CITY OF COTTONWOOD
PLANNING & ZONING COMMISSION
COTTONWOOD COMMUNITY CLUB HOUSE
805 N. Main St.
Cottonwood, AZ 86326

REGULAR MEETING
Monday, June 15, 2020
6:00 p.m.

I. CALL TO ORDER

A. Roll Call
B. Approval of Minutes: May 18, 2020 Regular Meeting

II. INFORMATIONAL REPORTS AND UPDATES:

A brief summary of current events by Chairperson, Commission members, and/or Community Development Director. (The public body does not propose, discuss, deliberate, or take legal action on any matter brought up during this summary unless the matter is properly noticed for legal action).

III. CALL TO THE PUBLIC

This is the time for the public to comment on any matter that does not appear on the agenda. Commission members may not discuss items not identified on the agenda. Pursuant to A.R.S. §38-431.01(H), action taken as a result of public comment will be limited to directing staff to study the matter, responding to criticism, or scheduling the matter for consideration at a later date. Comments are limited to five minutes for each person.

IV. OLD BUSINESS: NONE

Information on the above agenda items may be obtained in person from the Community Development Department, 111 N. Main Street in Cottonwood, or by calling (928) 634-5505.

A verbal comment period will be provided during each hearing item. The Chair may impose a time limit on each speaker. The Commission will not consider written materials submitted less than three working days before the meeting.

Pursuant to A.R.S. § 38-431.02(B) the Commission may vote to go into executive session on any agenda item pursuant to A.R.S. § 38-431.03(A)(3) and (4) for discussion and consultation for legal advice with the City Attorney.

The Cottonwood Council Chambers and Community Club House are accessible to the handicapped in accordance with Federal "504" and "ADA" laws. Those with needs for special typeface print or hearing devices may request these from the Planning Technician at 634-5505 (TDD 634-5526). All requests must be made at least 24 hours before the meeting.

Members of the Planning Commission will attend either in person or by telephone conference call.

V. NEW BUSINESS:

1. **CUP 18-009 MODIFICATION: BELFRY SIGNAGE– BELFRY BREWING COMPANY -** A request for a Modification to a Conditional Use Permit to allow signage at the subject site to exceed the square footage and quantity of signage permitted by the zoning code as proposed in the applicant's sign plan. CUP 18-009 was approved Dec. 17, 2018 to operate a brew pub with on-site food and beverage and wholesale of product to offsite accounts. The project is in a C-1 (Light Commercial) zone in the Cottonwood Commercial Historic District located at 791 North Main St. APN: 406-38-019C Owner: BOTC Real Estate Holdings, LLC, Applicant: Robert Conlin.

2. **CUP 20-004 GROSETA RANCHES LLC –** A request for a Conditional Use Permit to allow the keeping of livestock and the installation of barbed wire fencing in a C-1 (Light Commercial) zone. The project is located at the southeast corner of East Cottonwood Street and Cove Parkway, APN:406-04-034G Owner: Groseta Ranches, LLC, Applicant: Andy Groseta.

3. **CUP 20-005 AND DR 20-003 - SPRINGHILL SUITES -** A request for a Conditional Use Permit and Design Review to increase the allowed building height from 2½ (two and one half) to 3 (three) stories for a hotel on property located at 535 South 6th Street. The project is located in an I-2 (Heavy Industrial) zone located on the east side of 6th Street just north of State Route 89A. APN:406-06-009 Owner: City of Cottonwood, Applicant: San Tan Partners, LLC; Richardson Design Partnership; and Sunridge Properties.

4. **ZO 20-002 AMENDMENT TO SECTIONS 201 DEFINITIONS, GENERAL; 404 GENERAL PROVISIONS; 410 GA ZONE (GENERAL AGRICULTURE), 411 AR-43 ZONE (AGRICULTURAL RESIDENTIAL), 412 AR-20 ZONE (AGRICULTURAL RESIDENTIAL), 413 R-1 ZONE (SINGLE FAMILY RESIDENTIAL), 416 R-4 ZONE (SINGLE FAMILY/MULTIPLE FAMILY/MANUFACTURED HOME), 417 MH ZONE (MANUFACTURED HOME), 420 CR ZONE (COMMERCIAL RESIDENTIAL), AND 425 AR-70 ZONE (AGRICULTURAL RESIDENTIAL) - TINY HOUSES -** Consideration of a Zoning Ordinance text amendment to Section 404 General Provisions, creating Section CC Tiny Houses, with related text amendments to Sections 201, 410, 411, 412, 413, 416, 417, 420, and 425 regarding standards for Tiny Houses.

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5. **ZO 20-005 AMENDMENT TO SECTION 408 OUTDOOR LIGHTING -** Consideration of a Zoning Ordinance text amendment to Section 408.G Lighting Requirements, regarding the standards for lighting on lots smaller than one half acre.

VI. DISCUSSION ITEMS:

VII. SUGGESTED TOPICS FOR FUTURE MEETINGS:

VIII. ADJOURNMENT

Notice is hereby given that pursuant to A.R.S. subject to certain specified statutory exceptions, parents have a right to consent before the State or any of its political subdivisions make a video or audio recording of a minor child. Meetings of the City Council are audio and/or video recorded, and, as a result, proceedings in which children are present may be subject to such recording. Parents in order to exercise their rights may either file written consent with the City Clerk to such recording, or take personal action to ensure that their child or children are not present when a recording may be made. If a child is present at the time a recording is made, the City will assume that the rights afforded parents pursuant to A.R.S. have been waived.

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805 N. Main St.
Cottonwood, AZ 86326

REGULAR MEETING
Monday, May 18, 2020
6:00PM

I. CALL TO ORDER

Chairman Williams called the meeting to order at 6:00 p.m.

A. Roll Call

Planning & Zoning Commission Members Present

Commissioner Dowell
Commissioner Masten
Commissioner Sherman
Commissioner Hart
Chairman Williams

Planning & Zoning Commission Members Absent

Vice Chairman Dowling

Staff Members Present
Scott Ellis, Community Development Director
Jim Padgett, Planner
Ron Corbin, City Manager
Rudy Rodriguez, Deputy City Manager
Cassidy Presmyk, Administrative Assistant, Recorder

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B. Approval of Minutes: March 16, 2020 Regular Meeting

Motion: To approve minutes of the December 16, 2019 Regular Meeting.

Made by: *Chairman Williams*

Second: *Commissioner Hart*

Vote: *unanimous*

II. INFORMATIONAL REPORTS AND UPDATES:

Director Ellis introduced new Administrative Assistant (Cassidy Presmyk). Gateway Greens Project is moving very slow, their first phase was completed a few years ago, and the second phase is going forward, inspections are still taking place. This is a preapproved project, with no time limit and original plans.

The June Planning and Zoning Meeting will be happening, we are just unsure of location at this time due to social distancing requirements.

III. CALL TO THE PUBLIC

IV. OLD BUSINESS:

1. **DR 19-013 VERIZON RETAIL STORE –** Request for Design Review of a new 2,000 square foot retail store. The subject parcel is zones C-1 (Light Commercial), located at 875 S. Main Street. APN 406-04-033D. Owner: Woodys Enterprises Ltd. Agent/Representative: SimonCRE Saltair III, LLC

Planner Davis presented this project's updates by showing visuals of the exterior change in color scheme, driveways and design of parking lot. Applicant Peter Krahenbuhl attended via phone to answer questions.

Commissioner Hart expressed concern over the pedestrian walkway and percent of slope. Staff answered by showing the changes that had happened for the pedestrian walkway and Peter Krahenbuhl was able to answer his questions by stating the slope does drop with the elevation but they had taken that into consideration with the proposed changes.

Commissioner Hart also wanted to know if the trash enclosure could be moved to the last two parking spaces, but Mr. Krahenbuhl replied that they had looked into that option, but due to parking

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needs, they could not satisfy that move. They do plan on having trash pickup hours to be after business hours to alleviate any safety issues.

Chairman Williams asked for clarification that ADOT still needs to approve this. Mr. Krahenbuhl and Staff both confirmed.

Chairman Williams closed the floor to the public.

Motion: To approve Design Review 19-013 subject to the following stipulations:

1. That the project shall be developed in conformance with the development plans as approved at the Planning and Zoning Commission at the May 18, 2020 meeting.
2. The project shall conform to Code Review Board comments dated November 6, 2019.
3. Any irrigation and fire lines shall have an approved backflow device installed and certified before water service is permitted. If an additional fire line is required, the contractor will be responsible to arrange the tap by a licensed and certified contractor.
4. The project shall have a signed shared access agreement with the owner of the property to the south assuring a second means of access to the property.
5. The project shall comply with all Building, Engineering and Fire Department requirements.
6. A Certificate of Zoning Compliance documenting the completion of conditions shall be issued within 24 months of the Planning Commission action.
7. The development plan shall be subject to Arizona Department of Transportation (ADOT) review and approval.
8. Any further significant revision to the site plan shall require a new application for Design Review.
9. Trash pickup will only be conducted after business hours.
10. Any other stipulations the Planning and Zoning Commission deems necessary.

Made by: *Commissioner Dowell*

Second: *Commissioner Hart*

Vote: *unanimous*

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V. NEW BUSINESS:

1. **ZO 20-003 AMENDMENT TO SECTION 404 GENERAL PROVISIONS, AMENDING SECTION 404. W OUTSIDE DISPLAY/USE OF PUBLIC SIDEWALKS** – Considerations of a Zoning Ordinance text amendment to Section 404.W, replacing current regulations for Outside Display with new regulations for Use of Public Sidewalks.

Planner Davis presented project in detail. He stated towards the end of his presentation that there are no objections from the downtown community in regards to these changes. Director Ellis stated that City Council is wanting to go forward with this project.

Commissioner Hart asked for a clarification on bullet 4 on the Staff Report, and Director Ellis explained how they included the current Zoning Ordinance text.

Commissioner Dowell asked where else besides downtown would this affect. Staff replied by saying he wasn't aware of anywhere else it would affect.

Commissioner Dowell also asked an estimated number of businesses that will have to change their current structures. Director Ellis answered no changes will be needed as of now. We did have a recent one that did not meet requirements, but they have since come into compliance. Staff also noted that there are some light poles that have three foot clearances on the sidewalks. Commissioner Dowell stated he just wants to ensure we are ADA compliant. Director Ellis stated that all businesses, as far as they can tell, are in compliance.

Commissioner Dowell asked, do businesses currently have insurance on those outside areas? Director Ellis answered they are supposed to, and he is pretty sure those who need it, do.

Commissioner Sherman asked if noise or live music will still be allowed at the wineries and bars, will this affect their business. Staff answered by saying 1J on the second page is intended to curb the "boom box" or personal music appeal. Director Ellis stated this will not hinder businesses, but their music should be kept within their areas.

Commissioner Sherman asked what would the process be for non-permanent structures, like furniture during the day that they bring in at night. Staff answered by saying if it's just a rack coming out for display, that would not need approval. It cannot be more than six feet tall. There are no provisions for non-permanent structures.

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Motion: To recommend approval to the City Council amendments to Section 404.W, replacing current regulations for Outside Display with new regulations for Use of Public Sidewalks.

Made by: *Commissioner Dowell*

Second: *Commissioner Sherman*

Roll Call Vote: *Unanimous*

2. **ZO 20-004 AMENDMENT TO SECTION 414 R-2 ZONING DISTRICT, AMENDING SECTION 414.D PROPERTY DEVELOPMENT STANDARDS -** Consideration of a Zoning Ordinance text amendment to Section 414.D regarding minimum rear setback standards in the R-2 (Single Family/Multiple Family Residential) Zoning District.

Planner Davis presented the proposed changes. No questions were asked after presentation.

Motion: To recommend approval to the City Council amendments to Section 414.D, changing minimum rear yard setback standards in the R-2 Zoning District.

Made by: *Commissioner Dowell*

Second: *Commissioner Masten*

Roll Call Vote: *Unanimous*

VI. DISCUSSION ITEMS:

VII. SUGGESTED TOPICS FOR FUTURE MEETINGS:

VIII. ADJOURNMENT: 6:41 p.m.

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STAFF MEMO

TO: Planning and Zoning Commission

FROM: Jim Padgett, Planner

HEARING DATE: June 15, 2020

PROJECT NUMBER: **PCU 18-009-MOD**

The applicant is requesting a Conditional Use Permit Modification to allow five (5) signs for the renovation of an existing historic building to be used as a brew pub/restaurant. The property is zoned C-1 (Light Commercial) and is located at 791 N. Main Street, within the boundaries of the Cottonwood Commercial Historic District.

PROJECT DATA AND FACTS:

Applicant	Robert Conlin P.O. Box 1343 Jerome, AZ 86331
Property Owner	BOTC Real Estate Holdings, LLC. 25 Donaldson Dr. Sedona, AZ 86336-5325
Location of Property	791 N. Main St. APN 406-38-019C
Present Zoning and Land Use	The property is zoned C-1 (Light Commercial). The site is currently occupied with an existing historic building that occupies the majority of the subject parcel.
Description of Applicant's Request	Request for a Conditional Use Permit for a sign plan for the renovation of an existing historic building to be used as a brew pub/restaurant.

LAND USE:

Description and Character of Surrounding Area
The site is located on the north side of Main Street west of the intersection with Willard Road. The site is presently occupied by an existing historic building originally constructed as a church in 1927 and currently under renovation intended to be a brew pub. The property has been various uses including most recently as the Cottonwood Recreation Center which closed when the new City Recreation Center opened in 2010. The surrounding area is a mix of retail, restaurant and civic buildings.

Adjacent Land Uses and Zoning	
North:	C-1 (Light Commercial) City of Cottonwood Club House
South:	C-1 (Light Commercial) Restaurant and Antique Store
East:	C-1 (Light Commercial) The adjacent property is an access driveway to the city owned park area and also adjacent to the Blowout Creek
West:	C-1 (Light Commercial) Parking Lot

PROJECT PROPOSAL:

Background: The applicant received approval of a Conditional Use Permit in December of 2018 in order to renovate the historic building and operate a brew pub/restaurant. The Conditional Use Permit was required to allow beer to be sold wholesale to off-site locations and the approval stipulated that the sign plan be brought back to the Planning Commission for review.

Signage: The applicant has submitted the sign plan to comply with the requirement to have the Planning Commission review the signs. The subject site is within the Cottonwood Commercial Historic District which has certain zoning requirements specific to that district. However, some of the sign requirements are specifically for properties that front directly on Main Street which this building does not. (Generally, only those properties fronting on Main Street are where the front of the building is adjacent to the sidewalk, where this property is set back on its own parcel.)

> Section 405.G.2 allows the following:
> Number: On a premise other than a shopping center not more than two (2) signs for any allowed use shall be displayed on any one (1) street except that additional signs may be allowed by Conditional Use Permit.

The sign requirements for properties within the Historic District provide for standards that apply to buildings that front directly on Main Street also allows for a Conditional Use Permit for the quantity of signs:

> Section 405.H.3: Number: No more than two (2) signs for any allowed use shall be displayed on any one (1) street except that additional signs may be allowed by Conditional Use Permit.

Properties in the Historic District fronting on Main Street are permitted one cantilevered sign, where other commercial districts do not provide for the same type of sign. One of the signs proposed is a cantilevered sign. Sign standards in the Historic District would allow for a cantilevered sign not to exceed 24 square feet. The cantilevered sign proposed is 25 square feet. Additional square footage may be allowed by Conditional Use Permit.

The submitted sign plan shows a total of five (5) signs as follows:

1. Sign above the primary entrance is 43.3 square feet
2. Sign above secondary entrance is 18.3 square feet
3. Sign on the northeast corner of the building is 24 square feet
4. Cantilevered sign is 25 square feet
5. Monument sign is 25 square feet.

Total signage proposed is 135.6 square feet. The proposed monument sign will not be an electronic message sign, but will have changeable text areas which will be manually changed. This would be similar to the sign shown in the historic photo.

The sign plan submitted meets the requirements for signs permitted in general C-1 commercial districts as well as the sign requirements for the Historic District. The Zoning Ordinance allows the Planning Commission to approve the quantity and size of the signs with a Conditional Use Permit.

Parking: The installation of signage does not affect the location or quantity of any parking spaces.

Access: The installation of signage does not affect the location or quantity of any parking access driveways or internal parking areas.

Screening: No screening is proposed or required for the subject property. All surrounding properties are zoned C1 as is the subject property. This sign plan does not modify any screening requirement.

Landscape Plans: The landscape plans were approved as a part of the original approval of CUP 18-009 and is not proposed to be changed.

Lighting: Exterior lighting for the project will be in conformance with city dark sky lighting ordinance.

Utilities: All required utilities are available to the site.

REQUIRED FINDINGS:

A Conditional Use Permit shall only be granted if the approving body determines that the project conforms to the required findings in this Section: Zoning Ordinance, Section 302. If it is determined that it is not possible to confirm the required findings for the proposed CUP, whether as submitted or through conditions that may be required, the application shall be denied. The specific basis for any decision shall be established in the record as findings of fact. The following criteria shall be considered as the basis for the findings to approve, approve with conditions or deny the Conditional Use Permit:

General Findings:

The subject property is within the boundaries of the C-1 (Light Commercial) zoning district and the Commercial Historic District. The signs as proposed will not be detrimental to the health, safety, and well-being of surrounding properties. Although the property does not front directly on Main Street, the sign plan complies with the zoning code and the Conditional Use Permit allows for the flexibility in signage.

Compatibility with Surrounding Uses:

The sign plan is compatible with the mixture of existing signs in the surrounding area. Multiple properties in the vicinity currently operate with similar or larger signage.

Traffic and Circulation: The location of the proposed drive aisles and parking areas provide adequate circulation for the property. The subject property is within the boundaries of the Cottonwood Commercial Historic District and is not required to provide additional on-site parking.

Nuisance Activities:

No nuisance activities have been identified at this location for the proposed use.

Buffering and Screening: The subject site is not adjacent to residential uses and is not required to provide additional buffering or screening.

CRB Review: The original project (CUP 18-009) was reviewed by the CRB (Code Review Board) on August 7, 2018. The applicant will be required to meet all code requirements and address all department comments as indicated.

Staff Review:

Staff has reviewed this project and finds the sign plan as requested is permitted, with the need to obtain a Conditional Use Permit and does recommend approval.

If the Commission desires to approve this item, the suggested motion is:

I move to approve CUP 18-009 MOD to allow Robert Conlin as Belfry Brewery to install signage as requested by the proposed sign plan, subject to the following stipulations:

1. That the project conforms to the Code Review Board comments for CUP 18-009 dated August 21, 2018 and any comments from prior, current and future reviews of this project shall be adhered to.

2. A Certificate of Zoning Compliance documenting the completion of conditions shall be issued prior to issuance of a Certificate of Occupancy.

3. A Right of Way permit shall be obtained from the Public Works Department prior to any work or landscaping in the right of way.

4. The monument sign shall maintain a minimum distance of five (5) feet from the leading edge of the sign to the property boundary.

5. Building Permits shall be applied for within one (1) year from the date of approval by the Planning & Zoning Commission or the Conditional Use Permit shall be subject to revocation procedures.

6. The City of Cottonwood reserves the right to revoke the Conditional Use Permit (CUP) if the use creates an irremediable public safety problem as determined by the City.

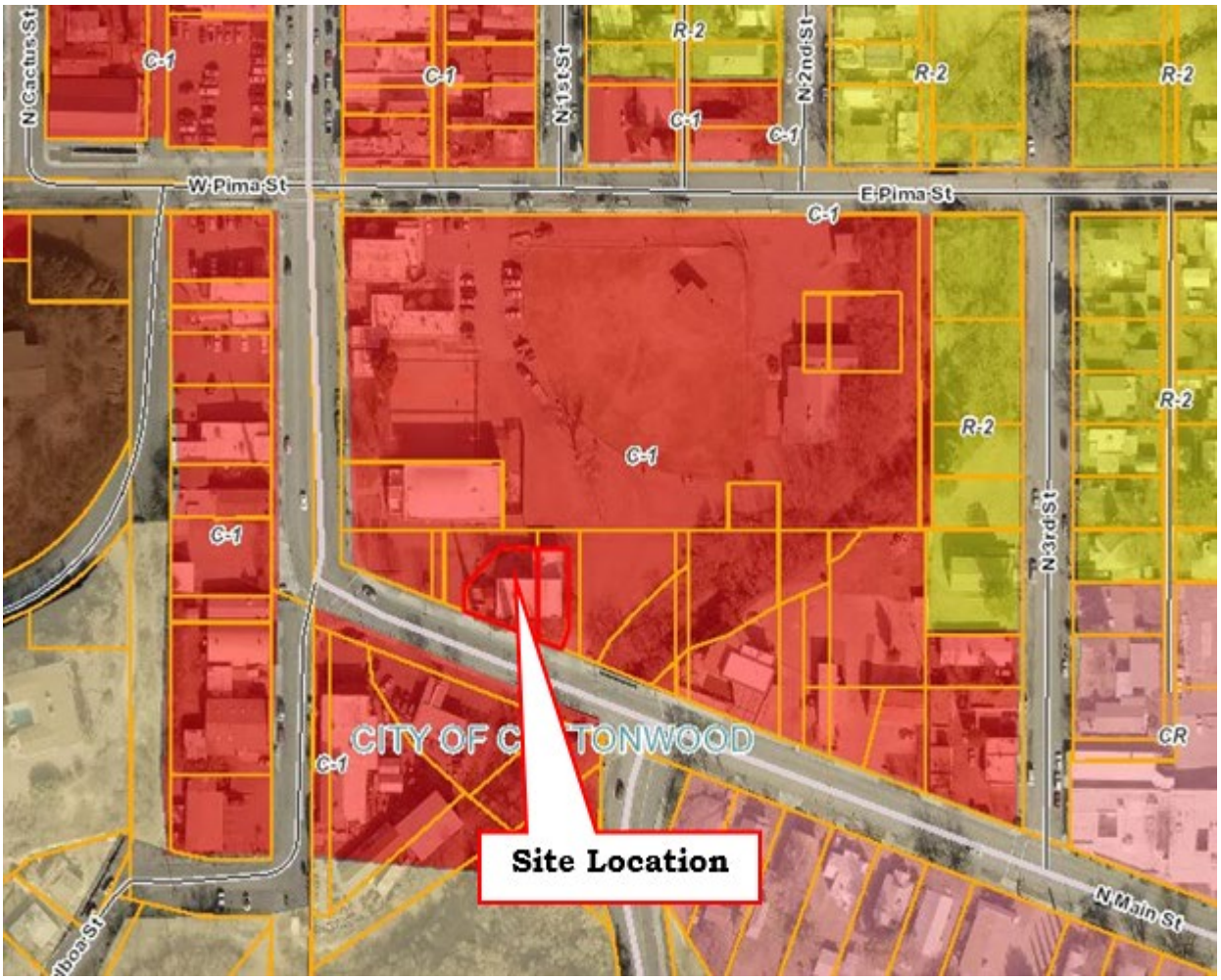
7. Any other stipulations the Planning & Zoning Commission deems necessary.

Attachments: Application and Letter of Intent
Vicinity Map
Sign Plan

VICINITY MAP

791 N. Main St

PCU 18-009-MOD



CONDITIONAL USE APPLICATION

CDD Development Application #202

PROPERTY OWNER

Name: BOTC Real Estate Holdings LLC

Address: 791 N. Main St. City: Cottonwood

State: AZ Zip: 86331 Phone: 928-451-6962 Cell:

Fax: N/A E-Mail robertconlin@hotmail.com

AGENT/REPRESENTITIVE

IDENTIFY THE PERSON WHO WILL COMMUNICATE WITH CITY STAFF, AND RECEIVE CORRESPONDENCE DURING THE HEARING PROCESS. CITY STAFF WILL NOT ACCEPT RESPONSIBILITY FOR COMMUNICATING WITH OTHER PROJECT PERSONNEL

Name: Robert Conlin

Address: 600 N. Spring Creek Trl City: Cornville

State: AZ Zip: 86325 Phone: 928-451-6962 Cell:

Fax: E-Mail robertconlin@hotmail.com

REQUEST:

Approval of Sign Package.

IDENTIFY ANY NECESSARY CODE EXCEPTIONS:

APPLICATION NUMBER: CUP 18-009 Sign Plan

ZONING: C-1

APPLICATION DATE: 5-20-2020

FEES: N/A

RECEIPT #: N/A

DATE:

TAKEN BY: J Padgett

ASSESSOR'S PARCEL NUMBER(S) 406-38-019C **ACRES**

SITE ADDRESS (if applicable) 791 N. Main St., Cottonwood, AZ 86326

SUBDIVISION: **LOT(S):** **BLOCK:** **UNIT:**

☐ Legal description attached (for Metes & Bounds Parcel or for Subdivision Lot Split)

I hereby certify that the information in this application is complete and accurate; and that I am the applicant of the bona fide agent of same as state above.

Signature: Date: 5-19-2020

Please Print Name: Robert Conlin

Rev. 2/14

BOTC Real Estate Holdings, LLC
406-38-019C
791 N. Main St.
Cottonwood, AZ 86326

May 20th, 2020

To Whom it May Concern,

BOTC Real Estate Holdings, LLC is applying for C.U.P. for sign package for the 7000 sq. foot redeveloped historic building located at 791 N. Main Street. The property, known as "Belfry wood-fired grill and brewery", features a wood-fired grill, brewery, taproom and outdoor beer garden. The property has multiple street frontages on Main Street as well as across the ball field to E. Pinal Street. The building sits at the entryway to the Commercial Historic District.

We present you with our sign package for review as stipulated in the original Planning and Zoning project approval. The sign package consists of 5 signs that we believe are commensurate with the size, stature, historic nature and multiple frontages of the subject property.

Thank you for your consideration,

Robert D. Conlin Jr.
Manager
BOTC Real Estate Holdings

- Building Signs
- Blade Sign
- Monument Sign

928 SIGN COMPANY LLC.
ROC#299523 . BONDED . INSURED

e. Jason@SIGNS928.com p. 928.639.9411 f. 928.639.9412 - 154 S. Main St. Cottonwood, AZ 86326

www.928signco.com

* Illuminated displays will be wired for 120 volt power unless otherwise noted.
* Cost for providing necessary electrical wiring to sign area is not included in sign proposal.

ISA MEMBER · Arizona Sign Association MEMBER

SALES APPROVAL:

DATE:

REV. #	DATE	BY	REV. #	DATE	BY

FIRM NAME / PROJECT ADDRESS

FILE DESIGN NUMBER

ORIGINAL DATE:

ORIG. DESIGNER: A Harwood

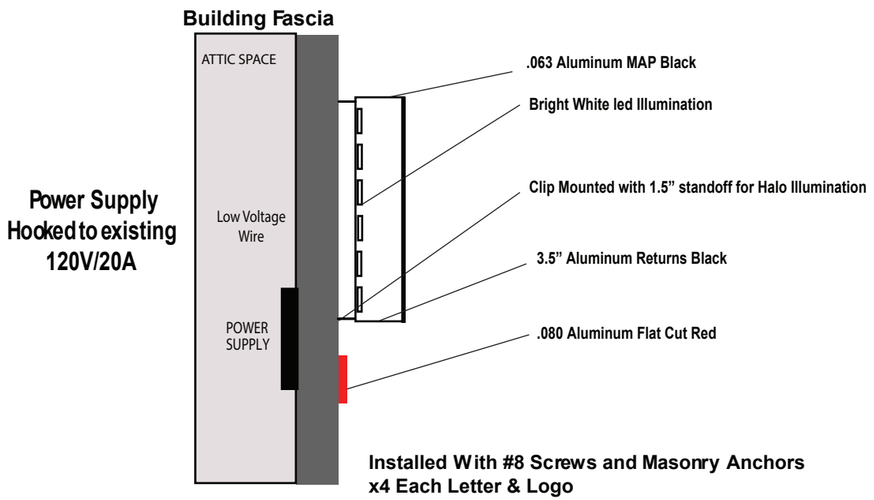
SALESPERSON J Keller SCALE:

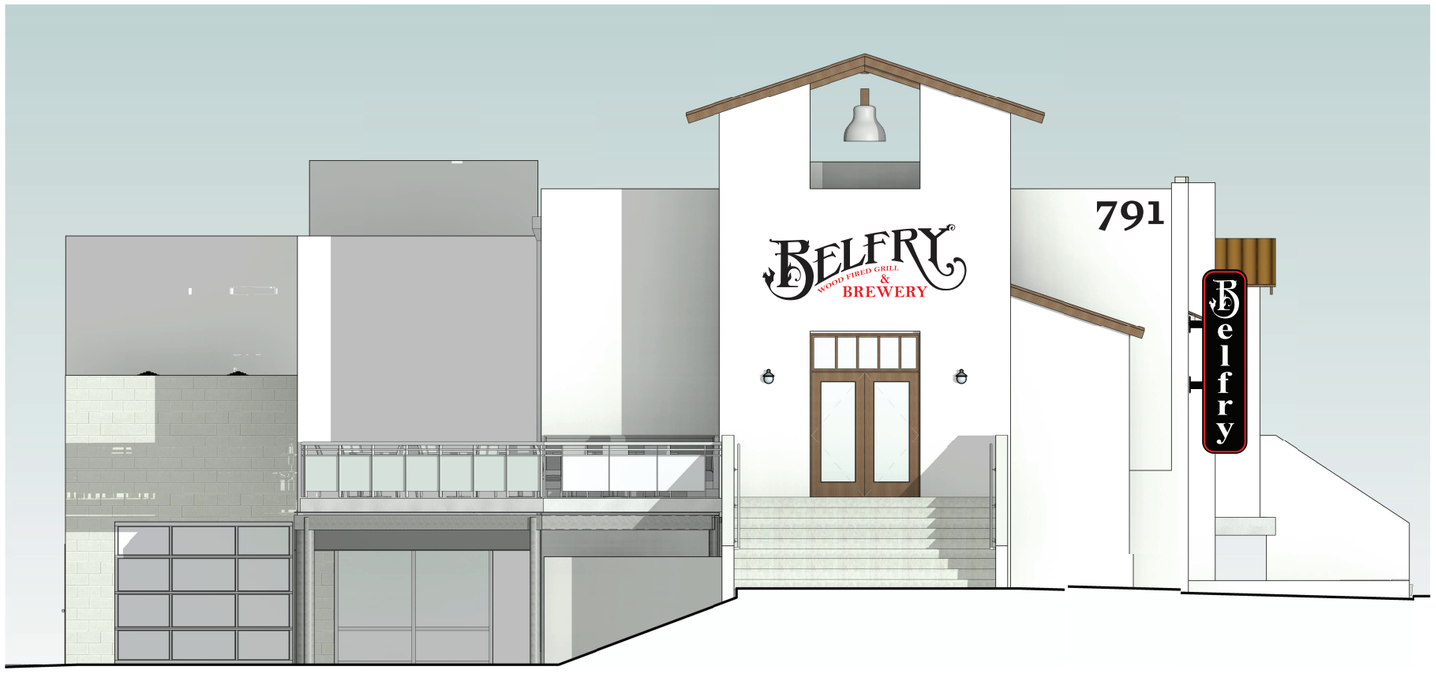
SHEET NUMBER

©This Drawing was created to assist you in visualizing our proposal. The original ideas herein are the property of 928 Sign Co. LLC. Permission to copy or revise this drawing can only be obtained thru a written agreement with 928 Sign Co. LLC.

