

## **ZONING CHANGE REVIEW SHEET**

**CASE:** C14-2008-0198 Domain II

**P. C. DATE:** 10-28-2008

**ADDRESS:** 3200 – 3298 Blk. of Feathergrass Ct.

**AREA:** 39.84 acres

**APPLICANT:** Munteck Community Center  
(Kathy Shields)

**AGENT:** Drenner & Golden, Stuart, Wolff, LLP  
(Michele Haussman)

**NEIGHBORHOOD PLAN AREA:** North Burnet

**CAPITOL VIEW:** No

**T.I.A.:** No

**HILL COUNTRY ROADWAY:** No

**WATERSHED:** Walnut/Shoal Creek

**DESIRED DEVELOPMENT ZONE:** Yes

**ZONING FROM:** MI-PDA

**ZONING TO:** MI-PDA

### **SUMMARY STAFF RECOMMENDATION:**

Staff recommends the rezoning from MI-PDA to MI-PDA to amend Ordinance No. 030731-Z-5 and /or Ordinance # 041216-Z-5b by establishing lighting regulations and a provision in the ordinance that allows for an independent third party inspection and certification. The Staff recommendation is based on the following considerations:

1. The underlying zoning district is not proposed to be modified;
2. Existing/proposed land uses shall remain;
3. All other terms and conditions in the existing site plan and Ordinance No. 041216-Z-5b and Ordinance No. 030731-Z-5 shall remain in place.

### **DEPARTMENT COMMENTS:**

The subject rezoning area consists of a 39.84 acre site along MoPac Expressway north of Braker Lane. The site is currently under site plan review for the construction of a mixed-use project including retail, restaurants, office and multifamily development. The property was rezoned on July 31, 2003 from MI to MI-PDA under Ordinance No. 030731-Z-5 (Attachment A). On December 16, 2004, Ordinance No. 030731-Z-5 was modified to include buffer zones, land uses, and cut-and-fill requirements under Ordinance No. 041216-Z-5b. (Attachment B). The Domain, Phase I was permitted and constructed prior to the approval and adoption of the Design Standards & Mixed Use ordinance. This ordinance modified various aspects of site development design including connectivity, parking, lighting and open space. The applicant has expressed concern that the new Design Standards & Mixed Use ordinance will make the Domain II look substantially different from Domain I, in particular the exterior lighting of building facades and open spaces. The applicant wishes to construct the Domain II using essentially the old standard for lighting fixtures to achieve a homogeneous "look" for the entire development. The applicant wishes to modify the existing PDA to establish lighting regulations and proposes that they not be subject to Section 25-2, Subchapter E, Article 2, Section 2.5 – Exterior Lighting (Attachment C). In lieu of using the City's newly adopted lighting regulations outlined in the Design Standards, the applicant has proposed using an alternate equivalent. (Attachment D) The proposed alternative has been reviewed by the Building Department and they recommended that the applicant be allowed to use their proposed alternative, however, due to the complexity of the alternative, they recommended that they be allowed to have a independent third party review and certify compliance with the alternative lighting plan.

**PLANNING COMMISSION RECOMMENDATION:**

The motion to approve staff's recommendation for MI-PDA district zoning was approved by Commissioner Jay Reddy's motion, Commissioner Saundra Kirk seconded the motion on a vote of 9-0.

**EXISTING ZONING AND LAND USES:**

|       | <b>ZONING</b> | <b>LAND USES</b>                      |
|-------|---------------|---------------------------------------|
| Site  | MI-PDA        | Undeveloped land – under construction |
| North | MI-PDA        | Domain I, Mixed use development       |
| South | MI            | Vacant                                |
| East  | MI-PDA-NP     | IBM                                   |
| West  | LI-PDA        | Offices                               |

**CASE HISTORIES:**

| <b>NUMBER</b> | <b>REQUEST</b>                        | <b>COMMISSION</b>  | <b>CITY COUNCIL</b>   |
|---------------|---------------------------------------|--|---|
| C14-97-0017   | MI to MI-PDA;<br>MF-2 to MI-PDA       | 07/08/97: APVD MI-PDA (5-0-3);<br>AP AGREED TO PROVIDE<br>PEDESTRIAN/SIDEWALK<br>ACCESS TO DUVAL RD  | 08/14/97: APVD MI-PDA (7-0)<br>ALL 3 RDGS                       |
| C14-00-2085   | SF-2 to CS                            | 10/27/00: WITHDRAWN BY<br>APPLICANT  | N/A   |
| C14H-00-2177  | LI-PDA to LI-<br>PDA and LI-PDA-<br>H | 10/23/00: HLC: APVD H<br>ZONING (6-0) BASED ON 1, 2-<br>3, 5-9 & 12<br>10/24/00: APVD STAFF REC OF<br>LI-PDA (1); LI-PDA-H (2) BY<br>CONSENT (9-0) | 10/30/00: APVD LI-PDA (1) & LI-<br>PDA-H (2); (7-0); ALL 3 RDGS |
| C14-03-0016   | MI to MI-PDA                          | 06/11/03: APVD STAFF REC OF<br>MI-PDA (8-0)  | 07/31/03: APVD MI-PDA (7-0);<br>ALL 3 RDGS                      |
| C14-03-0017   | MI to MI-PDA                          | 06/11/03: PVD STAFF REC OF<br>MI-PDA W/INCLUSION OF<br>ORIG PDA CONDS (ORD.<br>000608-67); (8-0)   | 07/31/03: APVD MI-PDA (7-0);<br>ALL 3 RDGS                      |
| C14-04-0146   | P to CH                               | 11/09/04: APVD STAFF ALT<br>REC OF CH W/CONDS (8-0).<br>Conditions: TIA  | 12/02/04: APVD CH (7-0); ALL 3<br>RDGS                          |
| C14-06-0077   | LI-PDA to LI-<br>PDA                  | 06/13/06: APVD STAFF REC OF<br>LI-PDA BY CONSENT (8-0)   | 07/27/06: APVD LI-PDA (7-0);<br>ALL 3 RDGS                      |

