 155        |    |
| % Heavy Vehicles  | 0          |    | 0          |    | 0          |    | 0          |    |
| No. Lanes         | 1          |    | 1          |    | 1          |    | 1          |    |
| Geometry Group    | 1          |    | 1          |    | 1          |    | 1          |    |
| Duration, T       | 0.25       |    |            |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.3  |      | 0.2  |      | 0.1  |      | 0.2  |      |
| Prop. Right-Turns   | 0.2  |      | 0.2  |      | 0.2  |      | 0.3  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | -0.1 |      | -0.1 |      | -0.1 |      | -0.2 |      |

### Departure Headway and Service Time

|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.07 |  | 0.18 |  | 0.15 |  | 0.14 |  |
| hd, final value (s)              | 4.90 |  | 4.69 |  | 4.71 |  | 4.65 |  |
| x, final value                   | 0.10 |  | 0.26 |  | 0.22 |  | 0.20 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 2.9  |  | 2.7  |  | 2.7  |  | 2.7  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 327       |    | 448       |    | 417        |    | 405        |    |
| Delay (s/veh)              | 8.47      |    | 9.32      |    | 9.02       |    | 8.81       |    |
| LOS                        | A         |    | A         |    | A          |    | A          |    |
| Approach: Delay (s/veh)    | 8.47      |    | 9.32      |    | 9.02       |    | 8.81       |    |
| LOS                        | A         |    | A         |    | A          |    | A          |    |
| Intersection Delay (s/veh) | 8.99      |    |           |    |            |    |            |    |
| Intersection LOS           | A         |    |           |    |            |    |            |    |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co.           | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2037 No-Build               |
| Analysis Time Period | AM Peak                |                  |                             |

Project ID CLEPIE1602

East/West Street: White Oak Road

North/South Street: Merwin Ten Mile Road

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |    |   | Westbound |     |    |
|------------------|-----------|----|---|-----------|-----|----|
|                  | L         | T  | R | L         | T   | R  |
| Movement         |           |    |   |           |     |    |
| Volume (veh/h)   | 29        | 29 | 3 | 37        | 132 | 45 |
| %Thrus Left Lane |           |    |   |           |     |    |

| Approach         | Northbound |     |    | Southbound |    |    |
|------------------|------------|-----|----|------------|----|----|
|                  | L          | T   | R  | L          | T  | R  |
| Movement         |            |     |    |            |    |    |
| Volume (veh/h)   | 18         | 126 | 33 | 20         | 71 | 56 |
| %Thrus Left Lane |            |     |    |            |    |    |

|                   | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|-------------------|-----------|----|-----------|----|------------|----|------------|----|
|                   | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Configuration     | LTR       |    | LTR       |    | LTR        |    | LTR        |    |
| PHF               | 0.92      |    | 0.92      |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 65        |    | 231       |    | 190        |    | 158        |    |
| % Heavy Vehicles  | 0         |    | 0         |    | 0          |    | 0          |    |
| No. Lanes         | 1         |    | 1         |    | 1          |    | 1          |    |
| Geometry Group    | 1         |    | 1         |    | 1          |    | 1          |    |
| Duration, T       | 0.25      |    |           |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.5  |      | 0.2  |      | 0.1  |      | 0.1  |      |
| Prop. Right-Turns   | 0.0  |      | 0.2  |      | 0.2  |      | 0.4  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | 0.1  |      | -0.1 |      | -0.1 |      | -0.2 |      |

### Departure Headway and Service Time

|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.06 |  | 0.21 |  | 0.17 |  | 0.14 |  |
| hd, final value (s)              | 5.15 |  | 4.76 |  | 4.78 |  | 4.71 |  |
| x, final value                   | 0.09 |  | 0.31 |  | 0.25 |  | 0.21 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 3.2  |  | 2.8  |  | 2.8  |  | 2.7  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 315       |    | 481       |    | 440        |    | 408        |    |
| Delay (s/veh)              | 8.68      |    | 9.85      |    | 9.38       |    | 8.93       |    |
| LOS                        | A         |    | A         |    | A          |    | A          |    |
| Approach: Delay (s/veh)    | 8.68      |    | 9.85      |    | 9.38       |    | 8.93       |    |
| LOS                        | A         |    | A         |    | A          |    | A          |    |
| Intersection Delay (s/veh) | 9.37      |    |           |    |            |    |            |    |
| Intersection LOS           | A         |    |           |    |            |    |            |    |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information                         |                        |      |           | Site Information                         |                             |      |            |      |
|---|------------------------|------|-----------|--|-----------------------------|------|------------|------|
| Analyst                                     | MKG                    |      |           | Intersection                             | White Oak & Merwin Ten Mile |      |            |      |
| Agency/Co.                                  | Choice One Engineering |      |           | Jurisdiction                             | County                      |      |            |      |
| Date Performed                              | 2/11/2016              |      |           | Analysis Year                            | 2037 Build                  |      |            |      |
| Analysis Time Period                        | AM Peak                |      |           |  |                             |      |            |      |
| Project ID CLEPIE1602                       |                        |      |           |  |                             |      |            |      |
| East/West Street: White Oak Road            |                        |      |           | North/South Street: Merwin Ten Mile Road |                             |      |            |      |
| Volume Adjustments and Site Characteristics |                        |      |           |  |                             |      |            |      |
| Approach                                    | Eastbound              |      |           | Westbound                                |                             |      |            |      |
| Movement                                    | L                      | T    | R         | L  | T                           | R    |            |      |
| Volume (veh/h)                              | 29                     | 38   | 16        | 37                                       | 135                         | 48   |            |      |
| %Thrus Left Lane                            |                        |      |           |  |                             |      |            |      |
| Approach                                    | Northbound             |      |           | Southbound                               |                             |      |            |      |
| Movement                                    | L                      | T    | R         | L  | T                           | R    |            |      |
| Volume (veh/h)                              | 22                     | 130  | 33        | 29                                       | 84                          | 56   |            |      |
| %Thrus Left Lane                            |                        |      |           |  |                             |      |            |      |
|   | Eastbound              |      | Westbound |  | Northbound                  |      | Southbound |      |
|   | L1                     | L2   | L1        | L2                                       | L1                          | L2   | L1         | L2   |
| Configuration                               | LTR                    |      | LTR       |  | LTR                         |      | LTR        |      |
| PHF   | 0.92                   |      | 0.92      |  | 0.92                        |      | 0.92       |      |
| Flow Rate (veh/h)                           | 89                     |      | 238       |  | 199                         |      | 182        |      |
| % Heavy Vehicles                            | 0                      |      | 0         |  | 0                           |      | 0          |      |
| No. Lanes                                   | 1                      |      | 1         |  | 1                           |      | 1          |      |
| Geometry Group                              | 1                      |      | 1         |  | 1                           |      | 1          |      |
| Duration, T                                 | 0.25                   |      |           |  |                             |      |            |      |
| Saturation Headway Adjustment Worksheet     |                        |      |           |  |                             |      |            |      |
| Prop. Left-Turns                            | 0.3                    |      | 0.2       |  | 0.1                         |      | 0.2        |      |
| Prop. Right-Turns                           | 0.2                    |      | 0.2       |  | 0.2                         |      | 0.3        |      |
| Prop. Heavy Vehicle                         | 0.0                    |      | 0.0       |  | 0.0                         |      | 0.0        |      |
| hLT-adj                                     | 0.2                    | 0.2  | 0.2       | 0.2                                      | 0.2                         | 0.2  | 0.2        | 0.2  |
| hRT-adj                                     | -0.6                   | -0.6 | -0.6      | -0.6                                     | -0.6                        | -0.6 | -0.6       | -0.6 |
| hHV-adj                                     | 1.7                    | 1.7  | 1.7       | 1.7                                      | 1.7                         | 1.7  | 1.7        | 1.7  |
| hadj, computed                              | -0.0                   |      | -0.1      |  | -0.1                        |      | -0.2       |      |
| Departure Headway and Service Time          |                        |      |           |  |                             |      |            |      |
| hd, initial value (s)                       | 3.20                   |      | 3.20      |  | 3.20                        |      | 3.20       |      |
| x, initial                                  | 0.08                   |      | 0.21      |  | 0.18                        |      | 0.16       |      |
| hd, final value (s)                         | 5.18                   |      | 4.91      |  | 4.93                        |      | 4.87       |      |
| x, final value                              | 0.13                   |      | 0.32      |  | 0.27                        |      | 0.25       |      |
| Move-up time, m (s)                         | 2.0                    |      | 2.0       |  | 2.0                         |      | 2.0        |      |
| Service Time, t <sub>s</sub> (s)            | 3.2                    |      | 2.9       |  | 2.9                         |      | 2.9        |      |
| Capacity and Level of Service               |                        |      |           |  |                             |      |            |      |
|   | Eastbound              |      | Westbound |  | Northbound                  |      | Southbound |      |
|   | L1                     | L2   | L1        | L2                                       | L1                          | L2   | L1         | L2   |
| Capacity (veh/h)                            | 339                    |      | 488       |  | 449                         |      | 432        |      |
| Delay (s/veh)                               | 8.94                   |      | 10.24     |  | 9.76                        |      | 9.46       |      |
| LOS   | A                      |      | B         |  | A                           |      | A          |      |
| Approach: Delay (s/veh)                     | 8.94                   |      | 10.24     |  | 9.76                        |      | 9.46       |      |
| LOS   | A                      |      | B         |  | A                           |      | A          |      |
| Intersection Delay (s/veh)                  | 9.74                   |      |           |  |                             |      |            |      |
| Intersection LOS                            | A                      |      |           |  |                             |      |            |      |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co.           | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2016 Existing               |
| Analysis Time Period | PM Peak                |                  |                             |

Project ID CLEPIE1602

East/West Street: White Oak Road

North/South Street: Merwin Ten Mile Road

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |     |    | Westbound |    |    |
|------------------|-----------|-----|----|-----------|----|----|
|                  | L         | T   | R  | L         | T  | R  |
| Movement         |           |     |    |           |    |    |
| Volume (veh/h)   | 61        | 101 | 18 | 27        | 36 | 49 |
| %Thrus Left Lane |           |     |    |           |    |    |

| Approach         | Northbound |     |    | Southbound |     |    |
|------------------|------------|-----|----|------------|-----|----|
|                  | L          | T   | R  | L          | T   | R  |
| Movement         |            |     |    |            |     |    |
| Volume (veh/h)   | 7          | 119 | 43 | 33         | 141 | 37 |
| %Thrus Left Lane |            |     |    |            |     |    |

|                   | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|-------------------|-----------|----|-----------|----|------------|----|------------|----|
|                   | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Configuration     | LTR       |    | LTR       |    | LTR        |    | LTR        |    |
| PHF               | 0.92      |    | 0.92      |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 194       |    | 121       |    | 182        |    | 228        |    |
| % Heavy Vehicles  | 0         |    | 0         |    | 0          |    | 0          |    |
| No. Lanes         | 1         |    | 1         |    | 1          |    | 1          |    |
| Geometry Group    | 1         |    | 1         |    | 1          |    | 1          |    |
| Duration, T       | 0.25      |    |           |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.3  |      | 0.2  |      | 0.0  |      | 0.2  |      |
| Prop. Right-Turns   | 0.1  |      | 0.4  |      | 0.3  |      | 0.2  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | 0.0  |      | -0.2 |      | -0.1 |      | -0.1 |      |

### Departure Headway and Service Time

|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.17 |  | 0.11 |  | 0.16 |  | 0.20 |  |
| hd, final value (s)              | 5.14 |  | 5.04 |  | 4.92 |  | 4.92 |  |
| x, final value                   | 0.28 |  | 0.17 |  | 0.25 |  | 0.31 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 3.1  |  | 3.0  |  | 2.9  |  | 2.9  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 444       |    | 371       |    | 432        |    | 478        |    |
| Delay (s/veh)              | 10.09     |    | 9.06      |    | 9.54       |    | 10.14      |    |
| LOS                        | B         |    | A         |    | A          |    | B          |    |
| Approach: Delay (s/veh)    | 10.09     |    | 9.06      |    | 9.54       |    | 10.14      |    |
| LOS                        | B         |    | A         |    | A          |    | B          |    |
| Intersection Delay (s/veh) | 9.80      |    |           |    |            |    |            |    |
| Intersection LOS           | A         |    |           |    |            |    |            |    |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co.           | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2017 No-Build               |
| Analysis Time Period | PM Peak                |                  |                             |

Project ID **CLEPIE1602**

East/West Street: **White Oak Road**

North/South Street: **Merwin Ten Mile Road**

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |     |    | Westbound |    |    |
|------------------|-----------|-----|----|-----------|----|----|
|                  | L         | T   | R  | L         | T  | R  |
| Movement         |           |     |    |           |    |    |
| Volume (veh/h)   | 69        | 114 | 20 | 31        | 41 | 56 |
| %Thrus Left Lane |           |     |    |           |    |    |

| Approach         | Northbound |     |    | Southbound |     |    |
|------------------|------------|-----|----|------------|-----|----|
|                  | L          | T   | R  | L          | T   | R  |
| Movement         |            |     |    |            |     |    |
| Volume (veh/h)   | 8          | 135 | 49 | 37         | 160 | 42 |
| %Thrus Left Lane |            |     |    |            |     |    |

|                   | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|-------------------|-----------|----|-----------|----|------------|----|------------|----|
|                   | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Configuration     | LTR       |    | LTR       |    | LTR        |    | LTR        |    |
| PHF               | 0.92      |    | 0.92      |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 218       |    | 137       |    | 207        |    | 258        |    |
| % Heavy Vehicles  | 0         |    | 0         |    | 0          |    | 0          |    |
| No. Lanes         | 1         |    | 1         |    | 1          |    | 1          |    |
| Geometry Group    | 1         |    | 1         |    | 1          |    | 1          |    |
| Duration, T       | 0.25      |    |           |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.3  |      | 0.2  |      | 0.0  |      | 0.2  |      |
| Prop. Right-Turns   | 0.1  |      | 0.4  |      | 0.3  |      | 0.2  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | 0.0  |      | -0.2 |      | -0.1 |      | -0.1 |      |

### Departure Headway and Service Time

|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.19 |  | 0.12 |  | 0.18 |  | 0.23 |  |
| hd, final value (s)              | 5.37 |  | 5.30 |  | 5.14 |  | 5.14 |  |
| x, final value                   | 0.33 |  | 0.20 |  | 0.30 |  | 0.37 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 3.4  |  | 3.3  |  | 3.1  |  | 3.1  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 468       |    | 387       |    | 457        |    | 508        |    |
| Delay (s/veh)              | 10.94     |    | 9.63      |    | 10.29      |    | 11.10      |    |
| LOS                        | B         |    | A         |    | B          |    | B          |    |
| Approach: Delay (s/veh)    | 10.94     |    | 9.63      |    | 10.29      |    | 11.10      |    |
| LOS                        | B         |    | A         |    | B          |    | B          |    |
| Intersection Delay (s/veh) | 10.61     |    |           |    |            |    |            |    |
| Intersection LOS           | B         |    |           |    |            |    |            |    |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co.           | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2017 Build                  |
| Analysis Time Period | PM Peak                |                  |                             |

Project ID **CLEPIE1602**  
 East/West Street: *White Oak Road*      North/South Street: *Merwin Ten Mile Road*

