IV. A.

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Architectural Review Board Staff Report

Project Type: Amended Site Development Section Plan

Meeting Date: December 13, 2018

From: Jessica Henry, AICP *jh*
Assistant City Planner

Location: Chesterfield Parkway W and Swingley Ridge Road

Applicant: RGA Reinsurance Company

Description: **Chesterfield Ridge Center (RGA Phase II) ASDSP**: An Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for a 16.6 acre tract of land zoned "C-8" Planned Commercial District located on the north side of Chesterfield Parkway W, west of Swingley Ridge Road.

PROPOSAL SUMMARY

The request is for the Phase II expansion of RGA's Chesterfield campus that is located in the northwest quadrant of Chesterfield Village, Parcel III, Building Group B. The proposal seeks to add a new 7-story office building and 5-level parking garage. Four levels of the garage are located underground along the Swingley Ridge Road frontage, with additional levels of the garage exposed as the site grade slopes downward towards the highway frontage. The design is consistent with the two 7-story office / parking garage buildings that were completed in 2014.

The subject site is located on the northwest side of the Chesterfield Parkway W and Swingley Ridge Road intersection and is zoned "C-8" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2723. The exterior building materials will be primarily comprised of aluminum curtain wall with high performance vision and fritted glass, natural stone (limestone) panels, aluminum curtain walls with clear glass, and a metal and glass entry canopy. The new building will be linked to the existing Phase I buildings by an elevated pedestrian bridge.

HISTORY OF SUBJECT SITE

In 1979, Chesterfield Village Inc. submitted five petitions covering a total of 197.8 acres in the northwest quadrant. Two general areas of "C-8" zoning were proposed, one along the north side of Highway 40 (including the subject site) and the other surrounding the existing Hilltown Center. The 43.3 acres along Highway 40 would include 1,000,000 square feet of floor area being primarily offices, a hotel, theater, professional laboratories and schools.

In 1997, the City of Chesterfield approved two additional amendments to this "C8" Planned Commercial District to modify the permitted land uses and allow additional flexibility in the density requirements and the City of Chesterfield approved a Commercial-Industrial Design Development (CIDD) procedure in 2012 to permit additional shifting of density within the development. Finally, the City of Chesterfield approved Ordinance 2723, which modified building groups, building heights, and density requirements for the development. While Ordinance 2723 was subsequently amended to alter the development criteria for other parcels and building groups covered by the ordinance, the development criteria for Parcel III, Building Group B have not changed.

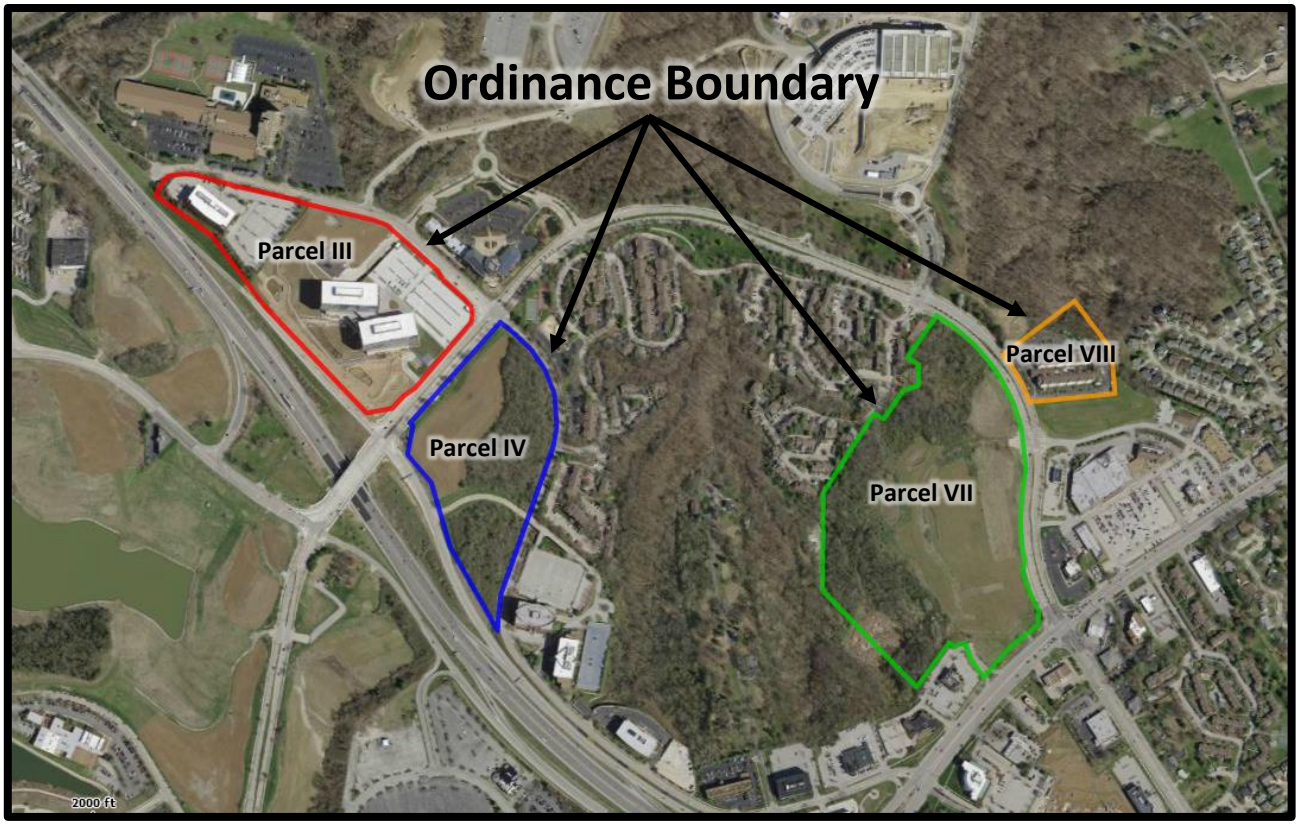


Figure 1: Aerial Image of Ordinance Boundary

The third building proposed as Phase II was contemplated during the design and development of the Phase I buildings on RGA's campus. As depicted in the aerial image below, the northwestern portion of the subject site is vacant and provides the necessary space for development of a third building.

Figure 2: Aerial Image of Subject Site

STAFF ANALYSIS

General Requirements for Site Design:

The subject site sits between the existing Dierbergs office building (north), City Hall (east), Chesterfield Parkway W (south) and I-64 (west). While the previous buildings on the campus were oriented towards I-64/U.S. 40 with parking area along Swingley Ridge Drive, the currently proposed third building is situated in the reverse position.

Figure 3: Rendering of RGA Campus

Circulation System and Access

The Phase II building will be served by two curb cuts on Swingley Ridge Road; the easternmost access was constructed with Phase I and will serve both phases of the development. In addition, a new access is proposed along the western property line. This new curb cut from Swingley Ridge Road splits to provide access to the arrival plaza as well as to the proposed parking structure and service area. A paved pedestrian pathway through the landscaped prairie area links all three buildings, and a glass pedestrian bridge provides a climate-controlled alternative. The existing sidewalk along Swingley Ridge Road was constructed with Phase I and extends across the entire RGA site frontage.

Topography and Parking

The Phase I design is carried over, resulting in a cohesive, integrated campus. As the grade slopes downward towards the highway frontage, additional levels of the garage are exposed. Millblock, modular block, and gabion retaining walls are utilized throughout the site. The parking deck and underlying garage are integrated into the building and site design, with a limited amount of visitor parking provided in concert with the main entry and lobby on the Swingley Ridge Road frontage.

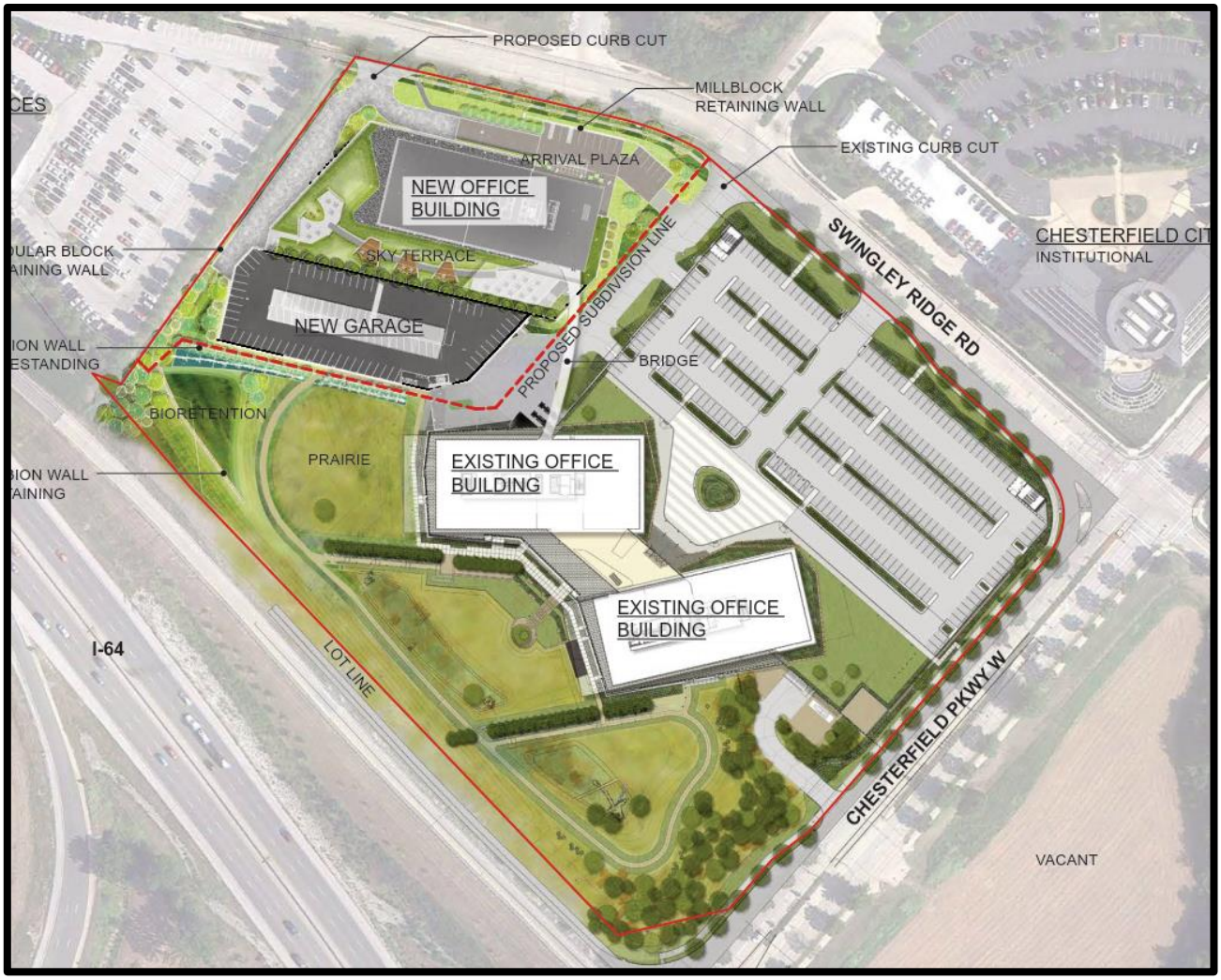


Figure 4: Color Site Plan

General Requirements for Building Design:

This request is to allow for the construction of a third office tower on RGA's campus. The office component of the building is six stories in height and is designed to complement the two existing five story buildings that were completed in 2014. The building design respects the rhythm of the adjacent buildings and features similar proportion, architectural expression, and exterior materials to form a cohesive campus.

A. Scale

The proposed building is 227,907 square feet in size and 99'1" in height as measured from the Swingley Ridge Road grade. The scale is consistent with the two existing buildings, as shown in the exhibit below that was included in the applicant's architectural submittal.

Figure 5: Scale Exhibit

B. Design

In keeping with the existing buildings, an efficient and technologically advanced design results in an integrated campus. The orientation and placement of the buildings utilizes the topography and natural landscaping to create a visually pleasing composition, striking a balance between density and natural, open space.

C. Materials and Color

The materials of the existing buildings, which consist primarily of pre-cast concrete panel clad base and glass curtain wall, is carried over to the proposed building. The glass panels feature fritted, spandrel, and vision glass components. A metal and glass entry canopy is proposed over the main lobby entry.

D. Landscape Design and Screening

A landscaped arrival plaza is proposed off the first entrance off Swingley Ridge Road to provide a clear arrival point for visitors to the building. The entry to the lobby is defined by a paver court that includes vehicular bollards and freestanding planters. A millblock retaining wall frames the designated visitor parking spaces. The natural prairie style landscaping is maintained along the highway frontage. Plantings installed in the amenity terrace provide a separation between the terrace occupants and the parking deck below. The site landscaping in various pedestrian areas is designed to create a pleasant user experience.

A metal panel system is utilized to screen the rooftop mechanical equipment.

E. Signage

Signage is not part of the proposal before the Architectural Review Board and will be reviewed separately.

F. Lighting

Lighting is planned in association with the proposed development as required by the City of Chesterfield. The proposed lighting plan includes utilitarian and decorative accent lighting. The lighting style is consistent with the existing portion of the campus, and is designed to accentuate building features and enhance the pedestrian experience.

DEPARTMENT INPUT

Be advised, this project is still going through development review by City Staff and will not proceed to the Planning Commission until all outstanding items have been addressed. All recommendations made by the ARB will be included in Staff's report to the Planning Commission.

Staff requests review and recommendation on this submittal for the Chesterfield Ridge Center (RGA Phase II) ASDSP.

MOTION

The following options are provided to the Architectural Review Board for consideration relative to this application:

1) "I move to forward the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for Chesterfield Ridge Center (RGA Phase II) as presented, with a recommendation for approval (or denial) to the Planning Commission."

2) "I move to forward the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for Chesterfield Ridge Center (RGA Phase II) to the Planning Commission with the following recommendations…"

Attachments

1. Architectural Review Packet Submittal

SOLOMON CORDWELL BUENZ

RGA Global Headquarters Phase II

ARCHITECTURAL REVIEW BOARD

11 – 30 – 2018

Contents

RGA®

SCB

ARCHITECTURAL REVIEW BOARD
Project Statistics and Checklist

Date of First Comment Letter Received from the City of Chesterfield 11/2/2018

Project Title: RGA Headquarters Phase II **Location:** 16600Swingley Ridge Rd, Chesterfield,MO63017

Developer: RGA **Architect**: Solomon Cordwell Buenz **Engineer**: Stock & Associates

PROJECT STATISTICS:

Size of site (in acres): 16.6 **Total Square Footage:** 227,907 **Building Height:** 99'-1"

Proposed Usage: Office building with partial amenity floor and roof deck on the second floor over a parking garage.

Exterior Building Materials: Pre-cast concrete panel clad base with the office space clad curtain wall

Roof Material & Design: Amenity deck and green roof on hot asphalt monolithic membrane, PVC membrane on 7th fl

Screening Material & Design: Building mass to screen electrical transformers from street. Interior generator.

Description of art or architecturally significant features (if any): The architecture is designed to complement RGA phase 1 with a solid plinth rooting the building to the site with a floating glass tower above. No public art provided.

ADDITIONAL PROJECT INFORMATION:

Checklist: **Items to be provided in an 11" x 17" format**

- ☐ **Color Site Plan with contours, site location map, and identification of adjacent uses.**
- ☐ **Color elevations for all building faces.**
- ☐ **Color rendering or model reflecting proposed topography.**
- ☐ **Photos reflecting all views of adjacent uses and sites.**
- ☐ **Details of screening, retaining walls, etc.**
- ☐ **Section plans highlighting any building off-sets, etc. (as applicable)**
- ☐ **Architect's Statement of Design which clearly identifies how each section in the Standards has been addressed and the intent of the project.**
- ☐ **Landscape Plan.**
- ☐ **Lighting cut sheets for any proposed building lighting fixtures. (as applicable)**
- ☐ **Large exterior material samples. (to be brought to the ARB meeting)**
- ☐ **Any other exhibits which would aid understanding of the design proposal. (as applicable)**
- ☐ **Pdf files of each document required.**

ARCHITECTURAL REVIEW DESIGN STANDARDS

Please refer to Section 04-01 of the Unified Development Code for the Architectural Review Design Standards.

ARCHITECTURAL TERMS

Please refer to Section 10-06 of the Unified Development Code for definitions of Architectural Terms.

Dierbergs

RGA - PHASE 1

IKON

Monsanto

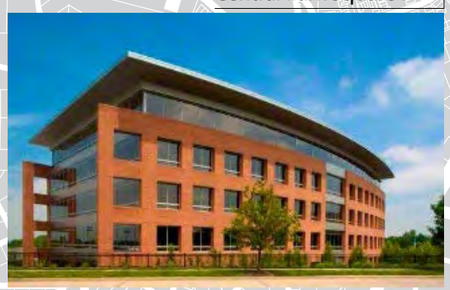
City Hall

Chesterfield Mall

Wild Horse
Elementary School

CHESTERFIELD
PKWY W

Central Park Square I



Chesterfield
Ridge Center


CHESTERFIELD ATHLETIC CLUB
HOTEL
PROPOSED CURB CUT
MILLBLOCK
RETAINING WALL
EXISTING CURB CUT
DIERBERG OFFICES
COMMERCIAL
ARRIVAL PLAZA
NEW OFFICE
BUILDING
SKY TERRACE
MODULAR BLOCK
RETAINING WALL
NEW GARAGE
PROPOSED SUBDIVISION LINE
SWINGLEY RIDGE RD
CHESTERFIELD CITY HALL
INSTITUTIONAL
GABION WALL
FREESTANDING
BRIDGE
BIORETENTION
PRAIRIE
EXISTING OFFICE
BUILDING
GABION WALL
RETAINING
CHESTERFIELD
VILLAGE APARTME
MULTI-FAMILY
EXISTING OFFICE
BUILDING
I-64
LOT LINE
CHESTERFIELD PKWY W
VACANT
VACANT

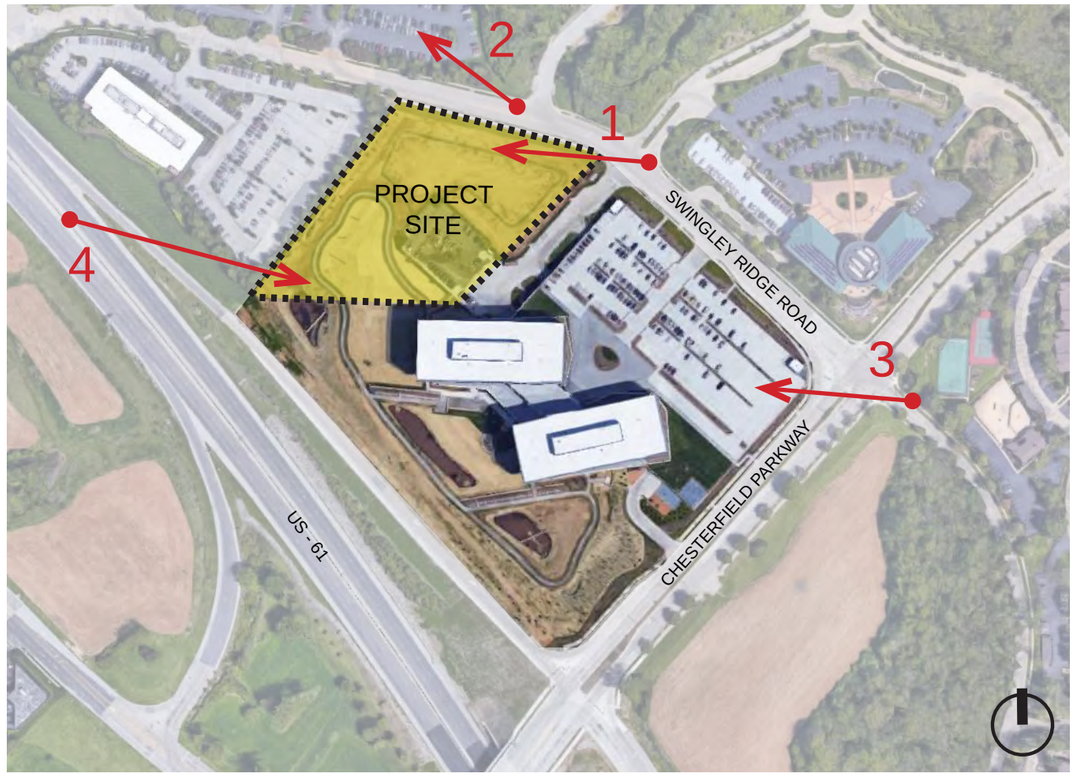
01 PHASE 2 SITE PLAN

0 60’ 120’

02 RENDERING (VIEW FROM HIGHWAY)

02 RENDERING (SWINGLEY RIDGE ROAD VIEW)

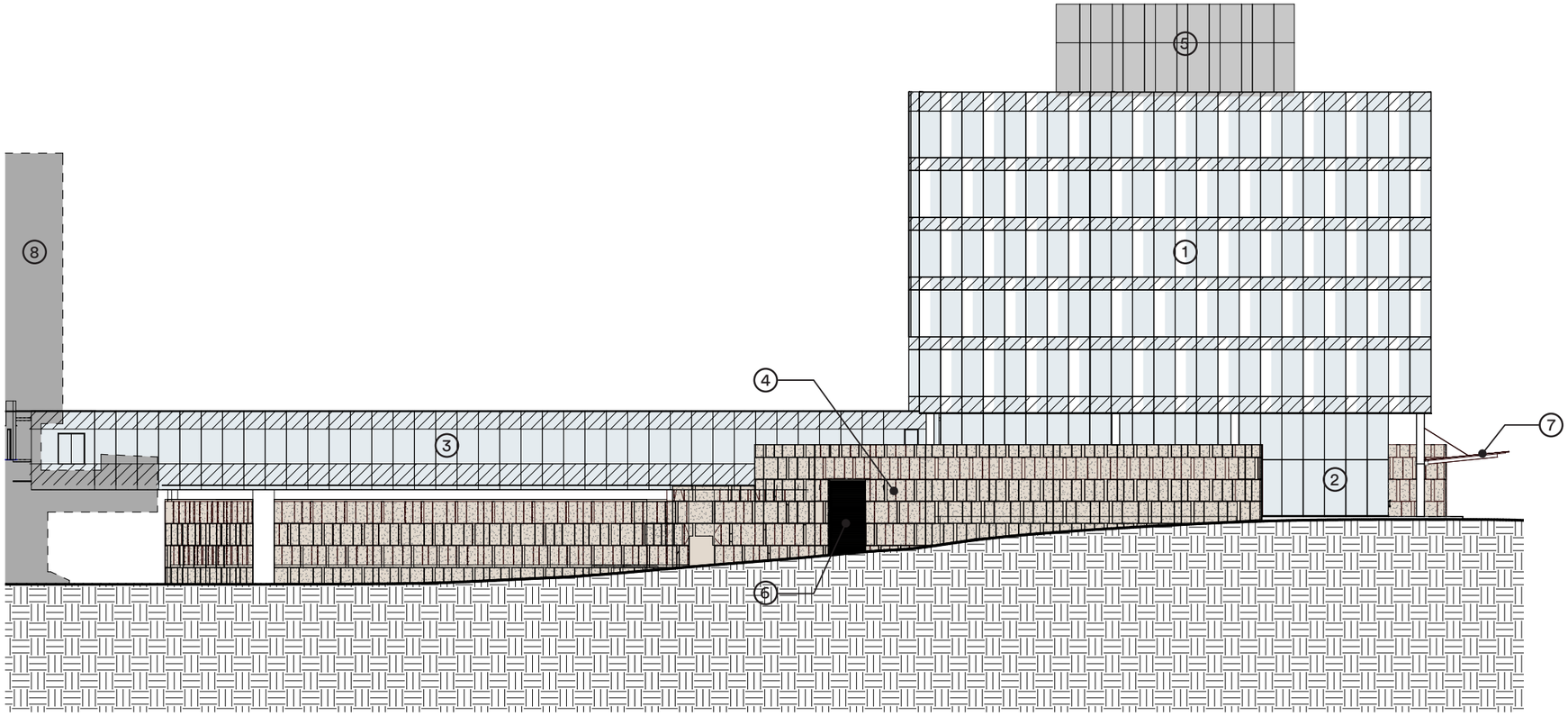

1


2
1
PROJECT
SITE
SWINGLEY RIDGE ROAD
4
3
US - 61
CHESTERFIELD PARKWAY


2

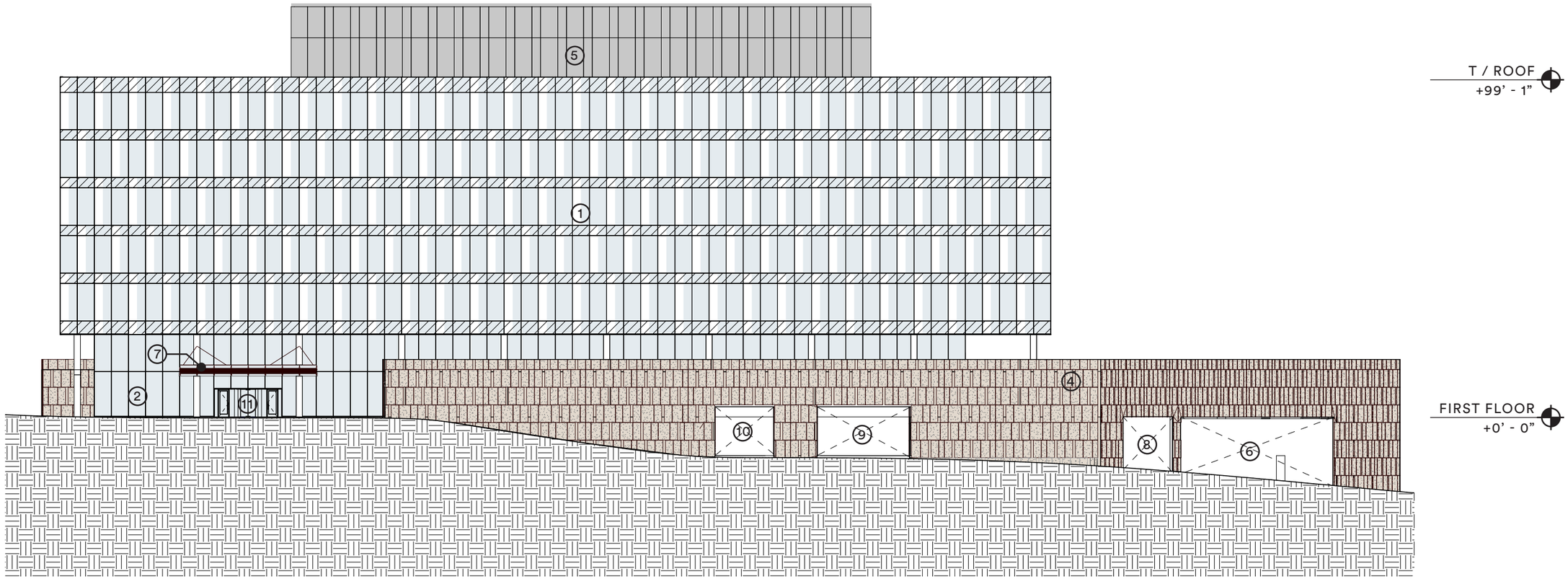

3


4



KEYNOTES

1. ALUMINUM CURTAIN WALL WITH VISION, FRITTED, AND SPANDREL GLASS
2. ALUMINUM CURTAIN WALL WITH VISION GLASS
3. ALUMINUM CURTAIN WALL WITH VISION AND SPANDREL GLASS
4. PRECAST SYSTEM
5. METAL PANEL SYSTEM
6. ALUMINUM LOUVERS
7. METAL AND GLASS CANOPY
8. PHASE I BUILDING (NOT IN CONTRACT)



T / ROOF
+99’ - 1”

FIRST FLOOR
+0’ - 0”

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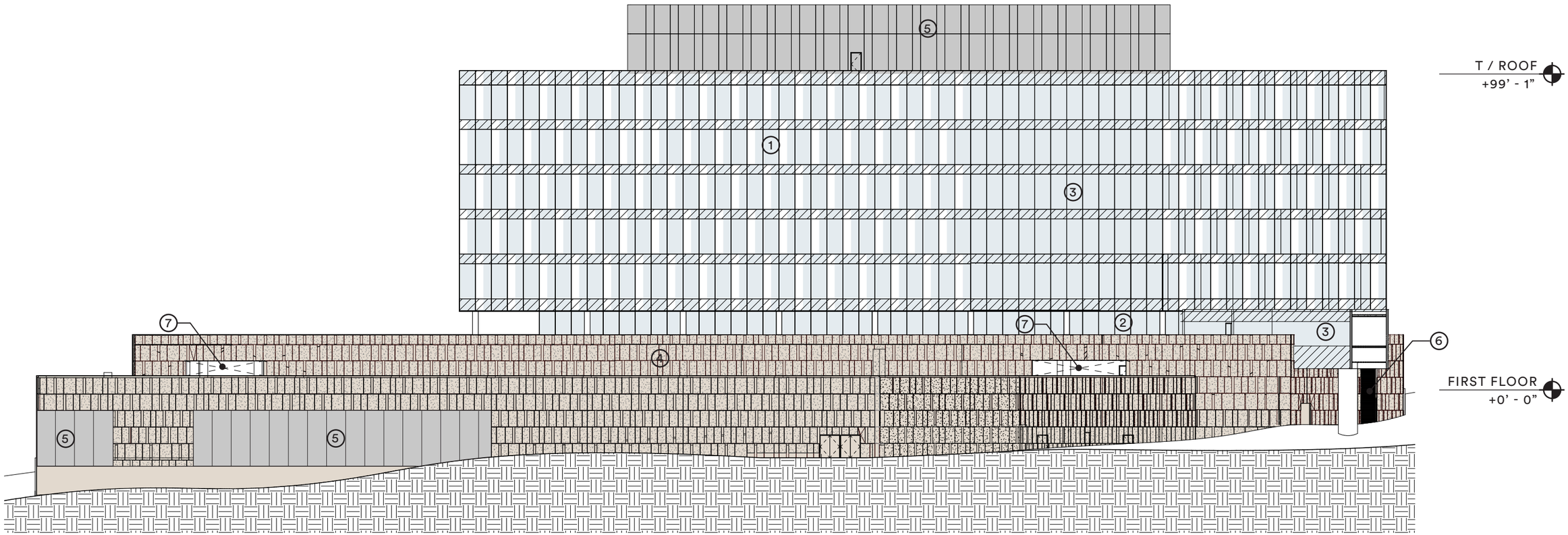
5. METAL PANEL SYSTEM
6. LOADING DOCK
7. METAL AND GLASS CANOPY
8. VENDOR PARKING
9. PARKING ENTRY
10. PARKING EXIT
11. GLASS VESTIBULE