**RELATED CASES:**

| <b>NUMBER</b> | <b>REQUEST</b>   | <b>COMMISSION</b>  | <b>CITY COUNCIL</b>                     |
|---------------|------------------|--|---|
| C14-03-0016   | MI to MI-PDA     | 06/11/03: APVD STAFF REC OF MI-PDA (8-0)                             | 07/31/03: APVD MI-PDA (7-0); ALL 3 RDGS |
| C14-04-0151   | MI-PDA to MI-PDA | 11/23/04: APVD STAFF REC INCL 5 CONDS IN WPDR MEMO OF 11-16-04 (7-0) | 12/16/04: APVD MI-PDA (7-0); ALL 3 RDGS |

**NEIGHBORHOOD ORGANIZATION:**

- River Oaks Lakes Estates Neighborhood
- North Growth Corridor Alliance
- Scofield Farms Residents Assn.
- Austin Neighborhoods Council

**SCHOOLS:**

- Davis Elementary School
- Murchison Middle School
- Anderson High School

**SITE PLAN:**

Site plan comments are deferred to building plan review staff.

**ENVIRONMENTAL:**

No comments.

**TRANSPORTATION:**

The proposed zoning change does not increase the density or change the land uses assumed in the original TIA for this site.

**CITY COUNCIL DATE:** October 28th, 2008

**ACTION:**




**ORDINANCE READINGS:** 1<sup>ST</sup>      2<sup>ND</sup>      3<sup>RD</sup>      **ORDINANCE NUMBER:**

**CASE MANAGER:** Clark Patterson  
[Clark.patterson@ci.austin.tx.us](mailto:Clark.patterson@ci.austin.tx.us)

**PHONE:** 974-7691



1" = 400'

-  SUBJECT TRACT
-  ZONING BOUNDARY
-  PENDING CASE

OPERATOR: S. MEEKS

**ZONING**

ZONING CASE#: C14-2008-0198  
ADDRESS: 3200-3298 BLK FEATHERGRASS CT  
SUBJECT AREA: 39.84 ACRES  
GRID: K33  
MANAGER: C. PATTERSON



This map has been produced by G.I.S. Services for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.





PARCEL B OF ZONING  
ORDINANCE 041216-Z-5b

LOT 1A OF THE DOMAIN  
SHOPPING CENTER SECTION 1  
(resubdivision of a portion  
of Lots 1 and 2, Block A,  
Multitek Subdivision)

BRAKER LANE

NATIONAL  
INSTRUMENTS

BURNET RD

UNIVERSITY  
OF TEXAS  
J.J. PICKLE  
RESEARCH CENTER



**ORDINANCE NO. 030731-Z-5**

**AN ORDINANCE REZONING AND CHANGING THE MAP FOR THE PROPERTY KNOWN AS THE MULTEK PROJECT LOCATED AT 3300 WEST BRAKER LANE FROM MAJOR INDUSTRIAL (MI) DISTRICT TO MAJOR INDUSTRIAL PLANNED DEVELOPMENT AREA (MI-PDA) COMBINING DISTRICT.**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:**

**PART 1.** The zoning map established by Section 25-2-191 of the City Code is amended to change the base district from major industrial (MI) district to major industrial planned development area (MI-PDA) combining district on the property described in Zoning Case No.C14-03-0016, on file at the Neighborhood Planning and Zoning Department, as follows:

A 70.500 acre tract of land, more or less, out of the James Rodgers Survey No. 19, in Travis County, the tract of land being more particularly described by metes and bounds in Exhibit "A" incorporated into this ordinance, (the "Property")

locally known as 3300 West Braker Lane, in the City of Austin, Travis County, Texas, and generally identified in the map attached as Exhibit "B".

**PART 2.** Except as otherwise provided in Part 4, Section 3, development of the Property shall comply with Section 25-2-648 (*Planned Development Area Performance Standards*) of the City Code.

**PART 3.** Development of the Property shall comply with the following use regulations:

1. Except as provided in Section 3, all permitted and conditional major industrial (MI) uses are permitted and conditional uses of the Property.

2. The following are additional permitted uses of the Property:

|                                 |                                   |
|---------------------------------|-----------------------------------|
| Condominium residential         | Retirement housing (small site)   |
| Retirement housing (large site) | Townhouse residential             |
| Consumer repair services        | Recreation equipment maintenance  |
| Recreation equipment sales      | and storage                       |
| Research testing services       | Veterinary services               |
| Administrative services         | College and university facilities |
| Convalescent services           | Postal facilities                 |
| Multifamily residential         |                                   |

3. The following uses are prohibited uses of the Property:

|                       |                |
|-----------------------|----------------|
| Monument retail sales | Basic industry |
| Recycling center      |                |

**PART 4.** Development of the Property shall comply with the following site development regulations:

1. Definitions

As used in this ordinance:

*Mixed Use Building* is a building used for both commercial and residential uses.

2. Lot size

The minimum lot size is one and one-half acres.

3. The Property shall comply with Section 25-2-648 of the City Code except that it does not apply to uses of tenants that occupy the Property on July 31, 2003.
4. The maximum density for residential use is 1,410 dwelling units.
5. Except as provided in Section 7, MI site development standards apply to the Property.

