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CLICK HERE FOR THE DIRECTOR OF PUBLIC WORKS' REPORT DATED AUGUST 8, 2012

CLICK HERE FOR THE DIRECTOR OF INTERNAL SERVICES' REPORT DATED AUGUST 20, 2012

CLICK HERE FOR THE DIRECTOR OF PUBLIC WORKS' REPORT DATED SEPTEMBER 4, 2012

CLICK HERE FOR THE DIRECTOR OF PUBLIC WORKS' REPORT DATED JANUARY 9, 2014

CLICK HERE FOR THE DIRECTOR OF PUBLIC WORKS' REPORT DATED MAY 14, 2014

CLICK HERE FOR THE DIRECTOR OF PUBLIC WORK'S REPORT DATED AUGUST 14, 2014

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: A-0

August 8, 2012

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF JANUARY 24, 2012, AGENDA ITEM NO. 8
RURAL OUTDOOR LIGHTING DISTRICT ORDINANCE
PUBLIC WORKS COMPLIANCE REPORT

At the Board of Supervisors (Board) meeting of January 24, 2012, your Board approved a motion directing the Director of Public Works to provide a report detailing how Public Works' facilities affected by the Ordinance will comply and that the report be prepared within six months with the goal of finding the most cost-effective methods. Your Board also instructed County Counsel, in cooperation with the Director of Regional Planning and the Director of Public Works, to bring a revised ordinance back to the Board for final approval incorporating certain specified amendments.

On May 29, 2012, your Board authorized the Department of Public Works to expend Road Funds and Flood Control District Funds to conduct a Rural Outdoor Lighting District Ordinance Compliance Study for 10 road maintenance yards and 6 flood control dams at a cost not to exceed $160,000 for consultant services and in-house support including up to $120,000 for a Public Works' consultant, J.C. Chang and Associates Inc. (Consultant), to perform an analysis and develop compliance recommendations.

In addition to the 10 road maintenance yards and 6 flood control dams, there are 2 additional sewer maintenance facilities, 62 waterworks facilities, and 1 commuter rail facility which are located within the Rural Outdoor Lighting District boundary.

These facilities were analyzed for compliance and appropriate recommendations were developed utilizing respective special district funding sources. The waterworks facilities study was conducted by in-house electro-mechanical staff and all other facility studies were prepared by the Consultant.

The scope of the facility studies were as follows:

1. Review the requirements of the ordinance.
2. Analyze the affected sites to confirm existing lighting installations.
3. Measure existing lighting intensities at critical locations.
4. Determine cost-effective lighting changes to reduce lighting impacts.
5. Bring each facility into compliance with the ordinance.
6. Develop rough order of magnitude cost estimates to implement the changes.

Each site was visited in the evening by the Consultant and/or in-house staff to be able to evaluate the sites in an illuminated condition and to take light intensity measurements. Site-specific recommendations were developed for each facility.

Public Works continues to work in collaboration with Regional Planning and County Counsel to answer questions and provide input into the revised ordinance, as directed by your Board. Our intent is to make sure that our recommendations to modify the lighting at our facilities are the most cost-effective method to comply with the revised ordinance.

As such, I am requesting an additional 30 days from the date of this memo so that the submittal of the report can coincide with the Board's adoption of the final ordinance; giving the Board the benefit of the adopted ordinance to review the report.

If you have any questions regarding the matter, please contact Dennis Hunter at (626) 458-4006 or dhunter@dpw.lacounty.gov.

DH:ja
P:\adpub\joann\dark skies report ext request r3.doc

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Regional Planning

County of Los Angeles
INTERNAL SERVICES DEPARTMENT
1100 North Eastern Avenue
Los Angeles, California 90063

TOM TINDALL
Director

Telephone: (323) 267-2101
FAX: (323) 264-7135

"To enrich lives through effective and caring service"

August 20, 2012

To: Supervisor Zev Yaroslavsky, Chair
Supervisor Gloria Molina
Supervisor Mark Ridley-Thomas
Supervisor Don Knabe
Supervisor Michael D. Antonovich

From: Tom Tindall
Director

Tom Tindall

Subject: **RURAL OUTDOOR LIGHTING DISTRICT (RESPONSE TO ITEM 8, AGENDA OF JANUARY 24, 2012)**

On January 24, 2012, your Board approved actions to establish a Rural Outdoor Lighting District as proposed by the Regional Planning Department. As Part 5 of this motion, your Board, on motion of Supervisor Yaroslavsky, provided the following direction:

> Instructed the Director of Public Works, the Director of Internal Services, and all other departments that operate facilities affected by the ordinance, to provide the Board with a report detailing how they plan to comply with the ordinance within six months, and as needed thereafter; instructed that the report should be prepared with the goal of finding the most cost-effective method of complying with the ordinance and reducing light impacts to the rural communities of Los Angeles County; and, prohibited Public Works from using Road funds or Flood Control District funds for this purpose, unless they receive explicit permission at a later date from the Board of Supervisors.

This memorandum provides a summary of the Internal Services Department's (ISD) planned actions to address the motion. The Department of Public Works will report separately on its actions relative to this motion.

Results of Review

We have identified a total of six leased or owned buildings that ISD maintains in areas affected by the new ordinance amending Title 22. These buildings are located in the Santa Monica Mountains and the Antelope Valley region. During site surveys, we learned that:

- Two facilities, the Aqua Dulce and Topanga Canyon Libraries, are new construction. The current lighting satisfies the requirements of the ordinance.

- Two facilities, Lake Los Angeles Library and the Palmdale Mental Health Clinic, are located in strip malls. The exterior perimeter lighting is the responsibility of the property owner.

- Two facilities, the Quartz Hill and Little Rock Libraries, have lighting fixtures that are non-complaint. These fixtures will need alterations to meet the requirements of the new ordinance.

    - Quartz Hill Library (42018 50th Street W., Quartz Hill)

        - Remove photo cell controls; install a digital 24-hour clock.

        - Replace 7 existing fixtures with compliant (LED full cutoff) fixtures.

    - Little Rock Library (35119 80th Street, Little Rock)

        - Remove photo cell controls; install a digital 24-hour clock.

        - Replace 8 existing fixtures with compliant (LED full cutoff) fixtures.

ISD will manage the cost for required work at the Quartz Hill and Little Rock Libraries within the existing building maintenance budget for these facilities. ISD will complete the required work by October 15, 2012.

If you have any questions, please contact me at (323) 267-2101.

TT:TB:PE

c: ISD Board Deputies
Executive Officer, Board of Supervisors
Chief Executive Officer
Deputy CEO
County Librarian
Director of Public Works

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: A-0

September 4, 2012

TO: Each Supervisor

FROM: Gail Farber *Gail Farber*
Director of Public Works

BOARD MOTION OF JANUARY 24, 2012, AGENDA ITEM NO. 8
RURAL OUTDOOR LIGHTING DISTRICT ORDINANCE
PUBLIC WORKS COMPLIANCE REPORT

At the Board of Supervisors meeting of January 24, 2012, your Board approved a motion directing the Director of Public Works to provide a report detailing how Public Works' facilities affected by the Ordinance will comply and requested that the report be prepared within six months with the goal of finding the most cost-effective methods. Your Board also instructed County Counsel, in cooperation with the Directors of Regional Planning and Public Works, to bring a revised Ordinance back to the Board for final approval incorporating certain specified amendments.

On May 29, 2012, your Board authorized Public Works to expend Road Funds and Flood Control District Funds to conduct a Rural Outdoor Lighting District Ordinance Compliance Study for ten road maintenance yards and six flood control dams at a cost not to exceed $160,000 for consultant services and in-house support, including up to $120,000 for a Public Works' consultant, J.C. Chang and Associates Inc. (Consultant), to perform an analysis and develop compliance recommendations.

On August 8, 2012, I requested an additional 30 days so that the submittal of the report can coincide with your Board's adoption of the final ordinance; giving the Board the benefit of the adopted Ordinance to review the report.

In addition to the 10 road maintenance yards and 6 flood control dams, there are 2 additional sewer maintenance facilities, 62 waterworks sites, and 1 commuter rail facility, which are located within the Rural Outdoor Lighting District boundary.

The cost to modify the 81 Public Works facilities within the Rural Outdoor Lighting District boundary is estimated at approximately $1,780,400. The costs by facility type are summarized as follows:

#	**Facility Type**	Cost Estimate
10 ^	Road Maintenance Yards	$957,600
1 ^	Transit Station (MTA – Acton/Vincent Station)	$77,100
6 ^	Flood Maintenance Dams	$623,000
2 ^	Sewer Maintenance Facilities	$86,400
62 *	Waterworks Facilities	$36,300
Total		$1,780,400

* The study was conducted by Waterworks Division Electro-Mechanical staff.
^ The study was conducted by J.C. Chang & Associates, Inc.

These facilities were analyzed for compliance and appropriate recommendations were developed utilizing respective special district funding sources. The waterworks facilities study was conducted by in-house electro-mechanical staff and all other facility studies were prepared by the Consultant. The scope of the facility studies were as follows:

1. Review the requirements of the Ordinance.
2. Analyze the affected sites to confirm existing lighting installations.
3. Measure existing lighting intensities at critical locations.
4. Determine cost-effective lighting changes to reduce lighting impacts.
5. Bring each facility into compliance with the Ordinance.
6. Develop rough order of magnitude cost estimates to implement the changes.

Each site was visited in the evening by the Consultant and/or in-house staff to be able to evaluate the sites in an illuminated condition and to take light intensity measurements at appropriate locations. Site-specific recommendations were developed for each facility and are included in the appropriate facility report. The facility reports are attached for reference as follows:

Attachment A – Road Maintenance Yards
Attachment B – Transit Station (MTA – Acton/Vincent Station)
Attachment C – Flood Maintenance Dams
Attachment D – Sewer Maintenance Facilities
Attachment E – Waterworks Facilities

In order to develop the most cost-effective method of complying with the Ordinance, we plan on submitting site plans for certain facilities to the Director of Regional Planning, as authorized under Section 22.44.540(e), in order to permit light mounting heights higher than specified in the Ordinance. We will report back to your Board every six months to provide an update on our progress of retrofitting our facilities to comply with the Rural Outdoor Lighting District Ordinance.

If you have any questions regarding this matter, please contact Dennis Hunter at (626) 458-4006 or dhunter@dpw.lacounty.gov.

DH:ja
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Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Regional Planning

Attachment A

13 July 2012

RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY ROAD MAINTENANCE YARDS
COST IMPACT ANALYSIS

REPORT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
Architectural Engineering Division
900 South Fremont Avenue
Alhambra, California 91803
Telephone: (626) 458-2566
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www.jccainc.com

JCCA 12671-1

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9.1 Site Description

9.2 Non-compliance with Proposed Ordinance

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9.4 Estimated ROM Cost

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10.1 Site Description

10.2 Non-compliance with Proposed Ordinance

10.3 Recommended Modifications

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11.1 Site Description

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11.3 Recommended Modifications

11.4 Estimated ROM Cost

11.5 Photographs

11.6 Site Plan

12.0 RD 555 (Lancaster)

12.1 Site Description

12.2 Non-compliance with Proposed Ordinance

12.3 Recommended Modifications

12.4 Estimated ROM Cost

12.5 Photographs

12.6 Site Plan

13.0 Notes on Estimated Costs

SECTION 1.0

EXECUTIVE SUMMARY

The County of Los Angeles is considering adopting a new Rural Outdoor Lighting Ordinance initiated by the Department of Regional Planning. This report evaluates the cost impact on the Department of Public Works (DPW) to upgrade their Road Maintenance Yards to comply with the proposed ordinance.

There are a total of 33 Road Maintenance Yards countywide. However only 10 of them are in rural areas and therefore impacted by the new ordinance. The scope of this report is limited to the County Road Maintenance Yards. Other County rural sites impacted by the ordinance are addressed in separate reports. The list of yards included in this report is shown in paragraph 2.2.

Many of the existing light fixtures at the Rural Road Maintenance Yards are not the full cutoff type required by the Ordinance, and will therefore have to be replaced. Also, current lighting fixture control systems do not comply with the ordinance. Another issue with the majority of the current fixtures is that many of them exceed the mounting height above ground required by the Ordinance which in some cases results in light trespass on the neighboring property. The Ordinance defines light trespass as light falling across a property line onto an adjoining lot or onto an adjoining public right-of-way.

Estimated Rough Order of Magnitude (ROM) Costs:

A.	RD 339 Agoura	**$ 106,286**
B.	RD 551 Quartz Hill	**$ 345,642**
C.	RD 558 Littlerock	**$ 88,405**
D.	RD 558A Jackson Lake	**$ 84,240**

E.	RD 556A Gorman	**$ 47,775**
F.	RD 559 San Francisquito Canyon Road	**$ 36,660**
G.	RD 559A Mount Wilson	**$ 92,040**
H.	RD 557A Mill Creek	**$ 71,175**
I.	RD 555 Lake LA	**$ 54,900**
J.	RD 555A Lancaster	**$ 30,500**
Total		**$ 957,623**

SECTION 2.0

SCOPE OF THE ANALYSIS

2.1 The County of Los Angeles is considering adopting a new Ordinance amending Title 22 of the County Code. The Ordinance will establish a Rural Outdoor Lighting District that will establish guidelines governing outdoor lighting. The main objectives include curtailing light pollution, preventing light trespass onto adjoining properties, promoting dark skies, conserving energy, etc., while permitting reasonable uses of outdoor lighting for night time safety, security, productivity, and enjoyment.

2.2 DPW has a total of thirty three (33) Road Maintenance Yards in four Road Maintenance Districts. See Appendix I. Only ten (10) of these sites are in rural areas, the remaining twenty three (23) are in urban areas. The following is a list of the rural yard sites:

Yard No.	Address	Zoning	Date Inspected
RD 339	29773 W Mulholland Hwy., Agoura 91301	A1	01/17/2012
RD 551	4859 W Avenue L-12, Quartz Hill 93534	R3	01/18/2012
RD 558	8505 E Avenue T, Littlerock 93543	A1	06/05/2012
RD 558A	22201 Big Pines Hwy, Wrightwood 92397	W	06/05/2012
RD 556A	49530 Gorman Post Rd., Gorman 93243	W	06/11/2012
RD 559	35100 San Francisco, Saugus 91350	W	06/11/2012
RD 559A	817 Mt Wilson Road, Mount Wilson 91023	W	06/13/2012
RD 557A	27500 Angeles Forest Hwy., Palmdale 93550	W	06/13/2012
RD 555	17341 E Avenue J, Lancaster 98536	A1	06/19/2012
RD 555A	45112 N 70th St. East, Lancaster 93535	A2	06/19/2012

2.3 The scope of this report is to:

A. Review the requirements of the Ordinance and analyze the ten yards to confirm existing installation and changes required to comply with the Ordinance.

B. Provide a rough order of magnitude (ROM) cost estimate to implement the required changes.

2.4 The main provisions of the new Ordinance as it affects the Road Maintenance Yards can be summarized as follows:

A. Outdoor lighting fixtures must be fully shielded type (22.44.540 C). That is a light fixture that emits no light in the area above a horizontal plane passing through the lowest point of the fixture and not more than 10 percent of its light in the area between zero and 10 degrees below such horizontal plane. A full cutoff fixture is a fully shielded fixture of a specific design, usually a box or oval shape with a flat bottom.

B. Light trespass measured at the property line must not exceed 0.5 foot-candles where the adjoining property is zoned residential, open space, agricultural or public right-of-way.

For other adjoining zoning the limit is 1.0 foot-candles.

C. The fixture height from ground level to the top of the fixture (22.44.450 D) is limited to:

1. Residential, agricultural, open space and watershed:

20 Feet – except if over 15 feet the fixture lumens are limited to 400. This effectively limits the height to **15 feet**, since 400 lumens is an extremely low lighting level (equivalent to a 40-watt incandescent lamp).

2. For parcels zoned other than above:

30 Feet

D. Outdoor lighting must be turned off between the hours of 10 p.m. and sunrise. There must be an automatic time switch control to turn the lights off. The timer must be capable of separate schedules for weekdays and weekends. (22.44.550)

Exceptions:

1. Where there are night time operations the lights must be turned off within one hour of close of business.
2. Commercial and industrial uses may reduce the lighting level to 50 percent between 10 p.m. and sunrise instead of turning off all lights. (22.44.550 B.3.b.)
3. Security and operations lighting for public facilities. (22.44.550 C.4.c.).

2.5 The County Road Maintenance Yards are used to store and maintain equipment, supplies and fuel. The function of the maintenance crew includes response to emergency events that affect public safety and is dependent on their ability to safely and quickly access the equipment, materials and supplies at Maintenance Yards. Several of the sites have been subject to repeated break-ins which resulted in theft and significant damaged, therefore some measure of on site security is required to ensure the safety of the maintenance crew and resources critical to public safety and effectiveness of operations, especially during inclement situations when urgent response is needed. Therefore a variance is required to allow select lighting fixtures to remain on during off hours as a measure of site security and also allow select lighting fixtures critical to operations to be controlled by motion sensors during off hours.

2.6 The sites were visited by JCCA engineers, JCCA's lighting consultant Jun Apolinario, DPW Senior Electrical Engineer (John Fallon) and were assisted by site staff. The date of the inspection is noted in paragraph 2.2.. Existing conditions were recorded and are shown on the drawings included. Light level readings were taken after dark and the existing fixture types were noted. The cost estimates herein were prepared based on the input from the lighting consultant and from lighting contractors.

SECTION 3.0

RD 339 AGOURA

3.1 Site Description

A. The site Address is:

29773 Mulholland Highway
Agoura, CA 91301

The site area is approximately 0.9 acres and is zoned Agricultural – A1. See Section 3.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

3.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights under the two canopies and on the South Side of the garage are mounted higher than 15'.

C. Portions of the North property line have lighting levels above 0.5 foot candles.

D. The light at the yard sign on the South property line has an upshot light.

E. The lighting level at the South property line at the light fixture at the entry gate exceeds 0.5 foot candles.

F. Lights are left on between 10:00 p.m. and sunrise.

3.3 Recommended Modifications

A. Remove all existing fixtures and replace with full cutoff type fixtures. Mounting height shall not exceed 15'. This will require pendant fixtures under the canopies or relocation to the columns at a lower level.

B. At South property line, replace pole mounted light by entrance gate with a full cutoff fixture and the uplight illuminating the entry sign with a full cutoff fixture mounted on top of the sign.

C. Currently there are four fixtures on the emulsion tank canopy. The northerly two closest to adjacent property should be removed since they are not needed and are currently contributing to the light trespass along the north property line.

D. Provide two automatic time switches, one in the garage and one in the office for security and critical night time operations.

E. The automatic time switch will shut off all lights at 10:00 p.m.

F. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors where applicable and will automatically turn off again after one hour.

G. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

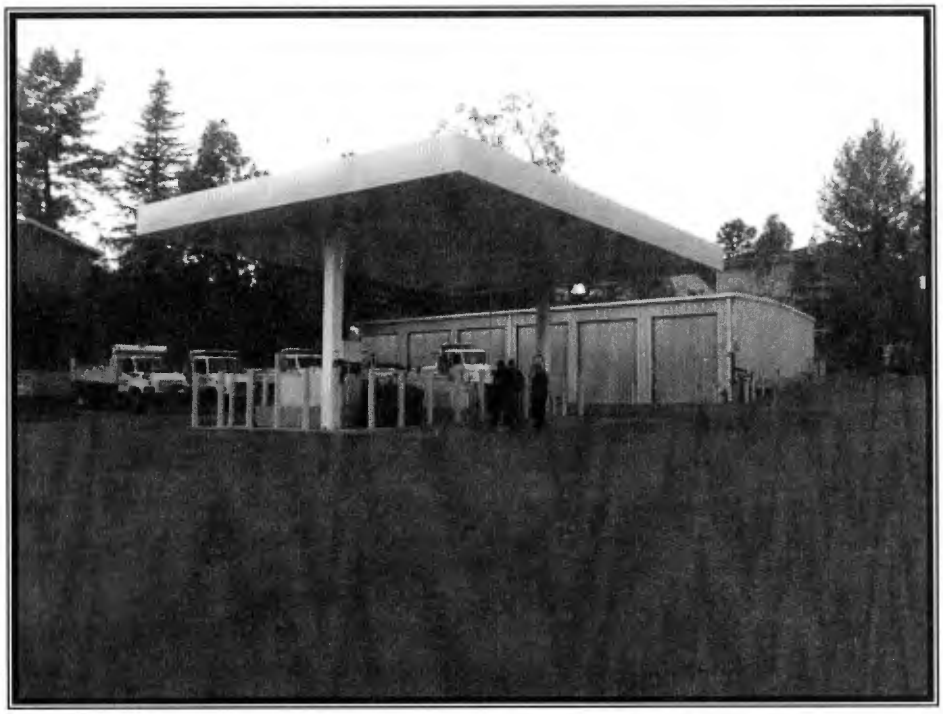
3.4 Estimated ROM Cost

Remove six lights on

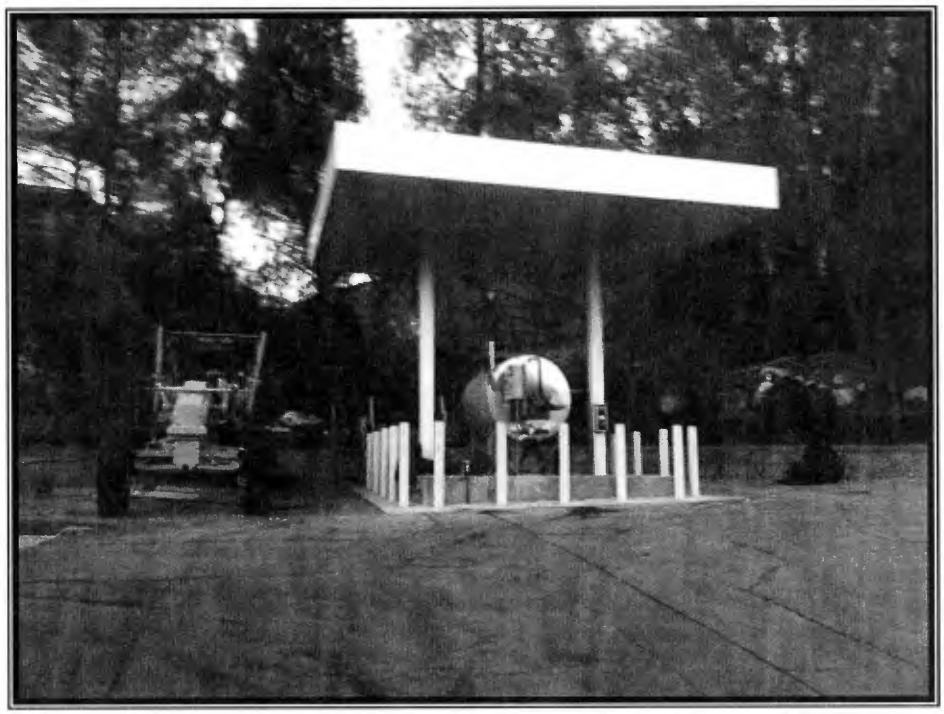
Garage and replace with four	4 @ $2,500 = $10,000
Remove and replace two lights on Emulsion Tank Canopy	2 @ $2,200 = $ 4,400
Remove and replace two lights on Fuel Island Canopy	2 @ $2,200 = $ 4,400
Remove five lights on Office & replace with two	2 @ $1,200 = $ 2,400
Remove light at gate and sign replace with pole mounted light by gate and	2 @$7,000 = $14,000
Full cutoff light mounted on top of sign Automatic Timer Switch	2 @$1,500 = $ 3,000
Miscellaneous	$ 11,400
Subtotal	**$49,600**
Design Contingency (25%)	$12,400
Subtotal	**$62,000**
Contractor Overhead and Profit (20%)	$12,400
Subtotal	**$74,400**
Soft Costs Project Management, Design, Permits, Inspection (30% of total)	$31,886
Total	**$106,286**

3.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.



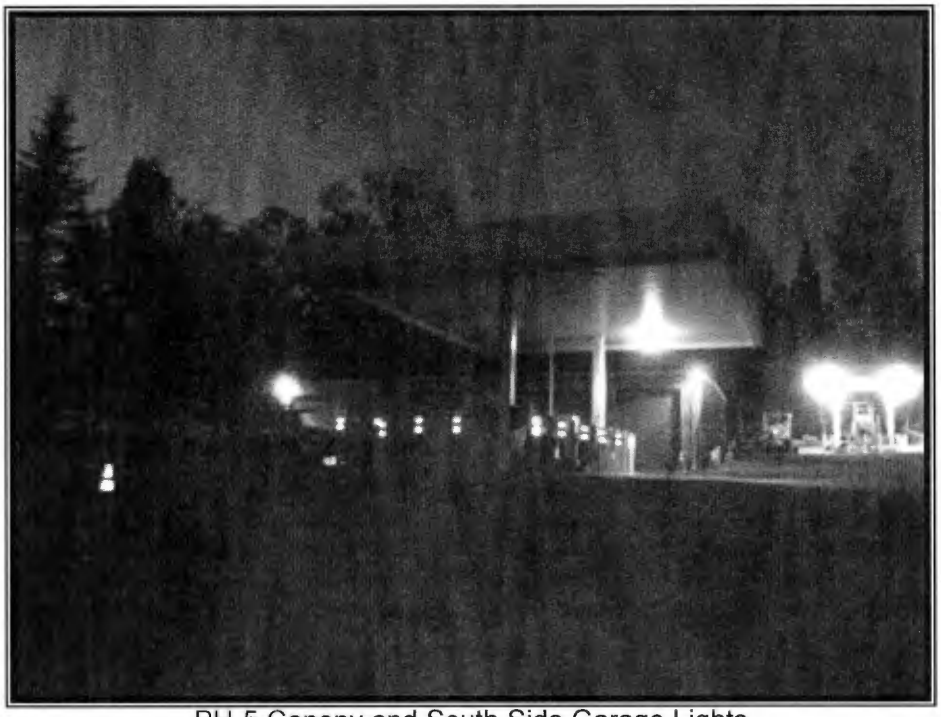
PH-1 Fueling Canopy and Garage (RD 339)



PH-2 Emulsion Tank Canopy (RD 339)

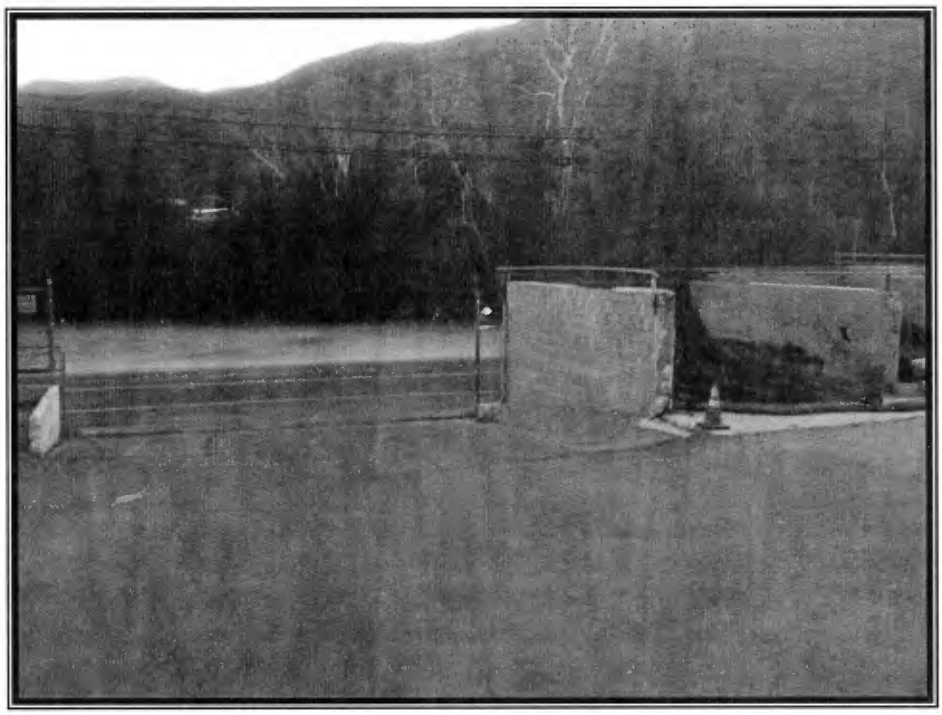
PH-3 Typical Flood Light Fixture

PH-4 Spotlights on North Side of Garage



PH-5 Canopy and South Side Garage Lights

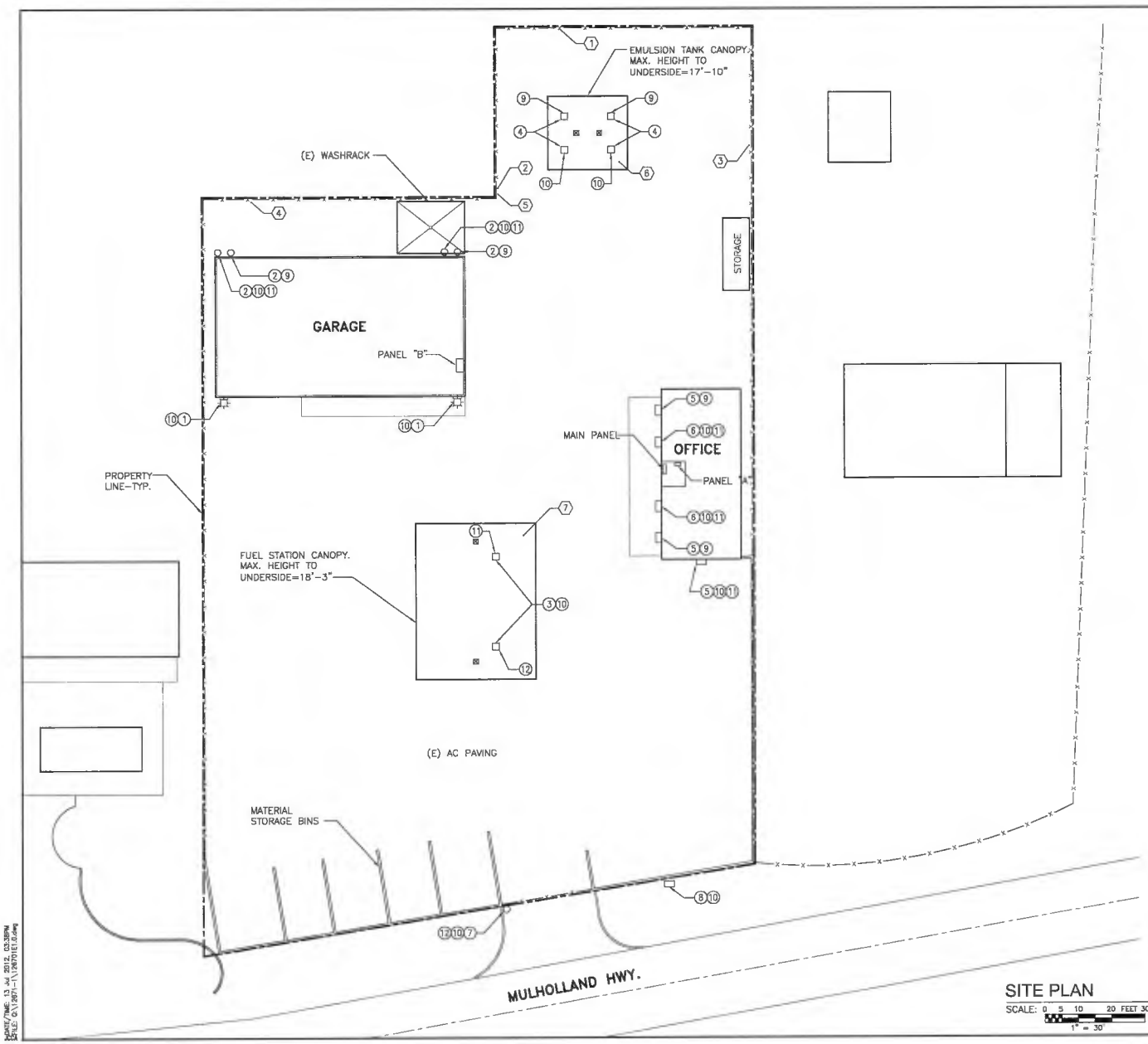
PH-6 Sign Flood Light



PH-7 Fence Mounted Light at Entrance

3.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit



SITE PLAN

SCALE: 0 5 10 20 FEET 30
1" = 30'

EXISTING CONDITION KEYNOTES:

1. FLOODLIGHTS MOUNTED AT 16'± INDIVIDUALLY CONTROLLED BY PHOTO -CELL
2. DOUBLE SPOTLIGHTS @ 10'± CONTROLLED BY SWITCH.
3. 400W METAL HALIDE - BOTH ON ONE PHOTOCELL-SOUTH ONE NOT WORKING.
4. 400W METAL HALIDE FLOODLIGHT. ALL 4 ON ONE PHOTOCELL.
5. 1000W H.P. SODIUM - ON SWITCH
6. 50 W H.P. SODIUM WALL PACK ABOVE DOOR ON PHOTOCELL.
7. 70W METAL HALIDE FLOODLIGHT @ 7' AT GATE
8. 70W METAL HALIDE ON GRADE UPLIGHT TO ILLUMINATE YARD SIGN.
9. LIGHT FIXTURE TO BE REMOVED.
10. LIGHT FIXTURE TO BE REPLACED.
11. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (12) ARE TO BE ON TIME SWITCH.
12. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (11) ARE TO BE ON TIME SWITCH.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.9 FOOT CANDLES.
2. 1.3 FOOT CANDLES.
3. 0.1 FOOT CANDLES.
4. 2.6 FOOT CANDLES.
5. 0.1 FOOT CANDLES.
6. 15.1 FOOT CANDLES.
7. 12.3 FOOT CANDLES.

SITE ADDRESS: 29773 W MULHOLLAND HWY, AGOURA, 91301
SITE SUPERINTENDENT: TOM ASHTON- (661) 713-1825(CELL)

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
385 VAN NESS AVE, SUITE 208
TORRANCE, CA. 90501
(310) 212 - 2984
FAX (310) 212 - 5272

JCCA #12571-1

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. CA10682 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 339 AGOURA

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E1.0

DATE/TIME: 13 JUL 2012, 03:38PM
FILE: G:\12571-1\12571E1.dwg

SECTION 4.0
RD 551 QUARTZ HILL

4.1 Site Description

A. The site address is:

4859 West Avenue L-12
Quartz Hill, CA 93534

The site area is approximately 2.25 acres and is zoned Residential – R3. See Section 4.6 for site plan.

B. Currently all exterior lights are left on all night for security.

C. The flood lights are directed out onto the yard area. This provides security lighting for the site.

D. One flood light mounted on the eave of the office building is directed upwards to provide lighting for the flag.

4.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights on the canopy and on the garage are mounted higher than 15'.

C. Portions of the South property line at the entry gate have lighting levels above 0.5 foot candles.

D. The light at the flag on the South property line has an upshot light.

E. Lights are left on between 10:00 p.m. and sunrise.

4.3 Recommended modifications

A. Replace all light fixtures with cutoff fixtures. Mounting height cannot exceed 15'. This will require pendant fixtures under the canopy or relocation to columns under 15 feet.

B. The up light for the flag cannot be replaced. The flag will have to be taken down at night.

C. The two pendant lights at the wash rack must be replaced with full cutoff fixtures.

D. One of the four canopy lights at the fueling island will remain on all night for security.

E. The five lights on the garage will be replaced with four new full cutoff lights.

F. Due to the nature of the required cutoff light fixture the area lighted will be very much reduced compared to the existing flood lights. Therefore perimeter lighting must be added for operations and security in the yard. Location of perimeter lighting is shown on site plan.

G. Provide two automatic time switches, one in the garage and one in the office for security and critical night time operations.

H. The automatic time switch will shut off all lights at 10:00 p.m.

I. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors where applicable and will automatically turn off again after one hour.

J. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

4.4 Estimated ROM Cost

Remove and replace four fueling Island Canopy Lights	4 @$2,200 = $	8,800
Remove five lights on Garage and replace with four as shown on site plan	4 @ $2,500 = $	10,000
Remove nine Lights at office and replace with two as shown on site plan	2 @ $1,250 = $	2,500
Automatic Timer Switches	2 @ $2,500 = $	5,000
Miscellaneous		$ 5,000
Subtotal		**$ 31,300**
Design Contingency (25%)		$ 7,825
Subtotal		**$ 39,125**
Contractor Overhead and Profit (20%)		$ 7,825
Subtotal		**$ 46,950**

Soft Costs:		
Project Management, Design, Permits, Inspection (30% of total)		$ 20,121
Ordinance Compliance Subtotal		**$ 67,071**
Light Pole, Footing, Arm, Fixture, etc.	12 @ $7,000 =	$ 84,000
Trenching, Conduit, Wiring, Backfill, Pavement Repair, etc.	1,200 L.F. @ $30/Ft =	$ 36,000
Miscellaneous		$ 10,000
Subtotal		**$130,000**
Design Contingency (25%)		$ 32,500
Subtotal		**$162,500**
Contractor Overhead and Profit (20%)		$ 32,500
Subtotal		**$195,000**
Soft Costs		
Project Management, Design, Permits, Inspection (30% of total)		$ 83,571
Perimeter Security Subtotal		**$278,571**
Total		**$345,642**

4.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 6' CMU Perimeter Wall and Yard Sign

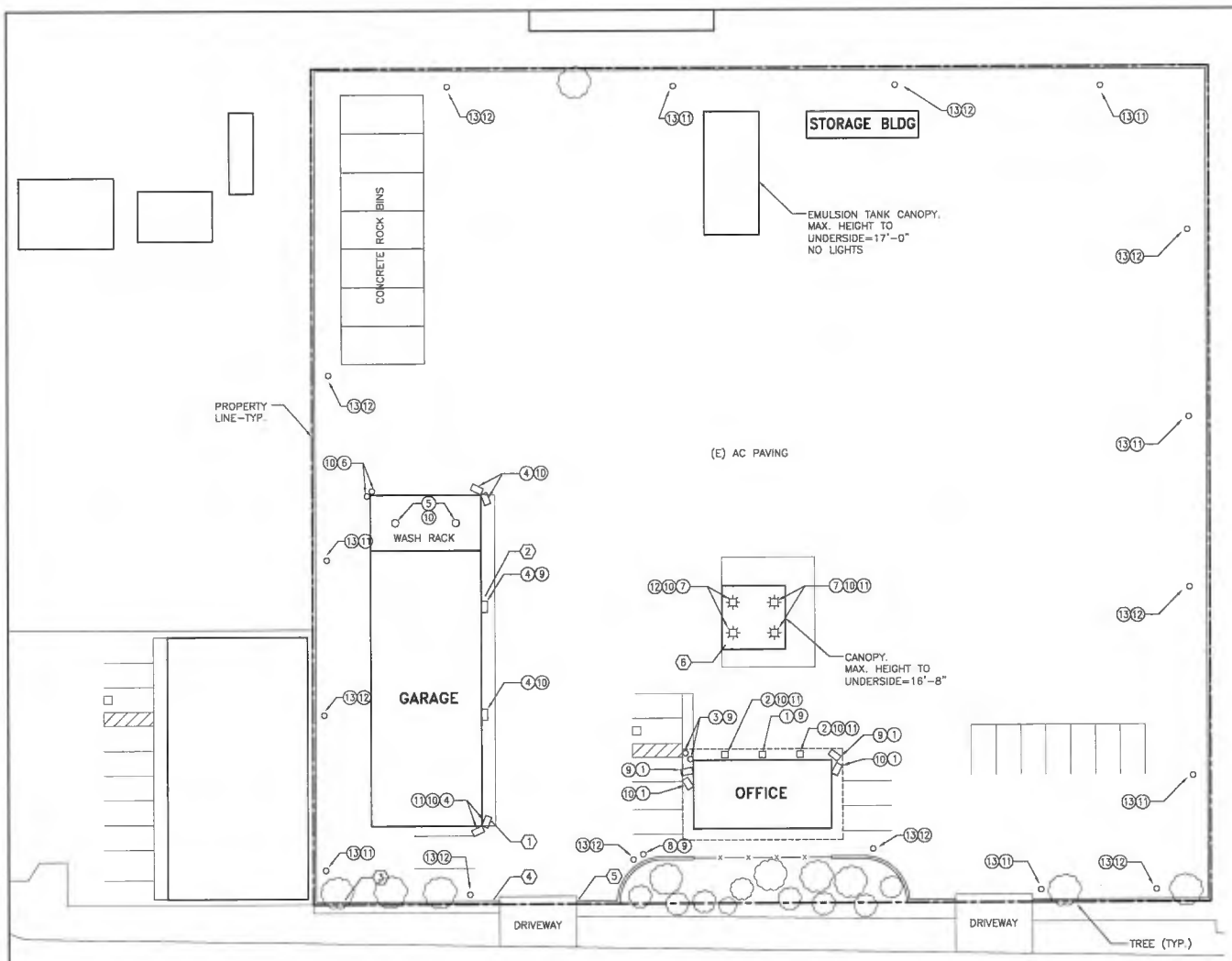
PH-2 Flood Light on Flag

PH-3 Fuel Island Canopy Lights and Spotlight on Office Eave

PH-4 Typical Flood Light on Garage

4.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN

SCALE: 0 5 10 20 FEET 40
1" = 40'

EXISTING CONDITION KEYNOTES:

1. FLOODLIGHT AT 9'±
2. DOWNLIGHT AT DOOR AT 9'±
3. SPOTLIGHTS AT 9'±
4. FLOOD LIGHT AT 15'±
5. PENDANT AT 15' IN WASHRACK BAY
6. SPOTLIGHTS AT 15'±
7. LIGHTS MOUNTED ON UNDERSIDE OF CANOPY.
8. UPLIGHT FOR FLAGPOLE.
9. LIGHT FIXTURE TO BE REMOVED.
10. LIGHT FIXTURE TO BE REPLACED.
11. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (12) ARE TO BE ON TIME SWITCH.
12. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (11) ARE TO BE ON TIME SWITCH.
13. PROVIDE NEW SECURITY LIGHTING FIXTURE ON 15' POLE.

LIGHT METER READINGS:

1. 21.1 FOOT CANDLES.
2. 6.0 FOOT CANDLES.
3. 0.0 FOOT CANDLES.
4. 2.1 FOOT CANDLES.
5. 0.4 FOOT CANDLES.
6. 5.5 FOOT CANDLES.

SITE ADDRESS: 4859 W AVENUE L-12
QUARTZ HILL, 93534
SITE SUPERINTENDENT: TOM ASHTON- (661) 713-1825(CELL)

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
385 VAN NESS AVE. SUITE 208
TORRANCE, CA 90501
(310) 212 - 7644
FAX (310) 212 - 3772

JCCA #1267B-1

BY:	DATE:	DESCRIPTION

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT IMPROVEMENT ENGINEER DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER
JAMES P. REDWOOD
No. C41082
Exp. 3/31/13
CIVIL
STATE OF CALIFORNIA

SHEET TITLE: LA COUNTY DEPT. OF PUBLIC WORKS - RD 551
QUARTZ HILL

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
PILOT PROJECT
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12
SHEET
E2.0

AcDate/Time: 13 Jul 2012 03:38PM
Name: Q:\1267-1\1267B12-0.dwg

SECTION 5.0

RD 558 LITTLE ROCK

5.1 Site Description

A. The site Address is:

8505 East Avenue T
Littlerock, CA 93543

The site area is approximately 1.42 acres and is zoned Agricultural – A1. See Section 5.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

5.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights under the gas station canopies and on the South Side of the garage are mounted higher than 15'.

C. Majority of flood lights mounted on to Garage A, Garage B & Office buildings as well as to the posts of the Wash Rack canopy are mounted higher than 15'.

D. Portions of both the North and South property lines have lighting levels above 0.5 foot candles.

E. Lights are left on between 10:00 p.m. and sunrise.

5.3 Recommended Modifications

A. Remove all existing fixtures for Garage A, Garage B and Office buildings and replace with full cutoff type fixtures. Mounting height shall not exceed 15'.

B. The surface mounted lights under the canopy will be replaced by wall-mounted full cutoff type fixtures mounted to the poles supporting the canopy. In lieu of the existing pole-mounted fixture by the emulsion tank, wall-mounted full cutoff type fixtures will be provided.

C. Remove all existing fixtures for Wash Rack canopy and replace with one pendant mounted full cutoff fixture. Mounting height shall not exceed 15'.

D. Provide two new pole lights near the South fence to illuminate the parking area.

E. Provide two automatic time switches, one in the garage and one in the office.

F. The automatic time switch will shut off all lights at 10:00 p.m.

G. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors where applicable and will automatically turn off again after one hour.

H. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

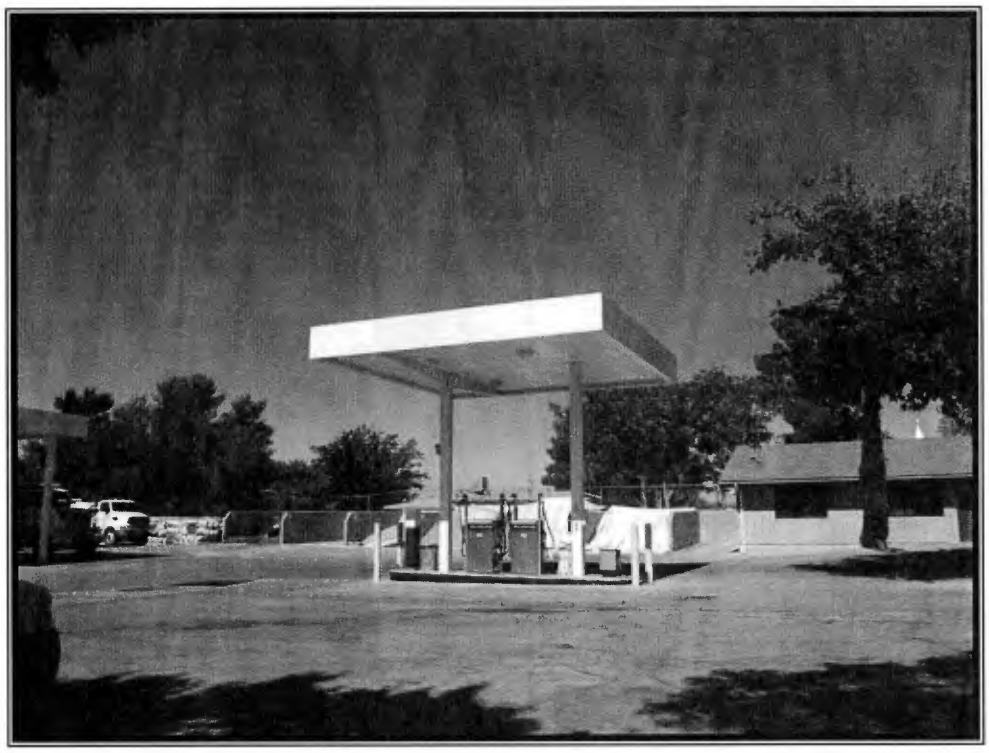
5.4 Estimated ROM Cost

Remove nine lights from Garage A garage B, Office and replace with eight	8 @ $2,500 = $20,000

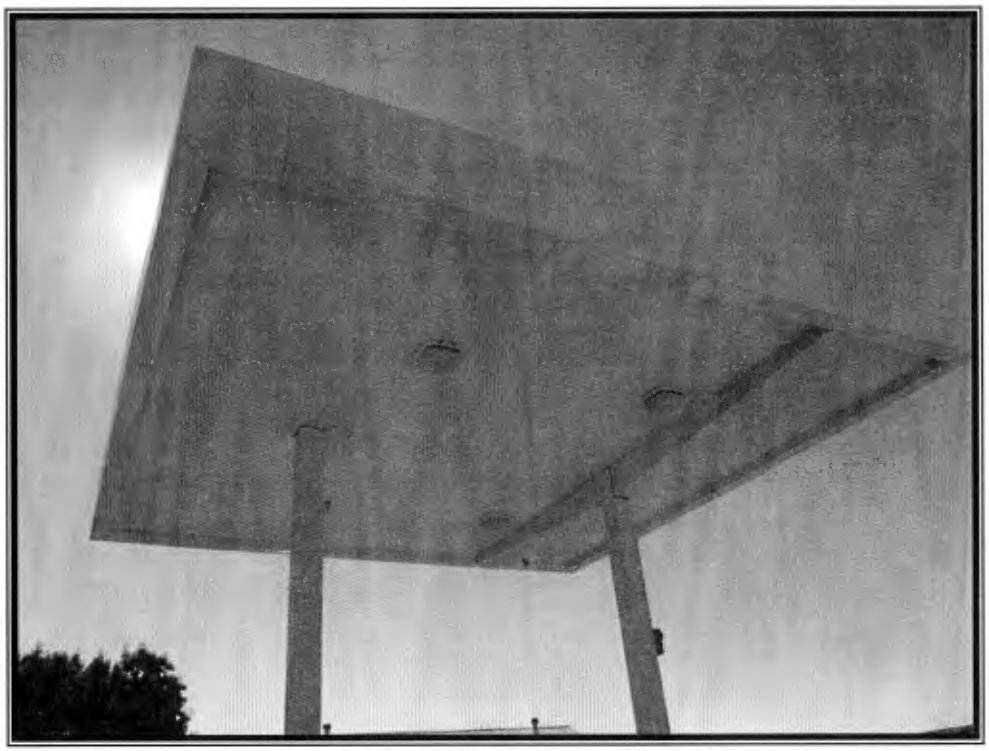
Replace Canopy lights for gas station with wall-mounted full cutoff	2 @ $1,200 = $2,400
Remove pole-mounted light at emulsion tank and replace with wall-mounted full cutoff fixtures	2 @ $1,500 = $3,000
Provide new pole-mounted full cutoff fixtures for parking area	2 @ $3,500 = $ 7,000
Automatic Timer Switches	2 @$1,500 = $ 3,000
Miscellaneous	$ 12,500
Subtotal	**$47,900**
Design Contingency (25%)	$11,975
Subtotal	**$59,875**
Contractor Overhead and Profit (20%)	$11,475
Subtotal	**$71,350**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$17,055
Total	**$88,405**

5.5 Photographs

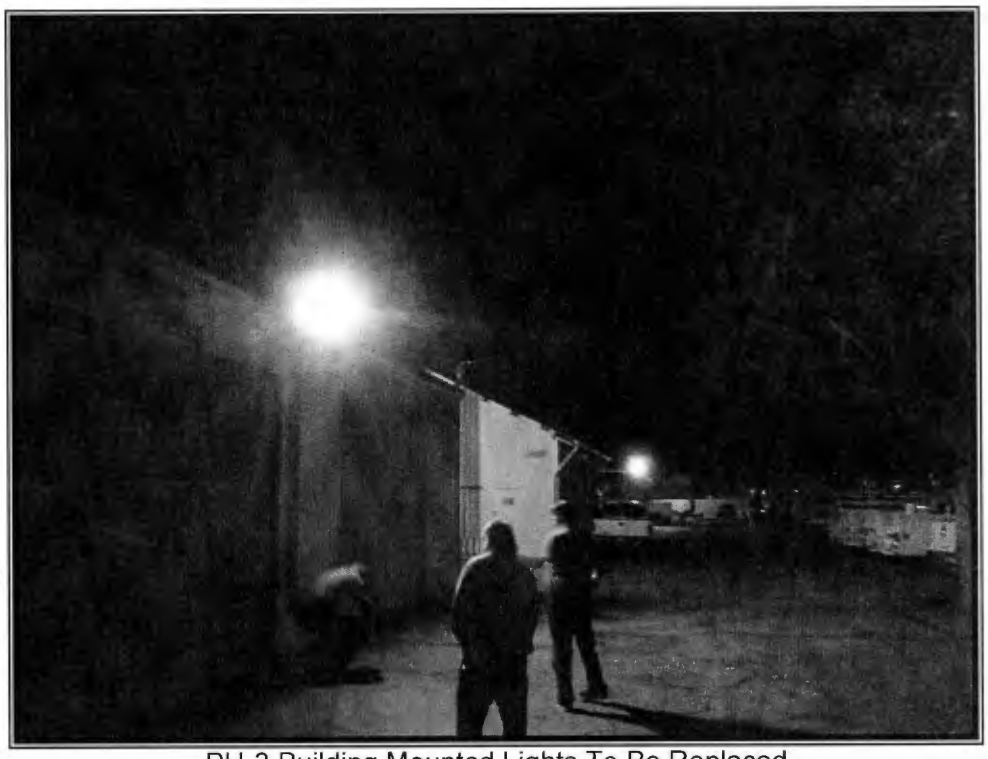
The following photographs were taken during the dates of site visit stated in Section 2.2.



