

DOCKET ITEM #8
Special Use Permit #2018-0020
4800 Brenman Park Drive– Ben Brenman Dog Park
Lighting

Application	General Data	
Public hearing and consideration of a request for to amend SUP #2018-0128 to add lights which would not be user activated in the dog park area at Ben Brenman Park	Planning Commission Hearing:	June 5, 2018
	City Council Hearing:	June 23, 2018
Address: 4800 Brenman Park Drive	Zone:	CDD #9
Applicant: City of Alexandria	Small Area Plan:	Eisenhower West

Staff Recommendation: APPROVAL subject to compliance with all applicable codes and ordinances and the recommended permit conditions found in Section III of this report.

Staff Reviewer: Madeleine Sims, madeleine.sims@alexandriava.gov



Special Use Permit #2018-0020
4800 Brenman Park Drive



0 0.02 0.04 0.08 0.12 0.16 Miles

I. DISCUSSION

The applicant, the City of Alexandria, Department of Recreation, Parks and Cultural Activities, requests special use permit approval to allow additional lights in the dog park area and along an adjacent pedestrian path and to amend Condition #2 of SUP #2015-0128 to permit lighting which would not be user activated.

SITE DESCRIPTION

The subject property, Ben Brenman Park, is composed of two irregularly shaped lots of record with 360 feet of frontage along Duke Street, 698 feet of frontage along Brenman Park Drive, and approximately 1,789 feet of frontage along Somerville Street. The park is approximately 68 acres in size and includes a multitude of active and passive recreational park uses. The site is served by multiple parking lots, bike racks, and pedestrian trails providing access for nearby residents and visitors.

The subject area, the dog park and pedestrian pathway, is in the southern parcel of Ben Brenman Park. The southern parcel is split into two sections by Backlick Run. The southern end of this parcel (south of Backlick Run) contains the subject dog park, volleyball courts, picnic area, and pedestrian pathways. The dog park, bordered to the north by Backlick Run, and to the south by the CSX rails, is accessible via one of two pedestrian bridges that cross over Backlick Run. The northernmost section contains an approximately six-acre storm water retention pond, a recreation building, and a baseball field. The northern parcel of Ben Brenman Park features fenced and illuminated sport fields.

The park is bordered by a mix of uses including the Duke Street Dog Park, Foxchase Shopping Center, and Charles E. Beatley Central Library to the north; single family dwellings represented by the Wakefield Tarleton Civic Association to the east; CSX and WMATA train tracks to the south; and the commercial uses and residential dwellings of the Cameron Station development to the west.



Figure 1: The dog park, and pedestrian pathway in question both outlined in blue.

BACKGROUND

The site was dedicated to the City in 1996 from the Federal Government to be utilized as parkland. City Council approved CDD #96-01 to establish CDD #9 for the construction of the residential, commercial, and open space uses which compose the Cameron Station development. City Council approved SUP#98-0048 on June 13, 1998 for Ben Brenman Park, known then as East End Park, and the park was completed in September 2001.

Ben Brenman Park has received SUP approval for various uses in the past, in addition to the original special use permit governing the site (SUP#98-0048). City Council approved SUP#2006-0057 in 2006 for a playground. In 2010, City Council approved SUP#2010-0006 for lights at two athletic fields. In 2017, City Council approved SUP#2017-0087 for a scoreboard and batting cages at Ben Brenman ballfield.

In 2015, City Council approved SUP #2015-0128 in April 2016 for the illumination and expansion of the dog park and for seven solar-powered lights with a height of 16.5 feet. Solar powered lights were chosen as a cost-effective measure to illuminate the dog park after factoring in the feasibility of running a conduit over a body of water as well as other site limitations. The lights were approved to be sited outside the fence of the expanded dog park and were required to be user activated and available for use between the hours of 6 a.m. and 10 p.m., as specified in Condition #2. Special Use Permit #2015-0128 was activated within 18 months of SUP approval with the expansion of the dog park. Prior to purchase of the approved lights, the applicant learned that the solar powered light fixtures were not available with a user activating feature. In addition, it wished to expand the lighting to the pedestrian path that connects the dog park to Somerville Street in Cameron Station. Staff informed the applicant that the installation of additional light fixtures and the deletion of Condition #2, mandating that the lights function on a user-activated system, represented an intensification and required an amendment to SUP #2015-0128.



Figure 2: The subject area is located south of Backlick Run, and shown above. The site is accessed via two pedestrian bridges shown in red. Vehicles access the site via Somerville Street, marked in yellow.

