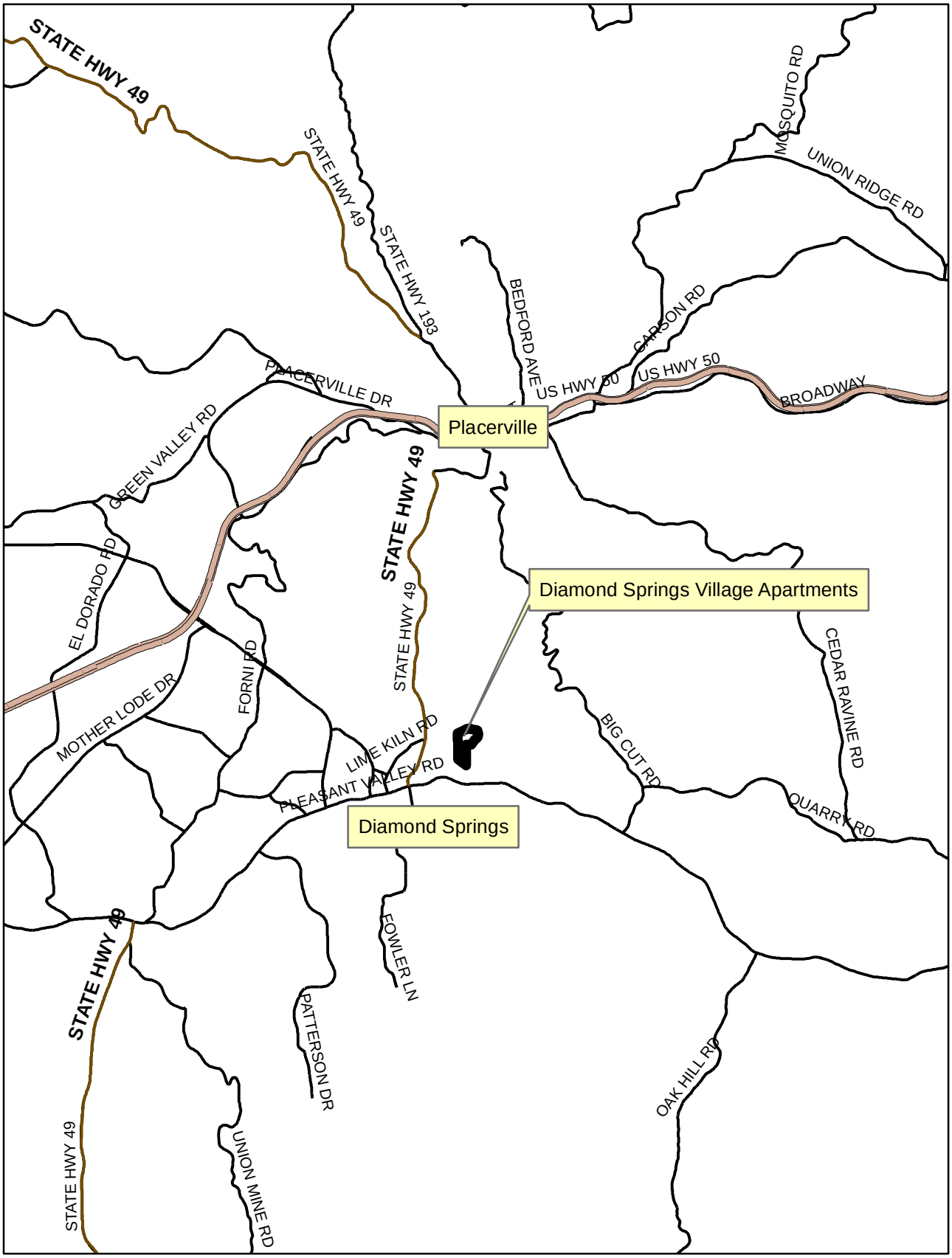


PD19-0003/Diamond Village Apartments
Location Map
Exhibit A

0 0.5 1 2 Miles

POR. SECS. 19 & 30, T.10N., R.11E., M.D.M.

51:46

1 " = 400 '

W. 1/4 COR. SEC. 19

P 22 | P 14 | P 23 | P 24 | P 55 | P 01 | P 25 | P 54 | P 71

LOCKIE | STATE | FINCH RD | R. R. | TRUCK ST | THROWITA WAY | BRADLEY DR | STATE HWY 49 | LIME PLANT RD | LIME KILN RD | BLACK RICE RD | HAPPY LN | APRIL LN | RANCH RD | EASTERLY | CICERI DR | DEUCE DR | SERVICE CT | PEARL PL | MARTRIX CT | RACQUET WAY | DIAMOND DR | KARL DR | WEBER CREEK RD | CHUCKWAGON WAY | ROSS LN

605.30' | 468.53' | 249.91' | 507.29' | 243.71' | 1312.83' | 974.32' | 203.66' | 177.27' | 971.04'

RS 3/106
(2) 5.01 A

(1) 12.51 A

PM 24/44/B
(3) 1.29 A

PM 24/44/C
(4) 1.94 A

PM 24/44/A
(5) 2.74 A

PM 24/44/D
(11) 1.9 A

(10) 1.98 A
260.21' | 304.27' | 300.03' | 310.81'

PM 32/116/1
(46) 1.05 A

(65) 13.848 A

PM 27/99/1
(23) 11.21 A

PPM 32/6/2
0.345 A
(62)

PPM 32/6/2+
(63)
14.927 A

PPM 18/36/3
(49)
8.487 A

PPM 18/36/3
(18) 1.0 A
212.35' | 354.03' | 338.77'

PPM 18/36/3
(22) 2.0 A
332.43' | 428.02' | 824.86'

(66) NA

PPM 25/46/D
(67)
4.509 A

RS 23/64/1
(59)
10.72 A
324.26' | 158.10' | 140.62' | 890.19'

RS 23/64/2
(60)
4.65 A
701.62' | 646.58' | 332.56' | 308.76'

PM 24/141/1
(26) 2.01 A

PM 24/141/2
(27) 2.07 A

PM 24/141/4
(29) 2.0 A

PM 24/141/3
(28) 2.0 A

PM 17/60/B
(30) 3.31 A
497.99' | 629.98'

PM 32/5/A
(38) 2.52 A
440.83' | 253'

PM 32/5/B
(40) 2.74 A
239.02'

PM 22/16/1
(24) 10.36 A
442.47' | 746.98'

PM 22/16/2
(25) 5.0 A
543.03' | 207.83' | 350' | 356.34' | 344.30' | 259.07'

Bk 327 Pg 25 | Bk 327 Pg 27 | Bk 54 Pg 32 | Bk 54 Pg 33 | Bk 54 Pg 34 | Bk 54 Pg 35 | Bk 54 Pg 39 | Bk 97 Pg 01 | Bk 97 Pg 13 | Bk 97 Pg 03 | Bk 98 Pg 01

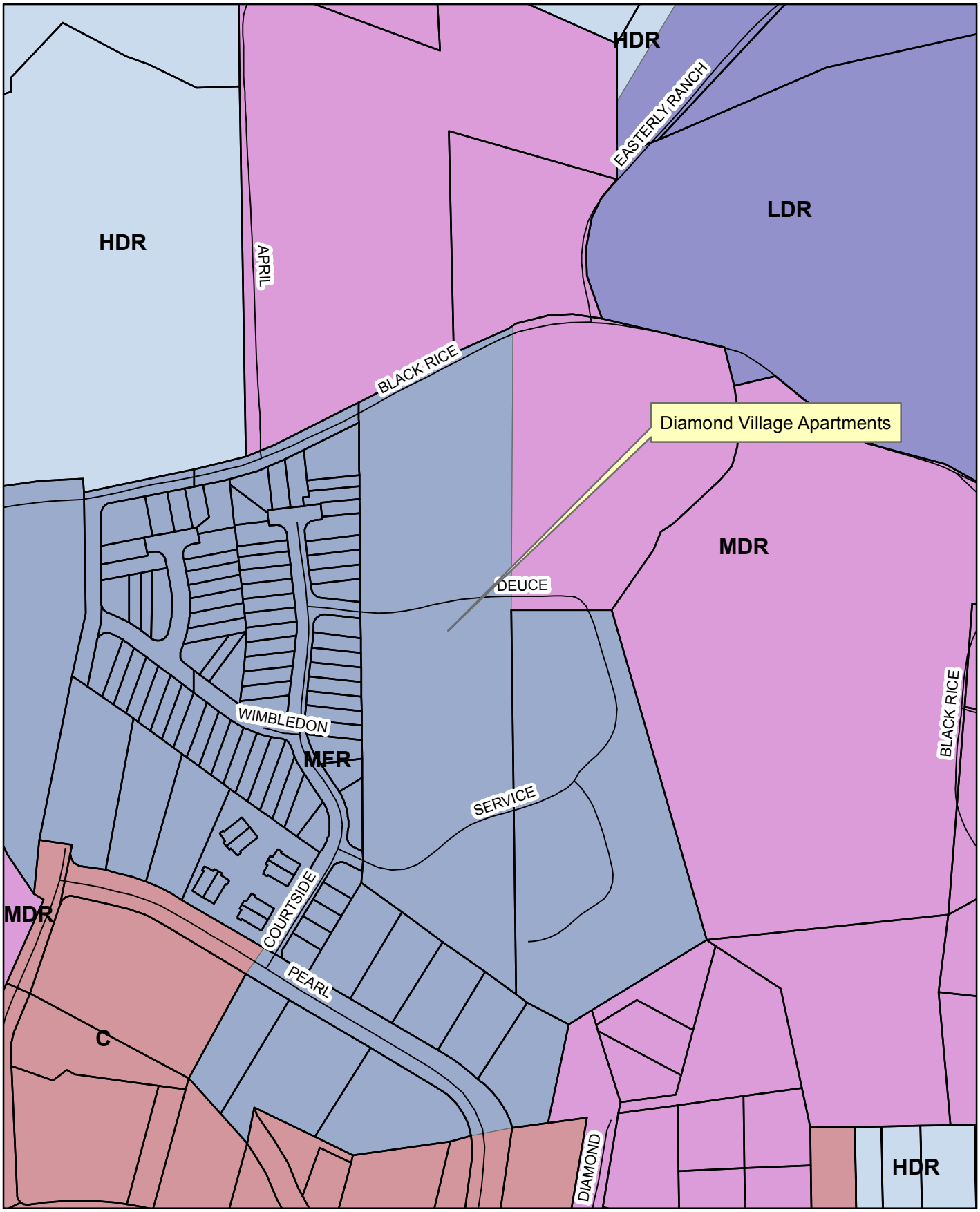
THIS MAP IS NOT A SURVEY, it is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

Acreages Are Estimates

Adjacent Map Pages Shown in Grey Text
Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

Exhibit B

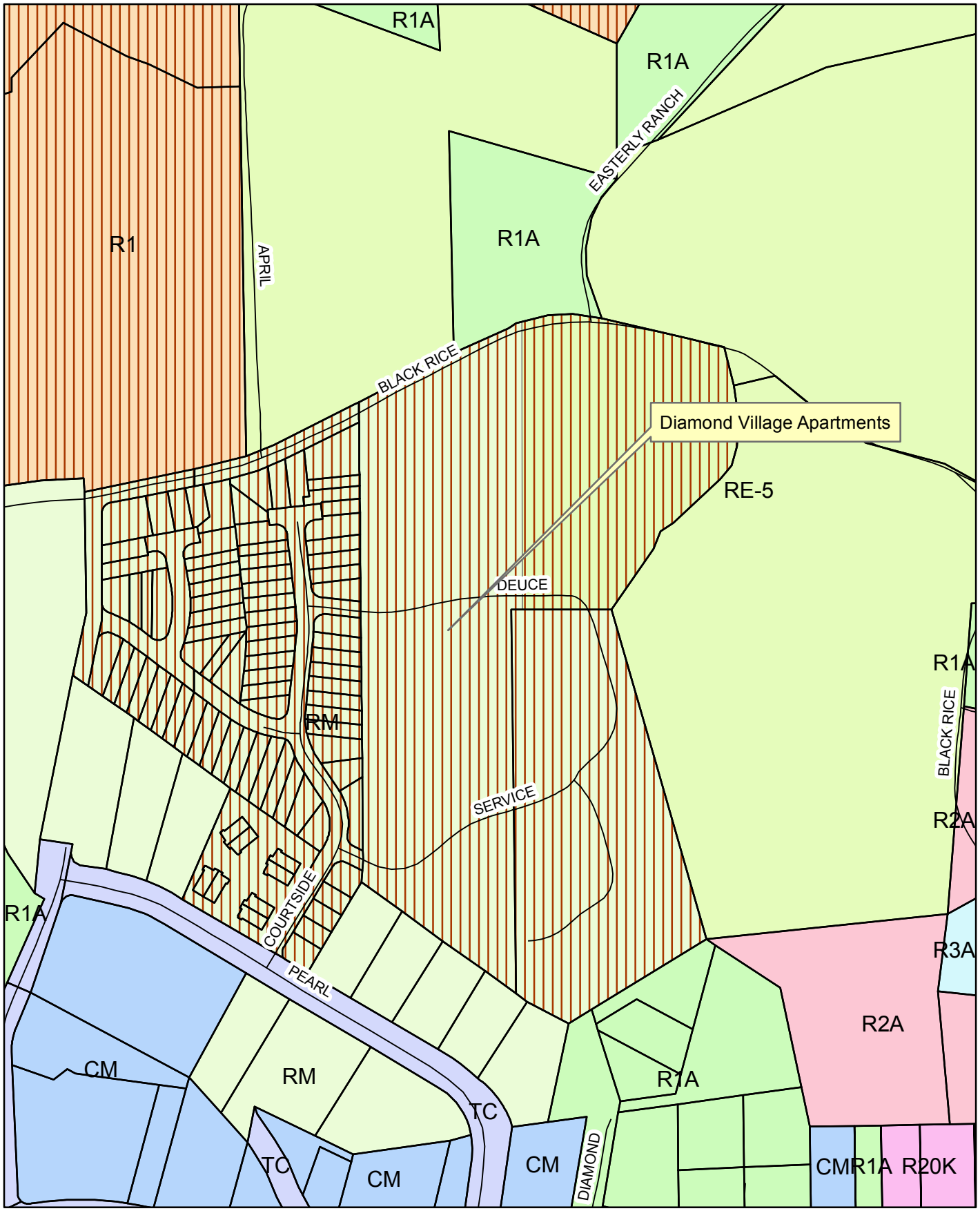
Rev. JUN 16, 2016



C
HDR
LDR
MDR
MFR

PD19-0003/Diamond Village Apartments
General Plan Land Use Designation Map
Exhibit C

0 0.025 0.05 0.1 0.15 0.2 Miles



PD
CM
R1
R1A
R20K
R2A
R3A
RE-5
RM
TC

PD19-0003/Diamond Village Apartments
Zoning Designation Map
Exhibit D

0 0.025 0.05 0.1 0.15 0.2
Miles

PD19-0003/Diamond Village Apartments
Aerial Map
Exhibit E

0 0.025 0.05 0.1 0.15 0.2 Miles

DIAMOND VILLAGE APARTMENTS

CONCEPTUAL SITE PLAN

A PORTION OF THE SOUTH 1/2 OF SECTION 19 AND THE NORTH 1/2 OF SECTION 30, T.10 N., R.11 E., M.D.M.
DIAMOND SPRINGS, EL DORADO COUNTY, CALIFORNIA
OCTOBER, 2017 SCALE: 1" = 50'

Exhibit F

PARKING REQUIRED				
No. UNITS	TYPE	RESIDENT	GUEST	REQUIRED
20	1-BDRM	30	5	35
40	2-BDRM	80	10	90
20	3-BDRM	40	5	45
1	OFFICE/ MANAGER			4
81				174

PARKING PROVIDED	
STANDARD	98
COVERED	62
COMPACT	12
HANDICAP	7
TOTAL PROVIDED	179

MIN. PARKING SIZE
STANDARD: 9' WIDE, 19' DEEP
COMPACT: 9' WIDE, 16' DEEP

BUILDING LEGEND	
COMMUNITY & 3-BEDROOM	
NUMBER of BUILDINGS	1
NUMBER of WASHERS	9
NUMBER of DRYERS	9
UNITS PER BUILDING	1
FOOTPRINT	3,841

1-BEDROOM	
UNITS PER BUILDING	8
NUMBER of BUILDINGS	2
FOOTPRINT	3,697
TOTAL UNITS	16

2-BEDROOM	
UNITS PER BUILDING	8
NUMBER of BUILDINGS	5
FOOTPRINT	4,733
TOTAL UNITS	40

3-BEDROOM	
UNITS PER BUILDING	8
NUMBER of BUILDINGS	2
FOOTPRINT	6,056
TOTAL UNITS	16

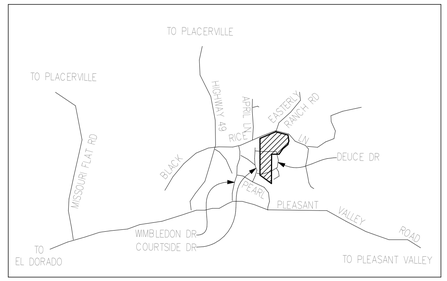
1&3-BEDROOM	
1 BEDROOM UNITS PER BUILDING	4
3 BEDROOM UNITS PER BUILDING	4
NUMBER of BUILDINGS	1
FOOTPRINT	5,032
TOTAL UNITS	8

TOTAL APARTMENT BUILDINGS	11
TOTAL APARTMENT UNITS	81

AREA CALCULATIONS	
AREA	SQFT
CONDITIONED	78,401
PORCH/PATIO	5,859
STORAGE	3,624
LAUNDRY	170
COMMON AREA	12,294
SITE STORAGE	375

KEYNOTES	
1	12" DEEP, 96" WIDE, 60" HIGH SIGN
2	(E) 6' REDWOOD FENCE TO REMAIN
3	PROPOSED 6' REDWOOD FENCE
4	METAL STORAGE CONTAINER
5	PLAYGROUND CHILDREN AGES 2-12(700SF)
6	FIRE LANE, NO PARKING ALLOWED
7	PLAYGROUND CHILDREN AGES 13-17(700SF)

SHEET INDEX	
SHEET	TITLE
A0.1	• CONCEPTUAL SITE PLAN
A0.2	• NEIGHBORHOOD PARCEL MAP
A0.3	• VICINITY MAP
A1.1	• 1-BED FLOOR/ROOF PLAN
A1.2	• 1-BED ELEVATIONS
A2.1	• 2-BED FLOOR/ROOF PLAN
A2.2	• 2-BED ELEVATIONS
A3.1	• 3-BED FLOOR/ROOF PLAN
A3.2	• 3-BED ELEVATIONS
A4.1	• HYBRID FLOOR/ROOF PLAN
A4.2	• HYBRID ELEVATIONS
A5.1	• COMMUNITY FL/ROOF PLAN
A5.2	• COMMUNITY ELEVATIONS



VICINITY MAP
NO SCALE

PROJECT INFORMATION	
OWNER / APPLICANT: SNO FOUNDATION 8863 GREENBACK LN, STE 324 ORANGEVALE, CA 95662 (916)949-8882 CONTACT PERSON: SERGEI OLESHKO	**GENERAL PLAN DESIGNATION:** MDR - MEDIUM DENSITY RESIDENTIAL MFR - MULTI-FAMILY RESIDENTIAL
PLANNING & ENGINEERING: MILLENNIUM PLANNING & ENGINEERING 471 SUTTON WAY, SUITE 210 GRASS VALLEY, CA 95945 530-446-6765 CONTACT PERSON: MICHELLE LAYSHOT, PE.	**FIRE PROTECTION:** EL DORADO COUNTY FIRE DISTRICT
ARCHITECT: JERALD A. BECK, ARCHITECT CA LIC C11902 916-223-5152	**WATER:** EL DORADO IRRIGATION DISTRICT
ASSESSOR'S PARCEL: 051-461-59	**ELECTRICAL & GAS UTILITIES:** PACIFIC GAS & ELECTRIC
LAND AREA: 10.72 ACRES	**TELEPHONE:** AT&T
ZONING: RM	**SEWAGE DISPOSAL:** EL DORADO IRRIGATION DISTRICT
	SCHOOL DISTRICT: EL DORADO UNION

NO.	REVISIONS	DATE

DESIGNED: MDW
DRAWN: AW
PROJ. NO: 2012.14
DWG: SEE DAY STAMP
DATE: SEE DAY STAMP

DIAMOND VILLAGE APARTMENTS
CONCEPTUAL SITE
EL DORADO COUNTY CALIFORNIA

SHEET A0.1

Thursday, May 16, 2019

DIAMOND VILLAGE APARTMENTS

VICINITY MAP

A PORTION OF THE SOUTH 1/2 OF SECTION 19 AND THE NORTH 1/2 OF SECTION 30, T.10 N., R.11 E., M.D.M.
DIAMOND SPRINGS, EL DORADO COUNTY, CALIFORNIA
OCTOBER, 2017 SCALE: 1" = 100'

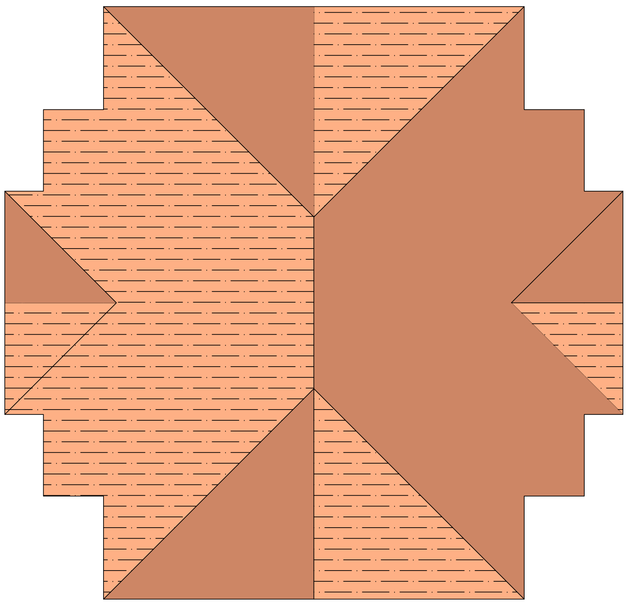
NO.	REVISIONS	DATE

DESIGNED: MDW
DRAWN: AW
PROJ. NO:2012.14
DWG:SEE DAY STAMP
DATE: SEE DAY STAMP

DIAMOND VILLAGE APARTMENTS
VICINITY MAP
EL DORADO COUNTY CALIFORNIA

SHEET A0.3

Thursday, May 16, 2019

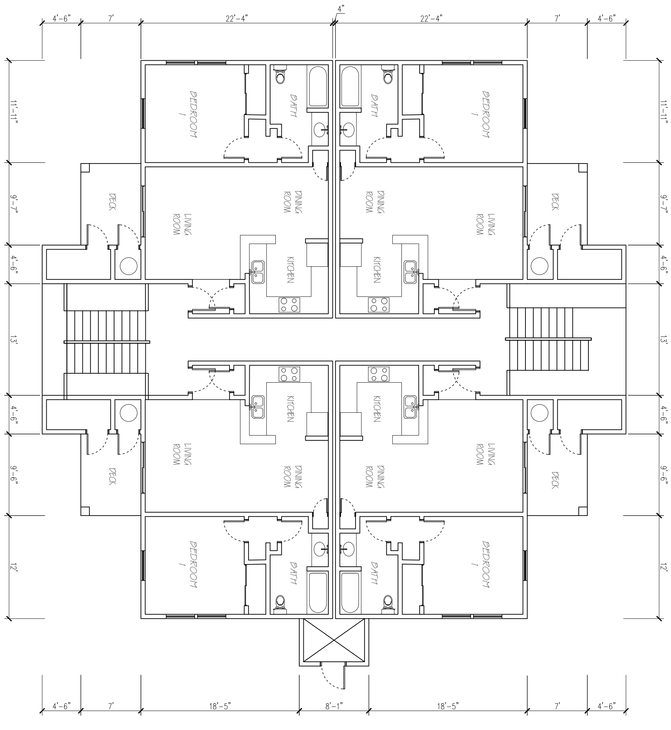


ROOF PLAN
1/8"=1'-0"

