Development Review Committee Staff Report

May 6, 2015



Project Name: Location: Owner: Applicant: Representative: Jurisdiction: Council District: Case Manager:

Case No:

Request:

14Devplan1154

Waivers to allow the proposed stadium lighting to exceed the maximum mounting height; to allow the light trespass to exceed 0.5 foot-candles at property line; and to not provide full shielding. DeSales Athletic Field Stadium Lighting 425 West Kenwood Drive Roman Catholic Bishop of Louisville St. Francis DeSales High School Sabak, Wilson & Lingo, Inc. Louisville Metro 21 – Dan Johnson Sherie' Long, Landscape Architect

REQUEST

Waiver #1:

Waiver from Land Development Code Section 4.1.3.B.2.b.ii to allow the proposed stadium lighting to exceed the maximum 20 foot mounting height.

Fixture Locations	Requirement	Request	Waiver
Fixtures A1 & A2	20 ft.	70 ft.	50 ft.
Fixture B1	20 ft.	80 ft.	60 ft.
Fixture B2	20 ft.	90 ft.	70 ft.
Fixture C1	20 ft.	80 ft.	60 ft.
Fixture C2	20 ft.	70 ft.	50 ft.
Fixtures F1	20 ft.	80 ft.	60 ft.
Fixtures F2	20 ft.	70 ft.	50 ft.

Waiver #2

Waiver from Land Development Code Section 4.1.3.B.11.a to allow light trespass to exceed 0.5 foot-candles at the property line.

Waiver #3

Waiver from Development Code Section 4.1.3.B.2.c.i to not fully-shield the light fixtures.

CASE SUMMARY/BACKGROUND/SITE CONTEXT

The lighting waiver requests are related to the DeSales High School Category 3 Development Plan, with approved street closures along with approved waivers and variances, for construction of new athletic facilities. The previous approvals included lot consolidation; closures of a portion of Lyman and Northern Avenues along

with an unnamed alley; additional parking facilities; renovation of the existing athletic facilities; construction of a new baseball field, football stadium/soccer field and press box.

The school property is surrounded by single family residential properties. Currently there is an existing football field and a baseball field both of which do not have lighting facilities for after dark use. However, with the athletic facility improvements and expansion, the owner is proposing stadium lighting for the new football and baseball fields. This new stadium lighting will be used for games and practices.

The applicant is requesting to be allowed to exceed the 20 foot mounting height for all eight (8) proposed fixtures by an additional 50 to 70 foot. The applicant is varying the height of the fixtures to reduce the impact of the proposed lighting on the adjacent residential properties; however there is some trespass light or spillage of the light onto the adjacent residential properties. Therefore, a waiver is also being requested to allow the trespass or spillage of the light onto the adjacent residential properties to exceed the maximum.

The maximum foot-candles at the property line shall be no greater than one-half (0.50) of a foot-candle. However, along the northeast perimeter this foot-candle requirement is not being met. The foot-candles along these perimeters exceed the maximum range by 0.6 to 1.5. The most sufficient trespass or spillage of light occurs along portions of the perimeter which does not have any additional planting or screening proposed to reduce or mitigate this non-compliance.

All lighting sources to be used for Recreational Facilities when within 500 feet of residential use are required to be fully shielded, or be designed or provided with sharp cut-off capability, so as to minimize up-light, spill light (trespass light) and glare. This required shielding or sharp cut-off capability is being provided as required, therefore, a waiver is being requested.

Illumination of any playing fields within 500 feet of any residential use are permitted after 11:00 p.m. only to conclude an event normally expected to end before 11:00 p.m.. The applicant states the use of the stadium lighting will comply with these time limits.

LAND USE/ZONING DISTRICT/FORM DISTRICT TABLE

The site is zoned R-4, R-5 and C-1 in the Traditional Neighborhood (TN) Form District. The site is surrounded by residential.

	Land Use	Zoning	Form District
Subject Property			
Existing	Institutional	R-4, C-1	TN
Proposed	Institutional	R-4, C-1	TN
Surrounding Properties			
North	Single-family residential	R-5	TN
South	Single-family residential	R-2, R-4	NFD
East	Single-family residential	R-5	TN
West	Single-family residential	R-5	TN

PREVIOUS CASES ON SITE

14Devplan1154 Following variances were approved by Board of Zoning Adjustment (BOZA) on March 16, 2015:

• Variance of Sec. 5.5.1.of the LDC to allow the proposed student center to not observe the 0 setback along Kenwood Drive and Laughlin Street. The requested setback along

Kenwood Drive is 126 feet, a variance of 126 feet. The requested setback along Laughlin Street is 93 feet, a variance of 93 feet.

- Variance of Table 5.2.2.of the LDC to allow existing and proposed parking to encroach into the required 15 feet setbacks along Kenwood Drive and Laughlin Street. The requested setbacks are 0 at their closest point, a variance of 15 feet.
- Variance of Table 5.2.2 of the LDC to allow proposed structures along Laughlin Street to exceed the maximum 25 foot setback. The requested setback of the visitors' field house is 218 feet, a variance of 193 feet. The requested setback of the press box is 209 feet, a variance of 184 feet.