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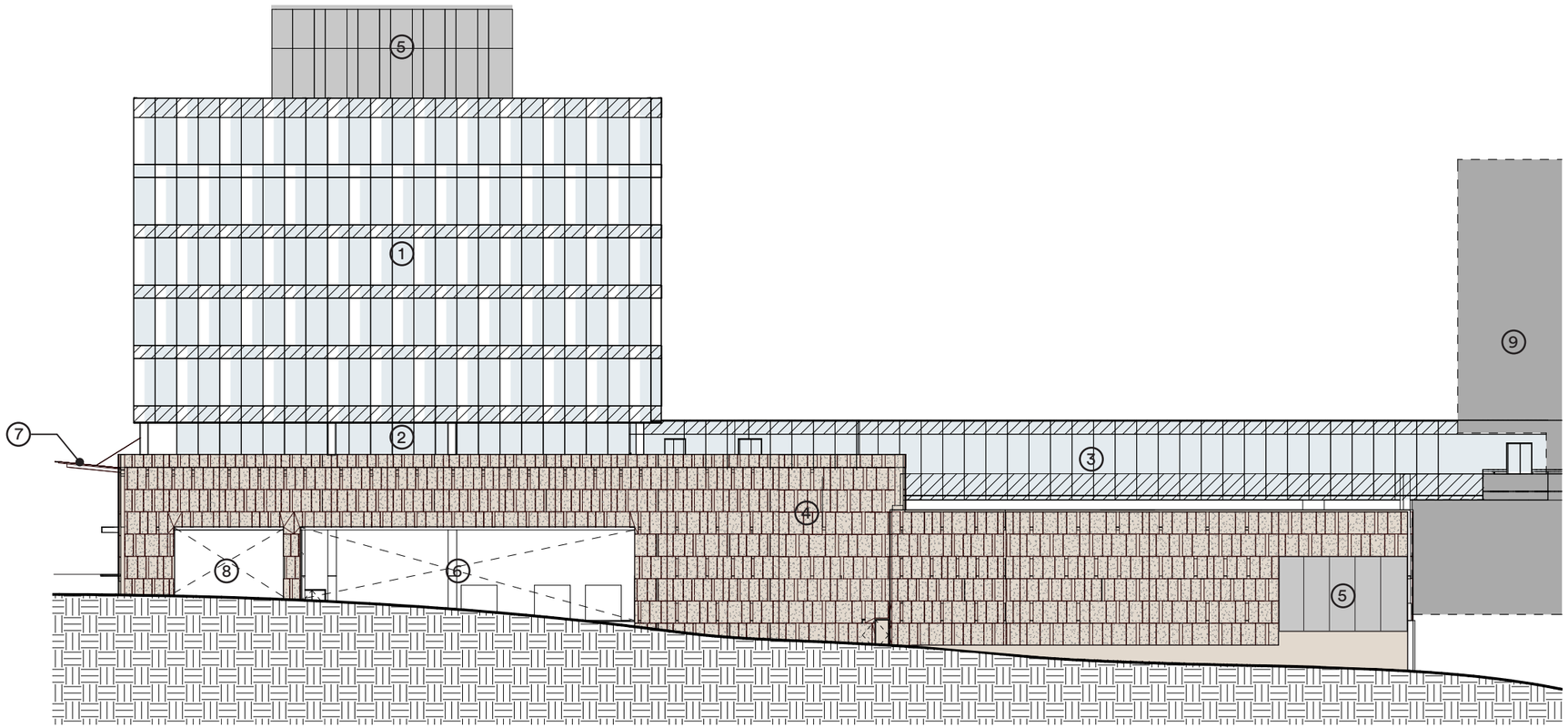

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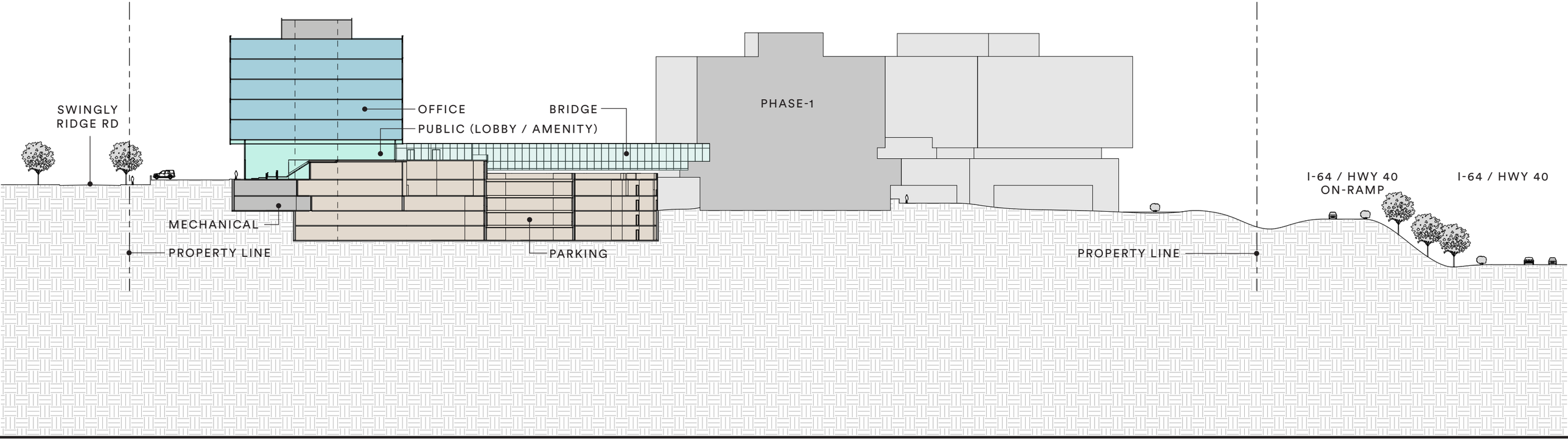
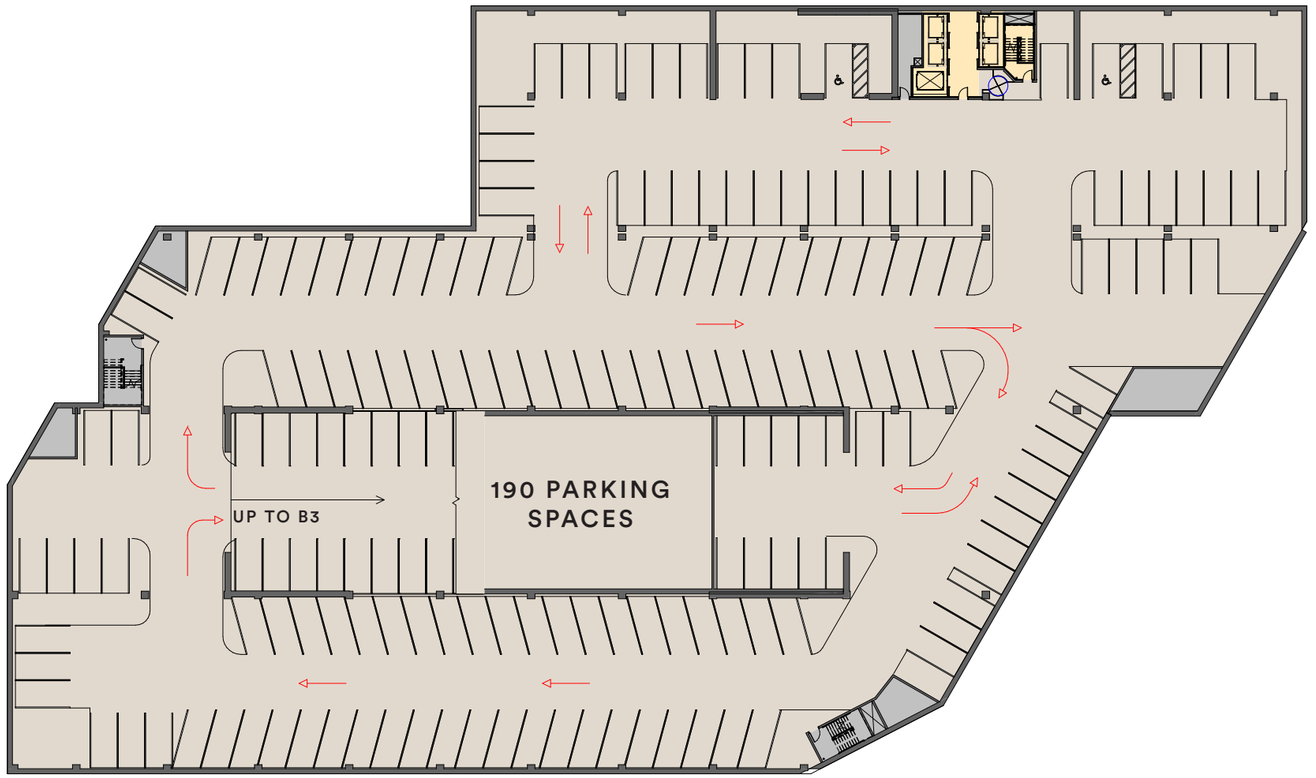
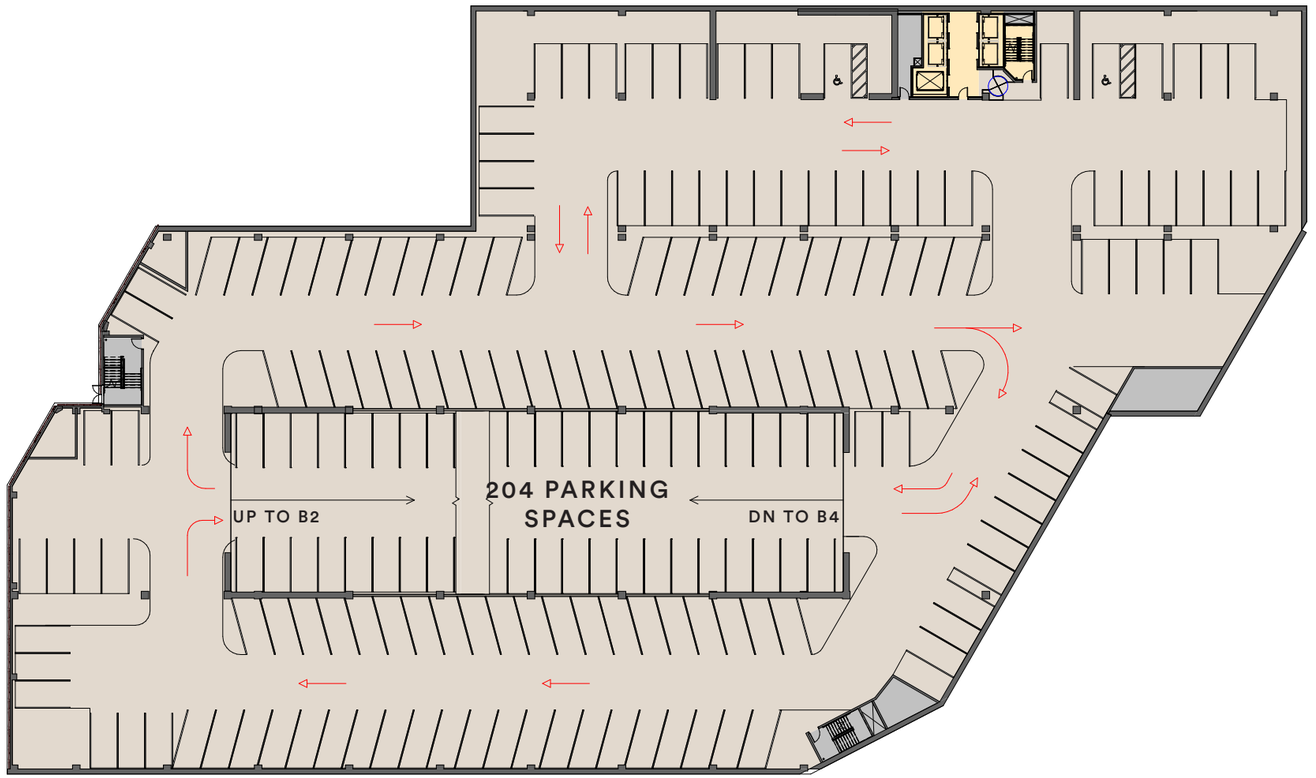
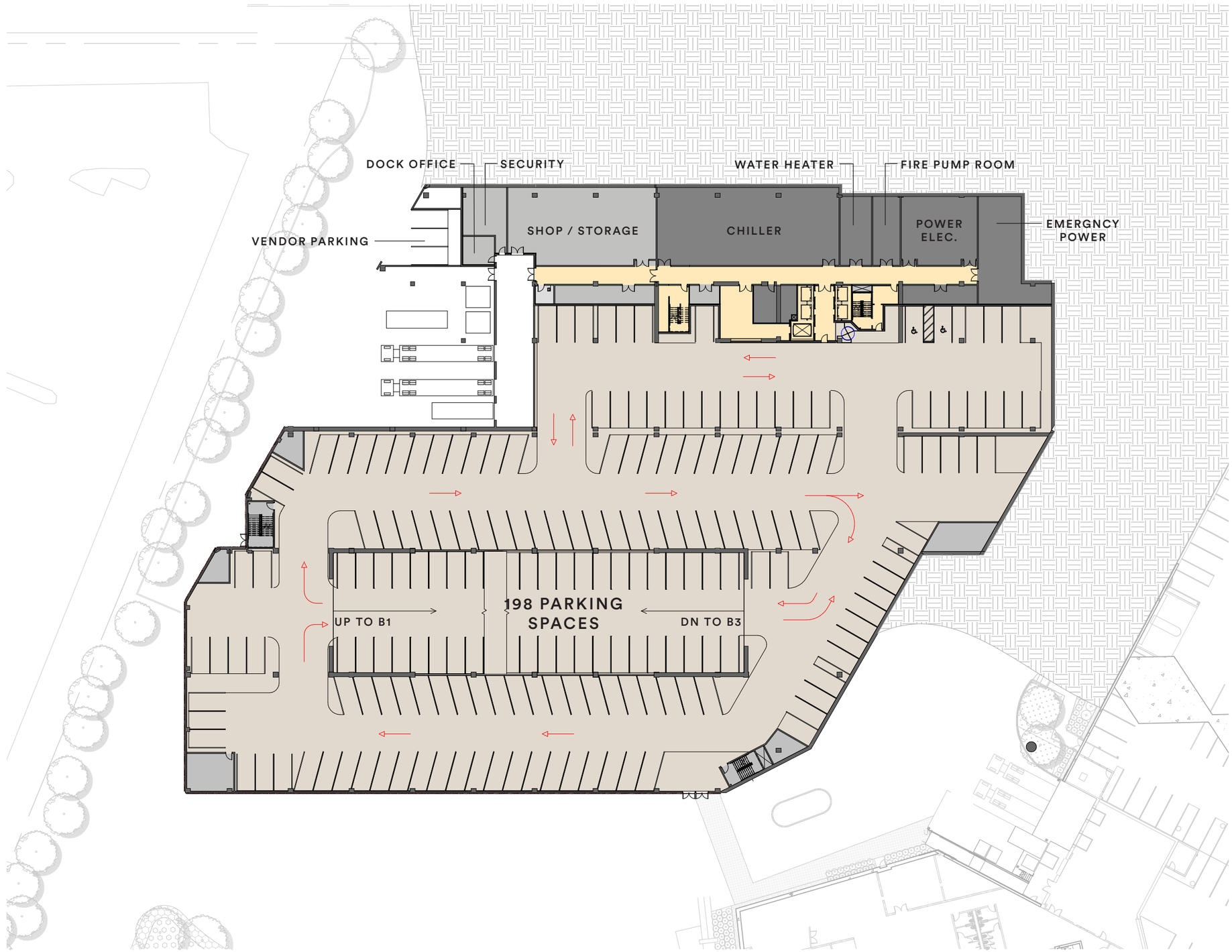
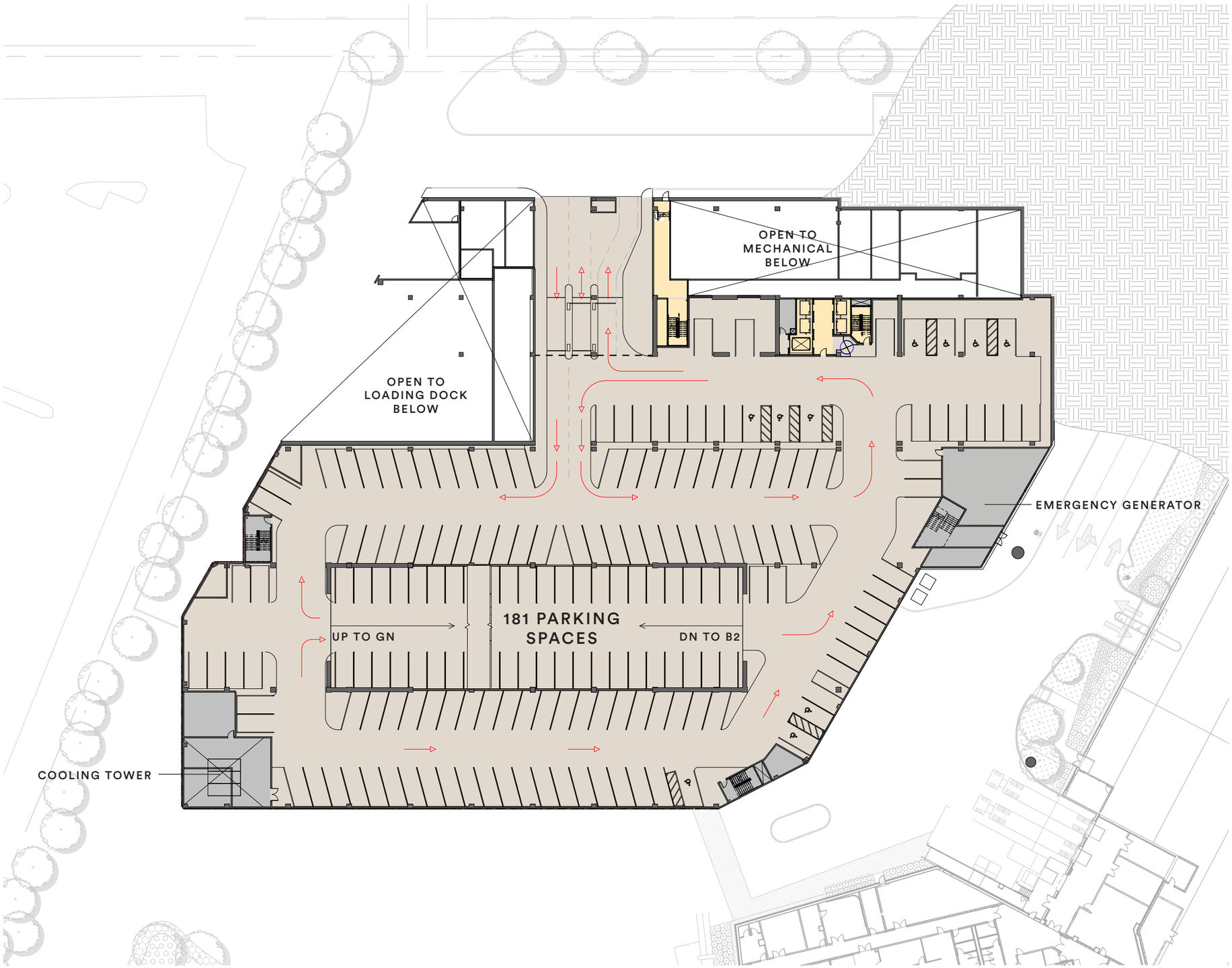
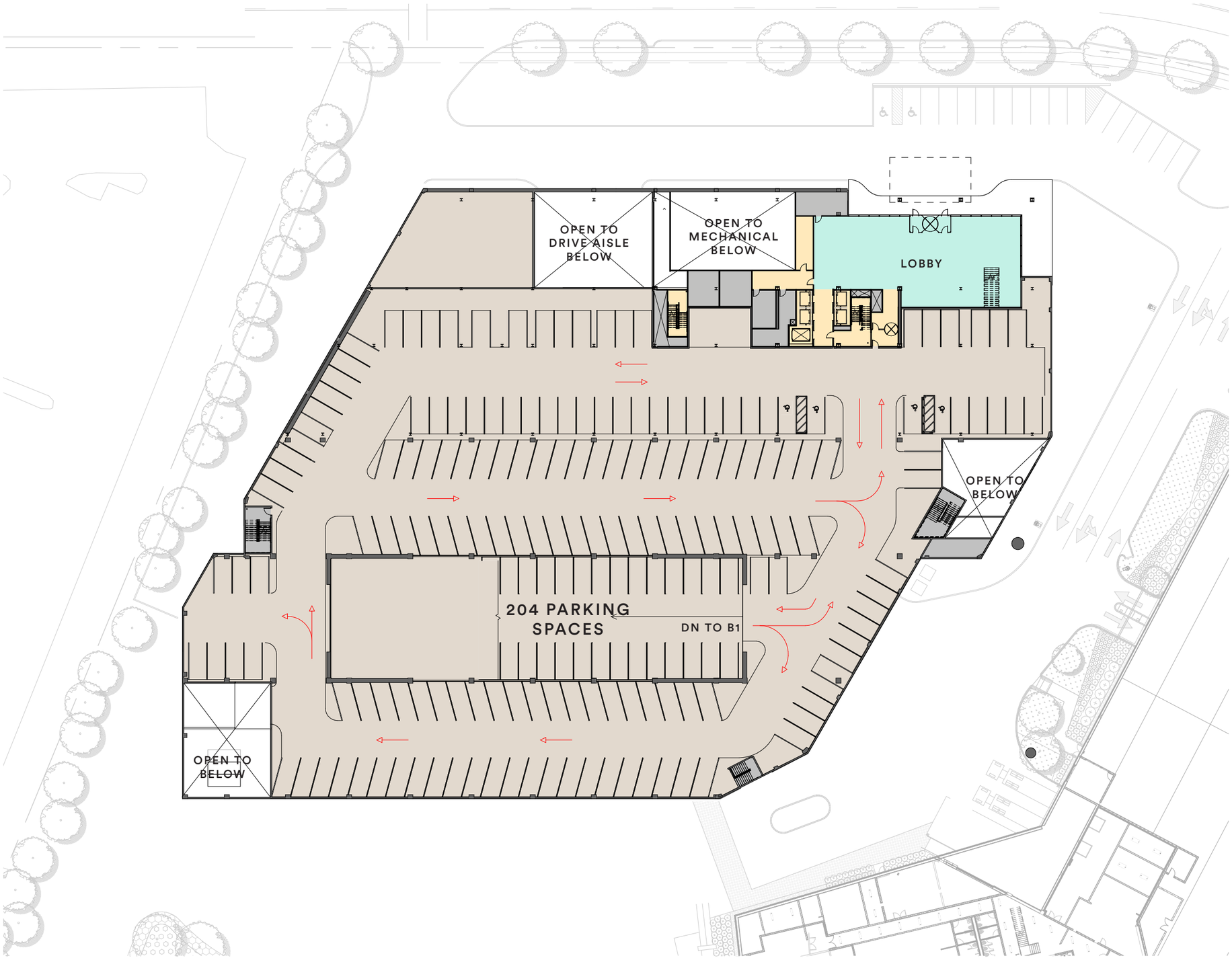




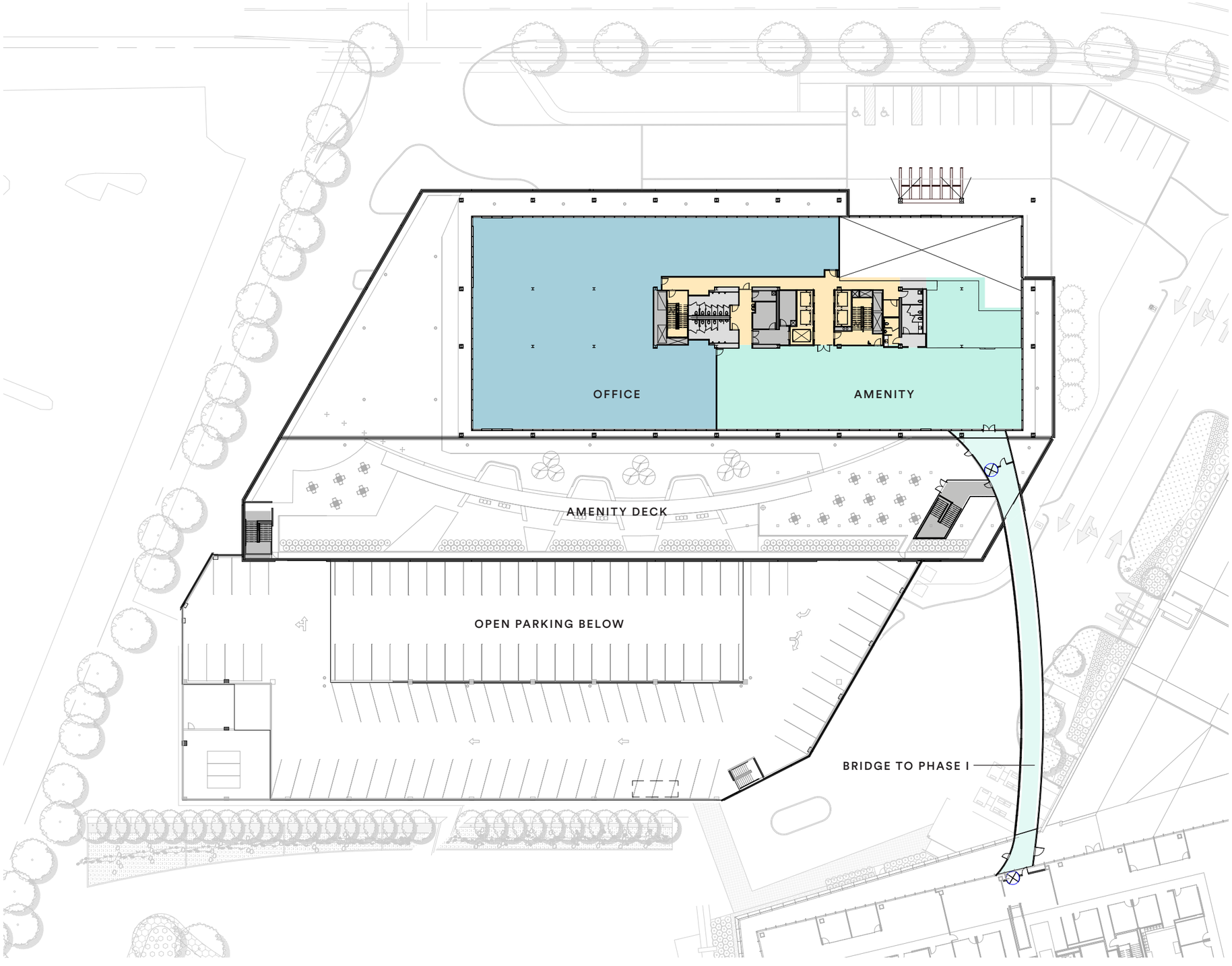

204 PARKING
SPACES
UP TO B2
DN TO B4



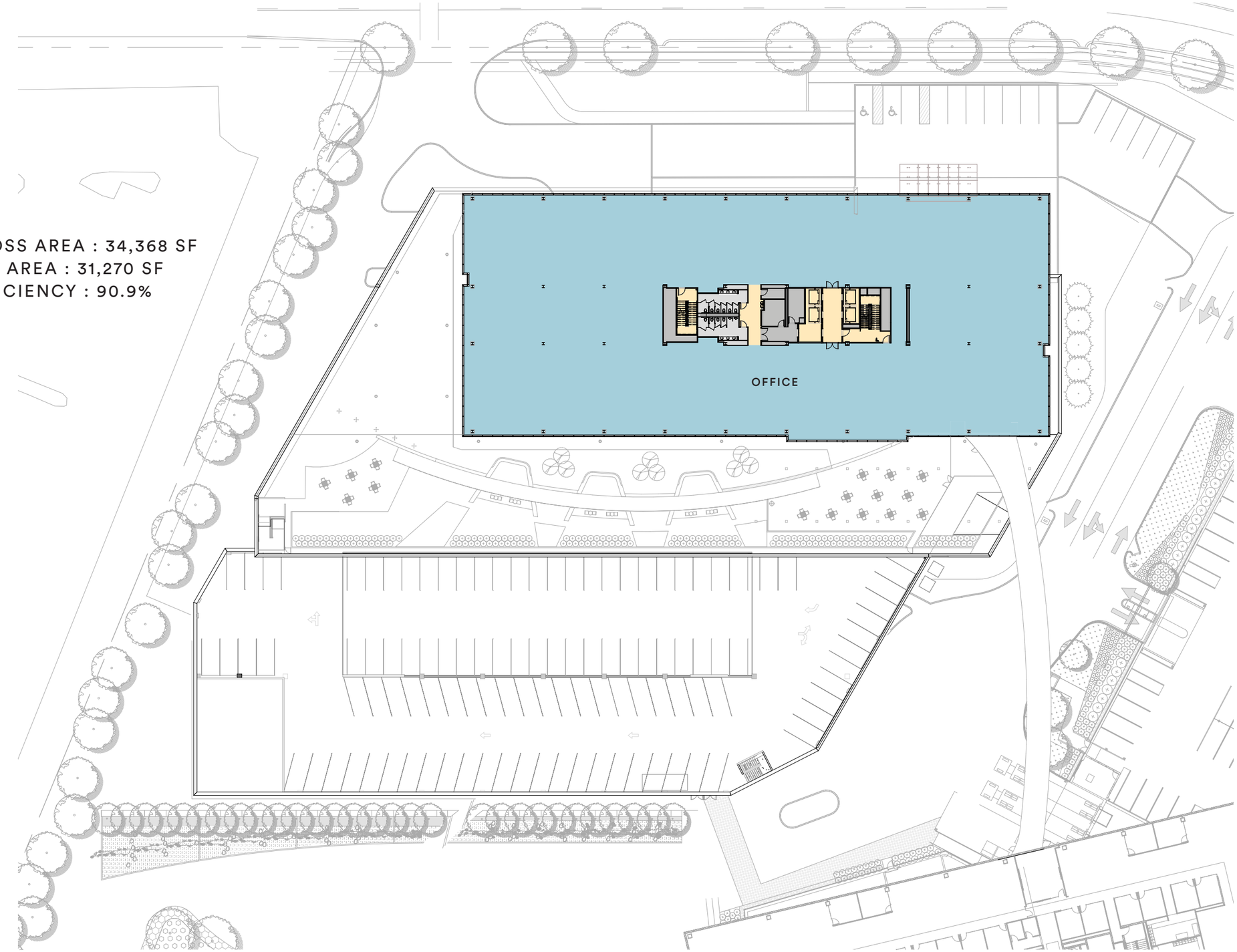




STATE OF MISSOURI
MARK J. FISCH
A-2007067689
ARCHITECT



GROSS AREA : 34,368 SF
NET AREA : 31,270 SF
EFFICIENCY : 90.9%



STATE OF MISSOURI
MARK
J. FISCH
A-2007067689
ARCHITECT

ARCHITECTURE

The proposed project is Phase II of RGA's Global Headquarters located in Chesterfield, MO and is sited along Swingley Ridge Road North-West of Chesterfield Parkway. The 7-story Phase I was completed in 2014 and includes two glass clad office towers joined by stone clad podium. The master plan was developed to accommodate future expansion and Phase II adds approximately 225,907 SF of office and 977 parking spaces to the campus.

