



690 Chesterfield Pkwy W • Chesterfield MO 63017-0760
Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

Planning Commission Staff Report

Project Type: 9th Amended Site Development Plan (ASDP)

Meeting Date: November 13, 2017

From: Cecilia Dvorak, Project Planner

Location: Northwest corner of Olive Boulevard and Arrowhead Estates Lane

Description: **Friendship Village of West County 9th ASDP:** A request for a 9th Amended Site Development Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Architect’s Statement of Design, and Architectural Elevations for Friendship Village of West County for a 36.7 acre tract of land zoned “R4” Residence District with a “CUP” Conditional Use Permit at the northwest corner of Olive Boulevard and Arrowhead Estates Lane (17S320478).

PROPOSAL SUMMARY

Civil Engineering Design Consultants, on behalf of Friendship Village of West County, has submitted a 9th Amended Site Development Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Architect’s Statement of Design, and Architectural Elevations for Planning Commission review. The project is located on a 36.7 acre tract of land zoned “R4” Residence District with a Conditional Use Permit (CUP) at the northwest corner of Olive Boulevard and Arrowhead Estates Lane.

The request is for the addition of two new facility buildings, four additions to existing buildings, and the demolition of one existing facility and three single-story garages. There are also amendments to the drive aisles, the parking areas, the lighting, and the landscaping in conjunction with these new buildings and additions.

HISTORY OF SUBJECT SITE

The subject tract was zoned “NU” Non-Urban District by St. Louis County prior to the incorporation of the City of Chesterfield.

The site was granted a Conditional Use Permit (CUP) from St. Louis County in 1973 for a “full life retirement center”. Over the years, a number of changes were approved by St. Louis County and the City of Chesterfield after incorporation to allow for the evolution of the site. Most recently, CUP #37 was approved in 2015 in order to include three additional parcels/two single-family homes purchased by Friendship Village to incorporate into their development.



Figure 1: Aerial

LAND USE AND ZONING OF SURROUNDING PROPERTIES

Direction	Zoning	Land Use
North	“NU” Non-Urban District	Hugo Essens Farm
East	“PS” Parks and Scenic District	Faust Park
South	“R-3” & “R-2” Planned Residence Districts	Nooning Tree & Shenandoah Subdivisions
West	“R-4” Residence District and “NU” Non-Urban District	Braefield & Arrowhead West Subdivisions

COMPREHENSIVE PLAN ANALYSIS

The City of Chesterfield Comprehensive Land Use Map delineates the subject site within the residential single-family land use category, which is surrounded by residential single family land use designation to the north, park/recreation to the east, residential single-family to the south, and residential single family land use designation to the west.



Figure 2: Land Use Map

STAFF ANALYSIS

General Requirements for Site Design:

Site Relationships

This is a 36.7 acre tract located on the north side of Olive between Faust Park and the Braefield subdivision. The applicant has provided a color site plan showing the location of the proposed new buildings and additions (shown in yellow in Figure 4 below). In order to accommodate the redevelopment, the existing assisted care building and three garages would be demolished (circled in red in Figure 3 below). Other structures have already been demolished (circled in yellow).



Figure 3: Campus Aerial Image

Each building is connected through a series of sidewalks and striped crosswalks to provide pedestrian connectivity across drive aisles and parking areas. The proposed Building A will also have an internal courtyard with a walking path and landscaping. Similar winding pathways and landscaping can be seen throughout the site in common areas. Detailing within the building elevations provides for a consistent material palette across the campus with unique uses of material from building to building to unify the aesthetic. The dark green areas shown on the colored site plan below delineate the greenspace preservation areas that will remain untouched.



Figure 4: Color Site Plan

Circulation System & Access

The site continues to have one main entrance and exit access point in the southeast of the site to Olive Boulevard and one “emergency access only” access point connecting to Arrowhead Estates Lane in the southeast. There will be an additional “emergency access only” access point off of Braefield Drive.

Internally, there is one primary route for vehicles to circulate throughout the site, with an additional loop that connects detached villas to the rest of the campus. Each new addition and the addition of Building A have either adjoining or neighboring courtyards promoting pedestrian circulation throughout the site.

New surface parking for the new Building A is located directly in front of the building. Most of the surface parking for the remaining buildings are combined in front of Building B and next to Building D near the main entrance. Building D will have an additional 52 space lower level parking garage.

Circulation & Parking during Construction

Given the high-level of redevelopment the site is undergoing, staff has worked with the applicant to ensure the site will function properly while redevelopment is occurring. In doing so, the applicant has provided an interim-phase plan depicting the site prior to the demolition of the existing skilled nursing facility, and after the full construction of both new buildings. This phase does show that parking will be adequately provided while all structures are present. Additionally, the applicant has provided a phasing plan and associated narrative for the initial construction of the site’s new circulation pattern and phased parking areas to ensure the smoothest construction plan possible.

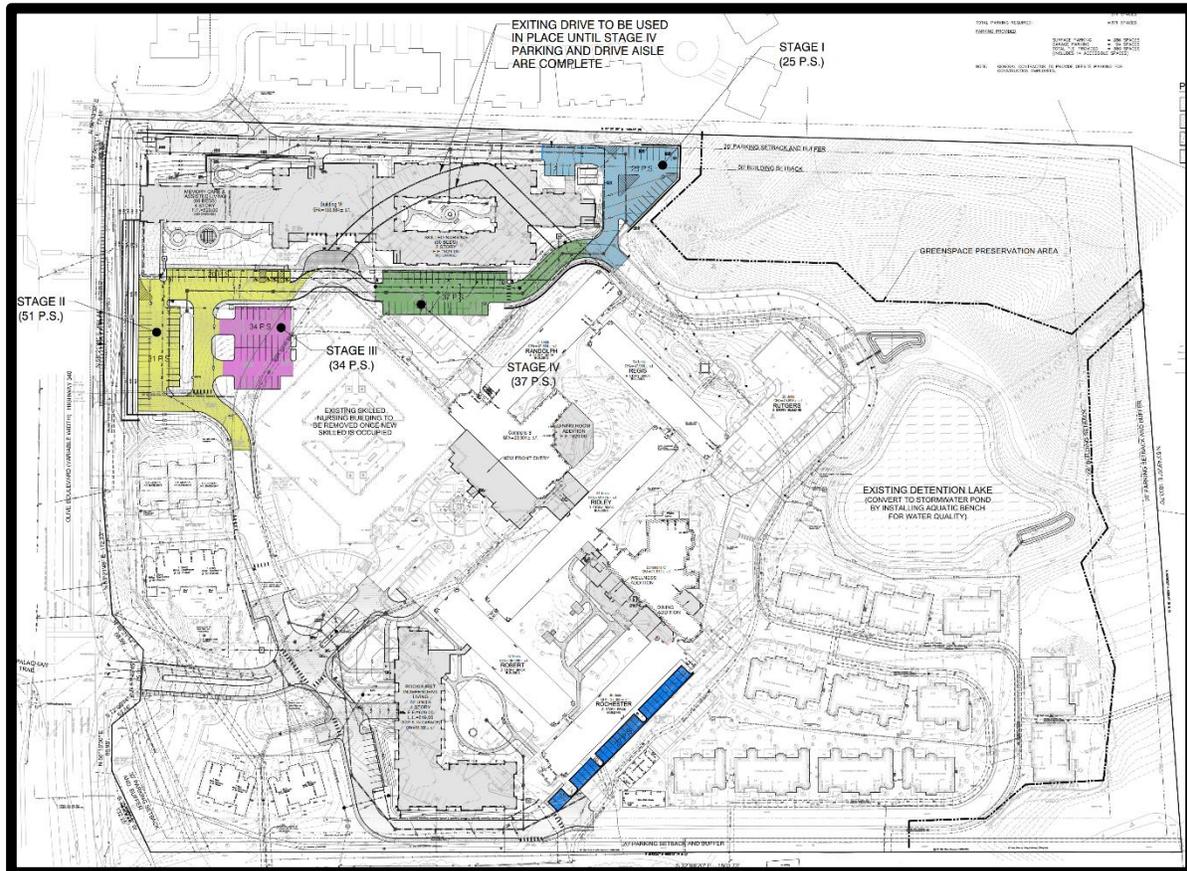


Figure 5: Parking Construction Phasing Plan

**General Requirements for Building Design:
Architectural Review Board (ARB)**

The general requirements for building design were reviewed by the Architectural Review Board in July. At that time the discussion revolved around the consistency with the newest building on the campus previously approved in 2012, and the addition of visual improvements as seen from Olive Boulevard. At that time, the Board passed a motion by a vote of 3 – 0 to forward the submittal to the Planning Commission, as presented, with a recommendation of approval.

The proposed independent living facility can be seen below, along with that of the elevation of the building approved in 2012 which has similar materials and design elements.



Figure 6: Proposed Independent Living Building D South Elevation



Figure 7: "Rutgers" Independent Living Building approved in 2012

DEPARTMENTAL INPUT

Staff has reviewed the 9th Amended Site Development Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Architect’s Statement of Design, and Architectural Elevations and has found the application to be in conformance with City of Chesterfield CUP #37, and all other applicable Zoning Ordinance requirements.

Staff recommends approval of the 9th Amended Site Development Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Architect’s Statement of Design and Architectural Elevations for Friendship Village of West County.

MOTION

The following options are provided to the Planning Commission for consideration relative to this application:

- 1) "I move to approve (or deny) the 9th Amended Site Development Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Architect's Statement of Design, and Architectural Elevations for Friendship Village of West County."
- 2) "I move to approve the 9th Amended Site Development Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Architect's Statement of Design, and Architectural Elevations for Friendship Village of West County, with the following conditions..." (Conditions may be added, eliminated, altered or modified)

Attachments: Applicant's construction parking stages plan and narrative description
Architect's Statement of Design
Architectural Elevations
Amended Site Development Plan
Amended Landscape Plan
Tree Preservation Plan
Tree Stand Delineation
Amended Lighting Plan

CEDC
CIVIL ENGINEERING
DESIGN CONSULTANTS

October 16, 2017

Ms. Cecilia Dvorak
Project Planner
City of Chesterfield
690 Chesterfield Parkway West
Chesterfield, Missouri 63017-0760



Re: Friendship Village Chesterfield
9th ASDP
15201 Olive Boulevard
Chesterfield, Missouri 63005

Dear Ms. Dvorak:

Please find attached the requested staging exhibit of the proposed parking at Friendship Village. The following is a summary of the possible sequencing:

- Stage I-construct 25 parking spaces and connect to existing drive
- Stage II-construct retaining walls along Olive and 51 parking spaces. Connect to existing perimeter drive in two locations
- Stage III-remove portion of existing perimeter drive and construct 34 parking spaces
- Stage IV-construct 37 parking spaces

Please call should you have any questions.

Sincerely,
Civil Engineering Design Consultants, Inc.

A handwritten signature in black ink that reads "Michael F. Vorwerk, P.E." in a cursive style.

Michael F. Vorwerk, P.E.

PARKING CALCULATIONS

PARKING REQUIRED

GROUP HOMES FOR ELDERLY (APARTMENTS):	= 321 SPACES
241 @ 1 SPACE PER APARTMENT	
NURSING HOME (HEALTH CENTER):	= 50 SPACES
150 BEDS @ 1 SPACE PER 3 BEDS	
TOTAL PARKING REQUIRED:	= 371 SPACES

PARKING PROVIDED

SURFACE PARKING	= 280 SPACES
GARAGE PARKING	= 91 SPACES
TOTAL P.S. PROVIDED	= 371 SPACES
(INCLUDES 14 ACCESSIBLE SPACES)	

NOTE: GENERAL CONTRACTOR TO PROVIDE OFFSITE PARKING FOR CONSTRUCTION EMPLOYEES.



PAVEMENT LEGEND

[Pattern]	ASPHALT PAVEMENT (LIGHT DUTY)
[Pattern]	ASPHALT PAVEMENT (HEAVY DUTY)
[Pattern]	CONCRETE PAVEMENT
[Pattern]	CONCRETE WALK/PATIO

BRANDON A. HARRIS, P.E. E-0650
DAN ELSHNER
GEOD. LICENSE NO. 200300474

18029 Summer Office Drive
St. Louis, Missouri 63137
314-720-1400
Fax: 314-720-1404
www.cedc.com

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CIVIL ENGINEERING
DESIGN CONSULTANTS

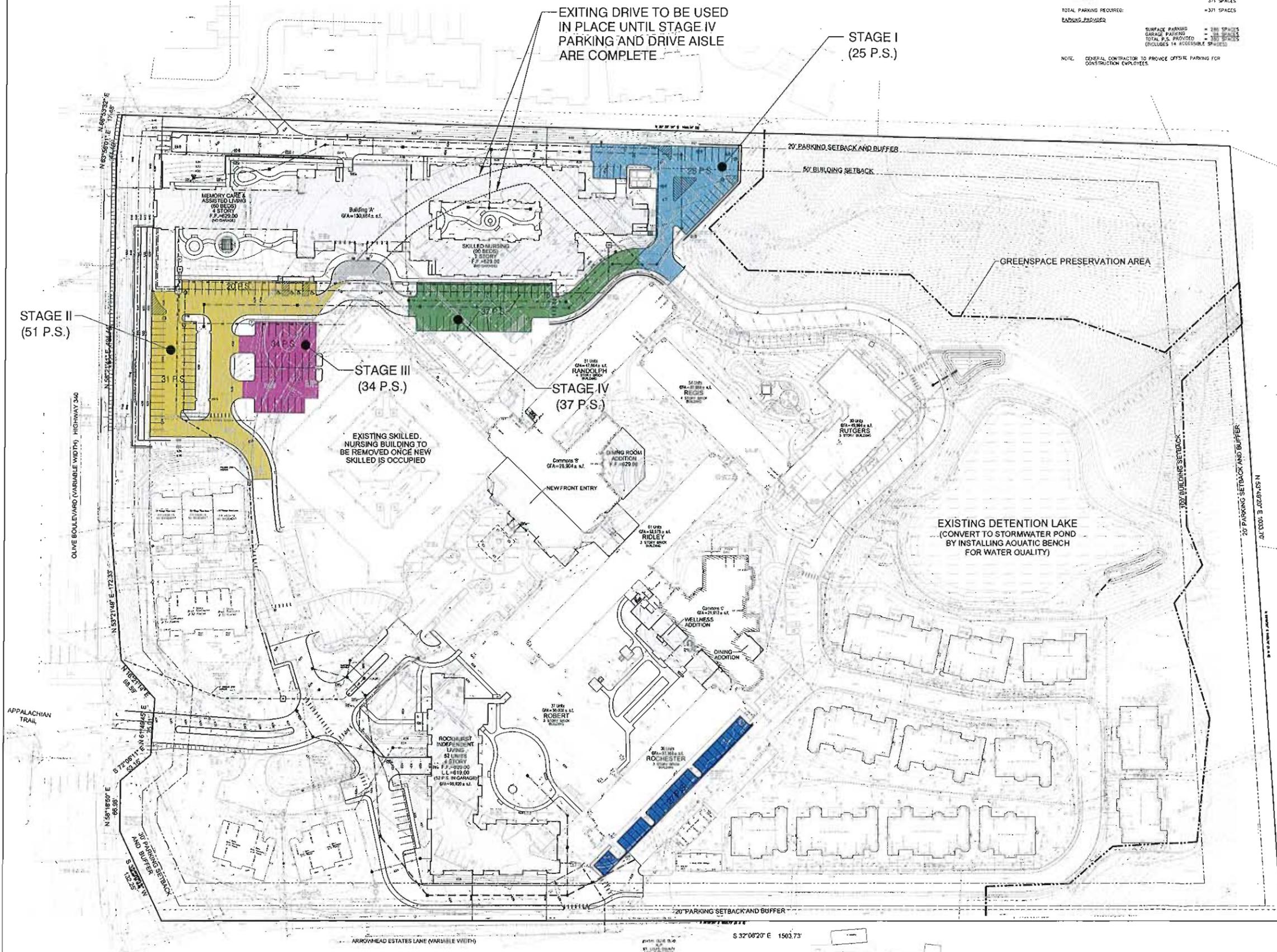
9th Amended Site Development Plan
Friendship Village Chesterfield
15201 Olive Blvd.
Chesterfield, Missouri 63017

Proj # 1092.9

No.	Description	Date
City	Submital	05/26/16
rev. per City		05/03/17
rev. per City		05/22/17

CONSTRUCTION PHASE

C2



EXITING DRIVE TO BE USED IN PLACE UNTIL STAGE IV PARKING AND DRIVE AISLE ARE COMPLETE

STAGE I (25 P.S.)