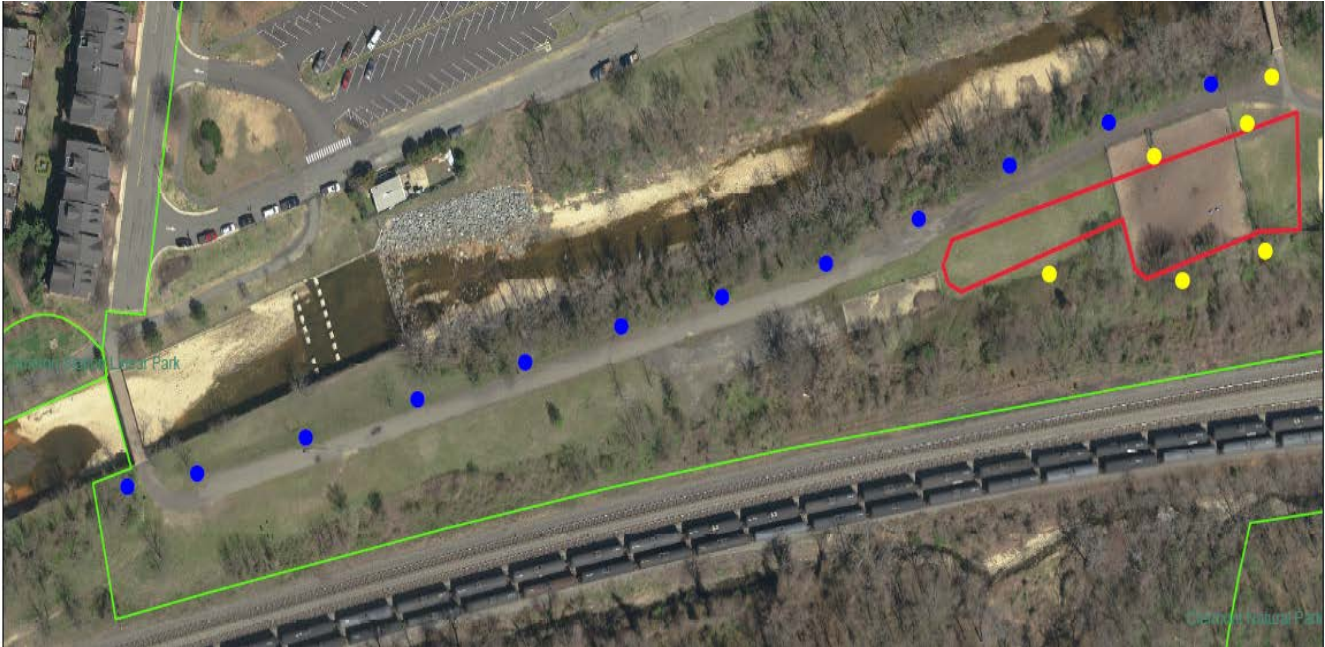


Figure 3: RPCA proposes removing user-activation from the previously approved lighting proposal due to technological constraints and the addition of 12 lights to illuminate the pathway between the two pedestrian bridges that connects Cameron Station and Wakefield-Tarleton to the dog park. The lights would not be located on the bridge.

PROPOSAL

The applicant requests amendments to SUP #2015-0128 to remove the Condition #2 requirement that dog park lights operate on a user-activated basis between the hours of 6 a.m. and 10 p.m. and for the addition of 12 lights to include the walkway connecting the dog park to Somerville Street. The total number of lights in this area of the park would be 18 with the approval of this SUP and the light fixture design would remain consistent with the previously approved lights.



Figure 4: Pathway where proposed lights would be installed.

The lights would operate on a timer to ensure that lighting is limited to the park hours of 6 a.m. to 10 p.m.; the lights would switch on at dusk using a photovoltaic sensor and switch off at 10 p.m. using an internal clock. The lights would switch back on at dawn, although no earlier than 6

a.m. and run until the battery is drained of power, which could be for up to six hours if the lights did not discharge power the night prior.

The lights would be self-contained and powered by solar-rechargeable batteries. These batteries would charge during sunlight hours, and each full charge would provide approximately six hours of light after dusk. The full drain of the battery is important to the maintenance of the equipment and battery warranty. The lights would be located outside the fenced areas of the dog park as previously approved in 2015 during the Planning Commission hearing for lights at the dog park to maintain pet safety, while the new lights would be located along the southern pathway between both bridges.

With a fixed amount of energy to drain daily, these lights could turn on at different times every day as the time of dusk fluctuates. A review of sunset times for the year 2018, show dusk occurs approximately 30 minutes after sunset which would be the time when the lights would turn on. The lights would operate from dusk, or whenever natural light is low, until 10 p.m., daily. Deviations can occur if any day experiences bad weather, causing the lights to turn on prematurely (before dusk) or prevent a full charge from occurring causing a premature shutoff (before 10 p.m.), however, the hours of the park would remain as 6 a.m. to 10 p.m., daily.

An initial application was submitted that would have required the lights to stay on after the park closing hour to allow the batteries to discharge, however, the applicant revised the proposal when they learned that there was technology available for a timer to limit lighting to the park's operational hours.

ZONING/MASTER PLAN DESIGNATION

The site is located in the CDD #9 zone and the Eisenhower West Small Area Plan which designates this site for park use.

II. STAFF ANALYSIS

Staff supports the proposed changes to the lighting at the Dog Park at Ben Brenman Park. The lighting plan remains pedestrian oriented and consistent with the operating hours of the park. The additional lights are not anticipated to generate glare for nearby residents, as they incorporate a full-cut off feature, significantly minimizing the potential for a spill-over effect, as evidenced in the lighting plan submitted by the applicant. The closest resident is located approximately 182 feet away, a significant distance from the closest light fixture.

The user-activated lighting was not feasible, and staff believes that the proposed lighting plan would allow for increased light for those accessing the park during evening hours and early morning hours. Staff, therefore, supports the deletion of Condition #2, removing the requirement for user-activated lighting as it also reflects the state of the technology currently available, yet would still allow for additional lighting hours. The reliance on solar power could pose issues as to consistency in available light, however, the availability of sunlight in the Northern Virginia region during the year would exceed the minimum required light to charge the battery through the panels for six hours of lighting each day. There may be instances during the year when

weather events prevent the full charge of the batteries and the potential for six hours of light could be slightly diminished. Staff does not find this to be a concern as this circumstance would be rare given the technology and the generally favorable area weather conditions. The batteries, under normal charging conditions take between two and four hours to charge, Virginia experiences on average four hours of light per day which would provide adequate charging time. To ensure that lighting of this area of the park is limited to the operational hours of 6 a.m. to 10 p.m., staff has added Condition #4. Although the Alexandria Police Liaison who comments on SUPs initially expressed questions over the proposed solar lighting and lighting levels, staff landscape architects find that the technical specifications indicate that the proposed technology would sufficiently increase the lighted areas of the park.

RPCA staff held a community meeting at the Patrick Henry Recreation Center on April 16, 2018 to discuss the proposal with residents. Staff also sent out email notifications to the Cameron Station Civic Association, Wakefield Tarleton Civic Association and HOA's who maintain contact information with the Department of Planning and Zoning. Staff has not received any opposition comments.

Subject to the conditions contained in Section III of this report, staff recommends approval of the Special Use Permit request.