6. Sections 7, 9, and 10 apply to the following uses:

Condominium residential  
Retirement housing (small site)  
Townhouse residential  
Convalescent services

Multifamily residential  
Retirement housing (large site)  
Congregate living

7. If the Property is developed with a use in Section 6 and;

- a. the development is a mixed use building that complies with the site development standards in Section 8, then development of the Property shall comply with the setback requirements of MI; or
- b. the development is a mixed use building other than one described in Section 7a, then development of the Property shall comply with the setback requirements of the multifamily residence high density (MF-5) district.

8. This section applies to a mixed use building described in Section 7a.

- a. The building contains residential units above ground floor level.
- b. The square footage of the residential units on the ground floor is not more than 50 percent of the gross floor area of the ground floor.
- c. The square footage of the non-residential units in the above-ground floor area is not more than 50 percent of the gross floor area of the above-ground floor area.

9. A 100-foot wide buffer zone shall be established and maintained between property developed with the uses in Section 6 and the following uses:

Agricultural sales and services  
Equipment repair services  
Research services  
General warehousing and distribution  
Limited warehousing and distribution  
Postal facilities

Construction sales and services  
Equipment sales  
Research testing services  
Light manufacturing  
Maintenance and service facilities  
Railroad facilities

Improvements permitted within the buffer zone are limited to driveways, parking facilities, solid fences, pedestrian trails, hike and bike trails, recreational facilities,



detention and water quality re-irrigation facilities, drainage, underground utility improvements, overhead electric or communication lines, or those improvements that may be otherwise required by the City of Austin or specifically authorized in this ordinance.

10. Except as provided in Section 11, a 25-foot wide vegetative buffer to provide screening shall be provided and maintained between property developed with a use in Section 6 and property developed with a commercial or industrial use. Improvements permitted within the 25-foot buffer zone are limited to drainage, underground utility improvements, overhead electric or communication lines, or those improvements that may be otherwise required by the City of Austin or specifically authorized in this ordinance.
11. Section 10 does not apply if a use in Section 6 is in a mixed use building as described in Section 7a.

**PART 5.** The Council waives the requirements of Sections 2-2-3 and 2-2-7 of the City Code for this ordinance.

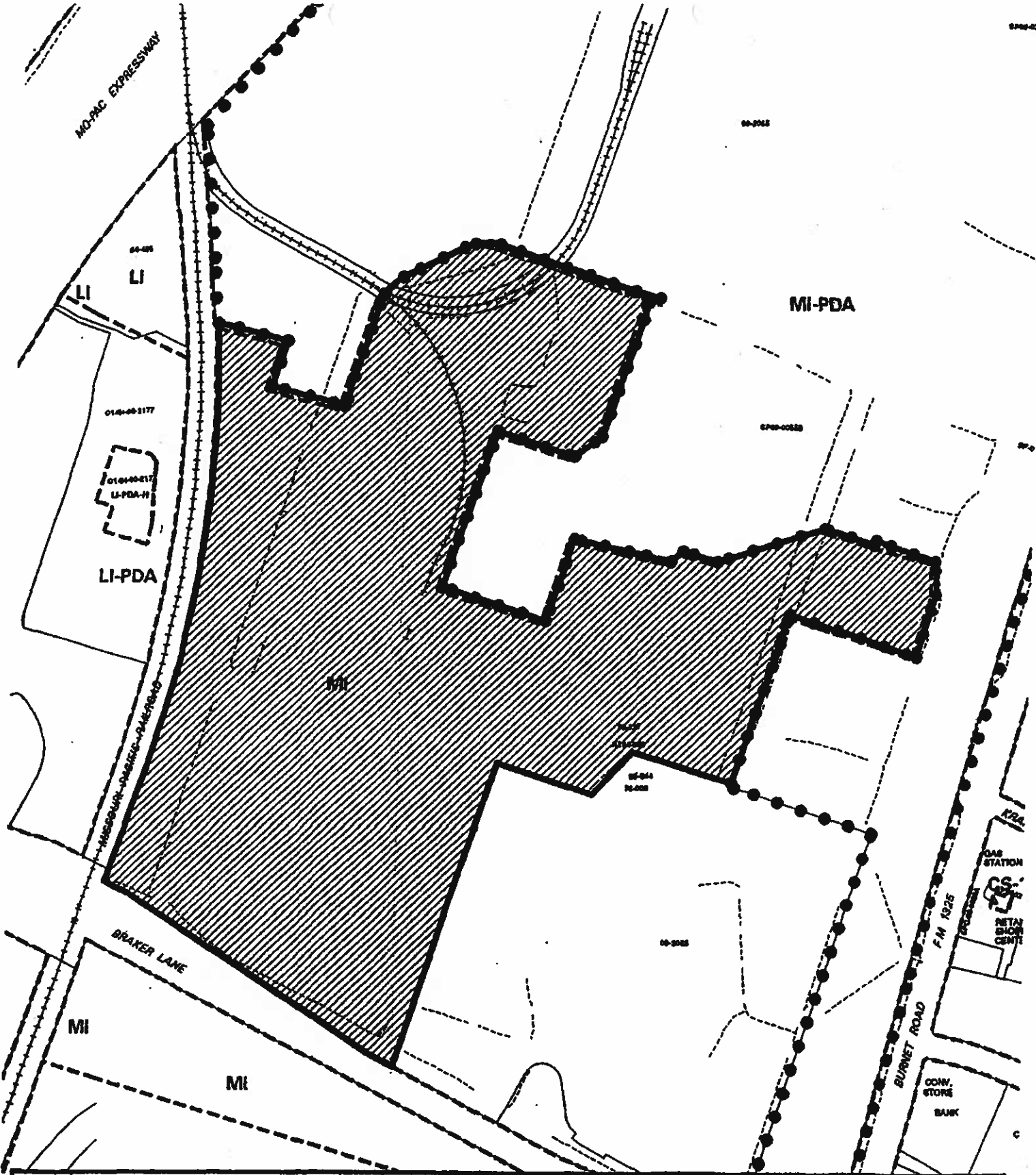
**PART 6.** This ordinance takes effect on August 11, 2003.