STAGE II (51 P.S.)

STAGE III (34 P.S.)

STAGE IV (37 P.S.)

EXISTING SKILLED NURSING BUILDING TO BE REMOVED ONCE NEW SKILLED IS OCCUPIED

EXISTING DETENTION LAKE (CONVERT TO STORMWATER POND BY INSTALLING AQUATIC BENCH FOR WATER QUALITY)

S 32°06'20" E 1503.73'

Nine Sunnen Drive
St. Louis, Missouri 63143
p| 314.646.0400
f| 314.646.0100



GRAY DESIGN GROUP

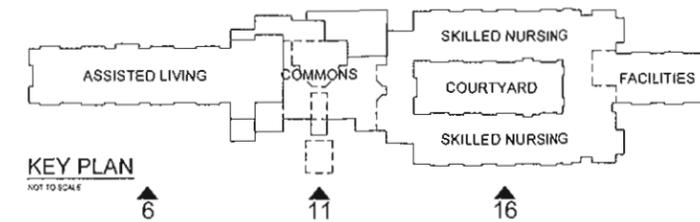
FRIENDSHIP VILLAGE CHESTERFIELD
ARCHITECTURAL DESIGN NARRATIVE

Friendship Village – Chesterfield is a multiple-phase project enhancing the on-site Continuum of Care Retirement Community amenities offered to seniors throughout the community at the existing Friendship Village site on Olive Road.

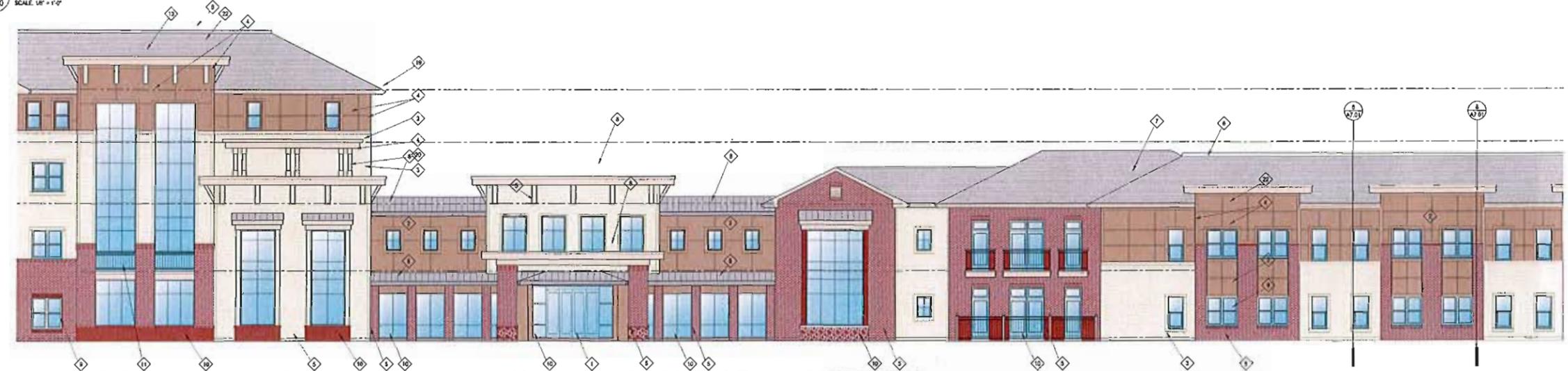
The proposed project consists of a new four-story Independent Living apartment building, renovation of the existing Independent Living Lobby and community entrance, renovation and expansion of the existing Independent Living Wellness (Trillium) Center, demolition of the existing Assisted Living (Village Care Center) Facility replaced by a new four-story Assisted Living Facility with Memory Care unit and two-story Skilled Nursing Facility. Each building and care-type enjoys its own landscaped site amenities and outdoor courtyard areas with walking paths.

Each building is designed to complement the existing campus aesthetic while advancing the architectural feel to provide a more residential scale, visual interest, and material warmth enhancing the existing campus feel. Exterior materials used through-out the proposed renovation are a mix of masonry brick veneer, stone masonry, painted cementitious horizontal lap siding, and painted cementitious panel siding with batten trim detailing. Roof elements will be traditional hip, gable, and shed forms clad with either architectural grade shingles or painted standing seam sheet metal roofing with all rooftop mounted equipment screened from view.

gray



6 BUILDING A ELEVATION - ASSISTED LIVING & MEMORY CARE
 SCALE: 1/8" = 1'-0"



11 BUILDING A ELEVATION - BUILDING ELEVATION - ASSISTED LIVING, MEMORY CARE, THERAPY, AND SKILLED NURSING FACILITY
 SCALE: 1/8" = 1'-0"



16 BUILDING A ELEVATION - ASSISTED LIVING, MEMORY CARE, AND SKILLED NURSING FACILITY
 SCALE: 1/8" = 1'-0"

KEYED NOTES

- 1 ALUMINUM AUTOMATIC SLIDING DOORS
- 2 FIBER CEMENT BOARD AND TRIM (PAINT)
- 3 FIBER CEMENT LAP SIDING (PAINT)
- 4 FIBER CEMENT TRIM (PAINT)
- 5 BRICK VENEER
- 6 RIDGE VENT
- 7 ASPHALT ROOF SHINGLES
- 8 STANDING BEAM METAL ROOFING
- 9 ANDERSON 200 SERIES DOUBLE HUNG WINDOWS
- 10 ALUMINUM CURTAIN WALL SYSTEM
- 11 PREFINISHED ALUMINUM RAILING SYSTEM
- 12 PREFINISHED ALUMINUM LOUVER
- 13 DECORATIVE BRACKET
- 14 INSULATED OVERHEAD COILING DOOR
- 15 PREFINISHED ALUMINUM CORING
- 16 PREFINISHED ALUMINUM DOWNSPOUT (CONNECT TO UNDERGROUND STORM SYSTEM)
- 17 PREFINISHED ALUMINUM GUTTERS
- 18 GLASS FIBER REINFORCED CONCRETE COLUMN
- 19 LIGHT FIXTURE
- 20 ARCHITECTURAL METAL PANEL SYSTEM

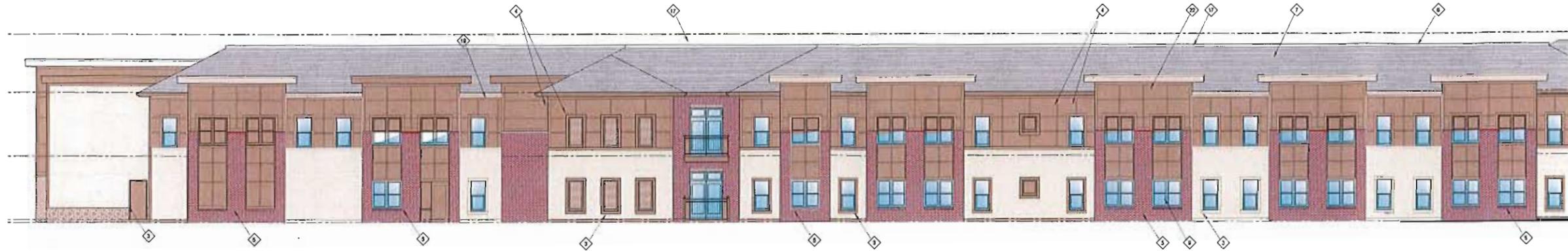
SCHEMATIC DESIGN - PHASE B2 FOR:
FRIENDSHIP VILLAGE
 ASSISTED LIVING, MEMORY CARE, SKILLED CARE
 15201 OLIVE BLVD., CHESTERFIELD MO 63017

BUILDING ELEVATIONS

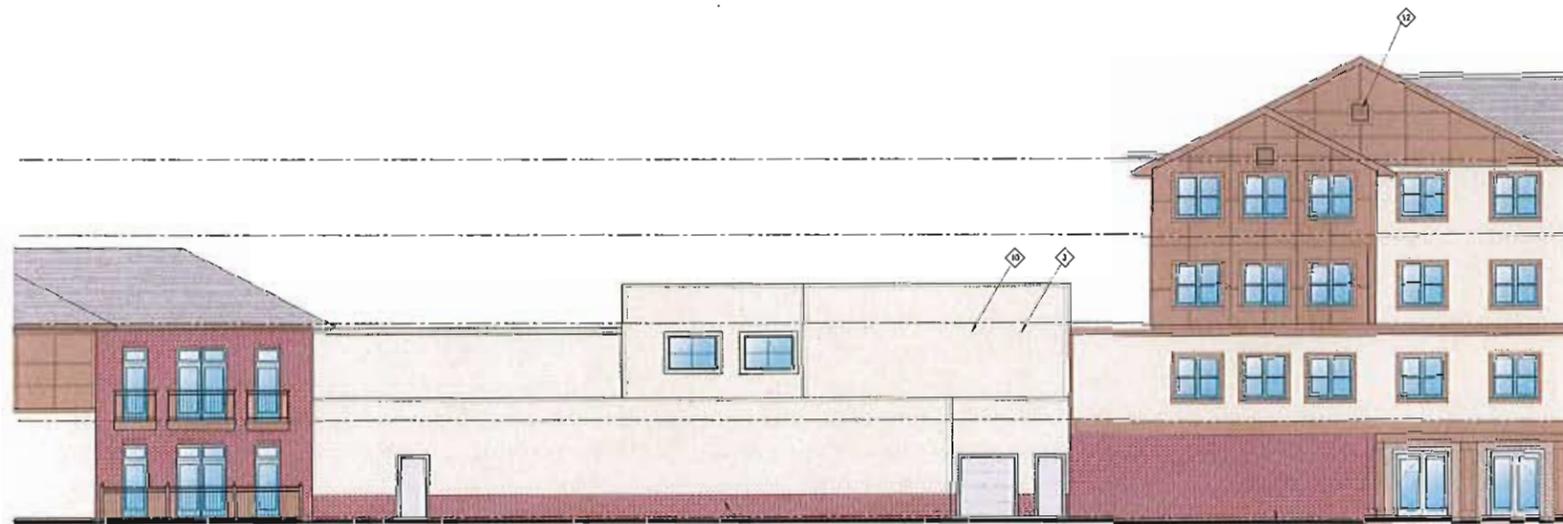


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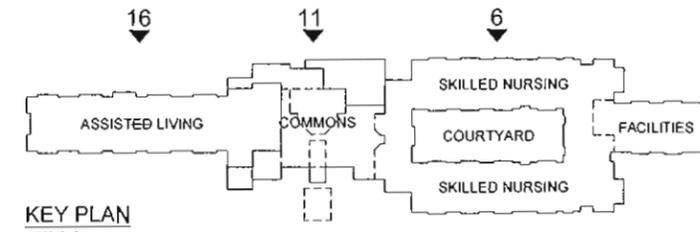
6 BUILDING A ELEVATION - ASSISTED LIVING & MEMORY CARE
A6.01 SCALE: 1/8" = 1'-0"



11 BUILDING A ELEVATION - ASSISTED LIVING, MEMORY CARE, THERAPY, AND SKILLED NURSING FACILITY
A6.01 SCALE: 1/8" = 1'-0"



18 BUILDING A ELEVATION - ASSISTED LIVING, MEMORY CARE, AND SKILLED NURSING FACILITY
A6.01 SCALE: 1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

KEYED NOTES

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20. ARCHITECTURAL METAL PANEL SYSTEM

SCHEMATIC DESIGN - PHASE B2 FOR:
FRIENDSHIP VILLAGE
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BUILDING ELEVATIONS