Total Sqft = 43.3′

Sign Detail LED Halo Illuminated Letters





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DATE:

REV. #	DATE	BY	REV. #	DATE	BY

FIRM NAME / PROJECT ADDRESS

FILE DESIGN NUMBER

ORIGINAL DATE:

ORIG. DESIGNER: A Harwood

SALESPERSON J Keller SCALE:

SHEET NUMBER

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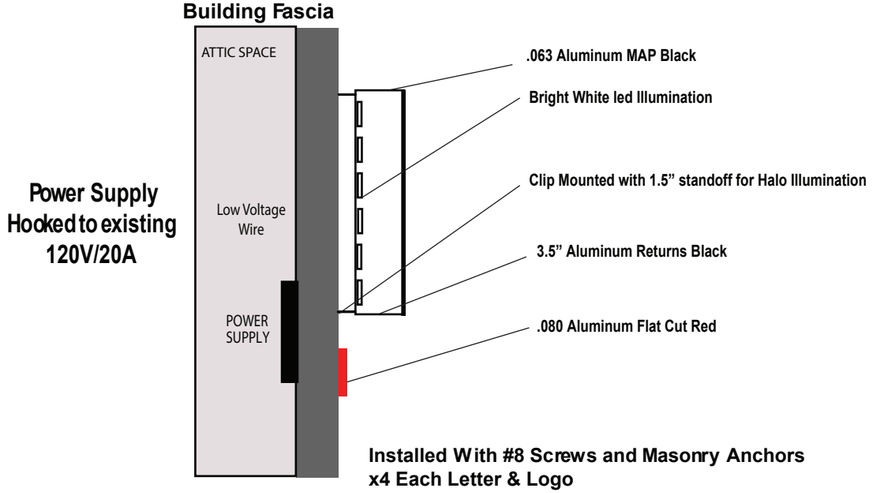
Total Sqft = 18.3′

Sign Detail LED Halo Illuminated Letters



Installed With #8 Screws and Masonry Anchors x4 Each Letter & Logo

928 SIGN COMPANY LLC.
ROC#299523 . BONDED . INSURED

e. Jason@SIGNS928.com p. 928.639.9411 f. 928.639.9412 - 154 S. Main St. Cottonwood, AZ 86326

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FIRM NAME / PROJECT ADDRESS

FILE DESIGN NUMBER

ORIGINAL DATE:

ORIG. DESIGNER: A Harwood

SALESPERSON J Keller SCALE:

SHEET NUMBER

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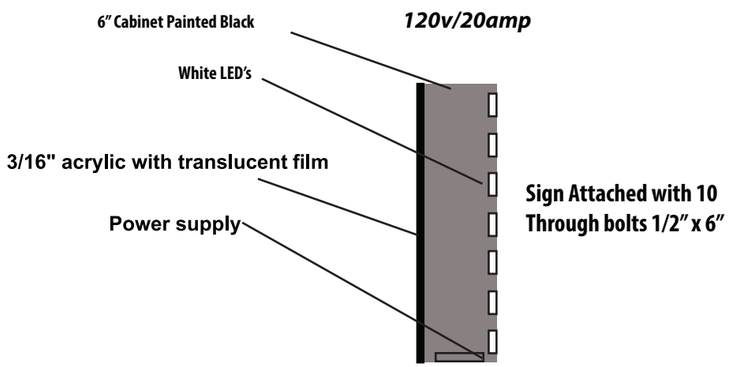
Total Sqft = 24′

72″

48″

Illuminated Cabinet Sign

Power Imput location top/back middle of sign



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MEMBER

SALES APPROVAL:

DATE:

REV. #	DATE	BY	REV. #	DATE	BY

FIRM NAME / PROJECT ADDRESS

ORIGINAL DATE:

ORIG. DESIGNER: A Harwood

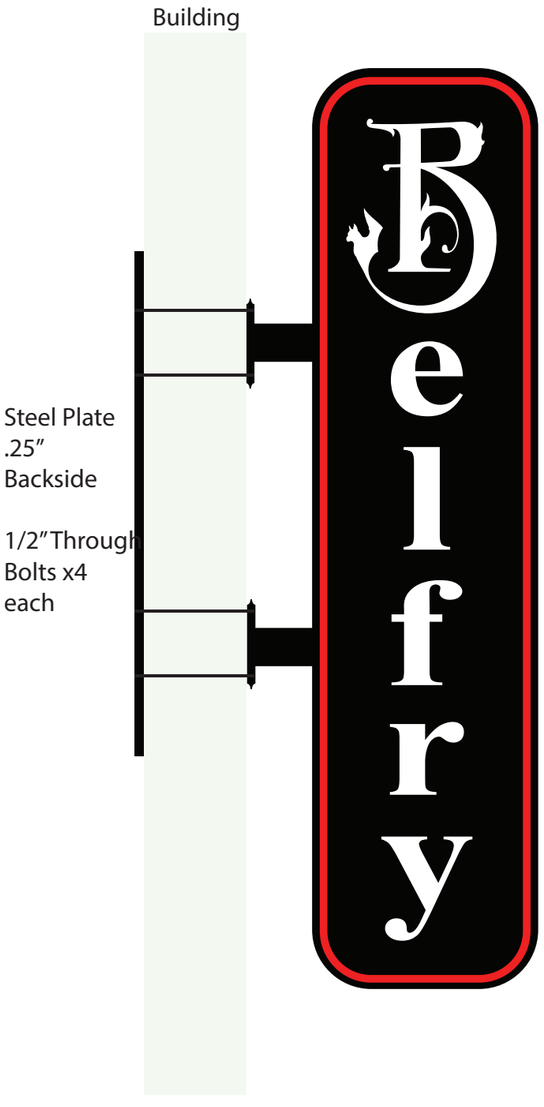
SALESPERSON J Keller SCALE:

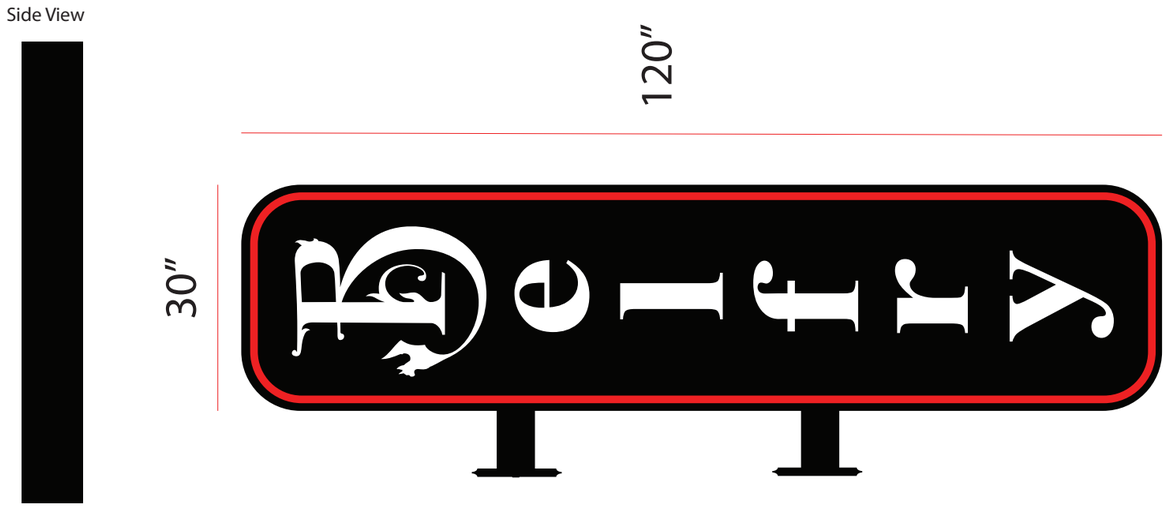
FILE DESIGN NUMBER

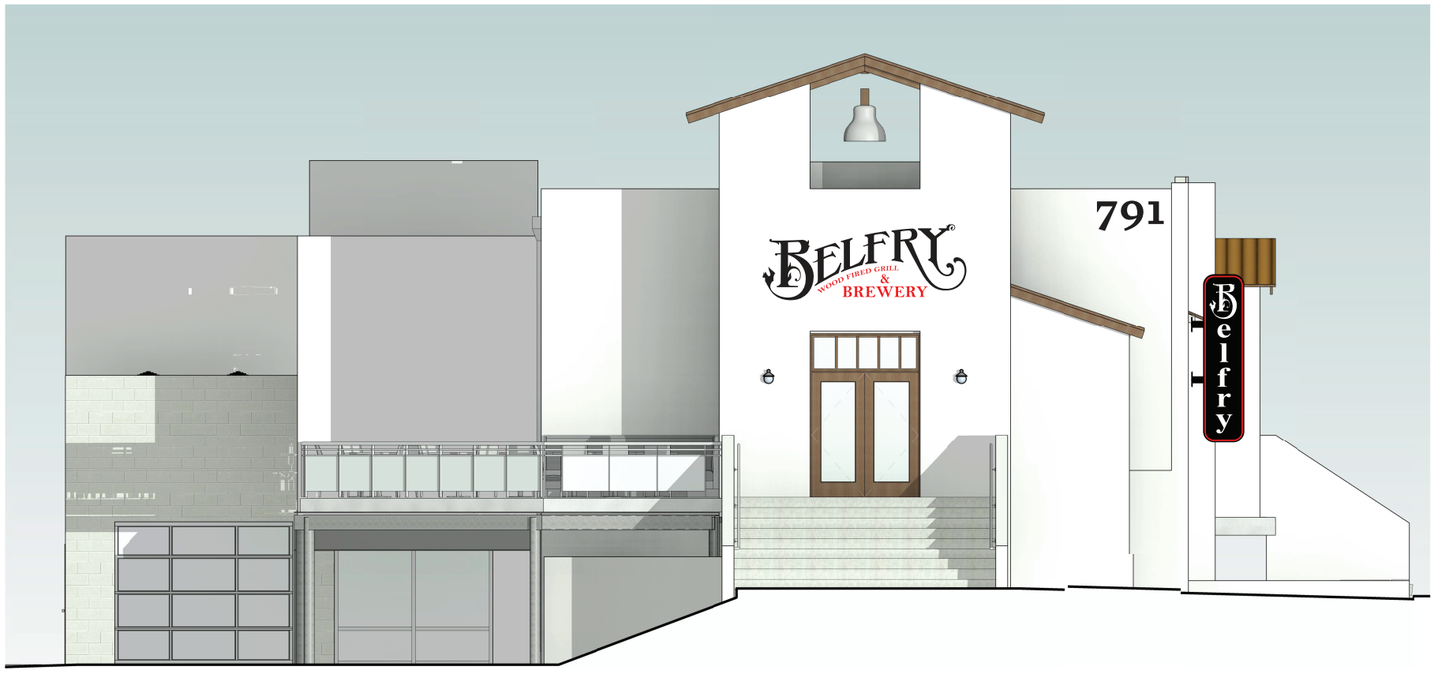
SHEET NUMBER

©This Drawing was created to assist you in visualizing our proposal. The original ideas herein are the property of 928 Sign Co. LLC. Permission to copy or revise this drawing can only be obtained thru a written agreement with 928 Sign Co. LLC.

Total Sqft = 25′







928 SIGN COMPANY LLC.
ROC#299523 . BONDED . INSURED

e. Jason@SIGNS928.com p. 928.639.9411 f. 928.639.9412 - 154 S. Main St. Cottonwood, AZ 86326

www.928signco.com

* Illuminated displays will be wired for 120 volt power unless otherwise noted.
* Cost for providing necessary electrical wiring to sign area is not included in sign proposal.

SALES APPROVAL:

DATE:

REV. #	DATE	BY	REV. #	DATE	BY

FIRM NAME / PROJECT ADDRESS

ORIGINAL DATE:

ORIG. DESIGNER: A Harwood

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Total Sqft = 25′

Illuminated Monument Sign Cabinet
Sitting on a 24″ high Aluminum Montexed (Stucco Finish)
LED Internally Illuminated
Changeable Copy for Daily Specials

928 SIGN COMPANY LLC.
ROC#299523 . BONDED . INSURED

e. Jason@SIGNS928.com p. 928.639.9411 f. 928.639.9412 - 154 S. Main St. Cottonwood, AZ 86326

www.928signco.com

* Illuminated displays will be wired for 120 volt power unless otherwise noted.
* Cost for providing necessary electrical wiring to sign area is not included in sign proposal.

MEMBER

SALES APPROVAL:

DATE:

REV. #	DATE	BY	REV. #	DATE	BY

FIRM NAME / PROJECT ADDRESS

FILE DESIGN NUMBER

ORIGINAL DATE:

ORIG. DESIGNER: A Harwood

SALESPERSON J Keller SCALE:

SHEET NUMBER

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STAFF MEMO

TO: Planning and Zoning Commission

FROM: Jim Padgett, Planner

HEARING DATE: June 15, 2020

PROJECT NUMBER: **CUP 20-004**

A request for a Conditional Use Permit to allow the keeping of livestock and the installation of barbed wire fencing in a C-1 (Light Commercial) zone. The project is located at the southeast corner of East Cottonwood Street and Cove Parkway, APN: 406-04-034G Owner: Groseta Ranches, LLC, Applicant: Andy Groseta.

PROJECT DATA AND FACTS:

Applicant	Andy Groseta P.O. Box 1619 Cottonwood, AZ 86326-1619
Property Owner	Groseta Ranches, LLC P.O. Box 1619 Cottonwood, AZ 86326-1619
Location of Property	APN 406-04-034G
Present Zoning and Land Use	The property is zoned C-1 (Light Commercial). The site is currently vacant.
Description of Applicant's Request	Request for a Conditional Use Permit to allow the keeping of livestock and the installation of barb-wire fencing.

LAND USE:

Description and Character of Surrounding Area
The site is located on the southeast corner of E. Cottonwood Street and Cove Parkway. The site is presently vacant with mature native vegetation. The property is across the street to the rear of the Safeway shopping plaza and across the street to 2 residential developments. The subject site was fenced in and became part of the adjacent ranch property to the east. The property to the south on Cove Parkway is vacant. The surrounding area is a mix of retail, residential, and the existing ranch property owned by the applicant.

Adjacent Land Uses and Zoning	
North: Across E. Cottonwood St.	PAD (Planned Area Development) Sawmill Gardens and Sawmill Cove
South:	C-1 (Light Commercial) Vacant
East:	R1L-18 (Yavapai County; Residential; Single Family Limited) The adjacent property is the main headquarters for Groseta Ranches.
West: Across Cove Parkway	C-1 (Light Commercial) Shopping Center

PROJECT PROPOSAL:

Background: The applicant is requesting a Conditional Use Permit in order to allow the keeping of livestock and the installation of barb-wire fencing. When this property was purchased, it was fenced in and expanded the boundaries of the adjacent ranch property which is located in the unincorporated limits of Yavapai County. Since the subject 3.07-acre parcel is within the boundaries of the City of Cottonwood, it is required to meet city codes. C-1 properties do allow the keeping of livestock and the associated barb-wire fencing as long as a Conditional Use Permit is obtained and the following requirements are met:

Keeping of large animals such as cattle and horses, and other livestock as identified in Section 404.O.2, subject to the following:

1. Minimum lot size of three (3) acres.
2. The property is fenced to prevent animals from leaving the property. If barb-wire fencing is proposed, all details shall be included with the submittal materials and approved as part of the Conditional Use Permit.
3. The property being proposed for the keeping of animals is not simultaneously used or proposed for use by the public.
4. Any development to the property in association with the keeping of animals, to include storage sheds, barns, tack rooms, etc. is subject to the Development Standards of the C-1 zone, and other sections of the City's Zoning Ordinance as applicable.

Parking: Parking is not required for this project.

Access: No additional access roads or driveways are proposed. Access to the site will be from the existing ranch property to the north or gated access drives along the extension of E. Cottonwood St.

Screening: No screening is proposed or required for the subject property.

Landscape Plans: No additional landscaping is proposed for the site which has existing native vegetation.

Lighting: No lighting is proposed for the project. Any future exterior lighting for the project will be in conformance with city dark sky lighting ordinance.

Signage: No signage is proposed for the property.

Utilities: All required utilities are available to the site but no changes to utility access or connections is proposed.

Neighbor Response: Public Hearing notices were sent to all adjacent properties within a 300' radius of the subject site. One email was received in opposition to the use of the subject site as requested. A copy is attached.

REQUIRED FINDINGS:

A Conditional Use Permit shall only be granted if the approving body determines that the project conforms to the required findings in this Section: Zoning Ordinance, Section 302. If it is determined that it is not possible to confirm the required findings for the proposed CUP, whether as submitted or through conditions that may be required, the application shall be denied. The specific basis for any decision shall be established in the record as findings of fact. The following criteria shall be considered as the basis for the findings to approve, approve with conditions or deny the Conditional Use Permit:

General Findings:

The current zoning of C-1 (Light Commercial) and the extension of the existing ranch property onto this 3.07- acre parcel does not create additional uses that do not presently exist at the subject site and vicinity. The operation of grazing livestock and the associated barbed wire fencing is subject to a Conditional Use Permit being obtained. The use as proposed will not be detrimental to the health, safety, and well-being of surrounding properties.

Compatibility with Surrounding Uses:

The use of the property is a minor extension of the existing ranching operations on adjacent property within Yavapai County, and is compatible with the mixture of uses in the surrounding area.

Traffic and Circulation:

No vehicles other than any private ranching operation vehicles will be using the site.

Nuisance Activities:

No nuisance activities have been identified at this location for the proposed use. Any nuisance activity must comply with Section 404.O.3 and 404.O.4 of the City of Cottonwood Zoning Ordinance.

Buffering and Screening: The subject site is not required to provide additional buffering or screening.

CRB Review: This project was internally reviewed by the Code Review Board. The applicant will be required to meet all code requirements and address all department comments as indicated.

Staff Review:

Staff has reviewed this project and finds the requested use and fencing is permitted with the need to obtain a Conditional Use Permit.

If the Commission desires to approve this item, the suggested motion is:

I move to approve CUP 20-004 to allow Groseta Ranches to keep livestock and for the placement of barb-wire fencing, subject to the following stipulations.

1. That the project is developed in conformance with the development plans submitted for the June 15, 2020 Planning and Zoning Commission meeting, and as may be further modified by the Planning and Zoning Commission.

2. That the project conforms to the Code Review Board comments dated May 12, 2020 and any comments from prior, current and future reviews of this project shall be adhered to.

3. The applicant shall be required to have a boundary survey conducted and shall submit those results to the City to confirm that the proposed fence is not placed within the City's right of way.

4. The sewer line is inside the fenced area. Utilities will need to work with the applicant for access. Allow City of Cottonwood Utilities to place a lock on the gate to prevent having to contact the applicant at different hours if there is a problem with the line.

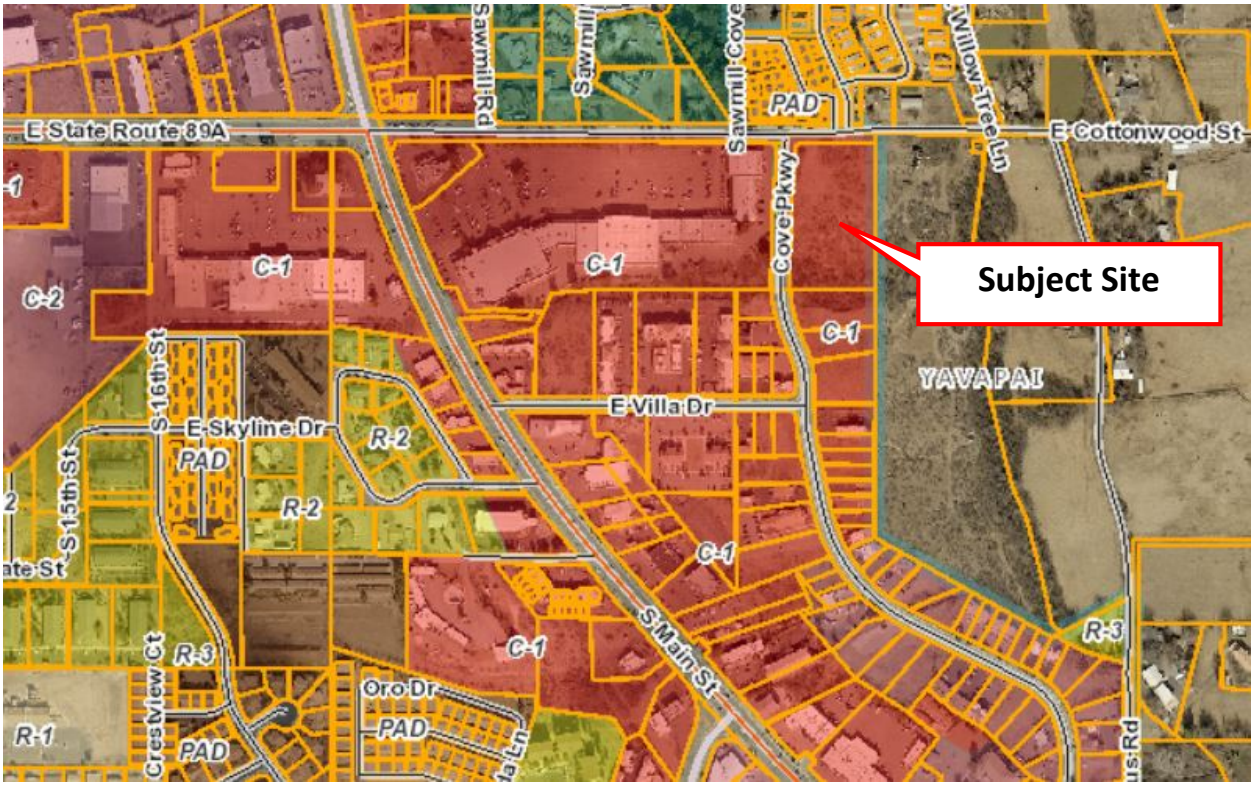
5. Applicant must abide by Sections 404.O.2 and 418.C.5 of the City of Cottonwood Zoning Ordinance, regarding the keeping of livestock.

6. The City of Cottonwood reserves the right to revoke the Conditional Use Permit (CUP) if the use creates an irremediable public safety problem as determined by the City.

7. Any other stipulations the Planning & Zoning Commission deems necessary.

Attachments: Application and Letter of Intent
Code Review Board Comments
Email in Opposition

Vicinity Map
Groseta Livestock and Fencing
Cove Parkway/E. Cottonwood St
Conditional Use Permit 20-004



CONDITIONAL USE APPLICATION

CDD Development Application #202

PROPERTY OWNER

Name: Groseta Ranches LLC

Address: P.O. Box 1619 City: Cottonwood

State: AZ Zip: 86326 Phone: 928-634-4333 Cell: 928-300-6621

Fax: 928-634-2113 E-Mail wdartranch@qwestoffice.net

AGENT/REPRESENTITIVE

IDENTIFY THE PERSON WHO WILL COMMUNICATE WITH CITY STAFF, AND RECEIVE CORRESPONDENCE DURING THE HEARING PROCESS. CITY STAFF WILL NOT ACCEPT RESPONSIBILITY FOR COMMUNICATING WITH OTHER PROJECT PERSONNEL

Name: Andy Groseta

Address: P.O. Box 1619 City: Cottonwood

State: AZ Zip: 86326 Phone: 928-634-4333 Cell: 928-300-6621

Fax: 928-634-2113 E-Mail wdartranch@qwestoffice.net

REQUEST:

Graze livestock

IDENTIFY ANY NECESSARY CODE EXCEPTIONS:

APPLICATION NUMBER: CUP 20-004

ZONING: C-1

APPLICATION DATE: May 14, 2020

FEES:

RECEIPT #:

DATE: 5-14-2020

TAKEN BY: Padgett

ASSESSOR'S PARCEL NUMBER(S) 406-04-034G5 **ACRES** 3.06

SITE ADDRESS (if applicable)

SUBDIVISION: **LOT(S):** **BLOCK:** **UNIT:**

[X] Legal description attached (for Metes & Bounds Parcel or for Subdivision Lot Split)

I hereby certify that the information in this application is complete and accurate; and that I am the applicant of the bona fide agent of same as state above.

Signature: Peter Andrew Groseta Date: May 14, 2020

Please Print Name: Peter Andrew Groseta

Rev. 2/14

GROSETA RANCHES LLC

P.O. Box 1619
Cottonwood, Arizona 86326
(928) 634-7872 (Ranch)
(928) 634-4333 (Office)
(928) 634-2113 FAX
Email: wdartranch@qwestoffice.net

May 14, 2020

Via email: jpadgett@cottonwoodaz.gov
and
Hand Delivered

Jim Padgett
Community Development Planner
City of Cottonwood
111 North Main Street
Cottonwood, AZ 86326

Re: Conditional Use Permit Application
APN: 406-04-034g5 – 3.06 acres

Dear Mr. Padgett:

Enclosed, please find information regarding the above property:

a) Conditional Use Permit Application
b) Copy of Code Review Comments
c) Assessor's Map
d) Legal Description
e) Property Owners Permission Form
f) Survey Map

This property adjoins our Ranch Headquarters and is used for livestock grazing purposes. Most all of the conditions and requirements on the Conditional Use Permit Application, and the checklist are not applicable for livestock grazing, consequently the requested information pertaining to them is not included in this application.

One of the comments in the code review comments was that there was a sewer manhole inside of the property. There is no sewer line on the property. It is a manhole cover to access a drainage culvert.

We are requesting that the $800.00 fee be waived as this is a very simple application to review. In addition, Ron Corbin, City Manager along with Rudy Rodriguez requested that we go through this process even though the livestock fence is already built and the property is presently used for livestock grazing purposes.

If you have any questions, please contact me.

Sincerely,

Andy Groseta

cc: Ron Corbin, City Manager – w/o encl.
Rudy Rodriguez, Deputy City Manager - w/o encl.
Scott Ellis, CD Director – w/o encl.

Encl: (6)

VIA EMAIL

May 12, 2020

Groseta Ranches LLC
Andy Groseta
P.O. Box 1619
Cottonwood, AZ 86326

Re: CRB # 20-015 Cove Parkway Fence and Cattle

Dear Mr. Groseta,

Thank you for your submittal regarding your project. Below are comments regarding your submittal:

Planning – Jim Padgett, jpadgett@cottonwoodaz.gov (928) 634-5505 x3320

1. **Comments are based on the project as submitted for this code review. Any changes to the work presented may require additional reviews, including code review and Planning Commission review. Please contact staff prior to any work not part of this submittal, especially any exterior work.**

2. **P&Z Hearing regarding Conditional Use Permit submittal.** A hearing application is required for a Conditional Use (submitted following Code Review), with a fee of $800.00. The Planning & Zoning Commission meets at 6 PM on the third Monday of each month, except during holiday months. After you submit your hearing application with all required documents you will be scheduled to attend a P&Z meeting. You must have a representative who is familiar with all aspects of this project attend this meeting.

3. Please review the Cottonwood Zoning Ordinance procedural codes for Conditional Use Permits (Article III, Sec. 302). Other design related codes pertaining to signs, parking, landscaping, and lighting are found under Sections 405-408. The zoning ordinance is on-line at http://cottonwoodaz.gov.

4. **Site Improvement Permits:** Building Permits may not be issued nor any site work commenced until after Planning & Zoning approval.

5. **Certificate of Occupancy:** Issuance of a Certificate of Occupancy is required prior to use. All requirements stipulated as part of the Code Review process must be addressed before the Certificate of Occupancy will be issued.

6. Any future signage will require a separate Sign Permit and application.

Public Works/Engineering – Robert Winiecke, rwiniecke@cottonwoodaz.gov (928) 634-8033

1. The applicant shall be required to have a boundary survey conducted and shall submit those results to the City to confirm that the proposed fence is not placed within the City's right of way.

Utilities – Water - Mike Traynor, mtraynor@cottonwoodaz.gov (928) 634-0186

1. No comments.

Utilities – Sewer – Debbie Breitkreutz, dbreitkreutz@cottonwoodaz.gov (928) 634-0186

1. The sewer line is inside the fenced area. Utilities will need to work with the applicant for access. Allow City of Cottonwood Utilites to place a lock on the gate to prevent having to contact the applicant at weird hours if there is a problem with the line.

Risk Management

1. No comments.

Fire Department- Rick Contreras, rcontreras@cottonwoodaz.gov (928) 634-2741

1. No comments as long as there is not a proposal for a new building or structure.

Building Department- Paul Hodges, phodges@cottonwoodaz.gov (928) 634-5505 x3368

1. All plan submittals shall be through the Community Development Department.

2. All change orders which occur following the issuance of a building permit must be approved by city staff or they will be sited as part of the final inspections and must be remedied before a certificate of occupancy will be issued.

3. All permit applications submitted shall meet the applicable code requirements of the 2018 IRC or 2018 IBC and the 2017 NEC.

4. Where required by law all work will be performed by contractors licensed by the State of Arizona and the City of Cottonwood.

5. Any exterior lighting shall meet the provisions of the Dark Sky Lighting Ordinance Code. Full, cut-off style shielding is required. Please submit a lighting plan with cut sheets on

all lighting fixture types and lumen calculations. (The lumen calc sheet is available on our web site.

Yavapai County Community Health Services – Robert Mumper, rmumper@yavapai.us (928) 634-6891

No comments.

NOTE: Changes to project proposals following approval which have been incorporated into permit submittal must be highlighted in writing and attached to the building permit, or they will not be considered approved.

Please call if you have any questions.

Sincerely,

Jim Padgett
Planner

Jim Padgett

From: Julie Rogers <julier@rcgventures.com>
Sent: Tuesday, June 02, 2020 10:18 AM
To: Jim Padgett
Subject: Public Hearing 6.15.20 - Parcel Number : 406-04-034G
Attachments: 20200602100952372.pdf

Good afternoon Mr. Padgett,

I'm in receipt of the attached public hearing notice.
My company owns the shopping center directly next to the referenced property which contains Safeway. We are very concerned with how the smell produced by livestock will effect our tenants and customers; particularly our restaurants and possible future restaurants. El Patio Bar and Grill has patio dining and the smell of livestock will be extremely detrimental to his business.

Please advise as to how we can express our concerns and disapproval of the Conditional Use Permit without attending the public hearing in person.

Thank you.

JULIE ROGERS, CSM
Director of Property Management
RCG Ventures, LLC
3060 Peachtree Rd NW, Suite 400
Atlanta, GA 30305

(O) 404.816.5454 x.132
(C) 404.509.3013
julier@rcgventures.com

www.rcgventures.com

For after-hours property maintenance emergencies, please call 404-816-5454 and dial 2. Your call will be forward to our call center and the property manager will be contacted. For medical, police or fire emergencies please dial 911. Thank you!.

This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected by law from unauthorized disclosure. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

STAFF MEMO

TO: Planning and Zoning Commission

FROM: Jim Padgett, Planner

HEARING DATE: June 15, 2020

PROJECT NUMBER: **CUP 20-005 and DR 20-003**

A request for Design Review and a Conditional Use Permit to increase the allowed building height from 2½ (two and one half) to 3 (three) stories for a hotel on property located at 535 South 6th Street. The project is located in an I-2 (Heavy Industrial) zone located on the east side of 6th Street just north of State Route 89A. APN: 406-06-009 Owner: City of Cottonwood, Applicant: San Tan Partners, LLC; Richardson Design Partnership; and Sunridge Properties.

PROJECT DATA AND FACTS:

Applicant	San Tan Hotel Partners 7255 E. Hampton Ave. Suite 122 Mesa, AZ 85209
Property Owner	City of Cottonwood 827 N. Main St. Cottonwood, AZ 86326-4012
Location of Property	535 S. 6th St. APN 406-06-009
Present Zoning and Land Use	The property is zoned I-2 (Heavy Industrial). The site is currently vacant.
Description of Applicant's Request	Request for a Conditional Use Permit and Design Review to construct a 3 story hotel.

LAND USE:

Description and Character of Surrounding Area
The site is located on the east side of 6th Street just north of State Route 89A. The site is vacant. The surrounding area is a mix of retail, restaurant, automotive, industrial and civic buildings.

Adjacent Land Uses and Zoning	
North:	I-2 (Heavy Industrial) Vacant lot and industrial uses
South:	C-2 (Heavy Commercial) Vacant property
East:	I-2 (Heavy Industrial) Industrial uses and automotive repair business
West:	C-2 (Heavy Commercial) Various retail stores

PROJECT PROPOSAL:

Background: The applicant is requesting a Conditional Use Permit and Design Review approval to construct a three (3) story hotel on a 2.24-acre parcel. The hotel is planned to have 87 guest rooms and outdoor pool area. The Conditional Use Permit is required to allow the hotel to exceed a code requirement of two and one half (2 1/2) story building height. The subject property is currently in escrow to be purchased from the City of Cottonwood and is a portion of a larger 3.74-acre parcel. A Minor Land Division will be required to be completed prior to the issuance of building permits.

Parking: The Zoning Ordinance requires 90 parking spaces. The site plan submitted by the applicant shows 113 spaces. In addition, 9 bicycle parking spaces, ten percent of required vehicular spaces, are required. The site plan shows bicycle parking at the southwest corner of the building.

Architecture, Materials, Colors: The architectural style is a contemporary design with a flat roof. Main portions of the building will be a fiber cement lap siding in a blend of neutral tan and chocolate brown paint colors. A manufactured stone veneer named Coronado Pro Ledge "Oakbrook" will be the main exterior wall covering on the first floor of the structure. The upper two floors and the parapet are a combination of insulated siding and lap siding.

Access: A main drive is proposed on 6th Street, approximately 180 feet north of State Route 89A. The site plan also shows a driveway for shared access to future uses to the north.

Screening: No screening is proposed or required for the subject property. All surrounding properties are zoned for commercial or industrial uses, as is the subject property.

Landscape Plans: A landscape plan with a variety of trees, bushes, and ground cover, along with decomposed granite has been proposed for the building and parking area. The landscape plan as submitted exceeds the code requirements for the type, quantity and placement of the vegetation.

Lighting: Exterior lighting for the project will be in conformance with city dark sky lighting ordinance.

Signage: Sign designs have only been provided for reference purposes and has not been reviewed by staff for code compliance. The applicant will be required to submit a complete sign application for staff approval under a separate permit.

Utilities: All required utilities are available to the site.

Building Height: The Zoning Ordinance limits building heights to 35 feet and two and one half (2 ½) stories but allows increased heights with a Conditional Use Permit. The proposed height of the hotel to the top of the roof is thirty-four feet seven and one half inches (34' 7 1/2") but there would be three stories. A parapet area extends approximately six (6) feet above the roofline and a non-habitable structure not to exceed 10% of the roof area may extend a maximum of 10 feet higher than the roof line. The overall height, including the parapet would be at forty feet and five inches (40' 5"). There are no residential areas adjacent to the site so concerns about views or privacy from homes are unlikely. The City of Cottonwood Fire Department has placed appropriate conditions on the project to accommodate the additional height limit.

REQUIRED FINDINGS:

A Conditional Use Permit shall only be granted if the approving body determines that the project conforms to the required findings in this Section: Zoning Ordinance, Section 302. If it is determined that it is not possible to confirm the required findings for the proposed CUP, whether as submitted or through conditions that may be required, the application shall be denied. The specific basis for any decision shall be established in the record as findings of fact. The following criteria shall be considered as the basis for the findings to approve, approve with conditions or deny the Conditional Use Permit:

General Findings:
The current zoning of I-2 (Heavy Industrial) and the construction and operation of a three story hotel is subject to a Conditional Use Permit being obtained. The use as proposed will not be detrimental to the health, safety, and well-being of surrounding properties.

Compatibility with Surrounding Uses:
The use of the property as a Hotel is compatible with the mixture of uses in the surrounding area.

Traffic and Circulation: The location of the proposed drive aisles and parking areas provide adequate circulation for the property.

Nuisance Activities:
No nuisance activities have been identified at this location for the proposed use.

Buffering and Screening: The subject site is not adjacent to residential uses and is not required to provide additional buffering or screening.

CRB Review: This project was reviewed by the CRB (Code Review Board) on May 12, 2020. The applicant will be required to meet all code requirements and address all department comments as indicated.

Staff Review:

Staff has reviewed this project and finds the requested use of the property and building height is permitted, with the need to obtain a Conditional Use Permit and does recommend approval.

If the Commission desires to approve this item, the suggested motion is:

I move to approve CUP 20-005 and DR 20-003 to allow San Tan Hotel Partners to exceed the allowable height requirements, subject to the following stipulations:

1. That the project is developed in conformance with the development plans submitted for the June 15, 2020 Planning and Zoning Commission meeting, and as may be further modified by the Planning and Zoning Commission.

2. That the project conforms to the Code Review Board comments dated May 15, 2020 and any comments from prior, current and future reviews of this project shall be adhered to.

3. A Certificate of Zoning Compliance documenting the completion of conditions shall be issued prior to issuance of a Certificate of Occupancy.

4. A Right of Way permit be obtained from the Public Works Department prior to any work or landscaping in the right of way.

5. Identify a minimum of nine (9) bicycle parking spaces to be located on the parcel.

6. Building Permits shall be applied for within one (1) year from the date of approval by the Planning & Zoning Commission or the Conditional Use Permit shall be subject to revocation procedures.

7. A Minor Land Division shall be completed prior to the issuance of Building Permits.

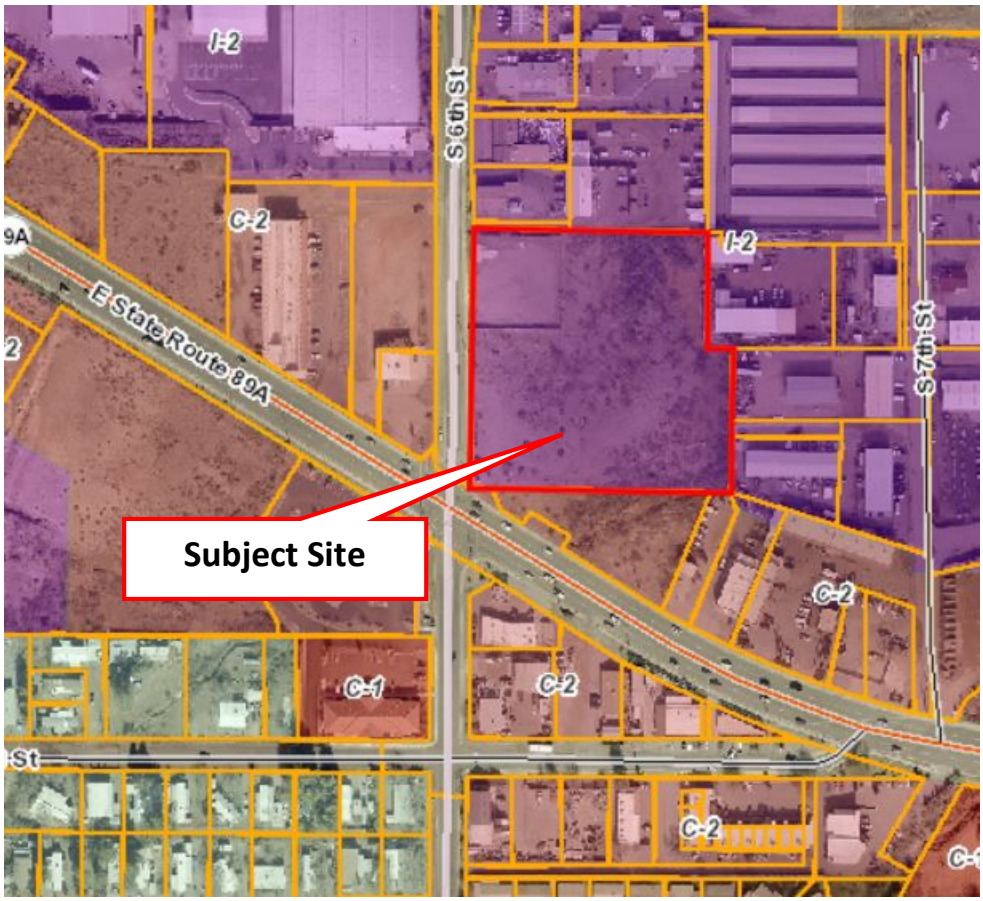
8. Comply with all ADOT requirements as noted in the email received May 26, 2020 to obtain a Right of Way permit. In addition, the ADOT District Development Engineer and Northern Regional Traffic will request that the City's review requirements include a Traffic Impact Statement following ADOT Traffic Engineering Guidelines and Procedures TGP 240 Exhibit A. At a minimum the SA089-6th Street intersection be evaluated for Level of Service and delays and also include turning lanes analysis.