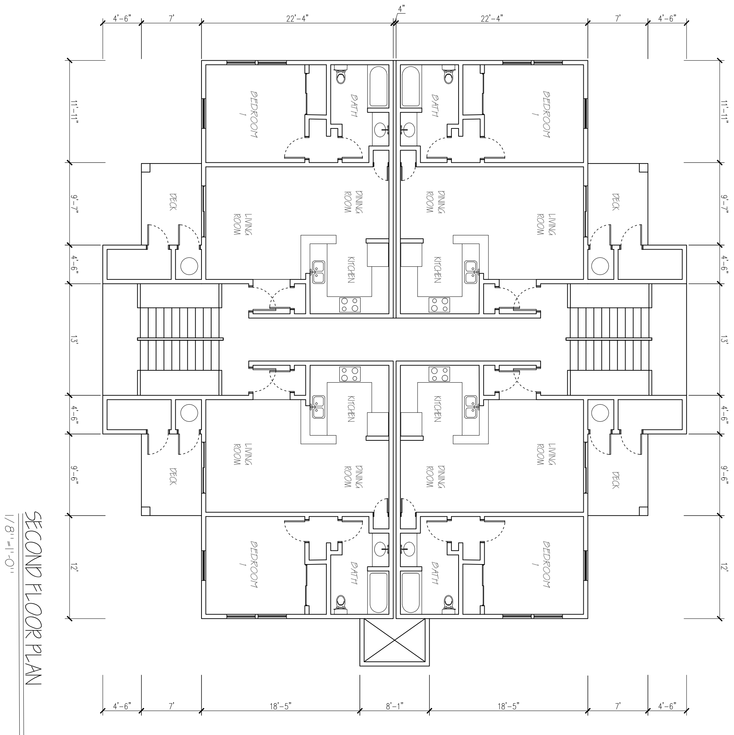
SQUARE FOOTAGE

LIVING AREA - 648 SF

DECK / PATIO - 66 SF



FIRST FLOOR PLAN
1/8"=1'-0"



SECOND FLOOR PLAN
1/8"=1'-0"

SHEET					
A1.1	DIAMOND SPRINGS VILLAGE APARTMENTS FLOOR PLAN/ROOF PLAN EL DORADO COUNTY — 1 BEDROOM — CALIFORNIA	NO.	REVISIONS	DATE	DESIGNED: MDW DRAWN: MDW PROJ. NO: 201214 DWG: SEE DAY STAMP DATE: SEE DAY STAMP

19-1425 D 6 of 73

TYPICAL EXTERIOR FINISHES
1. COMP ROOFING
2. STUCCO WALL FINISH
3. STONE VENEER ACCENTS
4. VINYL FRAME WINDOWS AND SLIDING DOORS
5. COMPOSITE ENTRY DOORS
6. FIBER CEMENT TRIMS AND FASCIAS
7. METAL GUTTERS AND DOWNSPOUTS
8. METAL HANDRAILS AND GUARDRAILS
9. STEEL FRAME STAIRS / CONCRETE TREADS

1-BDRM ELEVATION 4
LEFT
1/6"=1'-0"

1-BDRM ELEVATION 1
FRONT/REAR
1/6"=1'-0"

1-BDRM ELEVATION 3
RIGHT
1/6"=1'-0"

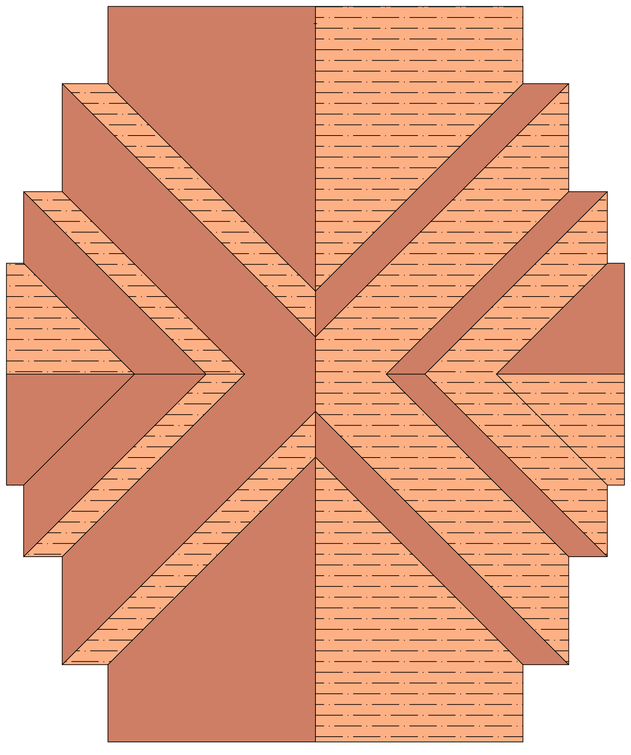
1-BDRM ELEVATION 1
FRONT/REAR
1/6"=1'-0"

NO.	REVISIONS	DATE

DESIGNED: MDW
DRAWN: MDW
PROJ. NO: 201214
DWG: SEE DAY STAMP
DATE: SEE DAY STAMP

DIAMOND SPRINGS VILLAGE APARTMENTS
ARCHITECTURAL ELEVATIONS
1 BEDROOM-ELEVATIONS
EL DORADO COUNTY CALIFORNIA

SHEET A1.2

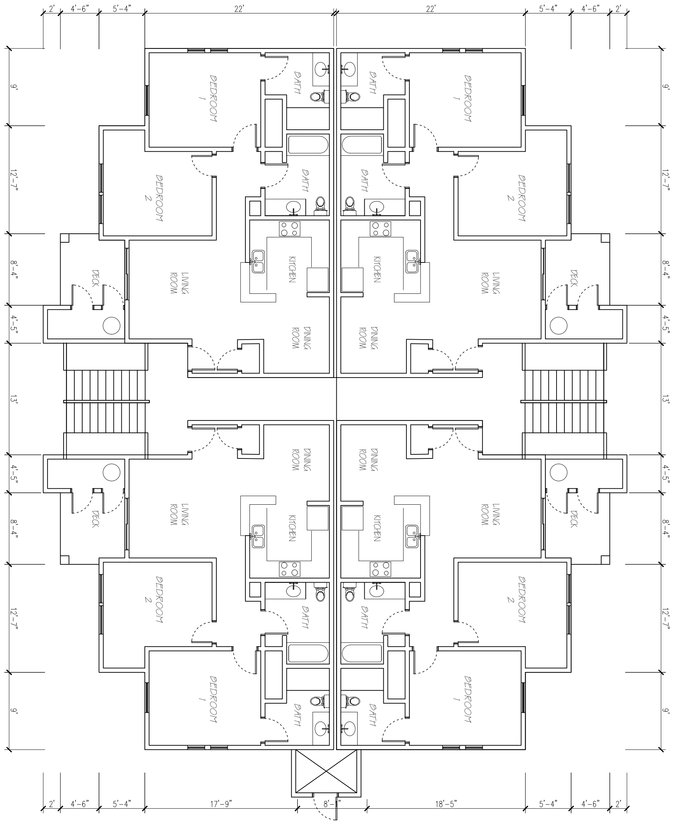


ROOF PLAN
1/8"=1'-0"

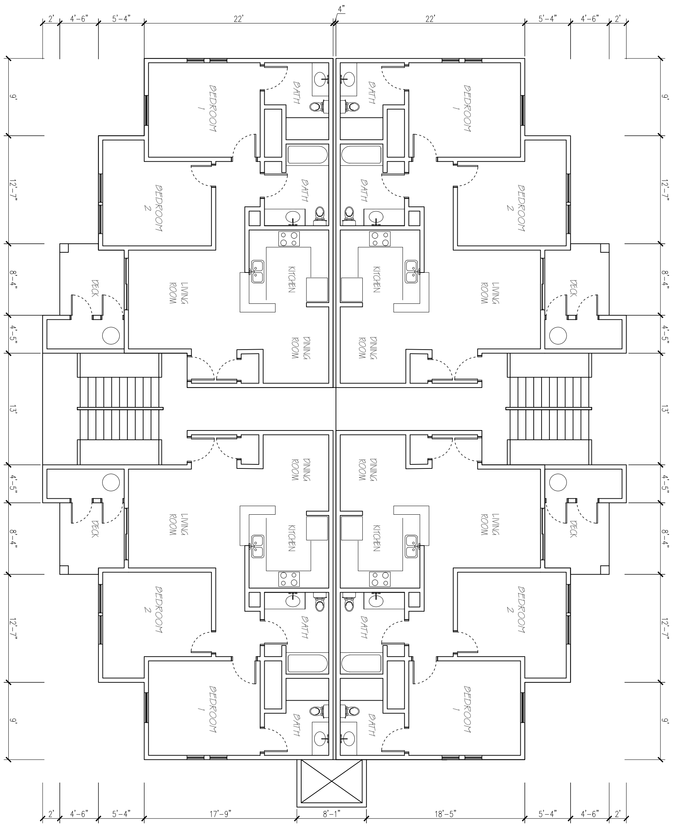
SQUARE FOOTAGE

LIVING AREA - 922 SF

DECK/PATIO - 60 SF



FIRST FLOOR PLAN
1/8"=1'-0"

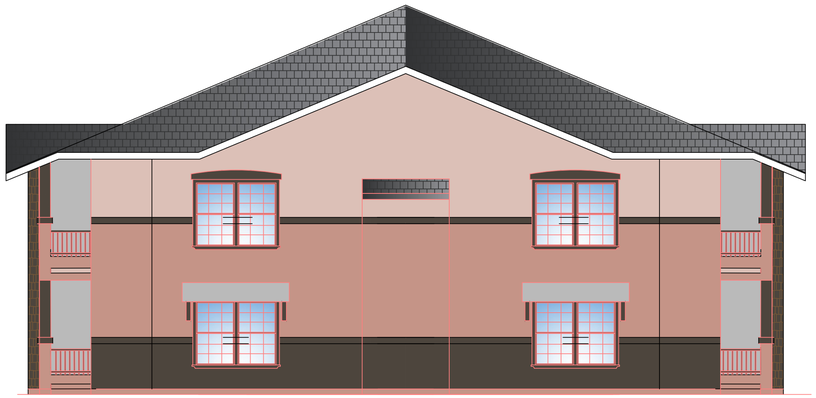


SECOND FLOOR PLAN
1/8"=1'-0"

SHEET A2.1	DIAMOND SPRINGS VILLAGE APARTMENTS FLOOR PLAN/ROOF PLAN EL DORADO COUNTY — 2 BEDROOM — CALIFORNIA	NO. / REVISIONS / DATE	DESIGNED: MDW DRAWN: MDW PROJ. NO: 201214 DWG: SEE DAY STAMP DATE: SEE DAY STAMP

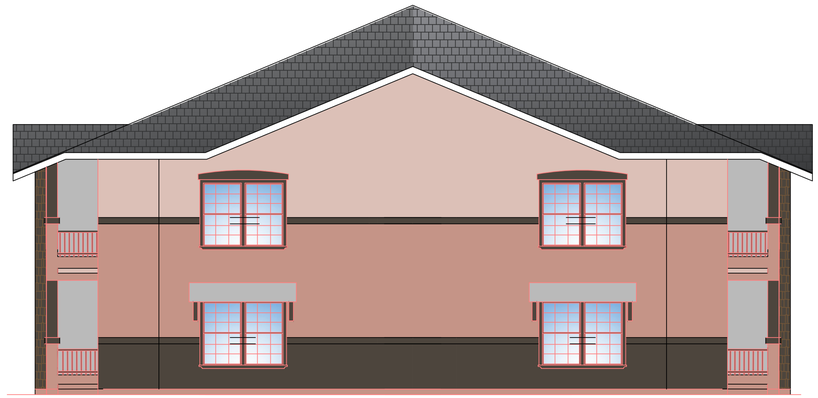
19-1425 D 10 of 73

TYPICAL EXTERIOR FINISHES
1. COMP ROOFING
2. STUCCO WALL FINISH
3. STONE VENEER ACCENTS
4. VINYL FRAME WINDOWS AND SLIDING DOORS
5. COMPOSITE ENTRY DOORS
6. FIBER CEMENT TRIMS AND FASCIAS
7. METAL GUTTERS AND DOWNSPOUTS
8. METAL HANDRAILS AND GUARDRAILS
9. STEEL FRAME STAIRS / CONCRETE TREADS



2-BDRM ELEVATION 4
LEFT
1/6''=1'-0''

2-BDRM ELEVATION 1
FRONT/ REAR
1/6''=1'-0''



2-BDRM ELEVATION 3
RIGHT
1/6''=1'-0''

2-BDRM ELEVATION 2
FRONT/ REAR
1/6''=1'-0''

NO.	REVISIONS	DATE

DESIGNED: MDW
DRAWN: MDW
PROJ. NO: 201214
DWG: SEE DAY STAMP
DATE: SEE DAY STAMP

DIAMOND SPRINGS VILLAGE APARTMENTS
ARCHITECTURAL ELEVATIONS
2 BEDROOM-ELEVATIONS
EL DORADO COUNTY CALIFORNIA

SHEET A2.2

SQUARE FOOTAGE

LIVING AREA (RT SIDE) - 1234 SF

DECK/ PATIO - 60 SF

ROOF PLAN

1/8"=1'-0"

SECOND FLOOR PLAN

1/8"=1'-0"

FIRST FLOOR PLAN

1/8"=1'-0"

NO.	REVISIONS	DATE

DESIGNED: MDW

DRAWN: MDW

PROJ. NO: 201214

DWG: SEE DAY STAMP

DATE: SEE DAY STAMP

DIAMOND SPRINGS VILLAGE APARTMENTS

FLOOR PLAN/ROOF PLAN

3 BEDROOM

EL DORADO COUNTY

CALIFORNIA

SHEET A3.1

TYPICAL EXTERIOR FINISHES
1. COMP ROOFING
2. STUCCO WALL FINISH
3. STONE VENEER ACCENTS
4. VINYL FRAME WINDOWS AND SLIDING DOORS
5. COMPOSITE ENTRY DOORS
6. FIBER CEMENT TRIMS AND FASCIAS
7. METAL GUTTERS AND DOWNSPOUTS
8. METAL HANDRAILS AND GUARDRAILS
9. STEEL FRAME STAIRS / CONCRETE TREADS

3-BDRM ELEVATION 4

LEFT
1/6"=1'-0"

3-BDRM ELEVATION 1

FRONT/REAR
1/6"=1'-0"

3-BDRM ELEVATION 3

RIGHT
1/6"=1'-0"

3-BDRM ELEVATION 2

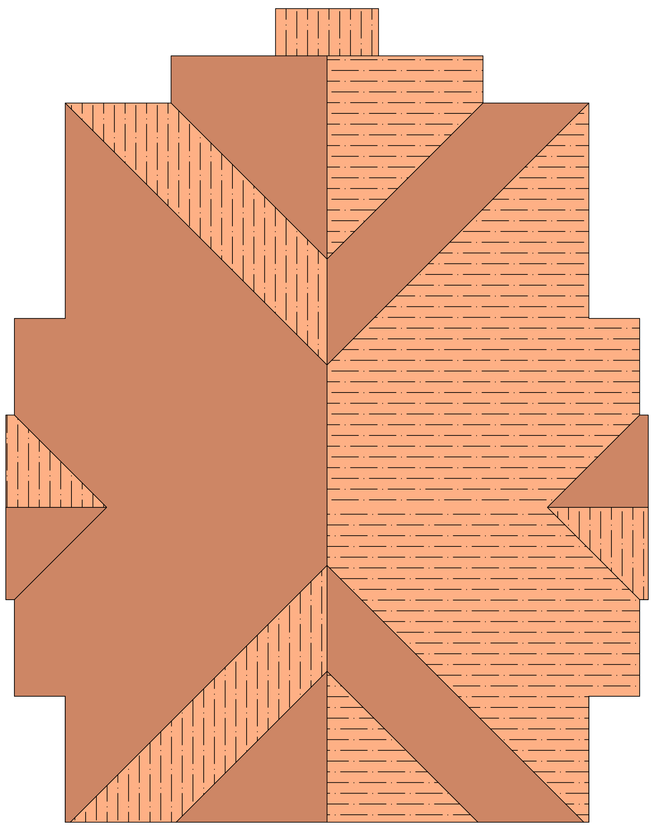
FRONT/REAR
1/6"=1'-0"

NO.	REVISIONS	DATE

DESIGNED: MDW
DRAWN: MDW
PROJ. NO: 201214
DWG: SEE DAY STAMP
DATE: SEE DAY STAMP

DIAMOND SPRINGS VILLAGE APARTMENTS
ARCHITECTURAL ELEVATIONS
3 BEDROOM-ELEVATIONS
EL DORADO COUNTY CALIFORNIA

SHEET A3.2



ROOF PLAN
1/8"=1'-0"

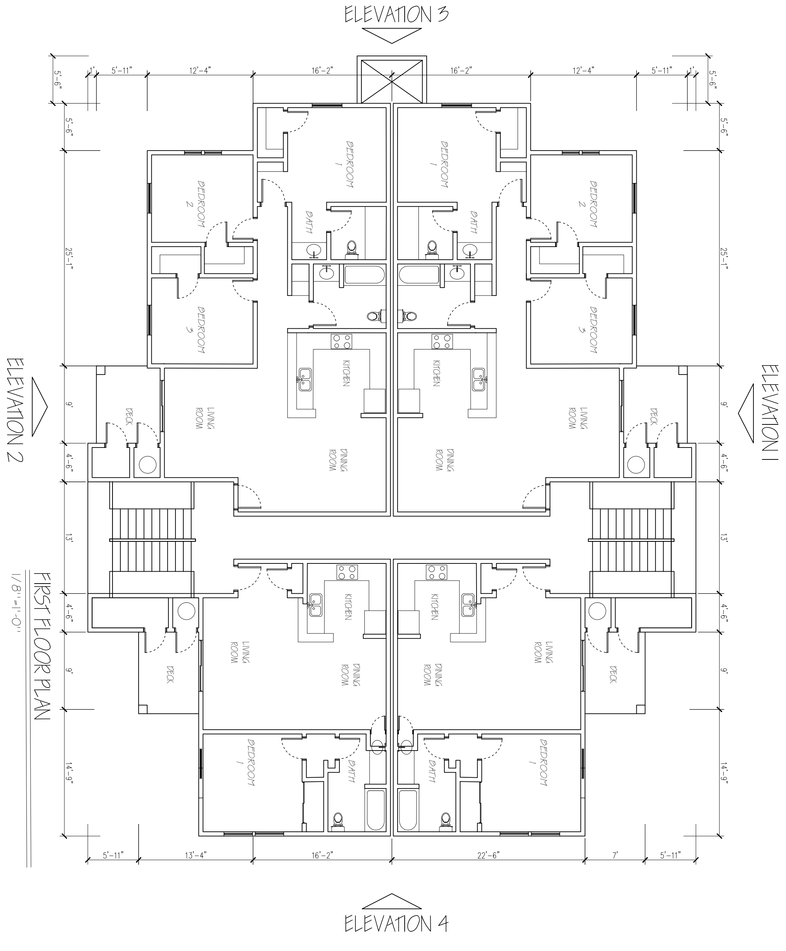
SQUARE FOOTAGE

LIVING AREA (3 BED) - 1234 SF

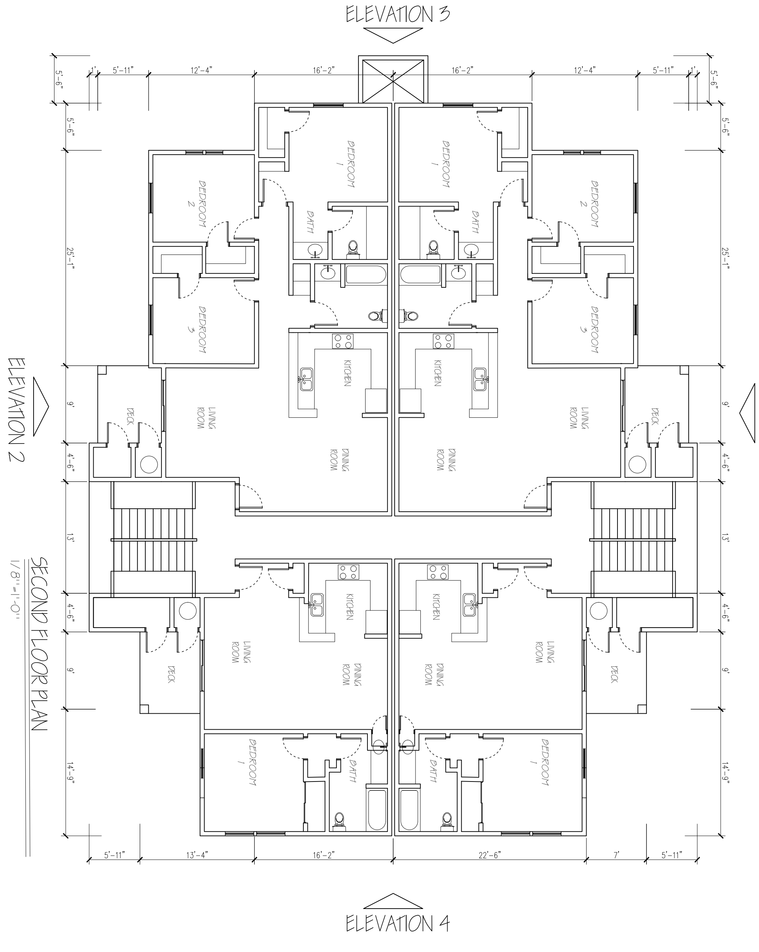
LIVING AREA (1 BED) - 704 SF

DECK/ PATIO (3 BED) 60 SF

DECK/ PATIO (1 BED) 66 SF



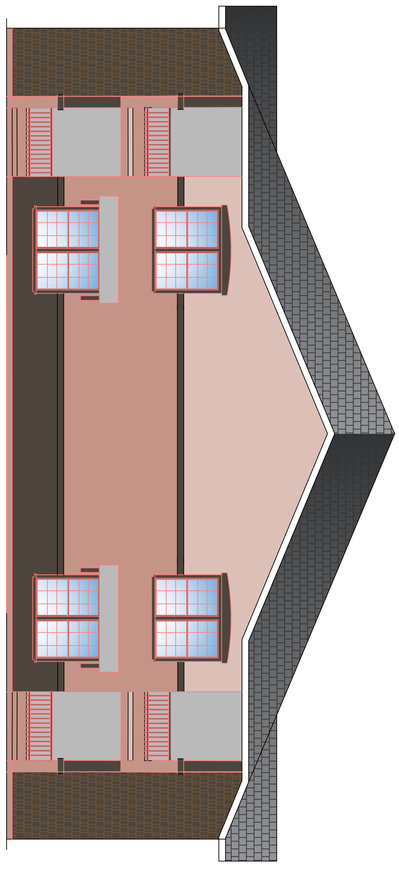
FIRST FLOOR PLAN
1/8"=1'-0"



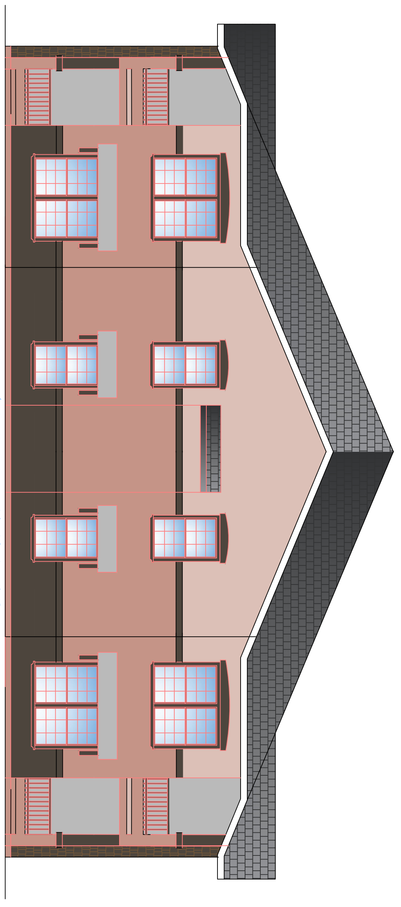
SECOND FLOOR PLAN
1/8"=1'-0"