**PASSED AND APPROVED**

\_\_\_\_\_  
July 31, 2003

§  
§  
§  
\_\_\_\_\_  
Will Wynn  
Mayor

APPROVED: \_\_\_\_\_ ATTEST: \_\_\_\_\_  
Sedora Jefferson Shirley A. Brown  
City Attorney City Clerk



|  |  |  |  |
|--|--|--|--|
|  | <p><b>SUBJECT TRACT</b> </p> <p><b>PENDING CASE</b> </p> <p><b>ZONING BOUNDARY</b> </p> <p><b>CASE MGR: S. GAGER</b></p> | <p align="center"><b>ZONING EXHIBIT B</b></p> <p><b>CASE #: C14-03-0016</b></p> <p><b>ADDRESS: 3300 W BRAKER LANE</b></p> <p><b>SUBJECT AREA (acres): 70.500</b></p> <p><b>DATE: 03-02</b></p> <p><b>INTLS: SM</b></p> | <p><b>CITY GRID REFERENCE NUMBER</b></p> <p><b>K33</b></p> |
|--|--|--|--|

ORDINANCE NO. 041216-Z-5b

**AN ORDINANCE AMENDING ORDINANCE NO. 030731-Z-5 TO REZONE AND CHANGE THE ZONING MAP FROM MAJOR INDUSTRIAL PLANNED DEVELOPMENT AREA (MI-PDA) COMBINING DISTRICT TO MAJOR INDUSTRIAL PLANNED DEVELOPMENT AREA (MI-PDA) COMBINING DISTRICT FOR LAND KNOWN AS THE MULTEK PLANNED DEVELOPMENT AREA LOCATED AT 3300 WEST BRAKER LANE.**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:**

**PART 1.** The Multek Planned Development Area (the "Original Multek PDA") is comprised of approximately 70 acres of land located at 3300 West Braker Lane in Travis County and more particularly described by metes and bounds in Ordinance No. 030731-Z-5. The Original Multek PDA was approved July 31, 2003 under Ordinance No. 030731-Z-5 (the "Original PDA Ordinance").

**PART 2.** The zoning map established by Section 25-2-191 of the City Code is amended to change the base district from major industrial planned development area (MI-PDA) combining district to major industrial planned development area (MI-PDA) combining district on the property described in Zoning Case No. C14-04-0151, on file at the Neighborhood Planning and Zoning Department, locally known as 3300 West Braker Lane, in the City of Austin, Travis County, Texas, and generally identified as Tract B in the map attached as Exhibit "A".

**PART 2.** This ordinance amends the Original PDA Ordinance. The Original Multek PDA shall conform to the limitations and conditions set forth in the Original PDA Ordinance as amended by this ordinance.

**PART 3.** The Original PDA Ordinance is modified as shown in this part.

1. Part 4, Section 9 is amended as follows:

A 100-foot wide buffer zone measured from building to building shall be established and maintained between property developed with the uses in Section 6 and the following uses:

Agricultural sales and services  
Equipment repair services

Construction sales and services  
Equipment sales

Research services  
General warehousing and distribution  
Limited warehousing and distribution  
Postal facilities

Research testing services  
Light manufacturing  
Maintenance and services facilities  
Railroad facilities

Improvements permitted within the buffer zone are limited to driveways, parking facilities, solid fences, pedestrian trails, hike and bike trails, recreational facilities, detention and water quality re-irrigation facilities, drainage, underground utility improvements, overhead electric or communication lines, or those improvements that may be otherwise required by the City of Austin or specifically authorized in this ordinance.

2. Part 4, Section 10 is amended as follows:

Except as provided in Section 11, a 25-foot wide vegetative buffer to provide screening shall be provided and maintained between property developed with a use in Section 6 and property developed with a commercial or industrial use, except when the use in Section 6 abuts a parking structure where the building shares a common wall or unless there is a driveway, private or public roadway of 60 feet or more separating the residential and commercial/industrial uses. If a 100-foot wide buffer zone is required under Section 9, the 25-foot wide vegetative buffer may be located within the 100-foot wide buffer zone.

Improvements permitted within the 25-foot buffer zone are limited to drainage, underground utility improvements, overhead electric or communication lines, or those improvements that may be otherwise required by the City of Austin or specifically authorized in this ordinance.

3. Part 4 is amended to add the following sections:

12. Section 25-8-301 (*Construction of a Roadway or Driveway*) is modified to allow construction on a slope.

13. Section 25-8-341 (*Cut Requirements*) and Section 25-8-342 (*Fill Requirements*) are modified to allow cut and fill to exceed four feet of depth. All cut and fill areas shall be structurally contained.

**PART 4.** Except as otherwise provided in this ordinance, the terms and conditions of Ordinance No. 030731-Z-5 remain in effect.