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |     |    | Westbound |    |    |
|------------------|-----------|-----|----|-----------|----|----|
|                  | L         | T   | R  | L         | T  | R  |
| Movement         |           |     |    |           |    |    |
| Volume (veh/h)   | 69        | 120 | 28 | 31        | 52 | 67 |
| %Thrus Left Lane |           |     |    |           |    |    |

| Approach         | Northbound |     |    | Southbound |     |    |
|------------------|------------|-----|----|------------|-----|----|
|                  | L          | T   | R  | L          | T   | R  |
| Movement         |            |     |    |            |     |    |
| Volume (veh/h)   | 22         | 149 | 49 | 43         | 168 | 42 |
| %Thrus Left Lane |            |     |    |            |     |    |

|                   | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|-------------------|-----------|----|-----------|----|------------|----|------------|----|
|                   | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Configuration     | LTR       |    | LTR       |    | LTR        |    | LTR        |    |
| PHF               | 0.92      |    | 0.92      |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 234       |    | 161       |    | 237        |    | 273        |    |
| % Heavy Vehicles  | 0         |    | 0         |    | 0          |    | 0          |    |
| No. Lanes         | 1         |    | 1         |    | 1          |    | 1          |    |
| Geometry Group    | 1         |    | 1         |    | 1          |    | 1          |    |
| Duration, T       | 0.25      |    |           |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.3  |      | 0.2  |      | 0.1  |      | 0.2  |      |
| Prop. Right-Turns   | 0.1  |      | 0.4  |      | 0.2  |      | 0.2  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | -0.0 |      | -0.2 |      | -0.1 |      | -0.1 |      |

### Departure Headway and Service Time

|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.21 |  | 0.14 |  | 0.21 |  | 0.24 |  |
| hd, final value (s)              | 5.59 |  | 5.53 |  | 5.39 |  | 5.38 |  |
| x, final value                   | 0.36 |  | 0.25 |  | 0.35 |  | 0.41 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 3.6  |  | 3.5  |  | 3.4  |  | 3.4  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 484       |    | 411       |    | 487        |    | 523        |    |
| Delay (s/veh)              | 11.75     |    | 10.33     |    | 11.33      |    | 12.03      |    |
| LOS                        | B         |    | B         |    | B          |    | B          |    |
| Approach: Delay (s/veh)    | 11.75     |    | 10.33     |    | 11.33      |    | 12.03      |    |
| LOS                        | B         |    | B         |    | B          |    | B          |    |
| Intersection Delay (s/veh) | 11.47     |    |           |    |            |    |            |    |
| Intersection LOS           | B         |    |           |    |            |    |            |    |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co.           | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2037 No-Build               |
| Analysis Time Period | PM Peak                |                  |                             |

Project ID CLEPIE1602

East/West Street: White Oak Road

North/South Street: Merwin Ten Mile Road

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |     |    | Westbound |    |    |
|------------------|-----------|-----|----|-----------|----|----|
|                  | L         | T   | R  | L         | T  | R  |
| Movement         |           |     |    |           |    |    |
| Volume (veh/h)   | 83        | 137 | 24 | 37        | 49 | 67 |
| %Thrus Left Lane |           |     |    |           |    |    |

| Approach         | Northbound |     |    | Southbound |     |    |
|------------------|------------|-----|----|------------|-----|----|
|                  | L          | T   | R  | L          | T   | R  |
| Movement         |            |     |    |            |     |    |
| Volume (veh/h)   | 10         | 162 | 58 | 45         | 191 | 50 |
| %Thrus Left Lane |            |     |    |            |     |    |

|                   | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|-------------------|-----------|----|-----------|----|------------|----|------------|----|
|                   | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Configuration     | LTR       |    | LTR       |    | LTR        |    | LTR        |    |
| PHF               | 0.92      |    | 0.92      |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 264       |    | 165       |    | 249        |    | 309        |    |
| % Heavy Vehicles  | 0         |    | 0         |    | 0          |    | 0          |    |
| No. Lanes         | 1         |    | 1         |    | 1          |    | 1          |    |
| Geometry Group    | 1         |    | 1         |    | 1          |    | 1          |    |
| Duration, T       | 0.25      |    |           |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.3  |      | 0.2  |      | 0.0  |      | 0.2  |      |
| Prop. Right-Turns   | 0.1  |      | 0.4  |      | 0.3  |      | 0.2  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | 0.0  |      | -0.2 |      | -0.1 |      | -0.1 |      |

### Departure Headway and Service Time

|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.23 |  | 0.15 |  | 0.22 |  | 0.27 |  |
| hd, final value (s)              | 5.84 |  | 5.84 |  | 5.63 |  | 5.58 |  |
| x, final value                   | 0.43 |  | 0.27 |  | 0.39 |  | 0.48 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 3.8  |  | 3.8  |  | 3.6  |  | 3.6  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 514       |    | 415       |    | 499        |    | 559        |    |
| Delay (s/veh)              | 13.15     |    | 10.96     |    | 12.17      |    | 13.62      |    |
| LOS                        | B         |    | B         |    | B          |    | B          |    |
| Approach: Delay (s/veh)    | 13.15     |    | 10.96     |    | 12.17      |    | 13.62      |    |
| LOS                        | B         |    | B         |    | B          |    | B          |    |
| Intersection Delay (s/veh) | 12.68     |    |           |    |            |    |            |    |
| Intersection LOS           | B         |    |           |    |            |    |            |    |

## ALL-WAY STOP CONTROL ANALYSIS

| General Information  |                        | Site Information |                             |
|----------------------|------------------------|------------------|-----------------------------|
| Analyst              | MKG                    | Intersection     | White Oak & Merwin Ten Mile |
| Agency/Co.           | Choice One Engineering | Jurisdiction     | County                      |
| Date Performed       | 2/11/2016              | Analysis Year    | 2037 Build                  |
| Analysis Time Period | PM Peak                |                  |                             |

Project ID **CLEPIE1602**

East/West Street: *White Oak Road*

North/South Street: *Merwin Ten Mile Road*

### Volume Adjustments and Site Characteristics

| Approach         | Eastbound |     |    | Westbound |    |    |
|------------------|-----------|-----|----|-----------|----|----|
|                  | L         | T   | R  | L         | T  | R  |
| Movement         |           |     |    |           |    |    |
| Volume (veh/h)   | 83        | 143 | 32 | 37        | 60 | 78 |
| %Thrus Left Lane |           |     |    |           |    |    |

| Approach         | Northbound |     |    | Southbound |     |    |
|------------------|------------|-----|----|------------|-----|----|
|                  | L          | T   | R  | L          | T   | R  |
| Movement         |            |     |    |            |     |    |
| Volume (veh/h)   | 24         | 176 | 58 | 51         | 199 | 50 |
| %Thrus Left Lane |            |     |    |            |     |    |

|                   | Eastbound  |    | Westbound  |    | Northbound |    | Southbound |    |
|-------------------|------------|----|------------|----|------------|----|------------|----|
|                   | L1         | L2 | L1         | L2 | L1         | L2 | L1         | L2 |
| Configuration     | <i>LTR</i> |    | <i>LTR</i> |    | <i>LTR</i> |    | <i>LTR</i> |    |
| PHF               | 0.92       |    | 0.92       |    | 0.92       |    | 0.92       |    |
| Flow Rate (veh/h) | 279        |    | 189        |    | 280        |    | 325        |    |
| % Heavy Vehicles  | 0          |    | 0          |    | 0          |    | 0          |    |
| No. Lanes         | 1          |    | 1          |    | 1          |    | 1          |    |
| Geometry Group    | 1          |    | 1          |    | 1          |    | 1          |    |
| Duration, T       | 0.25       |    |            |    |            |    |            |    |

### Saturation Headway Adjustment Worksheet

|                     |      |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|------|
| Prop. Left-Turns    | 0.3  |      | 0.2  |      | 0.1  |      | 0.2  |      |
| Prop. Right-Turns   | 0.1  |      | 0.4  |      | 0.2  |      | 0.2  |      |
| Prop. Heavy Vehicle | 0.0  |      | 0.0  |      | 0.0  |      | 0.0  |      |
| hLT-adj             | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| hRT-adj             | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| hHV-adj             | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  | 1.7  |
| hadj, computed      | -0.0 |      | -0.2 |      | -0.1 |      | -0.1 |      |

### Departure Headway and Service Time

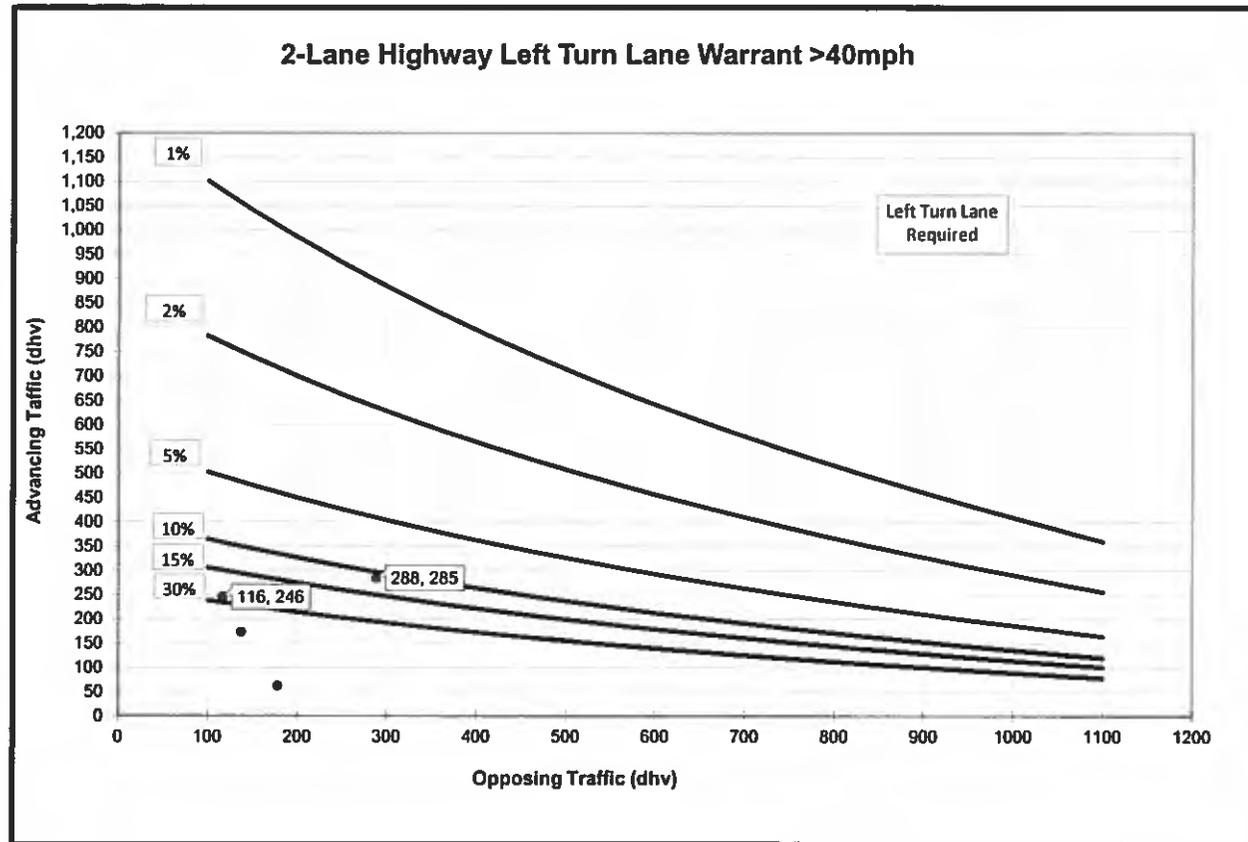
|                                  |      |  |      |  |      |  |      |  |
|----------------------------------|------|--|------|--|------|--|------|--|
| hd, initial value (s)            | 3.20 |  | 3.20 |  | 3.20 |  | 3.20 |  |
| x, initial                       | 0.25 |  | 0.17 |  | 0.25 |  | 0.29 |  |
| hd, final value (s)              | 6.14 |  | 6.15 |  | 5.94 |  | 5.89 |  |
| x, final value                   | 0.48 |  | 0.32 |  | 0.46 |  | 0.53 |  |
| Move-up time, m (s)              | 2.0  |  | 2.0  |  | 2.0  |  | 2.0  |  |
| Service Time, t <sub>s</sub> (s) | 4.1  |  | 4.2  |  | 3.9  |  | 3.9  |  |

### Capacity and Level of Service

|                            | Eastbound |    | Westbound |    | Northbound |    | Southbound |    |
|----------------------------|-----------|----|-----------|----|------------|----|------------|----|
|                            | L1        | L2 | L1        | L2 | L1         | L2 | L1         | L2 |
| Capacity (veh/h)           | 529       |    | 439       |    | 530        |    | 568        |    |
| Delay (s/veh)              | 14.60     |    | 12.06     |    | 13.93      |    | 15.40      |    |
| LOS                        | B         |    | B         |    | B          |    | C          |    |
| Approach: Delay (s/veh)    | 14.60     |    | 12.06     |    | 13.93      |    | 15.40      |    |
| LOS                        | B         |    | B         |    | B          |    | C          |    |
| Intersection Delay (s/veh) | 14.22     |    |           |    |            |    |            |    |
| Intersection LOS           | B         |    |           |    |            |    |            |    |

| 2017 PM Build Left Turn Lane Warrant |                  |               |              |             |
|--------------------------------------|------------------|---------------|--------------|-------------|
| Intersection                         | Left Turning Vol | Advancing Vol | Opposing Vol | Left Turn % |
| 2EBL                                 | 42               | 246           | 116          | 17%         |
| 3NBL                                 | 25               | 285           | 288          | 9%          |

| 2017 AM Build Left Turn Lane Warrant |                  |               |              |             |
|--------------------------------------|------------------|---------------|--------------|-------------|
| Intersection                         | Left Turning Vol | Advancing Vol | Opposing Vol | Left Turn % |
| 2EBL                                 | 13               | 63            | 178          | 21%         |
| 3NBL                                 | 7                | 174           | 137          | 4%          |