9. The City of Cottonwood reserves the right to revoke the Conditional Use Permit (CUP) if the use creates an irremediable public safety problem as determined by the City.

10. Any other stipulations the Planning & Zoning Commission deems necessary.

Attachments: Application and Letter of Intent
Colored Elevations and Renderings
Architectural Sketches
Floorplans
Landscape Plan
Code Review Board Comments

Vicinity Map
Springhill Suites by Marriott
535 South 6th Street
Conditional Use Permit 20-005
Design Review 20-003



CONDITIONAL USE APPLICATION

CDD Development Application #202

PROPERTY OWNER

Name: San Tan Hotel Partners, LLC (under contract to purchase from City)

Address: 7255 E. Hampton Ave. Suite 122 City: Mesa

State: AZ Zip: 85209 Phone: 480-854-1414 Cell:

Fax: E-Mail bradon@sunridgeproperties.com

AGENT/REPRESENTITIVE

IDENTIFY THE PERSON WHO WILL COMMUNICATE WITH CITY STAFF, AND RECEIVE CORRESPONDENCE DURING THE HEARING PROCESS. CITY STAFF WILL NOT ACCEPT RESPONSIBILITY FOR COMMUNICATING WITH OTHER PROJECT PERSONNEL

Name: Bradon Welker

Address: 7255 E. Hampton Ave. Suite 122 City: Mesa

State: AZ Zip: 85209 Phone: 480-854-1414 Cell: 801-602-2856

Fax: E-Mail

REQUEST:

Requesting Conditional Use Permit to Allow 3-story hotel with 42 foot height allowance

IDENTIFY ANY NECESSARY CODE EXCEPTIONS:

APPLICATION NUMBER:

ZONING:

APPLICATION DATE:

FEES:

RECEIPT #:

DATE:

TAKEN BY:

ASSESSOR'S PARCEL NUMBER(S) 406-06-009 Parcel B **ACRES** 2.25

SITE ADDRESS (if applicable) 535 S. 6th St. Cottonwood, AZ 86326

SUBDIVISION: **LOT(S):** **BLOCK:** **UNIT:**

[X] Legal description attached (for Metes & Bounds Parcel or for Subdivision Lot Split)

I hereby certify that the information in this application is complete and accurate; and that I am the applicant of the bona fide agent of same as state above.

Signature: Bradon Welker Date: 5/19/20

Please Print Name: Bradon Welker

Rev. 2/14

DESIGN REVIEW APPLICATION

CDD Development Application #200

PROPERTY OWNER

Name: San Tan Hotel Partners, LLC (under contract to purchase from City)

Address: 7255 E. Hampton Ave. Suite 122 City: Mesa

State: AZ Zip: 85209 Phone: 480-854-1414 Cell:

Fax: E-Mail bradon@sunridgeproperties.com

AGENT/REPRESENTITIVE

IDENTIFY THE PERSON WHO WILL COMMUNICATE WITH CITY STAFF, AND RECEIVE CORRESPONDENCE DURING THE HEARING PROCESS. CITY STAFF WILL NOT ACCEPT RESPONSIBILITY FOR COMMUNICATING WITH OTHER PROJECT PERSONNEL

Name: Bradon Welker

Address: 7255 E. Hampton Ave. Suite 122 City: Mesa

State: AZ Zip: 85209 Phone: 480-854-1414 Cell: 801-602-2856

Fax: E-Mail bradon@sunridgeproperties.com

REQUEST:

IDENTIFY ANY NECESSARY CODE EXCEPTIONS:

APPLICATION NUMBER:

ZONING:

APPLICATION DATE:

FEES:

RECEIPT #:

DATE:

TAKEN BY:

ASSESSOR'S PARCEL NUMBER(S) 406-06-009 Parcel B **ACRES** 2.25

SITUS ADDRESS (if applicable) 535 S. 6th St. Cottonwood, AZ 86326

SUBDIVISION: **LOT(S):** **BLOCK:** **UNIT:**

[X] Legal description attached (for Metes & Bounds Parcel or for Subdivision Lot Split)

I hereby certify that the information in this application is complete and accurate; and that I am the applicant of the bona fide agent of same as state above.

Signature: Date: 5/19/20

Please Print Name: Bradon Welker

Rev. 2/14

THE RICHARDSON DESIGN PARTNERSHIP L.L.C.

LETTER OF INTENT

Project:
Marriott Springhill Suites Cottonwood, AZ

Owner:
Sunridge Properties, Inc.

Date of Issuance:
05/20/2020

The Richardson Design Partnership is an architectural design/build firm. We are working with Sunridge Properties, the Developer of this project, who will have ownership interest in the project through San Tan Hotel Partners, LLC who currently has the property under contract to purchase from the City of Cottonwood. Close of Escrow is scheduled for August 19, 2020 but San Tan Hotel Partners has the option to extend closing by up to 60 days.

Sunridge Properties proposed to construct a SpringHill Suites by Marriott hotel under the SOLICITATION INVITATION NO. FY20-ED-01 from the City of Cottonwood and their proposal received approval from City Council on January 21st, 2020. Per the proposal Sunridge plans on improving the empty lot 406-06-009 in the C-2 commercial zone on the corner of 6th Street and Arizona State Route 89A. The address will be 535 S. 6th St, Cottonwood, AZ 86326. The current site is a vacant lot with no existing structures or major topographical features.

The new hotel will be a 3-story Marriott Springhill Suites with an outdoor pool area and 87 guestrooms. The hotel will be wood framed construction and include on-site parking and porta-cochere at the entry. The hotel parcel will be landscaped with a variety of plant materials native and suited for this area. The project will require a conditional use permit for the building height and the owners are working with the city on the removal or modifications to the existing site easements to better suit this project.

Sunridge is not aware of any deed restrictions or restrictions that run with the property other than the following items found under REC 2020-0015661, Yavapai County Recorder:

- Drainage Easement in the southeast corner of the property
- 20’ Ingress/Egress Easement on southern border of the property
- Proposed Right of Way in the southwest corner of the property
- Non-Vehicular Access Easement along the west border of the property
- 5’ Sidewalk Easement along the west border of the property

A portion of the Non-Vehicular Access Easement will need to be released to allow for the new driveway access for this development. The Ingress/Egress Easement will

need to be relocated to align with the proposed drive isle of this development as it is not currently placed over drivable/accessible area.
The existing drainage easement recorded to accommodate some drainage offsite flows impacting the site will have to be modified to run along the east property line in order to allow for the new walls and driveways to be built as per the architectural site plan.

Sunridge intends for construction to start in November 2020 after all necessary permits and entitlements for constructing and operating the hotel have been obtained and San Tan Hotel Partners has purchased the property. Based on the intended construction start date they would work towards completing construction by December of 2021.

(*Signature)* (*Printed name and title)*

VIA EMAIL

May 15, 2020

Bradon@sunridgeproperties.com
aford@trdp.com

Re: CRB # 20-017 **Springhill Suites by Marriott**
535 S. 6th St. Cottonwood, AZ

Thank you for meeting with the Code Review Board on May 12, 2020 regarding the above referenced project. We look forward to working with you on the submittal.

1) **P&Z Hearing regarding Design Review and Conditional Use Permit submittal.** A hearing application is required for Conditional Use and Design Review (submitted following Code Review), with a fee of $800. The Planning & Zoning Commission meets at 6 PM on the third Monday of each month, except during holiday months. After you submit your hearing application with all required documents you will be scheduled to attend a P&Z meeting. You must have a representative who is familiar with all aspects of this project attend this meeting.

   Please review the Cottonwood Zoning Ordinance procedural codes for Design Review (Article III, Sec. 304) and Conditional Use Permits (Article III, Sec. 302). Other design related codes pertaining to signs, parking, landscaping, and lighting are found under Sections 405-408. The zoning ordinance is on-line at http://cottonwoodaz.gov.

2) **Site Improvement Permits:** Grading and Building Permits may not be issued nor any site work commenced until after Planning & Zoning approval.

3) **Certificate of Occupancy:** Issuance of a Certificate of Occupancy is required prior to use. All requirements stipulated as part of the Code Review process must be addressed before the Certificate of Occupancy will be issued.

Planning – Jim Padgett, jpadgett@cottonwoodaz.gov (928) 634-5505 x3320

1. **Comments are based on the project as submitted for this code review. Any changes to the work presented may require additional reviews, including code review and Planning Commission review. Please contact staff prior to any work not part of this submittal, especially any exterior work.**

2. Any building that exceeds 2 ½ stories or 35 feet in height is required to obtain a Conditional Use Permit from the Planning & Zoning Commission (Design Review is also required).

3. Indicate the lineal frontage of the property along S. 6th Street.

4. Provide a street rendering view of the property as seen off S. 6th Street, to include an accurate depiction of landscaping.

5. Landscaping plan should be in color. Identify the depth of the landscaped area adjacent to 6th Street. A minim 10' landscape buffer is required.

6. Bicycle parking is required.

7. Proposed signage for the project is encouraged to be submitted for Design Review approval (a separate sign permit will also be required after P&Z approval). If signs are not part of the Design Review submittal, the Planning & Zoning Commission may require future review of the signs at a later meeting date.

Public Works/Engineering – Robert Winiecke, rwiniecke@cottonwoodaz.gov (928) 634-8033

1. The documents provided no longer show a second access point to the site. Verify with the Cottonwood Fire Department that this meets their requirements. Otherwise a secondary access point shall be included in these plans.
2. The Site Plan and Grading Plan provided show two different driveway configurations off of 6th Street. Please clarify which style of driveway will be used and show consistently through the entire plan set.
3. There were previous talks about modifying the 1' NVAE along 6th Street. The plans submitted appear to show this NVAE being encroached upon. Please provide greater clarity on what is being proposed.
4. The existing sidewalk easement may need to be expanded at the proposed driveway entrance due to the pedestrian wrap around. This will be reviewed further once the desired driveway configuration is decided upon.

5. A Drainage Report will be required to validate the storm water runoff calculations included on the Grading and Drainage Plan. The Pre vs. Post condition shall show a 25% reduction in storm water runoff leaving the site.
6. A City of Cottonwood Right of Way Permit will be required for any work performed in the City Right of Way. This has a nominal fee of $60.00 and the application is available on the Public Works page of the City's Website.
7. A Traffic Impact Statement shall be developed and submitted to the City for review and approval identifying any roadway mitigation requirements.
8. A Utility Plan shall be submitted showing how the proposed development intends to hook up to potable water and sanitary sewer.
9. Given the proximity of the proposed site access point to the intersection of SR89A and 6th Street, the Developer shall reach out to the ADOT North Central District Engineer to ensure that ADOT does not exert any claim over the intersection that could potentially impact the design and/or timeframe of the development.

Utilities – Water - Mike Traynor, mtraynor@cottonwoodaz.gov (928) 634-0186

1. Water is requiring back flow devices on all water connections with indicator valves. Domestic, fire and irrigation must have testable backflows and certification presented to the water department before service will be issued. Water taps shall be done by licensed, certified contractors, and be constructed to City standards.

Utilities – Sewer – Debbie Breitkreutz, dbreitkreutz@cottonwoodaz.gov (928) 634-0186

1. Applicant shall connect to the sewer to available on 6th Street. A 6-inch sewer connection is required for commercial properties. Applicant can contact Debbie Breitkreutz at 928-340-2750 to schedule a sewer tap 48 hours in advance. All permits and fees shall be paid prior to work commencement per Municipal Code Chapter 14.07 Connection to Municipal Sewer System.

Fire Department- Rick Contreras, rcontreras@cottonwoodaz.gov (928) 634-2741

PRELIMINARY FIRE DEPARTMENT COMMENTS 535 S. 6th STREET

- All plans and designs shall fully comply with the 2018 International Fire Code {IFC} and the 2018 International Building Code {IBC} and per the Cottonwood Fire Departments Conditions. Please review the comments that are listed below.

1. A full complete set of detailed stamped plans shall be provided to the Cottonwood Fire & Medical Department for review and prior approval of all phases before the work is permitted to start.

FIRE SPRINKLERS

2. Fire sprinklers shall be installed throughout the building {including the attic} per NFPA 13, 13R and all local regulations. The system shall be designed to meet the Hazard Class.

3. The Fire Department Connections may be required to be in a remote location. FDC signage is required, verify the exact verbiage and sign dimensions with the Cottonwood Fire Marshal. The FDC shall not exceed 4' in height. The installation of locking Knox Caps shall be connected to the FDC.

4. The three story building stairwells require the installation of Class "I" stand pipe systems within the buildings with two 2 ½" NTS hose connections shall be installed in accordance with NFPA 14 and NFPA 20. The Fire Flow shall meet all requirements per NFPA 20. All systems shall be protected from freezing. Provide a detailed drawing for approval to the Cottonwood Fire and Medical Department.

5. Sectional control valves, and all valves controlling water supply, ***shall be indicating*** type valves listed for the use with fire sprinkler systems, this will include the double check backflow device. When supplying more than 100 sprinkler heads, these valves shall be monitored with an electric tamper switch per NFPA 72.

BUILDING FEATURES

6. Provide a detailed list of all the Commercial Cooking systems. All Cooking systems shall be per all code standards including NFPA 96, the 2018 International Fire, Building, Mechanical & Fuel Gas Code along with all NFPA and UL Standards.

7. One Knox Box will be required to be installed on the building. Verify the exact type and placement location with the Cottonwood Fire Marshal. Provide a copy of the door keys to the Cottonwood Fire Department for placement into the Knox Box.

8. Multiple Fire extinguishers sizes and types are required per NFPA 10, coordinate quantities and placement locations with the Cottonwood Fire Marshal.

9. Coordinate the exact size of the elevators with the Cottonwood Fire Marshal. The elevator shall be certified by a State of Arizona Inspector. Provide acceptance report to the Cottonwood Fire and Medical Department.

10. The Architect shall provide an approved occupant load per chapter 10 of the 2018 International Fire Code. The occupant load shall be posted by the interior wall next to the front door on a 10"x 8" approved sign.

11. Any buildings that exceeds 30' of the vertical distance between the grade plane and the highest roof surface shall meet all the requirements of Appendix D sections D104 & D105. Fire lanes between the buildings shall be in compliance to the Cottonwood Fire & Medical conditions. Two Fire Apparatus access points shall be provided to the property.

12. Coordinate Roof hatch/ladder access location and dimensions with the Cottonwood Fire & Medical Department.

FIRE RISER ROOMS

13. Fire Sprinkler Riser rooms are required to be installed with an exterior door and shall be maintained at a temperature of not less than 40ºF (4ºC). Heating units shall be permanently installed

14. Fire riser rooms shall be constructed of non-combustible materials or other approved means as approved by the Cottonwood Fire Marshal or his representative.
15. All risers shall have a minimum of 36" clear space at the front and 18" on the remaining sides.

16. Such rooms shall be of a size that will allow a minimum of 36-inch clearance around all portions of the fire riser assembly and in front of the fire alarm panel(s).

17. Lighting in the riser room shall be permanently installed.

18. Marking on the access door for automatic sprinkler system riser rooms and fire pump rooms shall be labeled with an approved sign.

19. The lettering shall be in a contrasting color to the background. Letters shall have a minimum height of 2 inches (51 mm) with a minimum stroke of 3/8 inch.

FIRE ALARM COMMENTS

20. Fire alarms shall be installed in all commercial and residential buildings per NFPA 72 and NFPA 70.

21. Certification of completion per NFPA 72 shall be submitted to the Cottonwood Fire and Medical Department after testing and acceptance.

22. Fire Alarm panels shall have a minimum of 36-inch clearance around them.

FIRE HYDRANT AND FIRE FLOW COMMENTS

23. Two Fire Hydrants are required to be installed on this project. Contact the Cottonwood Fire Marshal for direct placement of the Fire Hydrants.

24. All plans, designs and fire flow calculations shall fully comply with the 2018 International Fire Code Appendix B and Chapter 5 of the IFC and per the Cottonwood Fire Departments Conditions.

25. Fire hydrants and all water supply systems shall be installed, inspected, tested and accepted in accordance with all fire code requirements before any building materials and combustibles are allowed to arrive on site.

STREET / ACCESS / FIRE LANE COMMENTS

26. Surface shall be designed and maintained to support the imposed loads of all fire apparatus and shall be surfaced so as to provide all weather driving capabilities.

27. All Fire Lane access roads shall be capable of supporting the imposed load of fire apparatus weighing up to 75,000 {GVW}
28. All road widths turn around distance shall meet the requirements in the 2018 International Fire Code Appendix D and the City of Cottonwood conditions.

29. Fire lanes shall be provided and shall be a minimum of 26' wide and have a vertical clearance of 13'6" and maintained within 150' of any part of the building.

30. 12"x 8" red retro reflective Fire Lane signs stating "No parking by order of the Fire Marshal" shall be posted at every 75'

MAPPING / ADDRESSING COMMENTS

31. All addressing and street names shall be coordinated and approved with the Cottonwood Fire & Medical Department Lieutenant Jeff Boyd. All requirements and conditions shall meet the conditions of Chapter 5 and appendix D of the 2012 IFC.

32. 18-inch addressing shall be installed onto the building; six-inch numbering shall be installed onto the signage at the entrance.

LANDSCAPING PLAN

- No trees or shrubs shall encroach into *any* Fire Lanes, especially at the entrance of the site. Also no landscaping shall encroach the FDC or Fire Hydrants. Please coordinate any future placement of trees and shrubs within these corridors that may obstruct the Fire Lane from working correctly.

FIRE MARSHAL DIRECT COMMENTS

- We believe that this will be an outstanding project that will satisfy all of the fire and life safety code requirements throughout the entire project. Our goal is to provide you {the developer} with outstanding customer service, and also provide our citizens with the safest living community as possible. We value your experience within the development/construction profession in Arizona and look forward to hearing input from the developer so that we are all on the same page throughout this process.

33. If there are any questions or comments, please feel free to contact me at 928} 634-2741 or email rcontreras@cottonwoodaz.gov

34. No plan review approval will be provided until all conditions are fully met. These comments are preliminary and final determinations, comments and approvals will be provided upon review of the final sets of plans submitted. All comments and standards shall meet the requirements adopted by the City of Cottonwood and the Cottonwood Fire & Medical Department.

Building Department- Paul Hodges, phodges@cottonwoodaz.gov (928) 634-5505 x3368

1. All plan submittals shall be through the Community Development Department.

2. All change orders which occur following the issuance of a building permit must be approved by city staff or they will be sited as part of the final inspections and must be remedied before a certificate of occupancy will be issued.

3. Four sets of plans prepared and stamped by a licensed architect or engineer shall be submitted for each building for review accompanied by a completed building permit application for each.

4. All permit applications submitted after July 1st, 2019 shall meet the applicable code requirements of the 2018 IRC or 2018 IBC and the 2017 NEC.

5. Where required by law all work will be performed by contractors licensed by the State of Arizona and the City of Cottonwood.

6. Any exterior lighting shall meet the provisions of the Dark Sky Lighting Ordinance Code. Full, cut-off style shielding is required. Please submit a lighting plan with cut sheets on all lighting fixture types and lumen calculations.

7. The site plan must show the accessible path of travel from the public way into the building.

Yavapai County Community Health Services – Robert Mumper, rmumper@yavapai.us (928) 634-6891

1. Separate plan review submittals will be required by Health. One plan review submittal will be required for the Lodging Establishment and the second one for the Food Establishment (breakfast kitchen). The proposed semi-public swimming pool will require plan review and construction approvals from the Arizona Department of Environmental Quality (ADEQ). After the final "Approval of Construction" letter has been issued by ADEQ, a health license to operate will be required. If you have any questions or concerns, please contact Robert Mumper (Regional Lead Sanitarian) at (928) 634-6891 or robert.mumper@yavapai.us.

Cottonwood Police Department – Gareth Braxton-Johnson, gjohnson@yavapai.us
(928) 634-4246

1. No Comments.

NOTE: Changes to project proposals following approval which have been incorporated into permit submittal must be highlighted in writing and attached to the building permit, or they will not be considered approved.

Please call if you have any questions.

Sincerely,

Jim Padgett
Planner

CONTACT INFORMATION

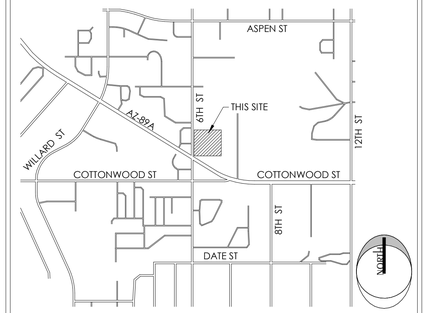
OWNER
SUNRIDGE PROPERTIES, INC.
7255 E. HAMPTON AVE. SUITE 122
MESA, AZ 85209
PHONE: (480)854-1414
CONTACT: PAUL WELKER

ARCHITECT
THE RICHARDSON DESIGN PARTNERSHIP
510 SOUTH 600 EAST
SALT LAKE CITY, UT 84102
PHONE: (801) 355-6868
PROJECT MANAGER: ADAM FORD
EMAIL: aford@trdp.com

CIVIL ENGINEER
LDG
8808 N. CENTRAL AVE., SUITE 288
PHOENIX, AZ 85020
PHONE: (602) 390-7999
FAX: (602) 455-9482
PROJECT MANAGER: NICK PRODANOV
EMAIL: nick@ldgeng.com

LANDSCAPE ARCHITECT
LANDSCAPE ARCHITECTURE & PLANNING
4916 S. QUIET WAY
GILBERT, AZ 85298
PHONE: (480) 899-5813
PROJECT MANAGER: PHILLIP RYAN
EMAIL: mail@ryanassociatesonline.net

VICINITY MAP



GENERAL NOTES

A. DO NOT SCALE FROM DRAWINGS.

B. THESE PLANS ARE REPRESENTATIVE OF THE MINIMUM DESIGN CRITERIA.

C. CENTER SITE LIGHTING POLES ON PARKING STRIPES TO PROTECT FROM CAR OVERHANG DAMAGE.

D. ALL ACCESSIBLE SIGNS VERTICAL MOUNTED WITH BOTTOM OF SIGN 60" ABOVE GROUND SURFACE.

E. PROVIDE SITE LIGHTING TO MEET ILLUMINATION LEVELS REQUIRED BY LOCAL JURISDICTION AND THE MARRIOTT DESIGN STANDARDS

SITE & PARKING DATA:

SUMMARY:

SITE AREA:	2.24 ACRES (97,994 sq ft)
SITE COVERAGE:	20% BUILDING (19,664 sq ft)
	61% PAVING
	19% LANDSCAPING
TOTAL UNITS:	85

REQUIRED PARKING:

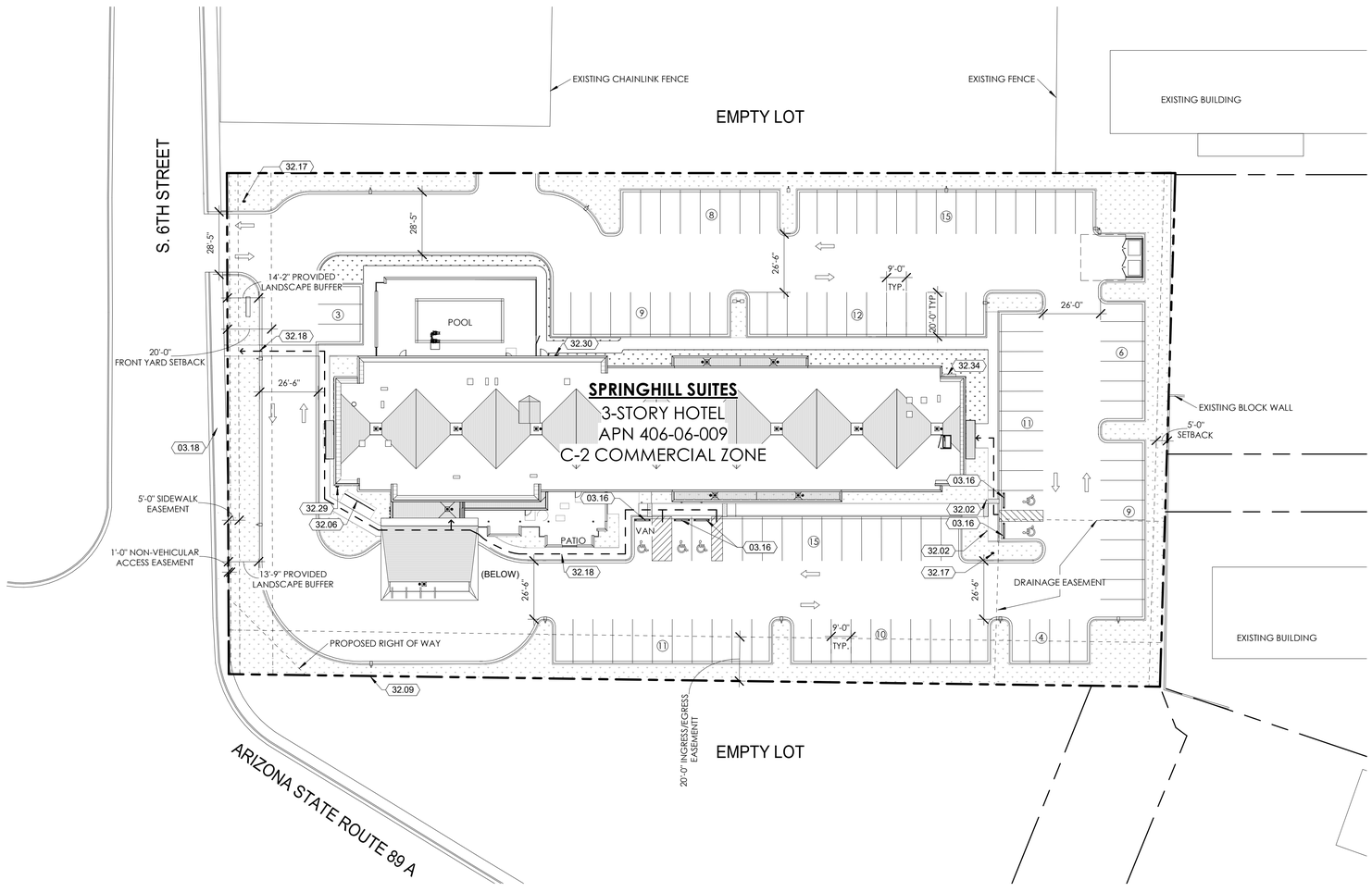
HOTEL PARKING REQ.	1 PER GUESTROOM & 1 PER 2 EMPLOYEES
ANTICIPATED EMPLOYEES	10
REQUIRED PARKING	90 SPACES

PROVIDED:

OPEN PARKING	108 SPACES
VAN ACCESSIBLE PARKING	1 SPACES
STANDARD ACCESSIBLE PARKING	4 SPACES
TOTAL PARKING SPACES PROVIDED	**113 SPACES**

SHEET NOTES

03.16	CONCRETE WHEEL STOP, SEE CIVIL
03.18	EXISTING SIDEWALK
32.02	ADA PARKING SIGN, SEE DETAIL 12/A051
32.06	BIKE RACKS
32.09	PROPERTY LINE
32.17	FIRE HYDRANT
32.18	ACCESSIBLE ROUTE
32.29	FDC, SHALL NOT EXCEED 4' IN HEIGHT WITH LOCKING KNOX CAPS PER COTTONWOOD FIRE MARSHAL.
32.30	GAS METER
32.34	ELECTRIC METER



1 ARCHITECTURAL SITE PLAN

SCALE: 1" = 30'-0"

THE RICHARDSON DESIGN PARTNERSHIP, L.L.C.
510 South 600 East
Salt Lake City, Utah 84102
P: 801.355.6868
F: 801.355.6880

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OWNER:
SUNRIDGE PROPERTIES, INC

PROJECT:
SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

CONDITIONAL USE PERMIT

SITE PLAN

PROJECT #:19.152
DRAWN BY: Author
CHECKED BY: Checker

SHEET #
CR050

5/18/2020 3:48:30 PM
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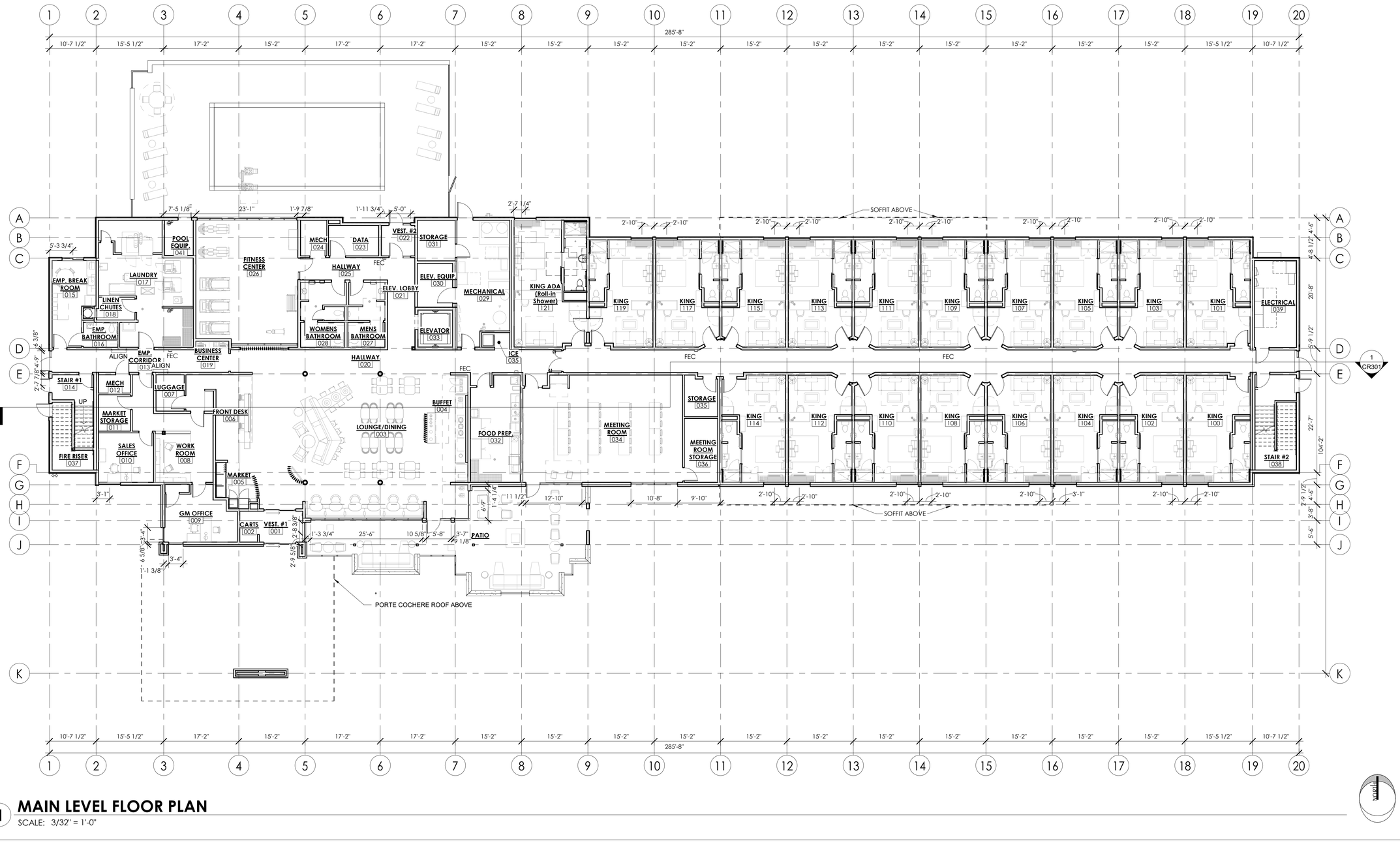
BUILDING DESCRIPTION

3 STORY HOTEL, TYPE V-B CONSTRUCTION

BUILDING DATA

CONSTRUCTION TYPE: TYPE V-B (SPRINKLERED NFPA-13)

OCCUPANCY: R-1 RESIDENTIAL (LEVEL 2 & ABOVE) & MIXED OCCUPANCIES (MAIN LEVEL) - HORIZONTALLY SEPARATED PER TABLE 508.4



1 MAIN LEVEL FLOOR PLAN

SCALE: 3/32" = 1'-0"

THE RICHARDSON DESIGN PARTNERSHIP, L.L.C.
510 South 600 East
Salt Lake City, Utah 84102
P: 801.355.6868
F: 801.355.6880

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SUNRIDGE PROPERTIES, INC

OWNER:

SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

PROJECT:

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

CONDITIONAL USE PERMIT

MAIN LEVEL FLOOR PLAN

PROJECT #:19-152
DRAWN BY: Author
CHECKED BY: Checker

SHEET #
CR101

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1 SECOND LEVEL FLOOR PLAN

SCALE: 3/32" = 1'-0"

THE RICHARDSON DESIGN PARTNERSHIP, L.L.C.
510 South 600 East
Salt Lake City, Utah 84102
P: 801.355.6868
F: 801.355.6880

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SUNRIDGE PROPERTIES, INC

OWNER:

SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

PROJECT:

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

CONDITIONAL USE PERMIT

SECOND LEVEL FLOOR

PROJECT #:19-152
DRAWN BY: Author
CHECKED BY: Checker

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CR102

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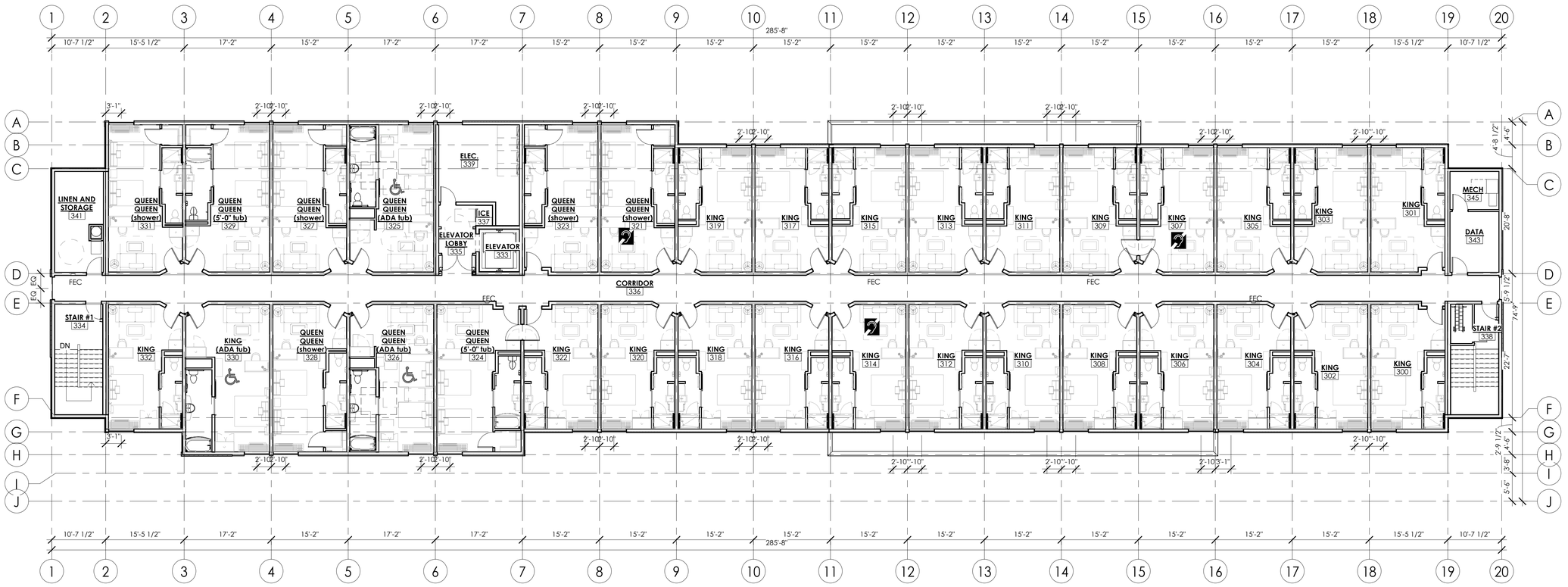