Located on the North-West corner of the campus, Phase II will include a 7-story building including a glass clad office tower above a parking podium clad with architectural pre-cast concrete panels. The parking plinth is intended to enhance the building's street presence. Four levels of basement parking work with the site grade to minimize the presence of parking along Swingley Ridge Road to one story while growing in height facing the expressway.

The curtainwall cladding will use a similar glass to Phase I with slight modifications to the mullion spacing providing a unique identity that still relates to the corporate campus. The precast concrete panels cladding the garage will be articulated with a mottled color and texture complimenting the natural stone used on Phase I. The two phases will be linked with an elevated pedestrian bridge creating a strong visual connection between phases.

The main office entry lobby is served by a vehicle drop off with an overhead canopy, and on grade guest parking lot that is accessed from Swingley Ridge and separated from the street by a landscape buffer. Pedestrian movements are encouraged by the bridge to Phase 1 providing access to the existing walking paths along the South perimeter of the site, these paths will be extended to circumnavigate Phase II.

Vehicular access is located off Swingley Ridge road with a dedicated service drive along the Western property line. All loading is off-street. The parking garage entrance / exit was located off Swingley and separated from the Phase I access road to reduce the potential for congestion.

SITE + LANDSCAPE

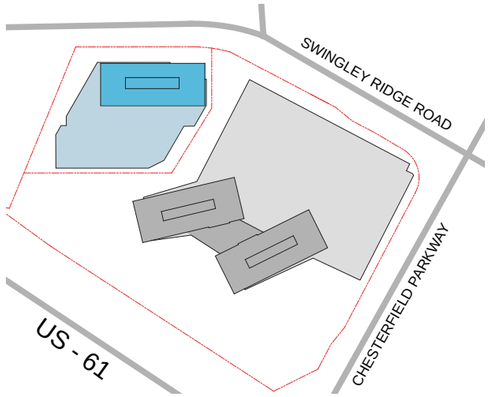
The site approach to the Office Tower Entry at Swingley includes a paver court that defines the entry at the lobby. Vehicular bollards and freestanding planters will adorn the court enhancing the sense of arrival. A millblock retaining wall will carve away earth, providing an area for visitor parking. Millblock seat walls will rest within planted forms and reside of either side of the lobby. Area lighting will be provided along the drive to match entry drive type and control. Light columns will complement existing Phase 1, placed along the parking area. Linear LED accent lighting will be mounted to underside of canopy. Planting will be irrigated.

The Amenity Roof Deck will become an extension of the office building, providing a direct connection to the café and elevated lobby. This new outdoor room will provide opportunities for staff to socialize and work away from their desks. A large gathering plaza with pavers will be adjacent the door. An open-air pavilion structure will be located near the southern edge of the roof deck. Canopy trees will parallel the pavilion and provide framed views to the SW. A series of undulating planters will house native forbs and grasses and provide permanent fixed seating locations. Planters will range from 6"-36" of soil to accommodate trees, shrubs, perennials and grasses. Geo foam will be used to create topographic changes. Overlapped flagstone will be placed beneath building overhangs. Pavers and wood decking will be hardscape material. Pavilion to incorporate surface mounted LED downlights and surface mounted LED linear lighting to accent pavilion ceiling. Grade mounted bollards will provide pathway lighting. Planting will be irrigated.

A new stormwater runnel will parallel the façade of the garage to convey rainwater to the bio-retention pond. This element incorporates the same gabion wall, Nyssa slyvatica hedgerow, and forebay structures already existing on campus. Water will be collected in this planted forebay, falling across a series of weirs, ultimately making its way to the bio-retention pond in the W corner of the campus. The surrounding landscape will be composed of lawn frames and native prairie seed. Planting will be irrigated.

STORMWATER MANAGEMENT

The buildings will be integrated into the landscape in a sensitive manner that minimizes the impact of the development on local ecosystems. The site has a total elevation change of 50' from the highest point on the site and the lowest with the downward slope moving from east to west. The building footprint is separated from the I-40/64 on ramp by a berm, which blocks some of the highway noise from the site. The site embraces a comprehensive sustainability approach utilizing natural systems and low impact solutions that enhance the existing topography. The stormwater will be treated and infiltrated through a bio-retention basin prior to the stormwater leaving the site.



SEC. 31-04-01

C. General Requirement for Site Design

1. Site Relationships

2. Circulation system and access

C. General requirements for site design. All projects should address the following requirements as directed by the City of Chesterfield:

1. *Site relationships.* Developments should emphasize site relationships to provide a seamless transition between phases of a project, which are compatible with neighboring developments, and which also provide a transition from the street to the building.

Desirable Practices	Undesirable Practices
Provide safe pedestrian movement between elements	Site design that impairs or interferes with other properties or developments
Provide public plazas, courtyards, assembly areas, etc.	Excessive noise, lighting, glare
Incorporate scenic views, fountains, public art, etc. within outdoor spaces	Delivery zones, trash enclosures, storage areas, transformers and generators that are not screened and are visible by the public
Consider climate, solar angles, and outdoor activities when designing elements within outdoor spaces	Aboveground public utilities

2. *Circulation system and access.* Circulation systems shall be designed to avoid conflicts between vehicular, bicycle, and pedestrian traffic to and from buildings on the site. Circulation patterns shall be safe, obvious, and simple as described in the standards below.

Bicycle circulation:

- Provide bicycle parking in highly visible locations
- Provide racks with a locking opportunity

Pedestrian circulation:

- Give precedence to pedestrian circulation over vehicular circulation.
- Provide pedestrian access from large parking areas.
- Design open and attractive circulation systems between buildings, blocks, and adjacent developments.
- Utilize materials, textures and/or colors to improve safety and visibility at points of conflict with vehicular routes.
- Surface routes with durable materials in order to eliminate short cuts which damage landscape areas.

Vehicular circulation:

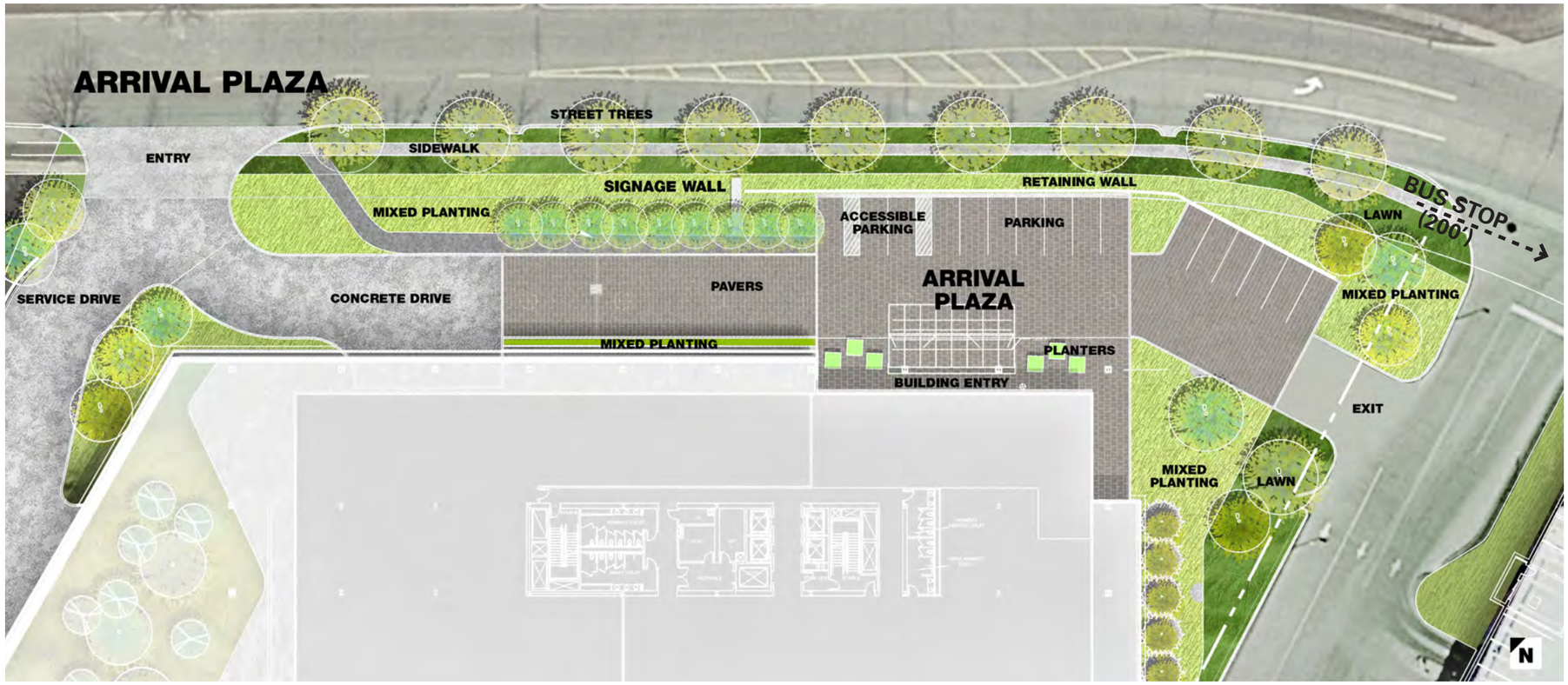
- Provide accommodations for public transportation as directed by the City of Chesterfield and transportation agencies.

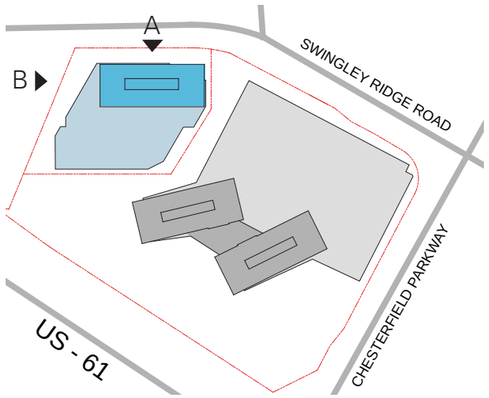
Parking:

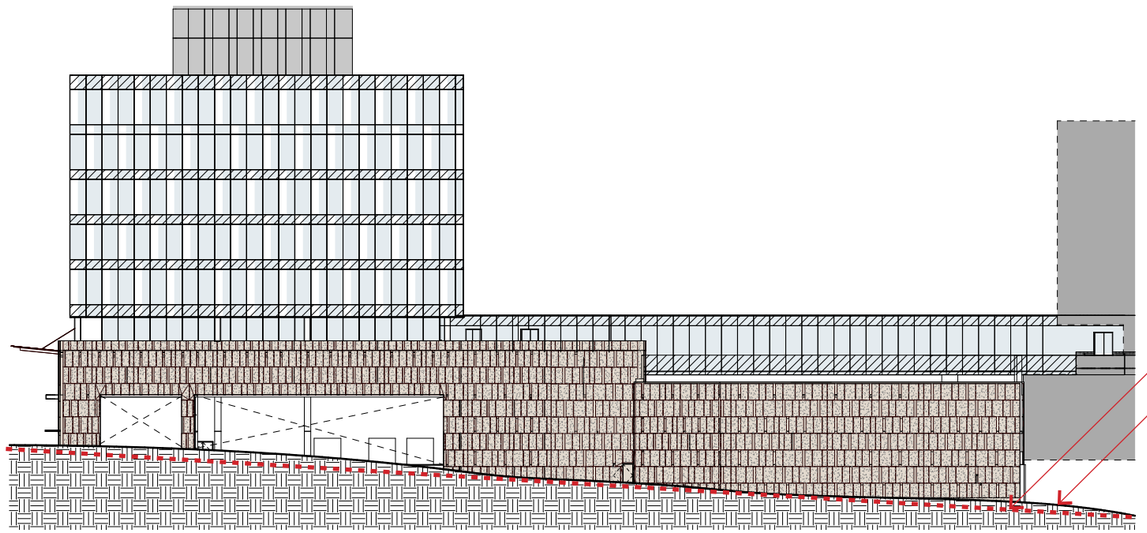
- Encourage rear and side parking areas. Front parking may be considered if appropriate landscaping and setbacks are incorporated into the parking design.
- Provide landscaped separation of parking areas and buildings and create a landscaped foreground for buildings.

Pedestrian orientation:

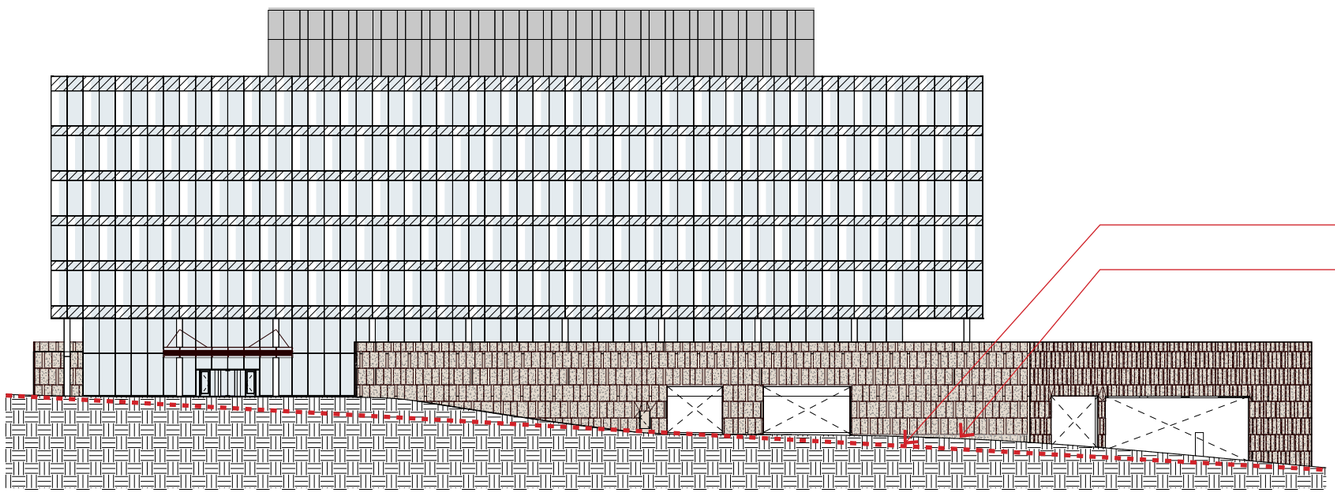
- Establish areas with visual interest, such as outdoor dining areas or outdoor seating areas which face the street and pedestrianways.
- Provide open spaces, such as covered walkways, courtyards and plazas.
- Provide connections to public transportation, bus stops, future light rail stations and commuter lots.







ELEVATION A



ELEVATION B (SWINGLEY RIDGE ROAD)

SEC. 31-04-01

C. General Requirement for Site Design

3. Topography

4. Retaining Walls

3. *Topography.*

   (a) Utilize topography for screening, buffering, and transition between uses and developments.

   (b) Retain the natural slope and topography while minimizing changes to the existing topography. Avoid abrupt or unnatural appearing grading design.

   (c) Round proposed cut and fill slopes, both horizontally and vertically.

4. *Retaining walls.*

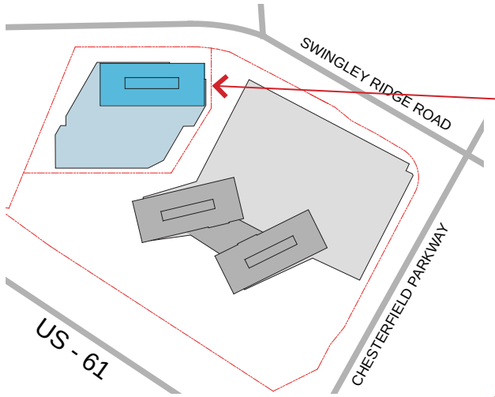
   (a) Minimize the height and length of retaining walls. Screen with appropriate landscaping, where appropriate.

   (b) Incorporate design elements of other architectural or natural features of the project.

   (c) Use terracing as an alternative to tall or prominent retaining walls, particularly in highly visible areas on hillsides.

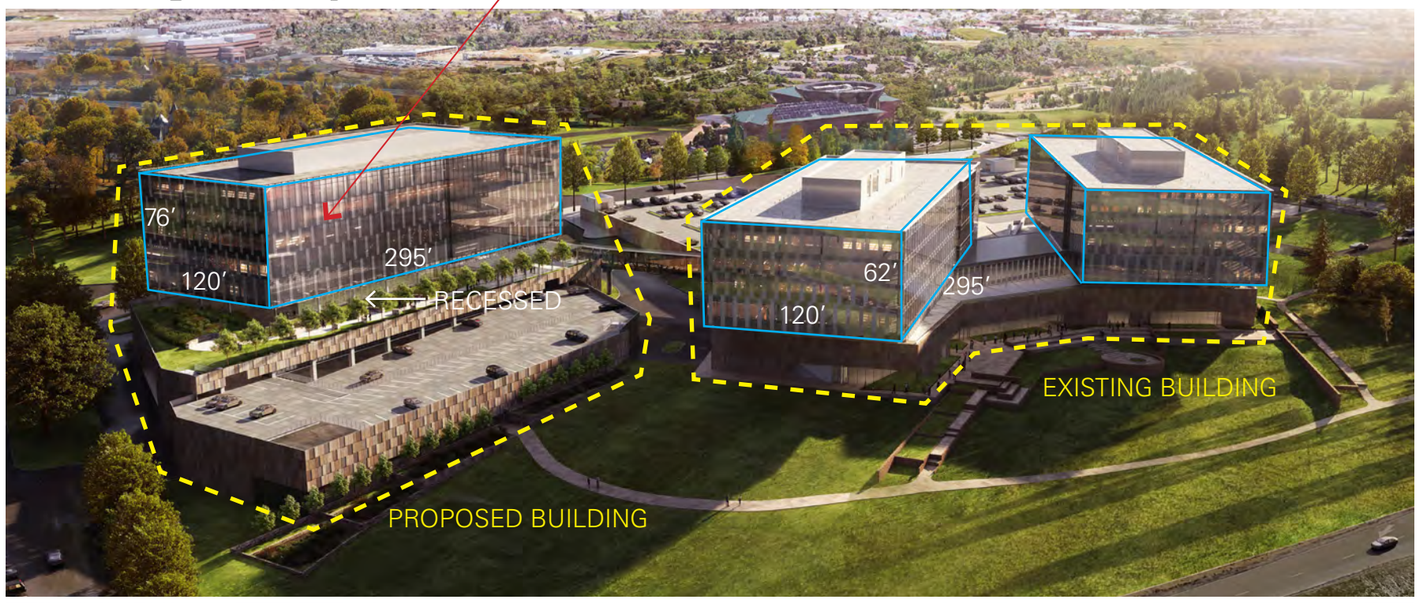
   (d) Use stone, masonry or textured concrete walls or other similar materials.

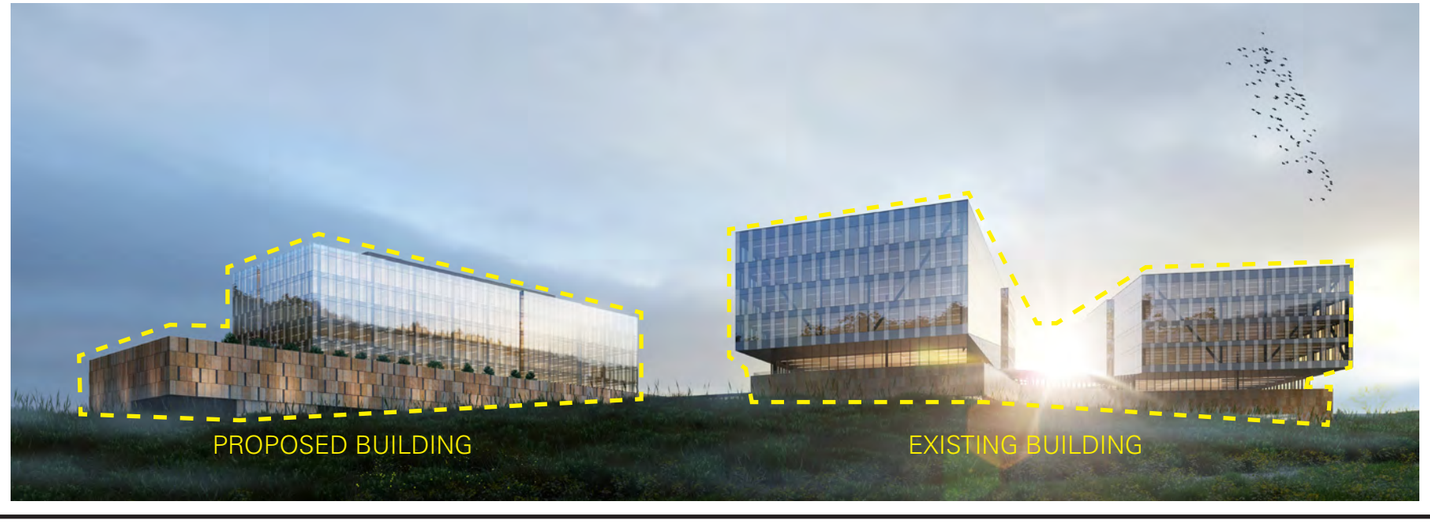
   (e) Use of timber tie walls is not permitted.



Proposed building design has respect and intensify the rhythm of adjacent existing building in terms of site plan (fan shapes)

Proposed building design has similar proportion, architectural expression and exterior material as adjacent existing buildings.





SEC. 31-04-01

D. General Requirement for Building Design

1. Scale

3. Material & Colors

D. General requirements for building design. These requirements shall apply to all structures.

1. *Scale.*

Building scale:

- Demonstrate through elevations and renderings that the size, proportion, design and orientation of buildings are compatible with the adjacent or predominant development in the area.
- Provide transitions between buildings and uses to visually reduce differences in scale and proportion.

Human scale:

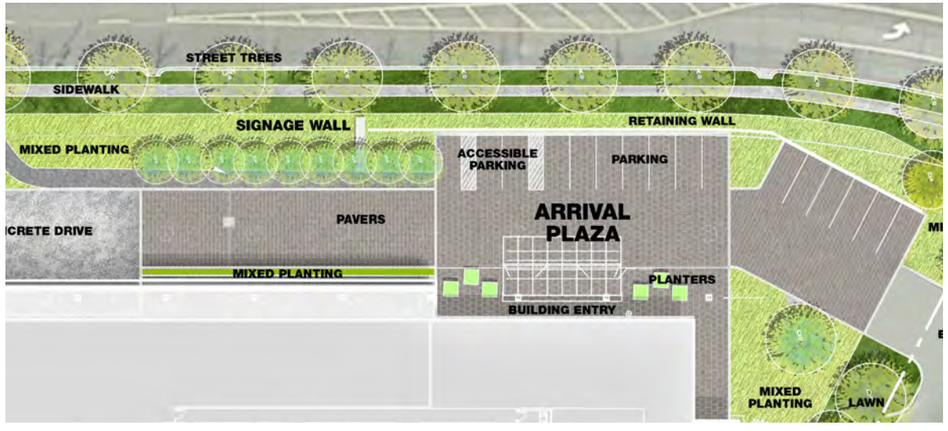
- Design to achieve a sense of human scale through the use of wall insets, balconies, window projections or other architectural elements.

Generic scale:

- Respect and/or improve the rhythm established by adjacent or predominant buildings and development.
- Coordinate the actual and apparent height of adjacent structures. Adjust apparent height by placing window lines, belt courses and other horizontal elements in a pattern that complements the same elements on neighboring buildings.

3. *Materials and colors.*

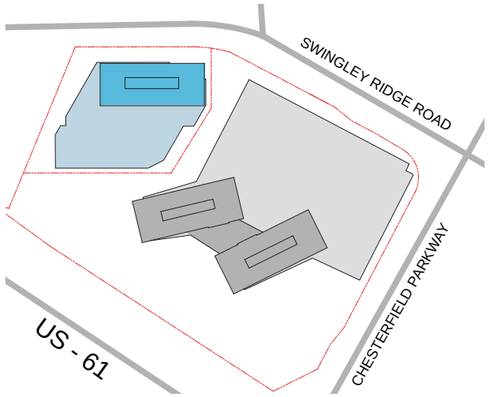
Desirable Practices	**Undesirable Practices**
Use compatible colors, materials and detailing on a building. Colors, materials and detailing should also be compatible with adjacent buildings and properties. Encourage the use of integral color where practical.	False or decorative facade treatments, inconsistent adornment and overly frequent material changes should be avoided.
Utilize durable materials.	Highly reflective materials and prefabricated buildings are discouraged.
Utilize contrasting paving surfaces for pedestrian access in large paved areas.	

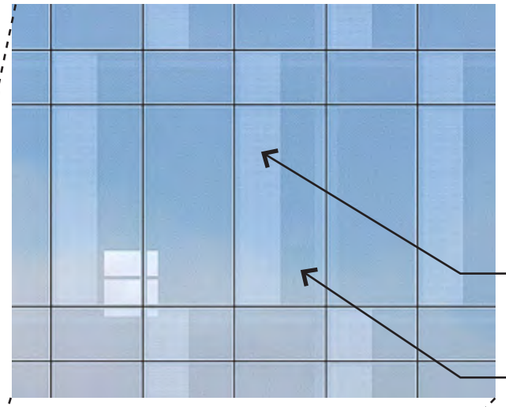


SEC. 31-04-01

D. General Requirement for Building Design

2. Design





FRIT GLASS (REDUCES GLARE / SOLAR HEAT GAIN)

VISION GLASS

2. *Design.*

(a) Design and coordinate all facades with regard to color, types and numbers of materials, architectural form and detailing.

(b) Avoid linear repetitive streetscapes.

(c) Avoid stylized corporate and/or franchise designs that use the building as advertising.

(d) Provide architectural details particularly on facades at street level.

(e) Encourage art elements, such as wall sculptures, murals, and artisan-created details, etc., throughout a project.