14Devplan1154 Following waivers were approved by Development Review Committee (DRC) on February 4, 2015:

- Waiver of Sec. 5.5.1.A.3.a of the Land Development Code (LDC) to allow parking in front of the building; and to not provide the required 3 foot masonry, stone or concrete wall that makes reference to a similar design in the surrounding area along Kenwood Avenue and Laughlin Street.
- Waiver of Sec. 6.2.6 of the LDC to not provide a portion of the sidewalk along Laughlin Street.
- Waiver of Sec. 10.2.4 of the LDC to eliminate the 6 foot continuous screen from the property perimeter LBA
- Waiver of Sec. 10.2.10 of the LDC to not provide the required VUA LBA along the existing parking lot along Kenwood Drive.
- Waiver of Sec. 10.2.10 of the LDC to not provide the required VUA LBA along the loading area along Laughlin Street.
- **14Streets1021** Closures of a portion of Lyman Avenue, Northern Avenue and an unnamed alley. Approved April 1, 2015
- 9-13-06 Kenwood Hill Area Wide Rezoning. Approved August 31, 2006
- **B-139-04** A variance to allow a proposed 6 foot fence to exceed the maximum height in the required front yard of 425 Lyman Avenue. Approved August 2, 2004
- **9-85-87** Change in zoning from R-5 residential to C-1 commercial at 425 Kenwood Drive; also a Conditional Use Permit to allow a proposed billboard; also a variance to permit a proposed sign to encroach into the required front yard. Approved December 3, 1987

INTERESTED PARTY COMMENTS

No inquiries were received prior to the completion of this report.

APPLICABLE PLANS AND POLICIES

Land Development Code Cornerstone 2020

STANDARD OF REVIEW AND STAFF ANALYSIS FOR WAIVER

Waiver #1:

Waiver from Land Development Code Section 4.1.3.B.2.b.ii to allow the proposed stadium lighting to exceed the maximum 20 foot mounting height.

(a) <u>The waiver will adversely affect adjacent property owners; and</u>

STAFF: The waiver will adversely affect the adjacent property owners of the surrounding single family properties because when light crosses property lines it can detract from the property value and quality of life of those whose property it is improperly directed. It is a particularly objectionable problem when obtrusive lighting is immediately adjacent to residential neighborhoods. Some additional measures have been provided including screening, and field orientation. The waiver will alter the essential character of the general vicinity because the intensity of the site has increased, plus there currently are no stadium lights on this property or any lighting as intense as the proposed stadium lights. The ability of the property to be used after dark is an essential change in the character of the neighborhood and vicinity. However, the additional height of the fixtures creates better lighting of the facilities with less spillage of light invading the adjacent properties. It is not clear as to which of the existing trees located along the perimeter adjacent to the residential properties are to be saved or removed. Preservation of the existing tree canopy would also help to mitigate the adverse impacts on adjacent properties.

(b) <u>The waiver will not violate specific guidelines of Cornerstone 2020; and</u>

STAFF: Guideline 3, policy 8 of the Comprehensive Plan calls for the mitigation of adverse impacts of lighting from proposed development on nearby properties, and on the night sky. Guideline 3, policies 21 and 22 calls to ensure appropriate transitions between uses that are substantially different in scale and intensity or density of development, and to mitigate the impacts caused when incompatible developments unavoidably occur adjacent to one another. These transitions and buffers are to address issues such as outdoor lighting. The waiver request does not violate the before mentioned guidelines. The applicant has provided screening along the perimeter to reduce the impact of the proposed stadium lighting on the residential properties. Preservation of the existing tree canopy along the perimeter would also help to mitigate the adverse impact on the adjacent properties. However, it is not clear which trees are being preserved, if any.

(c) <u>The extent of the waiver of the regulation is the minimum necessary to afford relief to the applicant; and</u>

STAFF: The extent of the waiver of the regulation is the minimum necessary to afford relief to the applicant since the applicant has provided additional planting to mitigate the impact on the adjacent properties which are the most affected by the mounting height. The applicant has increased the mounting height of the fixtures to reduce the amount of light trespass onto the adjacent properties, in addition to the added screening to assist in the reduction of the adverse impact. The preservation of the existing trees along the perimeter would also reduce the impact but it is not clear if any of the existing trees are to be preserved.

(d) Either:

(i) The applicant has incorporated other design measures that exceed the minimums of the district and compensate for non-compliance with the requirements to be waived (net beneficial effect); OR
(ii) The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant.

STAFF: The applicant has increased the mounting height of the fixture to reduce the impact of the light trespass but is not providing the required cut-off and shielding. The applicant is also providing

screening along the perimeters where the light trespasses to reduce the impact. However, preservation of existing large trees along the perimeter would also help to reduce the impact of the mounting height and the trespass of the light on the adjacent properties.

STANDARD OF REVIEW AND STAFF ANALYSIS FOR WAIVER

Waiver #2:

Waiver of Section 4.1.3.B.11.a to allow light trespass to exceed 0.5 foot-candles at the property line.

