VII. C.

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Phone: 636-537-4000 ● Fax 636-537-4798 ● www.chesterfield.mo.us

Planning Commission Staff Report

Project Type: Site Development Section Plan

Meeting Date: July 11, 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) SDSP:** A Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, Architect's Statement of Design, 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 a 108,900 square foot self-storage facility located on the north side of North Outer 40 Road, west of its intersection with Boone's Crossing. The subject site is zoned "PI" Planned Industrial District and is governed under the terms and conditions of the City of Chesterfield Ordinance Number 2411.

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.

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 subject site is zoned "PI" Planned Industrial District under the terms and conditions of City of Chesterfield Ordinance Number 2411. The ordinance requires compliance with the sky exposure plane, a minimum of 31% open space, and establishes setbacks for the development along the district boundaries (i.e. not on a parcel by parcel basis). Outdoor storage is permitted under Ordinance 2411 and the proposal shows a storage area situated to the north and east of the structure.

Circulation System and Access

As mentioned previously, the approved planned district ordinance and Site Development Concept Plan restrict the development to two access locations off North Outer 40 with cross access to developments to the east. This will allow internal movement between uses without necessitating access to North Outer 40 Road. The proposal is consistent with the ordinance and concept plan requirements for access. The site will have access on the western end of the site through an existing shared access drive with the property to the west (Metro Lighting). The easternmost access will be a new curb cut and will be shared in the future by the development to the east.

The majority of the storage units are accessed internally. The proposal does include units accessible from the exterior of the building on the eastern side of the building. Access to these units and the outdoor storage area will be restricted access with a gate on the east side of the site.

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. The applicant is requesting a modification to this parking requirement, and is proposing 22 public parking spaces in lieu of the 108 spaces required by code. Requests for parking reductions in excess of 20% require approval of the Planning Commission.

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. Under the current proposal, the 22 parking spaces will exceed the recommended parking for the 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 Beyond Self Storage proposal includes 22 public parking spaces, and 4 interior access parking spaces for loading purposes. These 26 spaces exceed the minimum parking suggested by the study.

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. The 22 spaces proposed would exceed the necessary parking as determined by the study.

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

Table 1. Minimum Parking Requirements

It should also be noted that the outdoor storage area is not included in the proposed parking as these areas will not be available for public parking.

Staff has reviewed the proposal and is supportive of the request for the modification to provide 22 parking spaces on the site.

Landscaping and Screening

The request includes landscaping required by the City of Chesterfield Tree Preservation and Landscape Requirements. This section requires a 30' landscape buffer along all collector or arterial roadways, which is proposed along North Outer 40 Road. The southern elevation will be planted with a mixture of shrubs along the entire frontage to soften the transition between building, turf, and pavement. Plantings along the east and west property boundaries provide screening from the adjacent parcels.

Plantings are not proposed to the north of the facility as plantings are not permitted within the seepage berm easement. This design is consistent with requirements from the Chesterfield Monarch Levee District and adjacent developments along North Outer 40.

The dumpster enclosure will match building materials and be screened by evergreens on the south and east sides. Building mechanical equipment is proposed to be located on the western side of the building. This equipment will be screened by additional landscaping.

Open Space

City of Chesterfield Ordinance 2411 requires a minimum of 31% open space. The proposal includes 34.9% open space throughout the site. Open space is generally proposed around the perimeter of the site with larger areas along the south frontage (along North Outer 40 Road) and north property line (adjacent to the levee). In addition to aesthetic benefits of the open space, the areas include a stormwater channel along the southern frontage of the site and connecting

existing stormwater facilities along the corridor. Water quality features are also included on the southern and eastern edges of the site.

Lighting

The plan proposes utilitarian lighting on all elevations. Lighting fixtures are proposed on areas of vertical brick projection, and above multiple entryways. The main southern access door will be lit via wall mounted fixtures located above the door for security and accessibility purposes. The parking area and outdoor storage area will be lit using fully shielded, flat lens luminaries. All proposed fixtures meet the requirements for building mounted wall lighting provided within the UDC.

Architectural Elevations

The proposed structure is a three story building constructed of brick, metal, aluminum, and glass. The southern elevation of the building will include brick wainscoting, and incorporates vertical projections of brick to accent the articulation of the main entry area of the structure.

The Architectural Review Board (ARB) reviewed the project at their June 9, 2016 meeting. The Board recommended approval of the project with the following recommendations:

1. *Increase the brick height to the southern elevation in line with the proposed man doors.*

In response to this recommendation, the applicant extended the brick wainscoting to the top of the entry doors along the southern elevation as recommended by ARB.

2. Extend the landscaping near the office of the southern portion of the west elevation.

The applicant has added additional shrubs along the requested portion of the structure. The proposal adds 7 Minuet Weigela and 17 Prairie Fire Switch Grasses. These plantings are also used on the southern portion of the east elevation to maintain a consistent mix of plantings along the frontage of the structure.

3. Relocate the front row of shrubbery near the front parking area as far north as possible in proximity with the parking lot with consideration of the bio-retention area being the constraining factor.

The Landscape Plan has been updated to address this request. Plantings that were proposed along the northern and southern portions of the Master Stormwater Channel have been relocated along the southern edge of the parking lot. The new location will assist in shielding glare from vehicle headlights while vehicles enter and exit the parking area.

STAFF RECOMMENDATION

Staff has reviewed the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, Architect's Statement of Design, 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 development of MPD Investments, Adjusted Lot 2 (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 Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, Architect's Statement of Design, and Parking Modification for MPD Investments, Adjusted Lot 2 (Beyond Self Storage at Chesterfield).

2) "I move to approve (or deny) the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, Architect's Statement of Design, and Parking Modification for MPD Investments, Adjusted Lot 2 (Beyond Self Storage at Chesterfield) with a recommendation for approval with the following conditions…"

Attachments: Site Development Section Plan
Lighting Plan
Landscape Plan
Architect's Statement of Design
Project Narrative
Architectural Elevations
Request for Parking Reduction

CC: Aimee Nassif

STOCK & ASSOCIATES
Consulting Engineers, Inc.

BEYOND SELF STORAGE AT CHESTERFIELD
17481 NORTH OUTER FORTY ROAD

PROJECT NARRATIVE

NorthPoint Development is highly interested in the Chesterfield, Missouri location for many reasons, including:

There is a relatively strong population base within the 5-mile trade area (80,000 residents and almost 30,000 households). Additionally, household incomes are double the state average ($64,201), and 2.5 times the state average within the immediate 3-mile trade area, which is a very positive market indicator.

There is 4.0 SF per capita of existing self-storage space within 5 miles of the Subject Property and only 3.1 SF per capita within a 7-mile radius, so **the surrounding area appears to be undersupplied relative to the St. Louis area (6.5 SF), the state of MO (10.4 SF), and the entire U.S. (7.35 SF)**. In addition to this lack of supply, most of the existing competition is older and antiquated. There are some units with climate control, but none could be considered to have Class A amenities. NorthPoint Development is focused on satisfying the perceived need and providing value to the community by bringing an attractive, modern self-storage facility to this market. The project site is located within the "Mixed Commercial Use" corridor which is bound by North Outer Forty Road between Boone's Crossing on the East and Long Road to the West. The site is abutted by Metro Lighting to the West. The Current Zoning is "PI" Ordinance # 2411 and per City letter dated 3/7/2016 "Self Storage Facility" is permitted.

Our prototype facility is vastly different from what many would envision if asked to describe self-storage. Self-storage began as a land use alternative, often in less desirable locations, and was often built as inexpensively as possible. We at NorthPoint are focusing on Class A facilities in strong urban and suburban markets because of the operational value that comes from being in a prime location with good drive-by traffic and great visibility. Our properties will boast outstanding professionals who have excellent management and organizational skills including sales, customer service, and marketing.

This facility will be state-of-the-art with modern amenities including climate control, high-tech security and access control systems, and self service automation. The building will include a drive-in loading and unloading area for the convenience and security of the customers.

Attractive materials will be utilized on the exterior of the building and architectural interest pieces such as glass curtain walls will be included to ensure an aesthetically pleasing structure.

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

This design is consistent with the “Chesterfield Valley Design Policies”, which include high-quality uniform materials and attractiveness of the building façade to I-64/US 40. Storage of vehicles will be located along the north side of building, facing the levee.

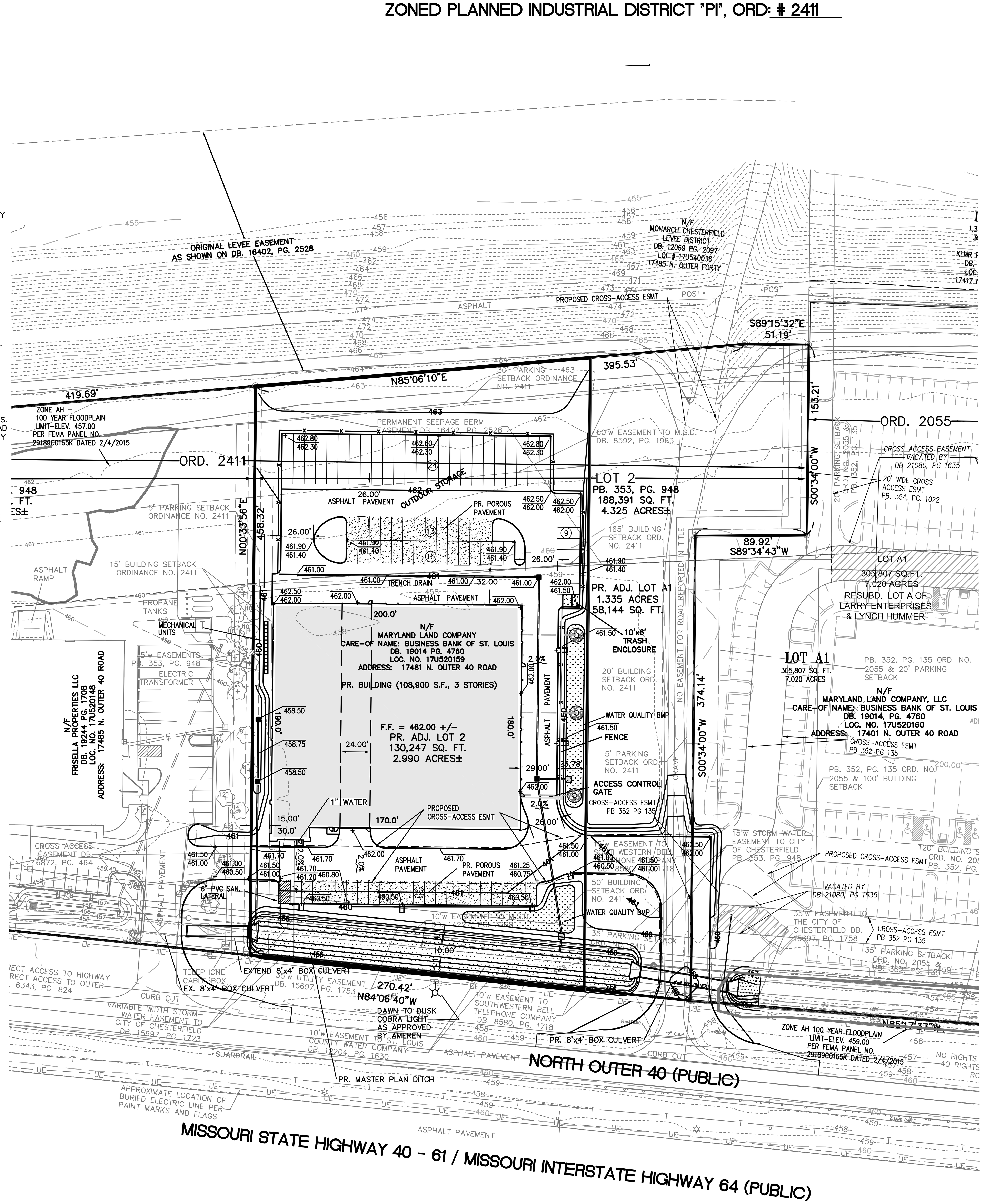
SITE DEVELOPMENT SECTION PLAN

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

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



GENERAL NOTES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.
2. 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.
3. NO GRADE SHALL EXCEED 3:1 SLOPE.
4. GRADING AND STORM WATER PER M.S.D., THE CITY OF CHESTERFIELD, MISSOURI, AND THE MONARCH LEVEE DISTRICT.
5. STORM WATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINTS.
6. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN APPROVAL IS A SEPARATE PROCESS.
7. WATER QUALITY FOR THE SITE WILL BE PROVIDED THROUGH A COMBINATION OF BIORETENTION AND POROUS PAVEMENT TO BE DESIGNED WITH THE IMPROVEMENT PLANS.
8. ALL UTILITIES WILL BE INSTALLED UNDERGROUND.