1 THIRD LEVEL FLOOR PLAN

SCALE: 3/32" = 1'-0"

THE RICHARDSON DESIGN PARTNERSHIP, L.L.C.
510 South 600 East
Salt Lake City, Utah 84102
P: 801.355.6868
F: 801.355.6880

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SUNRIDGE PROPERTIES, INC

OWNER:

SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

PROJECT:

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

CONDITIONAL USE PERMIT

THIRD LEVEL FLOOR PLAN

PROJECT #:19-152
DRAWN BY: Author
CHECKED BY: Checker

SHEET #
CR103

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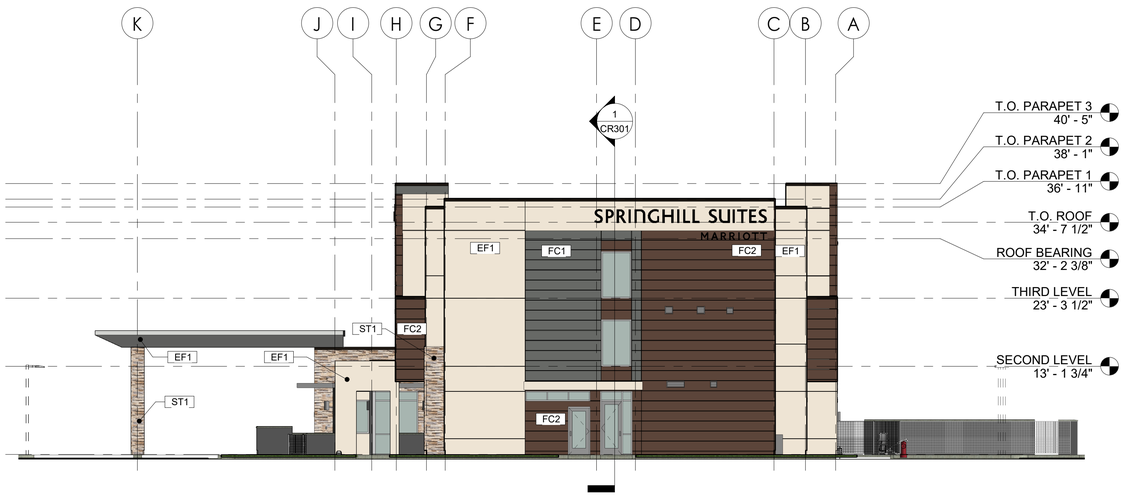
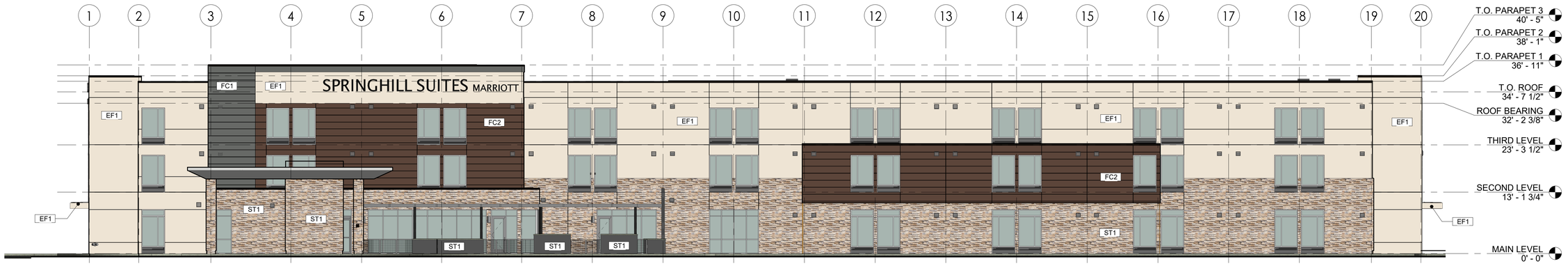
FINISH LEGEND

EF1	2" EIFS - COLOR TO MATCH SW6105
FC1	FIBER CEMENT LAP SIDING - PAINTED TO MATCH SW7068
FC2	FIBER CEMENT LAP SIDING - SAGIPER "CHOCOLATE BLACKWOOD"
ST1	MANUFACTURED STONE VENEER - CORONADO, PRO-LEDGE "OAKBROOK"



2 EAST EXTERIOR ELEVATION

SCALE: 3/32" = 1'-0"



1 SOUTH EXTERIOR ELEVATION

SCALE: 3/32" = 1'-0"

CONDITIONAL USE PERMIT

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510 South 600 East
Salt Lake City, Utah 84102
P: 801.355.6868
F: 801.355.6880

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SUNRIDGE PROPERTIES, INC

OWNER:

SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

PROJECT:

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

COLORED EXTERIOR ELEVATIONS

PROJECT #:19-152
DRAWN BY: Author
CHECKED BY: Checker

SHEET #
CR200

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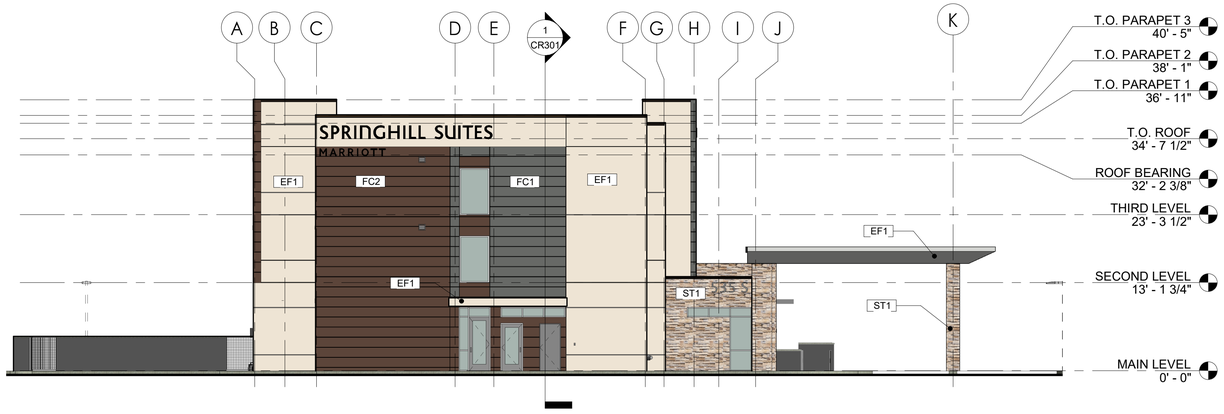
FINISH LEGEND

EF1	2" EIFS - COLOR TO MATCH SW6105
FC1	FIBER CEMENT LAP SIDING - PAINTED TO MATCH SW7068
FC2	FIBER CEMENT LAP SIDING - SAGIPER "CHOCOLATE BLACKWOOD"
ST1	MANUFACTURED STONE VENEER - CORONADO, PRO-LEDGE "OAKBROOK"



2 WEST EXTERIOR ELEVATION

SCALE: 3/32" = 1'-0"

1 NORTH EXTERIOR ELEVATION

SCALE: 3/32" = 1'-0"

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SUNRIDGE PROPERTIES, INC

OWNER:

SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

PROJECT:

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

COLORED EXTERIOR ELEVATIONS

PROJECT #:19-152
DRAWN BY: Author
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CR201

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SUNRIDGE PROPERTIES, INC

OWNER:

SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

PROJECT:

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

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STREET VIEWS PERSPECTIVES

PROJECT #:19-152
DRAWN BY: Author
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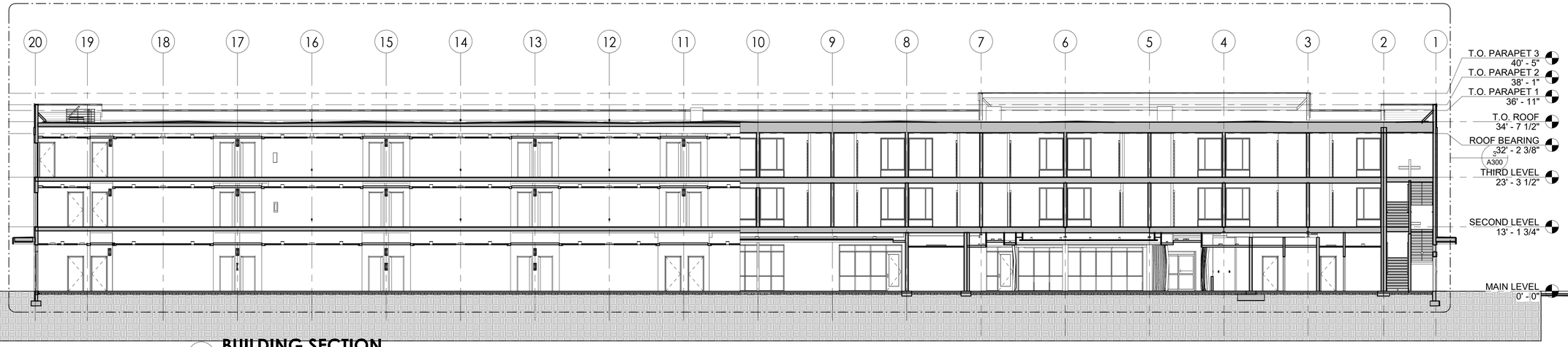

1 **BUILDING SECTION**
SCALE: 3/32" = 1'-0"

THE RICHARDSON DESIGN PARTNERSHIP, L.L.C.
510 South 600 East
Salt Lake City, Utah 84102
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OWNER:
SUNRIDGE PROPERTIES, INC

PROJECT:
SPRINGHILL SUITES
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326

DATE	DESCRIPTION
4/5/17	SITE SUBMITTAL

CONDITIONAL USE PERMIT

BUILDING SECTION

PROJECT #: 19-152
DRAWN BY: Author
CHECKED BY: Checker

SHEET #
CR301

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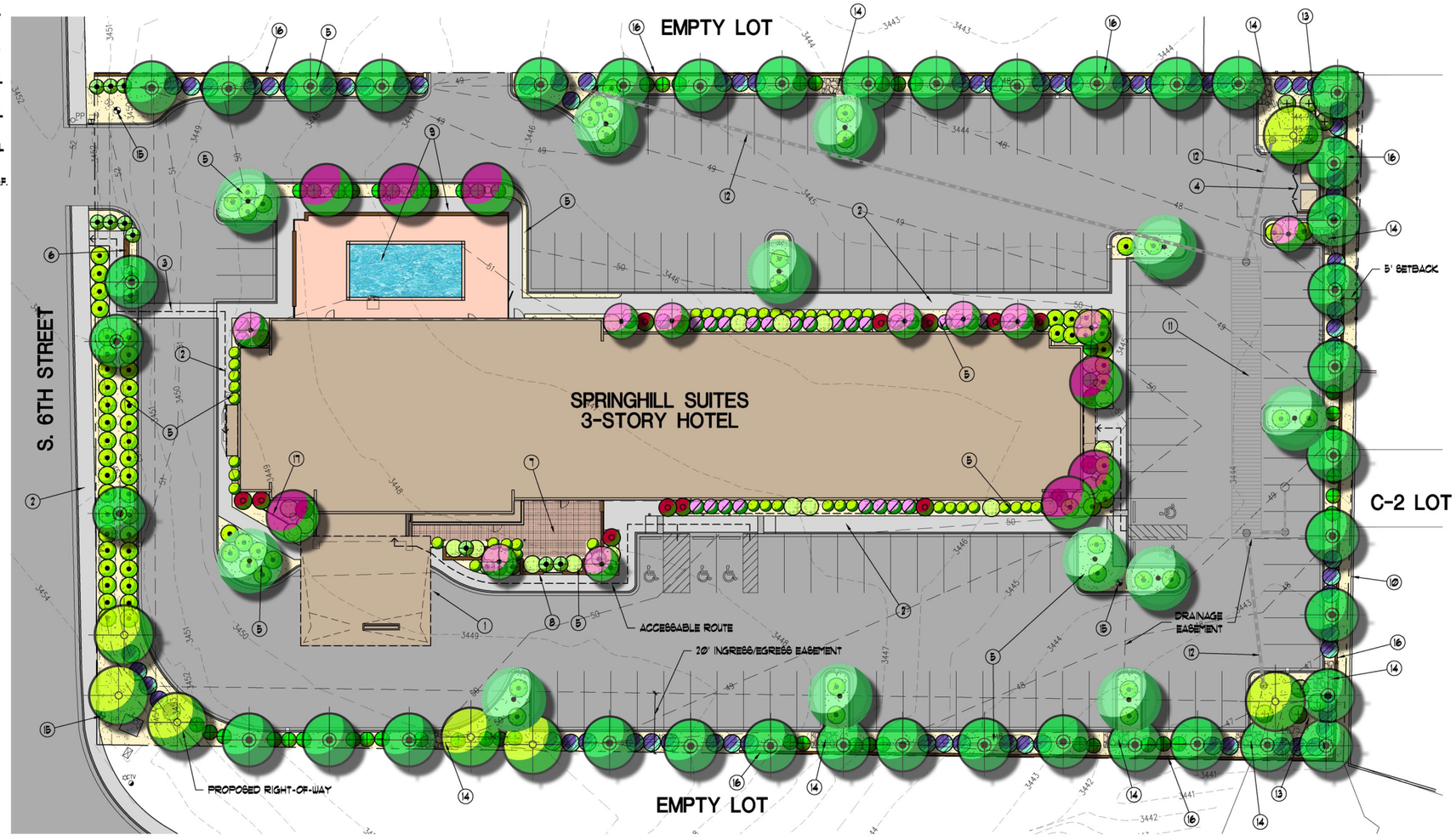
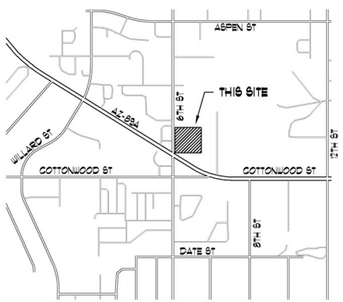
PLANT SCHEDULE: (FOR THIS SHEET ONLY)

	QUERCUS VIRGINIANA SOUTHERN LIVE OAK	24" BOX MIN. 10' HT., 4.5' SP., 1-1/2" CAL	40 TOTAL
	PRUNUS CERRASIFERA PURPLE LEAF PLUM	15 GALLON 8' HT., 3' SP., 3/4" CAL.	7 TOTAL
	FRAXINUS VELUTINA MODESTO ASH	15 GALLON 7' HT., 3' SP., 1" CAL.	12 TOTAL
	PINUS ELDERICA MONDEL PINE	24" BOX MIN. 9' HT., 4.5' SP., 2" CAL.	7 TOTAL
	LAGERSTOEMIA INDICA CRAPE MYRTLE	15 GALLON 7' HT., 2.5' SP., 3/4" CAL	10 TOTAL
	JUNIPERUS CH. 'HORIZONTALIS' SPREADING JUNIPER	5 GALLON FULL, PAST CAN	90 TOTAL
	RAPHIOLEPSIS INDICA 'PINK LADY' PINK LADY INDIA HAWTHORNE	5 GALLON FULL, PAST CAN	31 TOTAL
	COTONEASTER DAMMERI 'LOWFAST' LOWFAST COTONEASTER	5 GALLON FULL, PAST CAN	8 TOTAL
	PHOTINIA FRASERI FRASER'S PHOTINIA	5 GALLON FULL, PAST CAN	17 TOTAL
	SALVIA GREGII AUTUMN SAGE	5 GALLON FULL, PAST CAN	51 TOTAL
	ROSMARINUS OFF. PROSTRATUS DWARF ROSEMARY	1 GALLON FULL, PAST CAN	17 TOTAL
	LEUCOPHYLLUM FRUTESCENS 'rio.' RIO BRAVO SAGE	5 GALLON FULL, PAST CAN	77 TOTAL
	NANDINA DOMESTICA DWARF ORNAMENTAL BAMBOO	5 GALLON FULL, PAST CAN	24 TOTAL
	PITTOSPORUM TOBIRA 'W.D.' WHEELERS DWARF PITTOSPORUM	5 GALLON FULL, PAST CAN	45 TOTAL
	DECOMPOSED GRANITE 2" DEPTH	'MADISON GOLD' 3/4" MINUS	18,600 S.F.

PLAN KEY NOTES:

1. PORTE COCHERE
2. SIDEWALK
3. DECORATIVE PAVER CROSSWALK (SEE ARCH. DWGS.)
4. REFUSE AND ENCLOSURE PER ARCH. DWGS.
5. INSTALL 2" DEEP ¾" MINUS 'MADISON GOLD' DECOMPOSED GRANITE THRU-OUT PLANTING AREA, DETAIL 4/3
6. SIGN MONUMENT PER ARCH. DWGS.
7. DECORATIVE PAVERS
8. NEW DECORATIVE FENCE PER ARCH. DWGS.
9. POOL WITH ORNAMENTAL SECURITY FENCING
10. EXISTING BLOCK WALL
11. UNDERGROUND STORM WATER TANK PER CIVIL DWGS.
12. DRAINAGE PIPE PER CIVIL DWGS.
13. RETENTION BASIN PER CIVIL DWGS.
14. COBBLE RIP RAP PER CIVIL DWGS.
15. FIRE HYDRANT PER CIVIL DWGS.
16. RETAINING WALL PER CIVIL DWGS.
17. BIKE RACK PER ARCH. DWGS.





Vicinity Map

Landscape Plan
Scale 1:20

20 10 0 20
GRAPHIC SCALE

NORTH

THE RICHARDSON DESIGN PARTNERSHIP, L.L.C.
510 South 400 East
Salt Lake City, Utah 84102
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14891
PHILLIP R. RYAN
4/27/06
REGISTERED LANDSCAPE ARCHITECT
ARIZONA, U.S.A.

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4916 s. quiet way
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(480) 899-5813 fax (480) 963-3674

CONSULTANT:

SUNRIDGE HOTEL GROUP
MESA, AZ
OWNER:

SPRINGHILL SUITES
BY MARRIOTT
535 S 6TH STREET
COTTONWOOD, ARIZONA 86326
PROJECT:

#	DATE	DESCRIPTION

LANDSCAPE PLAN

PROJECT #: 0132
DRAWN BY: JTD
CHECKED BY: PRR

SHEET #
L-1

CIVIL IMPROVEMENT PLAN
"SPRINGHILL SUITES BY MARRIOT"
535 S 6TH ST., COTTONWOOD, AZ 86326
LOCATED IN A PORTION OF THE W 1/2 OF THE NE 1/4 OF THE NW 1/4 OF SECTION 3, T.15N, R.3E OF THE GILA & SALT RIVER BASE AND MERIDIAN, YAVAPAI COUNTY, ARIZONA

C.O.C. GENERAL ENGINEERING NOTES

1. THE CITY OF COTTONWOOD DOES NOT WARRANT ANY QUANTITIES SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL QUANTITIES. THE CITY OF COTTONWOOD SHALL NOT BE HELD RESPONSIBLE FOR ERRORS IN ESTIMATES OF QUANTITIES, MATERIALS, SCHEDULE, INSTALLATION REQUIREMENTS, OR SIZE.
2. THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF, SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY CONSTRUCTION WORK BY TELEPHONE AT 928.634.8033. ANY WORK CONCEALED WITHOUT INSPECTION SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
3. AN APPROVED SET OF PLAINS SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES. THE CONTRACTOR'S REPRESENTATIVE (CAPABLE OF COMMUNICATING WITH THE CITY'S REPRESENTATIVES) SHALL BE ON THE JOB AT ALL TIMES THE WORK IS BEING PURSUED.
4. THE PROCEDURES AND METHODS USED TO SAMPLE, TEST MATERIALS, AND REPORT TEST RESULTS WILL BE DETERMINED BY THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT. FOR ALL PHASES OF CONSTRUCTION, THE TYPE, SCHEDULING, FREQUENCY AND LOCATION OF ALL MATERIALS TESTING AND SAMPLING SHALL BE DETERMINED BY THE CITY ENGINEER. THE INSPECTOR SHALL SELECT TESTING LOCATIONS AND INCREASE OR DECREASE THE FREQUENCY OF THE TESTS. COSTS OF MATERIAL TESTING SHALL BE THE RESPONSIBILITY OF THE PROPERTY DEVELOPER. A THIRD PARTY TESTING LABORATORY SHALL BE USED FOR ALL MATERIAL TESTING. AS A GENERAL GUIDELINE TESTING FREQUENCY SHALL BE:
   CONCRETE – 1 SET OF 4 CYLINDERS PER 50 CUBIC YARDS ©3,000 PSI
   SUBGRADE – 1 DENSITY TEST PER 500 LINEAL FEET @ 95% COMPACTION
   BASE COURSE – 1 DENSITY TEST PER 500 LINEAL FEET & 100% COMPACTION
   ASPHALT – 1 DENSITY TEST PER 500 LINEAL FEET IN EACH LANE. I EXTRACTION PER DAY OF PAVING. 1 GRADATION CHECK PER PAVING DAY.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND LEGAL DISPOSAL OF ALL ITEMS SHOWN AS BEING REMOVED ON THESE PLANS.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY THE PRESENCE AND LOCATION OF ALL EXISTING OVERHEAD AND/OR UNDERGROUND UTILITIES AND IRRIGATION LINES THAT MAY INTERFERE WITH THIS CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON THE CONSTRUCTION PLANS FOR THIS PROJECT AND TO ADEQUATELY PROTECT, REPAIR AS REQUIRED, AND MAINTAIN ANY SUCH UTILITIES AND IRRIGATION LINES.
7. THE CONTRACTOR SHALL ONLY USE RECLAIMED WATER FOR COMPACTION AND DUST CONTROL. RECLAIMED WATER PURCHASED IS AVAILABLE BY CONTACTING THE CITY OF COTTONWOOD UTILITIES DEPARTMENT 928.634.0186.
8. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTION DITCHES, PIPES, PROTECTIVE BERMS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT IMPROVEMENTS, WHETHER EXISTING OR PROPOSED, FROM RUNOFF OR DAMAGE FROM STORMWATER, MUST BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF ANY IMPROVEMENTS.
9. TRAFFIC CONTROL SHALL CONFORM WITH THE CITY OF COTTONWOOD ROW PERMIT, MUTCD, AND THE CITY OF COTTONWOOD RIGHT OF WAY PERMIT GUIDELINES, AS APPLICABLE.
10. ALL CONTRACTOR'S RESPONSIBLE TO OBTAIN A NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS, INCLUDING NOTICE OF INTENT (NOI), NOTICE OF TERMINATION, AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP). A COPY OF THE NOI AND SWPPP SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES. THIS APPLIES TO ALL SITES GREATER THAN 1.0 ACRE IN SIZE.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY AND ALL OTHER PERMITS AND MEET ANY REQUIREMENTS SET FORTH BY OTHER AGENCIES OR UTILITIES, WHICH HAVE JURISDICTION, AT THE CONTRACTOR'S EXPENSE, INCLUDING OSHA.
12. ALL CONTRACTORS ARE RESPONSIBLE TO CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES, IF REQUIRED, IN ORDER TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAYS OR STREETS. GRAVEL TRACK-OUT PADS SHALL MEET CURRENT MAG STANDARDS. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ANY SEDIMENT TRACKED ONTO PUBLIC RIGHTS OF WAYS OR STREETS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK AREAS INCLUDING STREETS Sc PAVED AREAS, DRAINAGE WAYS AND DRAINAGE APPURTENANCES, WORK AREA UTILITIES WHETHER BURIED OR EXPOSED, EMBANKMENTS & CUT SLOPES, AND ALL UNFINISHED WORK AREAS. THE CONTRACTOR SHALL DO WHAT IS REQUIRED SO THAT ACCESS IS NOT DENIED TO ANY PROPERTY ALONG THE PROPOSED CONSTRUCTION FOR ANY DURATION THAT WOULD INTERFERE WITH NORMAL DAILY INGRESS AND EGRESS. ALL DRIVING AREAS SHALL BE GRADED TO FINISH SURFACE FOLLOWING THE REQUIRED TRENCH FILL SPECIFICATIONS IMMEDIATELY AFTER THE INSTALLATION IS COMPLETE IN ORDER THAT ACCESS IS NOT INTERRUPTED ALONG THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL LEAVE ALL DRAINAGEWAYS AND APPURTENANCES IN OPERATING ORDER THROUGHOUT THE CONSTRUCTION DURATION. THE CONTRACTOR SHALL ASSURE THAT ALL CUT AND FILL SLOPES ARE REPLACED AT THE PRIOR CONDITIONS OR AS SHOWN ON THE APPROVED PLAINS. THE CONTRACTOR SHALL SEE THAT ALL UNFINISHED WORK AREAS SHALL BE MAINTAINED TO ASSURE THAT OPEN TRENCHES ARE SECURE AND NOT LEFT UNATTENDED, THAT DRAINAGE IS NOT ALLOWED TO ENTER OPEN TRENCHES AND DAMAGE EXISTING AND NEW UTILITIES, AND THAT PUBLIC SAFETY IS ASSURED ALONG THE ENTIRE CONSTRUCTION ROUTE AT ALL TIMES. CONTRACTOR SHALL MEET OSHA STANDARDS FOR TRENCH SAFETY.
14. PRIOR TO THE START OF ANY WORK, THE CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION AND UTILITY COORDINATION MEETING. ALL WORK, PLANS, SPECIFICATIONS, INSPECTION REQUIREMENTS, AND SCHEDULING SHALL BE DISCUSSED AT THIS MEETING.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL ARIZONA BLUE STAKE LAWS PRIOR TO AND DURING CONSTRUCTION BY CONTACTING THE BLUE STAKE AUTHORITY AT 1.800.STAKE.IT OR 811. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF THE BLUE STAKE AS IS REQUIRED THROUGHOUT THE PROJECT CONSTRUCTION DURATION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE ARIZONA BLUE STAKE AUTHORITY REGULATIONS. CONTRACTOR SHALL PROVIDE THE CITY OF COTTONWOOD ENGINEERING STAFF WITH EVIDENCE OF ANY AREA BEING DISTURBED HAVING BEEN BLUE STAKED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
16. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE SUFFICIENT MANPOWER, PARTS, AND EQUIPMENT ON THE JOB SITE AT ALL TIMES DURING THE DURATION OF THE CONSTRUCTION PROJECT TO BOTH COMPLY WITH THE PROJECT SPECIFICATIONS AND ALSO ACCOMPLISH THE WORK IN A TIMELY MANNER.
17. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE SPECIFICATIONS AS REQUIRED IN THE CURRENT UNIFORM STANDARD SPECIFICATIONS AND DETAILS OF PUBLIC WORKS CONSTRUCTION BY MARICOPA ASSOCIATION OF GOVERNMENTS COMMONLY REFERRED TO AS MAG STANDARDS, CITY OF COTTONWOOD ENGINEERING DESIGN STANDARDS MANUL, REGULATIONS OR SPECIFICATIONS, ANSI/AWWA SPECIFICATIONS, AND/OR OTHER STATE AND FEDERAL SPECIFICATIONS, AS APPLICABLE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE TRENCH BRACING, SHEATHING, SHORING OR SIDE SLOPES AS REQUIRED FOR THE SAFETY AND CONFORMANCE TO ALL APPLICABLE TO ALL APPLICABLE OSHA LAWS AND CONSTRUCTION STANDARDS FOR THE EXCAVATION AND TRENCHING OF THIS PROJECT. THE CONTRACTOR SHALL ASSURE THAT SUITABLE AND SAFE CONDITIONS, INCLUDING PROPER TRAFFIC AND SAFETY CONTROL, ARE MET THROUGHOUT THE DURATION OR WORK WILL BE CEASED UNTIL SUCH TIME THAT THE UNSAFE CONDITION IS RECTIFIED. THE CITY OF COTTONWOOD SHALL NOT BE HELD IN ANY WAY RESPONSIBLE FOR AMY LOST TIME BY THE CONTRACTOR DUE TO UNSAFE CONDITIONS OR THE ENFORCEMENT OF THIS SPECIFICATION.
19. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, CITY ENGINEER, FOR APPROVAL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
20. THE CITY OF COTTONWOOD MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN THEIR JUDGMENT, PROGRESS IS UNSATISFACTORY OR UNAUTHORIZED, THE PRODUCT IS UNSATISFACTORY, WEATHER CONDITIONS ARE UNSUITABLE OR THERE IS DANGER TO THE PUBLIC.
21. THE CITY OF COTTONWOOD MAY REQUIRE THE SUBMITTAL OF A "CERTIFICATE OF COMPLIANCE" AND/OR "MANUFACTURER'S GUIDELINES" FOR ANY MATERIALS USED IN THE WORK. MANUFACTURER'S GUIDELINES SHALL CONSIST OF WRITTEN INSTRUCTIONS FOR SHIPPING, HANDLING, UNLOADING, CUTTING, JOINING, INSTALLATION, STORAGE, AND/OR ANY OTHER FACETS OF WORKING.
22. SHOP DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR PER MAG SPECIFICATION SECTION 105.2.
23. THE CITY OF COTTONWOOD MAY ORDER ANY MATERIALS USED IN THE WORK TO BE TESTED ACCORDING TO AASHTO AND ASTM STANDARDS. THE CONTRACTOR SHALL, AT THEIR EXPENSE, SUPPLY CERTIFICATES OR RESULTS OF TESTING.
24. THE CONTRACTOR MAY SUBMIT CAREFULLY DOCUMENTED AND CONSIDERED WRITTEN PROPOSAL FOR ALTERNATE MATERIALS AND CONSTRUCTION METHODS. THOSE PROPOSALS THAT ARE FOUND TO BE IN CONFORMITY WITH GOOD ENGINEERING DESIGN AND CAN EASILY BE OBTAINED BY CITY FORCES MAY BE GIVEN WRITTEN APPROVAL BY THE CITY ENGINEER FOR INCORPORATION IN THE CONSTRUCTION PLANS IF THEY ARE FOUND TO BE IN THE PUBLIC INTEREST.
25. ALL IMPROVEMENTS SHALL BE CONSTRUCTED BY CONTRACTORS LICENSED BY THE ARIZONA STATE REGISTRAR OF CONTRACTORS, WITH A CLASS OF LICENSE(S) FOR THE SPECIFIC WORK BEING PERFORMED.
26. THE CITY OF COTTONWOOD, INSPECTION STAFF, SHALL BE NOTIFIED 24 HOURS PRIOR TO BEGINNING DIFFERENT PHASES OF CONSTRUCTION SO THAT OBSERVATIONS MAY BE SCHEDULED.
27. APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ACCEPTANCE OF COMPLETED IMPROVEMENT WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED, AND FINAL CLEAN-UP IS COMPLETE.
28. THE CITY OF COTTONWOOD RESERVES THE RIGHT TO REQUEST MODIFICATIONS TO THESE PLANS DURING CONSTRUCTION IF FIELD CONDITIONS WARRANT AND THE DESIGN ENGINEER CONCURS.
29. ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN THE WARRANTY PERIOD GIVEN IN THE PROJECT CONTRACT FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE CONTRACTOR.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STREETS AND OF PARTIALLY COMPLETED PORTIONS OF THE WORK UNTIL FINAL ACCEPTANCE OF THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE QUALITY OF EXISTING STREETS LEADING TO THE PROJECT SITE. EXISTING STREETS FOUND TO BE DAMAGED BY CONSTRUCTION TRAFFIC SHALL BE REPAIRED TO THE SATISFACTION OF THE CITY OF COTTONWOOD BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
31. STREETS CLOSED BECAUSE OF CONSTRUCTION SHALL BE PROVIDED WITH BARRICADES ABD/OR HAZARD SIGNS AS REQUIRED AND APPROVED BY THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF. THE CITY OF COTTONWOOD DEPARTMENT OF PUBLIC SAFETY SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY STREET CLOSURE.
32. PRIOR TO APPROVAL OF AN IMPROVEMENT PROJECT, AN "AS-BUILT" PLAN MUST BE SUBMITTED TO THE CITY ENGINEER. THE AS-BUILT PLAN SHALL INDICATE THE ACTUAL LOCATION OF WATER MAINS, SEWER MAINS, UNDERGROUND DRAINAGE STRUCTURES, ALL SEWER AND WATER SERVICES, ALL FITTINGS, VALVES AND MANHOLES RELATIVE TO RIGHT OF WAY BOUNDARIES, LOT LINE, OR OTHER POINTS OF SURVEY.
33. THE ACCURACY OF ALL CONSTRUCTION WORK SHALL BE MAINTAINED AND VERIFIED BY THE CONTRACTOR'S SURVEYOR AT THE CONTRACTOR'S EXPENSE. STAKES WILL BE SET ESTABLISHING LINES AND GRADES (FINISH OR FLOWLINE) FOR ALL CONSTRUCTION INCLUDING ROADS, CURB AND GUTTER, SIDEWALKS, UTILITIES, STRUCTURES, AND OTHER WORK AS CONSIDERED NECESSARY. ALL SURVEY CONTROL SHALL BE SET BY THE CONTRACTOR'S SURVEYOR FROM MONUMENTS PER THESE APPROVED PLANS.
34. A COPY OF THE ADEQ PERMITS ISSUED PRIOR TO NEW CONSTRUCTION, EXTENSION TO, OR MODIFICATION OF A WATER DISTRIBUTION SYSTEM, SEWER COLLECTION OR INDIVIDUAL SEWAGE TREATMENT SYSTEM SHALL BE ONSITE AT ALL TIMES.
35. RELOCATION OF SIGNS, TREES, SHRUBS, MAILBOXES AND OTHER INCIDENTALS REQUIRING RELOCATION SHALL BE MOVED ONLY FAR ENOUGH TO ALLOW CONSTRUCTION OF THE PROJECT AND CAUSE THE LEAST DISRUPTION TO PRIVATE PROPERTY, AND LANDSCAPE. FINAL POSITIONS SHALL BE APPROVED BY THE CITY OF COTTONWOOD PRIOR TO RELOCATION. ALL RELOCATED ITEMS SHALL CONTINUE TO WORK IN THEIR INTENDED CAPACITY AFTER THE RELOCATION HAS BEEN ACCOMPLISHED. NO SIGNS SHALL BE RELOCATED TO POSITIONS OUTSIDE DESIGNATED RIGHTS OF WAY. SAFETY SHALL BE A PRIMARY CONSIDERATION IN THE PLACEMENT OF SHRUBBERY AND SIGNS WHICH COULD POSSIBLY DISRUPT THE SIGHT DISTANCE OF MOTORISTS.
36. NO JOB WILL BE CONSIDERED COMPLETE UNTIL FINAL GRADING IS COMPLETE AND ALL CURBS, PAVEMENT, AND SIDEWALKS HAVE BEE SWEPT CLEAN OF ALL DIRT AND DEBRIS, ALL SURVEY MONUMENTS ARE INSTALLED, AND ALL VALVES, MANHOLES AND BOXES HAVE BEEN ADJUSTED TO GRADE ACCORDING TO THESE APPROVED PLANS.