(a) <u>The waiver will adversely affect adjacent property owners; and</u>

STAFF: The waiver will adversely affect adjacent property owners since the addition of lighting on this property alters the essential character of the general vicinity by increasing the intensity of the site. The ability of the property to be used after dark is an essential change which will adversely affect the neighborhood and directly affect the adjacent property owners. The applicant is showing spillage of light onto the adjacent residential properties. However, pole height and additional screening has reduced the amount of spillage along most of the properties. Preservation of the existing tree canopy would also help to mitigate the adverse public health and welfare impacts on adjacent properties.

(b) The waiver will not violate specific guidelines of Cornerstone 2020; and

STAFF: Guideline 3, policy 8 of the Comprehensive Plan calls for the mitigation of adverse impacts of lighting from proposed development on nearby properties, and on the night sky. Guideline 3, policies 21 and 22 calls to ensure appropriate transitions between uses that are substantially different in scale and intensity or density of development, and to mitigate the impacts caused when incompatible developments unavoidably occur adjacent to one another. These transitions and buffers are to address issues such as outdoor lighting. The waiver request does not violate the before mentioned guidelines. The applicant has provided any screening in the locations where the light trespass is the most intense.

(c) <u>The extent of the waiver of the regulation is the minimum necessary to afford relief to the applicant; and</u>

STAFF: The extent of the waiver of the regulation is the minimum necessary to afford relief to the applicant since the applicant has provided additional planting to mitigate the impact on the adjacent properties which are the most affected by the light spillage. The applicant has increased the mounting height of the fixtures to reduce the amount of light trespass onto the adjacent properties, in addition to the added screening to assist in the reduction of the adverse impact. The preservation of the exiasitng trees along the perimeter would also reduce the impact but it is not clear if any of the existing trees are to be preserved.

(d) <u>Either:</u>

(i) The applicant has incorporated other design measures that exceed the minimums of the district and compensate for non-compliance with the requirements to be waived (net beneficial effect); OR
(ii) The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant.

STAFF: The applicant has increased the mounting height of the fixture but is not providing the required cut-off and shielding. The applicant is also providing screening along the perimeters where the light trespasses. However, preservation of existing large trees along the perimeter would also help to reduce the impact of the trespass of the light and impact on the adjacent properties.

STANDARD OF REVIEW AND STAFF ANALYSIS FOR WAIVER

Waiver #3

Waiver from Development Code Section 4.1.3.B.2.c.i to not fully-shield the light fixtures.

(a) <u>The waiver will adversely affect adjacent property owners; and</u>

STAFF: The waiver will adversely affect adjacent property owners since the fixture are not fully shielded which creates spillage of light and glare. However, in order for the field lighting to meet the requirements of the Kentucky High School Athletic Association (KHSAA) the fixtures cannot be fully shielded. However, pole height and additional screening has reduced the amount of spillage along most of the adjacent properties. Preservation of the existing tree canopy would also help to mitigate the adverse impacts on adjacent properties.

(b) The waiver will not violate specific guidelines of Cornerstone 2020; and

STAFF: Guideline 3, policy 8 of the Comprehensive Plan calls for the mitigation of adverse impacts of lighting from proposed development on nearby properties, and on the night sky. Guideline 3, policies 21 and 22 calls to ensure appropriate transitions between uses that are substantially different in scale and intensity or density of development, and to mitigate the impacts caused when incompatible developments unavoidably occur adjacent to one another. These transitions and buffers are to address issues such as outdoor lighting. The waiver request does not violate the before mentioned guidelines. The applicant has increased the pole height, along with providing screening in the locations where the light trespass is the most intense.

(c) <u>The extent of the waiver of the regulation is the minimum necessary to afford relief to the applicant; and</u>

STAFF: The extent of the waiver of the regulation is the minimum necessary to afford relief to the applicant since the applicant has provided additional planting to mitigate the impact on the adjacent properties which are the most affected by the light spillage. The applicant has increased the mounting height of the fixtures to reduce the amount of light trespass onto the adjacent properties, in addition to the added screening to assist in the reduction of the adverse impact. The preservation of the existing trees along the perimeter would also reduce the impact but it is not clear if any of the existing trees are to be preserved.

(d) Either:

(i) The applicant has incorporated other design measures that exceed the minimums of the district and compensate for non-compliance with the requirements to be waived (net beneficial effect); OR
(ii) The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant.

STAFF: The applicant has increased the mounting height of the fixture but is not providing the required cut-off and shielding. The applicant is also providing screening along the perimeters where the light trespasses. The strict application of the provisions to fully shield the lights would deprive the applicant the ability to have adequate athletic facilities which meet the KSHAA requirements.

TECHNICAL REVIEW

The applicant shall provide a light fixture detail or specification.