COUNTY NOTES:

1. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY STANDARDS.
2. NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
3. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
4. ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS SHALL MEET MINIMUM ST. LOUIS COUNTY SIGHT DISTANCE REQUIREMENTS.
5. ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
6. 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.
7. ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH ST. LOUIS COUNTY AND MSD STANDARDS.
8. 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.
9. 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.
10. 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
GUY WIRE
POWER POLE
WATER VALVE
DENOTES RECORD INFORMATION ( )
HANDICAPPED PARKING
PROPOSED CONTOUR 442
PROPOSED SPOT 442.25
PROPOSED STORM
PROPOSED SANITARY SS

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

STATE OF MISSOURI
KEVIN PATRICK DAUT
NUMBER PE-2012000742
PROFESSIONAL ENGINEER

PREPARED FOR:

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

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

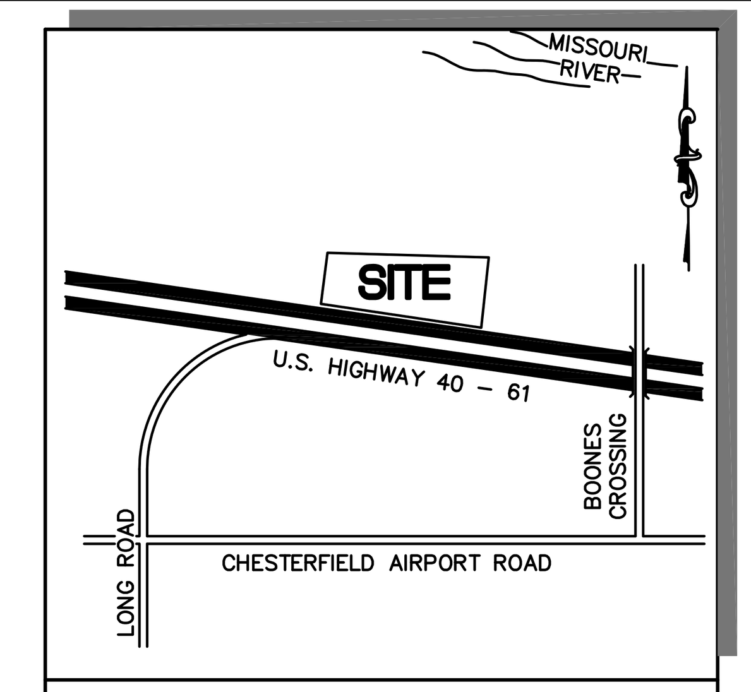
M.S.D. BENCHMARKS

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 extended 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 COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

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:	29189C0165K, FEB 4, 2015
ELECTRIC COMPANY:	AMEREN UE
GAS COMPANY:	LACLEDE GAS COMPANY
PHONE COMPANY:	AT&T
WATER COMPANY:	MISSOURI AMERICAN WATER COMPANY



LOCATION MAP
(NOT TO SCALE)

F.A.R. CALCULATION

	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

GREENSPACE:

REQUIRED: 31.0% PER ORDINANCE 2411
PROVIDED: 34.9% (45,640 SF/130,680 SF)

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.

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

PARKING:

REQUIRED: SELF STORAGE = 1.0/1000 GFA (MIN), 1.2/1000 GFA (MAX)

MINIMUM:

108,900 GFA @ 1.0/1000 = 109 SPACES

MAXIMUM:

108,900 GFA @ 1.2/1000 = 131 SPACES

TOTAL PROVIDED = 22 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 ________ OF ________ A CORPORATION IN THE STATE OF ________, AND THAT THE SEAL AFFIXED TO THE FORGOING 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 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 AT MY OFFICE IN ________, THE DAY AND YEAR LAST ABOVE WRITTEN.

____
NOTARY PUBLIC

____
PRINT NAME

MY COMMISSION EXPIRES: ________

This 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 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

PREPARED BY:
STOCK & ASSOCIATES Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63005
PH. (636) 530-9100
FAX (636) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

SITE DEVELOPMENT SECTION PLAN FOR:

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

STATE OF MISSOURI
GEORGE MICHAEL STOCK
NUMBER PE-25116
PROFESSIONAL ENGINEER
JUN 17 2016

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

REVISIONS:

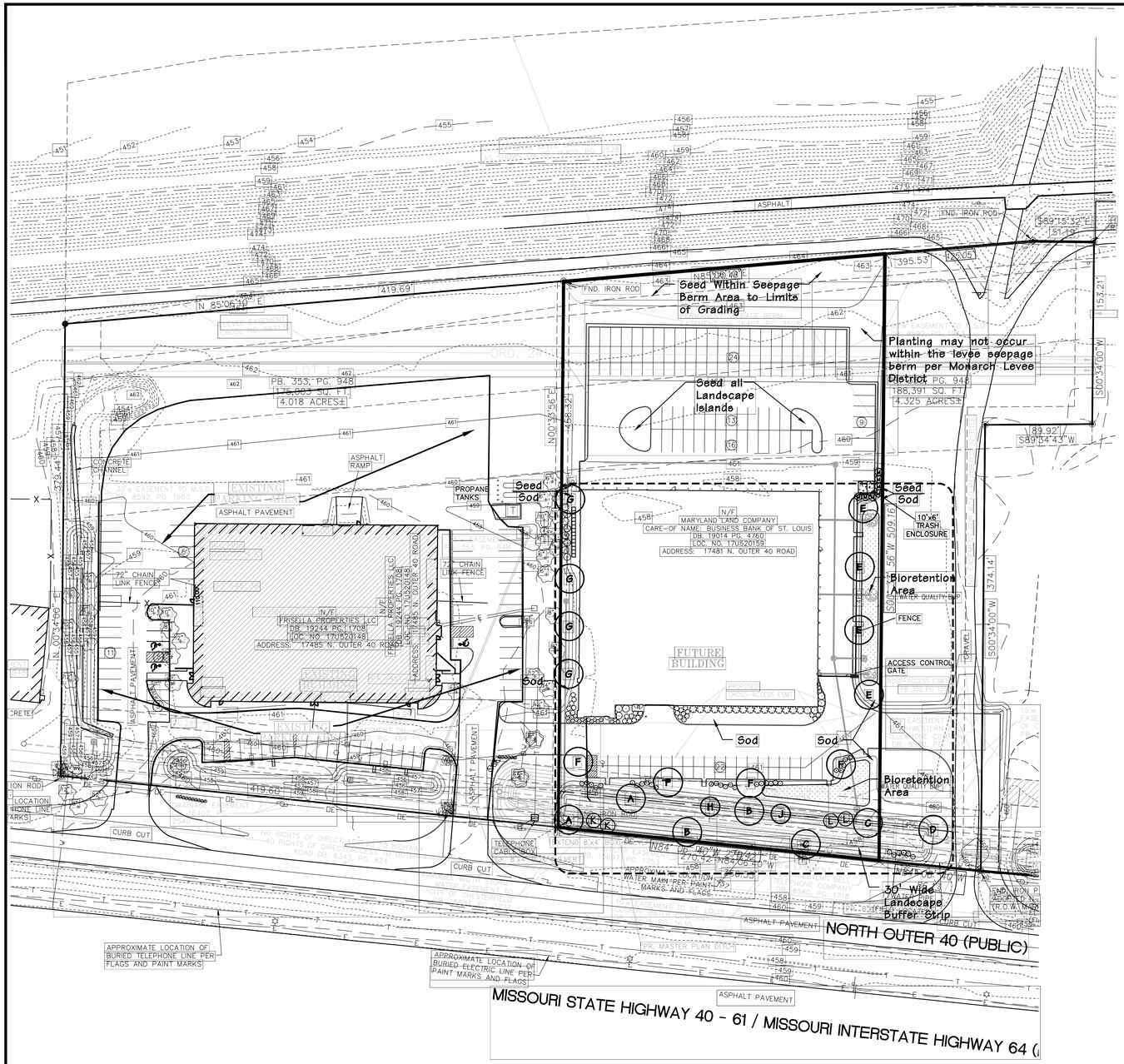
1	05/26/2016–REV PER CITY REV. 5/19/2016
2	06/17/2016–REV PER CITY REV. 6/10/2016

DRAWN BY: C.A.H.	CHECKED BY: G.M.S.
DATE: 4/29/2016	JOB NO: 216-5757
M.S.D. P #: –	BASE MAP #: 17U5
S.L.C. H&T #: –	H&T S.U.P. #: –
M.D.N.R. #: –	

SHEET TITLE:
SITE DEVELOPMENT SECTION PLAN

SHEET NO.: C1.0

DRAWING FILE: O:\DRAW5700\2165757\Section Plan\5757-ASDSP-Base -Current.dwg LAYOUT: SITE DEVELOPMENT SECTION PLAN PLOTTED: Jun 21, 2016 - 9:07am PLOTTED BY: charles.hulse



Landscape Plan

SCALE 1"=50'

0 50 100 200

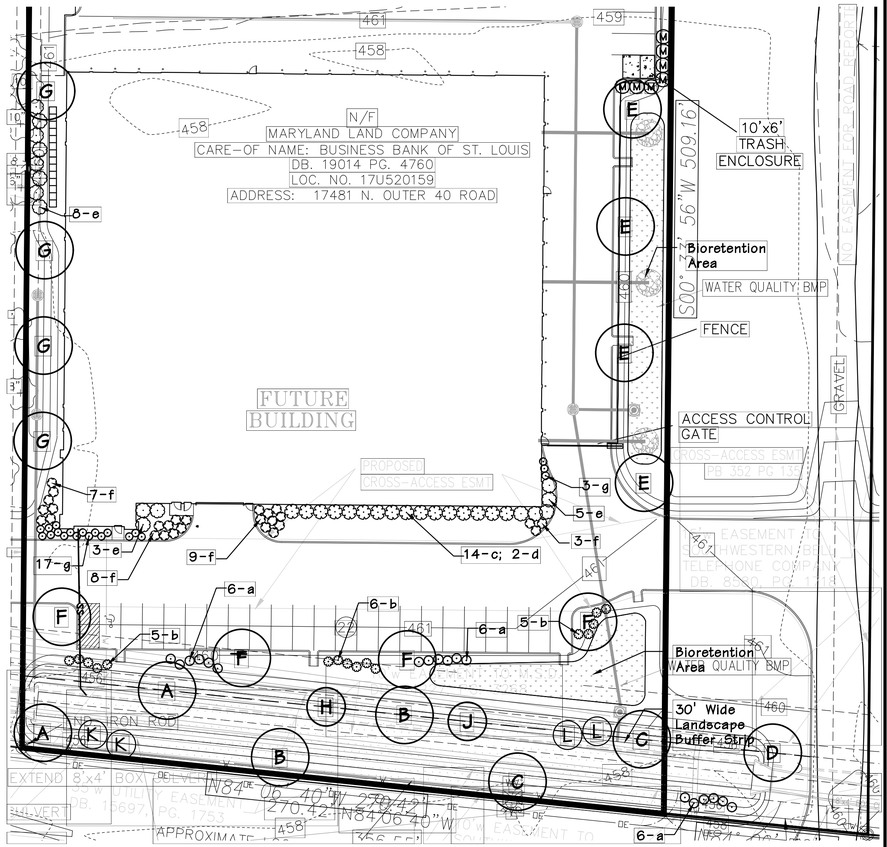
Prepared For:
Client Name: Northpoint Development
Mark Pomerenke
Address: 5015 NW Canal Street, Suite 200
Riverside, MO 64150
Telephone Number: (816) 888-7391

Open Space = 34.93%

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

PLANTING SCHEDULE

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	



Partial Landscape Plan

SCALE 1"=30'

0 30 60 120

PLANTING SCHEDULE

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 'Columnarie'	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	18	Viburnum dentatum 'Christom' Blue Muffin	Blue Muffin Arrowwood Viburnum	5 gal			
b	16	Viburnum carlesii 'Aurora'	Aurora Koreanspice Viburnum	5 gal			