19-1425 D 14 of 73

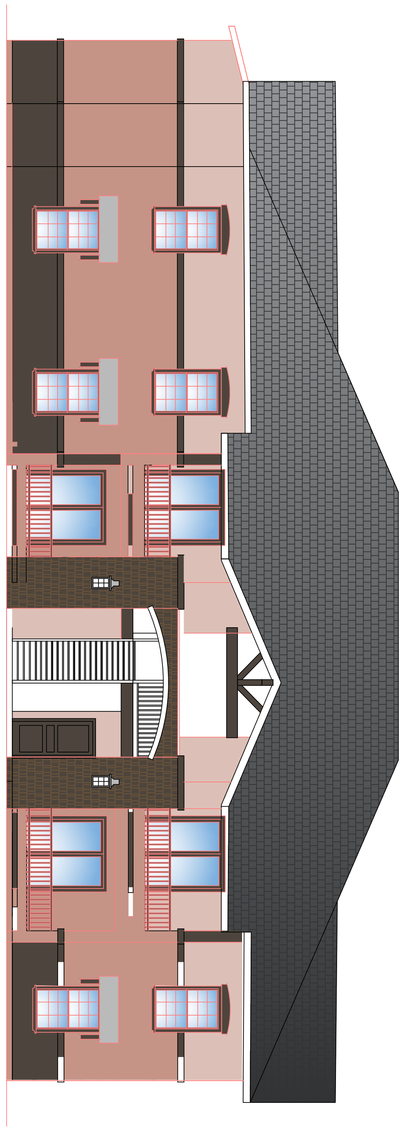
SHEET	DIAMOND SPRINGS VILLAGE APARTMENTS	NO.	REVISIONS	DATE	DESIGNED: MDW
A4.1	FLOOR PLAN/ROOF PLAN				DRAWN: MDW
	EL DORADO COUNTY 1BEDROOM/3 BEDROOM CALIFORNIA				PROJ. NO: 201214
					DWG: SEE DAY STAMP
					DATE: SEE DAY STAMP



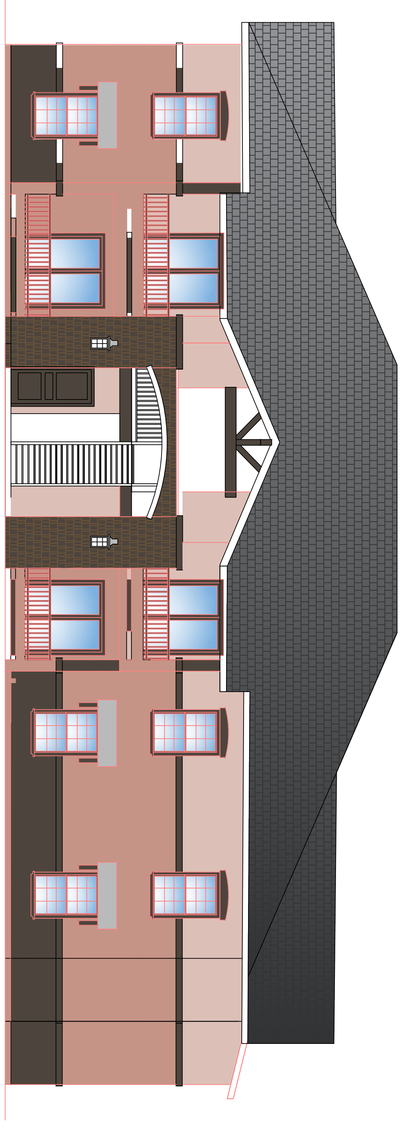
1-BDRM / 3-BDRM ELEVATION 3
RIGHT
1/6"=1'-0"



1-BDRM / 3-BDRM ELEVATION 4
LEFT
1/6"=1'-0"



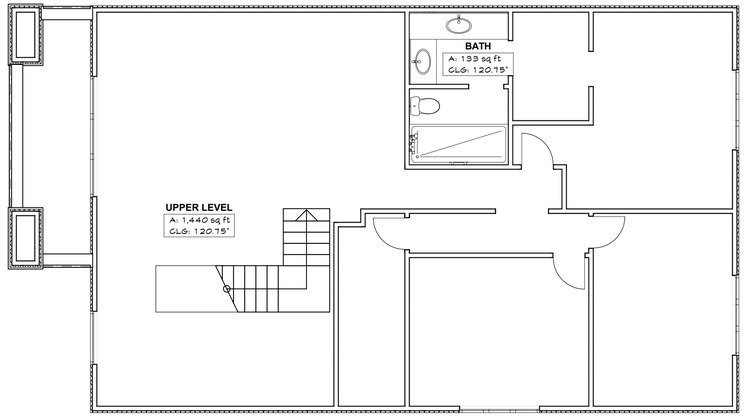
1-BDRM / 3-BDRM ELEVATION 2
FRONT / REAR
1/6"=1'-0"



1-BDRM / 3-BDRM ELEVATION 1
FRONT / REAR
1/6"=1'-0"

SHEET A4.2	**DIAMOND SPRINGS VILLAGE APARTMENTS** ARCHITECTURAL ELEVATIONS EL DORADO COUNTY — 1BEDROOM/3BEDROOM-ELEVATIONS — CALIFORNIA	NO. / REVISIONS / DATE	DESIGNED: MDW DRAWN: MDW PROJ. NO: 201214 DWG: SEE DAY STAMP DATE: SEE DAY STAMP

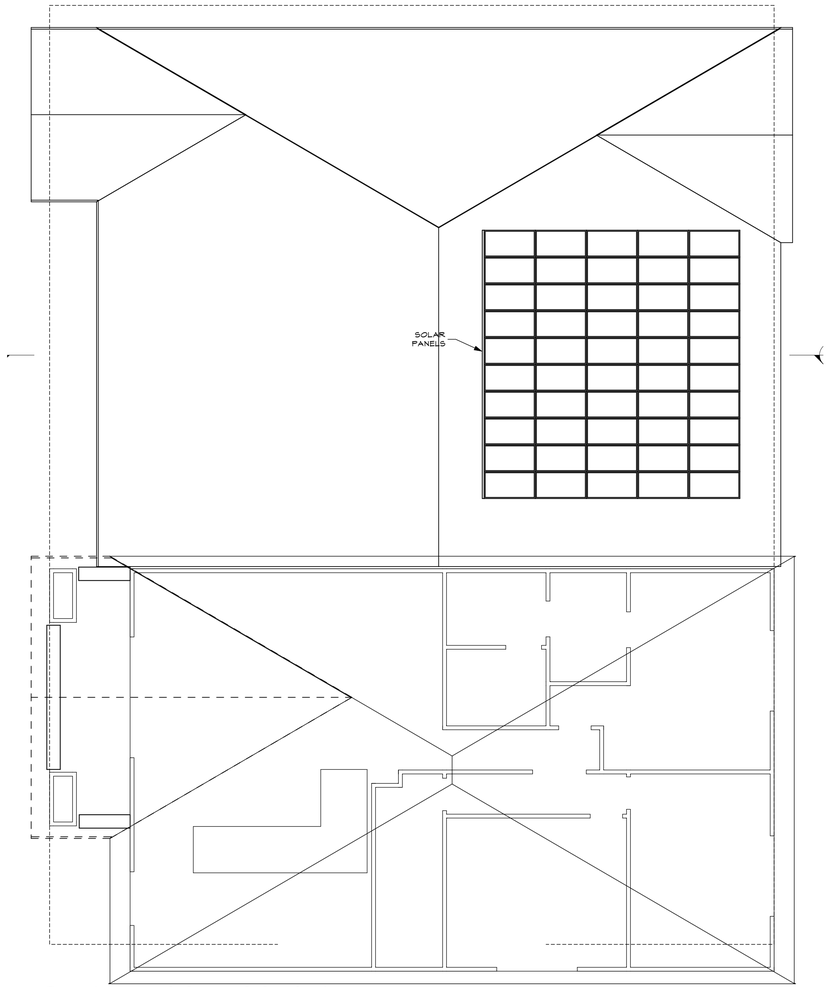
COMMUNITY	
NUMBER of BUILDINGS	1
NUMBER of WASHERS	9
NUMBER of DRYERS	9
FOOTPRINT	3,841



B 2nd FLOOR | 3/16
SCALE: 3/16" = 1'-0"

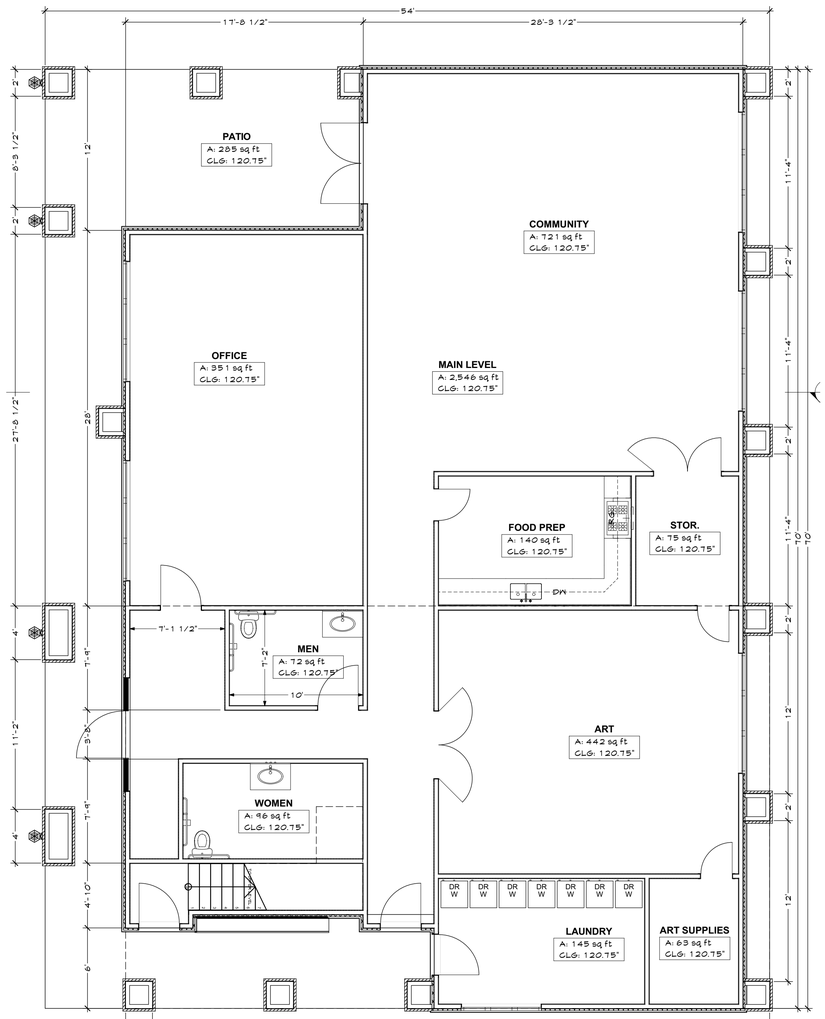
1,420 ft²

0 4' 8' 12'



C 2nd FLOOR ROOF | 3/16
SCALE: 3/16" = 1'-0"

0 4' 8' 12'



A 1st FLOOR | 3/16
SCALE: 3/16" = 1'-0"

2,546 ft²

0 4' 8' 12'

NO.	REVISIONS	DATE

DESIGNED: MDW
DRAWN: AW
PROJ. NO: 2012.14
DWG: SEE DAY STAMP
DATE: SEE DAY STAMP

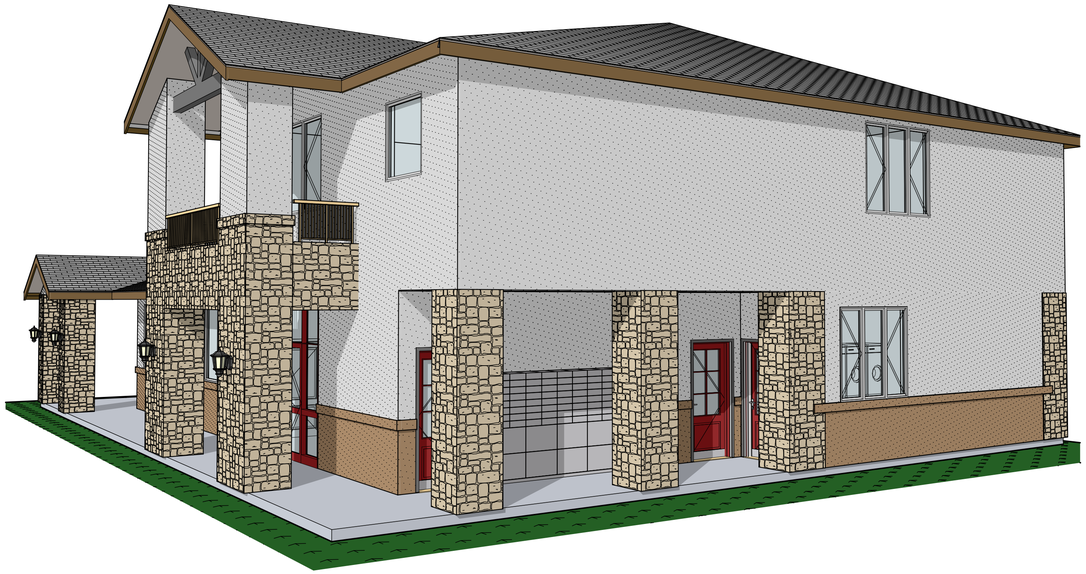
DIAMOND SPRINGS VILLAGE APARTMENTS
FLOOR PLAN | ROOF PLAN

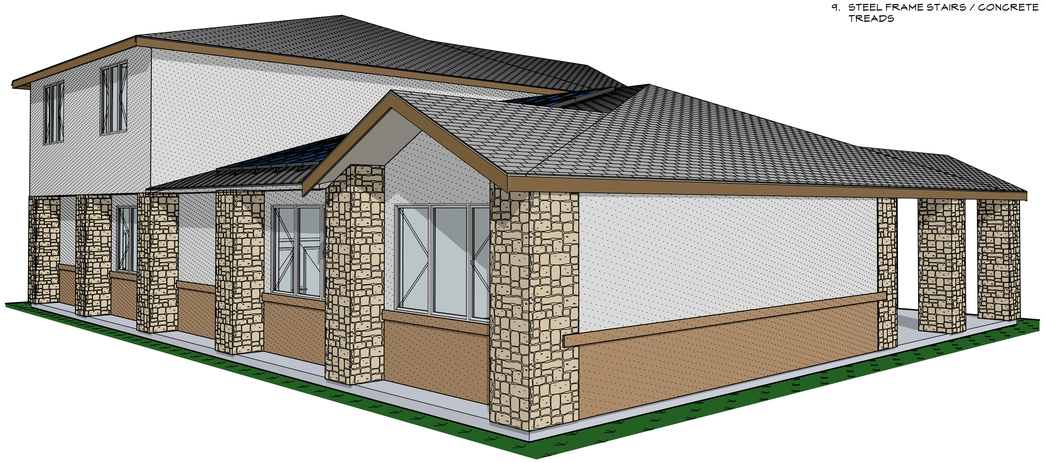
EL DORADO COUNTY CALIFORNIA

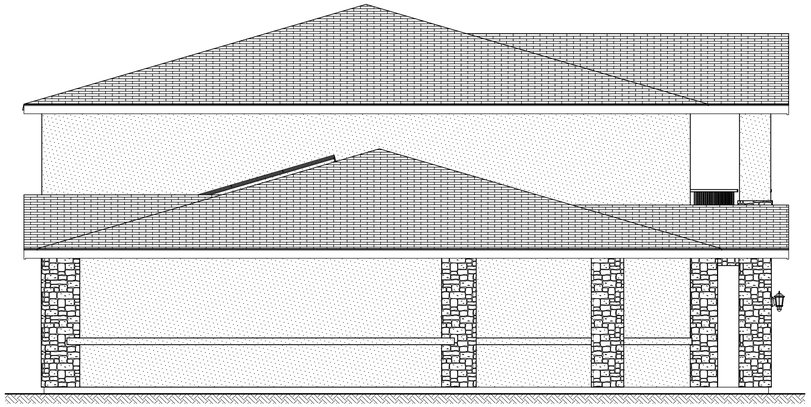
SHEET A5.1

Saturday, April 13, 2019

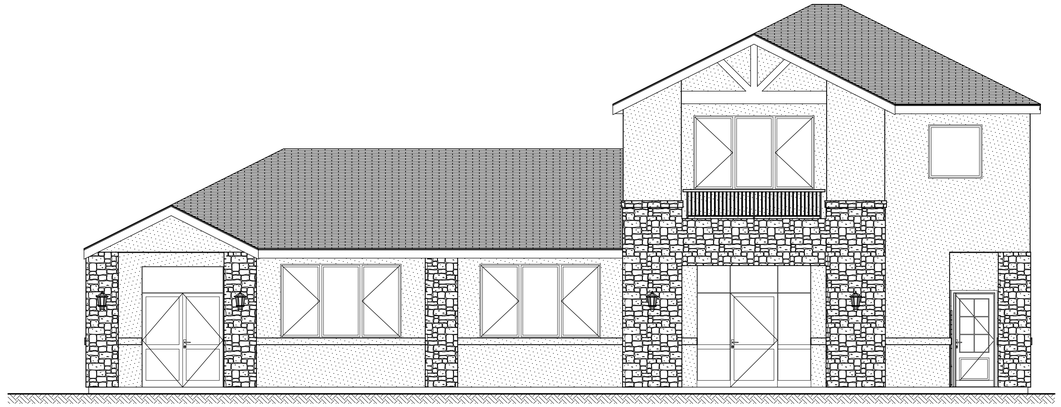
TYPICAL EXTERIOR FINISHES
1. COMP ROOFING
2. STUCCO WALL FINISH
3. STONE VENEER ACCENTS
4. VINYL FRAME WINDOWS AND SLIDING DOORS
5. COMPOSITE ENTRY DOORS
6. FIBER CEMENT TRIMS AND FASCIAS
7. METAL GUTTERS AND DOWNSPOUTS
8. METAL HANDRAILS AND GUARDRAILS
9. STEEL FRAME STAIRS / CONCRETE TREADS



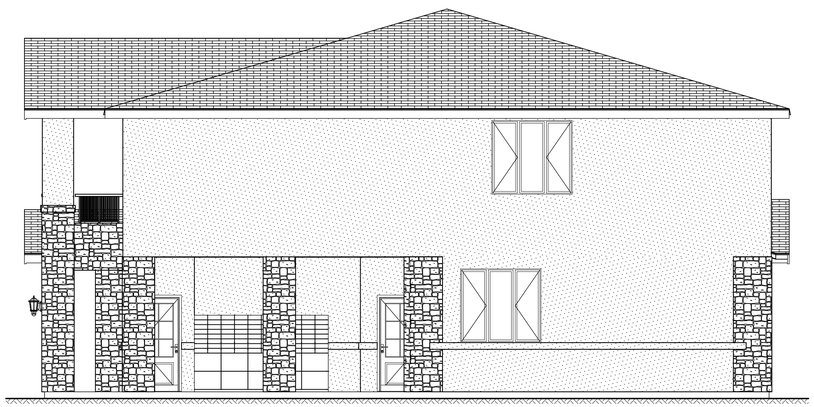




D REAR ELEVATION
SCALE: 3/16" = 1'-0"
0 4' 8' 12'



C LEFT ELEVATION
SCALE: 3/16" = 1'-0"
0 4' 8' 12'



B FRONT ELEVATION
SCALE: 3/16" = 1'-0"
0 4' 8' 12'

A RIGHT ELEVATION
SCALE: 3/16" = 1'-0"
0 4' 8' 12'

DESIGNED: MDW
DRAWN: AW
PROJ. NO:2012.14
DWG:SEE DAY STAMP
DATE:SEE DAY STAMP

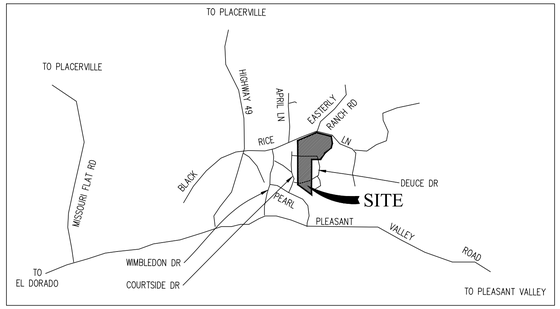
NO. REVISIONS DATE

DIAMOND SPRINGS VILLAGE APARTMENTS
EXTERIOR ELEVATIONS

CALIFORNIA
EL DORADO COUNTY

SHEET A5.2

Saturday, April 13, 2019



VICINITY MAP

NOT TO SCALE

LEGEND

	PROPOSED CONCRETE
	PROPOSED ASPHALT PAVEMENT
	PROPERTY LINE
S S S	PROPOSED SEWER LINE
W	PROPOSED WATER LINE
JT JT JT	PROPOSED JOINT UTILITY TRENCH
	PROPOSED FIRE HYDRANT
S	PROPOSED SEWER MANHOLE
	SANITARY SEWER CLEANOUT
S	SANITARY SEWER LATERAL
	WATER LATERAL SERVICE
8"SD	PROPOSED STORM DRAIN
S S S	EXISTING SEWER LINE
W	EXISTING WATER LINE
SD SD SD	EXISTING STORM DRAIN
	PROPOSED STORMTECH MC-3500 CHAMBERS

PROJECT INFORMATION

DEVELOPER/APPLICANT
CORECARE FOUNDATION
8863 GREENBACK LN, SUITE 324
ORANGEVALE, CA 95662
916-949-8882
CONTACT: SERGEI OLESHKO

PLANNING & ENGINEERING
MILLENNIUM PLANNING & ENGINEERING
471 SUTTON WAY, SUITE 210
GRASS VALLEY, CA 95945
530-446-6765
CONTACT: MICHELLE LAYSHOT, PE

