



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: Amended Site Development Section Plan

Meeting Date: August 8, 2016

From: Justin Wyse
Senior Planner

Location: North of North Outer 40 Road, west of its intersection with Boone's Crossing.

Applicant: Stock and Associates

Description: **MPD Investments, Adjusted Lot 2 (Beyond Self Storage at Chesterfield)**
ASDSP: An Amended Site Development Section Plan, Landscape Plan, Lighting Plan and Parking Modification for a 2.99 acre tract of land zoned "PI" Planned Industrial District located north of North Outer 40 Road, west of its intersection with Boone's Crossing.

PROPOSAL SUMMARY

Stock and Associates, on behalf of NorthPoint Development, has submitted a request for an Amended Site Development Section Plan and Parking Modification to a plan approved in July of 2016. The proposed amendment removes 11 parking spaces from the front of the site and replaces the area with a larger water quality basin to meet City of Chesterfield and MSD requirements, which the applicant has become aware of as they further engineered the site and received preliminary feedback from MSD on the design, which was made known to the applicant following the approval of the Site Development Section Plan by the Planning Commission.

HISTORY OF SUBJECT SITE

The subject site was zoned 'C-8' Planned Commercial District and 'FPC-8' Flood Plain Planned Commercial District with permitted uses of offices, warehouses and the display and sale of lawn care equipment. The site was rezoned in 2007 from a Planned Commercial District to a 'PI' Planned Industrial District by Ordinance Number 2411. The zoning map amendment increased the number of permitted uses and updated development criteria based on new standards within the City of Chesterfield.

A Site Development Concept Plan for MPD Investments was approved by the City of Chesterfield in 2007. Notably, the ordinance and concept plan restrict total number of access locations on North Outer 40 Road to encourage shared access drives and minimize impact of driveways on the public right-of-way.

A Site Development Section Plan was approved on July 11, 2016 for a self-storage facility. The proposal included a modification to provide 22 parking spaces which was justified by ITE Parking Demand data and two parking studies of similar facilities. This data showed that a facility of this size warrants between 5 and 11 parking spaces.

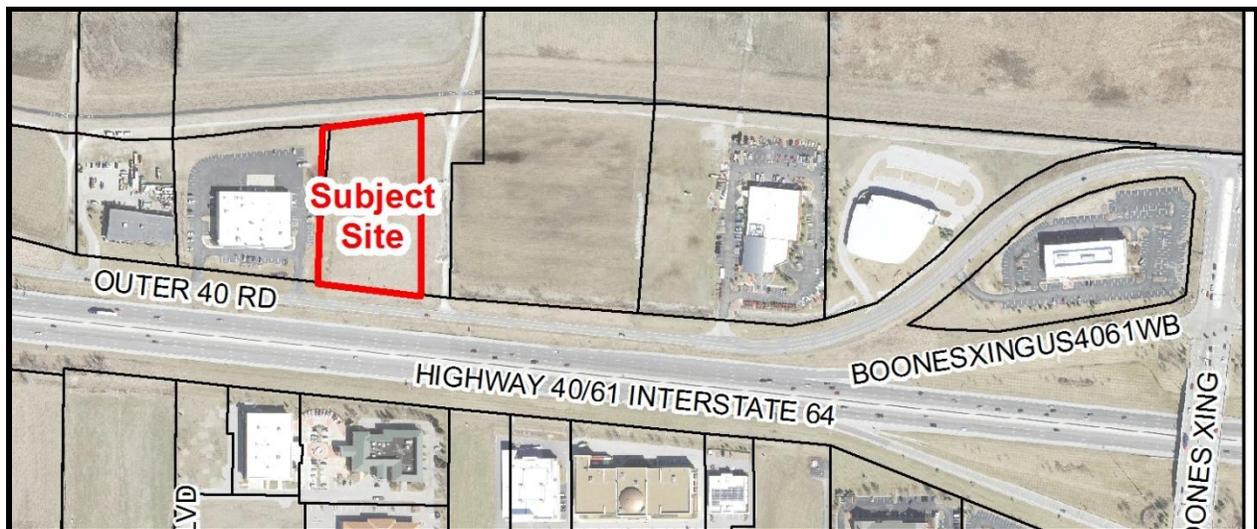


Figure 1: Aerial image of subject site

COMPREHENSIVE PLAN ANALYSIS

The subject site is located within Ward 4 of the City of Chesterfield. The City of Chesterfield Land Use Plan indicates that this parcel is within the Mixed Commercial Use Land Use designation, which is defined as a mixture of retail, low density office, and limited office/warehouse facilities.

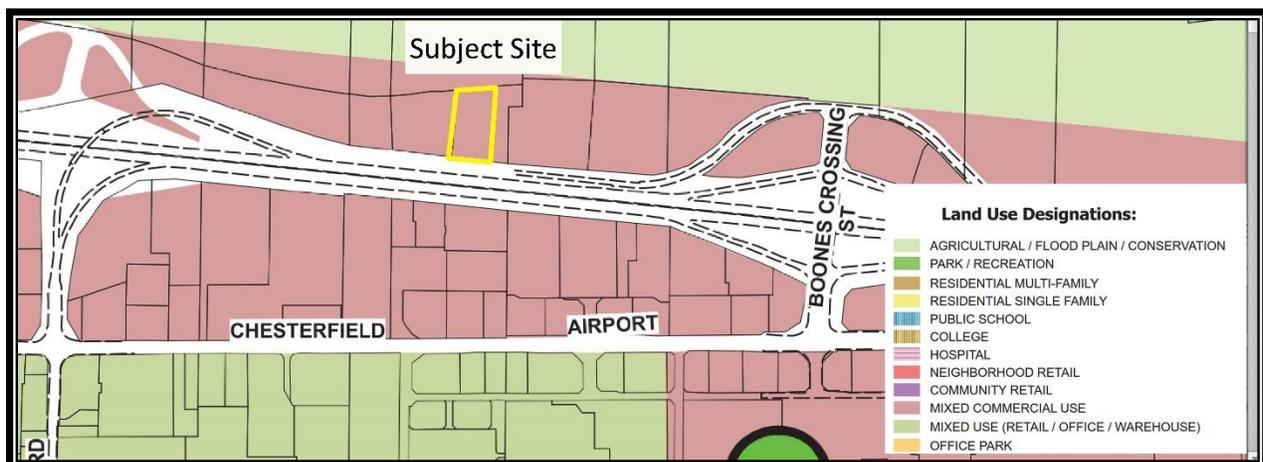


Figure 2: Future Land Use Map

STAFF ANALYSIS

The proposal to remove 11 parking spaces is necessary to address water quality comments from MSD and will impact two development criteria for the site and alters the site plan, landscape plan, and lighting plan.

Lighting

One light standard has been relocated based on the changes to the parking / water quality basin. This relocation will provide lighting for the drive aisle on the site. The proposed lighting complies with the lighting requirements in Article 04 of the Unified Development Code.

Landscaping

The enlarged water quality basin will be located in an area where two trees and several shrubs were previously located. These plantings are still included on the site frontage, but their locations have been adjusted based on the new design.

Open Space

City of Chesterfield Ordinance 2411 requires a minimum of 31% open space within the development. The approved plan for the Section Plan for Adjusted Lot A included a total of 34.9% open space. The proposed decrease in parking area / increase in water quality basins on the site will increase the amount of open space to 36.4%.