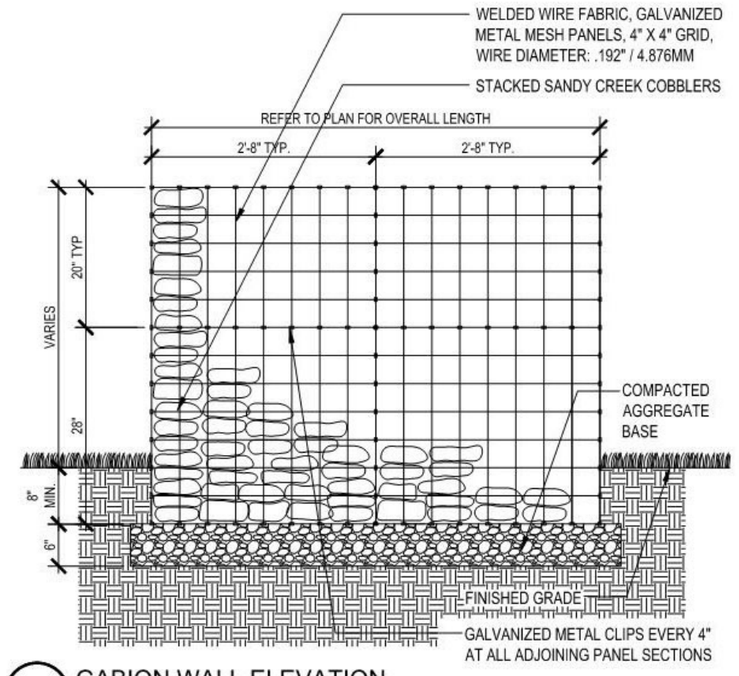
(f) Encourage designs that enhance energy efficiency.

(g) Encourage the use of environmentally conscious building techniques and materials.

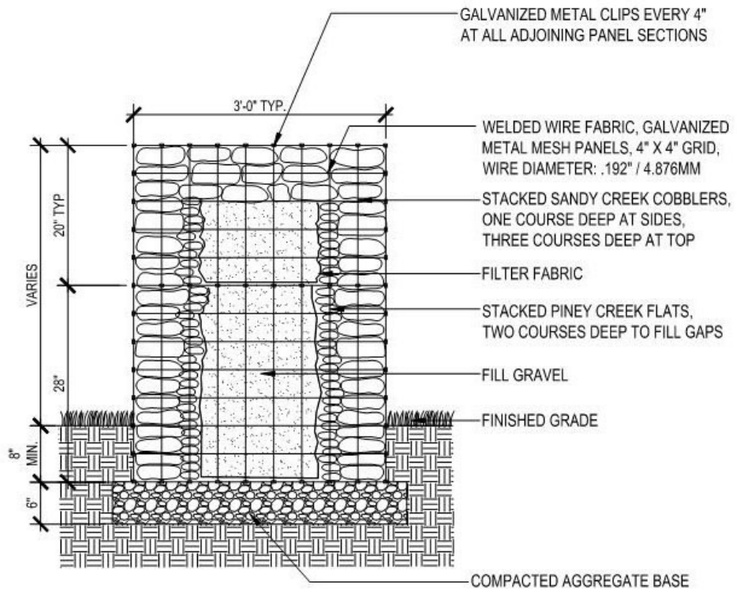
(h) Provide entry recesses, plazas, roof overhangs, wall fins, projecting canopies or other similar features indicating the building's entry points while providing protection.

(i) Paint and trim temporary barriers/walls to complement the permanent construction excluding tree protection fencing.

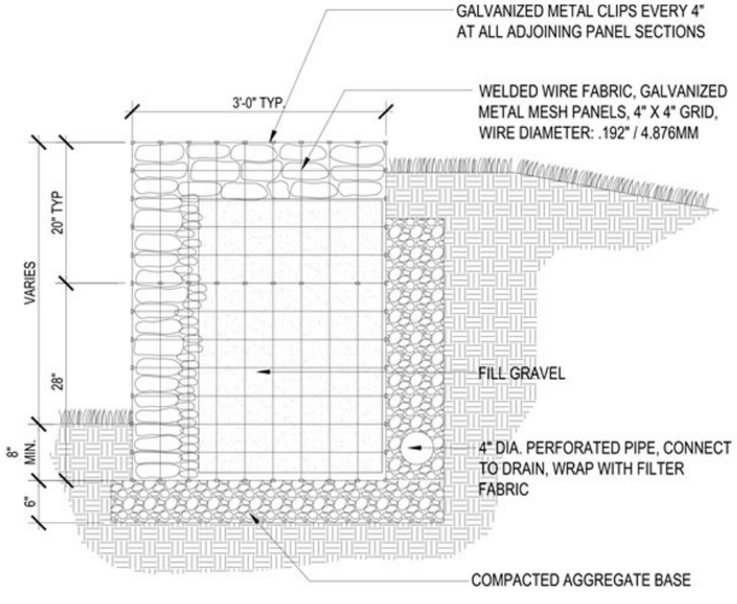
(j) Screen rooftop equipment on all visible sides with materials that are an integral part of the architecture. Parapet walls or screen walls shall be treated as an integral part of the architecture and shall not visually weaken the design of the structure.



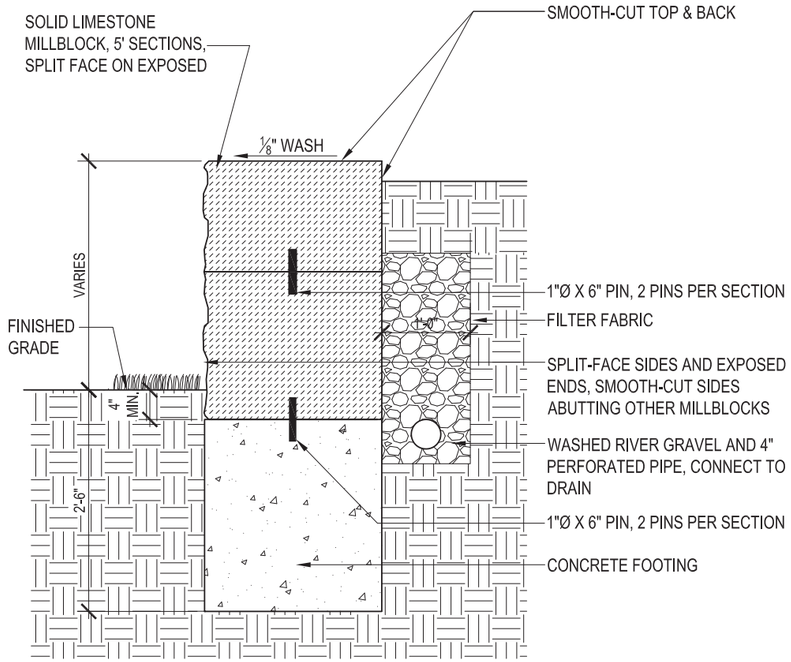
GABION WALL ELEVATION



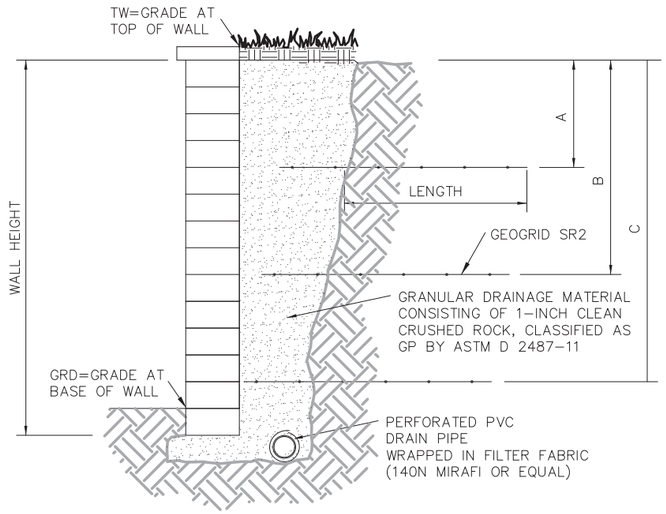
GABION WALL SECTION - FREESTANDING



GABION WALL SECTION - RETAINING



MILLBLOCK RETAINING WALL



MODULAR BLOCK RETAINING WALL

PLANT SCHEDULE

CANOPY TREES

SYM	QTY	BOTANICAL NAME	CULTIVAR	COMMON NAME	SIZE	METHOD	MATURE HEIGHT	DETAIL	COMMENTS
AC RU	3	Acer rubrum		Red Maple	2.5" Cal.	B & B	45+	-	Fast Growth Rate
AC SA	1	Acer saccharum		Sugar Maple	2.5" Cal.	B & B	45+	-	Slow / Medium Growth Rate
CE OC	1	Celtis occidentalis		Hackberry	2.5" Cal.	B & B	45+	-	Medium / Fast Growth Rate
GL KE	1	Gladiatsia kentucea		Sugar Maple	2.5" Cal.	B & B	45+	-	Slow / Medium Growth Rate
GI TI	4	Ginkgo biloba	Fastigiata	Ginkgo	2.5" Cal.	B & B	45+	-	Slow / Medium growth rate, male specimens only
GL TR	3	Gleditsia triacanthos	Inermis	Thornless Common Honeylocust	2.5" Cal.	B & B	45+	-	Medium / Fast Growth Rate
GY CE	1	Gymnocladus dioicus		Kentucky Coffe Tree	2.5" Cal.	B & B	45+	-	Fast Growth Rate
NY SY	16	Nyssa sylvatica		Black Tupelo	2.5" Cal.	B & B	30' - 50'	-	Slow / Medium Growth Rate
PL AC	1	Platanus x acerifolia		London Planetree	2.5" Cal.	B & B	45+	-	Fast Growth Rate
QU AC	4	Quercus acutissima		Sawtooth Oak	2.5" Cal.	B & B	45+	-	Medium Growth Rate
QU BI	4	Quercus bicolor		Swamp White Oak	2.5" Cal.	B & B	45+	-	Medium Growth Rate
QU MA	5	Quercus macrocarpa		Bur Oak	2.5" Cal.	B & B	45+	-	Slow / Medium Growth Rate
QU MU	1	Quercus muehlenbergii		Chinkapin Oak	2.5" Cal.	B & B	45+	-	Medium Growth Rate
TA DI	18	Taxodium distichum		Baldcypress	2.5" Cal.	B & B	45+	-	Medium Growth Rate

EVERGREEN TREES

SYM	QTY	BOTANICAL NAME	CULTIVAR	COMMON NAME	SIZE	METHOD	MATURE HEIGHT	DETAIL	COMMENTS
IL OP	5	Ilex opaca		American Holly	6' Ht.	B & B	45+	-	Slow growth rate
JU VI	8	Juniperus virginiana		Eastern Redcedar	6' Ht.	B & B	30' - 40'	-	Medium Growth Rate
PI GL	6	Picea glauca		White Spruce	6' Ht.	B & B	30' - 40'	-	Medium Growth Rate
PI SY	3	Pinus flexilis		Limber Pine	6' Ht.	B & B	30' - 40'	-	Medium Growth Rate

ORNAMENTAL TREES

SYM	QTY	BOTANICAL NAME	CULTIVAR	COMMON NAME	SIZE	METHOD	MATURE HEIGHT	DETAIL	COMMENTS
AM AR	9	Amelanchier arborea		Downy Serviceberry	2.5" Cal.	B & B	25' - 30'	-	Slow/medium growth rate
CE CA	5	Cercis canadensis		Common Redbud	2.5" Cal.	B & B	25' - 30'	-	Fast Growth Rate
CO FL	2	Cornus florida		Flowering Dogwood	2.5" Cal.	B & B	15' - 25'	-	Slow / Medium Growth Rate
HA VI	9	Hamamelis virginiana		Witch Hazel	2.5" Cal.	B & B	15' - 25'	-	Slow / Medium Growth Rate

SHRUBS

SYM	QTY	BOTANICAL NAME	CULTIVAR	COMMON NAME	SIZE	METHOD	SPACING	DETAIL	COMMENTS
fo gs	33	Fothergilla gardenii		Dwarf Fothergilla	24" Ht.	Container	36" O.C.	-	
hy ar	500	Hydrangea arborescens		Smooth Hydrangea	24" Ht.	Container	36" O.C.	-	
hy qu	94	Hydrangea quercifolia		Oakleaf Hydrangea	36" Ht.	Container	60" O.C.	-	
ju vi	168	Juniperus virginiana	Grey Owl	Grey Owl Juniper	24" Ht.	Container	36" O.C.	-	
rh ag	642	Rhus aromatica	GroLow	Gro-Low Sumac	24" Ht.	Container	36" O.C.	-	

GRASSES AND PERENNIALS

SYM	QTY	BOTANICAL NAME	CULTIVAR	COMMON NAME	SIZE	METHOD	SPACING	DETAIL	COMMENTS
pa vi	187	Panicum virgatum	Shenandoah	Shenandoah Switch Grass	2 Gal.	Container	36" O.C.	-	
sp he	696	Sporobolus heterolepis		Prairie Dropseed	1 Gal.	Container	18" O.C.	-	

PLUG MIXES

P1 - LOWER BIO-RETENTION

8,100 S.F.

Grasses Sedges

Andropogon gerardii	Big Bluestem
Calamagrostis canadensis	Blue Joint Grass
Carex frankii	Bristly Cattail Sedge
Carex stipata	Common Fox Sedge
Carex stricta	Common Tussock Sedge
Carex normalis	Spreading Oval Sedge
Carex vulpinoidea	Brown Fox Sedge
Chasmanthium latifolium	Indian Wood Oats
Deschampsia cespitosa	Tufted Hair Grass
Elymus virginicus	Virginia Wild Rye
Panicum virgatum	Switch Grass
Scirpus cyperinus	Wool Grass
Scirpus pendulus	Red Bulrush

Forbs

Anemone canadensis	Meadow Anemone
Asclepias incarnata	Swamp Milkweed
Aster novae-angliae	New England Aster
Bidens cernua	Nodding Bur Marigold
Caltha palustris	Marsh Marigold
Chelone glabra	White Turtlehead
Chelone obliqua	Rose Turtlehead
Equisetum hyemale	Horsetail/Tall Scouring Rush
Hibiscus moscheutos	Swamp Rose Mallow
Iris virginica	Blue Flag
Liatris spicata	Marsh Blazing Star
Rudbeckia subtomentosa	Sweet Black-eyed Susan
Senecio aureus	Golden Ragwort
Silphium integrifolium	Rough Gilderrod
Zizia aurea	Golden Alexander
Senecio aureus	Golden Ragwort

P2 - UPPER BIO-RETENTION

3237 S.F.

Grasses/Sedges

Bouteloua curtipendula	Side-Oats Grama
Carex pensylvanica	Common Oak Sedge
Chasmanthium latifolium	Indian Wood Oats
Elymus canadensis	Canadian Wild Rye
Panicum virgatum	Switch Grass
Schizachyrium scoparium	Little Bluestem
Sporobolus heterolepis	Prairie Dropseed

Forbs

Aster ericoides	Heath Aster
Aster novae-angliae	New England Aster
Coreopsis palmata	Prairie Coreopsis
Echinacea purpurea	Purple Coneflower
Heuchera richardsonii	Prairie Alum Root
Liatris aspera	Rough Blazing Star
Monarda fistulosa	Wild Bergamot
Penstemon digitalis	Foxglove Beard Tongue
Pycnanthemum tenuifolium	Narrowleaf Mountainmint
Ratibida pinnata	Greyheaded Coneflower
Rudbeckia subtomentosa	Sweet Black-eyed Susan
Senecio obovatus	Roundleaf Ragwort
Silene regia	Royal Catchfly
Zizia aurea	Golden Alexander

SEED MIXES

S1 - MESIC PRAIRIE

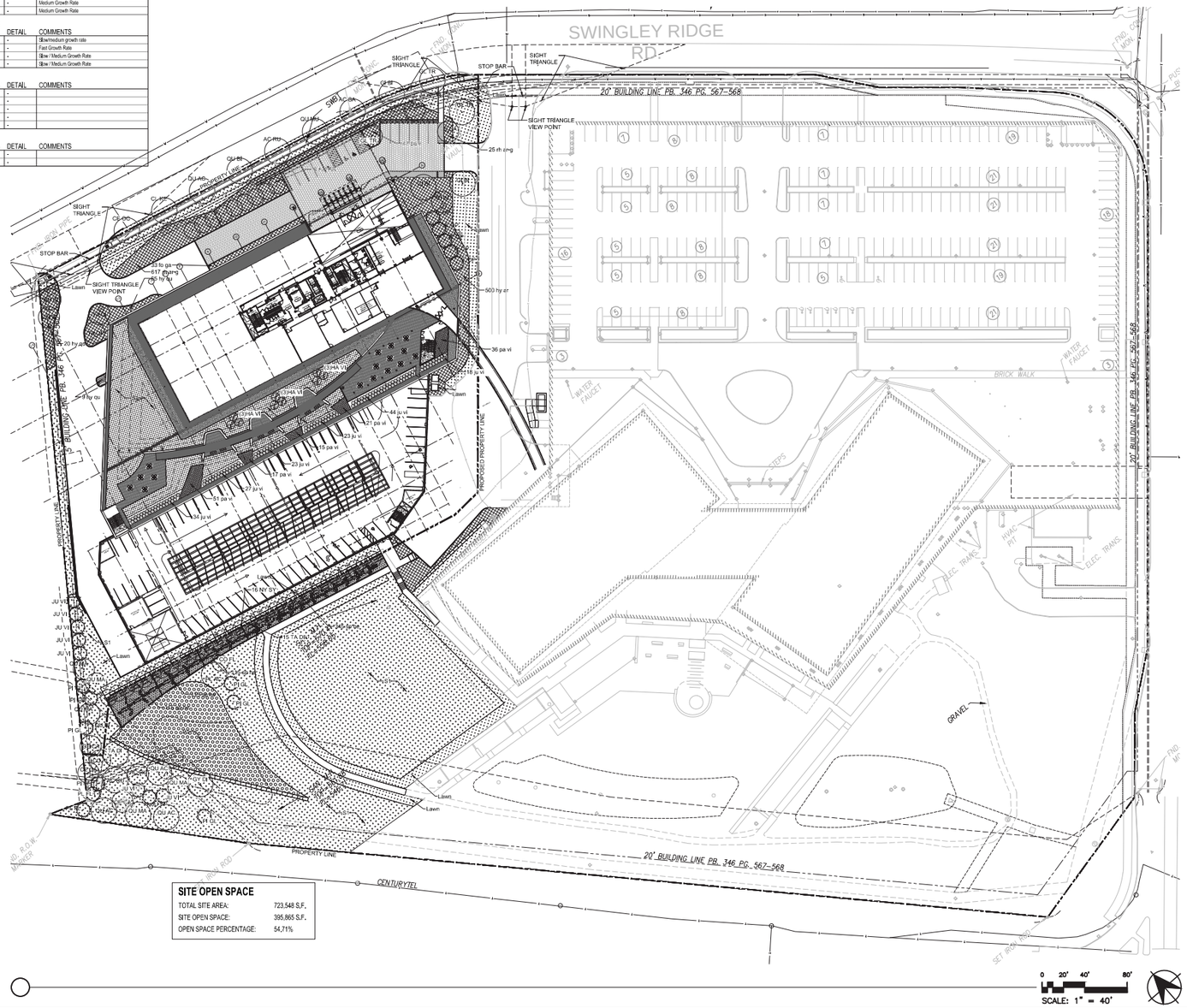
61,318 S.F.

Grasses Sedges

Bouteloua curtipendula	Sideoats Grama
Carex spp.	Prairie Sedge Species
Elymus canadensis	Canada Wild Rye
Panicum virgatum	Switch Grass
Schizachyrium scoparium	Little Bluestem
Sporobolus heterolepis	Prairie Dropseed

Forbs

Anemone cylindrica	Thimbleweed
Asclepias tuberosa	Butterfly Milkweed
Aster ericoides	Heath Aster
Aster novae-angliae	New England Aster
Baptisia lactea	White Wild Indigo
Chamaecrista fasciculata	Partridge Pea
Coreopsis lanceolata	Sand Coreopsis
Coreopsis palmata	Prairie Coreopsis
Dalea candida	White Prairie Clover
Dalea purpurea	Purple Prairie Clover
Echinacea purpurea	Broad-Leaved Purple Coneflower
Eryngium yuccifolium	Rattlesnake Master
Lespedeza capitata	Round-Headed Bush Clover
Liatris aspera	Rough Blazing Star
Lupinus perennis	Wild Lupine
Monarda fistulosa	Wild Bergamot
Parthenium integrifolium	Wild Quinine
Penstemon digitalis	Foxglove Beard Tongue
Pycnanthemum virginianum	Common Mountain Mint
Ratibida pinnata	Yellow Coneflower
Rudbeckia hirta	Black-Eyed Susan
Rudbeckia subtomentosa	Sweet Black-Eyed Susan
Silphium integrifolium	Rosin Weed
Silphium terebinthinaceum	Prairie Dock
Solidago rigida	Stiff Goldenrod
Tradescantia ohiensis	Common Spiderwort
Veronicastrum virginicum	Culver's Root



SITE OPEN SPACE

TOTAL SITE AREA:	723,548 S.F.
SITE OPEN SPACE:	395,865 S.F.
OPEN SPACE PERCENTAGE:	54.71%

SEAL

STATE OF MISSOURI
JAMES ANDREW KILMER
NUMBER LA-2006005036
PROFESSIONAL LANDSCAPE ARCHITECT
2018.11.30

J. ANDREW KILMER
LA-2006005036

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CONTRACTOR / DEVELOPER: CLAYCO

CIVIL ENGINEER: STOCK & ASSOCIATES

STRUCTURAL ENGINEER

MECHANICAL ENGINEER

ELECTRICAL ENGINEER

PLUMBING ENGINEER

FIRE PROTECTION ENGINEER

RGA GLOBAL HEADQUARTERS - PHASE II

16600 SWINGLEY RIDGE ROAD
CHESTERFIELD, MO

Developer

DRAWING ISSUE

Description	Date
ISSUE	10.03.18
REISSUE	11.30.18

Drawing Title: LANDSCAPE PLAN

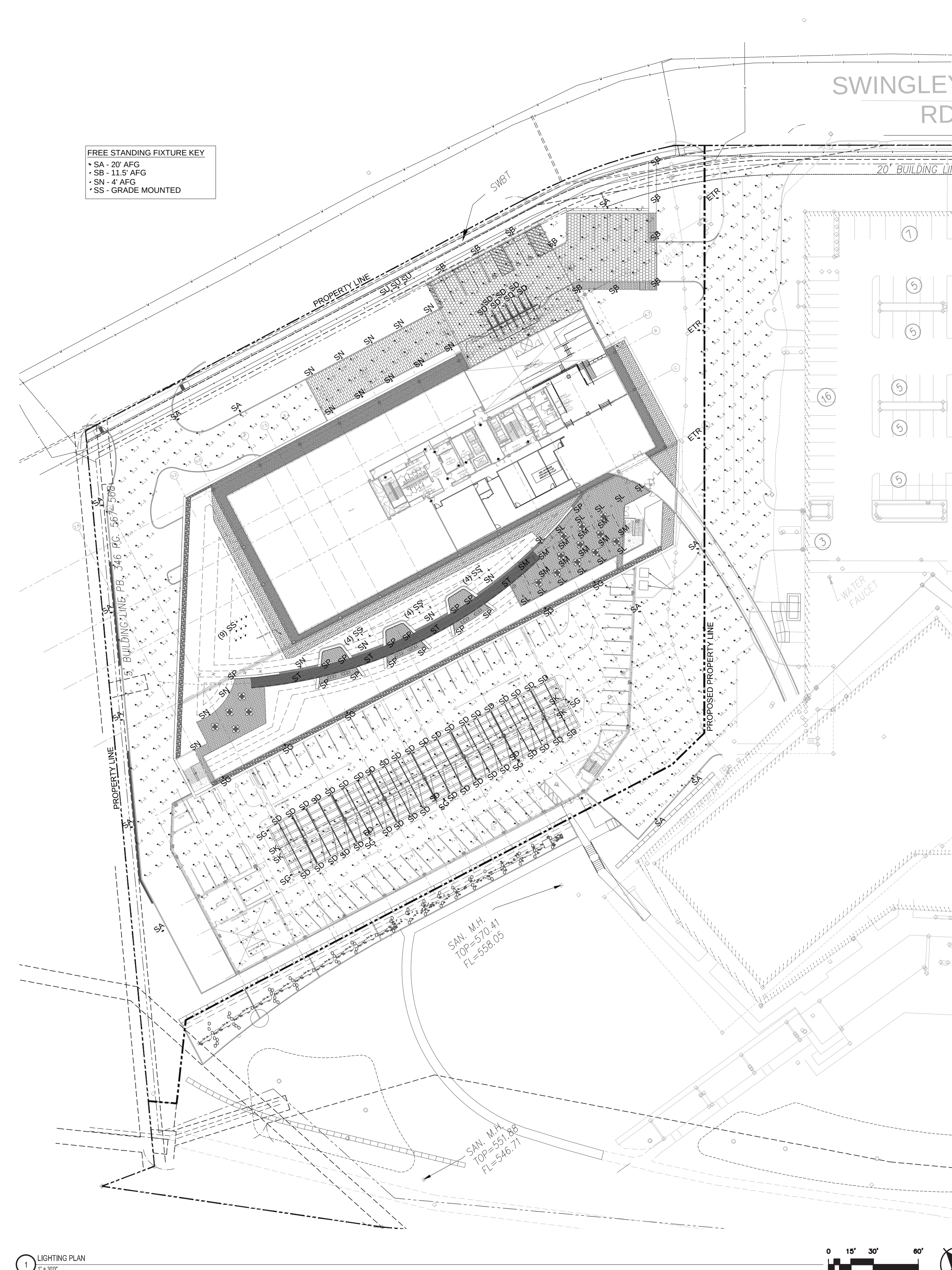
Drawing No.: L1

Consult. Job No.: 602-04196

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LUMINAIRE CASH ALLOWANCE	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES	REV.
SA	Bega 99599 K3-xxx(finish)-IMS-L3	Pole mounted LED area light atop 20' pole with motion sensing capability (Fixture to match existing - substitutions not acceptable)		LED 3000K	N/A	100	120-277		
SB	Bega 88983/79802 - MOD (LED)	Grade mounted light column (Fixture to match existing - Substitutions not acceptable)		LED 3000K	N/A	TBD	120-277		
SC	Sistemalux S.8862 W UNV 19	Direct burial LED up/accent light		LED 3000K	N/A	20	120-277		
SD	Vode 707-Z2-SL20'-ZZ-x/RP-AE-2-x-Z-LO-30-S5-0-xx	Surface mounted LED linear light mounted to canopy structure with remote driver		LED 3000K	N/A	7W /Ft	120-277 Primary/ Secondary as Required		
SF	Not Used								
SG	Bega 66464 K3 IMS L3	Bracket mounted LED area light (Fixture to match existing - Substitutions not acceptable)		LED 300K	N/A	95	120-277		

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LUMINAIRE CASH ALLOWANCE	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES	REV.
SH	Structura REED-M-2-xx-2-xx with Bega (2) 66464 K3	Sculptural pole with (2) LED area lights		LED 3000K	N/A	200	120-277		
SJ	Sistemalux S. 6090 W UNV xx/S. 6309	Grade mounted bollard		LED 3000K	N/A	20	120-277		
SK	EcoSense L50E 48 06-30-80-MULT-9x9	Surface mounted continuous LED grazing light		LED 3000K	N/A	6W /Ft	120-277		
SL	Bega 66982 K3	Surface mounted LED downlight		LED 3000K	N/A	10	120-277		
SM	EcoSense L50E 48 04 30 80 MULT ASYM	Surface mounted continuous linear uplight		LED 3000K	N/A	4W /Ft	120-277		
SN	Bega 88845 K3 MOD (LED)	Grade mounted bollard (Fixture to match existing - Substitutions not acceptable)		LED 3000K	N/A	30	120-277		
SP	Sistemalux S. 7016 W/ S. 7011 W/ S.7012 W	Direct burial continuous LED linear uplight with remote power supply		LED 3000K	N/A	3W /Ft	120-277 Primary/ Secondary as Required		
SR	Not used								

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LUMINAIRE CASH ALLOWANCE	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES	REV.
SS	Ecosense F170-1S-MO-30-8-20-x-F-C/F17-LS-1S-STK-12	Grade mounted LED accent light		LED 3000K	N/A	25	120-277		A
ST	Ecosense L50-E-48-08-30-80-MULT-LOL	Surface mounted linear LED area light mounted beneath grating		LED 3000K	N/A	8W/Ft	120-277		A
SU	Bega 77607-K3/19591	Grade mounted monument sign light		LED 3000K	N/A	13	120-277		A



1 LIGHTING PLAN 1" = 30'-0"

0 15' 30' 60'
SCALE: 1" = 30'

SEAL
STATE OF MISSOURI JAMES ANDREW KILMER NUMBER LA-2006005036 LANDSCAPE ARCHITECT
2018.11.30
J. ANDREW KILMER LA-2006005036