STATE OF MISSOURI
JERROLD A. SAUNDERS
NUMBER LA-7
LANDSCAPE ARCHITECT
6/13/16

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	

Drawn: KP
Checked: RS

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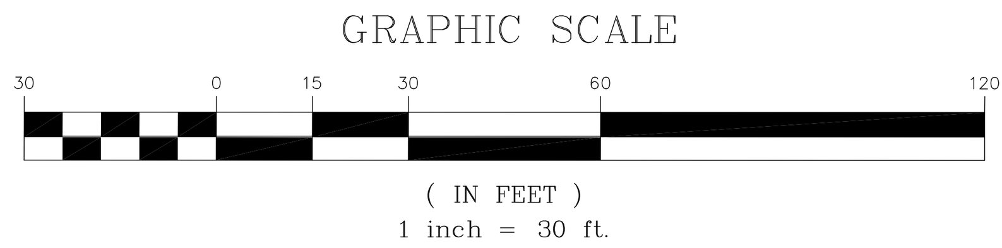
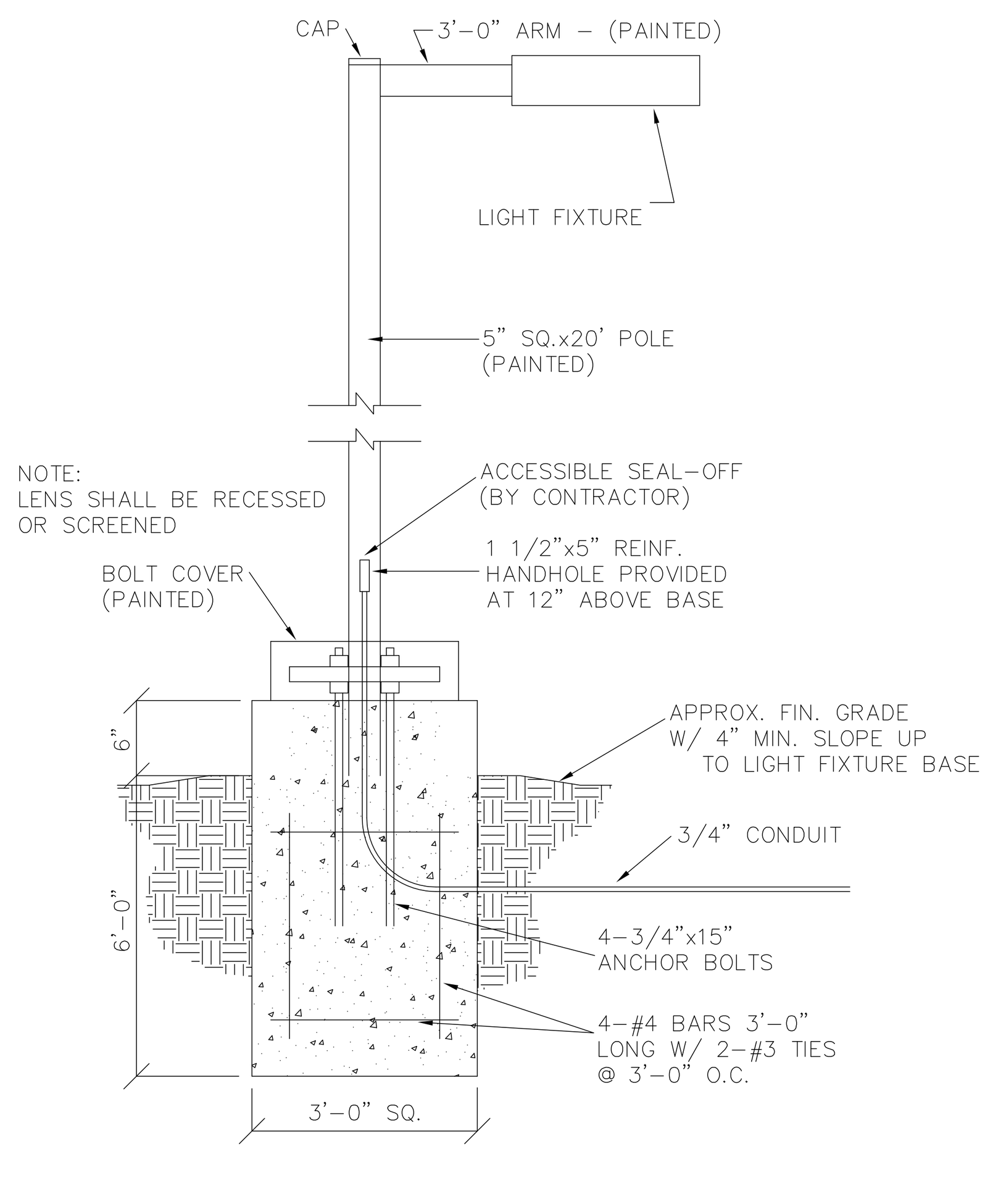
Loomis Associates Inc.
Missouri State Certificate of Authority #: LAC #000019