PH-1 Overall Site View



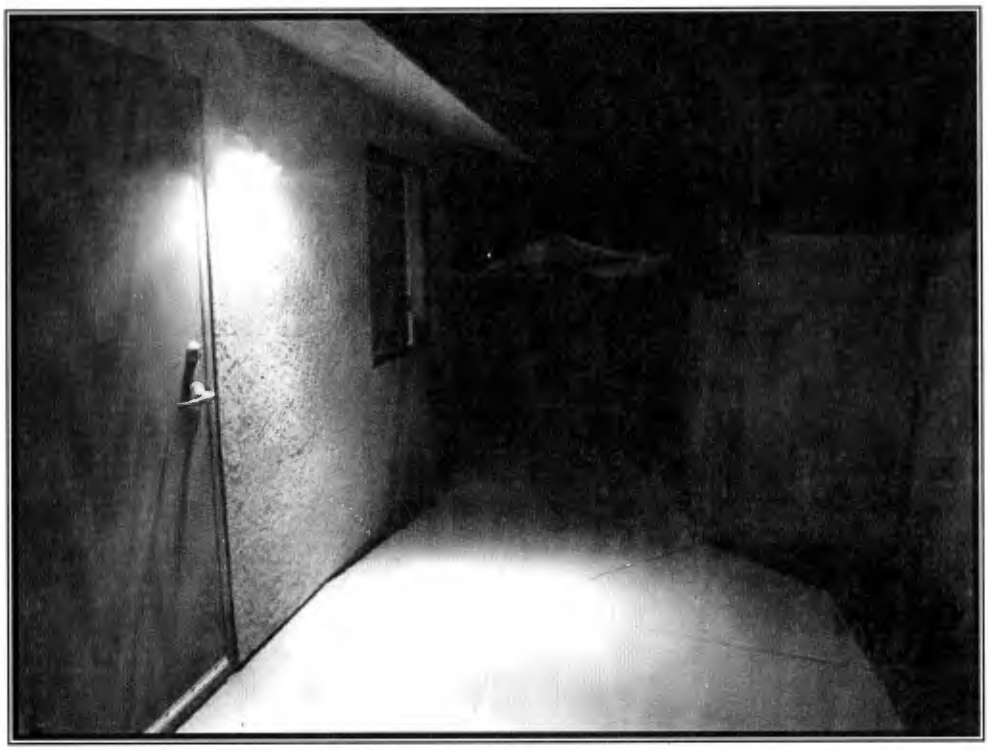
PH-2 Under Canopy Lighting



PH-3 Building Mounted Lights To Be Replaced

PH-4 Light Trespass At North Boundary Fence

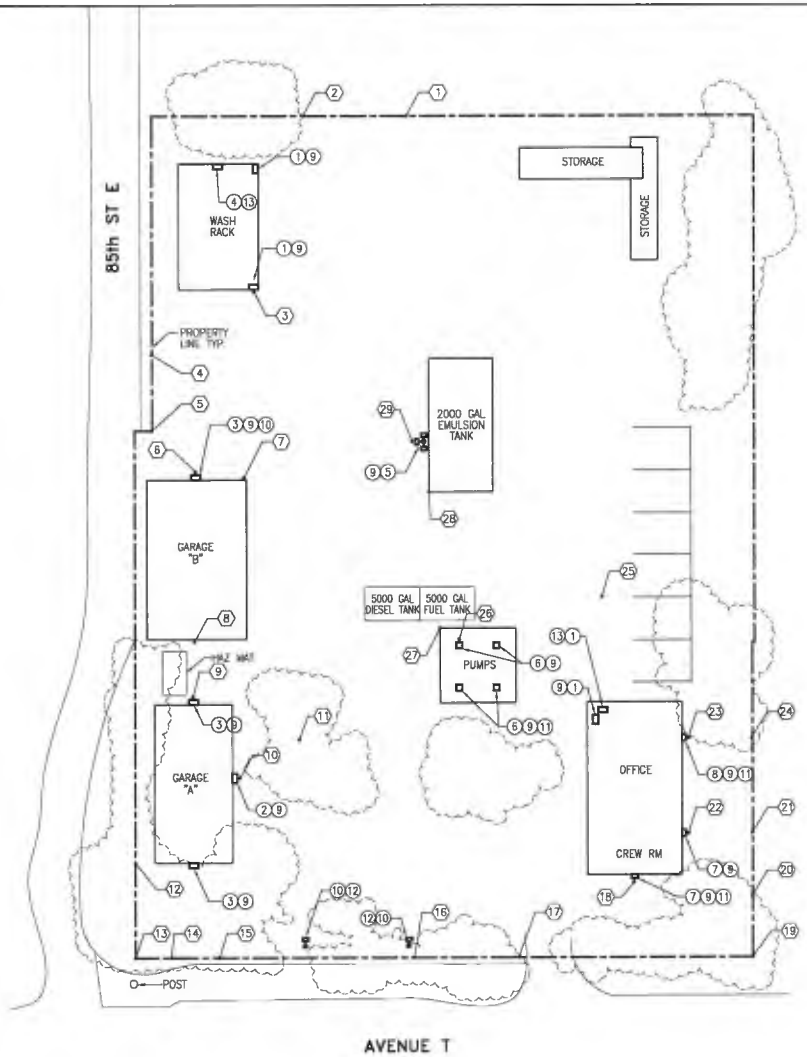
PH-5 Pump Station Lighting At Night



PH-6 Doorway Lighting At Night

5.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN

SCALE: 0 10 20 FEET 40
1" = 40'

EXISTING CONDITION KEYNOTES:

1. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TOP OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 16' - ALL ON PHOTOCELLS.
2. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TOP OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 13' - ALL ON PHOTOCELLS.
3. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 16' - ALL ON PHOTOCELLS.
4. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON THE UNDERSIDE OF BUILDING ROOF, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 14' - ALL ON PHOTOCELLS.
5. (3) THREE 400W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON ONE POLE, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 17' - ALL ON PHOTOCELLS.
6. 100W METAL HALIDE LIGHT SURFACE MOUNTED UNDER THE CANOPY OF PUMP STATION MOUNTED @ 17' - ALL ON PHOTOCELLS.
7. 100W HIGH PRESSURE SODIUM SMALL FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ 8' - ON PHOTOCELLS
8. 100W HIGH PRESSURE SODIUM SMALL FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ 6'-6" - CONTROLLED BY LIGHT SWITCH INSIDE BUILDING.
9. LIGHT FIXTURE TO BE REPLACED.
10. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (11) ARE TO BE ON TIME SWITCH.
11. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (10) ARE TO BE ON TIME SWITCH.
12. PROVIDE NEW FULL CUTOFF LIGHT FIXTURE OF 15' POLE.
13. LIGHT FIXTURE TO BE REMOVED.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

(1) 0.0 FOOT CANDLES.	(11) 0.3 FOOT CANDLES.	(21) 0.5 FOOT CANDLES.
(2) 3.0 FOOT CANDLES.	(12) 0.3 FOOT CANDLES.	(22) 12.7 FOOT CANDLES.
(3) 4.5 FOOT CANDLES.	(13) 0.8 FOOT CANDLES.	(23) 6.4 FOOT CANDLES.
(4) 0.5 FOOT CANDLES.	(14) 0.6 FOOT CANDLES.	(24) 1.4 FOOT CANDLES.
(5) 0.6 FOOT CANDLES.	(15) 0.6 FOOT CANDLES.	(25) 0.3 FOOT CANDLES.
(6) 3.7 FOOT CANDLES.	(16) 0.1 FOOT CANDLES.	(26) 8.2 FOOT CANDLES.
(7) 0.5 FOOT CANDLES.	(17) 0.0 FOOT CANDLES.	(27) 4.8 FOOT CANDLES.
(8) 1.4 FOOT CANDLES.	(18) 10.8 FOOT CANDLES.	(28) 1.1 FOOT CANDLES.
(9) 2.2 FOOT CANDLES.	(19) 0.0 FOOT CANDLES.	(29) 4.7 FOOT CANDLES.
(10) 1.3 FOOT CANDLES.	(20) 0.1 FOOT CANDLES.	

SITE ADDRESS: 8505 East Avenue T, Litterock , CA 93543
SITE SUPERINTENDENT: ANDREW HERNANDEZ – (661) 944-1508
DANNY HAGLE – (661) 476-7036 (CELL)

JC. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
365 NW NESS AVE. SUITE 208
TORRANCE, CA 90501
(310) 212 - 7564
FAX (310) 212 - 5272

JCCA #12671-1

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDMOND No. C41062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 LITTLEROCK

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E3.0

DATE/TIME: 13 Jul 2012, 03:30PM
FILE: Q:\12671-1\12671E3.0.dwg

SECTION 6.0

RD 558A JACKSON LAKE

6.1 Site Description

A. The site Address is:

22201 Big Pines Highway
Wrightwood, CA 92397

The site area is approximately 0.9 acres and is zoned Agricultural – A1. See Section 6.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. Several fixtures were not operational due to burned out lamps or ballasts during site visit, therefore the study of light trespass is based in part on assumed lighting levels if all fixtures were operational.

D. The Jackson Lake site has had three break-ins in a 14 month period, including theft of 850 gallons of fuel, thousands of dollars of tools and a 924 cubic yard hazardous spill response on adjacent federal lands in the Angeles National forest as a result of associated fuel theft. These incidents including cleanup response to the hazardous spill resulted in a total cost of $650,000.

6.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights under the gas station canopy are mounted higher than 15'.

C. Several lights on Garage and Sand Shed buildings are mounted higher than 15'.

D. Portions of the North East property line have lighting levels above 0.5 foot candles.

E. The lighting level at the South property line at the light fixture at the entry gate exceeds 0.5 foot candles.

F. Lights are left on between 10:00 p.m. and sunrise.

6.3 Recommended Modifications

A. Remove all existing fixtures and replace with full cutoff type fixtures. Mounting height shall not exceed 15'.

B. The surface mounted lights under the canopy will be replaced by wall-mounted full cutoff type fixtures mounted to the poles supporting the canopy.

C. Provide one new wall-mounted full cutoff fixture behind the office building.

D. Provide two automatic time switches, one in the garage and one in the office.

E. The automatic time switch will shut off all lights at 10:00 p.m.

F. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors as applicable and will automatically turn off again after one hour.

G. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

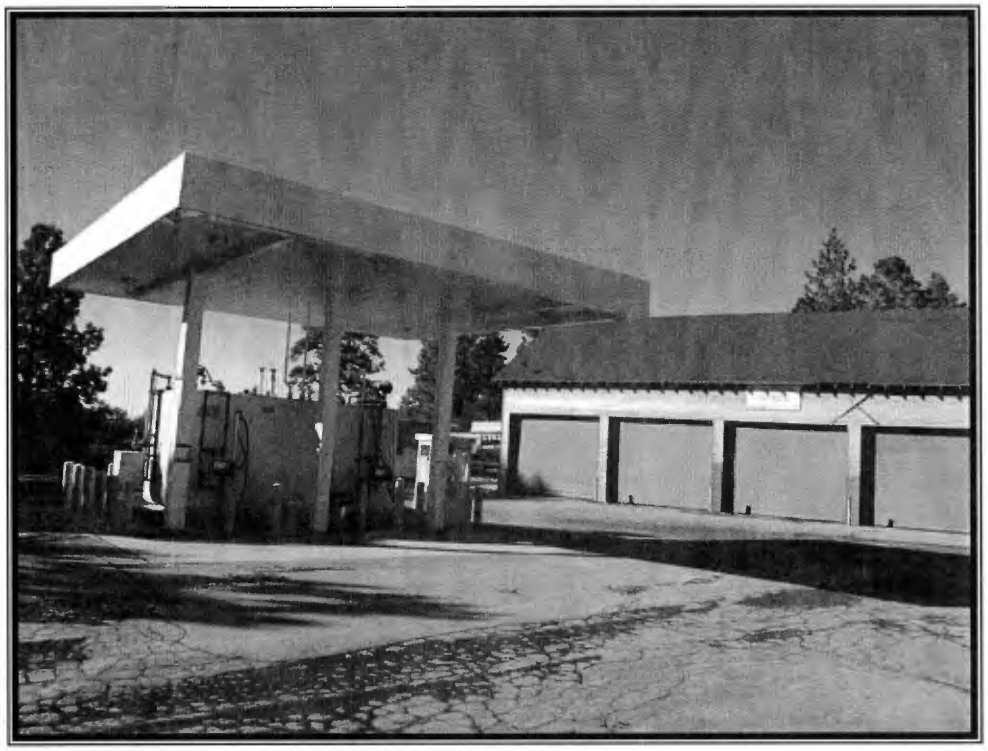
6.4 Estimated ROM Cost

Remove thirteen lights on Garage, Office, Sand Shed and replace with ten	10 @ $2,500 =	$25,000
Provide one new wall-mounted full cutoff fixture behind office	1 @ $1,200 =	$ 1,200
Remove lights at Gas Station Canopy and replace with wall-mounted full cutoff	2 @ $2,500 =	$ 5,000
Automatic Timer Switch	2 @$1,500 =	$ 3,000
Miscellaneous		$ 9,000
Subtotal		**$43,200**
Design Contingency (25%)		$10,800
Subtotal		**$54,000**
Contractor Overhead and Profit (20%)		$10,800
Subtotal		**$64,800**
Soft Costs		
Project Management, Design, Permits, Inspection (30% of total)		$19,440

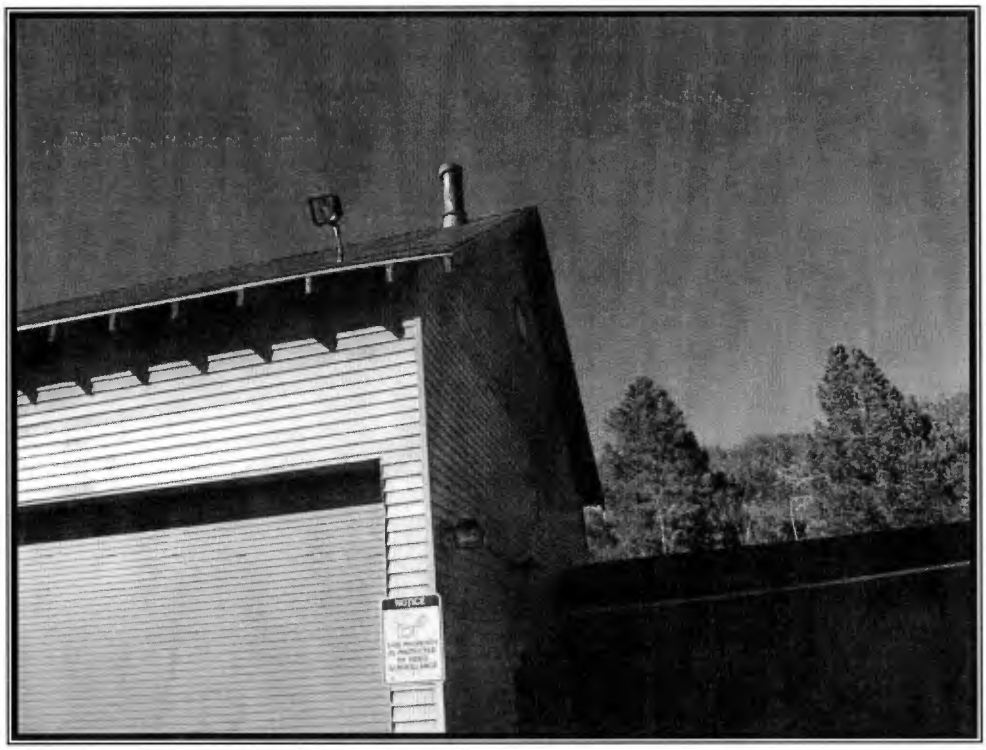
Total	**$84,240**

6.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.



PH-1 Overall Site View



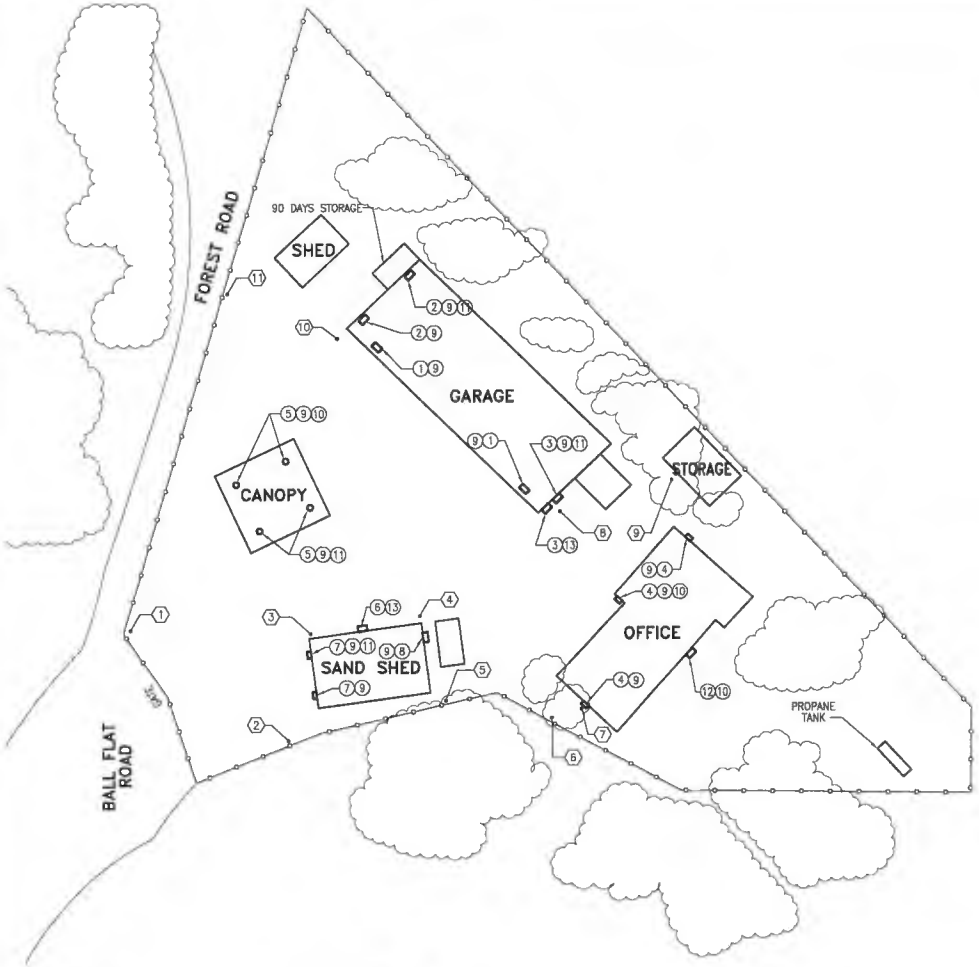
PH-2 Building Mounted Non-Cutoff Floodlights

PH-3 Building Mounted Floodlights At Night

PH-4 Floodlights Mounted Higher Than 15 Feet

6.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN

SCALE: 0 10 20 FEET 40
1" = 40'

N

EXISTING CONDITION KEYNOTES:

1. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TOP OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 18' – ALL ON PHOTOCELLS.
2. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TOP OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 13' – ALL ON PHOTOCELLS.
3. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 9' – ALL ON PHOTOCELLS.
4. 100W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TTO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 7'-6"– ON WALL SWITCH INSIDE BUILDING.
5. 100W METAL HALIDE LIGHT SURFACE MOUNTED UNDER THE CANOPY OF PUMP STATION MOUNTED @ 17' – ALL ON PHOTOCELLS.
6. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 23' – ALL ON PHOTOCELLS.
7. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 16' – ALL ON PHOTOCELLS.
8. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 21' – ALL ON PHOTOCELLS.
9. LIGHT FIXTURE TO BE REPLACED.
10. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (11) ARE TO BE ON TIME SWITCH.
11. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (10) ARE TO BE ON TIME SWITCH.
12. PROVIDE NEW WALL MOUNTED FULL CUTOFF LIGHT FIXTURE 10' POLE.
13. LIGHT FIXTURE TO BE REMOVED.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.0 FOOT CANDLES.
2. 0.1 FOOT CANDLES.
3. 2.2 FOOT CANDLES.
4. 9.4 FOOT CANDLES.
5. 1.2 FOOT CANDLES.
6. 0.0 FOOT CANDLES.
7. 0.4 FOOT CANDLES.
8. 36.1 FOOT CANDLES.
9. 0.0 FOOT CANDLES.
10. 2.4 FOOT CANDLES.
11. 0.1 FOOT CANDLES.

SITE ADDRESS: 22201BIG PINES HIGHWAY,
WRIGHTWOOD, CA, 92397
SITE SUPERINTENDENT: ANDREW HERNANDEZ
DANNY HAGLE – (760) 249-5656

JCC CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
385 VAN NESS AVE, SUITE 208
TORRANCE, CA. 90501 (310) 212 - 7844
FAX (310) 212 - 5272

JCCA #12871-1

REV.	DATE	DESCRIPTION
-		
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. C41062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RD 555A
JACKSON LAKE

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-08-12

SHEET
E4.0

DATE/TIME: 13 Jul 2012 03:38PM
FILE: G:\12871-1\12871E3-0.dwg

SECTION 7.0

RD 556A GORMAN

7.1 Site Description

A. The site Address is:

49560 Gorman Post Road
Gorman, CA 93243

The site area is approximately 1.71 acres and is zoned Watershed – W. See Section 7.6 site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. This facility has had six break-ins within the past 24 months. One incident included theft of 650 gallons of fuel. Therefore site security lighting at night time is very important.

D. There are no adjacent improved properties.

7.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. There are six (6) floodlight fixtures mounted on the garage at approximately 18' above grade.

C. Lights are left on between 10:00 p.m. and sunrise.

7.3 Recommended Modifications

A. All replacement lighting fixtures shall be full cutoff type. Mounting height shall not exceed 15'.

B. Remove six (6) fixtures mounted on the garage and replace with three (3) new fixtures as shown on site plan.

C. Replace fixtures at the storage container and southwest corner of the office will with wall-mounted full cutoff light fixtures.

D. Provide two automatic time switches, one at the garage and one in the office.

E. The automatic time switch will shut off all lights at 10:00 p.m. with the exception of select fixtures which will remain on all night for security as shown on site plan.

F. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensor as applicable and will automatically turn off again after one hour.

G. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

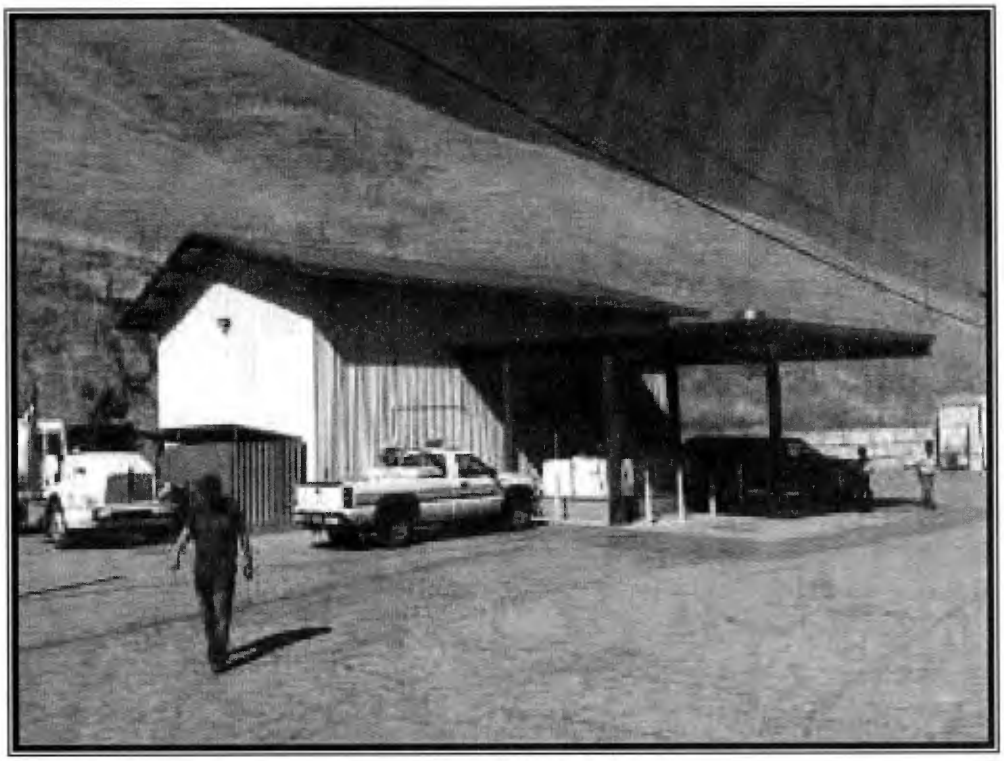
7.4 Estimated ROM Cost

Remove six lights on garage and replace with three	3 @ $2,500 = $7,500
Remove and replace two lights under canopy	2 @ $2,200 = $ 4,400

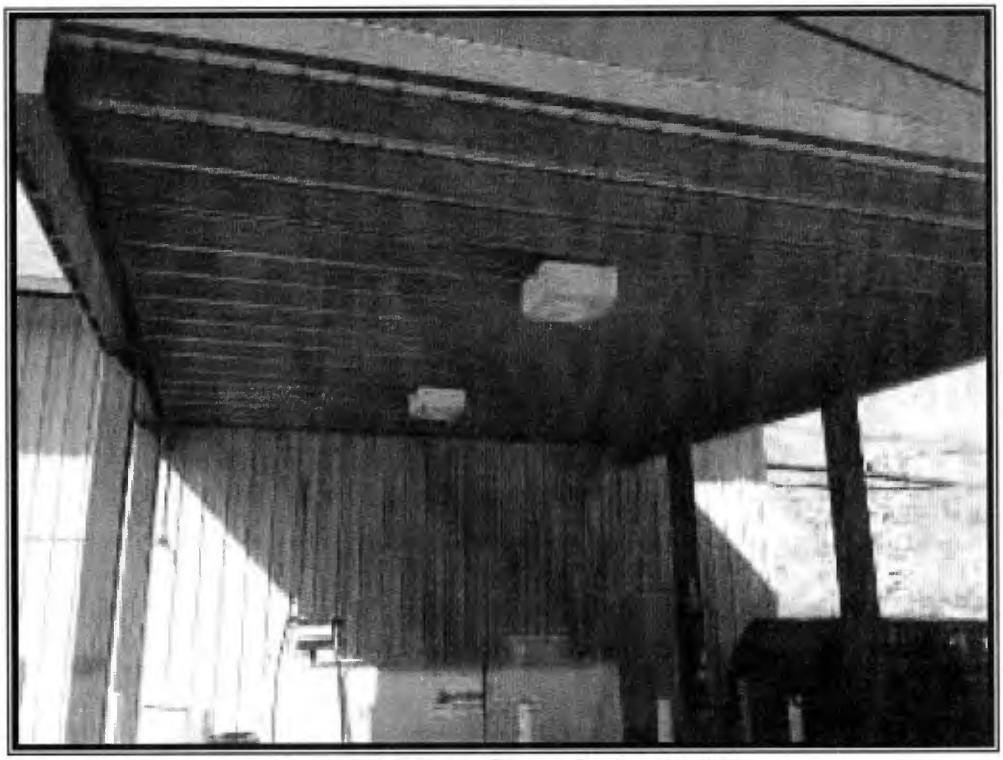
Remove and replace one light on storage container	1 @ $2,200 = $ 2,200
Remove and replace two lights at office	2 @ $1,200 = $ 2,400
Automatic Timer Switch	2 @$1,500 = $ 3,000
Miscellaneous	$ 5,000
Subtotal	**$24,500**
Design Contingency (25%)	$6,125
Subtotal	**$30,625**
Contractor Overhead and Profit (20%)	$6,125
Subtotal	**$36,750**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$11,025
Total	**$47,775**

7.5 Photographs

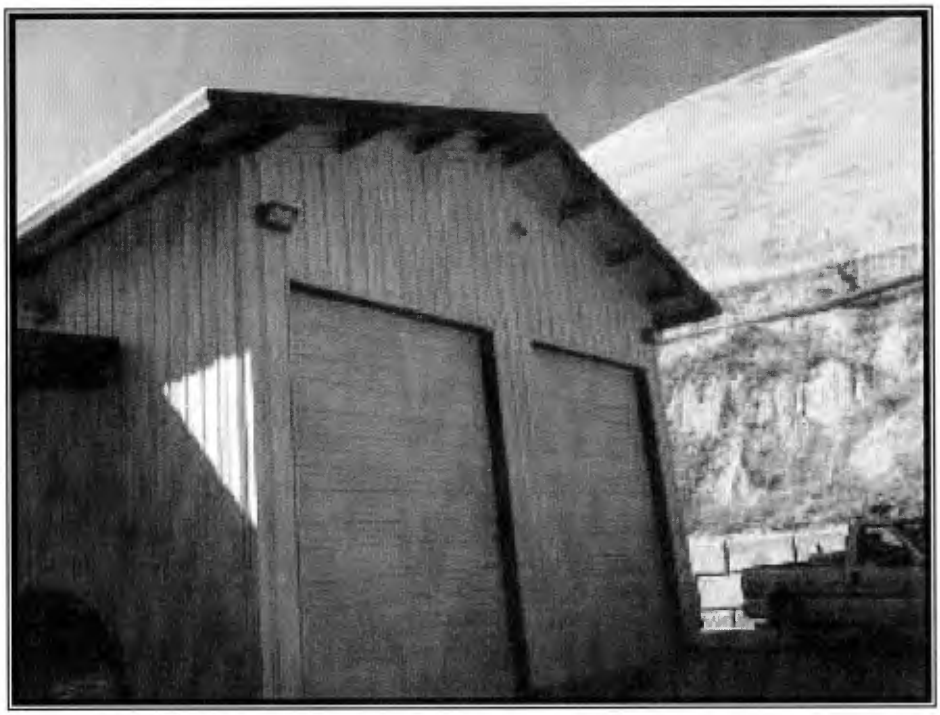
The following photographs were taken during the dates of site visit stated in Section 2.2.



PH-1 Overall Site View

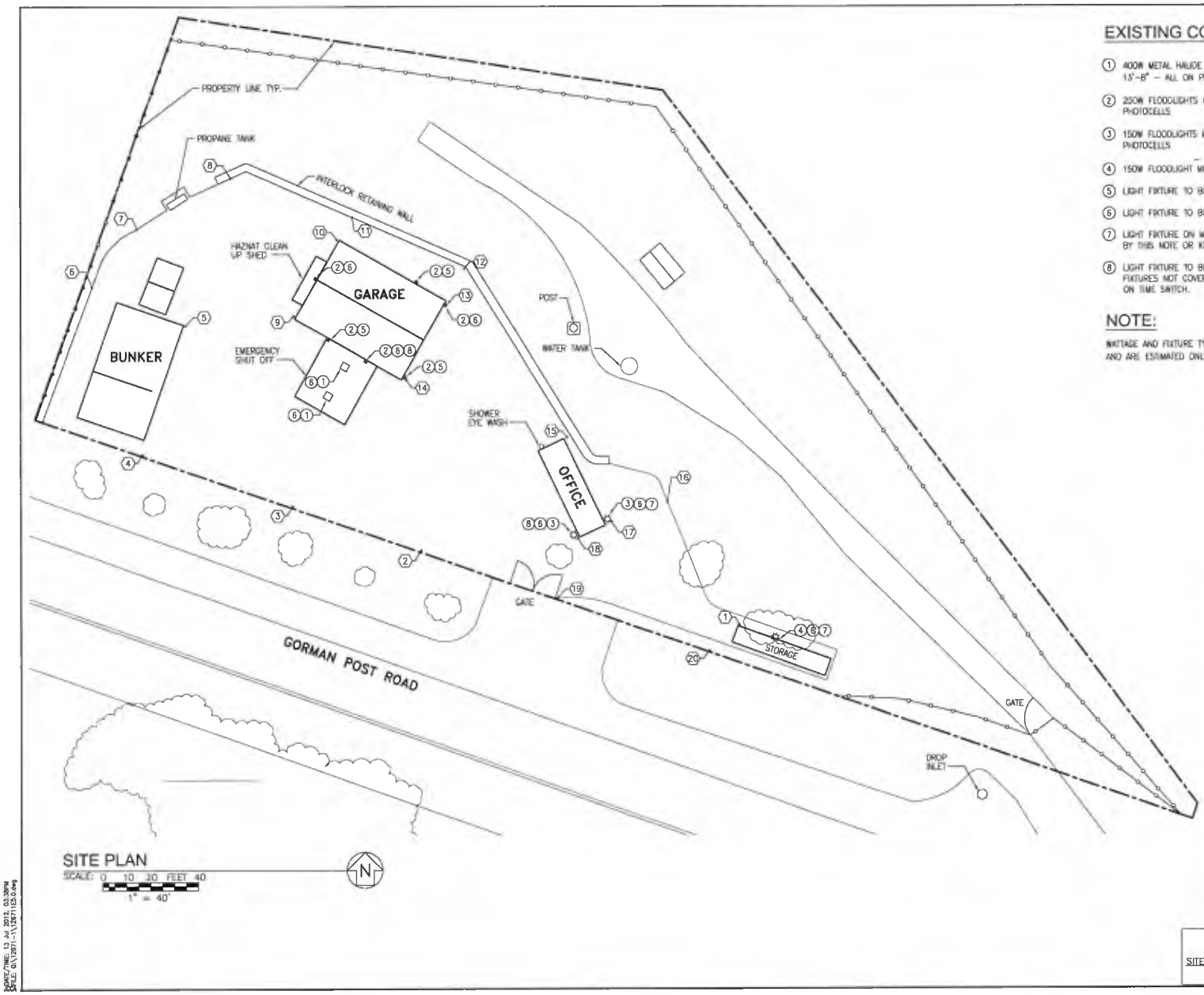


PH-2 Under Canopy Pump Station Lighting



PH-3 Building Mounted Floodlights

PH-4 Building Mounted Floor Light Behind Structure



SITE PLAN

SCALE: 0 10 20 FEET 40
1" = 40'

EXISTING CONDITION KEYNOTES:

1. 400W METAL HALIDE MOUNTED UNDER CANOPY AT APPROXIMATELY 13'-8" – ALL ON PHOTOCELLS
2. 250W FLOODLIGHTS MOUNTED AT APPROXIMATELY 17'-8" – ALL ON PHOTOCELLS
3. 150W FLOODLIGHTS MOUNTED AT APPROXIMATELY 12' – ALL ON PHOTOCELLS
4. 150W FLOODLIGHT MOUNTED AT 8'-4" – ALL ON PHOTOCELLS
5. LIGHT FIXTURE TO BE REMOVED.
6. LIGHT FIXTURE TO BE REPLACED.
7. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (8) ARE TO BE ON TIME SWITCH.
8. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (7) ARE TO BE ON TIME SWITCH.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 2.4 FOOT CANDLES.
2. 0.0 FOOT CANDLES.
3. 0.0 FOOT CANDLES.
4. 0.0 FOOT CANDLES.
5. 0.1 FOOT CANDLES.
6. 0.0 FOOT CANDLES.
7. 0.1 FOOT CANDLES.
8. 0.1 FOOT CANDLES.
9. 2.3 FOOT CANDLES.
10. 1.0 FOOT CANDLES.
11. 0.2 FOOT CANDLES.
12. 0.2 FOOT CANDLES.
13. 1.1 FOOT CANDLES.
14. 2.6 FOOT CANDLES.
15. 0.0 FOOT CANDLES.
16. 0.9 FOOT CANDLES.
17. 10.3 FOOT CANDLES.
18. 2.7 FOOT CANDLES.
19. 0.2 FOOT CANDLES.
20. 0.0 FOOT CANDLES.

SITE ADDRESS: 49530 GORMAN POST RD, GORMAN, CA, 93243
SITE SUPERINTENDENT: ROBERT HOLMES – (661) 248-0708
HUNTER BRYANT – (661) 476-6886

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
385 VAN NESS AVE. SUITE 208
TORRANCE, CA. 90501
(310) 212 - 7544
FAX (310) 212 - 3212

JCCA #12871-1

NO.	DATE	DESCRIPTION
-		-
-		-
-		-
-		-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. C41082 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RO 559A GORMAN

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E5.0

DATE/TIME: 13 Jul 2012 03:38PM
FILE: G:\12871-1\12871E5.0.dwg

7.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.

SECTION 8.0

RD 559 SAN FRANCISQUITO CANYON ROAD

8.1 Site Description

A. The site Address is:

49560 Gorman Post Road
Gorman, CA 93243

The site area is approximately 1.71 acres and is zoned Watershed – W. See Section 7.6 site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. The site is located on federal land and is shared by a California Department of Corrections and Rehabilitation (CDCR) operated Fire Camp. The camp is shown on the site plan. CDCR personnel noted that pole-mounted lighting near the east side of camp were beneficial to their security.

D. The lighting levels at the camp are governed by security requirements. Since this is operated by the CDCR, it is part of the scope of this project.

C. Site is surrounded by the Angeles National Forrest and there are no adjacent improved properties.

8.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights on the poles are mounted higher than 15'.

C. Lights are left on between 10:00 p.m. and sunrise.

8.3 Recommended Modifications

A. There are (3) three light fixtures mounted on each of the (2) two existing poles. One (1) fixture on each of the two (2) poles, which face east to illuminate the CDCR camp perimeter, will remain in place and continue to be controlled by photocell. Replace the other two fixtures on each pole shall be removed and replaced with fuel cutoff fixtures mounted at not-to-exceed 15' to the top of the fixture.

B. light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

8.4 Estimated ROM Cost

A. Ordinance Compliance

Remove and replace four four pole mounted lights	4 @$2,200 =	$ 8,800
Automatic Timer Switches	2 @ $2,500 =	$ 5,000
Miscellaneous		$ 5,000
Subtotal		**$ 18,800**

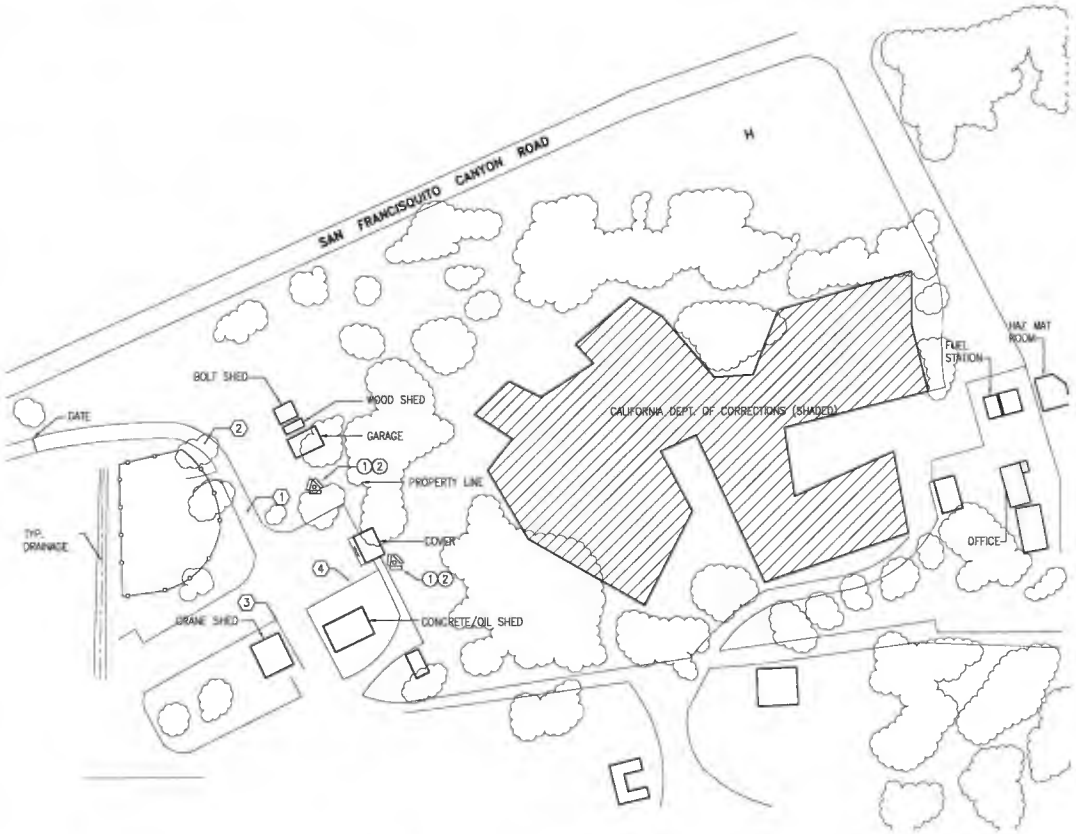
Design Contingency (25%)	$ 4,700
Subtotal	**$ 23,500**
Contractor Overhead and Profit (20%)	$ 4,700
Subtotal	**$ 28,200**
Soft Costs:	
Project Management, Design, Permits, Inspection (30% of total)	$ 8,460
Total	**$ 36,660**

8.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 Breakers Feeding Pole Mounted Floodlighting

PH-2 Pole Mounted Floodlights



SITE PLAN

SCALE: 0 75 150 300 FEET 600
1" = 600'

N

EXISTING CONDITION KEYNOTES:

1. (3) 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 36'± ALL THREE INDIVIDUALLY CONTROLLED BY PHOTO -CELL.
2. (1) FLOODLIGHT FACING CDCR CAMP TO THE EAST SHALL REMAIN. REPLACE (2) OTHER LIGHT FIXTURES WITH FULL CUTOFF TYPE AND LOWER MOUNTING HEIGHT TO 15'. ALL FIXTURES SHALL BE LEFT ON AT NIGHT.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.3 FOOT CANDLES.
2. 0.1 FOOT CANDLES.
3. 0.0 FOOT CANDLES.
4. 0.3 FOOT CANDLES.

SITE ADDRESS: 31100 SAN FRANCISQUITO CANYON RD, SAUGUS, CA, 91390
SITE SUPERINTENDENT: BRITT BRASSEAL (661) 296-1390
STEVE SMOTHERMAN (661) 476-7039

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
305 VIA NICES AVE. SUITE 208
TORRANCE, CA. 90501 (310) 212 - 7844
FAX (310) 212 - 5272

JCCA #12671-1

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGER DESIGN DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. C41082 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 559
SAN FRANCISQUITO CANYON RD

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E6.0

DATE/TIME: 13 Jul 2012, 03:38PM
FILE: G:\12671-1\12671ES0.dwg

8.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.

SECTION 9.0

RD 559A MOUNT WILSON

9.1 Site Description

A. The site Address is:

817 Mt Wilson Road
Mount Wilson, CA 91023

The site area is approximately 4.24 acres and is zoned Watershed – W. See Section 9.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. Site is surrounded by the Federal/National Forest lands by permit and there are no adjacent occupied improvements.

9.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights under the gas station canopy are mounted higher than 15'.

C. Several lights on Garage and Crew Room buildings are mounted higher than 15'.

D. Portions of the North East property line have lighting levels above 0.5 foot candles.

E. A floodlight fixture which is not full cut off is mounted on top of canopy and used to illuminate the site flag.

F. Some lights are left on between 10:00 p.m. and sunrise.

9.3 Recommended Modifications

A. Remove all existing fixtures and replace with full cutoff type fixtures. Mounting height shall not exceed 15'.

B. The surface mounted lights under the canopy will be replaced by wall-mounted full cutoff type fixtures mounted to the poles supporting the canopy.

C. Replace the pole-mounted floodlight fixture at gate entrance with a full cutoff type.

D. Provide additional wall-mounted full cutoff fixture behind the house.

E. Provide two automatic time switches, one in the garage and one in the house.

F. The automatic time switch will shut off all lights at 10:00 p.m.

G. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensor as applicable and will automatically turn off again after one hour.

H. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

G. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

9.4 Estimated ROM Cost

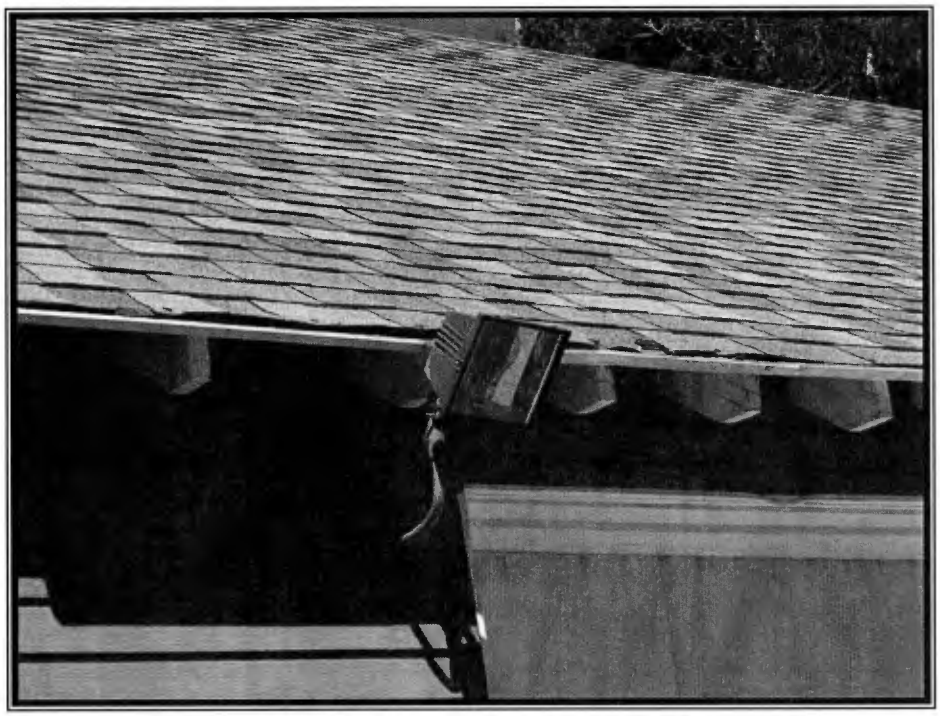
Remove ten lights on Garage, Crew Room, house and replace with ten	10 @ $2,500 = $25,000
Provide one new wall-mounted full cutoff fixture behind house	1 @ $1,200 = $ 1,200
Replace pole-mounted floodlight fixture at gate with full cutoff	1 @ $2,500 = $ 2,500
Remove lights at Gas Station Canopy and replace with wall-mounted full cutoff	2 @ $2,500 = $ 5,000
Automatic Timer Switch	2 @$1,500 = $ 3,000
Miscellaneous	$ 10,500
Subtotal	**$47,200**
Design Contingency (25%)	$11,800
Subtotal	**$59,000**
Contractor Overhead and Profit (20%)	$11,800
Subtotal	**$70,800**

Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$21,240
Total	**$92,040**

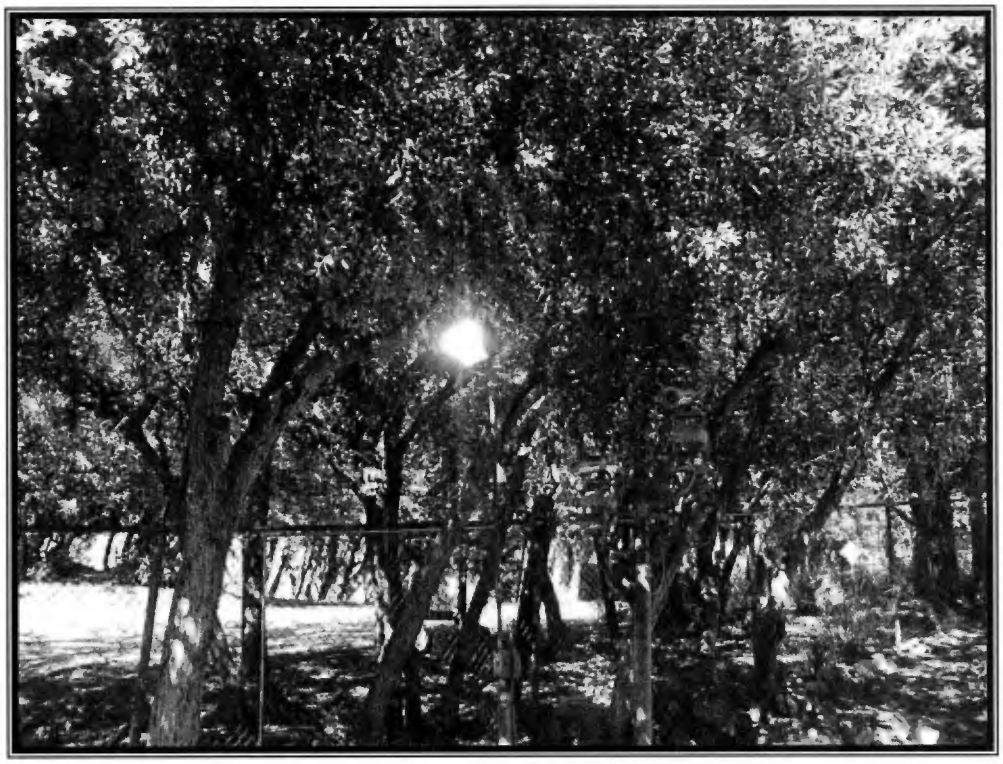
9.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 Overall Site View



PH-2 Building Mounted Floodlight



PH-3 Floodlight At Entry Gate

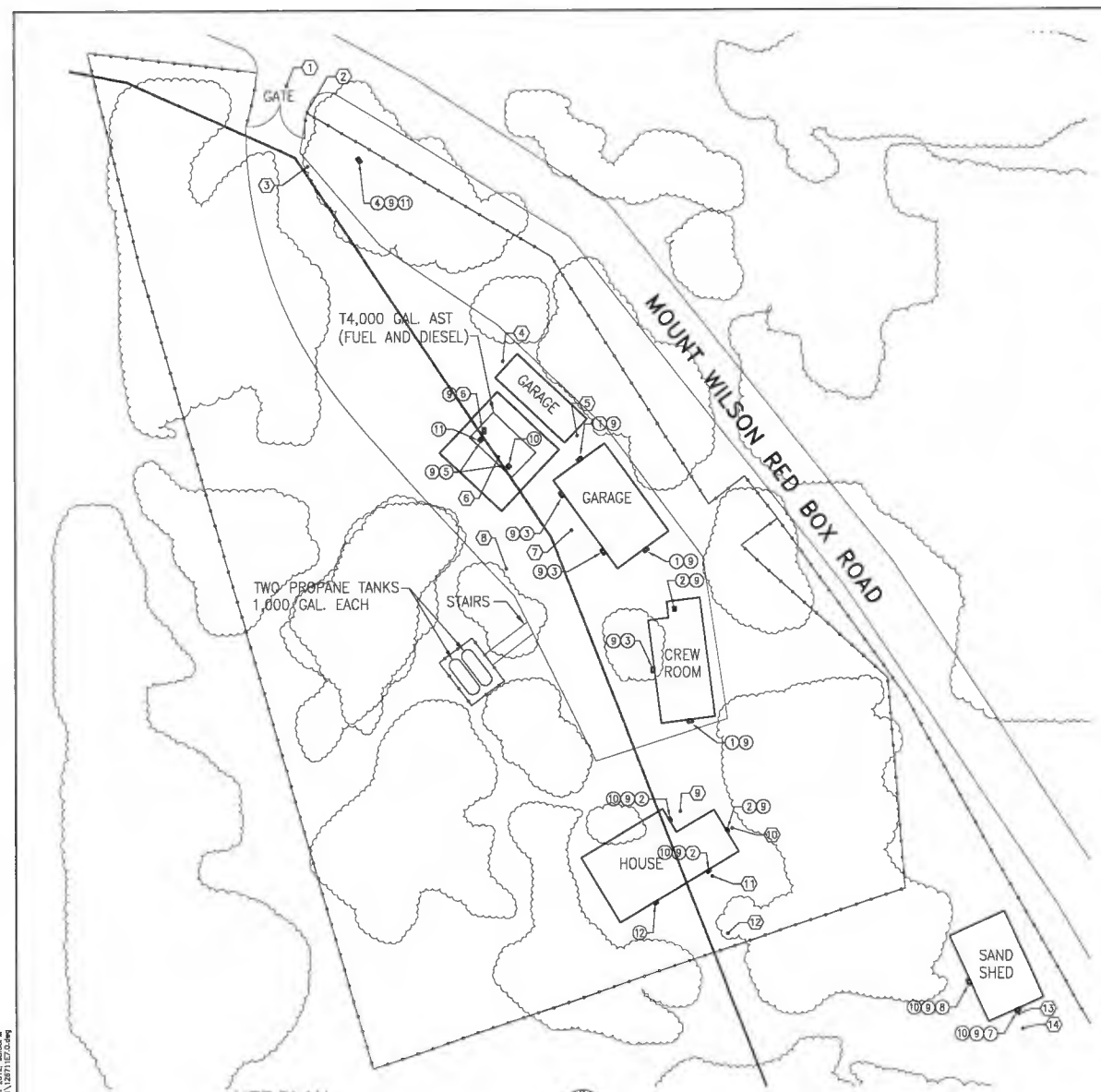
PH-4 Entry Gate Floodlight At Night

PH-5 Overall Site At Night

PH-6 Non Cutoff Building Mounted Fixture At Night

9.6 Site Plan

The following photographs were taken during the dates of site visit stated in Section 2.2.



