

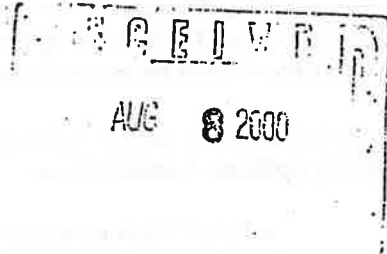
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Inter-office Communication

Energy Delivery

Date: August 7, 2000
To: Brian Kanely
Traffic Engineering Director
CC: Reid Rivers
Engineering Manager
From: David Kvaltine
Electrical Utilities Engineer II DJK
Subject: Roadway/Pedestrian Lighting along SW 2nd Avenue



GRU is currently completing an undergrounding project that expands from the CCD into the University Heights area. The project includes conversion of overhead facilities along SW 2nd Avenue starting at SW 3rd Street proceeding west ending to SW 10th Street. Also included in this project is SW 7th Terrace from SW 2nd Avenue to SW 4th Avenue, SW 8th Street from SW 2nd Avenue to University Avenue and SW 3rd Street from SW 2nd Avenue to NW 2nd Avenue. (See attached map). The electrical infrastructure for GRU's primary and secondary conversions is being installed now and should be energized by early 2001. Once the electric system is energized and the existing loads are converted to the underground system the overhead poles and conductors will be removed.

The existing roadway lighting system is installed on the overhead pole line and therefore will also be removed. Prior to removing these poles a roadway lighting system must be designed and installed. The lighting system will be designed in accordance with the City's Standard Practice for Roadway Lighting dictating the minimum required lighting levels. Provisions have been made to facilitate the installation of a new lighting system but the exact lighting system has not yet been designed. The lighting system can not be designed until the City decides which fixtures are to be installed in these corridors.

GRU is requesting that the City Traffic Engineering to provide guidance regarding the classifications of the roadways affected by this project and style of luminaires that will be used for the roadway lighting design. The installed roadway lighting east of SW 3rd Street consists of GRU's standard black "Hockey Puck" fixtures but these fixtures do not necessarily have to be continued if other options are deemed to be more appropriate.

The following options are available to the City along with the rates associated with each option. Please note that the rates are the base rates for rental lighting as stated in City Ordinances and do not include the addition of taxes, surcharges, fuel adjustments etc.

OPTIONS

- 1) Roadway lighting provided by GRU's Standard wood or concrete poles with GRU's Standard "Cobra Head" cutoff roadway luminaires.
- 2) Roadway lighting provided by installing 400 watt Metal Halide black luminaires mounted on 30 foot black aluminum poles ("Hockey Puck"). The City would be responsible for constructing the concrete mounting base for each of these luminaires. GRU will furnish the construction details for the fixture foundations.

- 3) An alternate option for roadway lighting consists of an octagonal black direct embedded concrete pole with black "Cobra Head" luminaires attached to a black mounting arm. This option is not yet an approved GRU Standard but may be considered. This option has been recommended by both the CBB and the College Park Advisory Board for roadway lighting within the City limits along corridors that would benefit from an aesthetically pleasing appearance.
- 4) A combination of roadway lighting and pedestrian luminaires. GRU currently has 2 pedestrian style lighting options. These include:
 - 1) A fluted black concrete pole with a "Granville" lighting fixture. The Granville lighting fixture is 100 watt High Pressure Sodium (HPS) with a glass globe made by Holophane. The pole is direct embedded in the ground therefore no concrete mounting base is required. This fixture is similar to the Acorn style light fixtures in the downtown area.
 - 2) A "Lumec" luminaire consisting of a teardrop "30's" style fixture on a black steel pole. This luminaire was installed as part of the streetscape improvements along NW 16th Street. The City is responsible for construction of the concrete mounting base for each of these light installations. GRU will furnish the construction details for the luminaire foundations.

RATES

LUMINAIRE	MONTHLY CHARGE
Roadway Luminaire 250w HPS Standard Cobra Head	\$9.85
Roadway Luminaire Hockey Puck" 400w Metal Halide with 30' black pole	\$31.04
Roadway Luminaire 250w HPS BLACK Cobra Head	\$10.00
Pedestrian Luminaire 100w HPS Granville luminaire with decorative Black concrete pole	\$24.77
Pedestrian Luminaire-100w HPS "Lumec" luminaire with black steel pole.	\$34.88
POLES	MONTHLY CHARGE
Wood Pole 40'	\$4.01
Standard Concrete Pole 40'	\$7.12
BLACK Octagonal Concrete Pole 40	\$16.00

** These items are currently not on GRU's approved materials Standards. The monthly charge for these items is estimated. The actual charge may vary depending on the actual costs of each item and the method used for calculating these charges. GRU's Strategic Planning department calculates the rental rates.