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ELECTRICAL ENGINEER
PLUMBING ENGINEER
FIRE PROTECTION ENGINEER

RGA GLOBAL HEADQUARTERS - PHASE II
16600 SWINGLEY RIDGE ROAD
CHESTERFIELD, MO

Developer

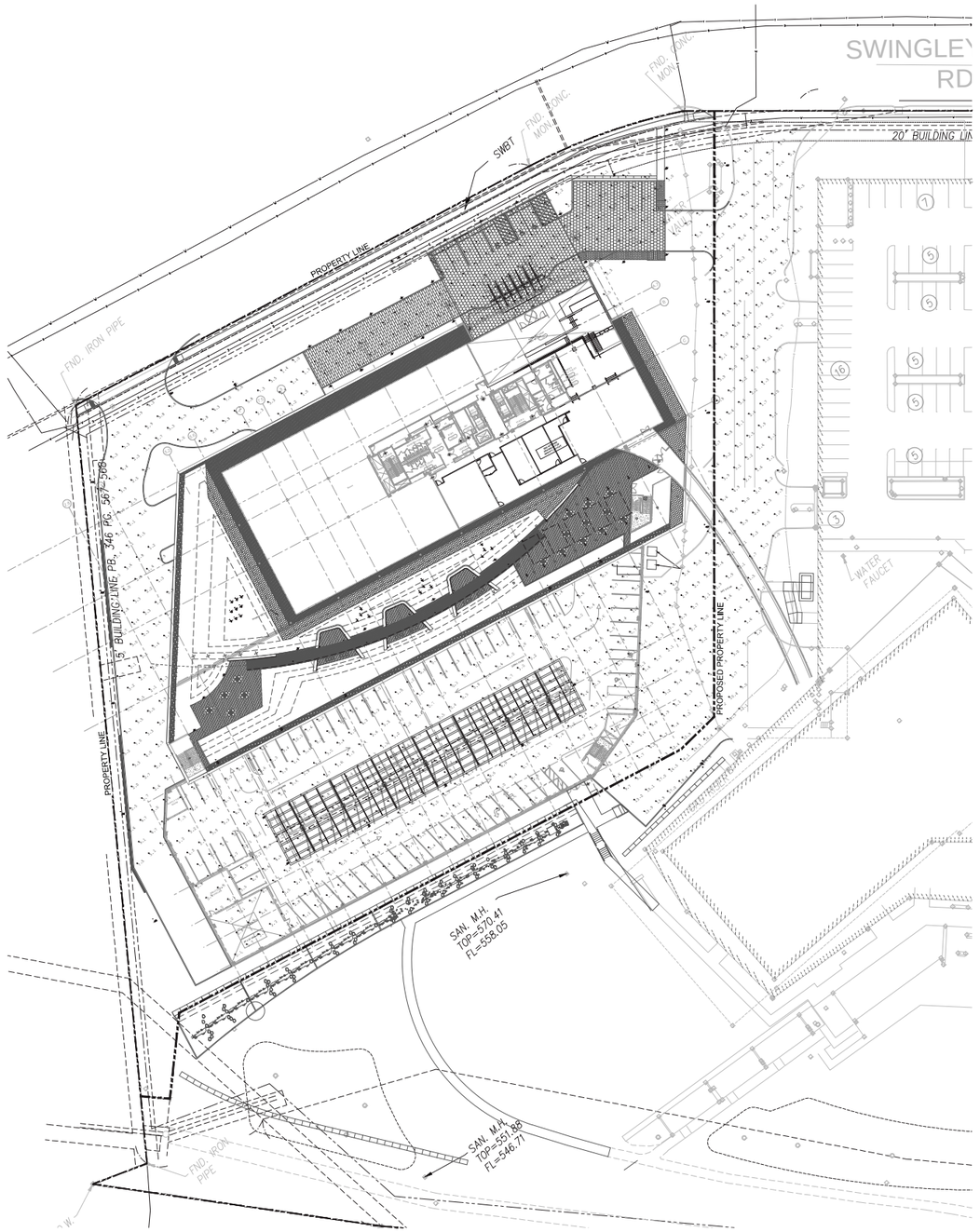
DRAWING ISSUE

Description	Date
ISSUE	10.01.18
REISSUE	11.30.18

Drawing Title
LIGHTING PLAN

Drawing No.
L2

Consult. Job No. 602-04196



1 LIGHTING PHOTOMETRIC PLAN
1" = 30'0"

0 15' 30' 60'
SCALE: 1" = 30'

SEAL
STATE OF MISSOURI
JAMES ANDREW KILMER
NUMBER LA-2006005036
PROFESSIONAL ENGINEER
2018.11.30

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ELECTRICAL ENGINEER
PLUMBING ENGINEER
FIRE PROTECTION ENGINEER

RGA GLOBAL HEADQUARTERS - PHASE II
16600 SWINGLEY RIDGE ROAD
CHESTERFIELD, MO

Developer

DRAWING ISSUE

Description	Date
ISSUE	10.01.18
REISSUE	11.30.18

Drawing Title:
LIGHTING PHOTOMETRIC PLAN

Drawing No.
L3

Consult 365 No. 602-04196

RANDY BURKETT LIGHTING DESIGN

RGA - Phase 2
Chesterfield, Missouri

ISSUE DATE: Nov 30, 2018

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LUMINAIRE CASH ALLOWANCE	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES	REV.
SA	Bega 99599 K3-xxx(finish)-IMS-L3	Pole mounted LED area light atop 20' pole with motion sensing capability (Fixture to match existing - substitutions not acceptable)		LED 3000K	N/A	100	120-277		
SB	Bega 88983/79802 - MOD (LED)	Grade mounted light column (Fixture to match existing - Substitutions not acceptable)		LED 3000K	N/A	TBD	120-277		
SC	Sistemalux S.8862 W UNV 19	Direct burial LED up/accent light		LED 3000K	N/A	20	120-277		
SD	Vode 707-Z2-SL20'-ZZ-x/RP-AE-2-x-Z-LO-30-S5-0-xx	Surface mounted LED linear light mounted to canopy structure with remote driver		LED 3000K	N/A	7W /Ft	120-277 Primary/ Secondary as Required		
SF	Not Used								
SG	Bega 66464 K3 IMS L3	Bracket mounted LED area light (Fixture to match existing - Substitutions not acceptable)		LED 300K	N/A	95	120-277		

ISSUE DATE: Nov 30, 2018

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LUMINAIRE CASH ALLOWANCE	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES	REV.
SH	Structura REED-M-2-xx-2-xx with Bega (2) 66464 K3	Sculptural pole with (2) LED area lights		LED 3000K	N/A	200	120-277		
SJ	Sistemalux S. 6090 W UNV xx/S. 6309	Grade mounted bollard		LED 3000K	N/A	20	120-277		
SK	EcoSense L50E 48 06-30-80-MULT-9x9	Surface mounted continuous LED grazing light		LED 3000K	N/A	6W /Ft	120-277		
SL	Bega 66982 K3	Surface mounted LED downlight		LED 3000K	N/A	10	120-277		
SM	EcoSense L50E 48 04 30 80 MULT ASYM	Surface mounted continuous linear uplight		LED 3000K	N/A	4W /Ft	120-277		
SN	Bega 88845 K3 MOD (LED)	Grade mounted bollard (Fixture to match existing - Substitutions not acceptable)		LED 3000K	N/A	30	120-277		
SP	Sistemalux S. 7016 W/ S. 7011 W/ S.7012 W	Direct burial continuous LED linear uplight with remote power supply		LED 3000K	N/A	3W /Ft	120-277 Primary/ Secondary as Required		
SR	Not used								

ISSUE DATE: Nov 30, 2018

TYPE	LUMINAIRE SPECIFICATION	LUMINAIRE DESCRIPTION	LUMINAIRE CASH ALLOWANCE	LAMP CODE	LAMPS/ UNIT	MAX WATTS/ UNIT	VOLTS	NOTES	REV.
SS	Ecosense F170-1S-MO-30-8-20-x-F-C/F17-LS-1S-STK-12	Grade mounted LED accent light		LED 3000K	N/A	25	120-277		A
ST	Ecosense L50-E-48-08-30-80-MULT-LOL	Surface mounted linear LED area light mounted beneath grating		LED 3000K	N/A	8W/Ft	120-277		A
SU	Bega 77607-K3/19591	Grade mounted monument sign light		LED 3000K	N/A	13	120-277		A

LED pole-top luminaires - Asymmetrical flat beam light distribution **BEGA**

Application
LED pole-top luminaire with asymmetrical flat beam light distribution designed for the illumination of parking areas and roadways. Tool-less entry with hinged door for ease of maintenance. Provided with slip fitter to fit 3" O.D. poles.

Materials
Luminaire housing and pole fitter constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass with anti-reflective coating for increased transmission
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP66
Effective projection area: 0.86 sq. ft.
Weight: 23.0lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	94.2W
System wattage	115W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	13,282 lumens (3000K)
Lifetime at Ta = 15° C	> 500,000 h (L70)
Lifetime at Ta = 40° C	222,000 h (L70)

LED color temperature

4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

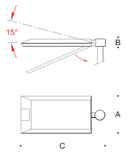
Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

Type:
BEGA Product:
Project:
Modified:

Available Accessories

IMS-L2	Internal motion sensor - 8' mouting height
IMS-L3	Internal motion sensor - 20' mouting height
IMS-L4 - narrow	Internal motion sensor - 40' mouting height
IMS-L7 - wide	Internal motion sensor - 40' mouting height
FSIR-100	Configuration tool

See individual accessory spec sheet for details.



Pole-top luminaire · Asymmetrical flat beam

	LED	A	B	C
99 599	94.2W	13⅜	3	32⅝

Recommended for use with 25' to 30' poles

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Updated 03/26/18

RANDY BURKETT LIGHTING DESIGN

RGA Phase 2

CHESTERFIELD, MO

TYPE SB

MOD-LED

Light building element
with **single**-sided light output

Post construction: The Light Element is constructed of a one piece thick walled aluminum extrusion with a die-cast end cap at the top and internal, heavy wall cast aluminum support pieces at the pole base. Die castings are marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy.

Optical enclosure: Thick walled aluminum extrusion with die-cast aluminum end cap and lens frame. Clear, tempered safety glass lens with a linear spread pattern. Reflector made from pure anodized aluminum. Internal louvers are made from semi specular anodized aluminum.

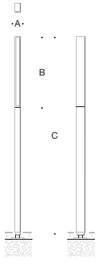
Electrical: Lampholders; Fluorescent miniature bi-pin T5 HO, rated 120 W, 600 V. Ballasts are electronic, universal voltage, 120 V through 277 V.

Anchor base: The Lighting Elements are supplied with an 890 C anchorage, consisting of a heavy gauge welded assembly of .157" thick galvanized steel. The luminaires slip fit over the base and are secured by eight (8) stainless steel fasteners.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in five standard BEGA colors: Black (BLK), White (WHT), Bronze (BRZ), Silver (SLV), Eurocoat (URO). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

U.L. listed for US and Canadian Standards, suitable for wet locations. Protection class: IP 65.

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



Single-sided

	Lamp*	Lumen	A	B	C	Anchorage
88983	1 54 W FL T5 HO	5000	3¾ x 6⅛	47¼	138	**79802**

*Equivalent standard T5 lamping available

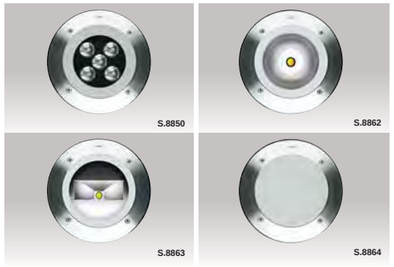
BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com

ZIP ROUND
WALK-OVER

SPECIFICATION SHEET

Project name:

Type:



Recessed walk-over luminaire with up light distribution, ZIP is the right answer to the most difficult architectural challenges.

Luminaire characteristics:
Power input: 14 or 16W
Lumens: 60 to 1366 lm
Luminaire efficacy: 4 to 97 lm/W

Source: LED module (LM-80 tested)
3000K : 90CRI
4000K : 90CRI
Lumen maintenance: 70% of initial lumens at >50 000 hours (L70),(LM79 tested).

Optics: 7° spot and 29° Medium (adjustable ±15°), 92° wide flood or asymmetrical beam.

Material:
Body: Die-cast aluminum with 2mm thick stainless steel front trim.
Reflector: 99.98% pure aluminum.
Diffuser: 10mm thick acid or semiacid-etched tempered glass.
Hardware: Stainless steel screws and silicone gaskets.
Back box: Polypropylene.

Electrical: Universal, Integral high efficiency electronic power supply, rated at 50 000 hours, 120-277V.

Mounting: Inground installation using back box. Supplied with 36" outdoor rated cable. Longer cords available on request. Separate waterproof wiring box to be provided by the contractor. Insure 12" of gravel minimum for drainage. Supply with 3' of outdoor rated cable.

Finish: Stainless Steel

Weight: 7.5 lbs (3.4kg).

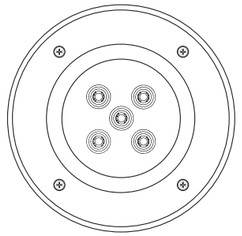
Max load capacity: 2204Lbs (1000kg)

Contact temperature: Less than 35°C (95°F)

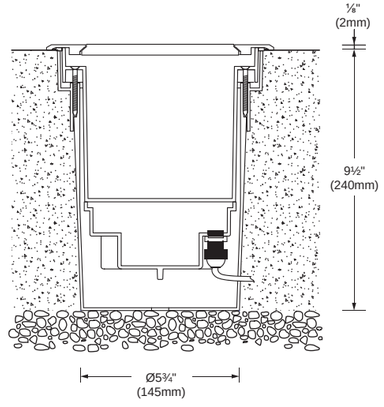
Warranty: 5 year limited warranty.

Certification: cULus listed for wet location.

Ratings: IP67, IK09



TOP VIEW



SECTION VIEW

SISTEMALUX

9320 Boul. St-Laurent, suite 100, Montréal (Québec) Canada H2N 1N7
P.: 514.523.1339 F.: 514.525.6107 www.sistemalux.com

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SC

ZIP ROUND
WALK-OVER

SPECIFICATION SHEET

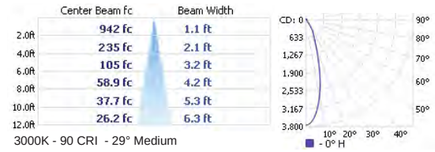
Project name:

Type:

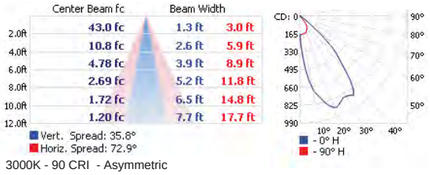
TECHNICAL DATA

LOAD (W)	CCT (K)	CRI	OPTIC	DELIVERED LUMENS (lm)	LUMINAIRE EFFICACY (lm / w)	CENTER BEAM CANDLE POWER (cd)	MODEL
16W	3000K	90	7° Spot	847	52	30 466	S.8850W
	4000K			915	57	32 903	S.8850N
14W	3000K		29° Medium	1366	97	3768	S.8862W
	4000K			1366	97	4068	S.8862N
	3000K		Asymmetric	748	53	984	S.8863W
	4000K			773	55	1017	S.8863N
	3000K		92° Wide flood	60	4	27	S.8864W
	4000K			65	4	29	S.8864N

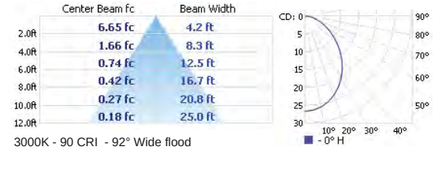
3000K - 90 CRI - 7° Spot



3000K - 90 CRI - 29° Medium



3000K - 90 CRI - Asymmetric



3000K - 90 CRI - 92° Wide flood

ORDERING INFO

MODEL - VOLTAGE - FINISH

MODEL
- **S.8850W -** 3000K, 7° Spot
- **S.8850N -** 4000K, 7° Spot
- **S.8862W -** 3000K, 29° Medium
- **S.8862N -** 4000K, 29° Medium
- **S.8863W -** 3000K, Asymmetric
- **S.8863N -** 4000K, Asymmetric
- **S.8864W -** 3000K, 92° Wide flood
- **S.8864N -** 4000K, 92° Wide flood

VOLTAGE
- **UNV -** 120-277V

FINISH
- **19 -** Stainless steel

DUE TO CONTINUOUS IMPROVEMENTS, THE INFORMATION HEREIN MAY BE CHANGED WITHOUT NOTICE. LAST UPDATE: OCTOBER 19, 2016 NA - R1

SISTEMALUX

9320 Boul. St-Laurent, suite 100, Montréal (Québec) Canada H2N 1N7
P.: 514.523.1339 F.: 514.525.6107 www.sistemalux.com

Spec Guide

ZipTwo® | Square Profile | 707

Direct lighting for open office and ambient applications.

ZipTwo Square, Critical Edge

Benefits & Features

Low Profile Design
Square profile. 1.38" (35mm) x 1.38" (35mm).

Superior Light Quality & Performance
Output up to 1316 lm/ft (4318 lm/m) (HO), 135 lm/W (SO). 80 or 90 CRI & tunable white (2200K-6500K) available.

Versatile Mounting, Easy Installation
Magnet strip, magnet with tape-on metal strip or low profile clip allow for mounting to almost any surface or T-Bar ceiling.

Full Diffuse & Critical Edge™ Options
Full diffuse lens for wide distribution or Critical Edge™ for a floating plane of light without diode image.

Square, Diffuse

Square, Diffuse

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SD

ZipTwo® | Square Profile | 707 Spec Guide

Build Your Specification

707-Z2	SL				0 ▸▸
System & Rail Type	System Type	System Length	Rail Length	Mounting	Arm/Cord Length

System & Rail Type
- **707-Z2** ZipTwo

System Type
- **SL** Standard Linear

System Length
Specify overall system length in ft/in or M/mm.

Rail Length
- **24** 24" (610mm)
- **36** 36" (914mm)
- **48** 48" (1219mm)
- **60** 60" (1524mm)
- **72** 72" (1829mm)
- **ZZ** Other rail length or layout (please specify)

Mounting
- **C** Clip
- **CM** Clip with Micro J-Box
- **M** Magnet
- **T** Magnet with Tape-On Metal Strip
- **T1** 9/16" T-Bar Clip, low profile
- **T2** 15/16" T-Bar Clip, low profile
- **T3** 15/16" T-Bar Clip, medium profile
- **T4** 15/16" T-Bar Clip, concealed
- **T5** 9/16" T-Bar Clip, medium profile
- **T6** Slotted T-Bar Clip
- **T7** Dimensional T-Bar Clip
- **ZZ** Other (please specify)

Arm/Cord Length
- **0** None

▸▸ RP				Z ▸▸
Power Location	Power Type	Voltage	Emergency Power	LED Type

Power Location
- **RP** Remote Power

Power Type
Remote Power*
- **AE** eldoLED 0-10v, 1.0% Dimming
- **AT** eldoLED 0-10v, 0.1% Dimming
- **AD** eldoLED DALI, 0.1% Dimming
- **AX** eldoLED DMX, 100-0% Dimming
- **AH** Lutron Hi-lume 1.0% EcoSystem (LDE1)
- **AH2** Lutron Hi-lume 1.0% 2-wire (LTE)
- **AH3** Lutron Hi-lume 1.0% EcoSystem/3-wire (L3D)
- **ZZ** Other (please specify)

See **Driver Guide for driver features & limitations.*

Voltage
- **1** 120v
- **2** 120v-277v
- **X** Not Yet Specified

Emergency Power
- **0** No Emergency Power
- **ZZ** Emergency Power *(specify requirements)*

LED Type
- **Z** Zipper Board™

▸▸				WH	0
Lumen Output	Color Temperature	Optics	Sensors	Finish	Options

Lumen Output
- **LO** Low Output
- **SO** Standard Output
- **HO** High Output*
- **ZZ** Other (please specify)

*See **IES Files** page for details.*

See **Driver Guide for driver features & limitations.*

Color Temperature
80+ CRI
- **27** 2700K
- **30** 3000K
- **35** 3500K
- **40** 4000K

90+ CRI
- **279** 2700K
- **309** 3000K
- **359** 3500K
- **409** 4000K
- **ZZ** Other (please specify)

Optics
- **S5** Square, Critical Edge
- **S6** Square, Diffuse

Sensors
- **0** None
- **ZZ** Sensor *(specify requirements)*

Finish
- **WH** White

Options
- **0** None

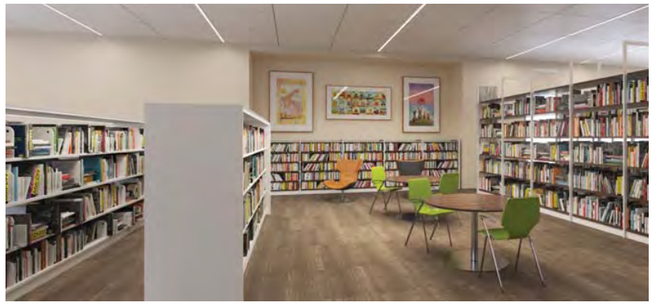
*5 Year Limited Warranty. See full Vode warranty description **here** or at vode.com.*

Listed to UL standards for damp location by a Nationally Recognized Testing Laboratory (NRTL) recognized by OSHA.

ZipTwo® | Square Profile | 707 Spec Guide

Applications

Open Office



Structure

Rail Lengths	24” (610mm), 36” (914mm), 48” (1219mm), 60” (1524mm), 72” (1829mm).
Rail Dimensions	1.38” (35mm) x 1.38” (35mm). See dimensions section for details
Construction	Extruded and machined 6063 aluminum.
Mounting	Clip, Clip with Micro J-Box, Magnet, Magnet with Tape-On Metal Strip, T-Bar Clips for most grid/panel construction.
Run Length	24” (610mm) minimum. Rail lengths may be installed end-to-end to any length.
Operating Temperature	32°F to 104°F (0°C to 40°C).
Humidity	0-95%, non-condensing. Suitable for damp locations.
System Weight	0.25lbs per ft (0.11kg per 305mm). *Power supply and housing not included.*

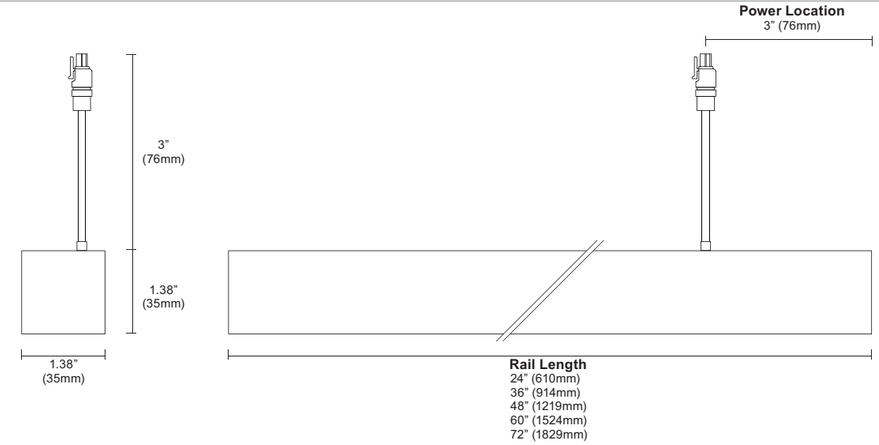
Materials

LED Board Construction	Aluminum core PCB, black LCP connectors, RoHS compliant.
Lens	High-impact extruded acrylic glass (PMMA).
Power Cable	Ø3mm, 22/2 AWG, UL2661, FEB insulated w/ PVC jacket.
Remote Power Housing	24.5”x1.9”x1.9”, 1/16” (0.8mm) formed steel, zinc chromate plating.

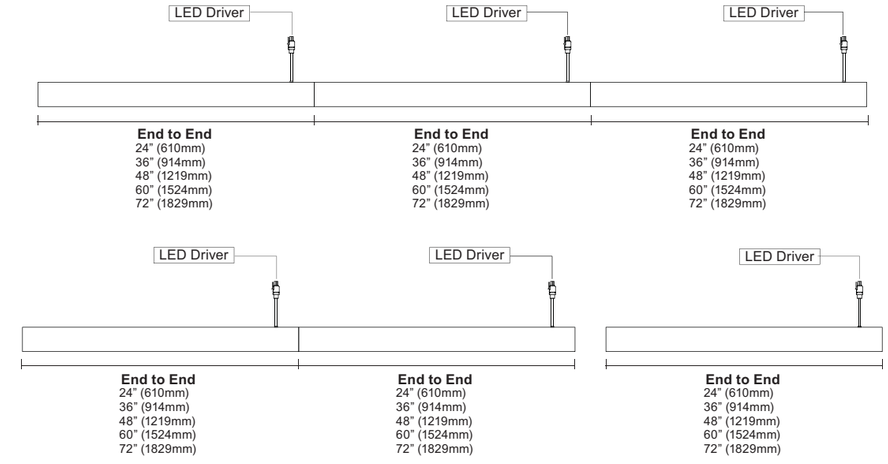
RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SD

ZipTwo® | Square Profile | 707 Spec Guide

Dimensions



Layout



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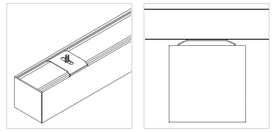
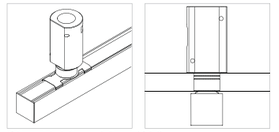
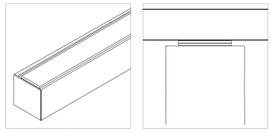
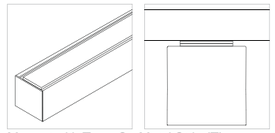
ZipTwo® | Square Profile | 707 Spec Guide

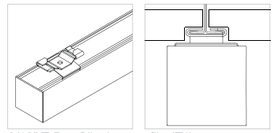
Mounting Options

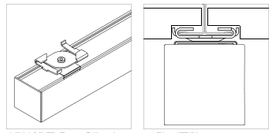

Clip (C)

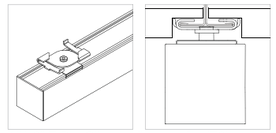

Clip with Micro J-Box (CM)

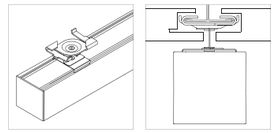

Magnet (M)

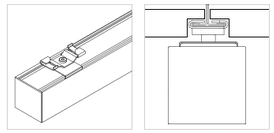

Magnet with Tape-On Metal Strip (T)

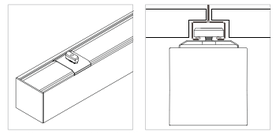

9/16" T-Bar Clip, low profile (T1)

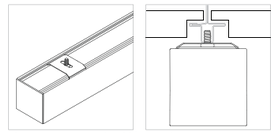

15/16" T-Bar Clip, low profile (T2)


15/16" T-Bar Clip, medium profile (T3)


15/16" T-Bar Clip, concealed (T4)


9/16" T-Bar Clip, medium profile (T5)


Slotted T-Bar Clip (T6)


Dimensional T-Bar Clip (T7)

See ***ZipTwo Clip Guide*** to check compatibility.

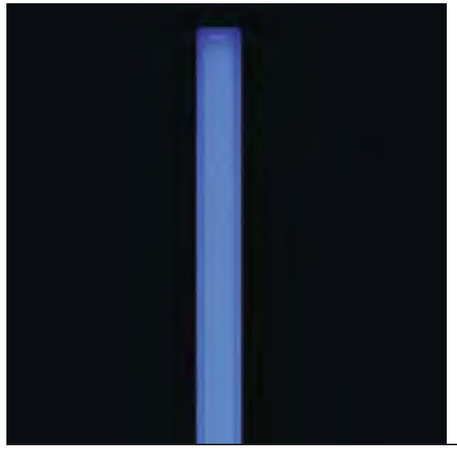
Power and Controls

Power Type	Class 2 (<60v output) constant current driver.
Controls	Dimming (0.1%, 1%), 0-10v, DALI, DMX, Lutron Hi-lume 1% are available. *See* ***Driver Guide*** *for details.*
Input Voltage	120-277v, 50/60hz.
Power Location	Remote power. Maximum remote distance is 72' (22m), depending on driver selection. See ***Driver Guide*** for more information.

.hess

LEDIA LL OD 36 Specification

Elegant in any context, LEDIA LL OD is ideally suited to a variety of recessed inground applications. It is available in four lengths. Frameless glass lens integrates subtly into pavers or concrete walkways to highlight or act as directional identifiers. The tempered glass lens, coated internally with a translucent white coating, is bonded to the stainless steel housing providing a sealed enclosure. LEDIA mounts into a recessed stainless steel subframe, which serves as a cable vault for making power connections. Remote 12v DC LED driver is required. LED colors; red, blue, green, amber, white.



Model	Length	Volt	Color	Option
LEDIA LL OD	36''	12 - 12 Volt DC	R - Red	DIM - Dimming Module
			G - Green	N - None
			B - Blue	
			A - Amber	
			WW - 3000K	
			CW - 6500K	

Ordering Information

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SF

.hess

LEDIA LL OD 36 Specification

HOUSING
Machined tempered glass lens is 0.75'' thick and bonded to the stainless steel luminaire housing providing a sealed enclosure. Exterior surface of lens is polished with chamfered edges. Underside of lens is diffused. LED light engine housing is constructed of stainless steel. All internal components are sealed to prevent moisture entry. Luminaire mounts into stainless steel sub-frame where electrical connections are made. Luminaire is supplied with removable extruded aluminum form for rough-in installation. Recessed frame and removable form may be pre-shipped upon request.

OPTICS
Low wattage LED's provide even illumination across the entire lens surface.

BUG RATING
3000K: B0-U2-G0
6500K: B0-U2-G0

ELECTRICAL
Remote 60w LED driver is sold separately and may be used to power multiple luminaires. Universal voltage LED driver accepts 100v through 277v, 50/60 Hz input and provides 12v DC to luminaire. Driver shall have a high power factor rating greater than 95%. Maximum power consumption is 71 watts. UL Recognized driver has a minimum start temperature is -25°C(-13°F) and maximum ambient rating of 38°C (100°F).

Luminaire is supplied with pigtail connectors and waterproof wire nuts. Wiring from LED power supply to luminaire and wiring between luminaires shall be supplied by others. Optional dimming module, suitable for dry locations, is available and requires a 10v DC voltage controller (by others).