SITE PLAN

SCALE: 0 12.5 25 FEET 50

1" = 50'

EXISTING CONDITION KEYNOTES:

1. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 16'-6" - ALL ON PHOTOCELLS.
2. 100W HIGH PRESSURE SODIUM SMALL DUAL FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 10'-3"- ON - ALL ON PHOTOCELLS
3. 100W HIGH PRESSURE SODIUM SMALL DUAL FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 9'- ON - ALL ON PHOTOCELLS
4. 250W HIGH PRESSURE SODIUM SMALL DUAL FLOODLIGHT MOUNTED ON POLE NEAR ENTRANCE GATE, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 9'- ON - ON MOTION SENSOR
5. 100W METAL HALIDE LIGHT SURFACE MOUNTED UNDER THE CANOPY OF PUMP STATION MOUNTED @ 17' - ALL ON PHOTOCELLS
6. 250W HIGH PRESSURE SODIUM FLOODLIGHT FOR FLAG POLE MOUNTED ON TOP OF THE PUMP STATION CANOPY @ 18' - ON PHOTOCELL
7. 250W METAL HALIDE FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 16'-6" - ALL ON PHOTOCELLS.
8. 250W METAL HALIDE FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 24' - ALL ON PHOTOCELLS.
9. LIGHT FIXTURE TO BE REPLACED.
10. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (11) ARE TO BE ON TIME SWITCH.
11. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (10) ARE TO BE ON TIME SWITCH.
12. PROVIDE NEW WALL MOUNTED FULL CUTOFF LIGHT FIXTURE AT 10'.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 2.6 FOOT CANDLES.
2. 1.9 FOOT CANDLES.
3. 8.4 FOOT CANDLES.
4. 14.6 FOOT CANDLES.
5. 9.6 FOOT CANDLES.
6. 4.3 FOOT CANDLES.
7. 3.6 FOOT CANDLES.
8. 5.6 FOOT CANDLES.
9. 6.6 FOOT CANDLES.
10. 2.9 FOOT CANDLES.
11. 5.2 FOOT CANDLES.
12. 1.1 FOOT CANDLES.
13. 3.0 FOOT CANDLES.
14. 1.7 FOOT CANDLES.

SITE ADDRESS: 817 MT WILSON ROAD,
MOUNT WILSON, CA, 91023
SITE SUPERINTENDENT: BRITT BRASSEAL - (626) 440-1131
TODD SMITH - (661) 476-7038 (CELL)

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
385 VAN NESS AVE, SUITE 208
TORRANCE, CA. 90501
(310) 212 - 7944
FAX (310) 212 - 5972

JCCA #12671-1

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
DISTRICT OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. C41082 Exp. 6/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RD 555A MT. WILSON

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E7.0

SAVED: (ONE) 13 Jul 2012 03:36PM
SAVE: (X:\1377-1\1377-1E7.0.dwg)

SECTION 10.0

RD 557A MILL CREEK

10.1 Site Description

A. The site Address is:

27500 Angeles Forest Highway
Palmdale, CA 93550

The site area is approximately 1.46 acres and is zoned Watershed – W. See Section 10.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. None of fixtures were operational due to electrical work being done on this site as a result of the recent fire damage. The conclusion of light trespass is based on the location and type of lighting fixtures observed during the site visit and assumed lighting levels if all fixtures were operational.

D. Site is surrounded by the Federal/National Forest lands by permit and there are no adjacent occupied improvements.

10.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights under the gas station canopy are mounted higher than 15'.

C. Several lights on Garage and House buildings are mounted higher than 15'.

D. Portions of the North property line have lighting levels above 0.5 foot candles.

E. Lights are left on between 10:00 p.m. and sunrise.

10.3 Recommended Modifications

A. Remove all existing fixtures and replace with full cutoff type fixtures. Mounting height shall not exceed 15'.

B. The surface mounted lights under the canopy will be replaced by wall-mounted full cutoff type fixtures mounted to the poles supporting the canopy.

C. Provide two automatic time switches, one in the garage and one in the house.

D. The automatic time switch will shut off all lights at 10:00 p.m.

E. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors as applicable and will automatically turn off again after one hour.

G. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

10.4 Estimated ROM Cost

Remove ten lights on Garage & house and replace with eight	8 @ $2,500 = $20,000
Remove and replace two lights on	

gas station canopy	2 @ $2,500 = $ 5,000
Automatic Timer Switch	2 @$1,500 = $ 3,000
Miscellaneous	$ 8,500
Subtotal	**$36,500**
Design Contingency (25%)	$9,125
Subtotal	**$45,625**
Contractor Overhead and Profit (20%)	$9,125
Subtotal	**$54,750**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$16,425
Total	**$71,175**

10.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2. Please note that the lighting fixture were not operable at the time of visit, therefore night time photos are not available.

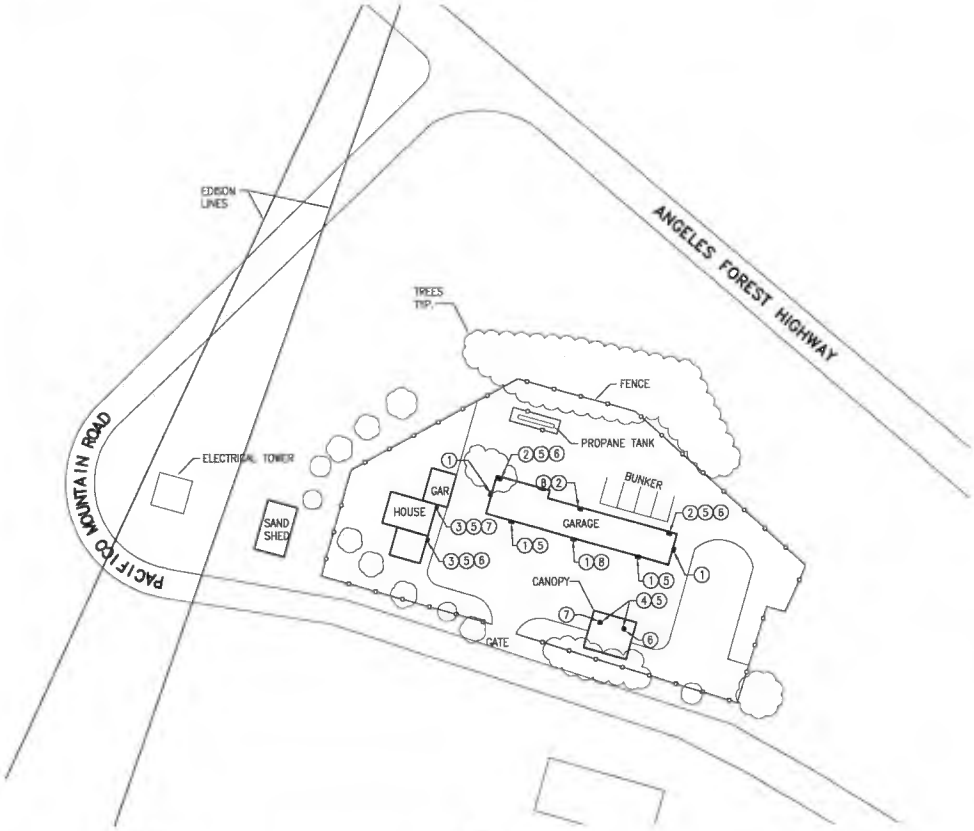
PH-1 Pump Station Canopy

PH-2 Building Mounted Flood Lights

PH-3 Typical Non Cutoff Floodlight

10.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN

SCALE: 0 25 50 FEET 100

1" = 100'

EXISTING CONDITION KEYNOTES:

1. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 17' – ALL ON PHOTOCELLS.
2. 250W HIGH PRESSURE SODIUM DUAL FLOODLIGHT MOUNTED ON THE ROOF OF THE BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 18'-6"– ON – ALL ON PHOTOCELLS
3. 100W HIGH PRESSURE SODIUM SMALL FLOODLIGHT WALL MOUNTED NEAR BUILDING DOOR, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 9'– ON – ALL ON PHOTOCELLS
4. 100W METAL HALIDE LIGHT SURFACE MOUNTED UNDER THE CANOPY OF PUMP STATION MOUNTED @ 17' – ALL ON PHOTOCELLS
5. LIGHT FIXTURE TO BE REPLACED.
6. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (7) ARE TO BE ON TIME SWITCH.
7. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (6) ARE TO BE ON TIME SWITCH.
8. LIGHT FIXTURE TO BE REMOVED.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

DUE TO ON-GOING CONSTRUCTION, NONE OF THE LIGHTING FIXTURES IN THIS FACILITY WERE OPERABLE AT TIME OF VISIT.

SITE ADDRESS: 27500 ANGELES FOREST HWY
PALMDALE 93550
SITE SUPERINTENDENT: PAUL FUNK : (661) 273-3399
PAUL DEARDORFF –(661) 476-7032 (CELL)

JC CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
305 WN NESS AVE, SUITE 208
TORRANCE, CA 90501 (310) 212 – 7554
FAX (310) 212 – 5272

JCCA #12671-1

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. 041062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RD 557A MILL CREEK

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-09-12

SHEET
E8.0

DATE/TIME: 13 Jul 2012 03:38PM
FILE: Q:\12671-1\12671E8.0.dwg

SECTION 11.0
RD 555 LAKE LOS ANGELS

11.1 Site Description

A. The site Address is:

17341 East Avenue J
Lancaster, CA 93535

The site area is approximately 0.42 acres and is zoned Agricultural – A1. See Section 11.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. This site has been broken into twice in 4 years, including loss of air conditioning unit for office and theft of skid steer loader.

D. There are no improved properties within a quarter of a mile.

11.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights under the gas station canopies and on the South Side of the garage are mounted higher than 15'.

C. Majority of flood lights mounted on to Garage and Office building as well as to the posts of the Wash Rack canopy are mounted higher than 15'.

D. Portions of both the North and South property lines have lighting levels above 0.5 foot candles.

E. Lights are left on between 10:00 p.m. and sunrise.

11.3 Recommended Modifications

A. Remove all existing fixtures for Garage and Office building and replace with full cutoff type fixtures. Mounting height shall not exceed 15'.

B. The surface mounted lights under the canopy will be replaced by wall-mounted full cutoff type fixtures mounted to the poles supporting the canopy. Similarly, wall-mounted full cutoff type fixtures will be provided for the emulsion tank area.

C. Replace the existing pole-mounted floodlight fixtures at the Southern gate with full cutoff type fixtures. Mounting height shall not exceed 15'.

D. Remove all existing fixtures for Wash Rack canopy and replace with one pendant mounted full cutoff fixture. Mounting height shall not exceed 15'.

E. Provide one automatic time switches in the garage.

F. The automatic time switch will shut off all lights at 10:00 p.m.

G. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors as applicable and will automatically turn off again after one hour.

H. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

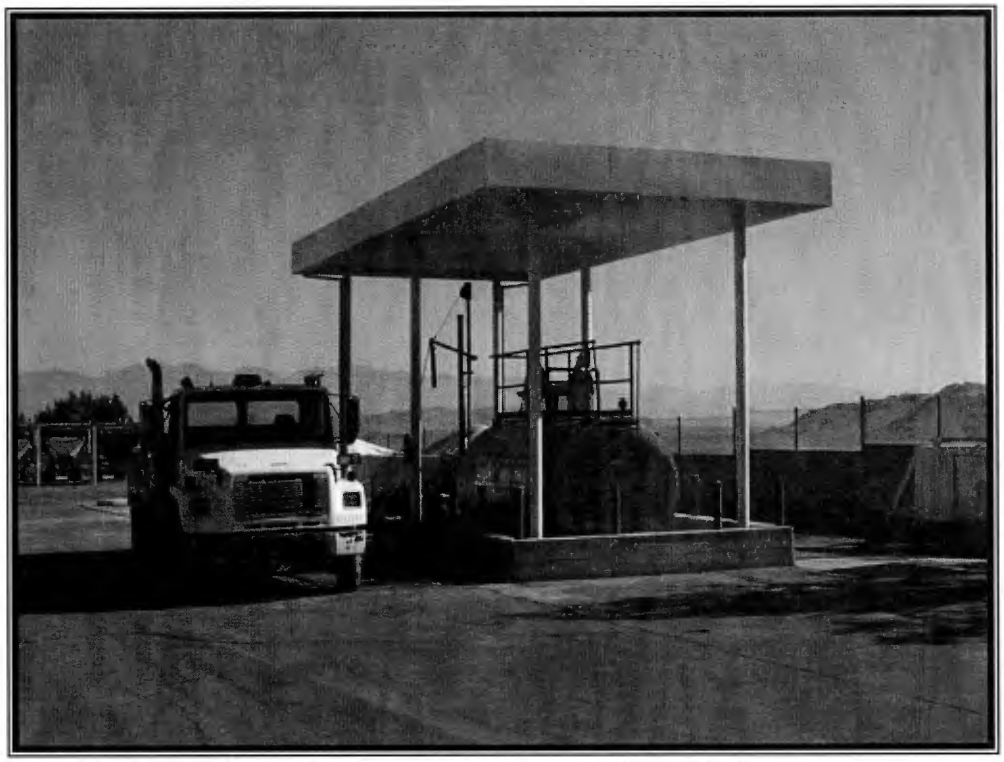
11.4 Estimated ROM Cost

Remove nine lights on Garage and replace with six	6 @ $2,500 =	$15,000
Remove and replace four lights on Gas Station and Emulsion Tank Canopy	4 @ $2,500 =	$ 10,000
Remove and replace pole-mounted floodlights with full cutoff fixtures	2 @ $2,500 =	$ 5,000
Automatic Timer Switch	1 @$1,500 =	$ 1,500
Miscellaneous		$ 10,500
Subtotal		**$42,000**
Design Contingency (25%)		$10,500
Subtotal		**$52,500**
Contractor Overhead and Profit (20%)		$10,500
Subtotal		**$63,000**
Soft Costs		
Project Management, Design, Permits, Inspection (30% of total)		$18,900

Total	**$54,900**

11.5 Photographs

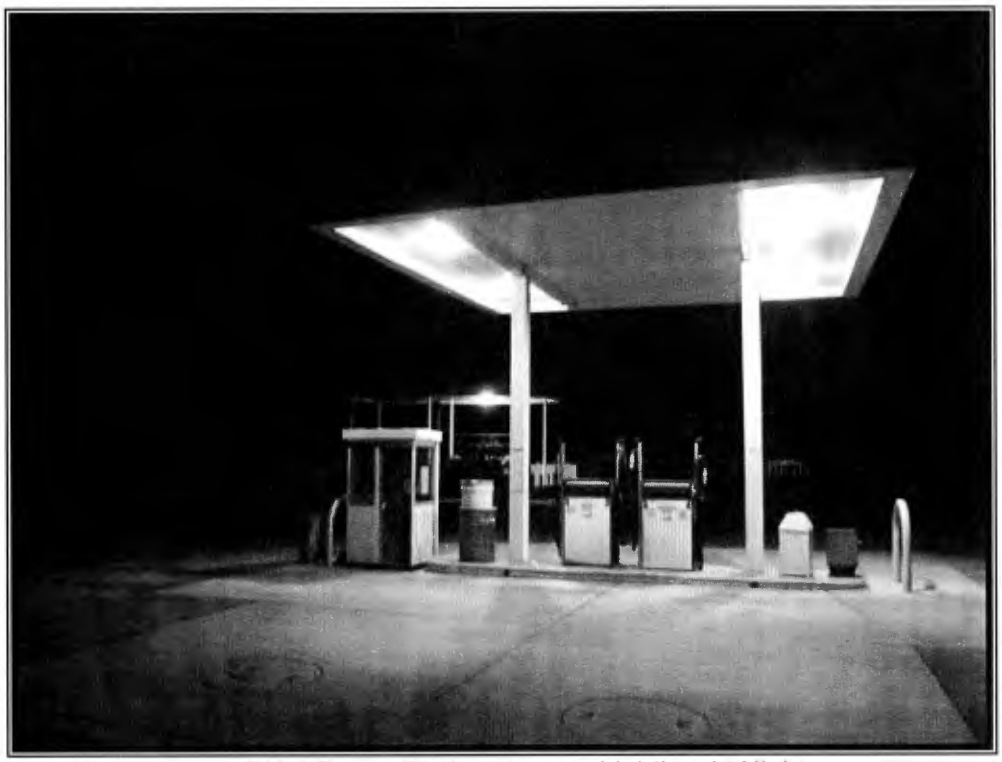
The following photographs were taken during the dates of site visit stated in Section 2.2.



PH-1 Under Canopy Lighting At Pump Station

PH-2 Floodlighting Under Wash Rack Canopy

PH-3 Pole Mounted Floodlights



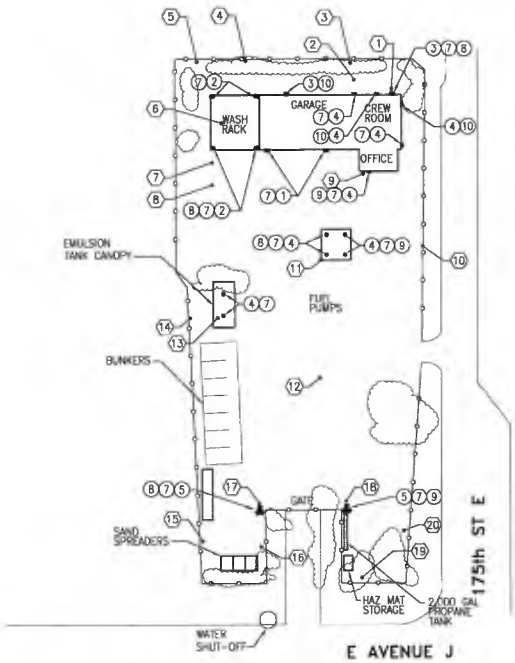
PH-4 Pump Station Canopy Lighting At Night

PH-5 Non Cutoff Building Lighting At Night

PH-6 Light Trespass At North Boundary Fence

11.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN

SCALE: 0 25 50 FEET 100

1" = 100'

N

EXISTING CONDITION KEYNOTES:

1. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 24' – ALL ON PHOTOCELLS.
2. 400W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED UNDER THE CANOPY OF WASH RACK AREA, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 24' – ALL ON PHOTOCELLS.
3. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 14'-6" – ALL ON PHOTOCELLS.
4. 100W HIGH PRESSURE SODIUM WALLPACK MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 9'– ALL ON PHOTOCELLS.
5. (3) THREE 400W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON ONE POLE, NOT CUT-OFF TYPE, MOUNTED @ APPROXIMATELY 17' – ALL ON PHOTOCELLS.
6. 100W METAL HALIDE LIGHT SURFACE MOUNTED UNDER THE CANOPY OF PUMP STATION MOUNTED @ 17'-6" – ALL ON PHOTOCELLS.
7. LIGHT FIXTURE TO BE REPLACED.
8. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (9) ARE TO BE ON TIME SWITCH.
9. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (8) ARE TO BE ON TIME SWITCH.
10. LIGHT FIXTURE TO BE REMOVED.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 9.1 FOOT CANDLES.
2. 8.9 FOOT CANDLES.
3. 0.1 FOOT CANDLES.
4. 0.4 FOOT CANDLES.
5. 0.3 FOOT CANDLES.
6. 6.0 FOOT CANDLES.
7. 0.3 FOOT CANDLES.
8. 0.1 FOOT CANDLES.
9. 2.4 FOOT CANDLES.
10. 0.1 FOOT CANDLES.
11. 8.8 FOOT CANDLES.
12. 0.1 FOOT CANDLES.
13. 6.2 FOOT CANDLES.
14. 1.2 FOOT CANDLES.
15. 0.7 FOOT CANDLES.
16. 1.2 FOOT CANDLES.
17. 4.3 FOOT CANDLES.
18. 12.4 FOOT CANDLES.
19. 0.5 FOOT CANDLES.
20. 0.7 FOOT CANDLES.

SITE ADDRESS: 17341 EAST AVENUE J
LANCASTER, 98536

SITE SUPERINTENDENT: SUPERINTENDENT DALE BROWN
DON BEGINES (CELL) – (661) 607-8772

J.G. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
385 VAN NESS AVE, SUITE 208
TORRANCE, CA. 90501 (310) 212 – 7644
FAX (310) 212 – 5272

JCCA #12671-1

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT ENGINEER DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDMOND No. 041062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 555
LAKE LOS ANGELES

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E9.0

DATE/TIME: 13 Jul 2012, 03:38PM
FILE: Q:\12671-1\12671-1(3.0.dwg

SECTION 12.0

RD 555A LANCASTER

12.1 Site Description

A. The site Address is:

45122 N 70th Street East,
Lancaster, CA 93535

The site area is approximately 0.9 acres and is zoned Agricultural – A2. See Section 12.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. Several fixtures were not operational due to burned out lamps or ballasts during site visit, therefore the study of light trespass is based in part on assumed lighting levels if all fixtures were operational.

12.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. Some lights are left on between 10:00 p.m. and sunrise.

12.3 Recommended Modifications

A. Remove all existing fixtures and replace with full cutoff type fixtures. Mounting height shall not exceed 15'.

B. Provide two automatic time switches, one in each garage.

C. The automatic time switch will shut off all lights at 10:00 p.m.

D. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations by motion sensors as applicable and will automatically turn off again after one hour.

E. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly require a variance as described in section 2.5. See site plan for locations.

12.4 Estimated ROM Cost

Remove six lights on Garages and replace with four	4 @ $2,500 = $10,000
Automatic Time Switch	1 @ $1,500 = $1,500
Miscellaneous	$ 3,500
Subtotal	**$15,000**
Design Contingency (25%)	$3,750
Subtotal	**$18,750**
Contractor Overhead and Profit (20%)	$3,750
Subtotal	**$22,500**

Soft Costs	
Project Management, Design, Permits, Inspection	$8,000
Total	**$30,500**

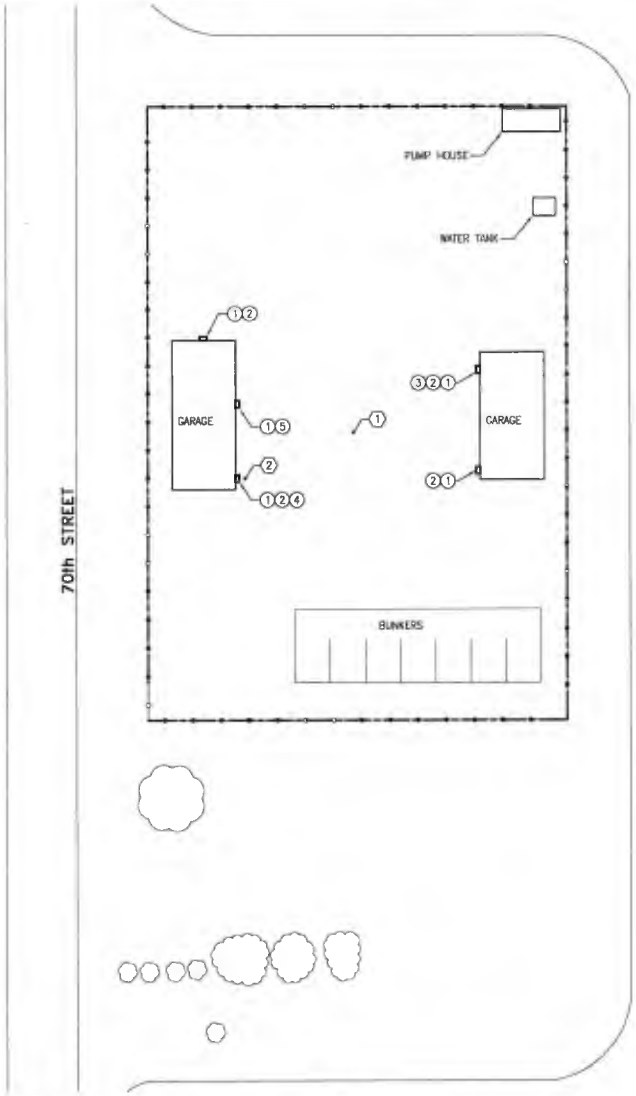
12.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2. Please note that only two floodlights were operational during the time of visit.

PH-1 Building mounted Floodlights

PH-2 Building Mounted Floodlights

PH-3 Building Mounted Floodlight At Night



SITE PLAN

SCALE: 0 25 FEET 50
1" = 50'

EXISTING CONDITION KEYNOTES:

1. 250W HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED ON TO THE SIDE OF BUILDING, NOT CUT-OFF TYPE, WALL MOUNTED @ APPROXIMATELY 12'-6" – ALL ON PHOTOCELLS.
2. LIGHT FIXTURE TO BE REPLACED.
3. LIGHT FIXTURE ON MOTION SENSORS. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (4) ARE TO BE ON TIME SWITCH.
4. LIGHT FIXTURE TO BE LEFT ON OVERNIGHT FOR SITE SECURITY. ALL FIXTURES NOT COVERED BY THIS NOTE OR KEYNOTE (3) ARE TO BE ON TIME SWITCH.
5. LIGHT FIXTURE TO BE REMOVED.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.1 FOOT CANDLES.
2. 2.1 FOOT CANDLES.

SITE ADDRESS: 45112 N 70TH STREET EAST
LANCASTER, 93535
SITE SUPERINTENDENT: DALE BROWN – (661) 727-1526
DON BEGINES – (661) 607-8772 (CELL)

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
365 VAN NESS AVE. SUITE 208
TORRANCE, CA. 90501 (310) 212 – 7544
FAX (310) 212 – 5272

JCCA #12671-1

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT DIVISION DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDMOND No. C41062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD RD555A LANCASTER

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-06-12

SHEET
E10.0

DATE/TIME: 13 JUL 2012, 07:48PM
FILE: G:\12671-1\12671E10.0.dwg

12.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.

SECTION 13.0

NOTES ON ESTIMATED COSTS

A. The proposed new light fixtures are LED. While these have a higher cost to purchase they have several benefits including much longer life (about twice) than other types. They are also much more efficient producing the same light levels for much lower power consumption. This will eliminate the need to upgrade the electrical service at the maintenance yards.

B. The unit costs shown in the cost estimates for each fixture type include labor costs for installation. In the case of pole mounted fixtures they include the pole, arm, fixture, and foundation.

C. Design Contingencies are allowance to account for the preliminary nature of the analysis. It accounts for additional costs from unforeseen conditions such as hazardous materials removal and other hidden costs.

Attachment B

16 July 2012

RURAL OUTDOOR LIGHTING ORDINANCE
VINCENT GRADE / ACTION METROLINK STATION
COST IMPACT ANALYSIS

REPORT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
Architectural Engineering Division
900 South Fremont Avenue
Alhambra, California 91803
Telephone: (626) 458-2566
Facsimile: (626) 979-5311

Prepared by:

J.C. CHANG & ASSOCIATES, INC.
Engineers ▪ Architect ▪ Planners
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Torrance, California 90501
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JCCA 12670-9

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3.4 Estimated ROM Cost 6

4.0 Notes on Estimated Costs 7

Appendices

I. Site Plans

II. Photographs

1.0 EXECUTIVE SUMMARY

The County of Los Angeles is considering adopting a new Rural Outdoor Lighting Ordinance initiated by the Department of Regional Planning. This report evaluates the cost impact on the Department of Public Works (DPW) to upgrade the Vincent Grade / Acton Metrolink Station to comply with the proposed ordinance.

The Vincent Grade / Acton Metrolink station is located in the rural area and therefore impacted by the new ordinance.

While the existing parking area lighting fixtures in Vincent Grade / Acton Metrolink Station are full cut-off types, the total mounting height is 27' (base and pole) and would need to be reduced to 15' to comply with the ordinance. The train platform walkway lighting fixtures are installed on 16' poles at about 15', but they are not full cut-off types. In addition, several surface mounted fluorescent lighting fixtures are installed in the canopy type ceiling of open waiting areas on the platform. Pole-mounted full cut-off lighting fixtures are installed on the road leading to the Metrolink station site are used as street lighting and will not be affected based on the provisions of the ordinance.

Also, current lighting fixture control systems do not comply with the ordinance.

Estimated Rough Order of Magnitude (ROM) Costs:

A.	Vincent Grade / Acton Metrolink Station	**$ 77,025**

2.0 SCOPE OF THE ANALYSIS

2.1 The County of Los Angeles is considering adopting a new Ordinance amending Title 22 of the County Code. The Ordinance will establish a Rural Outdoor Lighting District that will establish guidelines governing outdoor lighting. The main objectives include curtailing light pollution, preventing light trespass onto adjoining properties, promoting dark skies, conserving energy, etc., while permitting reasonable uses of outdoor lighting for night time safety, security, productivity, and enjoyment.

2.2 DPW Vincent Grade / Acton Metrolink Station is located in a rural area and will be affected by the ordinance.

2.3 The scope of this report is to:

A. Review the requirements of the Ordinance and analyze two of the sites to confirm existing installation and changes required to comply with the Ordinance.

B. Provide a rough order of magnitude (ROM) cost estimate to implement the required changes.

C. The Metrolink Station is zoned A1 – Light Agricultural.

2.4 The main provisions of the new Ordinance as it affects the Vincent Grade / Acton Metrolink Station can be summarized as follows:

A. Outdoor lighting fixtures must be fully shielded type (22.44.540 C). That is a light fixture that emits no light in the area above a horizontal plane passing through the lowest point of the fixture and not more than 10 percent of its light in the area between zero and 10 degrees below such horizontal plane. A full cutoff fixture is a fully shielded fixture of a specific design, usually a box or oval shape with a flat bottom.

B. Light trespass measured at the property line must not exceed 0.5 foot-candles where the adjoining property is zoned residential, open space, agricultural or public right-of-way.

For other adjoining zoning the limit is 1.0 foot-candles.

C. The fixture height from ground level to the top of the fixture (22.44.450 D) is limited to:

1. Residential, agricultural, open space and watershed:
20 Feet – except if over 15 feet the fixture lumens is limited to 400. This effectively limits the height to 15 feet, since 400 lumens is an extremely low lighting level (equivalent to a 40-watt incandescent lamp).

D. Outdoor lighting must be turned off between the hours of 10 p.m. and sunrise. There must be an automatic time switch control to turn the lights off. The timer must be capable of separate schedules for weekdays and weekends. (22.44.550)

Exceptions:

1. Where there are night time operations the lights must be turned off within one hour of close of business.
2. Security and operations lighting for public facilities. (22.44.550 C.4.c.).

2.5 The site was visited by JCCA staff (Shay Redmond, Sevag Avanessian) and DPW Senior Electrical Engineer (John Fallon) on Thursday 05/31/2012. Existing conditions were recorded and are shown on the drawings included in Appendix 1. Light level readings were taken after dark and the existing fixture types were noted. The cost estimates herein were prepared based on the input from the lighting consultant and from lighting contractors.

3.0 ~~Lake Hughes Wastewater Treatment Plant~~

3.1 Site Description

A. The site Address is:
730 W Sierra Highway,
Acton, CA 93510

The site area is approximately 0.9 acres. See Appendix I for the site plan.

B. Currently most exterior lights are left on all night for security. All lighting is controlled by a timer located near electrical panels. Some of the existing fixtures are the not cutoff type.

3.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. Pole-mounted lighting fixtures for the parking area are mounted higher than 15'.

B. Pole-mounted lighting fixtures for the train platform walkway are not full cut-off type.

C. Portions of property line have lighting levels above 0.5 foot candles.

F. Lights are left on between 10:00 p.m. and sunrise.

3.3 Recommended Modifications

A. Considering the security function of the parking lot lighting fixtures and the fact that a compliant installation will greatly increase the number of poles and fixtures required to produce the appropriate illumination level and the fact that this is a public facility, it is likely that a variance can be obtained for the parking lot lighting fixtures.

B. The train platform walkway lighting fixtures would need to be modified or replaced by full cut-off type fixtures. Existing poles and circuits will be reused.

C. Program the existing automatic time switches to shut off all lights between the hours of 11:30 p.m. and 3:30 a.m to accommodate the train schedule which begins before sunrise and ends after 10:00 p.m.

D. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

3.4 Estimated ROM Cost

Replace all pole-mounted lights On train platform with full cut-off		22@ $1,500 =	$33,000
Miscellaneous			$ 6,500
	Subtotal		$39,500
Design Contingency (25%)			$9,875
	Subtotal		$49,375
Contractor Overhead and Profit (20%)			$9,875
	Subtotal		$59,250
Soft Costs Project Management, Design, Permits, Inspection (30% of total)			$17,775
	Total		**$77,025**

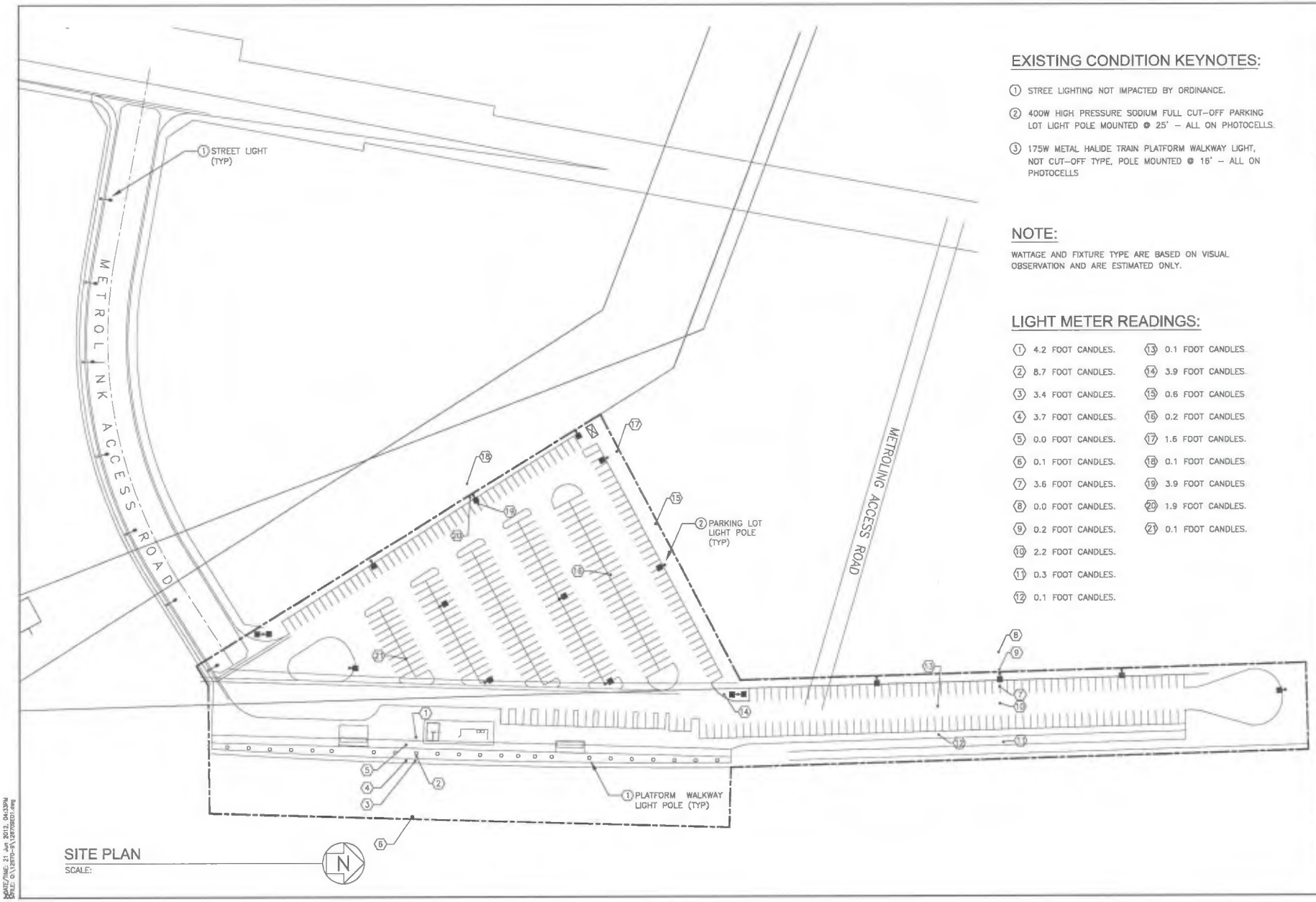
4.0 Notes on Estimated Costs

A. The proposed new light fixtures are LED. While these have a higher cost to purchase they have several benefits including much longer life (about twice) than other types. They are also much more efficient producing the same light levels for much lower power consumption. This will eliminate the need to upgrade the electrical service at the maintenance yards.

B. Design Contingencies are allowance to account for the preliminary nature of the analysis. It accounts for additional costs from unforeseen conditions such as hazardous materials removal and other hidden costs.

APPENDIX I

SITE PLANS



SITE PLAN
SCALE:

EXISTING CONDITION KEYNOTES:

1. STREE LIGHTING NOT IMPACTED BY ORDINANCE.
2. 400W HIGH PRESSURE SODIUM FULL CUT-OFF PARKING LOT LIGHT POLE MOUNTED @ 25' – ALL ON PHOTOCELLS.
3. 175W METAL HALIDE TRAIN PLATFORM WALKWAY LIGHT, NOT CUT-OFF TYPE, POLE MOUNTED @ 16' – ALL ON PHOTOCELLS

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 4.2 FOOT CANDLES.
2. 8.7 FOOT CANDLES.
3. 3.4 FOOT CANDLES.
4. 3.7 FOOT CANDLES.
5. 0.0 FOOT CANDLES.
6. 0.1 FOOT CANDLES.
7. 3.6 FOOT CANDLES.
8. 0.0 FOOT CANDLES.
9. 0.2 FOOT CANDLES.
10. 2.2 FOOT CANDLES.
11. 0.3 FOOT CANDLES.
12. 0.1 FOOT CANDLES.
13. 0.1 FOOT CANDLES.
14. 3.9 FOOT CANDLES.
15. 0.6 FOOT CANDLES.
16. 0.2 FOOT CANDLES.
17. 1.6 FOOT CANDLES.
18. 0.1 FOOT CANDLES.
19. 3.9 FOOT CANDLES.
20. 1.9 FOOT CANDLES.
21. 0.1 FOOT CANDLES.

JC. CHANG & ASSOCIATES, INC.
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305 VAN NESS AVE. SUITE 208
TORRANCE, CA. 90501
(310) 212 - 7844
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FAX
JCCA #12670-1

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGER OF RECORD DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDMOND No. C41082 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: SITE PLAN - RD 339 AGOURA

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE PILOT PROJECT
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 01-11-12

SHEET
E-1

DATE/TIME: 21 Jun 2012, 04:39PM
FILE: G:\12670-01\SITEPLAN.dwg

APPENDIX II

PHOTOGRAPHS

PH - 1: Typical Parking Lot Pole Mounted Fixture

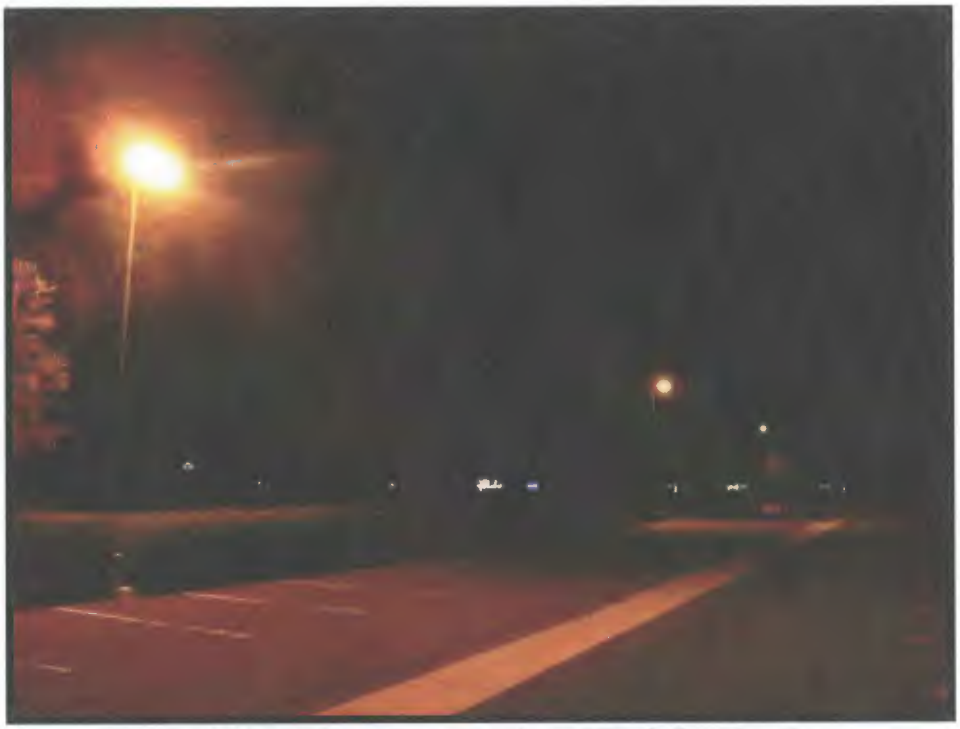
PH - 2: Train Platform Walkway Light Fixtures

PH - 3: All Light Fixtures Are Photo Cell Controlled

PH - 4: Platform Walkway Fixture Are Not Full Cut-off

PH - 5: Non Cut-off Platform Fixture Requiring Replacement

PH - 6: Night Time Photo Of Parking Lot Illumination



PH - 7: Night Time Illumination of Back Parking Lot

PH - 8: Platform Walkway Illumination At Night Time

Attachment C

17 July 2012

RURAL OUTDOOR LIGHTING ORDINANCE
COUNTY DAMS
COST IMPACT ANALYSIS

REPORT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
Architectural Engineering Division
900 South Fremont Avenue
Alhambra, California 91803
Telephone: (626) 458-2566
Facsimile: (626) 979-5311

Prepared by:

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JCCA 12671-2

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- 3.2 Non-compliance with Proposed Ordinance
- 3.3 Recommended Modifications
- 3.4 Estimated ROM Cost
- 3.5 Photographs
- 3.6 Site Plan

4.0 Cogswell

- 4.1 Site Description
- 4.2 Non-compliance with Proposed Ordinance
- 4.3 Recommended Modifications
- 4.4 Estimated ROM Cost
- 4.5 Photographs
- 4.6 Site Plan

5.0 San Dimas

- 5.1 Site Description
- 5.2 Non-compliance with Proposed Ordinance
- 5.3 Recommended Modifications

5.4 Estimated ROM Cost

5.5 Photographs

5.6 Site Plan

6.0 Morris

6.1 Site Description

6.2 Non-compliance with Proposed Ordinance

6.3 Recommended Modifications

6.4 Estimated ROM Cost

6.5 Photographs

6.6 Site Plan

7.0 Pacoima

7.1 Site Description

7.2 Non-compliance with Proposed Ordinance

7.3 Recommended Modifications

7.4 Estimated ROM Cost

7.5 Photographs

7.6 Site Plan

8.0 Big Tujunga Canyon

8.1 Site Description

8.2 Non-compliance with Proposed Ordinance

8.3 Recommended Modifications

8.4 Estimated ROM Cost

8.5 Photographs

8.6 Site Plan

9.0 Notes on Estimated Costs

SECTION 1.0

EXECUTIVE SUMMARY

The County of Los Angeles is considering adopting a new Rural Outdoor Lighting Ordinance initiated by the Department of Regional Planning. This report evaluates the cost impact on the Department of Public Works (DPW) to upgrade their Dam sites to comply with the proposed ordinance.

There are a total of 14 Dam sites countywide. However only 6 of them are in rural areas and therefore impacted by the new ordinance. The scope of this report is limited to the County Dam sites. Other County rural sites impacted by the ordinance are addressed in separate reports. The list of Dams included in this report is shown in paragraph 2.2.

Many of the existing light fixtures at the Dams are not the full cutoff type required by the Ordinance, and will therefore have to be replaced. Also, current lighting fixture control systems do not comply with the ordinance. Another issue with the majority of the current fixtures is that many of them exceed the mounting height above ground required by the Ordinance which in some cases results in light trespass on the neighboring property. The Ordinance defines light trespass as light falling across a property line onto an adjoining lot or onto an adjoining public right-of-way.

Estimated Rough Order of Magnitude (ROM) Costs:

A.	San Gabriel	**$ 167,465**
B.	Cogswell	**$ 126,555**
C.	San Dimas	**$ 61,425**
D.	Morris	**$ 110,565**
E.	Pacoima	**$ 74,120**

F.	Big Tujunga	**$ 82,875**
Total		**$ 623,005**

SECTION 2.0

SCOPE OF THE ANALYSIS

2.1 The County of Los Angeles is considering adopting a new Ordinance amending Title 22 of the County Code. The Ordinance will establish a Rural Outdoor Lighting District that will establish guidelines governing outdoor lighting. The main objectives include curtailing light pollution, preventing light trespass onto adjoining properties, promoting dark skies, conserving energy, etc., while permitting reasonable uses of outdoor lighting for night time safety, security, productivity, and enjoyment.

2.2 DPW has a total of fourteen (14) Dam sites. Only six (6) of these sites are in rural areas. The following is a list of the rural Dam sites:

Dam	Address	Zoning	Date Inspected
San Gabriel	9700 N San Gabriel Canyon Road, Azusa	W	06/20/2012
Cogswell	San Gabriel Canyon Road, Monrovia	W	06/20/2012
San Dimas	3331 San Dimas Canyon Road, La Verne	W	06/26/2012
Morris	9500 San Gabriel Canyon Road, Azusa	W	06/26/2012
Pacoima	15300 N Pacoima Canyon Road, Pacoima	A2	06/28/2012
Big Tujunga	809 W Big Tujunga Canyon Road, Sunland	W	06/28/2012

2.3 The scope of this report is to:

A. Review the requirements of the Ordinance and analyze the six dam sites to confirm existing installation and changes required to comply with the Ordinance.

B. Provide a rough order of magnitude (ROM) cost estimate to implement the required changes.

2.4 The main provisions of the new Ordinance as it affects the dam sites can be summarized as follows:

A. Outdoor lighting fixtures must be fully shielded type (22.44.540 C). That is a light fixture that emits no light in the area above a horizontal plane passing through the lowest point of the fixture and not more than 10 percent of its light in the area between zero and 10 degrees below such horizontal plane. A full cutoff fixture is a fully shielded fixture of a specific design, usually a box or oval shape with a flat bottom.

B. Light trespass measured at the property line must not exceed 0.5 foot-candles where the adjoining property is zoned residential, open space, agricultural or public right-of-way.

For other adjoining zoning the limit is 1.0 foot-candles.

C. The fixture height from ground level to the top of the fixture (22.44.450 D) is limited to:

1. Residential, agricultural, open space and watershed:

20 Feet – except if over 15 feet the fixture lumens are limited to 400. This effectively limits the height to 15 feet, since 400 lumens is an extremely low lighting level (equivalent to a 40-watt incandescent lamp).

D. Outdoor lighting must be turned off between the hours of 10 p.m. and sunrise. There must be an automatic time switch control to turn the lights off. The timer must be capable of separate schedules for weekdays and weekends. (22.44.550)

Exceptions:

1. Where there are night time operations the lights must be turned off within one hour of close of business.

2. Commercial and industrial uses may reduce the lighting level to 50 percent between 10 p.m. and sunrise instead of turning off all lights. (22.44.550 B.3.b.)

3. Security and operations lighting for public facilities. (22.44.550 C.4.c.).

2.5 Use of outdoor lighting is essential during critical storm operations and when responding to emergencies such as earthquakes. During these events, dam personnel are required to perform valve operations, take dam safety instrument measurements, conduct inspections, and perform other demanding maintenance tasks. The hours of operation will vary and could continue throughout the night. As required in Section 22.44.550, lights used for these operations will be turned off within one hour after close of business.

2.6 The dam sites are equipped with large specialized floodlights overlooking the sides of the dam structure that are used infrequently for specialized operations. There is no full cutoff fixture available to project the lighting necessary for these critical dam applications. The floodlights are used during storms and following seismic events to inspect and monitor the dam, reservoir area, and appurtenances for flood control operations and potential dam safety issues. Additionally, the flood lights could be used to monitor areas in the vicinity of the dam during scheduled or emergency water releases to ensure there is no person near the path of the release or to monitor the dam and reservoir for security and safety purposes in the event of an intrusion. Although the draft ordinance does not provide requirements for this specific use at dams, these manually operated fixtures currently comply, or will be modified to comply with the requirements for lighting large outdoor areas as identified in Section 22.44.560. B, Outdoor recreation facility, including the requirement that these lights be turned off within one hour after completion of activities.

2.7 Security at the dams is of critical importance due to the high hazard potential of the impounded water. Select lighting fixtures are essential to detect and deter security threats from potential terrorism and vandalism. In accordance with Section 22.44.550

such lighting between 10 pm and sunrise will be reduced by a minimum of 50 percent or motion sensors will be utilized during off hours.