III. RECOMMENDED CONDITIONS

Staff recommends **approval** subject to compliance with all applicable codes and ordinances and the following conditions:

1. Full cut-off lighting shall be used at the site to prevent light spill onto adjacent properties. (P&Z) (T&ES) (SUP #2015-0128)
2. **CONDITION DELETED BY STAFF:** ~~User activated lighting shall be available between 6 a.m. and 10 p.m. (P&Z) (SUP #2015-0128)~~
3. **CONDITION AMENDED BY STAFF:** A Minor Site Plan amendment (SIT#96-0019) for the installation of light fixtures, to include the submission of a photometric plan, and the expansion of the dog park shall be administratively approved by the Directors of the Planning and Zoning and Transportation and Environmental Services Departments. (P&Z)(T&ES)(SUP #2015-0128)
4. **CONDITION ADDED BY STAFF:** The use of lighting shall be consistent with the park operating hours. (P&Z)
5. **CONDITION ADDED BY STAFF:** The executed lighting plan shall be substantially consistent with illustrations submitted March 15, 2018. (P&Z)

STAFF: Madeleine Sims, Urban Planner, Department of Planning and Zoning
Ann Horowitz, Principal Planner, Department of Planning and Zoning
Mary Christesen, Acting Land Use Services Division Chief, Department of Planning and Zoning

Staff Note: In accordance with section 11-506(c) of the zoning ordinance, construction or operation shall be commenced and diligently and substantially pursued within 18 months of the date of granting of a special use permit by City Council or the special use permit shall become void.

IV. CITY DEPARTMENT COMMENTS

Legend: C - code requirement R - recommendation S - suggestion F - finding

Transportation & Environmental Services:

F-1 Floodplain, Transportation Planning and OEQ does not have any comments on this SUP application.

R-1 A minor amendment to SIT1996-00019 to include a photometric plan shall be submitted and released prior to submitting for any required permits. (T&ES)

Code Enforcement:

C-1 A building permit is required for lighting alterations at dog park.

Fire:

No comments or concerns.

Health:

No comments received.

Parks and Recreation:

No comments received.

Police Department:

No comments received.



APPLICATION

SPECIAL USE PERMIT

SPECIAL USE PERMIT # 2015-0128

PROPERTY LOCATION: Ben Brenman Park Dr. Alexandria, VA 22304

TAX MAP REFERENCE: 059.01-02-01 **ZONE:** CDD #9

APPLICANT:

Name: City of Alexandria, Department of Recreation, Park and Cultural Activities

Address: 4800 Ben Brenman Park Dr, Alexandria, VA 22304

PROPOSED USE: Addition of lights to the fenced dog exercise area and addition of lights along the path.

☒ **THE UNDERSIGNED**, hereby applies for a Special Use Permit in accordance with the provisions of Article XI, Section 4-11-500 of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

☒ **THE UNDERSIGNED**, having obtained permission from the property owner, hereby grants permission to the City of Alexandria staff and Commission Members to visit, inspect, and photograph the building premises, land etc., connected with the application.

☒ **THE UNDERSIGNED**, having obtained permission from the property owner, hereby grants permission to the City of Alexandria to post placard notice on the property for which this application is requested, pursuant to Article IV, Section 4-1404(D)(7) of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

☒ **THE UNDERSIGNED**, hereby attests that all of the information herein provided and specifically including all surveys, drawings, etc., required to be furnished by the applicant are true, correct and accurate to the best of their knowledge and belief. The applicant is hereby notified that any written materials, drawings or illustrations submitted in support of this application and any specific oral representations made to the Director of Planning and Zoning on this application will be binding on the applicant unless those materials or representations are clearly stated to be non-binding or illustrative of general plans and intentions, subject to substantial revision, pursuant to Article XI, Section 11-207(A)(10), of the 1992 Zoning Ordinance of the City of Alexandria, Virginia.

James Spengler, Director, RPCA

Print Name of Applicant or Agent

1108 Jefferson St

Mailing/Street Address

Alexandria, VA

City and State

22314

Zip Code

James Spengler 2/20/18
Signature Date

703-746-5502

Telephone #

Fax #

james.spengler@alexandriava.gov

Email address

ACTION-PLANNING COMMISSION: _____

DATE: _____

ACTION-CITY COUNCIL: _____

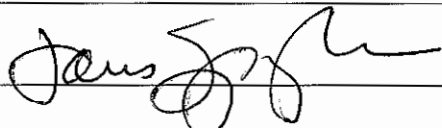
DATE: _____

PROPERTY OWNER'S AUTHORIZATION

As the property owner of 4800 Ben Brenman Park Dr, I hereby
 (Property Address)
 grant the applicant authorization to apply for the addition of lights use as
 (use)
 described in this application.

Name: James Spengler, DirectorPhone: 703-746-5502

Please Print

Address: 1108 Jefferson St Alexandria, VA 22314Email: james.spengler@alexandriava.govSignature: Date: 2/20/18

1. Floor Plan and Plot Plan. As a part of this application, the applicant is required to submit a floor plan and plot or site plan with the parking layout of the proposed use. The SUP application checklist lists the requirements of the floor and site plans. The Planning Director may waive requirements for plan submission upon receipt of a written request which adequately justifies a waiver.

☒ Required floor plan and plot/site plan attached.

☐ Requesting a waiver. See attached written request.

2. The applicant is the (check one):

☒ Owner

☐ Contract Purchaser

☐ Lessee or

☐ Other: _____ of the subject property.

State the name, address and percent of ownership of any person or entity owning an interest in the applicant or owner, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent.
 100% City of Alexandria

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

1. Applicant. State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
¹ City of Alexandria		100%
² City of Alexandria		
³ City of Alexandria		

2. Property. State the name, address and percent of ownership of any person or entity owning an interest in the property located at 4800 Ben Brenman Park Dr. Alexandria, VA 22304 (address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
¹ City of Alexandria		100%
² City of Alexandria		
³ City of Alexandria	1108 Jefferson St Alexandria, VA 22314	

3. Business or Financial Relationships. Each person or entity indicated above in sections 1 and 2, with an ownership interest in the applicant or in the subject property are required to disclose any business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review. **All fields must be filled out completely. Do not leave blank. (If there are no relationships please indicated each person or entity and "None" in the corresponding fields).**

For a list of current council, commission and board members, as well as the definition of business and financial relationship, [click here](#).