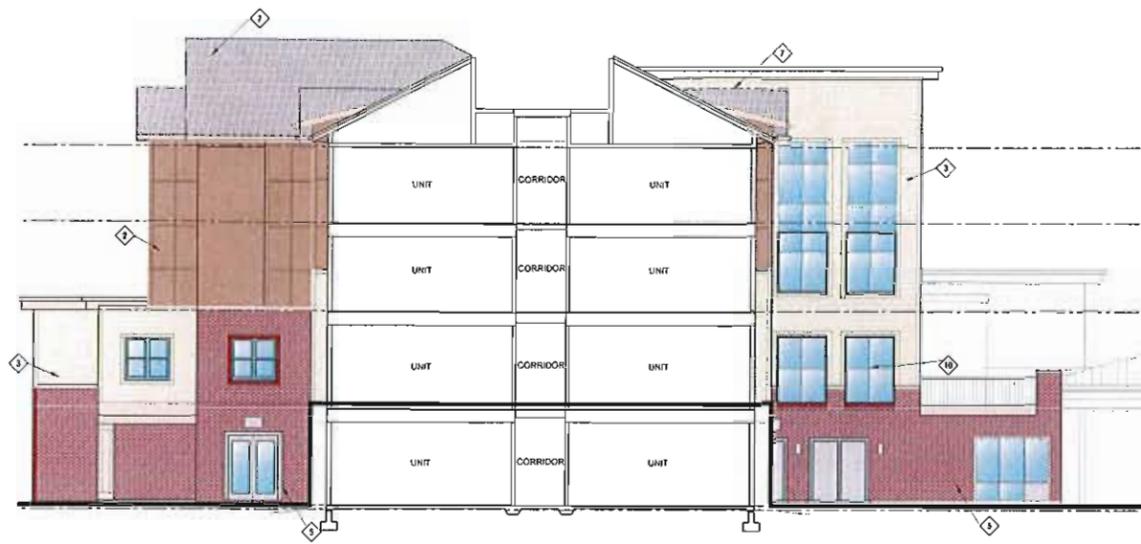


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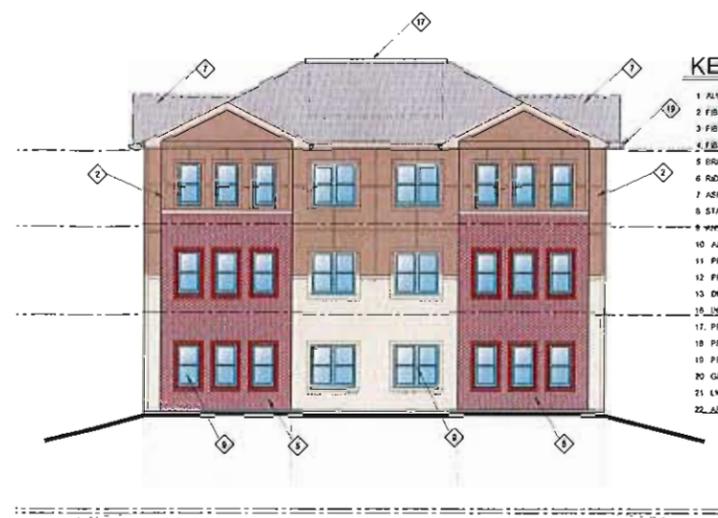
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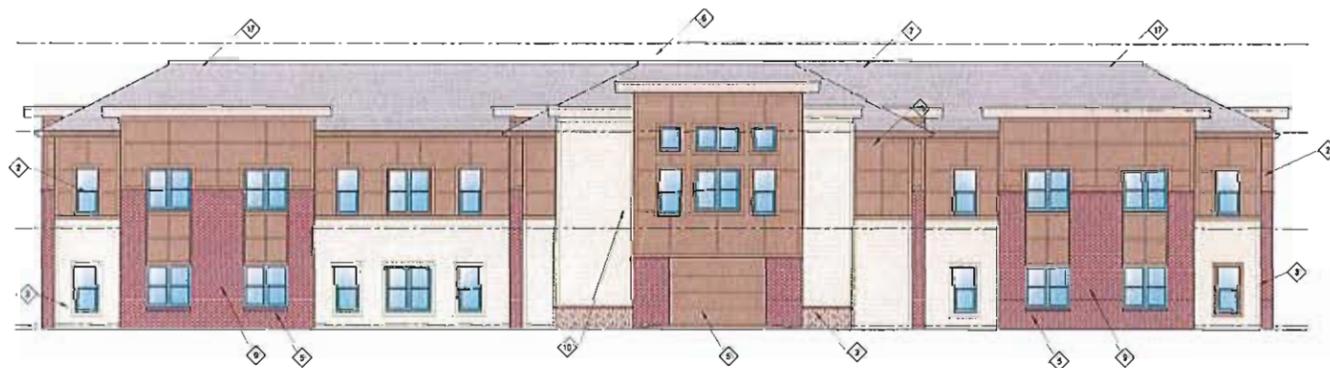
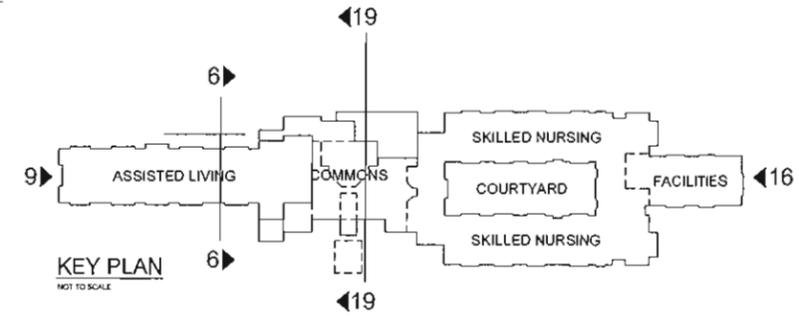
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A6.02 SCALE: 1/8" = 1'-0"



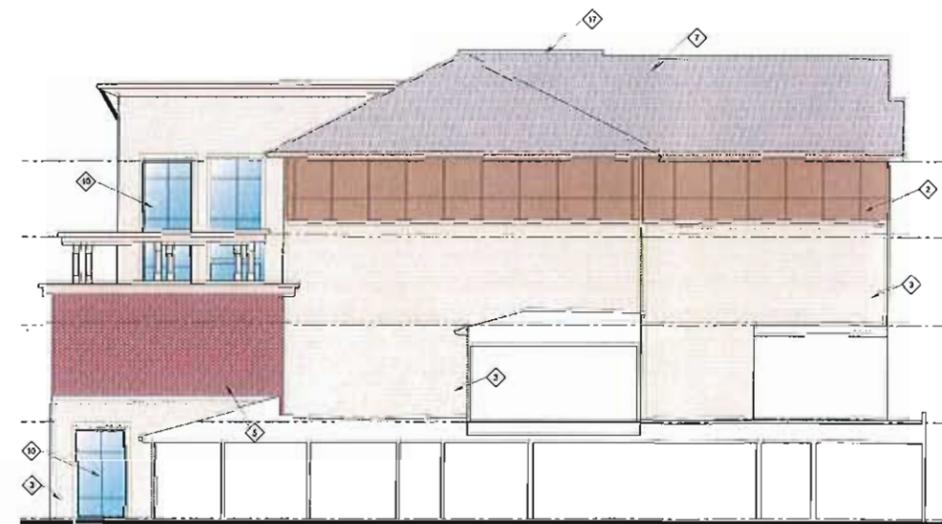
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9 BUILDING A ELEVATION - ASSISTED LIVING & MEMORY CARE
A6.02 SCALE: 1/8" = 1'-0"



15 BUILDING A ELEVATION - ASSISTED LIVING & MEMORY CARE
A6.02 SCALE: 1/8" = 1'-0"



19 BUILDING A ELEVATION - ASSISTED LIVING & MEMORY CARE
A6.02 SCALE: 1/8" = 1'-0"

16 (A6.02)

Schematic Design - Phase B2 For:
FRIENDSHIP VILLAGE
ASSISTED LIVING, MEMORY CARE, SKILLED CARE
15201 OLIVE BLVD, CHESTERFIELD MO 63017

BUILDING ELEVATIONS



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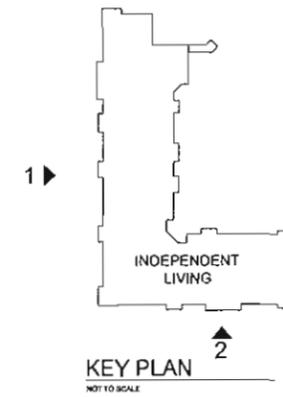
1 BUILDING D - INDEPENDENT LIVING NORTH - SOUTH EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING D - INDEPENDENT LIVING NORTH - NORTH EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"

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19. LIGHT FIXTURE
20. ARCHITECTURAL METAL PANEL SYSTEM

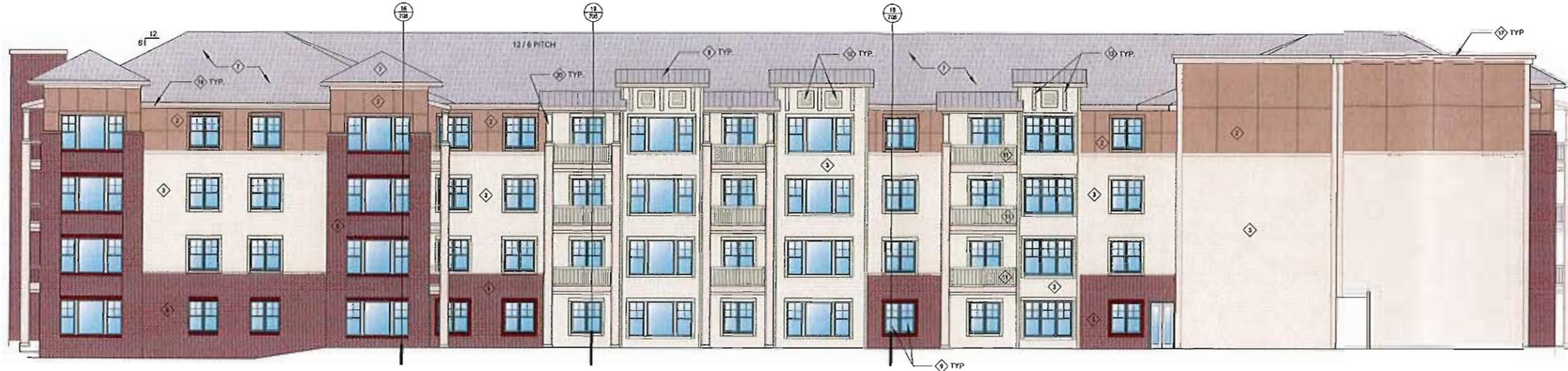


SCHEMATIC DESIGN - PHASE B2 FOR
FRIENDSHIP VILLAGE
INDEPENDENT LIVING
15201 OLIVE BLVD, CHESTERFIELD MO 63017

IL NORTH - EXTERIOR ELEVATION



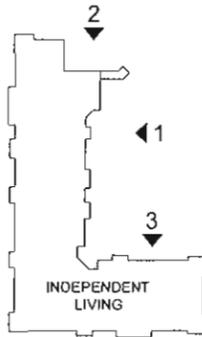
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1 BUILDING D - INDEPENDENT LIVING - EXTERIOR ELEVATIONS
SCALE: 1/8" = 1'-0"

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KEY PLAN
NOT TO SCALE



2 BUILDING D - INDEPENDENT LIVING - EXTERIOR ELEVATION
SCALE: 1/8" = 1'-0"

3 BUILDING D - INDEPENDENT LIVING - EXTERIOR ELEVATIONS
SCALE: 1/8" = 1'-0"

SCHEMATIC DESIGN - PHASE B2 FOR
FRIENDSHIP VILLAGE
INDEPENDENT LIVING
15201 OLIVE BLVD, CHESTERFIELD MO 63017

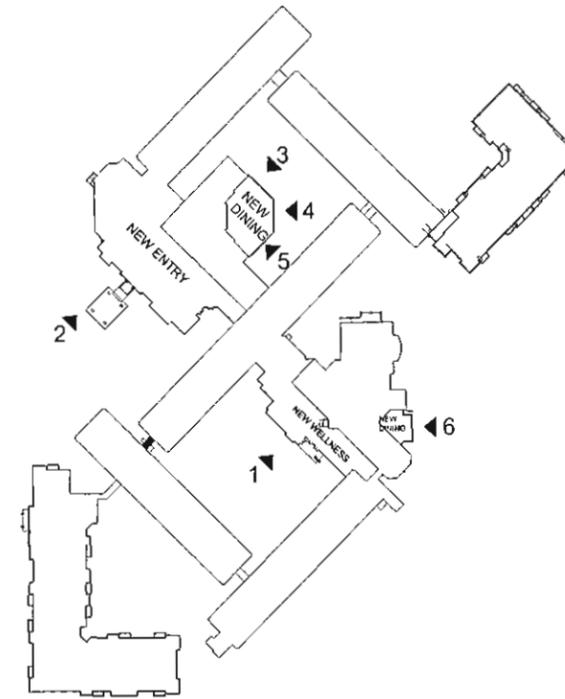
IL NORTH - EXTERIOR ELEVATION



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1 BUILDING B - EXTERIOR ELEVATION - INDEPENDENT LIVING - WELLNESS
A6.05 SCALE: 1/8" = 1'-0"



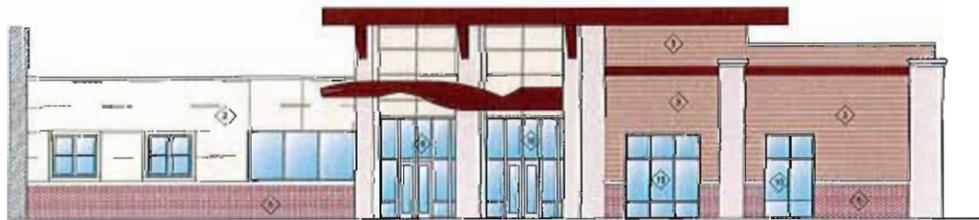
KEY PLAN
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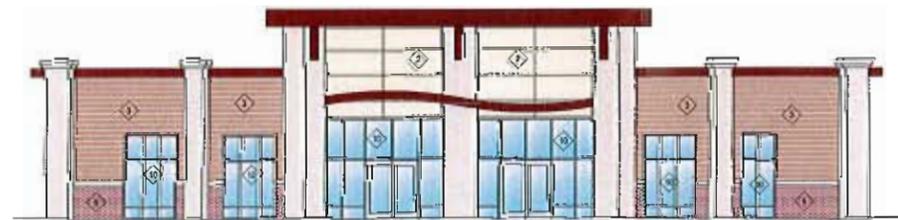
2 BUILDING B - EXTERIOR ELEVATION - INDEPENDENT LIVING NEW ENTRY
A6.05 SCALE: 1/8" = 1'-0"

KEYED NOTES

1. ALUMINUM AUTOMATIC SLIDING DOORS
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22. ARCHITECTURAL METAL PANEL SYSTEM



3 BUILDING B - EXTERIOR ELEVATION - DINING ROOM ADDITION
A6.05 SCALE: 1/8" = 1'-0"



4 BUILDING B - EXTERIOR ELEVATION - DINING ROOM ADDITION
A6.05 SCALE: 1/8" = 1'-0"



5 BUILDING B - EXTERIOR ELEVATION - DINING ROOM ADDITION
A6.05 SCALE: 1/8" = 1'-0"



6 BUILDING C - EXTERIOR ELEVATION - DINING ROOM ADDITION
A6.05 SCALE: 1/8" = 1'-0"

SCHEMATIC DESIGN - PHASE B2 FOR:
FRIENDSHIP VILLAGE
ASSISTED LIVING, MEMORY CARE, SKILLED CARE
15201 OLIVE BLVD., CHESTERFIELD, MO 63017

IL LOBBY & WELLNESS AREA - EXTERIOR ELEVATIONS



gray

NOT FOR CONSTRUCTION

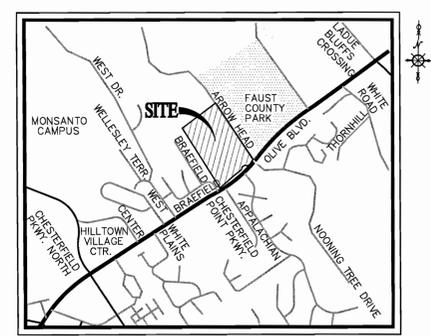
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9th AMENDED SITE DEVELOPMENT PLAN FRIENDSHIP VILLAGE CHESTERFIELD

Lot A-1 of Friendship Village of West County Boundary Adjustment Plat Addition as recorded in Plat Book 364, Page 373 in part of U.S. Survey 154 and 157, Township 45 North, Range 4 East

CITY OF CHESTERFIELD
ST. LOUIS COUNTY, MISSOURI



LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

C1	TITLE SHEET
C2	CONSTRUCTION PHASE
C3	SITE DEVELOPMENT PLAN (9th Amended)

PROPERTY DATA

OWNER	= FRIENDSHIP VILLAGE OF WEST COUNTY
ADDRESS	= 15201 OLIVE BOULEVARD
LOCATOR NO.	= 17S2047B
ACREAGE	= 36.70 AC±
EXISTING ZONING	= R4 WITH CUP #37
MSD BASE MAP	= 17S3
SCHOOL DISTRICT	= PARKWAY
SEWER DISTRICT	= METROPOLITAN ST. LOUIS SEWER DISTRICT
WATER SHED	= MISSOURI RIVER

FLOOD ZONE NOTE

SUBJECT PROPERTY LIES WITHIN UNSHADED FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOOD PLAIN) ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND INCORPORATED AREAS. THE MAP IS IDENTIFIED AS PANEL 29189C0170 K WITH AN EFFECTIVE DATE OF 02/04/2015.