Sheet Title: Landscape Plan

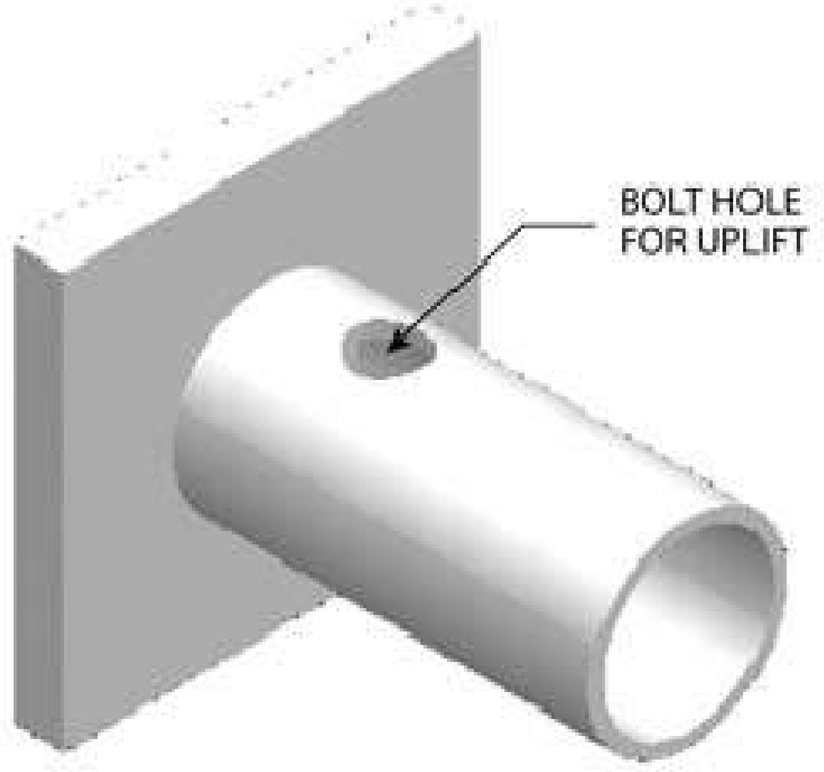
Sheet No: L-1

Date: 4/29/16
Job #: 813.048

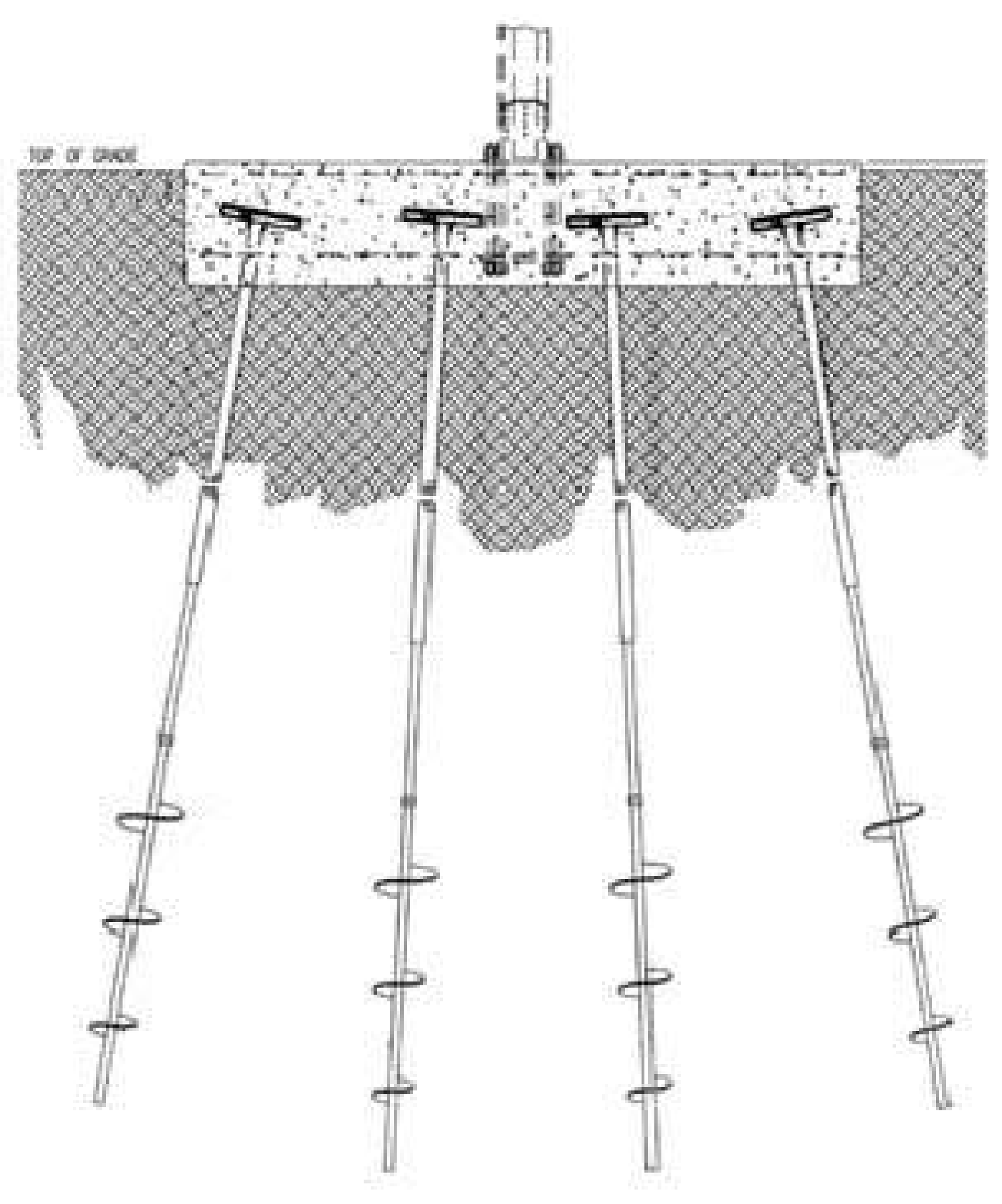




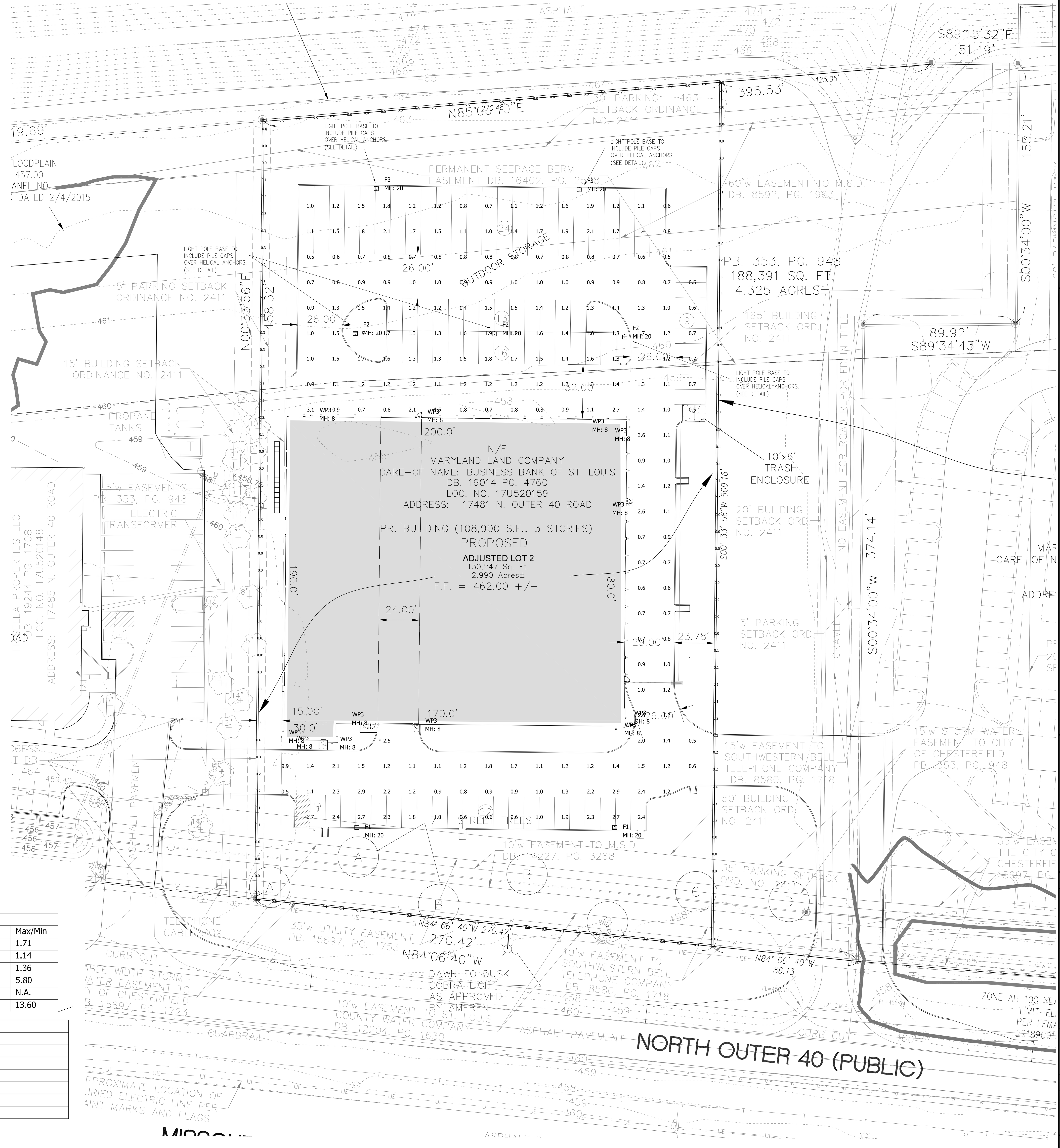
AREA LIGHT & POLE DETAIL
(n.t.s.)



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
	2	F1	SINGLE	107	214	1.000	GLEON-AE-02-LED-E1-T4FT
	3	F2	SINGLE	107	321	1.000	GLEON-AE-02-LED-E1-5WQ
	2	F3	SINGLE	56	112	1.000	GLEON-AE-01-LED-E1-SL2
	~~1~~	~~WP1~~	~~SINGLE~~	~~58.2~~	~~58.2~~	~~1.000~~	~~GWC-AE-01-LED-E1-T4FT~~
	~~2~~	~~WP2~~	~~SINGLE~~	~~31.3~~	~~62.6~~	~~1.000~~	~~GWC-AE-01-LED-E1-SL2-530~~
	12	WP3	SINGLE	7	84	1.000	XTOR1A

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St. Louis, MO 63005
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e-mail: general@stockassoc.com
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BEYOND SELF STORAGE AT CHESTERFIELD

17481 N. OUTER 40 ROAD
CITY OF CHESTERFIELD, MO

STATE OF MISSOURI
GEORGE MICHAEL STOCK
NUMBER PE-25116
PROFESSIONAL ENGINEER
JUN 17 2016

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

REVISIONS:

1. 05/26/2016–REV PER CITY REV. 5/19/2016
2. 06/17/2016–REV PER CITY REV. 6/10/2016

DRAWN BY: C.A.H.	CHECKED BY: G.M.S.
DATE: 4/29/2016	JOB NO: 216–5757
M.S.D. P #: –	BASE MAP #: 17U5
S.L.C. H&T #: –	H&T S.U.P. #: –
M.D.N.R. #:	

SHEET TITLE:
SITE PHOTOMETRIC PLAN

SHEET NO.:
C2.0

McGraw-Edison

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 6000K CCT and 3000K CCT.

Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated. QUICK MOUNT ARM: Arm is bolted directly to the pole and the fixture slides onto the quick mount arm and is secured via a single fastener, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

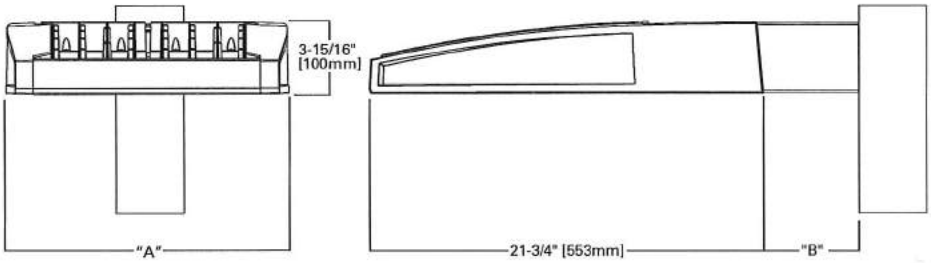
Warranty
Five-year warranty.

GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

DIMENSIONS



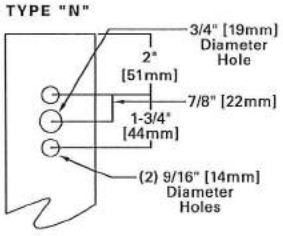
DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length [1]	Weight with Arm (lbs.)	EPA with Arm [2] (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. **2.** EPA calculated with optional arm length.

DRILLING PATTERN

TYPE "N"



CERTIFICATION DATA
UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium™ Qualified*

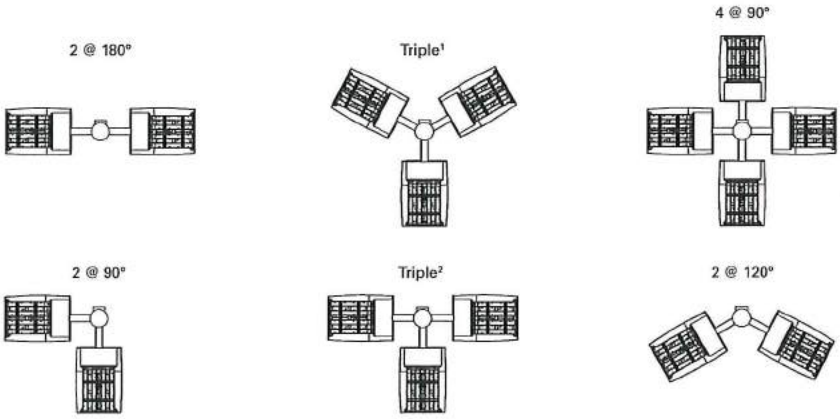
ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

EATON
Powering Business Worldwide

*www.designlights.org

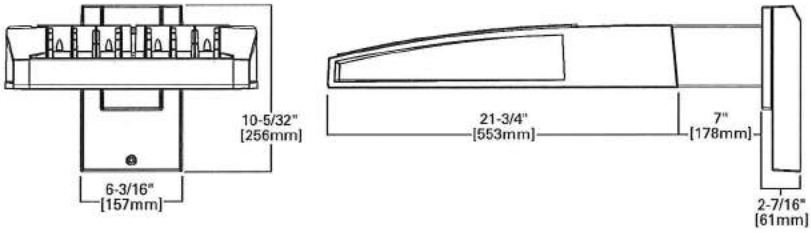
ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)

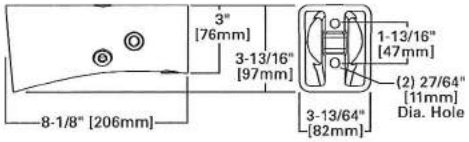


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°.

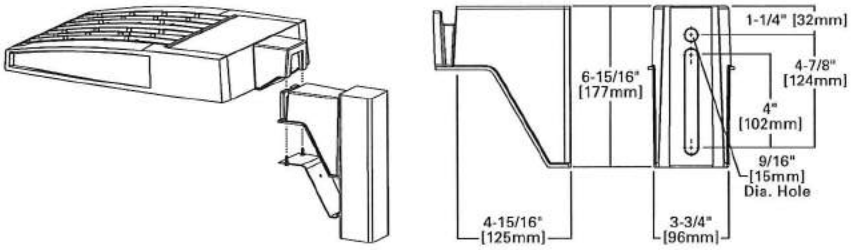
STANDARD WALL MOUNT



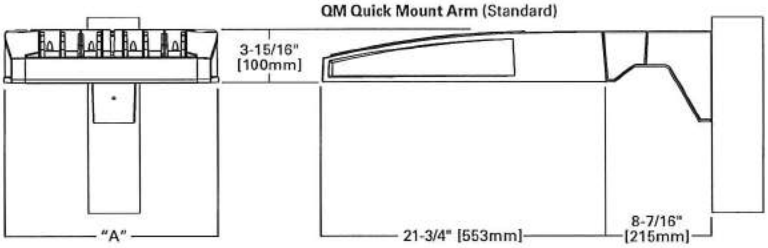
MAST ARM MOUNT



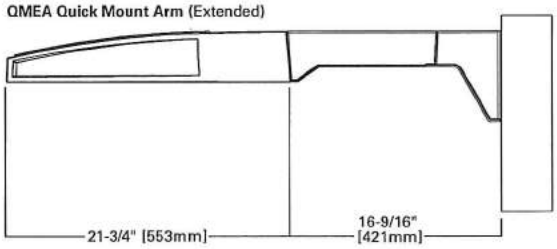
QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)



QM Quick Mount Arm (Standard)



QMEA Quick Mount Arm (Extended)

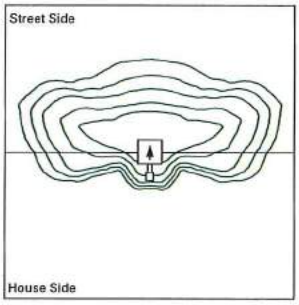


QUICK MOUNT ARM DATA

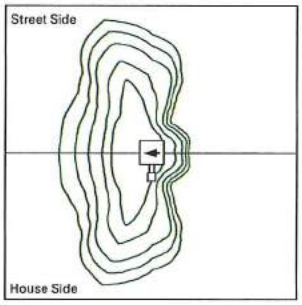
Number of Light Squares [1,2]	"A" Width	Weight with QM Arm (lbs.)	Weight with QMEA Arm (lbs.)	EPA (Sq. Ft.)
1-4	15-1/2" (394mm)	35 (15.91 kgs.)	38 (17.27 kgs.)	1.11
5-6 [3]	21-5/8" (549mm)	46 (20.91 kgs.)	49 (22.27 kgs.)	
7-8	27-5/8" (702mm)	56 (25.45 kgs.)	59 (26.82 kgs.)	

NOTES: 1 QM option available with 1-8 light square configurations. **2** QMEA option available with 1-6 light square configurations. **3** QMEA arm to be used when mounting two fixtures at 90° on a single pole.