**PART 5.** This ordinance takes effect on December 27, 2004.

**PASSED AND APPROVED**

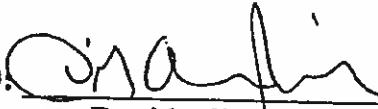
December 16, 2004

§  
§  
§



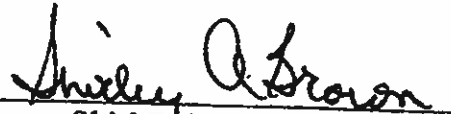
Will Wynh  
Mayor

**APPROVED.**

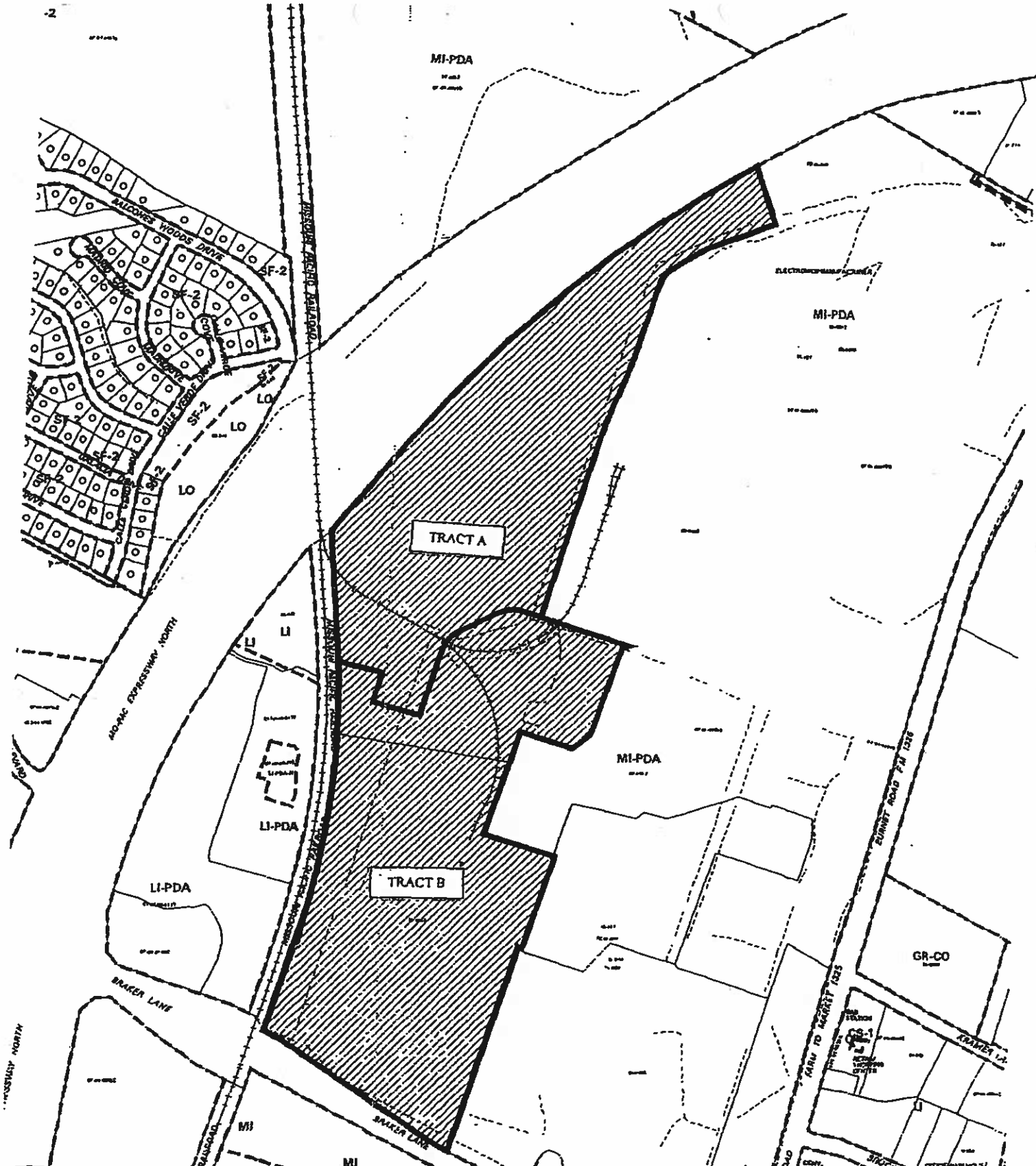


David Allan Smith  
City Attorney

**ATTEST:**



Shirley A. Brown  
City Clerk



|               |                    |  |  |             |  |
|---------------|--------------------|--|--|-------------|--|
| <br>1" = 600' | SUBJECT TRACT      |  | ZONING EXHIBIT A   |             | CITY GRID<br>REFERENCE<br>NUMBER<br>K33-34 |
|               | PENDING CASE       |  |  |             |  |
|               | ZONING BOUNDARY    |  | CASE #: C14-04-0151  | DATE: 04-12 |  |
|               | CASE MGR: S. GAGER |  | ADDRESS: 11400 BURNET RD & 3300<br>W BRAKER LANE<br>SUBJECT AREA (acres): 96.133 | INTLS: SM   |  |

## **SUBCHAPTER E: DESIGN STANDARDS AND MIXED USE**

---

### **Austin, Texas**



**ADOPTED: AUGUST 31, 2006  
EFFECTIVE: JANUARY 13, 2007  
AMENDED: NOVEMBER 1, 2007**

**BASED ON THE MAY 2005 TASK FORCE REPORT:  
*Raising the Design Standards in Austin, Texas***

minimum required, the additional parking spaces may not result in the removal of significant stands of trees or protected trees.

- C. By 20 spaces for every car-sharing vehicle provided in a program that complies with the requirements prescribed by the Director by administrative rule.
- D. By one space for each shower facility with three or more lockers provided for employees in a nonresidential building.

Unless otherwise specified, the above reductions may be applied cumulatively, and may be applied in addition to the urban core parking reduction authorized in Section 25-6-478, but in no case may the minimum off-street parking requirements for a project set forth in Chapter 25-6, Appendix A, be reduced by more than 40 percent.

