

VARIANCE FEES

MGO \$50.00
 COMM \$490.00
 Priority - Double above

PETITION FOR VARIANCE APPLICATION

City of Madison
 Building Inspection
 Division
 215 Martin Luther King Jr. Blvd.
 Madison, WI 53703
 (608) 266-4568

Amount Paid 50.00

Name of Owner <u>CITY OF MADISON PARKS DIV.</u>	Project Description <u>NEW TENNIS COURT LIGHTS @ RENNERSBACH PARK</u>	Agent, architect, or engineering firm <u>MUSCO LIGHTING</u>
Company (if applies) <u>ATTN: TOM MAGLIO</u>		No. & Street
No. & Street <u>210 MUKTK BUD 104</u>	Tenant name (if any)	City, State, Zip Code
City, State, Zip Code <u>MADISON, WI 53701</u>	Building Address <u>115 N. EAU CLAIRE AVE</u>	Phone <u>(920) 460-5879</u>
Phone <u>(608) 266-6518</u>	<u>MADISON, WI 53705</u>	Name of Contact Person <u>GREG SWIFT</u>
e-mail <u>tmaglio@cityofmadison.com</u>		e-mail <u>greg.swift@musco.com</u>

1. The rule being petitioned reads as follows: (Cite the specific rule number and language. Also, indicate the nonconforming conditions for your project.)
SEE ATTACHED - MGO # 10.085 (ATTACHMENT A)

TRESSPASS LIGHT REQUIREMENT OF < 0.5 FC @ PROP. LINE

2. The rule being petitioned cannot be entirely satisfied because:
THE EXISTING COURTS ARE ADJACENT TO THE STREET R.O.W.; LIGHTS HAVE BEEN IN SINCE 1972;

3. The following alternatives and supporting information are proposed as a means of providing an equivalent degree of health, safety, and welfare as addressed by the rule:

- THE NEW LIGHTING SYSTEM REDUCES ENERGY COSTS BY 50% AND WE EXPECT TRESSPASS LIGHT LEVELS TO BE REDUCED BY 70%.
- THERE ARE NO HOMES DIRECTLY AFFECTED BY THIS TRESSPASS LIGHT - EAU CLAIRE AVE & A PARKING LOT..
- THE LIGHTS ARE ON A TIMER & GO OFF @ 10:00 PM

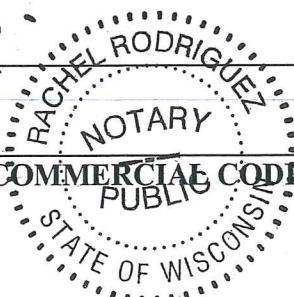
Note: Please attach any pictures, plans, or required position statements.

VERIFICATION BY OWNER - PETITION IS VALID ONLY IF NOTARIZED AND ACCOMPANIED BY A REVIEW FEE AND ANY REQUIRED POSITION STATEMENTS.

Note: Petitioner must be the owner of the building. Tenants, agents, contractors, attorneys, etc. may not sign the petition unless a Power of Attorney is submitted with the Petition for Variance Application.

KEVIN BRISKI, being duly sworn, I state as petitioner that I have read the foregoing
 Print name of owner
 petition, that I believe it to be true, and I have significant ownership rights in the subject building or project.

Signature of owner <u>Kevin Briski</u>	Subscribed and sworn to before me this date: <u>5/21/2013</u>
Notary public <u>[Signature]</u>	My commission expires: <u>6/26/16</u>



NOTE: ONLY VARIANCES FOR COMMERCIAL CODES ARE REQUIRED TO BE NOTARIZED.

ATTACHMENT A

10.085 OUTDOOR LIGHTING.

(1) Purpose and Intent. This ordinance regulates all outdoor lighting installed on residential site and commercial site property, both publicly and privately owned within the City of Madison with the exception of outdoor lighting on public streets, public bikeways and public walkways which are regulated elsewhere in the ordinances. The purpose of this ordinance is to create standards for outdoor lighting that do not interfere with the reasonable use of commercial site and residential site property, that prevent light trespass and conserve energy yet maintain night time safety. Installation of outdoor lighting is not mandatory but if installed, it shall be in conformance with the provisions of the ordinance, the building code and all other codes and regulations as applicable and under appropriate permit and inspection.