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
¹ City of Alexandria		
² City of Alexandria		
³ City of Alexandria		

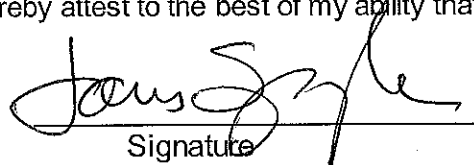
NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

2/20/18
Date

James Spengler

Printed Name


Signature

If property owner or applicant is being represented by an authorized agent such as an attorney, realtor, or other person for which there is some form of compensation, does this agent or the business in which the agent is employed have a business license to operate in the City of Alexandria, Virginia?

- ☐ **Yes.** Provide proof of current City business license
- ☐ **No.** The agent shall obtain a business license prior to filing application, if required by the City Code.

NARRATIVE DESCRIPTION

3. The applicant shall describe below the nature of the request **in detail** so that the Planning Commission and City Council can understand the nature of the operation and the use. The description should fully discuss the nature of the activity. (Attach additional sheets if necessary.)
See attached description

[illegible]

SUP2015-0128 Narrative

The Applicant is proposing solar lighting will be located on the outside perimeter of the dog park to avoid any conflict with dogs. Currently the dog park is unlit despite many dog owners using the park after dark, particularly during the late fall and winter months. Many other areas of the park are lit; however, these lights do not reach the dog park.

The Applicant is proposing an amendment to condition 2 approved for SUP 2015-0128 in 2015. Condition #2, stated, "User-activated lighting shall be available between 6 a.m. and 10 p.m."

Condition #2 creates a constructability issue regarding the solar light batteries. User activated controls buttons prohibit the batteries from discharging fully, which could cause premature failure. Neither contractor nor manufacturers will warranty the solar light systems with this restriction.

The hours of operation for the solar lights is secondary constructability issue. The cut of time of 10 p.m. poses the same constraints as the user activated button. Prohibiting the lights to run past 10 p.m., results in partial batter discharge and causes the same issues cited above. The battery will not discharge, thus voiding the warranty.

The applicant is also seeking an SUP amendment to extend solar lighting along the southern path of the park. Many dog users use this path from Cameron Station to access the dog park. These lights would be the same or similar in terms of structure and use. The lights would be solar powered and run until the batteries are discharged. Adding solar lighting along the path will help increase security and help the public and the police monitor the area. These lights would be funded at a later date.

The solar lights at the dog park and along the path will achieve recommendation #13 and #14 for Ben Brenman Park in the 2014 Citywide Parks Improvement Plan.

The park will still close at 10 p.m. as currently posted. The park hours are identified by signs throughout the park. There are several other parks that have lights on past 10 p.m. See list below.

Boothe
Ben Brenman
Braddock Interim
Beverly
Carlyle Park
Charles Hill
Colosanto
Durant Center
Four Mile
George Mason
Hooff's Run
Hume Springs
Judy Lowe

King Street Gardens
Le Bosquet
Lynhaven Gateway
Lynhaven Park
Main Line Blvd Park
Mason Ave Park
Metro Linear
Mt. Ida
Mt. Jefferson Greenway
Potomac Yard
Powhatan
St. Asaph
Warrick Pool

USE CHARACTERISTICS

4. The proposed special use permit request is for (*check one*):

- ☐ a new use requiring a special use permit,
☐ an expansion or change to an existing use without a special use permit,
☒ an expansion or change to an existing use with a special use permit,
☐ other. Please describe: _____

5. Please describe the capacity of the proposed use:

A. How many patrons, clients, pupils and other such users do you expect?
 Specify time period (i.e., day, hour, or shift).
 N/A

B. How many employees, staff and other personnel do you expect?
 Specify time period (i.e., day, hour, or shift).
 N/A

6. Please describe the proposed hours and days of operation of the proposed use:

Day:
 Monday-Sunday

Hours:
 6am-10pm

7. Please describe any potential noise emanating from the proposed use:

A. Describe the noise levels anticipated from all mechanical equipment and patrons.
 No increase in noise levels

B. How will the noise be controlled?
 N/A

8. Describe any potential odors emanating from the proposed use and plans to control them:

N/A

9. Please provide information regarding trash and litter generated by the use.

- A. What type of trash and garbage will be generated by the use? (i.e. office paper, food wrappers)
Will increase amount of dog waste due to longer hours of park use

- B. How much trash and garbage will be generated by the use? (i.e. # of bags or pounds per day or per week)

Two bags per week

- C. How often will trash be collected?

Daily

- D. How will you prevent littering on the property, streets and nearby properties?

Waste receptacles are present throughout the park.

10. Will any hazardous materials, as defined by the state or federal government, be handled, stored, or generated on the property?

☐ Yes.

☒ No.

If yes, provide the name, monthly quantity, and specific disposal method below:

- 11.** Will any organic compounds, for example paint, ink, lacquer thinner, or cleaning or degreasing solvent, be handled, stored, or generated on the property?

☐ Yes. ☒ No.

If yes, provide the name, monthly quantity, and specific disposal method below:

- 12.** What methods are proposed to ensure the safety of nearby residents, employees and patrons? The dog park is fenced and the added lighting will add security and help police patrol the area.

ALCOHOL SALES

- 13.** A. Will the proposed use include the sale of beer, wine, or mixed drinks?

☐ Yes ☒ No

If yes, describe existing (if applicable) and proposed alcohol sales below, including if the ABC license will include on-premises and/or off-premises sales.

PARKING AND ACCESS REQUIREMENTS

14. A. How many parking spaces of each type are provided for the proposed use:

142 _____ Standard spaces
 _____ Compact spaces
 9 _____ Handicapped accessible spaces.
 _____ Other.

Planning and Zoning Staff Only

Required number of spaces for use per Zoning Ordinance Section 8-200A _____

Does the application meet the requirement?

☐ Yes ☐ No

- B. Where is required parking located? (*check one*)

☒ on-site

☐ off-site

If the required parking will be located off-site, where will it be located?

PLEASE NOTE: Pursuant to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may provide off-site parking within 500 feet of the proposed use, provided that the off-site parking is located on land zoned for commercial or industrial uses. All other uses must provide parking on-site, except that off-street parking may be provided within 300 feet of the use with a special use permit.

- C. If a reduction in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the Zoning Ordinance, complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.