## **2.5. EXTERIOR LIGHTING**

### **2.5.1. Applicability**

The following table summarizes the applicability of this section:

| Standard                      | Applies if the Principal Street Is: | Applies to the Following: |
|-------------------------------|-------------------------------------|---------------------------|
| <b>2.5: Exterior Lighting</b> | All roadway types                   | All zoning districts      |

### **2.5.2. Standards**

#### **A. Submission of Plans and Evidence of Compliance**

All site plan applications shall include a description of all lighting fixtures not affixed to buildings, both proposed and those that will remain on the site, as well as any existing or proposed fixtures to be located in adjacent right-of-ways after completion of the project. For new fixtures, the description may include, but is not limited to, catalog cuts and illustrations by manufacturers (including sections where required), that demonstrate compliance with the standards of this Subchapter. For lighting fixtures affixed to buildings, such information shall be provided as part of the building permit application.



**B. Fully Shielded and Full Cut-off Light Fixtures Required**

The following outdoor lighting applications shall be illuminated by fixtures that are both fully-shielded and full cut-off: (See Figure 42.)

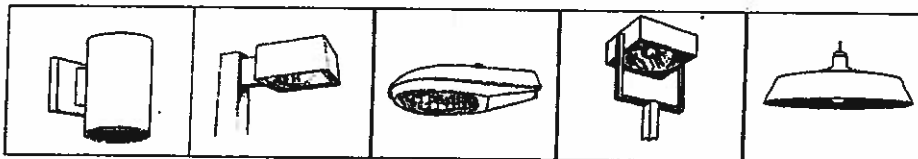


Figure 42: Examples of fully-shielded light fixtures

1. Public street and pedestrian lighting;
2. Parking lots;
3. Pathways;
4. Recreational areas;
5. Billboards;
6. Product display area lighting; and
7. Building overhangs and open canopies.

**C. Lighting of Building Façades**

1. Buildings and structures shall be illuminated by fixtures that are both fully-shielded and full cut-off. Building façade lighting may only be used to highlight specific architectural features such as principal entrances and towers. This provision shall not apply to buildings in the downtown that are at least 120 feet tall, so long as such buildings contain no trademarked design features (not including signage) located over 120 feet above ground level.
2. Uniform floodlighting of building facades shall be permitted only through the alternative equivalent compliance review process.

**D. Directional Luminaires**

Directional luminaires may be used to illuminate signs and flagpoles. Such luminaires shall be installed and aimed so that they illuminate only the specific object or area and do not shine directly onto neighboring properties, roadways, or distribute excessive light skyward.

**E. Lamp or Fixture Substitution**

Should any outdoor light fixture or the type of light source therein be changed after site plan or building plan approval has been granted, a change request must

be submitted to the Director for approval, together with adequate information to assure compliance with this Subchapter, which must be received prior to substitution.

**F. Non-Conforming Lighting**

All outdoor lighting fixtures lawfully installed prior to and operable on the effective date of this Subchapter are exempt from all requirements of this Subchapter until January 1, 2015, at which time they shall become subject to this Subchapter, and shall be considered non-conforming if they do not comply with the requirements of this Subchapter.

**Subchapter E: Design Standards and Mixed Use**  
**Article 2: Site Development Standards**

**ATTACHMENT "D"**

**§ 2.5. EXTERIOR LIGHTING.**

**2.5.1. Applicability.** The following table summarizes the applicability of this section:

| Standard               | Applies if the Principal Street Is: | Applies to the Following: |
|------------------------|-------------------------------------|---------------------------|
| 2.5: Exterior Lighting | All roadway types                   | All zoning districts      |

- A. This section shall apply to the Project, in lieu of Section 2.5, Subchapter E, Article 2 (Site Development Standards) or any other section of the City Code pertaining to exterior lighting, whether in the City Code's current form or as the City Code may be subsequently amended.

**2.5.2. Standards.**

**A. Definitions**

1. "Project" means Domain II, an approximately 39.84 acre mixed-use development located on Lot 1A, The Domain Shopping Center Section 1, (Resubdivision of Portion of Lots 1 and 2, Block A, Multek Subdivision), according to the map or plat recorded at Document No. 200800119, Official Public Records, Travis County, Texas.
2. "Developer" means the individual or entity that is, or is acting on behalf of the owner to develop the Project.
3. "Full Cutoff" means luminaires that emit no direct light above horizontal and comply with industry glare requirements limiting intensity of light from the luminaire in the region between eighty degrees (80°) and ninety degrees (90°).
4. "Cutoff" means luminaires that emit between zero percent (0%) and sixteen percent (16%) of the light output of the lamp at or above ninety degrees (90°).
5. "Fully Shielded" means luminaires that emit no direct light above horizontal, but have no limitation on the intensity in the region between eighty degrees (80°) and ninety degrees (90°).

- B. **Submission of Plans and Evidence of Compliance.** All building permit applications shall include a description of all lighting fixtures affixed and not affixed to buildings, both proposed and those that will remain on the site, as well as any existing or proposed lighting fixtures to be located in adjacent rights-of-way after completion of the project.

1. All submissions must contain the following:
  - a. Computer-generated calculation plots showing calculated horizontal and vertical footcandles at one foot (1') above grade level every ten feet (10')

at the property line and ten feet (10') beyond the property line to show compliance with light trespass restrictions in Section 2.5.2.I.