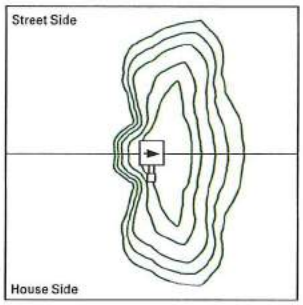
OPTIC ORIENTATION



Standard

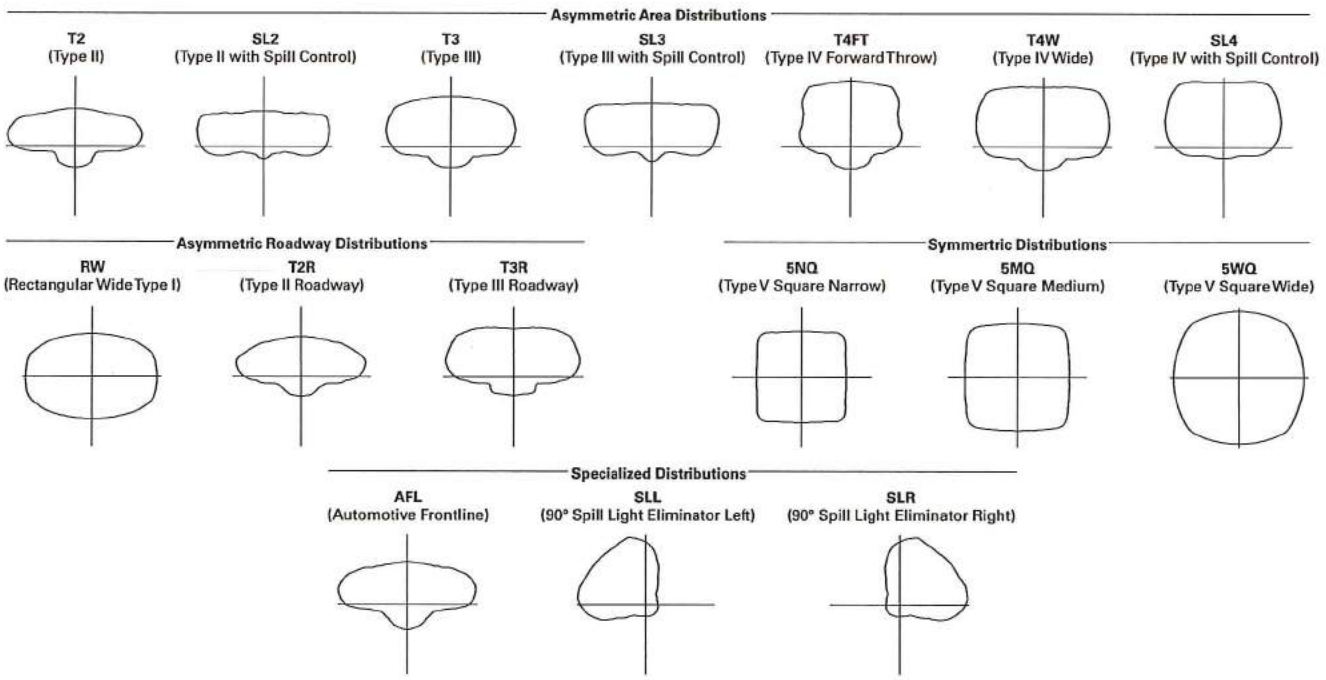


Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

OPTICAL DISTRIBUTIONS



NOMINAL POWER AND LUMENS (1A)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		1A	1A	1A	1A	1A	1A	1A	1A	1A	1A
Nominal Power (Watts)		56	107	157	213	264	315	370	421	475	528
Input Current @ 120V (A)		0.47	0.90	1.31	1.79	2.21	2.64	3.09	3.51	3.96	4.41
Input Current @ 208V (A)		0.28	0.51	0.74	1.02	1.25	1.48	1.76	1.99	2.22	2.50
Input Current @ 240V (A)		0.25	0.45	0.65	0.90	1.10	1.30	1.55	1.75	1.95	2.20
Input Current @ 277V (A)		0.23	0.41	0.59	0.82	1.00	1.18	1.41	1.59	1.77	2.00
Optics											
T2	Lumens	5,272	10,303	15,373	20,313	25,168	30,118	35,618	40,357	45,018	49,842
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T2R	Lumens	5,597	10,938	16,321	21,565	26,719	31,974	37,813	42,844	47,792	52,914
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5
T3	Lumens	5,374	10,501	15,669	20,704	25,652	30,697	36,303	41,134	45,884	50,802
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3R	Lumens	5,493	10,735	16,017	21,164	26,222	31,379	37,110	42,048	46,904	51,930
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4FT	Lumens	5,405	10,562	15,760	20,824	25,801	30,875	36,514	41,372	46,150	51,096
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	5,335	10,426	15,556	20,555	25,468	30,476	36,042	40,838	45,554	50,436
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	Lumens	5,263	10,285	15,347	20,278	25,124	30,066	35,556	40,288	44,940	49,756
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL3	Lumens	5,373	10,500	15,667	20,701	25,649	30,693	36,298	41,128	45,878	50,794
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL4	Lumens	5,105	9,976	14,886	19,669	24,370	29,163	34,488	39,078	43,591	48,262
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	Lumens	5,542	10,830	16,160	21,352	26,455	31,658	37,439	42,421	47,320	52,392
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
5MQ	Lumens	5,644	11,029	16,457	21,745	26,942	32,241	38,128	43,202	48,191	53,356
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
5WQ	Lumens	5,659	11,059	16,501	21,803	27,014	32,327	38,230	43,317	48,320	53,498
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	4,722	9,227	13,767	18,191	22,539	26,971	31,897	36,141	40,315	44,635
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	Lumens	5,492	10,732	16,014	21,159	26,216	31,372	37,101	42,038	46,893	51,918
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
AFL	Lumens	5,512	10,771	16,072	21,236	26,311	31,486	37,236	42,191	47,063	52,107
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

NOMINAL POWER AND LUMENS (700MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA
Nominal Power (Watts)		38	72	105	138	176	210	243	276	314	348
Input Current @ 120V (A)		0.32	0.59	0.86	1.14	1.45	1.72	2	2.28	2.58	2.86
Input Current @ 208V (A)		0.21	0.36	0.51	0.67	0.87	1.02	1.18	1.34	1.53	1.69
Input Current @ 240V (A)		0.19	0.32	0.45	0.59	0.77	0.90	1.04	1.18	1.35	1.49
Input Current @ 277V (A)		0.20	0.29	0.40	0.51	0.69	0.80	0.91	1.02	1.20	1.31
Optics											
T2	Lumens	3,854	7,531	11,237	14,847	18,395	22,013	26,033	29,497	32,904	36,430
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	Lumens	4,091	7,995	11,929	15,762	19,529	23,370	27,638	31,316	34,932	38,676
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	Lumens	3,928	7,676	11,453	15,133	18,750	22,437	26,534	30,065	33,537	37,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	Lumens	4,015	7,846	11,707	15,469	19,166	22,936	27,124	30,733	34,283	37,957
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	Lumens	3,951	7,720	11,519	15,221	18,858	22,567	26,688	30,240	33,732	37,347
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	3,900	7,620	11,370	15,024	18,615	22,276	26,343	29,849	33,296	36,864
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,847	7,518	11,217	14,821	18,364	21,975	25,988	29,447	32,847	36,368
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	Lumens	3,927	7,675	11,451	15,131	18,747	22,434	26,531	30,061	33,533	37,126
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,731	7,292	10,880	14,376	17,812	21,315	25,208	28,562	31,861	35,275
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	Lumens	4,051	7,916	11,811	15,606	19,336	23,139	27,365	31,006	34,587	38,294
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	Lumens	4,125	8,062	12,029	15,894	19,692	23,565	27,869	31,577	35,224	38,999
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,136	8,083	12,061	15,936	19,745	23,628	27,943	31,661	35,318	39,103
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	3,451	6,744	10,063	13,296	16,474	19,714	23,314	26,416	29,467	32,625
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	Lumens	4,014	7,844	11,704	15,465	19,162	22,930	27,118	30,726	34,274	37,948
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
AFL	Lumens	4,029	7,873	11,747	15,522	19,231	23,014	27,216	30,838	34,399	38,086
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

NOMINAL POWER AND LUMENS (530MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA
Nominal Power (Watts)		30	54	80	105	130	159	184	209	234	259
Input Current @ 120V (A)		0.25	0.45	0.66	0.86	1.07	1.32	1.52	1.72	1.93	2.14
Input Current @ 208V (A)		0.17	0.28	0.39	0.51	0.63	0.78	0.9	1.02	1.14	1.26
Input Current @ 240V (A)		0.17	0.25	0.35	0.45	0.55	0.70	0.80	0.90	1.00	1.10
Input Current @ 277V (A)		0.19	0.24	0.32	0.40	0.49	0.64	0.72	0.80	0.89	0.98
Optics											
T2	Lumens	3,079	6,017	8,978	11,862	14,697	17,588	20,800	23,567	26,289	29,106
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T2R	Lumens	3,269	6,388	9,531	12,593	15,603	18,672	22,082	25,020	27,909	30,900
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
T3	Lumens	3,138	6,133	9,150	12,091	14,980	17,926	21,200	24,021	26,795	29,667
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3R	Lumens	3,208	6,269	9,354	12,359	15,313	18,325	21,671	24,555	27,390	30,326
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T4FT	Lumens	3,156	6,168	9,203	12,161	15,067	18,030	21,323	24,160	26,950	29,839
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T4W	Lumens	3,116	6,088	9,084	12,004	14,872	17,797	21,047	23,848	26,602	29,453
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL2	Lumens	3,074	6,006	8,962	11,842	14,672	17,558	20,764	23,527	26,244	29,056
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,138	6,132	9,149	12,089	14,978	17,924	21,197	24,018	26,791	29,662
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	2,981	5,826	8,693	11,486	14,231	17,030	20,140	22,820	25,456	28,184
	BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5
5NQ	Lumens	3,236	6,324	9,437	12,469	15,449	18,487	21,863	24,773	27,634	30,595
	BUG Rating	B1-U0-G0	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2
5MQ	Lumens	3,296	6,441	9,610	12,698	15,733	18,828	22,266	25,229	28,142	31,158
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	3,305	6,458	9,636	12,732	15,775	18,878	22,325	25,296	28,217	31,241
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	2,757	5,388	8,040	10,623	13,162	15,751	18,627	21,105	23,543	26,066
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	3,207	6,267	9,351	12,356	15,309	18,320	21,666	24,549	27,384	30,319
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
AFL	Lumens	3,219	6,290	9,385	12,401	15,365	18,387	21,745	24,638	27,484	30,429
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family [1,2]	Light Engine	Number of Light Squares [3]	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	**AE**=1A Drive Current	**01**=1 **02**=2 **03**=3 **04**=4 **05**=5 **06**=6 **07**=7 [4] **08**=8 [4] **09**=9 [5] **10**=10 [5]	**LED**=Solid State Light Emitting Diodes	**E1**=(120-277V) **347**=347V [6] **480**=480V [6,7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [8] **MA**=Mast Arm Adapter [9] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [10] **QMEA**=Quick Mount Arm (Extended Length) [11]

Options (Add as Suffix)

2L=Two Circuits [12,13]
7030=70 CRI / 3000K [14]
8030=80 CRI / 3000K [15]
7050=70 CRI / 5000K [15]
7060=70 CRI / 6000K [14]
530=Drive Current Factory Set to 530mA [16]
700=Drive Current Factory Set to 700mA [16]
P=Button Type Photocontrol (120, 208, 240 or 277V)
PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle
R=NEMA Twistlock Photocontrol Receptacle
HA=50°C High Ambient [13,17]
MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [18,19,20,21,22]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [18,19,20,21,22]
MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [18,19,20,21]
MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) [18,19,20,21,25]
MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height [18,19,20,21,22,26]
MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height [18,19,20,21,23,26]
MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height [18,19,20,21,24,26]
MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) [18,19,20,21,25,26]
MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height [18,19,20,21,22]
MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [18,19,20,21,23]
MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [18,19,20,21,24]
MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) [18,19,20,25]
DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [27]
DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [27]
L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
MT=Factory Installed Mesh Top
TH=Tool-less Door Hardware
LCF=Light Square Trim Plate Painted to Match Housing [28]
HSS=Factory Installed House Side Shield [29]
CE=CE Marking [30]

Accessories (Order Separately)

OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V
OA/RA1027=NEMA Photocontrol - 480V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=120V Photocontrol
MA1252=10kV Surge Module Replacement
MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon
MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon
MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [31]
GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares
GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares
GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares
GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares
GLEON-QM=Quick Mount Arm Kit [10]
GLEON-QM-EA=Quick Mount Extended Length Arm Kit [11]
LS/HSS=Field Installed House Side Shield [29,32]

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Standard 4000K CCT and minimum 70 CRI.
4. Not compatible with extended quick mount arm (QMEA).
5. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
6. Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.
7. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
9. Factory installed.
10. Maximum 8 light squares.
11. Maximum 6 light squares.
12. 2L is not available with MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
13. Not available with LumaWatt wireless sensors.
14. Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
15. Extended lead times apply. For 8030, factor 7030 IES files x .92 (8% lumen loss). For 7050, use 7060 IES files.
16. 1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
17. 50°C lumen maintenance data applies to 530mA and 700mA drive currents.
18. Consult factory for more information.
19. Utilizes internal step-down transformer when 347V or 480V is selected.
20. The FSIR-100 accessory is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
21. Not available with HA option.
22. Approximately 22' detection diameter at 8' mounting height.
23. Approximately 40' detection diameter at 20' mounting height.
24. Approximately 60' detection diameter at 40' mounting height.
25. Approximately 100' detection diameter at 40' mounting height.
26. Replace X with number of light squares operating in low output mode.
27. LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
28. Not available with house side shield (HSS).
29. Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
30. CE is not available with the DIMRF, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only.
31. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
32. One required for each Light Square.