SITE ADDRESS
6035 SERVICE DRIVE
DIAMOND SPRINGS, CA

APN
051-461-59

SITE AREA
10.72 ACRES

GENERAL PLAN
MDR - MEDIUM DENSITY RESIDENTIAL
MFR - MULTI-FAMILY RESIDENTIAL

ZONING
RM

WATER SERVICE
EL DORADO IRRIGATION DISTRICT

ELECTRIC SERVICE
PG&E

SEWER SERVICE
EL DORADO IRRIGATION DISTRICT

GAS
PG&E

TELEPHONE
AT&T

CABLE TV
COMCAST

SCHOOL DISTRICT
EL DORADO UNION

FIRE PROTECTION
EL DORADO COUNTY FIRE DISTRICT

Exhibit G

SHEET INDEX

REGISTERED PROFESSIONAL ENGINEER MICHELLE C. LAYSHOT 79918 CIVIL STATE OF CALIFORNIA

PRELIMINARY

DATE SIGNED:_____

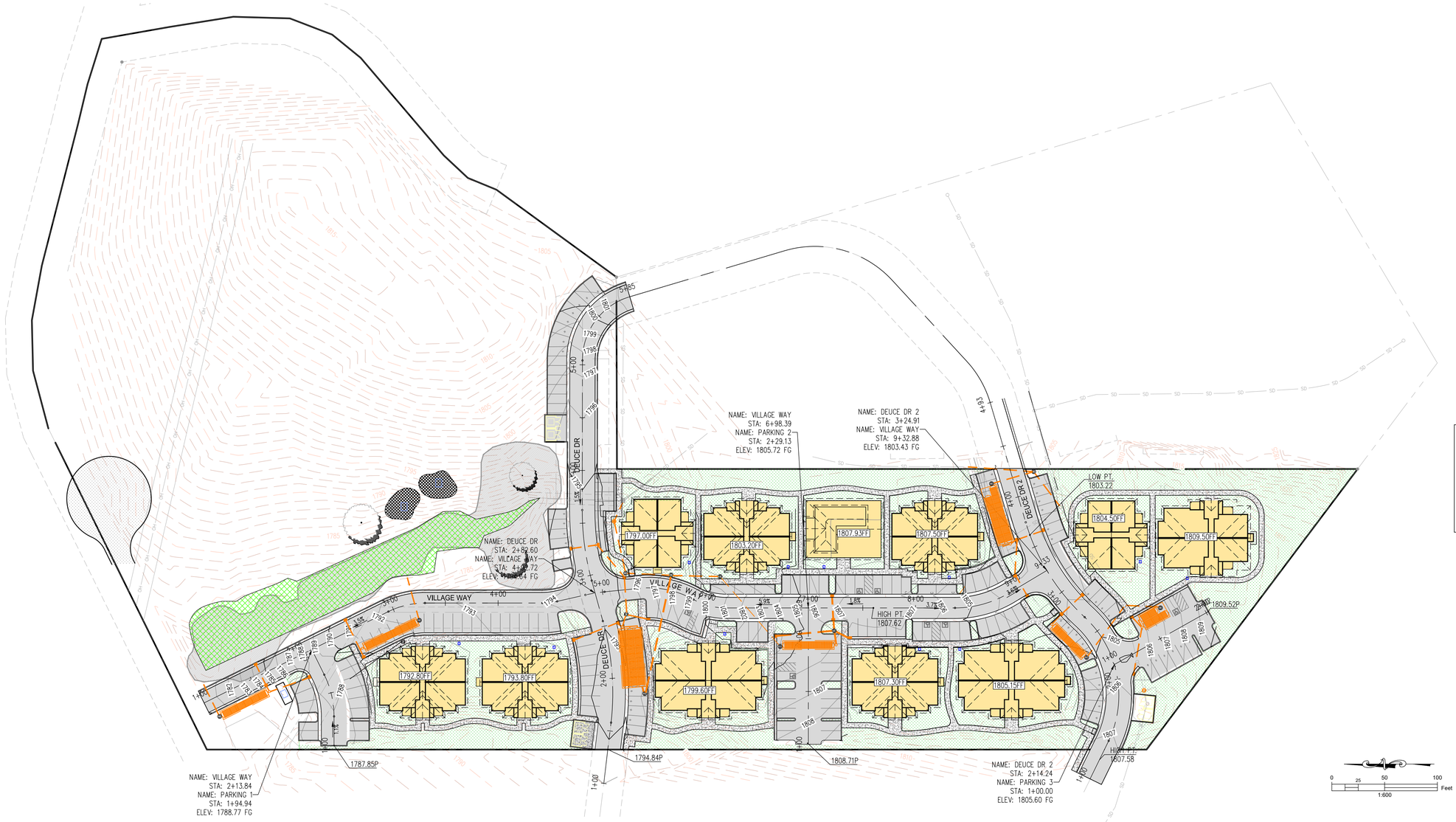
MILLENNIUM PLANNING & ENGINEERING
471 Sutton Way, Suite 210
Grass Valley, CA 95945
(530) 446-6765
www.millenniumpe.com

DIAMOND VILLAGE APARTMENTS
6035 SERVICE DRIVE
DIAMOND SPRINGS CALIFORNIA
PRELIMINARY SITE AND UTILITY PLAN

REV.	DESCRIPTION	DATE

DESIGNED: MCL
DRAWN: DEC
PROJ. NO: 19-0401
DWG: SEE DAYSTAMP
DATE: APRIL, 2019

SHEET NUMBER
C1.0



LEGEND

	PROPERTY LINE
	PROPOSED RETAINING WALL
	PROPOSED DRAIN INLET
8"SD	PROPOSED STORM PIPE
	PROPOSED CONCRETE
	PROPOSED ASPHALT PAVEMENT
	LANDSCAPE AREA
2568.60TOW	TOP OF WALL ELEVATION
2568.60TC	TOP OF CURB ELEVATION
2554.0P	PAVEMENT ELEVATION
2554.0FG	FINISH GRADE ELEVATION
2554.0C	CONCRETE ELEVATION
2443.5 F.F.	FINISH FLOOR ELEVATION
	PROPOSED STORMTECH MC-3500 CHAMBERS

VOLUME CALCULATIONS

APPROXIMATE CUT: 13,480 CY
APPROXIMATE FILL: 2,350 CY
TOTAL EXPORT: 11,130 CY

*NOTE:
EXCESS SOIL WILL BE DISPERSED ONSITE IN THE UNDEVELOPED NORTHWEST CORNER

MILLENNIUM
PLANNING & ENGINEERING
(530) 906-9070
www.millenniumpe.com
Grass Valley, CA 95945

DIAMOND VILLAGE APARTMENTS

6035 SERVICE DRIVE

PRELIMINARY GRADING AND DRAINAGE PLAN

DIAMOND SPRINGS CALIFORNIA

REV.	DESCRIPTION	DATE

DESIGNED: MCL
DRAWN: DEC
PROJ. NO: 19-0401
DWG. SEE DAYSTAMP
DATE: APRIL 2019

SHEET NUMBER
C2.0

PRELIMINARY

REGISTERED PROFESSIONAL ENGINEER
MICHELLE C. LASHAT
No. 79918
CIVIL
STATE OF CALIFORNIA

DATE SIGNED:_____

Preliminary Drainage Report

Diamond Village Apartments
Diamond Springs, CA

Prepared for:

CoreCare Foundation
Sergei Oleshko, Trustee
8863 Greenback Lane, Suite 324
Orangevale, CA 95662

Prepared by:

Millennium Planning & Engineering
471 Sutton Way, Ste 210
Grass Valley, CA 95945
T (530) 446-6765

May 2019

DRAINAGE REPORT
Diamond Springs Village

TABLE OF CONTENTS

SECTION 1: SUMMARY

A. PURPOSE

The purpose of this report is to:

- Provide storm water quality treatment measures;
- Provide hydraulic analysis to meet El Dorado drainage standards; and
- Describe the proposed storm drainage and water quality treatment system.

B. INTRODUCTION

The proposed project consists of construction of affordable apartment units and one supervisory unit located south of Black Rice Lane, north of Pearl Place, east of Courtside drive, and west of Deuce Drive/Service Drive. The site is surrounded primarily by multi-family residential and rural single-family residential.

Existing Site Conditions:

The property is mostly grassy with trees. There are apartments and single-family homes on the west and south side of the property. The site generally slopes to the south west into existing storm drain systems on Service Drive and Deuce drive. A large portion of the drainage ultimately ends up in a culvert that outfalls into wetlands on the north side of Deuce Drive.

Proposed Site Drainage System:

On-site drainage will be collected in a series of storm water drainage systems and treated through infiltration treatment devices for filtering and infiltration. Overflow drainage will either connect to the existing storm drain system or will discharge into its natural pre-existing drainage pattern.

Water Quality Treatment Methods:

Storm drainage from impervious areas (roads, walks, roofs) is collected and routed through Stormtech chambers under pavement. Catch basins will contain a 12-inch deep sump for initial pre-treatment to capture sand and sediments through weep holes for infiltration.

During construction, additional BMPs including temporary erosion control facilities will be implemented to control pollutants that have a potential to affect the quality of storm water discharges from the construction site. Implementation of BMPs for Construction Activities will be in accordance with California State Water Resources Control Board (SWRCB) requirements.

C. METHODOLOGY

Hydrology

Hydrology calculations for the project site are provided in Section 3 of this report. The required retention volume for each drainage area is based on the unit storage basin to achieve 85th percentile, 24-hr storm volume of treatment based on the "design storm," per El Dorado County post construction runoff procedures. A web-based tool (http://www.owp.csus.edu/LIDTool/Start.aspx) for sizing LID devices was used to calculate the volume requirements based on the design storm and soil hydraulic conductivity. Based on the website, the 85th percent capture is 1.13 inches for the site and the hydraulic conductivity is 1 in/hr. Retention calculations are provided in Section 3 – Retention Calculations.

Hydraulics

Hydraulic Calculations will be completed during the construction document phase of the project.

Detention

The post-development rate and volume will be reduced below the pre-development flow rate with the infiltration facilities and BMP's identified herein. Onsite retention facilities will reduce the post-development flow by attenuating the peak flow.

D. RESULTS AND CONCLUSIONS

As described above, the planned design incorporates current requirements of El Dorado County for post-construction treatment requirements for the 85th percentile, 24-hr storm. Proposed drainage improvements meet water quality objectives, provide groundwater recharge, minimize erosion and provide conveyance to natural drainage courses as required. Drainage details and hydraulic calculations will be provided in final design.

E. REFERENCES

- Western El Dorado County Storm Water Management Plan, dated August, 2004
- El Dorado Apartments Preliminary Grading, Drainage and Utilities Plan, by Millennium Planning & Engineering, Inc, dated May 2019.
- Sacramento State Office of Water Programs, California Phase II LID Sizing Tool, http://www.owp.csus.edu/LIDTool/Start.aspx, May 2019.

As always please feel free to contact our office at (530) 446-6765 with any questions.

Millennium Planning & ENGINEERING, INC.

Michelle Layshot

Michelle Layshot, P.E., QSD/QSP
Principal Engineer

SECTION 2:

HYDROLOGIC SOIL GROUP

SACRAMENTO STATE
Office of Water Programs

California Phase II LID Sizing Tool

Welcome to the California Phase II Low Impact Development (LID) Sizing Tool. This is a web-based tool that assists stormwater practitioners in selecting and sizing LID Best Management Practices (BMPs) that meet the sizing requirements set forth in California's National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from small municipal separate storm sewer systems (MS4s). The tool allows users to input their location, soil type, and impervious areas, and then queries a database containing pre-solved sizing factors and design curves for a variety of LID BMP types, performs permit-based sizing calculations, and tabulates allowable sizes for each LID BMP type. Sizing results are provided based on three different sizing methods allowed by the Phase II permit: a Design Storm Method, a Percent Capture Method, and a Baseline Bioretention or Equivalent Performance Method. Sizing results are also provided for the Central Coast RWQCB (Region 3) simple sizing method adopted via resolution R3-2013-0032. Users are also provided references for considering LID BMP feasibility factors beyond sizing, such as site topography and geometry and LID BMP maintenance requirements and costs. The tool includes training videos to visually instruct users on various aspects of the tool's interface, input, and output. Further information about the tool and its development is provided in the Documentation Manual.

Development of this tool was funded by the California State Water Resources Control Board's (SWRCB) Proposition 84 Stormwater Grant Program (SWGP).

The tool consists of a website that is linked to a database through a server. The database stores precipitation and evaporation data for multiple geographic locations throughout California, pre-defined parameters for multiple LID BMP types and project soil types, and pre-solved design curves based on SWMM 5 modeling. Over 13,000 SWMM simulations were run to develop these curves. After the user enters project information into the tool's website, the server queries the database, performs calculations, and tabulates the areas required for various LID BMP types.

Use these Layers to help you find the inputs for steps 1 to 3 below the map

Step 1
☑ Climate Stations

Step 2
☑ Soil Types

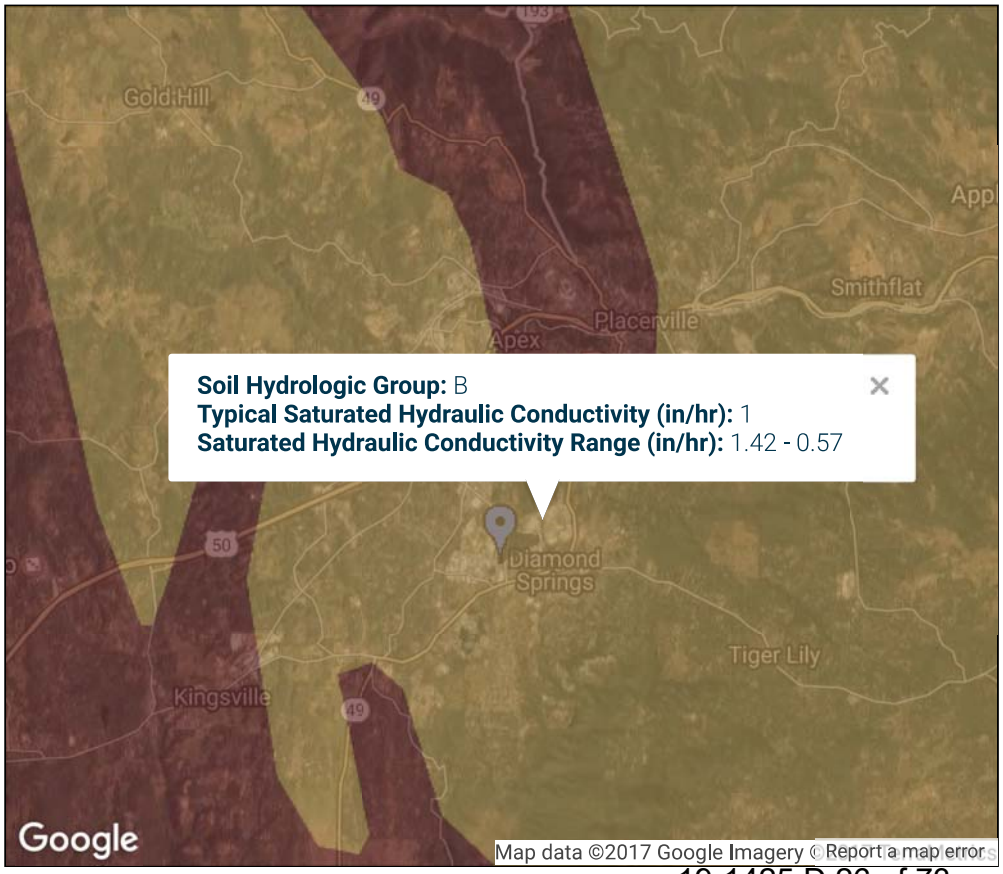
Step 3
Find your impervious area
☐ Measure Clear

Distance (feet): 0

Area (acres): 0

To ensure the most accurate values zoom in close to your site.

Other Layers
☐ Counties



SECTION 3:

RETENTION REQUIREMENTS

DRAINAGE AREA “A”
RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area A
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	14180 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	685	0.00	0.00
Strip, Amended 6"	21333	0.00	0.00
Strip, Amended 12"	5787	0.00	0.00
Strip, Amended 18"	3347	0.00	0.00
Swale, Amended 6"[2]	21333	0.00	0.00
Swale, Amended 12"[2]	5787	0.00	0.00
Swale, Amended 18"[2]	3347	0.00	0.00
Capture and Use Storage[3]	1230 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	1230 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	9 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(14 ft. x 50 ft.)

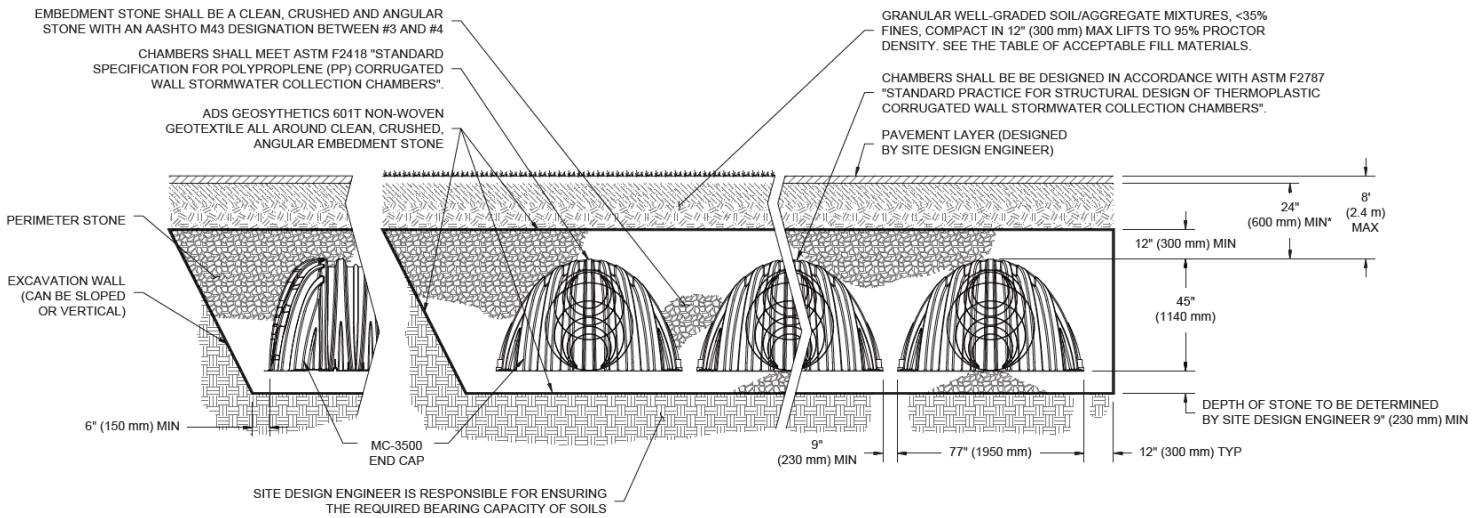
Results

System Volume and Bed Size

Installed Storage Volume:	1316.21 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	6
Number Of End Caps Required:	2
Chamber Rows:	1
Maximum Length:	48.75 ft.
Maximum Width:	8.42 ft.
Approx. Bed Size Required:	410.31 square ft.

System Components

Amount Of Stone Required:	58.06 cubic yards
Volume Of Excavation (Not Including Fill):	83.58 cubic yards



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm).

DRAINAGE AREA “B”
RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area B
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	16060 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	776	0.00	0.00
Strip, Amended 6"	24161	0.00	0.00
Strip, Amended 12"	6554	0.00	0.00
Strip, Amended 18"	3791	0.00	0.00
Swale, Amended 6"[2]	24161	0.00	0.00
Swale, Amended 12"[2]	6554	0.00	0.00
Swale, Amended 18"[2]	3791	0.00	0.00
Capture and Use Storage[3]	1393 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	1393 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	9 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(18 ft. x 60 ft.)

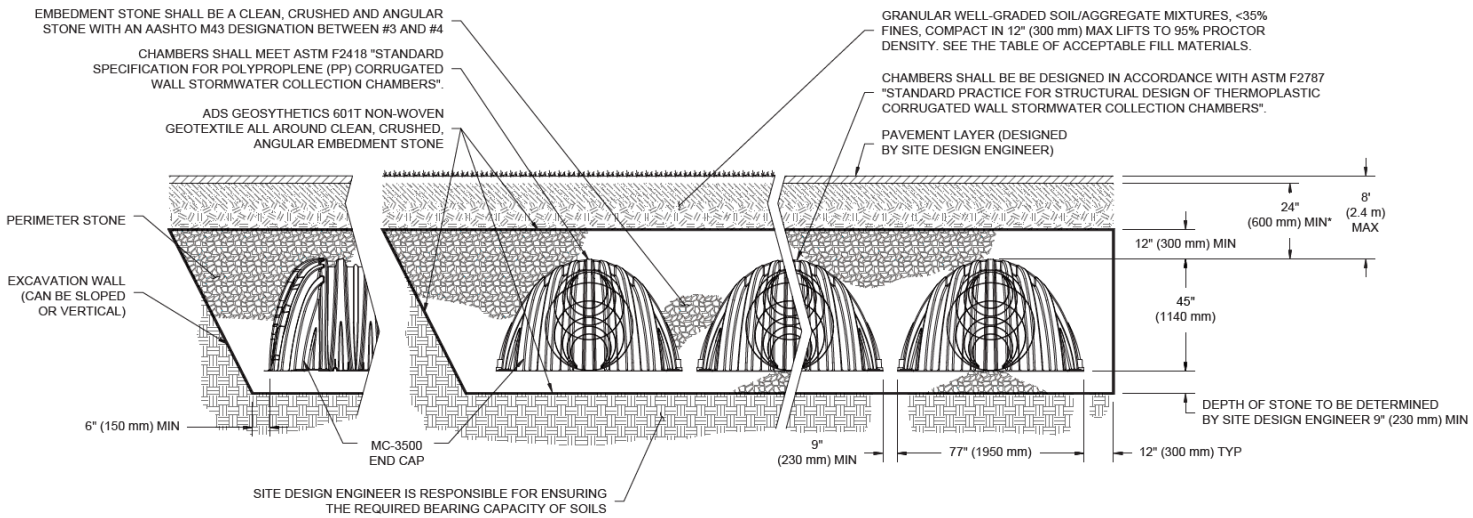
Results

System Volume and Bed Size

Installed Storage Volume:	1514.85 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	7
Number Of End Caps Required:	2
Chamber Rows:	1
Maximum Length:	55.92 ft.
Maximum Width:	8.42 ft.
Approx. Bed Size Required:	470.63 square ft.

System Components

Amount Of Stone Required:	66.27 cubic yards
Volume Of Excavation (Not Including Fill):	95.87 cubic yards



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm).

DRAINAGE AREA “C”
RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area C
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	53202 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	2570	0.00	0.00
Strip, Amended 6"	80038	0.00	0.00
Strip, Amended 12"	21711	0.00	0.00
Strip, Amended 18"	12559	0.00	0.00
Swale, Amended 6"[2]	80038	0.00	0.00
Swale, Amended 12"[2]	21711	0.00	0.00
Swale, Amended 18"[2]	12559	0.00	0.00
Capture and Use Storage[3]	4614 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	4614 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	12 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(30 ft. x 80 ft.)

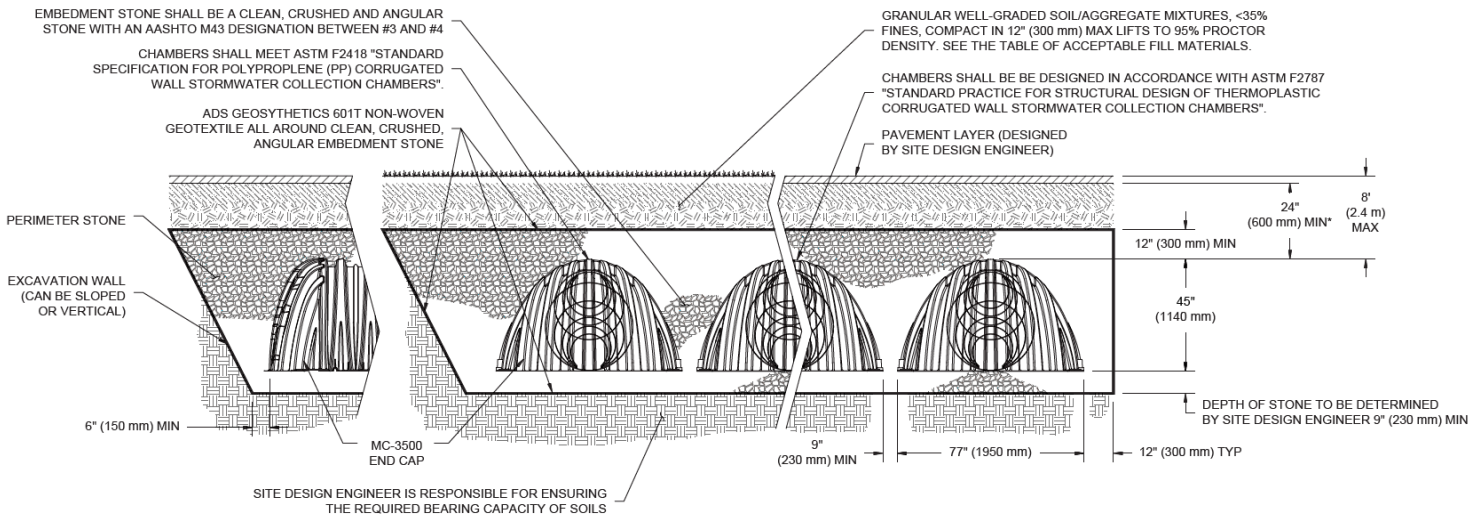
Results

System Volume and Bed Size

Installed Storage Volume:	4652.52 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	21
Number Of End Caps Required:	6
Chamber Rows:	3
Maximum Length:	59.85 ft.
Maximum Width:	23.35 ft.
Approx. Bed Size Required:	1397.45 square ft.

System Components

Amount Of Stone Required:	208.82 cubic yards
Volume Of Excavation (Not Including Fill):	297.61 cubic yards



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm).