2.8 The sites were visited by JCCA engineers, JCCA's lighting consultant Jun Apolinario, DPW Senior Electrical Engineer (John Fallon) and were assisted by site staff. The date of the inspection is noted in paragraph 2.2. Existing conditions were recorded and are shown on the drawings included. Light level readings were taken after dark and the existing fixture types were noted. The cost estimates herein were prepared based on the input from the lighting consultant and from lighting contractors.

SECTION 3.0

SAN GABRIEL

3.1 Site Description

A. The site Address is:

9700 N. San Gabriel Canyon Road
Azusa, CA 91702

See Section 3.6 for the site plan.

B. Currently some exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

3.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. Pole-mounted light fixtures are mounted higher than 15'.

C. Some lights are left on between 10:00 p.m. and sunrise which should be addressed by motion sensors and/or turning off 50% of fixtures similar to commercial / Industrial facilities.

3.3 Recommended Modifications

A. Replace two pole-mounted fixtures by entrance gate with full cutoff types. Mounting height shall not exceed 15'.

B. Remove six wall-mounted fixtures on the existing control and office buildings (buildings 4 and 5) near the upper landing of hydro-electric plant platform stairway and replace with five wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

C. Replace four wall-mounted fixtures on the first two levels of the hydro-electric plant platform with full cut off type. Mounting height shall not exceed 15'.

D. Remove two pendant-mounted fixtures under canopy and one wall-mounted fixture in the electrical switchgear canopy area and replace with two wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

E. Replace six pole-mounted fixtures along the dam valve control platform with full cutoff types. Mounting height shall not exceed 15'.

F. Replace one wall-mounted fixture on the building by the spillway with full cut off type. Mounting height shall not exceed 15'.

G. Remove sixteen wall-mounted fixtures on dam operator house, parking canopy and shed. Replace with ten wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

H. Replace pole-mounted fixtures in dam operator house parking area with pole-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

I. Replace wall-mounted fixture on blower house (building 13) by roadway leading to the water tank with wall-mounted full cutoff fixture. Mounting height shall not exceed 15'.

J. Remove two wall-mounted fixtures on waste warehouse (building 5) and replace with one wall-mounted full cutoff fixture. Mounting height shall not exceed 15'.

K. Replace two wall-mounted fixtures under canopy of pump station by waste warehouse with full cutoff types. Mounting height shall not exceed 15'.

L. Remove three wall-mounted fixtures on the dam operator house (building 3) and replace with two wall-mounted full cutoff fixtures. Provide additional new pole-mounted light fixtures in parking area. Mounting height shall not exceed 15'.

M. Provide five automatic time switches, one in each operator house and one each in control house & associated buildings and waste warehouse/pump station.

N. The automatic time switch will shut off lighting after 10:00 PM or during off hours except limited security lighting.

O. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

P. Floodlighting fixtures used for surveying the dam and supporting structures for damage during emergencies are to remain in place and be manually turned on by dam operator to satisfy operational needs which have a critical impact on public safety and will accordingly be operated as described in 2.6. See site plan for locations.

Q. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly be operated as described in 2.7

R. Provide motion sensor controls where practical.

3.4 Estimated ROM Cost

Replace two pole-mounted fixtures
By the entrance gate 2 @ $2,500 = $ 5,000

Remove twelve wall-mounted fixtures on control and office (buildings 4 & 5) and replace with five full cutoff type	5 @ $1,500 = $ 7,500
Replace four wall-mounted fixtures on first two levels of hydro-electric plant with full cutoff	4 @ $1,800 = $ 7,200
Remove three light fixtures from the switchgear canopy area and replace with two full cutoff	2 @ $1,800 = $ 3,600
Replace six pole-mounted fixtures along dam valve control platform with full cutoff	6 @ $1,500 = $ 7,500
Replace one wall-mounted fixture on building by spillway with full cutoff	1 @ $1,500 = $ 1,500
Remove sixteen wall-mounted fixtures on dam operator house, parking canopy and shed and replace with ten wall-mounted full cutoff	10 @ $1,500 = $ 15,000
Replace pole-mounted fixture in dam operator House parking area with full cutoff	1 @ $1,800 = $ 1,800
Replace wall-mounted fixture on blower house(building 13) with full cutoff	4 @ $1,800 = $ 7,200
Remove two wall-mounted fixtures on waste warehouse (building 5) and replace with one wall-mounted full cutoff	1 @ $1,500 = $ 1,500
Replace two under canopy pump station	

lights with full cutoff fixtures	2 @ $1,700 = $ 3,400
Remove two wall-mounted fixtures on waste warehouse (building 5) and replace with one wall-mounted full cutoff	1 @ $1,500 = $ 1,500
Remove three wall-mounted fixtures on dam operator house (building 3) and replace with one wall-mounted full cutoff	1 @ $1,500 = $ 1,500
Provide new pole-mounted light fixture in the dam operator house (building 3) parking area	1 @ $3,500 = $ 3,500
Automatic Timer Switch	5 @ $1,500 = $ 7,500
Miscellaneous	$ 16,500
Subtotal	**$91,700**
Design Contingency (25%)	$14,175
	Subtotal **$114,625**
Contractor Overhead and Profit (20%)	$14,175
Subtotal	**$128,825**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$38,640

Total	**$167,465**

3.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 Control House Near Hydro-electric Plant Platform

PH-2 Overall View of Hydro-electric Plan Platform

PH-3 Typical Pole-mounted Flood Light Fixture

PH-4 Typical Floodlight Used During Emergency For Surveying Integrity of Dam

PH-5 Warehouse Building Lightign At Night Time

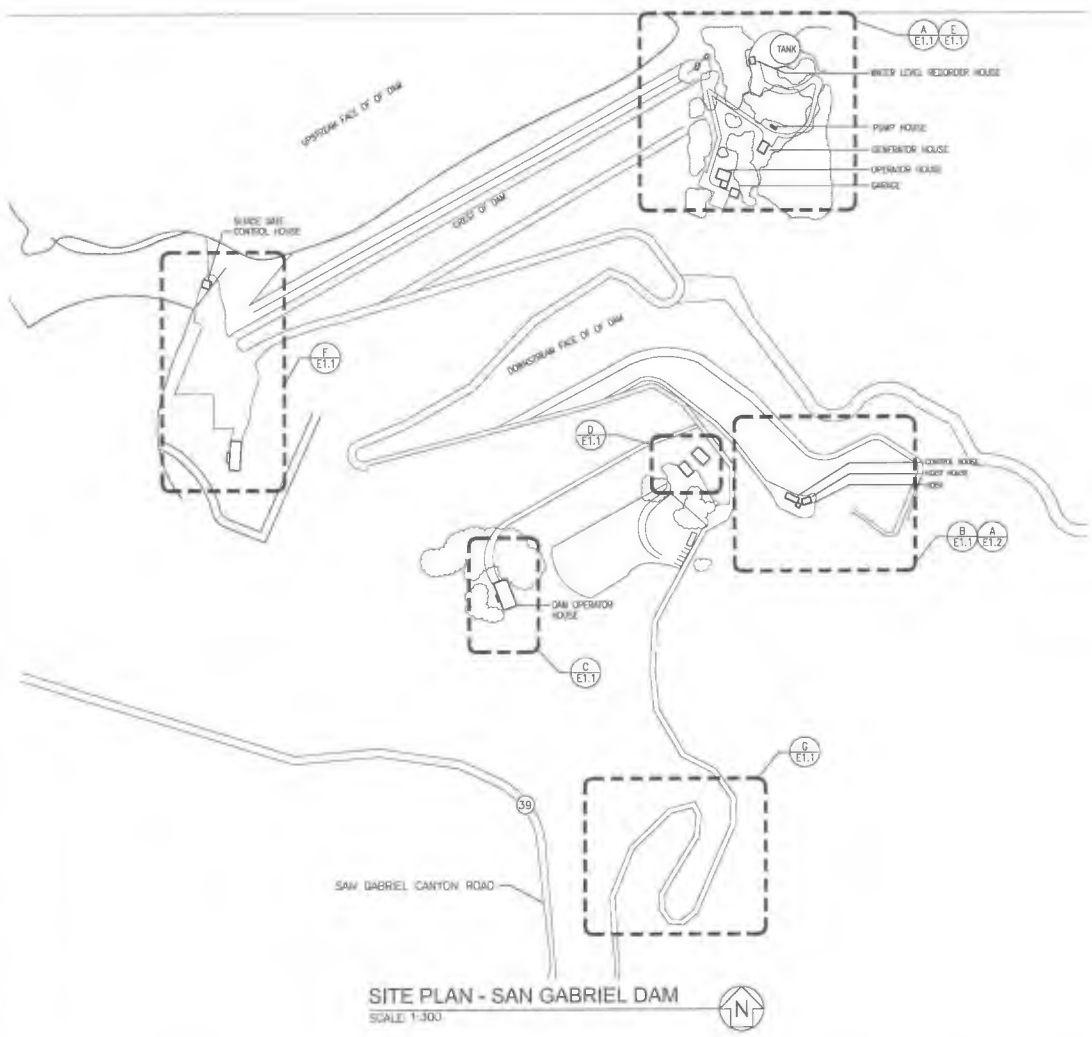
PH-6 Night Time View of Dam Area Served By Floodlights

PH-7 Night Time View of Valve Control Platform

PH-8 Overall View of Hydro-electric Plant Platform From Lower Level

3.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit



SITE PLAN - SAN GABRIEL DAM

SCALE: 1:300

SHEET TITLE	L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 SAN GABRIEL DAM
PROJECT TITLE	RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

REGISTERED PROFESSIONAL ENGINEER
JAMES F. REGINDIN
No. E41082
Exp. 3/31/13
CIVIL
STATE OF CALIFORNIA

APPROVALS

DIRECTOR OF PUBLIC WORKS	DATE:
PROJECT MANAGEMENT DIRECTOR	DATE:
CONTRACTOR OF RECORD	DATE:

REV.	DATE:	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

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JCCA #12571-2

DRAWN BY:	S.R.
DESIGNED BY:	S.R.
CHECKED BY:	S.R.
SCALE:	AS NOTED
DATE:	18-06-12

SHEET

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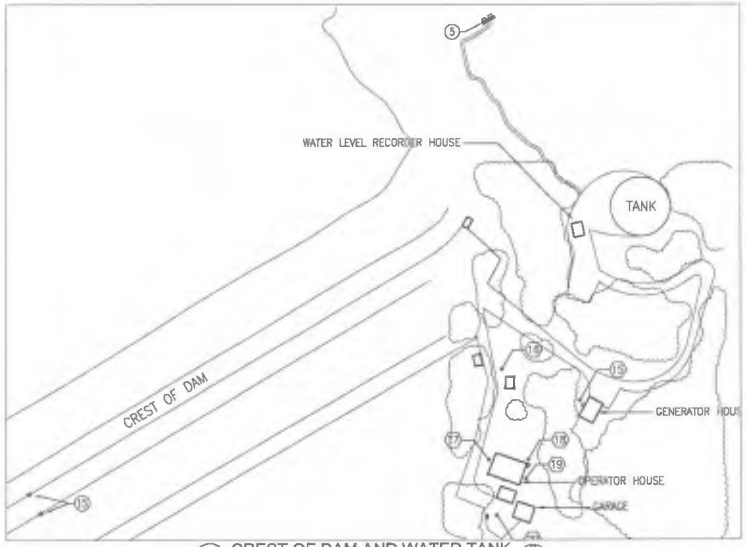

A E1.1 CREST OF DAM AND WATER TANK
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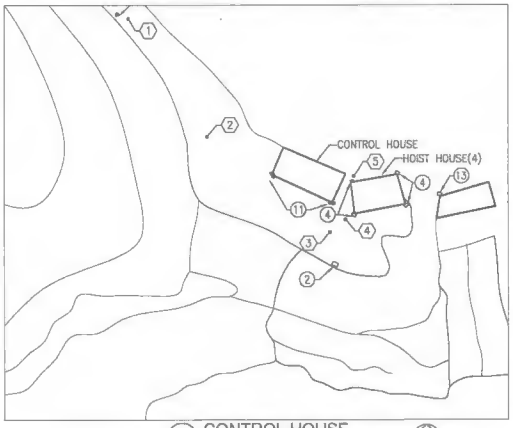

B E1.1 CONTROL HOUSE
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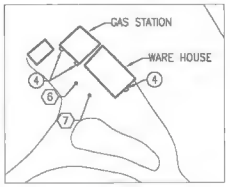
1/8" = 1'-0"



D E1.1 WAREHOUSE
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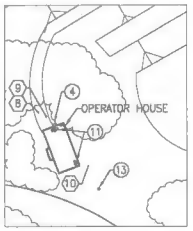

C E1.1 DAM OPERATOR HOUSE
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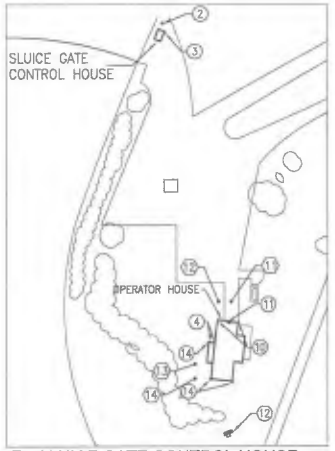
1/16" = 1'-0"

F E1.1 DAM OPERATOR HOUSE
SCALE: 0 4 8 FEET 16
1/8" = 1'-0"



F E1.1 SLUICE GATE CONTROL HOUSE
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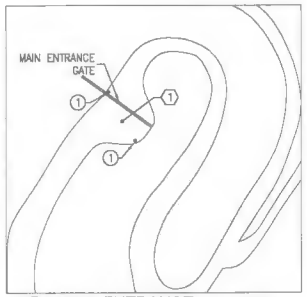
1/16" = 1'-0"



G E1.1 MAIN ENTRANCE
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1/16" = 1'-0"

EXISTING CONDITION KEYNOTES:

1. 250W POLE MOUNTED FLOOD LIGHTS MOUNTED AT 25'± CONTROLLED BY SWITCH.
2. 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 2'± CONTROLLED BY SWITCH
3. 150W WALL MOUNTED INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH.
4. 250W WALL MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH
5. (2) 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 15'± CONTROLLED BY SWITCH
6. (2) 250W POLE MOUNTED FLOOD LIGHTS MOUNTED AT 25'± CONTROLLED BY SWITCH
7. (2) 250W POLE MOUNTED FLOOD LIGHTS AND (1) 150W SPOT LIGHT MOUNTED AT 12± CONTROLLED BY SWITCH
8. (2) 150W WALL MOUNTED INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH
9. (2) 150W POLE MOUNTED INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH.
10. 150W POLE MOUNTED INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH
11. (2) 250W POLE MOUNTED FLOOD LIGHTS MOUNTED AT 12± CONTROLLED BY SWITCH
12. (2) 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 15'± CONTROLLED BY SWITCH
13. 250W POLE MOUNTED FLOOD LIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH
14. (2) 150W WALL MOUNTED INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY MOTION SENSOR
15. 1500W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 2'± CONTROLLED BY SWITCH

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 2.6 FOOT CANDLES
2. 2.1 FOOT CANDLES.
3. 1.2 FOOT CANDLES
4. 11.1 FOOT CANDLES.
5. 11.8 FOOT CANDLES.
6. 3.2 FOOT CANDLES.
7. 2.0 FOOT CANDLES.
8. 1.0 FOOT CANDLES
9. 4.3 FOOT CANDLES
10. 0.2 FOOT CANDLES
11. 11.5 FOOT CANDLES
12. 1.5 FOOT CANDLES
13. 0.1 FOOT CANDLES.
14. 0.9 FOOT CANDLES.
15. 0.9 FOOT CANDLES.
16. 0.5 FOOT CANDLES
17. 8.9 FOOT CANDLES.
18. 2.6 FOOT CANDLES.
19. 8.9 FOOT CANDLES.
20. 0.4 FOOT CANDLES.

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JCCA #12671-2

NO.	DATE	DESCRIPTION

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGER OVERSEER DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDDING No. C41082 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 SAN GABRIEL DAM

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY: F.R
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 18-06-12

SHEET
E1.1

DRAWING/TIME: 13 Jul 2012 08:34PM
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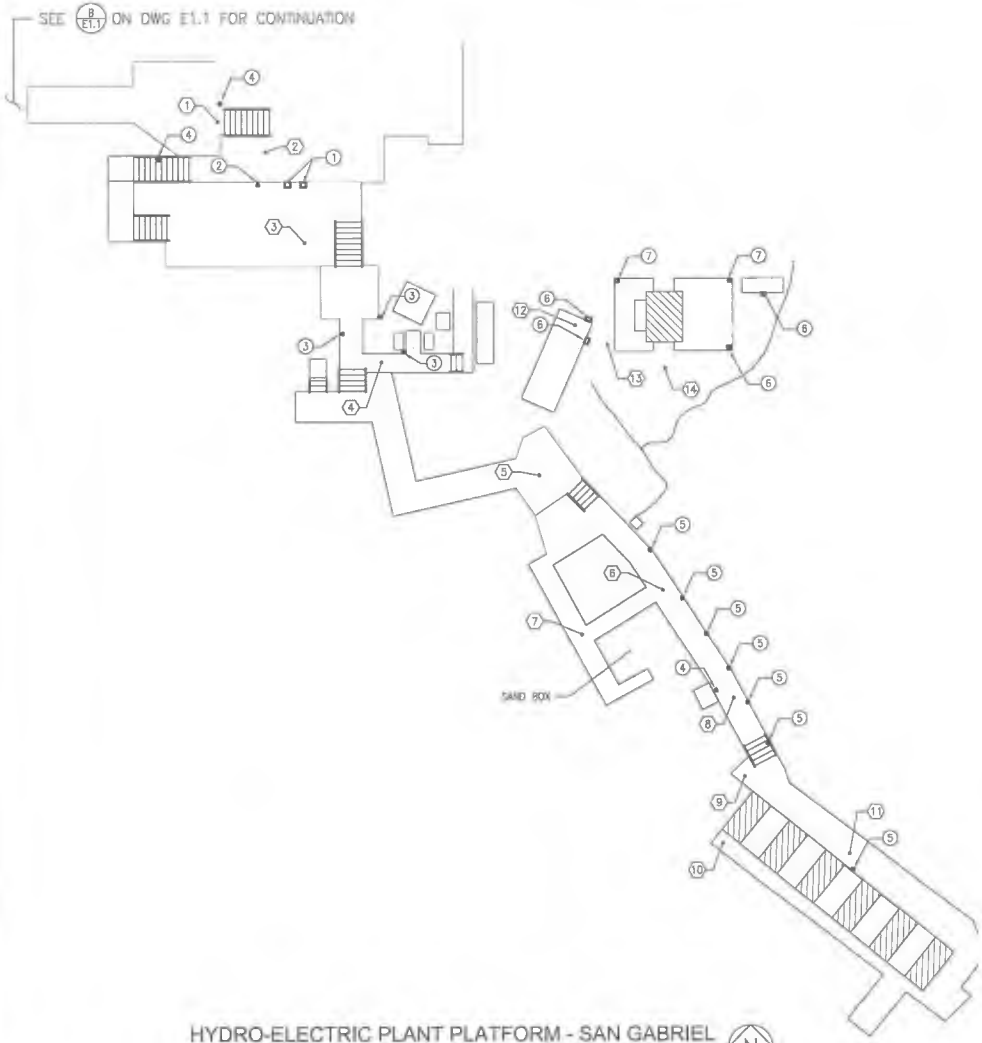

HYDRO-ELECTRIC PLANT PLATFORM - SAN GABRIEL

NOT TO SCALE

EXISTING CONDITION KEYNOTES:

1. 1000W METAL HALIDE FLOOD LIGHTS OPERATED BY LOCAL SWITCH AND FROM CONTROL HOUSE.
2. 250W WALL MOUNTED HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED AT 15'± CONTROLLED BY SWITCH.
3. 150W WALL MOUNTED HIGH PRESSURE SODIUM LIGHT ON THE LOWER LEVEL OF PLATFORM CONTROLLED BY SWITCH.
4. 100W WALL MOUNTED HIGH PRESSURE SODIUM LIGHT CONTROLLED BY SWITCH.
5. 150W POLE MOUNTED HIGH PRESSURE SODIUM FLOODLIGHT MOUNTED AT 10'± CONTROLLED BY LOCAL SWITCH.

   250W WALL MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH.

   175W INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY SWITCH.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 4.8 FOOT CANDLES.
2. 0.5 FOOT CANDLES.
3. 4.3 FOOT CANDLES.
4. 5.8 FOOT CANDLES.
5. 3.6 FOOT CANDLES.
6. 5.6 FOOT CANDLES.
7. 5.2 FOOT CANDLES.
8. 1.2 FOOT CANDLES.
9. 1.6 FOOT CANDLES.
10. 2.1 FOOT CANDLES.
11. 1.8 FOOT CANDLES.
12. 15.1 FOOT CANDLES.
13. 5.8 FOOT CANDLES.
14. 1.7 FOOT CANDLES.

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JCCA #12671-2

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:

PROJECT MANAGEMENT DIVISION DATE:

CHAIRMAN OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER
JAMES P. REDWOOD
No. C41082
Exp. 3/31/13
CIVIL
STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RD 558
SAN GABRIEL DAM

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 10-08-12

SHEET
E1.2

DATE/TIME: 13 Jul 2013 05:50PM
FILE: G:\12671-2\12671E12.dwg

SECTION 4.0

COGSWELL

4.1 Site Description

A. The site Address is:

Forest Route 2N95, San Gabriel Canyon Road
Angeles National Forest, CA 91702

See Section 4.6 for site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

4.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. Pole-mounted light fixtures are mounted higher than 15'.

C. Some lights are left on between 10:00 p.m. and sunrise which should be addressed by motion sensors and/or turning off 50% of fixtures similar to commercial / Industrial facilities.

4.3 Recommended Modifications

A. Remove fourteen wall-mounted fixtures on the existing control, recorder and generator house buildings and replace with six wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

B. Replace pole-mounted light fixture for stairway landing near control and recorder building with full cutoff fixture. Mounting height shall not exceed 15'.

C. Replace wall-mounted fixture on shelter house with full cutoff fixture. Mounting height shall not exceed 15'.

D. Replace pole-mounted fixtures at stairway leading to shelter house with full cutoff fixtures. Mounting height shall not exceed 15'.

E. Replace wall-mounted fixture on garage with full cutoff fixture. Mounting height shall not exceed 15'.

F. Replace pole-mounted fixtures next to garage with cutoff fixtures. Mounting height shall not exceed 15'.

G. Replace two wall-mounted fixtures on garage & generator building with full cutoff fixture. Mounting height shall not exceed 15'.

H. Remove two roof-mounted floodlights at dam operator house and replace with two wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

I. Replace two wall-mounted fixtures on dam operator house with full cutoff fixtures. Mounting height shall not exceed 15'.

J. Replace four wall-mounted fixtures on upper garage/storage building with full cutoff fixtures. Mounting height shall not exceed 15'.

K. Remove three pole-mounted lights at open area near upper garage/storage building. Replace with one pole-mounted light for the open area and one pole-mounted light near the stairway landing at the end of the open area. Mounting height shall not exceed 15'.

L. Replace pole-mounted fixture near remote gage station and tram line with pole-mounted full cutoff fixture. Mounting height shall not exceed 15'.

M. Replace wall-mounted fixtures on pump house near outlet tunnel portal with wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

N. Provide five automatic time switches, one each in the lower garage, upper garage, garage and generator building, dam operator building and garage and control house and associated buildings.

O. The automatic time switch will shut off lighting after 10:00 PM or during off hours except limited security lighting.

P. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

Q. Floodlighting fixtures used for surveying the dam and supporting structures for damage during emergencies are to remain in place and be manually turned on by dam operator to satisfy operational needs which have a critical impact on public safety and will accordingly be operated as described in 2.6. See site plan for locations.

R. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly be operated as described in 2.7

S. Lighting used for the helipad area did not seem to be compliant with applicable regulations and will likely require replacement.

T. Provide motion sensor controls where practical.

4.4 Estimated ROM Cost

Remove fourteen wall-mounted fixtures on control, recorder and generator buildings and replace with six full cutoff type	6 @ $1,500 = $ 9,000
Replace one pole-mounted fixtures by stairway landing with full cutoff	1 @ $2,500 = $ 2,500
Replace wall-mounted fixture on shelter house with full cutoff	1 @ $1,500 = $ 1,500
Replace one pole-mounted fixture at stairs leading to shelter house with full cutoff	1 @ $2,500 = $ 2,500
Replace wall-mounted fixture on garage building with full cutoff	1 @ $1,500 = $ 1,500
Replace one pole-mounted fixtures near garage building with full cutoff	1 @ $2,500 = $ 2,500
Replace wall-mounted fixture on garage & generator building with full cutoff	1 @ $1,500 = $ 1,500
Remove two fixtures mounted on roof on dam operator house with two wall-mounted full cutoff fixtures	2 @ $1,700 = $ 3,400
Replace two wall-mounted fixture on dam operator house with full cutoff	2 @ $1,500 = $ 3,000
Replace four wall-mounted fixture on upper garage/storage with full cutoff	4 @ $1,500 = $ 6,000

Remove three pole-mounted fixtures in open area by upper garage/storage with two pole-mounted full cut-off fixtures	2 @ $2,500 = $ 5,000
Replace pole-mounted fixtures near remote gage station with full cutoff type	1 @ $2,500 = $ 2,500
Replace two wall-mounted fixture on pump house building with full cutoff type	2 @ $1,500 = $ 3,000
Automatic Timer Switch	5 @ $1,500 = $ 7,500
Miscellaneous	$ 13,500
Subtotal	**$64,900**
Design Contingency (25%)	$16,225
Subtotal	**$81,125**
Contractor Overhead and Profit (20%)	$16,225
Subtotal	**$97,350**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$29,205
Total	**$126,555**

4.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 Dam Control House And Supporting Structures

PH-2 Pole Mounted Flood Light At Remote Gage House

PH-3 Night Time Overall View of Dam

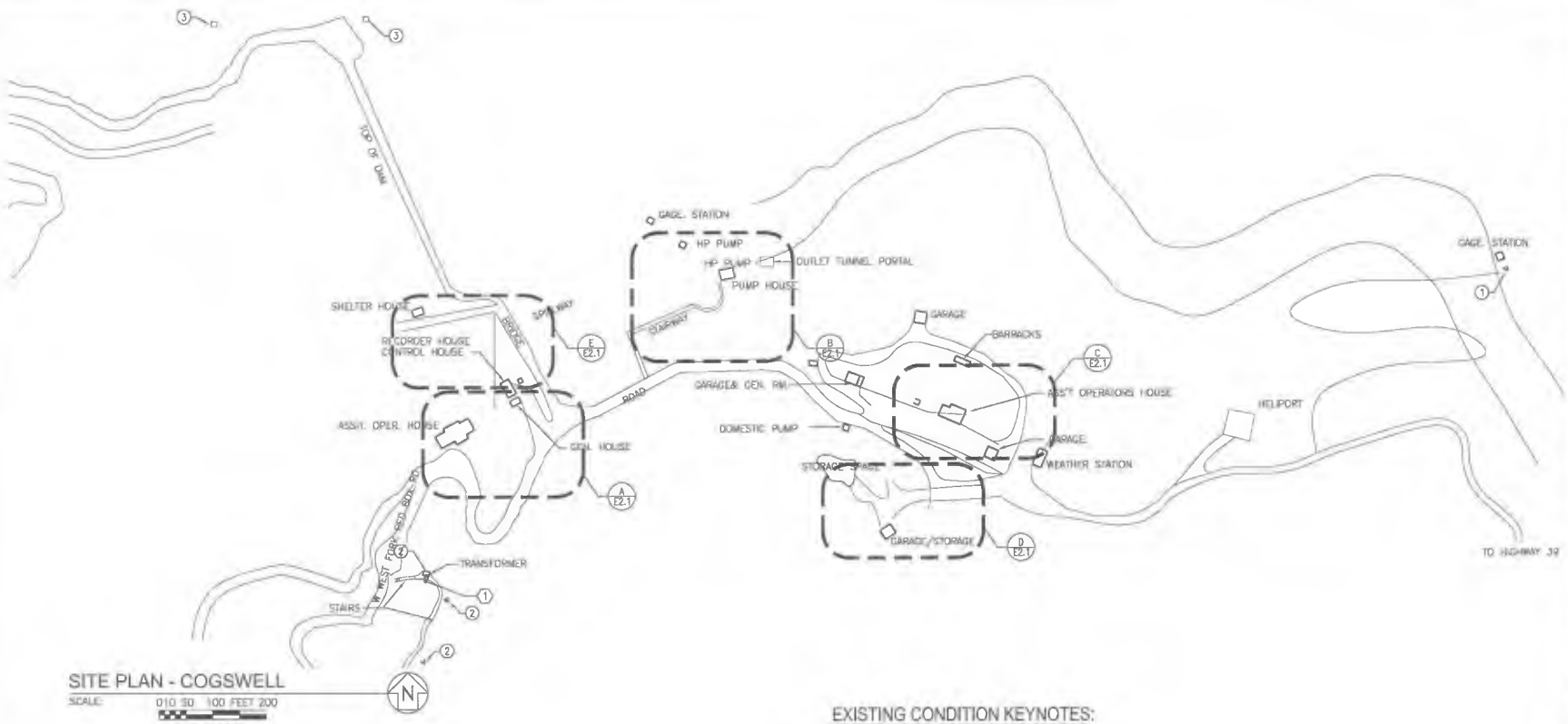
PH-4 Night Time View of Dam Spillway

PH-5 Floodlights Overlooking The Dam Mounted On Platform

PH-6 Typical Pole Mounted Flood Light

4.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN - COGSWELL

SCALE: 010 50 100 FEET 200

1" = 200'

EXISTING CONDITION KEYNOTES:

1. (2) 250W POLE MOUNTED FLOOD LIGHTS MOUNTED AT 25'± CONTROLLED BY PHOTOSENSOR.
2. 150W POLE MOUNTED SPOT LIGHTS MOUNTED AT 8'± LOCALLY CONTROLLED BY SWITCH.
3. 1000W METAL HALIDE FLOOD LIGHTS MOUNTED AT 5'± CONTROLLED BY FROM CONTROL HOUSE.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 7.1 FOOT CANDLES.

SITE ADDRESS: FOREST ROUTE 2N95, SAN GABRIEL CANYON ROAD, MONROVIA, CA 91702

DAM OPERATOR: XXX– XXX
XXXX – XXXX (CELL)

J.G. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
365 VAN NESS AVE. SUITE 205
TORRANCE, CA 90501
(310) 212 - 7644
(310) 212 - 5272
FAX
JCCA #12671-2

NO.	DATE	DESCRIPTION
		-
		-
		-
		-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE
PROJECT MANAGEMENT DIVISION DATE
CONTRACTOR OF RECORD DATE

REGISTERED PROFESSIONAL ENGINEER JAMES R. REDMOND No. C41062 Exp. 6/30/13 CIVIL STATE OF CALIFORNIA

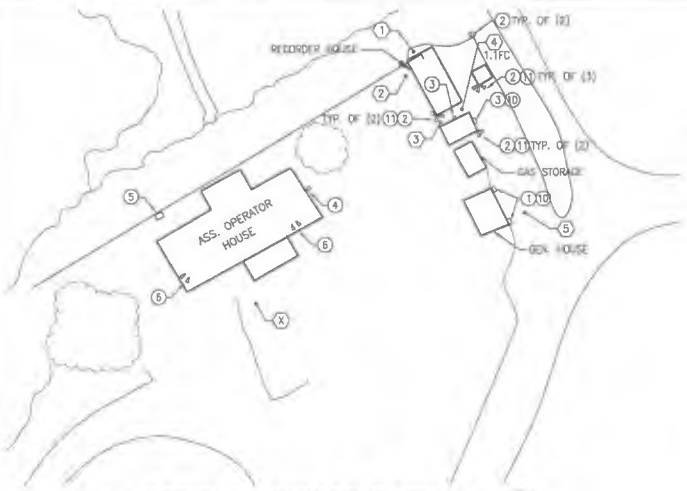
SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 538 COGSWELL

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

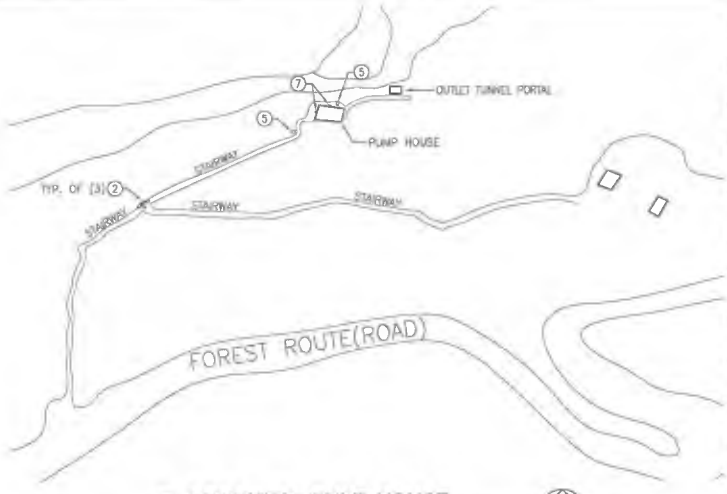
DRAWN BY: F.H.
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 10-05-12

SHEET
E2.0

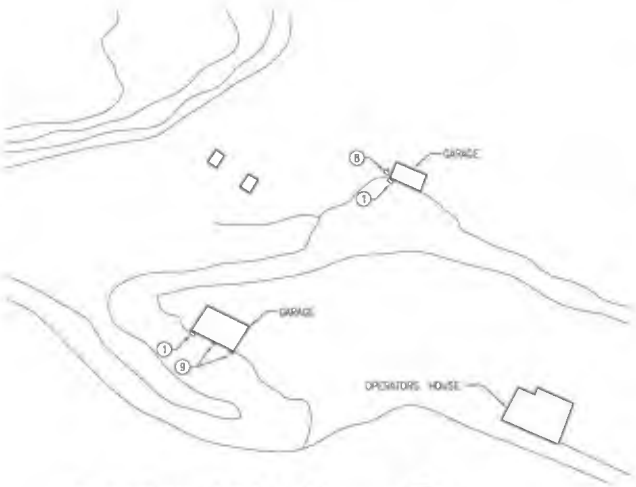
DATE/TIME: 13 Jul 2012, 03:50PM
FILE: G:\12671-2\12671E2.0.dwg



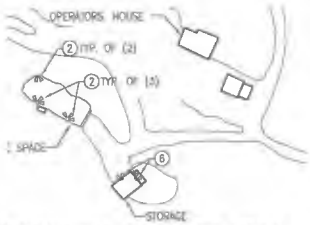
A E2.1 COGSWELL-RECORDER HOUSE
SCALE: 0 4 8 FEET 16
1/8" = 1'-0"



B E2.1 COGSWELL-PUMP HOUSE
SCALE: 0 4 8 FEET 16
1/8" = 1'-0"



C E2.1 COGSWELL-GARAGES
SCALE: 0 4 8 FEET 16
1/8" = 1'-0"



D E2.1 COGSWELL-STORAGE AREA
SCALE: 0 4 8 FEET 16
1/8" = 1'-0"

F E2.1 COGSWELL-SHELTER HOUSE
SCALE: 0 4 8 FEET 16
1/8" = 1'-0"

EXISTING CONDITION KEYNOTES:

1. 250W METAL HALIDE FLOODLIGHTS MOUNTED AT 12'± CONTROLLED BY PHOTOSENSOR.
2. 150W POLE MOUNTED SPOT LIGHTS MOUNTED AT 8'± CONTROLLED BY PHOTOSENSOR
3. 150W WALL MOUNTED FLOODLIGHTS MOUNTED AT 4'± CONTROLLED BY PHOTOCELL.
4. 150W WALL MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 8'± CONTROLLED BY PHOTOSENSOR.
5. 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 3'± CONTROLLED FROM CONTROL HOUSE
6. (2)250W METAL HALIDE FLOODLIGHTS MOUNTED AT 8'± CONTROLLED BY PHOTOSENSOR.
7. 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 8'± CONTROLLED FROM CONTROL HOUSE
8. 250W POLE MOUNTED FLOOD LIGHTS MOUNTED AT 25'± CONTROLLED BY PHOTOSENSOR.
9. 150W WALL MOUNTED INCANDESCENT LIGHTS MOUNTED AT 8'± CONTROLLED BY PHOTOSENSOR.
10. FIXTURE TO REMAIN.
11. ONE OF MULTIPLE FIXTURES TO REMAIN.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.6 FOOT CANDLES.
2. 0.3 FOOT CANDLES.
3. 0.6 FOOT CANDLES.
4. 1.1 FOOT CANDLES.
5. 6.7 FOOT CANDLES.
6. 1.1 FOOT CANDLES.
7. 3.2 FOOT CANDLES.

COGSWELL IS LOCATED ON WESTFORK SAN GABRIEL CANYON RD. MONROVIA, CA. 34°14.7', N 117°57.9'

SITE ADDRESS: SAN GABRIEL CANYON ROAD, MONROVIA, CA
DAM OPERATOR: XXX– XXX
XXXX – XXXX (CELL)

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
805 VAN NESS AVE. SUITE 208
TORRANCE, CA 90501
(310) 212 – 7644
(310) 212 – 5272
FAX

JCCA #12671-2

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE
PROJECT MANAGEMENT DIVISION DATE
CONTRACTOR OF RECORD DATE

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDMOND No. C41082 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RD 558 COGSWELL

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY: P.H
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 10-08-12

SHEET
E2.1

DATE/TIME: 10 Jul 2012, 08:43PM
SCALE: G:\12671-2\12671222.dwg

SECTION 5.0

SAN DIMAS

5.1 Site Description

A. The site Address is:

3331 San Dimas Canyon Road
La Verne, CA 93543

See Section 5.6 for the site plan.

B. Currently most exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

5.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. Some lights are left on between 10:00 p.m. and sunrise which should be addressed by motion sensors and/or turning off 50% of fixtures similar to commercial / Industrial facilities.

5.3 Recommended Modifications

A. Remove all wall-mounted fixtures on the garage buildings and shed in the lower entrance area and replace with one wall-mounted full cutoff fixture for each building. The garage buildings previously served two houses on the lot which have been demolished. The garages and the shed are not used for essential

storage and there is minimal need for access at night time, therefore one light per building will be sufficient. Mounting height shall not exceed 15'.

B. Replace two pole-mounted fixtures, one between the garage buildings and one by the stairs leading to the stream gages, with full cutoff fixtures. Mounting height shall not exceed 15'.

C. Replace pole-mounted fixture at the entry gate with full cut off type and reorient to face the gateway to minimize light at the property line. Mounting height shall not exceed 15'.

D. Remove existing uplight at the flag pole by the road near the control house.

E. Replace wall-mounted fixtures on the control house building with full cutoff fixtures. Mounting height shall not exceed 15'.

F. Replace one wall-mounted fixture on the shelter house and one wall-moutned fixture on former generator house with wall-moutned full cutoff fixtures.

G. Provide two automatic time switches, one in the garage at the lower entry and one in the control house.

H. The automatic time switch will shut off lighting after 10:00 PM or during off hours except limited security lighting.

I. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

J. Floodlighting fixtures used for surveying the dam and supporting structures for damage during emergencies are to remain in place and be manually turned on by dam operator to satisfy operational needs which have a critical impact on

public safety and will accordingly be operated as described in 2.6. See site plan for locations.

K. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly be operated as described in 2.7

L. Provide motion sensor controls where practical.

5.4 Estimated ROM Cost

Remove ten lights from two garages and Shed by lower entry and replace with three	3 @ $1,500 = $4,500
Replace pole-mounted fixtures by garages gages and lower site entry	3 @ $2,500 = $7,500
Replace four wall-mounted lights on control house building	4 @ $1,500 = $6,000
Automatic Timer Switches	2 @$1,500 = $ 3,000
Miscellaneous	$ 10,500
Subtotal	**$31,500**
Design Contingency (25%)	$7,875
Subtotal	**$39,375**
Contractor Overhead and Profit (20%)	$7,875
Subtotal	**$47,250**

Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$14,175
Total	**$61,425**

5.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

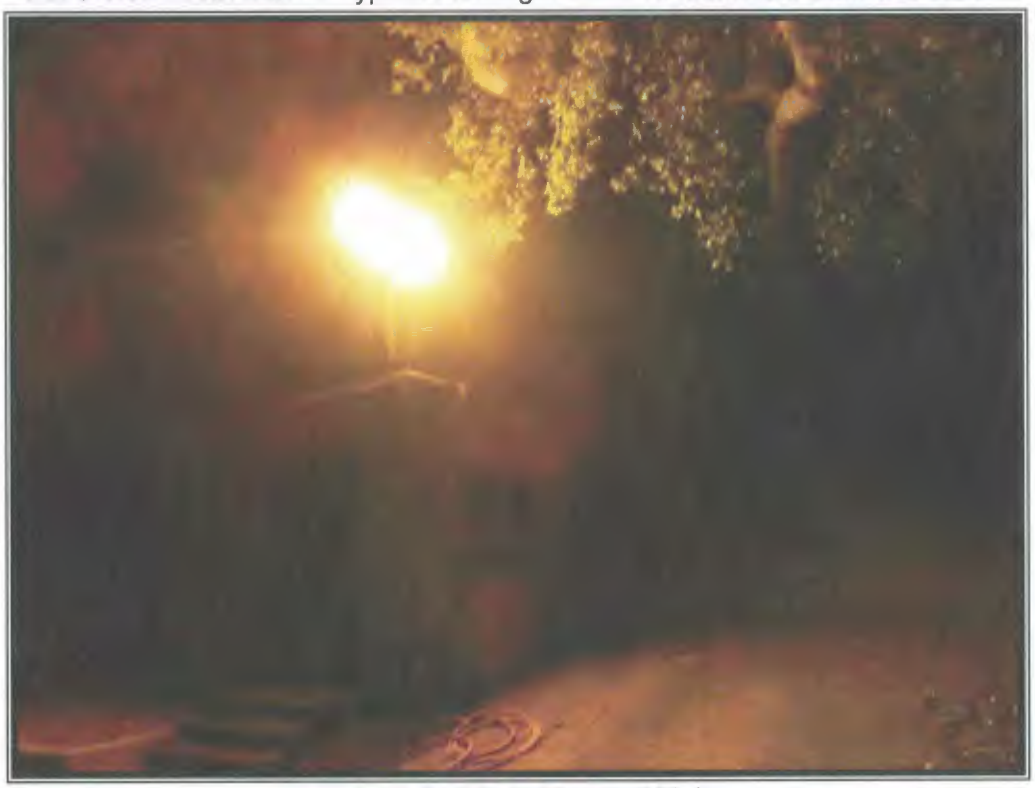
PH-1 Typical Building Mounted Light

PH-2 Overall View of Dam Structure

PH-3 Typical Floodlight Used To Illuminate Dam Structure During Emergencies

PH-4 Night Time View Of Dam Platforms

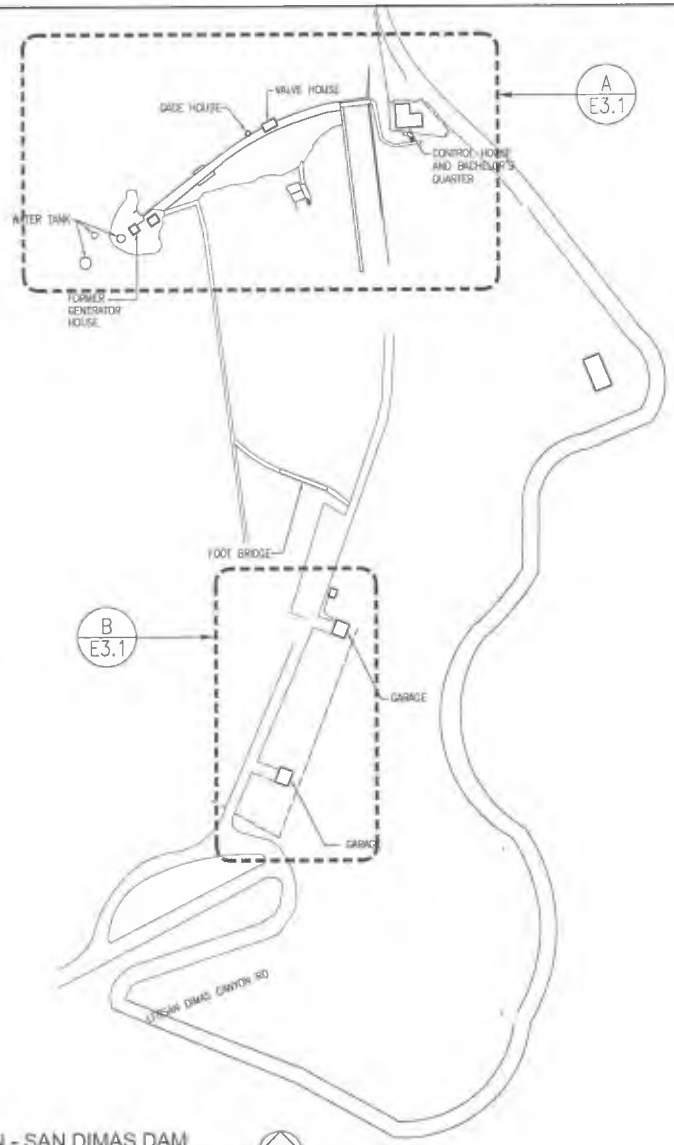
PH-5 View From Behind Typical Floodlight Used To Illuminate Dam Structure



PH-6 Typical Pole Mounted Light

5.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



SITE PLAN - SAN DIMAS DAM

SCALE: 0 20 40 80 FEET 160

1" = 80'

N

DATE/TIME: 13 Jul 2012, 05:54PM
FILE: Q:\12671-2\12671E2E3.dwg

J.C. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
305 VAN NESS AVE. SUITE 208
TORRANCE, CA. 90501 (310) 212 - 7964
FAX (310) 212 - 5272

JCCA #12671-2

NO.	BY:	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:

PROJECT MANAGEMENT DIVISION DATE:

CONTRACTOR OF RECORD DATE:

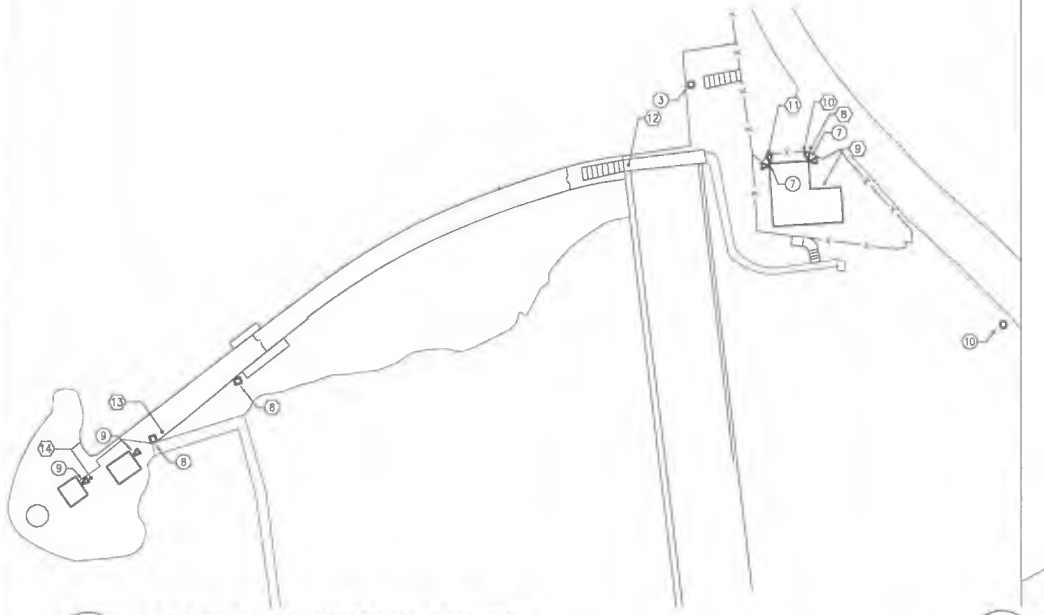
REGISTERED PROFESSIONAL ENGINEER
JAMES P. BEDROSIAN
No. C41082
Exp. 3/31/13
CIVIL
STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558
SAN DIMAS DAM

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

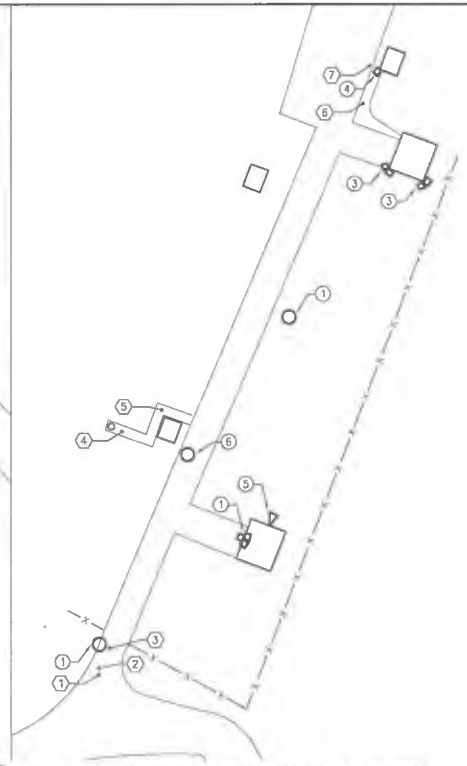
DRAWN BY: F.R.
DESIGNED BY: S.K.
CHECKED BY: S.K.
SCALE: AS NOTED
DATE: 18-08-12

SHEET
E3.0



A E3.0 ENLARGED PLAN - SAN DIMAS DAM

SCALE: 0 7.5 FEET 30
1" = 30'



B E3.0 ENLARGED PLAN -SAN DIMAS DAM

SCALE: 0 7.5 FEET 30
1" = 30'

EXISTING CONDITION KEYNOTES:

1. 250W POLE MOUNTED HIGH PRESSURE SODIUM LIGHT MOUNTED AT 13'-3"± CONTROLLED BY PHOTOCELL.
2. 150W WALL-MOUNTED INCANDESCENT TRIPLE FLOODLIGHTS AT 15'-3"± CONTROLLED BY MOTION SENSOR.
3. 150W WALL-MOUNTED INCANDESCENT DOUBLE FLOODLIGHTS AT 11'-8"± CONTROLLED BY MOTION SENSOR.
4. 150W WALL-MOUNTED INCANDESCENT DOUBLE FLOODLIGHTS AT 14'± CONTROLLED BY MOTION SENSOR.
5. 100W WALL MOUNTED INCANDESCENT DOWNLIGHT AT 8'± CONTROLLED BY LIGHT SWITCH.
6. 250W POLE MOUNTED HIGH PRESSURE SODIUM LIGHT USED TO MONITOR GAGE LEVELS MOUNTED AT 13'-3"± CONTROLLED BY PHOTOCELL.
7. 250W WALL MOUNTED HIGH PRESSURE SODIUM LIGHT MOUNTED AT 9"± CONTROLLED BY LIGHT SWITCH.
8. 1000W METAL HALIDE FLOODLIGHTS USED TO MONITOR DAM MOUNTED AT 6'± CONTROLLED BY LOCAL SWITCH AND FROM CONTROL HOUSE.
9. 150W WALL MOUNTED INCANDESCENT DOUBLE FLOODLIGHT AT 8'± CONTROLLED BY LIGHT SWITCH.
10. LED UPLIGHT FOR FLAGPOLE.
11. 400W POLE MOUNTED HIGH PRESSURE SODIUM LIGHT MOUNTED AT 14'-6"± CONTROLLED BY LIGHT SWITCH.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.1 FOOT CANDLES.
2. 1.2 FOOT CANDLES.
3. 7.2 FOOT CANDLES.
4. 0.2 FOOT CANDLES.
5. 3.4 FOOT CANDLES.
6. 3.1 FOOT CANDLES.
7. 4.2 FOOT CANDLES.
8. 0.2 FOOT CANDLES.
9. 4.2 FOOT CANDLES.
10. 1 FOOT CANDLES.
11. 17.0 FOOT CANDLES.
12. 2.6 FOOT CANDLES.
13. 9.3 FOOT CANDLES.
14. 10 FOOT CANDLES.

