

# Lighting Master Plan

April 2004

The Talmadge Lighting Master Plan will address the following issues:

1. Identify the location of the power for each circuit.
2. Define the lights supported by each circuit.
3. Identify, and get period reports, from the City of the maintenance costs charged to T-MAD
4. Define a method for resolving the intersection cobra head light issue.
5. Work with the City departments on the under grounding projects of Talmadge.
6. Lighting of the east side of Talmadge, east of 49<sup>th</sup> St.
7. Lighting of the north side of Talmadge, north of Adams Ave. and west of 49<sup>th</sup> St.
8. Include gate installation on all streets east of 49<sup>th</sup> St. and on the east end of Monroe Ave.
9. Address converting the 3 remaining 5000 V circuits to 110V or 240V, defining how many circuits will be needed.
10. Coordinate with the El Cajon BID to install lighting between Monroe Ave. and El Cajon Blvd.
11. Maintain the district lights and gates.

## Talmadge Area Lighting Layout

The lighting committee will identify a contractor, City or private, to create a layout of the proposed lighting and 5,000V conversion lights. This plan will be created prior to any light installation to define the most cost effective method of circuit layout.

Included in the efforts is to obtain from the City layouts of the updated lighting in Zone 2.

## City Accounting of Lighting Costs

The lighting committee will work with the Parks and Recreation and the Streets divisions of the City to obtain accurate accounting of how T-MAD funds are spent on maintenance projects. Lighting maintenance costs consist two parts. One part covers the energy costs of the lights. The second part concerns the maintenance associated with the poles, fixtures, globes, and circuits. The intent is to obtain a cost for each part for each period.

## Intersection Lighting

The lighting committee will work to assure that the City provides its share of costs to the lighting of the neighborhood. A June 2001 City Manager's Report (no. 01-128) identifies decorative lighting as special benefit and therefore district lighting. We feel that the City must provide the neighborhood with the funds it would normally spend for the lighting in the area. We do not expect the City to spend more in T-MAD than they would spend to meet the approved lighting standard.

The issues for T-MAD are two fold. First, the old candlestick lighting in Zone 2. These lights have been in place for over 70 years and have historically been split

between district and safety lights based on the City lighting distribution. The new lights in Zone 1 will need to be addressed with the City separately.

### **Under Grounding**

The City plans to under ground the utilities across the City to remove the visual blight of the poles and lines, as well as to update the infrastructure. Talmadge will be one of the first beneficiaries of the new assessment to pay for this effort. The assessment is part of the regular SDG&E bills.

Most of Zone 1 will be part of the first project slated to start in 2005 and completing in 2007. Future projects will continue the efforts in a westerly direction.

The lighting committee will work with the under grounding project to obtain four significant benefits:

1. Through the lighting layout contractor we will add the lighting circuit layout to the under grounding base map.
2. The under grounding base map will reduce the costs of permitting individual lighting projects since all the utility information will be present.
3. The undergrounding project will install the SDG&E power connections needed for the lighting circuits.
4. The under grounding project will install the conduit and lighting in their trenches for the cost of material cost only.

The undergrounding process takes place in four steps:

1. Dig the trenches in the street and lay the conduit.
2. Install the services, connection points.
3. Install wires and energize the circuits.
4. Make connections to the buildings (each will have two service points for a short while), and then remove the overhead connections and the poles.

SDG&E will provide conversion for each house but will require a waiver.

Additionally, homeowners may work with SDG&E to make sure the connections are made as desired. However, additional work such as panel upgrades will be the responsibility of the homeowner.

### **Zone 1 Lighting**

As per the T-MAD Master Plan it is the committees intent to install candlestick lighting in all of Talmadge. This comes to approximately 210 lights in Zone 1. An average of 15 lights can be powered by one circuit, which means about 14 circuits will be required. The project will proceed in full circuit quantities.