UTILITIES AND REVIEW AGENCIES

ELECTRIC COMPANY AMEREN-ELLISVILLE DISTRICT 280 OLD STATE ROAD ELLISVILLE, MO 63021 ATTN: ENGINEERING PH. (314) 992-8992	CABLE TELEVISION CHARTER COMMUNICATIONS 941 CHARTER COMMONS TOWN & COUNTRY, MO 63017 ATTN: MAPPING & DESIGN DEPT. PH. (636) 220-2174
PHONE COMPANY AT&T 402 NORTH THIRD STREET ST. CHARLES, MO 63301 ATTN: ENGINEERING PH. (636) 949-4228	FIRE DISTRICT MONARCH FIRE PROTECTION DISTRICT 13725 OLIVE BLVD. CHESTERFIELD, MO 63017 ATTN: FIRE MARSHAL PH. (314) 514-0900
GAS COMPANY LACLEDE GAS COMPANY ROOM 1408 720 OLIVE STREET ST. LOUIS, MO 63101 ATTN: MIKE LANGAN PH. (314) 342-0702	SEWER AUTHORITY METROPOLITAN ST. LOUIS SEWER DISTRICT 2350 MARKET STREET ST. LOUIS, MO 63103 PH. (314) 766-6200
WATER COMPANY MISSOURI AMERICAN WATER CO. 1050 RESEARCH BLVD. ST. LOUIS, MO 63132 ATTN: ENGINEERING PH. (314) 996-2464	HWY. DEPARTMENT MISSOURI DEPARTMENT OF TRANSPORTATION 1590 WOODLAKE DRIVE CHESTERFIELD, MO 63017 ATTN: DAVID BRUNES PH. (314) 565-6715

PROJECT BENCHMARK

St. Louis County Benchmark 12-157 Elev. 638.32
"Sq" on the curb at center of rounding along island; 60' West of centerline of Olive Street Road and 5' North of centerline of Chesterfield Village Parkway.

SITE BENCHMARKS

- Site Benchmark # 1 Elev. 634.10' top of 1/2" iron pipe with cap L.S. 134'-0" as shown on plan.
- Site Benchmark # 2 Elev. 631.73' "O" in open on Fire Hydrant as shown on plan.
- Site Benchmark # 3 Elev. 627.87' "O" in open on Fire Hydrant as shown on plan.
- Site Benchmark # 4 Elev. 624.92' P.K. Nail in asphalt curb as shown on plan.
- Site Benchmark # 5 Elev. 627.70' P.K. Nail in asphalt curb as shown on plan.
- Site Benchmark # 6 Elev. 620.18' 60-D Nail as shown on plan.

LEGEND

EXISTING CONTOURS	--- 433 ---
PROPOSED CONTOURS	— 433 —
EXISTING STORM SEWER	== 10 ==
PROPOSED STORM SEWER	— ST — ST —
EXISTING SANITARY SEWER	== 10 ==
PROPOSED SANITARY SEWER	— SS — SS —
RIGHT-OF-WAY	— — — — —
EASEMENT	— — — — —
CENTERLINE	— — — — —
EXISTING TREE	
EXISTING SPOT ELEVATION	x 433.28
PROPOSED SPOT ELEVATION	433.28
SWALE	
TO BE REMOVED	T.B.R.
TO BE REMOVED & RELOCATED	T.B.R. & R.
TO BE USED IN PLACE	U.I.P.
ADJUST TO GRADE	A.T.G.
BACK OF CURB	B.C.
FACE OF CURB	F.C.
WATER MAIN	— W — W —
GAS MAIN	— G — G —
UNDERGROUND TELEPHONE	— T — T —
OVERHEAD WIRE	— O.H. — O.H. —
UNDERGROUND ELECTRIC	— E — E —
FIRE HYDRANT	
POWER POLE	
WATER VALVE	
LIGHT STANDARD	

Friendship Village of West County, the owner of the property shown of this plan for and in consideration of being granted a permit to develop property under the provisions of Chapter 1003...

Lydia Seibert
President
State of Missouri
County of St. Louis
On this day of A.D., 2017, before me personally appeared Lydia Seibert, to me known, who, being by me sworn in, did say that she is the President of Friendship Village of West County, a corporation in the State of Missouri, and that the seal affixed to the foregoing instruments is the corporate seal of said Corporation, and that said instrument was signed on behalf of said corporation by authority of its Board of Directors, and the said Lydia Seibert acknowledged said instrument to be the free act and deed of said corporation.

In TESTIMONY WHEREOF, I have hereunto set my hand and affixed my notarial seal, the day and year last above written.
My Commission expires
(Notary Public)

This Amended Site Development Plan was approved by the City of Chesterfield Planning and Development Services Division and duly verified on this day of 2017, by the Director of said Division, authorizing the recording of this Amended Site Development Plan, pursuant to Chesterfield Ordinance Number 200 as attested by the Planning and Development Services Director and the City Clerk.

By: Planning and Development Services Director
By: City Clerk

GEOTECHNICAL ENGINEER'S NOTE
These plans have been reviewed by the undersigned for Geotechnology, Inc. regarding compliance with our geotechnical recommendations. It is our professional opinion that earth slopes and grades constructed in accordance with the plans and specifications will be stable with an adequate factor of safety. Geotechnology must be involved during the construction phase to determine that subsurface conditions are as anticipated and that recommendations relative to construction are implemented.

Geotechnology, Inc.

PREPARED FOR:
FRIENDSHIP VILLAGE CHESTERFIELD
15201 OLIVE BOULEVARD
CHESTERFIELD, MISSOURI 63017
PH. (636) 532-1515

PREPARED BY:
CEDC
CIVIL ENGINEERING
DESIGN CONSULTANTS

10820 Sunset Office Drive
Suite 200
Saint Louis, Missouri 63127
314-729-1400
Fax: 314-729-1404
www.cedc.net



GENERAL NOTES

- ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED. THE CONTRACTOR SHALL BE ON RECORD WITH THE MISSOURI ONE CALL SYSTEM. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.
- ALL ELEVATIONS ARE BASED ON BENCHMARK SHOWN.
- BOUNDARY AND TOPOGRAPHIC SURVEY BY MARLER SURVEYING COMPANY.
- ALL ON-SITE MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF CHESTERFIELD AND MSD.
- PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
- ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH THE CITY OF CHESTERFIELD AND MSD.
- SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1% 20". SLOPES GREATER THAN 1% 20" MUST BE DESIGNED AS A RAMP. SIDEWALKS TO BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
- SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADING, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SONAGE. IF ANY CONFLICT OCCURS BETWEEN THE ADA GUIDELINES AND THE INFORMATION ON THE PLANS, THE ADA GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION.
- ADEQUATE TEMPORARY OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES SHALL BE PROVIDED. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEES' VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
- CONTRACTOR TO COORDINATE CONSTRUCTION PARKING WITH OWNER. NO PARKING ALLOWED IN OLIVE BOULEVARD RIGHT OF WAY.
- ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWER AND DRAINAGE FACILITIES, LATEST EDITION.
- STRUCTURE SETBACKS (CUP #37 per Book 22171, Page 0489)
No building or structure, other than:
- 100 feet from the northern property line as shown on the plan
- 50 feet from all other property lines
- PARKING SETBACKS (CUP #37 per Book 22171, Page 0489)
No parking storage space, internal driveway or roadway, except point of ingress and egress, to be located within the following setbacks:
- 30 feet from Olive Boulevard
- 30 feet from all other boundaries of the development
- NO ON-SITE ILLUMINATION SOURCE SHALL BE SO SITUATED THAT LIGHT IS CAST DIRECTLY ON ADJOINING PROPERTIES OR ROADWAYS. ILLUMINATION LEVELS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF CHESTERFIELD. THE LIGHTING STANDARDS AND LOCATIONS SHALL BE REVIEWED AND APPROVED PER THE REQUIREMENTS OF THE CITY OF CHESTERFIELD. LIGHTING DESIGN SUBJECT TO FINAL DESIGN OF LIGHTING.
- LANDSCAPING SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF CHESTERFIELD.
- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO THE CITY OF CHESTERFIELD STANDARDS.
- ALL ROOF TOP MECHANICAL EQUIPMENT SHALL BE SCREENED BY PARAPET WALLS.
- ANY EASEMENT THAT IS TO BE VACATED SHALL BE VACATED PRIOR TO THE APPROVAL OF IMPROVEMENT PLANS.

AREA CALCULATIONS

TOTAL SITE AREA	= 1,598,939 s.f.
TOTAL SITE COVERAGE	
BUILDINGS	
VILLAS	= 83,233 s.f. (5.21%)
ALF/SNF	= 56,350 s.f. (3.46%)
ILU/COMMONS	= 159,412 s.f. (9.97%)
297,995 s.f.	18.64%
OPEN SPACE	= 962,961 s.f. 60.23%
FLOOR AREA RATIO (F.A.R.) CALCULATION	
INCLUDES ALL BUILDINGS AND VILLAS	
(EXCLUDES STRUCTURED PARKING AREAS)	
F.A.R. = 636,718 s.f.	= 0.40
1,598,939 s.f. (site)	

LAND DESCRIPTION

LOT A-1 (P.B. 364, PG 373)

A tract of land being all of Lot A of the Friendship Village of West County, a subdivision recorded in Plat Book 364, Page 373, and three tracts of land being part of Lot 2 of the Hugo Ester Farm in U.S. Survey 154 and 157, Township 45 North, Range 4 East as recorded in Deed Book 21170 Page 285, Deed Book 21170 Page 391 and Deed Book 21170 Page 315 of the St. Louis County Land Records office in St. Louis County, Missouri, being more particularly described as follows:
Beginning at found 1/2" rebar with cap stamped "Marler 347-D" being the Southeastern corner of Lot A of the Friendship Village of West County Boundary Adjustment Plat as aforementioned, being on the Northern right of way line of Olive Boulevard (Variable Width) and on the Southwestern line of Faust Park as conveyed to St. Louis County by Deed Book 6320 Page 1227; thence Southwesterly along the Northern line of said Olive Boulevard the following courses and distances, South 32 Degrees 30 Minutes 32 Seconds West a distance of 132.25 feet to a point from which a found rebar with cap "L.S. 134-0" bears North 21 degrees 49 minutes West 0.12 feet; thence South 58 Degrees 18 Minutes 50 Seconds West a distance of 68.98 feet to a point from which a found rebar with cap "North 24 degrees 05 minutes East 0.1 feet; thence North 72 Degrees 06 Minutes 11 Seconds West a distance of 53.16 feet to a found 1/2" rebar with cap stamped "Marler 347-D"; thence South 61 Degree 49 Minutes 49 Seconds West a distance of 49.44 feet to a found 1/2" rebar with cap stamped "Marler 347-D"; thence South 16 Degrees 21 Minutes 14 Seconds West a distance of 68.59 feet to a found 1/2" rebar with cap stamped "Marler 347-D"; thence South 53 Degrees 21 Minutes 49 Seconds West a distance of 172.33 feet to a point from which a found bent R/W marker bears South 26 degrees 48 minutes 0.45 feet; thence South 58 Degree 21 Minutes 41 Seconds West a distance of 49.44 feet to a found 5/8" rebar with aluminum cap; thence South 63 Degree 56 Minutes 01 Seconds West a distance of 41.19 feet to a point from which a found 5/8" rebar with aluminum cap bears South 0.1 feet; thence South 66 Degree 53 Minutes 32 Seconds West a distance of 17.48 feet to a point on the Eastern line of a subdivision recorded in Plat Book 331 Page 80-81 from which a found 1/2" iron pipe with cap "L.S. 78-0" bears South 30 degree 34 minutes East 0.25 feet; thence leaving the Northern line of Olive Boulevard along the Eastern line of aforesaid Bradford and the extension thereof, North 30 Degree 33 Minutes 39 Seconds West a distance of 1489.19 feet to a found concrete monument being the Northwestern corner of aforesaid Lot A; thence along the Northern line of said Lot A, North 53 Degree 49 Minutes 20 Seconds East a distance of 1033.70 feet to a found 1/2" rebar with cap "Marler 347-D" being the Northeast corner of aforesaid Lot A and being on the Southwestern line of aforesaid Faust Park; thence along the Southwestern line of Faust Park, South 32 Degree 06 Minutes 20 Seconds East a distance of 1503.73 feet to the point of beginning containing 1,598,939 square feet of 36.703 acres more or less as surveyed by Marler Surveying Company, Inc.

NOTE:
CIVIL ENGINEERING DESIGN CONSULTANTS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR IMPROVEMENTS PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERSIGNED FACILITIES, STRUCTURES AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

UTILITY NOTE:
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERSIGNED FACILITIES, STRUCTURES AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

NOTE:
The underground utilities have been plotted from available sources and their locations must be considered approximate only. The verification of the actual locations of all underground utilities, either shown or not shown on this drawing, shall be the responsibility of the contractor and shall be located prior to grading or construction of improvements.

The Utilities Contacted by Missouri One Call were Ameren Missouri, Aft Distribution, City of Chesterfield, Charter communications, Laclede Gas Company, Lightcorp, Century Link Co., Missouri American Water Co., MUDOT District 6, Parkway School District and MSD.



Call BEFORE YOU DIG
TOLL FREE
1-800-DIG-RITE
MISSOURI ONE-CALL SYSTEM, INC.



10820 Sunset Office Drive
Suite 200
Saint Louis, Missouri 63127
314-729-1400
Fax: 314-729-1404
www.cedc.net

CEDC
CIVIL ENGINEERING
DESIGN CONSULTANTS

9th Amended Site Development Plan
Friendship Village Chesterfield
15201 Olive Blvd.
Chesterfield, Missouri 63017

Proj. #	1092.9
No. Description	Date
City Submittal	08/28/16
rev. per City	05/03/17
rev. per City	09/27/17

TITLE SHEET

C1



BRANDON A. HARP, P.E. E-28650
CIVIL ENGINEER
CEDC LICENSE NO. 200304674

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Suite 200
St. Louis, Missouri 63127
314.729.4000
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9th Amended Site Development Plan
Friendship Village Chesterfield
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No.	Description	Date
Proj. #	1092.9	
City Submittal	08/26/16	
rev. per City	05/03/17	
rev. per City	09/27/17	

CONSTRUCTION PHASE

C2

PARKING CALCULATIONS

PARKING REQUIRED:

GROUP HOMES FOR ELDERLY (APARTMENTS):	= 321 SPACES
321 @ 1 SPACE PER APARTMENT	
NURSING HOME HEALTH CENTER:	= 50 SPACES
150 BEDS @ 1 SPACE PER 3 BEDS	
TOTAL PARKING REQUIRED:	= 371 SPACES

PARKING PROVIDED:

SURFACE PARKING	= 286 SPACES
GARAGE PARKING	= 84 SPACES
TOTAL P.S. PROVIDED:	= 370 SPACES
(INCLUDES 14 ACCESSIBLE SPACES)	

NOTE: GENERAL CONTRACTOR TO PROVIDE OFFSITE PARKING FOR CONSTRUCTION EMPLOYEES.