Parking

The parking requirement for Self-Storage Facilities specified within the Unified Development Code (UDC) for the City of Chesterfield is 1 space per 1,000 square feet of gross floor area and is not an appropriate minimum standard for storage facilities. The applicant was approved in July 2016 for a modification to this parking requirement to provide 22 public parking spaces in lieu of the 108 spaces required by code. This approval was based on data from the Institute of Transportation Engineers and two parking studies of similar facilities which showed a facility of this size would require between 5-11 parking spaces.

To support the applicant's parking reduction request, the Institute of Transportation Engineers' (ITE) standards were referenced and two case studies were referenced to determine the appropriateness of the parking reduction. ITE provides a minimum parking ratio of 0.11 spaces per 1,000 square feet of gross floor area for "Mini-Warehouse" uses. These uses specifically include self-storage facilities. This requirement is nearly ten times lower than the requirement provided within the UDC, and would require 11 spaces to provide adequate parking accessibility for the proposed use.

Two separate case studies were presented that support the parking reduction request. The study concluded that facilities with similar rentable areas to the current proposal require 11 parking spaces for office visits, staff parking, and storage area access.

The final case study was conducted by the applicant's self-storage consultant. This based case study analyzed retail and office parking requirements for a similarly sized self-storage facility. The study determined that an average of 2.1 trips were generated for retail use, and 3.1 trips were

generated for office use during the peak hour. The resulting parking requirement is 5.2 spaces for these functions on site.

	<u>Minimum Parking Requirement (spaces)</u>
UDC Parking Requirement	108
ITE Standard	11
Study #1	11
Study #2	5.2

Table 1. Minimum Parking Requirements

Staff has reviewed the proposal and is supportive of the request for the modification to provide 11 parking spaces on the site. It should also be noted that the facility will have parking within the building to allow for loading / unloading of items. Finally, the site includes ample areas within the rear of the site that can be utilized for employee parking or longer term parking in the event that parking on the south side of the building becomes insufficient to meet demands.

STAFF RECOMMENDATION

Staff has reviewed the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, and Parking Modification and has found the proposal to be in compliance with the Site Specific Ordinance, the Site Development Concept Plan, and all City Code requirements. Staff recommends approval of the proposed amendment to Adjusted Lot A of MPD Investments (Beyond Self Storage).

MOTION

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

- 1) "I move to approve (or deny) the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, and Parking Modification for MPD Investments, Adjusted Lot 2 (Beyond Self Storage at Chesterfield).
- 2) "I move to approve (or deny) the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, and Parking Modification for MPD Investments, Adjusted Lot 2 (Beyond Self Storage at Chesterfield) with a recommendation for approval with the following conditions..."

Attachments: Amended Site Development Section Plan
Amended Lighting Plan
Amended Landscape Plan
Request for Parking Reduction

cc: Aimee Nassif

STOCK & ASSOCIATES
Consulting Engineers, Inc.

July 18, 2016

Via Hand Delivery

City of Chesterfield
690 Chesterfield Parkway West
Chesterfield, MO 63017-0760

Attention: Mr. Justin Wyse, AICP, Senior Planner

Re: 17481 North Outer Road – Beyond Self Storage –
Amended Site Development Section Plan
(Stock Project No. 216-5757.1)

Dear Justin:

Pursuant to the approval on July 11, 2016 of the above-referenced project's Site Development Section Plan by the Planning Commission, some technical design issues relative to Stormwater Management and satisfying MSD have developed.

Specifically, the use of porous pavement on the north side of the building needs to be removed, due to the underseepage blanket. Therefore, we have revised the Amended Site Development Section Plan to remove the porous pavement and increase the size of the bio-retention basin/landscaping on the south side of the building. The net result is the removal of eleven (11) parking spaces, which decreases the total parking from twenty-two (22) parking spaces to eleven (11) parking spaces, which is consistent with the number of parking spaces referenced in the Parking Demand Study.

We would appreciate your review and approval of the revised Amended Site Development Plan.

Should you have any questions or comments, please feel free to call.

Sincerely,



George M. Stock, P.E., President

CC: Mr. Benjamin Hagedorn - NorthPoint (bhagedorn@northpointkc.com)
Mr. J. J. Jenkins – NorthPoint (jjenkins@northpointkc.com)
Mr. Charles Hulse, P.E., P.L.S. – Stock & Associates

Enclosure: Four (4) copies of the Amended Site Development Section Plan

257 CHESTERFIELD BUSINESS PARKWAY • ST. LOUIS, MO 63005 • (636) 530-9100
Fax (636) 530-9130 • E-MAIL ADDRESS: general@stockassoc.com

STOCK & ASSOCIATES
Consulting Engineers, Inc.

Dated: April 29, 2016

REVISED: July 27, 2016

Via Hand Delivered

City of Chesterfield
690 Chesterfield Parkway W
Chesterfield, MO 63017-0760

Attention: Ms. Aimee Nassif, Planning and Development Services Director

Re: Parking Demand Study associated with Beyond Self Storage at Chesterfield;
Amended Site Development Concept and Section Plans,
17481 North Outer 40 Road, Ordinance #2411
(Stock Project No. 216-5757.1)

Dear Ms. Nassif :

This firm is the professional licensed civil engineering firm that has been engaged to prepare and process the Site Development Section Plan and Amended Site Development Concept Plan for a project titled "North Outer Forty Road – Beyond Self Storage – Chesterfield. Included in that engagement are the preparation and submission of this Application and a Parking Demand Study.

Parking requirements are contained in Section 31-04-04.H of the City of Chesterfield Unified Development Code. Under the provisions of the Parking Section, Self Storage is broken down into ranges, minimum parking requirements of 1 spaces/1,000 s.f., and a maximum of 1.2 spaces/1,000 s.f. (gross building), respectively. This would require over 100 parking spaces for this proposed facility.

The 4th Addition of the Institute of Transportation Engineers has a category for Land Use: 151 "Mini-Warehouse". Attached are a Weekday and Saturday Study which put Parking Demand at .14 Vehicles and .11 Vehicles per 1,000 sq. ft. GFA. This ratio is consistent with our project. Enclosures include the ITE Information.

In reality, the parking needs of a self-storage facility are incredibly minimal. A study of self-storage facility traffic and parking needs was completed by Aurecon, a leading traffic management firm. Their study focused on facilities in Australia, but it is representative of the needs in the US as well. Below is a table of recommended parking counts established by the report (adapted with imperial units).

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The entire report can be found here:

https://www.selfstorage.org.au/sites/default/files/user-content/ssaa_report_-_traffic_and_parking_study.pdf

Rentable SF	Office & Retail	Storage Area	Staff	Trailer	TOTAL
0 – 32,500	1	2	2	1	6
32,500 – 65,000	2	5	2	1	10
65,000 – 102,000	3	5	2	1	11

For comparison purposes, the proposed facility will have approximately 108,900 GSF. The current plan includes 11 surface parking spaces along the South and 4 interior loading/unloading spaces within the building. Therefore, the proposed facility would include 136% of the parking counts recommended by the Aurecon report.

We are confident that the 4-5 interior loading areas are more than adequate to serve existing customers at 100% occupancy. To further understand the needs of retail and office parking, we analyzed data for a comparable facility that was provided by our self-storage consultant, who has 31 years of experience operating self-storage facilities. For a comparably sized building in the Boston area, the facility saw the following visits in 2015:

Retail visitors: 2.1 per day

New customer visits: 3.1 per day

Total: 5.2 visitors per day to the office area

Given that information, we are obviously more than comfortable with the 11 provided surface parking spaces.