DRAINAGE AREA “D”
RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area D
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	16180 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	781	0.00	0.00
Strip, Amended 6"	24341	0.00	0.00
Strip, Amended 12"	6603	0.00	0.00
Strip, Amended 18"	3819	0.00	0.00
Swale, Amended 6"[2]	24341	0.00	0.00
Swale, Amended 12"[2]	6603	0.00	0.00
Swale, Amended 18"[2]	3819	0.00	0.00
Capture and Use Storage[3]	1403 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments Area D
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	1403 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	12 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(30 ft. x 80 ft.)

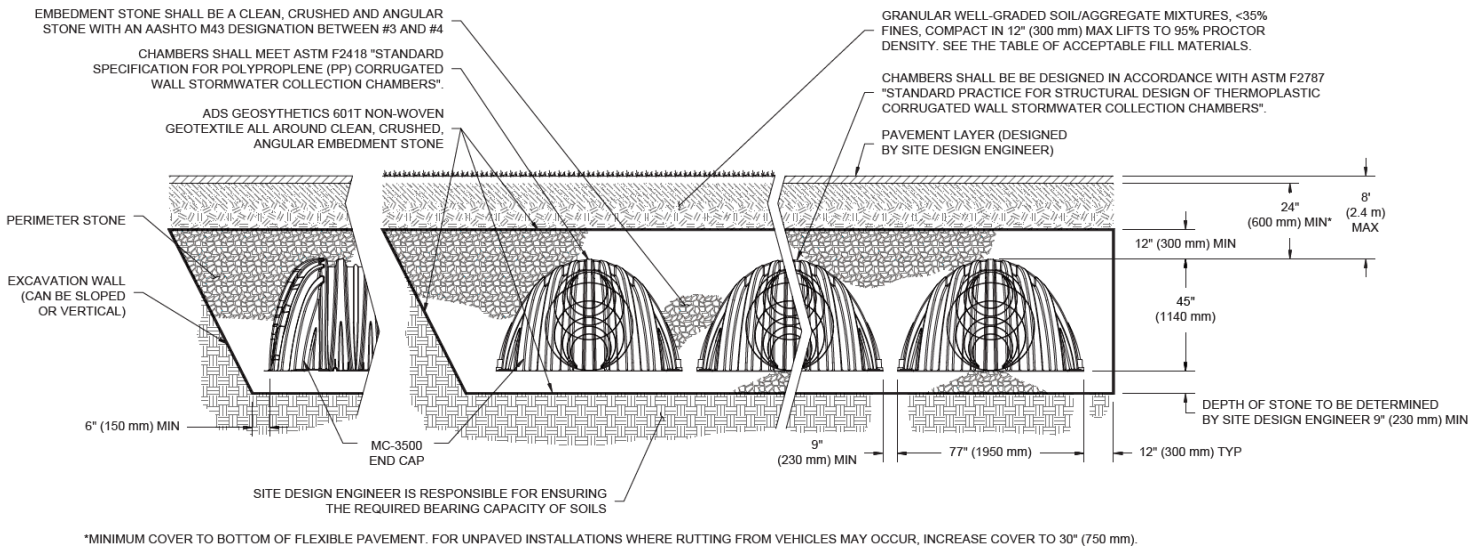
Results

System Volume and Bed Size

Installed Storage Volume:	1357.24 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	6
Number Of End Caps Required:	2
Chamber Rows:	1
Maximum Length:	48.75 ft.
Maximum Width:	8.42 ft.
Approx. Bed Size Required:	410.31 square ft.

System Components

Amount Of Stone Required:	61.86 cubic yards
Volume Of Excavation (Not Including Fill):	87.38 cubic yards



DRAINAGE AREA “E”
RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area E
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	33980 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	1641	0.00	0.00
Strip, Amended 6"	51120	0.00	0.00
Strip, Amended 12"	13867	0.00	0.00
Strip, Amended 18"	8021	0.00	0.00
Swale, Amended 6"[2]	51120	0.00	0.00
Swale, Amended 12"[2]	13867	0.00	0.00
Swale, Amended 18"[2]	8021	0.00	0.00
Capture and Use Storage[3]	2947 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments Area E
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	2947 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	12 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(30 ft. x 80 ft.)

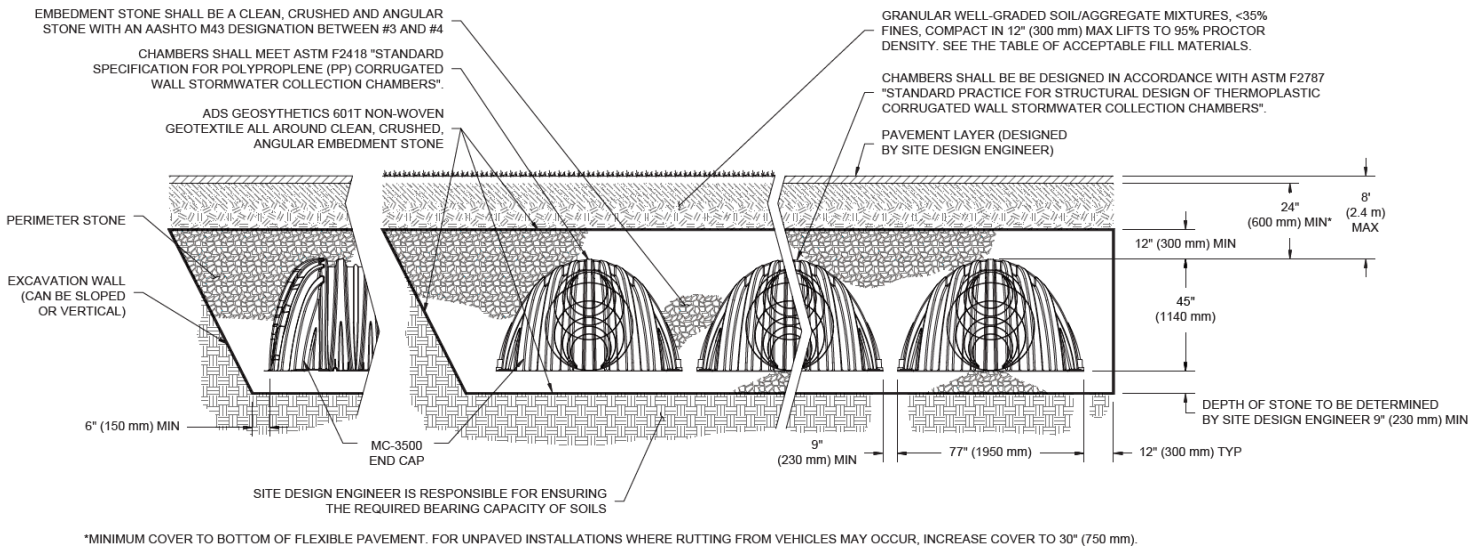
Results

System Volume and Bed Size

Installed Storage Volume:	2992.60 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	13
Number Of End Caps Required:	4
Chamber Rows:	2
Maximum Length:	59.85 ft.
Maximum Width:	16.18 ft.
Approx. Bed Size Required:	912.88 square ft.

System Components

Amount Of Stone Required:	139.29 cubic yards
Volume Of Excavation (Not Including Fill):	194.41 cubic yards



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm).

DRAINAGE AREA “F”
RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area F
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	13400 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	647	0.00	0.00
Strip, Amended 6"	20159	0.00	0.00
Strip, Amended 12"	5468	0.00	0.00
Strip, Amended 18"	3163	0.00	0.00
Swale, Amended 6"[2]	20159	0.00	0.00
Swale, Amended 12"[2]	5468	0.00	0.00
Swale, Amended 18"[2]	3163	0.00	0.00
Capture and Use Storage[3]	1162 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments Area F
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	1162 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	12 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(24 ft. x 60 ft.)

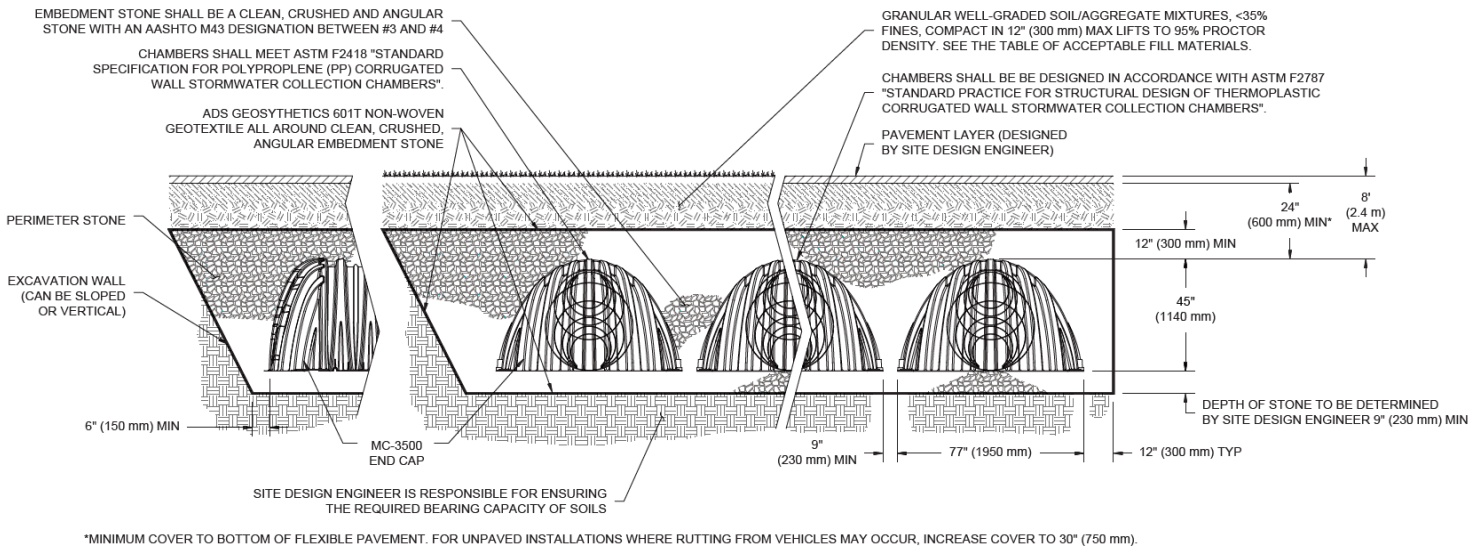
Results

System Volume and Bed Size

Installed Storage Volume:	1152.56 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	5
Number Of End Caps Required:	2
Chamber Rows:	1
Maximum Length:	41.58 ft.
Maximum Width:	8.42 ft.
Approx. Bed Size Required:	349.99 square ft.

System Components

Amount Of Stone Required:	53.08 cubic yards
Volume Of Excavation (Not Including Fill):	74.54 cubic yards



*MINIMUM COVER TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm).

DRAINAGE AREA “G”

RETENTION REQUIREMENTS

California Phase II LID Sizing Tool - v1.1

Step 5 - Site Design Measures

Project name	Diamond Springs Apartments Area G
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Impervious area	14770 square feet
Design storm	1.13 in

Site Design Measures (SDMs) must first be implemented to the extent technically feasible before implementing Storm Water Treatment Measures (SWTMs). SDMs must be sized using the 85th percentile, 24-hour storm, or another design storm as adopted by local regulators.

Site Design Measures Using a Design Storm of 1.13 Inches

LID BMP Types	Area Needed (square feet)	Area Avaliable (square feet)	Percent Accomplished
Porous Pavement	713	0.00	0.00
Strip, Amended 6"	22220	0.00	0.00
Strip, Amended 12"	6027	0.00	0.00
Strip, Amended 18"	3487	0.00	0.00
Swale, Amended 6"[2]	22220	0.00	0.00
Swale, Amended 12"[2]	6027	0.00	0.00
Swale, Amended 18"[2]	3487	0.00	0.00
Capture and Use Storage[3]	1281 cf	0.00 cf	0.00
	Totals	0.000	0.00

BACK NEXT

Instructions for Site Design Measures +

Footnotes +

Background +

CA Phase II LID Sizing Tool Methods +

Special Notes Regarding the Tables +

User Inputs

Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	Diamond Springs Apartments Area Gg
Engineer:	N/A
Project Location:	California
Measurement Type:	Imperial
Required Storage Volume:	1281 cubic ft.
Stone Porosity:	40%
Stone Foundation Depth:	12 in.
Stone Above Chambers:	12 in.
Average Cover Over Chambers:	24 in.
Design Constraint Dimensions:	(30 ft. x 50 ft.)

Results

System Volume and Bed Size

Installed Storage Volume:	1398.06 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number Of Chambers Required:	5
Number Of End Caps Required:	4
Chamber Rows:	2
Maximum Length:	31.18 ft.
Maximum Width:	16.18 ft.
Approx. Bed Size Required:	448.96 square ft.

System Components

Amount Of Stone Required:	73.05 cubic yards
Volume Of Excavation (Not Including Fill):	95.61 cubic yards

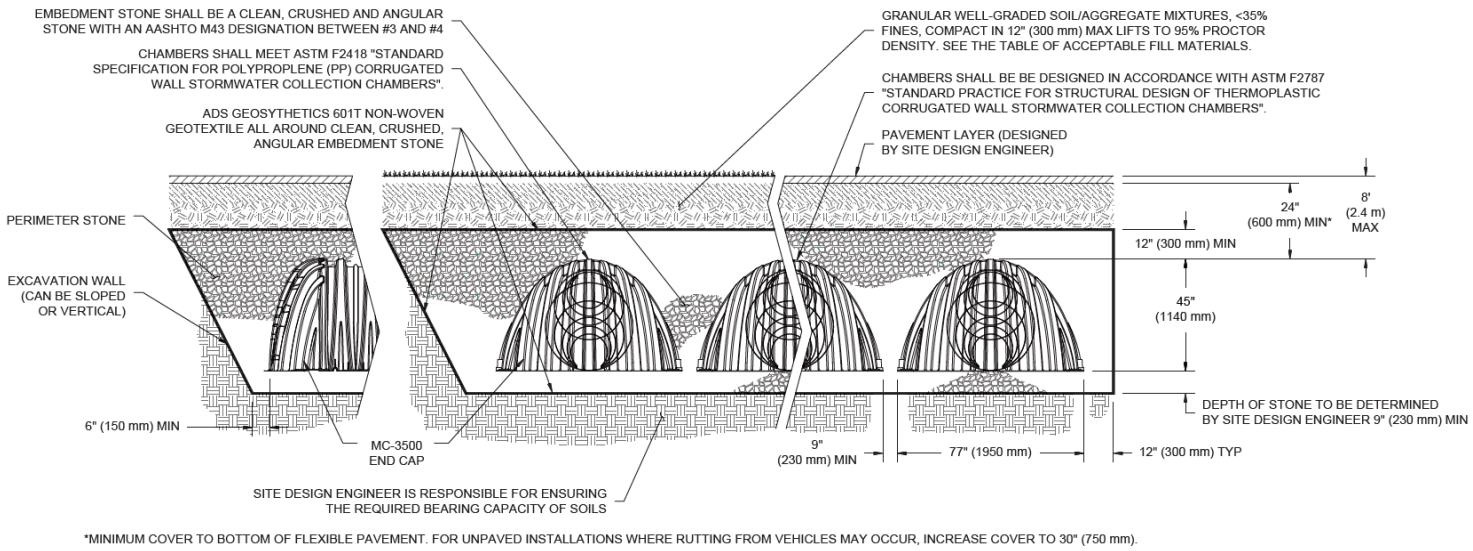
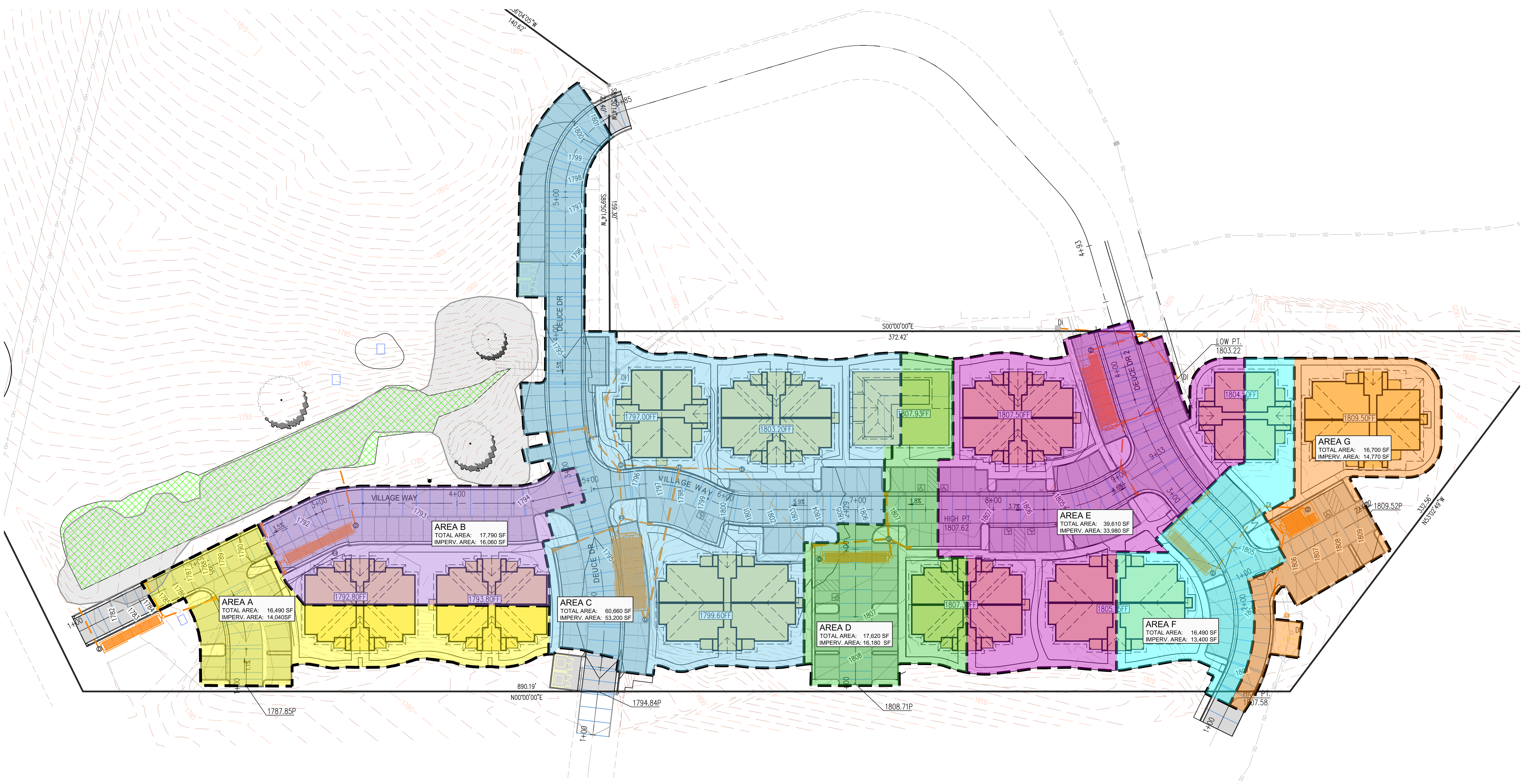


EXHIBIT 1:

DRAINAGE MAP



DIAMOND VILLAGE APARTMENTS
6035 SERVICE DRIVE
DRAINAGE MAP

DIAMOND SPRINGS CALIFORNIA

MILLENNIUM PLANNING & ENGINEERING
471 Sutton Way, Suite 210
Grass Valley, CA 95945
530-446-6765
www.millenniumpe.com

REV.	DESCRIPTION	DATE

DESIGNED: MCL
DRAWN: DEC
PROJ. NO: 19-0401
DWG: SEE DAYSTAMP
DATE: APRIL, 2019

SHEET NUMBER

REGISTERED PROFESSIONAL ENGINEER MICHELLE C. SHOT No. C79918 CIVIL STATE OF CALIFORNIA
PRELIMINARY

DATE SIGNED:___________

El Dorado Irrigation District

Letter No.: EEO2017-0401

Exhibit H

March 21, 2017

VIA FIRST-CLASS MAIL

Sergei Oleshko
Core Care Foundation
8863 Greenback Lane, Ste 324
Orangevale, CA 95662

Subject: Facility Improvement Letter (FIL), Diamond Springs Village Apartments
Assessor's Parcel No. 051-461-59 (Diamond Springs)

Dear Mr. Oleshko:

This letter is in response to your request dated February 13, 2017 and is valid for a period of three years. If facility improvement plans for your project are not submitted to El Dorado Irrigation District (EID or District) within three years of the date of this letter, a new Facility Improvement Letter will be required.

Design drawings for your project must be in conformance with the District's *Water, Sewer and Recycled Water Design and Construction Standards*.

This proposed project is an 81-unit multifamily apartment complex on 10.7 acres. Water service, sewer service, private fire service and fire hydrants are requested. The property is within the District boundary.

This letter is not a commitment to serve, but does address the location and approximate capacity of existing facilities that may be available to serve your project.

Water Supply
As of January 1, 2016, there were 12,537 equivalent dwelling units (EDUs) of water supply available in the Western/Eastern Water Supply Region. Your project as proposed on this date would require approximately 60 EDUs of water supply.

Water Facilities
An 8-inch water line exists in Black Rice Road and 8-inch water lines are also located on the parcel to be developed (see enclosed System Map). The Diamond Springs/El Dorado Fire Protection District has determined that the minimum fire flow for this project is 1,500 GPM for a 2-hour duration while maintaining a 20-psi residual pressure. According to the District's hydraulic model, the existing system can deliver the required fire flow. In order to provide this fire flow and receive service, you must construct a water line extension connecting to the previously identified water facilities. The hydraulic grade line for the existing water distribution facilities is 2,080 feet above mean sea level at static conditions and 2,029 feet above mean sea level during fire flow and maximum day demands.

The flow predicted above was developed using a computer model and is not an actual field flow test.

Sewer Facilities
There is a 6-inch sewer line traversing the property to be developed. This sewer line has adequate capacity at this time. In order to receive service from this line, an extension of facilities of adequate size must be constructed. Your project as proposed on this date would require approximately 56 EDUs of sewer service.

Easement Requirements
Proposed and existing water lines, sewer lines and related facilities must be located within an easement accessible by conventional maintenance vehicles. When the water lines or sewer lines are within streets, they shall be located within the paved section of the roadway. No structures will be permitted within the easements of any existing or proposed facilities. The District must have unobstructed access to these easements at all times, and generally does not allow water or sewer facilities along lot lines.

Easements for any new District facilities constructed by this project must be granted to the District prior to District approval of water and/or sewer improvement plans, whether onsite or offsite. In addition, due to either nonexistent or prescriptive easements for some older facilities, any existing onsite District facilities that will remain in place after the development of this property must also have an easement granted to the District.

Environmental
The County is the lead agency for environmental review of this project per Section 15051 of the California Environmental Quality Act Guidelines (CEQA). The County's environmental document should include a review of both offsite and onsite water and sewer facilities that may be constructed by this project. You may be requested to submit a copy of the County's environmental document to the District if your project involves significant off-site facilities. If the County's environmental document does not address all water and sewer facilities and they are not exempt from environmental review, a supplemental environmental document will be required. This document would be prepared by a consultant. It could require several months to prepare and you would be responsible for its cost.

Summary
Service to this proposed development is contingent upon the following:

- The availability of uncommitted water supplies at the time service is requested;
- Approval of the County's environmental document by the District (if requested);
- Executed grant documents for all required easements;
- Approval of an extension of facilities application by the District;
- Approval of facility improvement plans by the District;
- Construction by the developer of all onsite and offsite proposed water and sewer facilities.
- Acceptance of these facilities by the District; and
- Payment of all District connection costs.

Services shall be provided in accordance with El Dorado Irrigation District Board Policies and Administrative Regulations, as amended from time-to-time. As they relate to conditions of and fees for extension of service, District Administrative Regulations will apply as of the date of a fully executed Extension of Facilities Agreement.

If you have any questions, please contact Marc Mackay at (530) 642-4135.