SCALE: 1"=50'

PAVEMENT LEGEND

- ASPHALT PAVEMENT (LIGHT DUTY)
- ASPHALT PAVEMENT (HEAVY DUTY)
- CONCRETE PAVEMENT
- CONCRETE WALK/PATIO



#14941 OLIVE BLVD
N/F
ST. LOUIS COUNTY
LOC # 7R410022
DB 6.320, PG 1227



BRANDON A. HARP, P.E. E-28650
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SITE DEVELOPMENT PLAN

C3

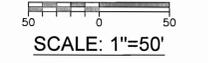
PARKING CALCULATIONS

PARKING REQUIRED:

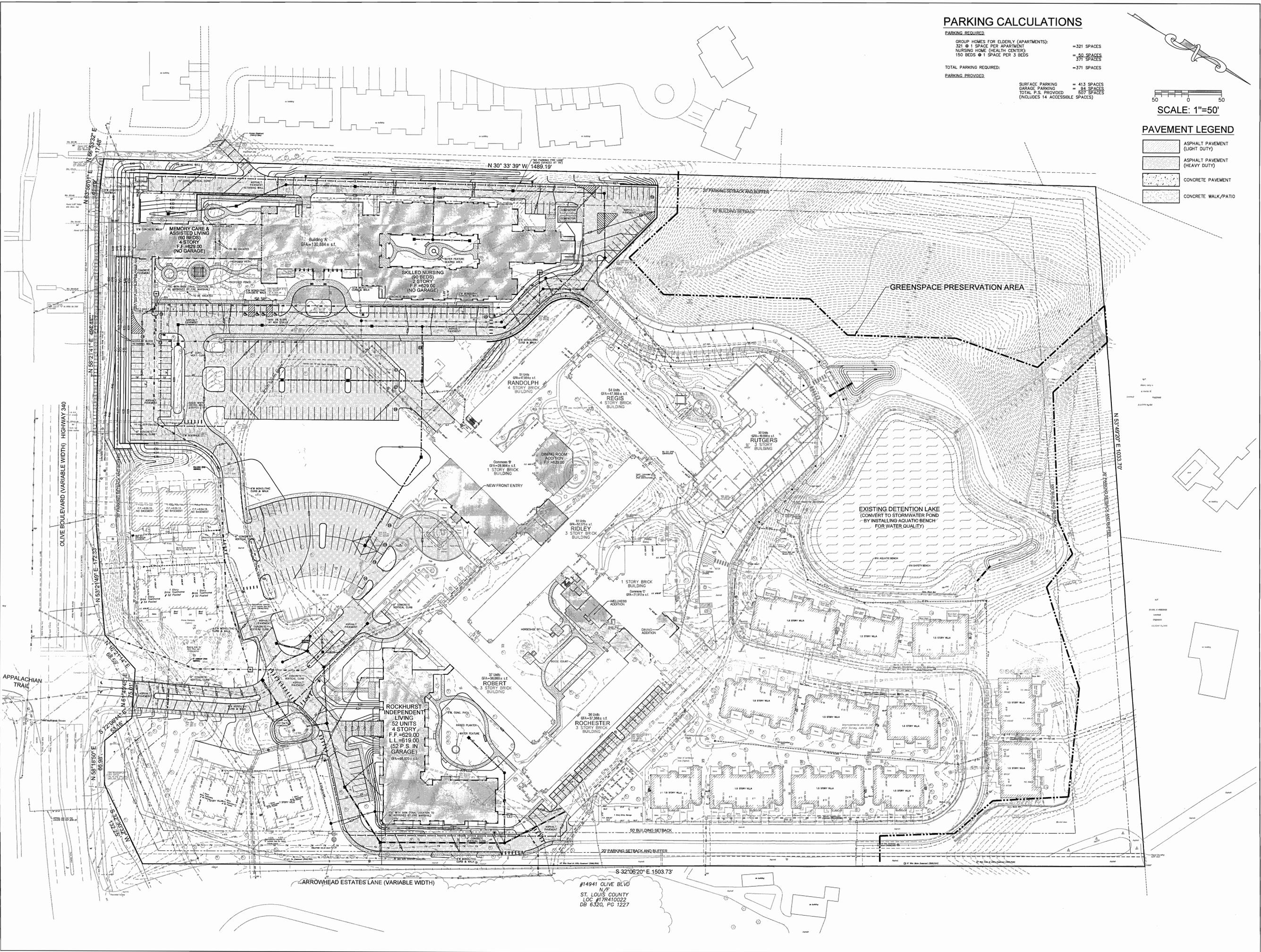
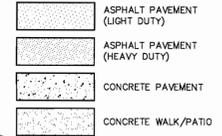
GROUP HOMES FOR ELDERLY (APARTMENTS):	321 @ 1 SPACE PER APARTMENT	= 321 SPACES
NURSING HOME (HEALTH CENTER):	150 BEDS @ 1 SPACE PER 3 BEDS	= 50 SPACES
		371 SPACES
TOTAL PARKING REQUIRED:		= 371 SPACES

PARKING PROVIDED:

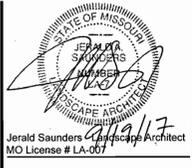
SURFACE PARKING	= 413 SPACES	
GARAGE PARKING	= 84 SPACES	
TOTAL P.S. PROVIDED	507 SPACES	
(INCLUDES 14 ACCESSIBLE SPACES)		



PAVEMENT LEGEND



#14941 OLIVE BLVD
N.W.
ST. LOUIS COUNTY
LOC #17R410022
DB 6320, PG 1227



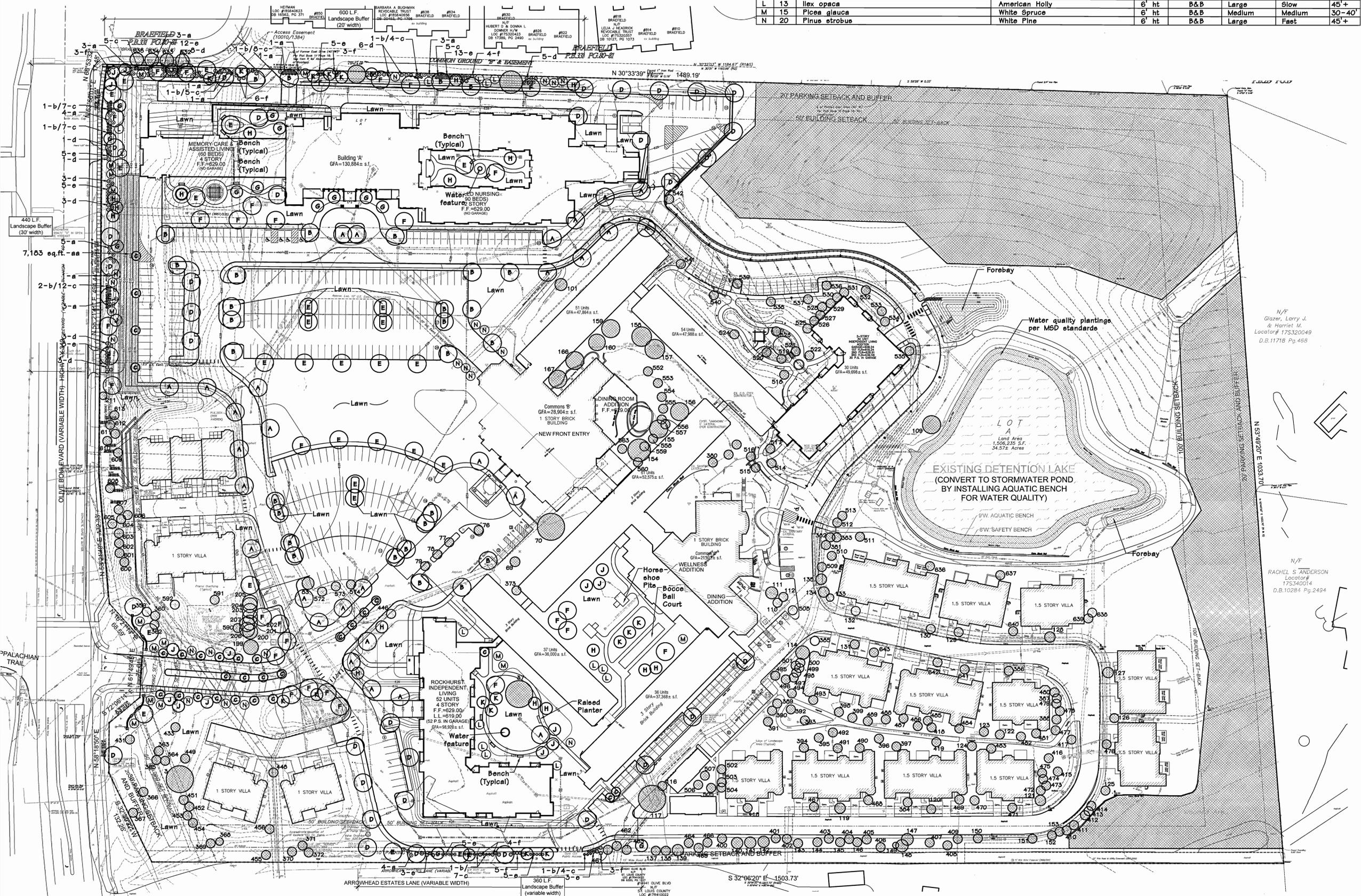
Jerald Saunders
Landscape Architect
Missouri License # LA-007

Consultants:

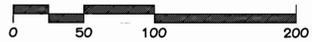
PLANTING SCHEDULE					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
DECIDUOUS SHRUBS					
a	30	Hamamelis x Intermedia 'Arnold Promise'	Arnold Promise Witch Hazel	24-36"	B&B
b	9	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry	24-36"	B&B
c	64	Ilex verticillata 'Nana'	Red Sprite Winterberry	24-36"	B&B
d	33	Lindera benzoin	Spicebush	24-36"	B&B
e	64	Physocarpus opulifolius 'Seward'	Summer Wine Ninebark	24-36"	B&B
EVERGREEN SHRUBS					
f	29	Chamaecyparis pleifera 'Dow Whiting'	Soft Serve False Cypress	4-5'	
GROUNDCOVERS					
aa	7,163	sq.ft. groundcover			

PLANTING SCHEDULE									
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SIZE CLASS	GROWTH RATE	MATURE SIZE	
CANOPY TREES									
A	29	Acer x freemanii 'Jefferson'	Autumn Blaze Maple	2.5' cal	B&B	Large	Fast	45'+	
B	30	Gleditsia triacanthos var. inermis 'Skycole'	Skyline Honeylocust	2.5' cal	B&B	Large	Fast	45'+	
C	28	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	2.5' cal	B&B	Large	Slow/Medium	45'+	
D	34	Quercus bicolor	Swamp White Oak	2.5' cal	B&B	Large	Medium	45'+	
E	30	Quercus coccinea	Scarlet Oak	2.5' cal	B&B	Large	Medium/Fast	45'+	
F	20	Taxodium distichum 'Mickleon'	Shawnee Brave Bald Cypress	2.5' cal	B&B	Large	Medium	45'+	
UNDERSTORY TREES									
G	14	Prunus 'Kanzan'	Kwanzan Cherry	2.5' cal	B&B	Medium	Medium	25-30'	
H	16	Cercis canadensis var. texense	Oklahoma Redbud	2.5' cal	B&B	Medium	Fast	25-30'	
J	16	Magnolia stellata	Star Magnolia	2.5' cal	B&B	Small	Medium	15-20'	
K	16	Malus 'Royal Raindrop'	Royal Raindrop Crabapple	2.5' cal	B&B	Small	Medium	15-20'	
EVERGREEN TREES									
L	13	Ilex opaca	American Holly	6' ht	B&B	Large	Slow	45'+	
M	15	Picea glauca	White Spruce	6' ht	B&B	Medium	Medium	30-40'	
N	20	Pinus strobus	White Pine	6' ht	B&B	Large	Fast	45'+	

KEY
 Existing Tree(e) To Remain



LANDSCAPE PLAN
 SCALE 1" = 50'



Open Space: 63.2%

Note: All new landscaped areas shall be provided with a mechanical, in-ground irrigation system.

**9th Amended Site Development Plan
 Friendship Village of Chesterfield**

15201 Olive Blvd., Chesterfield, Missouri 63017

Revisions:

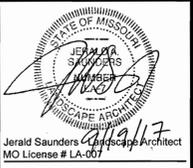
Date	Description	No.
9/21/16	City Comments	
5/3/17	Plan Changes	
9/19/17	City Comments	

Drawn: KP
 Checked: JS

loomisAssociates
 landscape architects/planners
 1725 S. Kirkwood Road, Suite 105
 Kirkwood, Missouri 63122
 Phone: 636.937.1100
 Email: info@loomisassociates.com
 Loomis Associates, Certificate of Authority # LAC #000019

Sheet Title: **Landscape Plan**
 Sheet No: **L-1**

Date: 06/26/16
 Job #: 660.051



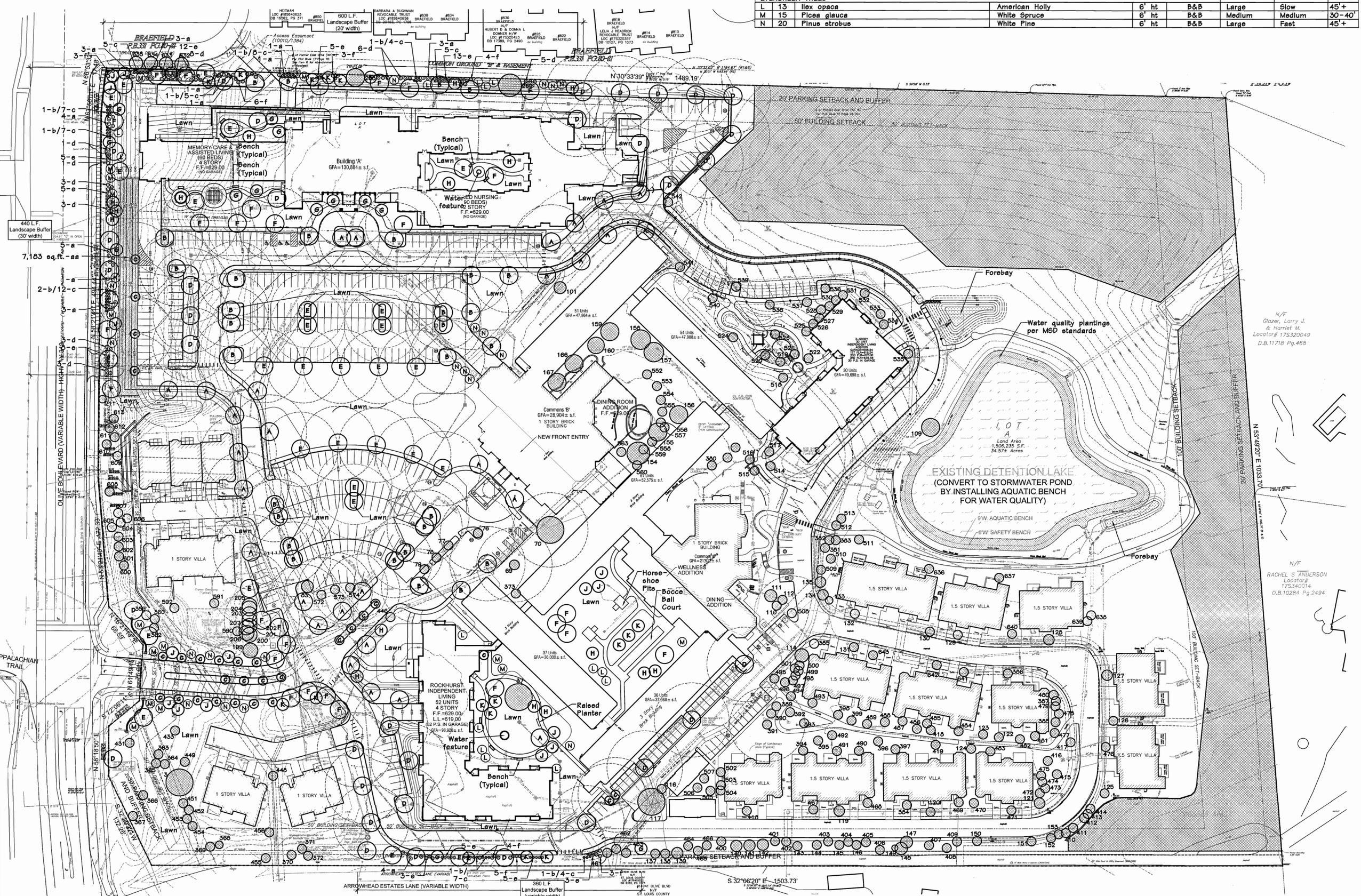
Jerald Saunders
Landscape Architect
MO License # LA-007