☐ Parking reduction requested; see attached supplemental form

15. Please provide information regarding loading and unloading facilities for the use:

- A. How many loading spaces are available for the use? N/A

Planning and Zoning Staff Only

Required number of loading spaces for use per Zoning Ordinance Section 8-200 _____

Does the application meet the requirement?

☐ Yes ☐ No

- B. Where are off-street loading facilities located? No loading to occur
- C. During what hours of the day do you expect loading/unloading operations to occur?
N/A
- D. How frequently are loading/unloading operations expected to occur, per day or per week, as appropriate?
N/A
16. Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow?
N/A

SITE CHARACTERISTICS

17. Will the proposed uses be located in an existing building? ☐ Yes ☒ No
- Do you propose to construct an addition to the building? ☐ Yes ☒ No
- How large will the addition be? N/A square feet.
18. What will the total area occupied by the proposed use be?
N/A sq. ft. (existing) + N/A sq. ft. (addition if any) = N/A sq. ft. (total)
19. The proposed use is located in: (check one)
- ☐ a stand alone building
 - ☐ a house located in a residential zone
 - ☐ a warehouse
 - ☐ a shopping center. Please provide name of the center: _____
 - ☐ an office building. Please provide name of the building: _____
 - ☒ other. Please describe: Park

End of Application

SUP #2015-0128
4800 Brenman Park Drive



Special Use Permit #2015-0128
4800 Brenman Park Drive



Legend

- x -

Existing Fence

—

Fence

⌋

Gate

⊕

Lighting

○

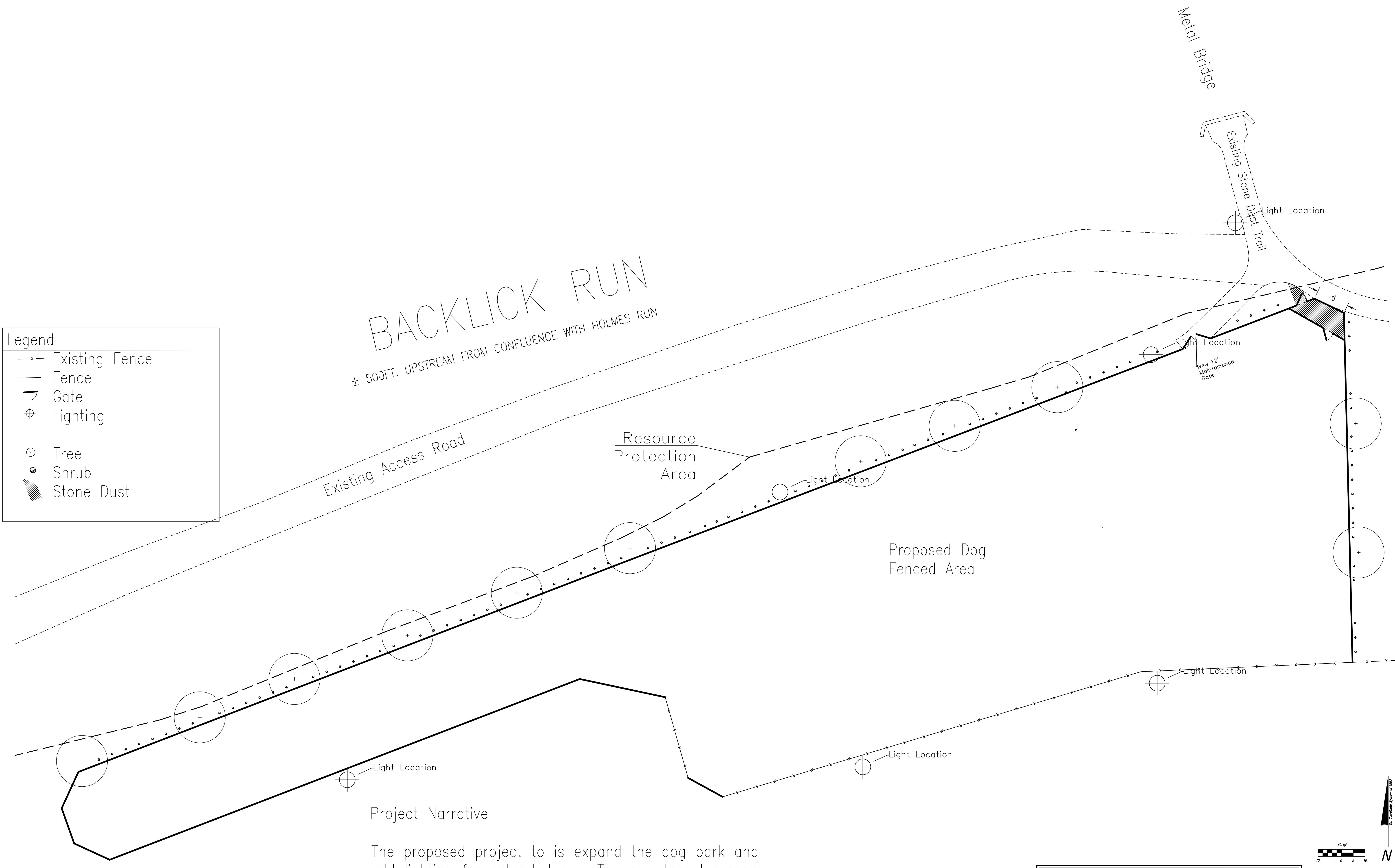
Tree

●

Shrub

▨

Stone Dust



Note: Six proposed lights will be full cut-off with a maximum of 15’ high.
RPCA will operate and maintain the lights.

Project Narrative

The proposed project to is expand the dog park and add lighting for extended use. The new layout removes the existing dog park area within the RPA.

Additional lighting is proposed along the pedestrian path.