Sincerely,

Michael J. Brink, P.E.
Supervising Civil Engineer

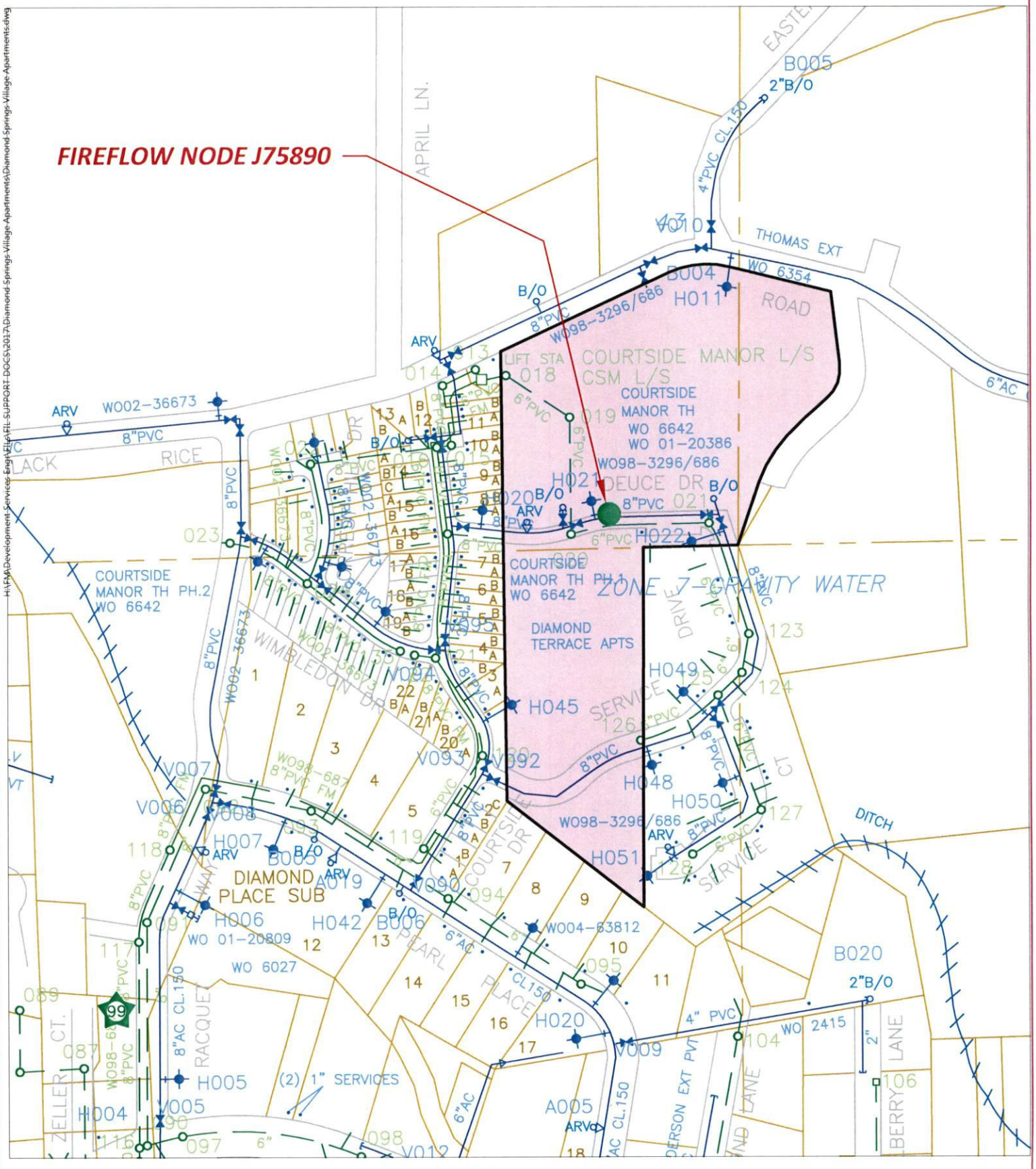
MB/MM:at

Enclosures: System Map

cc w/ System Map:

Kenneth Earle – Deputy Chief / Fire Marshal
Diamond Springs / El Dorado Fire Department
Via email - kearle@diamondfire.org

Roger Trout, Director
El Dorado County Development Services Department
Via email - roger.trout@edcgov.us



El Dorado Irrigation District
System Map

DATE: March 20, 2017

WARNING: For schematic purposes only. Exact pipe location must be field verified.

WATERLINE

SEWERLINE

Scale: 1" = 250'

Diamond Springs Village Apartments

APN: 051-461-59

SYS. No.: 121-3

DIAMOND SPRINGS VILLAGE APARTMENTS

DIAMOND SPRINGS, EL DORADO COUNTY, CALIFORNIA

Exhibit I

WATER BUDGET CALCULATIONS

REFERENCE EVAPOTRANSPIRATION = 47.3 INCHES PER YEAR (CAMINO STATION)
MAWA = (ETo) (.62) [(.7 x SF)+(.3 x SLA)]
= (47.3") (.62) [(.45 x 54,119)+(.3 x 0)]
= 714,192 GALLONS PER YEAR

ETWU = (ETo) (.62) $\left(\frac{PF \times HA}{IE}\right)$ + SLA

LOW PLANTS = (47.3) (.62) $\left(\frac{.3 \times 50,384}{.81}\right)$ + 0 = 547,244 GALLONS PER YEAR

HIGH LAWN = (47.3) (.62) $\left(\frac{.7 \times 3,735}{.75}\right)$ + 0 = 102,230 GALLONS PER YEAR

TOTAL ETWU = 714,192 GALLONS PER YEAR MAWA = 649,474 GALLONS PER YEAR

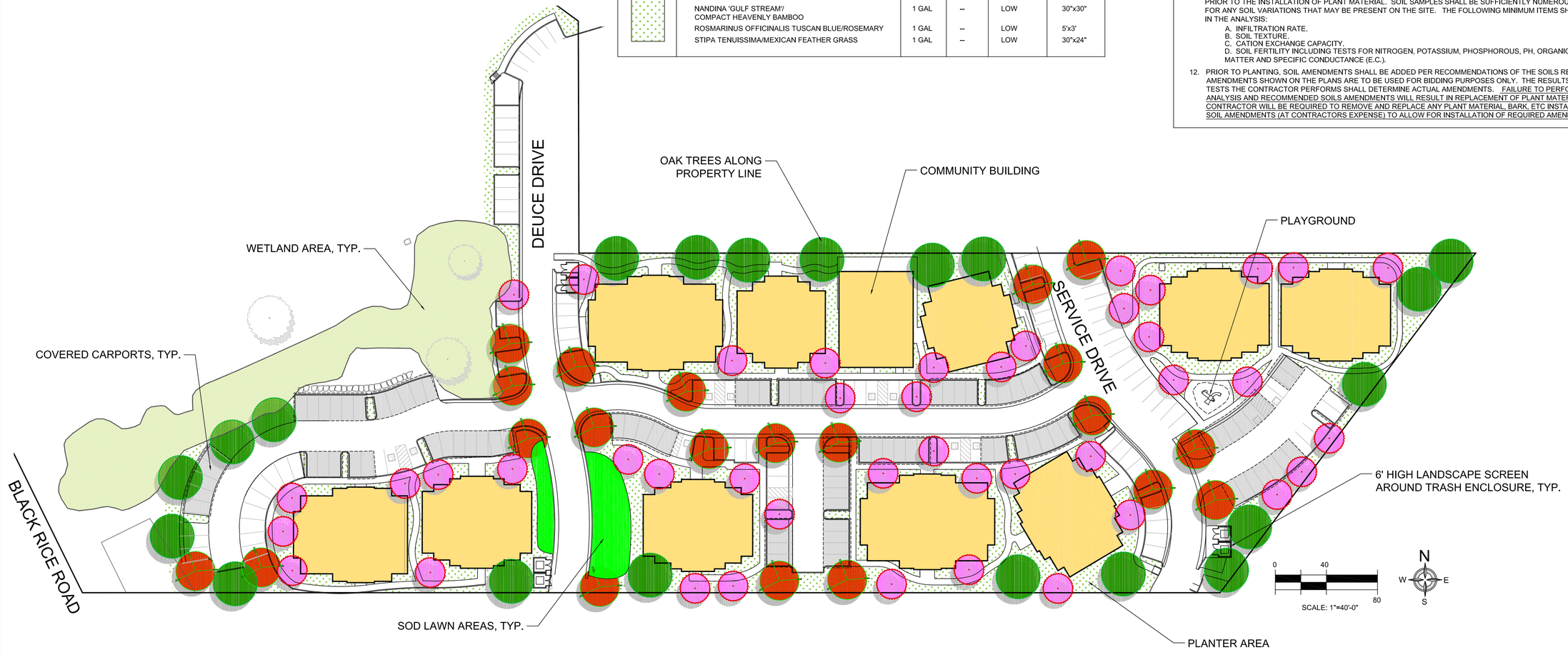
ETWU < MAWA

PLANT LEGEND

SYM	BOTANICAL/ COMMON NAME	SIZE	QTY	WATER USE	HTxWD
	TREES				
	CERCIS CANADENSIS 'OAKLAHOMA'/EASTERN REDBUD	15 GAL	41	LOW	18'x18'
	FRUIT TREES (APPLE, GRAPEFRUIT, LEMON, ORANGE)				
	QUERCUS WISLIZENII/INTERIOR LIVE OAK	24" BOX	20	LOW	35'x35'
	ACER 'RUBRUM'/ RED MAPLE	15 GAL	20	LOW	30'x30'
	SHRUBS/ GROUNDCOVER				
	ARCTOSTAPHYLOS 'EMERALD CARPET'/MANZANITA	5 GAL	--	LOW	--
	CISTUS LADANIFER/CRIMSON SPOT ROCKROSE	5 GAL	--	LOW	4'x4'
	DIETES VEGETA/FORTNIGHT LILY	1 GAL	--	LOW	30"x24"
	MYRTUS COMMUNIS 'COMPACTA'/COMPACT MYTRLE	5 GAL	--	LOW	3'x3'
	MUHLENBERGIA RIGENS/DEER GRASS	5 GAL	--	LOW	4'x4'
	NANDINA 'GULF STREAM'/ COMPACT HEAVENLY BAMBOO	1 GAL	--	LOW	30"x30"
	ROSMARINUS OFFICINALIS TUSCAN BLUE/ROSEMARY	1 GAL	--	LOW	5'x3'
	STIPA TENUISSIMA/MEXICAN FEATHER GRASS	1 GAL	--	LOW	30"x24"

PLANTING NOTES

1. PLANTING SHALL CONFORM TO EL DORADO COUNTY REQUIREMENTS FOR LANDSCAPE SITE DEVELOPMENT.
2. PROVIDE MINIMUM SLOPE OF 1 ½% FOR POSITIVE DRAINAGE AWAY FROM CENTER IN ALL PLANTED AREAS.
3. THE PLANT QUANTITIES SHOWN ON THE DRAWINGS ARE INFORMATIONAL ONLY. THE CONTRACTOR IS RESPONSIBLE FOR FINAL QUANTITIES REQUIRED TO COMPLETE THE WORK. IN CASE OF DISCREPANCY, THE PLAN SHALL GOVERN.
4. ALL TREES SHALL BE PLANTED A MINIMUM OF 5' FROM UNDERGROUND UTILITIES.
5. ALL EXISTING TREES SHALL BE PROTECTED FROM DAMAGE OR INJURY. NO PARKING OR STACKING OF CONSTRUCTION MATERIAL IS ALLOWED WITHIN THE DRIPLINE OF AN EXISTING TREE.
6. IMMEDIATELY AFTER AWARD OF CONTRACT, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF SPECIFIED PLANT MATERIAL IS AVAILABLE FROM COMMERCIAL NURSERIES. IN THE EVENT THAT A PLANT IS NOT AVAILABLE, THE LANDSCAPE ARCHITECT WILL PROVIDE ALTERNATE PLANT MATERIAL SELECTIONS. SUCH CHANGES WILL NOT ALTER THE CONTRACTOR'S ORIGINAL BID PRICE UNLESS A CREDIT IS DUE TO THE OWNER.
7. THE CONTRACTOR SHALL ENSURE THAT ALL EXCAVATED PLANT PITS HAVE POSITIVE DRAINAGE. PLANT PITS SHALL BE FULLY FILLED WITH WATER AND SHALL DRAIN WITHIN ONE (1) HOUR OF FILLING. THE CONTRACTOR SHALL EXCAVATE THROUGH ANY IMPERVIOUS LAYER IF ENCOUNTERED.
8. ALL PLANT MATERIAL SHALL COMPLY WITH ANSI Z601 'STANDARD FOR NURSERY STOCK'.
9. ROOT BARRIERS SHALL BE PROVIDED FOR ALL TREES WITHIN ANY PLANTING AREAS THAT ARE LESS THAN 10' WIDE.
10. ALL PLANTER AREAS SHALL RECEIVE A 3" LAYER OF BARK MULCH.
11. THE CONTRACTOR SHALL PROVIDE A SOILS REPORT PREPARED BY A QUALIFIED SOILS SPECIALIST AND SUBMIT TO THE OWNER FOR FINAL APPROVAL. SOILS SAMPLES SHALL BE COLLECTED AFTER ROUGH GRADING OPERATIONS AND PRIOR TO THE INSTALLATION OF PLANT MATERIAL. SOIL SAMPLES SHALL BE SUFFICIENTLY NUMEROUS TO ACCOUNT FOR ANY SOIL VARIATIONS THAT MAY BE PRESENT ON THE SITE. THE FOLLOWING MINIMUM ITEMS SHALL BE INCLUDED IN THE ANALYSIS:
    A. INFILTRATION RATE.
    B. SOIL TEXTURE.
    C. CATION EXCHANGE CAPACITY.
    D. SOIL FERTILITY INCLUDING TESTS FOR NITROGEN, POTASSIUM, PHOSPHOROUS, PH, ORGANIC MATTER AND SPECIFIC CONDUCTANCE (E.C.).
12. PRIOR TO PLANTING, SOIL AMENDMENTS SHALL BE ADDED PER RECOMMENDATIONS OF THE SOILS REPORT. SOIL AMENDMENTS SHOWN ON THE PLANS ARE TO BE USED FOR BIDDING PURPOSES ONLY. THE RESULTS OF THE SOILS TESTS THE CONTRACTOR PERFORMS SHALL DETERMINE ACTUAL AMENDMENTS. FAILURE TO PERFORM SOILS ANALYSIS AND RECOMMENDED SOILS AMENDMENTS WILL RESULT IN REPLACEMENT OF PLANT MATERIAL. CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY PLANT MATERIAL, BARK, ETC INSTALLED PRIOR TO SOIL AMENDMENTS (AT CONTRACTORS EXPENSE) TO ALLOW FOR INSTALLATION OF REQUIRED AMENDMENTS.



MSLA
LANDSCAPE ARCHITECTURE
306 Canyon Falls Dr. Folsom, CA 95630
ph/fax 916.989.3372 www.msladesign.com

LICENSED LANDSCAPE ARCHITECT
MICHAEL SHULAR No. 5989
Exp. 08-31-16
STATE OF CALIFORNIA

PRELIMINARY

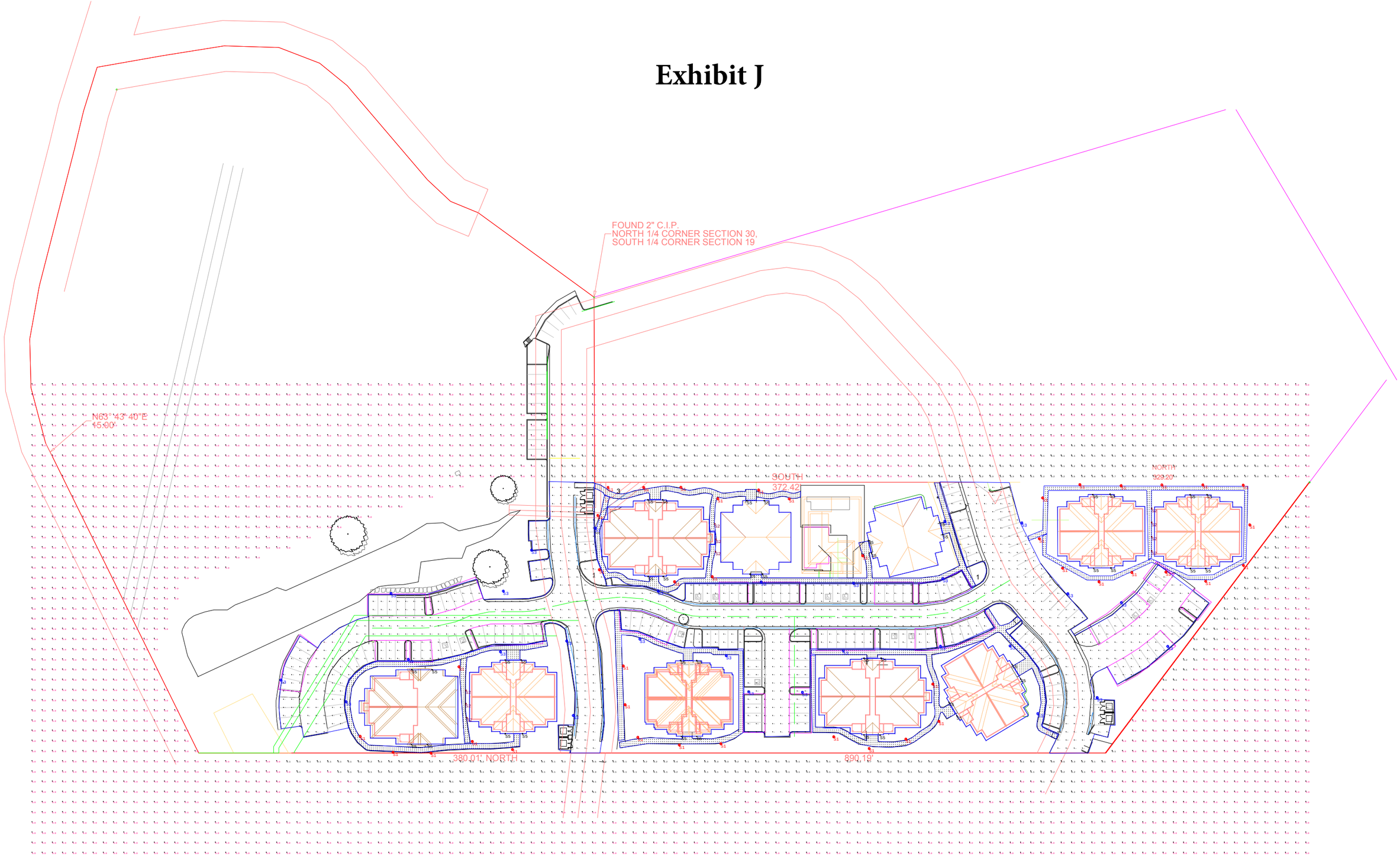
PRELIMINARY LANDSCAPE PLAN

MARCH 21, 2017

SHEET L1 OF TOTAL 1

C:\MSLA\Projects\2017\69617_Diamond_Springs_Apts\Exhibits\L_EXH_Diamond_Springs_PRELIM_MAR_16_2017.dwg Mar 21, 2017 - 03:25 pm

Exhibit J



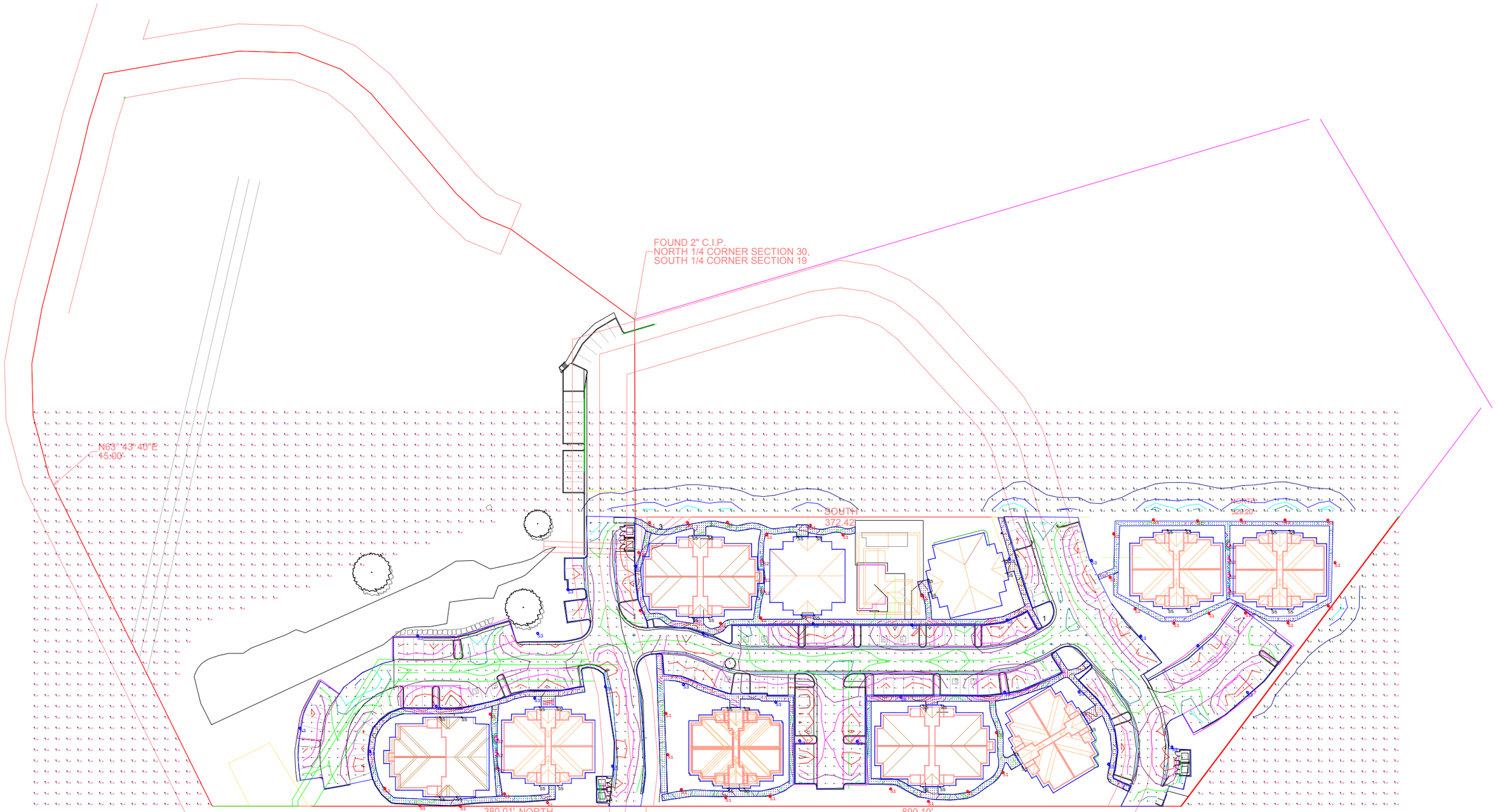
DIAMOND SPRINGS APARTMENTS - EL DORADO COUNTRY, CA
MARCH 15, 2017 - GRAYBAR ELECTRIC CO. (925)557-3000

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	LLF	Description		Lum. Watts	Lum. Lumens
	28	S3	SINGLE	0.880	MSA-ESS-LED-E1-SL3		76.2	7382
	10	S2	SINGLE	0.880	Lumiere - Aspen 1908-SA-XX-26LED401S-UNV-BK		15.7	237
	41	S1	SINGLE	0.880	Performance - eXA SLIM LED 250-AL		8	2227
	40	S5	SINGLE	0.880	Oxygen 3-712		25.2	988

ALL CALCULATIONS SHOWN ARE ESTIMATED ONLY, ACTUAL RESULTS MAY VARY

MOUNTING HEIGHTS:
TYPE S1 - 8FT
TYPE S2 - 2.5FT
TYPE S3 - 16FT
TYPE S5 - 8FT

Calculation Summary							
Label	Calctype	Units	Avg	Max	Min	Avg/Min	Max/Min
Drive and Parking_Planar	Illuminance	Fc	1.63	4.8	0.3	5.43	13.33
Sidewalk_2_Planar	Illuminance	Fc	1.40	3.7	0.3	5.33	12.33
Sidewalk_3_Planar	Illuminance	Fc	1.42	3.7	0.3	4.73	12.33
Sidewalk_4_Planar	Illuminance	Fc	1.58	3.8	0.3	5.00	12.67
Sidewalk_5_Planar	Illuminance	Fc	1.62	4.0	0.3	5.40	13.33
Sidewalk_Planar	Illuminance	Fc	0.95	3.3	0.3	3.17	11.00
Trespass	Illuminance	Fc	0.03	1.2	0.0	N.A.	N.A.