Consultants:

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
DECIDUOUS SHRUBS					
a	30	Hammamelis x intermedia 'Arnold Promise'	Arnold Promise Witch Hazel	24-36"	B&B
b	9	Ilex verticillata 'Jim Dandy'	Jim Dandy Winterberry	24-36"	B&B
c	64	Ilex verticillata 'Nana'	Nana Winterberry	24-36"	B&B
d	33	Lindera benzoin	Spicebush	24-36"	B&B
e	64	Physocarpus opulifolius 'Seward'	Summer Wine Ninebark	24-36"	B&B
EVERGREEN SHRUBS					
f	29	Chamaecyparis pleifera 'Dow Whiting'	Soft Serve False Cypress	4-5'	
GROUNDCOVERS					
aa	7,163 sq.ft. groundcover				

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	SIZE CLASS	GROWTH RATE	MATURE SIZE
CANOPY TREES								
A	29	Acer x freemanii 'Jefferson'	Autumn Blaze Maple	2.5' cal	B&B	Large	Faet	45'+
B	30	Gleditsia triacanthos var inermis 'Skycole'	Skyline Honeylocust	2.5' cal	B&B	Large	Faet	45'+
C	28	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	2.5' cal	B&B	Large	Slow/Medium	45'+
D	34	Quercus bicolor	Swamp White Oak	2.5' cal	B&B	Large	Medium	45'+
E	30	Quercus coccinea	Scarlet Oak	2.5' cal	B&B	Large	Medium/Faet	45'+
F	28	Taxodium distichum 'Mickelson'	Shawnee Brave Bald Cypress	2.5' cal	B&B	Large	Medium	45'+
UNDERSTORY TREES								
G	14	Prunus Kanzan'	Kwanzan Cherry	2.5' cal	B&B	Medium	Medium	25-30'
H	16	Cercis canadensis var texensis	Oklahoma Redbud	2.5' cal	B&B	Medium	Faet	25-30'
J	16	Magnolia stellata	Star Magnolia	2.5' cal	B&B	Small	Medium	15-20'
K	16	Melus 'Royal Raindrop'	Royal Raindrop Crabapple	2.5' cal	B&B	Small	Medium	15-20'
EVERGREEN TREES								
L	13	Ilex opaca	American Holly	6' ht	B&B	Large	Slow	45'+
M	15	Picea glauca	White Spruce	6' ht	B&B	Medium	Medium	30-40'
N	20	Pinus strobus	White Pine	6' ht	B&B	Large	Faet	45'+

KEY
 Existing Tree(e)
 To Remain



LANDSCAPE PLAN
 SCALE 1"=50'



Open Space: 63.2%

Note: All new landscaped areas shall be provided with a mechanical, in-ground irrigation system.

**9th Amended Site Development Plan
 Friendship Village of Chesterfield**

15201 Olive Blvd., Chesterfield, Missouri 63017

Revisions:

Date	Description	No.
9/21/16	City Comments	
5/31/17	Plan Changes	
9/19/17	City Comments	

Drawn: KP
 Checked: J6

loomisAssociates
 Landscape Architects/Planners
 100 South Park Drive, Suite 105
 Chesterfield, Missouri 63005
 Phone: 636.863.1234
 Email: info@loomisassociates.com
 Missouri State Certificate of Authority # LAC #000019

Sheet Title: **Landscape Plan - Diagram**
 Sheet No: **L-1**

Date: 06/26/16
 Job #: 660.051

CANOPY PRESERVATION CALCULATIONS:

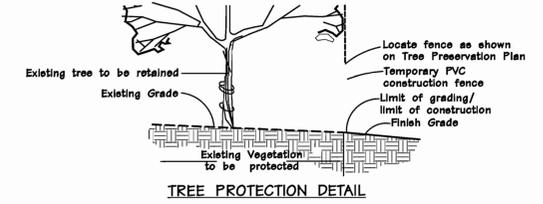
Total site area = 1,571,416 sq. ft. or 36.07 Ac.
 Total existing canopy = 367,714 sq. ft. or 8.44 Ac.
 Required 30% preservation:
 367,714 x .3 = 110,314 sq. ft. or 2.53 Ac.
 Total canopy to be removed = 106,842 sq. ft. or 2.45 Ac. (29.06%)
 Total canopy to remain = 260,872 sq. ft. or 5.99 Ac. (70.94%)

TREE PROTECTION ACTION KEY SEQUENCE:

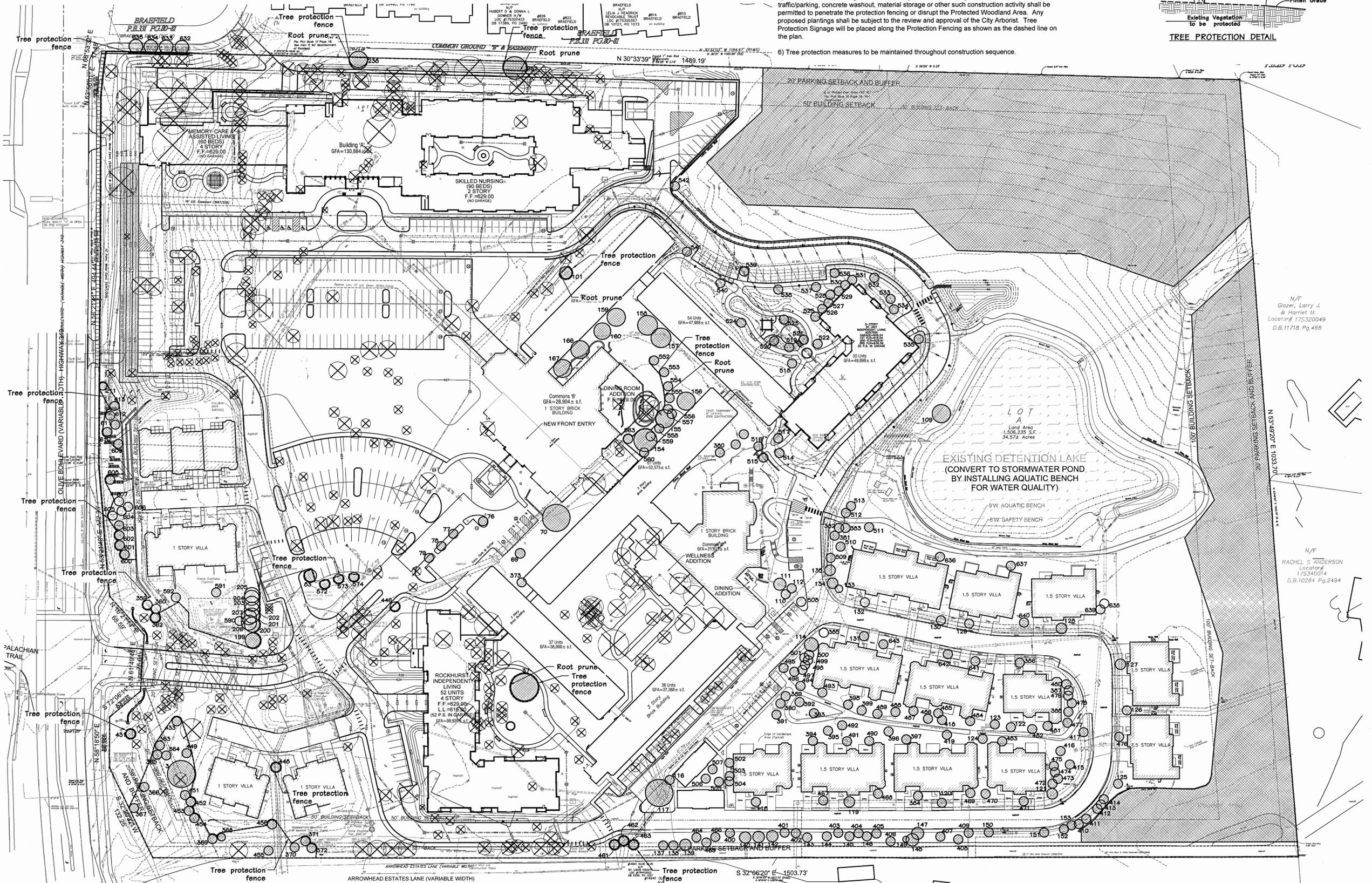
- 1) Survey limit of disturbance.
- 2) Install tree protection fencing.
- 3) Post tree protection signage on fence (No signs will be posted on trees).
- 4) Maintain tree protection area as an off-limits zone.
- 5) Provide root pruning as shown on plan.

TREE PROTECTION NOTES:

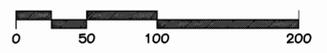
- 1) Preserved woodland is delineated with shading.
- 2) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators, construction supervisors, developer's representative, and city zoning inspector.
- 3) Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required. Where noted on plan, contractor to trench and root prune prior to any grading activity. Required siltation devices to be installed along limit of disturbance line.
- 4) No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed including the installation of tree protection fencing along all "Limit of Disturbance" lines shown on the plan.
- 5) Tree Protection Fencing shall be 4-foot high chain link fencing with dust fabric. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area. Any proposed plantings shall be subject to the review and approval of the City Arborist. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.
- 6) Tree protection measures to be maintained throughout construction sequence.



- KEY**
- Existing Tree(s) To Remain
 - Existing Tree(s) To Be Removed
 - Tree protection fence
 - Root pruning



TREE PRESERVATION PLAN
 SCALE 1" = 50'



**9th Amended Site Development Plan
 Friendship Village of Chesterfield**

15201 Olive Blvd., Chesterfield, Missouri 63017

Revisions:

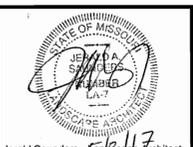
Date	Description	No.
9/21/16	City Comments	
5/31/17	Plan Changes	
9/19/17	City Comments	

Drawn: KP
 Checked: JS

loomisAssociates
 landscapeArchitects/planners
 17354 0014
 D.B.10284 Pg.2494

Sheet Title: **Tree Preservation Plan**
 Sheet No: **TPP**

Date: 06/26/16
 Job #: 680.051



Jerald Saunders - Landscape Architect
MO License # LA-007
Consultants:

9th Amended Site Development Plan Friendship Village of Chesterfield

15201 Olive Blvd., Chesterfield, Missouri 63017

Revisions:

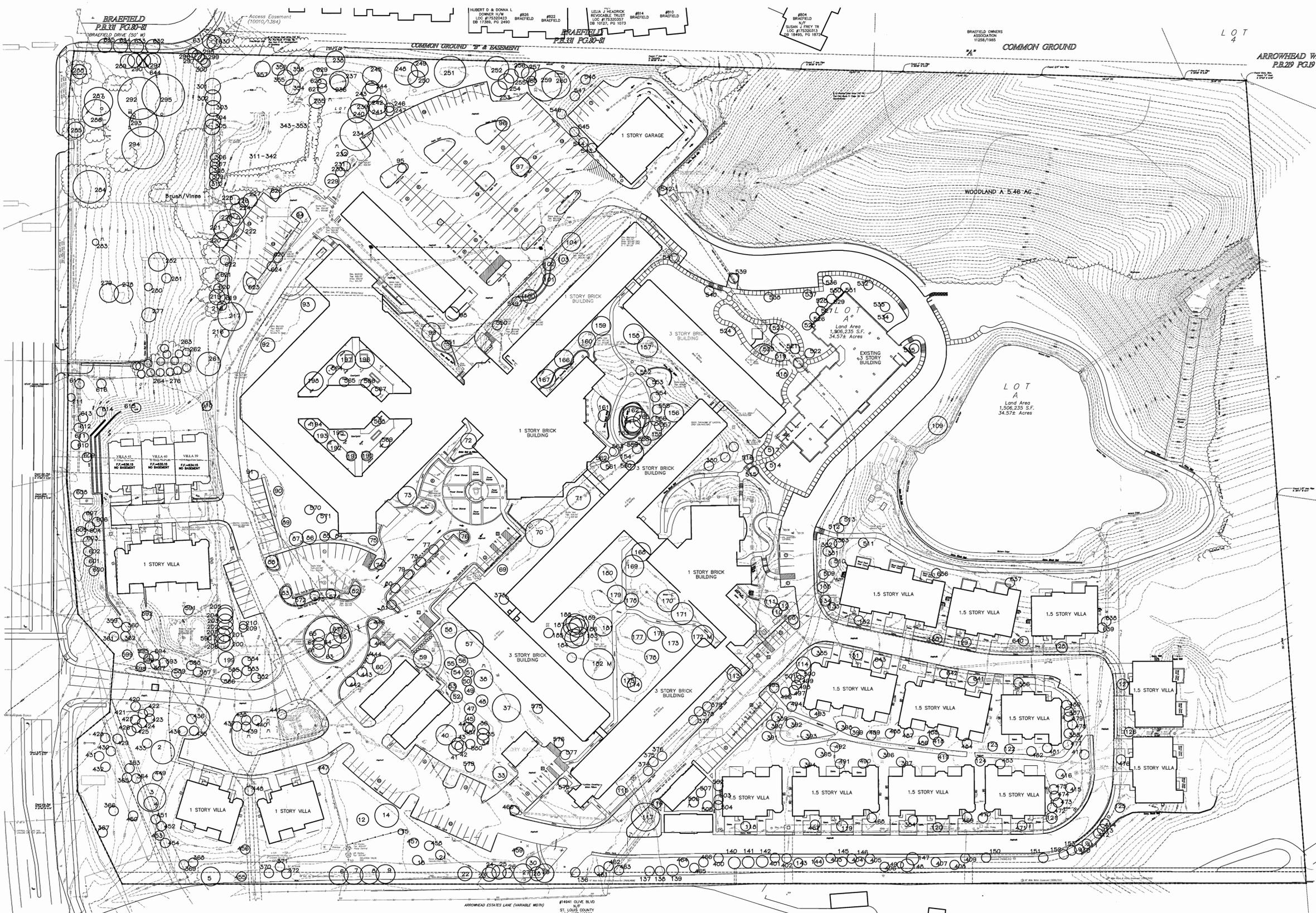
Date	Description	No.
2/11/16	City Comments	1
8/28/16	Plan Revisions	2
6/3/17	Acreage Correction	3

Drawn: BB
Checked: JS

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Missouri State Certificate of Authority # LAC 6000019

Sheet Title:	Tree Stand Delineation Plan
Sheet No.:	TSD-1
Date:	07/02/2015
Job #:	660.051



TREE STAND DELINEATION PLAN
SCALE 1"=50'



- LEGEND**
- 109 Location Reference Number
 - ⊗ Dead Tree

Updated Tree Stand Delineation Narrative
July 2, 2015

With the addition of Parcel 1, 2, and 3 the overall Lot of Friendship Village of Chesterfield comprises a total of 36.07 Ac and has a total of 8.44 Ac of Woodlands. The attached updated detailed Tree Stand Delineation map was originally completed by field inspection September 9, 2011. A field inspection was conducted on June 23, 2015 adding trees that are now 5" cal or greater and deleting trees that had been lost or removed. On August 22, 2015, an additional field inspection was performed to include new trees and verify locations.