ENGINEERS NOTES

1. YAVAPAI ASSOCIATION OF GOVERNMENTS (Y.A.P.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION INCLUDING LATEST REVISION AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL TOWN OR CITY) ARE INCORPORATED INTO THIS PLAN IN THEIR ENTIRETY.
2. ALL WORK REQUIRED TO COMPLETE THE CONSTRUCTION COVERED BY THIS PLAN SHALL BE IN ACCORDANCE WITH THE Y.A.P. STANDARD SPECIFICATIONS AND DETAILS AND CURRENT SUPPLEMENTS THEREOF PER THE LOCAL CITY OR TOWN UNLESS SPECIFIED OTHERWISE IN THESE PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS. CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL REQUIRED STANDARD SPECIFICATIONS, DETAILS AND SUPPLEMENTS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
3. GRADING SHALL BE IN CONFORMANCE WITH 2015 IBC SEC. 1803 AND APPENDIX J.
4. 5% MINIMUM SLOPE AWAY FROM BUILDING FOR A MINIMUM 10', U.N.O.
5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST YAVAPAI ASSOCIATION OF GOVERNMENTS (Y.A.P.) SPECIFICATIONS AND STANDARD DETAILS.
6. A DUST CONTROL PLAN MEETING THE REQUIREMENTS OF RULE 310 OF THE YAVAPAI COUNTY AIR POLLUTION CONTROL REGULATIONS, AS AMENDED, IS REQUIRED.
7. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
8. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
9. ALL DRAINAGE PROTECTIVE DEVICES SUCH AS SWALES, INTERCEPTOR DITCHES, PIPES, PROTECTIVE BERMS, BARRIER WALLS, CONCRETE CHANNELS OR OTHER MEASURES DESIGNED TO PROTECT ADJACENT BUILDINGS OR PROPERTY FROM STORM RUNOFF MUST BE COMPLETED PRIOR TO BUILDING CONSTRUCTION.
10. ALL PATIOS, WALKS, AND DRIVES TO SLOPE AWAY FROM BUILDING AND GARAGES AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS SPECIFIED OTHERWISE. ALL LAWN AREAS ADJOINING WALKS OR SLABS WILL BE GRADED TO 2" BELOW THE TOP OF SLAB. TYPICAL FINISHED GRADE AROUND PERIMETER OF BUILDING IS MINUS 6" BELOW FINISHED FLOOR UNLESS SPECIFIED OTHERWISE.
11. THE QUANTITIES AND SITE CONDITIONS DEPICTED IN THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE SUBJECT TO ERROR AND OMISSION. CONTRACTORS SHALL SATISFY THEMSELVES AS TO ACTUAL QUANTITIES AND SITE CONDITIONS PRIOR TO BIDDING THE WORK FOR THE CONSTRUCTION COVERED BY THIS PLAN.
12. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS REQUIRED TO COMPLETE ALL WORK COVERED BY THIS PLAN.
13. THE CONTRACTOR IS RESPONSIBLE FOR ALL METHODS, SEQUENCING, AND SAFETY CONCERNS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION, UNLESS SPECIFICALLY ADDRESSED OTHERWISE IN THIS PLAN OR ELSEWHERE.
14. A REASONABLE EFFORT HAS BEEN MADE TO SHOW THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES AND/OR FACILITIES CAUSED DURING THEIR CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL CALL 48 HOURS IN ADVANCE FOR BLUE STAKE (1-800-STAKE-IT) PRIOR TO ANY EXCAVATION.
15. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF CONSTRUCTION AFFECTING UTILITIES AND THE COORDINATION OF ANY NECESSARY UTILITY RELOCATION WORK.
16. ALL PAVING, GRADING, EXCAVATION, TRENCHING, PIPE BEDDING, CUT, FILL AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS SET FORTH IN THE SOILS (GEOTECHNICAL) REPORT FOR THIS PROJECT IN ADDITION TO THE REFERENCED REQUIRED SPECIFICATIONS AND DETAILS.
17. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES AT POINTS OF TIE-IN PRIOR TO COMMENCING ANY NEW CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION DIFFER FROM THAT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNER'S AGENT.
18. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND SITE LAYOUT WITH ARCHITECTURE'S FINAL SITE PLAN AND FINAL BUILDING DIMENSIONS BEFORE STARTING WORK. REPORT DISCREPANCIES TO OWNER'S AGENT.
19. COORDINATION BETWEEN ALL PARTIES IS ESSENTIAL PART OF CONTRACT.
20. THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER, OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS-SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THESE PLANS NOT ABLE TO BE CONSTRUCTED, THE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
21. ALL ON-SITE DRY UTILITIES PER OTHERS.
22. THIS PROJECT REQUIRES A REGULAR ONGOING MAINTENANCE PROGRAM FOR THE DESIGNED DRAINAGE SYSTEM(S) TO PRESERVE THE DESIGN INTEGRITY AND THE ABILITY TO PERFORM ITS OPERATIONAL INTENT. FAILURE TO PROVIDE MAINTENANCE WILL JEOPARDIZE THE DRAINAGE SYSTEM(S)' PERFORMANCE AND MAY LEAD TO IT'S INABILITY TO PERFORM PROPERLY AND/OR CAUSE DAMAGE ELSEWHERE IN THE PROJECT.
23. IF A DISCREPANCY IS FOUND BETWEEN ENGINEER'S PLAN OR SURVEYOR'S STAKING AND THE ARCHITECTURAL PLAN. ENGINEER SHALL BE NOTIFIED IMMEDIATELY. FAILURE TO NOTIFY ENGINEER SHALL NEGATE ENGINEER'S LIABILITY.
24. ANY FUTURE IMPROVEMENTS SHOWN HEREON SHALL REQUIRE A SEPARATE PERMIT.
25. ANY POINTS OF DRAINAGE CONCENTRATION SHOULD BE PROTECTED AGAINST EROSION WITH NATIVE STONE.
26. THIS PLAN IS DESIGNED TO SHOW SITE GRADING AND DRAINAGE CONTRACTOR SHALL USE THE ARCHITECTURAL SITE PLAN TO DETERMINE FINAL HOUSE, WALL, STEP, ETC., LOCATIONS AND ELEVATIONS.
27. ALL DRAINAGE FACILITIES TO BE MAINTAINED BY HOMEOWNER OR ASSOCIATION.
28. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING LAYOUT, DIMENSIONS AND ELEVATIONS.
29. COORDINATE RIPRAP COLOR WITH LANDSCAPE PLANS AND DETAILS.
30. VERIFY AND COORDINATE WITH ARCHITECTURAL AND LANDSCAPE PLANS LOCATION AND HEIGHT OF ALL SITE WALLS.
31. VERIFY AND COORDINATE WITH LANDSCAPE PLANS FINAL LOCATION AND GRATE TYPE OF SPECIFIED AREA DRAINS AND TRENCH DRAINS.
50. THE SCOPE OF THIS GRADING AND DRAINAGE PLAN COVERS THE PROPOSED SITE IMPROVEMENTS AS SHOWN. LAND DEVELOPMENT GROUP (LDG) ASSUMES NO RESPONSIBILITY FOR DRAINAGE ISSUES BEYOND THE LIMITS OF THE CONSTRUCTION WORK PROPOSED HEREIN AND FOR PRE-EXISTING DEFICIENCIES THAT MAY EXIST ON THIS PROPERTY AND DRAINAGE DESIGN CURRENTLY UNDER CONSTRUCTION FOR ADJACENT PHASING WORK.
51. CONTRACTOR TO LOCATE ALL EXISTING UTILITIES AND STORM DRAIN PIPING AND PROTECT IN PLACE DURING AT ALL TIME OF CONSTRUCTION.

UTILITY COMPANY APPROVALS

1. THESE PLANS HAVE BEEN SUBMITTED TO THE LISTED UTILITY COMPANIES. THE WORK CONTAINED IN THESE PLANS HAS BEEN APPROVED OR NO UTILITY CONFLICT FOUND BY THESE COMPANIES WITHIN THEIR AREA OF INTEREST. THE LOCATIONS, AS SHOWN, OF THE GAS, TELEPHONE, AND POWER LINES AND CONNECTIONS THERETO AGREE WITH THE INFORMATION CONTAINED IN EACH UTILITY COMPANY'S RECORDS. WHERE THE WORK TO BE DONE CONFLICTS WITH ANY OF THESE UTILITIES, THE CONFLICTS SHALL BE RESOLVED AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS AND/OR AS OTHERWISE NOTED ON THESE PLANS. CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORESEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THE UTILITY AND THE DEVELOPER'S AGENT.
2. THE CITY WILL NOT PARTICIPATE IN THE COST OF CONSTRUCTION OR UTILITY RELOCATION.

UTILITY	UTILITY COMPANY	COMPANY REPRESENTATIVE	DATE
ELECTRIC	APS	CONFLICT REVIEW DEPT.	
TELEPHONE	CENTURY LINK	ESTHER MEDINA	
NATURAL GAS	SOUTHWEST GAS	FRANCHISE DEPARTMENT	
CABLE TV	COX COMM.	DEER VALLEY ENG. OFFICE	
SPECIALTY GAS	AIR PRODUCTS	KEVIN McKENZIE	

LEGEND

SECTION CORNER
HIGHWAY RIGHT OF WAY MARKER
BRASS CAP FLUSH
FOUND REBAR OR AS NOTED
SET 1/2" REBAR & TAG OR AS NOTED
CALCULATED POINT
PROPERTY LINE
EASEMENT LINE
MONUMENT LINE
WM — WATER METER
WATER VALVE
FIRE HYDRANT
TELEPHONE PEDESTAL
CTV — CABLE TV RISER
SEWER MANHOLE
PP — POWER POLE
LIGHT POLE
DOWN GUY
FENCE
1321 — EXISTING CONTOUR
G — GAS LINE
T — CATV, PHONE
S — SEWER LINE
W — WATER LINE
C — COMMUNICATIONS LINE
OHE — OVERHEAD ELECTRIC LINE
EXIST. DRAINAGE FLOW
x21.12 — EXIST. SPOT ELEVATION
43.25 — PROPOSED SPOT ELEVATION
1342 — PROPOSED CONTOUR
TW: XX — TOP OF WALL
TRW: XX — TOP OF RETAINING WALL
FG: XX — FINISH GRADE
BW: XX — BOTTOM OF WALL GRADE
TF: XX — TOP OF FOOTING
STORM DRAIN PIPE
CATCH BASIN / INLET
DRYWELL
WDO — WALL DRAINAGE OPENING
SLOPE DIRECTION
FLOW LINE

ABBREVIATIONS

BC	BACK OF CURB
BSL	BUILDING SETBACK LINE
EG	EXISTING GRADE
EL, ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX, EXIST.	EXISTING
G	GUTTER, GAS
INV	INVERT
(M)	MEASURED
MH	MANHOLE
P, PVMT	PAVEMENT
PUE	PUBLIC UTILITY EASEMENT
(R), REC.	RECORDED
R	RADIUS
R/W	RIGHT OF WAY
T	TANGENT, TELEPHONE
TC	TOP OF CURB
W	WEST, WATERLINE
WM	WATER METER
YCR	YAVAPAI COUNTY RECORDER

SHEET INDEX

C1 – COVER SHEET/GENERAL NOTES
C2 – GENERAL NOTES
C3 – GRADING & DRAINAGE PLAN
C4 – PRIVATE WATER, SEWER & FIRELINE PLAN
C5 – DETAILS & SECTIONS

PROJECT DESCRIPTION

NEW 3-STORY COMMERCIAL HOTEL WITH SITE IMPROVEMENTS INCLUDING PARKING LOT AND POOL. ONSITE RETENTION IS PROPOSED FOR THIS PROJECT.

EARTHWORK QUANTITIES

CUT: 307 C.Y.
CUT FROM UNDERGROUND RETENTION PIPE: 276 C.Y.
FILL: 8,111 C.Y.
NET FILL: 7,528 C.Y.
QUANTITIES ARE ESTIMATED IN PLACE. NO SHRINK, SWELL, CLEAR AND GRUB OR BUILDING FOOTING EXCAVATION IS ASSUMED. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF THE QUANTITIES AND BASE THEIR BIDS ON THEIR ESTIMATES.

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #		SUFFIX	BASE FLOOD ELEVATION
040096	1757 OF 4425		L	N/A
MAP # 04013C	PANEL DATE 10/16/2013	FIRM INDEX DATE 11/04/2015	ZONE X*	

*AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

UTILITIES

WATER: CITY OF COTTONWOOD
SANITARY SEWER: CITY OF COTTONWOOD
ELECTRIC: APS
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS
NATURAL GAS: UKNOWN
CABLE TV: CENTURY LINK, COX COMMUNICATIONS

UTILITIES NOTES

HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE ONLY AND WILL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION WORK. CALL BLUE STAKE @ (602) 263-1100.

RETENTION CALCULATIONS

NOTES
(1). RETENTION CALCULATIONS ARE IN ACCORDANCE WITH THE STIPULATIONS BY THE CITY OF COTTONWOOD. (PRE VS. POST OR FIRST FLUSH, WHICHEVER IS GREATER).
(2). CALCULATION IS BASED ON THE CITY OF COTTONWOOD DRAINAGE DESIGN MANUAL.
(3). RAINFALL DEPTH IS PER TABLE 3-1 OF CITY OF COTTONWOOD DESIGN STANDARDS.
(4). BASED ON CURRENT CONDITIONS.

PRE-DEVELOPMENT VS. POST DEVELOPMENT FOR THE 100-YR, 2 HOUR STORM EVENT (1)								FIRST FLUSH
WEIGHTED RUNOFF COEFFICIENT, Cw						VOLUME REQUIRED, CF V=PxAxC/12 (2) RAINFALL DEPTH, P = 2.66" (3) DRAINAGE AREA = 97,817 SF		VOLUME REQUIRED, CF V=PxA/12 RAINFALL DEPTH, P=0.5" (1) DRAINAGE AREA=97,817 SF
CONDITION	SURFACE	C	AREA SF	C x A	Cw	C (PRE VS POST)	VR PRE VS POST	VR FIRST FLUSH
PRE- DEV. (4)	PERVIOUS	0.45	97,817	44,018	0.45	0.407	8,824 (GOVERNS)	4,076
	IMPERVIOUS	0.95	0	0				
POST-DEV.	PERVIOUS	0.45	18,205	8,192	0.86			
	IMPERVIOUS	0.95	79,612	75,631				

RETENTION BASIN TABLE						
RETENTION BASIN ID	CONTOUR ELEVATION		CONTOUR AREA	DEPTH	VOLUME PROVIDED	AS-BUILT
			S.F.	FT	C.F.	
#1	HW	46.75	575	2.00	626	
	BOTTOM	44.75	51			
#2	HW	46.75	687	2.00	772	
	BOTTOM	44.75	85			
#3	10' DIA. RETENTION PIPE (95 LF)				7,461	
TOTAL					8,859	

ARCHITECT

THE RICHARDSON DESIGN PARTNERSHIP, LLC
510 S 600 E
SALT LAKE CITY, UTAH 84102
P: 801-355-6868
F: 801-355-6880
CONTACT: MARC IMLAY

CIVIL ENGINEER

LAND DEVELOPMENT GROUP, LLC
8808 N CENTRAL AVE, SUITE 288
PHOENIX, AZ 85020
CONTACT: NICK PRODANOV, PE
P: 602 889 1984

VICINITY MAP

NTS

OWNER

CITY OF COTTONWOOD
827 N MAIN ST.,
COTTONWOOD, AZ 86326-4012

SITE DATA

APN: 406-06-009
ADDRESS: 535 S 6TH ST., COTTONWOOD, AZ 86326
LOT AREA: 97,817 S.F (2.246 AC.)
CONSTRUCTION YEAR: VACANT LOT

BENCHMARK

THE BRASS CAP IN HEADWALL, KNOWN AS NGS DATA POINT X 494, PID ET0853, THE ELEVATION OF WHICH IS 3347.96, NAVD 88.

THE PROPERTY CORNER SET AT THE NW CORNER OF SUBJECT PROPERTY CAN BE UTILIZED AS THE SITE TBM, ELEV= 3448.89.

BASIS OF BEARINGS

THE MONUMENT LINE OF NORTH LINE OF THE NE 1/4 OF SECTION 3, T15N, R3E, THE BEARING OF WHICH IS S89°54'35"E.

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF YAVAPAI, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:
THAT PART OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 3, TOWNSHIP 15 NORTH, RANGE 3 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, YAVAPAI COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
COMMENCING AT A POINT ON THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER THAT LIES SOUTH 484.6 FEET FROM THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER;
THENCE EAST 60.00 FEET TO THE POINT OF BEGINNING;
THENCE SOUTH 409.9 FEET, PARALLEL WITH THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHWEST QUARTER;
THENCE EAST 430.4 FEET;
THENCE NORTHEASTERLY 410.0 FEET TO A POINT THAT LIES EAST 434.00 FEET FROM THE POINT OF BEGINNING;
THENCE WEST 434.00 FEET TO THE POINT OF BEGINNING;
EXCEPT THE EAST 55 FEET OF THE NORTH 184.5 FEET THEREOF.

(NOTE) LEGAL DESCRIPTION SHOWN IS PER TITLE REPORT PROVIDED BY CLIENT, DOES NOT REFLECT PROPERTY DIVISION SHOWN ON MLD, CES, JOB# 20-0207 RECORDED IN REC 2020-0015661, Y.C.R.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR — DATE

REGISTERED NUMBER

CITY APPROVAL:

CITY ENGINEER — DATE

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

DATE: 05/18/20 | JOB: 2003070 | VERSION: 1.2 | PLOT DATE: 05/18/20
SCALE: 1"=## | DESIGNED BY: NP | DRAWN BY: DW | CHECKED BY: NP
DATE: | REVISIONS:

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF LAND DEVELOPMENT GROUP, LLC. UNAUTHORIZED USE, REUSE, REPRODUCTIONS, OR PUBLICATION BY ANY METHOD IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF LAND DEVELOPMENT GROUP, LLC IS PROHIBITED. THE USE OF THIS DRAWING SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH IT WAS PREPARED.

COVER SHEET

SPRINGHILL SUITES BY MARRIOT
535 S 6TH ST.,
COTTONWOOD, AZ 86326

Land DEVELOPMENT GROUP
P 602 889 1984 | F 602 445 9482
8808 N CENTRAL AVE., SUITE 288
PHOENIX, AZ 85020
PHOENIX@LDGENG.COM

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 41005 NICKOLA J. PRODANOV Date Signed 05/18/20 ARIZONA U.S.A.

C.O.C. GRADING & DRAINAGE NOTES

1. EXCAVATING CONTRACTOR MUST GIVE LOCATION FOR WASTING EXCESS EXCAVATION IF LOCATED WITHIN THE CITY OF COTTONWOOD AND A LETTER FROM THE OWNER GIVING PERMISSION FOR DUMPING PRIOR TO STARTING ON–SITE CONSTRUCTION. IF EXCESS EXCAVATION EXCEEDS 50 CUBIC YARDS AND IS DISPOSED OF ON PRIVATE PROPERTY, THE DISPOSAL SITE WILL ALSO REQUIRE A GRADING AND DRAINAGE PERMIT.
2. GRADING AND DRAINAGE PLAN APPROVAL INCLUDES THE CONSTRUCTION OF ALL SURFACE IMPROVEMENTS SHOWN ON THE APPROVED PLAINS.
3. ALL RAMPS MUST MEET ADA ACCESSIBILITY GUIDELINES (ADAAG) STANDARDS AND MAG UNIFORM STANDARD SPECIFICATIONS AND COTTONWOOD ENGINEERING DESIGN STANDARDS MANUAL; 2% MAX CROSS SLOPES AND 12:1 MAX LONGITUDINAL SLOPES UNLESS DEVIATION IS SHOWN ON THE APPROVED PLANS.
4. COMPACTION SHALL COMPLY WITH MAG SECTION 601 OR AS SPECIFIED IN THE APPROVED PLANS.
5. TREES AND SHRUBBERY THAT CONFLICT WITH PROPOSED IMPROVEMENTS SHALL NOT BE REMOVED WITHOUT WRITTEN APPROVAL OF THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AUTHORIZATION TO REMOVE AND/OR RELOCATE SAID TREES OR SHRUBBERY BY CALLING THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF AT 928.634.8033.
6. SUBGRADE PREPARATION SHALL CONFORM WITH THE GEOTECHNICAL REPORT, IF APPLICABLE, FOR THIS PROJECT UNLESS OTHERWISE DIRECTED IN THE APPROVED PLANS.
7. THE CONTRACTOR SHALL PRESERVE AND MAINTAIN CONSTRUCTION STAKING AND REFERENCE AND CONTROL POINTS UNTIL SUCH A TIME THAT THEY ARE NO LONGER REQUIRED. IN THE EVENT THAT THESE ITEMS ARE MOVED OR DESTROYED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HOVE THOSE ITEMS RE–ESTABLISHED FOR LOCATION AND GRADE.
8. ALL HEADWALLS, RETAINING WALLS, OR ANY OTHER INSTANCES WHERE THERE IS A BREAK IN GRADE OF 30" OR MORE SHALL REQUIRE THE INSTALLATION OF A SAFETY RAIL PER COTTONWOOD STANDARD DETAIL 1145.
9. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING THE DEPTH OF ALL EXISTING UTILITY LINES WITHIN PROPOSED RETENTION AND DETENTION FACILITY AREAS. IF THE DRAINAGE FACILITIES CANNOT BE CONSTRUCTED PER PLAN AS A RESULT OF CONFLICT WITH UNDERGROUND UTILITIES, THE CONTRACTOR SHOULD CONTACT THE CITY ENGINEER AND REQUEST MODIFICATION TO THE DRAINAGE FACILITY DESIGN BY THE DESIGN ENGINEER.
10. ALL LANDSCAPE AND IRRIGATION INSTALLED WITHIN THE CITY RIGHT OF WAY OR OTHER CITY MAINTAINED AREAS SHALL BE INSTALLED PER THE APPROVED PLANS. ALL LANDSCAPING APPROVED AS A PART OF THE SITE PLAN PROCESS SHALL BE INSTALLED PER THE APPROVED PLAINS. ANY DEVIATIONS TO THE APPROVED PLANS REQUIRE APPROVAL FROM THE CITY ENGINEER.

C.O.C. PAVING NOTES

1. COMPACTION SHALL BE PER MAG SECTION 601.
2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST APPLICABLE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS AND COTTONWOOD ENGINEERING DESIGN STANDARDS MANUAL OR SPECIFICALLY AS SHOWN IN THESE PLANS.
3. THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, 928.634.8033, SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY CONSTRUCTION WORK COMMENCING.
4. EXISTING OR NEWLY DAMAGED AND/OR DISPLACED CONCRETE CURB, GUTTER, SIDEWALK, OR DRIVEWAY SLABS SHALL BE REPAIRED OR REPLACED, AS NOTED BY CITY INSPECTORS, BEFORE FINAL ACCEPTANCE OF THE WORK.
5. OBSTRUCTIONS TO PROPOSED IMPROVEMENTS SHALL BE REMOVED OR RELOCATED BEFORE BEGINNING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
6. PAVING SHALL NOT START UNTIL ALL APPROPRIATE TESTING HAS BEEN COMPLETED AND ACCEPTED BY THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT.
7. THE BASE MATERIAL SHALL BE SAND AND GRAVEL, CRUSHED ROCK AND/OR DECOMPOSED GRANITE WITH ENOUGH BINDER MATERIAL SO THAT IT CAN BE TIGHTLY COMPACTED AND SHALL HAVE A PLASTICITY INDEX NOT IN EXCESS OF 6 AND SHALL CONFORM TO GRADATION AS REQUIRED BY THE COTTONWOOD CITY ENGINEER. THE WORK AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 702 OF MAG STANDARD SPECIFICATIONS.
8. BASE MATERIAL SHALL BE PLACED IN UNIFORM LAYERS NOT TO EXCEED 6" IN DEPTH. EACH LAYER SHALL BE B LAD ED TO A SMOOTH SURFACE CONFORMING TO THE CROSS SECTION SHOWN ON THE PLANS AND SHALL BE WATERED AND THOROUGHLY ROLLED IN A MANNER SATISFACTORY TO THE COTTONWOOD CITY ENGINEER.
9. ASPHALT CONCRETE REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 409 OF ADOT STANDARD SPECIFICATIONS OR SECTION 321 OF MAG STANDARD SPECIFICATIONS. MIX DESIGN SHALL BE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.
10. ASPHALTIC CONCRETE SHALL BE COMPACTED TO NOT LESS THAN 95.0 PERCENT OF LABORATORY DENSITY. THE LABORATORY DENSITY WILL BE DETERMINED BY THE CONTRACTOR'S ENGINEER BASED UPON FIELD SAMPLES IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO T–245, 75 BLOW MARSHALL DENSITY.
11. CORE SAMPLES SHALL BE TAKEN BY THE CONTRACTOR AT RANDOM LOCATIONS IN ACCORDANCE WITH QUALITY CONTROL TESTING.
12. WHEN THE AVERAGE PERCENT OF COMPACTION IS LESS THAN 95.0%, THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY PORTIONS, DISCRETION OF THE COTTONWOOD CITY ENGINEER.
13. ALL NEW STREETS SHALL BE CHIP SEALED, UNLESS OTHERWISE DIRECTED, PER THE FOLLOWING SPECIFICATION:
THE CHIP SEAL COAT SHALL CONSIST OF EMULSIFIED ASPHALT, TYPE CRS–2 (OR EQUIVALENT), APPLIED AT A RATE OF 0.30 TO 0.40 GALLONS PER SQUARE YARD AND jj INCH CHIP COVER AGGREGATE. EMULSIFIED ASPHALT SHALL BE APPLIED TO THE SURFACE OF THE ROAD IN ACCORDANCE WITH SECTION 404–3.05 OF THE ADOT STANDARD SPECIFICATIONS. EMULSIFIED ASPHALT, TYPE CRS–2 OR EQUIVALENT SHALL CONFORM TO SECTION 1005–3.03 AND TABLE 1005–5 OF ADOT STANDARD SPECIFICATIONS.
14. CHIP SEAL COAT SHALL NOT BE APPLIED FOR A MINIMUM OF 14 DAYS AFTER COMPLETION OF THE ASPHALTIC CONCRETE.
15. THE COVER MATERIAL SHALL CONFORM TO ADOT STANDARD SPECIFICATION SECTION 404–2.02 TO THE FOLLOWING GRADATION AND SHALL BE AN AGGREGATE MIX OF CLEAN SAND, GRAVEL OR CRUSHED ROCK AND SHALL BE FREE OF LUMPS OR BALLS OF CLAY, CONTAIN NO CALCAREOUS, CLAY OR DUST COATINGS, CALICHE, SYNTHETIC MATERIALS, DECOMPOSED GRANITE, VOLCANIC CINDERS, ORGANIC MATTER, OR FOREIGN SUBSTANCES. IF A CLEAN COVER MATERIAL CANNOT BE ACHIEVED USING CONVENTIONAL CRUSHING AND SCREENING METHODS, THEN THE COVER MATERIAL WILL HAVE TO BE WASHED IN WATER. THE COVER MATERIAL SHALL BE APPLIED AT A RATE OF 25 TO 30 POUNDS PER SQUARE YARD.
16. THE COVER MATERIAL GRADATION SHALL MEET THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARIZONA TEST METHOD 201.

SIEVE SIZE	% BY WEIGHT PASSING SIEVES
NO, 4	0–25
NO. 8	0–5
NO. 200	0–2

17. THE CONTRACTOR IS RESPONSIBLE FOR ALL LABORATORY TEST AND CERTIFICATIONS TO ASSURE THAT THE CHIP MATERIAL IS IN CONFORMANCE TO THE REQUIREMENTS SET FORTH IN THESE SPECIFICATIONS.
18. REPRESENTATIVE SAMPLES OF THE AGGREGATE COVER MATERIAL SHALL BE TAKEN DAILY, AND THE LABORATORY TEST RESULTS AND CERTIFICATES OF COMPLIANCE, CERTIFIED BY THE CONTRACTOR'S ENGINEER, SHALL BE SUBMITTED TO THE COTTONWOOD CITY ENGINEER. THE CITY ENGINEER MAY REJECT DELIVERED CHIP MATERIAL IF, IN HIS OPINION, THE DELIVERED MATERIAL DIFFERS SIGNIFICANTLY FROM THE REPRESENTATIVE SAMPLE.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUCCESSFUL PLACEMENT OF THE SHIP SEAL COAT REGARDLESS OF TEMPERATURES OR MATERIAL COMPLIANCE, AND SHALL GUARANTEE THE SUCCESS OF THE CHIP SEAL COAT PER MAG SPECIFICATION SECTION 330. THE CONTRACTOR SHALL COMPLY WITH ADOT STANDARD SPECIFICATIONS SECTION 404–3.14 FOR DATES AND ELEVATIONS OF PLACEMENT.
20. THE CONTRACTOR SHALL HAVE EACH INDIVIDUAL ROAD SWEPT WITHIN 24 HOURS OF THE COMPLETION OF THE CHIP SEAL. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL AND LOOSE GRAVEL SIGNS UNTIL ALL SWEEPING HAS BEEN COMPLETED.
21. BLOTTING SHALL BE DONE WHEREVER AND WHENEVER NECESSARY, WITH A NATURAL MATERIAL APPROVED BY THE CITY ENGINEER. ALL EXCESS BLOTTER MATERIAL SHALL BE SWEPT AWAY AND SURFACE OF THE BITUMINOUS ROADWAY SHALL BE REASONABLY CLEAN AND FREE OF ALL LOOSE MATERIAL BEFORE THE SEAL COAT MAY BE APPLIED.

C.O.C. POTABLE WATER NOTES

1. ALL PROJECT MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARD SPECIFICATIONS AND COTTONWOOD ENGINEERING DESIGN STANDARDS MANUAL AND THESE COTTONWOOD MUNICIPAL WATER SYSTEMS (CMWS) STANDARDS AND SPECIFICATIONS, THE APPROVED CONSTRUCTION PLAINS AND SPECIFICATIONS, TOGETHER WITH GENERALLY ACCEPTED GOOD CONSTRUCTION PRACTICES.
2. THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF, WILL CONDUCT INSPECTIONS OF ALL OF THE PROPOSED IMPROVEMENTS. THESE REQUIRED INSPECTIONS WILL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
A. PRE–EXCAVATION LOCATION OF THE PROPOSED TRENCH AND ANY PROPOSED SAWCUTTING OF ASPHALT OR CONCRETE. VERIFICATION OF BLUE STAKE COMPLETION WILL ALSO BE DONE AT THIS TIME.
B. EXCAVATED DEPTH AND TRENCH SUBGRADE PREPARATION. ANY CROSSED UTILITIES (PUBLIC OR PRIVATE) WILL BE INSPECTED AT THIS TIME TO ASSURE NO DAMAGE OCCURRED DURING EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO OVERSEE THE REPAIR OF ANY DAMAGE TO ANY UTILITY THAT OCCURRED FROM THE EXCAVATION, CONSTRUCTION, AND BACKFILL OF THE PROPOSED WATER LINE TO THE SATISFACTION OF THAT RELATIVE UTILITY.
C. THE PLACEMENT OF TRENCH BOTTOM BEDDING INCLUDING QUALITY OF MATERIALS, THICKNESS, MOISTURE, AND COMPACTION IN ACCORDANCE TO THE PIPE BEDDING AND TRENCH DETAIL IN THE APPROVED PLANS.
D. THE INSTALLATION AND ASSEMBLY OF THE PROPOSED PIPE AND FITTINGS IN THE TRENCH ATOP THE TRENCH BOTTOM BEDDING. THIS WILL INCLUDE BUT NOT BE LIMITED TO INSPECTING THAT BEDDING HAS BEEN HAND REMOVED BELOW BELLS FOR FLUSH FIT ATOP TRENCH BOTTOM BEDDING, THAT PIPE ENDS HAVE BEEN MARKED AND THEN INSERTED INTO BELL ENDS FOR THE APPROPRIATE DEPTHS, THAT FITTINGS AND PIPE ARE PROPERLY ALIGNED AND BOLTED TOGETHER AS REQUIRED, THAT TRACING WIRE IS INSTALLED AS REQUIRED, THAT ALL DUCTILE IRON FITTINGS AND PIPE ARE WRAPPED AS REQUIRED, AND THAT ALL ITEMS ARE REASONABLY CENTERED IN THE TRENCH SO THAT BEDDING MATERIAL CAN BE PLACED ALONG THE SIDES OF THE PIPE AS REQUIRED BY THE PIPE BEDDING AND TRENCH DETAIL IN THE APPROVED PLANS
E. THAT THE WATER LINE AND FITTINGS ARE APPROPRIATELY BEDDED AROUND AND OVER AS REQUIRED BY THE PIPE BEDDING AND TRENCH DETAIL IN THE APPROVED PLANS INCLUDING QUALITY OF BEDDING MATERIAL, WIDTH/THICKNESS, MOISTURE, AND COMPACTION PER TABLE #1 BELOW.
F. THAT TRACER WIRE IS INSTALLED UNDER THE CENTER LINE OF THE PIPE AND IS NOT DAMAGED DURING CONSTRUCTION. BEFORE ACCEPTANCE FOR THE JOB TRACER WIRE WILL BE CHECKED FOR CONTINUITY. DAMAGED WIRE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
G. THAT "BURIED WATERLINE" LABELED DETECTOR TAPE IS INSTALLED PROPERLY ATOP THE FIRST COMPACTED LIFT OF NATIVE MATERIAL ABOVE THE TOP OF PIPE BEDDING AND DIRECTLY ABOVE THE CENTERLINE OF THE BURIED WATERLINE.
H. THAT NATIVE BACKFILL USED ABOVE THE BEDDING IS CAREFULLY PROCESSED TO REMOVE ALL ROCK LARGER THAN 3" DIAMETER AND OBTAIN THE APPROPRIATE MOISTURE AND THEN CAREFULLY PLACED IN EVEN AND UNIFORM LIFTS IN THE TRENCH AND COMPACTED TO THE DENSITY REQUIRED TO SATISFY BOTH MAG SPECIFICATIONS IN SECTION 601 AND ADOT REQUIREMENTS FOR WORK IN THEIR RIGHT OF WAY. THE ALLOWABLE DEPTH OF LIFT WILL BE DETERMINED BY THE CAPABILITIES OF THE COMPACTION EQUIPMENT PROVIDED BY THE CONTRACTOR. DENSITIES OF TRENCH BACKFILL WILL BE CHECKED BY CITY OF COTTONWOOD CITY ENGINEER OR DESIGNEE AT THE FOLLOWING VERTICAL AND HORIZONTAL INTERVALS:

TABLE #1

MATERIAL/LOCATION	TEST INTERVAL–VERT*	TEST INTERVAL–HORIZ*
PIPE BEDDING BASE	TOP OF LIFT	EVERY 350' OR DAILY (WHICHEVER IS LESS)
PIPE BEDDING	12" ABOVE TOP OF PIPE & AT TOP OF BEDDING	EVERY 350' OR DAILY (WHICHEVER IS LESS)
TRENCH BACKFILL ABOVE BEDDING	EVERY 18" OF VERTICAL FILL	EVERY 350' OR DAILY (WHICHEVER IS LESS)
TRENCH BACKFILL IN DRIVEWAYS	EVERY LIFT	AT EVERY DRIVEWAY LOCATION

3. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AN ACCURATE SET OF "AS-BUILT" PLANS TO THE CITY OF COTTONWOOD CITY ENGINEER PRIOR TO THE FINAL ACCEPTANCE OF THE PROJECT WORK. THESE AS–BUILT PLANS SHALL ACCURATELY SHOW THE LOCATIONS OF ALL CONSTRUCTED WATERLINES, FITTINGS, VALVES, BLOCKING, AND TIE–IN POINTS WITH THEIR RELATIONSHIP TO RIGHT OF WAY BOUNDARIES, LOT LINES, OR OTHER POINTS OF SURVEY.
4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SURVEY ACCURACY OF ALL OF THE PROPOSED WORK AT THEIR EXPENSE. THE PROPOSED WORK SHALL BE STAKED BY USE OF MONUMENTATION THAT IS ACCEPTABLE TO THE CITY OF COTTONWOOD CITY ENGINEER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO "POT–HOLE" OR UNCOVER ALL EXISTING WATER LINE TIE–IN POINTS TO VERIFY THEIR SIZE, MATERIAL, LOCATION AND DEPTH PRIOR TO TRENCHING FOR NEW WATER LINE CONSTRUCTION. THE CONTRACTOR SHALL ALSO LOCATE OR HAVE LOCATED ALL EXISTING UNDERGROUND PIPES, CONDUITS, AND UTILITIES PRIOR TO CONSTRUCTION.
6. ALL WATER MAIN PIPING SHALL BE DUCTILE IRON PRESSURE CLASS 350 ENCASED IN POLYETHYLENE SLEEVING, OR PVC C–900 CLASS DR14 AS SHOWN IN THE APPROVED PLANS.
7. ALL FITTINGS SHALL BE DOMESTIC ONLY AND COMPLY WITH AWWA STANDARDS. ALL VALVE BOXES SHALL BE "TYLER" ONLY.
8. WATER MAINS SHALL BE BURIED FOR A MINIMUM DEPTH OF 36–INCHES FOR PIPE DIAMETERS 10–INCHES OR LESS AND A MINIMUM OF 48–INCHES FOR PIPES WITH A DIAMETER GREATER THAN 10–INCHES UNLESS SHOWN DIFFERENTLY IN THE APPROVED PLANS OR APPROVED IN WRITING FROM THE CITY ENGINEER. THE DEPTH SHOWN IN PLANS IS ASSUMED TO BE THE MINIMUM DEPTH.
9. ALL WATER LINES AND FITTINGS SHALL BE BEDDED AND SHADED ABOVE, BELOW, AND AROUND WITH AN APPROVED ROCK FREE, SANDY BEDDING MATERIAL PER THE PIPE BEDDING AND TRENCH DETAIL IN THE APPROVED PLANS.
10. THE CONTRACTOR SHALL PROVIDE A BLUE COATED #12 COPPER TRACER WIRE SECURED TO THE BOTTOM CENTERLINE OF ALL WATER LINES AND SERVICES. THE CONTRACTOR SHALL PROVIDE A LOOPED PIGTAIL AT ALL IN–LINE VALVE LOCATIONS. TRACER WILL BE INSPECTED FOR CONTINUITY PRIOR TO ACCEPTANCE OF THE WORK. NON–CONTINUOUS OR FAULTY WIRE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
11. ALL SERVICE LINES THAT ARE UNDER PAVEMENT OR CONCRETE SHALL BE SLEEVED IN 4–INCH CLASS 160 PVC CONDUITS OR APPROVED EQUAL. SERVICE LINES ARE TO BE CONSTRUCTED WITH CROSS–LINKED POLYETHYLENE PIPING.
12. ALL WATER LINE ENDS SHALL BE PROVIDED WITH AN APPROVED 2" FLUSH VALVE (BLOWOFF) PER MAG STANDARD DETAIL OR AS SHOWN IN THE APPROVED PLANS.
13. ALL FIRE HYDRANT HOSE AND STEAMER CONNECTIONS SHALL MATCH STANDARD SIZE AND THREADS PER THE COTTONWOOD FIRE DEPARTMENT.
14. ALL FRAMES, COVERS, VALVE BOXES, VAULT LIDS, ETC., SHALL BE PROPERLY ADJUSTED TO FINISH GRADE WITH THE SURROUNDING GRADE OR PAVING AFTER THE COMPLETION OF PAVING AND GRADING.
15. THE CONTRACTOR SHALL DISINFECT EVERY PART OF THE NEWLY CONSTRUCTED WATER SYSTEM PER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY BULLETIN #8.
16. THE CONTRACTOR SHALL PROVIDE BACTERIOLOGICAL TESTING OF THE NEWLY CONSTRUCTED WATER SYSTEM PER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY BULLETIN #8 AND THE COTTONWOOD CITY ENGINEER OR DESIGNEE.
17. THE CONTRACTOR SHALL PERFORM PRESSURE TESTING OF THE NEWLY CONSTRUCTED WATER SYSTEM AT THE DIRECTION OF THE CITY OF COTTONWOOD CITY ENGINEER OR DESIGNEE IN ACCORDANCE WITH AWWA STANDARDS. ALL LEAKS THAT ARE FOUND WILL BE REPAIRED AND RETESTED FOR PRESSURE BY THE CONTRACTOR PRIOR TO THE SYSTEM BEING PLACED INTO SERVICE. IF NECESSARY, THE SYSTEM MAY NEED TO BE ONCE AGAIN DISINFECTED AND MAY NEED TO UNDERGO BACTERIOLOGICAL TESTING AT THE CONTRACTOR'S EXPENSE PRIOR TO IT BEING PLACED IN SERVICE.
18. THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF, SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF CONSTRUCTION SO THAT INSPECTIONS MAY BE SCHEDULED.
19. ALL WORK AND MATERIALS THAT DO NOT CONFORM TO THESE SPECIFICATIONS OR THE APPROVED PLANS ARE SUBJECT TO REMOVAL AND REPLACEMENT TO MATCH THESE APPROVED PLANS UNDER THE DIRECTION OF THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF, AT THE CONTRACTOR'S EXPENSE.
20. ALL WORK DONE BY THE CONTRACTOR SHALL BE SUBJECT TO INSPECTION BY THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF, PRIOR TO BURIAL. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE OF THE CITY OF COTTONWOOD INSPECTION STAFF IS SUBJECT TO EXCAVATION AND INSPECTION, REMOVAL, REPLACEMENT, OR REPAIR AT THE DIRECTION OF THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF, SOLELY AT THE CONTRACTOR'S EXPENSE. REPAIR OF ANY DAMAGE DONE DURING THIS TYPE OF RE–EXPOSURE AND REQUIRED RE–TESTING, ETC., IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
21. ALL VAULTS OR OTHER UNDERGROUND STRUCTURES WILL BE PLACED ATOP SUBGRADE AND BASE COURSE PLACED AND COMPACTED TO 95% MDD, TO THE SATISFACTION OF THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT, INSPECTION STAFF.
22. ALL PLASTIC PIPES SHALL BEAR THE SEAL BY THE NATIONAL SANITATION FOUNDATION.
23. ALL MATERIALS AND PRODUCTS THAT COME INTO CONTACT WITH WATER OR WATER TREATMENT CHEMICALS SHALL CONFORM TO ANSI/NSF STANDARD 61.
24. ALL CONSTRUCTION MATERIALS USED IN A PUBLIC WATER SYSTEM INCLUDING ALL RESIDENTIAL AND NON–RESIDENTIAL FACILITIES WHICH WILL BE CONNECTED TO SAID PUBLIC WATER SYSTEM, SHALL BE LEAD–FREE AS DEFINED BY R18–4–101.
25. WHEN ANY SEWER CROSSES A WATER PIPE AT A POINT AT WHICH THE SEWER IS 2 FEET OR MORE BELOW THE WATER MAIN, NO EXTRA PROTECTION OUTSIDE OF THE VERTICAL SEPARATION IS REQUIRED PER (ACC R18–4–502C). AT ALL OTHER CROSSINGS THE SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE WITH MECHANICAL JOINTS FOR A DISTANCE OF AT LEAST 10 FEET IN EACH DIRECTION, MEASURED PERPENDICULAR TO THE WATER LINE. SAID SEWER SHALL BE ENCASED IN CONCRETE FOR A MINIMUM OF 6–INCHES ALL THE WAY AROUND FOR THE SAME SPECIFIED DISTANCE OR AS SHOWN ON MAG SEPARATION DETAIL 404.
26. SUBMITTAL OF AN ENGINEER'S CERTIFICATE OF COMPLETION IS REQUIRED BY ADEQ FOR ALL WATER AND SEWER SYSTEM CONSTRUCTION.
27. THE MINIMUM COVER FROM FINISH GRADE TO TOP OF PIPE FOR ALL POTABLE WATERLINES WHICH ARE 12–INCHES IN DIAMETER OR LESS LOCATED IN MAJOR STREETS SHALL BE AS SPECIFIED BY THE DESIGN ENGINEER, BUT NO LESS THAN 36 INCHES UNLESS SHOWN DIFFERENTLY ON THESE APPROVED PLANS.
28. THE MINIMUM COVER FROM FINISH GRADE TO TOP OF PIPE FOR POTABLE WATERLINES WHICH ARE GREATER THAN 12–INCHES IN DIAMETER, LOCATED IN MAJOR STREETS SHALL BE AS SPECIFIED BY THE DESIGN ENGINEER, BUT NO LESS THAN 48–INCHES, UNLESS SHOWN DIFFERENTLY ON THESE APPROVED PLANS.

C.O.C. RECLAIMED WATER NOTES

1. ALL RECLAIMED WATER MAIN PIPING SHALL BE PURPLE PVC C–900 CLASS DR14 AS SHOWN IN THE APPROVED PLANS.
2. ALL PLASTIC PIPES SHALL BEAR THE SEAL BY THE NATIONAL SANITATION FOUNDATION.
3. ALL FITTINGS SHALL BE DOMESTIC ONLY AND COMPLY WITH AWWA STANDARDS. ALL VALVE BOXES SHALL BE "TYLER" ONLY.
4. RECLAIMED WATER LINE AND GRADE STAKES SHALL BE SET BY A QUALIFIED ARIZONA REGISTERED U\ND SURVEYOR AND/OR THEIR REPRESENTATIVE PRIOR TO CONSTRUCTION. THE QUALIFIED ARIZONA REGISTERED LAND SURVEYOR AND/OR THEIR REPRESENTATIVE SHALL VERIFY THAT THE GRADES CONFORM TO THE APPROVED CONSTRUCTION PLAINS, AND PROVIDE CUT SHEETS TO THE CONTRACTOR AND COTTONWOOD CITY ENGINEER. AFTER INSTALLATION AND PRIOR TO THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT ACCEPTANCE, THE ENGINEER OF RECORD SHALL CERTIFY THAT THE INSTALLATION CONFORMS TO THE APPROVED CONSTRUCTION PLANS.
5. TRENCH EXCAVATION, BACKFILLING AND COMPACTION SHALL CONFORM TO MAG STANDARD SPECIFICATION SECTION 601 OR AS SHOWN ON THESE APPROVED PLAINS.
6. BEDDING AND BACKFILL MATERIAL FOR RECLAIMED AND NON–POTABLE WATER LINES SHALL CONFORM TO THE SAME REQUIREMENTS OF THE CITY OF COTTONWOOD FOR POTABLE WATER LINE INSTALLATION.
7. THE MINIMUM COVER FROM FINISH GRADE TO TOP OF PIPE FOR ALL RECLAIMED AND NON–POTABLE WATERLINES WHICH ARE 12–INCHES IN DIAMETER OR LESS LOCATED IN MAJOR STREETS SHALL BE AS SPECIFIED BY THE DESIGN ENGINEER, BUT NO LESS THAN 36–INCHES UNLESS SHOWN DIFFERENTLY ON THE APPROVED PLANS.
8. THE MINIMUM COVER FROM FINISH GRADE TO TOP OF PIPE FOR RECLAIMED AND NON–POTABLE WATERLINES WHICH ARE GREATER THAN 12–INCHES IN DIAMETER, LOCATED IN MAJOR STREETS SHALL BE AS SPECIFIED BY THE DESIGN ENGINEER, BUT NO LESS THAN 48–INCHES, UNLESS SHOWN DIFFERENTLY ON THE APPROVED PLANS.
9. THE MINIMUM COVER FROM FINIS GRADE TO TOP OF PIPE FOR ALL RECLAIMED AND NON–POTABLE WATERLINES IN OTHER LOCATIONS SHALL BE AS SPECIFIED BY THE DESIGN ENGINEER, NUT NO LESS THAN 36–INCHES (FOR LINES LESS THAN 12–INCHES IN DIAMETER), AND NO LESS THAN 48–INCHES (FOR 12–INCH DIAMETER AND LARGER LINES), UNLESS SHOWN OTHERWISE ON THE APPROVED PL^NS.
10. ALL STUB–OUTS SHALL HAVE A 2–INCH BRASS BALL CORP. STOP AS A BLOWOFF, LEFT IN PLACE WITH A 2–INCH RISER, PER MAG STANDARD DETAIL 390 "A", AND SHALL BE ACCESSIBLE TO USE.
11. ALL VALVES 16–INCHES AND SMALLER SHALL BE PER MAG 630 WITH RESILIENT SEAT AWWA APPROVED GATE VALVES AND SHALL OPEN BY TURNING COUNTER–CLOCKWISE.
12. VALVES SHALL NOT BE LOCATED IN SIDEWALKS, GUTTERS, CURB, OR VALLEY GUTTERS, UNLESS PREAPPROVED BY THE CITY ENGINEER.
13. ALL VALVE BOXES SHALL CONFORM TO MAG STANDARD DETAIL 391–1, TYPE A. ALL RECLAIMED WATER VALVE BOXES SHALL UTILIZE SQUARE COVERS WITH THE WORDS "RECLAIMED WATER" IMPRINTED ON THEM. COVERS SHALL BE PAINTED "RECLAIMED WATER" PURPLE UTILIZING AN ACCEPTABLE PAINT AS APPROVED BY THE COTTONWOOD CITY ENGINEER.
14. CONTRACTORS SHALL NOT OPERATE VALVES ON THE EXISTING CITY SYSTEM.
15. TO REQUEST A RECLAIMED WATER SYSTEM SHUT DOWN A "WATER SYSTEM SHUT DOWN REQUEST" FOR MUST BE SUBMITTED. THIS FORM SHALL BE SUBMITTED TEN DAYS IN ADVANCE OF ANY REQUESTS TO SHUT DOWN ANY LINES IN THE CITY OF COTTONWOOD'S DISTRIBUTION SYSTEM. THE FORM IS TO BE SUBMITTED THROUGH THE ENGINEERING INSPECTOR ASSIGNED TO THE PROJECT, WHO WILL IN TURN COORDINATE THE NECESSARY UTILITY STAFF. FAILURE TO COMPLETE THIS FORM MAY RESULT IN DELAYS TO CONSTRUCTION ACTIVITIES.
16. NEW RECLAIMED WATERLINES MUST MAINTAIN MINIMUM SEPARATION (BOTH VERTICAL AND HORIZONTAL) FROM POTABLE WATERLINES AND SEWER MAINS PER MAG SPECIFICATION SECTION 610.5 AND THE MAG STANDARD DETAIL 404 EXCEPT AS MODIFIES: WHEN IT COMES TO SEPARATION FROM SEWER MAINS, RECLAIMED AND NON–POTABLE WATERLINES SHALL USE THE SAME REQUIREMENTS AS POTABLE WATERLINES. WHEN IT COMES TO SEPARATION FROM POTABLE WATERLINES, RECLAIMED AND NON–POTABLE WATERLINES SHALL USE THE SAME REQUIREMENTS AS SEWER LINES.
17. ALL RECLAIMED WATERLINES REQUIRE THE INSTALLATION OF METALLIC LOCATING TAPE, WHICH SHALL BE INSTALLED IN ACCORDANCE WITHE MAG SPECIFICATION SECTION 616.4. THE REQUIRED COLOR FOR RECLAIMED WATER PIPELINES IS RECLAIMED WATER PURPLE.
18. PRIOR TO BEING PUT INTO SERVICE, NEW RECLAIMED WATERLINES SHALL BE DISINFECTED AND TESTED PER ADEQ BULLETIN #8.
19. ALL FIRE HYDRANT HOSE AND STEAMER CONNECTIONS SHALL MATCH STANDARD SIZE AND THREADS PER THE LOCAL FIRE DEPARTMENT.
20. ALL ABOVE GROUND RECLAIMED WATER INFRASTRUCTURE (ABOVE AND BELOW GROUND) SHALL BE RECLAIMED WATER PURPLE IN COLOR.
21. ALL NEW LANDSCAPE AND TURF IRRIGATION INFRASTRUCTURE (ABOVE AND BELOW GROUND) SHALL BE RECLAIMED WATER PURPLE IN COLOR.
22. THE CONTRACTOR SHALL PROVIDE A PURPLE COATED #10 COPPER TRACER WIRE SECURED TO THE BOTTOM CENTERLINE OF ALL RECLAIMED WATERLINES AND SERVICE. THE CONTRACTOR SHALL PROVIDE A LOOPED PIGTAIL AT ALL IN–LINE VALVE LOCATIONS. TRACER WIRE WILL BE INSPECTED FOR CONTINUITY PRIOR TO ACCEPTANCE OF THE WORK. NON–CONTINUOUS OF FAULTY WIRE WILL BE REPAIRED AND THE CONTRACTOR'S EXPENSE.

C.O.C. SANITARY SEWER NOTES

1, ALL FRAMES, COVERS, VALVE BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION PER COTTONWOOD STANDARD DETAIL 1422,
2, THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEN AND EQUIPMENT ON THE JOB AT ALL TIMES TD ASSURE PUBLIC SAFETY AND COMPLY WITH THE CONSTRUCTION SPECIFICATIONS,
3, INSULATED TRACER WIRE (BRIGHT GREEN COATED, #10, SOLID COPPER) SHALL BE PLACED UNDER MANHOLE FRAMES, CLEANOUTS, AND EXTEND ALONG MAINS AND LATERALS, ALL SPLICES SHALL BE WATER TIGHT, TRACER WIRE SHALL NOT ELECTRICALLY GO TO GROUND,
4, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND FACILITIES IN ADVANCE OF CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TD AVOID DAMAGE TD THESE FACILITIES,
5, SEWER CASINGS SHALL BE MANUFACTURED IN NORTH AMERICA DR APPROVED SPECIFICALLY BY THE CITY,
6, THE CONTRACTOR IS RESPONSIBLE TD SCHEDULE AND PAY FOR VIDEO INSPECTION OF ALL PUBLIC SANITARY SEWER MAINLINES PER ORDINANCE NO, 362.
7, SANITARY SEWER PIPE AND MANHOLES SHALL BE TESTED ACCORDING TO THE FOLLOWING STANDARDS:
A. MANHOLE
THE CONTRACTOR SHALL TEST ALL MANHOLES USING THE FOLLOWING TEST PROTOCOL:
1. AIR PRESSURE TESTING USING THE "STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY NEGATIVE AIR PRESSURE (VACUUM) TEST," PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, (C 1244–93), APPROVED AUGUST 15, 1993.
2. THE CONTRACTOR SHALL PERFORM MANHOLE TESTING AFTER INSTALLATION OF THE MANHOLE CONE TO VERIFY WATERTIGHTNESS OF THE MANHOLE FROM THE TOP OF THE CONE DOWN, UPON SATISFACTORY TEST RESULTS, THE CONTRACTOR SHALL INSTALL THE MANHOLE RING AND ANY SPACERS, COMPLETE THE JOINTS, AND SEAL THE MANHOLE TO A WATERTIGHT CONDITION. IF THE MANHOLE CONE, SPACERS, AND RING CAN BE INSTALLED TO FINAL GRADE WITHOUT THE DISTURBANCE OR ADJUSTMENT BY LATER CONSTRUCTION, THE CONTRACTOR MAY PERFORM THE TESTING FROM THE TOP OF THE MANHOLE RING DOWN.
B. LEAKAGE TESTING
THE CONTRACTOR SHALL TEST EACH SEGMENT OF THE SEWER LINE FOR LEAKAGE USING THE METHOD BELOW AND RECORD THE RESULTS:
1. "STANDARD TEST METHOD FOR INSTALLATION OF ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW–PRESSURE AIR" PUBLISHED BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, (F1417–92), REAPPROVED 1998.
C. DEFLECTION TESTING
THE CONTRACTOR SHALL PERFORM A DEFLECTION TEST OF THE TOTAL LENGTH OF ALL SEWER LINES MADE OF FLEXIBLE MATERIALS TO ENSURE THAT THE INSTALLATION MEETS OR EXCEEDS THE MANUFACTURER'S RECOMMENDATIONS AND RECORD THE RESULTS.
ANY PART OF THE INSTALLATION WHICH SHOWS DEFLECTION IN EXCESS OF 5% OF THE NOMINAL INSIDE DIAMETER PER MAG SECTION 738 FOR HDPE PIPE OR IN EXCESS OF 5% OF THE AVERAGE INSIDE DIAMETER PER ASTM D–3034 FOR PVC PIPE SHALL BE CORRECTED.
D. UNIFORM SLOPE
THE CONTRACTOR SHALL TEST THE TOTAL LENGTH OF THE SEWER LINE FOR UNIFORM SLOPE BY VISUALLY INSPECTING THE INTERIOR OF THE SEWER LINE USING A TELEVISION CAMERA AND RECORD THE RESULTS. THE CONTRACTOR SHALL COORDINATE THE TESTING WITH THE CITY OF COTTONWOOD.
8, SDR 21 PVC PIPE AND SDR 26 PVC PIPE, AND DUCTILE IRON PIPE WITH SPECIAL SEWER COATINGS ARE ALLOWED MATERIALS PER ORDINANCE NO. 371.

C.O.C. STORMWATER POLLUTION PREVENTION NOTES

1. WEATHER INFORMATION AND STORM PREDICTIONS CAN BE OBTAINED BY CALLING THE NATIONAL WEATHER SERVICE – FLAGSTAFF WEATHER FORECAST OFFICE AT 928,556,9161 OF BY VISITING THE NATIONAL WEATHER SERVICE WEBSITE AT HTTPi//WWW,WRH,NDAA,GOV/FGZ
2. PERMANENT EROSION CONTROL MEASURES SHALL BE INSTALLED AS AREAS ARE DETERMINED TO BE COMPLETE.
3. ALL DRAINAGE INLETS RECEIVING RUNOFF FROM DISTURBED SOIL AREAS SHALL BE PROTECTED WITH AN APPROVED SEDIMENT TRAP INLET PROTECTION MEASURE OR BMP.
4. A COPY OF THE APPROVED GRADING & DRAINAGE PLAN FOR THIS PROJECT, TOGETHER WITH A COPY OF THE NOTICE OF INTENT (NOI) AND THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP), SHALL BE MAINTAINED ON THE SITE AND AVAILABLE FOR REVIEW AT ALL TIMES. THOSE ELEMENTS OF THE GRADING & DRAINAGE PLAN PERTINENT TO OR REFERENCED ON THE STORMWATER POLLUTION PREVENTION PL^N (SWPPP) SHALL BE CONSIDERED A PART OF THE SWPPP.
5. THE NOTICE OF INTENT (NOI) SHALL BE COMPLETED AND SUBMITTED TO THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND THE CITY OF COTTONWOOD AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
6. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND RELATED RECORDS SHALL BE MADE AVAILABLE UPON REQUEST TO THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND THE CITY OF COTTONWOOD.
7. THE OWNER OR DESIGNATED CONTRACTOR SHALL OBTAIN A DUST CONTROL PERMIT FROM THE YAVAPAI COUNTY AIR QUALITY DEPARTMENT. MEASURES SHALL BE PERFORMED AS REQUIRED BY THE PERMIT TO PREVENT EXCESS DUST AS INCORPORATED INTO THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
8. THE OWNER OR DESIGNATED CONTRACTOR SHALL AMEND THIS PLAN AS RAINFALL EVENTS, DESIGN CHANGES AND CONSTRUCTION METHODS DICTATE. ALL MODIFICATIONS TO THIS PLAN SHALL BE SUBMITTED TO THE CITY OF COTTONWOOD ENGINEERING DEPARTMENT FOR REVIEW AND ACCEPTANCE PRIOR TO IMPLEMENTATION.
9. THE IMPLEMENTATION OF THESE PLANS, AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADES OF THESE FACILITIES IS THE RESPONSIBILITY OF THE OWNER OR DESIGNATED CONTRACTOR UNTIL ALL CONSTRUCTION HAS BEEN APPROVED AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND THE CITY OF COTTONWOOD.
10. THE FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT–LADEN WATER DOES NOT LEAVE THE PROJECT SITE, ENTER INTO THE DRAINAGE SYSTEM, OR VIOLATE APPLICABLE WATER QUALITY STANDARDS. ADDITIONALLY, THE FACILITIES SHALL BE INSTALLED AND OPERATIONAL PRIOR TO ANY GRADING OR LAND CLEARING ACTIVITIES.
11. WHEN POSSIBLE, MAINTAIN ANY NATURALLY OCCURRING VEGETATION AS A SILT CONTROL BEST MANAGEMENT PRACTICE (BMP).
12. THE CONTRACTOR TO WHOM THE 'AT–RISK'/FINAL GRADING & DRAINAGE PERMIT WILL BE ISSUED SHALL HAVE THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ISSUED IN THEIR NAME.
13. THE NOTICE OF INTENT (NOI), THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND THE YAVAPAI COUNTY AIR QUALITY DEPARTMENT DUST CONTROL PERMIT SHALL BE PROVIDED TO THE CITY OF SURPRISE BEFORE THE GRADING & DRAINAGE PERMIT WILL BE ISSUED.
14. THE OWNER OR DESIGNATED CONTRACTOR OF THE PROJECT SHALL ALSO MAINTAIN RECORDS WITH THE FOLLOWING INFORMATION:
A) THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA.
B) THE DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN A PARTICULAR AREA (TEMPORARILY OR PERMANENTLY).
C) THE DATES WHEN AN AREA IS STABILIZED (TEMPORARILY OR PERMANENTLY).
D) THE DATES OF ANY MAINTENANCE, REPLACEMENT, OR REMOVAL OF REQUIRED BMP'S HAS OCCURRED.
15. ONCE THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS MET THE FINAL STABILIZATION REQUIREMENTS OF THE PERMIT, THE AUTHORIZED SITE REPRESENTATIVE SHALL FILE A NOTICE OF TERMINATION (NOT) WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND PROVIDE A COPY TO THE CITY OF COTTONWOOD.
16. THE PERMITTEE SHALL MAINTAIN ALL RECORDS ON FILE, INCLUDING THE NOTICE OF INTENT (NOI), THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), THE NOTICE OF TERMINATION (NOT), AND ANY AND ALL INSPECTION REPORTS FOR A MINIMUM OF THREE (3) YEARS FROM THE FILING DATE OF THE NOTICE OF TERMINATION (NOT).
17. THE OUTLETS OF ALL SEDIMENT BASINS, TRAPS, AND LOCATIONS OF ARTIFICIALLY CONCENTRATED FLOW SHALL BE PROVIDED WITH OUTLET PROTECTION TO PREVENT EROSION AND SCOUR.
18. THOSE RESPONSIBLE FOR SWPPP PREPARATION, IMPLEMENTATION AND PERMIT COMPLIANCE SHALL BE PROPERLY TRAINED, AND SHALL ATTEND THE PRE–CONSTRUCTION MEETING.
19. A CONCRETE WASHOUT SHALL BE INSTALLED FOR ALL PROJECTS THAT PROPOSE CONCRETE TO BE MIXED ON SITE OR BE DELIVERED FROM A BATCH PLANT. THE CONCRETE WASHOUT SHALL BE LOCATED A MINIMUM OF FIFTY (50) FEET FROM ANY DRAINAGE INFRASTRUCTURE OR NATURAL DRAINAGE FEATURES OR WATER BODIES AND INCORPORATE AN IMPERMEABLE LINER (6.0 MIL MINIMUM THICKNESS) TO CONTAIN THE REQUIRED VOLUME. ALL DRIED CONCRETE WASTE SHALL BE BROKEN INTO MANAGEABLE PIECES AND DISPOSED OF OFF–SITE AT AN APPROVED DISPOSAL FACILITY.
20. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON–SITE FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER AND SEWER UTILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.
21. SEDIMENT AND EROSION CONTROLS MAY BE REMOVED ONLY WHEN CONTRIBUTORY UPSTREAM AREAS BECOME STABILIZED OR ARE MANAGED UPSTREAM AND AS LONG AS SEDIMENT LADEN RUNOFF WILL NOT DISCHARGE FROM THE SITE.
22. THIS PLAN SHALL BE IN EFFECT UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED, TRANSFERRED TO NEW OWNERSHIP, OR DEVELOPED UNDER FUTURE PLANS WITH A NEW NOTICE OF INTENT (NOI), SWPPP, AND PERMIT.

C.O.C. SWPPP INSPECTION NOTES

1. THE OWNER OR DESIGNATED CONTRACTOR SHALL PERFORM, AT A MINIMUM, A VISUAL INSPECTION OF THE PROJECT SITE ONCE EVERY SEVEN (7) DAYS AND WITHIN TWENTY–FOUR (24) HOURS OF A RAINFALL EVENT GREATER THAN OR EQUAL TO ONE HALF (J) INCH OR MORE. THE OWNER OR DESIGNATED CONTRACTOR SHALL PREPARE A REPORT DOCUMENTING THE FINDINGS OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CONTROLS AND NOTE ANY EROSION PROBLEM AREAS. THE REPORT IS TO BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL. FACILITIES SHALL BE MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS BEEN ELIMINATED AS DETERMINED BY THE PUBLIC WORKS DIRECTOR OR DESIGNEE.
2. THE INSPECTION BY THE OWNER OR DESIGNATED CONTRACTOR SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING:
A) CHECK DISTURBED AREAS AND ANY MATERIAL STORAGE AREAS (IF APPLICABLE TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR EVIDENCE OF OR THE POTENTIAL FOR DISCHARGE OF POLLUTANTS.
B) ENSURE THAT SEDIMENT AND EROSION CONTROL MEASURES ARE FUNCTIONING AND OPERATING CORRECTLY.
C) AT ACCESSIBLE DISCHARGE POINTS, DETERMINE WHETHER BMP'S ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. WHERE DISCHARGE POINTS ARE INACCESSIBLE OR UNSAFE TO INSPECT, INSPECT DOWNSTREAM AREAS FOR EVIDENCE OF DISCHARGE.
D) DOCUMENT SEDIMENT TRACK–OUT AT ALL INGRESS AND EGRESS LOCATIONS FROM THE PROJECT SITE.
E) DOCUMENT ANY REVISIONS TO BMP'S ON THE STORM WATER POLLUTION PREVENTION PL^N (SWPPP) WITHIN SEVEN (7) DAYS OF INSPECTION AND CORRECTION.
F) DOCUMENT ANY INCIDENTS OF NON–COMPLIANCE OR CERTIFY THAT THE SITE IS IN COMPLIANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
G) DOCUMENT ANY ACTIVITY THAT CREATES A NON–STORM WATER DISCHARGE, INCLUDING DATE AND TIME, LOCATION, REASON FOR DISCHARGE, AMOUNT OF THE DISCHARGE, BMP MEASURES USED TO MEDIATE THE DISCHARGE, AND BMP'S USED TO PREVENT FURTHER NON–STORM WATER DISCHARGES FROM THE ACTIVITY.