- b. Elevation drawings for each exterior building façade showing all lighting fixture types and placement and a calculation of design lighting power density for each exterior building façade.
        - c. A Project compliance plan sealed by a registered Professional Engineer (P.E.) (the "Engineer"), who is also certified in LEED standards, and who shall be selected and compensated by the Developer. The Project compliance plan shall certify compliance with the following exterior lighting standards:
          - a. Light pollution, as described in Section 2.5.2.G;
          - b. Lighting power densities, as described in Section 2.5.2.H; and
          - c. Light trespass, as described in Section 2.5.2.I.
        - d. Should any outdoor light fixture or the type of light source therein be changed after site plan or building permit approval has been granted, an amended Project compliance plan will be prepared and submitted to the City by the Engineer, together with adequate information to assure compliance with required standards. The amended Project compliance plan will be filed with each building permit that includes calculations to be amended.
      2. The obligation to inspect the Project and to ensure compliance with these exterior lighting standards shall rest solely on the certifying and sealing Engineer.
  - C. **Fully Shielded and Full Cutoff Light Fixtures Required.** The following outdoor lighting applications on the Project shall be illuminated by fixtures that are both Fully Shielded and Full Cutoff (recognizing that a fixture that is Full Cutoff is, by definition, also Fully Shielded):
    1. Public and private streets; and
    2. Parking lots.
  - D. **Lighting of Building Façades.** The lighting of buildings and structures that are illuminated shall be calculated per the following standards:
    1. ASHRAE 90.1-2004, Table 9.4.5, incorporated as Appendix A;
    2. Calculation 1: Sample Exterior Lighting Power Density Calculation, incorporated as Appendix B; and
    3. Table 3: Lamp Lumen Calculation, incorporated as Appendix C.



- E. Directional Luminaires.** Directional luminaires may be used to illuminate signs, flagpoles, landscaping, trees, hardscape features, fireplaces, artwork, sculptures, water features, carts, kiosks, stages, steps, retaining walls, and architectural façades. Such luminaires shall be installed and aimed so that they illuminate only the specific object or area and do not shine directly onto neighboring properties or roadways outside the Project. Lumens emitted from directional luminaires shall be included in the total Project-wide lumens calculation.
- F. Holiday Display Lighting.** Lighting fixtures and lighting effects for holiday displays may be installed on a temporary basis only and shall not be required to conform to the light pollution reduction requirements and the lighting power density limits of Sections 2.5.2.G. and H., respectively. However, all such holiday display lighting must be shut down by curfew controllers as noted in Section 2.5.2.G.3.
- G. Light Pollution Reduction.** To reduce light pollution from the Project, the following standards will be met:
1. **Design.** No more than ten percent (10%) of the total initial designed site lumens may be emitted above an angle of ninety degrees (90°) from nadir (straight down).
  2. **Calculation.** Utilizing manufactures' fixture data, Developer shall document the quantity and initial lamp lumens for each lighting fixture. Additionally, from photometric data, Developer shall determine the number of initial lamp lumens that are emitted above ninety degrees (90°) from nadir. For purposes of its own records, and to facilitate the Engineer's assessment of compliance with these exterior lighting standards, Developer shall enter this data into a form similar to Table 3, as referenced in Appendix C, to determine and demonstrate that the percentage of fixture lumens output above ninety degrees (90°), including exterior building lighting, does not exceed ten percent (10%) of the total fixture lumens Project-wide.
  3. **Curfew Controllers.** The Project must include curfew controllers to turn off site lighting that is not either Full Cutoff or Fully Shielded by the later of 11:00 p.m. or closing, provided that site lighting for stairs and sidewalks may remain on beyond that time to allow for a reasonable time for employees to safely walk to their vehicles or otherwise leave the property.
    - a. Lighting fixtures that are essential to provide a safe and secure post-curfew environment shall be Full Cutoff and/or Fully Shielded.

[THE REST OF THIS IS PAGE INTENTIONALLY LEFT BLANK.]

- H. Lighting Power Density Reduction.** To reduce energy use, the following standards will be met:
1. Lighting Power Densities (LPD) for exterior areas, including landscape features, shall not exceed eighty percent (80%) of the Lighting Power Densities (LPD) as set forth for such exterior areas in the Tradable Surfaces section of Appendix A hereto.
  2. Lighting Power Densities (LPD) for building façades shall not exceed fifty percent (50%) of the Lighting Power Densities (LPD) as set forth for building façades in the Non-Tradable Surfaces section of Appendix A hereto.
  3. Appendix B hereto provides an example of the calculation methodology to be used by the Engineer for determining compliance with this Section 2.5.2.H.
- I. Light Trespass.** In order to measure compliance with the light trespass requirements, Developer shall utilize lighting design software to develop a site illumination model. The model should show the full extent of the site and all installed exterior lighting fixtures. A horizontal calculation grid should be set up to measure the site illumination at the ground plane and vertical calculation grid should be set at the property boundary and at ten feet (10') beyond the site boundary to measure vertical illumination. The calculation grid spacing should be a maximum of ten feet (10') by ten feet (10') and shall exclude building interior areas. For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.
1. Exterior lighting shall be designed so that all site and building mounted lighting fixtures produce a maximum initial illuminance value no greater than 0.60 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles ten (10) feet beyond the site.