DIAMOND SPRINGS APARTMENTS - EL DORADO COUNTRY, CA
MARCH 15, 2017 - GRAYBAR ELECTRIC CO. (925)557-3000

Luminaire Schedule

Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Lum. Lumens
	28	S3	SINGLE	0.880	MSA-E85-LED-E1-SL3	75.2	7382
	10	S2	SINGLE	0.880	Lumiere - Aspen 1000-OA-XX-20LED40IS-UNV-BK	15.7	237
	41	S1	SINGLE	0.880	Performance - RAA SLIM LED 250-AL	9	2227
	40	S5	SINGLE	0.880	Oxygen 3-712	25.2	988

ALL CALCULATIONS SHOWN ARE ESTIMATED ONLY, ACTUAL RESULTS MAY VARY

MOUNTING HEIGHTS:
TYPE S1 - 8FT
TYPE S2 - 2.5FT
TYPE S3 - 16FT
TYPE S5 - 8FT

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Drive and Parking_Planar	Illuminance	Fc	1.53	4.8	0.3	5.43	15.33
Sidewalk_2_Planar	Illuminance	Fc	1.60	3.7	0.3	5.33	12.33
Sidewalk_3_Planar	Illuminance	Fc	1.42	3.7	0.3	4.73	12.33
Sidewalk_4_Planar	Illuminance	Fc	1.50	3.8	0.3	5.00	12.67
Sidewalk_5_Planar	Illuminance	Fc	1.62	4.8	0.3	5.40	15.33
Sidewalk_Planar	Illuminance	Fc	0.95	3.3	0.3	3.17	11.00
Trespass	Illuminance	Fc	0.03	1.2	0.0	N.A.	N.A.

Lumière

DESCRIPTION

The Aspen 1900-OA bollard features a sleek, contemporary aesthetic and low glare fixed optics. Lamp source selections include LED, incandescent PAR lamps or low voltage MR16 halogen lamps. Luminaires with a halogen source are available with an integral or remote 12V transformer option. Our patented LumaLevel™ leveling system provides quick installation, easy adjustment, secure mounting and protection from vibration. Aspen bollards are available in two standard heights of 24" [610mm] and 30" [762mm].

		Type
Catalog #		S2
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

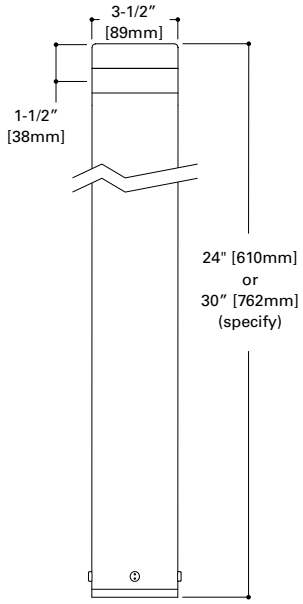
Material
Mounting base and housing are precision-machined from corrosion-resistant 6061-T6 aluminum billet and extrusion.

Finish
Fixture and mounting base are double protected by a RoHS compliant chemical film undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. Fixture housing is available in a variety of standard colors. Mounting base is painted black.

Lens
Lens is machined from solid U.V. stabilized clear acrylic and is designed to produce maximum light output with low brightness.

Adjustable Mounting Base
Machined 6061-T6 aluminum mounting base assembly is equipped with the patented LumaLevel™ leveling system that includes mounting chassis, 70 shore neoprene base pad, stainless steel hardware and 3/4" conduit entry. The LumaLevel™ leveling system provides quick installation, easy adjustment, secure mounting and protection from vibration.

Anchor Bolts & Template
Three (3) 3/8" x 12" galvanized anchor bolts and a galvanized steel anchor bolt template are standard. Anchor bolts and template are available to ship in advance of fixture for rough-in purposes (specify option -LAB and order anchor bolts/template kit separately).



Hardware
Stainless steel hardware is standard to provide maximum corrosion-resistance.

Socket
PAR20: Ceramic socket with 250° CTeflon® coated lead wires and medium base. 50MR16: Ceramic socket with 250° CTeflon® coated lead wires and GU5.3 bi-pin base.

Electrical
20LED: 120-277VAC, 50/60Hz, rated for -40°C to + 40°C [-40°F to 104°F] operation temperature. 50MR16: 12V transformer required (not included). Remote transformer is available from Lumière as an accessory - see the Accessories & Technical Data section of this catalog for details. 50MR16: XXX/12V includes integral electronic transformer - must specify voltage.

LED
LED light engine with integrated driver. Includes four (4) field-adjustable, pushbutton activated light level selections: 100%, 80%, 55%, or 18%. Available in 2700K, 3000K, 3500K and 4000K color temperatures at 80 CRI. Dimmimg: 120V Phase dimming at highest (100%) light level. 120-277V universal 0-10V diming available at 100%, 80% and 55% light levels.

Lamp
Halogen or Incandescent lamp options available. Lamps not included. Soraa lamp compatible.

Warranty
Lumière warrants its fixtures against defects in materials & workmanship for three (3) years for halogen and incadescent or five (5) years for LED. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.

ASPEN

1900-OA
LED
Halogen
Incandescent

APPLICATIONS:
OPEN APERTURE BOLLARD
ACCENT MARKER

WORKS WITH SORAA

CERTIFICATION DATA
UL and cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
IP66 Ingressed Protection Rated

TECHNICAL DATA
20W LED, L70/60,000 hours
40°C Maximum Temperature Rating
50W (max.) MR16
Halogen | Low Voltage | Line Voltage
50W (max.) PAR20
Incandescent | Line Voltage

ORDERING INFORMATION

Sample Number: 1900-OA-24-50MR16-120/12-BZ-LAB

Series	Height	Source	Voltage	Finish	Options
1900-OA=Aspen Bollard Open Aperture	**24**=24" Nominal Height **30**=30" Nominal Height	**LED** **20LED2715**=20W LED, 2700K, 80CRI **20LED3015**=20W LED, 3000K, 80CRI **20LED3515**=20W LED, 3500K, 80CRI **20LED4015**=20W LED, 4000K, 80CRI **Halogen** **50MR16**=50W Max Halogen MR16, GU5.3 Base **Incandescent** **50PAR20**=50W Max Halogen PAR20, Medium Base	**LED** **UNV** =120-277V (50-60Hz) **Halogen (12V remote transformer)** **12**=12V Fixture (Remote Transformer Required - Order Separately) **Halogen (integral transformer)** **120/12**=120V to 12V Integral Transformer **277/12**=277V to 12V Integral Transformer **Incandescent** **120**=120V	**Painted** **BK**=Black **BZ**=Bronze **CS**=City Silver **VE**=Verde **WT**=White	**LAB**=Less Anchor Bolts & Template (Requires Anchor Kit Be Ordered Separately)

ACCESSORIES

Anchor Bolts & Templates
7048PK= Anchor Bolt/Template Kit for 24" & 30" Aspen Bollards

PHOTOMETRY

LUMENS - CRI/CCT TABLE

CCT (K) / Color	CRI Minimum [Typical]	Light Level	Nominal Watts @120V [277V]	Delivered Lumens	lm/W
4000	80 [83] R9	100%	16.9 [19.6]	237	14.0
		80%	12.8 [14.6]	195	15.5
		55%	8.6 [10.1]	142	16.5
		18%	3.8 [4.4]	57	15.0

All specifications subject to tolerance of +/- 10%

CCT MULTIPLIER TABLE

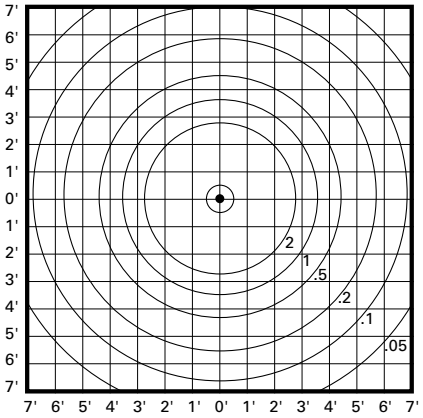
CCT(K) / COLOR	MULTIPLIER
2700K	0.922
3000K	0.953
3500K	0.992
4000K	1.000

Note: Multiplier can be used to calculate Lumens and footcandle (FC) values.

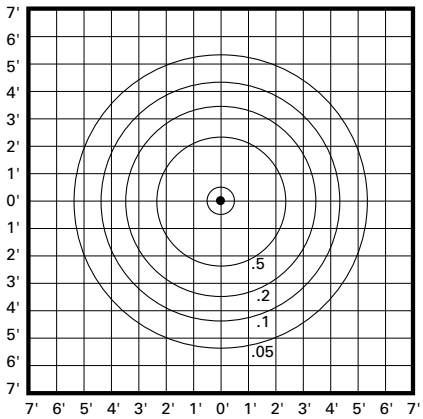
LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	TM-21 Reported L70(10k) (Hours)
25°C	> 85%	> 60,000
40°C		

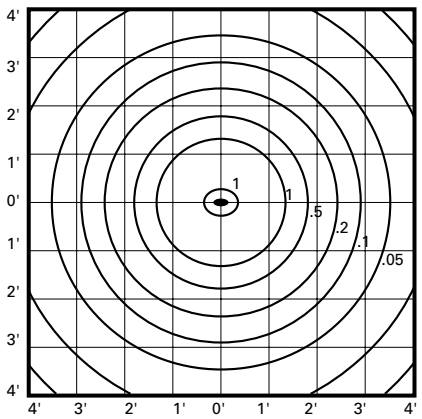
ISO-FOOTCANDLE PLOTS - 24" MOUNTING HEIGHT



FILE NAME: 1900-OA-24-20LED4015-UNV-BK.ies
LAMP: LED MODULE -TLM-R20A-A124015, 4000K
LUMENS: 1280 (module lumens)
WATTS: 15.7
TEST NO: P189461



FILE NAME: 1900-OA-24-50PAR20-120-BK.ies
LAMP: INCANDESCENT 50W PAR20 - 10°
LUMENS: 530
WATTS: 50
TEST NO: P189462



FILE NAME: 1900-OA-24-50MR16.ies
LAMP: HALOGEN 50W MR16 - 10°
LUMENS: 950
WATTS: 50
TEST NO: ITL52169

TECHNICAL NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary.
- The fixture body must be removed from the base to adjusting light level or relamp. Do not try to remove top cap or optical lens.

Type S5

DESCRIPTION

The geometric form of MESA LED luminaire allows it to adapt to either contemporary or traditional architectural settings. Available in single or twin pole mount configurations with optional wall mounting capability, the MESA LED luminaire's mounting options allow for harmonized site design whether at the entryway or in the parking lot. UL/cUL listed for use in wet locations.

Catalog #		Type
Project		§§
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

HOUSING: Die-cast aluminum main housing and spider mount base maintain a minimum 0.125 wall thickness. Integral aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. DOOR ASSEMBLY: Top mounted, heavy wall, die-cast aluminum door maintains a nominal 0.125 thickness. Door includes a self-retaining interior hinge. GASKET: Continuous silicone gasket provided to seal housing door assembly and optic tray. LENS: Downlight lens is LED board integrated acrylic over-optics, each individually sealed for IP66 rating. HARDWARE: Four iinset fasteners on underside of housing provide access to luminaire interior. Concealed, stainless steel four bar hinge lock allows door to lock in the open position.

Optics

Choice of twelve patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics. LightBAR optic tray is removable and able to rotate 360° in 90° increments for specific placement of the distribution relative to fixture.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less that 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

Mounting

Fitter assembly mounts over 3" O.D. tenon and is secured via three concealed stainless steel set screws. Design of fitter provides seamless transition to 4" round poles. Additional mounting accessories include a dual fixture post top mounting arm and wall mount arm.

Finish

Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

Warranty

Five-year warranty.

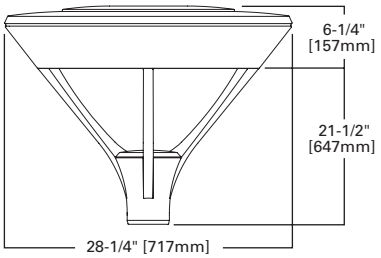
MSA MESA LED

1-6 LightBARs

Solid State LED

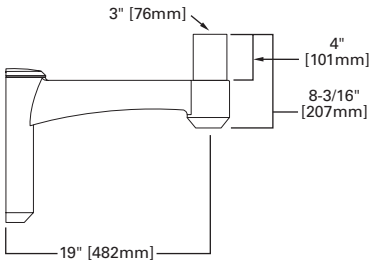
DECORATIVE LUMINAIRE

DIMENSIONS

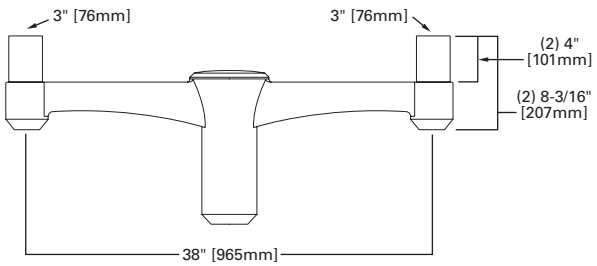


MOUNTING ACCESSORIES

WALL MOUNT ARM



DUAL MOUNT ARM (EPA 1.36)



CERTIFICATION DATA

UL/cUL Listed
ISO 9001
IP66 LightBARs
LM79 / LM80 Compliant
2G Vibration Tested

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

EPA

Effective Projected Area: (Sq. Ft.)
Single Mount 1.1

SHIPPING DATA

Approximate Net Weight:
50 lbs. (22.7 kgs.)

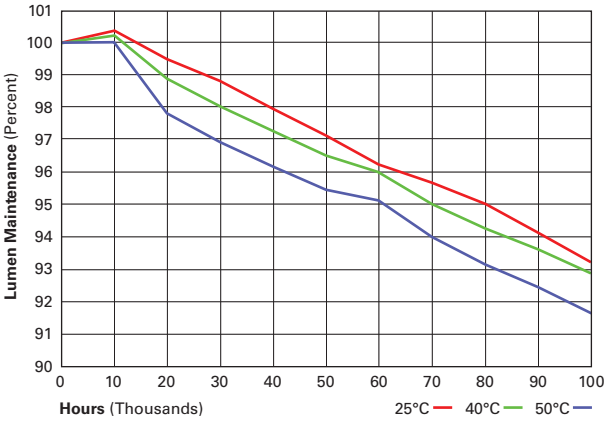
POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBARS)

Number of LightBARs		**E01**	**E02**	**E03**	**E04**	**E05**	**E06**
Drive Current		350mA Drive Current					
Power (Watts)		25W	52W	75W	97W	127W	150W
Current @ 120V (A)		0.22	0.44	0.63	0.82	1.07	1.26
Current @ 277V (A)		0.10	0.20	0.28	0.36	0.48	0.56
Power (Watts)		31W	58W	82W	99W	132W	159W
Current @ 347V (A)		0.11	0.19	0.28	0.29	0.39	0.48
Current @ 480V (A)		0.09	0.15	0.20	0.21	0.30	0.36
T2	Lumens	2,460	4,920	7,379	9,839	12,299	14,759
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T3	Lumens	2,485	4,970	7,456	9,941	12,426	14,911
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T4	Lumens	2,423	4,845	7,268	9,690	12,113	14,535
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
5MQ	Lumens	2,615	5,230	7,844	10,459	13,074	15,689
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	Lumens	2,604	5,207	7,811	10,415	13,018	15,622
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
5XQ	Lumens	2,603	5,206	7,809	10,412	13,015	15,618
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G3	B4-U0-G3	B4-U0-G3
SL2	Lumens	2,445	4,891	7,336	9,781	12,226	14,672
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3
SL3	Lumens	2,461	4,921	7,382	9,842	12,303	14,763
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3
SL4	Lumens	2,376	4,752	7,128	9,504	11,880	14,256
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
RW	Lumens	2,398	4,796	7,194	9,591	11,989	14,387
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4
SLL/SLR	Lumens	2,227	4,453	6,680	8,906	11,133	13,360
	BUG Rating	B1-U1-G1	B1-U1-G2	B1-U1-G3	B1-U1-G3	B2-U2-G3	B2-U2-G4

LUMEN MAINTENANCE

Ambient Temperature	**25,000 Hours***	**50,000 Hours***	**60,000 Hours***	**100,000 Hours**	**Theoretical L70 (Hours)**
25ºC	> 99%	> 97%	> 96%	> 93%	> 450,000
40ºC	> 98%	> 97%	> 96%	> 92%	> 425,000
50ºC	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.



LUMEN MULTIPLIER

Ambient Temperature	**Lumen Multiplier**
10ºC	1.02
15ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.96

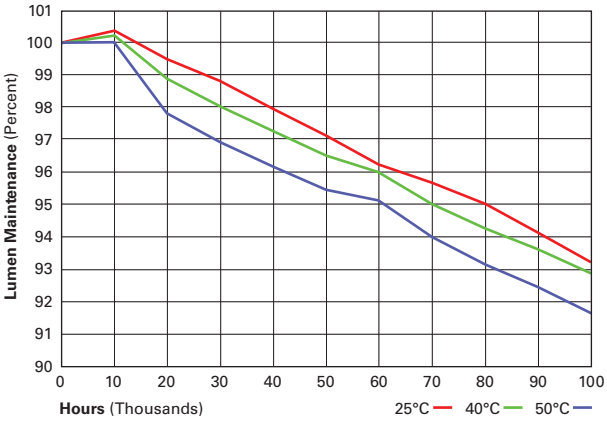
POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBARS)

Number of LightBARs		F01	F02	F03	F04	F05	F06
Drive Current		1A Drive Current					
Power (Watts)		26W	55W	78W	102W	133W	157W
Current @ 120V (A)		0.22	0.46	0.66	0.86	1.12	1.31
Current @ 277V (A)		0.10	0.21	0.29	0.37	0.50	0.58
Power (Watts)		32W	60W	85W	105W	137W	164W
Current @ 347V (A)		0.11	0.19	0.28	0.30	0.41	0.49
Current @ 480V (A)		0.09	0.15	0.21	0.22	0.31	0.37
T2	Lumens	2,031	4,061	6,092	8,122	10,153	12,184
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
T3	Lumens	2,052	4,103	6,155	8,206	10,258	12,310
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
T4	Lumens	2,000	4,000	6,000	7,999	9,999	11,999
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
5MQ	Lumens	2,159	4,317	6,476	8,634	10,793	12,951
	BUG Rating	B1-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2
5WQ	Lumens	2,149	4,299	6,448	8,597	10,747	12,896
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
5XQ	Lumens	2,149	4,298	6,446	8,595	10,744	12,893
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G3
SL2	Lumens	2,019	4,037	6,056	8,075	10,093	12,112
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
SL3	Lumens	2,031	4,062	6,094	8,125	10,156	12,187
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
SL4	Lumens	1,961	3,923	5,884	7,846	9,807	11,769
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
RW	Lumens	1,980	3,959	5,939	7,918	9,898	11,877
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
SLL/SLR	Lumens	1,838	3,676	5,514	7,352	9,191	11,029
	BUG Rating	B0-U1-G1	B1-U1-G2	B1-U1-G2	B1-U1-G3	B1-U1-G3	B2-U2-G3

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25ºC	> 99%	> 97%	> 96%	> 93%	> 450,000
40ºC	> 98%	> 97%	> 96%	> 92%	> 425,000
50ºC	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.



LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10ºC	1.02
15ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.96

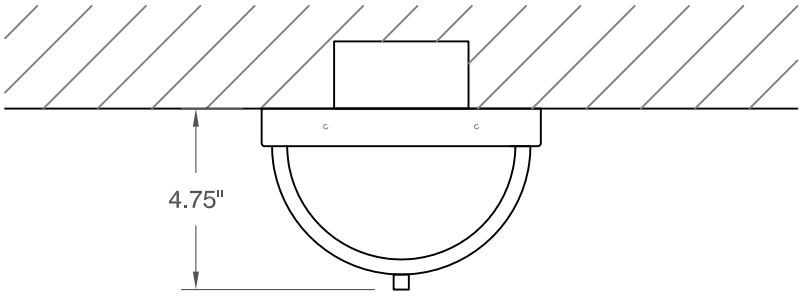
ORDERING INFORMATION

Sample Number: MSA-E06-LED-E1-T3-GM

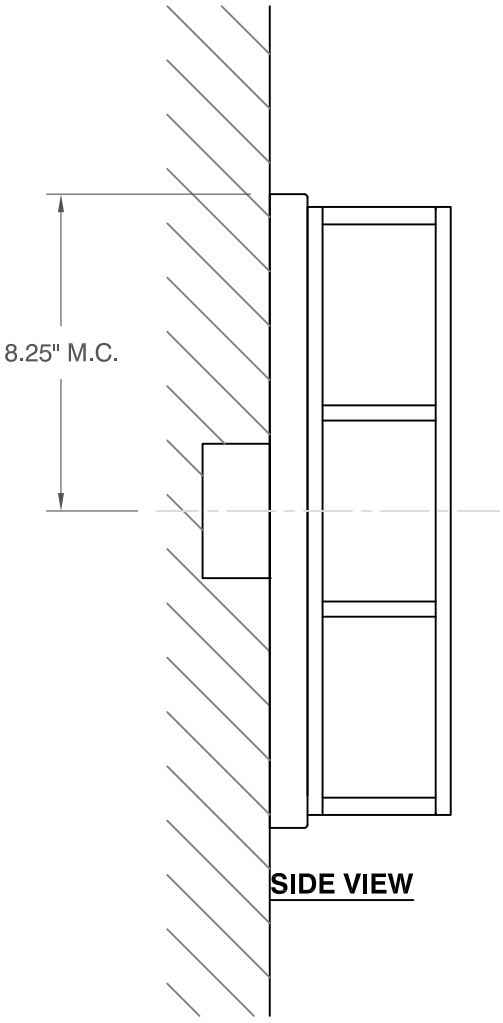
Product Family	Number of LightBARs [1, 2]	Lamp Type	Voltage	Distribution	Color [5]
MSA=Mesa	**E01**=(1) 21 LED LightBAR [3] **E02**=(2) 21 LED LightBARs **E03**=(3) 21 LED LightBARs **E04**=(4) 21 LED LightBARs **E05**=(5) 21 LED LightBARs **E06**=(6) 21 LED LightBARs **F01**=(1) 7 LED LightBAR [3] **F02**=(2) 7 LED LightBARs **F03**=(3) 7 LED LightBARs **F04**=(4) 7 LED LightBARs **F05**=(5) 7 LED LightBARs **F06**=(6) 7 LED LightBARs	**LED**=Solid State Light Emitting Diodes	**E1**=Electronic (120-277V) **347**=347V **480**=480V [4]	**T2**=Type II **T3**=Type III **T4**=Type IV **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **RW**=Rectangular Wide **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **5XQ**=Type V Square Extra Wide **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Accessories** (Order Separately) [11]
PC=Button Type Photocontrol (Specify Voltage) **R**=NEMA Twistlock Photocontrol Recepetacle **2L**=Two Circuits [6] **LCF**=LightBAR Cover Plate Matches Housing Finish **7030**=70 CRI / 3000K CCT [7] **7050**=70 CRI / 5000K CCT [7] **7060**=70 CRI / 5700K CCT [7] **8030**=80 CRI / 3000K CCT [7] **ICB**=Integral Cold Weather Battery Pack (Specify 120 or 277V) [8] **DIMRF-LW**=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [9] **DIMRF-LN**=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [9] **HSS**=Factory Installed House Side Shield [10]	**VA6028-XX**=Dual Mount Arm (EPA 1.38) **VA6029-XX**=Wall Mount Arm **OA/RA1016**=NEMA Photocontrol - Multi-Tap **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **MA1253**=10kV Circuit Module Replacement **LB/HSS-21**=Field Installed House Side Shield for "E" LightBARs [10, 12] **LB/HSS-07**=Field Installed House Side Shield for "F" LightBARs [10, 12]

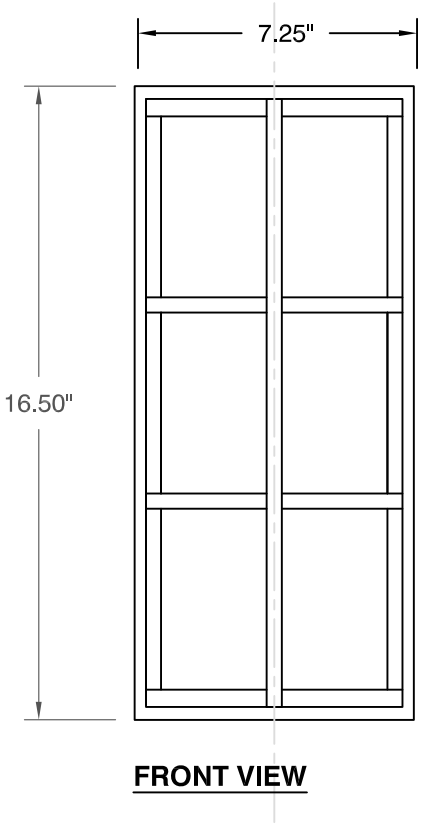
NOTES:
1. Standard 4000K CCT and nominal 70 CRI.
2. 21 LED LightBAR powered at 350mA, 7 LED LightBAR powered at 1A.
3. Streetside orientation 90° to LightBAR.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Cutsom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
6. Low-level output varies by bar count. Consult factory. Not availalbe with 347V or 480V. Requires quantity two or more LightBARs.
7. Consult factory for lead times and lumen multiplier.
8. Available with E01-E04 or F01-F04 configurations only. Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -40°F (-20°C). Operates one LightBAR for 90-minutes. Not available in all configuration, consult factory. Rated for use in 25°C ambient.
9. LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
10. Only for use with SL2, SL3 and SL4 distributions.
11. Replace XX with color designation.
12. One required for each LightBAR.