JC CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
3305 VAN NESS AVE, SUITE 208
TORRANCE, CA. 90501
FAX (310) 212 - 7844
(310) 212 - 5272

JCCA #12671-2

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE
PROJECT MANAGEMENT DIVISION DATE
CONTRACTOR OF RECORD DATE

REGISTERED PROFESSIONAL ENGINEER JAMES P. RETHMAN No. C41092 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 SAN DIMAS DAM

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

DRAWN BY: P.R.
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 10-08-12

SHEET
E3.1

DATE/TIME: 13 Jul 2012, 05:51 PM
FILE: Q:\12671-2\12671-2E3.1.dwg

SECTION 6.0

MORRIS

6.1 Site Description

A. The site Address is:

9500 San Gabriel Canyon Road
Azusa, CA 91702

See Section 6.6 for the site plan.

B. Currently some exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. Morris dam is currently under construction. While some new lighting is part of the improvements, not fixtures have been installed yet. This study assumes that the new lighting will be provided in a manner that is compliant with the requirements of the rural outdoor lighting ordinance.

6.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. Wall-mounted fixtures near the generator room are mounted higher than 15'.

C. The lighting level at the west property line near the main road at the entry gate exceeds 0.5 foot candles.

D. Some lights are left on between 10:00 p.m. and sunrise Some lights are left on between 10:00 p.m. and sunrise which should be addressed by motion sensors and/or turning off 50% of fixtures similar to commercial / Industrial facilities.

6.3 Recommended Modifications

A. Remove fifteen decorative pole-mounted fixtures along the dam crest and replace with five full cutoff type fixtures and new poles with 3' arms for fixture mounting which are functionally adequate for the illumination required.. Mounting height shall not exceed 15'.

B. Remove four fixtures mounted on wall-mounted concrete arm on each of four pillar buildings and replace with one full cutoff fixture on the arm facing the roadway for each of the four buildings.

C. Replace five wall-mounted on equipment building with full cutoff fixtures. Mounting height shall not exceed 15'.

D. Remove the uplights for the flag pole by the control house.

E. Remove six wall-mounted fixtures on the control house building and replace with four wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

F. Remove five wall-mounted fixtures on the cottage house and replace with four wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

G. At higher entry gate, remove the pole-mounted fixture on the street side of the fence. Replace the other pole-mounted fixture which is inside of the fence with full cutoff type. Mounting height shall not exceed 15'.

H. At lower entry gate, relocate the existing pole inside the fence and replace the fixture with full cutoff type. Mounting height shall not exceed 15'.

I. The automatic time switch will shut off lighting after 10:00 PM or during off hours except limited security lighting.

J. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

K. Floodlighting fixtures used for surveying the dam and supporting structures for damage during emergencies are to remain in place and be manually turned on by dam operator to satisfy operational needs which have a critical impact on public safety and will accordingly be operated as described in 2.6. See site plan for locations.

L. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly be operated as described in 2.7.

M. Provide motion sensor controls where practical.

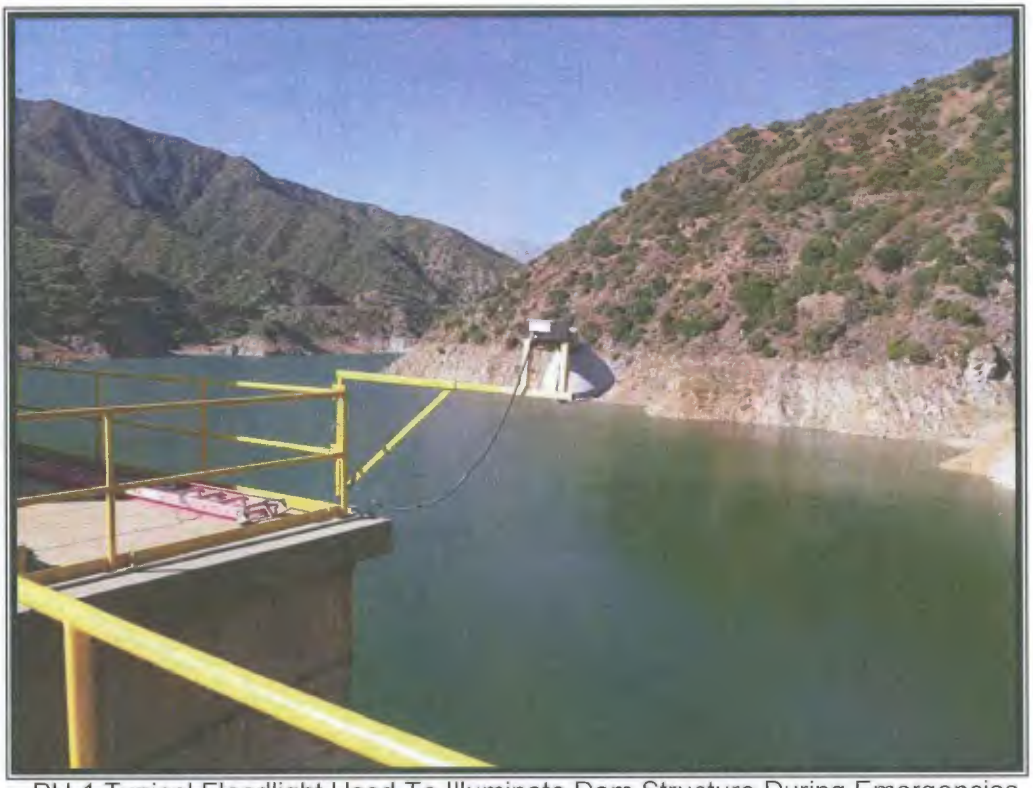
6.4 Estimated ROM Cost

Remove fifteen pole-mounted fixtures and provide five pole-mounted fixtures	5 @ $3,500 = $17,500
Replace four arm-mounted fixtures on each pillar building with full cutoff type	4 @ $1,800 = $ 7,200
Replace sixteen wall-mounted fixtures on equipment, control and cottage buildings And replace with twelve full cutoff type	12 @ $1,500 = $ 5,000
Replace two pole-mounted fixtures at each	

entry gate with full cutoff fixtures	2 @ $2,500 = $ 5,000
Remove one pole-mounted fixture at entry gate and two flag pole uplights	4 @ $1,500 = $ 6,000
Automatic Timer Switch	3 @ $1,500 = $ 4,500
Miscellaneous	$ 11,500
Subtotal	**$56,700**
Design Contingency (25%)	$14,175
Subtotal	**$70,875**
Contractor Overhead and Profit (20%)	$14,175
Subtotal	**$85,050**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$25,515
Total	**$110,565**

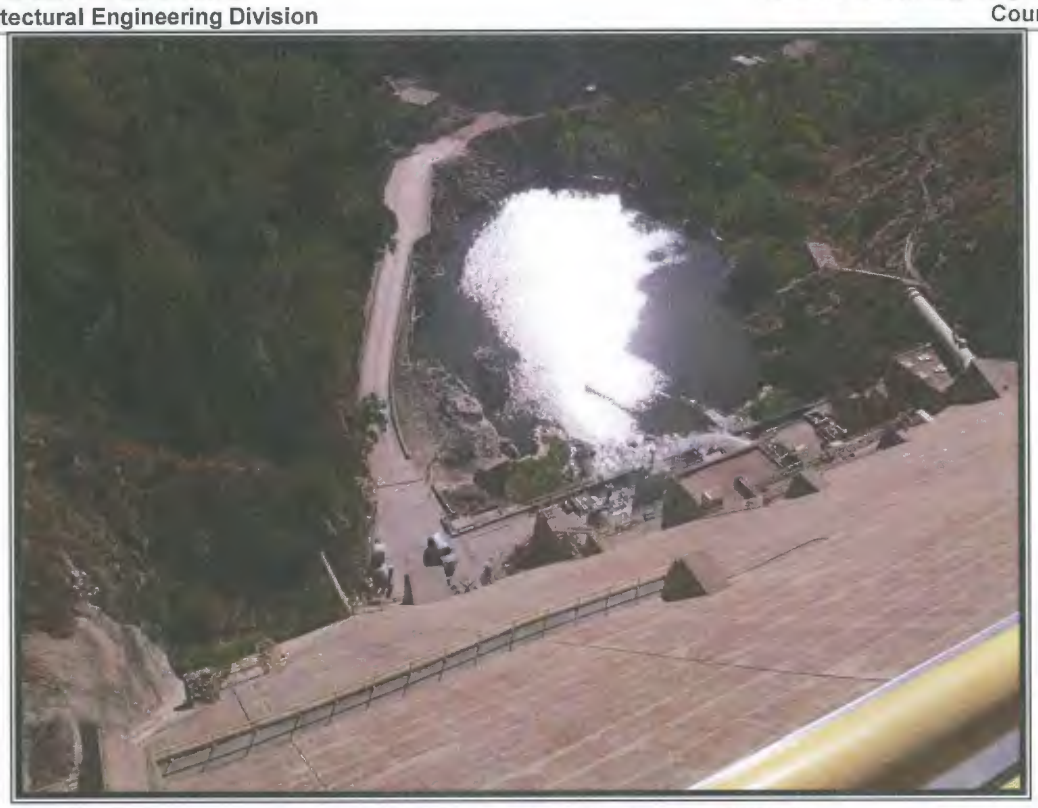
6.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.



PH-1 Typical Floodlight Used To Illuminate Dam Structure During Emergencies

PH-2 Typical Pole Mounted Fixture Along Dam Crest Road



PH-3 Building Mounted Floodlights At Night

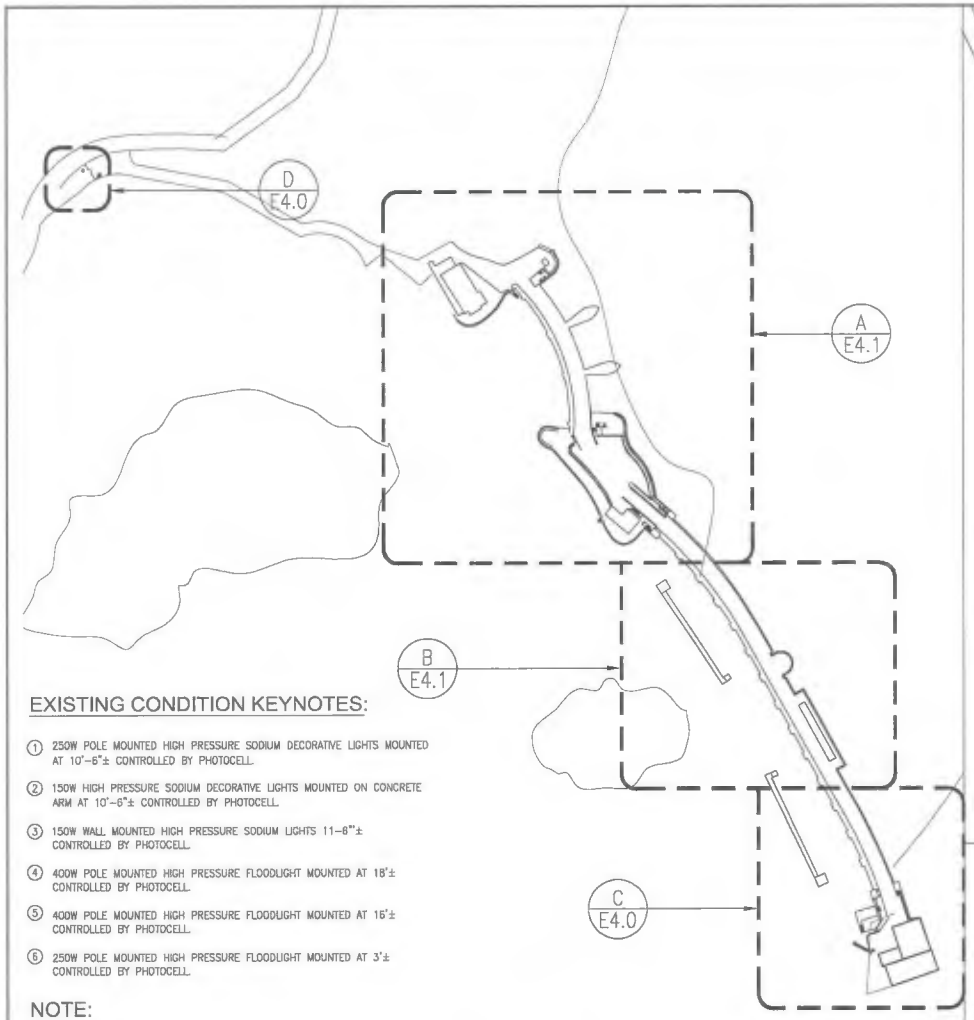
PH-4 Floodlights Mounted Higher Than 15 Feet

PH-5 Dam Crest Road and Equipment Structure At Night Time

PH-6 Typical Floodlight Used For Dam Area At Night Time

6.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



EXISTING CONDITION KEYNOTES:

1. 250W POLE MOUNTED HIGH PRESSURE SODIUM DECORATIVE LIGHTS MOUNTED AT 10'-6"± CONTROLLED BY PHOTOCELL.
2. 150W HIGH PRESSURE SODIUM DECORATIVE LIGHTS MOUNTED ON CONCRETE ARM AT 10'-6"± CONTROLLED BY PHOTOCELL.
3. 150W WALL MOUNTED HIGH PRESSURE SODIUM LIGHTS 11-8"± CONTROLLED BY PHOTOCELL.
4. 400W POLE MOUNTED HIGH PRESSURE FLOODLIGHT MOUNTED AT 18'± CONTROLLED BY PHOTOCELL.
5. 400W POLE MOUNTED HIGH PRESSURE FLOODLIGHT MOUNTED AT 16'± CONTROLLED BY PHOTOCELL.
6. 250W POLE MOUNTED HIGH PRESSURE FLOODLIGHT MOUNTED AT 3'± CONTROLLED BY PHOTOCELL.

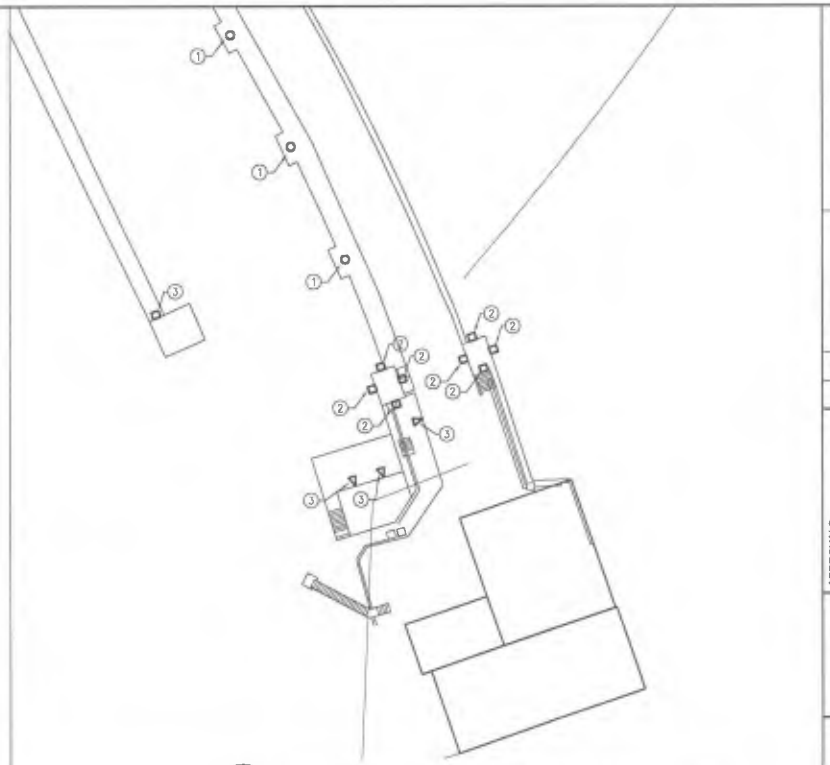
NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

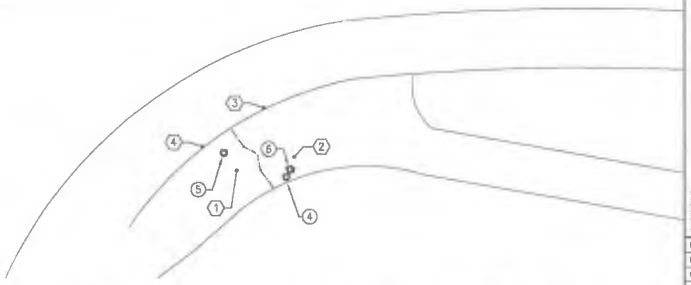
LIGHT METER READINGS:

1. 3.7 FOOT CANDLES.
2. 3.7 FOOT CANDLES.
3. 0.7 FOOT CANDLES.
4. 0.9 FOOT CANDLES.

SITE PLAN - MORRIS DAM
SCALE: 1:200



C E4.0 ENLARGED SITE PLAN - MORRIS DAM
SCALE: 10 25 FEET 50
1" = 50'



C E4.0 ENLARGED SITE PLAN - MORRIS DAM
SCALE: 10 25 FEET 50
1" = 50'

J.G. CHANG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
365 VAN NESS AVE. SUITE 208
TORRANCE, CA. 90501
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JCCA #12671-2

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGER/OF DESIGN DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDDEROUT No. C61062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

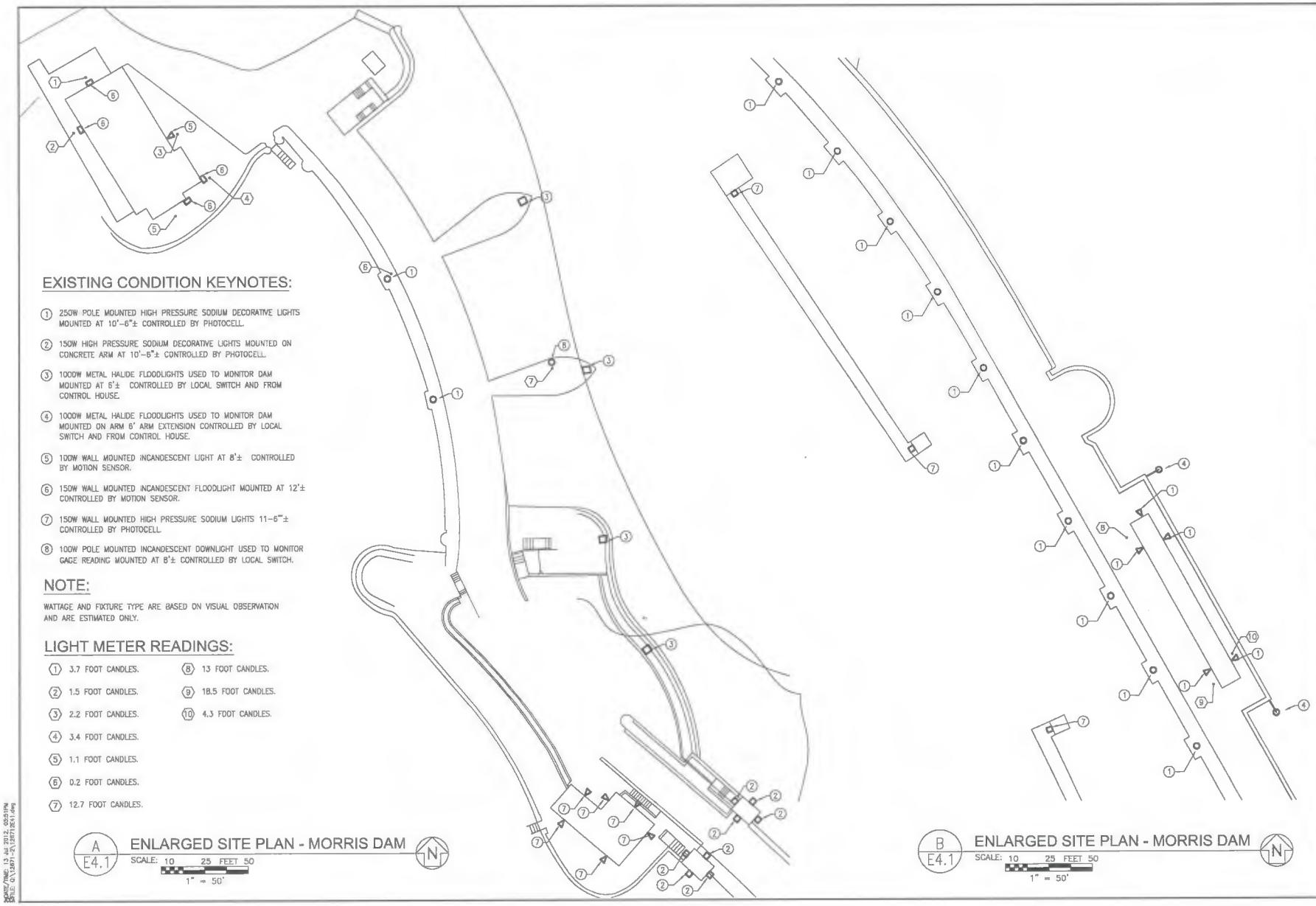
SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 MORRIS DAM

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

DRAWN BY: F.R
DESIGNED BY: S.K.
CHECKED BY: S.K.
SCALE: AS NOTED
DATE: 10-08-12

SHEET E4.0

SAVED: FRIDAY, 13 JUL 2012 1:26:51 PM
FILE: K:\12671-2\12671-2E4.0.dwg



EXISTING CONDITION KEYNOTES:

1. 250W POLE MOUNTED HIGH PRESSURE SODIUM DECORATIVE LIGHTS MOUNTED AT 10'-6"± CONTROLLED BY PHOTOCELL.
2. 150W HIGH PRESSURE SODIUM DECORATIVE LIGHTS MOUNTED ON CONCRETE ARM AT 10'-6"± CONTROLLED BY PHOTOCELL.
3. 1000W METAL HALIDE FLOODLIGHTS USED TO MONITOR DAM MOUNTED AT 6'± CONTROLLED BY LOCAL SWITCH AND FROM CONTROL HOUSE.
4. 1000W METAL HALIDE FLOODLIGHTS USED TO MONITOR DAM MOUNTED ON ARM 6' ARM EXTENSION CONTROLLED BY LOCAL SWITCH AND FROM CONTROL HOUSE.
5. 100W WALL MOUNTED INCANDESCENT LIGHT AT 8'± CONTROLLED BY MOTION SENSOR.
6. 150W WALL MOUNTED INCANDESCENT FLOODLIGHT MOUNTED AT 12'± CONTROLLED BY MOTION SENSOR.
7. 150W WALL MOUNTED HIGH PRESSURE SODIUM LIGHTS 11-6"'± CONTROLLED BY PHOTOCELL.
8. 100W POLE MOUNTED INCANDESCENT DOWNLIGHT USED TO MONITOR GAGE READING MOUNTED AT 8'± CONTROLLED BY LOCAL SWITCH.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 3.7 FOOT CANDLES.
2. 1.5 FOOT CANDLES.
3. 2.2 FOOT CANDLES.
4. 3.4 FOOT CANDLES.
5. 1.1 FOOT CANDLES.
6. 0.2 FOOT CANDLES.
7. 12.7 FOOT CANDLES.
8. 13 FOOT CANDLES.
9. 18.5 FOOT CANDLES.
10. 4.3 FOOT CANDLES.

A / E4.1 ENLARGED SITE PLAN - MORRIS DAM

SCALE: 10 25 FEET 50 — 1" = 50'

B / E4.1 ENLARGED SITE PLAN - MORRIS DAM

SCALE: 10 25 FEET 50 — 1" = 50'

J.C. CHANG & ASSOCIATES, INC.
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JCCA #12571-2

REV.	DATE:	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS	DATE:
PROJECT MANAGEMENT DIVISION	DATE:
CONTRACTOR OF RECORD	DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDDINGER No. C61062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 MORRIS DAM

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

DRAWN BY: F.F.
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 18-08-12

SHEET E4.1

DATE/TIME: 13 Jul 2012, 03:51PM
FILE: Q:\12571-2\12571E4.1.dwg

SECTION 7.0

PACOIMA

7.1 Site Description

A. The site Address is:

15300 N Pacoima Canyon Road
Sylmar, CA 91342

See Section 7.6 for site plan.

B. Currently some exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

7.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights on the poles at entry gate and canopy near entry gate are mounted higher than 15'.

C. Some lights are left on between 10:00 p.m. and sunrise which should be addressed by motion sensors and/or turning off 50% of fixtures similar to commercial / Industrial facilities.

7.3 Recommended Modifications

A. Remove two pole-mounted lighting fixtures near generator building and replace with one wall-mounted full cutoff fixtures on building. Mounting height shall not exceed 15'.

B. Remove two pole-mounted lighting fixtures on the pathway towards trash chute and replace with one pole-mounted full cutoff fixture. Mounting height shall not exceed 15'.

C. Replace two wall-mounted fixtures from lower level of control house and one wall-mounted fixture on upper level stairway landing of control house with wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

D. Remove four of seven fence-mounted floodlights near control house stairway. Three floodlights will remain in place and be manually turned on by dam operator which will be functionally adequate for the illumination required.

E. Replace pole-mounted fixture on the tram line dam crest cabin loading platform with pole-mounted full cutoff type. Mounting height shall not exceed 15'.

F. Replace two pole-mounted fixtures on the tram line ground level cabin loading platform with pole-mounted full cutoff type. Mounting height shall not exceed 15'.

G. Replace wall-mounted fixture at entry gate guard shack with wall-mounted full cutoff fixture. Mounting height shall not exceed 15'.

H. Replace one pole-mounted fixture at entry gateway, one pole-mounted fixture on the road near tram line cabin platform and one pole-mounted fixture by the bridge crossing the stream with pole-mounted full cutoff type. Mounting height shall not exceed 15'.

I. Replace seven wall-mounted fixtures on office and garage buildings with five wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

J. The automatic time switch will shut off lighting after 10:00 PM or during off hours except limited security lighting.

K. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

L. Floodlighting fixtures used for surveying the dam and supporting structures for damage during emergencies are to remain in place and be manually turned on by dam operator to satisfy operational needs which have a critical impact on public safety and will accordingly be operated as described in 2.6. See site plan for locations.

M. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly be operated as described in 2.7.

N. Provide motion sensor controls where practical.

7.4 Estimated ROM Cost

Remove two pole-mounted fixtures near generator building and replace with one wall-mounted full cutoff fixture	1 @ $1,500 = $ 1,500
Remove two pole-mounted fixtures on pathway towards trash chute and replace with one pole-mounted full cutoff fixture	1 @ $2,500 = $ 2,500
Replace three wall-mounted fixtures on control house with full cutoff type	3 @ $1,500 = $ 4,500

Remove seven floodlight fixtures mounted on fence chain near control house stairs		$ 1,500
Remove pole-mounted fixtures on upper tram line cabin platform and replace with one pole-mounted full cutoff fixture	1 @ $1,700 =	$ 1,700
Remove two pole-mounted fixtures on lower tram line cabin platform and replace with pole-mounted full cutoff fixtures	2 @ $1,700 =	$ 3,400
Replace wall-mounted fixture on entry gate guard shack with full cutoff type	1 @ $1,500 =	$ 1,500
Remove three pole-mounted fixtures near entry gate, roadway by the tram cabin and bridge with pole-mounted full cutoff fixtures	3 @ $2,500 =	$ 4,500
Replace seven wall-mounted fixture on office and garage buildings with five full cutoff type	5 @ $1,500 =	$ 7,500
Automatic Timer Switch	3 @ $1,500 =	$ 4,500
Miscellaneous		$ 10,500
Subtotal		**$43,600**
Design Contingency (25%)		$10,900
Subtotal		**$54,500**
Contractor Overhead and Profit (20%)		$10,900

Subtotal	**$65,400**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$19,620
Total	**$74,120**

7.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 Tram Cabin Platform With Pole Mounted Light

PH-2 Typical Floodlight Used To Illuminate Dam Structure During Emergencies

PH-3 Typical Floodlight Used To Illuminate Dam Structure During Emergencies

PH-4 Floodlight Illuminating The Dam Area At Night

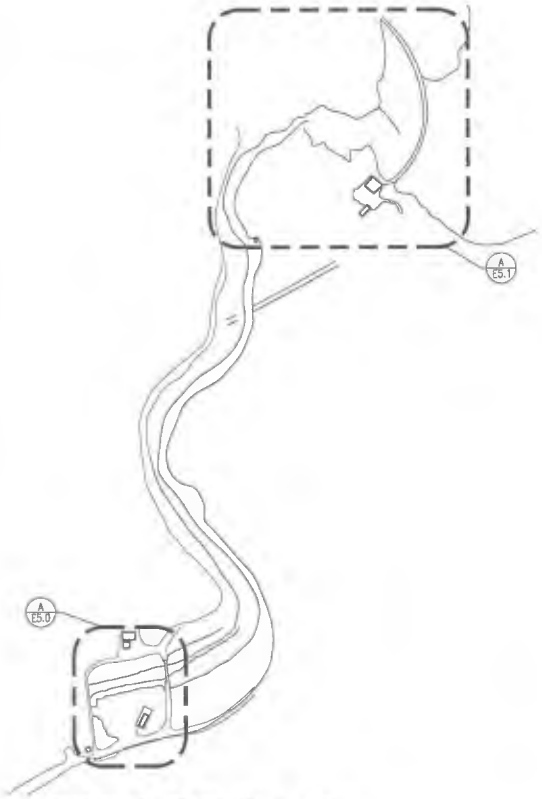
PH-5 Control House and Generator Room Illumination At Night

PH-6 Stairway Pole Lighting At Night

PH-7 Light Trespass at Entry Gate

7.6 Site Plan

The following photographs were taken during the dates of site visit stated in Section 2.2.



SITE PLAN - PACOIMA

SCALE: 0 10 20 40 80 FEET 120

1/64" = 1'-0"

A E5.0 PACOIMA-LOWER LEVEL

SCALE: 0 4 8 FEET 16

1/8" = 1'-0"

EXISTING CONDITION KEYNOTES:

1. 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 15' ± CONTROLLED BY PHOTOCELL.
2. 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 12' ± CONTROLLED BY PHOTOCELL.
3. 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 45' ± CONTROLLED FROM CONTROL HOUSE.
4. 250W WALL MOUNTED METAL HALIDE LIGHTS MOUNTED AT 10'± CONTROLLED FROM CONTROL HOUSE.
5. 250W WALL MOUNTED METAL HALIDE LIGHTS MOUNTED AT 45'± CONTROLLED FROM CONTROL HOUSE.
6. 150W WALL MOUNTED SPOT LIGHTS MOUNTED AT 8'± CONTROLLED FROM CONTROL HOUSE.
7. (2) 100W INCANDESCENT LIGHT MOUNTED AT 10'± CONTROLLED BY WITH PHOTOCELL.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 3.7 FOOT CANDLES.

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JCCA #12871-2

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE

PROJECT MANAGEMENT DIVISION DATE

CONTRACTOR OF RECORD DATE

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDMOND No. C41082 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: LA. COUNTY DEPT. OF PUBLIC WORKS - RD 558 TUJUNGA

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:

DESIGNED BY: S.R.

CHECKED BY: S.R.

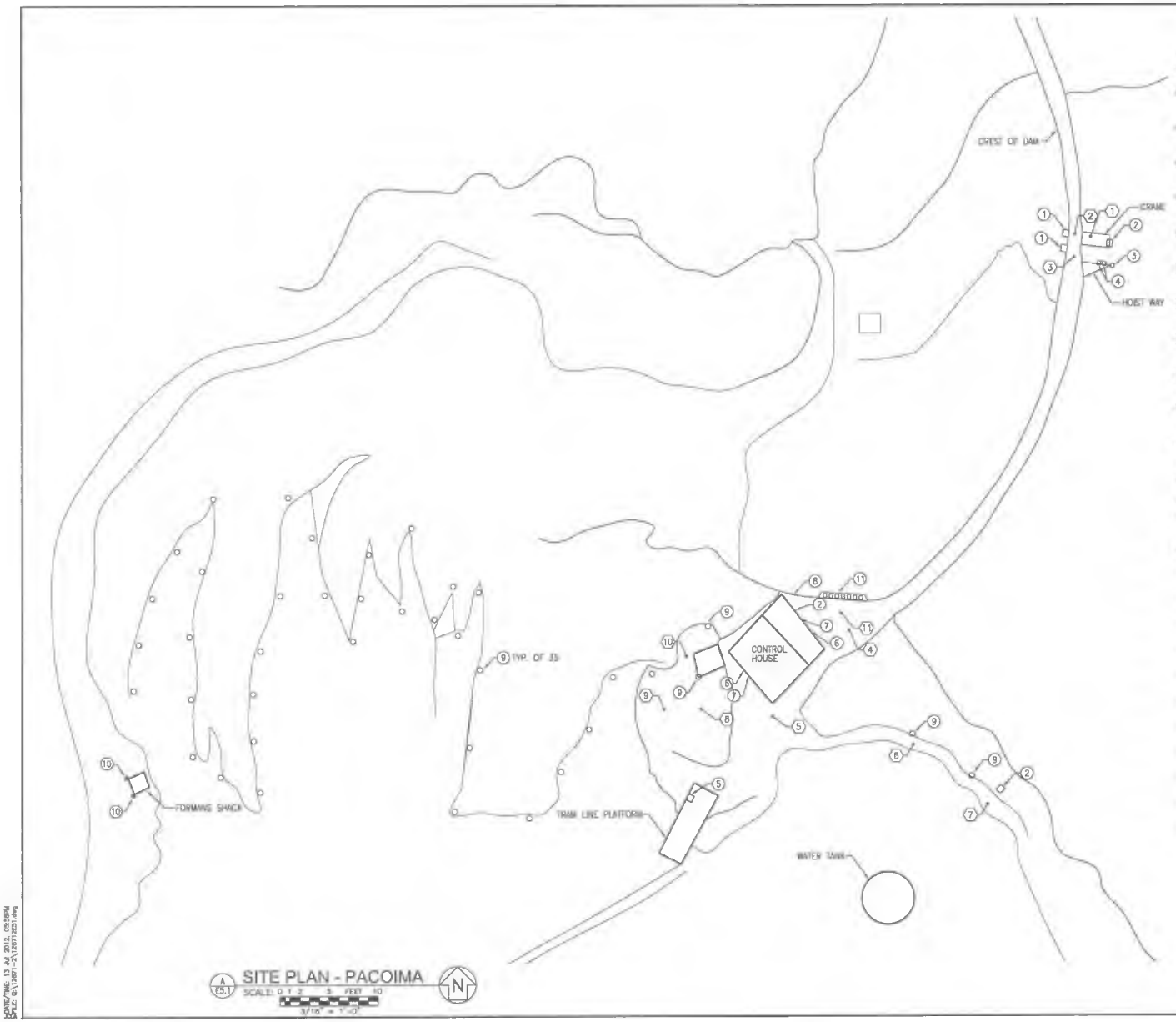
SCALE: AS NOTED

DATE: 10-08-12

SHEET

E5.0

DATE/TIME: 13 - Jul 2012, 05:34PM
FILE: C:\12871\E5.0.DWG



A E5.1 SITE PLAN - PACOIMA

SCALE: 0 1 2 5 FEET 10

3/16" = 1'-0"

EXISTING CONDITION KEYNOTES:

1. 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 3'±. CONTROLLED FROM CONTROL HOUSE
2. 1000W POLE MOUNTED METAL HALIDE FLOOD LIGHTS MOUNTED AT 4'± CONTROLLED FROM CONTROL HOUSE
3. 150W POLE MOUNTED FLOODLIGHTS MOUNTED AT 4'± CONTROLLED FROM CONTROL HOUSE
4. (2) 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 15'± AND 20'± INDIVIDUALLY CONTROLLED FROM CONTROL HOUSE.
5. 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 8'± CONTROLLED BY LOCAL SWITCH
6. 250W WALL MOUNTED METAL HALIDE LIGHTS MOUNTED AT 8'± CONTROLLED FROM CONTROL HOUSE.
7. 250W WALL MOUNTED METAL HALIDE LIGHTS MOUNTED AT 16'± CONTROLLED FROM CONTROL HOUSE.
8. 250W POLE MOUNTED HPS SPOT LIGHTS MOUNTED AT 5'± CONTROLLED FROM CONTROL HOUSE.
9. 100W EXPLOSION PROOF LIGHT MOUNTED ON A POLE AT 8'± CONTROLLED FROM CONTROL HOUSE.
10. (2) 100W INCANDESCENT LIGHT MOUNTED AT 10'± CONTROLLED BY WITH PHOTOCELL.
11. (7) 250W HPS SPOT LIGHTS MOUNTED AT 4'± CONTROLLED FROM CONTROL HOUSE.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 0.5 FOOT CANDLES.
2. 0.3 FOOT CANDLES.
3. 0.5 FOOT CANDLES.
4. 3.9 FOOT CANDLES.
5. 1.2 FOOT CANDLES.
6. 1.9 FOOT CANDLES.
7. 0.5 FOOT CANDLES.
8. 1.4 FOOT CANDLES.
9. 1.7 FOOT CANDLES.
10. 3.2 FOOT CANDLES.
11. 38.5 FOOT CANDLES.

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(310) 212 - 7944
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JCCA #12671-2

REV.	DWG.	DESCRIPTION
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APPROVALS

DIRECTOR OF PUBLIC WORKS DATE
PROJECT MANAGEMENT DIVISION DATE
CONTRACTOR OF RECORD DATE

REGISTERED PROFESSIONAL ENGINEER JAMES P. REGUERO No. C41062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558 TUJUNGA

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE WRD DAMS COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 10-06-12

SHEET E5.1

DATE/TIME: 13 JUL 2012, 03:09PM
FILE: Q:\2011-2\2011-2\11-2\11-2.dwg

SECTION 8.0

BIG TUJUNGA

8.1 Site Description

A. The site address is:

809 W Big Tujunga Canyon Road
Sunland, CA 91042

See Section 8.6 for site plan.

B. Currently some exterior lights are left on all night for security. None of the existing fixtures are the cutoff type.

C. The lights are photocell controlled and are on from dusk to dawn.

8.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. None of the existing fixtures are the full cutoff type.

B. The lights on the poles at entry gate and canopy near entry gate are mounted higher than 15'.

C. Some lights are left on between 10:00 p.m. and sunrise which should be addressed by motion sensors and/or turning off 50% of fixtures similar to commercial / Industrial facilities.

8.3 Recommended Modifications

A. Remove six wall-mounted fixtures from lower level of control house and replace with four wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

B. Remove five ceiling-mounted fixtures on upper balcony of control house and replace with three ceiling-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

C. Replace the ceiling-mounted fixture by control house back door with full cutoff type. Mounting height shall not exceed 15'.

D. Remove six wall-mounted fixtures from lower level of valve house and replace with four wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

E. Remove five wall-mounted fixtures on the cottage house and replace with four wall-mounted full cutoff fixtures. Mounting height shall not exceed 15'.

F. At lower entry gate and the nearby canopy, replace existing pole-mounted lighting fixtures with full cutoff type. Mounting height shall not exceed 15'.

G. The automatic time switch will shut off lighting after 10:00 PM or during off hours except limited security lighting.

H. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

I. Floodlighting fixtures used for surveying the dam and supporting structures for damage during emergencies are to remain in place and be manually turned on by dam operator to satisfy operational needs which have a critical impact on public safety and will accordingly be operated as described in 2.6. See site plan for locations.

J. Lighting used for the helipad area did not seem to be compliant with applicable regulations and will likely require replacement.

K. Some select light fixtures are to be left on during night hours for security and operational needs and will accordingly be operated as described in 2.7

L. Provide motion sensor controls where practical.

8.4 Estimated ROM Cost

Remove six wall-mounted fixtures on lower level of control house and replace with four full cutoff type	4 @ $1,500 = $ 6,000
Remove five ceiling-mounted fixtures on upper balcony of control house and replace with three full cutoff type	3 @ $1,500 = $ 4,500
Replace ceiling-mounted fixture at back door of control house with full cutoff type	1 @ $2,500 = $ 5,000
Remove six wall-mounted fixtures on lower level of valve house and replace with four full cutoff type	4 @ $1,500 = $ 6,000
Replace two pole-mounted fixtures at entry gate with full cutoff fixtures	2 @ $2,500 = $ 5,000
Automatic Timer Switch	3 @ $1,500 = $ 4,500
Miscellaneous	$ 11,500

Subtotal	**$42,500**
Design Contingency (25%)	$10,625
Subtotal	**$53,125**
Contractor Overhead and Profit (20%)	$10,625
Subtotal	**$63,750**
Soft Costs	
Project Management, Design, Permits, Inspection (30% of total)	$19,125
Total	**$82,875**

8.5 Photographs

The following photographs were taken during the dates of site visit stated in Section 2.2.

PH-1 Pole Mounted Fixture By Entry Gate

PH-2 Overall View of Dam Structure

PH-3 Typical Floodlight Used To Illuminate Dam Structure During Emergencies

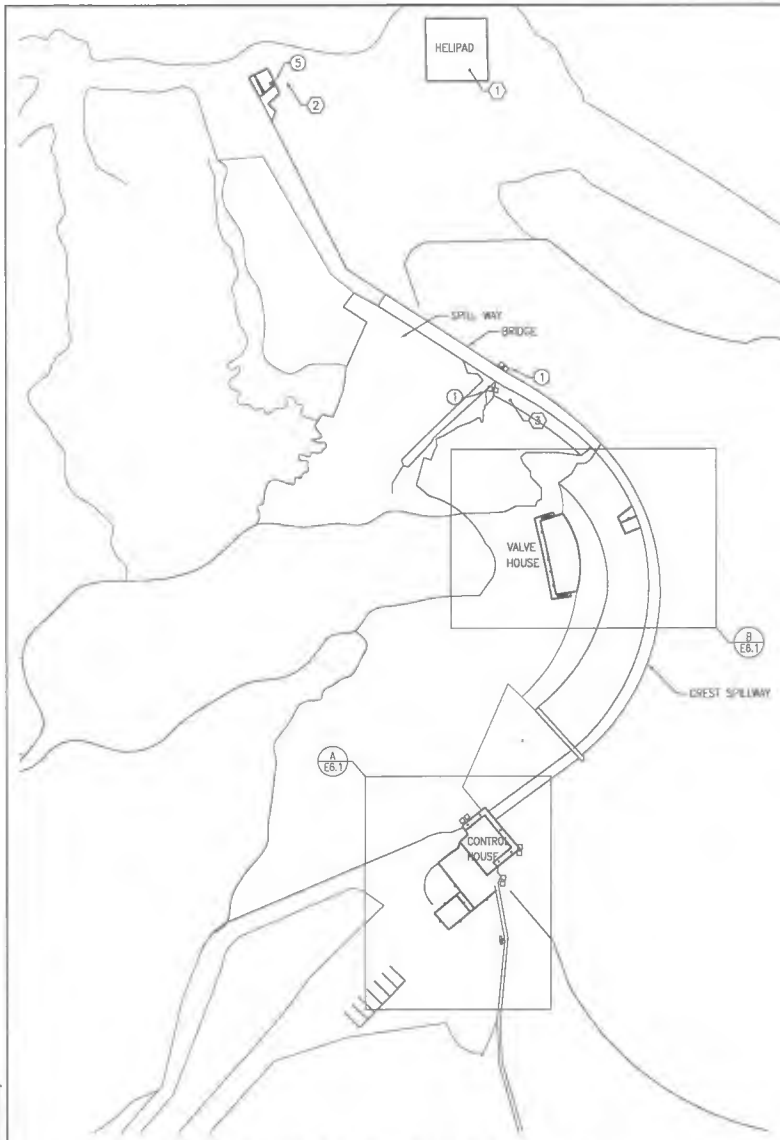
PH-4 Overall View Of Dam At Nigh

PH-5 Office And Garage Area At Night

PH-6 View Of Dam From Lower Valve House

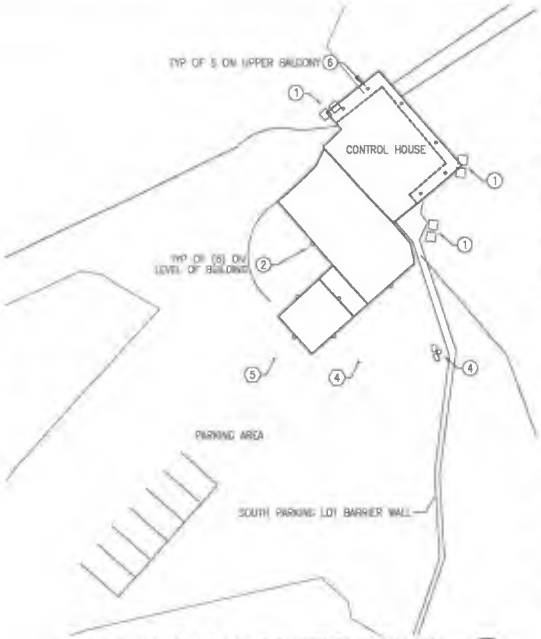
8.6 Site Plan

The following Site Plan is based on the best available information as well as observations during site visit.



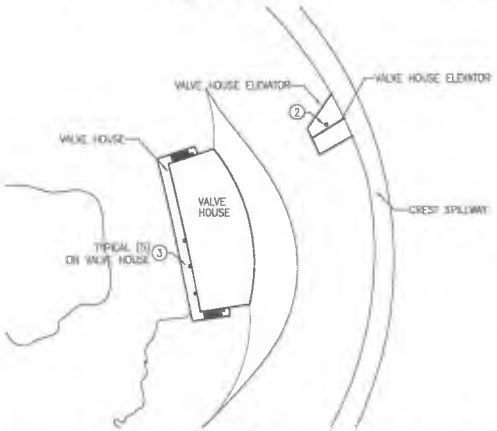
SITE PLAN - TUJUNGA DAM

SCALE: 0 4 8 FEET 16
1/8" = 1'-0"



A E6.1 TUJUNGA DAM-CONTROL HOUSE

SCALE: 0 1 2 4 FEET 8
1/4" = 1'-0"



B E6.1 TUJUNGA DAM-VALVE HOUSE

SCALE: 0 2 4 FEET 8
1/4" = 1'-0"

EXISTING CONDITION KEYNOTES:

1. (2) 1000W METAL HALIDE FLOOD LIGHTS, MOUNTED AT 6'± CONTROLLED BY PHOTOCELLS.
2. 250W WALL MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 8'± INDIVIDUALLY CONTROLLED BY PHOTOCELL.
3. 250W WALL MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 10' ± INDIVIDUALLY CONTROLLED BY PHOTOCELL.
4. (2) 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 25'± INDIVIDUALLY CONTROLLED BY PHOTOCELL.
5. 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 25' ± INDIVIDUALLY CONTROLLED BY PHOTOCELL.
6. 150W CEILING MOUNTED METAL HALIDE LIGHT FITTINGS CONTROLLED BY PHOTOCELL.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

SEE E5.0 FOR OVERALL SITE PLAN.

LIGHT METER READINGS:

1. 0.2 FOOT CANDLES.
2. 3.1 FOOT CANDLES.
3. 26.5 FOOT CANDLES.
4. 7.0 FOOT CANDLES.
5. 7.9 FOOT CANDLES.

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JCCA #12671-2

NO.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE
PROJECT MANAGEMENT DIVISION DATE
CONTRACTOR OF RECORD DATE

REGISTERED PROFESSIONAL ENGINEER
S.K.P. WONG
No. C41062
Exp. 3/31/13
CIVIL
STATE OF CALIFORNIA

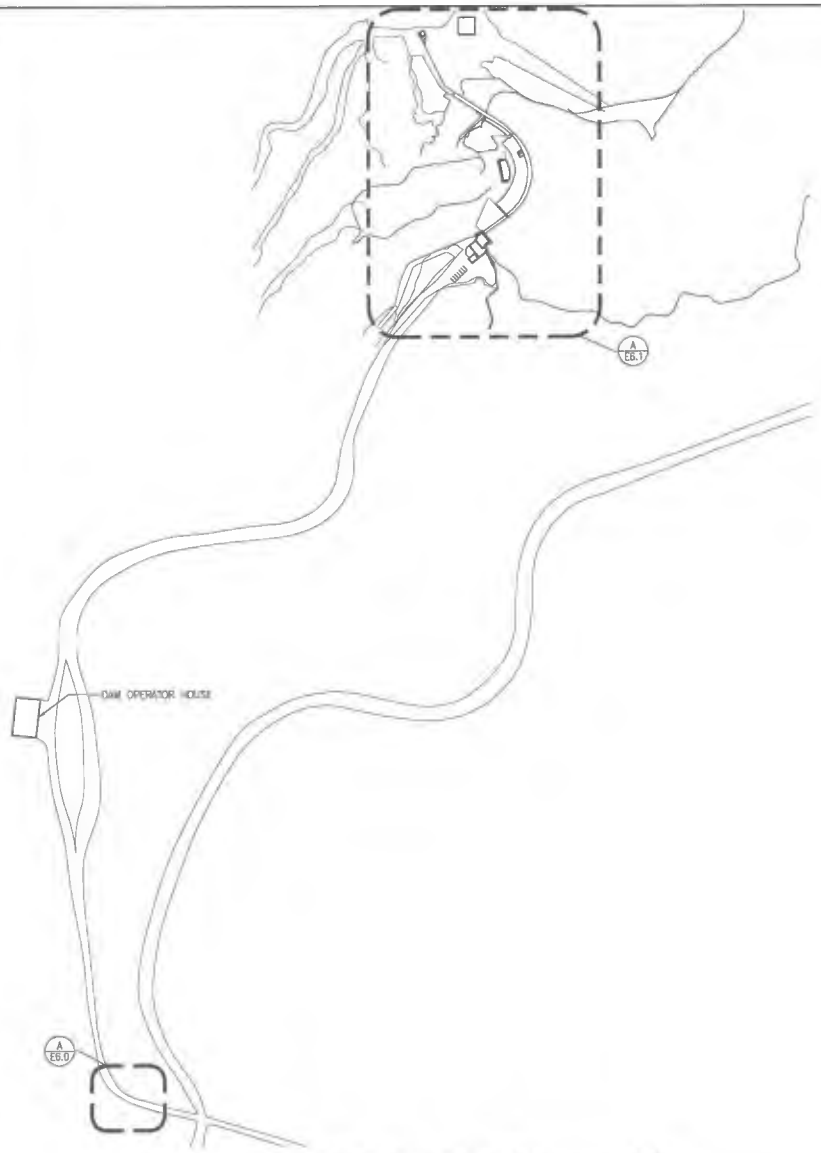
SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558
TUJUNGA

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.K.
CHECKED BY: S.K.
SCALE: AS NOTED
DATE: 10-05-12

SHEET
E6.1

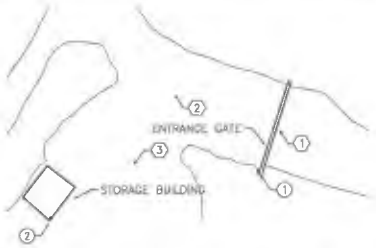
DATE/TIME: 13 Jul 2012, 05:58PM
FILE: Q:\12671-2\12671-2E6.1.dwg



SITE PLAN - TUJUNGA

SCALE: 0 10 20 40 FEET 80

1/32" = 1'-0"



A E6.0 TUJUNGA MAIN ENTRANCE

SCALE: 0 2 10 20 FEET 30

1/16" = 1'-0"

EXISTING CONDITION KEYNOTES:

1. 150W METAL HALIDE FLOODLIGHTS MOUNTED AT 15'± CONTROLLED BY PHOTOCELL.
2. 250W POLE MOUNTED METAL HALIDE FLOODLIGHTS MOUNTED AT 25' ±. CONTROLLED BY PHOTOCELL.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

1. 1.0 FOOT CANDLES.
2. 0.1 FOOT CANDLES.
3. 0.1 FOOT CANDLES.