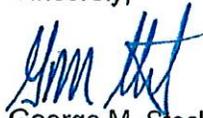
We understand that a project for Simply Storage at 1755 Chesterfield Airport Road was approved in 2007. As part of their review and approval, the parking was addressed. They provided five (5) spaces for the 91,120 s.f. of storage space. This information was supported by information provided by the Self Storage Association. The Simply Self Storage Site Development Plan is recorded in Plat Book 355, Pages 903-906 on 2/14/07. That project was governed by Ordinance #2379.

Based on the above information, we respectfully request the City consider this project be parked at the rate of 0.10 spaces/1,000 s.f. (gross building), which would satisfy the Owner's parking needs as previously described.

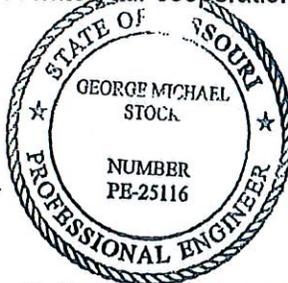
April 28, 2016
CITY OF CHESTERFIELD
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As always, we greatly appreciate your cooperation.

Sincerely,



George M. Stock, P.E.,
President



CC: Mr. Ben Hagedorn – NorthPoint Development - via email
Mr. Chuck Hulse, P.E. – Senior Project Manager – Stock & Associates

Enclosure: ITE information

4th Edition

Parking Generation

ite

Institute of Transportation Engineers

Land Use: 151 Mini-Warehouse

Description

Mini-warehouses are buildings in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as "self-storage" facilities. Each unit is physically separated from other units, and access is usually provided through an overhead door or other common access point.

Database Description

- Average parking supply ratio: 0.2 spaces per 1,000 square feet (sq. ft.) gross floor area (GFA) (two study sites).

The Saturday parking demand ratio for a site with 1,400 storage units was 0.77 vehicles per 100 storage units. Parking demand data at this site were collected for six consecutive hours between 1:00 and 7:00 p.m., and the peak period of demand occurred between 4:00 and 5:00 p.m.

The following table presents a time-of-day distribution of parking demand for three study sites.

Based on Vehicles per 1,000 sq. ft. GFA	Weekday	
	Percent of Peak Period	Number of Data Points*
12:00-4:00 a.m.	--	0
5:00 a.m.	--	0
6:00 a.m.	--	0
7:00 a.m.	31	3
8:00 a.m.	24	3
9:00 a.m.	59	3
10:00 a.m.	91	3
11:00 a.m.	100	3
12:00 p.m.	55	3
1:00 p.m.	45	3
2:00 p.m.	46	3
3:00 p.m.	40	2
4:00 p.m.	88	1
5:00 p.m.	27	1
6:00 p.m.	35	1
7:00 p.m.	27	1
8:00 p.m.	--	0
9:00 p.m.	--	0
10:00 p.m.	--	0
11:00 p.m.	--	0

* Subset of database

Study Sites/Years

Canada:
Burnaby, BC (1991); Coquitlam, BC (1991); Richmond, BC (1991)

United States:
Santa Barbara, CA (1998); Hadley, MA (2008)

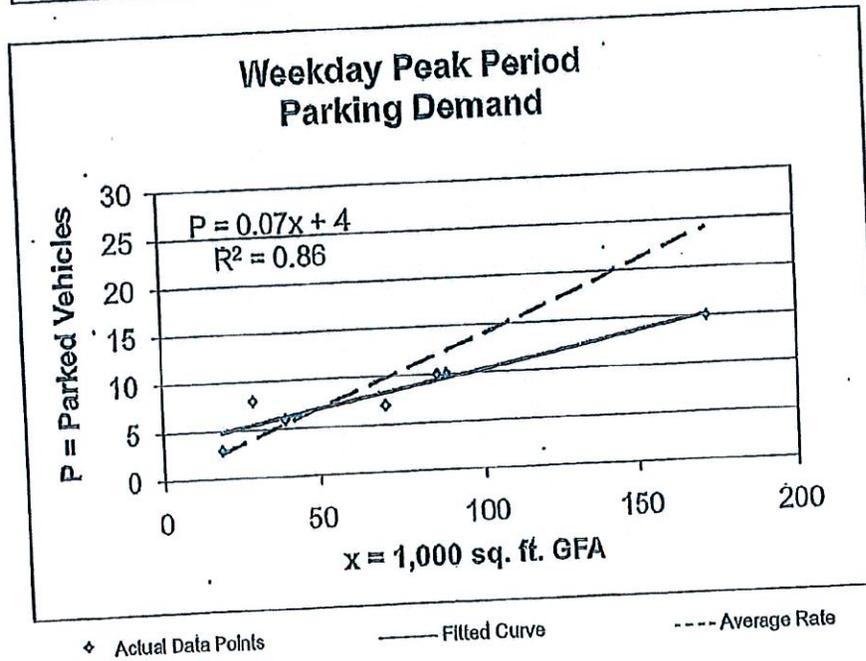
4th Edition Source Number

1115

Land Use: 151 Mini-Warehouse

Average Peak Period Parking Demand vs. 1,000 sq. ft. GFA On a Weekday

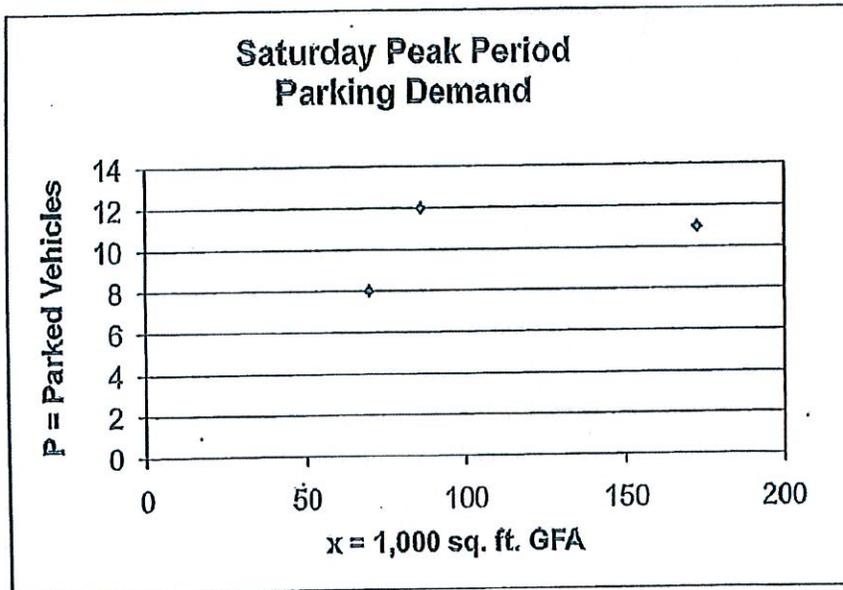
Statistic	Peak Period Demand
Peak Period	10:00 a.m.–12:00 p.m.; 4:00–6:00 p.m.
Number of Study Sites	7
Average Size of Study Sites	72,000 sq. ft. GFA
Average Peak Period Parking Demand	0.14 vehicles per 1,000 sq. ft. GFA
Standard Deviation	0.06
Coefficient of Variation	44%
Range	0.09–0.27 vehicles per 1,000 sq. ft. GFA
85th Percentile	0.17 vehicles per 1,000 sq. ft. GFA
33rd Percentile	0.11 vehicles per 1,000 sq. ft. GFA