**[THE REST OF THIS IS PAGE INTENTIONALLY LEFT BLANK.]**

## Appendix A

### ASHRAE 90.1-2004 Lighting Power Densities for Building Exteriors

Table 9.4.5

|   | Applications  | Lighting Power Densities  |
|---|---|---|
| <b>Tradable Surfaces</b><br>(Lighting power densities for uncovered parking areas, building grounds, building entrances and exits, canopies and overhangs and outdoor sales areas may be traded.)   | <b>Uncovered Parking Areas</b>  |   |
|   | Parking Lots and drives   | 0.15W/ft <sup>2</sup>   |
|   | <b>Building Grounds</b>   |   |
|   | Walkways less than 10-feet wide   | 1.0W/linear foot  |
|   | Walkways 10-feet wide or greater  |   |
|   | Plaza areas   | 0.2W/ft <sup>2</sup>  |
|   | Special Feature Areas   |   |
|   | Stairways   | 1.0W/ft <sup>2</sup>  |
|   | <b>Building Entrances and Exits</b>   |   |
|   | Main entries  | 30W/linear foot of door width   |
|   | Other doors   | 20W/linear foot of door width   |
|   | <b>Canopies and Overhangs</b>   |   |
|   | Canopies (free standing and attached overhangs)   | 1.25W/ft <sup>2</sup>   |
|   | <b>Outdoor Sales</b>  |   |
| <b>Non-Tradable Surfaces</b><br>(Lighting power density calculations for the following applications can be used only for the specific application and cannot be traded between surfaces or with other exterior lighting. The following allowances are in addition to any allowance otherwise permitted in the "Tradable Surfaces" section of this table.) | Open Areas (including vehicle sales lots)   | .5W/ft <sup>2</sup>   |
|   | Street frontage for vehicle sales lots in addition to "open area" allowance             | 20W/linear foot   |
|   | Building Façades  | 0.2W/ft <sup>2</sup> for each illuminated wall or surface or<br>5.0W/linear foot for each illuminated wall or surface length        |
|   | Automated teller machines and night depositories  | 270W per location plus 90W per additional ATM per location  |
|   | Entrances and gatehouse inspection stations at guarded facilities                       | 1.25W/ft <sup>2</sup> of uncovered area (covered areas are included in the "Canopies and Overhangs" section of "Tradable Surfaces") |
|   | Loading areas for law enforcement, fire, ambulance and other emergency service vehicles | 0.5W/ft <sup>2</sup> of uncovered area (covered areas are included in the "Canopies and Overhangs" section of "Tradable Surfaces")  |
|   | Drive-up window at fast food restaurants  | 400W per drive-through  |
|   | Parking near 24-hour retail entrances   | 800W per main entry   |

Source: ASHRAE 90.1-2004 Lighting Power Densities for Building Exteriors, as shown in U.S. Green Building Council. LEED for New Construction Version 2.2. Page 104.

## Appendix B

### Calculation 1: Sample Exterior Lighting Power Density Calculation

| Site Lighting Power Density Calculation |                       |                                       |                                       |                          |                            |                   |
|---|-----------------------|---------------------------------------|---------------------------------------|--------------------------|----------------------------|-------------------|
| Site Lighting                           |                       |                                       |                                       |                          |                            |                   |
| Fixture                                 | Fixture Power (Watts) | Total Fixtures (Qty)                  | Total Fixture Power (Watts)           | Site Location            | Site Area (SF)             | LPD (W/SF)        |
| Pole Fixture 1                          | 250                   | 14                                    | 3500                                  | Parking 1                | 32,000                     | 0.11              |
| Pole Fixture 2                          | 250                   | 8                                     | 2000                                  | Parking 2                | 18,000                     | 0.11              |
| Pole Fixture 3                          | 115                   | 1                                     | 115                                   | Walkways 1               | 875                        | 0.13              |
| Bollard Fixture 1                       | 40                    | 4                                     | 160                                   | Walkways 2               | 875                        | 0.18              |
| Bollard Fixture 2                       | 40                    | 6                                     | 240                                   | Courtyard 1              | 1,500                      | 0.16              |
| Wall Washer 1                           | 50                    | 5                                     | 250                                   | Building Façade N        | 2,500                      | 0.10              |
| Site Areas                              |                       |                                       |                                       |                          |                            |                   |
| Identification                          | Area (SF)             | ASHRAE 90.1.2004 Allowable LPD (W/SF) | Actual LPD (From Site Lighting Table) | Actual LPD Reduction (%) | Required LPD Reduction (%) | Complies (Yes/No) |
| Parking 1                               | 32,000                | 0.25                                  | 0.11                                  | 56%                      | 20%                        | YES               |
| Parking 2                               | 18,000                | 0.15                                  | 0.11                                  | 27%                      | 20%                        | YES               |
| Walkways 1 (10' wide)                   | 875                   | 0.20                                  | 0.16                                  | 20%                      | 20%                        | YES               |
| Courtyard 1                             | 1,500                 | 0.20                                  | 0.16                                  | 20%                      | 20%                        | YES               |
| Building Façade N                       | 2,500                 | 0.20                                  | 0.10                                  | 50%                      | 20%                        | YES               |

Source: U.S. Green Building Council. LEED for New Construction Version 2.2. Page 107.



## Appendix C

**Table 3: [Sample] Lamp Lumen Calculation**

| Column #       | 1                                | 2                                    | 3  | 4   | 5   | 6   |
|----------------|----------------------------------|--------------------------------------|--|---|---|---|
| Luminaire Type | Quantity of Installed Luminaires | Initial Fixture Lumens per Luminaire | Total Fixture Lumens (column 1 X column 2) | Initial Fixture Lumens from Luminaire above 90 Degrees (from nadir-straight down) | Total Fixture Lumens above 90 Degrees (column 1 X column 4) | Percentage of Lumens above 90 Degrees (column 5 / column 3) |
| A              | 10                               | 4,600                                | 46,000                                     | 100   | 1,000   | 2.2%  |
| B              | 20                               | 11,900                               | 238,000                                    | -   | -   | 0.0%  |
| C              | 5                                | 2,000                                | 10,000                                     | 2,000   | 10,000  | 100.0%  |
| <b>Total</b>   |                                  |                                      | <b>294,000</b>                             |   | <b>11,000</b>   | <b>3.7%</b>   |

Source: U.S. Green Building Council. LEED for New Construction Version 2.2. Page 108.

Note: This table has been slightly modified from the original source. The word "Sample" has been added to the title. The top row indicating Column numbers has been added and column references were modified to refer to the indicated Column number. Column 6 has been added to show how the table will be used to determine project-wide lumens calculation.