(2) Definitions.

Commercial Site shall mean a tract consisting of one or more contiguous lots or parts of lots which are to be used for interdependent ingress and egress of vehicles and containing one or more off-street loading or parking facilities or any commercial site having five (5) or more parking stalls.

Covered Parking Facilities shall mean a parking facility with an overhead covering and shall include all floors except the roof level of a multilevel parking structure or ramp.

Driveway shall mean every way or area used for vehicular travel back of the street right-of-way line.

Footcandle shall mean the illumination of a surface one foot distant from a source of light equivalent to one candle.

Building Inspection Division shall mean the Building Inspection Division of the City Department of Planning and Community and Economic Development. (Am. by ORD-08-00109, 10-7-08)

Installation shall mean the attachment or assembly, whether or not connected to a power source, of any outdoor light fixture affixed to the ground, a building, a pole or any other supporting structure or device.

Light Trespass shall mean stray light or spill light flowing across the property boundary. (Am. by Ord. 13,717, 10-26-04)

Lighting Sources shall mean any lamp or manufactured device emitting energy that is capable of exciting the retina and producing a visual sensation. The energy emitted shall fall within the electromagnetic spectrum to a length of between 380 and 770 nanometers. Such devices shall include, but are not limited to, incandescent, fluorescent, carbon arc, quartz-iodine/tungsten halogen, low pressure sodium, high pressure sodium, metal halide and mercury vapor lamps.

Non-Shielded or Non-Cutoff Lighting Fixtures shall mean all types of outdoor lighting fixtures other than shielded or cutoff lighting fixtures and includes any lighting fixture that employs an adjustable bracket, refractorizing glassware or lenses, a non-shielded lamp or light source and distributes light at any angle more than four degrees (4°) above horizontal. (Am. by Ord. 13,717, 10-26-04)

Open Parking Facilities shall mean a parking facility without an overhead covering and shall include the roof level of a multilevel parking structure or ramp.

Outdoor Canopy shall mean a free-standing roof structure without side walls which may or may not be attached to the roof of an adjacent building and which shall include but shall not be limited to canopies over gas station pumps or canopies at convenience stores.

Outdoor Lighting Fixtures shall mean lighting sources which are electrically powered illuminating devices, lighted or reflective surfaces, lamps and similar devices, permanently installed or portable, used for illumination or for advertisement. Such devices shall include, but are not limited to, searchlights, spotlights, floodlights, streetlights, sign lights, security lights, wall lights, porch lights, area lights, parking area lights, sports lights and sign panels.

Outdoor Merchandizing Area shall mean car sales lots, equipment sales lots, retail gasoline stations, garden centers, and other similar areas where products are permanently displayed or dispensed outdoors.

Person shall mean any individual, tenant, lessee, owner, operator, or any public, private, nonprofit, or commercial entity including but not limited to, firm, business, partnership, joint venture, association, corporation, municipality, agency or governmental agency.

Residential Site shall mean a single parcel in a residential zone containing a residential structure of one or more dwelling units with a parking facility for one (1) or more cars. (Am. by Ord. 13,717, 10-26-04)

Shielded or Cutoff Lighting Fixtures shall mean outdoor lighting fixtures that utilize flat, clear lenses with no refractorizing elements and which operate in a horizontal position with nonadjustable mounting hardware or brackets. Such fixtures distribute light by means of an internal reflector only. The light source is totally concealed by the fixture housing when the position of observation is at an angle less than fifteen degrees (15°) above horizontal. No light is permitted at an angle more than four degrees (4°) above horizontal. (Am. by Ord. 13,717, 10-26-04)

Uniformity Ratio shall mean the ratio between the average illumination and the minimum illumination as determined by measurements taken on a four-foot grid throughout the area to be lighted.