Land Use: 151 Mini-Warehouse

Average Peak Period Parking Demand vs. 1,000 sq. ft. GFA On a: Saturday

Statistic	Peak Period Demand
Peak Period	9:00–10:00 a.m.
Number of Study Sites	3
Average Size of Study Sites	109,000 sq. ft. GFA
Average Peak Period Parking Demand	0.11 vehicles per 1,000 sq. ft. GFA
Standard Deviation	0.04
Coefficient of Variation	36%
Range	0.06–0.14 vehicles per 1,000 sq. ft. GFA
85th Percentile	0.13 vehicles per 1,000 sq. ft. GFA
33rd Percentile	0.10 vehicles per 1,000 sq. ft. GFA



◆ Actual Data Points

AMENDED SITE DEVELOPMENT SECTION PLAN

A TRACT OF LAND BEING LOT 2 OF AMENDED OUTDOOR EQUIPMENT SUBDIVISION AS RECORDED IN PLAT BOOK 353 PAGE 948
 LOCATED IN U.S. SURVEY 125, TOWNSHIP 45 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN
 CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI
 ZONED PLANNED INDUSTRIAL DISTRICT "PI", ORD: # 2411



PERTINENT DATA

LOT 1
 OWNER: FRISELLA PROPERTIES, LLC
 LOT 1 AREA: 4.018 Acres ±
 EXISTING ZONING: "PI" PLANNED INDUSTRIAL
 LOCATOR NO: 17U520148

LOT 2
 OWNER: MARYLAND LAND COMPANY L.L.C.
 LOT 2 AREA: 4.325 Acres ±
 EXISTING ZONING: "PI" PLANNED INDUSTRIAL
 LOCATOR NO: 17U520159

FIRE DISTRICT: MONARCH FIRE PROTECTION DISTRICT
SCHOOL DISTRICT: ROCKWOOD
SEWER DISTRICT: METROPOLITAN ST. LOUIS SEWER DIST.
WATER SHED: MISSOURI RIVER
FEMA MAP: 23189C0165K, FEB 4, 2015
ELECTRIC COMPANY: AMEREN UE
GAS COMPANY: LACLEDE GAS COMPANY
PHONE COMPANY: AT&T
WATER COMPANY: MISSOURI AMERICAN WATER COMPANY

F.A.R. CALCULATION

LOT	BUILDING AREA	LOT AREA
LOT 1	32,000 S.F.	175,003 S.F.
ADJ. LOT 2	108,900 S.F.	130,680 S.F.
TOTAL	140,900 S.F.	305,683 S.F.

F.A.R. = 140,900 S.F. / 305,683 S.F. = 0.46

OPEN SPACE:

REQUIRED: 31.0% PER ORDINANCE 2411
 PROVIDED: 36.4% (47,521 SF / 130,680 SF)

BUILDING AND PARKING SETBACKS (PER ORDINANCE 2411 - LOT 2)

NORTH: 165' BUILDING AND 30' PARKING SETBACK
 EAST: 20' BUILDING AND 5' PARKING SETBACK
 SOUTH: 50' BUILDING AND 35' PARKING SETBACK
 WEST: 15' BUILDING AND 5' PARKING SETBACK

FLOOD NOTE:

SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "AH" (FLOOD DEPTHS OF 1 TO 3 FEET) (USUALLY AREAS OF PONDING) BASE FLOOD ELEVATION DETERMINED (ELEVATION 459) ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND INCORPORATED AREAS. THE MAP IS IDENTIFIED AS MAP NO. 29189C0165K WITH AN EFFECTIVE DATE OF FEBRUARY 4, 2015.

PARKING:

REQUIRED: SELF STORAGE = 1.0/1,000 GFA (MIN), 1.2/1,000 GFA (MAX)
 MINIMUM: 108,900 GFA @ 1.0/1,000 = 109 SPACES
 MAXIMUM: 108,900 GFA @ 1.2/1,000 = 131 SPACES

TOTAL PROVIDED = 11 SPACES (SEE PARKING DEMAND STUDY)

Maryland Land Company, L.L.C., the owner(s) of the property shown on this plan for and in consideration of being granted approval of said plan to develop property under the provisions of Section 03.

(applicable subsection) "PI" - Planned Industrial (present zoning) of the City of Chesterfield Unified Development Code, do hereby agree and declare that said property from the date of recording this plan shall be developed only as shown thereon, unless said plan is amended by the City of Chesterfield, or voided or vacated by order of ordinance of the City of Chesterfield Council.

Maryland Land Company, L.L.C.

by: _____
 David A. Gamache
 Executive Vice President

STATE OF _____)
) SS.
 COUNTY OF _____)

ON THIS _____ DAY OF _____, A.D., 2016,
 BEFORE ME PERSONALLY APPEARED _____ TO ME
 KNOWN, WHO, BEING BY ME SWORN IN, DID SAY THAT HE/SHE IS THE

A CORPORATION IN THE STATE OF _____ 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 ACKNOWLEDGED SAID INSTRUMENTS TO BE THE FREE ACT AND DEED OF SAID CORPORATION.

IN TESTIMONY WHEREOF, I HAVE HERETO SET MY HAND AND AFFIXED MY NOTARIAL SEAL AT MY OFFICE IN _____, THE DAY AND YEAR LAST ABOVE WRITTEN.

 NOTARY PUBLIC

 PRINT NAME

MY COMMISSION EXPIRES: _____

This Amended Site Development Section Plan was approved by the City of Chesterfield Planning Commission and duly verified on the _____ day of _____, 2016, by the Chairperson of said Commission, authorizing the recording of this Amended Site Development Section Plan pursuant to Chesterfield Ordinance No. 200, as attested to by the Planning and Development Services Director and the City Clerk.

By: _____
 Aimee Nassif, AICP
 Planning and Development Services Director
 City of Chesterfield

By: _____
 Vickie Hass, City Clerk
 City of Chesterfield

SURVEYOR'S CERTIFICATION

This is to certify that Stock and Associates Consulting Engineers, Inc. has prepared this Amended Site Development Concept Plan from a field survey and does not represent a property boundary survey. The information shown is a correct representation of all existing and proposed land divisions.

STOCK AND ASSOCIATES CONSULTING ENGINEERS INC.
 L.S. No. 222-D

Daniel Ehlmann, Missouri L.S. No. 2215

GENERAL NOTES:

- BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.
- 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.
- NO GRADE SHALL EXCEED 3:1 SLOPE.
- GRADING AND STORM WATER PER M.S.D., THE CITY OF CHESTERFIELD, MISSOURI, AND THE MONARCH LEVEE DISTRICT.
- STORM WATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINTS.
- APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN APPROVAL IS A SEPARATE PROCESS.
- WATER QUALITY FOR THE SITE WILL BE PROVIDED THROUGH A COMBINATION OF BIORETENTION AND POROUS PAVEMENT TO BE DESIGNED WITH THE IMPROVEMENT PLANS.
- ALL UTILITIES WILL BE INSTALLED UNDERGROUND.