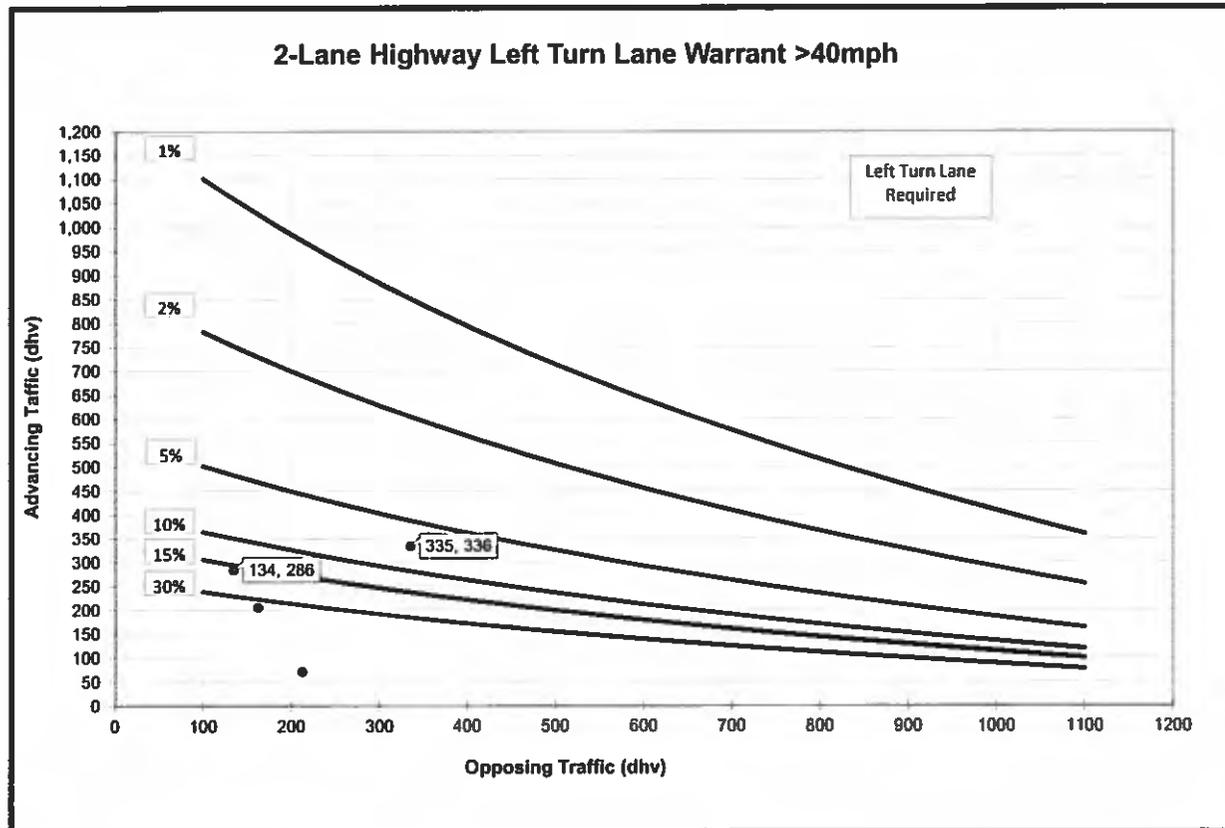
**Intersection Legend**

- 1 - Merwin Ten Mile Road & White Oak Road
- 2 - White Oak Drive
- 3 - Merwin Ten Mile Drive

| 2037 PM Build Left Turn Lane Warrant |                  |               |              |             |
|--------------------------------------|------------------|---------------|--------------|-------------|
| Intersection                         | Left Turning Vol | Advancing Vol | Opposing Vol | Left Turn % |
| 2EBL                                 | 42               | 286           | 134          | 15%         |
| 3NBL                                 | 25               | 336           | 335          | 7%          |

| 2037 AM Build Left Turn Lane Warrant |                  |               |              |             |
|--------------------------------------|------------------|---------------|--------------|-------------|
| Intersection                         | Left Turning Vol | Advancing Vol | Opposing Vol | Left Turn % |
| 2EBL                                 | 13               | 73            | 212          | 18%         |
| 3NBL                                 | 7                | 207           | 162          | 3%          |

2-Lane Highway Left Turn Lane Warrant >40mph



**Intersection Legend**

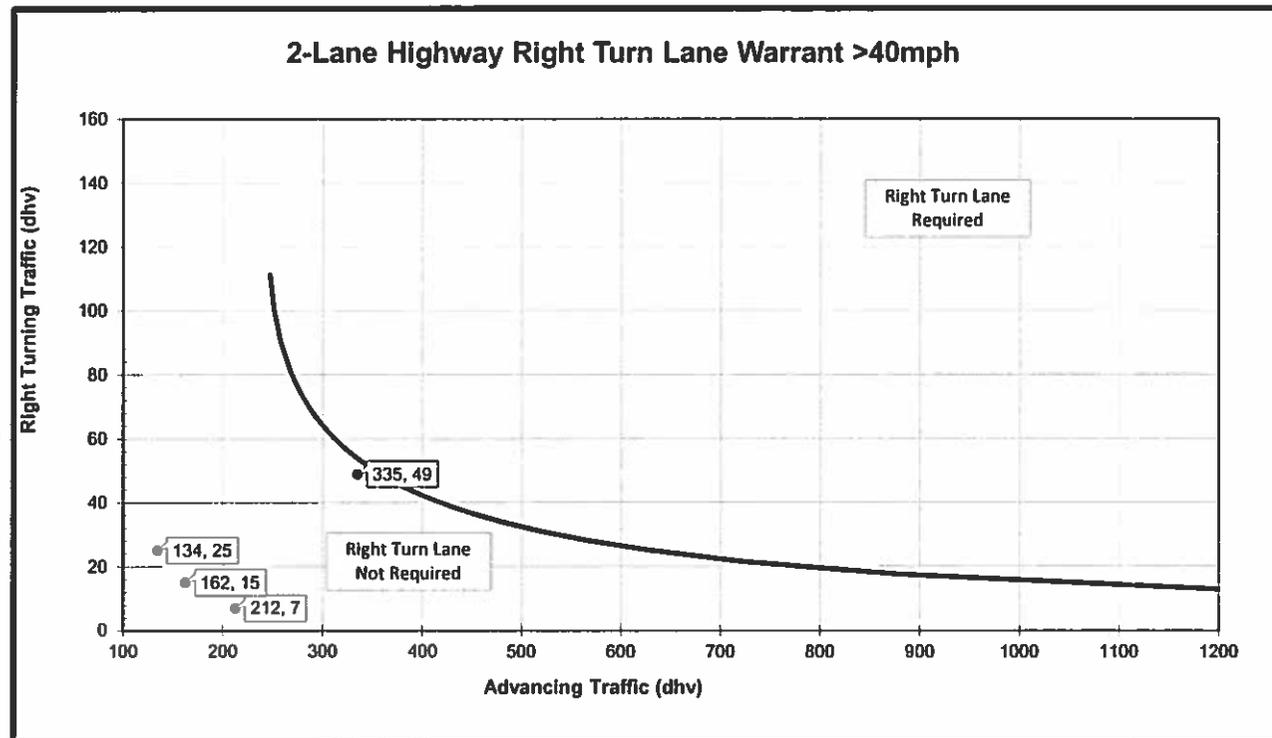
- 1 - Merwin Ten Mile Road & White Oak Road
- 2 - White Oak Drive
- 3 - Merwin Ten Mile Drive

| 2037 PM Build Right Turn Lane Warrant |                   |               |
|---------------------------------------|-------------------|---------------|
| Intersection                          | Right Turning Vol | Advancing Vol |
| 2WBR                                  | 25                | 134           |
| 3SBR                                  | 49                | 335           |

| 2037 AM Build Right Turn Lane Warrant |                   |               |
|---------------------------------------|-------------------|---------------|
| Intersection                          | Right Turning Vol | Advancing Vol |
| 2WBR                                  | 7                 | 212           |
| 3SBR                                  | 15                | 162           |

**Intersection Legend**

- 1 - Merwin Ten Mile Road & White Oak Road
- 2 - White Oak Drive
- 3 - Merwin Ten Mile Drive





**Choice One Engineering**  
 Merwin Ten Mile Rd & White Oak Rd  
 Pierce Township, Ohio

**Signal Warrants - Summary**

**Major Street Approaches**

**Eastbound: White Oak**  
 Number of Lanes: 1  
 85% Speed > 40 MPH.  
 Total Approach Volume: 647

**Westbound: White Oak**  
 Number of Lanes: 1  
 85% Speed > 40 MPH.  
 Total Approach Volume: 521

**Minor Street Approaches**

**Northbound: Merwin 10 Mile**  
 Number of Lanes: 1  
  
 Total Approach Volume: 583

**Southbound: Merwin Ten Mile**  
 Number of Lanes: 1  
  
 Total Approach Volume: 428

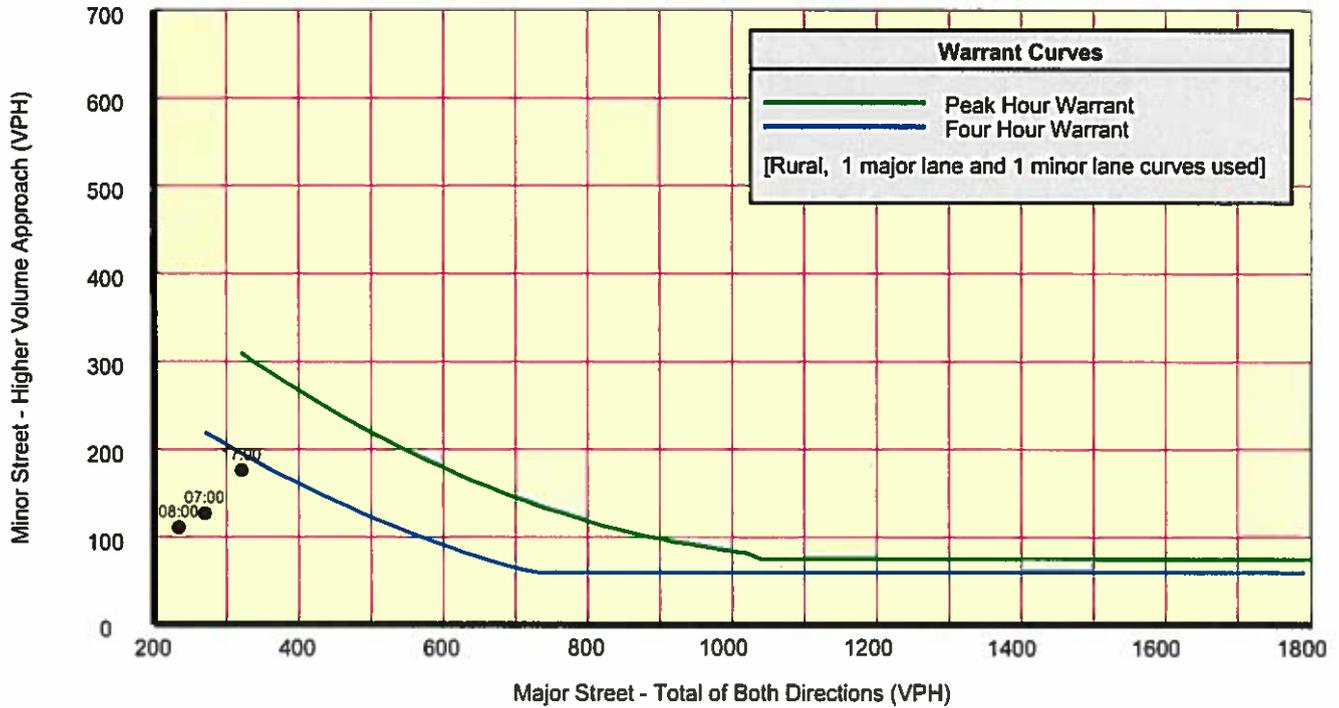
**Warrant Summary** (Rural values apply.)

|  |                      |
|--|----------------------|
| <b>Warrant 1 - Eight Hour Vehicular Volumes</b> .....  | Not Evaluated        |
| <b>Warrant 1A - Minimum Vehicular Volume</b> .....   | Not Evaluated        |
| <b>Warrant 1B - Interruption of Continuous Traffic</b> .....                                   | Not Evaluated        |
| <b>Warrant 1C - Combination of Warrants</b> .....  | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 2 - Four Hour Volumes</b> .....   | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 3 - Peak Hour</b> .....   | <b>Not Satisfied</b> |
| <b>Warrant 3A - Peak Hour Delay</b> .....  | <b>Not Satisfied</b> |
| Approach volumes on minor street don't exceed minimums for any hour. Delay data not evaluated. |                      |
| <b>Warrant 3B - Peak Hour Volumes</b> .....  | <b>Not Satisfied</b> |
| Volumes do not exceed minimums for any hour.   |                      |
| <br>   |                      |
| <b>Warrant 4 - Pedestrian Volumes</b> .....  | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 5 - School Crossing</b> .....   | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 6 - Coordinated Signal System</b> .....   | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 7 - Crash Experience</b> .....  | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 8 - Roadway Network</b> .....   | Not Evaluated        |
| <br>   |                      |
| <b>Warrant 9 - Intersection Near a Grade Crossing</b> .....                                    | Not Evaluated        |



**Choice One Engineering**  
 Merwin Ten Mile Rd & White Oak Rd  
 Pierce Township, Ohio

**Signal Warrants - Summary**



**Analysis of 8-Hour Volume Warrants:**

War 1A-Minimum Volume

War 1B-Interruption of Traffic

War 1C-Combination of Warrants

| Hour Begin | Major Total | Minor Vol Dir | Maj NA | Min NA | Hour Begin | Major Total | Minor Vol Dir | Maj NA | Min NA | Hour Begin | Major Total | Minor Vol Dir | 1A Met | 1B Met |
|------------|-------------|---------------|--------|--------|------------|-------------|---------------|--------|--------|------------|-------------|---------------|--------|--------|
| 16:45      | 343         | 167 NB        | No     | No     | 16:45      | 343         | 167 NB        | No     | No     | 16:45      | 343         | 167 NB        | No     | No     |
| 17:15      | 323         | 180 SB        | No     | No     | 17:15      | 323         | 180 SB        | No     | No     | 17:15      | 323         | 180 SB        | No     | No     |
| 17:00      | 321         | 176 SB        | No     | No     | 17:00      | 321         | 176 SB        | No     | No     | 17:00      | 321         | 176 SB        | No     | No     |
| 16:30      | 317         | 148 NB        | No     | No     | 16:30      | 317         | 148 NB        | No     | No     | 16:30      | 317         | 148 NB        | No     | No     |
| 17:30      | 315         | 177 NB        | No     | No     | 17:30      | 315         | 177 NB        | No     | No     | 17:30      | 315         | 177 NB        | No     | No     |
| 07:00      | 270         | 127 NB        | No     | No     | 07:00      | 270         | 127 NB        | No     | No     | 07:00      | 270         | 127 NB        | No     | No     |
| 07:15      | 263         | 128 NB        | No     | No     | 07:15      | 263         | 128 NB        | No     | No     | 07:15      | 263         | 128 NB        | No     | No     |
| 17:45      | 256         | 150 NB        | No     | No     | 17:45      | 256         | 150 NB        | No     | No     | 17:45      | 256         | 150 NB        | No     | No     |
| 07:30      | 240         | 128 NB        | No     | No     | 07:30      | 240         | 128 NB        | No     | No     | 07:30      | 240         | 128 NB        | No     | No     |
| 07:45      | 238         | 126 NB        | No     | No     | 07:45      | 238         | 126 NB        | No     | No     | 07:45      | 238         | 126 NB        | No     | No     |
| 08:00      | 234         | 111 NB        | No     | No     | 08:00      | 234         | 111 NB        | No     | No     | 08:00      | 234         | 111 NB        | No     | No     |
| 16:15      | 232         | 112 NB        | No     | No     | 16:15      | 232         | 112 NB        | No     | No     | 16:15      | 232         | 112 NB        | No     | No     |
| 06:45      | 211         | 84 NB         | No     | No     | 06:45      | 211         | 84 NB         | No     | No     | 06:45      | 211         | 84 NB         | No     | No     |
| 08:15      | 183         | 85 NB         | No     | No     | 08:15      | 183         | 85 NB         | No     | No     | 08:15      | 183         | 85 NB         | No     | No     |
| 18:00      | 173         | 108 NB        | No     | No     | 18:00      | 173         | 108 NB        | No     | No     | 18:00      | 173         | 108 NB        | No     | No     |
| 16:00      | 156         | 60 NB         | No     | No     | 16:00      | 156         | 60 NB         | No     | No     | 16:00      | 156         | 60 NB         | No     | No     |
| 06:30      | 145         | 54 NB         | No     | No     | 06:30      | 145         | 54 NB         | No     | No     | 06:30      | 145         | 54 NB         | No     | No     |
| 08:30      | 133         | 62 SB         | No     | No     | 08:30      | 133         | 62 SB         | No     | No     | 08:30      | 133         | 62 SB         | No     | No     |
| 18:15      | 95          | 59 NB         | No     | No     | 18:15      | 95          | 59 NB         | No     | No     | 18:15      | 95          | 59 NB         | No     | No     |
| 06:15      | 72          | 30 NB         | No     | No     | 06:15      | 72          | 30 NB         | No     | No     | 06:15      | 72          | 30 NB         | No     | No     |
| 08:45      | 69          | 45 SB         | No     | No     | 08:45      | 69          | 45 SB         | No     | No     | 08:45      | 69          | 45 SB         | No     | No     |
| 15:45      | 51          | 28 SB         | No     | No     | 15:45      | 51          | 28 SB         | No     | No     | 15:45      | 51          | 28 SB         | No     | No     |
| 18:30      | 18          | 15 NB         | No     | No     | 18:30      | 18          | 15 NB         | No     | No     | 18:30      | 18          | 15 NB         | No     | No     |
| 09:00      | 14          | 5 NB          | No     | No     | 09:00      | 14          | 5 NB          | No     | No     | 09:00      | 14          | 5 NB          | No     | No     |

**DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS,  
AND RESERVATION OF EASEMENTS FOR  
THE SUBDIVISION**

THIS DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS AND RESERVATION OF EASEMENTS FOR THE SUBDIVISION ("Declaration") is made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by GRAND COMMUNITIES, LTD., a Kentucky limited partnership (the "Declarant"), under the following circumstances:

A. Declarant is the owner in fee simple of certain real property located in the \_\_\_\_\_, more particularly described in Exhibit A attached hereto (the "Property") and desires to create a residential community consisting of single family detached homes with permanent Common Elements (as hereinafter defined) for the benefit of said community; and

B. Declarant desires to provide for the preservation of the values and amenities in said community and for the maintenance of said Common Elements, including the Recreational Facilities (as hereinafter defined); and to this end, desires to subject the Property to the covenants, conditions, restrictions, easements, charges and liens, hereinafter set forth, each and all of which is and are for the benefit of said Property and the subsequent Owners thereof; and

C. Declarant has deemed it desirable, for the efficient preservation of the values and amenities in said community, to create an Association to which should be delegated and assigned the powers and duties of maintaining and administering the Common Elements and administering and enforcing the within covenants and restrictions and disbursing the charges and assessments hereinafter created; and

D. Declarant has formed or will form THE SUBDIVISION Homeowners' Association, Inc., as an \_\_\_\_\_ not-for-profit corporation (the "Association"), which shall be responsible for the maintenance, management and control of the Common Elements on the Property.

NOW, THEREFORE, Declarant hereby declares that all of the Property described in Exhibit A and such Additional Property as may be subjected to the provisions hereof, shall be held, sold and conveyed, subject to the covenants, conditions, restrictions, easements, charges and liens set forth in this Declaration, and any subdivision plat which includes the Property, which are for the purpose of protecting the value and desirability of, and which shall run with, the real property and be binding on all parties having any right, title, or interest in the Property or any part thereof, their heirs, successors and assigns, and shall inure to the benefit of each Owner thereof.

**SECTION 1**  
**DEFINITIONS**

The words in this Declaration which begin with capital letters, other than words which would be normally capitalized, unless the context otherwise requires, shall have the meanings set forth in this Section 1.

1.1 Additional Property. "Additional Property" means other real property in the vicinity of the Property which is owned and/or acquired by Declarant, which may be annexed to the Property in accordance with Section 10 below.

1.2 Architectural Guidelines. "Architectural Guidelines" as defined in Section 5.3 of this Declaration.

1.3 Areas of Common Responsibility. "Areas of Common Responsibility" shall mean and refer to the Common Elements, together with those areas, if any, which by the terms of this Declaration or by contract or agreement become the responsibility of the Association. The office of any property manager employed by or contracting with the Association, if located on the Property, or any public rights-of-way within or adjacent to the Property or regional detention basins adjacent to the Property, may be part of the Areas of Common Responsibility.

1.4 Articles and Articles of Incorporation. "Articles" and "Articles of Incorporation" mean those articles, filed with the Secretary of State of \_\_\_\_\_, incorporating \_\_\_\_\_ Homeowners' Association, Inc., as a non-profit corporation under the provisions of Chapter \_\_\_\_\_ of the \_\_\_\_\_, as the same may be amended from time to time.

1.5 Assessments. "Assessments" means Base Assessment, Special Assessment, Individual Assessment and Working Capital Assessment.

1.6 Association. "Association" means \_\_\_\_\_ Homeowners' Association, Inc., an \_\_\_\_\_ not-for-profit corporation, which owns, operates and maintains the Common Elements, and any successor organization which owns, operates and maintains the Common Elements.

1.7 Base Assessment. "Base Assessment" means the charge established by Section 4.2 of this Declaration.

1.8 Board of Directors. "Board of Directors" means the Board of Directors of the Association established pursuant to its Articles of Incorporation, Code of Regulations and this Declaration.

1.9 Builder(s). "Builder(s)" means \_\_\_\_\_, its successors and assigns, and such other persons and entities as may acquire one or more Lots from Declarant for the purpose of constructing improvements thereon for resale, but only to the extent of such Lots acquired.

1.10 Class A Members or Class A Membership. "Class A Members" or "Class A Membership" means those members of the Association consisting of all Owners except, during the Development Period, Declarant.

1.11 Class B Member or Class B Membership. "Class B Member" or "Class B Membership" means, during the Development Period, Declarant, as a member of the Association.

1.12 Code of Regulations. "Code of Regulations" means the Code of Regulations of the Association, as the same may be amended from time to time, pursuant to Chapter 1702 of the Ohio Revised Code, a copy of which is attached hereto as Exhibit B and made a part hereof.

1.13 Common Elements. "Common Elements" shall mean and refer to all real property, or any interest therein, together with improvements located thereon, owned by, leased to the Association or granted as an easement to the Association, for the benefit, use and enjoyment of its Members.

1.14 Common Expenses. "Common Expenses" shall mean as defined in Section 4.2 of this Declaration.

1.15 Common Private Driveway. "Common Private Driveway" shall mean and refer to any private road or driveway which is built or installed as part of the original construction or improvement of the Property by the Declarant and/or the Builder to serve more than one (1) Lot; and which is situated on a dividing line between Lots or partly on one (1) Lot and partly on another Lot, together with any road or driveway which may be specifically designated by Declarant and/or Builder within a Common Driveway Easement, Private Driveway Easement, or a record plat and/or other recorded instrument.

1.16 Common Private Driveway Easement. "Common Private Driveway Easement" shall mean and refer to all private driveway easement(s) located on the Property as shown on any Record Plat. The areas within the easement(s) are sometimes referred to as the Common Private Driveway(s).

1.17 Community-Wide Standard. "Community-Wide Standard" shall mean the standard of conduct, maintenance, or other activity generally prevailing throughout the Property. Such standard may be more specifically determined by the Board of Directors and Declarant.

1.18 Constituent Documents. "Constituent Documents" mean the Declaration, the Record Plat, the Code of Regulations, the Articles of Incorporation, the rules and regulations, if any, the management agreement, if any, entered into between the Association and any professional manager of the Property, and any other basic documents used to create and govern the Property.

1.19 Declarant. "Declarant" means Grand Communities, Ltd., a Kentucky limited partnership, its successors and assigns.

1.20 Declaration. "Declaration" means this Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for \_\_\_\_\_, as the same may from time to time be amended in the manner prescribed herein.

1.21 Default. "Default" means any violation or breach of, or any failure to comply with, the Restrictions, this Declaration or any other Constituent Documents.

1.22 Development Period. "Development Period" means the period commencing on the date on which this Declaration is recorded in the \_\_\_\_\_ Office and terminating on the earlier to occur of (i) within thirty (30) days following the date when one hundred percent (100%) of the Dwelling Units which may be built on the Property have been deeded by either Declarant and/or any Builder to a third party purchaser; or (ii) thirty (30) years from the date of recording of the Declaration.

1.23 Dwelling Unit. "Dwelling Unit" means any building or portion of a building situated upon the Property designed and intended for use and occupancy as a residence by a single person, a family or family-sized group of persons.

1.24 Individual Assessment. "Individual Assessment" means the charge established in Section 4.5 of this Declaration.

1.25 Landscape and Signage Easements. "Landscape and Signage Easements" shall mean as defined in Section 8.8 of this Declaration.

1.26 Lot(s). "Lot(s)" means each of the parcels of land shown as such upon the Record Plats of the Property.

1.27 Maintenance Standards. "Maintenance Standards" mean those standards adopted by Declarant and/or the Board pursuant to Section 7 of the Declaration as the same may from time to time be amended.

1.28 Members. "Members" means all Class A Members and the Class B Member.

1.29 Occupant. "Occupant" means any person in possession of a Lot or Dwelling Unit whether or not such possession is lawful and shall include but not be limited to, an Owner's family members, guests, invitees, Tenants and lessees.

1.30 Open Spaces. "Open Spaces" shall mean and refer to all open spaces located on the Property as shown on any Record Plat, which are for the benefit of the Owners in the Subdivision.

1.31 Owner. "Owner" means, with respect to any Lot, the owner of record from time to time, whether one or more persons or entities, of an interest in fee simple, reversion, remainder or leasehold estate of 99 years or more, but shall not include the Association. Such term shall include contract sellers except those having an interest merely as security for the performance of an obligation.

1.32 Private Driveway Easement. "Private Driveway Easement" shall mean and refer to all private driveway easement(s) located on the Property as shown on any Record Plat. The areas within the easement(s) are sometimes referred to as the Common Private Driveway(s).

1.33 Private Storm Sewer Easements. "Private Storm Sewer Easements" shall mean and refer to any easements shown on any Record Plat to provide surface drainage. These areas are for the benefit of all Lot Owners and any agency of the Village of South Lebanon, Warren County, Ohio having jurisdiction over drainage control.

1.34 Property. "Property" means that certain land in \_\_\_\_\_, more particularly described in Exhibit A to this Declaration. When portions of the Additional Property are subjected to this Declaration pursuant to Section 10 herein, those portions shall then be deemed part of the Property.

1.35 Record Plat. "Record Plat" means a plat of \_\_\_\_\_ as recorded in the Clermont County, Ohio Recorder's records, including any subsequent plats or replats.

1.36 Recreational Facilities. "Recreational Facilities" shall mean any facilities now or hereafter installed on the Property for the benefit of Owners and Occupants, which may include, but not be limited to, shelter house and playfields and any portions of the Common Elements on which recreation activity is permitted.

1.37 Restrictions. "Restrictions" means all covenants, conditions, restrictions, easements, charges, liens and other obligations provided for in this Declaration, including, without limitation, the Maintenance Standards and all notices, rules and regulations issued in accordance with this Declaration.

1.38 Special Assessment. "Special Assessment" means the charge established by Section 4.4 of this Declaration.

1.39 Structure. "Structure" means:

(a) any thing or object (other than trees, shrubbery, landscaping and hedges which are less than two feet high) the placement of which upon any part of the Property may affect the appearance of the Property, including, without limitation, porch, shed, barn, storage facility, covered or uncovered patio, fence, curbing, paving, wall, signboard or any other temporary or permanent improvement; and

(b) any excavation, fill, ditch, dam or other thing or device which affects or alters the natural flow of surface waters from, upon or across any part of the Property, or which affects or alters the flow of any waters in any natural or artificial stream, wash or drainage channel from, upon or across any part of the Property.

1.40 Subdivision. "Subdivision" means all phases or sections of the Record Plat for \_\_\_\_\_, a subdivision in the

\_\_\_\_\_, and consisting of all the Property from time to time made subject to the provisions of this Declaration.

1.41 Supplemental Declaration. "Supplemental Declaration" shall mean an amendment or supplement to this Declaration executed by or consented to by Declarant which subjects all or any portion of the Additional Property to this Declaration; imposes, expressly or by reference, additional restrictions and obligations on the land subject to this Declaration.

1.42 Tenant. "Tenant" means any person occupying any Lot pursuant to a written or oral lease agreement with the Owner thereof or with any other person or entity claiming under the Owner.

1.43 Working Capital Assessment. "Working Capital Assessment" as defined in Section 4.6 of this Declaration.

## **SECTION 2**

### **PROPERTY SUBJECT TO THIS DECLARATION**

The Property, each portion thereof, and all Dwelling Units thereon shall be held, transferred, sold, conveyed, leased, mortgaged and occupied subject to the terms, provisions, covenants and conditions of this Declaration.

## **SECTION 3**

### **ASSOCIATION MEMBERSHIP, MEETINGS AND BOARD**

3.1 Formation of the Association. The Declarant has caused or will cause to be chartered in accordance with Chapter \_\_\_\_\_, a nonprofit corporation to be known as \_\_\_\_\_ Homeowners' Association, Inc., an \_\_\_\_\_ not-for-profit corporation. The purpose of the Association is to provide for the administrative governance, maintenance, management and upkeep of the Property and to promote the general health and welfare of the Owners and Occupants of the Property.

3.2 Board of Directors. Until the third Annual Meeting, the initial Board shall consist of three (3) persons appointed by the Class B Member who shall serve until their respective successors are elected and qualified. Directors appointed by the Declarant need not be Members of the Association. However, a Director elected by Class A Members shall be a Lot Owner or a spouse of a Lot Owner, except that if a Lot Owner is a corporation, partnership, joint venturer, or other entity, the Lot Owner may elect as a Director an officer, partner, joint venturer, or like individual affiliated with this Lot Owner.

At the third Annual Meeting, the Board of Directors shall expand from three (3) to five (5) Directors. At such meeting, the Class B Member shall appoint three (3) Directors for a three (3) year term. Thereafter, at each tri-annual meeting the Class B Member, until the Development Period Special Meeting (as hereinafter defined), shall appoint three (3) Directors for a three (3) year term.

At the third Annual Meeting, the Class A Members shall elect two (2) Directors. One of the Directors shall be elected for a three (3) year term and one (1) of the Directors shall be elected for a two (2) year term. At the expiration of the terms of such Directors, until such time as the Declarant shall transfer control of the Board to the Class A Members, the Class A Members shall, at the respective Annual Meeting, elect successor Directors for a three (3) year term.

Within ninety (90) days after the expiration of the Development Period, the President of the Association shall call a special membership meeting ("Development Period Special Meeting"). At the Development Period Special Meeting, all Declarant appointed Directors shall be deemed removed from office, and the Class A Members, including the Declarant if it is then an Owner, shall elect a Director to fill each vacancy on the Board. The terms of said elected Directors shall be from one (1) to three (3) years, as determined by the Board, so that in any one (1) year thereafter, the terms of no more than three (3) nor less than two (2) Directors shall expire. The three (3) Directors with the most votes shall be the Directors who shall serve the three-year term. Additionally, after the Development Period Special Meeting, all Directors, and their successors, shall be elected by Class A Members and shall be elected for a three (3) year term.

Notwithstanding anything above to the contrary, the Class B Member may, by written notice to the Board, at or before any Annual Meeting, relinquish to the Class A Members, the Class B Member's right to appoint one or more Directors at such Annual Meeting pursuant to this Section.

3.3 Membership. The membership of the Association shall at all times consist exclusively of Owners. All Owners shall be Members. Membership shall be appurtenant to and may not be separated from such ownership.

3.4 Members Rights and Duties. Each Member shall have the rights, duties and obligations set forth in this Declaration and all amendments duly made hereto in accordance with the terms herein.

3.5 Professional Management Contracts. The Association may delegate all or any portion of its authority to discharge its responsibilities herein to a manager or managing agent. Any management agreement shall not exceed three (3) years and shall provide for termination by either party without cause and without payment of a termination fee on ninety (90) days or less written notice.