(3) General Requirements.

(a) All outdoor lighting fixtures installed and thereafter maintained upon private or public residential, commercial, industrial and other nonresidential property shall comply with the following:

1. The maximum allowable light trespass shall be 0.5 horizontal footcandles four (4) feet above the ground. The point of measurement of this offending light shall be at any point at the outer wall of an adjacent building occupied for residential or public use, or at any point greater than 10 feet from the adjacent lot line. This measurement shall not include any ambient, natural light.
2. All fixtures greater than 1,000 initial lumens (equivalent to 70 watts incandescent) shall be full cutoff, or shall be shielded or installed so that there is not a direct line of sight between the light source or its reflection and a point five (5) feet or higher above the ground at the property boundary. The light source shall not be of such intensity so as to cause discomfort or annoyance.
3. Any outdoor lighting fixture installed on a parking lot, parking structure or outdoor merchandizing area shall use either high pressure sodium, metal halide, or fluorescent lamps. The lighting system shall be extinguished or reduced to fifty percent (50%) no later than thirty (30) minutes after the close of business for the day or after the end of normal office hours for the majority of employees. (Am. by ORD-07-00032, 3-22-07)
4. All lamp types utilized for search lighting and/or spot lighting for advertising purposes shall not be operated past 11:00 P.M.

(b) All outdoor lighting fixtures installed prior to March 30, 1993 shall be exempt from this ordinance except as follows:

1. If any modifications, construction or changes to an existing outdoor lighting fixture system is proposed to fifty percent (50%) or more of the total number of fixtures, then all fixtures shall comply with the provisions of this ordinance.
2. All outdoor lighting fixtures installed on residential parking facilities irrespective of installation date shall conform to subsection (4)(c) herein.

(c) All outdoor lighting fixtures shall be maintained according to approved plans.

(d) Trees and shrubbery shall not be located where they significantly reduce or block the lighting of parking facilities or roadways.

(e) Outdoor lighting fixtures may be used to illuminate buildings and structures; recreational areas, sports fields and courts; parking lots; parking structures, garages, or ramps; landscape areas; outdoor merchandizing areas; building overheads and open canopies. Outdoor lighting fixtures may be installed to provide building and parking lot security.

(Am. by Ord. 13,717, 10-26-04)

BUILDING CODE VARIANCE REQUEST
RENNEBOHM PARK TENNIS COURT LIGHT REPLACEMENT

PROJECT DESCRIPTION:

The Parks Division has funding in the 2013 capital budget for the replacement of the tennis court lighting at Rennebohm Park.

Rennebohm Park is a near west side park located at the intersection of Eau Claire Ave and Regent St. The six existing tennis courts were built in 2 phases – the west set of 3 were built in 1976 and the east set of 3 were built in 1980. There are lights on the west set (closest to Eau Claire Ave) which were installed when they were built. Plans were to, at some time, add lights to the east set of 3 although to date, those improvements are not there.

The existing lighting system for the tennis courts at Rennebohm consists of 12 – 35-40' poles. There are 10 poles around the outside of the court and 2 poles inside the fence. The 36 fixtures at Rennebohm are each 1500 watt quartz halogen fixtures. The amount of fixtures per pole varies. The corner poles each have one, other perimeter poles each have two and the two poles inside the courts each have twelve.

PROPOSED LIGHTING IMPROVEMENTS:

In the past few years we have gathered information from a number of lighting manufacturers regarding the different athletic field lighting systems available on the market today. We focus on their energy efficiency and the type of cut off fixtures or shields they have available in an effort to minimize the amount of trespass light. This research has lead the Parks Division to the decision that in new lighting situations, Musco Sports Lighting's Light Structure Green lighting system offers us the best blend of cost effectiveness and energy efficiency with the best fixture shields available in the industry for athletic field lighting therefore allowing the least amount of trespass light per fixture.