STAFF CONCLUSIONS

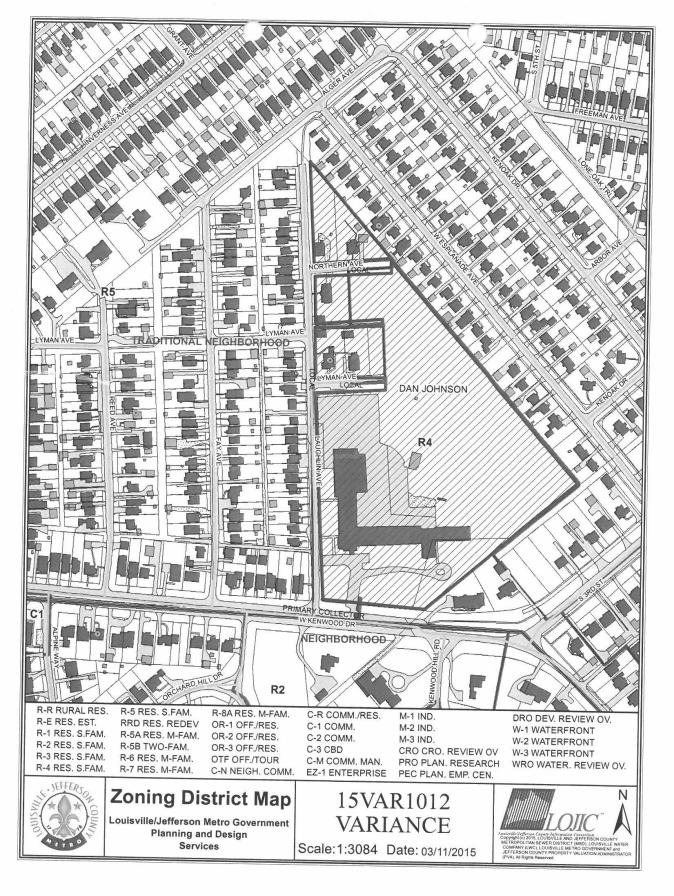
Based upon the information in the staff report, testimony and evidence provided, BOZA must determine if the proposal meets the standards for approval of variances and waivers as established in the Land Development Code and Cornerstone 2020.

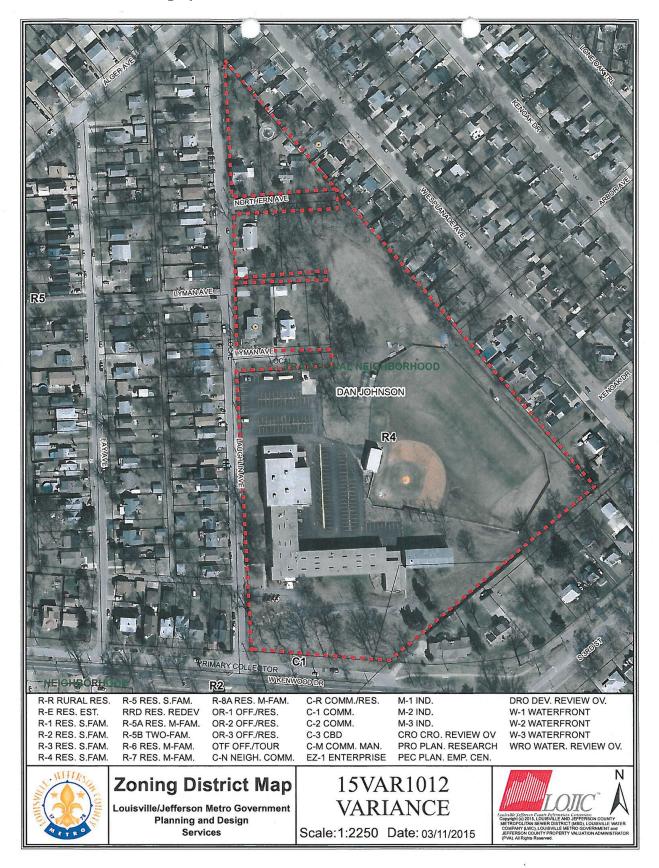
NOTIFICATION

Date	Purpose of Notice	Recipients
04/24/2015	BOZA Meeting	1 st and 2 nd tier adjoining property owners
		Neighborhood Notification