McGraw-Edison

DESCRIPTION

The Galleon™ wall and pedestrian LED luminaire's appearance is complementary with the Galleon area and site luminaire bringing a modern architectural style to lighting applications. Flexible mounting options accommodate wall surfaces, pole, and mast arm applications allowing it to be offered as a pedestrian or site lighting, solution. The Galleon family of LED products deliver exceptional performance with patented, high-efficiency AccuLED Optics™, providing uniform and energy conscious lighting for parking lots, building and security lighting applications.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Driver enclosure thermally isolated from optics for optimal thermal performance. Heavy wall aluminum housing die-cast with integral external heat sinks to provide superior structural rigidity and an IP66 rated housing. Overall construction passes a 1.5G vibration test to ensure mechanical integrity.

Optics
Choice of thirteen patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 6000K and 3000K CCT. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

Electrical
LED drivers are mounted for ease of maintenance. 120-277V 50/60Hz, 347V or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Drivers are provided standard with 0-10V dimming. An optional Eaton proprietary surge protection module is available and designed to withstand 10kV of transient line surge. The Galleon Wall LED luminaire is suitable for operation in -30°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option.

Mounting
In addition to wall mounting , the innovative quick mounting arm attaches to new or existing 4-5" round or square poles with 1-1/2" to 4-7/8" drilling patterns without re-drilling. Optional mast arm adapter fits horizontal 2-3/8" tenon.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

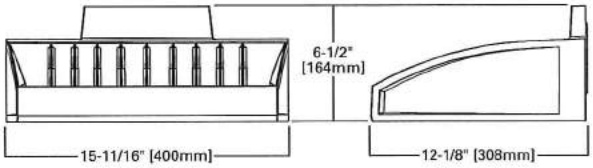
Warranty
Five-year warranty.

GWC GALLEON WALL AND PEDESTRIAN LUMINAIRE

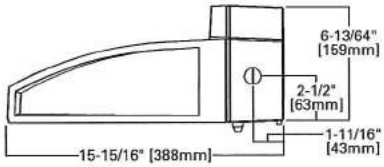
1-2 Light Squares
Solid State LED

WALL AND POLE MOUNT LUMINAIRE

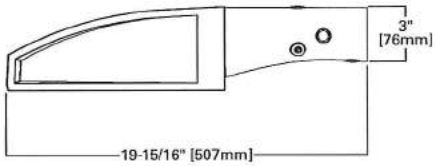
DIMENSIONS



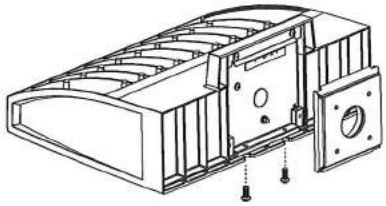
BATTERY BACKUP AND THRU-WIRE BACKBOX



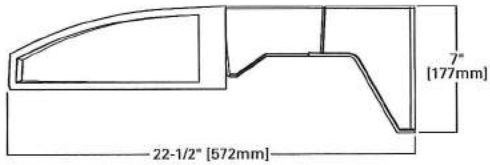
MAST ARM MOUNT



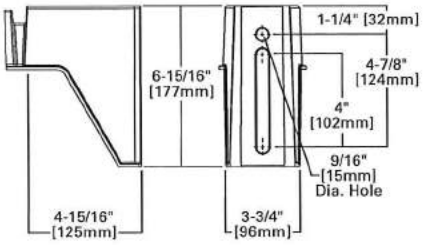
HOOK-N-LOCK MOUNTING



QUICK MOUNT ARM (OVERALL DIMENSIONS)



QUICK MOUNT ARM (POLE MOUNTING DETAILS)



CERTIFICATION DATA
UL/cUL Listed
LM79 / LM80 Compliant
IP66 Housing
ISO 9001
DesignLights Consortium™ Qualified*

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA
Approximate Net Weight:
27 lbs. (12.2 kgs.)

EATON
Powering Business Worldwide

*www.designlights.org

POWER AND LUMENS

Number of Light Squares		1			2		
Drive Current		530mA	700mA	1A	530mA	700mA	1A
Power (Watts)		29W	39W	56W	58W	77W	112W
Input Current @ 120V (mA)		270	350	510	490	650	960
Input Current @ 208V (mA)		160	210	300	280	380	560
Input Current @ 240V (mA)		140	180	260	250	330	480
Input Current @ 277V (mA)		120	160	230	210	280	420
Power (Watts)		36W	46W	68W	65W	83W	123W
Input Current @ 347V (mA)		110	140	200	190	240	360
Input Current @ 480V (mA)		320	410	580	550	700	1,040
Optics							
T2	Lumens	3,195	4,000	5,472	6,297	7,881	10,783
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2
T3	Lumens	3,228	4,041	5,528	6,362	7,963	10,894
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2
T4FT	Lumens	3,237	4,051	5,543	6,378	7,983	10,922
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2
T4W	Lumens	3,190	3,992	5,462	6,285	7,867	10,763
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2
5MQ	Lumens	3,405	4,262	5,831	6,710	8,398	11,490
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
5WQ	Lumens	3,455	4,324	5,917	6,809	8,522	11,659
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2
5NQ	Lumens	3,319	4,154	5,684	6,540	8,186	11,200
	BUG Rating	B2-U0-G0	B2-U0-G0	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1
SL2	Lumens	3,120	3,905	5,343	6,149	7,696	10,529
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2
SL3	Lumens	3,152	3,945	5,397	6,211	7,773	10,635
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
SL4	Lumens	3,037	3,801	5,200	5,984	7,490	10,247
	BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
SLL/SLR	Lumens	2,751	3,444	4,711	5,422	6,786	9,284
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
RW	Lumens	3,250	4,068	5,565	6,404	8,016	10,967
	BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

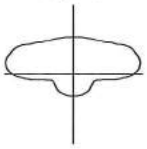
COLOR TEMPERATURE

Color Temperature (CCT)	Color Rendering Index (CRI)	Multiplier
3000	70	0.91
4000	70	1.00
5000	70	1.03
5700	70	1.03

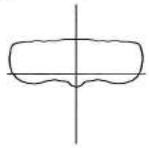
OPTICAL DISTRIBUTIONS

Asymmetric Area Distributions

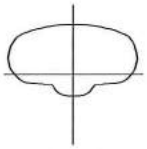
T2
(Type II)



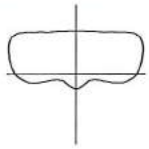
SL2
(Type II with Spill Control)



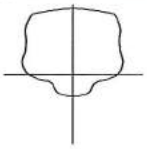
T3
(Type III)



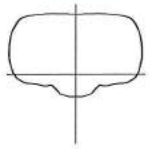
SL3
(Type III with Spill Control)



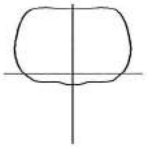
T4FT
(Type IV Forward Throw)



T4W
(Type IV Wide)

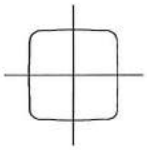


SL4
(Type IV with Spill Control)

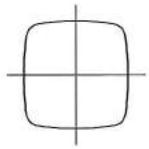


Symmertric Distributions

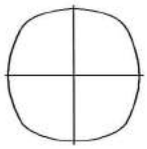
5NQ
(Type V Square Narrow)



5MQ
(Type V Square Medium)

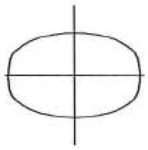


5WQ
(Type V Square Wide)

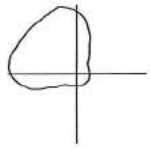


Specialized Distributions

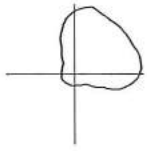
RW
(Rectangular Wide Type I)



SLL
(90° Spill Light Eliminator Left)



SLR
(90° Spill Light Eliminator Right)



ORDERING INFORMATION

Sample Number: GWC-AE-02-LED-E1-T3-GM

Product Family [1]	Light Engine	Number of Light Squares [2]	Lamp Type	Voltage	Distribution	Color	Mounting Options
GWC=Galleon Wall	**AE**=1A Drive Current	**01**=1 **02**=2 [3]	**LED**=Solid State Light Emitting Diodes	**E1**=120-277V **347**=347V [4] **480**=480V [4, 5]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Custom Color [6]	**MA**=2-3/8" Mast Arm [7, 8] **QM**=Quick Mount Arm for Round or Square Pole [7, 9]

Options (Add as Suffix)	Accessories (Order Separately)
530=Drive Current Factory Set to 530mA **700**=Drive Current Factory Set to 700mA **P**=Button Type Photocontrol (120, 208, 240 or 277V) **R**=NEMA Twistlock Photocontrol Receptacle **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [10, 11] **LCF**=Light Square Trim Plate Painted to Match Housing [13] **7030**=70 CRI / 3000K [14] **7050**=70 CRI / 5000K [14] **7060**=70 CRI / 6000K [14] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **DIMRF-LW**=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [15, 16] **DIMRF-LN**=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [15, 16] **MS-LXX**=Motion Sensor for On/Off Operation [17, 19] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [17, 18, 19] **DIM**=0-10V Dimming Drivers [10, 20] **HSS**=Factory Installed House Side Shield [21] **HA**=50°C High Ambient [22] **F**=Single Fused (120, 277 or 347V. Must Specify Voltage) **FF**=Double Fused (208, 240 or 480V. Must Specify Voltage) **10K**=10kV Surge Module **Dali**=Dali Driver [23] **CE**=CE Marking and Small Terminal Block [24] **MT**=Factory Installed Mesh Top	**OA/RA1013**=Photocontrol Shorting Cap **OA/RA1016**=NEMA Photocontrol - Multi-Tap 105-285V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1027**=NEMA Photocontrol - 480V **MA1252**=10kV Circuit Module Replacement **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [19]

NOTES:

1. DesignLight Consortium™ Qualied. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Standard 4000K CCT and minimum 70 CRI.
3. Two light squares with BBB or CWB options uses two drivers and limited to 25°C, 120-277V only.
4. Requires the use of a step down transformer.
5. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
6. Custom colors are available. Setup charges apply. Paint chip samples required. Extended Lead times apply.
7. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
8. Mast arm adapter factory installed (2-3/8" O.D. arm only). Suitable for 3G vibration.
9. Quick mount arm adapter is factory installed. Pole mouting bracked shipped in box. Suitable for 1.5G. Fits square and round pole up to 6" O.D.
10. Cannot be used with other control options.
11. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
12. Not available with HA option. Operates a single light square only. Cold weather option operates -20°C to +40°C, standard 0°C to +40°C. Backbox is non-IP rated.
13. Not available with HSS option.
14. Extended lead times apply. Use dedicated IES files when performing layouts.
15. LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
16. Bronze sensor is shipped with Bronze fixtures. White sensor shipped on all other housing color options.
17. Replace LXX with mounting height in feet for proper lens selection (e.g., L8=8' mounting height). L8, L20 and L40 are available options.
18. Includes integral photosensor.
19. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
20. Low voltage control lead brought out 18" outside fixture.
21. Only for use with SL2, SL3 and SL4 distributions. The light square trim plate is painted black when the HSS option is selected.
22. Not available with BBB and CWB options.
23. Only availble with BBB or CWB in single light square. HA option available for single light square only.
24. CE is not available with the DIMRF, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only.
25. Not available with SL-series distributions.

Coming soon

Options (Add as Suffix)
BBB=Battery Pack with Back Box [3, 10, 12] **CWB**=Cold Weather Battery Pack with Back Box [3, 10, 12] **UPL**=Uplight Housing (Not available with Back Box) [25]
Accessories (Order Separately)
MA1058XX=Thru-Branch Wiring Back Box (Must Specify Color)

Lumark

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaries provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 7W and 18W. The large housing is available in the 26W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical
Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaries are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical
LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 7W models operate in -40°C to 40°C [-40°F to 104°F]. 18W and 26W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 90% of initial light output after 72,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

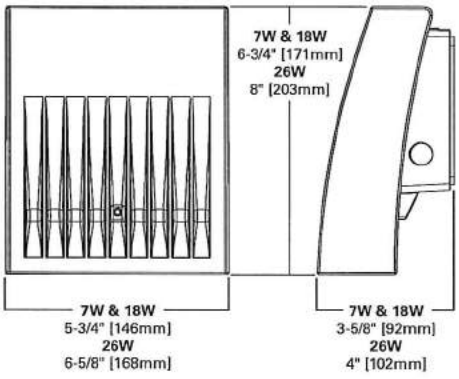
Finish
Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
Five-year warranty.