Please be aware that the charges provided above assume the worst case scenario and smaller poles and lower wattage lamps may be utilized depending on the classification of the roadways and required lighting levels.

Roadway lighting may have to be installed on both the north and south side of SW 2nd Avenue due to the width of the road right-of-way and the required lighting level. Whether or not the fixtures are required on both sides of the roadway and fixture spacing can not be determined until the style of lighting is selected and the lighting system is designed based on the photometrics of the lighting luminaire. A cursory review of the lighting fixture requirements in the corridors encompassed by this project are listed below:

CORRIDOR

ESTIMATED NUMBER OF FIXTURES

SW 2nd Avenue from SW 3rd Street
West to SW 10th Street.

Roadway--26
Pedestrian—48

SW 3rd Street north of SW 2nd Avenue
To University Avenue

Roadway—3
Pedestrian—6

SW 7th Terrace south of SW 2nd Avenue
To SW 4th Avenue

Roadway—4
Pedestrian—8

SW 8th Street north of SW 2nd Avenue
To University Avenue

Roadway—4
Pedestrian—8

These estimates are based on a roadway lighting spacing of approximately 180 feet and 2 pedestrian lighting fixtures between the roadway lighting fixtures. This is a rule of thumb spacing but the exact spacing and number of fixtures can not be determined until a lighting design is completed. The estimated number of fixtures along SW 2nd Avenue is based on having to stagger the fixtures along both the north and south side of the road. Pedestrian fixtures are included for estimating purposes and may not be required.

Please contact me at extension 1555 if you have any questions.

ROADWAY PEDESTRIAN LIGHTING ALONG SW 2ND AVENUE

	SW 2nd Avenue (26/48)*	SW 3rd Street (3/6)*	SW 7th Terrace (4/8)*	SW 8th Street (4/8)*	Total Cost Per Month	Total Cost Per Year
250 W HPS, Wood Pole	\$360/month	\$42/month	\$55/month	\$55/month	\$512	\$6,144
250 W HPS, Wood Pole with Granville Ped Lights	\$1,549/month	\$191/month	\$253/month	\$253/month	\$2,246	\$26,952
250 W HPS, Wood Pole with Lumec Ped Lights	\$2,034/month	\$251/month	\$334/month	\$334/month	\$2,953	\$35,436
250 W HPS, Concrete Pole	\$441/month	\$51/month	\$68/month	\$68/month	\$628	\$7,536
250 W HPS, Concrete Pole with Granville Ped Lights	\$1,630/month	\$200/month	\$266/month	\$266/month	\$2,362	\$28,344
250 W HPS, Concrete Pole with Lumec Ped Lights	\$2,115/month	\$260/month	\$347/month	\$347/month	\$3,069	\$36,828
400 W Metal Halide	\$807/month	\$93/month	\$124/month	\$124/month	\$1,148	\$13,776
400 W Metal Halide with Granville Ped Lights	\$1,996/month	\$242/month	\$322/month	\$322/month	\$2,882	\$34,584
400 W Metal Halide with Lumec Ped Lights	\$2,481/month	\$302/month	\$403/month	\$403/month	\$3,589	\$43,068
250 W HPS, Black Cobra Head	\$676/month	\$78/month	\$104/month	\$104/month	\$962	\$11,544
250 W HPS, Black Cobra Head with Granville Ped Lights	\$1,865/month	\$227/month	\$302/month	\$302/month	\$2,696	\$32,352
250 W HPS, Black Cobra Head with Lumec Ped Lights	\$2,350/month	\$287/month	\$383/month	\$383/month	\$3,403	\$40,836
*Streetlight/Pedestrian Light						
UNIT COSTS PER MONTH						
250 W HPS on Wood Pole: \$13.86						
250 W HPS on Concrete Pole: \$16.97						
400 W Metal Halide: \$31.04						
250 W HPS Black Cobra Head on Black Pole: \$26.00						
Granville 100 W HPS Pedestrian Luminaire with Black Concrete Pole: \$24.77*						
Lumec 100 W HPS Pedestrian Luminaire with Black Steel Pole: \$34.88						
*Not on GRU's approved materials standards						