Woodland A. The woodland areas cover the sloped areas of the site to the south and east. The woodland comprises 5.46 Ac. The primary overstory trees are mix of Oak and Hickory on the ridges. Sugar Maple, Hackberry, predominate on the side slopes and Ash and gummers as co-dominant species in the drainage areas. The average size of the overstory canopy is 15-18' dbh with a density of 60 trees per acre. The understorey is primarily shrub honeysuckle along the ridges. Interior to the wooded area the primary understorey is Hickory and Sugar Maple.

No state champion or rare trees were found on the site.

There is no flood plain on this parcel per FEMA map # 28188C0145 H

WOODLAND A = 5.46 Ac (237,746 sq. ft.)
INDIVIDUAL TREES 5" CAL = 2.78 Ac (120,424 sq. ft.)
ADDITIONAL TREES 5" CAL = 0.10 Ac (1,999 sq. ft.)
ADDITIONAL TREES 2-4.5" CAL = 0.17 Ac (7,545 sq. ft.)
Total Existing Canopy 8.44 Ac (367,714 sq. ft.)

Tree Stand Delineation Plan Prepared by Douglas A. DeLong
Certified Arborist MW-4828A

Douglas A. DeLong

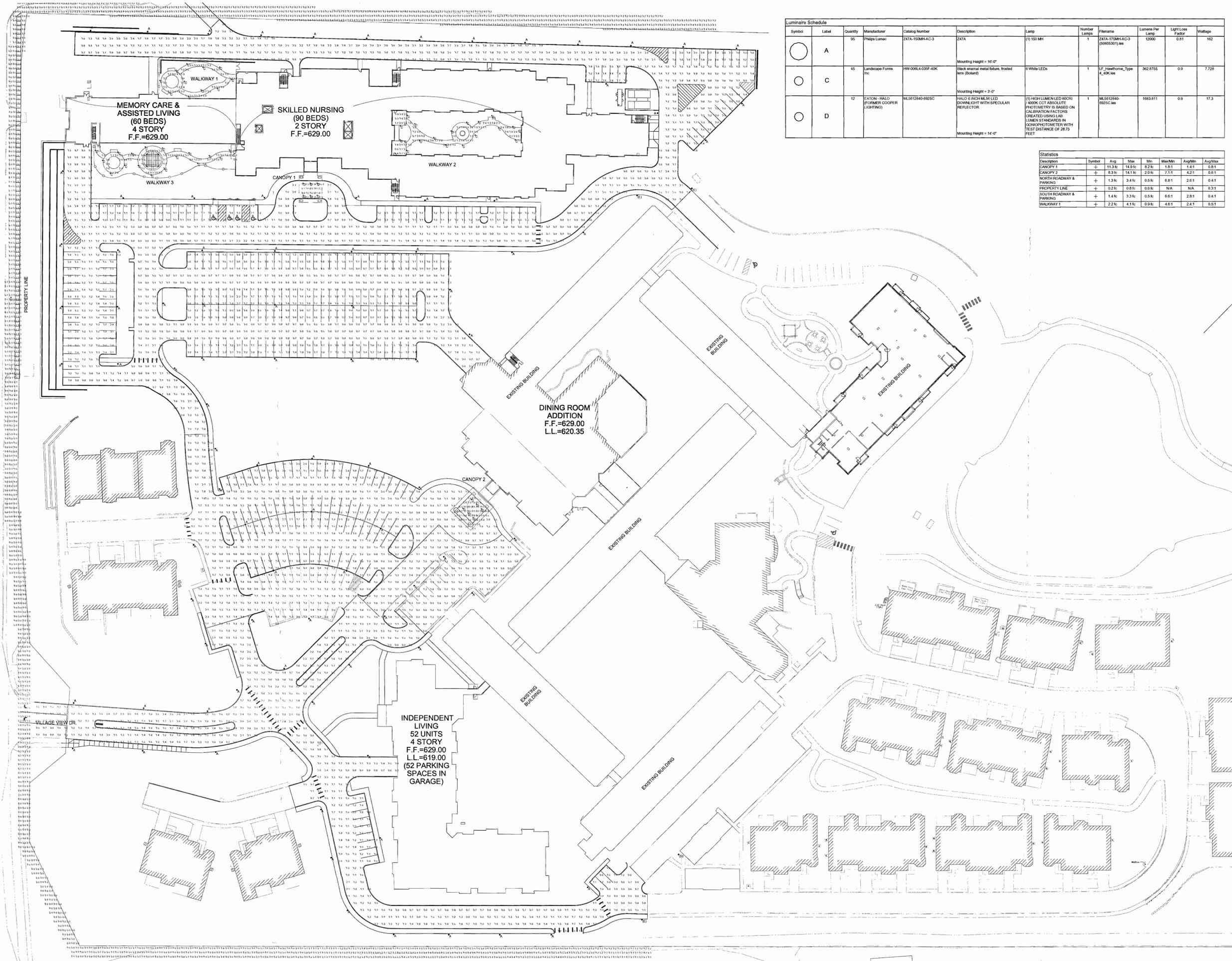
Base Map Provided by: GDC
Additional Tree Inventory Prepared by Brian Sage
Certified Arborist MW-5033A

B. Sage

INDIVIDUAL YARD TREE LIST

Number	Type	DBH OF TRUNK	Condition	Area S.F.	Comments
2	SUGAR MAPLE	15	2	706	
3	RED MAPLE	17	3	1017	
4	RED MAPLE	22	0	254	HOLLOW TRUNK
5	WALNUT	24	2	452	50% DEAD
6	WALNUT	24	2	452	
7	WALNUT	24	2	452	
8	WALNUT	24	2	452	
9	WALNUT	24	2	452	
12	SWEET GUM	15	2	254	
14	PERSIMMON	12	3	706	
15	BLUE SPRUCE	7	1	28	DECLINING
18	AUSTRIAN PINE	11	1	113	
21	SCOTCH PINE	8	2	113	
22	WALNUT	20	3	358	
23	HACKBERRY	14	2	254	
24	HACKBERRY	16	2	254	
25	CATALPA	14	2	254	
26	CATALPA	12	2	113	
27	HACKBERRY	18	3	452	
28	PECAN	14	3	254	
29	WALNUT	24	3	452	
30	WHITE PINE	12	2	254	
31	WHITE PINE	16	2	452	
32	SYCAMORE	26	2	1385	
33	SILVER MAPLE	26	2	1385	DECLINING
34	SWEET GUM	14	2	176	
35	SWEET GUM	14	2	176	
36	SWEET GUM	14	2	176	
37	SUGAR MAPLE	16	3	1017	
38	RED MAPLE	15	3	452	
40	SUGAR MAPLE	14	3	530	
41	SWEET GUM	14	3	254	
42	SWEET GUM	12	2	176	
43	SWEET GUM	13	2	176	
44	SWEET GUM	10	2	135	
45	SWEET GUM	13	2	113	
47	SWEET GUM	10	2	176	
48	SWEET GUM	13	3	176	
49	SWEET GUM	13	3	176	
50	SWEET GUM	11	2	113	
51	SWEET GUM	12	3	113	
52	RED OAK	13	3	176	
53	SWEET GUM	13	1	76	DECLINING
54	SUGAR MAPLE	13	2	176	
55	SUGAR MAPLE	14	3	176	
56	SWEET GUM	13	3	176	
57	SWEET MAPLE	20	3	1017	
58	GINCKGO	16	1	314	
59	NORWAY SPRUCE	16	1	452	
60	BEECH	14	4	452	
61	SWEET GUM	10	3	176	
62	SWEET GUM	15	3	210	
63	SWEET GUM	11	3	176	
64	SWEET GUM	11	3	176	
65	SWEET GUM	12	3	176	
66	SWEET GUM	17	3	210	
67	SWEET GUM	17	3	210	
68	SWEET GUM	13	2	113	
69	WHITE ASH	7	1	134	
70	SUGAR MAPLE	17	2	1017	
71	NORWAY SPRUCE	7	4	706	
72	RED MAPLE	7	4	346	
73	RED MAPLE	8	4	452	
74	GREEN ASH	8	4	452	
75	NORWAY SPRUCE	8	4	113	
76	GREEN ASH	5	3	113	
77	GREEN ASH	5	3	113	
78	MULBERRY	5	3	113	
79	GREEN ASH	5	3	113	
80	GREEN ASH	5	3	113	
81	GREEN ASH	5	3	113	
82	GREEN ASH	7	3	153	
83	GREEN ASH	8	3	200	
84	NORWAY SPRUCE	8	4	64	
85	NORWAY SPRUCE	8	4	64	
86	RED MAPLE	7	4	64	
87	RED MAPLE	13	2	286	
88	GREEN ASH	8	3	314	
89	PIN OAK	5	3	113	MULTI TRUNK
90	WHITE BIRCH	5	3	113	
91	PIN OAK	5	3	113	
92	RED MAPLE	9	3	254	
93	TULIP TREE	10	3	254	
94	GREEN ASH	6	3	78	
95	RED MAPLE	10	2	254	
96	FLOWERING CRAB	9	3	254	
97	RED MAPLE	3	3	254	
98	RED MAPLE	10	2	254	
99	GREEN ASH	15	2	452	
100	HONEYLOCUST	6	3	452	
101	HONEYLOCUST	5	3	200	
102	RED MAPLE	6	3	200	
103	COLORADO SPRUCE	5	3	1384	
104	BRADFORD PEAR	12	3	452	
105	SUGAR MAPLE	11	3	452	
106	PURPLE-LEAF PLUM	5	2	254	
107	SUGAR MAPLE	12	2	452	
108	SUGAR MAPLE	10	3	452	
109	RIVER BIRCH	10	3	380	MULTI TRUNK
110	SILVER MAPLE	5	3	113	
111	FLOWERING CRAB	10	2	200	
112	FLOWERING CRAB	6	2	200	
113	FLOWERING CRAB	6	2	200	
114	SUGAR MAPLE	10	1	254	
115	WHITE ASH	6	4	113	
116	BLUE SPRUCE	18	1	113	
117	SUGAR MAPLE	18	4	1017	
118	WHITE ASH	5	4	113	
119	WHITE ASH	5	4	113	
120	WHITE ASH	5	4	113	
121	GREEN ASH	6	4	153	
122	WHITE ASH	5	4	113	
123	WHITE ASH	5	4	113	
124	WHITE ASH	5	4	113	
125	RED MAPLE	6	4	113	
126	REDBUD	6	3	113	
127	GREEN ASH	7	3	248	
128	GREEN ASH	6	3	113	
129	GREEN ASH	6	3	113	
130	YELLOWWOOD	6	5	153	
131	GREEN ASH	5	3	113	
132	WHITE ASH	5	3	113	
133	FLOWERING CRAB	5	3	113	
134	FLOWERING CRAB	5	3	113	
135	FLOWERING CRAB	5	3	113	
136	WALNUT	18	1	78	SEVERE DECLINE
137	WALNUT	18	1	207	TRUNK DECAY
138	WALNUT	18	1	207	SEVERE DECLINE
139	WALNUT	18	1	176	TRUNK DECAY
140	WALNUT	18	1	176	SEVERE DECLINE
141	WALNUT	18	1	176	SEVERE DECLINE
142	WALNUT	15	1	176	TRUNK DECAY
143	WALNUT	15	1	113	SEVERE DECLINE
144	WALNUT	12	1	78	SEVERE DECLINE
145	WALNUT	10	1	78	SEVERE DECLINE
146	WALNUT	10	1	78	SEVERE DECLINE
147	BLACK OAK	10	3	207	
148	HACKBERRY	10	3	207	
149	JUNIPER	8	2	78	
150	SUGAR MAPLE	7	3	113	
151	SUGAR MAPLE	7	3	113	
152	SUGAR MAPLE	7	3	113	
153	SUGAR MAPLE	7	3	113	
154	GREEN ASH	24	3	706	
155	GREEN ASH	18	3	452	
156	GREEN ASH	18	3	452	
157	GREEN ASH	22	3	530	
158	GREEN ASH	22	3	530	
159	GREEN ASH	16	2	452	
160	GREEN ASH	14	2	379	
161	GOLDEN RAIN TREE	8	2	113	
162	WHITE PINE	18	3	452	
163	AUSTRIAN PINE	10	1	100	DECLINING
164	AUSTRIAN PINE	10	1	100	DECLINING
165	AUSTRIAN PINE	10	1	100	DECLINING
166	HONEYLOCUST	8	2	113	
167	HONEYLOCUST	8	2	113	
168	FLOWERING CRAB	12	3	452	
169	GREEN ASH	12	3	113	
170	GREEN ASH	14	3	615	
171	GREEN ASH	18	3	615	
172	BALD CYPRESS	24	3	3	MONARCH
173	WHITE PINE	24	2	530	STORM DAMAGE
174	WHITE PINE	16	1	254	STORM DAMAGE
175	WHITE PINE	18	2	314	STORM DAMAGE
176	DOGWOOD	10	3	254	
177	DOGWOOD	10	3	254	
178	HAWTHORN	8	3	254	
179	CHERRY	8	3	113	
180	FLOWERING CRAB	8	3	452	
181	FLOWERING CRAB	12	3	615	
182	RED OAK	30	4	1256	MONARCH
183	SWEET GUM	12	3	314	
184	SWEET GUM	12	3	314	
185	SWEET GUM	12	3	314	CLUMP FORM
186	SWEET GUM	12	3	314	CLUMP FORM
187	SWEET GUM	10	3	314	
188	SWEET GUM	10	3	314	
189	SWEET GUM	12	3	314	CLUMP FORM