C.O.C. EROSION & SEDIMENT CONTROL NOTES

1. PRIOR TO OR IMMEDIATELY FOLLOWING CLEARING & GRUBBING, AND AS PART OF THE INITIAL ROUGH GRADING, ALL RETENTION BASINS SHALL BE CUT TO GRADE. THE BASINS SHALL CONSTITUTE THE REQUIRED SEDIMENT BASINS. GRADES SHALL BE CUT (BERMING OR STRAW BALES MAY ALSO BE PROVIDED) PER THIS PLAN TO ASSURE THAT RUNOFF IS CONVEYED TO THE RETENTION BASINS.
2. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF A MINIMUM OF SIX (6) INCHES OF COARSE AGGREGATE SHALL BE INSTALLED AS SHOWN. ALL CONSTRUCTION TRAFFIC SHALL ENTER THROUGH THIS ENTRANCE. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE RE–GRADED OR REPLACED WHEN IT BECOMES SATURATED OR MATTED WITH SITE SOILS OR SEDIMENT. THE PAVED STREET ADJACENT TO THE CONSTRUCTION ENTRANCE SHALL BE SWEPT ON A REGULAR BASIS TO REMOVE ANY ACCUMULATED MUD OR DIRT TRACKED FROM THE SITE.
3. ANY DISTURBED AREAS WHERE CONSTRUCTION HAS PERMANENTLY OR TEMPORARILY CEASED SHALL BE STABILIZED TO PREVENT EROSION. AN ACCEPTABLE STABILIZATION METHOD IS HYDROSEEDING AND WATERING. AREAS WHICH WILL BE DISTURBED WITHIN TWENTY–ONE (21) DAYS OF CEASING CONSTRUCTION MAY BE STABILIZED BY WATERING.
4. THE CATCH BASIN LOW POINTS SHALL ALSO ACT AS THE REQUIRED SEDIMENT BASINS FOR THE PROJECT. THEY SHALL BE INSPECTED ON A MONTHLY BASIS AND AFTER EVERY RAIN EVENT. SEDIMENT SHALL BE REMOVED FROM THE BASINS AS NECESSARY TO MAINTAIN A MINIMUM OF 75% OF REQUIRED CAPACITY OF THE BASIN DURING CONSTRUCTION AND 100% OF REQUIRED CAPACITY POST–CONSTRUCTION.
5. THE SWPPP IS USED TO MAINTAIN ALL ON–SITE STORM WATER POLLUTANTS AND SEDIMENT. HOWEVER, IF ANY OFF–SITE ACCUMULATIONS OF SEDIMENT OR POLLUTANTS OCCUR, IMMEDIATE ACTION SHALL BE REQUIRED TO REMOVE THE ACCUMULATION

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GENERAL NOTES

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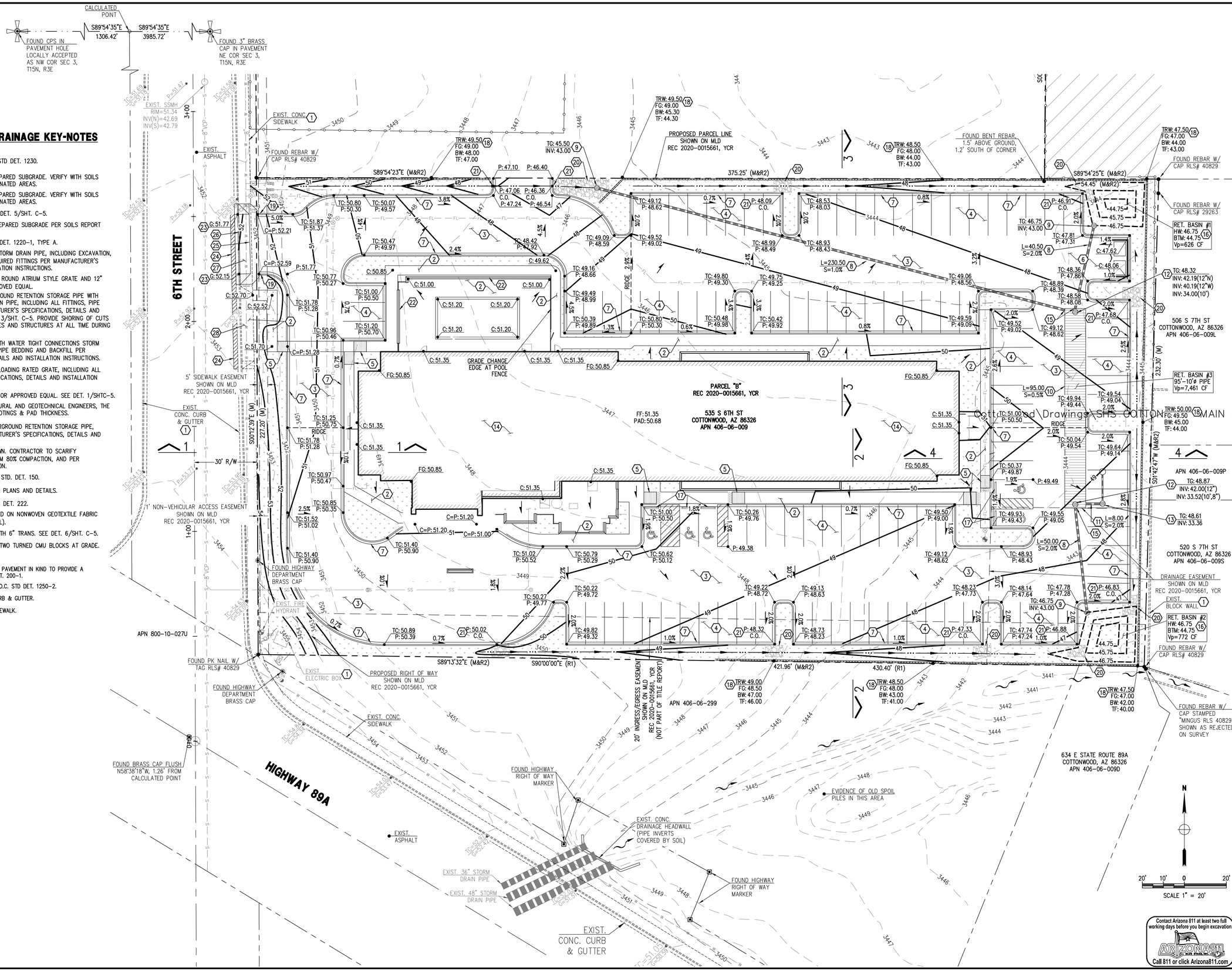
REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 41005 NICKOLA J. PRODANOV Date Signed 05/18/20 ARIZONA U.S.A.
Nick Prodanov

ONSITE GRADING & DRAINAGE KEY-NOTES

1. PROTECT IN PLACE.
2. NEW CONCRETE SIDEWALK PER C.O.C. STD DET. 1230.
3. NEW ASPHALT 4"A.C./6"A.B.C. ON PREPARED SUBGRADE. VERIFY WITH SOILS REPORT AND SITE PLANNER FOR DESIGNATED AREAS.
4. NEW ASPHALT 3"A.C./4"A.B.C. ON PREPARED SUBGRADE. VERIFY WITH SOILS REPORT AND SITE PLANNER FOR DESIGNATED AREAS.
5. CONSTRUCT ADA SIDEWALK RAMP PER DET. 5/SHT. C-5.
6. CONSTRUCT 6" PCCP/4"A.B.C. OVERPREPARED SUBGRADE PER SOILS REPORT RECOMMENDATION.
7. NEW CURB & GUTTER PER C.O.C. STD DET. 1220-1, TYPE A.
8. INSTALL 12" HDPE SMOOTH INTERIOR STORM DRAIN PIPE, INCLUDING EXCAVATION, PIPE BEDDING, BACKFILL AND ALL REQUIRED FITTINGS PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS.
9. INSTALL INLINE CATCH BASIN WITH 18" ROUND ATRIUM STYLE GRATE AND 12" RISER PER DET. 2/SHT. C-5 OR APPROVED EQUAL.
10. INSTALL 120" CMP 14 GAUGE UNDERGROUND RETENTION STORAGE PIPE WITH WATERTIGHT CONNECTIONS STORM DRAIN PIPE, INCLUDING ALL FITTINGS, PIPE BEDDING AND BACKFILL PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS. SEE DET. 3/SHT. C-5. PROVIDE SHORING OF CUTS AND PROTECTION OF ADJACENT UTILITIES AND STRUCTURES AT ALL TIME DURING CONSTRUCTION
11. INSTALL 8" HDPE SMOOTH INTERIOR WITH WATER TIGHT CONNECTIONS STORM DRAIN PIPE, INCLUDING ALL FITTINGS, PIPE BEDDING AND BACKFILL PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS.
12. INSTALL 48" ACCESS RISER AND H20 LOADING RATED GRATE, INCLUDING ALL FITTINGS PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS. SEE DET. 4/SHT. C-5.
13. INSTALL NEW MAXWELL PLUS DRYWELL OR APPROVED EQUAL. SEE DET. 1/SHTC-5.
14. VERIFY AND COORDINATE WITH STRUCTURAL AND GEOTECHNICAL ENGINEERS, THE ENGINEERED FILL UNDER SLAB AND FOOTINGS & PAD THICKNESS.
15. CONNECT STORM DRAIN PIPE TO UNDERGROUND RETENTION STORAGE PIPE, INCLUDING ALL FITTINGS PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS.
16. CONSTRUCT RETENTION BASIN AS SHOWN. CONTRACTOR TO SCARIFY BOTTOM OF BASIN 2' DEEP TO MAXIMUM 80% COMPACTION, AND PER GEOTECHNICAL REPORT RECOMMENDATION.
17. NEW PRECAST SAFETY CURB PER MAG STD. DET. 150.
18. NEW RETAINING WALL PER STRUCTURAL PLANS AND DETAILS.
19. NEW CURB TERMINATION PER MAG STD. DET. 222.
20. NEW RIP-RAP D50=6", 1' THICK PLACED ON NONWOVEN GEOTEXTILE FABRIC (MIRAFI N-SERIES OR APPROVED EQUAL).
21. CONSTRUCT CURB OPENING, 3' WIDE WITH 6" TRANS. SEE DET. 6/SHT. C-5.
22. CONSTRUCT WALL DRAINAGE OPENING, TWO TURNED CMU BLOCKS AT GRADE.
23. MATCH EXISTING.
24. SAWCUT, REMOVE & REPLACE 2' MIN. A.C. PAVEMENT IN KIND TO PROVIDE A CLEAN STRAIGHT EDGE PER M.A.G. STD DET. 200-1.
25. CONSTRUCT DRIVEWAY ENTRANCE PER C.O.C. STD DET. 1250-2.
26. REMOVE PORTION OF EXISTING CONC. CURB & GUTTER.
27. REMOVE PORTION OF EXISTING CONC. SIDEWALK.
28. REMOVE EXISTING CONC. DRIVEWAY.



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FIRELINE KEY-NOTES

1. CONNECT TO EXISTING 8" WATERLINE WITH 8" X 6" TAPPING SLEEVE AND VALVE, BOX AND COVER PER C.O.C. STD DET 1340.
2. INSTALL 6" DIP CLASS 350, POLYETHYLENE WRAP. MIN. 3' COVER.
3. SAWCUT, REMOVE & REPLACE CONC. SIDEWALK PER C.O.C. STD DET. 1230.
4. INSTALL 6" DOUBLE CHECK BACKFLOW DEVICE PER C.O.C. STD DET. 1364.
5. INSTALL 6" PVC C-900 FIRELINE PIPE WITH A CONTINUOUS 18 GAUGE (OR LARGER) COPPER WIRE TRACER PER C.O.C. STD DET. 1319-1.
6. INSTALL FIRE HYDRANT PER C.O.C. STD DET. 1360 & 1362.
7. FOR CONTINUATION SEE FIRE SPRINKLER PLANS.
8. INSTALL 90° BEND COMPLETE WITH JOINT RESTRAINTS AND/OR THRUST BLOCKS PER NFPA 24, 2013 ED. SECTIONS 10.8.2 AND 10.8.3.
9. INSTALL 45° BEND COMPLETE WITH JOINT RESTRAINTS AND/OR THRUST BLOCKS PER NFPA 24, 2013 ED. SECTIONS 10.8.2 AND 10.8.3.
13. INSTALL 6" GATE VALVE PER C.O.C. STD DET. 1391.
14. INSTALL TEE COMPLETE WITH JOINT RESTRAINTS AND/OR THRUST BLOCKS PER NFPA 24, 2013 ED. SECTIONS 10.8.2 AND 10.8.3.

PRIVATE WATER KEY-NOTES

1. INSTALL NEW _" DOMESTIC WATER SERVICE PER C.O.C. STD DET. 1316, METER & BOX PER MAG STD DET. 320. METER TO BE INSTALLED BY CITY FORCES AFTER PAYMENT OF PREVAILING FEES. VERIFY SIZE WITH MEP PLANS. VERIFY LOCATION OF EXISTING MAIN PRIOR TO START OF CONSTRUCTION.
2. INSTALL NEW _" REDUCED PRESSURE BACKFLOW DEVICE.
3. INSTALL NEW 3" PVC SCHEDULE 80 DOMESTIC WATER LINE. VERIFY WITH MEP SIZE.
4. INSTALL NEW _" LANDSCAPE WATER SERVICE PER C.O.C. STD DET. 1316, METER & BOX PER MAG STD DET. 320. METER TO BE INSTALLED BY CITY FORCES AFTER PAYMENT OF PREVAILING FEES. VERIFY SIZE WITH IRRIGATION PLANS PRIOR TO START OF CONSTRUCTION.
5. INSTALL NEW _" REDUCED PRESSURE BACKFLOW DEVICE. VERIFY WITH IRRIGATION PLANS SIZE.
6. INSTALL 90° BEND PER MANUFACTURER'S SPECIFICATIONS, DETAILS AND INSTALLATION INSTRUCTIONS
7. FOR CONTINUATION SEE PLUMBING PLANS.
8. FOR CONTINUATION SEE LANDSCAPE PLANS.
9. INSTALL WATER SERVICE CROSSING STAMP PER C.O.C. STD DET. 1440-4.

PRIVATE SANITARY SEWER KEY-NOTES

1. CONNECT TO EXISTING 8" SEWER MAIN WITH 8"x6" WYE SADDLE. VERIFY LOCATION & INVERT OF EXISTING MAIN PRIOR TO START OF CONSTRUCTION.
2. INSTALL 6" PVC SEWER SERVICE (SDR-35, ASTM D-3034). REFER TO C.O.C. STD DET. 1440-1. TRENCH BEDDING & BACKFILL PER MAG STD DET. 200-1.
3. FOR CONTINUATION SEE PLUMBING PLANS.
4. INSTALL BACKWATER VALVE PER C.O.C. STD DET. 1440-3.
5. INSTALL SEWER SERVICE CROSSING STAMP PER C.O.C. STD DET. 1440-4.
6. INSTALL WYE CONNECTION PER C.O.C. STD DET. 1440-1.
7. INSTALL SEWER CLEANOUT PER C.O.C. STD DET. 1441.

CALCULATED POINT
S89°54'35"E 1306.42'
S89°54'35"E 3985.72'
FOUND CPS IN PAVEMENT HOLE LOCALLY ACCEPTED AS NW COR SEC 3, T15N, R3E
FOUND 3" BRASS CAP IN PAVEMENT NE COR SEC 3, T15N, R3E

6TH STREET
HIGHWAY 89A
EXIST. SSMH RIM=51.34 INV(N)=42.69 INV(S)=42.79
EXIST. ASPHALT
EXIST. CONC. SIDEWALK
EXIST. CONC. CURB & GUTTER
FOUND REBAR W/ CAP RLS# 40829
STA: 2+66 OFF: 25'± RT
STA: 2+63 OFF: 25'± RT
STA: 2+60 OFF: 25'± RT
L=25.0'
L=10.5'
L=10.0'
L=25.0'
L=128.8'
L=125.5'
L=10.0'
L=16.0'
L=122.7'
L=43.3'
L=257.1'
L=121.1'
S89°54'23"E (M&R2)
375.25' (M&R2)
S89°54'25"E (M&R2) 54.45' (M&R2)
PROPOSED PARCEL LINE SHOWN ON MLD REC 2020-0015661, YCR
FOUND BENT REBAR, 1.5' ABOVE GROUND, 1.2' SOUTH OF CORNER
FOUND REBAR W/ CAP RLS# 29263
506 S 7TH ST COTTONWOOD, AZ 86326 APN 406-06-009L
232.30' (M)
S01°42'47"W (M&R2)
APN 406-06-009P
520 S 7TH ST COTTONWOOD, AZ 86326 APN 406-06-009S
DRAINAGE EASEMENT SHOWN ON MLD REC 2020-0015661, YCR
EXIST. BLOCK WALL
FOUND REBAR W/ CAP RLS# 40829
FOUND REBAR W/ CAP STAMPED "MINGUS RLS 40826" SHOWN AS REJECTED ON SURVEY
PARCEL "B" REC 2020-0015661, YCR
FF: 51.35
PAD: 50.68
535 S 6TH ST COTTONWOOD, AZ 86326 APN 406-06-009
5' SIDEWALK EASEMENT SHOWN ON MLD REC 2020-0015661, YCR
S00°12'39"E (M) 227.20' (M)
30' R/W
11' NON-VEHICULAR ACCESS EASEMENT SHOWN ON MLD REC 2020-0015661, YCR
INV: 47.16
RIM: 50.61 INV: 45.51
L=38.50' S=1.0%
RIM: 50.25 INV: 46.27
INV(E): 44.74 EX.INV: 44.07±
8"W INV: 54.00± 6"SS TOP: 45.43 CLEARANCE: 8.57±
L=76.00' S=1.0%
L=76.00' S=1.0%
INV(N): 46.77 INV(W): 46.27
FOUND HIGHWAY DEPARTMENT BRASS CAP
EXIST. FIRE HYDRANT
APN 800-10-027U
FOUND PK NAIL W/ TAG RLS# 40829
FOUND HIGHWAY DEPARTMENT BRASS CAP
EXIST. ELECTRIC BOX
PROPOSED RIGHT OF WAY SHOWN ON MLD REC 2020-0015661, YCR
S89°13'32"E (M&R2)
S90°00'00"E (R1)
421.96' (M&R2)
430.40' (R1)
20' INGRESS/EGRESS EASEMENT SHOWN ON MLD REC 2020-0015661, YCR (NOT PART OF TITLE REPORT)
APN 406-06-299
634 E STATE ROUTE 89A COTTONWOOD, AZ 86326 APN 406-06-009D
FOUND BRASS CAP FLUSH N58°38'18"W, 1.26' FROM CALCULATED POINT
FOUND HIGHWAY RIGHT OF WAY MARKER
EXIST. ASPHALT
EXIST. CONC. DRAINAGE HEADWALL (PIPE INVERTS COVERED BY SOIL)
EXIST. 36" STORM DRAIN PIPE
EXIST. 48" STORM DRAIN PIPE
FOUND HIGHWAY RIGHT OF WAY MARKER
EXIST. CONC. CURB & GUTTER
EVIDENCE OF OLD SPOIL PILES IN THIS AREA
SCALE 1" = 20'

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WATER, SEWER & FIRELINE PLAN

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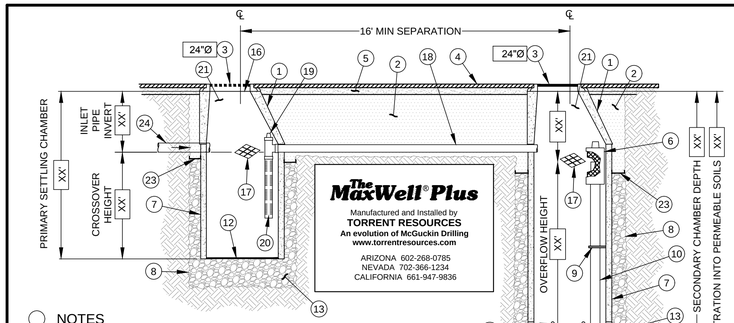
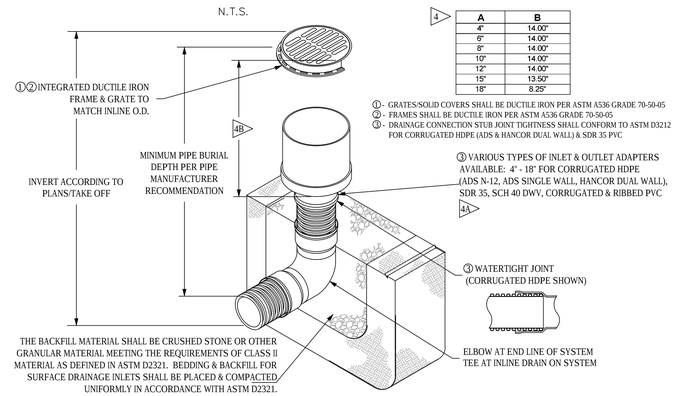


NOTES

1. **MANHOLE CONE** - MODIFIED FLAT BOTTOM.
2. **STABILIZED BACKFILL** - 1 SACK SLURRY.
3. **BOLTED RING & GRATE/COVER** - DIAMETER AS SHOWN. CLEAN CAST IRON WITH WORDING "STORM WATER ONLY" IN RAISED LETTERS. BOLTED IN 2 LOCATIONS AND SECURED TO CONE WITH MORTAR. RIM ELEVATION ±0.02' OF PLANS.
4. **GRADED BASIN OR PAVING** (BY OTHERS).
5. **COMPACTED BASE MATERIAL** (BY OTHERS).
6. **PUREFLO® DEBRIS SHIELD** - ROLLED 16 GA. STEEL X 24" LENGTH WITH VENTED ANTI-SIPHON AND INTERNAL .265" MAX. SWO FLATTENED EXPANDED STEEL SCREEN X 12" LENGTH. **FUSION BONDED EPOXY COATED.**
7. **PRE-CAST LINER** - 4000 PSI CONCRETE 48" ID. X 54" OD. **CENTER IN HOLE** AND ALIGN SECTIONS TO **MAXIMIZE BEARING SURFACE**.
8. **MIN. 6' Ø DRILLED SHAFT.**
9. **SUPPORT BRACKET** - FORMED 12 GA. STEEL. **FUSION BONDED EPOXY COATED**.
10. **OVERFLOW PIPE** - SCH. 40 PVC MATED TO DRAINAGE PIPE AT BASE SEAL.
11. **DRAINAGE PIPE** - ADS HIGHWAY GRADE WITH TRI-A COUPLER. **SUSPEND PIPE** DURING BACKFILL OPERATIONS TO PREVENT BUCKLING OR BREAKAGE. DIAMETER AS NOTED.
12. **BASE SEAL** - GEOTEXTILE OR CONCRETE SLURRY.
13. **ROCK** - WASHED, SIZED BETWEEN 3/8" AND 1-1/2" TO **BEST COMPLEMENT SOIL CONDITIONS**.
14. **FLOFAST® DRAINAGE SCREEN** - SCH. 40 PVC 0.120" SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. DIAMETER VARIES 120° OVERALL LENGTH WITH TRI-B COUPLER.
15. **MIN. 4' Ø SHAFT** - DRILLED TO **MAINTAIN PERMEABILITY** OF DRAINAGE SOILS.
16. **FABRIC SEAL** - U.V. RESISTANT GEOTEXTILE - **TO BE REMOVED BY CUSTOMER** AT PROJECT COMPLETION.
17. **ABSORBENT** - HYDROPHOBIC PETROCHEMICAL SPONGE. MIN. 128 OZ. CAPACITY.
18. **CONNECTOR PIPE** - 4" Ø SCH. 40 PVC .
19. **ANTI-SIPHON VENT** WITH FLOW REGULATOR.
20. **INTAKE SCREEN** - SCH. 40 PVC 0.120" MODIFIED SLOTTED WELL SCREEN WITH 32 SLOTS PER ROW/FT. 48" OVERALL LENGTH WITH TRI-C END CAP.
21. **FREEBOARD DEPTH VARIES** WITH INLET PIPE ELEVATION. INCREASE PRIMARY/SECONDARY SETTLING CHAMBER DEPTHS AS NEEDED TO MAINTAIN ALL INLET PIPE ELEVATIONS ABOVE CONNECTOR PIPE OVERFLOW.
22. **EIGHT (8) PERFORATIONS PER FOOT**, 2 ROWS MIN.
23. **MOISTURE MEMBRANE** - 6 MIL. PLASTIC. PLACE SECURELY AGAINST ECCENTRIC CONE AND HOLE SIDEWALL. USED IN LIEU OF SLURRY IN LANDSCAPED AREAS.
24. **INLET PIPE** (BY OTHERS).

DETAIL 1 - MAXWELL PLUS DRYWELL DETAIL

N.T.S.



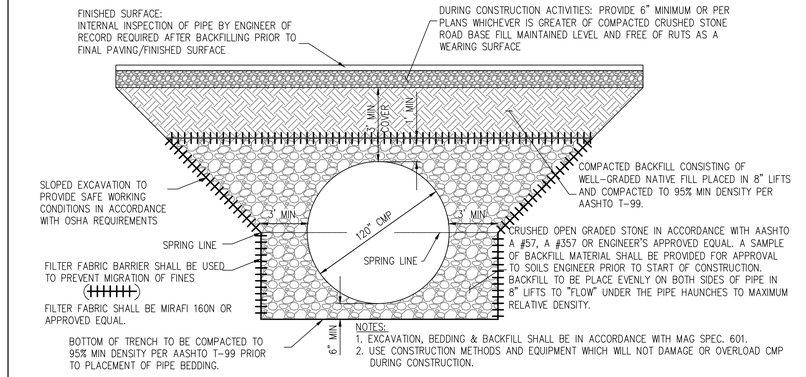
A	B
4"	14.00"
6"	14.00"
8"	14.00"
10"	14.00"
12"	14.00"
15"	13.50"
18"	8.25"

① - GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
② - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③ - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC

④ VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 18" FOR CORRUGATED HDPE (ADS N-12, ADS SINGLE WALL, HANCOR DUAL WALL), SDR 35, SCH 40 DWV, CORRUGATED & RIBBED PVC

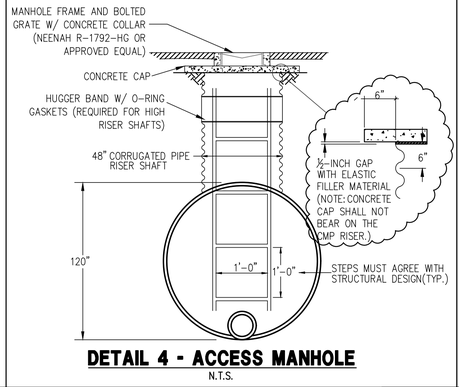
DETAIL 2 - NYLOPLAST INLINE DRAIN DETAIL

N.T.S.



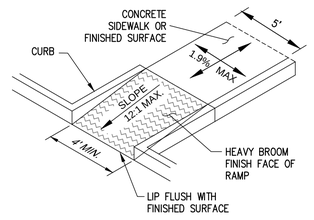
DETAIL 3 - RETENTION STORAGE PIPE BEDDING

N.T.S.

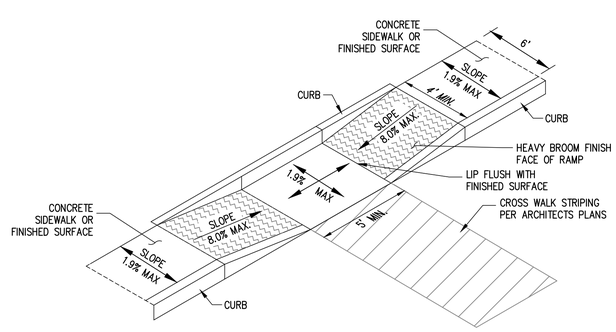


DETAIL 4 - ACCESS MANHOLE

N.T.S.

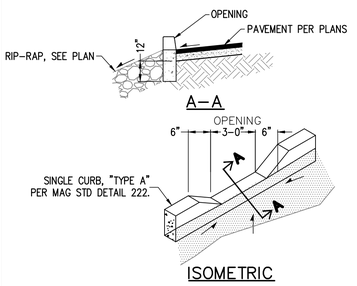


NOTES:
1. DETECTABLE WARNING AS SPECIFIED BY JURISDICTION.
2. HEAVY BROOM FINISH – USE RIPPLE PATTERN.
3. ALL EXPANSION JOINTS AT RAMP PER MAG SECTION 729.
4. SUBGRADE PREP PER MAG SECTION 301.
5. CLASS 'B' CONC. CONSTRUCTION PER MAG STD. SPEC. 725.
6. ALL RAMP SLOPES, MATERIALS, FINISHES AND CONFIGURATIONS ARE TO CONFORM TO THE CITY OF PHOENIX STANDARDS AND SPECIFICATION AND PER THE CURRENT ADA GUIDELINES.



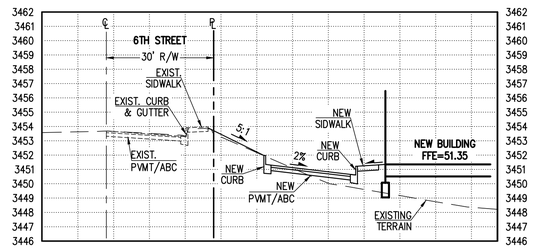
DETAIL 5 - ADA SIDEWALK RAMP

N.T.S.



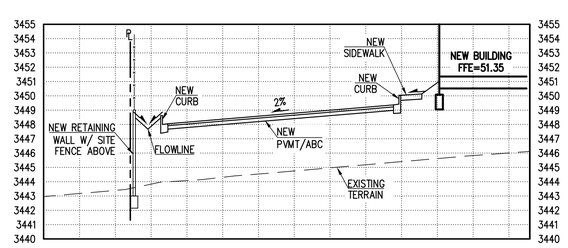
DETAIL 6 - CURB OPENING DETAIL

N.T.S.



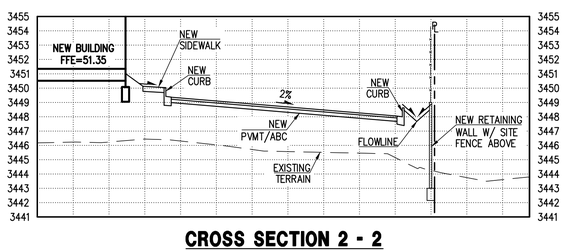
CROSS SECTION 1 - 1

SCALE HOR. 1" = 20', VER. 1" = 5'



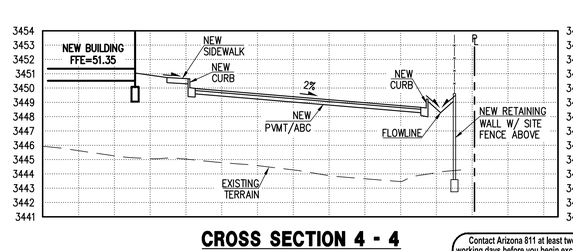
CROSS SECTION 3 - 3

SCALE HOR. 1" = 20', VER. 1" = 5'



CROSS SECTION 2 - 2

SCALE HOR. 1" = 20', VER. 1" = 5'



CROSS SECTION 4 - 4

SCALE HOR. 1" = 20', VER. 1" = 5'

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 BLUE STAKE, INC.
Call 811 or click Arizona811.com

REVISIONS:	DATE:	SCALE: NTS	DATE: 05/18/20
		DESIGNED BY: NP	JOB: 2003070
		DRAWN BY: DW	VERSION: 1.2
		CHECKED BY: NP	PLOT DATE: 05/18/20

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DETAILS & CROSS SECTIONS

SPRINGHILL SUITES BY MARRIOT
535 S 6TH ST., COTTONWOOD, AZ 86326

P. 602 889 1984 | F. 602 445 9482
8808 N CENTRAL AVE., SUITE 288
PHOENIX, AZ. 85020
PHOENIX@LDGENG.COM
Land DEVELOPMENT GROUP

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO. 41005
NICKOLA J. PRODANOV
Date Signed 05/18/20
ARIZONA, U.S.A.

C-5
5 OF 5

Project: Springhill Suites - Cottonwood Date: May 20, 2020

Site Address: 535 South 6th Street Cottonwood, Arizona 86326

Project Coordinator: Bradon Welker Phone: 480-854-1414

Lumen Calculation Sheet

Cottonwood Zoning Ordinance (Sec. 408), "Outdoor Lighting Code"

The information below is accurate (to be signed by Project Coordinator): _____

PLEASE ATTACHE THE FOLLOWING:

- Photometric data sheets or manufacturer's product description for all "**S**" type (shielded) fixture combinations showing photometric description to verify upward light control characteristics, All other fixtures will be considered unshielded, or "**U**" class luminaries. Mercury vapor lamps are prohibited.
- Site plan indicating placement of each fixture.

SITE ACREAGE = _____

LESS ACRES FOR

RIGHTS-OF-WAY- _____

NET ACRES= 2.24

SITE MAXIMUM FOR UNSHEILDED LUMEN X 5,500 = _____

SITE MAXIMUM FOR ALL LUMEN X 100,000 = 224,000

LIGHTING INVETORY

List information below for each fixture to be used for outdoor illumination (existing and proposed). Use the following Abbreviations:

Lamp type:

LPS Low Press Sodium
HPS High Press Sodium
MH Metal Halide
HL Halogen
IN Incandescent
FL Fluorescent

Shielding Type:

S Shielded
U Unshielded
See "Definitions" under Sec. 408 for clarification regarding shielding.

FIXTURE REFERENCE NUMBER (from attached site plan) AND USE/PURPOSE		CANOPY SIZE (if applicable)*	LAMP TYPE & SHIELDING		WATTS	MANUFACTURER'S MODEL AND CATALOG NO. (for shielded fixtures)	INITIAL LUMEN (see reverse)	QTY. UNITS	SUB-TOTALS S LUMEN	SUB-TOTALS U LUMEN	TOTALS*
P1	Parking Lot Lighting	N/A	LED	S	54W	Lithonia / DSX-1	7,182	17	122,094		122,094
P2	Parking Lot Lighting	N/A	LED	S	140W	Lithonia / DSX-2	19,548	1	19,548		19,548

GRAND TOTALS (NOT TO EXCEED SITE MAXIMUMS ABOVE) _____ 141,642

Staff Review

Approved By:
Date:
Sheet_____**of**____

***Gas St. Canopies:** All fixtures to be flush mounted. Lumen SUBTOTALS not to exceed 40 lumen/sq.ft. Lumen TOTALS to be divided by 2 (count only 50%)

Ball fields and outdoor display areas which exceed 100,000 lumen per acre: I hereby certify that lighting associated with related facilities described above is no greater than minimum luminance levels for the activity recommended by the IESNA.

_____ Signature of Lighting Engineer

_____ Arizona Registrant's No.

D-Series Size 1
LED Area Luminaire

Catalog Number

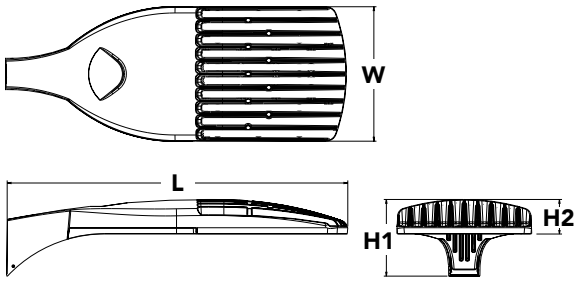
Notes Mounted on 20' High Square Pole

Type P1

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft² (0.09 m²)
Length:	33″ (83.8 cm)
Width:	13″ (33.0 cm)
Height H1:	7-1/2″ (19.0 cm)
Height H2:	3-1/2″
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series
DSX1 LED

LEDs
Forward optics
P1 P4 P7
P2 P5 P8
P3 P6 P9
Rotated optics
P10[1] P12[1]
P11[1] P13[1]

Color temperature
30K 3000 K
40K 4000 K
50K 5000 K

Distribution
T1S Type I short (Automotive)
T2S Type II short
T2M Type II medium
T3S Type III short
T3M Type III medium
T4M Type IV medium
TFTM Forward throw medium
T5VS Type V very short[2]
T5S Type V short[2]
T5M Type V medium[2]
T5W Type V wide[2]
BLC Backlight control[3]
LCCO Left corner cutoff[3]
RCCO Right corner cutoff[3]

Voltage
MVOLT[4]
120[5]
208[5]
240[5]
277[5]
347[5]
480[5]

Mounting
Shipped included
SPA Square pole mounting
RPA Round pole mounting
WBA Wall bracket[2]
SPUMBA Square pole universal mounting adaptor[6]
RPUMBA Round pole universal mounting adaptor[6]
Shipped separately
KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[7]

Control options
Shipped installed
NLTAIR2 nLight AIR generation 2 enabled[8]
PIRHN Network, high/low motion/ambient sensor[9]
PER NEMA twist-lock receptacle only (controls ordered separate)[10]
PER5 Five-pin receptacle only (controls ordered separate)[10,11]
PER7 Seven-pin receptacle only (controls ordered separate)[10,11]
DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[13]
DS Dual switching[13,14,15]
PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[16,17]
PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[16,17]
PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[16,17]
PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[16,17]
FAO Field adjustable output[15]

Other options
Shipped installed
HS House-side shield[18]
SF Single fuse (120, 277, 347V)[5]
DF Double fuse (208, 240, 480V)[5]
L90 Left rotated optics[1]
R90 Right rotated optics[1]
Shipped separately
BS Bird spikes[19]
EGS External glare shield

Finish *(required)*
DDBXD Dark bronze
DBLXD Black
DNAXD Natural aluminum
DWHXD White
DDBTXD Textured dark bronze
DBLBXD Textured black
DNATXD Textured natural aluminum
DWHGXD Textured white

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Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [20]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [20]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [20]
DSHORT SBK U	Shorting cap [20]
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5[18]
DSX1HS 40C U	House-side shield for P6 and P7[18]
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12[18]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)[21]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [7]
DSX1EGS (FINISH) U	External glare shield

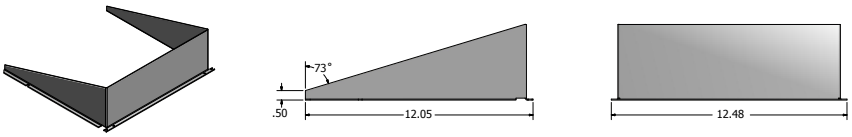
For more control options, visit DTL and ROAM online.

NOTES

1 P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
2 Any Type 5 distribution with photocell, is not available with WBA.
3 Not available with HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31.
7 Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
8 Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
9 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link.
10 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
11 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
12 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V.
13 Provides 50/50fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
14 Requires (2) separately switched circuits with isolated neutrel. See Outdoor Control Technical Guide for details.
15 Reference Motion Sensor table on page 4.
16 Reference controls options table on page 4 to see functionality.
17 Not available with other dimming controls options
18 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
19 Must be ordered with fixture for factory pre-drilling.
20 Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table on page 3.
21 For retrofit use only.