Given this, the information provided in the variance packet uses that system. We typically specify the Musco Light Structure Green system as the "basis of design" yet offer the contractor the option to use a different lighting system, as long as that lighting system can meet the specifications of the Musco system. Even if a contractor bids a different system, it will have to meet the foot candle criteria shown in this packet.

THE NEED FOR A VARIANCE:

Unfortunately, these tennis courts are tucked into the northwest corner of the park adjacent to the west property line (Eau Claire Ave), and the north property line (a parking lot for an apartment complex). Given the proximity to both property lines, we do not meet the ordinance requirement of 0.5 maximum foot candles 10' off the property line at 2 spots (see sheets 6 & 7).

We are requesting a variance to the ordinance that would allow us to replace the existing lighting system with a new lighting system that only needs 4 poles instead of 12; cuts energy costs up to 50% and will cut down on trespass light 70% as compared to the existing system, yet does not quite meet the ordinance requirement of < 0.5 fc in two small areas. We would like the variance to include the east set of 3 courts so that when we budget for additional lights for that set of 3 courts, we will already have the variance in place.

Other factors to mention:

- **Park facilities close at 10:00 PM, The tennis court lights are controlled by a photo cell and a time clock. They won't go on until it is dark enough to trip the photo cell and the timer shuts them off at 10:00 PM**
- **This facility is only open during the spring/summer and fall when there are leaves on the trees which should, given the amount of trees around the courts, block a good portion of the trespass light.**
- **We will plant a cluster of young evergreen trees under the existing canopy of deciduous trees along the property line adjacent to the NE corner of the courts, where the trespass light does not meet the ordinance, that should grow into a 4 season trespass light buffer for the apartment complex to the north.**
- **We will also monitor the street trees along Eau Claire Ave. and re-plant the canopy solid immediately if/when any of the trees die in an effort to maintain the existing trespass light buffer along Eau Claire Ave.**

VARIANCE PACKET – ATTACHMENT EXPLANATIONS:

Sheet 1:

- Birds eye view of tennis courts showing existing 12 pole lighting system

Sheet 2:

Proposed Landscaping/Existing Light Readings – at the property line showing readings over the ordinance requirement of <0.5 foot candles. The existing light level readings shown on Sheet 2 were taken in April, 2013.

Sheet 3/4:

- Musco computer generated lighting designs showing the Rennebohm Park tennis courts – proposed light levels. This facility will host high school and small college tennis matches and therefore must be lit to the required average 50 foot candle level to meet WIAA and NCAA requirements for safety.

Sheet 5:

- Aerial photo showing the tennis courts and the surrounding properties along with the computer generated proposed trespass light areas highlighted in yellow. Note both the areas where the light readings are over 0.5 are not adjacent to homes. They abut the apartment parking lot to the north and Eau Clair Ave to the west.

Sheet 6:

- Blow up aerial photo showing the tennis courts and the computer generated individual foot candle readings using Musco's Control Structure Green system. The area where the trespass light is over 0.5 fc is highlighted in yellow.