Approved Date	Director of Transportation and Environmental Services
Approved Date	Director of Recreation, Parks and Cultural Activities

<div> <div>CITY OF ALEXANDRIA, VIRGINIA</div> <div>Recreation, Parks, and Cultural Activities</div> <div>P. O. Box 178</div> <div>Alexandria, Virginia 22313</div> </div>	Ben Brenman Park 4800 Ben Brenman Park Drive Landscape Plan	
	<div> <div>DESIGN ENGINEER:</div> <div>CADD ENGINEER:</div> <div>PROJECT MANAGER:</div> <div>DEPT. DIRECTOR:</div> </div> <div> <div>Date:</div> <div>Date:</div> <div>Date:</div> <div>Date:</div> </div>	
	<div> <div>REVISIONS</div> <div>INITIALS</div> <div>COMMENTS</div> </div> <div> <div>Date:</div> <div>Date:</div> <div>Date:</div> <div>Date:</div> </div>	
	<div>Scale: 1"=10'</div> <div>Project No: SIT96-0019</div> <div>Sheet 2 of 4</div>	

Ben Brennan Dog Park - Solar LED Simulation

Photometric Simulation
Solar Powered LED Lighting
eSHINE SOLAR SYSTEM

Scaled Lighting Layout

Name: Steve Rolfe LC
Position: Lighting Sales
Company: Ambiance Lighting
Phone: 301-627-2000 X 125
Email: srolfe@ambiancelighting.com

Date: 02 / 20 / 2018
Operator: Jonathan Robins

Ember LED Inc.
LED & Solar Powered LED Lighting
New York, USA
www.emberled.com

Operator Jonathan Robins
Telephone 201.228.0880
Fax 888.423.6211
e-Mail info@emberled.com

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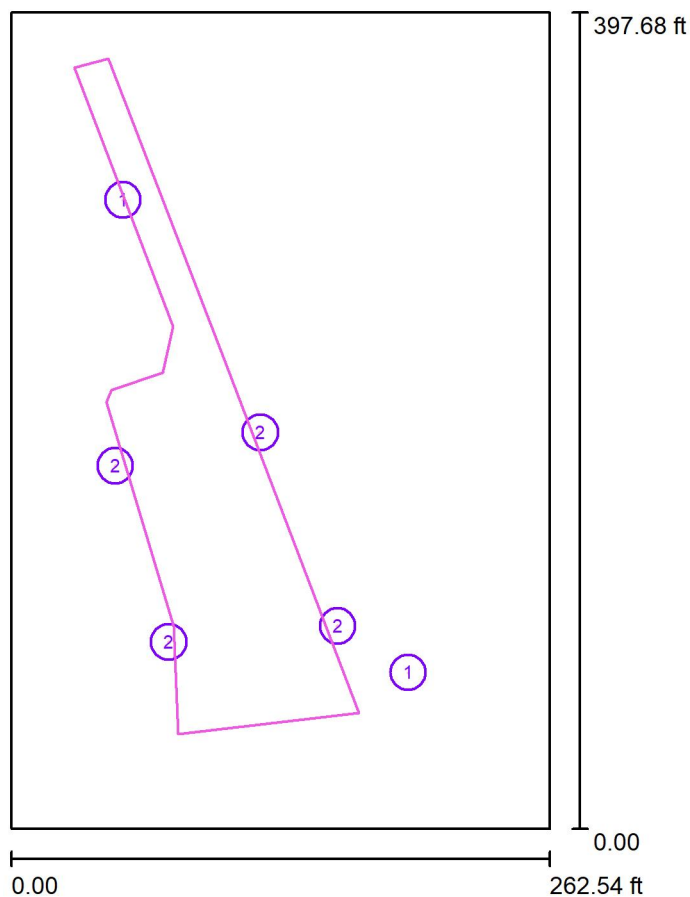
Ben Brennan Dog Park - Solar LED Simulation

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Ember LED Inc.
LED & Solar Powered LED Lighting
New York, USA
www.emberled.com

Operator Jonathan Robins
Telephone 201.228.0880
Fax 888.423.6211
e-Mail info@emberled.com

Dog Park Simulation - Perimeter / Planning data



Light loss factor: 0.95, ULR (Upward Light Ratio): 1.5%

Scale 1:1124

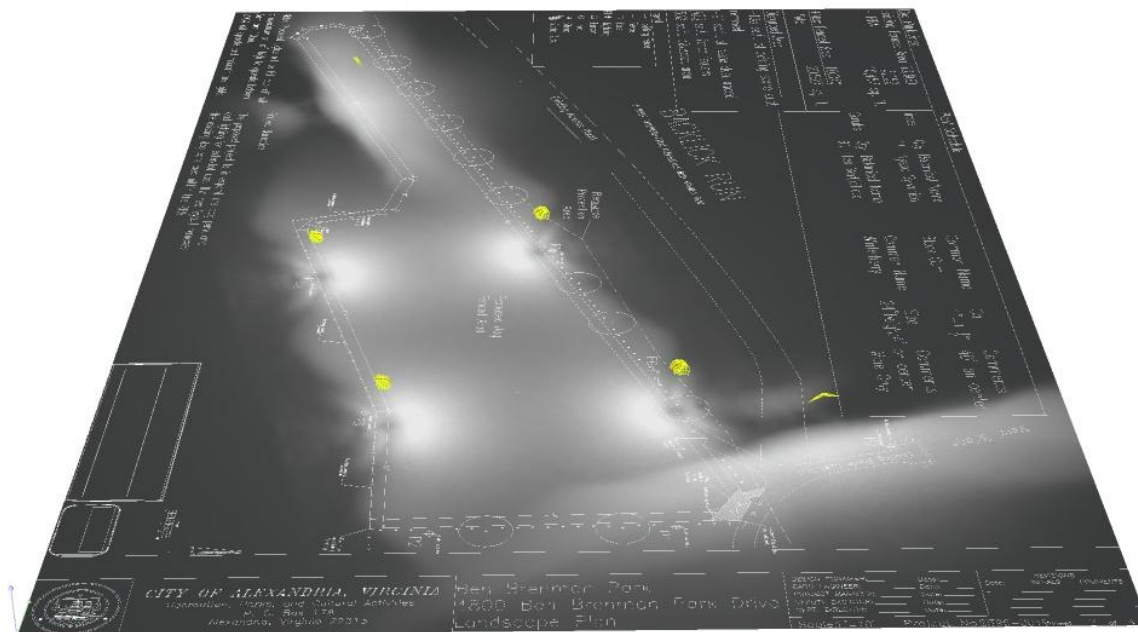
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	2	Valen Energy TYPE I VL-L24-700-T1 (1.000)	6083	6729	54.3
2	4	Valen Energy TYPE II VL-L24-700-T2 (1.000)	5630	6581	54.3
Total:			34686	39782	325.7