COUNTY NOTES:

- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY STANDARDS.
- NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
- STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
- ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS SHALL MEET MINIMUM ST. LOUIS COUNTY SIGHT DISTANCE REQUIREMENTS.
- ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
- A SIGNED/SEALED NOTE SHALL BE ADDED TO THE CONSTRUCTION PLANS INDICATING THAT THE UNIMPROVED EXISTING SIDEWALK ALONG THE PROJECT FRONTAGE MEETS CURRENT ADA STANDARDS.
- ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH ST. LOUIS COUNTY AND MSD STANDARDS.
- ALL HYDRANTS, POWER POLES OR OTHER POTENTIAL OBSTRUCTIONS WITHIN THE ST. LOUIS COUNTY ROAD RIGHT-OF-WAY SHALL HAVE A MINIMUM TWO (2) FOOT SETBACK FROM FACE OF CURB, AS DIRECTED BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC.
- ANY ENTITY THAT PERFORMS WORK ON ST. LOUIS COUNTY MAINTAINED PROPERTY SHALL PROVIDE THE COUNTY WITH A CERTIFICATE OF INSURANCE EVIDENCING GENERAL LIABILITY COVERAGE (BODILY INJURY AND PROPERTY DAMAGE) IN THE AMOUNTS SPECIFIED AS THE LIMITS OF LIABILITY SET BY THE STATE FOR PUBLIC ENTITIES. SUCH CERTIFICATE SHALL INCLUDE "ST. LOUIS COUNTY" AS AN ADDITIONAL INSURED AND SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF ANY PERMIT. CERTIFICATE SHALL PROVIDE FOR A 30 DAY POLICY CANCELLATION NOTICE TO ST. LOUIS COUNTY. UPON REQUEST, THE COUNTY WILL PROVIDE THE SPECIFIC AMOUNTS FOR BOTH PER PERSON AND PER OCCURRENCE LIMITS.
- PRIOR TO "SPECIAL USE PERMIT" ISSUANCE BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, SHALL BE ESTABLISHED WITH THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.

ABBREVIATIONS

- ATG - ADJUST TO GRADE
- B.C. - BACK OF CURB
- C.O. - CLEANOUT
- DB. - DEED BOOK
- E. - ELECTRIC
- ELEV. - ELEVATION
- EX. - EXISTING
- F.C. - FACE OF CURB
- FL. - FLOWLINE
- FT. - FEET
- FND. - FOUND
- G. - GAS
- H.W. - HIGH WATER
- LFB. - LOW FLOW BLOCKED
- M.H. - MANHOLE
- N/F. - NOW OR FORMERLY
- PB. - PLAT BOOK
- PG. - PAGE
- PR. - PROPOSED
- P.V.C. - POLYVINYL CHLORIDE PIPE
- R.C.P. - REINFORCED CONCRETE PIPE
- R/W. - RIGHT-OF-WAY
- SQ. - SQUARE
- T. - TELEPHONE CABLE
- T.B.A. - TO BE ABANDONED
- T.B.R. - TO BE REMOVED
- T.B.R.&R. - TO BE REMOVED AND REPLACED
- TYP. - TYPICALLY
- U.I.P. - USE IN PLACE
- U.O.N. - UNLESS OTHERWISE NOTED
- V.C.P. - VITRIFIED CLAY PIPE
- W. - WATER
- (86'W) - RIGHT-OF-WAY WIDTH

LEGEND

- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING TREE
- EXISTING BUILDING
- EXISTING CONTOUR
- SPOT ELEVATION
- EXISTING UTILITIES
- FOUND 1/2" IRON PIPE
- SET IRON PIPE
- FOUND CROSS
- FOUND STONE
- FIRE HYDRANT
- LIGHT STANDARD
- BUSH
- SIGN
- NOTES PARKING SPACES
- QTY WIRE
- POWER POLE
- WATER VALVE
- DENOTES RECORD INFORMATION
- HANDICAPPED PARKING
- PROPOSED SCOUR
- PROPOSED SPT
- PROPOSED STORM
- PROPOSED SANITARY

GEOTECHNICAL ENGINEER'S STATEMENT

Midwest Testing, at the request of NorthPoint Development, has performed a geotechnical exploration for the property of which the project proposed hereon is a part thereof. Our findings indicated that the earth related aspects are suitable for the development proposed hereon pursuant to the geotechnical recommendations and considerations set forth in our June 17, 2016 report titled "Geotechnical Exploration - MT Job No. 14140 - Beyond Self Storage - Chesterfield, Missouri".

Midwest Testing

Kevin P. Daut, P.E.

6-17-16
 Date



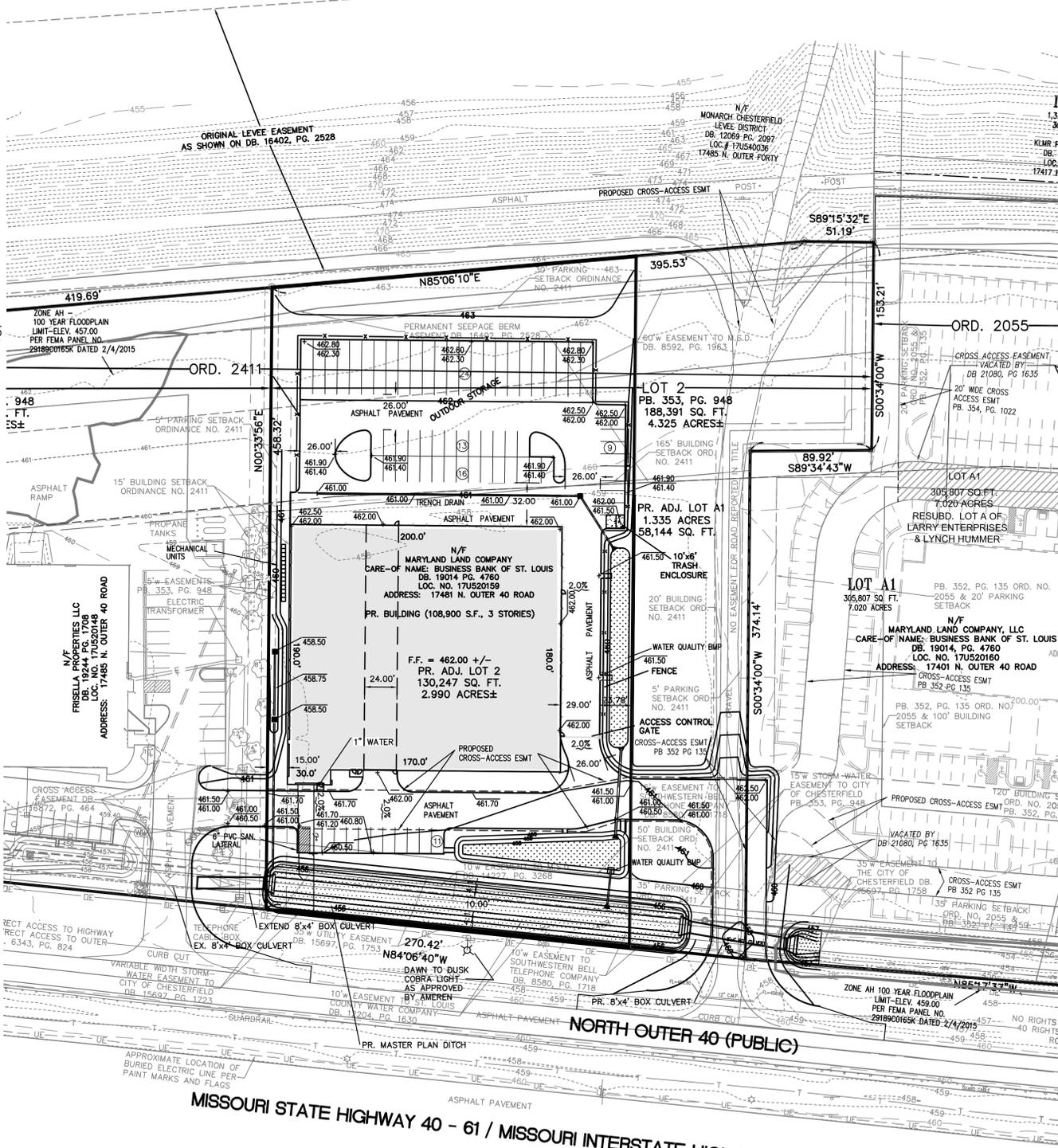
PREPARED FOR:

NORTHPOINT DEVELOPMENT
 ATTN: MARK POMERENKE & BEN HAGEDORN
 5015 NW CANAL STREET, SUITE 200
 RIVERSIDE, MO 64150
 (816) 888-7391 (MARK)

M.S.D. BENCHMARKS

11-108 486.82 - "Standard Aluminum Disk" stamped SL-40 1990 Disk is set along the north side of the North Outer Road of Highway 64 and the centerline of the Spirit of Saint Louis Boulevard, approximately 0.3 mile north of Chesterfield Airport Road.

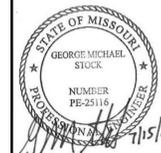
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND 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 WITH COMPLIING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.



WAGNER FAMILY HOLDING'S
 ATTN: DANIEL J. WAGNER
 4712 GREEN PARK ROAD
 St. Louis, MO 63123
 (314) 892-1600

PREPARED BY:

AMENDED SITE DEVELOPMENT SECTION PLAN FOR:



GEORGE M. STOCK E-25116
 CIVIL ENGINEER
 CERTIFICATE OF AUTHORITY
 NUMBER: 000996

REVISIONS:

DATE	BY	REVISION
7/15/2016	G.M.S.	216-5757
		1715

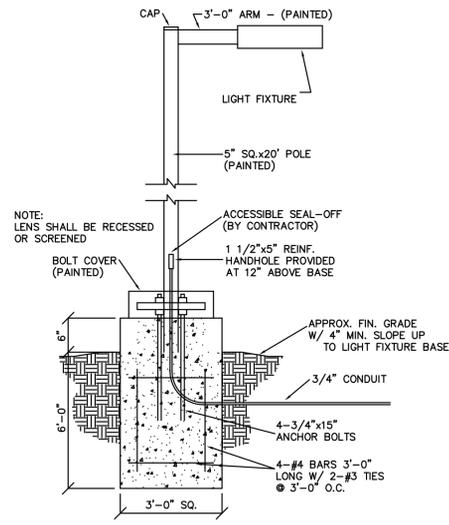
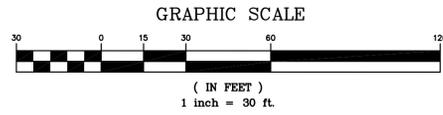
SHEET TITLE:
 AMENDED SITE
 DEVELOPMENT SECTION
 PLAN

SHEET NO.:
 C1.0

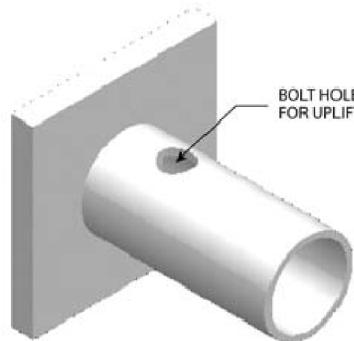
BEYOND SELF STORAGE AT CHESTERFIELD
 17481 N. OUTER 40 ROAD
 CITY OF CHESTERFIELD, MO

STOCK & ASSOCIATES
 Consulting Engineers, Inc.

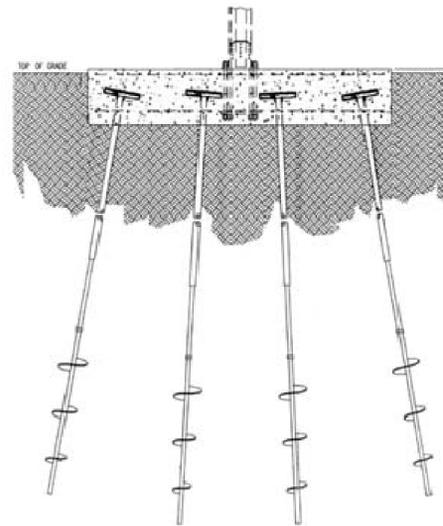
257 Chesterfield Business Parkway
 St. Louis, MO 63005
 PH. (636) 550-9100
 FAX (636) 550-9130
 e-mail: general@stockassoc.com
 Web: www.stockassoc.com



AREA LIGHT & POLE DETAIL
(n.t.s.)



New Construction Pile Cap
for Compression and Uplift



PILE CAP AND HELICAL ANCHOR DETAIL
(n.t.s.)