#### **SECTION 4** **ASSESSMENTS**

4.1 Creation of Assessments. There are hereby created Assessments for Association expenses as may from time to time specifically be authorized by the Board of Directors, to be commenced at the time and in the manner set forth in this Section. There shall be four (4) types of Assessments which are as follows: (1) Base Assessment to fund Common Expenses for the benefit of all Members of the Association; (2) Special Assessment as described in Section 4.4

below; (3) Individual Assessment as described in Section 4.5 below; and (4) Working Capital Assessment as described in Section 4.6 below. Each Owner, by acceptance of a deed or recorded contract of sale for any portion of the Property, is deemed to covenant and agree to pay these Assessments.

(a) No Owner may waive or otherwise exempt himself from liability for the Assessments provided for herein, including, by way of illustration and not limitation, by non-use of Common Elements or abandonment of the Dwelling Unit. The obligation to pay Assessments is a separate and independent covenant on the part of each Owner. No diminution or abatement of Assessments or set-off shall be claimed or allowed by reason of any alleged failure of the Association or Board to take some action or perform some function required to be taken or performed by the Association or Board under this Declaration or the Code of Regulations, or for inconvenience or discomfort arising from the making of repairs or improvements which are the responsibility of the Association, or from any action taken to comply with any law, ordinance, or with any order or directive of any municipal or other governmental authority.

(b) Notwithstanding any provision of this Declaration, the Articles of Incorporation or Code of Regulations to the contrary, Declarant and Builder, until the expiration of the Development Period, shall not be required to pay any Assessments for any recorded, "unoccupied" Lot in which they have the interest otherwise required for Class A Membership.

4.2 Base Assessment. The Base Assessment shall be levied by the Association against the Owner of each Dwelling Unit, as provided in Section 4.3 below, to be used currently, and to provide an adequate reserve fund for future use, for the improvement, expansion and maintenance of the Common Elements, including, but not limited to, the payment of real estate taxes on those portions of the Common Elements to which the Association is the record owner; casualty and liability insurance for the Common Elements to which the Association is the record owner and fidelity bonds; the cost of repairing and maintaining the landscaping in the Common Elements; the cost of supplying water to the Common Elements; the costs of operation, maintenance, improvement, and replacement of the Recreational Facilities, Open Spaces, Landscape Easement Areas and Signage Easement Areas; the cost of reasonable reserves for contingencies, replacements and working capital; management fees; organizational costs; legal costs for the enforcement of liens and covenants in this Declaration and all other costs incurred by Declarant or the Board in the exercise of its powers and duties pursuant to this Declaration (collectively "Common Expenses"). The Base Assessment shall be estimated initially in accordance with Section 4.3 of this Declaration. The obligation to pay the Base Assessment shall not in any manner be dependent on or discharged, or otherwise affected by the use or non-use of the Common Elements or Recreational Facilities, or the actual occupancy of any Lot or Dwelling Unit of the Property.

4.3 Computation of Base Assessment. It shall be the duty of the Board, prior to the beginning of each fiscal year, to prepare a budget covering the estimated Common Expenses of

the Association during the coming year. The budget shall include a capital reserve account for the capital replacement, as needed.

(a) The Base Assessment for all Dwelling Units shall commence on the first day of the month following the conveyance of the first Dwelling Unit in the Subdivision from either Declarant or Builder to an individual Owner of a Dwelling Unit.

(b) The Base Assessment to be levied against each Dwelling Unit for the coming year shall be determined by multiplying the total budgeted Common Expenses, including reserves, by a fraction, the numerator of which is the number "1," and the denominator of which is the total number of Dwelling Units subject to Assessment under Section 4.3(a) above.

(c) Notwithstanding the above, the Board may, in its sole discretion, reduce the Base Assessment determined pursuant to the above formula by taking into account.

(i) other sources of funds available to the Association; and

(ii) Assessments to be levied upon additional Dwelling Units reasonably anticipated to become subject to Assessments during the fiscal year.

(d) So long as Declarant has the right unilaterally to annex Additional Property pursuant to Section 10.1 below, Declarant may elect on an annual basis, but shall not be obligated, to reduce the resulting Base Assessment for any fiscal year by payment of a subsidy; provided, any such subsidy shall be conspicuously disclosed as a line item in the income portion of the Common Expense budget and shall be made known to the membership. The payment of such subsidy in any year shall under no circumstances obligate Declarant to continue payment of such subsidy in future years.

(e) The Board shall cause a copy of the Common Expense budget and notice of the amount of the Base Assessment to be levied against each Dwelling Unit for the following year to be delivered to each Owner at least fifteen (15) days prior to the beginning of the fiscal year. If, in the event the Board fails for any reason so to determine the budget for any year, then and until such time as a budget shall have been determined by the Board, the budget in effect for the immediately preceding year shall continue.

4.4 Special Assessment. In addition to the other Assessments authorized herein, and to the extent that the reserve fund is insufficient, the Association may levy Special Assessments for the following reasons:

(a) The amount of any operating deficit incurred in any calendar year may be paid by means of a Special Assessment sufficient in an amount so as to allow the Association to satisfy such deficit in part or in whole, provided that any such Special Assessment shall have been approved in accordance with Section 4.4(c) below.

(b) To the extent that the capital budget is insufficient, the Association may levy Special Assessments to construct, structurally alter, or replace capital improvements which are a part of the Common Elements in any fiscal year.

(c) So long as the total amount of Special Assessments allocable to each Lot or Dwelling Unit does not exceed One Hundred Percent (100%) of the Base Assessment for that fiscal year, the Board may impose the Special Assessment. Any Special Assessments which would cause the amount of Special Assessments allocable to any Lot or Dwelling Unit to exceed this limitation shall be effective only if approved by a majority vote of the Members present and voting at a meeting duly called for such purpose. Special Assessments shall be paid as determined by the Board, and the Board may permit Special Assessments to be paid in installments extending beyond the fiscal year in which the Special Assessments is imposed.

4.5 Individual Assessment. The Association after approval by a majority of the members of the Board shall have the right to assess an individual Lot or Dwelling Unit for any of the following ("Individual Assessment"):

(a) any costs incurred for maintenance or repair caused through the willful or negligent act of an Owner or Occupant or their family, tenants, guests or invitees, including attorney fees, court costs and other expenses incurred; and/or

(b) any costs associated with the enforcement of this Declaration or the Rules and Regulations, if any, of the Association, including, but not limited to attorneys fees, witness fees and costs, and court costs.

4.6 Working Capital Assessment. At the time of closing on the sale of each Lot from Declarant or Builder to a third party purchaser, the purchaser shall be required to pay \_\_\_\_\_ and 00/100 Dollars (\$ \_\_\_\_\_) as such purchaser's initial capital contribution to the working capital of the Association ("Working Capital Assessment"). This Working Capital Assessment shall be used by the Association for its operating expenses. Such Working Capital Assessment is not an advance payment of the Base Assessment or any other Assessment established herein, and it will not be held in any sort of trust or reserve account. Declarant and Builder shall not be required to pay any Working Capital Assessment as described in this paragraph.

4.7 Common Surplus. If the Base Assessment collected in any given year is in excess of the actual Common Expenses for that year, the Board may, at its sole discretion (a) return each Owner's share of the Common Surplus; (b) credit each Owner's share of the Common Surplus to each Owner's payment as for the Base Assessment for the following year; (c) apply the Common Surplus to the reserve; or (d) repay any loan obtained by the Board, on behalf of the Association, used to fund any prior years operating deficit as provided for in Section 4.9 below.

4.8 Payment. Unless otherwise established by the Board, the Base Assessment shall be paid in advance in semi-annual installments not more than ten (10) days after the due dates established by the Board. The Board shall have the power at any time to adopt such billing,

collection and payment procedures and payment time schedules as it shall deem appropriate. Additionally, any Special Assessment or Individual Assessment imposed by the Board shall become due upon the date designated in the notice, but not less than thirty (30) days after the mailing of the notice to the Owner by United States mail. **At the time of closing on a Dwelling Unit from either Declarant or Builder to a third party purchaser, each third party purchaser of a Lot shall be required to pay the Working Capital Assessment as provided in Section 4.6 above and a prorata share of the Base Assessment for the balance of the semi-annual period in which the closing takes place.**

4.9 Operating Deficit. If during the Development Period the Association incurs an operating deficit, Declarant, Builder or any other affiliated entity of Declarant ("Affiliated Entity"), may, at its option, loan funds to the Association to fund the deficit. In the event that Declarant, Builder and/or Affiliated Entity elects to fund the deficit, the Association shall execute a loan agreement and promissory note for the benefit of Declarant, Builder and/or Affiliated Entity, as the case may be, the form of which shall comply with the terms and conditions set forth in Exhibit C attached hereto and made a part hereof. The Association shall be obligated to repay to the Declarant, Builder and/or Affiliated Entity, as the case may be, any and all monies lent by such entity to the Association in accordance with this Section in order to fund any deficit. Such repayment of monies shall be in accordance with the terms and conditions of said loan agreement and promissory note.

4.10 Books and Records of the Association. The Association shall keep full and correct books of account. The Association shall make available to all Lot Owners and the holders of all first mortgages on Lots, current copies of the books, records and financial statements of the Association upon reasonable request during normal business hours. All funds collected by the Association shall be held and expended solely for the purposes designated by this Declaration and shall be deemed to be held for the use, benefit and account of the Association and all of the Lot Owners.

4.11 Penalty for Late Payment. For each Lot as to which any installment of any Assessments are not paid within a period of ten (10) days from its due date, unless otherwise modified by the Board, there shall be added to the installment a penalty of ten percent (10%) thereof, and interest at the rate of twelve percent (12%) per annum, or such other amount established by the Board (or, if less, the maximum rate allowable by law) from the due date on the amount of such installment plus penalty until paid.

4.12 Creation of Lien and Personal Obligation of Assessment. All Assessments shall be a charge and lien on each Lot to the extent and for the period provided in Section 4.13 below, and shall also be the personal obligation of the Owner of each Lot against which they are made.

4.13 Liens. If any Assessment on a Lot is not paid within the period established by the Board pursuant to Section 4.8 herein, the amount thereof together with any interest, costs, penalties and reasonable attorneys' fees thereon shall constitute a lien on such Lot in favor of the Association prior to all other liens and encumbrances whatsoever, excepting real estate taxes and assessments and liens of record in favor of the United States of America, the State of \_\_\_\_\_, and all other political subdivisions or governmental instrumentalities of the State of \_\_\_\_\_.

\_\_\_\_\_ to the extent made superior by applicable law, and all bona fide recorded first mortgages and the rights of any first mortgagee who comes into possession of a Lot pursuant to mortgage foreclosure or by deed in lieu thereof. Assessments shall become a lien on a Lot on the date the Board mails written notice of any such Assessment to the Owners of any Lot subject thereto. The Association may perfect the lien by recording a notice of lien with the \_\_\_\_\_ Office, in any legally recordable form. Nonpayment of any Assessment on a Lot shall be deemed and is hereby declared to be the happening of a condition or event that creates an interest in real estate.

4.14 Evidence of Payment. Upon the request of the Owner or any mortgagee or Tenant of any Lot or any prospective purchaser, mortgagee, or Tenant thereof, the Board or its designated representative shall furnish written evidence of the amount of the Assessments with respect to such Lot for the current year and the amount of any unpaid Assessments, penalty and interest, if any. Such evidence may be conclusively relied upon by any such party and by anyone furnishing any title evidence or opinion with respect to such Lot. The Board may impose a reasonable charge for furnishing such written evidence.

4.15 Enforcement of Lien. Any lien established under this Declaration may be enforced by the Association in the same manner and to the same extent (including appointment of a receiver, foreclosure sale and deficiency judgment) and subject to the same procedures as in the case of foreclosure of a real property mortgage under the laws of the State of \_\_\_\_\_. In any such enforcement proceeding, the amount which may be recovered by the Association shall include all costs of such proceeding, including reasonable attorneys' fees. In any such foreclosure sale, the Association may become the purchaser.

4.16 Subordination of Lien to First Mortgage. The mortgagee of a first mortgage of record on a Lot shall have no obligation hereunder to collect any Assessments chargeable to such Lot. Failure of a Lot Owner to pay any Assessments imposed in this Declaration shall not automatically be deemed a default under the first mortgage of record on that respective Lot. In addition, when the mortgagee of a first mortgage of record, or other purchaser of a Lot as a result of judicial execution, acquires title to the Lot as a result of foreclosure of the first mortgage or by deed in lieu of foreclosure, such acquirer of title, his, her or its heirs, successors and assigns, shall not be solely liable for the share of the Assessments chargeable to such Lot which became due prior to the acquisition of title to such Lot by such acquirer. Any lien against such Lot shall be canceled and voided, and shall become unenforceable. Such unpaid share of Assessments shall be deemed to be Common Expenses collectible from all of the Lots, including that of such acquirer, his, her or its heirs, successors or assigns.

## **SECTION 5**

### **ARCHITECTURAL REVIEW**

5.1 Alteration of Dwelling Unit and Structures. Except for initial construction of Dwelling Units, accessory Structures and Common Elements by either Declarant and/or Builder, no building, fence, wall, deck or other Structure shall be commenced, constructed, erected, placed, moved onto or permitted to remain on any Lot, nor shall any Dwelling Unit and/or Structure on any Lot be remodeled, painted or altered or expanded in any way which changes the

exterior appearance thereof, unless detailed plans and specifications therefor shall have been submitted to and approved in writing by the Board. Such plans and specifications shall be in such form and shall contain such information as the Board may reasonably require, including but not limited to any or all of the following: a site plan; patio and walkway locations; description of materials; location of lighting; architectural plans including cross-sections, floor plans and elevations; and evidence of conformity with building codes. The Board shall either approve the plans and specifications, disapprove them, or approve them with conditions or qualifications.

5.2 Approval of Plans and Specifications. The Board shall approve plans and specifications submitted to it with respect to any Lot (or subdivision of Lots) if it finds that they comply with the requirements of Section 5.1 above, will further the purposes outlined in this Declaration and meets Architectural Guidelines adopted by the Board. Upon final approval thereof, a certified copy of the detailed plans and specifications shall be deposited for permanent record with the Board and a copy bearing the written approval of the Board shall be returned to the applicant. Approval by the Board of plans and specifications with respect to any Lot shall not impair the Board's right subsequently to approve a requested amendment of such plans and specifications relating to such Lot (subject to the requirements of this Section). The Board's approval of any plans and specifications shall not constitute a representation or warranty as to the quality of the plans and specifications or their compliance with applicable laws and codes.

5.3 Architectural Guidelines. The Board may adopt reasonable architectural guidelines and rules relating to the construction, erection and placement of buildings, fences, walls and structures in order to fulfill its obligations under Section 5. Such guidelines and specifications may include but not be limited to building materials, minimum or maximum sizes, dimensions or heights, color schemes, material finishes, locations, setbacks or other reasonable requirements.

5.4 Disapproval of Plans and Specifications. If plans and specifications (whether schematic, preliminary or detailed) submitted to the Board with respect to any Lot do not comply with the Architectural Guidelines, if any, and the requirements of Section 5.1 as to the information required to be included in the plans and specifications, the Board shall either disapprove such plans and specifications or approve them subject to such conditions and qualifications as the Board may deem necessary to achieve compliance.

5.5 Failure of the Board to Act. If the Board shall fail to act upon any plans and specifications submitted to it within ninety (90) days after submission thereof, such plans and specifications shall be deemed to have been approved as submitted, and no further action by the Board shall be required. If construction of a Structure is not commenced on a Lot on or before six (6) months from the date of submission of plans and specifications, then such "deemed approval" shall be automatically canceled and a new submission shall be required.