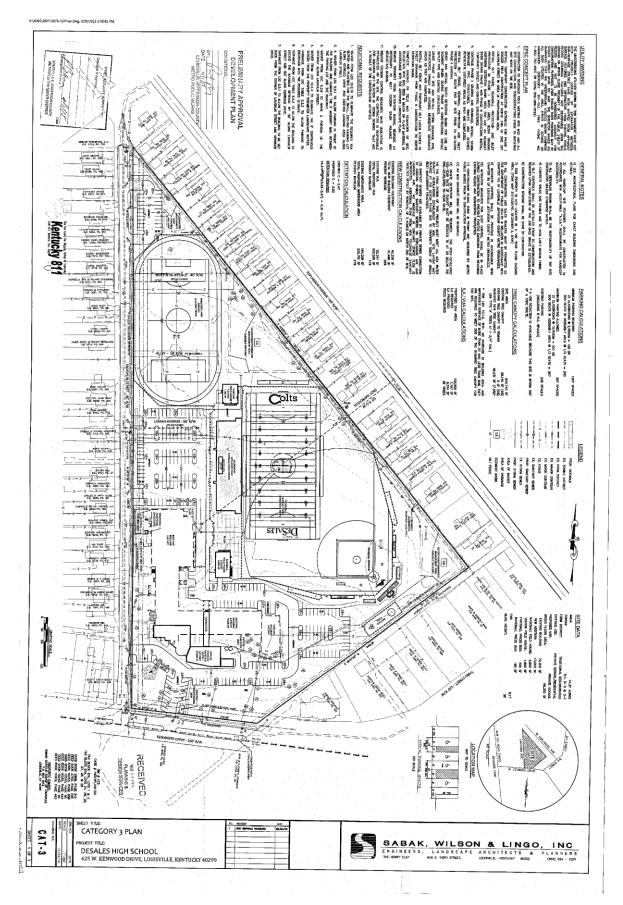
ATTACHMENTS

- 1. Zoning Map
- 2. Aerial Photograph
- 3. Site Plan Category 3 Development Plan
- 4. Concept Landscape Plan
- 5. Lighting Plans
- 6. Spillage/Trespass Exhibits
- 7. Mounting Height Illustration
- 8. Elevations
- 9. Applicant's Justification Statements
- 10. Site Photographs