In addition, the streets east of 49<sup>th</sup> St. (south of Monroe) and Monroe Ave. at the east end of Talmadge will obtain replica gates.

### **Zone 2 Lighting**

Zone 2 already has candlestick lighting installed. However, there are still a couple of projects to be completed.

5,000 lighting circuits.

There are currently 3 circuits remaining that are of the old series 5,000V variety. The circuits consist of 18, 32, and 32 lights, for a total of 90. During the under grounding efforts these circuits will need to be converted. It is our intention to allow the under grounding efforts to carry out the conversion.

Traffic circle arches

Three arches with lights will be added to the traffic circle. At this point the lighting will be powered from a circuit breaker on the power pedestal installed on the traffic circle. In the future it is anticipated that the circle will power some of the conversion lights. At that time the pedestal will be converted to a metered/unmetered pedestal and the lights will be counted as district lights. In the mean time the power will be paid for from the traffic circle maintenance costs.

Historic Talmadge gates

The Historic Corridor Committee is working on renovating the existing gates that are located on the south end of Monroe. This includes the gates on Highland Ave., Euclid Ave., 48<sup>th</sup> St., Estrella Ave., and 49<sup>th</sup> St. Additional gates on Adams Ave., Madison Ave., Monroe Ave., 47<sup>th</sup> St., Menlo Ave., and 44<sup>th</sup> St. will need to be considered by the lighting committee. Attention must be paid to the historic issues within the corridor.

### **Coordination with the El Cajon BID**

The El Cajon BID will install lights on the feeder streets south of Monroe Ave. to El Cajon Blvd. The goal is to work with the City, who will design and install the lights, to leave room for T-MAD lights south of Monroe Ave. This will eliminate the need to trench across Monroe Ave.

The first set of 14 lights will be on the east side running from Marcellena Rd. to 50<sup>th</sup> St. The poles will be of the Aegean style from the Ameron Corp. with a Lumec L-50 globe, and 100 W HPS fixtures.

### **Maintenance**

The lighting committee will work with the various City departments (Parks and Recreation and Streets) to maintain the lighting within the T-MAD. The lighting committee will also provide the board with annual budget requirements.

### **Other Lighting Information**

Pole Options

1. Concrete
2. Steel
3. Aluminum
4. Fiberglass

From a cost, maintenance, and appearance stand point the concrete poles are the best option. They also match the current poles used in the neighborhood.

The concrete pole will be an Aegean style from Ameron Corp. This is a direct match to the existing Talmadge poles. The pole is 13.5 ft. in height, will be black in color, and with an anti-graffiti coating. The advantages of a slightly taller pole are better light distribution and a reduced risk of vandalism. It is the intent of the lighting committee to have all poles within the T-MAD painted black.

#### Globe

The current City standard requires that the globes be of a half cutoff variety. This is done to minimize the light pollution that would otherwise be sent skyward and not provide lighting to the street or sidewalks.

The Lumec L-50 or the Visionaire Lighting, New Orleans style, model NDA-1 with a black cast aluminum finial on top meet this requirement.

#### Fixture

The plan is to use 240V light fixtures since more lights can be placed on the same circuit, which will minimize installation costs. The operating costs will not be significantly affected by this choice. In some case the power source may mandate the use of a 120 V fixture. The fixtures will also be 100W HPS (high pressure Sodium). The choice of fixture at the intersections may be different depending on City requirements.

#### Reflectors

The midblock lights will have reflectors that concentrate the light down to the sidewalks and streets and away from house windows.

#### Footings

Footings will follow City of San Diego Standard Drawing SDE-101.

#### Trenching

Trenches will follow San Diego Regional Standard Drawing G-33 and G-35.

#### Contractors

The following contractors could potentially provide lighting installation for T-MAD:

- ◇ Ace Electric
- ◇ HMS Construction
- ◇ Perry Electric
- ◇ Patterson Brothers
- ◇ HTA Construction
- ◇ 3D Enterprises
- ◇ Lekos Electric