LAMPING
Total power consumption is 10 watts. Colors are available in red, blue, green, amber, warm white (3000K), and cool white (6500K)

NOTE : Due to rapid and continuous advances in solid state lighting technology, LED luminaire data is subject to change without notice and at the discretion of HessAmerica. HessAmerica cannot guarantee consistency in color, color temperature, CRI, or brightness when matching existing luminaires due to lumen depreciation and improvements in existing technology.

CERTIFICATION
UL Listed for Wet Locations. Ingress Protection: IP67.

WEIGHT: 13 lbs

WARRANTY
Limited product warranty period including the LEDs is five years. Driver and optional dimming module shall carry the manufacturer's limited warranty.

.hess

Additional information

Dimensions

LED wall mount luminaires - Asymmetrical flat beam light distribution

BEGA

Type:
BEGA Product:
Project:
Modified:

Application
LED wall mount luminaire with asymmetrical flat beam light distribution designed for the illumination of parking areas and roadways.

Materials
Luminaire housing and mounting canopy constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass with anti-reflective coating for increased transmission
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP66
Weight: 23.0lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	94.2W
System wattage	115W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	13,282 lumens (3000K)
Lifetime at Ta = 15° C	>500,000 h (L70)
Lifetime at Ta = 45° C	213,000 h (L70)

LED color temperature

4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

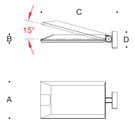
Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

Available Accessories

IMS-L2	Internal motion sensor - 8' mouting height
IMS-L3	Internal motion sensor - 20' mouting height
IMS-L4	Internal motion sensor - 40' mouting height - narrow
IMS-L7	Internal motion sensor - 40' mouting height - wide
FSIR-100	Configuration tool

See individual accessory spec sheet for details.



Wall mount luminaire · Asymmetrical flat beam

	LED	A	B	C	D
66464	94.2W	13 3/8	3	31 1/2	5 5/8

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Updated 03/26/18

Reed 12' - 40' Steel Pole Cluster

FIXTURE TYPE: _____

PROJECT NAME: _____

Formed steel pole arrangement

FEATURES:

- Available in painted galvanized steel or natural weathering steel (large version only) for a rusted finish
- Specify individually or as a cluster
- Tilted and bent variations
- Customizable luminaire mounts and locations

SPECIFICATIONS:

CONSTRUCTION: Steel shaft constructed of rolled galvanized steel or rolled weathering steel.*

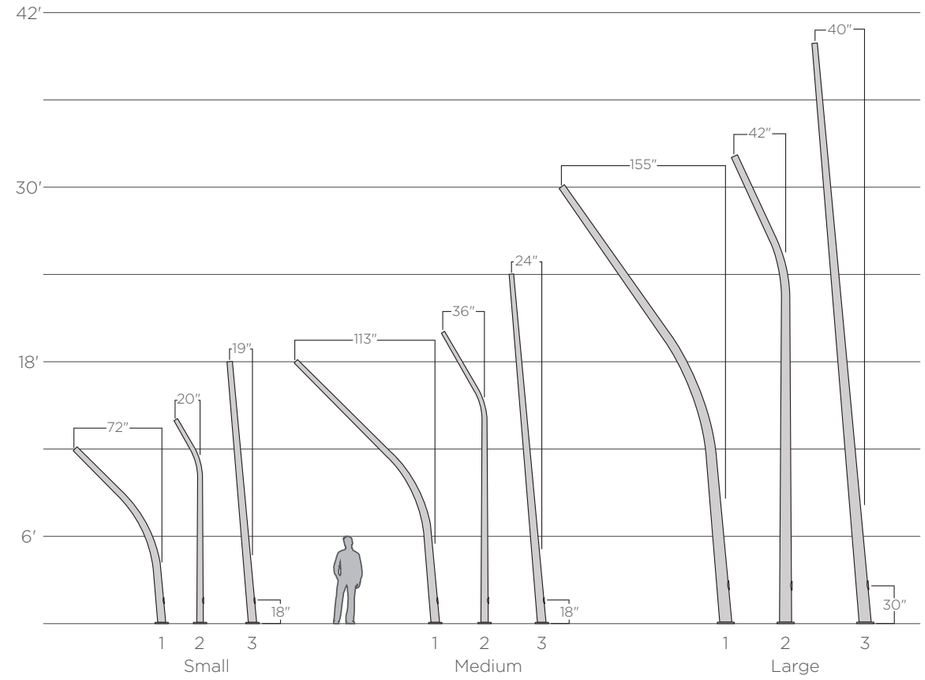
FINISHES AND MATERIALS: All galvanized poles are polyester powder coat painted. Weathered steel is left raw to gradually create a rust finish. Rust appearance powdercoat option is available.

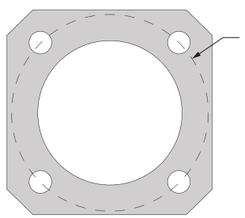
HARDWARE: Anchor bolt kits are hot dipped galvanized steel.

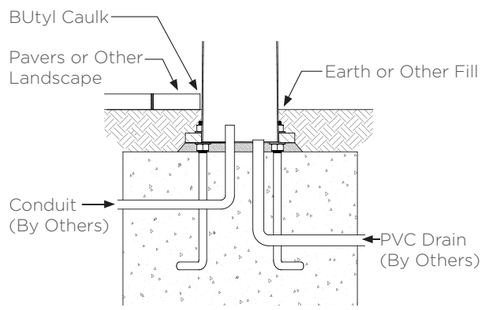
FIXTURE MOUNTING: Fixtures mount to specified tenon or with the use of threaded inserts. Standard tenons are 2-3/8" OD by 6" long. Consult factory for additional options.

*Large pole set only

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SH and SH1







Suggested Installation

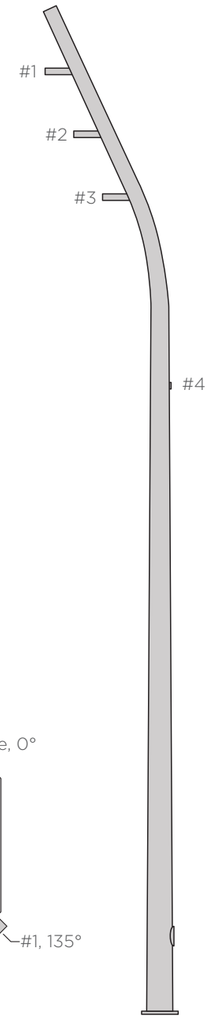
Product specification sheets subject to change.

HOW TO ORDER

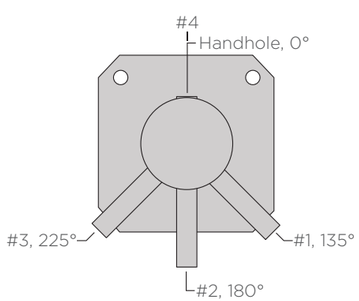
HOW TO ORDER:

Follow these steps below to order. Number designations match those found in the Ordering Guide.

1. Specify the product series.
2. Specify pole number.
3. Choose a powdercoat paint finish or weathered steel for pole finish. Custom colors are available. Indicate RAL color with the order or provide a paint chip for color match.
4. Specify number of fixture to mount to the pole.
5. Indicate "MOD" if the order requires any special mounting, electrical requirements, dimensions, custom finishes or other deviations from the product specification.
6. Use the table to indicate fixture height, angle, and mounting. Angles available in 45° incriments clockwise from the handhole at 0°.



Catalog Number			
REED-L-2-ALU-4-STD			
Fixture	Height	Angle	Mounting
#1	30′	135°	2-3/8″ Tenon
#2	28′	180°	2-3/8″ Tenon
#3	26′	225°	2-3/8″ Tenon
#4	20′	0°	Threaded Insert
#5			
#6			



RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SH and SH1

FIXTURE TYPE: _____

PROJECT NAME: _____

ORDERING GUIDE: EXAMPLE: REED-L-2-C2-4-STD

REED					
1	2	3	4	5	6

1 Series
REED — Reed

2 Size
S — Small
M — Medium
L — Large

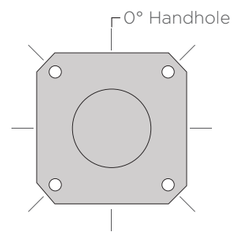
3 Pole S/M/L
1 — 12/18/30′
2 — 14/20/32′
3 — 18/24/40′

4 Pole Finish
C* — Galvanized Steel See color options on finishes technical sheet
WS — Weathering Steel[1]

5 Fixture Quantity
1 — 1
2 — 2
3 — 3
4 — 4
X — Specify

6 Special
STD — Standard
MOD — Modified

Catalog Number					
REED-	-	-	-	-	
Fixture	Height	Angle	Mounting		
#1					
#2					
#3					
#4					
#5					
#6					



1. Weathering steel finish option available only with Large pole set.

Product specification sheets subject to change.

TYPE SH and SH1

LED davit arm luminaires - Asymmetrical flat beam light distribution **BEGA**

Application
LED davit arm luminaire with asymmetrical flat beam light distribution designed for the illumination of parking areas and roadways. Tool-less entry with hinged door for ease of maintenance. Slip fits 2⅜" O.D. tenon, secures to pole with integrated slip fitter mechanism and lateral set screws.

Materials
Luminaire housing and pole fitter constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass with anti-reflective coating for increased transmission
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP66
Effective projection area: 0.75 sq. ft.
Weight: 19.2 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	47.2 W
System wattage	60 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	7,343 lumens (3000K)
Lifetime at Ta = 15° C	> 500,000 h (L70)
Lifetime at Ta = 50° C	222,000 h (L70)

LED color temperature

4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

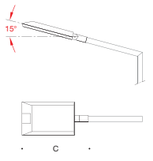
Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

Type:
BEGA Product:
Project:
Modified:

Available Accessories

IMS-L2	Internal motion sensor - 8' mouting height
IMS-L3	Internal motion sensor - 20' mouting height
IMS-L4 - narrow	Internal motion sensor - 40' mouting height
IMS-L7 - wide	Internal motion sensor - 40' mouting height
FSIR-100	Configuration tool

See individual accessory spec sheet for details.



Davit arm luminaire · Asymmetrical flat beam

	LED	A	B	C
99 454	47.2 W	13⅜	3	27⅜

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Updated 03/26/18

BLINKER

BOLLARD

Type: **SPECIFICATION SHEET**
Project : Page: 1 of 4

Collection of bollards for exterior commercial and institutional applications. Exceptional European build quality with high corrosion resistant finish. Robust marine grade die-cast aluminum construction with stainless steel fasteners and factory sealed micro-prismatic glass diffuser.

Luminaire characteristics:	**Power input:** 17 to 34.5W **Lumens:** 280 to 825lm (for 3000K, 90CRI) **Luminaire efficacy:** 16 to 24lm/W
Source:	LED module (LM-79 tested) 3000K : 90CRI, 4000K : 90CRI.
Lumen maintenance:	>70% of initial lumens at 50 000 hours (L70) (LM80 tested).
Optics:	Accent light.
Material:	Body: Die-cast aluminum Reflector: 99.98% pure anodized aluminum Diffuser: 4mm thick acid etched tempered glass Hardware: Stainless steel screws and silicone gaskets.
Mounting:	Install with flange accessory or fasten to ground.
Electrical:	Integral high efficiency electronic power supply, rated at 50 000 hours, 120-277V.
Finish:	Aluminum gray or Burnished bronze.
Weight:	7.3 to 30.2lbs (3.3 to 13.7kg)
Warranty:	5 year limited warranty.
Ratings:	IP65, IK06
Certification:	cULus listed for Wet location

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SJ

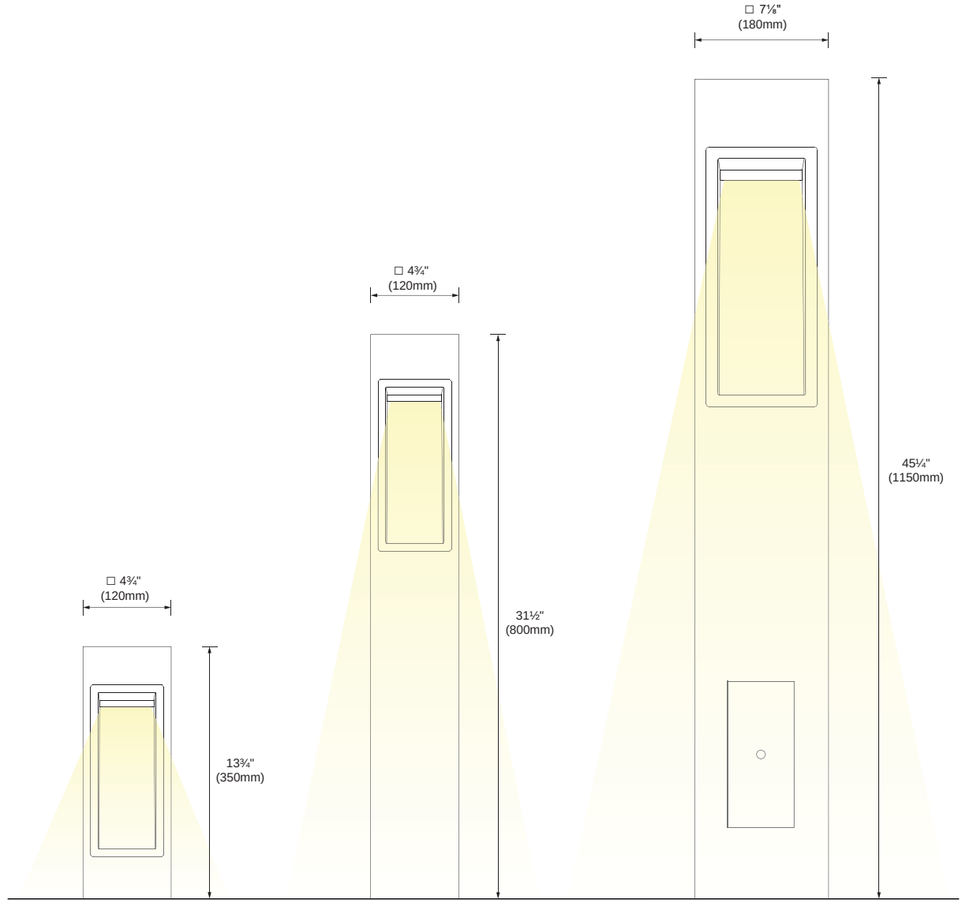
BLINKER

BOLLARD

Type: **SPECIFICATION SHEET**
Project : Page: 2 of 4

DIMENSIONS

Mini Blinker Bollard	Mini Blinker Bollard	Mega Blinker Bollard
S.6050	S.6090	S.6040



FRONT VIEW

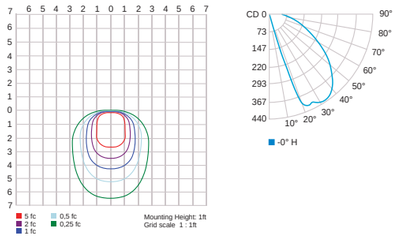
BLINKER
BOLLARD

Type: **SPECIFICATION SHEET**
Project : Page: 3 of 4

PHOTOMETRIC DATA
Visit sistemalux.com for complete photometric data.

Mini Blinker Bollard

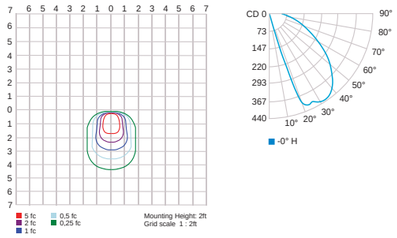
LOAD (W)	CCT (K)	CRI	OPTIC	LUMENS (lm)	EFFICACY (lm / w)	MAX CANDELA (cd)	MODELS
17W	3000K	90	Accent light	280	16	435	S.6050W
	4000K			310	18	480	S.6050N



3000K - 90 CRI - Accent light

Mini Blinker Bollard

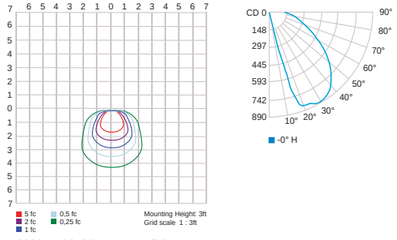
17W	3000K	90	Accent light	280	16	435	S.6090W
	4000K			310	18	480	S.6090N



3000K - 90 CRI - Accent light

Mega Blinker Bollard

34.5W	3000K	90	Accent light	755	22	880	S.6040W
	4000K			825	24	960	S.6040N



3000K - 90 CRI - Accent light

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SJ

BLINKER
BOLLARD

Type: **SPECIFICATION SHEET**
Project : Page: 4 of 4

MOUNTING (TO BE ORDERED SEPARATELY)

☐ **S.6309 -** Flange with stainless steel screws for Mini Blinker Bollard (S.6050/90)
Ø 4¾" x H: 6½"
(Ø 119mm x H: 164mm)
(To be installed in concrete)

☐ **S.5310 -** Flange with stainless steel screws for Mega Blinker Bollard (S.6040)
Ø 7⅛" x H: 7⅞"
(Ø180mm x 200mm)
(To be installed in concrete)

ORDERING INFO

_____ - _____ - _____
FIXTURE

MODELS

Mini Blinker Bollard -13¾"	Mini Blinker Bollard - 31½"	Mega Blinker Bollard
☐ **S.6050W -** 3000K	☐ **S.6090W -** 3000K	☐ **S.6040W -** 3000K
☐ **S.6050N -** 4000K	☐ **S.6090N -** 4000K	☐ **S.6040N -** 4000K

ELECTRICAL

☐ **120* -** 120V ☐ **UNV -** 120-277V

FINISH

☐ **14 -** Aluminum gray ☐ **20 -** Burnished bronze

*120V only available for Mega Blinker.

PP - R0 Last update: August 23, 2018
Due to continuous improvements, the information herein may be changed without notice
SISTEMALUX
9320 Boul. St-Laurent, suite 100, Montréal (Québec) Canada H2N 1N7, P.: 514.523.1339 F.: 514.525.6107 www.sistemalux.com

ECOSENSE® TRŌV®

OVERVIEW • SPECIFICATIONS • ORDERING | INTERIOR + EXTERIOR | **L50 GRAZE**

DATE	PROJECT	FIRM	TYPE

THE L50 INCLUDES PATENTED OPTICAL DESIGN THAT DELIVERS THE WIDEST RANGE OF BEAM ANGLE OPTIONS FOR PRECISE COVE, WALL GRAZING, WALL WASHING OR LINE OF LIGHT APPLICATIONS. EXCLUSIVE FLIP TO FLAT™ HINGE DESIGN PROVIDES FLEXIBILITY WHEN MANAGING SMALL COVE DETAILS. TROV OFFERS SMOOTH, FLICKER FREE DIMMING DOWN TO 0%.

FEATURES :

- DIM TO 0%, ELV REVERSE PHASE
- 24 BEAM ANGLES
- MULTI-VOLT
- FLIP TO FLAT™
- 6 CCT OPTIONS
- 80+ AND 90+ CRI OPTIONS
- IP54 INTERIOR AND IP66 EXTERIOR OPTIONS

MODEL/ SIZE	INTERIOR/ EXTERIOR	LENGTH	POWER	CCT		CRI	VOLTAGE	OPTICS	
L50	I E	12" 48"	02 04 06 08 10 12	**WHITE CCT** 22 27 30 35 40 50	**MONO COLOR** GR**** BL AM RD***	80 90* Blank For Color	MULT (120-277V)	**GRAZING** 9 x 9 9 x 17 9 x 29 9 x 59 15 x 15 15 x 23 15 x 35 15 x 65 **COVE** 120** Asym **LINE OF LIGHT** LOL	**WASHING** 25 x 25 25 x 33 25 x 45 25 x 75 39 x 9 55 x 25 40 x40 40 x 48 40 x 60 40 x 90 45 x 15 70 x 40 70 x 70

EXAMPLE: L50-I-48-10-27-90-MULT-15x65 *90 CRi not available in 2200K or 5000K **120 is only available with Exterior option. See L35 spec sheet for interior cove options. ***Red is not available in 12W or 10W. ****Green is not available in 12W.

PERFORMANCE	WATTS	OPTIC	LUMEN OUTPUT	EFFICACY
	2W	9"x 29"	110 lm/LF (361 lm/m)	55 lm/W
	4W	9"x 29"	302 lm/LF (1037 lm/m)	76 lm/W
	6W	9"x 29"	482 lm/LF (1614 lm/m)	80 lm/W
	8W	9"x 29"	675 lm/LF (2224 lm/m)	84 lm/W
	10W	9"x 29"	785 lm/LF (2644 lm/m)	79 lm/W
	12W	9"x 29"	923 lm/LF (3109 lm/m)	77 lm/W

ALL LUMEN DATA IS FROM 4000K 80CRI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN DATA.

COLOR RENDERING INDEX 80+, 90+
COLOR CONSISTENCY 2-STEP MACADAM ELLIPSE
LUMEN DEPRECIATION / RATED LIFE

WATTS	L70 @ 25C	L70 @ 50C	L90 @ 25C	L90 @ 50C
2W-12W	>150,000	>70,000	>50,000	>25,000

*CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

* CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

ELECTRICAL

POWER CONSUMPTION 2W*/LF (6.6W/M) ; 4W/LF (13.2W/M) ; 6W/LF (19.8W/M) ; 8W/LF (26.4W/M) ; 10W/LF (33W/M) ; 12W/FL (39.6W/M)
* 3W/LF (9.9W/M) at 220V -277V

MAX FIXTURE RUN LENGTH

	2W/LF		4W/LF		6W/LF		8W/LF		10W/LF		12W/LF	
Volts	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'
120	214	214	186	186	152	152	114	114	91	91	76	76
220	374	392	340	340	277	277	209	209	95	167	95	139
277	374	494	374	428	349	349	263	263	95	190	95	175

POWER FACTOR 4W, 6W, 8W, 10W, 12W >0.9, 2W<0.9
OPERATING VOLTAGE MULTIVOLT: 110-277VAC, 50/60 Hz
DRIVER INTEGRAL TO FIXTURE; DE-RATED POWER AND SYNCHRONOUS START-UP AT FULL BRIGHTNESS
STARTUP TEMPERATURE -40˚F TO 122˚F (-40˚C TO 50˚C)
OPERATING TEMPERATURE -40˚F TO 122˚F (-40˚C TO 50˚C)
STORAGE TEMPERATURE -40˚F TO 176˚F (-40˚C TO 80˚C)

ECOSENSE LIGHTING INC.
837 NORTH SPRING STREET
SUITE 103
LOS ANGELES, CA 90012

P • 310.496.6255
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855.6.ECOSEN

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SK

ECOSENSE® TRŌV®

OVERVIEW • SPECIFICATIONS • ORDERING | INTERIOR + EXTERIOR | **L50 GRAZE**

DATE	PROJECT	FIRM	TYPE

CONTROL	**DIMMING**	110-277VAC, ELV TYPE 0.07%-100%, REVERSE PHASE, TRAILING EDGE ETC control systems require 0-10V control using EcoSense LDCM. TROV will not work with ETC phase dimmers.
PHYSICAL	**DIMENSIONS**	W 1.6" x H 2" x L 12"/48" ; (41.6mm x 50.5mm x 304.7mm/1201mm)
	HOUSING /LENS	EXTRUDED ALUMINUM; UV STABILIZED POLYCARBONATE; STAINLESS STEEL FASTENERS; PLASTIC ENDCAPS RUBBER OVERMOLD FOR CABLE ASSEMBLY
	WEIGHT	1.52LBS / 0.69KG (1FT) ; 4.95LBS / 2.25KG (4FT)
	CONNECTORS	INTEGRAL MALE/ FEMALE CONNECTORS
	ENVIRONMENT	INDOOR • ETL CERTIFIED FOR DRY/DAMP LOCATIONS IP54 OUTDOOR • ETL CERTIFIED FOR WET LOCATIONS IP66 IMPACT RATED TO IK10
	BEAM ANGLE	GRAZING, WASHING, COVE, ASYMMETRIC, LINE OF LIGHT
	MOUNTING OPTIONS	INTEGRAL MOUNTING AND ADJUSTABLE AIMING FROM 0°-180° IN 15° INCREMENTS
FIXTURE RATING & CERTIFICATIONS	**CE, ETL CERTIFIED** **RoHS COMPLIANT** **ENERGY STAR COMPLIANT** **DLC COMPLIANT** **RCM CERTIFIED**	
LIMITED WARRANTY	**5 YEARS**	

WIRING OPTIONS (MVOLT): 110-277VAC

Power Cable Assembly, TROV, Leader/Jumper, 10 foot CBL-3P-L-UNV-10*
Power Cable Assembly, TROV, Leader/Jumper, 50 foot CBL-3P-L-UNV-50*
Power Cable Assembly, TROV, Jumper, 5 foot CBL-3P-L-UNV-05**
Power Cable Assembly, TROV, Jumper, 1 foot CBL-3P-L-UNV-01**
Power Cable Assembly, TROV, Adjustable Jumper, 0" to 7" CBL-3P-L-UNV-ADJ
Power Cable Assembly, TROV, Male and Female terminator caps CBL-3P-L-UNV-CAPS
*Two (2) terminators are included with the 10' and 50' power cable. One Leader need per circuit/fixture run. Cables are not plenum rated.
** If using the 5' or 1' power cable assembly as a leader to power a run one set of CBL-3P-L-UNV-CAPS will also be need per cable.

0-10V CONTROL OPTIONS

100-120VAC / 277VAC Linear Dimming Control Module 0-10V - Plenum Rated LDCM-PL-120-277-010V-GR
All products come standard with ELV dimming capabilities. 0-10V Control options required for operation at 0-10V.

OPTIONAL ACCESSORIES

Mounting

Mounting Track and Clips Set, 48 Inch Track, 8 Clips ..... MNT-L-TRKCLIP-48 ..... 48" track and clips set will work with one 48" fixture or four 12" fixtures.
Mounting Track and Clips Set, 12 Inch Track, 2 Clips ..... MNT-L-TRKCLIP-12 ..... 12" track will not work with 48" fixtures.
Mounting Track Clip, TROV, Set of 2 ..... MNT-L-CLIP ..... Clips needed = 12" fixtures need 1 set of 2 and 48" fixture needs 2 sets of 2.
90 Degree L bracket, TROV, Set of 2 ..... MNT-L-LBKT ..... L-Brackets needed = 12" fixtures need 1 set of 2 and 48" fixture needs 1 set of 2.
Angle Locking Clip, TROV, Pack of 10 ..... MNT-L-ANGLOCK ..... Angle Locks needed = 12" fixtures need 1 and 48" fixtures need 2. (Must order separately)
Mounting, Fine Adjustment Bracket, TROV ..... MNT-L-FAB ..... Fine Adjustment Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment Bracket is highly recommended for Grazing Optics.
Mounting, Fine Adjustment L-Bracket, TROV ..... MNT-L-LFAB ..... Fine Adjustment L-Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment L-Bracket is recommended for Asymetric Optics when aiming is needed.

Snap-on Lenses

Snap-on Lens, Frosted, 12 inch, L50 ..... LENS-L50-FROST-12
Snap-on Lens, Frosted, 48 inch, L50 ..... LENS-L50-FROST-48
Snap-on Lens, Clear, 12 inch, L50 ..... LENS-L50-CLEAR-12
Snap-on Lens, Clear, 48 inch, L50 ..... LENS-L50-CLEAR-48

Snap-on Lenses need = One 12" lens is needed per 12" fixture and one 48" lens is needed per 48" fixture. Snap on Lenses will not work with the asymmetric fixture. Clear lenses can be used to hold colored filters to customize the output color of any TROV fixture, except the ASYM. Color filters supplied by others.

Wall Mount Arm

Wall Mount Arm, 6 inch, TROV WMA-L-CA-06
Wall Mount Arm, 12 inch, TROV WMA-L-CA-12
Wall Mount Arm, 18 inch, TROV WMA-L-CA-18
Wall Mount Arm, 24 inch, TROV WMA-L-CA-24
Wall Mount Arm End Plate Set, TROV, Includes Left and Right ..... WMA-L-END
Wall Mount Arm Joiner Plate, TROV ..... WMA-L-JNR

Wall Mount Arms needed = For individual fixture installations two arms and one end set will be needed per fixture. For continuous run installation one endset will be needed per run. Each end set contains one left and one right end plate. One joining set wll be needed per joint. One arm per fixture will be need plus one extra arm to complete the run. For example: A 10ft run made with two 4ft and two 1ft fixtures will contain; 1 x WMA-L-END, 3 x WMA-L-JNR, and 5 x WMA-L-CA-12. Leader cables are not included with wall mount arms, end sets, or joiners sets.

Louvers

Louver, Asymmetric, 12 inch, L50 ..... LV-L50-ASYM-12
Louver, Asymmetric, 48 inch, L50 ..... LV-L50-ASYM-48
Louver, Symmetric, 12 inch, L50 ..... LV-L50-SYM-12
Louver, Symmetric, 48 inch, L50 ..... LV-L50-SYM-48
Louver, Honeycomb, 12 inch, L50 ..... LV-L50-HCOMB-12
Louver, Honeycomb, 48 inch, L50 ..... LV-L50-HCOMB-48

Louvers Needed = One 12" louver is needed per 12" fixture and one 48" louver is needed per 48" fixture. 48" louver is made up of four 12" louvers. Louvers cannot be used with the asymmetric fixture

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TRŌV®

OVERVIEW • SPECIFICATIONS • ORDERING

INTERIOR + EXTERIOR | **L50 GRAZE**

DATE	PROJECT	FIRM	TYPE

OPTIONAL ACCESSORIES

Masking Plates

Masking Plate, 3 inch high, 12 inch, L50 & L35 ..... MP-L50-3H-12
Masking Plate, 3 inch high, 48 inch, L50 & L35 ..... MP-L50-3H-48

Masking Plates needed = One 12" lens is needed per 12" fixture and one 48" lens is needed per 48" fixture.