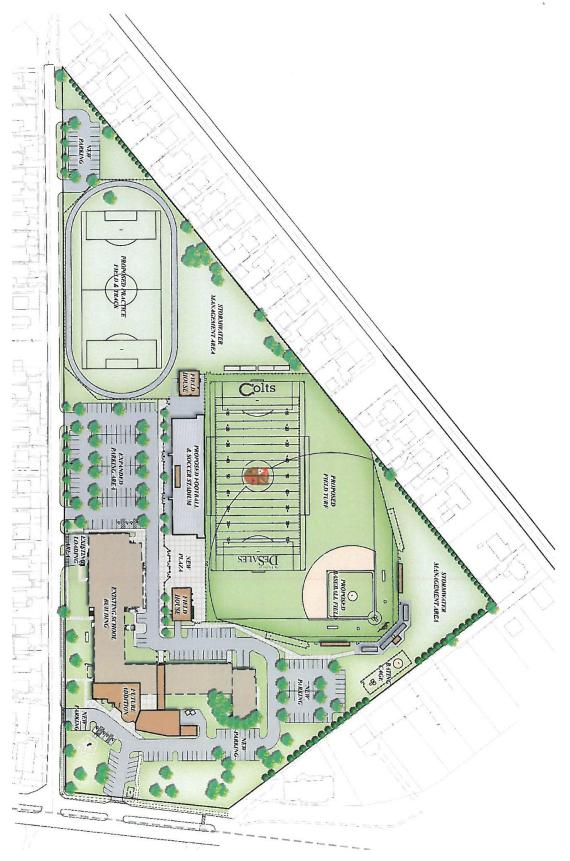




Attachment 3: Site Plan – Category 3 Development Plan

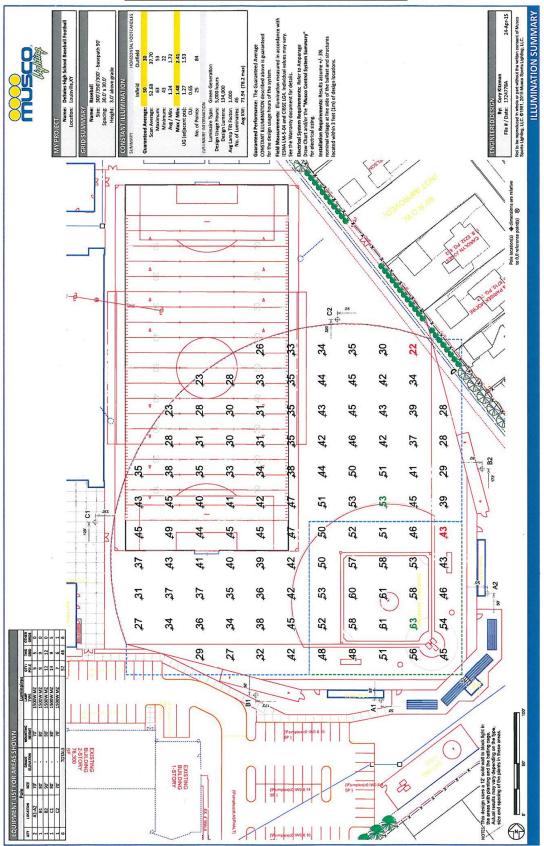


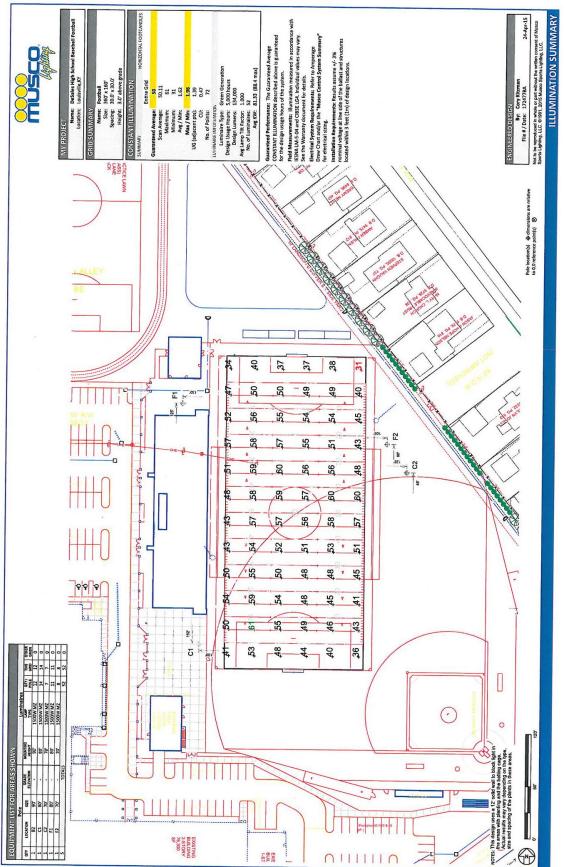
Attachment 4: Concept Landscape Plan



Attachment 5: Lighting Plans

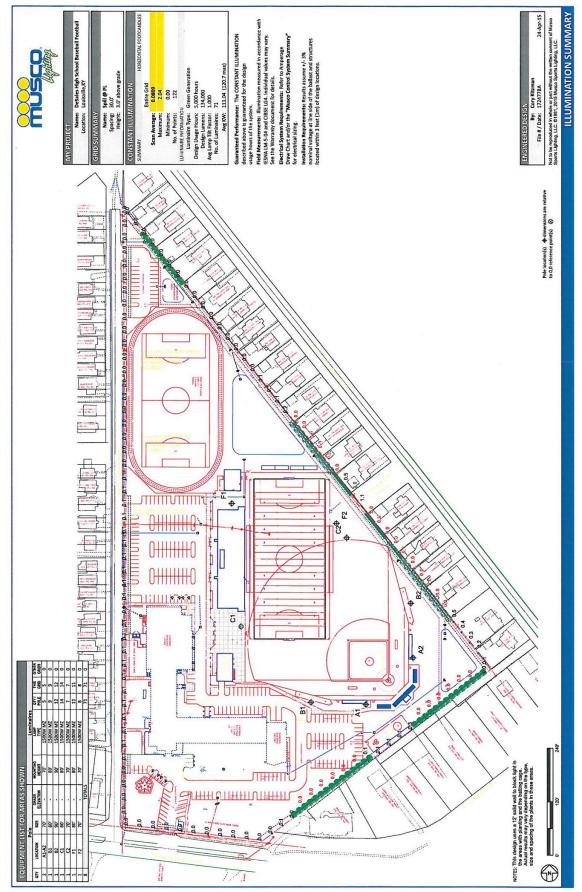
Baseball Field Foot-candle Lighting Plan



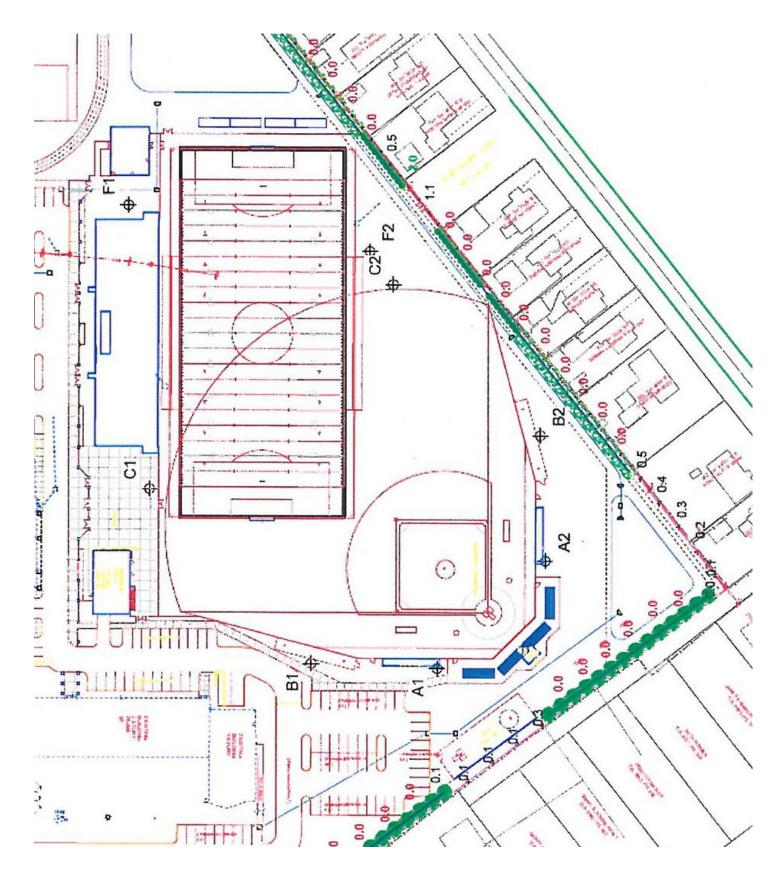


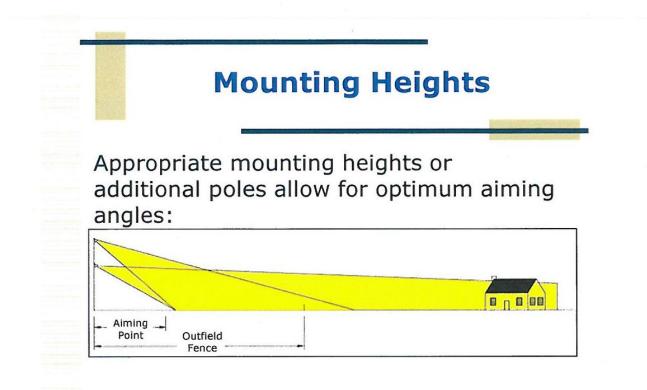
Football Field Foot-candle Lighting Plan