REV.	DRG.	DESCRIPTION
	-	-
	-	-
	-	-
	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS	DATE:	-
PROJECT MANAGEMENT ENGINEER	DATE:	-
CONTRACTOR OF RECORD	DATE:	-

J.G. CHANG & ASSOCIATES, INC.
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FAX (310) 212 - 3272

JCCA #12671-2

REGISTERED PROFESSIONAL ENGINEER
JAMES R. REDWOOD
No. C41082
Exp. 3/31/13
CIVIL
STATE OF CALIFORNIA

SHEET TITLE: L.A. COUNTY DEPT. OF PUBLIC WORKS - RD 558
TUJUNGA

PROJECT TITLE: RURAL OUTDOOR LIGHTING ORDINANCE
WRD DAMS
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY:
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 10-05-12

SHEET
E6.0

DATE/TIME: 13 JUL 2012, 05:59PM
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SECTION 9.0

NOTES ON ESTIMATED COSTS

A. The proposed new light fixtures are LED. While these have a higher cost to purchase they have several benefits including much longer life (about twice) than other types. They are also much more efficient producing the same light levels for much lower power consumption. This will eliminate the need to upgrade the electrical service at the county dam sites.

B. The unit costs shown in the cost estimates for each fixture type include labor costs for installation. In the case of pole mounted fixtures they include the pole, arm, fixture, and foundation.

C. Design Contingencies are allowance to account for the preliminary nature of the analysis. It accounts for additional costs from unforeseen conditions such as hazardous materials removal and other hidden costs.

Attachment D

18 June 2012

RURAL OUTDOOR LIGHTING ORDINANCE
LAKE HUGHES WASTEWATER TREATMENT PLANT AND MAIN PUMP STATION
COST IMPACT ANALYSIS

REPORT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
Architectural Engineering Division
900 South Fremont Avenue
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Prepared by:

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JCCA 12670-8

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1.0 EXECUTIVE SUMMARY

The County of Los Angeles is considering adopting a new Rural Outdoor Lighting Ordinance initiated by the Department of Regional Planning. This report evaluates the cost impact on the Department of Public Works (DPW) to upgrade their Lake Hughes Wastewater Treatment Plant and Main Pump Station to comply with the proposed ordinance.

The Lake Hughes Wastewater Treatment Plant and Main Pump Station are located in rural areas and therefore impacted by the new ordinance.

While the existing area lighting fixtures in Lake Hughes Water Treatment Plant and Main Pump Station are full cut-off types, the total mounting height is 27' (base and pole) and would need to be reduced to 15' to comply with the ordinance. Existing floodlight type wall-mounted fixtures on both sides are not full cut-off types and would need to be replaced in order to comply with the ordinance. In addition, the existing lighting fixtures serving the Water Treatment Plant Platform are classified hazardous area fixtures due to the potential presence of methane. If a variance is not granted to maintain the hazardous area fixtures due to special conditions, they would require modification or replacement.

Also, current lighting fixture control systems do not comply with the ordinance.

Estimated Rough Order of Magnitude (ROM) Costs:

A.	Lake Hughes Wastewater Treatment Plant:	**$ 69,030**
B.	Lake Hughes Main Pump Station	**$ 17,355**

2.0 SCOPE OF THE ANALYSIS

2.1 The County of Los Angeles is considering adopting a new Ordinance amending Title 22 of the County Code. The Ordinance will establish a Rural Outdoor Lighting District that will establish guidelines governing outdoor lighting. The main objectives include curtailing light pollution, preventing light trespass onto adjoining properties, promoting dark skies, conserving energy, etc., while permitting reasonable uses of outdoor lighting for night time safety, security, productivity, and enjoyment.

2.2 DPW Lake Hughes Water Treatment Plant and Main Pump Station are located in rural areas and will be effected by the ordinance.

2.3 The scope of this report is to:

A. Review the requirements of the Ordinance and analyze two of the sites to confirm existing installation and changes required to comply with the Ordinance.

B. Provide a rough order of magnitude (ROM) cost estimate to implement the required changes.

C. The treatment Plant site is zoned C3-Unlimited Commercial. The Pump Station site zoned A1-Light Agricultural.

2.4 The main provisions of the new Ordinance as it affects the Lake Hughes Water Treatment Plant and Main Pump Station can be summarized as follows:

A. Outdoor lighting fixtures must be fully shielded type (22.44.540 C). That is a light fixture that emits no light in the area above a horizontal plane passing through the lowest point of the fixture and not more than 10 percent of its light in the area between zero and 10 degrees below such horizontal plane. A full cutoff fixture is a fully shielded fixture of a specific design, usually a box or oval shape with a flat bottom.

B. Light trespass measured at the property line must not exceed 0.5 foot-candles where the adjoining property is zoned residential, open space, agricultural or public right-of-way.

For other adjoining zoning the limit is 1.0 foot-candles.

C. The fixture height from ground level to the top of the fixture (22.44.450 D) is limited to:

1. Residential, agricultural, open space and watershed:
20 Feet – except if over 15 feet the fixture lumens is limited to 400. This effectively limits the height to **15 feet**, since 400 lumens is an extremely low lighting level (equivalent to a 40-watt incandescent lamp).

2. For industrial zoning
35 Feet

3. For parcels zoned other than above 30 Feet

D. Outdoor lighting must be turned off between the hours of 10 p.m. and sunrise. There must be an automatic time switch control to turn the lights off. The timer must be capable of separate schedules for weekdays and weekends. (22.44.550)

Exceptions:

1. Where there are night time operations the lights must be turned off within one hour of close of business.
2. Commercial and industrial uses may reduce the lighting level to 50 percent between 10 p.m. and sunrise instead of turning off all lights. (22.44.550 B.3.b.)
3. Security and operations lighting for public facilities. (22.44.550 C.4.c.). (This may not apply since the sites in question may not be classified as Public Facilities).

2.5 The two sites were visited by JCCA staff (Shay Redmond, Sevag Avanessian and JCCA's lighting consultant Jun Apolinario), DPW Senior Electrical Engineer (John Fallon) and were assisted by site staff. Both sites were inspected on Tuesday 05/15/2012. Existing conditions were recorded and are shown on the drawings included in Appendix 1. Light level readings were taken after dark and the existing fixture types were noted. The cost estimates herein were prepared based on the input from the lighting consultant and from lighting contractors.

3.0 Lake Hughes Wastewater Treatment Plant

3.1 Site Description

A. The site Address is:
17201 Lake Elizabeth Road
Lake Hughes, CA 93532

The site area is approximately 0.9 acres. See Appendix I for the site plan.

B. Currently most exterior lights are left on all night for security. All lighting is controlled by a timer located near electrical panels. Some of the existing fixtures are the not cutoff type.

3.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. Wall-mounted flood lights installed on the sides of the existing buildings are not the full cutoff type.

B. All pole-mounted lighting fixtures are mounted higher than 15'.

C. Portions of the South property line have lighting levels above 0.5 foot candles.

D. The lighting level at the South property line at the light fixture at the entry gate exceeds 0.5 foot candles.

F. Lights are left on between 10:00 p.m. and sunrise.

G. The explosion proof fixtures mounted on the treatment plant platform are not the cutoff type and are higher than 15' above grade.

3.3 Recommended Modifications

A. Modify all existing poles to reduce the height at which the fixture is mounted not to exceed 15'. This will require drilling the poles and mounting the light fixtures at 15'.

B. Install new light timer switch near the entry gate to allow for turning on the two pole-mounted fixtures illuminating the gate and road.

B. Replace all wall-mounted fixtures, none of which are full cut-off types, with full cut-off wall packs.

C. Provide one additional wall-mounted wall pack fixture and timer switch near the platform southern stairway.

D. Currently there are ten fixtures on the treatment plant platform. All ten fixtures are explosion-proof fixtures rated for hazardous areas (Class 1, Division1). These fixtures are not the full cut-off type. This class of light fixture is not available with a cut-off option in order to avoid accumulation of explosive gasses or particles. The preferred approach would be to request a variance from the ordinance since these light fixtures are used in a special application. If it is not possible to obtain a variance, the fixture could be modified to provide the light cut-off. This may affect the fixture rating. At a minimum, a hole would have to be drilled in the highest point of the cutoff shroud to allow gasses to escape.

G. Provide new Automatic time switch to serve the explosion-proof fixtures on platform.

G. Program the existing automatic time switches to shut off all lights between the hours of 10:00p.m. and sunrise.

H. The automatic time switches will have an override capability to allow the lights to be turned on for off hours (emergency) operations and will automatically turn off again after one hour.

3.4 Estimated ROM Cost

Modify height of and re-mount fixtures	4@ $2,500 =	$10,000
Replace all wall-mounted lights On buildings with full cut-off	5@ $1,200 =	$6,000
One additional wall-mounted light For platform stairway	1@ $1,200 =	$1,200
Additional wiring and trenching for Light switch at gate	1@ $10,000 =	$10,000
Additional wiring and trenching for New wall pack and switch near platform	1@ $1,500 =	$1,200
New Automatic Time Switch	1@$1,500 =	$1,500
Miscellaneous		$ 5,500
	Subtotal	$35,400
Design Contingency (25%)		$8,850
	Subtotal	$44,250
Contractor Overhead and Profit (20%)		$8,850
	Subtotal	$53,100

Soft Costs		
Project Management, Design, Permits, Inspection (30% of total)		$15,930
	Total	**$69,030**

4.0 Lake Hughes Main Pump Station

4.1 Site Description

A. The site address is:
43666 N Trail K
Lake Hughes, CA 93532

The site area is approximately 0.2 acres. See Appendix 1 for site plan.

B. Currently all exterior lights are left on all night for security. All lighting is controlled by a timer located on the 2nd floor control building.

C. The site is served by existing pole-mounted flood lights as well as a wall-mounted flood light.

4.2 Non-compliance with Proposed Ordinance

The current non-compliance conditions to the new Ordinance at the site are:

A. Wall-mounted flood light installed on existing building is not the full cut-off type.

B. All pole-mounted lighting fixtures are mounted higher than 15'.

C. The lighting level at the Northwest property line at the light fixture at the entry gate exceeds 0.5 foot candles. Three of the four pole mounted lights were burned out. If they were operational, the light level at the property line adjacent to each of them would also have exceeded 0.5 foot candles.

D. Lights are left on between 10:00 p.m. and sunrise.

4.3 Recommended modifications

A. Eliminate the four pole-mounted fixtures.

B. Eliminate the wall-mounted fixture on the building and replace it with item C below.

C. Provide one new full cut-off fixture under the control building.

D. Provide new light time switch on the column closest to the stairway leading up to the control room.

E. Program the existing automatic time switch to shut off all lights between the hours of 10:00p.m. and sunrise.

4.4 Estimated ROM Cost

A. Ordinance Compliance

Removal of pole-mounted fixtures		4@ $1,250 = $ 5,000
One Additional light under building		1@ $1,750 = $ 1,750
Removal and replace one wall-mounted fixture		1@ $900= $ 900
Miscellaneous		$ 1,250
	Subtotal	$ 8,900
Design Contingency (25%)		$ 2,225
	Subtotal	$ 11,125
Contractor Overhead and Profit (20%)		$ 2,225
	Subtotal	$ 13,350
Soft Costs Project Management, Design, Permits, Inspection (30% of total)		$ 4,005
	Total	**$ 17,355**

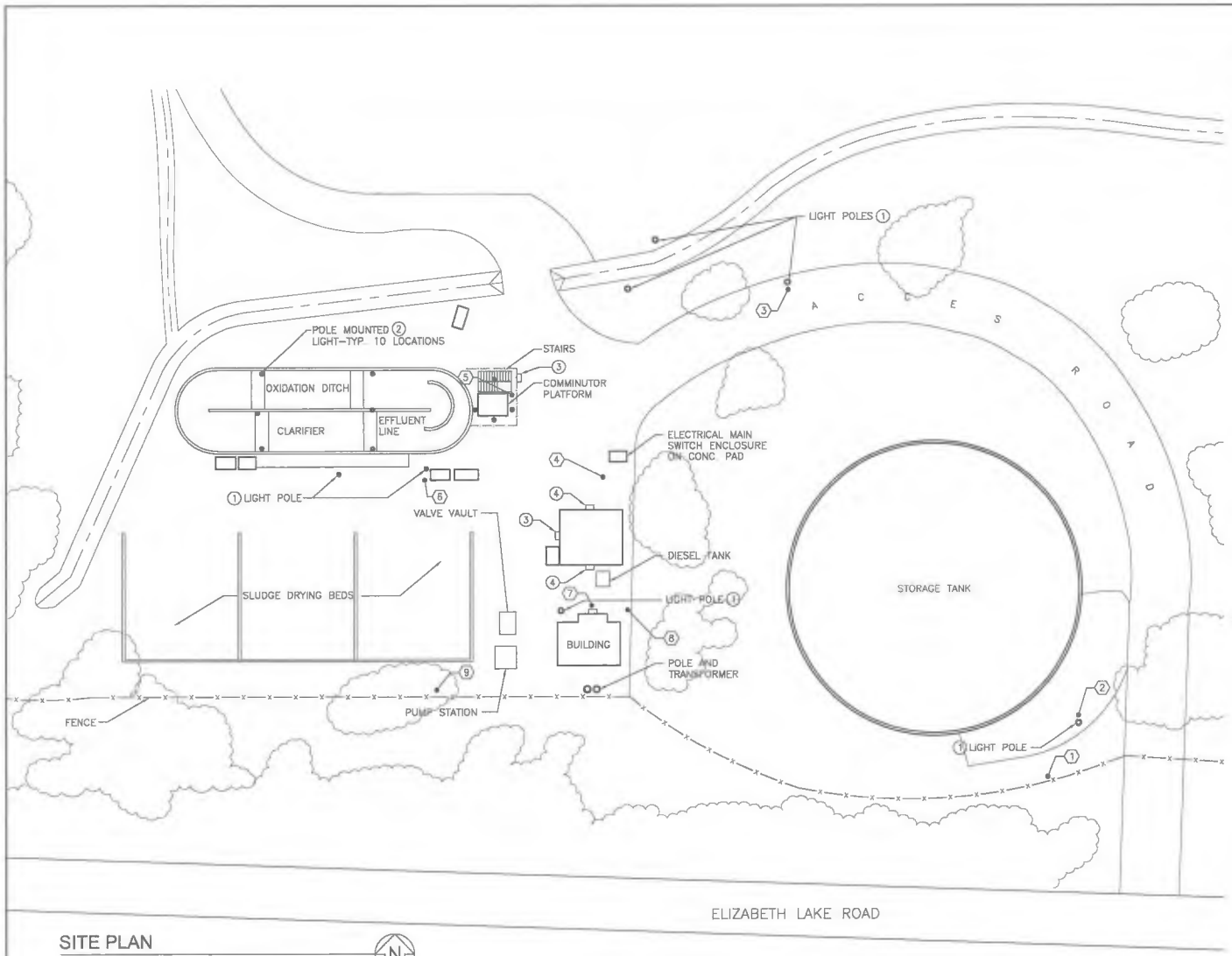
5.0 Notes on Estimated Costs

A. The proposed new light fixtures are LED. While these have a higher cost to purchase they have several benefits including much longer life (about twice) than other types. They are also much more efficient producing the same light levels for much lower power consumption. This will eliminate the need to upgrade the electrical service at the maintenance yards.

B. Design Contingencies are allowance to account for the preliminary nature of the analysis. It accounts for additional costs from unforeseen conditions such as hazardous materials removal and other hidden costs.

APPENDIX I

SITE PLANS



SITE PLAN

SCALE: 0 10 20 FEET 40

1" = 40'

N

EXISTING CONDITION KEYNOTES:

(1) 400W HIGH PRESSURE SODIUM POLE-MOUNTED FLOODLIGHTS MOUNTED AT 26'-6"± CONTROLLED BY EXISTING TIMER.

(2) 175W HIGH PRESSURE SODIUM EXPLOSION-PROOF LIGHTS AT 16'-6"± CONTROLLED BY LOCAL SWITCH.

(3) 90W HALOGEN DOUBLE SPOTLIGHTS @ 10'± CONTROLLED BY SWITCH.

(4) 90W HALOGEN SINGLE SPOTLIGHTS @ 10'± CONTROLLED BY SWITCH.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

(1) 1.2 FOOT CANDLES.

(2) 31 FOOT CANDLES.

(3) 24 FOOT CANDLES.

(4) 3.7 FOOT CANDLES.

(5) 10.5 FOOT CANDLES (ON PLATFORM).

(6) 7.3 FOOT CANDLES.

(7) 1.7 FOOT CANDLES.

(8) 3.6 FOOT CANDLES.

(9) 0.4 FOOT CANDLES.

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ENGINEERS ARCHITECTS PLANNERS
305 VAN NESS AVE. SUITE 209
TORRANCE, CA 90501
(310) 212 - 7644
(310) 212 - 5272 FAX

JCCA #12670-7

NO.	DATE	DESCRIPTION

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:

PROJECT DEPARTMENT ENGINEER DATE:

CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES F. REDWOOD No. C41062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

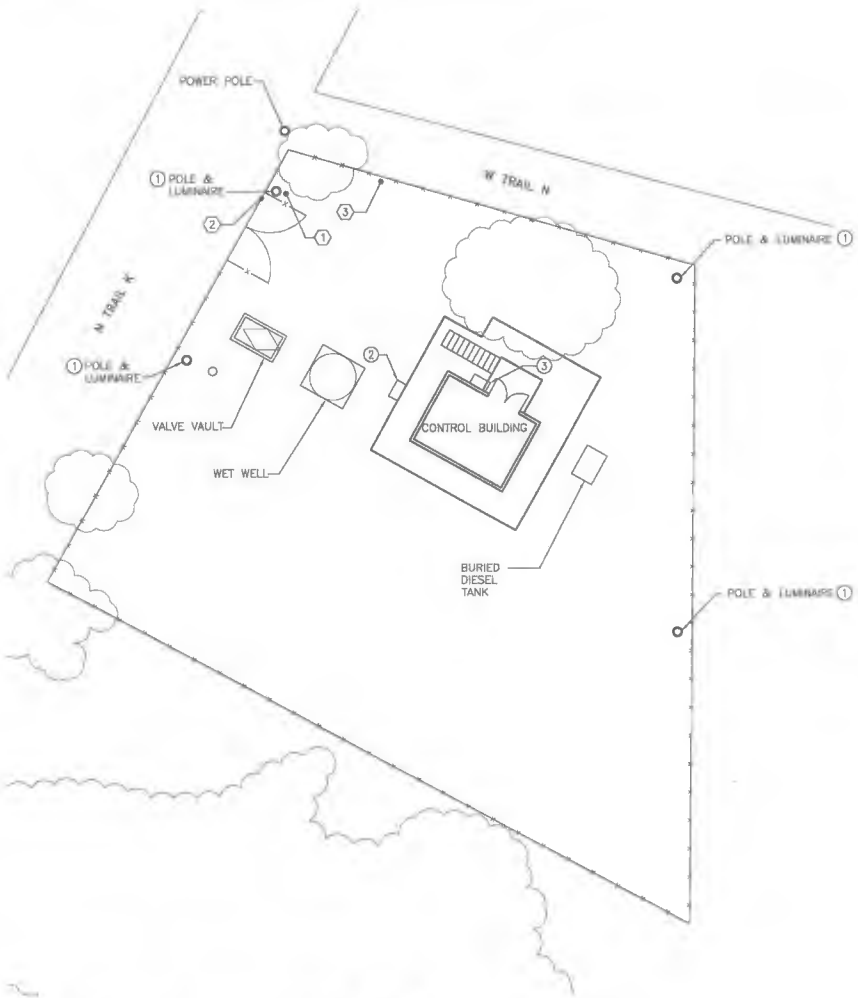
SHEET TITLE: TREATMENT PLANT 2 - SITE PLAN

PROJECT TITLE: LAKE HUGHES WASTEWATER TREATMENT
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY: F.R.
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 2012-03-11

SHEET
E-1

DATE/TIME: 18 Jun 2012, 04:59PM
FILE: G:\12670-8\12670TD1.dwg



SITE PLAN

SCALE 0 5 10 FEET 20
1" = 20'

N

EXISTING CONDITION KEYNOTES:

① 400W HIGH PRESSURE SODIUM POLE-MOUNTED FLOODLIGHTS MOUNTED AT 26'-6"± CONTROLLED BY EXISTING TIMER.

② 50W HIGH PRESSURE SODIUM SINGLE SPOTLIGHTS @ 10'± CONTROLLED BY SWITCH.

③ WARNING LIGHTS WALL MOUNTED TO CONTROL BUILDING 8'± ABOVE SECOND FLOOR STAIRWAY LANDING.

NOTE:

WATTAGE AND FIXTURE TYPE ARE BASED ON VISUAL OBSERVATION AND ARE ESTIMATED ONLY.

LIGHT METER READINGS:

① 31 FOOT CANDLES.

② 1.7 FOOT CANDLES.

③ 2.9 FOOT CANDLES.

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JCCA #12570-7

REV.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-

APPROVALS

DIRECTOR OF PUBLIC WORKS DATE:
PROJECT MANAGEMENT GROUP DATE:
CONTRACTOR OF RECORD DATE:

REGISTERED PROFESSIONAL ENGINEER JAMES P. REDWOOD No. 041062 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

SHEET TITLE: MAIN PUMP STATION - SITE PLAN

PROJECT TITLE: LAKE HUGHES WASTEWATER TREATMENT
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

DRAWN BY: F.R.
DESIGNED BY: S.R.
CHECKED BY: S.R.
SCALE: AS NOTED
DATE: 2012-09-11

SHEET
E-2

DATE/TIME: 19 Jun 2012, 05:02PM
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APPENDIX II

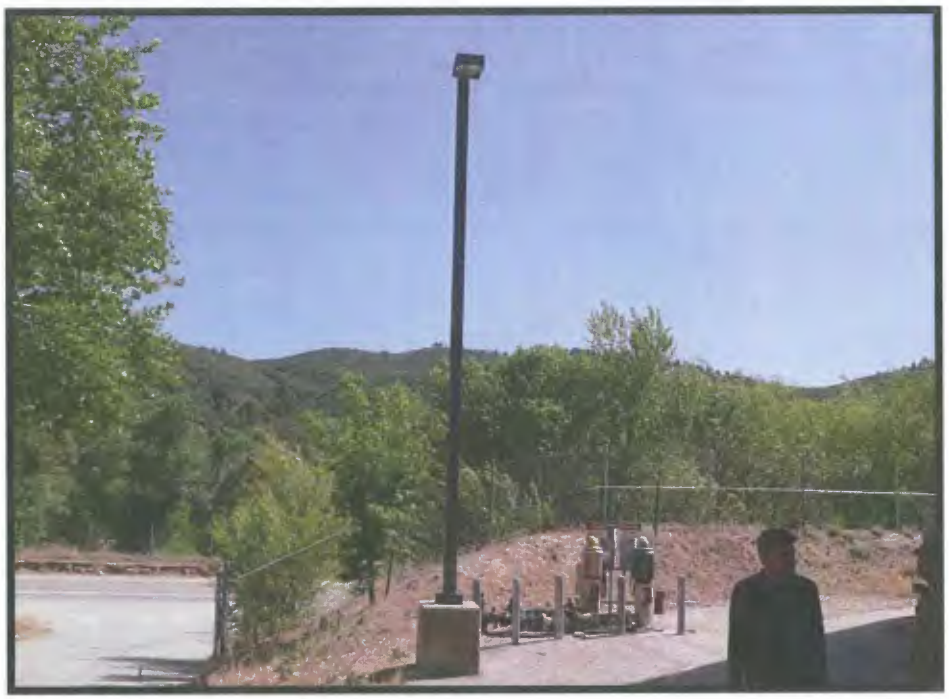
PHOTOGRAPHS

Note:

Photographs 1 to 8 are for Lake Hughes Wastewater Treatment Plant

Photographs 9 to 12 are for Lake Hughes Main Pump Station

PH - 1: Wastewater Treatment Platform



PH - 2: Pole-mounted Lighting Fixtures Requiring Height Reduction

PH - 3: Explosion-proof Fixture Serving Wastewater Treatment Platform

PH - 4: Wall-mounted Flood Lighting

PH - 5: Treatment Plant Platform Lighting

PH - 6: Wall-mounted Lighting Fixtures

PH - 7: Pole-mounted Lighting Fixture At Entrance Road

PH - 8: Wall-mounted Flood Light On Side Of Building

PH - 9: Pole-mounted Light Fixture By Gate

PH - 10: Wall-mounted Floodlight On Side of Control Room Building

PH - 11: Pole-mounted Fixture To Be Eliminated

PH - 12: Warning Lights To Be Eliminated

Attachment E

DARK SKIES ORDINANCE COMPLIANCE

ACTION PLAN

LOS ANGELES COUNTY WATERWORKS
DISTRICT NOS. 21, 29, 36, 27, AND 40

PREPARED BY
DAVID MERRELL

APRIL 2012

April 24, 2012

TO: Adam Ariki
Daniel J. Lafferty

FROM: Eleni Hailu
Project Management, Mapping and Right of Way,
Budget, and Procurement Section

LOS ANGELES COUNTY WATERWORKS DISTRICT NOS. 21, 29, 36, 37, AND 40
DARK SKIES ORDINANCE COMPLIANCE ACTION PLAN
PROJECT NO. Y54002261X

Attached for your approval is an Action Plan prepared by the Project Management Unit in cooperation with both Malibu and Lancaster Electro-Mechanic staff for replacement of existing lighting fixtures at various Waterworks facilities to comply with the draft Dark Skies Ordinance. This ordinance would amend Title 22 of the Los Angeles County Code for the establishment of a rural outdoor lighting district to regulate outdoor lighting in the rural areas of Los Angeles County. The Action Plan includes background information on existing conditions, statement of the problem, and the scope of work for the recommended solution. The Action Plan also details project objective, funding sources, implementation cost, and an implementation schedule.

SK:ea
memo 403 - Dark Skies Action Plan

Attach.

BACKGROUND/ EXISTING CONDITION/ PROBLEM STATEMENT

On January 24, 2012, the Los Angeles County Board of Supervisors (Board) passed a motion instructing County Counsel, in cooperation with the Director of Regional Planning and the Director of Public Works, to prepare an ordinance amending Title 22 of the Los Angeles County Code as recommended by the Regional Planning Commission except as modified by five specific amendments and bring the revised ordinance back to the Board of Supervisors for final approval. The motion further instructed the Director of Public Works, the Director of Internal Services, and all other departments that operate facilities affected by this ordinance, to provide the Board of Supervisors with a report detailing how they plan to comply with this ordinance within six months, and as needed thereafter. The motion also instructed that this report should be prepared with the goal of finding the most cost-effective method of complying with this ordinance and reducing light impacts to the rural communities of Los Angeles County; and, prohibited Public Works from using Road Funds or Flood Control District funds for this purpose, unless they receive explicit permission at a later date from the Board of Supervisors. This Action Plan was prepared in response to the last portion of the Board Motion and presents a list of the affected Waterworks Districts' facilities and a scope of work for compliance with the draft ordinance.

According to a Regional Planning board letter for the draft ordinance dated January 24, 2012, on December 14, 2010, the Board approved a motion instructing the Director of Regional Planning to prepare an ordinance that establishes a "rural lighting" zoning overlay that would apply to all of the County's rural unincorporated areas; including those in the Antelope Valley, the Santa Clarita Valley, and the Santa Monica Mountains. The ordinance would provide a single set of objective, measurable standards for outdoor lighting that would be applicable within the rural lighting zoning overlay. In addition, the Board instructed the Director of Regional Planning to coordinate with the Director of the Department of Public Works to develop a set of standards for street lights that would be applicable within the rural lighting zoning overlay.

Waterworks Division performed site inspections and identified 50 Waterworks sites affected by the proposed ordinance. Attachment A illustrates the rural areas that will be covered by the ordinance and Attachment B shows the 50 affected Waterworks sites. Some of the sites contain multiple facilities that currently do not comply with the draft ordinance and some sites contain no lighting.

SUMMARY OF DRAFT ORDINANCE REQUIREMENTS

The compliance requirements under the draft ordinance are as follows:

Development Regulations (22.44.540)

A. Lighting allowance: Outdoor lighting shall not exceed the lighting allowance within the 2008 Building Energy Efficient Standards for Lighting Zone 2 of 0.045

watts per square foot and comply with the lighting trespass regulations in subsection B below;

B. Light trespass: Outdoor lighting shall not cause light trespass. The following is considered light trespass;
    1. Over 0.5 foot-candles where the zoning on the adjacent parcel is a residential, open space, or agricultural zone, or public right-of-way; or
    2. Over 1.0 foot-candles where the zoning on the adjacent parcel is any other zone besides residential, open space or agricultural.
C. Shielding: All outdoor lighting shall be fully shielded.
D. Maximum height: The maximum height for outdoor lighting shall be as follows, measured from finished grade to the top of the fixture, unless noted otherwise in Section 22.44.560:
    1. Residential, agricultural, open space and watershed zones – 20 feet. Each outdoor light installed above 15 feet in height shall have a manufacturer's maximum output rating of less than 400 lumens;
    2. Zoning on the property is any other zone besides residential, agricultural, open space, watershed or industrial – 30 feet; and
    3. Industrial zones – 35 feet.
E. Maintenance: Outdoor lighting shall be maintained in good repair, intact and free of severe cracks, with shielding securely attached and functional as designed.

Additional Requirements for Mixed Use Buildings and Commercial Uses (22.44.550)

A. Building entrance lighting: All building entrances shall install light fixtures that provide accurate color rendition so that persons entering or exiting the establishment can be easily recognized. Building entrance lighting shall be used between sundown and 10 p.m. or within one hour past the close of the business, whichever is later.
B. Hours of operation:
    1. Outdoor lighting shall be turned off between the hours of 10 p.m. and sunrise, except where uses operate past 10 p.m., in which case lighting shall either be turned off within one hour after the close of business or regulate lighting in compliance with Section 22.44.560.C.
C. Automatic controls: All outdoor lighting systems shall install automatic time switch control devices or system used to turn lighting off after 10:00 p.m., and controls shall:
    1. Be capable of programming different schedules for weekdays and weekends; and
    2. Have program backup capabilities that prevent the loss of the device's schedules for at least 7 days, and the device's time and date setting for at least 72 hours if power is interrupted.
    3. Either subsection 3.a or 3.b below may be used to regulate lighting between 10:00 p.m. and sunrise;
        a. Motion sensors used to turn on lighting after 10 p.m. when activity is detected. The motion sensor shall be capable of automatically

turning off all the lights in an area no more than 10 minutes after the area has been vacated. The motion sensor fixture shall be fully shielded; or

b. In lieu of turning all lighting off, commercial and industrial uses may reduce light levels or eliminate (turn off) by a minimum of 50 percent between 10 p.m. and sunrise.

4. Exemptions to hours of operation:
    a. Building code-required lighting for steps, stairs, walkways, and points of ingress and egress to buildings.
    b. Lighting governed by a discretionary use permit in which types of lighting and times of operation are specifically identified.
    c. Security and operations lighting for public facilities.

Prohibited Lighting (22.44.570): The following types of outdoor lighting shall be prohibited:

A. Drop-down lenses;
B. Mercury vapor lights;
C. Ultraviolet lights; and
D. Searchlights, laser lights, or any other lighting that flashes, blinks, alternates, or moves.

PROPOSED SOLUTION/ SCOPE OF CONCEPT

The vast majority of Waterworks sites can meet the terms of the draft ordinance by simple light fixture modifications. These modifications will include replacement of light bulbs and installation of shielding on the fixtures to meet the specific lighting allowance and light trespass requirements of each site. Attachment C provides a summary of site modifications required to comply with the proposed ordinance. Attachment D delineates acceptable fixture types recommended by Regional Planning.

The January 24, 2012, Board Motion limited alternatives and eliminated all exemptions for public facilities, except for those operated by the Sheriff's Department or Probation Department, or those that house (temporarily or permanently) incarcerated persons. However, item four of the motion will allow the Director of Regional Planning to approve taller light standards than the heights specified in this ordinance where the property owner or applicant demonstrates that taller fixtures would reduce the total number of light fixtures needed, and would reduce the amount of light trespass. The Director Regional Planning has indicated in previous discussions with Public Works that reasonable variances will be afforded as necessary for security and safety requirements including lighting fixtures placed on top of tanks which are above height restrictions.

A variance will be filed with Regional Planning for all cases where security or other necessary requirements do not allow the recommended modifications for compliance with the draft ordinance. Attachment C identifies 24 sites with fixture heights, such as light fixtures on top of tanks, exceeding the requirements of the ordinance.

ENVIRONMENTAL DOCUMENT AND PERMIT REQUIREMENTS

No environmental documentation is required for the proposed light fixture modifications.

R/W REQUIREMENTS

All affected sites are located entirely within Waterworks District owned property. Therefore, no right-of-way processing or staging area for the actual work will be required.

PRELIMINARY COST ESTIMATE

The Action Plan implementation cost estimate is based on information gathered from Waterworks field personnel's site visits. A construction contract is not necessary for the implementation of this Action Plan. All materials will be procured and installed by Waterworks field personnel.

Preliminary Cost Estimate	
Cost Category	**Amount**
Materials and Labor (See Attachment C for detailed cost breakdown)	$25,000
Project Management	$8,000
Contingencies (10%)	$2,500
Inflation (3%)	$750
Total ≈	**$36,250**

The cost estimate provided is based on standard pricing and does not reflect a spike in demand for materials or cost, expected from the short compliance time span given.

FUNDING OPTIONS

Sufficient funds are available within each District's General Fund to meet the cost estimate provided.

OTHER AGENCIES INVOLVED

The Los Angeles County Internal Services Department and the Antelope Valley East Kern Water Agency own facilities within Waterworks Districts sites. These facilities' lighting fixtures will require modifications as well. Therefore, Waterworks will work with these agencies to make their facilities compliant with the ordinance. These agencies will be billed for modifications performed by Waterworks.

SUPPORT DIVISION INVOLVEMENT

Services that will be required from other divisions:

OSD: Procurement of materials through main warehouse if available.

SCHEDULE

The preliminary schedule is based on an assumption of one year from date of submission of report to adoption of draft ordinance. Important schedule deadlines are presented below with implementation durations provided by the field. Compliance is required within 6 months of the passing of the ordinance for all facilities which have light trespass. It is assumed conservatively that all Waterworks facilities fall under this requirement. (See Attachment E for detailed schedule)

Milestone Description	Estimated Start
Action Plan Due to Regional PI	June 24, 2012
Adoption of Ordinance	June 17, 2013
Apply for Variances	June 17, 2013
Procurement of Materials	June 17, 2013
Installation of Fixtures	July 16, 2013
Complete Installations	August 06, 2013
Bill Outside Agencies	August 06, 2013
Action Plan Complete	September 30, 2013

PREPARED BY:

David Merrell
David Merrell

4685
Extension

REVIEWED AND RECOMMENDED BY:

Rene Alcala
Section Head

4/23/12
Date

APPROVED BY:

County of Los Angeles Department of Public Works – Waterworks Division

David Tafoya
Division Head

4/26/12
Date

ATTACHMENT A

COUNTY OF LOS ANGELES

Rural Outdoor Lighting District

DRAFT REV 6

KERN COUNTY

VENTURA COUNTY

SAN BERNARDINO COUNTY

RIVERSIDE COUNTY

ORANGE COUNTY

Pacific Ocean

NOTE: These islands are not shown in their true locations

LEGEND:

Base Layers

- Freeways
- National Forest
- Incorporated City Boundary
- Other Unincorporated Area
- Rural Outdoor Lighting District

NOTE:

Prepared for the Rural Outdoor Lighting Ordinance (requested) September 7, 2011

VICINITY MAP:

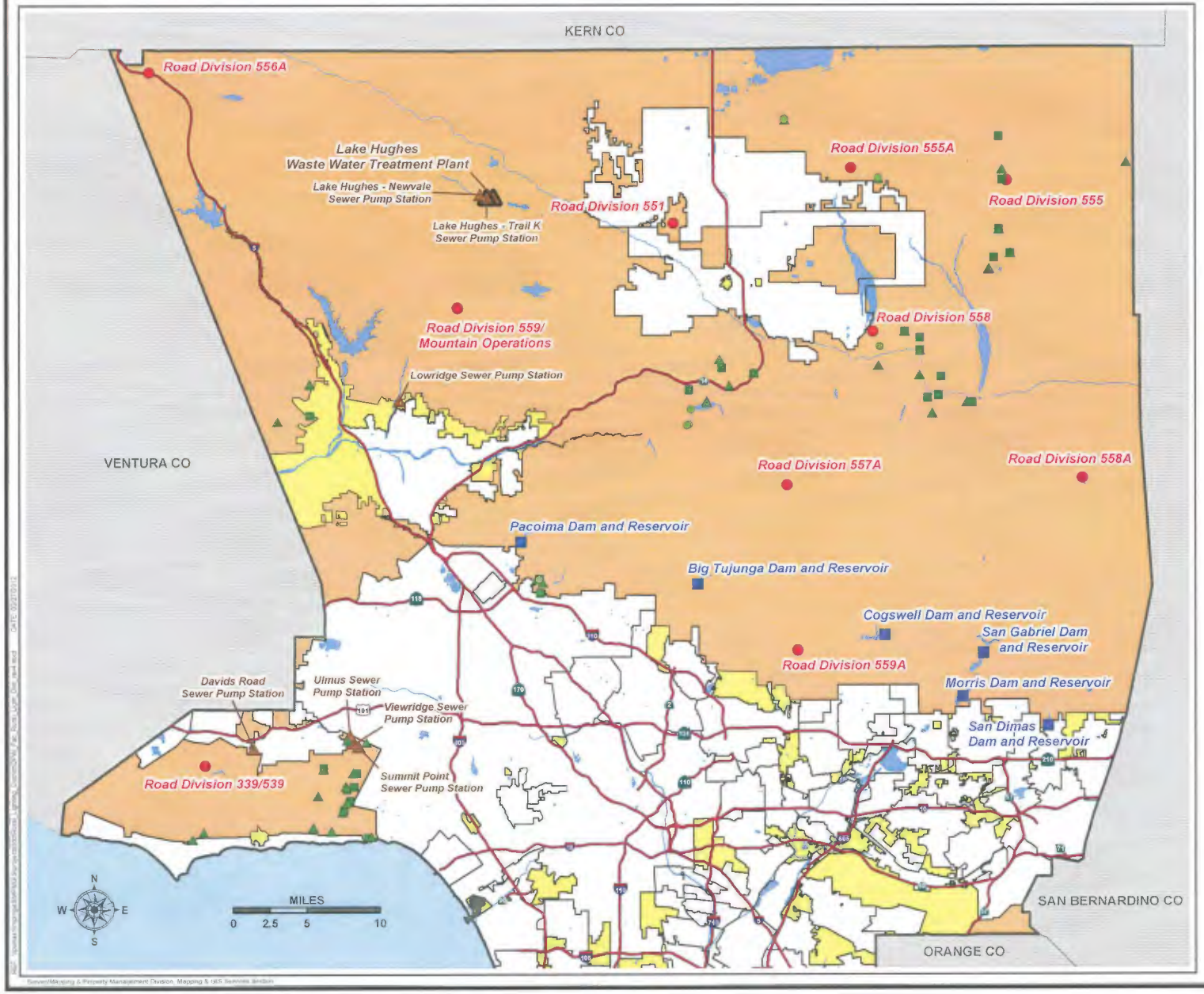
LOS ANGELES COUNTY
Dept. of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

Scale in Miles

0 1 2 4 6 8

Drawn by: _____

ATTACHMENT B



DPW Facilities within the Rural Lighting District

Legend

- Rural Lighting Districts
- Unincorporated Areas outside the District
- Incorporated Cities
- Water Bodies
- Freeways
- Flood Maintenance Facilities (6)
- Road Maintenance Facilities (10)
- Sewer Maintenance Facilities (8)
- SMD Facilities Impacted by Ordinance (2)
- Waterworks Pump Station Sites (25)
- Waterworks Water Tank Sites (46)
- Waterworks Well Sites (9)

80 Waterworks Facilities by count above

62 Waterworks Sites

Some Waterworks Sites contain multiple non-compliant facilities.

Some Waterworks Sites contain no lighting and are in compliance by default

50 Waterworks Sites require modifications

Data contained in this map is produced in whole or part from the Los Angeles County Department of Public Works' digital database.

Sewer/Mapping & Property Management Division, Mapping & GIS Services Section

		No.
Light fixtures > 15 ft height		79
Light fixtures for tank access hatch only	X	60
Light fixtures for other reasons	X	19

DARK SKIES ORDINANCE COMPLIANCE WORKSHEET

SITE SUMMARY, PLAN, ESTIMATES

Attachment C

Site Name / Identifier (from table)	FACILITY Type (check)		# of Lights Per Facility		Fixture Type e.g. (Incandescent, HP Sodium, Metal Halide, Mercury Vapor, Florescent, quartz Halogen)	Height of Light Fixtures	Fixture Hood y/n	Compliace Action, Adjust, Add hood, or replace	Time Man hours	Price of parts	Total Estimated costs	Site Area (sf)	Site Max Watts (0.045 Watts/sf)
Dist 21													
District 21 West Tank	Building											4,124	185.6
	Tank	x	3		Flood: 1	2-30 ft	n	Replace with hooded fixture	1	$ 150	$ 218		
	Well					1-7 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
	Other												
District 21 City Booster	Building		0		No work required							623	28.0
	Tank		0										
	Well		0										
	Other		0										
District 21 Well Site	Building	x	3		High Pressure Sodium Flood	10 ft		Replace with hooded fixture	1.5	$ 300	$ 401	5,639	253.8
	Tank												
	Well												
	Other												
District 21 East Tank	Building											5,167	232.5
	Tank	x	3		Flood: 1	2-30 ft		Replace with hooded fixture	1	$ 150	$ 218		
	Well					1 - 7 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
	Other												
District 29													
Owen Tank/P.S.	Building											6,114	275.1
	Tank												
	Well												
	Other	x	2		Flood: 2	10 ft		Replace with hooded fixture	1	$ 150	$ 218		
Fernwood Tank/ P.S.	Building											6,794	305.7
	Tank												
	Well				1 Flood	8 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
	Other	x	3		Halogen w/motion sensor 2 each	8 ft		Replace with hooded fixture	1	$ 150	$ 218		
Saddle Peak Tank	Building	x	6		Metal Halide 6 each	8 ft		Replace with hooded wall pack	3	$ 600	$ 803	9,270	417.2
	Tank	x	1		Flood 1	30 ft		Replace with hooded fixture	1	$ 75	$ 143		
	Well												
	Other												
Topanga Forks Tank	Building											8,785	395.3
	Tank	x	3		Flood: 1	28 ft		Replace with hooded fixture	1.5	$ 225	$ 326		
	Well												
	Other	x	1		Flood: 1	7 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
Topanga Oaks Tank	Building											2,615	117.7
	Tank												
	Well												
	Other	x	1		Flood: 1	8 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
New Summit Tank	Building											32,873	1479.3
	Tank	x	2		Flood: 1	30 ft		Replace with hooded fixture	1	$ 150	$ 218		
	Well												
	Other												
Topanga Beach Tanks	Building											82,629	3718.3
	Tank	x	4		Flood: 1	45 ft		Replace with hooded fixture	2	$ 300	$ 435		
	Well												
	Other	x	4		Flood: 1	10 ft		Replace with hooded fixture	2	$ 300	$ 435		

Light bulbs will be replaced as needed to make sure we don't exceed the specific lighting allowance for each site.

DARK SKIES ORDINANCE COMPLIANCE WORKSHEET

SITE SUMMARY, PLAN, ESTIMATES

Site Name / Identifier (from table)	FACILITY Type (check)		# of Lights Per Facility		Fixture Type e.g. (Incandescent, HP Sodium, Metal Halide, Mercury Vapor, Florescent, quartz Halogen)	Height of Light Fixtures	Fixture Hood y/n	Compliace Action, Adjust, Add hood, or replace	Time Man hours	Price of parts	Total Estimated costs	Site Area (sf)	Site Max Watts (0.045 Watts/sf)
	Building											22,100	994.5
	Tank	x	3		Halogen Flood 1	1-10 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
	Well					2- 30 ft		Replace with hooded fixture	1	$ 150	$ 218		
Big Rock 1200 Tanks	Other												
	Building											3,435	154.6
	Tank	x	2		Flood: 1	20 ft		Replace with hooded fixture	1	$ 150	$ 218		
	Well												
Hume Tank	Other	x	1		Flood: 1	8 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
	Building											6,139	276.3
	Tank	x	3		Flood 2 with hoods, 1 not	20 ft	2- yes						
	Well						1- No	Replace with hooded fixture	0.5	$ 75	$ 109		
Latigo Tank	Other	x	1		Flood: 1	7 ft	1- No	Replace with hooded fixture	0.5	$ 75	$ 109		
	Building											15,065	677.9
	Tank	x	3		Flood	22 ft		Replace with hooded fixture	1.5	$ 225	$ 326		
	Well												
Winding Way Tank	Other												
	Building	x	3		2- Flood	8 ft		Replace with hooded fixture	1	$ 150	$ 218	1,092	49.1
	Tank				1- Incandesent Wall Pack	8 ft		Replace with hooded fixture	0.5	$ 100	$ 134		
	Well												
Entrada P.S.	Other												
	Building	x	10		10 Metal Halide Wall Packs	6-	n	Replace with hooded fixture	3	$ 600	$ 803	82,629	3718.3
					fuel pumps	4 - 20 ft	yes	reduce the wattage if req	2	$ 800	$ 935		
					3 Metal Halide Flood lights	3 - 20 ft	yes	Adjust with man lifts	3	$ 300	$ 503		
Topanga Beach P.S.	Other	x	7		4 High pressure Sodium Flood	4 - 30 ft	yes	Adjust with man lifts	4	$ 400	$ 670		
	Building	x	4		3 - Flood	8 ft	n	Replace with hooded fixture	1.5	$ 225	$ 326	8,785	395.3
	Tank				1- Wall Pack Incandesent	8 ft	n	Replace with hooded fixture	0.5	$ 100	$ 134		
	Well												
Topanga Forks P.S.	Other												
	Building	x	5		4 - Flood	8 ft	n	Replace with hooded fixture	2	$ 300	$ 435	316	14.2
	Tank				1- Wall Pack Incandesent	8 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
	Well												
Topanga Oaks P.S.	Other												
	Building	x	5		4 - Flood	8 ft	n	Replace with hooded fixture	2	$ 300	$ 435	6,091	274.1
	Tank				1- Wall Pack Incandesent	8 ft	n	Replace with hooded fixture	0.5	$ 200	$ 234		
	Well												
Topanga Parks P.S.	Other												
	Building	x	2		Flood: 1	8 Ft	n	N/A site abandoned				6,749	303.7
	Tank				N/A abandoned No work required								
	Well												
Alpine P.S.	Other												
	Building		0		No work required							14,370	646.7
	Tank		0										
	Well		0										
Santa Maria Tank	Other		0										
	Building		0		No work required							6,091	274.1
	Tank		0										
	Well		0										
Parks Tanks	Other		0										

Light bulbs will be replaced as needed to make sure we don't exceed the specific lighting allowance for each site.

DARK SKIES ORDINANCE COMPLIANCE WORKSHEET

SITE SUMMARY, PLAN, ESTIMATES

Site Name / Identifier (from table)	FACILITY Type (check)		# of Lights Per Facility		Fixture Type e.g. (Incandescent, HP Sodium, Metal Halide, Mercury Vapor, Florescent, quartz Halogen)	Height of Light Fixtures	Fixture Hood y/n	Compliace Action, Adjust, Add hood, or replace	Time Man hours	Price of parts	Total Estimated costs	Site Area (sf)	Site Max Watts (0.045 Watts/sf)
District 36													
	Building											18,684	840.8
	Tank	X		3Ea	incandesent: 2 fixtures	37 ft	n	Replace with hooded fixture	1.5	$ 225	$ 326		
	Well												
Hasley Tank	Other	X		1 ea	incandesent: 1 fixtures	7 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
	Building											14,660	659.7
	Tank	X		5 ea	incandesent: 5 fixtures	33 ft	n	Replace with hooded fixture	2.5	$ 375	$ 544		
	Well												
Cuyama Tank	Other	X		1 ea	incandesent: 1 ea, 1 fixture	6 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
	Building	X		2ea	incandesent: 2 ea, 2 fixture	7 ft	n	Replace with hooded wall pack	1	$ 200	$ 268	2,147	96.6
	Tank												
	Well												
Hasley Cyn P.S.	Other												
	Building	X	5		HP Sodium	8 ft	n	Replace with hooded wall pack	2.5	$ 500	$ 669	17,300	778.5
	Tank	X	1		Metal Halide	38 ft			2	$ 200	$ 335		
	Well	X	1		Metal Halide	18 ft			2	$ 200	$ 335		
Los Valles	Other												
District 37													
	Building	X	1 ea		incandesent: 1 fixture	7 ft		Replace with hooded wall pack	0.5	$ 100	$ 134	12,303	553.6
	Tank												
	Well												
McEnnery P.S.	Other												
	Building											10,351	465.8
	Tank	X		4 ea	incandescent 2 light per pole 2 poles	37 ft		Replace with hooded fixture	2	$ 150	$ 285		
	Well												
McEnnery Tank	Other												
	Building											25,222	1135.0
	Tank	X		2 ea	incandesent: 2 fixtures	33 ft		Replace with hooded wall pac	1	$ 200	$ 268		
	Well												
South Tank	Other												
	Building											12,276	552.4
	Tank	X		2 ea	incandesent: 2 fixtures	37 ft		Replace with hooded wall pac	1	$ 200	$ 268		
	Well												
North Tank	Other	X		1 ea	incandesent: 1 fixture on electrical panel	7 ft		Replace with hooded fixture	0.5	$ 75	$ 109		
	Building	X		2 ea	incandesent: 2 fixtures	7 ft		Replace with hooded wall pac	1	$ 200	$ 268	58,820	2646.9
	Tank	X	0										
	Well												
Vincent Hill	Other												
	Building	X	2 ea		HP sodium: 2 ea on Old Cl2 building	7 ft		Replace with hooded wall pac	1	$ 200	$ 268	13,909	625.9
	Tank												
	Well												
Well 37-1	Other	X	4 ea		HP sodium: 4 ea with photo cells	10 ft		Replace with hooded wall pac	2	$ 400	$ 535		
	Building											30,515	1373.2
	Tank												
	Well	X	1 ea		HP Sodium: 1 ea on pole	8 ft		Replace with hooded pole mont	2	$ 200	$ 335		
Well 37-3	Other												

Light bulbs will be replaced as needed to make sure we don't exceed the specific lighting allowance for each site.