5.6 Violations. If any Dwelling Unit and/or Structure situated upon any Lot shall have been constructed, erected, placed, remodeled or altered other than in accordance with the approved plans and specifications, the Board shall give notice of a Default to the Owner of the Lot involved, provided, however, that the Board may, upon such conditions as it may determine,

waive any such Default if it finds that such Default does not substantially conflict with the policies of the Board.

5.7 Enforcement. In the event of a violation of the provisions of this Section 5, the Association shall have the right to enforce this Section by any proceedings authorized in this Declaration, Code of Regulations or rules and regulations, if any, as well as any other relief available at law or in equity.

5.8 Right of Entry. The Board through its authorized officers, employees, and agents, shall have the right to enter upon any Lot at all reasonable times for the purpose of ascertaining whether such Lot or the construction, erection, placement, remodeling, or alteration of any Dwelling Unit and/or Structure thereon is in compliance with the provisions of this Section, without the Board or such officer, employee or agent being deemed to have committed a trespass or wrongful act solely by reason of such action or actions.

5.9 Fees. The Board may charge reasonable fees for the processing of plans and specifications. Such fees may cover the cost of such processing, including inspection costs. Such fees shall be payable at the time of submission of the respective item for approval and shall be paid to the Association.

5.10 Approval of Plans by Declarant. Notwithstanding anything to the contrary in this Section 5, during the Development Period (which may still be in effect even after the Development Period Special Meeting as provided in Section 3.2 above), the plans and specifications for the initial construction of a Dwelling Unit shall be subject only to Declarant's approval and shall not be approved by the Board.

## **SECTION 6**

### **COVENANTS AND RESTRICTIONS OF USE AND OCCUPANCY**

6.1 Purposes. In order to promote the health, safety and welfare of all Owners, Members and Occupants, and to preserve, beautify and maintain the Property and all Structures thereon as a subdivision of high quality and to preserve and promote a good environmental quality, the following covenants, restrictions and limitations as to use and occupancy are hereby adopted, declared and established. These covenants and restrictions shall hereinafter burden and benefit all Lots on the Property, shall run with the land, be binding on current and successor Lot Owners, for the benefit of all Lot Owners and all Lots on the Property.

6.2 Covenants and Restrictions. The following are the covenants and restrictions and limitations as to use and occupancy to which the Property is hereby subjected:

(a) Land Use. Except as otherwise provided in this Declaration, no part of the Property other than Common Elements shall be used for other than residential housing and any Dwelling Unit constructed on a Lot shall be used only as a residence for a single family. To the extent permitted by law, an Owner of a Lot may use a portion of a Dwelling Unit located thereon for his office or studio provided that the activities therein shall not interfere with the quiet enjoyment or comfort of any other Owner or Occupant;

and provided further that such activities do not increase the normal flow of traffic or individuals in and out of the Property or in and out of said Owner's Lot. The foregoing notwithstanding, Declarant, its successors, assigns and affiliates, and any Builder may use Lots and Dwelling Units for construction offices, sales purposes (i.e. model homes), and as offices to meet with prospective purchasers of Dwelling Units.

(b) Other Structures. No structures of a temporary character, trailer, shack, garage, barn or other temporary outbuilding shall be used or erected on any Lot after the permanent residence on each Lot has been completed. Notwithstanding the foregoing to the contrary, no Structures may be placed on any Lot without the Board's prior written approval, as provided in Section 5.5 above.

(c) Parking. No parking spaces, streets or driveways nor any other part of the Common Elements nor any Lot upon which a Dwelling Unit is constructed shall be used for parking of any trailer, truck, boat, or anything other than operative automobiles, motorcycles or scooters, except while loading, unloading or cleaning which shall not exceed twenty four (24) hours. Any of such vehicles may, however, be stored or parked in an enclosed garage provided such garage door is completely closed at all times when such a vehicle is parked therein. The word "trailer" shall include trailer coach, RV, recreational vehicle, house trailer, mobile home, automobile trailer, boat trailer, campcar, camper or any other vehicle, whether or not self-propelled, constructed or existing in such a manner as would permit the use and occupancy thereof for human habitation, for storage, or the conveyance of machinery, tools or equipment, whether resting on wheels, jacks, tires or other foundation. The word "truck" shall include and mean every type of motor vehicle other than passenger cars and other than any non-commercial pick-up truck (no ladder racks, advertising, etc.), sports utility vehicle or van which is used as a principal vehicle by an Owner of a Dwelling Unit or his/her family. Notwithstanding the restrictions in this Section, vehicles being used for the purpose of construction, delivery or repair work to or upon any Lot or Dwelling Unit may be permitted to be parked on any Lot and street in the Subdivision.

(d) Nuisances. No noxious or offensive activity shall be carried on upon any Lot, nor shall anything be done thereon which may be or become an annoyance or nuisance to the neighborhood. No Lot Owner shall permit anything to be done or kept in a Dwelling Unit or other approved Structure on any Lot that would be in violation of any law. No waste shall be committed in or to any of the Common Elements.

(e) Oil and Mining Operations. No oil drilling, quarrying, or mining operations shall be permitted on any Lot.

(f) Garbage and Refuse Disposal. All trash, garbage or other rubbish shall be kept at all times in each Owner's garage, except on the days which the trash, garbage or other rubbish is collected by the local waste removal authorities or as otherwise directed and instructed by the Association. Any trash containers placed outside by the Dwelling Unit Owners to be collected by the local waste removal authorities shall only remain

outside for a period not to exceed twenty-four (24) hours and may not be placed at the curb any earlier than 6:00 p.m. the day before the trash is scheduled to be removed.

(g) Antennas. No apparatus, free standing antennas or satellite dishes shall be constructed or used on any Lot; provided, however, that a satellite dish not exceeding twenty-four inches (24") in diameter may be placed on a roof top of a Dwelling Unit if not visible from the street in front of the Dwelling Unit. All television and radio antennae, including CB radio antennae, must be enclosed within the Dwelling Unit located on the Lot. All telephone, electric and other wires of all kinds must be underground.

(h) Signs. No permanent sign shall be permitted on any Lot or building in the Subdivision. An Owner of a Dwelling Unit is permitted to place and maintain a standard "For Sale" or "For Rent" sign on his Lot; provided, however it is of a typical size within the industry. An Owner must obtain the prior written consent of the Board in the event said Owner desires to maintain a "For Sale" or "For Rent" sign which is not of a typical size within the industry. This sign restriction shall not apply to signs used by Declarant and/or Builder or their assigns, while Declarant and/or Builder are selling Dwelling Units in the Subdivision, or to traffic, street names, Common Elements or subdivision identification signs.

(i) Animals. No animals of any kind shall be raised, bred, or kept on any Lot including the Common Elements, except that dogs or other household pets not totaling more than three (3) in number, may be kept on a Lot, subject to the Restrictions, provided that it is not kept, bred or maintained for any commercial purpose, and provided that it is kept subject to the rules and regulations, if any, of the Association, including, but not limited to, rules regarding weight limitations for certain types of pets. Any such pet or pets causing or creating a nuisance or unreasonable disturbance shall be permanently removed from the Property upon seven (7) days written notice from the Board. No such pets may be allowed to run unattended. Dogs, cats, or other household pets must be kept within the confines of the Owner's Lot except when being held on hand leash by the person attending the animal. A Lot Owner shall be responsible for cleaning up after his/her household pet. Notwithstanding the foregoing, the Association shall have the right to promulgate rules and regulations pertaining to size, number and type of such household pets and the right to levy fines and enforcement charges against persons who do not clean up after their pet.

(j) Laundry or Rubbish. No clothes, sheets, blankets, laundry of any kind or other articles shall be hung out or exposed on any part of the Property. No clotheslines shall be located on any Lot. The Property shall be kept free and clear of rubbish, debris and other unsightly materials.

(k) Rental of Dwelling Units. The Owners of the respective Dwelling Units or any first mortgagees in possession thereof shall have the right to lease the same subject to the covenants and restrictions in the Declaration and the Code of Regulations and rules and regulations, if any. However, neither a Unit Owner nor any first mortgagee in

possession shall lease less than an entire Dwelling Unit nor shall any Dwelling Unit be leased for a term of less than six (6) months. The respective Dwelling Unit shall not be rented for transient or hotel purposes, which shall be defined as (i) rental for any period less than ninety (90), or (ii) any rental if the occupants of the Dwelling Units are provided customary hotel service such as room service or food and beverage, maid service and furnishing of laundry and linen. All leases of any Dwelling Unit shall be in writing. All such leases shall provide that they are subject to all the provisions of the Declaration, the Code of Regulations and the rules and regulations, if any, and that any failure of the lessee to comply with any such provision shall constitute a default under the lease. A copy of each such lease shall be given to the Association immediately after it is executed.

(l) Swimming Pools, Hot Tubs and Spas. No above-ground swimming pools shall be constructed, erected, placed or permitted to remain upon any Lot. In-ground swimming pools are permitted provided it is approved by the Board in accordance with Section 5 above. This Section shall not prohibit the construction, erection or placement of a diving board, slide or other equipment appurtenant to an otherwise conforming swimming pool. Hot tubs and spas shall be permitted on any Lot but must be in-ground or if above ground shall not be visible from the street or any neighboring Lot.

(m) Fencing. No fences shall be erected or built on any part of any Lot between the rear of the building constructed thereon and the street in front of the building. Fences erected on said Lot from the rear of the building and the back property line shall not be in excess of four (4) feet in height and shall be rustic rail, split rail, decorative PVC, ornamental iron, decorative wood, decorative metal or hedge, provided however, that all fences constructed of the aforesaid materials shall be at least fifty percent (50%) open. Non-reflective metal fence may be installed as an integral part of a fence constructed of the aforesaid materials in order to provide a secure enclosure. Barbed wire, chain link or similar fences shall be prohibited. On a corner Lot, the section or sections of fence running with the side street shall not extend closer to said side street at any point than the residence on said Lot. Entrance designations, Recreational Facilities, fences and any other Structure erected by Declarant, Builder and/or the Association are exempt from this Restriction.

(n) Swing Sets and Play Areas. Swing sets, trampolines, basketball backboards and play areas may be erected on a Lot only after the location and materials of those Structures are approved in writing by the Board in accordance with Section 5 above.

(o) Building Setbacks. No building shall be located nearer to any street than the building setback line shown in the Record Plat of the Subdivision, except as constructed by Declarant or Builder.

(p) Lawns. No weeds, underbrush or unsightly growths or objects of any kind shall be permitted to remain on any Lot within the Subdivision. All lawn areas shall be maintained in a neat and orderly manner and shall be mowed on a regular basis. Lot

areas left in a naturalized state by the Builder may be left in such naturalized state by the Lot Owner.

(q) Obligation to Keep Dwelling Unit in Good Condition. Each Lot Owner or Occupant shall keep each his/her Dwelling Unit and all Structures located on his/her Lot in good order, condition and repair and such maintenance, repair, appearance and condition shall comply with the provisions of this Declaration and applicable laws and ordinances.

(r) Mailboxes. Declarant or Builder reserves the right to establish a standard design for mailboxes for use by all Lot Owners. The decision of the type of material to be used by each Owner shall be at sole discretion of Declarant and/or Builder. Lot Owners shall be responsible for maintenance of their individual mailboxes. Declarant and/or Builder may however, waive this right or establish the use of cluster mailboxes.

(s) Additional Restrictions. As the Additional Property is annexed to the Property by means of a Supplemental Declaration, Dwelling Units or Lots within specific phases may be subject to additional covenants, rules and regulations established by Declarant at such time as such Dwelling Units or Lots are annexed to the Property.

(t) Lot Grading. Neither the Owner nor anyone claiming under the Owner shall alter elevations and grades established by Declarant for any building Lot without the prior written approval of Declarant and/or Declarant's designee during the Development Period; and, the prior written approval of the Board after the Development Period in accordance with Section 5 above. The purpose of this Restriction is to insure that the surface drainage plan originally established by Declarant for sheet surface drainage and drainage swales over the yard areas of building Lots is not altered or impeded. Landscaping or plantings shall not be installed or maintained in such a manner as to impede sheet surface drainage or swale drainage.

## **SECTION 7**

### **MAINTENANCE STANDARDS**

7.1 Adoption and Amendment. Declarant during the Development Period, and after the Development Period, the Board shall have the right to adopt, and may from time to time amend, Maintenance Standards pertaining to the maintenance, repair and appearance of all Lots, and the exterior of all Dwelling Units and Structures thereon. If any provision of any applicable building inspection, or similar maintenance statute, ordinance, resolution, regulation or order of the State of Ohio, any other political subdivision or governmental instrumentality of the State of Ohio, or the Board, is more stringent with regard to a Lot than a comparable provision of the Maintenance Standards, such more stringent provision shall be deemed incorporated in the Maintenance Standards. The Maintenance Standards shall provide, among other things, that:

(a) except as otherwise hereinafter provided, the Association shall be responsible for maintenance, repair and replacement of the Common Elements and all Structures thereon;

(b) except as otherwise hereinafter provided, the Association shall be responsible for the maintenance and general upkeep of all lawns and landscaping in the Common Elements owned in fee simple by the Association, which shall include, but not limited to, mulching the landscaping beds, cutting the grass and keeping all lawns and landscaping beds in a neat and orderly manner, the cost of which shall be a Common Expense of the Association;

(c) each Owner shall maintain, repair and replace at his expense all portions of the Common Elements which may be damaged or destroyed by reason of his/her own intentional or negligent act or omission or by the intentional or negligent act or omission of any invitee, lessee, licensee, employee, agent, family member, guest, and/or pet(s) of such Owner;

(d) the obligation of the Association and of the Owners to repair, maintain and replace the portions of the Property for which they are respectively responsible shall not be limited, discharged or postponed by reason of the fact that any maintenance, repair or replacement may be necessary to cure any latent or patent defects in material or workmanship in the construction of the Property;

(e) notwithstanding the fact that the Association and/or any Owner may be entitled to the benefit of any guarantee of material and workmanship furnished by any construction trade responsible for any construction defects, or to benefits under any policies of insurance providing coverage for loss or damage for which they are respectively responsible, the existence of any construction guarantee or insurance coverage shall not excuse any delay by the Association or by any Owner in performing its or his obligation hereunder; and

(f) except as otherwise provided above in this Section 7.1, each Owner shall maintain, repair and replace at his/her expense all portions of each Dwelling Unit and Structure located on each Lot owned by him/her and all internal and external installations of such Lot such as appliances, heating, plumbing, electrical and air conditioning fixtures or installations, and any portion of any other utility service facilities located within the boundaries of or serving the Lot.

7.2 Obligation to Keep Premises in Good Repair. Each Owner during his/her period of ownership and, during his/her tenancy, each Tenant leasing a Lot, shall keep each Lot, Dwelling Unit and all Structures thereon owned or leased by him/her in such maintenance, repair and appearance as shall comply with the Maintenance Standards.

7.3 Periodic Inspection. Periodically as needed, the Association may inspect each Lot and the exterior of the Dwelling Unit and all Structures thereon to determine whether each complies with the Maintenance Standards. After each such inspection, the Association shall, if any defects are found, issue an inspection report to the Owner with a copy to the Tenant, if applicable, listing such defects, if any, and the reasonable time within which they may be corrected. Such Owner shall correct such defects or cause them to be corrected within such reasonable period as is stated in the inspection report.