Ember LED Inc.
LED & Solar Powered LED Lighting
New York, USA
www.emberled.com

Operator Jonathan Robins
Telephone 201.228.0880
Fax 888.423.6211
e-Mail info@emberled.com

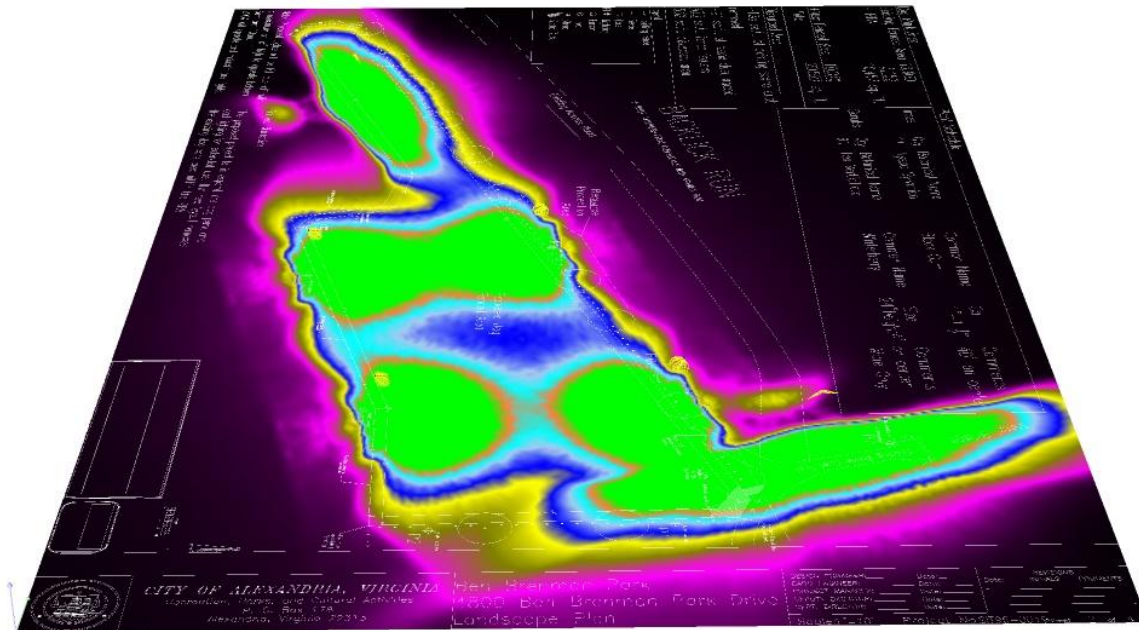
Dog Park Simulation - Perimeter / 3D Rendering



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Dog Park Simulation - Perimeter / False Color Rendering

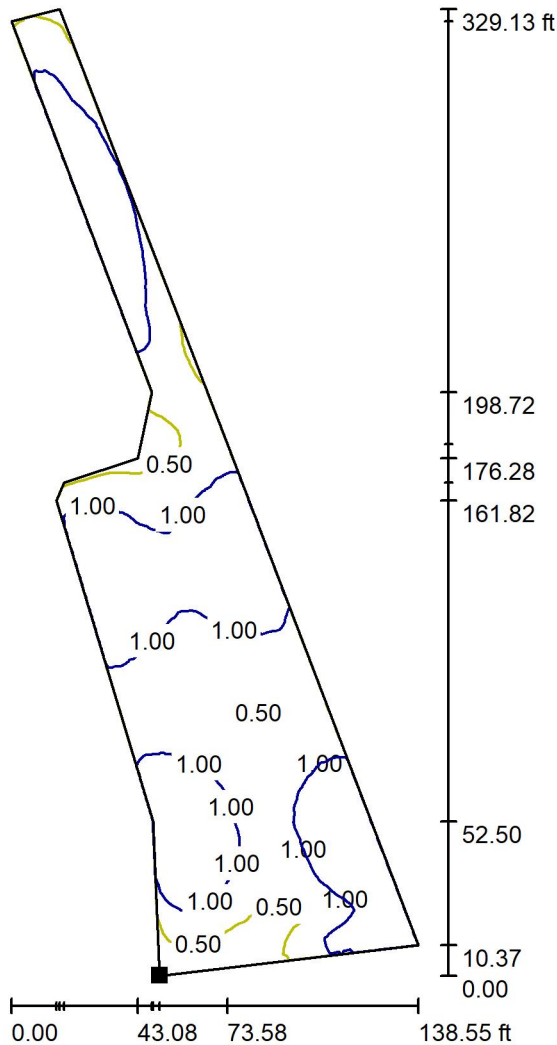


0 0.10 0.25 0.40 0.50 0.65 0.75 0.85 1.00 fc

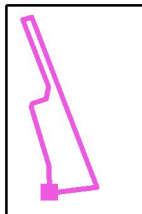
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Dog Park Simulation - Perimeter / Calculation Surface 1 / Isolines (E, Perpendicular)



Position of surface in external scene:
Marked point:
(81.473 ft, 45.987 ft, 0.000 ft)