DARK SKIES ORDINANCE COMPLIANCE WORKSHEET

SITE SUMMARY, PLAN, ESTIMATES

Site Name / Identifier (from table)	FACILITY Type (check)		# of Lights Per Facility		Fixture Type e.g. (Incandescent, HP Sodium, Metal Halide, Mercury Vapor, Florescent, quartz Halogen)	Height of Light Fixtures	Fixture Hood y/n	Compliace Action, Adjust, Add hood, or replace	Time Man hours	Price of parts	Total Estimated costs	Site Area (sf)	Site Max Watts (0.045 Watts/sf)
	Building		0		No work required							30,515	1373.2
	Tank		0										
	Well	X	0										
Well 37-4	Other		0										
	Building	X	13 ea		incandesent: 13 lights on 7 fixtures	7 ft		Replace with hooded fixture	3.5	$ 525	$ 761	3,016	135.7
	Tank												
	Well												
Crown Valley P.S.	Other												
District 40													
Region 4													
	Building	X		6 ea	Incandesent, 2 ea per fixture, 3 Fixtures	8 ft	n	Replace with hooded fixture	1.5	$ 225	$ 326	50,625	2278.1
	Tank												
	Well												
L12 & 60th West	Other	X		2 ea	Metal Halide: 2 ea poles, 1 per pole	18 ft	n	Replace with hooded pole mount	4	$ 400	$ 670		
	Building	X	6		incandesent: 3 with 2 ea	7 ft	n	Replace with hooded wall pac	1.5	$ 225	$ 326	93,779	4220.1
	Tank	X	4		incandesent: 2 with 2 ea	32 ft	n	Replace with hooded fixture	1	$ 150	$ 218		
	Well	X											
Old Timers	Other												
	Building	X	1		Replace with a wall pack	7 ft			0.5	$ 225	$ 259	111,000	4995.0
	Tank	X											
	Well	X											
Beverly Martin	Other												
Region 24													
	Building	X	6		HP Sodium 4 ea.	8 ft	n	Replace with hooded wall pack	3	$ 600	$ 803	153,630	6913.4
	Tank												
	Well												
116th St East P.S.	Other	X	2		Quartz Halogen w/motion sensor 2 ea	8 ft		Replace with hooded wall pack	1	$ 200	$ 268		
	Building		0		No work required							5,742	258.4
	Tank		0										
	Well		0										
116th Tank	Other		0										
	Building		0		No work required							85,452	3845.3
	Tank		0										
	Well	X	0										
Wells 24-4 & 24-5	Other		0										
Region 27													
	Building	X	2		HP Sodium : 2 ea	7 ft	n	Replace with hooded wall pack	1	$ 200	$ 268	13,822	622.0
	Tank												
	Well												
27-5	Other												
	Building											8,167	367.5
	Tank							Replace with hooded fixture					
	Well	X	1		Metal halide: 1 ea	18 ft	y	in compliace	2	$ 200	$ 335		
Well 27-7	Other												

Light bulbs will be replaced as needed to make sure we don't exceed the specific lighting allowance for each site.

DARK SKIES ORDINANCE COMPLIANCE WORKSHEET

SITE SUMMARY, PLAN, ESTIMATES

Site Name / Identifier (from table)	FACILITY Type (check)		# of Lights Per Facility		Fixture Type e.g. (Incandescent, HP Sodium, Metal Halide, Mercury Vapor, Florescent, quartz Halogen)	Height of Light Fixtures	Fixture Hood y/n	Compliace Action, Adjust, Add hood, or replace	Time Man hours	Price of parts	Total Estimated costs	Site Area (sf)	Site Max Watts (0.045 Watts/sf)
	Building	X	1		incandesent: 1 ea	8 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109	18,950	852.8
	Tank												
	Well												
Well 27-3	Other												
	Building											56,224	2530.1
	Tank	X	4		incandesent: 2 ea 2 per conduit	32 ft	n	Replace with hooded fixture	1	$ 150	$ 218		
	Well												
Littlerock	Other	X	1		incandesent: 1 ea	7 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
Region 35													
	Building	X	4		HP Sodium: 4 ea wall packs	8 ft	n	Replace with hooded wall pac	2	$ 400	$ 535	8,946	402.6
	Tank	X	2		incandesent: 1 with 2 lights	30 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
	Well	X	1		incandesent: 1 with 1 light	8 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
35-2	Other												
	Building											17,308	778.9
	Tank	X	3		incandescent: 3 total on 2 conduits	24 38 ft	n	Replace with hooded fixture	1.5	$ 225	$ 326		
	Well												
Adobe Mtn Tank	Other												
			0		No work required							8,946	402.6
			0										
			0										
Blue Rock			0										
	Building	X	2		incandesent: 2 with 2 ea	7 ft	n	Replace with hooded fixture	1	$ 150	$ 218	4,246	191.1
	Tank												
	Well												
168th & G	Other												
	Building		0		No work required								
	Tank		0										
	Well		0										
175E & Nugent	Other		0										
Region 38													
	Building											29,000	1305.0
	Tank												
	Well	X	1		HP Sodium: 1 ea	18 ft	n	Replace with hooded pole mount	2	$ 200	$ 335		
38-4	Other												
	Building	X	2		HP Sodium : 2 ea	7 ft	n	Replace with hooded wall pack	1	$ 200	$ 268	12,082	543.7
	Tank												
	Well												
38-3	Other												
	Building	X	4		HP Sodium: 4 ea	8 ft	n	Replace with hooded wall pac	2	$ 400	$ 535	15,680	705.6
	Tank												
	Well												
Coolwater	Other												
	Building											28,094	1264.2
	Tank	X	4		incandesent: 2 ea per fixture	40 ft	n	Replace with hooded fixture	1	$ 150	$ 218		
Buttes Tanks Center	Well												
and East	Other												

Light bulbs will be replaced as needed to make sure we don't exceed the specific lighting allowance for each site.

DARK SKIES ORDINANCE COMPLIANCE WORKSHEET

SITE SUMMARY, PLAN, ESTIMATES

Site Name / Identifier (from table)	FACILITY Type (check)		# of Lights Per Facility		Fixture Type e.g. (Incandescent, HP Sodium, Metal Halide, Mercury Vapor, Florescent, quartz Halogen)	Height of Light Fixtures	Fixture Hood y/n	Compliace Action, Adjust, Add hood, or replace	Time Man hours	Price of parts	Total Estimated costs	Site Area (sf)	Site Max Watts (0.045 Watts/sf)
	Building											14,786	665.4
	Tank	X	2		incandesent: 2 ea per fixture	40 ft	n	Replace with hooded fixture	0.5	$ 75	$ 109		
	Well												
Buttes Tank West	Other												
Region 39													
	Building	X	1		HP Sodium: 1 ea	8 ft	n	Replace with hooded wall pack	0.5	$ 100	$ 134	23,336	1050.1
	Tank	X	2		incandesent: 2 ea 1 per conduit	30 ft	n		1	$ 150	$ 218		
	Well												
39 Tanks	Other												
	Building											3,016	135.7
	Tank												
	Well	X	2		incandesent: 2 ea on 1 conduit		n	Replace with hooded fixture	0.5	$ 75	$ 109		
Well 39-1	Other												
	Building											39,686	1785.9
	Tank	X	4		incandesent: 4 ea 2 per conduit	34 ft	n	Replace with hooded fixture	1	$ 150	$ 218		
	Well												
Ft Tejon Tank	Other												
	Building		0		No work required								
	Tank		0										
	Well		0										
X-8 & 121E	Other		0										
	Building		0		N/A abandoned No work required								
	Tank		0										
	Well		0										
X-3 Hydro	Other		0										
	Building		0		No work required								
	Tank		0										
	Well		0										
W-2	Other		0										

Light bulbs will be replaced as needed to make sure we don't exceed the specific lighting allowance for each site.

OVERVIEW OF PROPOSED OUTDOOR LIGHTING DISTRICT ORDINANCE ATTACHMENT D

Purpose: Provide regulations that will permit reasonable uses of outdoor lighting for nighttime safety and security and promote dark skies for the enjoyment and health of humans and wildlife. The Ordinance establishes a Rural Outdoor Lighting District. DRP is requesting adjustments to the State's Outdoor Lighting Zones so that the State's Rural Lighting Zone is consistent with the County's Rural Map.

Application: Applies to all new lighting, major additions, replacement lighting, and resumption of use after abandonment.

Light Trespass: Outdoor lighting shall not cause light trespass. The following is considered light trespass: 1) over 0.5 foot-candles where the zoning on the adjacent parcel is a residential, open space, or agricultural zone, or public right-of-way; or 2) over 1.0 foot-candles where the zoning on the adjacent parcel is any other zone.

Shielding: All outdoor lighting shall be fully shielded. Fully-shielded means that the top of the fixture is covered and the sides are covered to a point where light is projected below a horizontal plane.

Height Limits: Maximum height limits established to avoid light pollution and light trespass. Height limits for residential, agricultural, open space and watershed zones is 20 feet, except each outdoor light fixture installed above 15 feet shall have an output rating of less than 400 lumens. Height limit for commercial zones is 30 feet. And for industrial zones is 35 feet.

Hours of Operation: Outdoor lighting shall be turned off between the hours of 10 p.m. and sunrise. Where uses operate past 10 p.m. lighting shall either be turned off within one hour after the close of business or dimmers shall be used.

Street Lighting: Street lights shall be installed at all roadway intersections and at driveways where the Director of Public Works indicates that a street light would be beneficial due to the proposed use of the property. Street lights will not be allowed on local residential streets unless required by Public Works. Street lights shall be placed the maximum distance apart with the minimum lumens allowable by Public Works.

Outdoor Recreation Facilities: Lighting for playing fields shall be fully shielded and aimed so their beams fall within the primary activity area and not cause light trespass onto adjacent properties. Lights for recreational fields may be mounted up to 75 feet in height.

Signs: Outdoor lighting for all new signs shall be mounted to the top of the sign and be oriented downward and the lights shall be fully shielded.

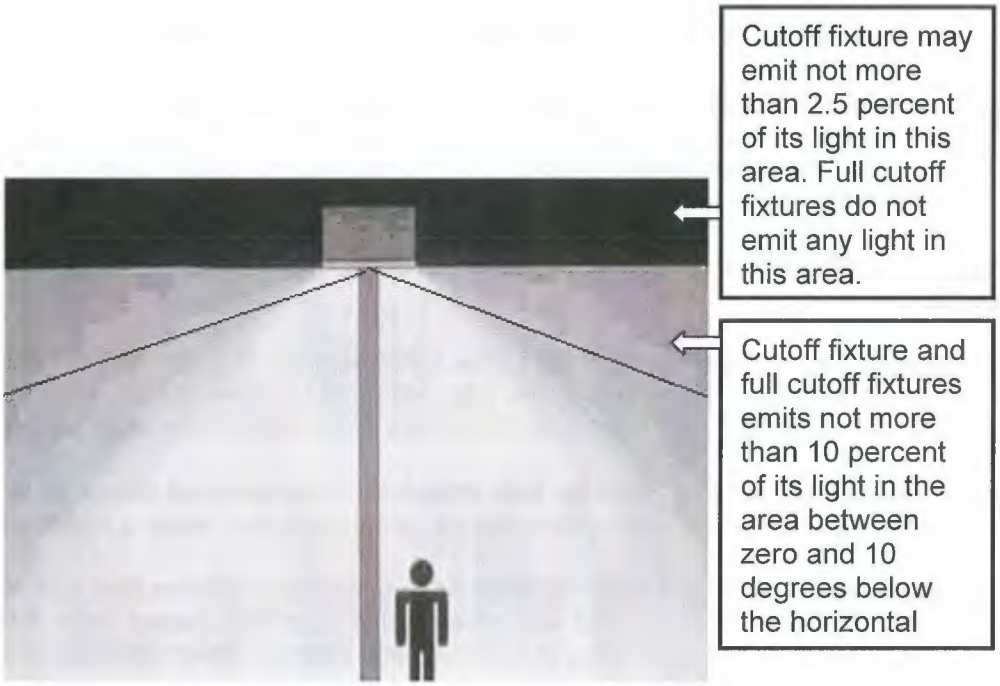
Prohibited Lighting: These types of lighting are prohibited: drop-down lenses, mercury vapor lights, and searchlights, laser lights, or any other lighting that flashes, blinks, alternates or moves.

Nonconforming Lighting: All outdoor lighting in use on the effective date of this Ordinance that does not meet these requirements shall be removed or made to comply within six months of the effective date of this Ordinance if such light causes light trespass or within three years of the effective date of this Ordinance if such lighting does not cause light trespass.

CSD Modifications: The Ordinance includes modifications to specific Community Standards Districts (Leona Valley, Acton, Santa Monica Mountains North Area, Castaic Area, Juniper Hills, Southeast Antelope Valley, Elizabeth Lake and Lake Hughes, and San Francisquito Canyon) that address outdoor lighting. CSD regulations have been amended to remove duplicate or conflicting regulations.

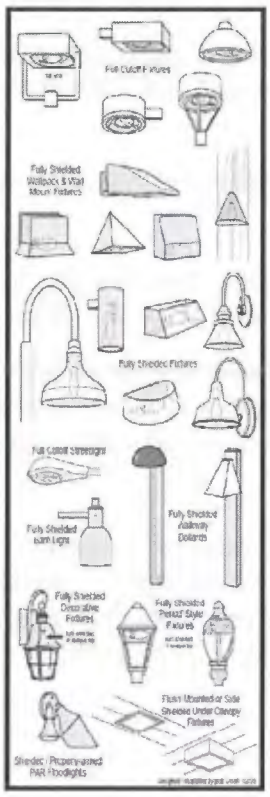
Prepared by Los Angeles County Department of Regional Planning

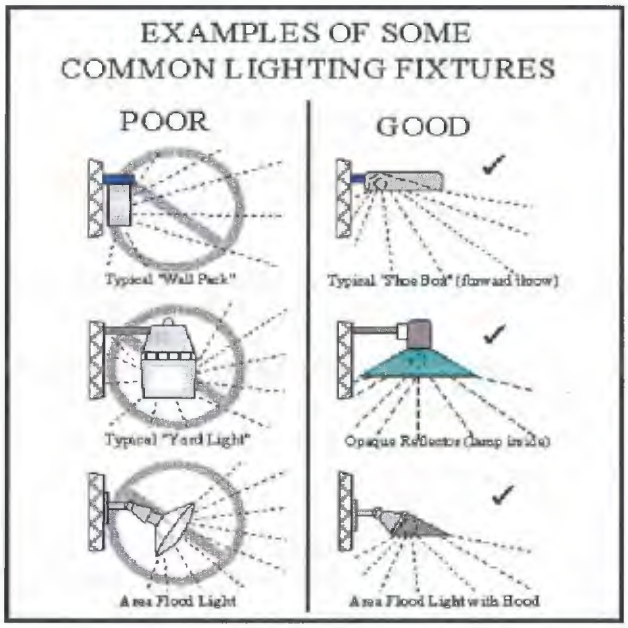
Cutoff Performance



Drop-down lens

Full cutoff fixtures



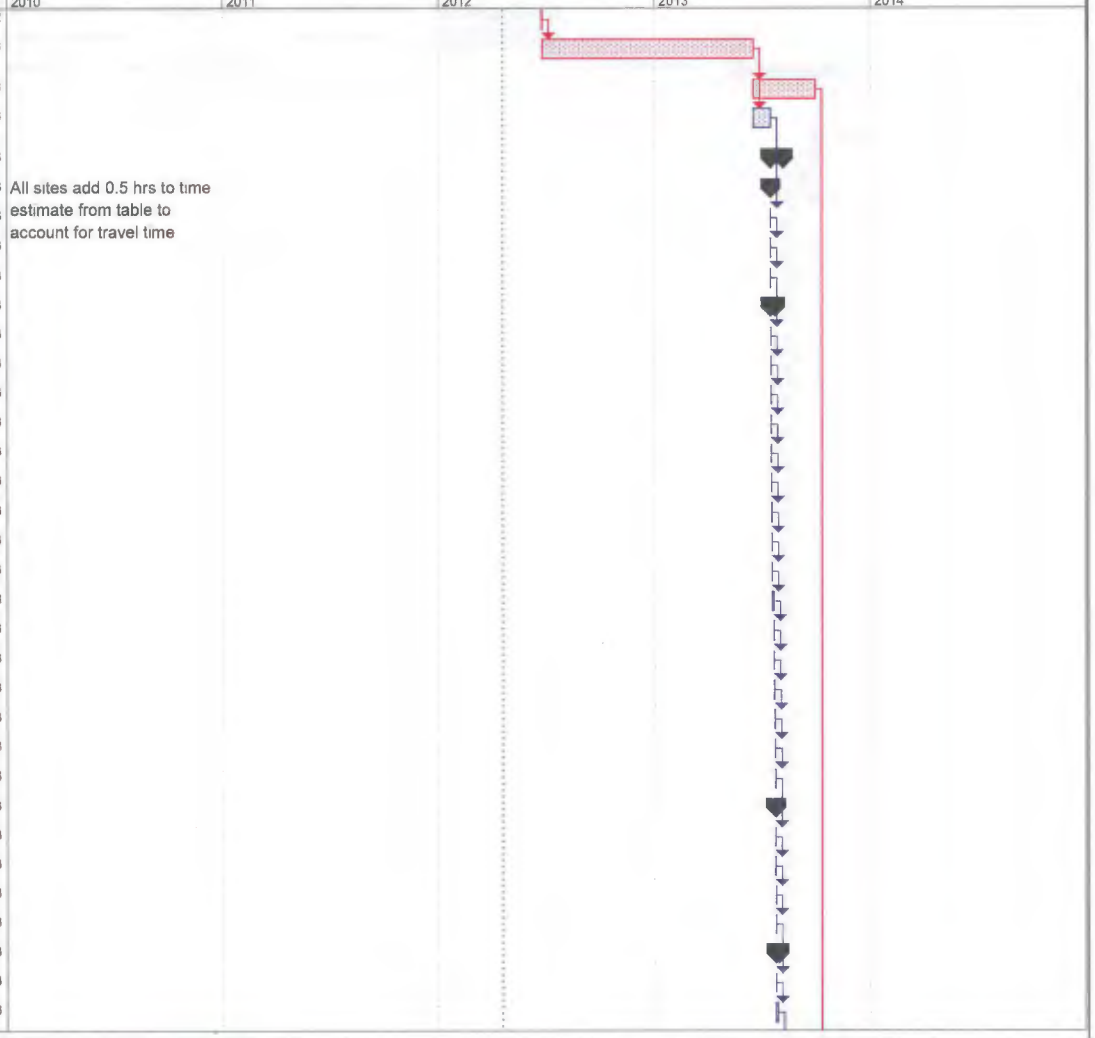


DARK SKIES ORDINANCE COMPLIANCE

Attachment E

ID	Task Name	Duration	Start	Finish
1	ACTION PLAN DUE TO DEPARTMENT OF REGIONAL PLANNING	1 day	Sun 06/24/12	Mon 06/25/12
2	DRAFT ORDINANCE MODIFICATIONS AND ADOPTION (ASSUME 1 YEAR)	12 mons	Mon 06/25/12	Mon 06/17/13
3	APPLY FOR DETERMINED VARIANCES	60 days	Mon 06/17/13	Mon 09/30/13
4	PROCUREMENT OF MATERIALS (OSD WAREHOUSE IF SUFFICIENT SUPPLIES AVAILABLE)	1 mon	Mon 06/17/13	Tue 07/16/13
5	**Installations**	**12.4 days**	**Tue 07/16/13**	**Tue 08/06/13**
6	**District 21 Installations**	**0.6 days**	**Tue 07/16/13**	**Tue 07/16/13**
7	Dist 21 West Tank	2 hrs	Tue 07/16/13	Tue 07/16/13
8	Dist 21 Kagel Canyon Well Site	2 hrs	Tue 07/16/13	Tue 07/16/13
9	Dist 21 East Tank	2 hrs	Tue 07/16/13	Tue 07/16/13
10	**District 29 Installations**	**4.8 days**	**Tue 07/16/13**	**Wed 07/24/13**
11	Dist 29 Owen Tank/PS	1.5 hrs	Tue 07/16/13	Tue 07/16/13
12	Dist 29 Fernwood Tank/PS	2 hrs	Tue 07/16/13	Wed 07/17/13
13	Dist 29 Saddle Peak Tank	4.5 hrs	Wed 07/17/13	Wed 07/17/13
14	Dist 29 Topanga Forks Tank	2.5 hrs	Wed 07/17/13	Wed 07/17/13
15	Dist 29 Topanga Oaks Tank	1 hr	Wed 07/17/13	Wed 07/17/13
16	Dist 29 New Summit Tank	1.5 hrs	Wed 07/17/13	Thu 07/18/13
17	Dist 29 Topanga Beach Tanks	4.5 hrs	Thu 07/18/13	Thu 07/18/13
18	Dist 29 Big Rock 1200 Tanks	2 hrs	Thu 07/18/13	Thu 07/18/13
19	Dist 29 Hume Tank	2 hrs	Thu 07/18/13	Thu 07/18/13
20	Dist 29 Latigo Tank	1.5 hrs	Thu 07/18/13	Mon 07/22/13
21	Dist 29 Winding Way Tank	2 hrs	Mon 07/22/13	Mon 07/22/13
22	Dist 29 Entrada PS	2 hrs	Mon 07/22/13	Mon 07/22/13
23	Dist 29 Topanga Beach PS	12.5 hrs	Mon 07/22/13	Tue 07/23/13
24	Dist 29 Topanga Forks PS	2.5 hrs	Tue 07/23/13	Tue 07/23/13
25	Dist 29 Topanga Oaks PS	3 hrs	Wed 07/24/13	Wed 07/24/13
26	Dist 29 Topanga Park PS	3 hrs	Wed 07/24/13	Wed 07/24/13
27	**District 36 Installations**	**1.15 days**	**Wed 07/24/13**	**Thu 07/25/13**
28	Dist 36 Hasley Tank	2.5 hrs	Wed 07/24/13	Wed 07/24/13
29	Dist 36 Cuyama Tank	3 hrs	Wed 07/24/13	Thu 07/25/13
30	Dist 36 Hasley Canyon PS	1 hr	Thu 07/25/13	Thu 07/25/13
31	Dist 36 Los Valles	5 hrs	Thu 07/25/13	Thu 07/25/13
32	**District 37 Installations**	**1.85 days**	**Thu 07/25/13**	**Tue 07/30/13**
33	Dist 37 McEnnery PS	1 hr	Thu 07/25/13	Thu 07/25/13
34	Dist 37 McEnnery Tank	2.5 hrs	Thu 07/25/13	Mon 07/29/13

All sites add 0.5 hrs to time estimate from table to account for travel time

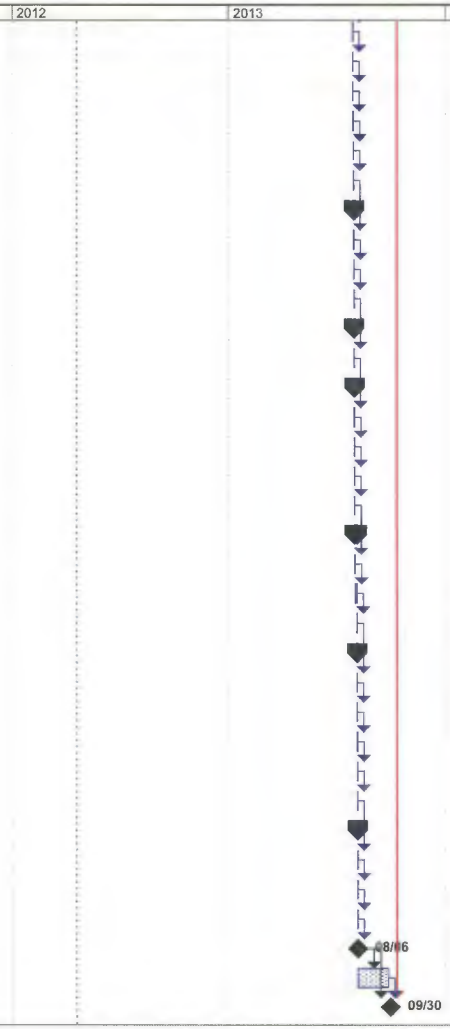


Project: DARK SKIES ORDINANCE C
Date: Wed 04/18/12
Project Manager: David Merrell

Task | Critical Task | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

DARK SKIES ORDINANCE COMPLIANCE

ID	Task Name	Duration	Start	Finish
35	Dist 37 South Tank	1.5 hrs	Mon 07/29/13	Mon 07/29/13
36	Dist 37 North Tank	2 hrs	Mon 07/29/13	Mon 07/29/13
37	Dist 37 Vincent Hill	1.5 hrs	Mon 07/29/13	Mon 07/29/13
38	Dist 37 Well 37-1	3.5 hrs	Mon 07/29/13	Mon 07/29/13
39	Dist 37 Well 37-3	2.5 hrs	Mon 07/29/13	Tue 07/30/13
40	Dist 37 Crown Valley PS	4 hrs	Tue 07/30/13	Tue 07/30/13
41	**District 40 Region 4 Installations**	**0.85 days**	**Tue 07/30/13**	**Wed 07/31/13**
42	Dist 40-4 L-12 & 60th West	5 hrs	Tue 07/30/13	Wed 07/31/13
43	Dist 40-4 Old Timers	2.5 hrs	Wed 07/31/13	Wed 07/31/13
44	Dist 40-4 Beverly Martin	1 hr	Wed 07/31/13	Wed 07/31/13
45	**District 40 Region 24 Installations**	**0.4 days**	**Wed 07/31/13**	**Wed 07/31/13**
46	Dist 40-24 116th St East PS	4 hrs	Wed 07/31/13	Wed 07/31/13
47	**District 40 Region 27 Installations**	**0.7 days**	**Wed 07/31/13**	**Thu 08/01/13**
48	Dist 40-27 27-5	1.5 hrs	Wed 07/31/13	Wed 07/31/13
49	Dist 40-27 Well 27-7	2.5 hrs	Thu 08/01/13	Thu 08/01/13
50	Dist 40-27 Well 27-3	1 hr	Thu 08/01/13	Thu 08/01/13
51	Dist 40-27 Littlerock	2 hrs	Thu 08/01/13	Thu 08/01/13
52	**District 40 Region 35 Installations**	**0.7 days**	**Thu 08/01/13**	**Mon 08/05/13**
53	Dist 40-35 35-2	3.5 hrs	Thu 08/01/13	Thu 08/01/13
54	Dist 40-35 Adobe Mtn Tank	2 hrs	Thu 08/01/13	Mon 08/05/13
55	Dist 40-35 168th & G	1.5 hrs	Mon 08/05/13	Mon 08/05/13
56	**District 40 Region 38 Installations**	**0.9 days**	**Mon 08/05/13**	**Tue 08/06/13**
57	Dist 40-38 38-4	2.5 hrs	Mon 08/05/13	Mon 08/05/13
58	Dist 40-38 38-3	1.5 hrs	Mon 08/05/13	Mon 08/05/13
59	Dist 40-38 Coolwater	2.5 hrs	Mon 08/05/13	Mon 08/05/13
60	Dist 40-38 Buttes Tanks Center & East	1.5 hrs	Mon 08/05/13	Tue 08/06/13
61	Dist 40-38 Buttes Tank West	1 hr	Tue 08/06/13	Tue 08/06/13
62	**District 40 Region 39 Installations**	**0.45 days**	**Tue 08/06/13**	**Tue 08/06/13**
63	Dist 40-39 39 Tanks	2 hrs	Tue 08/06/13	Tue 08/06/13
64	Dist 40-39 Well 39-1	1 hr	Tue 08/06/13	Tue 08/06/13
65	Dist 40-39 Ft Tejon Tank	1.5 hrs	Tue 08/06/13	Tue 08/06/13
66	**INSTALLATIONS COMPLETE**	**0 days**	**Tue 08/06/13**	**Tue 08/06/13**
67	BILL OUTSIDE AGENCIES FOR INSTALLATIONS	30 days	Tue 08/06/13	Thu 09/26/13
68	PROJECT COMPLETE	0 days	Mon 09/30/13	Mon 09/30/13



Project: DARK SKIES ORDINANCE C
Date: Wed 04/18/12
Project Manager: David Merrell

Task | Critical Task | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

WATERWORKS DIVISION

FACILITY SITES WITH FIXTURES > 15 FT FOR LIGHTING TANK ACCESS HATCHES

FACILITY TYPE	WWD_NO	NAME/ID	ADDRESS	CITY/COMM	ZIP
TANK	21	DISTRICT 21 EAST TANK	12587 Dexter Park Road	Kagel Canyon	91342
TANK	21	DISTRICT 21 WEST TANK	APN 2846-003-303 (No Site Address)	Kagel Canyon	91342
TANK	29	BIG ROCK 1200 TANKS	20951 W. Big Rock Drive	Malibu	90265
TANK	29	HUME	21737 Azurelee Road	Malibu	90265
TANK	29	TOPANGA FORKS TANK	22160 W. Topanga School Road	Topanga	90290
TANK	29	SADDLE PEAK TANK	2350 W. Saddle Peak Road	Topanga	90290
TANK	29	WINDING WAY TANK	28001 Overview Road	Malibu	90265
TANK	29	NEW SUMMIT TANK	3321 N. Topanga Canyon Boulevard	Topanga	90290
TANK	29	TOPANGA BEACH TANKS	3831 S. Castlerock Road	Topanga	90290
TANK	29	LATIGO TANK	4230 S. Ocean View Drive	Malibu	90265
TANK	36	HASLEY TANK	31400 Romero Canyon Road	Val Verde	91384
TANK	36	CUYAMA TANK	31632 W. Cuyama Road	Val Verde	91384
TANK	36	LOS VALLES	no address APN 2866-062-900		
TANK	37	NORTH TANK	1707 W. Sierra Highway	Acton	93510
TANK	37	MCENNERY TANK	2225 Desert Road	Acton	93510
TANK	37	SOUTH TANK	2733 W. Sacramento Avenue	Acton	93510
TANK	40-04	OLD TIMERS	8820 E. Nugent Street	Lancaster	93535
TANK	40-27	LITTLEROCK	87th Street East & Fort Tejon Road	Littlerock	93543
WELL	40-27	WELL 27-7	10555 E. Avenue T	Littlerock	93543
TANK	40-35	35-2	18000 E. Avenue I	North Los Angeles County	93535
TANK	40-35	ADOBE MOUNTAIN	45240 N. 250th Street East	Lancaster	93535
TANK	40-38	BUTTES TANKS CENTER AND EAST	39750 N. 163rd Street East	Lake Los Angeles	93535
TANK	40-38	BUTTES TANK WEST	39752 N. 163rd Street East	Lake Los Angeles	93535
TANK	40-39	FT TEJON TANK	Avenue Y8 & 125th Street East	Pearblossom	93553
TANK	40-39	39 TANKS	no address APN 3061-026-903		

WATERWORKS DIVISION

FACILITY SITES WITH FIXTURES > 15 FT FOR OTHER REASONS THAN LIGHTING TANK ACCESS HATCHES

FACILITY	WWD_NO	NAME/ID	ADDRESS	CITY/COMM	ZIP
PUMP ST/	29	TOPANGA BEACH P.S.	3800 S. Topanga Canyon. Blvd.	Topanga	90265
TANK	36	LOS VALLES	no address APN 2866-062-900		
TANK	40-04	L12 & 60TH WEST	42158 60th Street West	Lancaster	93536
WELL	40-27	WELL 27-7	10555 E. Avenue T	Littlerock	93543
WELL	40-38	38-4	41000 N. 172nd Street East	Lake Los Angeles	93535

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: A-0

January 9, 2014

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF JANUARY 24, 2012, AGENDA ITEM NO. 8
RURAL OUTDOOR LIGHTING DISTRICT ORDINANCE
PUBLIC WORKS PROGRESS REPORT NO. 1

At the January 24, 2012, Board of Supervisors meeting, the Board approved a motion directing the Director of Public Works to provide a report detailing how Public Works facilities affected by the Rural Outdoor Lighting District ordinance will comply and requested that a report be prepared within six months with the goal of finding the most cost-effective methods. The Board also instructed County Counsel, in cooperation with the Directors of Regional Planning and Public Works, to bring a revised ordinance back to the Board for final approval incorporating certain specified amendments.

On September 4, 2012, Public Works provided the Board with a compliance report along with a commitment to report back on our progress. On November 13, 2012, the Board approved the final ordinance amending Title 22 of the Los Angeles County Code to establish a Rural Outdoor Lighting District. On September 24 and October 30, 2013, we met with members of your staff to update them and answer questions.

This report, including the attached spreadsheet, is to update the Board on our progress in addressing outdoor lighting issues at the 77 Public Works facilities, which were initially identified as being potentially impacted by the ordinance. Since the final version of the ordinance was adopted, Public Works has worked with Regional Planning and County Counsel to reevaluate impacts to these facilities.

To date, it has been determined that 17 facilities will not require any modifications, 47 facilities have been modified to be in compliance, 12 facilities are currently in process, and 1 facility will begin the process within the next six months. Please see the attached spreadsheet for locations, estimated costs of compliance, and approximate dates for completion of designs and construction.

Road Maintenance Facilities

Ten Road Maintenance yards are located within the Rural Outdoor Lighting District. Previously, a consultant study was performed in order to provide recommendations and cost estimates to replace and/or modify existing lighting at these facilities. The final ordinance has clarified the applicability to existing lights and design has been completed for all ten sites. For residential and agricultural zones, all existing lights must be made to comply. For all other zones, existing lights may remain in their present condition unless there is an issue of light trespass. Three sites would, therefore, be modified for light trespass only. However, one of those three sites, RD559, appears to have no light trespass and will not require any changes. The preliminary estimate of the Road Maintenance project is $787,442.

Acton Vincent Transit Station

Public Works has completed a preliminary site plan to bring the facility into full compliance with the ordinance consisting of the following scope:

- Remove 19 existing 27-foot-high light poles.
- Install twenty-one 15-foot-high light poles with full cut-off 280W LED light fixtures.
- Replace the train platform walkway lighting fixtures with full cut-off fixtures. Existing poles will be reused.
- Half of the parking lot lights will be programmed to automatically turn on at dusk and off at dawn.

The preliminary estimate of the project is $390,000.

Staff is completing the application for Regional Planning's review. Upon Regional Planning's approval, Public Works will authorize final design plans and develop a project schedule for installation.

Water Resources Facilities

Six dams are located within the Rural Outdoor Lighting District (San Gabriel, Cogswell, Morris, San Dimas, Pacoima, and Big Tujunga Dams). Previously, a consultant study was performed to provide recommendations and a cost estimate for the replacement of all noncompliant lights at these dams based on the draft ordinance. The consultant's cost estimate to replace all noncompliant lights at the dams was $623,000. However, the final ordinance has clarified the applicability to existing lights. For residential and agricultural zones, all existing lights must be made to comply. For all other zones, existing lights may remain in their present condition unless there is an issue of light trespass.

The entrance gate and lower office area at Pacoima Dam are within an agricultural zone; therefore, the light trespass at the entrance gate must be corrected within six months. Other existing noncompliant lights in these lower areas must be made to comply within three years. The estimated cost for these corrections is $12,000. The entrance gate light trespass was remedied by Public Works staff in May 2013. The remaining work will be added to an upcoming project at the dam and will be completed by a contractor prior to December 2016.

All other dams, including the upper area of Pacoima Dam, are within the watershed zone; therefore, only light trespass issues are required to be corrected. Light trespass onto the roadway was identified at the entrance gate of Morris Dam and around the control house of San Dimas Dam. These lights have been replaced with full cutoff fixtures, and the light trespass has been corrected at an estimated cost of $3,000 and $1,000, respectively.

Sewer Maintenance Facilities

It has been determined that the Lake Hughes Wastewater Treatment Plant falls under the definition of an "industrial facility" in terms of applicability under the Rural Outdoor Lighting District standards. Thus, the processing lights maintained around the wastewater tank are not subject to the regulations. The other outdoor lights maintained onsite to provide lighting to the parking, walkways, driveway, and entrance areas that are essential and critical to maintaining safety and security around the wastewater tanks or the sludge pools are also exempt from Rural Outdoor Lighting District standards. The remaining outdoor light fixtures on the accessory buildings and the one attached to the wastewater treatment facility are not exempt and will be modified by June 1, 2015. The preliminary estimated cost is $25,000.

Waterworks Facilities

Waterworks Division has completed retrofitting the lighting fixtures at all of its facilities in both the North (Antelope Valley) and South (Malibu) maintenance areas and the facilities are now fully compliant with the requirements of the ordinance. Of the 59 facilities affected by the ordinance, 25 contained light fixtures above 15 feet that Regional Planning deemed in compliance with the ordinance. Although no height modifications were necessary, these fixtures were modified to shield the lights and prevent light trespass. The following provides the number of facilities and compliance costs by Maintenance Area and District:

- North maintenance area - 26 facilities, roughly $13,305 in compliance costs.
    - Los Angeles County Waterworks District No. 40:
        - 14 facilities modified to ensure full compliance.
        - Total expenditure for compliance is approximately $7,570.
    - Los Angeles County Waterworks District No. 36:
        - 4 facilities modified to ensure full compliance.
        - Total expenditure for compliance is approximately $2,800.
    - Los Angeles County Waterworks District No. 37:
        - 8 facilities modified to ensure full compliance.
        - Total expenditure for compliance is approximately $2,935.
- South maintenance area - 19 facilities, roughly $8,000 in compliance costs.
    - Los Angeles County Waterworks District No. 29:
        - 16 facilities modified to ensure full compliance.
        - Total expenditure for compliance is approximately $6,980.
    - Los Angeles County Waterworks District No. 21:
        - 3 facilities modified to ensure full compliance.
        - Total expenditure for compliance is approximately $1,020.

We will provide the Board with another update on March 4, 2014. If you have any questions, please call me or your staff may contact Dennis Hunter at (626) 458-4006 or dhunter@dpw.lacounty.gov.

DH:ja
p:\adpub\admin\joann\amemos\rural outdoor lighting motion revised 01 09 14.docx

Attach.

cc: Chief Executive Office (Rita Robinson), County Counsel, Executive Office, Department of Regional Planning

RURAL OUTDOOR LIGHTING ORDINANCE
PUBLIC WORKS FACILITIES

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Road Maintenance	Road Division 559	35100 San Francisquito Cyn Road	Saugus	5	No modifications required.							W		No	MNR
2	Road Maintenance	Road Division 339	29773 W. Mulholland Hwy.	Aguora	3	$106,286	2/19/2013	5/31/2013	$87,708	8/15/2013	12/31/2013		A-1-1		No	MIP
3	Road Maintenance	Road Division 551	4859 W. Avenue L-12	Quartz Hill	5	$345,642	1/22/2013	5/31/2013	$143,876	10/1/2013	12/31/2013		R-3-P		No	MIP
4	Road Maintenance	Road Division 555	17931 W. Avenue J	Lake Los Angeles	5	$54,900	2/13/2013	5/31/2013	$93,508	10/1/2013	12/31/2013		A-1-1		No	MIP
5	Road Maintenance	Road Division 555A	45122 N. 70th Street East	Lancaster	5	$30,500	2/13/2013	5/31/2013	$64,048	10/1/2013	12/31/2013		A-2-1		No	MIP
6	Road Maintenance	Road Division 556A	4930 Gorman Post Road	Gorman	5	$47,775	2/25/2013	5/31/2013	$87,766	10/1/2013	12/31/2013		A-1-10,000		No	MIP
7	Road Maintenance	Road Division 557A	27500 Angeles Forest Hwy.	Palmdale	5	$71,175	3/13/2013	5/31/2013	$81,362	10/1/2013	12/31/2013		A-2-2.5		No	MIP
8	Road Maintenance	Road Division 558	8505 E. Avenue T	Littlerock	5	$88,405	3/13/2013	5/31/2013	$143,397	10/1/2013	12/31/2013		A-1-10,000		No	MIP
9	Road Maintenance	Road Division 558A	22201 Big Pines Hwy.	Jackson Lake	5	$84,240	3/13/2013	5/31/2013	$57,636	10/1/2013	12/31/2013		W	X	No	MIP
10	Road Maintenance	Road Division 559A	Mount Wilson Road	Mount Wilson	5	$92,040	3/13/2013	5/31/2013	$28,141	10/1/2013	12/31/2013		W	X	No	MIP
						$920,963 SUBTOTAL			**$787,442 SUBTOTAL**							
1	Programs Development	Acton Vincent Transit	730 W Sierra Hwy	Acton	5	**$390,000 SUBTOTAL**	1/7/2013	3/7/2013	**$390,000 SUBTOTAL**	10/1/2013	1/30/2014		A-1-1		Yes	MIP
1	Water Resources	Pacoima Dam and Reservoir	15300 N. Pacoima Canyon Rd.	County Unincorporated near Sylmar	5	$12,000	2/4/2014	11/29/2014	$12,000	6/15/2015	11/29/2015		W/A-2		No	MNS
2	Water Resources	Big Tujunga Dam and Reservoir	809 W. Big Tujunga Rd.	Angeles NF Tujunga Cyn	5	No modifications required.							W-Watershed	X	No	MNR
3	Water Resources	Cogswell Dam and Reservoir	West Fork San Gabriel Canyon	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
4	Water Resources	San Gabriel Dam and Reservoir	9700 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
5	Water Resources	Morris Dam and Reservoir	9500 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	$3,000	1/10/2012	3/5/2012	$3,000	10/15/2012	3/28/2013	$3,000	W	X	No	MC
6	Water Resources	San Dimas Dam and Reservoir	3331 San Dimas Canyon Road	Angeles NF San Dimas Cyn	5	$1,000	2/15/2012	4/12/2012	$1,000	8/1/2012	12/15/2012	$1,000	W	X	No	MC
						$16,000 SUBTOTAL			**$16,000 SUBTOTAL**							
1	Sewer Maintenance	Lake Hughes Wastewater Treatment Plant	17201 Elizabeth Lake Road	Lake Hughes	5	**$25,000 SUBTOTAL**	2/1/2014	7/1/2014	**$25,000 SUBTOTAL**	12/1/2014	6/1/2015	TBD	A-1		No	MNS

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Waterworks	21-5	Inactive Well (No Site Address)	Kagel Canyon	5	No modifications required.							A-2		No	MNR
2	Waterworks	21-4	Abandoned Well (No Site Address)	Kagel Canyon	5	No modifications required.							R-1		No	MNR
3	Waterworks	LACo WWD Pump Station	11800 N. Kagel Canyon Road	Kagel Canyon	5	No modifications required.							City of LA		No	MNR
4	Waterworks	Alpine Pump Station	1233 Stiles Trail Rd.	Topanga	3	No modifications required.							R-1-10,000		No	MNR
5	Waterworks	Beverly-Martin Well/Tank	2542 E. Avenue E12	Lancaster	5	No modifications required.							D-2		No	MNR
6	Waterworks	116th Street Tank	36048 N. 116th Street East	Pearblossom	5	No modifications required.							A-2-1		No	MNR
7	Waterworks	T and 106 St E Pump Station/Tank	10555 E. Avenue T	Littlerock	5	No modifications required.							A-1-10,000		No	MNR
8	Waterworks	O-4 and Division	40163 Division Street	Palmdale	5	No modifications required.							City of Palmdale		No	MNR
9	Waterworks	175E and Nugent Pump Station	44550 N. 175th Street East	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
10	Waterworks	Blue Rock Tank	18000 E. Avenue I	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
11	Waterworks	X-8 and 121E Pump Station	12100 E. Avenue X-8	Rock Creek	5	No modifications required.							R-A-1		No	MNR
12	Waterworks	X-3 Hydro	12616 E. Avenue X	Rock Creek	5	No modifications required.							R-A-1		No	MNR
13	Waterworks	W-2	33550 Longview Road	Rock Creek	5	No modifications required.							R-A-10,000		No	MNR
14	Waterworks	Santa Maria Tank	20400 Mulholland Hwy	Topanga	3	No modifications required.							City of LA		No	MNR
15	Waterworks	WEST TANK	APN 2846-003-303 (No Site Address)	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-2-2		No	MC
16	Waterworks	EAST TANK	12587 Dexter Park Road	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-1-10,000		No	MC
17	Waterworks	Owen Pump Station/Tank	2300 S. Tuna Canyon Rd.	Malibu	3	$80	4/12/2012	4/30/2013	$80	12/4/2012	3/27/2013	$210	A-1-1		No	MC
18	Waterworks	BIG ROCK 1200 Tank A BIG ROCK 1200 Tank B	20951 W. Big Rock Drive	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	City of Malibu		No	MC
19	Waterworks	Hume Tank	21737 Azurelee Road	Malibu	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$315	R-1-40,000		No	MC
20	Waterworks	Latigo Tank A Latigo Tank B	4230 S. Ocean View Drive	Malibu	3	$260	4/12/2012	4/30/2013	$260	12/4/2012	3/27/2013	$210	A-1-1		No	MC
21	Waterworks	Winding Way Tank	28001 Overview Road	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	Address Not Found		No	MC
22	Waterworks	Entrada Pump Station	21273 Entrada Rd.	Topanga	3	$340	4/12/2012	4/30/2013	$340	12/4/2012	3/27/2013	$340	R-1-1,000	X	No	MC
23	Waterworks	Topanga Beach Pump Station	3800 S. Topanga Canyon. Blvd.	Topanga	3	$2,800	4/12/2012	4/30/2013	$2,800	12/4/2012	3/27/2013	$840	R-3		No	MC
24	Waterworks	Topanga Forks Pump Station	144 N. Old Topanga Canyon Rd.	Topanga	3	$280	4/12/2012	4/30/2013	$280	12/4/2012	3/27/2013	$240	C-3	X	No	MC
25	Waterworks	Topanga Oaks Pump Station	21075 E. Hillside Dr.	Topanga	3	$265	4/12/2012	4/30/2013	$265	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
26	Waterworks	Topanga Park Pump Station Topanga Park Tank A Topanga Park Tank B	1645 N. Old Topanga Canyon Rd.	Topanga	3	$230	4/12/2012	4/30/2013	$230	12/4/2012	3/27/2013	$650	O-S	X	No	MC

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
27	Waterworks	LACo WWD 21 Pump Station 21-1 21-2	12627 N. Kagel Canyon Road	Kagel Canyon	5	$390	4/12/2012	4/30/2013	$390	12/4/2012	3/27/2013	$390	A-1-10,000	X	No	MC
28	Waterworks	Fernwood Tank A Fernwood Tank B	19837 W. Horseshoe Drive	Topanga	3	$300	4/12/2012	4/30/2013	$300	12/4/2012	3/27/2013	$315	R-1-10,000	X	No	MC
29	Waterworks	Saddle Peak Tank	2350 W. Saddle Peak Road	Topanga	3	$345	4/12/2012	4/30/2013	$345	12/4/2012	3/27/2013	$915	A-1-1		No	MC
30	Waterworks	Topanga Forks Tank A Topanga Forks Tank B	22160 W. Topanga School Road	Topanga	3	$400	4/12/2012	4/30/2013	$400	12/4/2012	3/27/2013	$420	A-1-1		No	MC
31	Waterworks	Topanga Oaks Tank	21317 W. Hillside Drive	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
32	Waterworks	New Summit Tank A New Summit Tank B	3321 N. Topanga Canyon Boulevard	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$210	A-1-2		No	MC
33	Waterworks	Topanga Beach Tank A Topanga Beach Tank B	3831 S. Castlerock Road	Topanga	3	$840	4/12/2012	4/30/2013	$840	12/4/2012	3/27/2013	$840	R-1-6,000		No	MC
34	Waterworks	Hasley Pump Station	29552 Hasley Canyon Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$260	A-2-2	X	No	MC
35	Waterworks	Cuyama Tank A Cuyama Tank B	31632 W. Cuyama Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$630	Address Not Found		No	MC
36	Waterworks	Sloan/Hasley Tank	31400 Romero Canyon Road	Val Verde	5	$420	4/12/2012	4/30/2013	$420	9/20/2012	1/29/2013	$420	A-2-2		No	MC
37	Waterworks	Los Valles Tank/Pump Station	No Site Address	Val Verde	5	$1,900	4/12/2012	4/30/2013	$1,900	9/20/2012	1/29/2013	$1,600	A-2		No	MC
38	Waterworks	Crown Valley Pump Station	33025 N. Crown Valley Road	Acton	5	$370	4/12/2012	4/30/2013	$370	9/20/2012	1/29/2013	$735	A-1-10,000	X	No	MC
39	Waterworks	Vincent Pump Station/Tank	525 Forest View Road	Acton	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$260	C-3	X	No	MC
40	Waterworks	McEnnery Pump Station	2223 Desert Road	Acton	5	$70	4/12/2012	4/30/2013	$70	9/20/2012	1/29/2013	$130	A-2-1	X	No	MC
41	Waterworks	McEnnery Tank	2225 Desert Road	Acton	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$130	A-2-1		No	MC
42	Waterworks	North Tank	1707 W. Sierra Highway	Acton	5	$150	4/12/2012	4/30/2013	$150	9/20/2012	1/29/2013	$365	A-2-1		No	MC
43	Waterworks	South Tank A South Tank B	2733 W. Sacramento Avenue	Acton	5	$110	4/12/2012	4/30/2013	$110	9/20/2012	1/29/2013	$260	A-2-1		No	MC
44	Waterworks	WELL 37-3 WELL 37-4	30500 Arrastre Canyon	Acton	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$320	A-2-1		No	MC
45	Waterworks	WELL 37-1	3318 W. Soledad Canyon Road	Acton	5	$1,710	4/12/2012	4/30/2013	$1,710	9/20/2012	1/29/2013	$780	M-1		No	MC
46	Waterworks	Old Timers Well/Tank	8820 E. Nugent Street	Lancaster	5	$250	4/12/2012	4/30/2013	$250	9/20/2012	1/29/2013	$525	City of Lancaster		No	MC
47	Waterworks	116 East and Avenue U Pump St	35446 N. 116th Street East	Pearblossom	5	$2,280	4/12/2012	4/30/2013	$2,280	9/20/2012	1/29/2013	$940	A-2-1	X	No	MC
48	Waterworks	Littlerock Tank	87th Street East & Fort Tejon Road	Littlerock	5	$170	4/12/2012	4/30/2013	$170	9/20/2012	1/29/2013	$315	A-2-1		No	MC
49	Waterworks	27-5	8955 E. Avenue U	Littlerock	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	A-1-10,000		No	MC
50	Waterworks	Well 35-2/Pump Station & Tank	41847 N. 170th Street East	North Los Angeles County	5	$1,300	4/12/2012	4/30/2013	$1,300	9/20/2012	1/29/2013	$730	A-1-1		No	MC

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
51	Waterworks	Adobe Mountain Tank	45240 N. 250th Street East	North Los Angeles County	5	$120	4/12/2012	4/30/2013	$120	9/20/2012	1/29/2013	$315	A-1-1		No	MC
52	Waterworks	168th & G Site	16856 E. Avenue G	North Los Angeles County	5	$100	4/12/2012	4/30/2013	$100	9/20/2012	1/29/2013	$210	A-1-1		No	MC
53	Waterworks	Well 38-3	40590 N. 177th Street East	Lake Los Angeles	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	R-A-20,000	X	No	MC
54	Waterworks	Coolwater Pump Station	16511 Coolwater Ave	Lake Los Angeles	5	$1,140	4/12/2012	4/30/2013	$1,140	9/20/2012	1/29/2013	$520	R-A-30,000	X	No	MC
55	Waterworks	Buttes Tanks (A, B & C)	39750 N. 163rd Street East	Lake Los Angeles	5	$180	4/12/2012	4/30/2013	$180	9/20/2012	1/29/2013	$315	R-A-40,000		No	MC
56	Waterworks	Well 38-4	41000 N. 172nd Street East	Lake Los Angeles	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$285	R-A-30,000		No	MC
57	Waterworks	Well 39-1	32030 N. Valyermo Road	Rock Creek	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$105	A-1-1	X	No	MC
58	Waterworks	Rock Creek Tank 1 Rock Creek Tank 2	32031 N. Valyermo Road	Rock Creek	5	$365	4/12/2012	4/30/2013	$365	9/20/2012	1/29/2013	$340	A-1-1		No	MC
59	Waterworks	FORT TEJON Tank	Avenue Y8 & 125th Street East	Rock Creek	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$210	A-1-1		No	MC
						$21,305 SUBTOTAL			**$21,305 SUBTOTAL**							
						$1,373,268 GRAND TOTAL			**$1,239,747 GRAND TOTAL**							

***Status Legend**
MNR = Modification not required
MIP = Modification in progress
MC = Modification completed
MNS = Modification not started

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE A-0

May 14, 2014

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF JANUARY 24, 2012, AGENDA ITEM NO. 8
RURAL OUTDOOR LIGHTING DISTRICT ORDINANCE
PUBLIC WORKS PROGRESS REPORT

At the January 24, 2012, Board of Supervisors meeting, the Board approved a motion requesting the Director of Public Works to provide a report detailing how Public Works facilities affected by the Rural Outdoor Lighting District ordinance will comply. Public Works has provided the Board with status reports on August 2, 2012; September 4, 2012; and January 9, 2014, respectively.