7.4 Drainage Swales. Neither the Owner nor anyone claiming under the Owner shall, except in an emergency, alter the location or grade of any open storm water drainage way on any Lot without the prior written consent of the Association.

7.5 Right of Entry. Declarant and the Association, through its authorized officers, employees, and agents, shall have the right to enter upon any Lot and/or Structure at all reasonable times and upon reasonable advance notice for the purpose of making inspections required by this Section without Declarant or the Association or such officer, employee or agent being deemed to have committed a trespass or wrongful act solely by reason of such entry or such action or actions. Any bona fide utility company, through its authorized officers, employees, and agents, shall have the right to enter upon the Common Elements or upon any utility easements located on any Lots, for the purpose of installing, repairing or servicing any of its equipment, or for reading meters, without Board approval; provided, however, that if any such activities by the utility require alteration to or displacement of any waterscaping, landscaping, grass, sidewalks, fences, garages, or other Structures, then the prior approval of the Board shall be required.

7.6 Failure to Comply. Failure to comply with the Maintenance Standards or to correct the defects listed in any inspection report issued by the Association or to pay any fee hereunder shall constitute a Default, in which event Declarant or the Board shall have the right to enforce this Section by any proceedings authorized in this Declaration, Code of Regulations or rules and regulations, if any.

## **SECTION 8** **COMMON ELEMENTS AND EASEMENTS**

8.1 Description of Common Elements. The Common Elements in the Subdivision shall include, but not be limited to: the Recreational Facilities; Open Spaces; Landscape and Signage Easements; Private Storm Sewer Easements and any other easements for open space, landscaping areas and mounding, water retention/detention basins, common area utility easements, storm sewer and surface water drainage easements, water main easements, sanitary sewer easements, preservation areas, and private drainage easements; all as are or may be located, described and shown on the Record Plats (collectively, the "Common Elements"). Declarant and/or Builder may also create other Common Elements not now in existence but that might in the future be added, located and shown on any subsequent Record Plat to be recorded and creating additional Lots to be subjected to this Declaration.

8.2 Rights of Enjoyment in Common Elements. Except as herein otherwise provided, each Owner shall have a right and nonexclusive easement for use and enjoyment of the Common Elements, and such right and easement shall be appurtenant to, and shall pass with the title to his/her Lot. Each Tenant shall have a nontransferable right to use and enjoy the Common Elements, if any, which right shall terminate when such person ceases to have the status of a Tenant. Such rights and privileges shall be subject, however, to the following:

- (a) The right of the Board, with the approval of sixty-seven percent (67%) of the Class A Members, and the Class B Member, to borrow money for the purpose of

conditions providing for the use of such Common Elements by the public in general and terms and conditions pertaining to the maintenance and repair of such Common Elements and the assessments of Owners and/or Tenants for the costs of such maintenance and repair.

8.6 Use of Common Elements by Declarant and Builder. Declarant and Builder and its affiliates and associates shall have the same rights of use and enjoyment of the Common Elements as the Class A Members during the Development Period, and shall have the right to use the Common Elements for promotional, sales and similar purposes until all of the Dwelling Units have been sold.

8.7 Easements.

(a) In the event that, by reason of the construction, settlement or shifting of any of the Dwelling Units or other Structures located on Lots or by reason of the partial or total destruction and rebuilding of the buildings, any part of the Common Elements presently encroach or shall hereafter encroach upon any part of a Lot; or any part of a Dwelling Unit presently encroaches on or shall hereafter encroach upon any part of the Common Elements or any other Lot; or, if by reason of the design or construction of utility systems, any main pipes, ducts or conduits serving more than one Dwelling Unit presently encroach or shall hereafter encroach upon any part of any Dwelling Unit or Lot, valid easements for the maintenance of each encroachment and for the use of such adjoining space are hereby established. These easements shall exist during the term of this Declaration for the benefit of such Lot or Dwelling Unit and the Common Elements, as the case may be. However, in no event shall a valid easement for any encroachment be created in favor of any Owner if such encroachment occurred due to the willful conduct of said Owner.

(b) The Association may hereafter grant easements for utility purposes for the benefit of the Property, including the right to install, lay, use, maintain, repair and replace water mains and pipes, sewer lines, gas mains, telephone wires and equipment, and electrical conduits and wires over, under, along and on any portion of the Common Elements, and each Owner hereby grants the Association an irrevocable power of attorney to execute, acknowledge, deliver and record, for and in the name of such Owner, such instruments as may be necessary to effectuate the foregoing.

(c) Declarant hereby reserves easements and the right to grant easements on, over and across certain Lots for open space, landscaping mounding and monument areas and for the installation, maintenance, use, repair and replacement of underground utilities, public utilities, water detention basins, storm sewer, sanitary sewer and surface water drainage easements, water mains, preservation areas and private drainage easements, and building setbacks, specifically as shown on the Record Plats now or hereinafter recorded for the Subdivision, and to cut and grade slopes in and along Lot boundaries at streets and drives built within the Property. The foregoing easements shall not be used for recreations purposes but are reserved for such aesthetic or utility purposes as indicated by the nature of the easement.

(d) All easements and rights described in the Declaration are easements appurtenant, running with the land, perpetually in full force and effect, and at all times shall inure to the benefit of and be binding on Builder, its successors and assigns, and any Owner, purchaser, mortgagee and other party now or hereafter having an interest in the Property, or any part or portion thereof. After the Development Period, the Association shall be deemed to be the successor of Declarant and, as such, shall be deemed to be the grantee of said easements provided in this Section, and shall hold such easements for the use, benefit and enjoyment of all Lot Owners in the Subdivision. All notes on the Record Plat that are pertinent to the specific easements set forth herein are incorporated herein by reference.

8.8 Landscape and Signage Easement. A non-exclusive and irrevocable easement is hereby created, for the benefit of the Association or its designees, on, over and across Lots \_\_\_ and \_\_\_, in the areas depicted on the Site Plan attached hereto as Exhibit D and made a part hereof, and any subsequent Site Plan attached to a Supplemental Declaration ("Landscape and Signage Easement"), for the sole purpose of installing, maintaining and replacing any and all landscaping, monuments, and signage located on the Landscape Easement Areas and Signage Easement Areas.

8.9 Common Private Driveway Easements. The Lots sharing a Common Private Driveway Easement shall be subject to and benefited by a perpetual non-exclusive easement for ingress and egress over the Common Private Driveway. The Owners of such Lots shall use the Common Private Driveway situated on the easements with due regard for the rights of any other Owner and its use of such driveway. No Owner shall use or permit the use of the driveway in a manner which impairs the right of way of any other Owner to its use, nor shall any Owner park or store vehicles or personal property on, or obstruct or encroach upon, or permit the use of, or permit the obstruction of or encroachment upon, the Common Private Driveway in any manner whatsoever without the concurrence of all Owners entitled to use the Common Private Driveway.

The Owners using the Common Private Driveway shall share equally in the expense and costs of maintaining, improving and repairing the Common Private Driveway, except that any damage other than ordinary wear and tear caused by any Owner, or any party claiming through such Owner, whether by negligence or willful misconduct, shall be repaired at the expense of such Owner. The driveway shall be maintained in good order and repair and in a condition subsequently similar to that of its original construction. Upon conveyance of a Lot, the grantor of such Lot shall be, as of the closing date for such conveyance, relieved of the obligation to share in the expense and cost of future maintenance and repair imposed hereby, and those obligations shall bind thereafter the grantee of said conveyance. The grantor shall, however, be obligated personally during and after his/her period of ownership for expense and costs incurred for maintenance and repair during his/her period of ownership of the Lot. Maintenance expense of the Common Private Driveway shall also include snow plowing if a majority of Lot Owners served by a Common Private Driveway agree to incur expenses for snow plowing services. The obligations and responsibilities for the enforcement of the provisions contained within this Section 8.9 shall fall upon the Lot Owners served and benefited by the Common Private Driveway and shall not be an obligation or responsibility of the Association. The obligation of

an Owner of a Common Private Driveway to share in the cost and expense of maintaining a Common Private Driveway, is separate and distinct from the obligation of such Owner to pay the Assessments levied pursuant to Section 4 above.

8.10 Easements to Other Residents. Declarant may designate that certain owners of real property outside of the Property and such other persons as Declarant may designate, shall have an easement of enjoyment in and over the Common Elements or specific Common Elements, and the facilities located thereon, to the same extent as any Owner, subject to the provisions of Section 8.2. Such individuals shall be subject to the Rules and Regulations of the Association concerning the use of said Common Elements, but shall not be subject to Assessments by the Association. The Association may, if appropriate, and at the sole discretion of the Board of Directors, charge a fee to such individuals for the use of such Common Elements, including the Recreational Facilities.

## **SECTION 9** **MAINTENANCE**

9.1 Association's Responsibility. The Association shall maintain and keep in good repair the Areas of Common Responsibility, such maintenance to be funded as hereinafter provided. The Areas of Common Responsibility shall include, but need not be limited to entry, landscaping and signage easements; water retention/detention basins; common area utility easements, storm sewer and surface water drainage easements; preservation areas; all landscaping and other flora, structures, and improvements, including any private streets, situated upon the Common Elements; landscaped medians within public right-of-way throughout the Property; the Recreational Facilities; and such portions of any Additional Property included within the Areas of Common Responsibility as may be dictated by this Declaration, any Supplemental Declaration, or by a contract or agreement for maintenance thereof by the Association. The Association may maintain other property which it does not own or share in the maintenance of Property it does not own, including, without limitation, property dedicated to the public or property owned by another homeowners' association, if the Board of Directors determines that such maintenance is necessary or desirable to maintain the Community-Wide Standard.

(a) There are hereby reserved to the Association blanket easements over the Property as necessary to enable the Association to fulfill responsibilities under this Section.

(b) Except as otherwise specifically provided herein, all costs associated with maintenance, repair and replacement of the Areas of Common Responsibility shall be a Common Expense to be allocated among all Units as part of the Base Assessment, subject to the right of the Association to seek reimbursement from the Owner(s) of, or other persons responsible for, certain portions of the Areas of Common Responsibility pursuant to this Declaration, other recorded covenants, or agreements with the Owner(s) thereof.

9.2 Owner's Responsibility. Each Owner shall maintain his or her Dwelling Unit and all Structures, and other improvements comprising the Dwelling Unit. Owners of Dwelling Units adjacent to any roadway within the Property shall maintain driveways serving their respective Dwelling Units, whether or not lying within the Dwelling Unit boundaries, and shall maintain and irrigate landscaping on that portion of the Common Element, if any, or right-of-way between the Dwelling Unit boundary and the back-of-curb of the adjacent street.

All maintenance required by this Section 9.2 shall be performed in a manner consistent with the Community-Wide Standard and all applicable covenants. In addition to any other enforcement rights available to the Association, if any Owner fails properly to perform his or her maintenance responsibility, the Association may enter such Owner's property and perform the required maintenance. The costs and expense of such maintenance shall be charged to the Owner thereof as an Individual Assessment in accordance with Section 4.5; provided, however, except when entry is required due to an emergency situation, the Association shall afford the Owner reasonable notice and an opportunity to cure the problem prior to entry.

9.3 Professional Management Contracts. The Association may delegate all or any portion of its authority, subject to the Board of Directors supervision, to discharge its responsibilities herein to a manager or managing agent. Any management agreement shall not exceed three (3) years and shall provide for termination by either party without cause and without payment of a termination fee on ninety (90) days or less written notice.

## **SECTION 10**

### **COVENANT FOR STAGED DEVELOPMENT**

10.1 Staged Development. Declarant reserves the right at any time within the Development Period to remove any portion of the Property, annexed to the Property by Declarant, from the scope of the Declaration or to make subject to or annex any portion of the Additional Property to this Declaration without the consent of the Members of the Association. However, Declarant is not bound to annex any of the Additional Property to this Declaration, and until such time as any of the Additional Property is annexed, the same shall not be subject to the provisions of this Declaration.

10.2 Total Dwelling Units. The total number of Dwelling Units or Lots for the Property and the Additional Property shall not exceed the total number of Dwelling Units and Lots authorized by the zoning authority having jurisdiction over the development of the Property.

10.3 Supplemental Declaration for Staged Development. Any annexations made pursuant to this Section 10, or otherwise, shall be made by recording a supplement to this Declaration with the \_\_\_\_\_ Office, which supplementary Declaration shall extend this Declaration to such annexed property. The supplementary Declaration may either waive some of the existing covenants, conditions and restrictions or contain additional covenants, conditions, restrictions, easements and liens with respect to that Additional Property being annexed therein as either Declarant shall deem appropriate for the purpose of completing the development of the Property. Owners of Lots subject to such supplemental Declaration shall be Owners as defined by this Declaration.

Notwithstanding the foregoing, in the event that Declarant elects to annex any portion of the Additional Property to this Declaration, or to add additional covenants, conditions, restrictions, easements and liens as reserved in this Section, Declarant shall, as long as Class B Membership is in existence, obtain the prior approval of HUD/VA, if applicable, prior to recording any applicable Declaration for said purpose.

## **SECTION 11** **ENFORCEMENT**

11.1 **Curing Defaults; Lien.** In the event of any Default with respect to any Lot under this Declaration, the Board shall give written notice to the Owner thereof, with a copy of such notice to each Tenant in Default and a copy to any first mortgagee of the Lot who has requested to receive such notices, setting forth with reasonable particularity the nature of such Default, and the specific action or actions required to remedy the Default. If the Owner or Tenant shall fail to take the specific action or actions within thirty (30) days after the mailing of the notice, the Board may, but shall not be required to exercise any or all of its rights hereunder. The Board may exercise without notice any of its rights hereunder with respect to any Default if it determines that an emergency exists requiring immediate action.

Costs incurred by the Association in exercising any of its rights with respect to any Lot shall be a binding personal obligation of the Owner thereof which shall be payable on demand. If the Owner fails to pay such costs within thirty (30) days after demand, the Association shall enter the amount of the obligation, the name of the Owner as it appears on its records and the description of the Lot in a lien record book to be maintained by the Board at its main office, together with the date of such entry. The Association shall have a prior lien on such Lot for such amount until paid and such lien shall have priority from the date of such entry over all other liens and encumbrances thereon whatsoever, excepting real estate taxes and assessments, liens of record as of the date of such entry and liens of the United States of America, the State of \_\_\_\_\_, and all other political subdivisions or governmental instrumentalities of the State of \_\_\_\_\_ to the extent made superior by applicable law, all bona fide recorded first mortgages and the lien of any first mortgagee who comes into possession of a Lot pursuant to mortgage foreclosure or by deed in lieu thereof. The lien provided in this Section shall be recordable and shall be enforceable as provided in Section 4 hereof.

11.2 **Remedies.** Nothing contained in this Section 11 shall be deemed to affect or limit the rights of Declarant, Builder, the Association, any Owner, Occupant, or their legal representatives, heirs, devisees, successors or assigns, by appropriate judicial proceedings, to enforce the restrictions, or recover damages for any Default. It is hereby declared that irreparable harm will result to beneficiaries of this Declaration by reason of a Default, and, therefore, each beneficiary shall be entitled to relief by way of injunction or specific performance to enforce the provisions of this Declaration, as well as any other relief available at law or in equity.

11.3 **Right and Easement of Entry.** The Association, through its authorized officers, employees, and agents, shall have the right and easement to enter upon any Lot at all reasonable times and to do anything thereon necessary to perform the action or actions specified in the

successor guide, and shall be written in the name of the Association for the use and benefit of the Lot Owners and their mortgagees as their interests may appear. The Board of Directors and/or its authorized representatives shall have the exclusive right to negotiate and adjust all loss claims. Unless the Board of Directors determines otherwise, all such insurance shall contain a waiver of subrogation of rights by the carrier as to the Association, its officers or Directors, and all Lot Owners and occupants.