Spillage at Property Line Foot-candle Lighting Plan

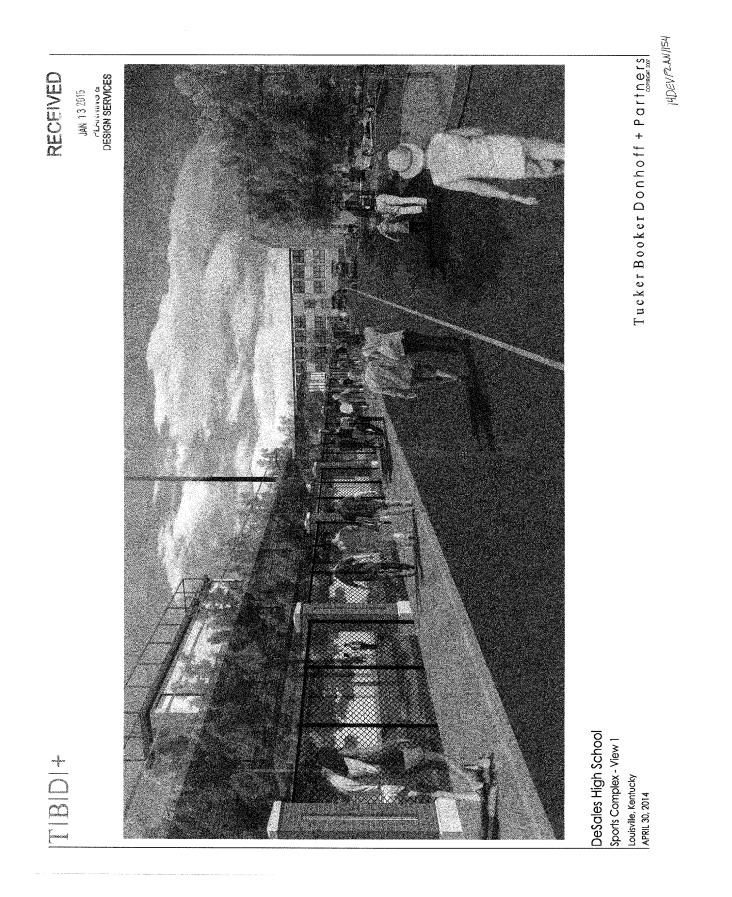


Attachment 6: Spillage/Trespass Exhibits











Waiver Justification Statement (REVISED) DeSales High School Athletic Facility Lighting April 24, 2015

The DeSales High School athletic facility development plan and waivers were approved at DRC on February 4, 2015. The variances were approved at BOZA on March 16th, 2015. At the time of filing for the original requests, we didn't have details about the lighting. That is why we are coming back to ask for these waivers now.

This school site is surrounded by single family residential property. There is an existing football field and baseball field on site, but the games and practices have to end at dark. With the athletic facility improvements, the applicant is proposing to add stadium lighting that will meet the KHSAA standards. In an effort to mitigate trespassing light, the proposed fixtures are shielded and the mounting height increased. By providing the higher fixtures, the applicant is able to reduce the amount of light trespass on adjoining properties. Some light trespass cannot be avoided due to the proximity of residential properties to the constrained site and the KHSAA requirements. The applicant is also proposing additional landscape screening where possible to further reduce the impact on adjoining property owners.

The proposed stadium lighting will be used for games and practices only and will be turned off by 11:00 except as allowed by LDC 4.1.3.B.6.a.ii. In most cases, the lights will be turned off before 11:00. An estimated schedule based on this year's schedule is as follows:

Sport	# Home Events This Year	Estimated Lights Out (including time for clean-up)
Soccer	6	10:00 (Varsity & JV play back-to-back)
Freshman & JV Football	8	9:00
Varsity Football	5	10:30*
Baseball	16	10:00 (Including Double Headers)
Fall Practices	Daily	6:00**

* Jefferson County is likely moving varsity football start times to 7:00 which would allow for lights out by 10:00. ** Fall practices will sometimes be moved to late in the evening early in the season to allow for the temperature and humidity to drop. This would be only as required and lights would still be out by 8:00.