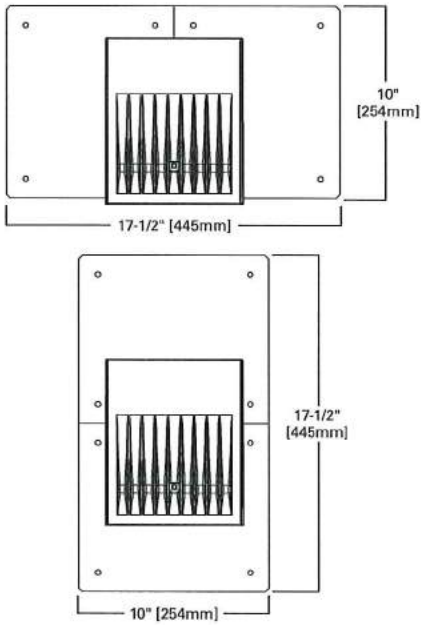
XTOR
CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1A/XT0R2A=0.34
XTOR3A=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

Powering Business Worldwide

*www.designlights.org

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	722	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) [1]	468	1,060	978	2,168	1,738
B.U.G. Rating [2]	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. **2** B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A

ORDERING INFORMATION

Sample Number: XTOR2A-N-WT-PC1

Series [1]	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W **XTOR2A**=Small Door, 18W **XTOR3A**=Small Door, 26W	**[Blank]**=Bright White (Standard) 5000K **N**=Neutral Warm White, 3500K [2]	**[Blank]**=Carbon Bronze (Standard) **WT**=Summit White	**PC1**=Photocontrol 120V [3] **PC2**=Photocontrol 208-277V [3,4] **347V**=347V [5] **HA**=50°C High Ambient [5]	**WG/XTOR**=Wire Guard [6] **XTORFLD-KNC**=Knuckle Floodlight Kit [7] **XTORFLD-TRN**=Trunnion Floodlight Kit [7] **XTORFLD-KNC-WT**=Knuckle Floodlight Kit, Summit White [7] **XTORFLD-TRN-WT**=Trunnion Floodlight Kit, Summit White [7] **EWP/XTOR**=Escutcheon Wall Plate, Carbon Bronze **EWP/XTOR-WT**=Escutcheon Wall Plate, Summit White

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. **2** XTOR1A not available in 3500K. **3** Photocontrols are factory installed. **4** Order PC2 for 347V models. **5** Thru-branch wiring not available with HA option or with 347V. **6** Wire guard for wall/surface mount. Not for use with floodlight kit accessory. **7** Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A=7W, 5000K, Carbon Bronze	XTOR2A=18W, 5000K, Carbon Bronze	XTOR3A=26W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	XTOR2A-N=18W, 3500K, Carbon Bronze	XTOR3A-N=26W, 3500K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT=18W, Summit White	XTOR3A-WT=26W, Summit White
	XTOR2A-PC1=18W, 120V PC, Carbon Bronze	XTOR3A-PC1=26W, 120V PC, Carbon Bronze

5-DAY QUICK SHIP ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A-WT-PC1=7W, 5000K, Summit White, 120V PC	XTOR2A-PC2=18W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2=26W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1=18W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1=26W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2=18W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2=26W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT=18W, 3500K, Summit White	XTOR3A-N-WT=26W, 3500K, Summit White
	XTOR2A-N-PC1=18W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1=26W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2=18W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2=26W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WHT-PC1=18W, 3500K, Summit White, 120V PC	XTOR3A-N-WHT-PC1=26W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2=18W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2=26W, 3500K, Summit White, 208-277V PC

Hernly ASSOCIATES, Inc.
ARCHITECTS
PRESERVATION CONSULTANTS
GRANT ADMINISTRATORS
1100 Rhode Island Street
Lawrence, KS 66044

May 20, 2016

City of Chesterfield
Planning and Development Services Division
690 Chesterfield Pkwy W
Chesterfield, MO 63017-0670

Project: Beyond Self Storage at Chesterfield
Location: 17481 North Outer 40 Road

ARCHITECT'S STATEMENT

The following statements address how each item in "Article 04: Development Requirements and Design Standards, Sec. 31-04-01 Architectural review design standards" has been addressed.

C) General requirements for site design.

1) Site relationships:
   a) This is a single phase project.
   b) The south (front) facade of the building is aligned almost exactly with the south (front) facade of the building on the lot directly west of the project site (Metro Lighting).
   c) Similar to that building, there is a drive across the front of the property and a single row of parking facing away from the building, and there is a larger parking area on the north side between the building and the Missouri River levee.
   d) There is a 30' wide landscape buffer strip along the front of the property that provides a transition from the street to the building.

2) Circulation system and access
   a) The proposed project is a self-storage facility, and this use is typically accessed by vehicular traffic transporting personal belongings.
   b) When a new renter comes to the site, they will proceed to the management office at the southwest corner of the building, where they can meet with management staff, or if after regular business hours, they can rent a unit from a self-service kiosk in the entrance vestibule. Parking for the management office is located directly across the drive aisle along the front of the property.
   c) If a renter has an outside access unit along the east or north side of the building, or if they have one of the outside storage spaces north of the building, they will proceed to their unit/space by going through the pass-code controlled gate at the south end of the drive along the east side of the building.
   d) If a renter has an inside access unit, they will drive into the through-building drive at the glass overhead door located in the south façade adjacent to the management office. There are hallways to access interior units on the first story, and there are two elevators and hallways to access interior units on the second and third story. When leaving, they will continue straight through the building, exiting at the overhead door

in the north façade, and proceed to the east drive where they will leave through the pass-controlled gate at the southeast corner of the building.

3) Topography
   a) There is very little topographic change on the site, approximately 3' of grade change down from the north property line to south property line. Landscaping elements will be used for screening, buffering, and transitions.
   b) The middle area of the site is low and will be filled to raise the finished floor elevation to nearly match the finished floor elevation of the building directly adjacent to the west (Metro Lighting). The paved areas will be raised and graded to slope appropriately to on-site storm inlets and then to the on-site "water quality BMP" areas.
   c) Cut and fill areas will be graded and rounded both horizontally and vertically.

4) No retaining walls are proposed for the project.

D) General requirements for building design.
   1) Scale
      a) Building Scale: This is a three story building with a single slope roof to the north and parapet walls on the west, south, and east sides. The top of the parapet walls are mostly 39' above the finished floor; the parapet at the southwest corner management office area is 44'. The adjacent building directly west (Metro Lighting) is a single story with a parapet height of approximately 24', except at the front south centered entrance, which is approximately 30' tall. Provided with this submittal are renderings of the proposed building placed into photos of the site. These demonstrate that, while this building is taller than its direct westerly neighbor, it is compatible with it by incorporating at stepped parapet that accentuates the primary building entrance.
      b) Human Scale: A horizontal brick wainscot is incorporated along the south (front) façade where pedestrians will park and approach the office entrance. This helps create a sense of human scale for the primary pedestrian area of the site.
      c) Generic Scale: The adjacent building directly west has a mostly horizontal emphasis in design features, with a vertical emphasis at the southeast and southwest corners, and at the centered south entrance. Our proposed building also has a horizontal emphasis in design features, with a brick wainscot across the front, and two horizontal trim bands, the higher of which is approximately the same height as the adjacent building's parapet top. We have also incorporated vertical emphasis at the building corners and the primary entrance with brick detailing, and at points along the building's façade using contrasting trim and wall panel materials.

   2) Design
      a) All four facades of the building are coordinated with similar colors, materials, and patterning. The north façade, facing the levee, is not as articulated as the other three primary facades, but it does continue the horizontal banding.
      b) The front, streetscape façade, is asymmetrically designed, and utilizes horizontal and vertical elements to create a rhythm and pattern that highlights the primary building entrance.
      c) The building is not using a corporate or franchise design.
      d) Brick is utilized low along the street facing façade to add a pedestrian oriented building detail.
      e) The southwest corner is designed as an artistic feature of the building. It incorporates large glass storefront on two sides with brick corner columns and parapet. It

references the taller glass portion of the building east of the site (Heavy Duty Equipment) and the rounded glass-tile corner of adjacent the adjacent building to the west (Metro Lighting). On the front (south) side of the building will be the "Beyond Self Storage of Chesterfield" sign, which incorporates a stylized box logo with an orange highlight. While acting as a business identification sign, it also provides an artistic element to the elevation and will be an internally illuminated sign. It's specific design and approval will be reviewed through a separate process as required by the UDC.

f) The building utilizes a very efficient insulated wall panel system. The glass overhead doors at the drive-through bay will allow natural light into the primary loading/unloading area.
g) The structural system for the building is specifically designed to reduce the amount of steel required. There are few structural spans over 10' in length, and the load-bearing stacked wall system maximizes the structural efficiency of the steel and concrete floor system.
h) Entry to the building primarily occurs in a vehicle. The overhead doors will be operated by control pads; drivers do not have to exit their vehicles to access the control pads. The main entrance storefront to the office area is slightly recessed from the surrounding brick.
i) There are no temporary walls included in the project.
j) There will be no rooftop equipment on the building; ground mount HVAC units on the west side of the building will be screened with landscaping. The parapet walls on the west, south, and east create a unified visual building height by concealing the .25":12: single sloped roof (low eave on north side). The taller parapet at the southwest corner identifies the office area and new-customer entrance. The parapets are an integral part of the architectural design.

3) The colors used on the building consist of three grey tones, brick, and glass. The body of the building is a medium grey tone, similar to the body of the adjacent building to the west (Metro Lighting). The lighter grey trim color is similar to the color of entrance surround feature of that building. The brick color is similar to the building further east of the site (Heavy Duty Equipment). The storefront color, and use of large glass areas around the entry, is similar to that building.

4) Landscaping design and screening
   a) A combination of trees and shrubs are used along the west, south, and east sides of the building to provide buffering between the building and the street and between the drives and the building. As the four deciduous trees on the east, four on the west, and 10 along the front mature, the building will be surrounded by a canopy of green for eight months out of the year. Plantings along the building foundation on the front, help soften the transition from driveway to building.
   b) A security fence will be used along the east, north, and northwest portions of the site to enclose the north parking area and east driveway area. This will be a 6' tall chainlink fence with black mesh screening.
   c) A dumpster will be located northeast of the building and screened with a 6' tall metal panel fence that matches the finish of the medium gray smooth metal panel on the building, and which has a black steel picket gate that matches the driveway entrance gate.

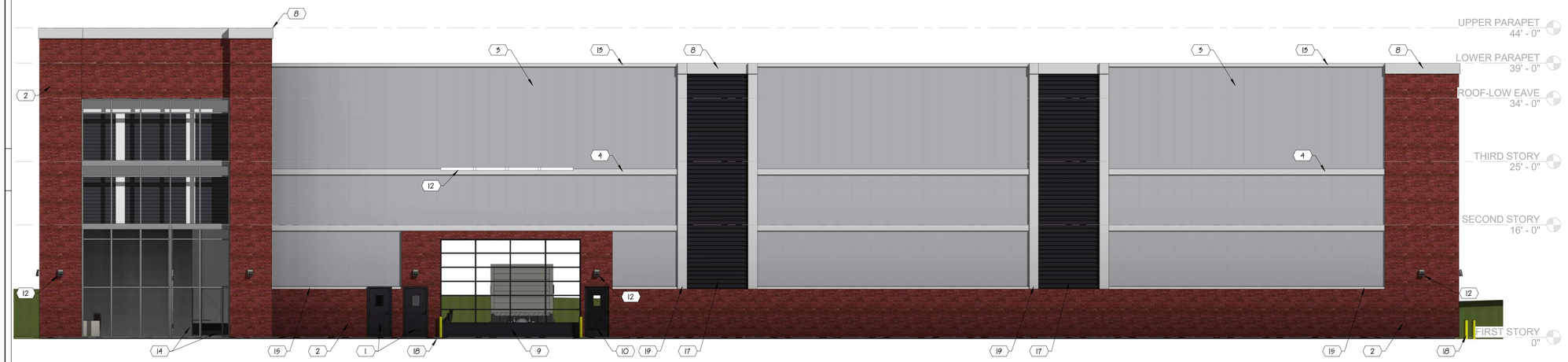
5) Signage: Signs will adhere to the Unified Development Code.

6) Lighting: Site and building lighting will adhere to the UDC.

E) Specific requirements for the Chesterfield Valley
   1) Facades
      a) Architectural elements from the front façade are utilized on the sides and rear.
      b) Accent lighting is utilized for the building.
      c) The dumpster will be screened with a 6' tall metal fence that matches the building.
   2) Storage
      a) Outdoor storage on the north side of the building is screened from I-64 by the building itself.
   3) Utilities
      a) All utilities will be underground.
   4) Parking
      a) Parking is located primarily on the north side of the building, away from I-64. Some parking is located along North Outer 40, similar to other buildings in the direct vicinity.
      b) All loading areas are either within the building, or behind the security fence enclosing the east and north portion of the site.