Landscape Stake

Landscape Stake, 6 inch, TROV, Set of 2 ..... LS-L-STK-06
Landscape Stake, 12 inch, TROV, Set of 2 ..... LS-L-STK-12
Landscape Stake, 18 inch, TROV, Set of 2 ..... LS-L-STK-18

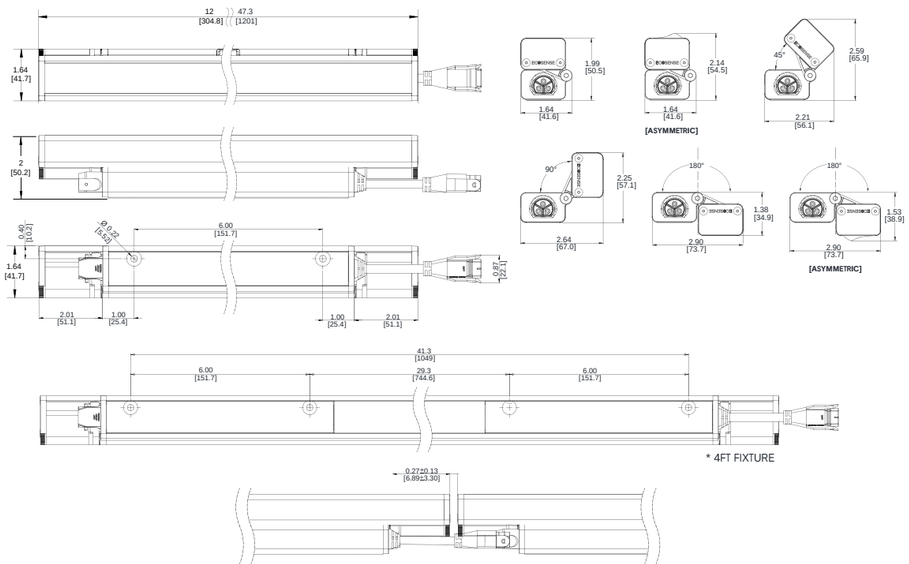
Landscape Stakes needed = 12" and 48" fixtures both need one set of 2.

Wire Box

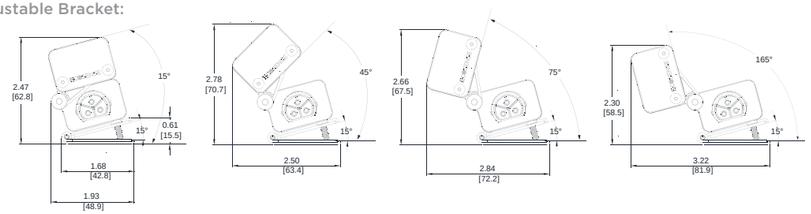
Conduit Connection, Wire Box, TROV, Interior Only, L50 .....CC-L-WIREBOX

Wire box can be used instead of a leader cable to start a run. 1/2" conduit fitting can attach directly to the box on one end and the fixture to the other.

DIMENSIONS + MOUNTING



Fine Adjustable Bracket:



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20180817

LED ceiling mounted downlight - wide beam

BEGA

Type:
BEGA Product:
Project:
Modified:

Application
This compact LED ceiling mounted downlight is designed for down lighting atriums, canopies, passages, and other interior and exterior locations featuring a symmetrical wide beam light distrubtion.

Materials
Luminaire housing constructed of die-cast marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy
Clear safety glass
Reflector made of pure anodized aluminum
High temperature silicone gasket

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 5.0 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-20° C
LED module wattage	10 W
System wattage	12 W
Controllability	0-10V, TRIAC, and ELV dimmable
Color rendering index	Ra > 85
Luminaire lumens	954 lumens (3000K)
Lifetime at Ta = 15° C	>500,000 h (L70)
Lifetime at Ta = 40° C	330,000 h (L70)

LED color temperature

4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3 (*EXPRESS*)**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

LED ceiling mounted downlight · wide beam

	LED	β	A	B
66 982	10 W	91°	5⅛	5

β = Beam angle

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Updated 07/11/18

ECOSENSE® TRŌV®

OVERVIEW • SPECIFICATIONS • ORDERING | EXTERIOR | **L50 COVE**

DATE	PROJECT	FIRM	TYPE

THE L50 INCLUDES PATENTED OPTICAL DESIGN THAT DELIVERS THE WIDEST RANGE OF BEAM ANGLE OPTIONS FOR PRECISE COVE, WALL GRAZING, WALL WASHING OR LINE OF LIGHT APPLICATIONS. EXCLUSIVE FLIP TO FLAT™ HINGE DESIGN PROVIDES FLEXIBILITY WHEN MANAGING SMALL COVE DETAILS. TROV OFFERS SMOOTH, FLICKER FREE DIMMING DOWN TO 0%.

FEATURES :

- DIM TO 0%, ELV REVERSE PHASE
- 24 BEAM ANGLES
- MULTI-VOLT
- FLIP TO FLAT™
- 6 CCT OPTIONS
- 80+ AND 90+ CRI OPTIONS
- IP66 EXTERIOR OPTIONS

MODEL/ SIZE	INTERIOR/ EXTERIOR	LENGTH	POWER	CCT		CRI	VOLTAGE	OPTICS	
L50	E	12" 48"	02 04 06 08 10 12	**WHITE CCT** 22 27 30 35 40 50	**MONO COLOR** GR**** BL AM RD***	80 90* Blank For Color	MULT (120-277V)	**GRAZING** 9 x 9 9 x 17 9 x 29 9 x 59 15 x 15 15 x 23 15 x 35 15 x 65 **COVE** 120** Asym **LINE OF LIGHT** LOL	**WASHING** 25 x 25 25 x 33 25 x 45 25 x 75 39 x 9 55 x 25 40 x40 40 x 48 40 x 60 40 x 90 45 x 15 70 x 40 70 x 70

EXAMPLE: L50-E-48-10-27-90-MULT-15x65 *90 CRi not available in 2200K or 5000K **120 is only available with Exterior option. See L35 spec sheet for interior cove options. ***Red is not available in 12W or 10W. ****Green is not available in 12W.

PERFORMANCE	WATTS	OPTIC	LUMEN OUTPUT	EFFICACY
	2W	120°	95 lm/LF (311 lm/m)	48 lm/W
	4W	120°	273 lm/LF (895 lm/m)	68 lm/W
	6W	120°	426 lm/LF (1397 lm/m)	71 lm/W
	8W	120°	586 lm/LF (1922 lm/m)	73 lm/W
	10W	120°	697 lm/LF (2286 lm/m)	70 lm/W
	12W	120°	807 lm/LF (2647 lm/m)	67 lm/W

ALL LUMEN DATA IS FROM 4000K 80CRI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN DATA.

COLOR RENDERING INDEX 80+, 90+
COLOR CONSISTENCY 2-STEP MACADAM ELLIPSE
LUMEN DEPRECIATION / RATED LIFE

WATTS	L70 @ 25C	L70 @ 50C	L90 @ 25C	L90 @ 50C
2W-12W	>150,000	>70,000	>50,000	>25,000

* CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

ELECTRICAL

POWER CONSUMPTION 2W*/LF (6.6W/M) ; 4W/LF (13.2W/M) ; 6W/LF (19.8W/M) ; 8W/LF (26.4W/M) ; 10W/LF (33W/M) ; 12W/FL (39.6W/M)
* 3W/LF (9.9W/M) at 220V -277V

MAX FIXTURE RUN LENGTH

	2W/LF		4W/LF		6W/LF		8W/LF		10W/LF		12W/LF	
Volts	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'
120	214	214	186	186	152	152	114	114	91	91	76	76
220	374	392	340	340	277	277	209	209	95	167	95	139
277	374	494	374	428	349	349	263	263	95	190	95	175

POWER FACTOR 4W, 6W, 8W, 10W, 12W >0.9, 2W<0.9
OPERATING VOLTAGE MULTIVOLT: 110-277VAC, 50/60 Hz
DRIVER INTEGRAL TO FIXTURE; DE-RATED POWER AND SYNCHRONOUS START-UP AT FULL BRIGHTNESS
STARTUP TEMPERATURE -40˚F TO 122˚F (-40˚C TO 50˚C)
OPERATING TEMPERATURE -40˚F TO 122˚F (-40˚C TO 50˚C)
STORAGE TEMPERATURE -40˚F TO 176˚F (-40˚C TO 80˚C)

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RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SM

ECOSENSE® TRŌV®

OVERVIEW • SPECIFICATIONS • ORDERING | EXTERIOR | **L50 COVE**

DATE	PROJECT	FIRM	TYPE

CONTROL	**DIMMING**	110-277VAC, ELV TYPE 0.07%-100%, REVERSE PHASE, TRAILING EDGE ETC control systems require 0-10V control using EcoSense LDCM. TROV will not work with ETC phase dimmers.
PHYSICAL	**DIMENSIONS**	W 1.6" x H 2" x L 12"/48" ; (41.6mm x 50.5mm x 304.7mm/1201mm)
	HOUSING /LENS	EXTRUDED ALUMINUM; UV STABILIZED POLYCARBONATE; STAINLESS STEEL FASTENERS; PLASTIC ENDCAPS RUBBER OVERMOLD FOR CABLE ASSEMBLY
	WEIGHT	1.52LBS / 0.69KG (1FT) ; 4.95LBS / 2.25KG (4FT)
	CONNECTORS	INTEGRAL MALE/ FEMALE CONNECTORS
	ENVIRONMENT	INDOOR • ETL CERTIFIED FOR DRY/DAMP LOCATIONS IP54 OUTDOOR • ETL CERTIFIED FOR WET LOCATIONS IP66 IMPACT RATED TO IK10
	BEAM ANGLE	GRAZING, WASHING, COVE, ASYMMETRIC, LINE OF LIGHT
	MOUNTING OPTIONS	INTEGRAL MOUNTING AND ADJUSTABLE AIMING FROM 0°-180° IN 15° INCREMENTS
FIXTURE RATING & CERTIFICATIONS	**CE, ETL CERTIFIED** **RoHS COMPLIANT** **ENERGY STAR COMPLIANT** **DLC COMPLIANT** **RCM CERTIFIED**	
LIMITED WARRANTY	**5 YEARS**	

WIRING OPTIONS (MVOLT): 110-277VAC

Power Cable Assembly, TROV, Leader/Jumper, 10 foot **CBL-3P-L-UNV-10***
Power Cable Assembly, TROV, Leader/Jumper, 50 foot **CBL-3P-L-UNV-50***
Power Cable Assembly, TROV, Jumper, 5 foot **CBL-3P-L-UNV-05****
Power Cable Assembly, TROV, Jumper, 1 foot **CBL-3P-L-UNV-01****
Power Cable Assembly, TROV, Adjustable Jumper, 0" to 7" **CBL-3P-L-UNV-ADJ**
Power Cable Assembly, TROV, Male and Female terminator caps **CBL-3P-L-UNV-CAPS**
*Two (2) terminators are included with the 10' and 50' power cable. One Leader need per circuit/fixture run. Cables are not plenum rated.
** If using the 5' or 1' power cable assembly as a leader to power a run one set of CBL-3P-L-UNV-CAPS will also be need per cable.

0-10V CONTROL OPTIONS

100-120VAC / 277VAC Linear Dimming Control Module 0-10V - Plenum Rated LDCM-PL-120-277-010V-GR
All products come standard with ELV dimming capabilities. 0-10V Control options required for operation at 0-10V.

OPTIONAL ACCESSORIES

Mounting

Mounting Track and Clips Set, 48 Inch Track, 8 Clips ..... MNT-L-TRKCLIP-48 ..... 48" track and clips set will work with one 48" fixture or four 12" fixtures.
Mounting Track and Clips Set, 12 Inch Track, 2 Clips ..... MNT-L-TRKCLIP-12 ..... 12" track will not work with 48" fixtures.
Mounting Track Clip, TROV, Set of 2 ..... MNT-L-CLIP ..... Clips needed = 12" fixtures need 1 set of 2 and 48" fixture needs 2 sets of 2.
90 Degree L bracket, TROV, Set of 2 ..... MNT-L-LBKT ..... L-Brackets needed = 12" fixtures need 1 set of 2 and 48" fixture needs 1 set of 2.
Angle Locking Clip, TROV, Pack of 10 ..... MNT-L-ANGLOCK ..... Angle Locks needed = 12" fixtures need 1 and 48" fixtures need 2. (Must order separately)
Mounting, Fine Adjustment Bracket, TROV ..... MNT-L-FAB ..... Fine Adjustment Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment Bracket is highly recommended for Grazing Optics.
Mounting, Fine Adjustment L-Bracket, TROV ..... MNT-L-LFAB ..... Fine Adjustment L-Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment L-Bracket is recommended for Asymetric Optics when aiming is needed.

Snap-on Lenses

Snap-on Lens, Frosted, 12 inch, L50 ..... LENS-L50-FROST-12
Snap-on Lens, Frosted, 48 inch, L50 ..... LENS-L50-FROST-48
Snap-on Lens, Clear, 12 inch, L50 ..... LENS-L50-CLEAR-12
Snap-on Lens, Clear, 48 inch, L50 ..... LENS-L50-CLEAR-48

Snap-on Lenses need = One 12" lens is needed per 12" fixture and one 48" lens is needed per 48" fixture. Snap on Lenses will not work with the asymmetric fixture. Clear lenses can be used to hold colored filters to customize the output color of any TROV fixture, except the ASYM. Color filters supplied by others.

Wall Mount Arm

Wall Mount Arm, 6 inch, TROV WMA-L-CA-06
Wall Mount Arm, 12 inch, TROV WMA-L-CA-12
Wall Mount Arm, 18 inch, TROV WMA-L-CA-18
Wall Mount Arm, 24 inch, TROV WMA-L-CA-24
Wall Mount Arm End Plate Set, TROV, Includes Left and Right ..... WMA-L-END
Wall Mount Arm Joiner Plate, TROV ..... WMA-L-JNR

Wall Mount Arms needed = For individual fixture installations two arms and one end set will be needed per fixture. For continuous run installation one endset will be needed per run. Each end set contains one left and one right end plate. One joining set wll be needed per joint. One arm per fixture will be need plus one extra arm to complete the run. For example: A 10ft run made with two 4ft and two 1ft fixtures will contain; 1 x WMA-L-END, 3 x WMA-L-JNR, and 5 x WMA-L-CA-12. Leader cables are not included with wall mount arms, end sets, or joiners sets.

Louvers

Louver, Asymmetric, 12 inch, L50 ..... LV-L50-ASYM-12
Louver, Asymmetric, 48 inch, L50 ..... LV-L50-ASYM-48
Louver, Symmetric, 12 inch, L50 ..... LV-L50-SYM-12
Louver, Symmetric, 48 inch, L50 ..... LV-L50-SYM-48
Louver, Honeycomb, 12 inch, L50 ..... LV-L50-HCOMB-12
Louver, Honeycomb, 48 inch, L50 ..... LV-L50-HCOMB-48

Louvers Needed = One 12" louver is needed per 12" fixture and one 48" louver is needed per 48" fixture. 48" louver is made up of four 12" louvers. Louvers cannot be used with the asymmetric fixture

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OVERVIEW • SPECIFICATIONS • ORDERING

EXTERIOR | **L50 COVE**

DATE	PROJECT	FIRM	TYPE

OPTIONAL ACCESSORIES

Masking Plates

Masking Plate, 3 inch high, 12 inch, L50 & L35 ..... **MP-L50-3H-12**
Masking Plate, 3 inch high, 48 inch, L50 & L35 ..... **MP-L50-3H-48**

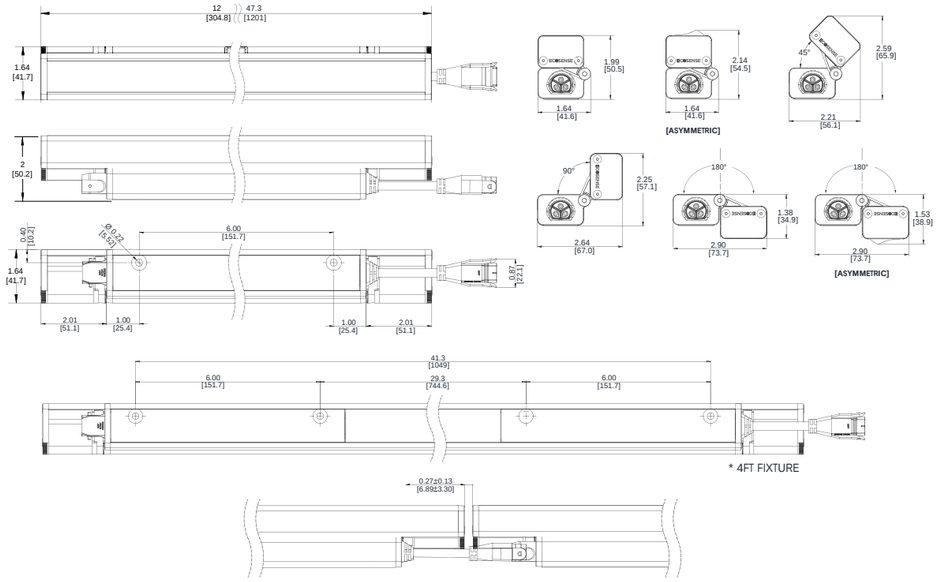
Masking Plates needed = One 12" lens is needed per 12" fixture and one 48" lens is needed per 48" fixture.

Landscape Stake

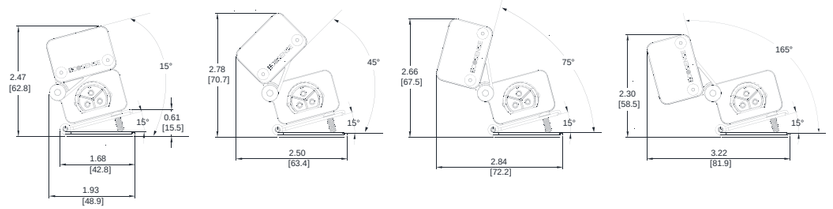
Landscape Stake, 6 inch, TROV, Set of 2 ..... **LS-L-STK-06**
Landscape Stake, 12 inch, TROV, Set of 2 ..... **LS-L-STK-12**
Landscape Stake, 18 inch, TROV, Set of 2 ..... **LS-L-STK-18**

Landscape Stakes needed = 12" and 48" fixtures both need one set of 2.

DIMENSIONS + MOUNTING



Fine Adjustable Bracket:



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RANDY BURKETT LIGHTING DESIGN

RGA Phase 2

CHESTERFIELD, MO

TYPE SN

Bollards with single-sided light output

Post construction: Constructed of a one piece die-cast aluminum base. Die castings are marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy.

Optical enclosure: Thick walled aluminum extrusion with die-cast aluminum end cap and lens frame. Clear, tempered safety glass lens with a linear spread pattern. Reflector made from pure anodized aluminum. Internal louvers are made from semi specular anodized aluminum.

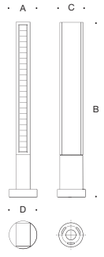
Electrical: Lampholders; Fluorescent miniature bi-pin T5 HO, rated 120 W, 600 V. Ballasts; integral electronic, universal voltage 120 V through 277 V. Standard T5 lamping available upon request. Consult factory.

Anchor base: Provided with a heavy cast aluminum base, slotted for precise alignment. Mounts to BEGA 79818 anchorage kit and secured to the post with one stainless steel screw.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in five standard BEGA colors: Black (BLK), White (WHT), Bronze (BRZ), Silver (SLV), Eurocoat (URO). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

U.L. listed for US and Canadian Standards, suitable for wet locations. Protection class: IP 65.

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



Single-sided light output

	Lamp*	Lumen	A	B	C	D	Anchorage
88845	1 39W FL T5 HO	3500	3¾	47¼	6⅛	7½	**79818**

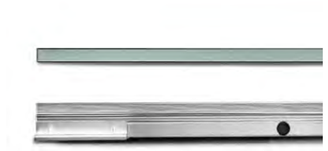
* Equivalent standard T5 lamping available

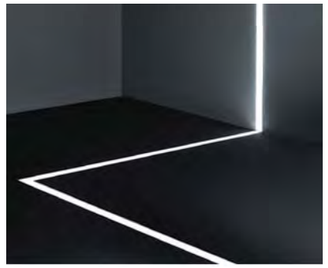
BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com

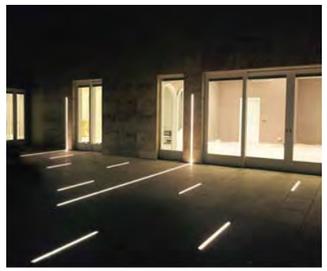
CONTINUOUS LINE

FULL GLASS

Type: **SPECIFICATION SHEET**
Project :







Recessed walk over luminaire for exterior applications. This system allows limitless design of linear patterns or continuous light lines with perfect uniformity. Two lens options : polycarbonate or glass diffuser. Extremely easy to install, this product can be floor or wall recessed with aluminum back box.

Luminaire characteristics:	**Power input:** 2W/ft (Remote fixture only) **Lumens:** 90lm/ft (delivered for 3000K) **Luminaire efficacy:** 47lm/W
Source:	White LED (LM-80 tested) 3000K: 80CRI 4000K: 80CRI
Lumen maintenance:	>70% of initial lumens at 50 000 hours (L70), (LM-79 tested).
Optics:	Wide distribution for general lighting. The diffuser provides uniform distribution without visible leds imaging, light lines or shadows.
Material:	Body: Extruded anodized aluminum body, recessed box and fixing base. Diffuser: 15mm thick frosted tempered glass.
Mounting:	Inground installation using recessed box. Supplied with 6" long neoprene cable with cable gland. Separate waterproof wiring box to be provided by the contractor. Insure 12" of gravel minimum for appropriate drainage
Electrical:	See remote power supply options on page 4.
Finish:	Anodized aluminum
Weight:	S.7016: 7lbs (3.15kg) S.7011: 11.8lbs (5.35kg) S.7012: 17lbs (7.7kg)
Max load capacity:	1100Lbs (500kg)
Contact temperature:	Less than 39°C (102°F)
Warranty:	5 year limited warranty.
Ratings:	IP67, IK10
Certification:	cULus listed for Wet location

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SP

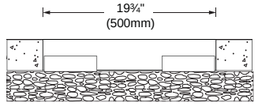
CONTINUOUS LINE

FULL GLASS

Type: **SPECIFICATION SHEET**
Project :

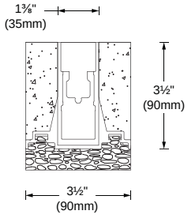
DIMENSIONS

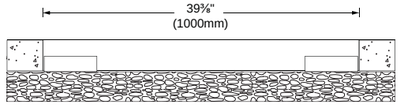
SIDE VIEW



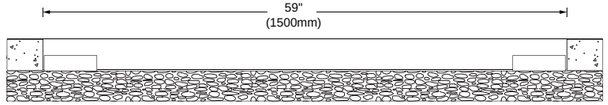
S.7016
Supplied with back box: CAS7005

SECTION VIEW





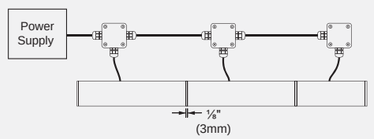
S.7011
Supplied with back box: CAS7000



S.7012
Supplied with back box: CAS7012

INSTALLATION AND WIRING

Single units can be combined to obtain a dark spot free continuous run. Each luminaire must be wired back to the remote power supply (No fixture chain wiring). Please refer to instruction sheet for more details



PP - R5 Last update: August 01, 2018
Due to continuous improvements, the information herein may be changed without notice
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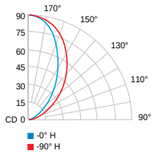
CONTINUOUS LINE
FULL GLASS

Type: **SPECIFICATION SHEET**
Project : Page: 3 of 4

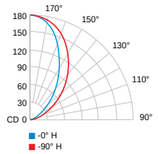
PHOTOMETRIC DATA

Visit sistemalux.com for complete photometric data.

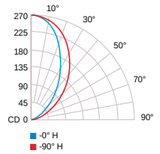
LOAD (W)	CCT (K)	CRI	OPTIC	LUMENS (lm)	EFFICACY (lm / w)	MAX CANDELA (cd)	MODELS
3.5W	3000K	80	General Light	165	47	90	S.7016W
7W				330	47	180	S.7011W
10.5W				495	47	270	S.7012W



S.7016W - 3000K - 80 CRI



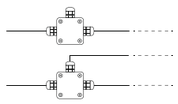
S.7011W - 3000K - 80 CRI



S.7012W - 3000K - 80 CRI

ACCESSORY (To be ordered separately)

☐ **4543 -** Wet location connection box
For cable Ø 3/16" to 7/16" (4mm to 11mm)



ORDERING INFO

_____ -
FIXTURE

MODEL

☐ **S.7016W -** 1'8"(0.5m), 3000K
☐ **S.7016N -** 1'8"(0.5m), 4000K
☐ **S.7011W -** 3'3½"(1m), 3000K
☐ **S.7011N -** 3'3½"(1m), 4000K
☐ **S.7012W -** 4'11"(1.5m), 3000K
☐ **S.7012N -** 4'11"(1.5m), 4000K

FINISH

☐ **13 -** Anodized aluminum

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SP

CONTINUOUS LINE
FULL GLASS

Type: **SPECIFICATION SHEET**
Project : Page: 4 of 4

REMOTE POWER SUPPLY OPTIONS (TO BE ORDERED SEPARATELY)

						S.7016 3.5W	**S.7011** 7W	**S.7012** 10.5W
Watts	**Voltage**	**Dimming protocol**	**Dimming range**	**Dimension**	**Max distance***	**Min-Max Units**		
☐	**4444-0024-025-UNV-ND**							
25	120-277V	None	None	6" x 4" x 3" (152 x 102 x 76mm)	30ft(9m)	0-7	0-3	0-2
☐	**4549-0024-075-UNV-D10**							
75	120-277V	0-10V	Down to ±10%	14" X 5" X 3" (356 X 127 X 76mm)	30ft(9m)	0-21	0-10	0-7
☐	**4545-0024-075-UNV-ND**							
75	120-277V	None	None	11" X 3" X 2" (279 X 76 X 51mm)	30ft(9m)	3-21	2-10	1-7
☐	**4551-0024-080-120-LTE**							
80	120V	Leading and trailing edge (ELV and TRIAC)	Down to ±15%	14" X 5" X 2" (356 X 127 X 51mm)	30ft(9m)	2-22 Dim 8-22	1-11 Dim 4-11	1-7 Dim 3-7
☐	**4448-0024-150-UNV-D10**							
150	120V	0-10V	Down to ±10%	10" x 8" x 4" (254 x 203 x 102mm)	25ft(7.5m)	0-42	0-21	0-14
☐	**4546-0024-200-2C-UNV-ND**							
200	120-277V	None	None	12" X 5" X 2" (305 X 127 X 51mm)	30ft(9m) Per channel	6-57	3-28	2-19

* Contact factory for longer remote distance.

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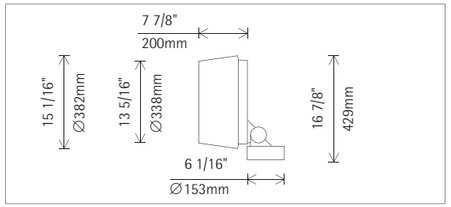
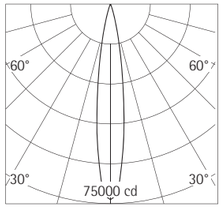
ERCO Kona Projector





h(ft)	E(fc)	D
		16"
6	2043	1'8"
12	511	3'4"
18	227	5'1"
24	128	6'9"
30	82	8'5"

34880.023 Graphit m
LED 96W 10080lm 3000K warm white
0-10V dimmable
Version 3
Spherolit lens, spot

Product description
Housing, hinge and mounting plate: corrosion-resistant cast aluminum, No-Rinse surface treatment. Double powder-coated. Optimized surface for reduced accumulation of dirt. Hinge with internal wiring, 90° tilt. Graduated disc: corrosion-resistant aluminum. Mounting plate rotatable through 300°.
Control gear 120V/277V, 60Hz, dimmable. 2 cable entries. Through-wiring possible. 5-pole terminal block.
LED module: high-power LEDs on metal-core PCB. Collimating lens made of optical polymer.
Light head with safety glass: corrosion-resistant cast aluminum, double powder-coated. Internal anti-dazzle cone, polymer, black lacquered. Cut-off angle 30°.