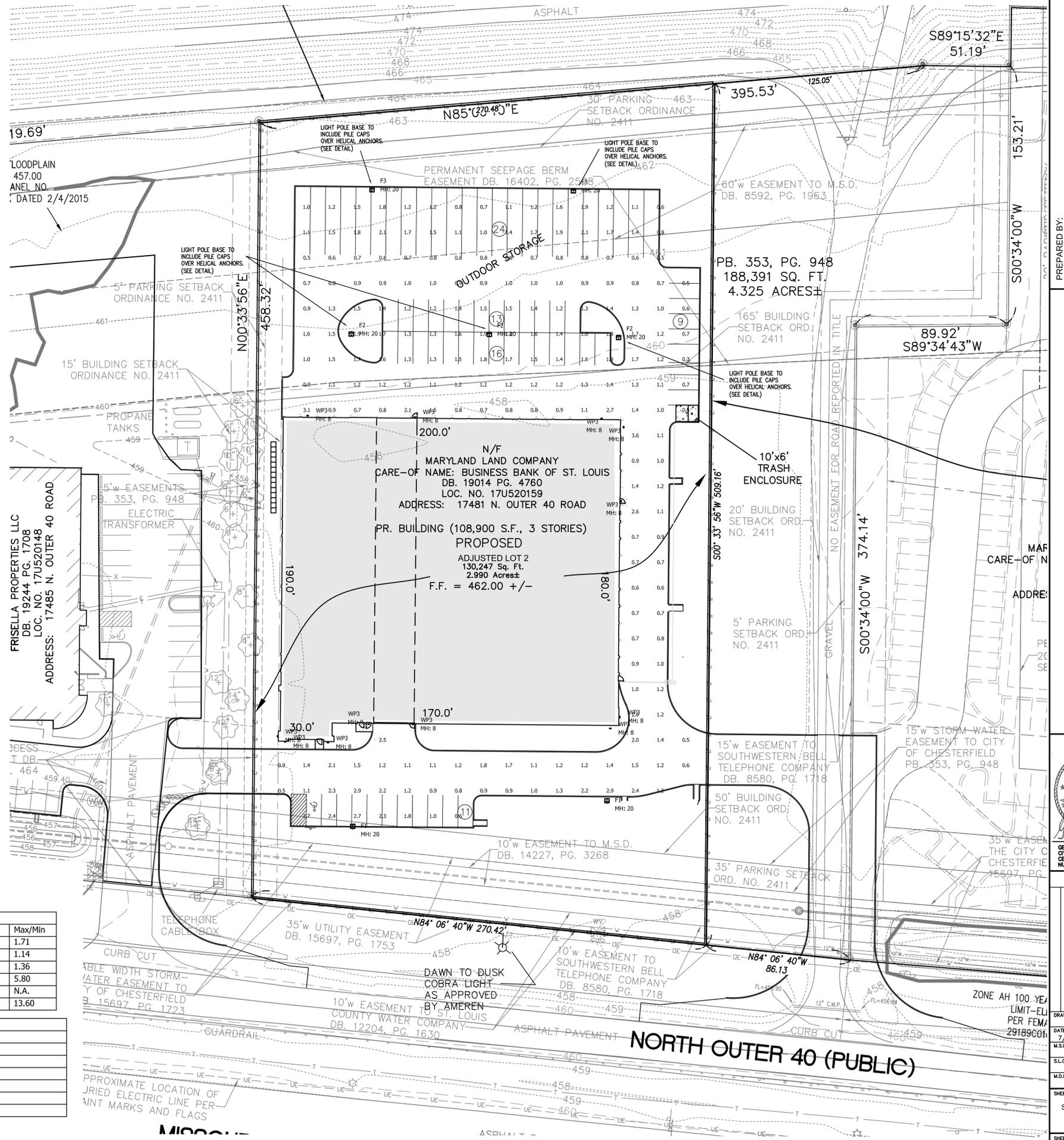
POLE FIXTURE HEIGHT INCLUDES BASE
LIGHT LEVEL CALCULATED ON THE GROUND

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
FRONT BUILDING ENTRANCES	Illuminance	Fc	5.47	6.5	3.8	1.44	1.71
REAR BUILDING ENTRANCE	Illuminance	Fc	5.30	5.7	5.0	1.06	1.14
RIGHT BUILDING ENTRANCE	Illuminance	Fc	5.88	6.8	5.0	1.18	1.36
SITE	Illuminance	Fc	1.22	2.9	0.5	2.44	5.80
SPILL @ PROPERTY LINE	Illuminance	Fc	0.08	0.4	0.0	N.A.	N.A.
FENCED IN AREA	Illuminance	Fc	1.45	6.8	0.5	2.90	13.60

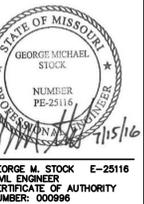
Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Watts	Total Watts	LLF	Description
[Symbol]	2	F1	SINGLE	107	214	1.000	GLEON-AE-02-LED-E1-T4FT
[Symbol]	3	F2	SINGLE	107	321	1.000	GLEON-AE-02-LED-E1-5WQ
[Symbol]	2	F3	SINGLE	56	112	1.000	GLEON-AE-01-LED-E1-SL2
[Symbol]	1	WP1	SINGLE	68.3	68.3	1.000	CWC AE 01 LED E1 T4FT
[Symbol]	2	WP2	SINGLE	21.2	42.4	1.000	CWC AE 01 LED E1 T4FT
[Symbol]	12	WP3	SINGLE	7	84	1.000	XTOR1A



PREPARED BY:
STOCK & ASSOCIATES
Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63005
PH: (636) 550-9100
FAX: (636) 550-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

BEYOND SELF STORAGE AT CHESTERFIELD
17481 N. OUTER 40 ROAD
CITY OF CHESTERFIELD, MO



REVISIONS:

DRAWN BY: C.A.H.	CHECKED BY: G.M.S.
DATE: 7/15/2016	JOB NO: 216-5757
M.S.D. P.#: 1715	BASE MAP #: -
S.L.C. HAT #: -	HAT S.U.P. #: -
M.D.N.R. #: -	
SHEET TITLE: SITE PHOTOMETRIC PLAN	
SHEET NO.: C2.0	



Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

BEYOND SELF STORAGE AT CHESTERFIELD

17481 N. Outer Road, City of Chesterfield, Missouri

Revisions:

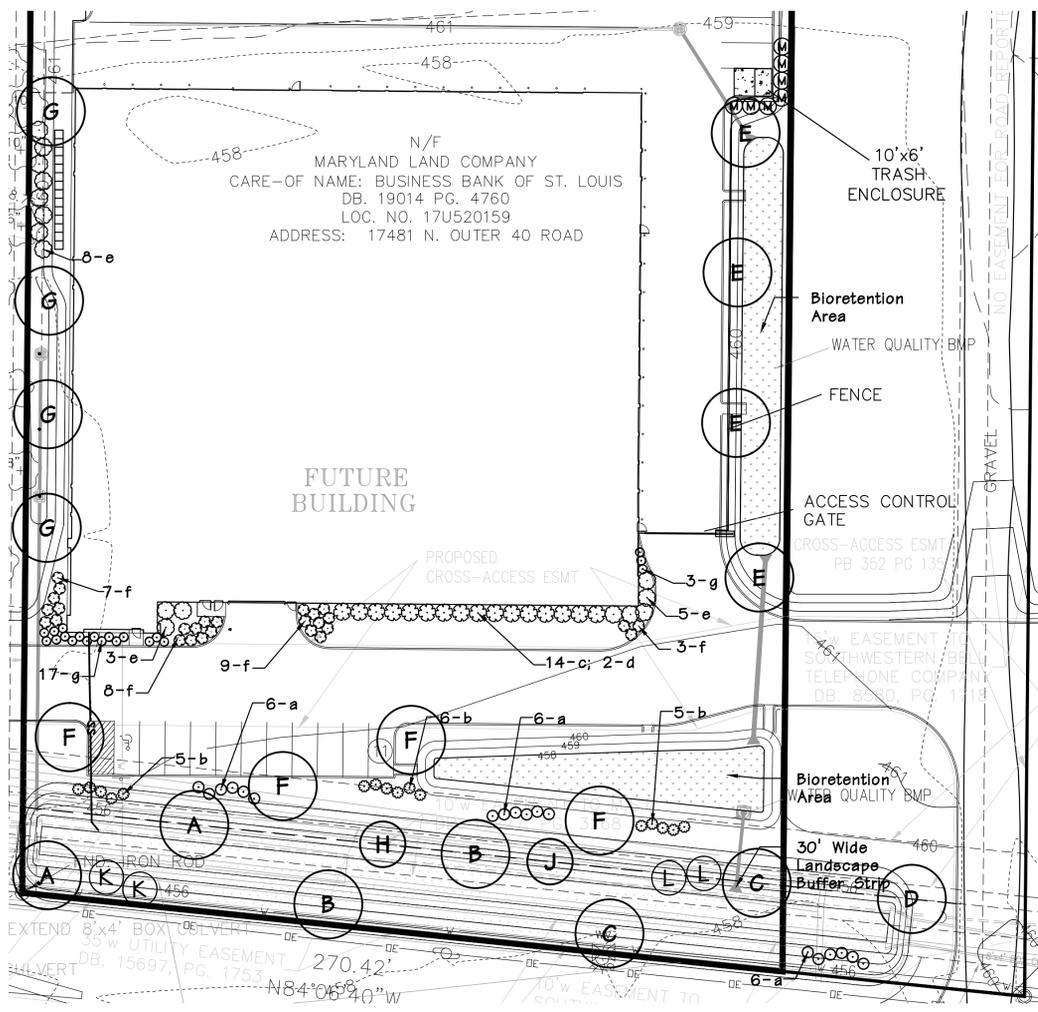
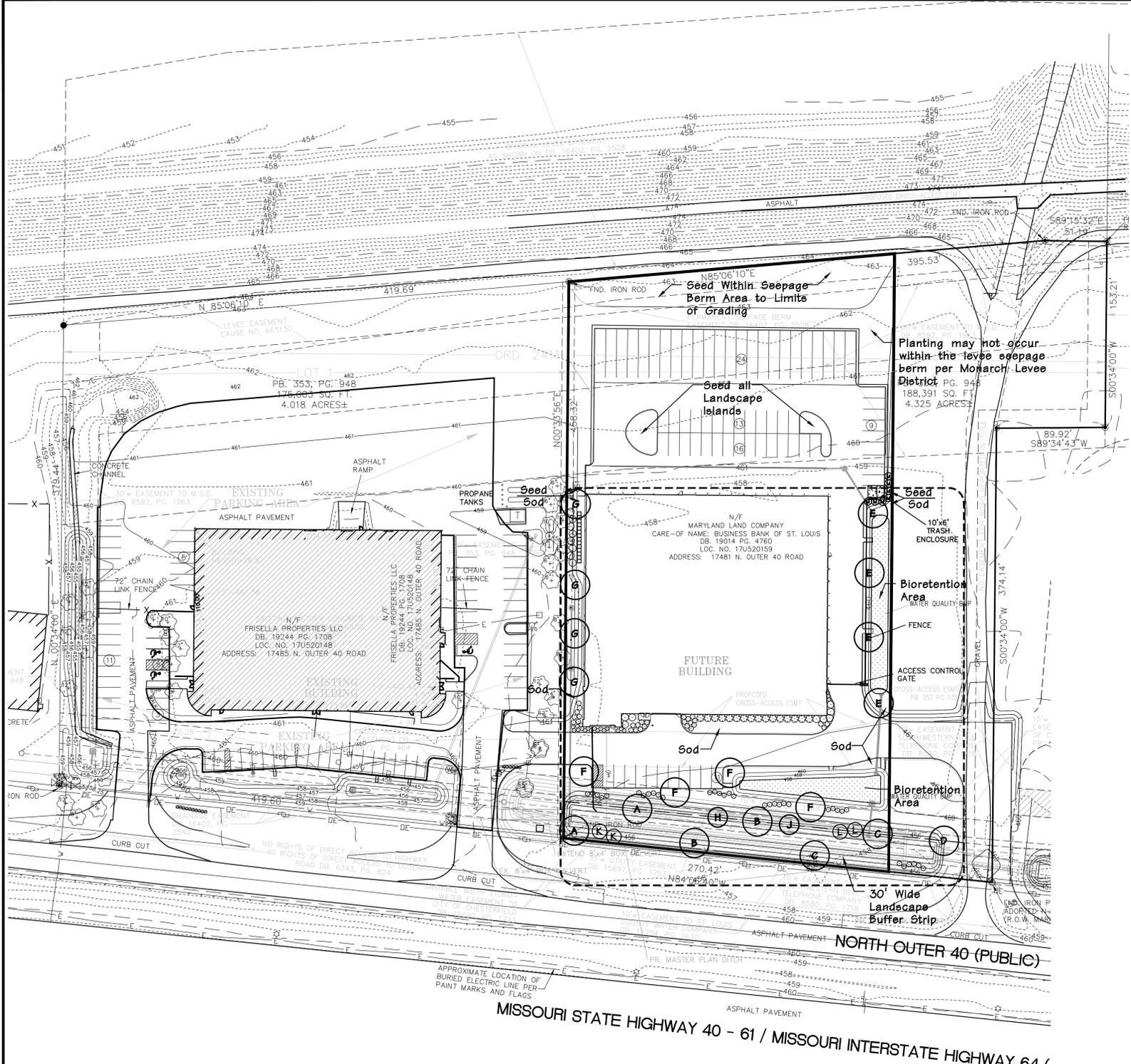
Date	Description	No.
5/25/16	City Comments	
6/13/16	City Comments	
7/27/16	Plan Changes	

Drawn: KP
Checked: RS

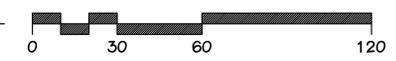
loomisAssociates
landscape architects/planners
707 Spirit-40 Park Drive, Suite 105
Chesterfield, Missouri 63005-1054
Tel: 636.888.8888
Email: info@loomis-associates.com

Loomis Associates, Inc.
Missouri State Certificate of Authority #: LAC #0000191

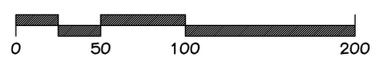
Sheet Title: Landscape Plan
Sheet No: L-1
Date: 4/29/16
Job #: 613.048



Partial Landscape Plan
SCALE 1"=30'



Landscape Plan
SCALE 1"=50'



Prepared For:
Client Name: Northpoint Development
Mark Pomeranke
Address: 5015 NW Canal Street, Suite 200
Riverside, MO 64150
Telephone Number: (816) 888-7391

Open Space = 34.93%

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

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHRUBS AND LARGE GRASSES					
c	14	Ilex x meserveae Blue Princess	Blue Princess Holly	5 gal	
d	2	Ilex x meserveae Blue Prince	Blue Prince Holly	5 gal	
e	16	Viburnum rhytidophyllum	Leatherleaf Viburnum	5 gal	
f	27	Weigela 'Minuet'	Minuet Weigela	5 gal	
g	10	Panicum 'Prairie Fire'	Prairie Fire Switch Grass	5 gal	

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	TYPE	GROWTH RATE/SIZE
TREES (STREET)							
A	2	Quercus rubra	Red Oak	2.5" cal	B&B	Deciduous	Medium - Fast / Large
B	2	Quercus shumardii	Shumard Oak	2.5" cal	B&B	Deciduous	Medium - Fast / Large
C	2	Quercus bicolor	Swamp White Oak	2.5" cal	B&B	Deciduous	Medium / Large
D	1	Quercus alba	White Oak	2.5" cal	B&B	Deciduous	Medium / Large
TREES (ONSITE AND BUFFER)							
E	4	Zelkova serrata 'Green Vase'	Green Vase Zelkova	2.5" cal	B&B	Deciduous	Fast / Large
F	4	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo (Male)	2.5" cal	B&B	Deciduous	Slow - Medium / Large
G	4	Taxodium distichum	Bald Cypress	2.5" cal	B&B	Deciduous	Medium / Large
H	1	Prunus sargentii 'Columnaris'	Columnar Sargent Cherry	2.5" cal	B&B	Ornamental	Medium / Medium
J	1	Amelanchier arborea	Downy Serviceberry	2.5" cal	B&B	Ornamental	Slow - Medium / Medium
K	2	Picea glauca	White Spruce	6' ht	B&B	Evergreen	Medium / Medium
L	2	Juniperus virginiana	Red Cedar	6' ht	B&B	Evergreen	Medium / Medium
M	7	Juniperus chinensis 'Keteleeri'	Keteleeri Juniper	6' ht	B&B	Evergreen	Medium / Medium
SHRUBS (BUFFER)							
a	16	Viburnum dentatum 'Chrietom'	Blue Muffin Arrowwood Viburnum	5 gal			
b	16	Viburnum carlesii 'Aurora'	Aurora Koreanspice Viburnum	5 gal			