MATERIAL NOTES KEY	
1.	EXTERIOR DOOR: EXTERIOR METAL DOOR W/ VIEW GLASS.
2.	EXTERIOR BRICK: NON-UNIFORM RUNNING RED.
3.	VERTICAL PANEL: 42" WIDE INSULATED ARCHITECTURAL METAL PANEL. GRAY.
4.	HORIZONTAL TRIM: 10" METAL TRIM. LIGHT GRAY.
5.	EXTERIOR UNIT DOOR: 8'-8" X 6'-6" INSULATED COILING DOOR. DARK GRAY.
6.	GUTTER/ DOWNSPOUT: CLEAR ALUMINUM.
7.	WINDOW: EXTERIOR GLAZING. CLEAR ALUMINUM.
8.	HORIZONTAL TRIM: 18" METAL TRIM. LIGHT GRAY.
9.	EXTERIOR DRIVE-THRU DOOR: 20'W x 14'H INSULATED SECTIONAL DOOR W/ GLAZING. DARK GRAY.
10.	EXTERIOR DOOR: EXTERIOR GLAZING. DARK GRAY.
11.	ROOF: MR-24 INSULATED ROOF.
12.	EXTERIOR WALL LIGHT.
15.	HORIZONTAL TRIM: 6" METAL TRIM. LIGHT GRAY.
14.	STOREFRONT SYSTEM: STOREFRONT GLAZING W/ DOOR. CLEAR ALUMINUM.
15.	CAP STONE: BRICK CAP STONE TRIM. LIGHT GRAY.
16.	HVAC UNITS: SCREENED BY ADJACENT PROPERTY'S TREES.
17.	HORIZONTAL PANEL: 30" INSULATED METAL RIBBED PANEL. DARK GRAY.
18.	BOLLARD: 8" CONCRETE BOLLARD. YELLOW.
19.	VERTICAL PANEL: 30" INSULATED METAL PANEL. LIGHT GRAY.
20.	VERTICAL PANEL: 42" WIDE INSULATED ARCHITECTURAL METAL PANEL INSTALLED ON BACK SIDE OF BRICK. GRAY.

1 NORTH ELEVATION
1/8" = 1'-0"



2 SOUTH ELEVATION
1/8" = 1'-0"

BEYOND SELF STORAGE AT CHESTERFIELD

17481 NORTH OUTER 40 RD
CHESTERFIELD, MO

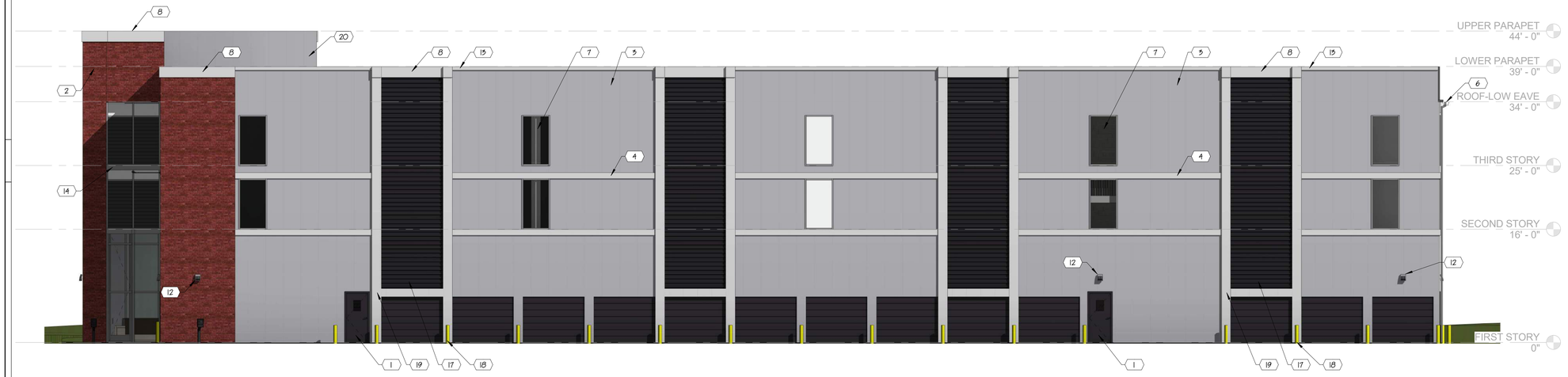
Hernly ASSOCIATES, Inc
ARCHITECTS
PRESERVATION CONSULTANTS
GRANT ADMINISTRATORS

920 Massachusetts
Lawrence, Kansas
66044
785 - 749 - 5806
FAX 785 - 749 - 1515

EXTERIOR ELEVATIONS

Date: 05/20/16
Drawn by : J.RUBIO
Checked by : S.HERNLY
Revisions :

A104



MATERIAL NOTES A102	
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8.	HORIZONTAL TRIM: 18" METAL TRIM. LIGHT GRAY.
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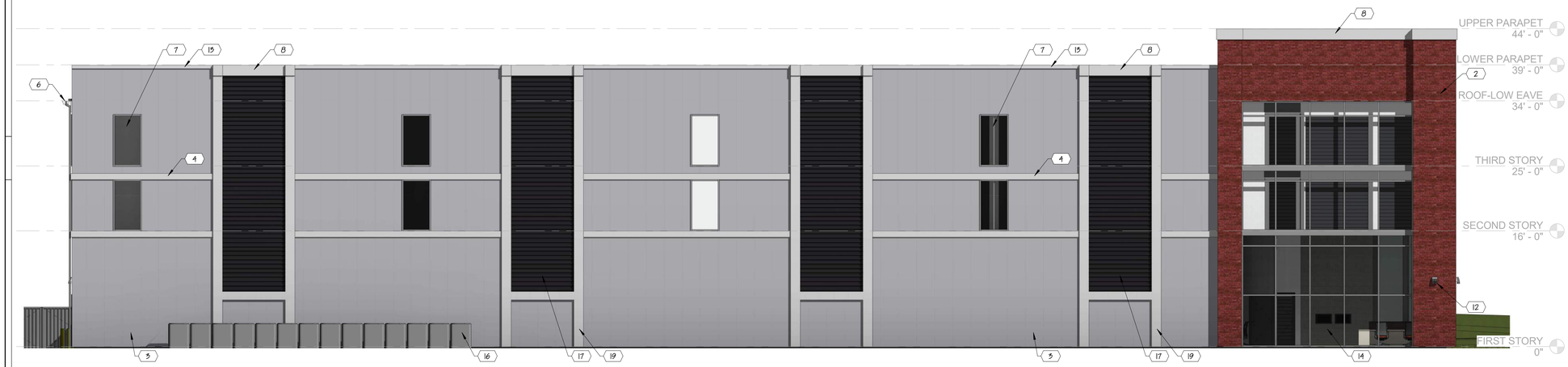
1 EAST ELEVATION
1/8" = 1'-0"



2 WEST ELEVATION
1/8" = 1'-0"

BEYOND SELF STORAGE AT CHESTERFIELD

17481 NORTH OUTER 40 RD
CHESTERFIELD, MO

Hernly ASSOCIATES, Inc
ARCHITECTS
PRESERVATION CONSULTANTS
GRANT ADMINISTRATORS

920 Massachusetts
Lawrence, Kansas
66044
785 - 749 - 5806
FAX 785 - 749 - 1515

EXTERIOR ELEVATIONS

Date: 05/20/16
Drawn by : J.RUBIO
Checked by : S.HERNLY
Revisions :

A105

STOCK & ASSOCIATES
Consulting Engineers, Inc.

Dated: April 29, 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).

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

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 22 surface parking spaces along the South and 4 interior loading/unloading spaces on the East side of the building. Therefore, the proposed facility would include 236% 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 22 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 0.20 spaces/1,000 s.f. (gross building), which would satisfy the Owner's parking needs as previously described.

As always, we greatly appreciate your cooperation.

Sincerely,

George M. Stock, P.E.,
President

STATE OF MISSOURI
GEORGE MICHAEL STOCK
NUMBER PE-25116
PROFESSIONAL ENGINEER

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*	
Hour Beginning	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

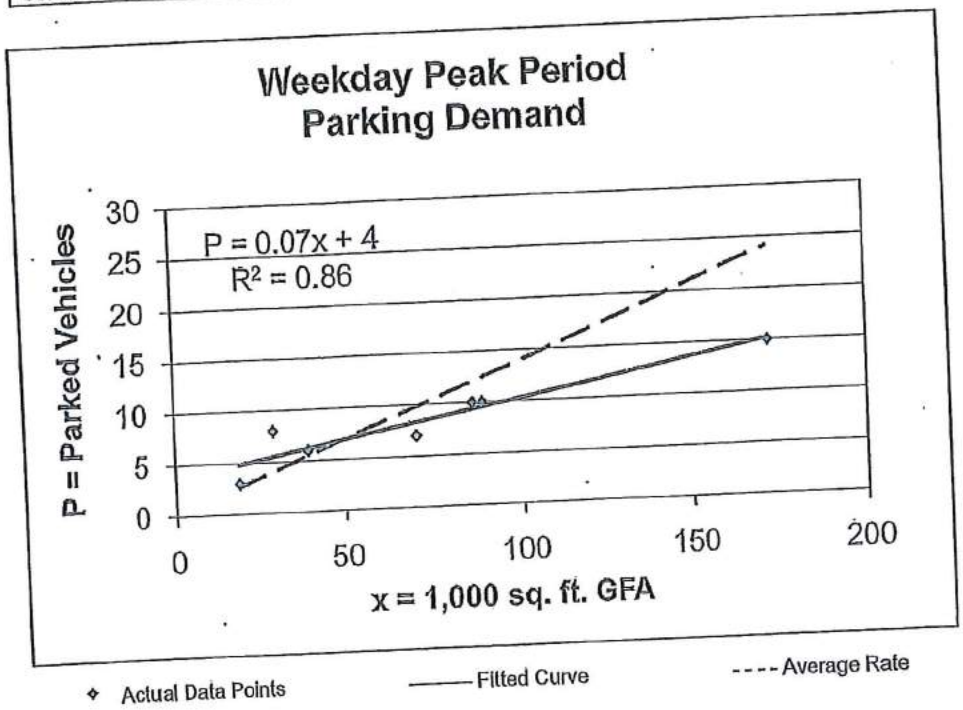
1115

(2)

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.; 4:00–5:00 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

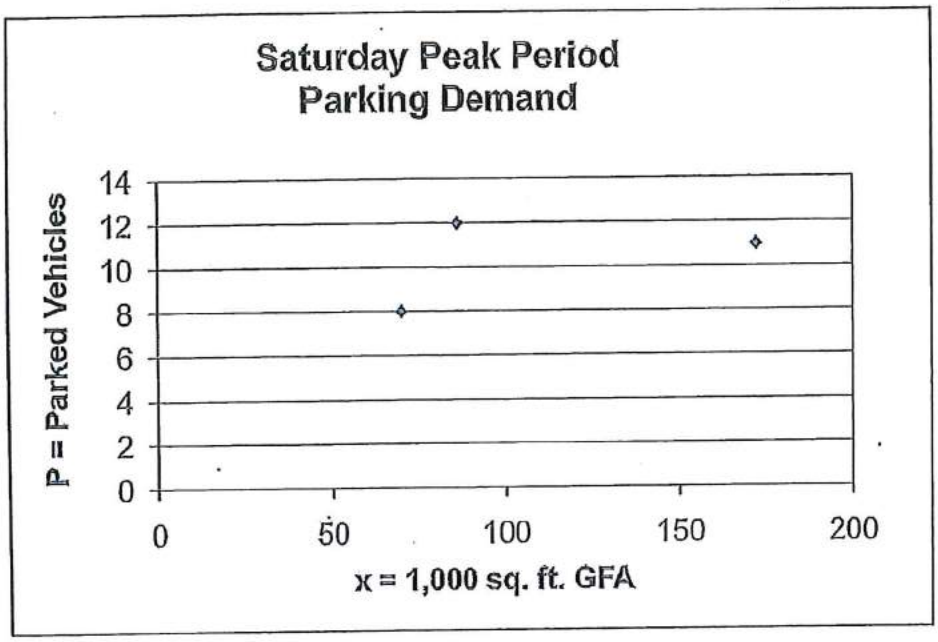


3

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



(4)