Values in Footcandles, Scale 1 : 785

Grid: 128 x 128 Points

E_{av} [fc]
1.19

E_{min} [fc]
0.29

E_{max} [fc]
4.35

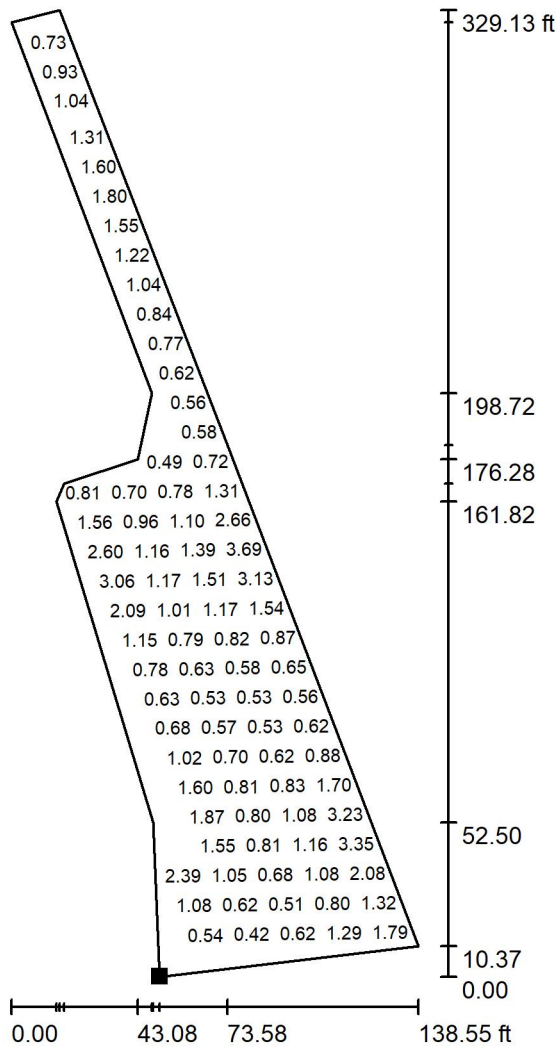
$u0$
0.245

E_{min} / E_{max}
0.067

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Dog Park Simulation - Perimeter / Calculation Surface 1 / Value Chart (E, Perpendicular)



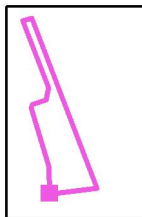
Values in Footcandles, Scale 1 : 785

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(81.473 ft, 45.987 ft, 0.000 ft)



Grid: 128 x 128 Points

E_{av} [fc]
1.19

E_{min} [fc]
0.29

E_{max} [fc]
4.35

u_0
0.245

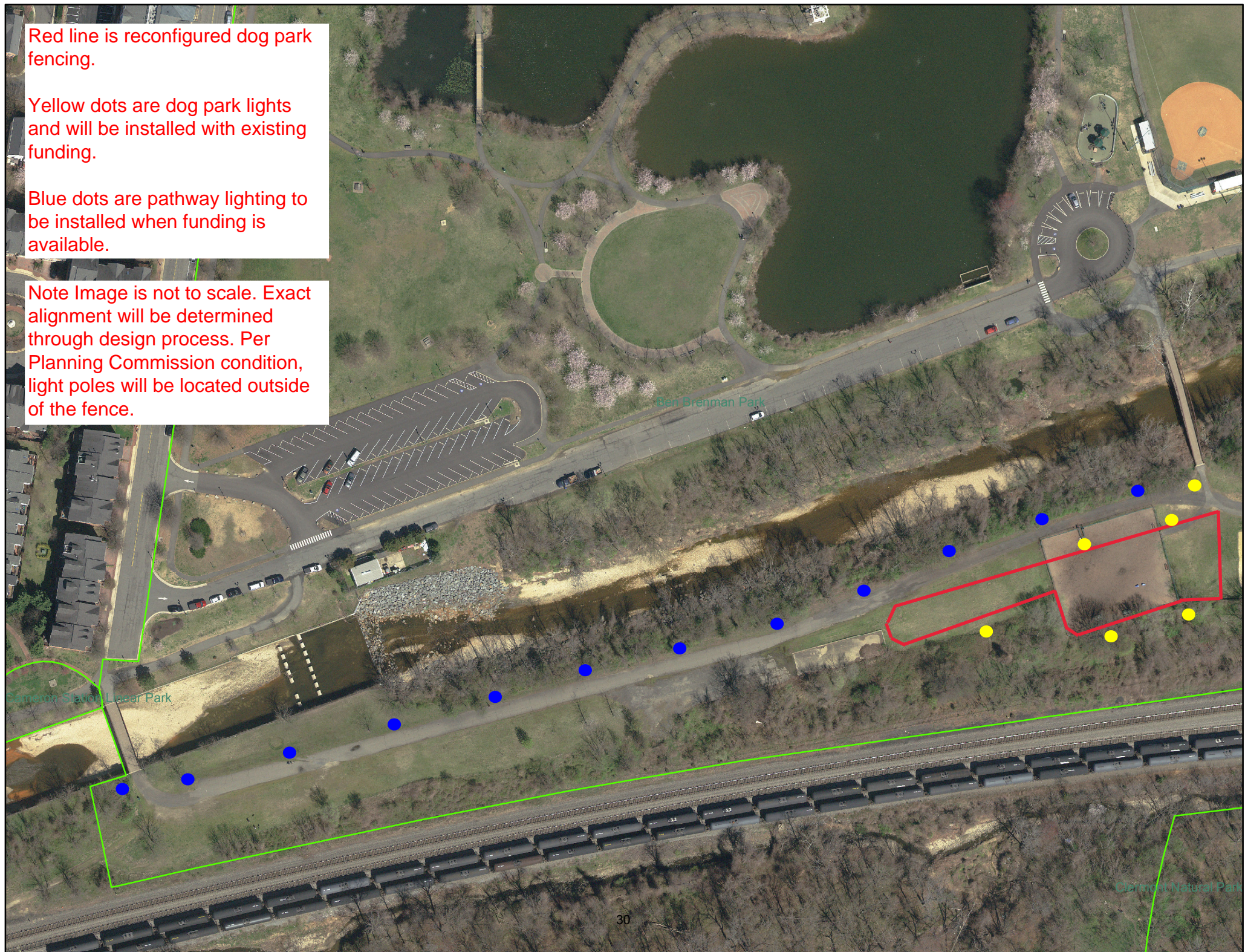
E_{min} / E_{max}
0.067

Red line is reconfigured dog park fencing.

Yellow dots are dog park lights and will be installed with existing funding.

Blue dots are pathway lighting to be installed when funding is available.

Note Image is not to scale. Exact alignment will be determined through design process. Per Planning Commission condition, light poles will be located outside of the fence.



SUP2015-00128 Amendment

# Lights	Type	Location
2	Valen Energy TYPE I VL-L24-700-T1	Dog Park
4	Valen Energy TYPE II VL-L24-700-T2	Dog Park
11	Valen Energy TYPE I VL-L12-350-T1	Pathway