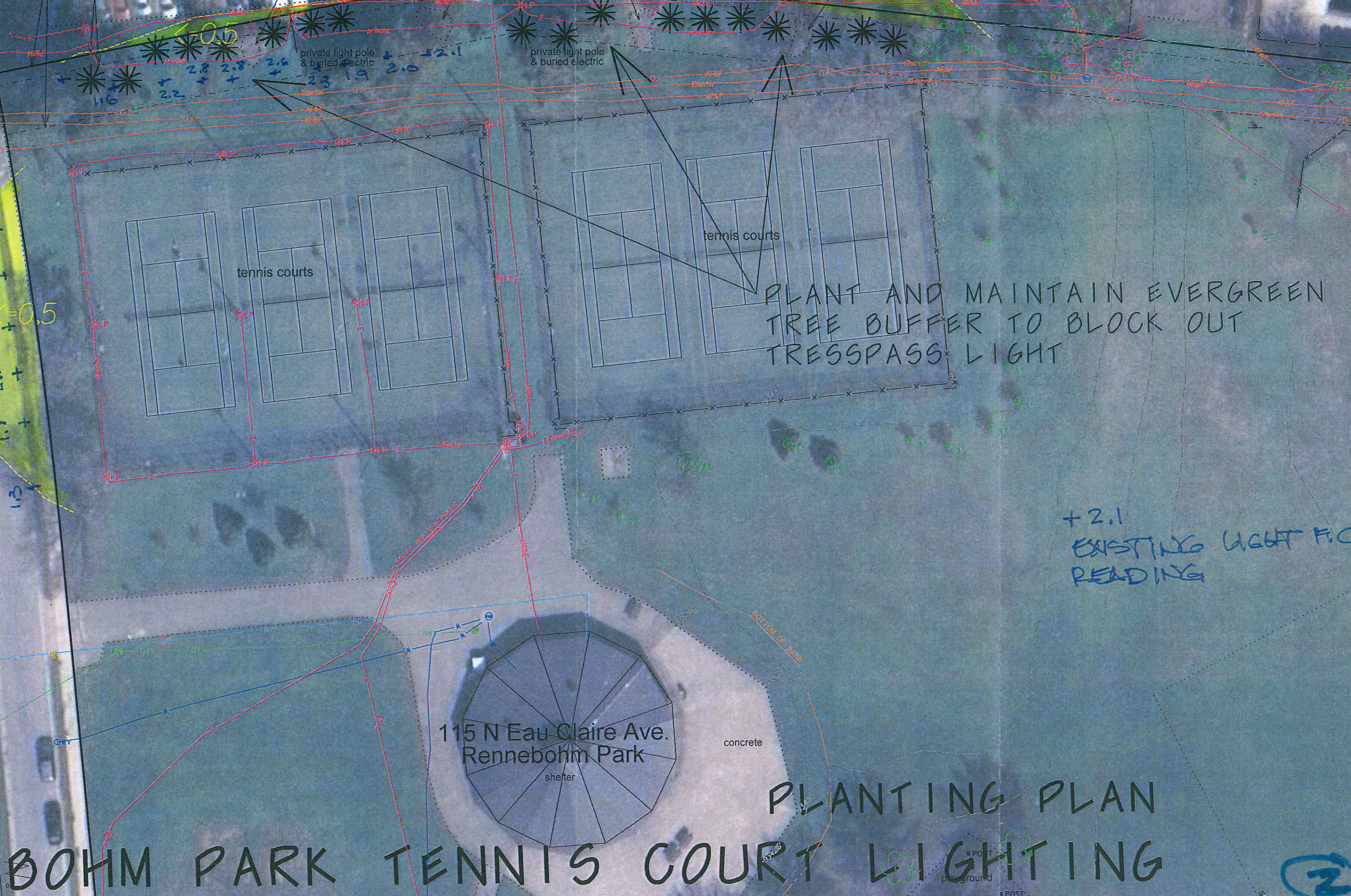
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25' BURIED ELECTRIC EASEMENT MG&E DOC#1994449
5' UTILITY AND DRAINAGE EASEMENT DOC#957657

N EAU CLAIRE AVE

1.7
2.0
1.9
2.3
2.1
2.0
1.8
1.3



PLANT AND MAINTAIN EVERGREEN TREE BUFFER TO BLOCK OUT TRESSPASS LIGHT

+2.1 EXISTING LIGHT F.I.C.A. READING

115 N Eau Claire Ave.
Rennebohm Park
shelter

concrete

PLANTING PLAN



RENNEBOHM PARK TENNIS COURT LIGHTING

POST
POST
POST
POST
POST
POST



T1

T2

T6

T4

T3

T7

10' OFF PROP. LINE

PROPERTY LINE

--- .5 FOOT CANDLES

0' 10' 20' 30' 40' 50'

RENNEBOHM PARK TENNIS COURT LIGHTING

6