190	GOLDEN RAIN TREE	6	1	50	DECLINING
191	GOLDEN RAIN TREE	6	1	50	DECLINING
192	SOUTHERN MAGNOLIA	8	4	153	
193	BLACKGUM	8	4	153	
194	REDBUD	7	3	153	
195	SUGAR MAPLE	5	3	50	
196	GOLDEN RAIN TREE	8	3	706	
197	GOLDEN RAIN TREE	8	3	706	
198	GOLDEN RAIN TREE	12	3	1017	
199	RED OAK	24	2	1200	
200	RED OAK	12	2	452	
201	RED OAK	6	2	113	
202	RED OAK	11	2	379	
203	RED OAK	12	2	452	
204	RED OAK	8	2	200	
205	RED OAK	16	2	803	
206	ELM	13	1	530	
207	ELM	14	1	610	
209	AMERICAN HOLLY	8	2	314	
211	BRADFORD PEAR	10	3	175	DOUBLE TRUNK
216	COLORADO SPRUCE	13	1	314	DECLINING
217	GREEN ASH	14	3	1017	TRIPLE TRUNK
218	COLORADO SPRUCE	10	1	113	DECLINING
219	MULBERRY	11	2	314	
220	WHITE PINE	6	2	78	
221	WHITE PINE	7	2	113	
222	WALNUT	11	3	114	
223	WHITE PINE	6	2	50	LEADER DEAD
224	WHITE PINE	6	3	78	DOUBLE TRUNK
225	COLORADO SPRUCE	8	1	50	80% DEAD
226	COLORADO SPRUCE	11	1	50	80% DEAD
227	WHITE PINE	6	3	254	
229	SPRUCE	10	3	254	
230	SPRUCE	12	3	254	
231	SPRUCE	11	3	254	
232	SPRUCE	6	3	254	
234	SWEET GUM	22	3	1384	
235	SPRUCE	14	1	314	80% DEAD
236	MULBERRY	12	2	314	DOUBLE TRUNK
237	MULBERRY	16	2	452	
238	MULBERRY	16	2	452	
239	SWEET GUM	14	3	706	TRIPLE TRUNK
240	SWEET GUM	19	3	379	
241	SWEET GUM	15	3	706	
242	SWEET GUM	15	3	706	
243	SWEET GUM	17	3	907	
244	SWEET GUM	16	3	803	
245	SWEET GUM	6	1	113	
246	WHITE PINE	6	1	153	
247	WHITE PINE	6	1	153	
248	BLACK OAK	23	4	1384	
249	BOXELDER	18	2	254	
250	BLACK LOCUST	14	1	314	
251	BLACK SPRUCE	22	3	1256	
252	PIN OAK	24	3	1384	
253	CHERRY	12	2	314	
254	SPRUCE	10	2	254	
255	SPRUCE	12	2	254	
256	SPRUCE	12	2	254	
257	SPRUCE	10	1	254	
258	SPRUCE	8	1	113	
259	BLACK CHERRY	18	3	379	DOUBLE TRUNK
260	MULBERRY	12	2	1017	
261	GREEN ASH	16	3	706	
262	MULBERRY	5	3	2430	IN A MASS
263	PERSIMMON	5	3	0	
264	PERSIMMON	5	3	0	
265	PERSIMMON	6	3	0	
266	PERSIMMON	7	3	0	
267	PERSIMMON	5	3	0	
268	PERSIMMON	5	3	0	
269	PERSIMMON	7	3	0	
270	PERSIMMON	6	3	0	
271	PERSIMMON	5	3	0	
272	PERSIMMON	6	3	0	
273	PERSIMMON	6	3	0	
274	PERSIMMON	5	3	0	
275	PERSIMMON	5	3	0	
276	PERSIMMON	5	3	0	
277	ENGLISH WALNUT	12	1	254	POOR
278	GREEN ASH	30	1	452	POOR
279	GREEN ASH	24	1	452	POOR
280	DOGWOOD	4	0	0	DEAD
281	PEAR	12	2	50	



Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
○	A	95	Philips Lumec	Z47A-150MH4AC-3	Z47A Mounting Height = 16'-0"	(1) 150 MH	1	Z47A-150MH4AC-3 (00065001).ies	12000	0.81	162
○	C	45	Landscape Forms Inc	HW-006L-035F-40K	Black enamel metal fixture, frosted lens (Boiler) Mounting Height = 3'-0"	6 White LEDs	1	L_F_HamHome_Type4_00K.ies	362.8755	0.9	7.726
○	D	12	EATON - HALO (FORMER COOPER LIGHTING)	ML5012940-0225C	HALO 6 INCH MESH LED DOWNLIGHT WITH SPECULAR REFLECTOR Mounting Height = 14'-0"	(1) HIGH LUMEN LED 60CRI 24000 CCT ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET	1	ML5012940-0225C.ies	1663.011	0.9	17.3

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Aug/Max
CANOPY 1	+	11.3 fc	14.9 fc	8.2 fc	1.81	1.41	0.81
CANOPY 2	+	8.3 fc	14.1 fc	2.0 fc	7.11	4.21	0.81
NORTH ROADWAY & PARKING	+	1.3 fc	3.4 fc	0.5 fc	6.81	2.61	0.41
PROPERTY LINE	+	0.2 fc	0.8 fc	0.0 fc	N/A	N/A	0.31
SOUTH ROADWAY & PARKING	+	1.4 fc	3.3 fc	0.5 fc	6.61	2.81	0.41
WALKWAY 1	+	2.2 fc	4.1 fc	0.9 fc	4.61	2.41	0.61

SCHEMATIC DESIGN - PHASE B1 FOR:

FRIENDSHIP VILLAGE

ASSISTED LIVING, MEMORY CARE, SKILLED CARE
15201 OLIVE BLVD., CHESTERFIELD MO 63017

SITE PLAN - PHOTOMETRIC DRAWING

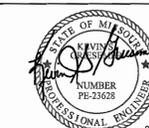
G&W

ENGINEERING CORPORATION

DYNAMIC PROCESSES • SUSTAINABLE RESULTS
138 WILSON PARKWAY ST. LOUIS, MO 63043
6141 469-3737 PROJECT NUMBER: 2016-023900

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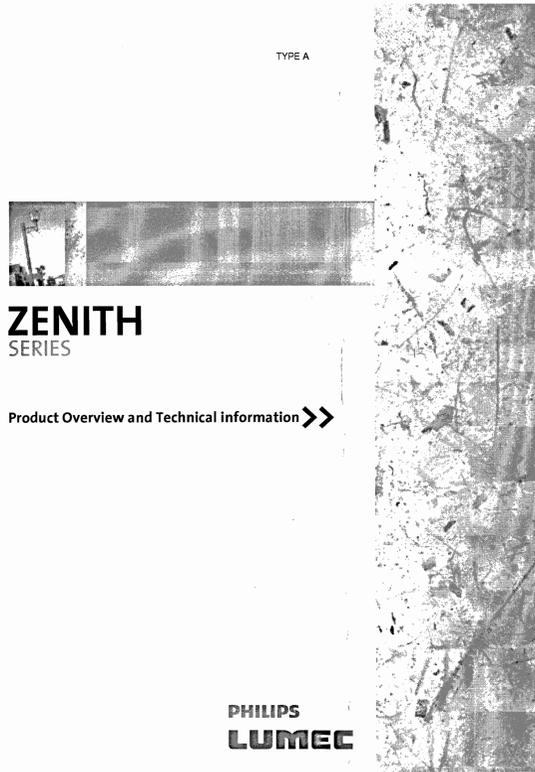
Kevin S. Gleason - Engineer
MO# FE-23822 Expires Dec. 31, 2017



05/03/2017

gray





TYPE A

ZENITH SERIES

Product Overview and Technical Information >>>

PHILIPS LUMEC



Z14-SFZ4 Z20-SFZ4 Z24-SFZ4 Z40-SFZ4 Z40G-SFZ4

ZENITH SERIES

Flexibility and Precision / By combining high-tech optics with elements of modern design, the Zenith gives designers great flexibility and freedom. The Zenith is a compact floodlight that uses long arc double-ended metal halide lamps. It was specially developed for lighting large areas, such as parks, sports fields, public areas, and halls. >>>



FUNCTIONAL PRECISION

The Zenith's power becomes apparent when it lights up. The classically inspired modern design houses state-of-the-art technology designed for performance. Zenith's prismatic globe provides excellent pole spacing, making it possible to have the maximum amount of light with the minimum amount of luminaires.

FLEXIBLE DESIGN

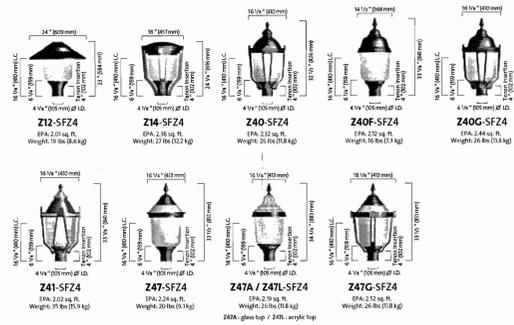
The Zenith has many features that allow its appearance to be customized and personalized. This flexibility offers designers and landscape architects the freedom to create the perfect product with the certainty that no matter what the appearance of the luminaire turns out to be, the interior components stay the same, simplifying maintenance across the board, and providing the best possible photometric performance. >>>

BENEFITS

- > Powerful light output thanks to long arc double-ended metal halide lamps.
- > Excellent performance in the most demanding environments.
- > Toolfree access for ease of maintenance.
- > Precise optics maximize pole spacing.
- > Vertical illumination increases feeling of safety.

LUMINAIRES

Conform to the UL 89W and CSA C22.2 No. 280-00 standards



LAMPS / LED

These LED lamp details are showing typical delivered lumens relative to the complete luminaire with EcoSwap.

LED = Philips Lumileds Luxeon R, CRI = 70, CCT = 4000K (+/- 350K)
LED rated life = 70,000 hrs - Driver rated life = 100,000 hrs

LAMP	ELECTRICAL		PHOTOMETRIC		PHYSICAL	LED CURRENT (mA)	LED CURRENT (A)	LUMENS (lm)					
	WATTAGE	WATTAGE	WATTAGE	WATTAGE									
Z14-SFZ4	80	45	0.48	0.36	0.22	333	33	33	33	33	33	33	33
Z20-SFZ4	80	45	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z24-SFZ4	80	45	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z40-SFZ4	150	85	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z40G-SFZ4	150	85	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z41-SFZ4	150	85	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z47-SFZ4	150	85	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z47A / Z47L-SFZ4	150	85	0.32	0.24	0.15	333	33	33	33	33	33	33	33
Z47G-SFZ4	150	85	0.32	0.24	0.15	333	33	33	33	33	33	33	33

* LED = 70,000 hrs (at ambient temperature = 25°C and forward current = 300 mA)
* System wattage includes the lamp and the LED driver.
* Equations should always be confirmed by photometric layout.
* Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.
* May vary depending on the optical distribution used.

Philips Lumec reserves the right to substitute materials or change the manufacturing process of its products without prior notification. For the latest updates go to www.lumec.com

PHILIPS LUMEC

OPTICAL SYSTEM / LED

EcoSwap
Luminaires feature a system composed of 4 main components: LED lamp, Optic System, Heat Sink, and Cover.
Lamp
Lamp type: Philips Lumileds Luxeon R. Composed of 42 high performance white LEDs, 42w (10w per lamp). Color temperature of 4000 Kelvin (neutral, 20°C). Operating lifespan based on 100,000 hours after which 50% still emits over 70% of its original lumen output. Use of a central lens beam forming, greater heat transfer and larger lifespan of the light engine.
Optic System
Composed of high performance acrylic reflector lenses to achieve desired optimized distribution to get maximum output for get lumens will create a perfect lighting uniformity. Performance shall be tested by independent lab for LM80 and LM81 and 100,000hrs confirming its photometric performance.

* Photometry available on Philips Lumec web site www.lumec.com

VOLTAGE

120 / 208 / 240 / 277

LED
Asymmetrical
LED lamp
Housing (HMI) available in option (P2)

LAMPS / HID

WATTAGE	277V
50 W, medium	✓
70 W, medium	✓
100 W, medium	✓
150 W, medium	✓
175 W, medium	✓
250 W, medium	✓
350 W, medium	✓
500 W, medium	✓
700 W, medium	✓
1000 W, medium	✓

* Available

OPTICAL SYSTEMS / HID

Optic
Large round acrylic or polycarbonate reflector. Multiple beam angles of system controlling the lamp's horizontal and vertical beam spread.
* Asymmetrical
* Symmetrical
* Housed (HMI) available in option (P2)

* Photometry available on Philips Lumec web site www.lumec.com

VOLTAGE

HID: 120 / 208 / 240 / 277 / 347 / 480
Multi-tap ballast also available.

LAMPS / QL

WATTAGE	277V
50 QL	✓
70 QL	✓

* Available

OPTICAL SYSTEMS / QL

Optic
Large round acrylic or polycarbonate reflector. Multiple beam angles of system controlling the lamp's horizontal and vertical beam spread.
* Asymmetrical
* Symmetrical
* Housed (HMI) available in option (P2)

* Photometry available on Philips Lumec web site www.lumec.com

VOLTAGE

120 / 208 / 240 / 277

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LUMINAIRE OPTIONS

- HS: House (HMI)
- PH: Button-type photoelectric cell
- BC: Block connector (available with the SF23 only)
- FM: Decorative finish (see below)
- FC: Copper-color painted finish

ADAPTORS

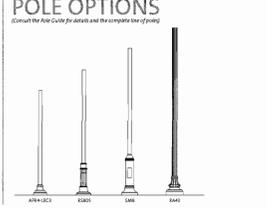
- SFZ3 / SFZ4
 - SFZ3
- * The SF23 and SF23 slip fit over a 3" (76 mm) round by 2 1/4" (60 mm) long lamp.
* The SF23 model features a clear. SF23 only applicable on Z14 / Z41 / Z40L / Z41L.

FILIALS

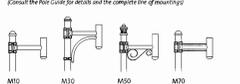


PN1, PN2, PN3, PN4, PN5, PN6, PN7, PN8, PN9, PN10

POLES AND POLE OPTIONS



MOUNTINGS



FINISHES

Consult the Philips Lumec Color Chart for complete specifications.
The specially formulated Lumiled powder coat finish is available in a range of many standard colors.

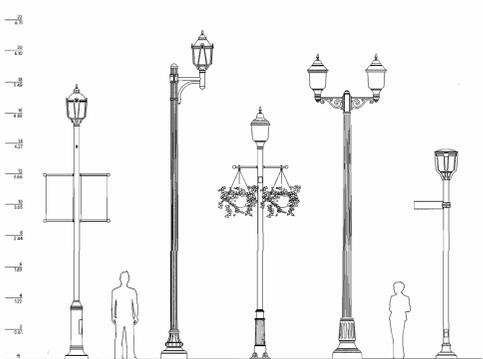
ORDERING SAMPLE

LUMINAIRE	LAMP	OPTICAL SYSTEM	VOLTAGE	ADAPTOR	OPTIONS	MOUNTING & CONFIGURATION	POLE	FINISH
Z40	100 W, H	S	120	SFZ4	PH7	MSO-1A	AF16-1A	BLTK

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ASSEMBLY EXAMPLES



Luminaire Z40-SFZ4 Pole: 5416-SA-1017
Luminaire Z40-SFZ4 Mounting: MSO-1A Pole: 8424
Luminaire Z41-SFZ4-1017 Pole: 8424-1017
Luminaire Z41-SFZ4 Mounting: MSO-1A Pole: 815A27
Luminaire Z41-SFZ4 Pole: 4914-L102-S41

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Hg Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled "Mercury Memory" and/or with the symbol "Hg". Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.wastequip.org.

>>> The choice to not print paper brochures anymore but to make them available on-line is an example of the positive environmental actions that Philips Lumec has decided to undertake. This not only considerably reduces our paper consumption but also guarantees the exactitude of the information our clients receive.

SCHEMATIC DESIGN - PHASE B1 FOR:
FRIENDSHIP VILLAGE
 ASSISTED LIVING, MEMORY CARE, SKILLED CARE
 15201 OLIVE BLVD., CHESTERFIELD MO 63017

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634-469-2727 PROJECT NUMBER: 2016-0259-00
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Kevin S. Griesemer - Engineer
MO# PE-23628 Expires: Dec. 31, 2017

05/03/2017

gray