13.2 Use of Fire Insurance Proceeds. Unless at least sixty-seven percent (67%) of the first mortgagees (based upon one vote for each first mortgage owned) or Owners (other than Declarant or Builder) of the individual lots have given their prior written approval, the Association shall not be entitled to use hazard insurance proceeds for losses to the Common Elements for other than the repair, replacement or reconstruction of such Common Elements.

13.3 Liability Insurance. The Association shall obtain and maintain a comprehensive policy of public liability insurance covering all Common Elements, and other areas for which the Association is responsible, and insuring the Association, the Directors, and the Lot Owners and members of their respective families, tenants and occupants, in an amount of not less than One Million Dollars (\$1,000,000.00) per occurrence for personal injury and/or property. This insurance shall include protection against liability for risks arising out of the maintenance of the Areas of Common Responsibility and such other risks as are customarily covered with respect to developments similar in construction, location and use, as determined by the Board. This insurance shall contain a "severability of interest" endorsement which shall preclude the insurer from denying the claim for a Lot Owner, tenant or occupant because of negligent acts of the Association, the Board, or other Lot Owners, tenants, or occupants.

13.4 Other Insurance. In addition, the Board may purchase and maintain contractual liability insurance, trustees' and officers' liability insurance, and such other insurance as the Board may deem desirable from time to time.

13.5 Insufficient Insurance. In the event the improvements forming a part of the Common Elements or any other area for which the Association is responsible, or any portion thereof, shall suffer damage or destruction from any cause or peril which is not insured against, or, if insured against, the insurance proceeds from which shall not be sufficient to pay the cost of repair, restoration or reconstruction, then, the Association shall advance such costs in excess of available insurance proceeds. The amount so advanced by the Association shall become a Special Assessment against all of the Lots, and such Assessments shall have the same force and effect, and, if not paid, may be enforced in the same manner as herein provided for the non-payment of Assessments. The action required to be taken by the Association under this Section shall not require any vote of the Members of the Association.

13.6 Fidelity Bonds. The Board shall obtain as a Common Expense to the Association fidelity bond coverage with respect to any person who either handles or is responsible for funds held or administered by the Association, in an amount no less than the maximum funds that will be in the custody of the Association or its management agent at any time while the bond is in force; provided, however, the fidelity bond coverage must at least equal the sum of three months' Assessments on all Dwelling Units on the Property, plus the Association's reserve funds. A

management agent handling funds for the Association shall also be covered by its own fidelity bond, naming the Association as an additional obligee, at the sole cost of said agent.

**SECTION 14**  
**RIGHT TO CURE, MEDIATION AND ARBITRATION OF ALLEGED DEFECTS**

In order to provide an efficient procedure for resolving certain types of claims, as defined in this Section, the Association and all Owners shall be subject to the dispute resolution procedure set forth in this Section, notwithstanding that other procedures, including those set forth in "Right to Repair" or similar law, may be otherwise applicable.

The Association and/or any Owner must provide Declarant with notice and reasonable opportunity to cure any claim by the Association or Owner arising out of or in any way relating to alleged defects by Declarant in developing the Property or in the workmanship and/or materials used by Declarant in the construction of a Dwelling Unit. If the claim is not resolved to the Association's and/or any Owner's reasonable satisfaction, any such claim, shall be settled by mediation. If within thirty (30) days after service by the Association and/or Owner upon Declarant of a written demand for mediation, the mediation does not result in complete settlement of the dispute, then any unresolved claim shall be settled by binding arbitration. Judgment on the arbitration award rendered by the arbitrators may be entered in any court having jurisdiction thereof and shall be binding and conclusive as to all parties and no appeal may be taken by any party.

**SECTION 15**  
**FORUM SELECTION; WAIVER OF JURY TRIAL**

The Association and/or any Owner shall be entitled to bring a lawsuit against Declarant for any claim not within the scope of Section 14. However, any such lawsuit brought by the Association and/or any Owner against Declarant shall be filed in either a state or federal court situated in Kentucky and the Association and/or any Owner by acceptance of delivery of a deed to a Unit expressly consent to the jurisdiction and venue of such court.

In addition to the foregoing, the Association and each Owner by acceptance of delivery of a deed to a Dwelling Unit, hereby waive the right to a trial by jury and acknowledge that all issues raised in any lawsuit filed pursuant to this Section 15 shall be decided by the judge presiding over the lawsuit.

Notwithstanding anything herein to the contrary, the remedies that may be awarded to the Association and/or any Owner in any lawsuit filed pursuant to this Section are subject to and limited by the terms and conditions of the "Limited Warranty" section of the "Homeowner's Guide".

**SECTION 16**  
**DURATION, AMENDMENT AND TERMINATION**

16.1 Duration. The Restrictions shall be covenants running with the land and shall bind the Property and every part thereof, and shall (regardless of whether any such beneficiary owns an interest in any Lot) inure to the benefit of and be enforceable by, the Board and each Owner and Tenant and their legal representatives, heirs, devisees, successors and assigns, and shall continue in full force and effect for twenty (20) years from the date on which this Declaration is recorded in the \_\_\_\_\_ Office. Thereafter the Restrictions shall be automatically renewed for successive ten-year periods unless amended or terminated as provided in this Section 16.

16.2 Amendment or Termination. Prior to the end of the Development Period, any provision of this Declaration may be amended in whole or in part or terminated by a recorded instrument executed by Declarant and approved by the Owners of at least sixty-seven percent (67%) of all Lots located in the Property. After the end of the Development Period, any provision of this Declaration may be amended in whole or in part or terminated by a recorded instrument approved by the Owners of at least sixty-seven percent (67%) of all Lots located in the Property.

The President of the Board shall determine whether the persons who have approved of any amendments or termination of this Declaration constitute Owners of at least sixty-seven percent (67%) of all Lots. Promptly after the approval of any amendment or termination of any part of this Declaration, the President of the Board shall cause to be recorded the written instrument of amendment or termination executed in properly recordable form by the President of the Association and Declarant, if during the Development Period, and the certificate of the President of the Association that the Owners of at least sixty-seven percent (67%) of all Lots have approved such instrument.

The Board shall maintain such copies filed with it by the President as a permanent record and shall make copies thereof available to any Owner at a reasonable cost.

Notwithstanding anything above to the contrary, this Declaration may be amended at any time during the Development Period without the vote of Owners by a written instrument executed by Declarant for the purpose of eliminating or correcting any typographical or other inadvertent error herein; eliminating or resolving any ambiguity herein; making changes; clarifying Declarant's original intent; making changes Declarant deems necessary to achieve reasonable marketing goals for the Subdivision; making any changes necessary or desirable to meet the requirements of any institutional lender, Federal National Mortgage Association, or other agency which may insure loans on a Lot; provided, however, that no such amendment shall materially affect any Owner's interest in the Association or right, if any, to use the Common Elements. Each Owner and his or her mortgagees, by acceptance of a deed to a Lot or a mortgage encumbering such Lot, shall be deemed to have consented to and approved of the provisions of this paragraph and the amendment of this Declaration by Declarant as provided in the immediately preceding sentence. All such Owners and their mortgagees, upon request of Declarant, shall execute and deliver from time to time all such instruments and perform all such

acts as may be deemed by Declarant to be necessary or proper to effectuate the provisions of this paragraph.

**SECTION 17**  
**MISCELLANEOUS**

17.1 No Reverter. No covenant, condition, restriction or reservation or easement contained in this Declaration is intended to create, or shall be construed as creating, a condition subsequent or a possibility of reverter.

17.2 Notices. Any notice required or permitted to be given to an Owner or Tenant by the Board pursuant to the provisions of this Declaration shall be deemed given when mailed by United States mail, postage prepaid, addressed to his or her last address as it appears on the records of the Association.

17.3 Construction. The Board shall have the right to construe the provisions of this Declaration, and, in the absence of an adjudication by a court of competent jurisdiction to the contrary, such construction shall be final and binding as to all persons and entities benefited or bound by the provisions of this Declaration.

17.4 Invalidity. The determination by a court of competent jurisdiction that any provision of this Declaration is invalid for any reason shall not affect the validity of any other provision hereof.

17.5 Headings. The headings of the Sections are for convenience only and shall not affect the meaning or construction of the contents of this Declaration.

17.6 Gender. Throughout this Declaration, the masculine gender shall be deemed to include the feminine and neuter, and the singular the plural, and vice versa.

17.7 Conflict. If there are conflicts or inconsistencies between the provisions of the laws of the State of \_\_\_\_\_, the Articles of Incorporation, this Declaration, the Code of Regulations, Architectural Guidelines and the Rules and Regulations, it shall be agreed that the provisions of the laws of the State of \_\_\_\_\_, this Declaration, the Articles of Incorporation, the Code of Regulations, the Architectural Guidelines and the Rules and Regulations (in that order) shall prevail.

17.8 Covenants Running with Land. This Declaration and all amendments hereto shall be, and shall be construed as, covenants running with the land, shall be binding upon Declarant, Builder, any mortgagee, the Association, its Members, each Owner, each Occupant and all claiming under each Owner or Occupant, and shall (regardless of whether or not any such beneficiary owns an interest in any Lot) inure to the benefit of and be enforceable by (i) Declarant, (ii) Builder, (iii) the Association, and (iv) each Owner and all claiming under each Owner.

17.9 Availability of Documents. The Association shall make available to Members, Owners, and lenders, and to holders, insurers, or guarantors of any first mortgage, current copies of the Declaration, rules and regulations, if any, and other rules concerning the Property. "Available" means available for inspection, upon request, during normal business hours or under other reasonable circumstances.

17.10 Right of Entry. The Association shall have a reasonable right of entry upon any Lot to make emergency repairs and to do other work reasonably necessary for the proper maintenance or operation of the Property.

17.11 Condemnation. In the event any Lot or any portion thereof, is made the subject matter of any condemnation or eminent domain proceeding or is otherwise sought to be acquired by a condemning authority, the net proceeds of any award or settlement shall be the property of the Owner and the holder of the first mortgage, to the extent of their respective interests. Each Owner shall give the holder of a first mortgage on the Owner's Lot timely written notice of such proceeding or proposed acquisition.

In the event the Common Elements or any portion thereof is made the subject matter of any condemnation or eminent domain proceedings or other sought to be acquired by a condemning authority, the proceeds of any award or settlement shall be distributed to the Association for the common benefit of the Owners and their mortgagees, as their interests appear.

*[Remainder of page intentionally left blank, signatures to follow]*

IN WITNESS WHEREOF, Declarant has caused this Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for \_\_\_\_\_ to be executed by its duly authorized officer as of the day and year first above written.

GRAND COMMUNITIES, LTD.,  
a Kentucky limited partnership

By: Fischer Development Company,  
General Partner

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF \_\_\_\_\_ )

: SS

COUNTY OF \_\_\_\_\_ )

The foregoing was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_ as \_\_\_\_\_ of Fischer Development Company, a Kentucky corporation, as General Partner of Grand Communities, Ltd., a Kentucky limited partnership, on behalf of the corporation and the limited partnership.

\_\_\_\_\_  
Notary Public

This instrument prepared by:

M. Larry Sprague  
Attorney at Law  
Fischer Development Company  
2670 Chancellor Drive, Suite 300  
Crestview Hills, Kentucky 41017  
859-344-5968  
967460.2

**EXHIBIT A**

[REAL ESTATE DESCRIPTION]

**EXHIBIT B**

[CODE OF REGULATIONS]

## EXHIBIT C

Loan Agreement(s) and Promissory Note(s) to fund Operating Deficit(s) pursuant to Section 4.9 of Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for \_\_\_\_\_ shall conform with the following provisions which shall govern the terms and conditions of said Agreement(s) and Notes(s):

1. Type of Note:

The Note(s) may be issued in any of the following forms:

(a) Demand Note:

This type of Note shall be payable on the date of demand by Lender; or

(b) Open-end Note:

This type of Note shall permit additional borrowing and prepayment of principal, without penalty; or

(c) Closed-end Note:

This type of Note shall not permit additional borrowing against this note; but prepayment of principal, without penalty, shall be permitted.

2. Method of Payment:

Repayment of the loan(s) may be by any of the following methods:

(a) Installment Plan:

This method of payment shall require payments, of both principal and interest, at regular intervals over the term of the loan; or

(b) Lump Sum Payment:

This method of payment shall require Periodic payments, of both principal and interest, for a specified time and a lump sum payment at maturity to discharge the outstanding balance of the loan; or

(c) Balloon Payment:

This method of payment shall require periodic interest payments for a specified time and a lump sum payment at maturity to discharge the outstanding balance of the loan.

3. Interest:

The Interest Rate established by Lender shall be reasonable, but no greater than two (2) percentages points over the "prime rate" as published in the Wall Street Journal and shall be designated by lender to be either:

(a) Fixed:

The Lender shall establish a rate of interest at the time of the making of the Note and this rate of interest shall remain constant over the term of the Note; or

(b) Variable:

The Lender can periodically adjust the interest rate in accordance with fluctuations in the "prime rate" as published in the Wall Street Journal.

Furthermore, Interest shall be designated by Lender to be either:

(a) Compound:

Interest shall be paid on both the principal and the previously accumulated interest; or

(b) Simple:

Interest shall be paid on the principal only and not on accumulated interest.

4. Limit on Term:

The Note(s) may be issued for a term up to, but not to exceed, ten (10) years.

5. Waiver of Defenses:

Borrower shall waive presentment, demand, protest, and notice of demand, protest, non-payment and dishonor. Borrower shall also waive all defenses based on surety ship or impairment of collateral.

6. Agreement(s) and Note(s) shall contain clauses addressing the following issues:

- (a) Order of payment
- (b) Default
- (c) Expenses
- (d) Omission or waiver by Lender
- (e) Severability
- (f) Choice of law

**EXHIBIT D**

[Site Plan Depicting Location of Landscape and Signage Easement]

1330241.1



## **Preservation Easement**

Preservation Easements are hereby established on such areas of the property designated as a Preservation Easement on this record plat. The Preservation Easements established herein are subject to the following restrictions, conditions, and reservations of use: (a) any division or subdivision of the preservation area is prohibited; (b) commercial development or industrial activity on the preservation area is prohibited; (c) the placement or construction of any man-made modifications including, but not limited to, buildings, structures, fences, roads, and parking lots is prohibited; (d) any cutting of trees, groundcover, or vegetation is prohibited unless the vegetation threatens safety or property damage; (e) destroying vegetation by means of herbicides or pesticides is prohibited, other than the removal or control of invasive and noxious species; (f) waste, garbage, and unsightly or offensive materials are not permitted and may not accumulate in the preservation easement; (g) natural water courses, streams, and riparian buffers may not be dredged, straightened, filled, channelized, impeded, diverted, or otherwise altered; (h) surface alteration or extraction of minerals including topsoil, sand, gravel, or rock is prohibited within preservation easement.

Grantor, its successors and assigns, may allow certain de minimis activities to verify compliance with jurisdictional requirements. Grantor, its successors and assigns, shall retain all rights of ownership which are not expressly limited by this preservation easement, including the right to use the preservation easement for all purposes not inconsistent with this preservation easement. Nothing in this preservation easement shall be construed as a dedication of the preservation easement for public use, nor shall it be construed as granting the right of entry to the public. This preservation easement is required as part of mitigation for certain surface water feature impacts, and shall run with the land.