TOP VIEW



SIDE VIEW



FRONT VIEW

LEDA outdoor

120v **3-712-224**

277v **37-712-224**

LAMPING
- o (1x) 10.1w LED Array
- o 3000k, 350mA
- o Initial Lumens: 1460 lm
- o Delivered Lumens: 684 lm
- o CRI >80
- o Color Consistency: 3 Step MacAdams Ellipse

DRIVER (Dimmable)
- o (1x) 0-10v & Reverse Phase Dimming Constant Current, 12w, 350mA

METAL FINISHES
(All finishes polyester powdercoat)
- o **22 -** Oiled Bronze
- o **24 -** Satin Nickel

DIFFUSER
- o **2** - Matte White Acrylic

INPUT VOLTAGE
- o 120v OR 277v 50/60Hz

DIMENSIONS
- o 7.25" (w) x 16.50" (h) 4.75" (ext.)

SPECIAL NOTE
- o Add caulking around fixture base at the wall to prevent water from entering fixture.

INSTALLATION
- o 4" Octagonal J-Box
- o ETL WET Listed (installer must provide a bead of caulk between fixture housing and mounting surface)
- o Wall mount
- o Conforms to UL STD 1598
- o Certified CAN/CSA STD C22.2 No. 250.0

Sample Catalog Number

Series #		Diffuser	Finish		Catalog Number
3-712	-	**2**	**24**	=	3-712-**224**

oxygen

OXYGEN LIGHTING
201 RAILHEAD RD, FORT WORTH, TX 76106
TEL. (877) 607-0202 FAX (877) 607-0203
WWW.OXYGENLIGHTING.COM

PROJECT: _____

DATE: 19-1425 D 64 of 73

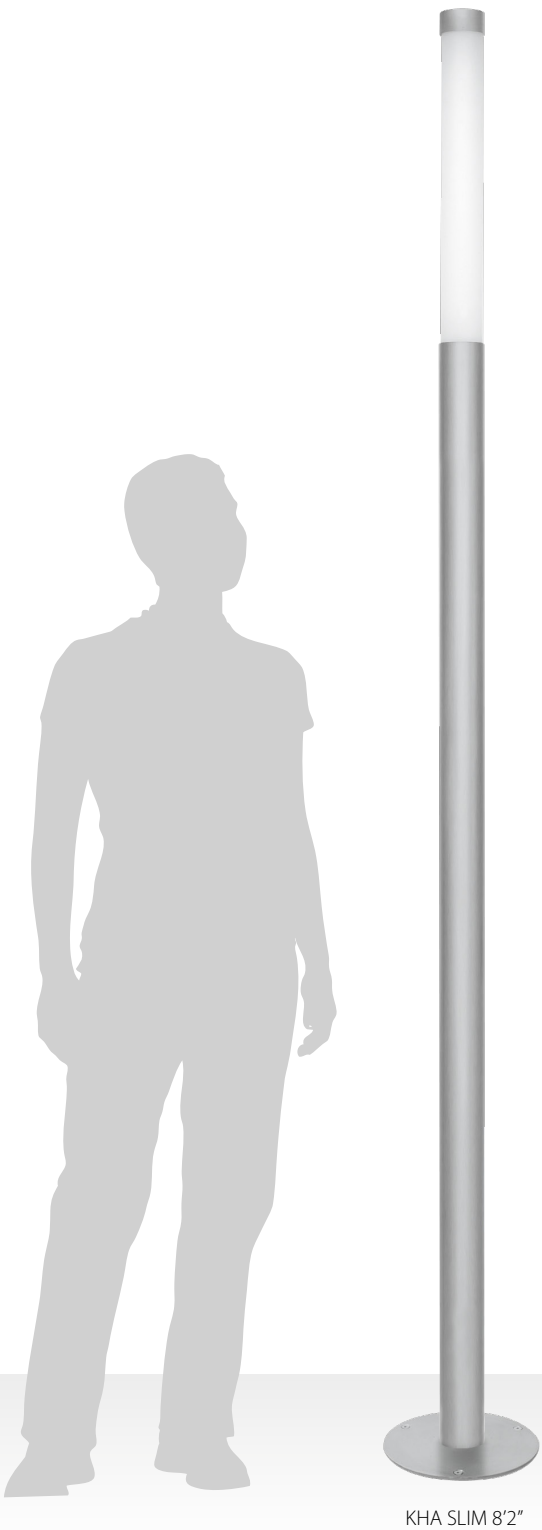
PRISMA® ARCHITECTURAL

PRODUCT CODE

PROJECT

TYPE S1

KHA SLIM 8’2”



KHA SLIM 8’2”

PRISMA ARCHITECTURAL is a brand of Performance in Lighting. - 2621 Keys Pointe - Conyers, Georgia 30013 - USA - voice 770.822.2115 - fax 700.822.9925 - info@pil-usa.com
www.performanceinlighting.com

KHA SLIM 8'2" CFL

TEXTURED BLACK | STAINLESS STEEL | IRON GRAY

Wet location

Double reflector optical system for downward light distribution below horizontal and zero upward light pollution. High efficiency comfortable glare free light is provided through indirect light distribution and the upper facetted reflector. The high performance reflector system is designed to provide an efficient light distribution based on height and area to be illuminated.
-Imax 2 x 80°.
-
-"Body and top manufactured in AISI 316 stainless steel for marine applications, or extruded
-aluminium finished polyester painted Iron grey or Textured black.
-UV stabilised high-tech technopolymer impact resistant lamp cover (PC-HT).
-Reflector in high purity aluminium provides comfortable low glare light control and avoids back reflection onto lamp for improved longevity.
-Technopolymer control gear housing.
-Complete with PA66 IP68 plug for fast easy electrical connection, suitable for 3 x 2,5 mm2 cable ø 9-14 mm.
-Electronic control gear for 120-277 V, 50/60 Hz supply.
-Anti-ageing silicone gaskets.
-Stainless steel external screws."

SOCKET	POWER (W)	FINISH	IP	KELVIN	OPTIC TYPE	OPTIC BEAM	DELIVERED LUMENS (RLO)	LIFETIME	CULUS	UL	VOLTAGE	CODE
COMPACT FLUORESCENT 120 V												
2G11	1x24/55 W	IRON GRAY	IP 66	-	C/EW	-	-	-	•		-	**076338**
2G11	1x24/55 W	STAINLESS STEEL	IP 66	-	C/EW	-	-	-	•		-	**076340**
2G11	1x24/55 W	TEXTURED BLACK	IP 66	-	C/EW	-	-	-	•		-	**076406**
COMPACT FLUORESCENT 277 V												
2G11	1x24/55 W	IRON GRAY	IP 66	-	C/EW	-	-	-	•		-	**076342**
2G11	1x24/55 W	STAINLESS STEEL	IP 66	-	C/EW	-	-	-	•		-	**076344**
2G11	1x24/55 W	TEXTURED BLACK	IP 66	-	C/EW	-	-	-	•		-	**076408**

KHA SLIM 8'2" LED

TEXTURED BLACK | STAINLESS STEEL | IRON GRAY

Wet location

Body and top manufactured in AISI 316 stainless steel for marine applications, or extruded aluminium finished polyester painted Iron grey or Textured black.
-Double reflector optical system for downward light distribution below horizontal and zero upward light pollution. High efficiency comfortable glare free light is provided through indirect light distribution and the upper facetted reflector. The high performance reflector system is designed to provide an efficient light distribution based on height and area to be illuminated.
-Imax 2 x 80°.
-Integral driver and available in 3000, 4000 or 5000 degrees kelvin.
-UV stabilised high-tech technopolymer impact resistant lamp cover (PC-HT).
-Reflector in high purity aluminium provides comfortable low glare light control and avoids back reflection onto lamp for improved longevity.
-Technopolymer control gear housing.
-Complete with PA66 IP68 plug for fast easy electrical connection, suitable for 3 x 2,5 mm2 cable ø 9-14 mm.
-Electronic control gear for 120-277 V, 50/60 Hz supply.
-Anti-ageing silicone gaskets.
-Stainless steel external screws.

SOCKET	POWER (W)	FINISH	IP	KELVIN	OPTIC TYPE	OPTIC BEAM	DELIVERED LUMENS (RLO)	LIFETIME	CULUS	UL	VOLTAGE	CODE
HIGH POWER LEDS 120/277 V												
LED	57 W	IRON GRAY	IP 66	3000	C/EW	-	2290 lm	-			Y	**076434**
LED	57 W	IRON GRAY	IP 66	4000	C/EW	-	2595 lm	-			Y	**076437**
LED	57 W	STAINLESS STEEL	IP 66	3000	C/EW	-	2290 lm	-			Y	**076435**
LED	57 W	STAINLESS STEEL	IP 66	4000	C/EW	-	2595 lm	-			Y	**076438**
LED	57 W	TEXTURED BLACK	IP 66	3000	C/EW	-	2290 lm	-			Y	**076433**
LED	57 W	TEXTURED BLACK	IP 66	4000	C/EW	-	2595 lm	-			Y	**076436**

PRISMA ARCHITECTURAL is a brand of Performance in Lighting. - 2621 Keys Pointe - Conyers, Georgia 30013 - USA - voice 770.822.2115 - fax 700.822.9925 - info@pil-usa.com
www.performanceinlighting.com

OPTIONAL ACCESSORIES

DESCRIPTION	FINISH	CODE
KHA SLIM 8'2"		
A0372 Anchor rods for in-ground concrete mounting stainless steel plate with galvanised steel rods (TYCO11 SLIM/FL only).	-	**14071320**

14071320

PRISMA ARCHITECTURAL is a brand of Performance in Lighting. - 2621 Keys Pointe - Conyers, Georgia 30013 - USA - voice 770.822.2115 - fax 700.822.9925 - info@pil-usa.com
www.performanceinlighting.com

l Springs - El Dorado Fire Protection District
Street Diamond Springs, CA 95619 ~ (530) 626-3190 Fax (530) 626-3188
www.diamondfire.org

Project Planning Comments Letter

Date: 5/4/2017

Evan Mattes
El Dorado County Planning Department
2850 Fair Lane
Placerville, CA 95667

Re: 6035 Service Drive, Diamond Springs, CA
APN: 051-461-59-100
PD17-0002

Dear Mr. Mattes,

The Diamond Springs El Dorado Fire Protection District has reviewed the above referenced project and submits the following comments regarding the ability to provide this site with fire and emergency medical services consistent with the El Dorado County General Plan, State Fire Safe Regulations, as adopted by El Dorado County and the California Fire Code as amended locally. The fire department reserves the right to update the following comments to comply with all current Codes, Standards, Local Ordinances, and Laws in respect to the official documented time of project application and/or building application to the County. Any omissions and/or errors in respect to this letter, as it relates to the aforementioned codes, regulations and plans, shall not be valid, and does not constitute a waiver to the responsible party of the project from complying as required with all Codes, Standards, Local Ordinances, and Laws.

1.1.3 Scope: “The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California”,

Appendix “B” sets for the fire flow for new construction and Appendix “C” sets for the requirements of fire hydrants.

There are 4 types of structures presented in the submitted plans. These are reflected as Type A, B, C and D. The potable water system with the purpose of fire protection for this multifamily residential development shall provide a minimum fire flow per building as listed below:

Building Type A = 4312 ft² (1-bedroom apartment building)
1500 gallons per minute with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a structure up to 11,300 square feet in size, Type V-B construction.

Building Type B = 5396 ft² (2 bedroom apartment building)
1500 gallons per minute with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a structure up to 11,300square feet in size, Type V-B construction.

Building Type C = 6724 ft² (3 bedroom apartment building)
1500 gallons per minute with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a structure up to 11,300 square feet in size, Type V-B construction.

Building Type D = 4804 ft² Community building / common areas / manager residence
1500 gallons per minute with a minimum residual pressure of 20 psi for a two-hour duration. This requirement is based on a structure up to 11,300 square feet in size, Type V-B construction.

Exhibit K

1. **Hydrants:** This development shall install Dry Barrel Fire Hydrants which conform to El Dorado Irrigation District specifications for the purpose of providing water for fire protection. The spacing between hydrants in this development shall not exceed 300 feet. The exact location of each hydrant on private roads and on main county maintained roadways shall be determined by the Fire Department.

2. **Hydrant Visibility:** In order to enhance nighttime visibility, each hydrant shall be painted with safety Red enamel and marked in the roadway with a blue reflective marker as specified by the Fire Department and State Fire Safe Regulations

3. **Fire Flow:** The potable water system with the purpose of fire protection for this residential / commercial development shall provide a minimum fire flow of 1,500 gallons per minute with a minimum residual pressure of 20 psi for a three-hour duration. This requirement is based on a commercial building 11,300 square feet or less in size, Type V-B construction. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of this system shall be supplied to the Fire Department for review and approval.

4. **Underground Private Fire Mains:** After installation, all rods, nuts, bolts, washers, clamps, and other underground connections and restraints used for underground fire main piping and water supplies, except thrust blocks, shall be cleaned and thoroughly coated with a bituminous or other acceptable corrosion retarding material. All private fire service mains shall be installed per NFPA 24, and shall be inspected, tested and maintained per NFPA 25.

5. **Sprinklers:** All structures shall install fire sprinklers in accordance with NFPA 13 and Fire Department requirements. This fire flow rate shall be in excess of the maximum daily consumption rate for this development. A set of engineering calculations reflecting the fire flow capabilities of this system shall be supplied to the Fire Department for review and approval.

6. **Fire Department Access**: Approved fire apparatus access roads and driveways shall be provided for every facility, building, or portion of a building. The fire apparatus access roads and driveways shall comply with the requirements of Section 503 of Diamond Springs El Dorado Fire Protection District as well as State Fire Safe Regulations as stated below (but not limited to):

    a. All One- or Two-family dwelling residential developments, and residential projects with over 100 dwelling units, shall be provided with separate and approved fire apparatus access roads and shall meet the requirements for Remoteness, when required by the Fire Code Official.

    b. All roadways shall be a minimum of 20 feet wide, providing two ten (10) foot traffic lanes, not including shoulder and striping.

    c. Each dead-end road shall have a turnaround constructed at its terminus.

    d. Where parcels are zoned 5 acres or larger, turnarounds shall be provided at a maximum of 1320 foot intervals.

    e. Where maximum dead-end road lengths are exceeded, there shall be a minimum of two access roadways allowing for the safe access of emergency apparatus and civilian evacuation concurrently.

    f. The fire apparatus access roads and driveways shall extend to within 150 feet of all portions of each facility and all portions of the exterior of the first story of the building as measured by an approved route around the exterior of the building or facility.

    g. Driveways and roadways shall have unobstructed vertical clearance of 15’ and a horizontal clearance providing a minimum 2’ on each side of the required driveway or roadway width.

h. Depending on final heights of each building, the final layout of fire apparatus access roads shall be determined and approved by the fire code official with consideration of whether a ladder truck or ground ladders would be used for firefighting operations.

7. **Roadway Surface:** Roadways shall be designed to support the imposed load of fire apparatus weighing at least 75,000 pounds and provide all-weather driving conditions. All-weather surfaces shall be asphalt, concrete or other approved driving surface. Project proponent shall provide engineering specifications to support design, if request by the local AHJ.

8. **Roadway Grades:** The grade for all roads, streets, private lanes and driveways shall not exceed 16%. If paved or concrete, grades may be allowed up to 20%.

9. **Traffic Calming:** This development shall be prohibited from installing any type of traffic calming device that utilizes a raised bump/dip section of roadway. All other proposed traffic calming devices shall require approval by the fire code official.

10. **Turning Radius:** The required turning radius of a fire apparatus access road/driveway shall be determined by the fire code official. Current requirements are 40' inside and 56' outside.

11. **Gates:** All gates shall meet the El Dorado County Gate Standard "AUTOMATIC GATES ON FIRE ACCESS ROADWAYS" STANDARD #B-002 EFFECTIVE 03-23-2009

12. **Fire Access During Construction**: In order to provide this development with adequate fire and emergency medical response during construction, all access roadways and fire hydrant systems shall be installed and in service prior to combustibles being brought onto the site as specified by the Fire Department, Standard B-003. A secondary means of egress shall be provided prior to any construction or the project can be phased.

13. **Fire Service Components:** Any Fire Department Connection (FDC) to the sprinkler system and all Fire Hydrant(s) outlets shall be positioned so as not to be obstructed by a parked vehicle.

14. **Wildland Fire Safe Plan:** This development shall be conditioned to develop, implement, and maintain a Wildland Fire Safe Plan that is approved by the Fire Department as complying with the State Fire Safe Regulations, prior to approval of the Tentative Map.

15. **Fencing:** Lots that back up to wildland open space shall be required to use non-combustible type fencing.

16. **Knox Box and Keys:** All Commercial or Public occupied buildings shall install a Knox Box and building keys including, but not limited to, main entry doors, utility closets, roof accesses, alarm panels, fire sprinkler locks and all other keys required by the fire code official for emergency access. It is recommended, but not required, that residential buildings also add a Knox box and main front door key for improved emergency access.

17. **Parking and Fire Lanes:** All parking restrictions as stated in the current California Fire Code and the current Diamond Springs El Dorado Fire Protection District Ordinance shall be in effect. All streets with parking restrictions will be signed and marked with red curbs as described in the El Dorado County Regional Fire Protection Standard titled "No Parking-Fire Lane". All curbs in the parking lot(s) that are not designated as parking spaces will be painted red and marked every 25 feet "No Parking - Fire Lane." This shall be white letters on a red background. There shall be a designated plan page that shows all Fire Lanes as required by the El Dorado County Regional Fire Protection Standard B-004 "No Parking-Fire Lane" and the fire code official.

a. Section 503.4.3 of the Fire Code of the Diamond Springs-El Dorado Fire Protection District is added to read as follows:
    i. 503.4.3 Roads from 20 to 29 feet in width. Fire apparatus access roads, 20 to 29 feet wide, shall be posted on both sides as a fire lane, with no parking allowed on either side of the roadway.

b. Section 503.4.4 of the Fire Code of the Diamond Springs-El Dorado Fire Protection District is added to read as follows:
    i. 503.4.4 Roads from 30 to 35 feet in width. Fire apparatus access roads, 30 to 35 feet wide, shall be posted on one side as No Parking, Fire Lane, with parking allowed only on the opposite side of the roadway.
c. Section 503.4.5 of the Fire Code of the Diamond Springs-El Dorado Fire Protection District is added to read as follows:
    i. 503.4.5 Roads 36 feet and greater in width. Fire apparatus access roads, 36 feet and greater in width, may allow parking on both sides of the roadway.

18. **Setbacks:** Any parcels greater than one acre shall conform to State Fire Safe Regulations requirements for setbacks (minimum 30' setback for buildings and accessory buildings from all property lines).

19. **Vegetative Fire Clearances:** Prior to June 1st each year, there shall be vegetation clearance around all EVA's (Emergency Vehicle Access), buildings, up to the property line as stated in Public Resources Code Section 4291, Title 19 as referenced in the CA Fire Code, and the conditioned Wildland Fire Safe Plan.

20. **Trail Systems and Land-Locked Access:** If this project decides on designing a trail-type system or contains/abuts to land-locked open space, the project shall be conditioned to provide emergency vehicle access (EVA) points as required by the fire code official. Gates may be installed and locked with a low priority KNOX lock. The street curbs adjacent to the trail access point shall be painted red. All trails and multi-use paths need to be constructed so as to ensure a minimum of a 10' drivable width *and* 14' minimum vegetation clearance (the wildfire safe plan will likely require additional clearance on these paths). The purpose of this requirement is to allow access for ambulances and smaller fire apparatus in case of emergency.

21. **Knox Key Shunt:** A Knox Key Shunt system shall be installed to terminate power to all back-up power generators.

22. **Addressing:** Approved numbers or addresses shall be provided for all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property, as per El Dorado County Standard B-001.

23. **Landscaping:** The landscaping plan shall be reviewed by the Fire Department to ensure that trees, plants, and other landscaping features proposed to be adjacent to the Fire Apparatus Access roads, Fire and Life Safety equipment, and near address locations on buildings and monuments will not impede fire apparatus access or visual recognition.

24. **Improvement (Civil) Plans:** A Fire plan sheet shall be included in the improvement plans that shows or lists all requirements from the Fire Department as they relate to design of the subdivision. These requirements include, but are not limited to, Fire Lanes (and how they relate to allowed parking), Hydrants, Turning Radius of all turns, Slope % of Roads/Driveways, 2 Points of Egress for the Public and Emergency Personnel, EVA's as required, Road Widths, Gates, etc.

25. **Building and Fire Plans:** Building, fire sprinkler and fire alarm plans shall be reviewed and approved by the fire department prior to respective permit issuance. The plans shall provide the use and occupancy classification for each building for future comments in regards to fire sprinklers, fire alarms, exiting, occupant loads, and other fire and life safety features. There shall be a designated plan page that shows all Fire Lanes as required by the El Dorado County Regional Fire Protection Standard B-004 "No Parking-Fire Lane" and the fire code official.

Approval of subject project is conditioned on meeting the public safety and fire protection requirements of the County of El Dorado General Plan, which shall include provision of a financing mechanism for such services. The financing mechanism shall include inclusion within, or annexation into, a Community Facilities District ("CFD")

established under the Mello-Roos Community Facilities Act of 1982 (Government Code § 53311 et seq.) established by the Diamond Springs / El Dorado Fire Protection District ("District") for the provision of public services permitted under Government Code § 53313, including fire suppression services, emergency medical services, fire prevention activities and other services (collectively "Public Services"), and as such, shall be subject to the special tax approved with the formation of such CFD with the Tract's inclusion or annexation into the CFD. 1 County of El Dorado General Plan sections Policy 5.1.2 and Policy 6.2.3.

Contact the front office at the Diamond Springs El Dorado Fire Protection District with any questions or to schedule inspections, tests (min. 2 working days in advance) at 530-626-3190. Thank you.

Sincerely,

DIAMOND SPRINGS EL DORADO FIRE PROTECTION DISTRICT

Deputy Chief / Fire Marshal

cc: El Dorado Irrigation District