Suitable for wet location (IP65): dust-proof and water jet-proof.
Dimming with external dimmers possible (0-10V).
Weight 21.43lbs / 9.72kg
Housing temperature 144°F / 62°C
Maximum wind load area 1.18ft² / 0.11m²

Technical data

Luminous flux of the luminaire	7386lm
Connected load	113W
Luminaire efficacy	65lm/W
Color deviation	2 SDCM
Color rendition index	CRI ≥90
Lumen maintenance (LM-80/TM-21)	L90/B10 ≤50000h
Lumen maintenance (LED manufacturer specifications)	L90 ≤100000h
LED failure rate	0.1% ≤50000h
LMF	E
Temperature on the cover glass	97°F / 36°C

For your regional contact in the ERCO Sales network click here
www.erco.com/contact

Technical region: 120V/60Hz, 277V/60Hz
We reserve the right to make technical and design changes.
Edition: 09.11.2017
Current version under
www.erco.com/34880.023

RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SR

ERCO Kona Projector

Planning data

Cleaning (a)	1				2				3			
Ambient conditions	P	C	N	D	P	C	N	D	P	C	N	D
LMF	0.96	0.94	0.90	0.86	0.93	0.91	0.86	0.81	0.92	0.90	0.84	0.79
RSMF	0.99	0.97	0.95	0.92	0.98	0.97	0.95	0.92	0.98	0.97	0.95	0.92

Hours of operation (h)	1000	5000	10000	20000	30000	40000	50000
LLMF	1.00	0.99	0.98	0.96	0.94	0.92	0.90
LSF	1	1	1	1	1	1	1

MF	LMFxRSMFxLLMFxLSF
MF	Maintenance Factor
LMF	Luminaire Maintenance Factor
RSMF	Room Surface Maintenance Factor
LLMF	Lamp Lumens Maintenance Factor
LSF	Lamp Survival Factor
P	Room pure
C	Room clean
N	Room normal
D	Room dirty

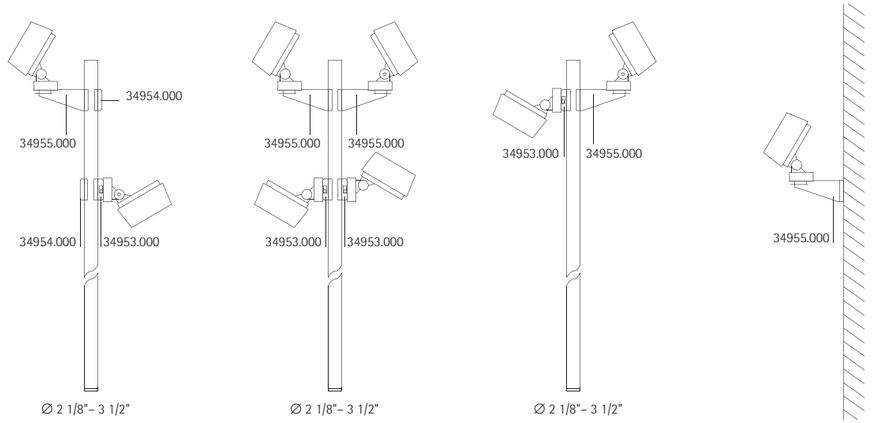
Technical data based on international standards and directives

IEC 60598	Luminaires – Parts 1 + 2: General requirements, particular requirements and tests
IEC 62031	LED modules for general lighting – Safety specifications
IEC 62471	Photobiological safety of lamps and lamp systems
UL 1598	Luminaires
UL 1574	Standard for Track Lighting Systems
UL 8750	Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products
IES LM-79-08	Electrical and Photometric Measurements of Solid-State Lighting Products
IES LM-80-08	Measuring Lumen Maintenance of LED Light Sources
CIE 13	Method of measuring and specifying color rendering properties of light sources

All technical data are subject to industry standard tolerances.
See also www.erco.com/erco-led

ERCO

Kona Projector



ECOSENSE® RISE™

OVERVIEW • SPECIFICATIONS • ORDERING | INTERIOR + EXTERIOR | **F170 SINGLE**

DATE	PROJECT	FIRM	TYPE

RISE IS A SYSTEM OF BEAUTIFULLY DESIGNED OUTDOOR RATED LUMINAIRES THAT PROVIDE EFFICIENT AND POWERFUL LIGHT USING THE LATEST IN LED TECHNOLOGY. RISE F170 SINGLE IS A POWERFUL AND COMPACT LED LIGHT FIXTURE, DELIVERING UP TO 2900 LUMENS, THAT CAN BE USED IN SPOT, ACCENT, LANDSCAPE AND FLOODLIGHT APPLICATIONS. ITS UNIQUE MACRO™ LOCK FEATURE ALLOWS FOR FULL 180 DEGREE TILT AND 360 DEGREE PAN AIMABILITY USING ONLY ONE TOOL.

FEATURES :

- ONLY 5° LASER SPOT
- STRONGEST CBCP IN MARKET
- POWERFUL OUTPUT 1200-2900LMS
- MACRO™ LOCK - 180° TILT AND 360° PAN
- 11 UNIQUE BEAM ANGLES
- MULTIVOLT (110-277V)
- 8 CCTS: 2200K THROUGH 6500K
- 80+ AND 90+ CRI
- DIMMABLE TO 5%
- IP66 RATED

FIXTURE MODEL	FIXTURE CONFIG.	POWER/ LUMEN OUTPUT*	CCT/ COLOR	CRI	BEAM ANGLE	FINISHES	ACCESSORIES	WIRING AND MOUNTING
F170	1S - Single Head	LO - Low Output MO - Medium Output HO - High Output	22 - 2200K 25 - 2500K 27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K 50 - 5000K 65 - 6500K RD - Red GR - Green BL - Blue AM - Amber	8 - 80 9 - 90* X - For RD, GR, BL, AM *90 CRI not available in 2200K, 2500K, 5000K, and 6500K	05 - Laser Spot (5°) 10 - Very Narrow Spot (10°) 15 - Narrow Spot (15°) 20 - Spot (20°) 40 - Flood (40°) 60 - Wide Flood (60°) 80 - Very Wide Flood (80°) E1 - Elliptical 1 (15°x60°) E2 - Elliptical 2 (30°x60°) E3 - Elliptical 3 (60°x15°) E4 - Elliptical 4 (60°x30°)	K - Black Z - Bronze S - Silver W - White C - Custom* Provide RAL #	X - No Accessory H - Half Snoot F - Full Snoot Will ship as X if not specified	A - 19" Flying Leads - Internal Cable IC; Bottom Exit; 1/2" NPT ; UL/CE Rated B* - 10' External Cable Side Exit; Surface Mount ; UL/CE Rated C* - 10' External Cable Bottom Exit; Surface Mount - 1/2" NPT ; UL/ CE Rated Will ship as A if not specified

EXAMPLE: F170-1S-LO-22-8-05-S-X-A

*See Photometry Chart for Lumen Data

PERFORMANCE	WATTS	POWER	LUMEN OUTPUT	OPTIC	EFFICACY	CBCP
	13	Low Output	1,258	5°	97	72,487
	25	Medium Output	2,131	5°	85	122,841
	38	High Output	2,878	5°	76	165,891

ALL LUMEN DATA IS FROM 4000K 80CRI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN DATA.

COLOR RENDERING INDEX 80+, 90+

COLOR CONSISTENCY 3-STEP MACADAM ELLIPSE

LUMEN DEPRECIATION

WATTS	L70 @ 25C	L70 @ 50C	L90 @ 25C	L90 @ 50C
LOW	>60,500* >(109,000)**	>60,500* >(109,000)**	>60,500* >(109,000)**	>60,500* >(109,000)**
MEDIUM	>60,500* >(109,000)**	>60,500* >(109,000)**	>60,500* >(109,000)**	>60,500* >(109,000)**
HIGH	>60,500* >(181,000)**	>36,300*	>60,500* >(69,800)**	>33,200*

* ENERGY STAR REPORTED TESTING HOURS TO DATE. CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

** ESTIMATED HOURS

NOTE: Information on this Spec Sheet is subject to change, please visit ecosenselighting.com/downloads/rise for the most updated information.

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RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SS

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DATE	PROJECT	FIRM	TYPE

ELECTRICAL	**WATTAGE**	LOW OUTPUT = 13W; MEDIUM OUTPUT = 25W; HIGH OUTPUT = 38W
	POWER FACTOR	>0.9 for 120V (HO, MO, LO), 230V (HO, MO), 277V (HO)
	THD	<0.2 for 120V (HO, MO, LO), 230V (HO, MO), 277V (HO)
	OPERATING VOLTAGE	MULTIVOLT: 110-277VAC, 50/60 Hz
	DRIVER	INTEGRAL TO FIXTURE; DE-RATED POWER AND SYNCHRONOUS START-UP AT FULL BRIGHTNESS
	STARTUP TEMPERATURE	-40˚F TO 122˚F (-40˚C TO 50˚C)
	OPERATING TEMPERATURE	-40˚F TO 122˚F (-40˚C TO 50˚C)
	STORAGE TEMPERATURE	-40˚F TO 176˚F (-40˚C TO 80˚C)
CONTROL	**DIMMING**	110-277VAC, ELV TYPE, REVERSE PHASE, TRAILING EDGE
PHYSICAL	**DIMENSIONS**	W 5.2" x H 12.07" x L 10.24" ; (131.98mm x 306.65mm x 260.01mm)
	HOUSING/LENS	EXTRUDED ALUMINUM; UV STABILIZED POLYCARBONATE; STAINLESS STEEL FASTENERS
	WEIGHT	8.5LBS / 3.85KG
	ENVIRONMENT	OUTDOOR • UL CERTIFIED FOR WET LOCATIONS IP66 IMPACT RATED TO IK10 MEETS 3G ANSI C136.31 VIBRATION STANDARD FOR BRIDGE APPLICATIONS
	MOUNTING OPTIONS	A - FLYING LEADS - INTERNAL CABLE IC; BOTTOM EXIT; 1/2" NPT ; UL/ CE RATED B - EXTERNAL CABLE SIDE EXIT; SURFACE MOUNT ; UL/CE RATED SURFACE MOUNT PLATE INCLUDED C - EXTERNAL CABLE BOTTOM EXIT; 1/2" NPT ; UL/CE RATED SURFACE MOUNT PLATE INCLUDED
	WIRING	LENGTH OF FLYING LEADS 19" (482.6mm) LENGTH OF EXTERNAL CABLE 10' (3.05m)
	TOOLS	2.5mm HEX KEY AND PHILLIPS #0 SCREWDRIVER FOR INTERCHANGEABLE LENS + SNOOTS 4mm HEX KEY FOR AIMING 5mm HEX KEY FOR MAIN TILT ARM
	WIND LOAD (EPA)	EFFECTIVE PROJECTED AREA 0.30ft²
	CORROSION RESISTANT	RISE HAS A HIGH-PERFORMING, CORROSION-RESISTANT FINISH THAT USES HIGH DURABILITY TRIGLYCIDYL ISOCYANURATE (TGIC) POWDER COATINGS SPECIFICALLY DESIGNED FOR EXTERIOR AND WEATHER EXPOSURE. THIS FINISH IS TESTED AGAINST THE MOST SEVERE SPECIFICATIONS, PROVIDING SIGNIFICANT RESISTANCE TO COLOR CHANGE.
FIXTURE RATING & CERTIFICATIONS	**CE, UL CERTIFIED** **RoHS COMPLIANT, IK10**	CE · c UL us LISTED · RoHS COMPLIANT · IK10
LIMITED WARRANTY	**5 YEARS**	

0-10V CONTROL OPTIONS

100-120VAC / 277VAC Linear Dimming Control Module 0-10V - Plenum Rated LDCM-PL-120-277-010V-GR

All products come standard with ELV dimming capabilities. 0-10V Control options required for operation at 0-10V.

OPTIONAL ACCESSORIES

Snoots

Half Snoot, Color Finish (K=Black, Z=Bronze, S=Silver, W=White, C=Custom) ..... F170-H-(K,Z,S,W,C)

Full Snoot, Color Finish (K=Black, Z=Bronze, S=Silver, W=White, C=Custom) ..... F170-F-(K,Z,S,W,C)

Interchangeble Lens

5 Degree F170-LENS-05
10 Degree F170-LENS-10
15 Degree F170-LENS-15
20 Degree F170-LENS-20
40 Degree F170-LENS-40
60 Degree F170-LENS-60
80 Degree F170-LENS-80
15x60 or 60x15 Degree F170-LENS-E1E3
30x60 or 60x30 Degree F170-LENS-E2E4
Full Set of Beam Angle Lens Degree (5, 10, 15, 20, 40, 60, 80, 15x60 or 60x15, 30x60 or 60x30) F170-LENS-FULLSET

Canopy Plate (Not for use with wire Option B - External Cable Side Exit)

RISE Canopy Plate (K=Black, Z=Bronze, S=Silver, W=White, C=Custom) ..... RISE-CANOPY-04-(K,Z,S,W,C)

NOTE: Information on this Spec Sheet is subject to change, please visit ecosenselighting.com/downloads/rise for the most updated information.

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DATE	PROJECT	FIRM	TYPE

Color Filters

Red	F170-FILTER-RED
Blue	F170-FILTER-BLUE
Green	F170-FILTER-GREEN
Amber	F170-FILTER-AMBER

F170 Wall Mount Arm (for use only with Wiring Option C - External Cable Bottom Exit, not for use with F170 Multi-up fixtures)

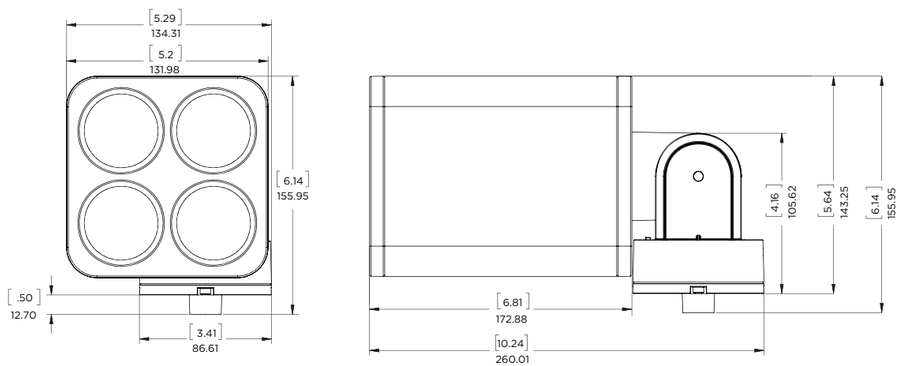
Wall Mount Arm, 6 inch, Color Finish (K=Black, S=Silver, C=Custom)	F170-WMA-06-(K,S,C)
Wall Mount Arm, 12 inch, Color Finish (K=Black, S=Silver, C=Custom)	F170-WMA-12-(K,S,C)
Wall Mount Arm, 18 inch, Color Finish (K=Black, S=Silver, C=Custom)	F170-WMA-18-(K,S,C)
Wall Mount Arm, 24 inch, Color Finish (K=Black, S=Silver, C=Custom)	F170-WMA-24-(K,S,C)

Ground Stake (for use only with Wiring Option C - External Cable Bottom Exit, not for use with F170 Multi-up fixtures)

Landscape Stake, 12in	F170-LS-1S-STK-12

DIMENSIONS

[inch] mm



NOTE: Information on this Spec Sheet is subject to change, please visit ecosenselighting.com/downloads/rise for the most updated information.

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RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE SS

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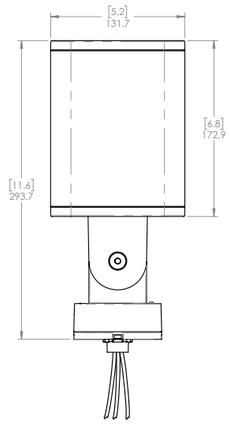
DATE	PROJECT	FIRM	TYPE

WIRING GUIDE

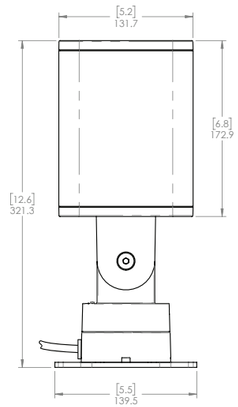
RISE is and exterior rated (IP66) fixture that is available in three different wiring options:

Flying Leads - Internal Cable
(UL + CE Rated)



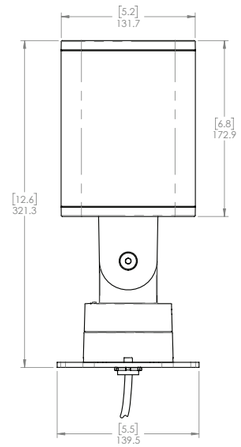
- For use with standard junction boxes
- 1/2" NPT Taper, Cable Length is 19"
- Compatible with EcoSense Canopy junction Box Cover
- 18 AWG Stranded Copper Cable - 3 Conductors

External Cable Side Exit
(UL + CE Rated)



- For use when external, exterior rated cable is required to run to remote junction box or mains
- Cable exits the side of the base
- Comes with a Surface Mount Plate, for mounting direct to surface
- Cable Length is 10' (3.05m)

External Cable Bottom Exit
(UL + CE Rated)



- For use when external, exterior rated cable is required to run to remote junction box or mains
- Cable exits the bottom for use with various accessories such as Wall Mount Arm and Ground Stake
- 1/2" NPT taper for mounting
- Comes with a Surface Mount Plate, for mounting direct to surface
- Cable Length is 10' (3.05m)

NOTE: Information on this Spec Sheet is subject to change, please visit ecosenselighting.com/downloads/rise for the most updated information.

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OVERVIEW • SPECIFICATIONS • ORDERING | INTERIOR + EXTERIOR | **L50 LOL**

DATE	PROJECT	FIRM	TYPE

THE L50 INCLUDES PATENTED OPTICAL DESIGN THAT DELIVERS THE WIDEST RANGE OF BEAM ANGLE OPTIONS FOR PRECISE COVE, WALL GRAZING, WALL WASHING OR LINE OF LIGHT APPLICATIONS. EXCLUSIVE FLIP TO FLAT™ HINGE DESIGN PROVIDES FLEXIBILITY WHEN MANAGING SMALL COVE DETAILS. TROV OFFERS SMOOTH, FLICKER FREE DIMMING DOWN TO 0%.

FEATURES :

- DIM TO 0%, ELV REVERSE PHASE
- 24 BEAM ANGLES
- MULTI-VOLT
- FLIP TO FLAT™
- 6 CCT OPTIONS
- 80+ AND 90+ CRI OPTIONS
- IP54 INTERIOR AND IP66 EXTERIOR OPTIONS

MODEL/ SIZE	INTERIOR/ EXTERIOR	LENGTH	POWER	CCT		CRI	VOLTAGE	OPTICS	
L50	I E	12" 48"	02 04 06 08 10 12	**WHITE CCT** 22 27 30 35 40 50	**MONO COLOR** GR**** BL AM RD***	80 90* Blank For Color	MULT (120-277V)	**GRAZING** 9 x 9 9 x 17 9 x 29 9 x 59 15 x 15 15 x 23 15 x 35 15 x 65 **COVE** 120** Asym **LINE OF LIGHT** LOL	**WASHING** 25 x 25 25 x 33 25 x 45 25 x 75 39 x 9 55 x 25 40 x40 40 x 48 40 x 60 40 x 90 45 x 15 70 x 40 70 x 70

EXAMPLE: L50-I-48-10-27-90-MULT-15x65 *90 CRi not available in 2200K or 5000K **120 is only available with Exterior option. See L35 spec sheet for interior cove options. ***Red is not available in 12W or 10W. ****Green is not available in 12W.

PERFORMANCE	WATTS	OPTIC	LUMEN OUTPUT	EFFICACY
	2W	LOL	110 lm/LF (207 lm/m)	55 lm/W
	4W	LOL	302 lm/LF (567 lm/m)	76 lm/W
	6W	LOL	482 lm/LF (909 lm/m)	80 lm/W
	8W	LOL	675 lm/LF (1210 lm/m)	84 lm/W
	10W	LOL	785 lm/LF (1430 lm/m)	79 lm/W
	12W	LOL	923 lm/LF (1643 lm/m)	77 lm/W

ALL LUMEN DATA IS FROM 4000K 80CRI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN DATA.

COLOR RENDERING INDEX 80+, 90+
COLOR CONSISTENCY 2-STEP MACADAM ELLIPSE
LUMEN DEPRECIATION / RATED LIFE

WATTS	L70 @ 25C	L70 @ 50C	L90 @ 25C	L90 @ 50C
2W-12W	>150,000	>70,000	>50,000	>25,000

*CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

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ELECTRICAL

POWER CONSUMPTION 2W*/LF (6.6W/M) ; 4W/LF (13.2W/M) ; 6W/LF (19.8W/M) ; 8W/LF (26.4W/M) ; 10W/LF (33W/M) ; 12W/FL (39.6W/M)
* 3W/LF (9.9W/M) at 220V -277V

MAX FIXTURE RUN LENGTH

	2W/LF		4W/LF		6W/LF		8W/LF		10W/LF		12W/LF	
Volts	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'
120	214	214	186	186	152	152	114	114	91	91	76	76
220	374	392	340	340	277	277	209	209	95	167	95	139
277	374	494	374	428	349	349	263	263	95	190	95	175

POWER FACTOR 4W, 6W, 8W, 10W, 12W >0.9, 2W<0.9
OPERATING VOLTAGE MULTIVOLT: 110-277VAC, 50/60 Hz
DRIVER INTEGRAL TO FIXTURE; DE-RATED POWER AND SYNCHRONOUS START-UP AT FULL BRIGHTNESS
STARTUP TEMPERATURE -40˚F TO 122˚F (-40˚C TO 50˚C)
OPERATING TEMPERATURE -40˚F TO 122˚F (-40˚C TO 50˚C)
STORAGE TEMPERATURE -40˚F TO 176˚F (-40˚C TO 80˚C)

ECOSENSE LIGHTING INC.
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RANDY BURKETT LIGHTING DESIGN
RGA Phase 2
CHESTERFIELD, MO
TYPE ST

ECOSENSE® TRŌV®

OVERVIEW • SPECIFICATIONS • ORDERING | INTERIOR + EXTERIOR | **L50 LOL**

DATE	PROJECT	FIRM	TYPE

CONTROL	**DIMMING**	110-277VAC, ELV TYPE 0.07%-100%, REVERSE PHASE, TRAILING EDGE ETC control systems require 0-10V control using EcoSense LDCM. TROV will not work with ETC phase dimmers.
PHYSICAL	**DIMENSIONS**	W 1.6" x H 2" x L 12"/48" ; (41.6mm x 50.5mm x 304.7mm/1201mm)
	HOUSING /LENS	EXTRUDED ALUMINUM; UV STABILIZED POLYCARBONATE; STAINLESS STEEL FASTENERS; PLASTIC ENDCAPS RUBBER OVERMOLD FOR CABLE ASSEMBLY
	WEIGHT	1.52LBS / 0.69KG (1FT) ; 4.95LBS / 2.25KG (4FT)
	CONNECTORS	INTEGRAL MALE/ FEMALE CONNECTORS
	ENVIRONMENT	INDOOR • ETL CERTIFIED FOR DRY/DAMP LOCATIONS IP54 OUTDOOR • ETL CERTIFIED FOR WET LOCATIONS IP66 IMPACT RATED TO IK10
	BEAM ANGLE	GRAZING, WASHING, COVE, ASYMMETRIC, LINE OF LIGHT
	MOUNTING OPTIONS	INTEGRAL MOUNTING AND ADJUSTABLE AIMING FROM 0˚-180˚ IN 15˚ INCREMENTS
FIXTURE RATING & CERTIFICATIONS	**CE, ETL CERTIFIED** **RoHS COMPLIANT** **ENERGY STAR COMPLIANT** **DLC COMPLIANT** **RCM CERTIFIED**	
LIMITED WARRANTY	**5 YEARS**	

WIRING OPTIONS (MVOLT): 110-277VAC

Power Cable Assembly, TROV, Leader/Jumper, 10 foot CBL-3P-L-UNV-10*
Power Cable Assembly, TROV, Leader/Jumper, 50 foot CBL-3P-L-UNV-50*
Power Cable Assembly, TROV, Jumper, 5 foot CBL-3P-L-UNV-05**
Power Cable Assembly, TROV, Jumper, 1 foot CBL-3P-L-UNV-01**
Power Cable Assembly, TROV, Male and Female terminator caps CBL-3P-L-UNV-CAPS

*Two (2) terminators are included with the 10' and 50' power cable. One Leader need per circuit/fixture run. Cables are not plenum rated.
** If using the 5' or 1' power cable assembly as a leader to power a run one set of CBL-3P-L-UNV-CAPS will also be need per cable.

0-10V CONTROL OPTIONS

100-120VAC / 277VAC Linear Dimming Control Module 0-10V - Plenum Rated LDCM-PL-120-277-010V-GR
All products come standard with ELV dimming capabilities. 0-10V Control options required for operation at 0-10V.

OPTIONAL ACCESSORIES

Mounting

Mounting Track and Clips Set, 48 Inch Track, 8 Clips ..... MNT-L-TRKCLIP-48 ..... 48" track and clips set will work with one 48" fixture or four 12" fixtures.
Mounting Track and Clips Set, 12 Inch Track, 2 Clips ..... MNT-L-TRKCLIP-12 ..... 12" track will not work with 48" fixtures.
Mounting Track Clip, TROV, Set of 2 ..... MNT-L-CLIP ..... Clips needed = 12" fixtures need 1 set of 2 and 48" fixture needs 2 sets of 2.
90 Degree L bracket, TROV, Set of 2 ..... MNT-L-LBKT ..... L-Brackets needed = 12" fixtures need 1 set of 2 and 48" fixture needs 1 set of 2.
Angle Locking Clip, TROV, Pack of 10 ..... MNT-L-ANGLOCK ..... Angle Locks needed = 12" fixtures need 1 and 48" fixtures need 2. (Must order separately)
Mounting, Fine Adjustment Bracket, TROV ..... MNT-L-FAB ..... Fine Adjustment Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment Bracket is highly recommended for Grazing Optics.
Mounting, Fine Adjustment L-Bracket, TROV ..... MNT-L-FLAB ..... Fine Adjustment L-Brackets needed = 12" fixtures need 1 and 48" fixtures need 2.
*Fine Adjustment L-Bracket is recommended for Asymetric Optics when aiming is needed.

Snap-on Lenses

Snap-on Lens, Frosted, 12 inch, L50 ..... LENS-L50-FROST-12
Snap-on Lens, Frosted, 48 inch, L50 ..... LENS-L50-FROST-48
Snap-on Lens, Clear, 12 inch, L50 ..... LENS-L50-CLEAR-12
Snap-on Lens, Clear, 48 inch, L50 ..... LENS-L50-CLEAR-48

Snap-on Lenses need = One 12" lens is needed per 12" fixture and one 48" lens is needed per 48" fixture. Snap on Lenses will not work with the asymmetric fixture. Clear lenses can be used to hold colored filters to customize the output color of any TROV fixture, except the ASYM. Color filters supplied by others.

Wall Mount Arm

Wall Mount Arm, 6 inch, TROV WMA-L-CA-06
Wall Mount Arm, 12 inch, TROV WMA-L-CA-12
Wall Mount Arm, 18 inch, TROV WMA-L-CA-18
Wall Mount Arm, 24 inch, TROV WMA-L-CA-24
Wall Mount Arm End Plate Set, TROV, Includes Left and Right ..... WMA-L-END
Wall Mount Arm Joiner Plate, TROV ..... WMA-L-JNR

Wall Mount Arms needed = For individual fixture installations two arms and one end set will be needed per fixture. For continuous run installation one endset will be needed per run. Each end set contains one left and one right end plate. One joining set wll be needed per joint. One arm per fixture will be need plus one extra arm to complete the run. For example: A 10ft run made with two 4ft and two 1ft fixtures will contain; 1 x WMA-L-END, 3 x WMA-L-JNR, and 5 x WMA-L-CA-12. Leader cables are not included with wall mount arms, end sets, or joiners sets.

Louvers

Louver, Asymmetric, 12 inch, L50 ..... LV-L50-ASYM-12
Louver, Asymmetric, 48 inch, L50 ..... LV-L50-ASYM-48
Louver, Symmetric, 12 inch, L50 ..... LV-L50-SYM-12
Louver, Symmetric, 48 inch, L50 ..... LV-L50-SYM-48
Louver, Honeycomb, 12 inch, L50 ..... LV-L50-HCOMB-12
Louver, Honeycomb, 48 inch, L50 ..... LV-L50-HCOMB-48

Louvers Needed = One 12" louver is needed per 12" fixture and one 48" louver is needed per 48" fixture. 48" louver is made up of four 12" louvers. Louvers cannot be used with the asymmetric fixture

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RANDY BURKETT LIGHTING DESIGN

RGA Phase 2

CHESTERFIELD, MO

TYPE SU

Compact floodlight

Housing: Luminaire constructed of a one piece die-cast aluminum housing. LED module paired with inner reverse-tapered casting to provide maximum heat transfer to outer housing. Die castings are marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy.

Enclosure: Optical system consists of a reflector of pure anodized aluminum. The lens and optical assembly are secured by a die cast aluminum trim ring using (3) stainless steel captive fasteners.

Mounting: Provided with two piece die-cast aluminum canopy and die-cast aluminum swivel. Mounts directly to a custom BEGA 538 recessed wiring box. This box can be shipped ahead of the luminaire.

Electrical: 13W LED luminaire, 13 total system watts, -40°C start temperature. Remote electronic 24V DC driver required. Standard LED color temperature is 4000K with an 80 CRI. Available in 3000K (80 CRI); add suffix K3 to order.
Note: Due to the dynamic nature of LED technology, LED luminaire data in this catalog is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. These luminaires are available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

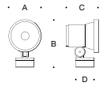
CSA certified to U.S. and Canadian standards for wet locations. Protection class IP65.

Weight: 2.0 lbs.

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:

Electronic Remote 24 V driver Options:
19 580 Remote 25 W electronic LED driver and box
19 591 Remote 50 W electronic dimming LED driver and box

Luminaire Lumens: 630
Tested in accordance with LM-79-08



Compact floodlight · **wide beam**

	Lamp	β	A	B	C	D	Required wiring box
77 607*	13.0 W LED	51°	4 1/8	5 7/8	4 3/8	3 1/2	**19 538**

Accessories

70050 **70755**

Color effect filters · Exchangeable lenses · flat beam · 180° glare shield · β = Beam angle · * Remote electronic driver required

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