It is my understanding that waivers are often required for athletic facility lighting within Jefferson County. Of course, JCPS is not required to ask for a waiver through the CUP process, but I was able to find evidence of lighting waivers at Sacred Heart, Mercy Academy and Churchill Downs. The specific waiver requests for DeSales High School are as follows:

A. A Waiver from LDC 4.1.3.B.2.b.ii to allow the stadium lighting to exceed the maximum mounting height.

B. A Waiver from LDC 4.1.B.11.a.i to allow light trespass to exceed .5 foot-candles at the property line.

With regard to the justification statement for this waiver, please not the following:

1. Will the waiver adversely affect adjacent property owners?

No. Lighting will make the area safer for the school and the surrounding properties. Stadium lighting will be shielded and used for games and practices only. Lights will be turned off when the fields are not in use and will be turned off by 11:00 on game nights except as allowed by LDC 4.1.3.B.6.a.ii. The applicant is also proposing screening for a majority of the affected properties. Therefore, this variance will not adversely affect adjacent property owners.

2. Will the waiver violate the Comprehensive Plan?

No. These waivers will allow a existing school to provide adequate athletic facilities that meet the requirements of KHSAA. In addition, the applicant is making every effort to reduce the amount of light trespass on adjoining properties, including increased height, screening and shielded fixtures.

- 3. Is extent of waiver of the regulation the minimum necessary to afford relief to the applicant? Yes. In order to meet KHSAA standards for field lighting, while reducing light trespass on adjoining property owners, these waivers are the minimum required to afford relief to the applicant.
- 4. Has either (a) the applicant incorporated other design measures that exceed the minimums of the district and compensate for non-compliance with the requirements to be waived (net beneficial effect) or would (b) the strict application of the provisions of the regulation deprive the applicant of the reasonable use of the land or create an unnecessary hardship on the applicant?

The applicant is making every effort to reduce the impact of light trespass on adjoining property owners by providing shielded light fixtures, screening and increasing the height of these fixtures. The strict application of the provisions of the regulation would prevent the applicant from lighting their new athletic facilities per the KHSAA requirements. This would greatly reduce the usability of the stadium and would restrict activities to daylight hours. One of the primary goals of this athletic facility improvement is to allow the 2-time State Champion football team to host varsity football games on their home field. The ability to do this would be greatly decreased or eliminated if this waiver is not granted. This would cause an unnecessary hardship on the applicant.

Waiver Justification Statement DeSales High School Athletic Facility Lighting March 9, 2015

The DeSales High School athletic facility development plan and waivers were approved at DRC on February 4, 2015. The variances will be heard at BOZA on March 16th, 2015. At the time of filing for the original waivers, we didn't have details about the lighting. That is why we are coming back to ask for this waiver now.

This school site is surrounded by single family residential property. There is an existing football field and baseball field on site, but the games and practices have to end at dark. With the athletic facility improvements, the applicant is proposing to add stadium lighting that will meet the KHSAA standards. This stadium lighting will be used for games and practices only and will be turned off by 11:00 except as allowed by LDC 4.1.3.B.6.a.ii.

Proposed lighting is shielded and the height of the fixtures increased. By providing the higher fixtures, the applicant is able to reduce the amount of light trespass on adjoining properties. Some light trespass cannot be avoided due to the proximity of residential properties to the constrained site.

The specific waiver request is as follows:

A Waiver from LDC 4.1.B.11.a.i to allow light trespass to exceed .5 foot-candles at the property line.

With regard to the justification statement for this waiver, please not the following:

- 1. Will the waiver adversely affect adjacent property owners?
 - No. Lighting will make the area safer for the school and the surrounding properties. Stadium lighting will be shielded and used for games and practices only. Lights will be turned off when the fields are not in use and will be turned off by 11:00 on game nights except as allowed by LDC 4.1.3.B.6.a.ii.
- 2. Will the waiver violate the Comprehensive Plan?

No. These waivers will allow a permitted school use to provide adequate athletic facilities that meet the requirements of KHSAA. In addition, the applicant is making every effort to reduce the amount of light trespass on adjoining properties, including increased height and shielded fixtures.

- 3. Is extent of waiver of the regulation the minimum necessary to afford relief to the applicant? Yes. In order to meet KHSAA standards for field lighting, while reducing light trespass on adjoining property owners, these waivers are the minimum required to afford relief to the applicant.
- 4. Has either (a) the applicant incorporated other design measures that exceed the minimums of the district and compensate for non-compliance with the requirements to be waived (net beneficial effect) or would (b) the strict application of the provisions of the regulation deprive the applicant of the reasonable use of the land or create an unnecessary hardship on the applicant?

The applicant is making every effort to reduce the impact of light trespass on adjoining property owners by providing shielded light fixtures and increasing the height of these fixtures. The strict application of the provisions of the regulation would prevent the applicant from lighting their new athletic facilities per the KHSAA requirements. This would greatly reduce the usability of the stadium and would restrict activities to daylight hours. One of the primary goals of this athletic facility improvement is to allow the 2-time State Champion football team to host varsity football games on their home field. The ability to do this would be greatly decreased or eliminated if this waiver is not granted. This would cause an unnecessary hardship on the applicant.

RECEIVED

MAR 09 2015 DESIGN SERVICES

14DEWLAN 1154

Attachment 10: Site Photographs



Southeastern perimeter looking northeast



Southeastern perimeter looking northeast



Southeastern perimeter looking northeast



Southeastern perimeter looking southwest



Northeastern perimeter looking northwest



Northeastern perimeter looking southeast



Northeastern perimeter looking southeast



Northeastern perimeter looking northwest