The following report and attached spreadsheet are provided to apprise the Board of our continued progress in addressing the outdoor lighting issues at the 77 Public Works facilities, which were initially identified as being potentially impacted by the ordinance.

To date, it has been determined that 18 facilities will not require any modifications, 54 facilities have been modified to be in compliance, 3 facilities are currently in process, and 2 facilities are currently in the design phase. Please see the attached spreadsheet for locations, estimated costs of compliance, and approximate dates for completion of designs and construction.

Road Maintenance Facilities

There are ten Road Maintenance yards located within the Rural Outdoor Lighting District. Of those, Road District 559 does not have light trespass and will not require any changes, seven yards have been completed, and the remaining two yards are scheduled to be completed by early June. Final accounting should be available by the end of July.

Acton Vincent Transit Station

Construction was awarded to a JOC contractor for $320,913.97, and the project is under construction and scheduled to be completed by May 15, 2014.

Water Resources Facilities

The entrance gate light trespass at Pacoima Dam was remedied by Public Works staff in May 2013. Other existing noncompliant lights at the base camp office and tram platform must comply within three years. The estimated cost for these corrections is $12,000. This remaining work, which consists of eight wall-mounted fixtures and three pole-mounted fixtures, will be completed prior to December 2016.

Light trespass onto the roadway was identified at the entrance gate of Morris Dam and around the control house of San Dimas Dam. These lights have been replaced with full cutoff fixtures, and the light trespass has been corrected at an estimated cost of $3,000 and $1,000, respectively.

Sewer Maintenance Facilities

The outdoor light fixtures on the accessory buildings and the one attached to the wastewater treatment facility will be modified by June 1, 2015. The preliminary estimated cost is $25,000.

Waterworks Facilities

Public Works has completed retrofitting the lighting fixtures at 36 of its Waterworks facilities in both the North (Antelope Valley) and South (Malibu) maintenance areas at a cost of $21,300. The facilities are now fully compliant with the requirements of the ordinance.

We will provide the Board with another update on July 15, 2014. If you have any questions, please call me or your staff may contact Dennis Hunter at (626) 458-4006 or dhunter@dpw.lacounty.gov.

DH:ja
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Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Regional Planning

RURAL OUTDOOR LIGHTING ORDINANCE
PUBLIC WORKS FACILITIES

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Road Maintenance	Road Division 559	35100 San Francisquito Cyn Road	Saugus	5	No modifications required.							W		No	MNR
2	Road Maintenance	Road Division 339	29773 W. Mulholland Hwy.	Aguora	3	$106,286	2/19/2013	5/31/2013	$87,708	8/15/2013	4/8/2014		A-1-1		No	MC
3	Road Maintenance	Road Division 551	4859 W. Avenue L-12	Quartz Hill	5	$345,642	1/22/2013	5/31/2013	$143,876	10/1/2013	5/16/2014		R-3-P		No	MIP
4	Road Maintenance	Road Division 555	17931 W. Avenue J	Lake Los Angeles	5	$54,900	2/13/2013	5/31/2013	$93,508	10/1/2013	6/6/2014		A-1-1		No	MIP
5	Road Maintenance	Road Division 555A	45122 N. 70th Street East	Lancaster	5	$30,500	2/13/2013	5/31/2013	$64,048	10/1/2013	2/10/2014		A-2-1		No	MC
6	Road Maintenance	Road Division 556A	4930 Gorman Post Road	Gorman	5	$47,775	2/25/2013	5/31/2013	$87,766	10/1/2013	3/19/2014		A-1-10,000		No	MC
7	Road Maintenance	Road Division 557A	27500 Angeles Forest Hwy.	Palmdale	5	$71,175	3/13/2013	5/31/2013	$81,362	10/1/2013	3/24/2014		A-2-2.5		No	MC
8	Road Maintenance	Road Division 558	8505 E. Avenue T	Littlerock	5	$88,405	3/13/2013	5/31/2013	$143,397	10/1/2013	4/25/2014		A-1-10,000		No	MC
9	Road Maintenance	Road Division 558A	22201 Big Pines Hwy.	Jackson Lake	5	$84,240	3/13/2013	5/31/2013	$57,636	10/1/2013	1/27/2014		W	X	No	MC
10	Road Maintenance	Road Division 559A	Mount Wilson Road	Mount Wilson	5	$92,040	3/13/2013	5/31/2013	$28,141	10/1/2013	3/24/2014		W	X	No	MC
						$920,963 SUBTOTAL			**$787,442 SUBTOTAL**							
1	Programs Development	Acton Vincent Transit	730 W Sierra Hwy	Acton	5	**$390,000 SUBTOTAL**	1/7/2013	3/7/2013	**$390,000 SUBTOTAL**	1/14/2014	5/15/2014		A-1-1		Yes	MIP
1	Water Resources	Pacoima Dam and Reservoir	15300 N. Pacoima Canyon Rd.	County Unincorporated near Sylmar	5	$12,000	2/4/2014	11/29/2014	$12,000	6/15/2015	11/29/2015		W/A-2		No	MNS
2	Water Resources	Big Tujunga Dam and Reservoir	809 W. Big Tujunga Rd.	Angeles NF Tujunga Cyn	5	No modifications required.							W-Watershed	X	No	MNR
3	Water Resources	Cogswell Dam and Reservoir	West Fork San Gabriel Canyon	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
4	Water Resources	San Gabriel Dam and Reservoir	9700 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
5	Water Resources	Morris Dam and Reservoir	9500 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	$3,000	1/10/2012	3/5/2012	$3,000	10/15/2012	3/28/2013	$3,000	W	X	No	MC
6	Water Resources	San Dimas Dam and Reservoir	3331 San Dimas Canyon Road	Angeles NF San Dimas Cyn	5	$1,000	2/15/2012	4/12/2012	$1,000	8/1/2012	12/15/2012	$1,000	W	X	No	MC
						$16,000 SUBTOTAL			**$16,000 SUBTOTAL**							
1	Sewer Maintenance	Lake Hughes Wastewater Treatment Plant	17201 Elizabeth Lake Road	Lake Hughes	5	**$25,000 SUBTOTAL**	2/1/2014	7/1/2014	**$25,000 SUBTOTAL**	12/1/2014	6/1/2015	TBD	A-1		No	MNS

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Waterworks	21-5	Inactive Well (No Site Address)	Kagel Canyon	5	No modifications required.							A-2		No	MNR
2	Waterworks	21-4	Abandoned Well (No Site Address)	Kagel Canyon	5	No modifications required.							R-1		No	MNR
3	Waterworks	LACo WWD Pump Station	11800 N. Kagel Canyon Road	Kagel Canyon	5	No modifications required.							City of LA		No	MNR
4	Waterworks	Alpine Pump Station	1233 Stiles Trail Rd.	Topanga	3	No modifications required.							R-1-10,000		No	MNR
5	Waterworks	Beverly-Martin Well/Tank	2542 E. Avenue E12	Lancaster	5	No modifications required.							D-2		No	MNR
6	Waterworks	116th Street Tank	36048 N. 116th Street East	Pearblossom	5	No modifications required.							A-2-1		No	MNR
7	Waterworks	T and 106 St E Pump Station/Tank	10555 E. Avenue T	Littlerock	5	No modifications required.							A-1-10,000		No	MNR
8	Waterworks	O-4 and Division	40163 Division Street	Palmdale	5	No modifications required.							City of Palmdale		No	MNR
9	Waterworks	175E and Nugent Pump Station	44550 N. 175th Street East	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
10	Waterworks	Blue Rock Tank	18000 E. Avenue I	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
11	Waterworks	X-8 and 121E Pump Station	12100 E. Avenue X-8	Rock Creek	5	No modifications required.							R-A-1		No	MNR
12	Waterworks	X-3 Hydro	12616 E. Avenue X	Rock Creek	5	No modifications required.							R-A-1		No	MNR
13	Waterworks	W-2	33550 Longview Road	Rock Creek	5	No modifications required.							R-A-10,000		No	MNR
14	Waterworks	Santa Maria Tank	20400 Mulholland Hwy	Topanga	3	No modifications required.							City of LA		No	MNR
15	Waterworks	WEST TANK	APN 2846-003-303 (No Site Address)	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-2-2		No	MC
16	Waterworks	EAST TANK	12587 Dexter Park Road	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-1-10,000		No	MC
17	Waterworks	Owen Pump Station/Tank	2300 S. Tuna Canyon Rd.	Malibu	3	$80	4/12/2012	4/30/2013	$80	12/4/2012	3/27/2013	$210	A-1-1		No	MC
18	Waterworks	BIG ROCK 1200 Tank A BIG ROCK 1200 Tank B	20951 W. Big Rock Drive	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	City of Malibu		No	MC
19	Waterworks	Hume Tank	21737 Azurelee Road	Malibu	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$315	R-1-40,000		No	MC
20	Waterworks	Latigo Tank A Latigo Tank B	4230 S. Ocean View Drive	Malibu	3	$260	4/12/2012	4/30/2013	$260	12/4/2012	3/27/2013	$210	A-1-1		No	MC
21	Waterworks	Winding Way Tank	28001 Overview Road	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	Address Not Found		No	MC
22	Waterworks	Entrada Pump Station	21273 Entrada Rd.	Topanga	3	$340	4/12/2012	4/30/2013	$340	12/4/2012	3/27/2013	$340	R-1-1,000	X	No	MC
23	Waterworks	Topanga Beach Pump Station	3800 S. Topanga Canyon. Blvd.	Topanga	3	$2,800	4/12/2012	4/30/2013	$2,800	12/4/2012	3/27/2013	$840	R-3		No	MC
24	Waterworks	Topanga Forks Pump Station	144 N. Old Topanga Canyon Rd.	Topanga	3	$280	4/12/2012	4/30/2013	$280	12/4/2012	3/27/2013	$240	C-3	X	No	MC
25	Waterworks	Topanga Oaks Pump Station	21075 E. Hillside Dr.	Topanga	3	$265	4/12/2012	4/30/2013	$265	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
26	Waterworks	Topanga Park Pump Station Topanga Park Tank A Topanga Park Tank B	1645 N. Old Topanga Canyon Rd.	Topanga	3	$230	4/12/2012	4/30/2013	$230	12/4/2012	3/27/2013	$650	O-S	X	No	MC

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
27	Waterworks	LACo WWD 21 Pump Station 21-1 21-2	12627 N. Kagel Canyon Road	Kagel Canyon	5	$390	4/12/2012	4/30/2013	$390	12/4/2012	3/27/2013	$390	A-1-10,000	X	No	MC
28	Waterworks	Fernwood Tank A Fernwood Tank B	19837 W. Horseshoe Drive	Topanga	3	$300	4/12/2012	4/30/2013	$300	12/4/2012	3/27/2013	$315	R-1-10,000	X	No	MC
29	Waterworks	Saddle Peak Tank	2350 W. Saddle Peak Road	Topanga	3	$345	4/12/2012	4/30/2013	$345	12/4/2012	3/27/2013	$915	A-1-1		No	MC
30	Waterworks	Topanga Forks Tank A Topanga Forks Tank B	22160 W. Topanga School Road	Topanga	3	$400	4/12/2012	4/30/2013	$400	12/4/2012	3/27/2013	$420	A-1-1		No	MC
31	Waterworks	Topanga Oaks Tank	21317 W. Hillside Drive	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
32	Waterworks	New Summit Tank A New Summit Tank B	3321 N. Topanga Canyon Boulevard	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$210	A-1-2		No	MC
33	Waterworks	Topanga Beach Tank A Topanga Beach Tank B	3831 S. Castlerock Road	Topanga	3	$840	4/12/2012	4/30/2013	$840	12/4/2012	3/27/2013	$840	R-1-6,000		No	MC
34	Waterworks	Hasley Pump Station	29552 Hasley Canyon Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$260	A-2-2	X	No	MC
35	Waterworks	Cuyama Tank A Cuyama Tank B	31632 W. Cuyama Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$630	Address Not Found		No	MC
36	Waterworks	Sloan/Hasley Tank	31400 Romero Canyon Road	Val Verde	5	$420	4/12/2012	4/30/2013	$420	9/20/2012	1/29/2013	$420	A-2-2		No	MC
37	Waterworks	Los Valles Tank/Pump Station	No Site Address	Val Verde	5	$1,900	4/12/2012	4/30/2013	$1,900	9/20/2012	1/29/2013	$1,600	A-2		No	MC
38	Waterworks	Crown Valley Pump Station	33025 N. Crown Valley Road	Acton	5	$370	4/12/2012	4/30/2013	$370	9/20/2012	1/29/2013	$735	A-1-10,000	X	No	MC
39	Waterworks	Vincent Pump Station/Tank	525 Forest View Road	Acton	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$260	C-3	X	No	MC
40	Waterworks	McEnnery Pump Station	2223 Desert Road	Acton	5	$70	4/12/2012	4/30/2013	$70	9/20/2012	1/29/2013	$130	A-2-1	X	No	MC
41	Waterworks	McEnnery Tank	2225 Desert Road	Acton	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$130	A-2-1		No	MC
42	Waterworks	North Tank	1707 W. Sierra Highway	Acton	5	$150	4/12/2012	4/30/2013	$150	9/20/2012	1/29/2013	$365	A-2-1		No	MC
43	Waterworks	South Tank A South Tank B	2733 W. Sacramento Avenue	Acton	5	$110	4/12/2012	4/30/2013	$110	9/20/2012	1/29/2013	$260	A-2-1		No	MC
44	Waterworks	WELL 37-3 WELL 37-4	30500 Arrastre Canyon	Acton	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$320	A-2-1		No	MC
45	Waterworks	WELL 37-1	3318 W. Soledad Canyon Road	Acton	5	$1,710	4/12/2012	4/30/2013	$1,710	9/20/2012	1/29/2013	$780	M-1		No	MC
46	Waterworks	Old Timers Well/Tank	8820 E. Nugent Street	Lancaster	5	$250	4/12/2012	4/30/2013	$250	9/20/2012	1/29/2013	$525	City of Lancaster		No	MC
47	Waterworks	116 East and Avenue U Pump St	35446 N. 116th Street East	Pearblossom	5	$2,280	4/12/2012	4/30/2013	$2,280	9/20/2012	1/29/2013	$940	A-2-1	X	No	MC
48	Waterworks	Littlerock Tank	87th Street East & Fort Tejon Road	Littlerock	5	$170	4/12/2012	4/30/2013	$170	9/20/2012	1/29/2013	$315	A-2-1		No	MC
49	Waterworks	27-5	8955 E. Avenue U	Littlerock	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	A-1-10,000		No	MC
50	Waterworks	Well 35-2/Pump Station & Tank	41847 N. 170th Street East	North Los Angeles County	5	$1,300	4/12/2012	4/30/2013	$1,300	9/20/2012	1/29/2013	$730	A-1-1		No	MC

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
51	Waterworks	Adobe Mountain Tank	45240 N. 250th Street East	North Los Angeles County	5	$120	4/12/2012	4/30/2013	$120	9/20/2012	1/29/2013	$315	A-1-1		No	MC
52	Waterworks	168th & G Site	16856 E. Avenue G	North Los Angeles County	5	$100	4/12/2012	4/30/2013	$100	9/20/2012	1/29/2013	$210	A-1-1		No	MC
53	Waterworks	Well 38-3	40590 N. 177th Street East	Lake Los Angeles	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	R-A-20,000	X	No	MC
54	Waterworks	Coolwater Pump Station	16511 Coolwater Ave	Lake Los Angeles	5	$1,140	4/12/2012	4/30/2013	$1,140	9/20/2012	1/29/2013	$520	R-A-30,000	X	No	MC
55	Waterworks	Buttes Tanks (A, B & C)	39750 N. 163rd Street East	Lake Los Angeles	5	$180	4/12/2012	4/30/2013	$180	9/20/2012	1/29/2013	$315	R-A-40,000		No	MC
56	Waterworks	Well 38-4	41000 N. 172nd Street East	Lake Los Angeles	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$285	R-A-30,000		No	MC
57	Waterworks	Well 39-1	32030 N. Valyermo Road	Rock Creek	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$105	A-1-1	X	No	MC
58	Waterworks	Rock Creek Tank 1 Rock Creek Tank 2	32031 N. Valyermo Road	Rock Creek	5	$365	4/12/2012	4/30/2013	$365	9/20/2012	1/29/2013	$340	A-1-1		No	MC
59	Waterworks	FORT TEJON Tank	Avenue Y8 & 125th Street East	Rock Creek	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$210	A-1-1		No	MC
						$21,305 SUBTOTAL			$21,305 SUBTOTAL							
						$1,373,268 GRAND TOTAL			$1,239,747 GRAND TOTAL							

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COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

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ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: A-0

August 14, 2014

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

BOARD MOTION OF JANUARY 24, 2012, AGENDA ITEM NO. 8
RURAL OUTDOOR LIGHTING DISTRICT ORDINANCE
PUBLIC WORKS PROGRESS REPORT

At the January 24, 2012, Board of Supervisors meeting, the Board approved a motion requesting the Director of Public Works to provide a report detailing how Public Works facilities affected by the Rural Outdoor Lighting District ordinance will comply. The following report and attached spreadsheet are provided to apprise the Board of our continued progress.

There were 77 Public Works facilities identified as being potentially impacted by the ordinance. Currently, 18 facilities will not require any modifications, 57 facilities have been modified to be in compliance, 1 facility is currently in process, and 1 facility is in the design phase. The attached spreadsheet provides locations, estimated costs of compliance, and approximate dates for completion of designs and construction.

Road Maintenance Facilities

There are ten Road Maintenance yards located within the Rural Outdoor Lighting District. Road District 559 yard does not have light trespass and will not require any changes. The remaining nine yards were modified and completed in June 2014 at a cost of $534,888.

Acton Vincent Transit Station

Construction for the lighting upgrade was completed in May 2014. The facility is now fully compliant with the requirements of the ordinance at a preliminary estimated cost of $390,000.

Water Resources Facilities

The entrance gate light trespass at Pacoima Dam was remedied by Public Works staff in May 2013. Other existing noncompliant lights at the base camp office and tram platform must be modified to comply within 3 years of the ordinance's deadline. The remaining work consists of replacing seven wall-mounted fixtures and three pole-mounted fixtures. The design phase was completed in June 2014. The work is scheduled to be performed by Public Works staff and estimated to be completed by August 31, 2015, at the estimated cost of $12,000.

Sewer Maintenance Facilities

The outdoor light fixtures on the accessory buildings and the one attached to the wastewater treatment facility will be modified by June 1, 2015. The preliminary estimated cost is $25,000.

We will provide the Board with another update in June 2015. If you have any questions, please call me or your staff may contact Dennis Hunter at (626) 458-4006 or dhunter@dpw.lacounty.gov.

DH:ja
p:\adpub\admin\joann\amemos\rural outdoor lighting motion 08 2014

Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Regional Planning

RURAL OUTDOOR LIGHTING ORDINANCE
PUBLIC WORKS FACILITIES

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Road Maintenance	Road Division 559	35100 San Francisquito Cyn Road	Saugus	5	No modifications required.							W		No	MNR
2	Road Maintenance	Road Division 339	29773 W. Mulholland Hwy.	Aguora	3	$106,286	2/19/2013	5/31/2013	$87,708	8/15/2013	4/8/2014	$57,961	A-1-1		No	MC
3	Road Maintenance	Road Division 551	4859 W. Avenue L-12	Quartz Hill	5	$345,642	1/22/2013	5/31/2013	$143,876	10/1/2013	5/16/2014	$111,961	R-3-P		No	MC
4	Road Maintenance	Road Division 555	17931 W. Avenue J	Lake Los Angeles	5	$54,900	2/13/2013	5/31/2013	$93,508	10/1/2013	6/6/2014	$88,014	A-1-1		No	MC
5	Road Maintenance	Road Division 555A	45122 N. 70th Street East	Lancaster	5	$30,500	2/13/2013	5/31/2013	$64,048	10/1/2013	2/10/2014	$35,918	A-2-1		No	MC
6	Road Maintenance	Road Division 556A	4930 Gorman Post Road	Gorman	5	$47,775	2/25/2013	5/31/2013	$87,766	10/1/2013	3/19/2014	$55,017	A-1-10,000		No	MC
7	Road Maintenance	Road Division 557A	27500 Angeles Forest Hwy.	Palmdale	5	$71,175	3/13/2013	5/31/2013	$81,362	10/1/2013	3/24/2014	$46,666	A-2-2.5		No	MC
8	Road Maintenance	Road Division 558	8505 E. Avenue T	Littlerock	5	$88,405	3/13/2013	5/31/2013	$143,397	10/1/2013	4/25/2014	$89,007	A-1-10,000		No	MC
9	Road Maintenance	Road Division 558A	22201 Big Pines Hwy.	Jackson Lake	5	$84,240	3/13/2013	5/31/2013	$57,636	10/1/2013	1/27/2014	$32,370	W	X	No	MC
10	Road Maintenance	Road Division 559A	Mount Wilson Road	Mount Wilson	5	$92,040	3/13/2013	5/31/2013	$28,141	10/1/2013	3/24/2014	$17,974	W	X	No	MC
						$920,963 SUBTOTAL			**$787,442 SUBTOTAL**			**$534,888 SUBTOTAL**				
1	Programs Development	Acton Vincent Transit	730 W Sierra Hwy	Acton	5	**$390,000**	1/7/2013	3/7/2013	**$390,000**	1/14/2014	5/15/2014	TBD	A-1-1		Yes	MC
						SUBTOTAL			**SUBTOTAL**							
1	Water Resources	Pacoima Dam and Reservoir	15300 N. Pacoima Canyon Rd.	County Unincorporated near Sylmar	5	$12,000	2/4/2014	6/2/2014	$12,000	8/31/2014	8/31/2015		W/A-2		No	MIP
2	Water Resources	Big Tujunga Dam and Reservoir	809 W. Big Tujunga Rd.	Angeles NF Tujunga Cyn	5	No modifications required.							W-Watershed	X	No	MNR
3	Water Resources	Cogswell Dam and Reservoir	West Fork San Gabriel Canyon	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
4	Water Resources	San Gabriel Dam and Reservoir	9700 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
5	Water Resources	Morris Dam and Reservoir	9500 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	$3,000	1/10/2012	3/5/2012	$3,000	10/15/2012	3/28/2013	$3,000	W	X	No	MC
6	Water Resources	San Dimas Dam and Reservoir	3331 San Dimas Canyon Road	Angeles NF San Dimas Cyn	5	$1,000	2/15/2012	4/12/2012	$1,000	8/1/2012	12/15/2012	$1,000	W	X	No	MC
						$16,000 SUBTOTAL			**$16,000 SUBTOTAL**			**$4,000 SUBTOTAL**				
1	Sewer Maintenance	Lake Hughes Wastewater Treatment Plant	17201 Elizabeth Lake Road	Lake Hughes	5	**$25,000**	2/1/2014	7/1/2014	**$25,000**	12/1/2014	6/1/2015	TBD	A-1		No	MNS
						SUBTOTAL			**SUBTOTAL**							

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	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Waterworks	21-5	Inactive Well (No Site Address)	Kagel Canyon	5	No modifications required.							A-2		No	MNR
2	Waterworks	21-4	Abandoned Well (No Site Address)	Kagel Canyon	5	No modifications required.							R-1		No	MNR
3	Waterworks	LACo WWD Pump Station	11800 N. Kagel Canyon Road	Kagel Canyon	5	No modifications required.							City of LA		No	MNR
4	Waterworks	Alpine Pump Station	1233 Stiles Trail Rd.	Topanga	3	No modifications required.							R-1-10,000		No	MNR
5	Waterworks	Beverly-Martin Well/Tank	2542 E. Avenue E12	Lancaster	5	No modifications required.							D-2		No	MNR
6	Waterworks	116th Street Tank	36048 N. 116th Street East	Pearblossom	5	No modifications required.							A-2-1		No	MNR
7	Waterworks	T and 106 St E Pump Station/Tank	10555 E. Avenue T	Littlerock	5	No modifications required.							A-1-10,000		No	MNR
8	Waterworks	O-4 and Division	40163 Division Street	Palmdale	5	No modifications required.							City of Palmdale		No	MNR
9	Waterworks	175E and Nugent Pump Station	44550 N. 175th Street East	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
10	Waterworks	Blue Rock Tank	18000 E. Avenue I	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
11	Waterworks	X-8 and 121E Pump Station	12100 E. Avenue X-8	Rock Creek	5	No modifications required.							R-A-1		No	MNR
12	Waterworks	X-3 Hydro	12616 E. Avenue X	Rock Creek	5	No modifications required.							R-A-1		No	MNR
13	Waterworks	W-2	33550 Longview Road	Rock Creek	5	No modifications required.							R-A-10,000		No	MNR
14	Waterworks	Santa Maria Tank	20400 Mulholland Hwy	Topanga	3	No modifications required.							City of LA		No	MNR
15	Waterworks	WEST TANK	APN 2846-003-303 (No Site Address)	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-2-2		No	MC
16	Waterworks	EAST TANK	12587 Dexter Park Road	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-1-10,000		No	MC
17	Waterworks	Owen Pump Station/Tank	2300 S. Tuna Canyon Rd.	Malibu	3	$80	4/12/2012	4/30/2013	$80	12/4/2012	3/27/2013	$210	A-1-1		No	MC
18	Waterworks	BIG ROCK 1200 Tank A BIG ROCK 1200 Tank B	20951 W. Big Rock Drive	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	City of Malibu		No	MC
19	Waterworks	Hume Tank	21737 Azurelee Road	Malibu	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$315	R-1-40,000		No	MC
20	Waterworks	Latigo Tank A Latigo Tank B	4230 S. Ocean View Drive	Malibu	3	$260	4/12/2012	4/30/2013	$260	12/4/2012	3/27/2013	$210	A-1-1		No	MC
21	Waterworks	Winding Way Tank	28001 Overview Road	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	Address Not Found		No	MC
22	Waterworks	Entrada Pump Station	21273 Entrada Rd.	Topanga	3	$340	4/12/2012	4/30/2013	$340	12/4/2012	3/27/2013	$340	R-1-1,000	X	No	MC
23	Waterworks	Topanga Beach Pump Station	3800 S. Topanga Canyon. Blvd.	Topanga	3	$2,800	4/12/2012	4/30/2013	$2,800	12/4/2012	3/27/2013	$840	R-3		No	MC
24	Waterworks	Topanga Forks Pump Station	144 N. Old Topanga Canyon Rd.	Topanga	3	$280	4/12/2012	4/30/2013	$280	12/4/2012	3/27/2013	$240	C-3	X	No	MC
25	Waterworks	Topanga Oaks Pump Station	21075 E. Hillside Dr.	Topanga	3	$265	4/12/2012	4/30/2013	$265	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
26	Waterworks	Topanga Park Pump Station Topanga Park Tank A Topanga Park Tank B	1645 N. Old Topanga Canyon Rd.	Topanga	3	$230	4/12/2012	4/30/2013	$230	12/4/2012	3/27/2013	$650	O-S	X	No	MC

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27	Waterworks	LACo WWD 21 Pump Station 21-1 21-2	12627 N. Kagel Canyon Road	Kagel Canyon	5	$390	4/12/2012	4/30/2013	$390	12/4/2012	3/27/2013	$390	A-1-10,000	X	No	MC
28	Waterworks	Fernwood Tank A Fernwood Tank B	19837 W. Horseshoe Drive	Topanga	3	$300	4/12/2012	4/30/2013	$300	12/4/2012	3/27/2013	$315	R-1-10,000	X	No	MC
29	Waterworks	Saddle Peak Tank	2350 W. Saddle Peak Road	Topanga	3	$345	4/12/2012	4/30/2013	$345	12/4/2012	3/27/2013	$915	A-1-1		No	MC
30	Waterworks	Topanga Forks Tank A Topanga Forks Tank B	22160 W. Topanga School Road	Topanga	3	$400	4/12/2012	4/30/2013	$400	12/4/2012	3/27/2013	$420	A-1-1		No	MC
31	Waterworks	Topanga Oaks Tank	21317 W. Hillside Drive	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
32	Waterworks	New Summit Tank A New Summit Tank B	3321 N. Topanga Canyon Boulevard	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$210	A-1-2		No	MC
33	Waterworks	Topanga Beach Tank A Topanga Beach Tank B	3831 S. Castlerock Road	Topanga	3	$840	4/12/2012	4/30/2013	$840	12/4/2012	3/27/2013	$840	R-1-6,000		No	MC
34	Waterworks	Hasley Pump Station	29552 Hasley Canyon Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$260	A-2-2	X	No	MC
35	Waterworks	Cuyama Tank A Cuyama Tank B	31632 W. Cuyama Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$630	Address Not Found		No	MC
36	Waterworks	Sloan/Hasley Tank	31400 Romero Canyon Road	Val Verde	5	$420	4/12/2012	4/30/2013	$420	9/20/2012	1/29/2013	$420	A-2-2		No	MC
37	Waterworks	Los Valles Tank/Pump Station	No Site Address	Val Verde	5	$1,900	4/12/2012	4/30/2013	$1,900	9/20/2012	1/29/2013	$1,600	A-2		No	MC
38	Waterworks	Crown Valley Pump Station	33025 N. Crown Valley Road	Acton	5	$370	4/12/2012	4/30/2013	$370	9/20/2012	1/29/2013	$735	A-1-10,000	X	No	MC
39	Waterworks	Vincent Pump Station/Tank	525 Forest View Road	Acton	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$260	C-3	X	No	MC
40	Waterworks	McEnnery Pump Station	2223 Desert Road	Acton	5	$70	4/12/2012	4/30/2013	$70	9/20/2012	1/29/2013	$130	A-2-1	X	No	MC
41	Waterworks	McEnnery Tank	2225 Desert Road	Acton	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$130	A-2-1		No	MC
42	Waterworks	North Tank	1707 W. Sierra Highway	Acton	5	$150	4/12/2012	4/30/2013	$150	9/20/2012	1/29/2013	$365	A-2-1		No	MC
43	Waterworks	South Tank A South Tank B	2733 W. Sacramento Avenue	Acton	5	$110	4/12/2012	4/30/2013	$110	9/20/2012	1/29/2013	$260	A-2-1		No	MC
44	Waterworks	WELL 37-3 WELL 37-4	30500 Arrastre Canyon	Acton	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$320	A-2-1		No	MC
45	Waterworks	WELL 37-1	3318 W. Soledad Canyon Road	Acton	5	$1,710	4/12/2012	4/30/2013	$1,710	9/20/2012	1/29/2013	$780	M-1		No	MC
46	Waterworks	Old Timers Well/Tank	8820 E. Nugent Street	Lancaster	5	$250	4/12/2012	4/30/2013	$250	9/20/2012	1/29/2013	$525	City of Lancaster		No	MC
47	Waterworks	116 East and Avenue U Pump St	35446 N. 116th Street East	Pearblossom	5	$2,280	4/12/2012	4/30/2013	$2,280	9/20/2012	1/29/2013	$940	A-2-1	X	No	MC
48	Waterworks	Littlerock Tank	87th Street East & Fort Tejon Road	Littlerock	5	$170	4/12/2012	4/30/2013	$170	9/20/2012	1/29/2013	$315	A-2-1		No	MC
49	Waterworks	27-5	8955 E. Avenue U	Littlerock	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	A-1-10,000		No	MC
50	Waterworks	Well 35-2/Pump Station & Tank	41847 N. 170th Street East	North Los Angeles County	5	$1,300	4/12/2012	4/30/2013	$1,300	9/20/2012	1/29/2013	$730	A-1-1		No	MC

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52	Waterworks	168th & G Site	16856 E. Avenue G	North Los Angeles County	5	$100	4/12/2012	4/30/2013	$100	9/20/2012	1/29/2013	$210	A-1-1		No	MC
53	Waterworks	Well 38-3	40590 N. 177th Street East	Lake Los Angeles	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	R-A-20,000	X	No	MC
54	Waterworks	Coolwater Pump Station	16511 Coolwater Ave	Lake Los Angeles	5	$1,140	4/12/2012	4/30/2013	$1,140	9/20/2012	1/29/2013	$520	R-A-30,000	X	No	MC
55	Waterworks	Buttes Tanks (A, B & C)	39750 N. 163rd Street East	Lake Los Angeles	5	$180	4/12/2012	4/30/2013	$180	9/20/2012	1/29/2013	$315	R-A-40,000		No	MC
56	Waterworks	Well 38-4	41000 N. 172nd Street East	Lake Los Angeles	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$285	R-A-30,000		No	MC
57	Waterworks	Well 39-1	32030 N. Valyermo Road	Rock Creek	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$105	A-1-1	X	No	MC
58	Waterworks	Rock Creek Tank 1 Rock Creek Tank 2	32031 N. Valyermo Road	Rock Creek	5	$365	4/12/2012	4/30/2013	$365	9/20/2012	1/29/2013	$340	A-1-1		No	MC
59	Waterworks	FORT TEJON Tank	Avenue Y8 & 125th Street East	Rock Creek	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$210	A-1-1		No	MC
						$21,305 SUBTOTAL			**$21,305 SUBTOTAL**			**$18,585 SUBTOTAL**				
						$1,373,268 GRAND TOTAL			**$1,239,747 GRAND TOTAL**			**$557,473 GRAND TOTAL**				

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COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE REFER TO FILE: A-0

August 14, 2014

TO: Each Supervisor

FROM: Gail Farber
Director of Public Works

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Construction for the lighting upgrade was completed in May 2014. The facility is now fully compliant with the requirements of the ordinance at a preliminary estimated cost of $390,000.

Water Resources Facilities

The entrance gate light trespass at Pacoima Dam was remedied by Public Works staff in May 2013. Other existing noncompliant lights at the base camp office and tram platform must be modified to comply within 3 years of the ordinance's deadline. The remaining work consists of replacing seven wall-mounted fixtures and three pole-mounted fixtures. The design phase was completed in June 2014. The work is scheduled to be performed by Public Works staff and estimated to be completed by August 31, 2015, at the estimated cost of $12,000.

Sewer Maintenance Facilities

The outdoor light fixtures on the accessory buildings and the one attached to the wastewater treatment facility will be modified by June 1, 2015. The preliminary estimated cost is $25,000.

We will provide the Board with another update in June 2015. If you have any questions, please call me or your staff may contact Dennis Hunter at (626) 458-4006 or dhunter@dpw.lacounty.gov.

DH:ja
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Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office
Department of Regional Planning

RURAL OUTDOOR LIGHTING ORDINANCE
PUBLIC WORKS FACILITIES

	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Road Maintenance	Road Division 559	35100 San Francisquito Cyn Road	Saugus	5	No modifications required.							W		No	MNR
2	Road Maintenance	Road Division 339	29773 W. Mulholland Hwy.	Aguora	3	$106,286	2/19/2013	5/31/2013	$87,708	8/15/2013	4/8/2014	$57,961	A-1-1		No	MC
3	Road Maintenance	Road Division 551	4859 W. Avenue L-12	Quartz Hill	5	$345,642	1/22/2013	5/31/2013	$143,876	10/1/2013	5/16/2014	$111,961	R-3-P		No	MC
4	Road Maintenance	Road Division 555	17931 W. Avenue J	Lake Los Angeles	5	$54,900	2/13/2013	5/31/2013	$93,508	10/1/2013	6/6/2014	$88,014	A-1-1		No	MC
5	Road Maintenance	Road Division 555A	45122 N. 70th Street East	Lancaster	5	$30,500	2/13/2013	5/31/2013	$64,048	10/1/2013	2/10/2014	$35,918	A-2-1		No	MC
6	Road Maintenance	Road Division 556A	4930 Gorman Post Road	Gorman	5	$47,775	2/25/2013	5/31/2013	$87,766	10/1/2013	3/19/2014	$55,017	A-1-10,000		No	MC
7	Road Maintenance	Road Division 557A	27500 Angeles Forest Hwy.	Palmdale	5	$71,175	3/13/2013	5/31/2013	$81,362	10/1/2013	3/24/2014	$46,666	A-2-2.5		No	MC
8	Road Maintenance	Road Division 558	8505 E. Avenue T	Littlerock	5	$88,405	3/13/2013	5/31/2013	$143,397	10/1/2013	4/25/2014	$89,007	A-1-10,000		No	MC
9	Road Maintenance	Road Division 558A	22201 Big Pines Hwy.	Jackson Lake	5	$84,240	3/13/2013	5/31/2013	$57,636	10/1/2013	1/27/2014	$32,370	W	X	No	MC
10	Road Maintenance	Road Division 559A	Mount Wilson Road	Mount Wilson	5	$92,040	3/13/2013	5/31/2013	$28,141	10/1/2013	3/24/2014	$17,974	W	X	No	MC
						$920,963 SUBTOTAL			**$787,442 SUBTOTAL**			**$534,888 SUBTOTAL**				
1	Programs Development	Acton Vincent Transit	730 W Sierra Hwy	Acton	5	**$390,000 SUBTOTAL**	1/7/2013	3/7/2013	**$390,000 SUBTOTAL**	1/14/2014	5/15/2014	TBD	A-1-1		Yes	MC
1	Water Resources	Pacoima Dam and Reservoir	15300 N. Pacoima Canyon Rd.	County Unincorporated near Sylmar	5	$12,000	2/4/2014	6/2/2014	$12,000	8/31/2014	8/31/2015		W/A-2		No	MIP
2	Water Resources	Big Tujunga Dam and Reservoir	809 W. Big Tujunga Rd.	Angeles NF Tujunga Cyn	5	No modifications required.							W-Watershed	X	No	MNR
3	Water Resources	Cogswell Dam and Reservoir	West Fork San Gabriel Canyon	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
4	Water Resources	San Gabriel Dam and Reservoir	9700 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	No modifications required.							W-Watershed	X	No	MNR
5	Water Resources	Morris Dam and Reservoir	9500 N. San Gabriel Canyon Rd.	Angeles NF San Gabriel Cyn	5	$3,000	1/10/2012	3/5/2012	$3,000	10/15/2012	3/28/2013	$3,000	W	X	No	MC
6	Water Resources	San Dimas Dam and Reservoir	3331 San Dimas Canyon Road	Angeles NF San Dimas Cyn	5	$1,000	2/15/2012	4/12/2012	$1,000	8/1/2012	12/15/2012	$1,000	W	X	No	MC
						$16,000 SUBTOTAL			**$16,000 SUBTOTAL**			**$4,000 SUBTOTAL**				
1	Sewer Maintenance	Lake Hughes Wastewater Treatment Plant	17201 Elizabeth Lake Road	Lake Hughes	5	**$25,000 SUBTOTAL**	2/1/2014	7/1/2014	**$25,000 SUBTOTAL**	12/1/2014	6/1/2015	TBD	A-1		No	MNS

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	Division	Site / Facilty	Address	City / Community	Supervisorial District	Preliminary Cost Estimate	Begin Design	End Design	Engineer's Estimate	Begin Construction	End Construction	Final Cost	Zoning	Light Trespass Only	Director's Site Review Needed	*Status
1	Waterworks	21-5	Inactive Well (No Site Address)	Kagel Canyon	5	No modifications required.							A-2		No	MNR
2	Waterworks	21-4	Abandoned Well (No Site Address)	Kagel Canyon	5	No modifications required.							R-1		No	MNR
3	Waterworks	LACo WWD Pump Station	11800 N. Kagel Canyon Road	Kagel Canyon	5	No modifications required.							City of LA		No	MNR
4	Waterworks	Alpine Pump Station	1233 Stiles Trail Rd.	Topanga	3	No modifications required.							R-1-10,000		No	MNR
5	Waterworks	Beverly-Martin Well/Tank	2542 E. Avenue E12	Lancaster	5	No modifications required.							D-2		No	MNR
6	Waterworks	116th Street Tank	36048 N. 116th Street East	Pearblossom	5	No modifications required.							A-2-1		No	MNR
7	Waterworks	T and 106 St E Pump Station/Tank	10555 E. Avenue T	Littlerock	5	No modifications required.							A-1-10,000		No	MNR
8	Waterworks	O-4 and Division	40163 Division Street	Palmdale	5	No modifications required.							City of Palmdale		No	MNR
9	Waterworks	175E and Nugent Pump Station	44550 N. 175th Street East	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
10	Waterworks	Blue Rock Tank	18000 E. Avenue I	North Los Angeles County	5	No modifications required.							A-1-1		No	MNR
11	Waterworks	X-8 and 121E Pump Station	12100 E. Avenue X-8	Rock Creek	5	No modifications required.							R-A-1		No	MNR
12	Waterworks	X-3 Hydro	12616 E. Avenue X	Rock Creek	5	No modifications required.							R-A-1		No	MNR
13	Waterworks	W-2	33550 Longview Road	Rock Creek	5	No modifications required.							R-A-10,000		No	MNR
14	Waterworks	Santa Maria Tank	20400 Mulholland Hwy	Topanga	3	No modifications required.							City of LA		No	MNR
15	Waterworks	WEST TANK	APN 2846-003-303 (No Site Address)	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-2-2		No	MC
16	Waterworks	EAST TANK	12587 Dexter Park Road	Kagel Canyon	5	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	A-1-10,000		No	MC
17	Waterworks	Owen Pump Station/Tank	2300 S. Tuna Canyon Rd.	Malibu	3	$80	4/12/2012	4/30/2013	$80	12/4/2012	3/27/2013	$210	A-1-1		No	MC
18	Waterworks	BIG ROCK 1200 Tank A BIG ROCK 1200 Tank B	20951 W. Big Rock Drive	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	City of Malibu		No	MC
19	Waterworks	Hume Tank	21737 Azurelee Road	Malibu	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$315	R-1-40,000		No	MC
20	Waterworks	Latigo Tank A Latigo Tank B	4230 S. Ocean View Drive	Malibu	3	$260	4/12/2012	4/30/2013	$260	12/4/2012	3/27/2013	$210	A-1-1		No	MC
21	Waterworks	Winding Way Tank	28001 Overview Road	Malibu	3	$315	4/12/2012	4/30/2013	$315	12/4/2012	3/27/2013	$315	Address Not Found		No	MC
22	Waterworks	Entrada Pump Station	21273 Entrada Rd.	Topanga	3	$340	4/12/2012	4/30/2013	$340	12/4/2012	3/27/2013	$340	R-1-1,000	X	No	MC
23	Waterworks	Topanga Beach Pump Station	3800 S. Topanga Canyon. Blvd.	Topanga	3	$2,800	4/12/2012	4/30/2013	$2,800	12/4/2012	3/27/2013	$840	R-3		No	MC
24	Waterworks	Topanga Forks Pump Station	144 N. Old Topanga Canyon Rd.	Topanga	3	$280	4/12/2012	4/30/2013	$280	12/4/2012	3/27/2013	$240	C-3	X	No	MC
25	Waterworks	Topanga Oaks Pump Station	21075 E. Hillside Dr.	Topanga	3	$265	4/12/2012	4/30/2013	$265	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
26	Waterworks	Topanga Park Pump Station Topanga Park Tank A Topanga Park Tank B	1645 N. Old Topanga Canyon Rd.	Topanga	3	$230	4/12/2012	4/30/2013	$230	12/4/2012	3/27/2013	$650	O-S	X	No	MC

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27	Waterworks	LACo WWD 21 Pump Station 21-1 21-2	12627 N. Kagel Canyon Road	Kagel Canyon	5	$390	4/12/2012	4/30/2013	$390	12/4/2012	3/27/2013	$390	A-1-10,000	X	No	MC
28	Waterworks	Fernwood Tank A Fernwood Tank B	19837 W. Horseshoe Drive	Topanga	3	$300	4/12/2012	4/30/2013	$300	12/4/2012	3/27/2013	$315	R-1-10,000	X	No	MC
29	Waterworks	Saddle Peak Tank	2350 W. Saddle Peak Road	Topanga	3	$345	4/12/2012	4/30/2013	$345	12/4/2012	3/27/2013	$915	A-1-1		No	MC
30	Waterworks	Topanga Forks Tank A Topanga Forks Tank B	22160 W. Topanga School Road	Topanga	3	$400	4/12/2012	4/30/2013	$400	12/4/2012	3/27/2013	$420	A-1-1		No	MC
31	Waterworks	Topanga Oaks Tank	21317 W. Hillside Drive	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$105	R-1-10,000	X	No	MC
32	Waterworks	New Summit Tank A New Summit Tank B	3321 N. Topanga Canyon Boulevard	Topanga	3	$70	4/12/2012	4/30/2013	$70	12/4/2012	3/27/2013	$210	A-1-2		No	MC
33	Waterworks	Topanga Beach Tank A Topanga Beach Tank B	3831 S. Castlerock Road	Topanga	3	$840	4/12/2012	4/30/2013	$840	12/4/2012	3/27/2013	$840	R-1-6,000		No	MC
34	Waterworks	Hasley Pump Station	29552 Hasley Canyon Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$260	A-2-2	X	No	MC
35	Waterworks	Cuyama Tank A Cuyama Tank B	31632 W. Cuyama Road	Val Verde	5	$240	4/12/2012	4/30/2013	$240	9/20/2012	1/29/2013	$630	Address Not Found		No	MC
36	Waterworks	Sloan/Hasley Tank	31400 Romero Canyon Road	Val Verde	5	$420	4/12/2012	4/30/2013	$420	9/20/2012	1/29/2013	$420	A-2-2		No	MC
37	Waterworks	Los Valles Tank/Pump Station	No Site Address	Val Verde	5	$1,900	4/12/2012	4/30/2013	$1,900	9/20/2012	1/29/2013	$1,600	A-2		No	MC
38	Waterworks	Crown Valley Pump Station	33025 N. Crown Valley Road	Acton	5	$370	4/12/2012	4/30/2013	$370	9/20/2012	1/29/2013	$735	A-1-10,000	X	No	MC
39	Waterworks	Vincent Pump Station/Tank	525 Forest View Road	Acton	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$260	C-3	X	No	MC
40	Waterworks	McEnnery Pump Station	2223 Desert Road	Acton	5	$70	4/12/2012	4/30/2013	$70	9/20/2012	1/29/2013	$130	A-2-1	X	No	MC
41	Waterworks	McEnnery Tank	2225 Desert Road	Acton	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$130	A-2-1		No	MC
42	Waterworks	North Tank	1707 W. Sierra Highway	Acton	5	$150	4/12/2012	4/30/2013	$150	9/20/2012	1/29/2013	$365	A-2-1		No	MC
43	Waterworks	South Tank A South Tank B	2733 W. Sacramento Avenue	Acton	5	$110	4/12/2012	4/30/2013	$110	9/20/2012	1/29/2013	$260	A-2-1		No	MC
44	Waterworks	WELL 37-3 WELL 37-4	30500 Arrastre Canyon	Acton	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$320	A-2-1		No	MC
45	Waterworks	WELL 37-1	3318 W. Soledad Canyon Road	Acton	5	$1,710	4/12/2012	4/30/2013	$1,710	9/20/2012	1/29/2013	$780	M-1		No	MC
46	Waterworks	Old Timers Well/Tank	8820 E. Nugent Street	Lancaster	5	$250	4/12/2012	4/30/2013	$250	9/20/2012	1/29/2013	$525	City of Lancaster		No	MC
47	Waterworks	116 East and Avenue U Pump St	35446 N. 116th Street East	Pearblossom	5	$2,280	4/12/2012	4/30/2013	$2,280	9/20/2012	1/29/2013	$940	A-2-1	X	No	MC
48	Waterworks	Littlerock Tank	87th Street East & Fort Tejon Road	Littlerock	5	$170	4/12/2012	4/30/2013	$170	9/20/2012	1/29/2013	$315	A-2-1		No	MC
49	Waterworks	27-5	8955 E. Avenue U	Littlerock	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	A-1-10,000		No	MC
50	Waterworks	Well 35-2/Pump Station & Tank	41847 N. 170th Street East	North Los Angeles County	5	$1,300	4/12/2012	4/30/2013	$1,300	9/20/2012	1/29/2013	$730	A-1-1		No	MC

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51	Waterworks	Adobe Mountain Tank	45240 N. 250th Street East	North Los Angeles County	5	$120	4/12/2012	4/30/2013	$120	9/20/2012	1/29/2013	$315	A-1-1		No	MC
52	Waterworks	168th & G Site	16856 E. Avenue G	North Los Angeles County	5	$100	4/12/2012	4/30/2013	$100	9/20/2012	1/29/2013	$210	A-1-1		No	MC
53	Waterworks	Well 38-3	40590 N. 177th Street East	Lake Los Angeles	5	$570	4/12/2012	4/30/2013	$570	9/20/2012	1/29/2013	$260	R-A-20,000	X	No	MC
54	Waterworks	Coolwater Pump Station	16511 Coolwater Ave	Lake Los Angeles	5	$1,140	4/12/2012	4/30/2013	$1,140	9/20/2012	1/29/2013	$520	R-A-30,000	X	No	MC
55	Waterworks	Buttes Tanks (A, B & C)	39750 N. 163rd Street East	Lake Los Angeles	5	$180	4/12/2012	4/30/2013	$180	9/20/2012	1/29/2013	$315	R-A-40,000		No	MC
56	Waterworks	Well 38-4	41000 N. 172nd Street East	Lake Los Angeles	5	$285	4/12/2012	4/30/2013	$285	9/20/2012	1/29/2013	$285	R-A-30,000		No	MC
57	Waterworks	Well 39-1	32030 N. Valyermo Road	Rock Creek	5	$80	4/12/2012	4/30/2013	$80	9/20/2012	1/29/2013	$105	A-1-1	X	No	MC
58	Waterworks	Rock Creek Tank 1 Rock Creek Tank 2	32031 N. Valyermo Road	Rock Creek	5	$365	4/12/2012	4/30/2013	$365	9/20/2012	1/29/2013	$340	A-1-1		No	MC
59	Waterworks	FORT TEJON Tank	Avenue Y8 & 125th Street East	Rock Creek	5	$160	4/12/2012	4/30/2013	$160	9/20/2012	1/29/2013	$210	A-1-1		No	MC
						$21,305 SUBTOTAL			**$21,305 SUBTOTAL**			**$18,585 SUBTOTAL**				
						$1,373,268 GRAND TOTAL			**$1,239,747 GRAND TOTAL**			**$557,473 GRAND TOTAL**				

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