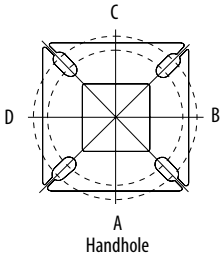
Options

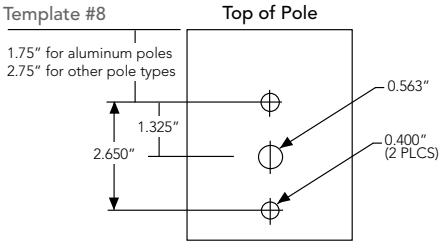
EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION





Tenon Mounting Slipfitter **

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @120	3 @ 90	4 @ 90
2-3/8"	SPA/RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
	SPUMBA	AS3-5 190	AS3-5 280	AS4-5 290	AS3-5 320	AS4-5 390	AS4-5 490
	RUPUMBA	AS3-5 190	AS3-5 280		AS3-5 320		
2-7/8"	SPA/RPA	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
	SPUMBA	AST25-190	AST25-280		AST25-320		
	RUPUMBA	AST25-190	AST25-280		AST25-320		
4"	SPA/RPA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	SPUMBA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	RUPUMBA	AST35-190	AST35-280		AST35-320		

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

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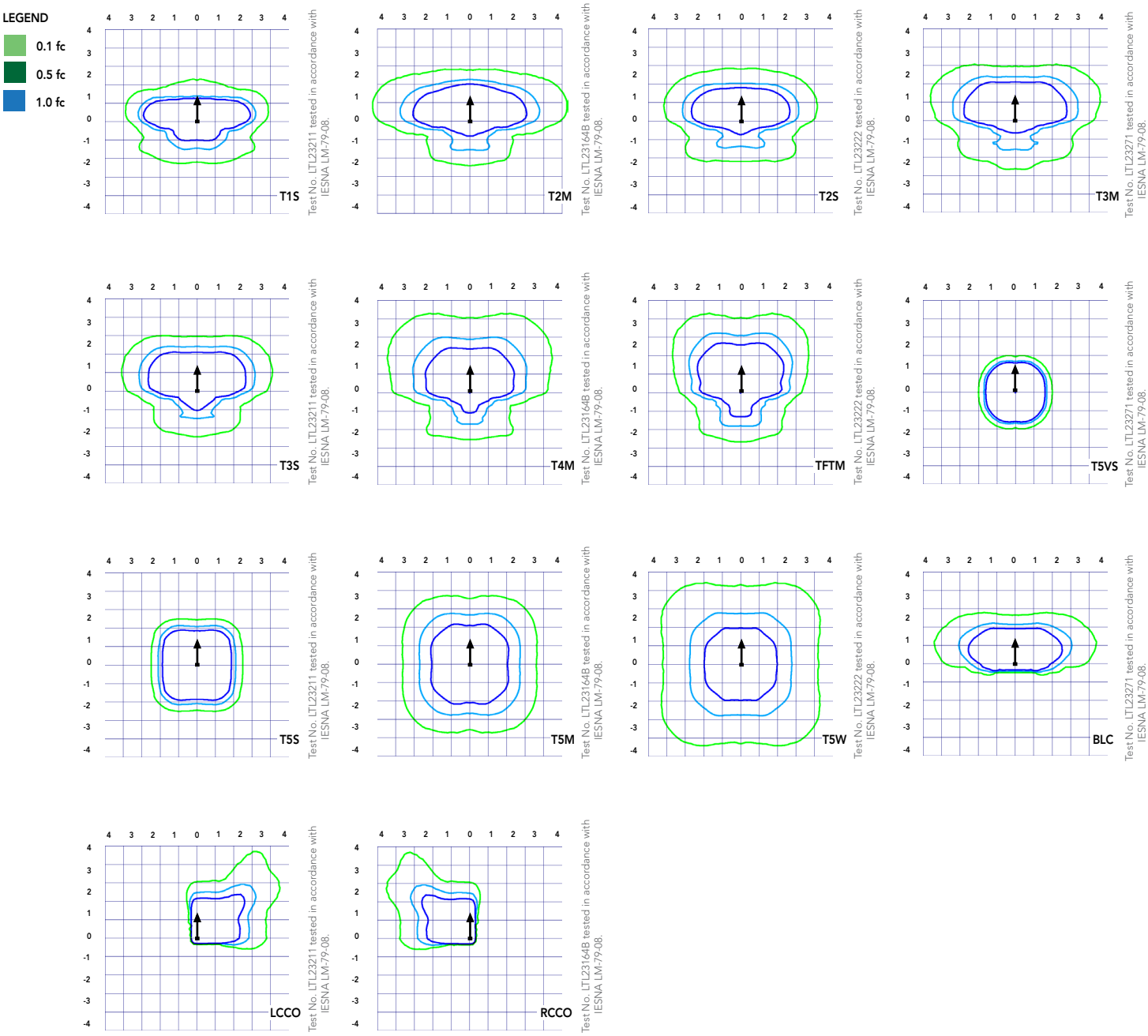
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').



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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use when motion sensor is used as dusk to dawn control.						

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A) 120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options				
Nomenclature	**Descripton**	**Functionality**	**Primary control device**	**Notes**
FAO	Field adjustable output device installed inside the lumiaire; wired to the driver dimming leads.	Allows the lumiaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independantly for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two seperately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell recepticle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	**P1**	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				T5W	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	**P2**	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				T5VS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	**P3**	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				T5VS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	**P4**	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				T5W	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	**P5**	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				T5VS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

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Performance Data

Lumen Output

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Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	**P6**	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				T5VS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				T5W	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	**P7**	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				T5VS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				T5W	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	**P8**	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				T5VS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	**P9**	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				T5VS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				T5W	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

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Performance Data

Lumen Output

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Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	**P10**	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137
				T5VS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138
				T5S	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136
				T5M	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136
				T5W	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80
60	700	**P11**	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134
				T5VS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135
				T5S	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134
				T5M	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134
				T5W	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79
60	1050	**P12**	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123
				T5VS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124
				T5S	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72
60	1250	**P13**	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122
				T5VS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123
				T5S	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122
				T5M	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122
				T5W	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72

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A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX1 LED area luminaire has a number of control options. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40ºC minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product.
Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

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D-Series Size 2

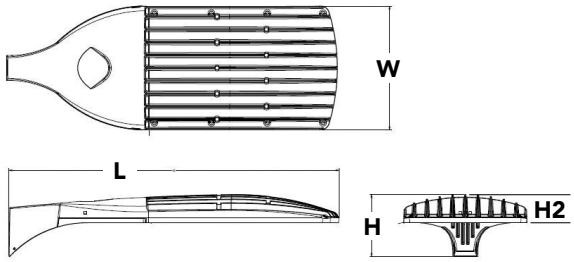
LED Area Luminaire

Catalog Number	
Notes	Mounted on 20' High Square Pole
Type	P1

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.1 ft² *(0.10 m²)*
Length:	40" *(101.6 cm)*
Width:	15" *(38.1 cm)*
Height 1:	7-1/4" *(18.4 cm)*
Height 2: (max):	3.5"
Weight:	36lbs



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX2 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED

Series

DSX2 LED

LEDs

Forward optics

P1	P5
P2	P6
P3	P7
P4	P8

Rotated optics[1]

P10	P13
P11	P14
P12	

Color temperature

30K	3000 K
40K	4000 K
50K	5000 K

Distribution

T1S	Type I Short (Automotive)
T2S	Type II Short
T2M	Type II Medium
T3S	Type III Short
T3M	Type III Medium
T4M	Type IV Medium
TFTM	Forward Throw Medium
T5VS	Type V Very Short [2]
T5S	Type V Short [2]
T5M	Type V Medium [2]
T5W	Type V Wide [2]
BLC	Backlight control [3]
LCCO	Left corner cutoff [3]
RCCO	Right corner cutoff [3]

Voltage

MVOLT [4]	
120 [5]	
208 [5]	
240 [5]	
277 [5]	
347 [5]	
480 [5]	

Mounting

Shipped included

SPA	Square pole mounting
RPA	Round pole mounting
WBA	Wall bracket [2]
SPUMBA	Square pole universal mounting adaptor [6]
RPUMBA	Round pole universal mounting adaptor [6]

Shipped separately

KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [7]

Control options

Shipped installed

NLTAIR2	nLight AIR generation 2 enabled [8]
PIRHN	Network, Bi-Level motion/ambient sensor [8]
PER	NEMA twist-lock receptacle only (no controls) [10]
PER5	Five-wire receptacle only (no controls) [10,11]
PER7	Seven-wire receptacle only (no controls) [10,11]
DMG	0-10V dimming extend out back of housing for external control (no controls) [12]
DS	Dual switching [13,14]
PIRH	Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enable at 5fc
FAO	Field Adjustable Output [15]

Other options

Shipped installed

HS	House-side shield [16]
SF	Single fuse (120, 277, 347V) [5]
DF	Double fuse (208, 240, 480V) [5]
L90	Left rotated optics [1]
R90	Right rotated optics [1]

Shipped separately

BS	Bird spikes [17]
EGS	External glare shield

Finish *(required)*

DDBXD	Dark bronze
DBLXD	Black
DNAXD	Natural aluminum
DWHXD	White
DDBTXD	Textured dark bronze
DBLBXD	Textured black
DNATXD	Textured natural aluminum
DWHGXD	Textured white

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Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [18]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [18]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [18]
DSHORT SBK U	Shorting cap [18]
DSX2HS 80C U	House-side shield for 80 LED unit [19]
DSX2HS 90C U	House-side shield for 90 LED unit [19]
DSX2HS 100C U	House-side shield for 100 LED unit [19]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) [20]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [6]
DSX2EGS (FINISH) U	External glare shield

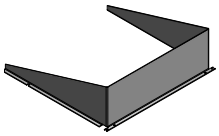
For more control options, visit DTL and ROAM online.

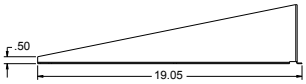
NOTES

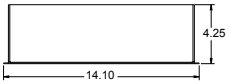
1 P10, P11, P12, P13 or P14 and rotated optics (L90, R90) only available together.
2 Any Type 5 distribution with photocell, is not available with WBA.
3 Not available with HS.
4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Universal mounting bracket intended for retrofit on existing pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31.
7 Must order fixture with SPA otion.Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
8 Must be ordered with PIRHN. Sensor cover only available in dark bronze, black, white or natural aluminum color.
9 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link.
10 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting Cap included.
11 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming. .
12 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V.
13 Requires (2) separately switched circuits with isolated neutrals. See Outdoor Control Technical Guide for details.
14 Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available with P1, P2, P10.
15 Reference controls options table on page 4.
16 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessories; see Accessories information.
17 Must be ordered with fixture for factory pre-drilling.
18 Requires luminaire to be specified with PER, PER5 and PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.
19 Not available with other dimming controls options.
20 For retrofit use only.

Options

EGS - External Glare Shield

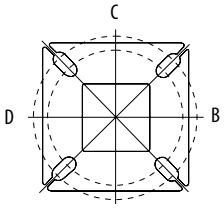






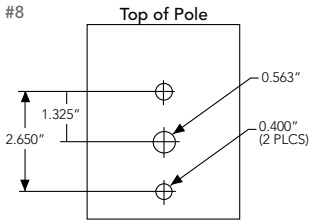
Drilling

HANDHOLE ORIENTATION



Handhole

Template #8



Tenon Mounting Slipfitter**

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @120	3 @ 90	4 @ 90
2-3/8"	SPA/RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
	SPUMBA	AS3-5 190	AS3-5 280	AS4-5 290	AS3-5 320	AS4-5 390	AS4-5 490
	RUPUMBA	AS3-5 190	AS3-5 280		AS3-5 320		
2-7/8"	SPA/RPA	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
	SPUMBA	AST25-190	AST25-280		AST25-320		
	RUPUMBA	AST25-190	AST25-280		AST25-320		
4"	SPA/RPA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	SPUMBA	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490
	RUPUMBA	AST35-190	AST35-280		AST35-320		

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

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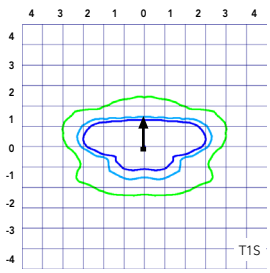
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 2 homepage.

Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').

LEGEND

- 0.1 fc
- 0.5 fc
- 1.0 fc



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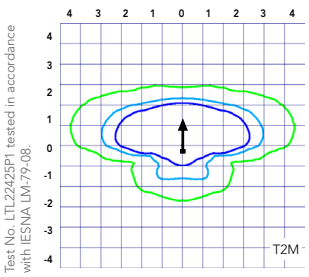

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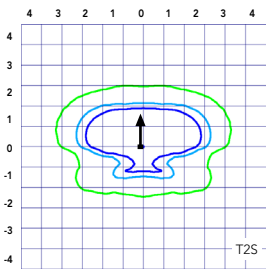

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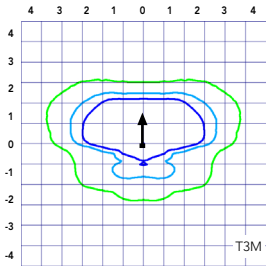

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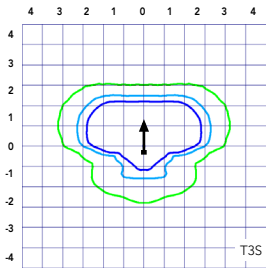

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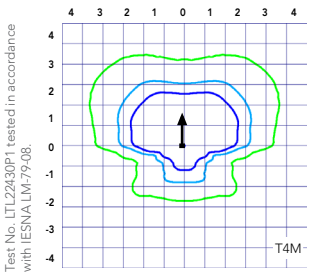

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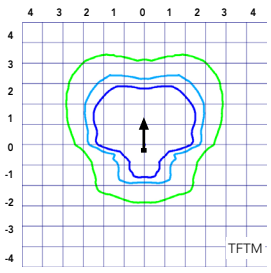

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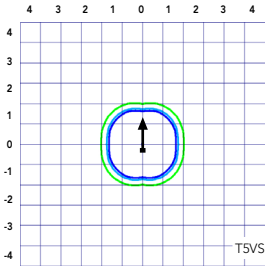

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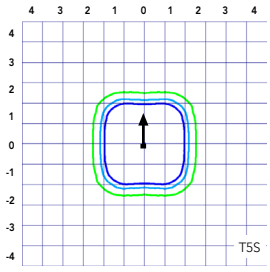

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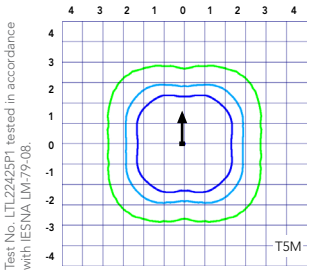

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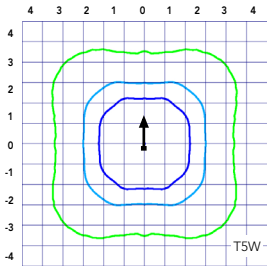

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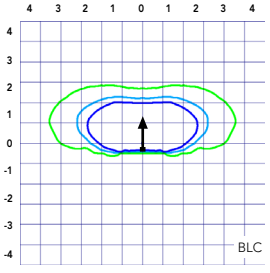

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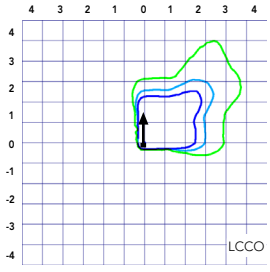

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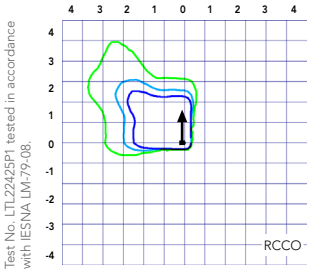

Test No. LTL22434P1 tested in accordance with IESNA LM-79-08.

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25000	50000	100000
Lumen Maintenance Factor	1.00	0.96	0.92	0.85

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	80	530	140	1.18	0.68	0.59	0.51	0.40	0.32
	P2	80	700	185	1.56	0.90	0.78	0.66	0.52	0.39
	P3	80	850	217	1.82	1.05	0.90	0.80	0.63	0.48
	P4	80	1050	270	2.27	1.31	1.12	0.99	0.79	0.59
	P5	80	1250	321	2.68	1.54	1.34	1.17	0.93	0.68
	P6	100	1050	343	2.89	1.66	1.59	1.37	1.00	0.71
	P7	100	1250	398	3.31	1.91	1.66	1.45	1.16	0.81
	P8	100	1350	431	3.61	2.07	1.81	1.57	1.25	0.91
Rotated Optics (Requires L90 or R90)	P10	90	530	156	1.30	0.76	0.65	0.62	0.45	0.32
	P11	90	700	207	1.75	1.01	0.87	0.74	0.60	0.46
	P12	90	850	254	2.12	1.22	1.06	0.94	0.73	0.55
	P13	90	1200	344	2.88	1.65	1.44	1.25	1.00	0.73
	P14	90	1400	405	3.39	1.95	1.71	1.48	1.18	0.86

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use when motion sensor is used as dusk to dawn control.						

Controls Options				
Nomenclature	Descripton	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the lumiaire; wired to the driver dimming leads.	Allows the lumiaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independantly for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two seperately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell receptical	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSBGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

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Performance Data

Lumen Output

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Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
80	530	**P1**	140W	T1S	17,575	3	0	3	126	18,933	3	0	3	135	19,173	3	0	3	137
				T2S	17,556	3	0	3	125	18,913	3	0	3	135	19,152	3	0	3	137
				T2M	17,647	3	0	3	126	19,010	3	0	3	136	19,251	3	0	3	138
				T3S	17,090	3	0	3	122	18,411	3	0	3	132	18,644	3	0	3	133
				T3M	17,604	3	0	3	126	18,964	3	0	3	135	19,204	3	0	3	137
				T4M	17,221	3	0	3	123	18,552	3	0	4	133	18,787	3	0	4	134
				TFTM	17,593	3	0	3	126	18,952	3	0	4	135	19,192	3	0	4	137
				T5VS	18,297	4	0	1	131	19,711	4	0	1	141	19,961	4	0	1	143
				T5S	18,312	4	0	2	131	19,727	4	0	2	141	19,977	4	0	2	143
				T5M	18,266	4	0	2	130	19,677	4	0	2	141	19,926	4	0	2	142
				T5W	18,146	5	0	3	130	19,548	5	0	3	140	19,796	5	0	3	141
				BLC	14,424	2	0	2	103	15,539	2	0	3	111	15,736	2	0	3	112
				LCCO	10,733	1	0	3	77	11,562	1	0	3	83	11,709	2	0	3	84
				RCCO	10,733	1	0	3	77	11,562	1	0	3	83	11,709	2	0	3	84
80	700	**P2**	185W	T1S	22,305	3	0	3	121	24,029	3	0	3	130	24,333	3	0	3	132
				T2S	22,281	3	0	4	120	24,003	3	0	4	130	24,307	3	0	4	131
				T2M	22,396	3	0	3	121	24,127	3	0	3	130	24,432	3	0	3	132
				T3S	21,690	3	0	4	117	23,366	3	0	4	126	23,662	3	0	4	128
				T3M	22,342	3	0	4	121	24,068	3	0	4	130	24,373	3	0	4	132
				T4M	21,857	3	0	4	118	23,545	3	0	4	127	23,844	3	0	4	129
				TFTM	22,328	3	0	4	121	24,054	3	0	4	130	24,358	3	0	4	132
				T5VS	23,222	5	0	1	126	25,016	5	0	1	135	25,333	5	0	1	137
				T5S	23,241	4	0	2	126	25,037	4	0	2	135	25,354	4	0	2	137
				T5M	23,182	5	0	3	125	24,974	5	0	3	135	25,290	5	0	3	137
				T5W	23,030	5	0	4	124	24,810	5	0	4	134	25,124	5	0	4	136
				BLC	18,307	2	0	3	99	19,721	2	0	3	107	19,971	2	0	3	108
				LCCO	13,622	2	0	3	74	14,674	2	0	4	79	14,860	2	0	4	80
				RCCO	13,622	2	0	3	74	14,674	2	0	4	79	14,860	2	0	4	80
80	850	**P3**	217W	T1S	26,202	3	0	3	121	28,226	3	0	3	130	28,584	3	0	3	132
				T2S	26,174	3	0	4	121	28,196	3	0	4	130	28,553	3	0	4	132
				T2M	26,309	3	0	3	121	28,342	3	0	3	131	28,700	3	0	3	132
				T3S	25,479	3	0	4	117	27,448	3	0	4	126	27,795	3	0	4	128
				T3M	26,245	3	0	4	121	28,273	3	0	4	130	28,631	3	0	4	132
				T4M	25,675	3	0	4	118	27,659	3	0	4	127	28,009	3	0	4	129
				TFTM	26,229	3	0	4	121	28,255	3	0	4	130	28,613	3	0	4	132
				T5VS	27,279	5	0	1	126	29,387	5	0	1	135	29,759	5	0	1	137
				T5S	27,301	4	0	2	126	29,410	5	0	2	136	29,783	5	0	2	137
				T5M	27,232	5	0	3	125	29,336	5	0	3	135	29,707	5	0	3	137
				T5W	27,053	5	0	4	125	29,144	5	0	4	134	29,513	5	0	4	136
				BLC	21,504	2	0	3	99	23,166	2	0	3	107	23,459	2	0	4	108
				LCCO	16,001	2	0	4	74	17,238	2	0	4	79	17,456	2	0	4	80
				RCCO	16,001	2	0	4	74	17,238	2	0	4	79	17,456	2	0	4	80
80	1050	**P4**	270W	T1S	30,963	4	0	4	115	33,355	4	0	4	124	33,777	4	0	4	125
				T2S	30,930	4	0	4	115	33,320	4	0	4	123	33,742	4	0	4	125
				T2M	31,089	3	0	4	115	33,491	3	0	4	124	33,915	3	0	4	126
				T3S	30,108	4	0	4	112	32,435	4	0	5	120	32,845	4	0	5	122
				T3M	31,014	3	0	4	115	33,410	3	0	4	124	33,833	3	0	4	125
				T4M	30,340	3	0	5	112	32,684	3	0	5	121	33,098	3	0	5	123
				TFTM	30,995	3	0	5	115	33,390	3	0	5	124	33,812	3	0	5	125
				T5VS	32,235	5	0	1	119	34,726	5	0	1	129	35,166	5	0	1	130
				T5S	32,261	5	0	2	119	34,754	5	0	2	129	35,194	5	0	2	130
				T5M	32,180	5	0	4	119	34,667	5	0	4	128	35,105	5	0	4	130
				T5W	31,969	5	0	4	118	34,439	5	0	5	128	34,875	5	0	5	129
				BLC	25,412	2	0	4	94	27,376	2	0	4	101	27,722	2	0	4	103
				LCCO	18,909	2	0	4	70	20,370	2	0	4	75	20,628	2	0	4	76
				RCCO	18,909	2	0	4	70	20,370	2	0	4	75	20,628	2	0	4	76

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Performance Data

Lumen Output

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Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
80	1250	**P5**	321W	T1S	35,193	4	0	4	110	37,912	4	0	4	118	38,392	4	0	4	120
				T2S	35,155	4	0	5	110	37,872	4	0	5	118	38,351	4	0	5	119
				T2M	35,336	4	0	4	110	38,067	4	0	4	119	38,549	4	0	4	120
				T3S	34,222	4	0	5	107	36,866	4	0	5	115	37,333	4	0	5	116
				T3M	35,251	3	0	4	110	37,974	3	0	5	118	38,455	4	0	5	120
				T4M	34,485	3	0	5	107	37,149	4	0	5	116	37,620	4	0	5	117
				TFTM	35,229	3	0	5	110	37,951	3	0	5	118	38,431	3	0	5	120
				T5VS	36,639	5	0	1	114	39,470	5	0	1	123	39,970	5	0	1	125
				T5S	36,669	5	0	2	114	39,502	5	0	2	123	40,002	5	0	2	125
				T5M	36,576	5	0	4	114	39,403	5	0	4	123	39,901	5	0	4	124
				T5W	36,336	5	0	5	113	39,144	5	0	5	122	39,640	5	0	5	123
				BLC	28,884	3	0	4	90	31,115	3	0	4	97	31,509	3	0	4	98
				LCCO	21,492	2	0	4	67	23,153	2	0	5	72	23,446	3	0	5	73
				RCCO	21,492	2	0	4	67	23,153	2	0	5	72	23,446	3	0	5	73
100	1050	**P6**	343W	T1S	37,824	4	0	4	110	40,747	4	0	4	119	41,263	4	0	4	120
				T2S	37,784	4	0	5	110	40,704	4	0	5	119	41,219	4	0	5	120
				T2M	37,979	4	0	4	111	40,913	4	0	4	119	41,431	4	0	4	121
				T3S	36,780	4	0	5	107	39,623	4	0	5	116	40,124	4	0	5	117
				T3M	37,886	3	0	5	110	40,814	4	0	5	119	41,331	4	0	5	120
				T4M	37,063	4	0	5	108	39,927	4	0	5	116	40,433	4	0	5	118
				TFTM	37,863	3	0	5	110	40,789	4	0	5	119	41,305	4	0	5	120
				T5VS	39,379	5	0	1	115	42,422	5	0	1	124	42,959	5	0	1	125
				T5S	39,411	5	0	2	115	42,456	5	0	2	124	42,993	5	0	2	125
				T5M	39,311	5	0	4	115	42,349	5	0	4	123	42,885	5	0	4	125
				T5W	39,053	5	0	5	114	42,071	5	0	5	123	42,604	5	0	5	124
				BLC	31,043	3	0	4	91	33,442	3	0	4	97	33,865	3	0	4	99
				LCCO	23,099	2	0	5	67	24,884	3	0	5	73	25,199	3	0	5	73
				RCCO	23,099	2	0	5	67	24,884	3	0	5	73	25,199	3	0	5	73
100	1250	**P7**	398W	T1S	42,599	4	0	4	107	45,890	4	0	4	115	46,471	4	0	4	117
				T2S	42,553	4	0	5	107	45,842	4	0	5	115	46,422	4	0	5	117
				T2M	42,773	4	0	4	107	46,078	4	0	4	116	46,661	4	0	5	117
				T3S	41,423	4	0	5	104	44,624	4	0	5	112	45,189	4	0	5	114
				T3M	42,669	4	0	5	107	45,966	4	0	5	115	46,548	4	0	5	117
				T4M	41,742	4	0	5	105	44,967	4	0	5	113	45,537	4	0	5	114
				TFTM	42,643	4	0	5	107	45,938	4	0	5	115	46,519	4	0	5	117
				T5VS	44,350	5	0	1	111	47,777	5	0	1	120	48,381	5	0	1	122
				T5S	44,385	5	0	2	112	47,815	5	0	3	120	48,420	5	0	3	122
				T5M	44,273	5	0	4	111	47,695	5	0	4	120	48,298	5	0	4	121
				T5W	43,983	5	0	5	111	47,382	5	0	5	119	47,982	5	0	5	121
				BLC	34,962	3	0	4	88	37,664	3	0	5	95	38,140	3	0	5	96
				LCCO	26,015	3	0	5	65	28,025	3	0	5	70	28,380	3	0	5	71
				RCCO	26,015	3	0	5	65	28,025	3	0	5	70	28,380	3	0	5	71
100	1350	**P8**	448W	T1S	45,610	4	0	4	106	49,135	4	0	4	114	49,757	4	0	4	115
				T2S	45,562	4	0	5	106	49,083	4	0	5	114	49,704	4	0	5	115
				T2M	45,797	4	0	4	106	49,336	4	0	5	114	49,960	4	0	5	116
				T3S	44,352	4	0	5	103	47,779	4	0	5	111	48,384	4	0	5	112
				T3M	45,686	4	0	5	106	49,216	4	0	5	114	49,839	4	0	5	116
				T4M	44,693	4	0	5	104	48,147	4	0	5	112	48,756	4	0	5	113
				TFTM	45,657	4	0	5	106	49,186	4	0	5	114	49,808	4	0	5	116
				T5VS	47,485	5	0	1	110	51,155	5	0	1	119	51,802	5	0	1	120
				T5S	47,524	5	0	3	110	51,196	5	0	3	119	51,844	5	0	3	120
				T5M	47,404	5	0	4	110	51,067	5	0	5	118	51,713	5	0	5	120
				T5W	47,093	5	0	5	109	50,732	5	0	5	118	51,374	5	0	5	119
				BLC	37,434	3	0	5	87	40,326	3	0	5	94	40,837	3	0	5	95
				LCCO	27,854	3	0	5	65	30,006	3	0	5	70	30,386	3	0	5	71
				RCCO	27,854	3	0	5	65	30,006	3	0	5	70	30,386	3	0	5	71

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Performance Data

Lumen Output

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Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
90	530	**P10**	156W	T1S	20,145	4	0	4	129	21,702	4	0	4	139	21,977	4	0	4	141
				T2S	20,029	4	0	4	128	21,577	4	0	4	138	21,850	4	0	4	140
				T2M	20,391	4	0	4	131	21,967	4	0	4	141	22,245	4	0	4	143
				T3S	19,719	4	0	4	126	21,242	4	0	4	136	21,511	4	0	4	138
				T3M	20,379	4	0	4	131	21,954	4	0	4	141	22,232	4	0	4	143
				T4M	19,995	4	0	4	128	21,540	4	0	4	138	21,812	5	0	5	140
				TFTM	20,511	4	0	4	131	22,096	5	0	5	142	22,376	5	0	5	143
				T5VS	20,655	4	0	1	132	22,251	4	0	1	143	22,533	4	0	1	144
				T5S	20,482	4	0	2	131	22,064	4	0	2	141	22,343	4	0	2	143
				T5M	20,477	5	0	3	131	22,059	5	0	3	141	22,338	5	0	3	143
				T5W	20,293	5	0	3	130	21,861	5	0	3	140	22,138	5	0	4	142
				BLC	16,846	4	0	4	108	18,148	4	0	4	116	18,378	4	0	4	118
				LCCO	12,032	2	0	3	77	12,961	2	0	3	83	13,125	2	0	3	84
				RCCO	12,016	4	0	4	77	12,944	4	0	4	83	13,108	4	0	4	84
90	700	**P11**	207W	T1S	25,518	4	0	4	123	27,490	4	0	4	133	27,837	4	0	4	134
				T2S	25,371	5	0	5	123	27,331	5	0	5	132	27,677	5	0	5	134
				T2M	25,829	4	0	4	125	27,825	4	0	4	134	28,177	4	0	4	136
				T3S	24,977	5	0	5	121	26,907	5	0	5	130	27,248	5	0	5	132
				T3M	25,814	5	0	5	125	27,809	5	0	5	134	28,161	5	0	5	136
				T4M	25,327	5	0	5	122	27,284	5	0	5	132	27,629	5	0	5	133
				TFTM	25,981	5	0	5	126	27,989	5	0	5	135	28,343	5	0	5	137
				T5VS	26,164	5	0	1	126	28,185	5	0	1	136	28,542	5	0	1	138
				T5S	25,943	4	0	2	125	27,948	5	0	2	135	28,302	5	0	2	137
				T5M	25,937	5	0	3	125	27,941	5	0	3	135	28,295	5	0	3	137
				T5W	25,704	5	0	4	124	27,691	5	0	4	134	28,041	5	0	4	135
				BLC	21,339	4	0	4	103	22,988	4	0	4	111	23,279	4	0	4	112
				LCCO	15,240	2	0	4	74	16,418	2	0	4	79	16,626	2	0	4	80
				RCCO	15,220	5	0	5	74	16,396	5	0	5	79	16,604	5	0	5	80
90	850	**P12**	254W	T1S	29,912	4	0	4	118	32,223	4	0	4	127	32,631	5	0	4	128
				T2S	29,740	5	0	5	117	32,038	5	0	5	126	32,443	5	0	5	128
				T2M	30,277	4	0	4	119	32,616	5	0	5	128	33,029	5	0	5	130
				T3S	29,278	5	0	5	115	31,540	5	0	5	124	31,940	5	0	5	126
				T3M	30,259	5	0	5	119	32,597	5	0	5	128	33,010	5	0	5	130
				T4M	29,688	5	0	5	117	31,982	5	0	5	126	32,387	5	0	5	128
				TFTM	30,455	5	0	5	120	32,808	5	0	5	129	33,224	5	0	5	131
				T5VS	30,669	5	0	1	121	33,039	5	0	1	130	33,457	5	0	1	132
				T5S	30,411	5	0	2	120	32,761	5	0	2	129	33,176	5	0	2	131
				T5M	30,404	5	0	3	120	32,753	5	0	4	129	33,168	5	0	4	131
				T5W	30,131	5	0	4	119	32,459	5	0	4	128	32,870	5	0	4	129
				BLC	25,013	4	0	4	98	26,946	4	0	4	106	27,287	4	0	4	107
				LCCO	17,865	2	0	4	70	19,245	2	0	4	76	19,489	2	0	4	77
				RCCO	17,841	5	0	5	70	19,220	5	0	5	76	19,463	5	0	5	77
90	1200	**P13**	344W	T1S	38,768	5	0	5	113	41,764	5	0	5	121	42,292	5	0	5	123
				T2S	38,545	5	0	5	112	41,523	5	0	5	121	42,049	5	0	5	122
				T2M	39,241	5	0	5	114	42,273	5	0	5	123	42,808	5	0	5	124
				T3S	37,947	5	0	5	110	40,879	5	0	5	119	41,396	5	0	5	120
				T3M	39,218	5	0	5	114	42,249	5	0	5	123	42,783	5	0	5	124
				T4M	38,478	5	0	5	112	41,451	5	0	5	120	41,976	5	0	5	122
				TFTM	39,472	5	0	5	115	42,522	5	0	5	124	43,060	5	0	5	125
				T5VS	39,749	5	0	1	116	42,821	5	0	1	124	43,363	5	0	1	126
				T5S	39,415	5	0	2	115	42,461	5	0	2	123	42,998	5	0	2	125
				T5M	39,405	5	0	4	115	42,450	5	0	4	123	42,988	5	0	4	125
				T5W	39,052	5	0	5	114	42,069	5	0	5	122	42,602	5	0	5	124
				BLC	32,419	5	0	5	94	34,925	5	0	5	102	35,367	5	0	5	103
				LCCO	23,154	3	0	5	67	24,943	3	0	5	73	25,259	3	0	5	73
				RCCO	23,124	5	0	5	67	24,910	5	0	5	72	25,226	5	0	5	73
90	1400	**P14**	405W	T1S	42,867	5	0	5	106	46,180	5	0	5	114	46,764	5	0	5	115
				T2S	42,621	5	0	5	105	45,914	5	0	5	113	46,495	5	0	5	115
				T2M	43,390	5	0	5	107	46,743	5	0	5	115	47,335	5	0	5	117
				T3S	41,959	5	0	5	104	45,201	5	0	5	112	45,773	5	0	5	113
				T3M	43,365	5	0	5	107	46,716	5	0	5	115	47,307	5	0	5	117
				T4M	42,547	5	0	5	105	45,834	5	0	5	113	46,414	5	0	5	115
				TFTM	43,646	5	0	5	108	47,018	5	0	5	116	47,614	5	0	5	118
				T5VS	43,952	5	0	1	109	47,349	5	0	1	117	47,948	5	0	1	118
				T5S	43,583	5	0	2	108	46,950	5	0	2	116	47,545	5	0	3	117
				T5M	43,572	5	0	4	108	46,939	5	0	4	116	47,533	5	0	4	117
				T5W	43,181	5	0	5	107	46,518	5	0	5	115	47,107	5	0	5	116
				BLC	35,847	5	0	5	89	38,617	5	0	5	95	39,106	5	0	5	97
				LCCO	25,602	3	0	5	63	27,580	3	0	5	68	27,930	3	0	5	69
				RCCO	25,569	5	0	5	63	27,544	5	0	5	68	27,893	5	0	5	69

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A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire.
   Sold Separately: Link to Roam; Link to DTL DLL

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.1 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. The D-Series Size 2 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hrs at 25ºC). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 2 to withstand up to a 2.0 G vibration load rating per ANSI C136.31. The D-Series Size 2 utilizes the AERIS™ series pole drilling pattern (Template #8). NEMA photocontrol receptacle is available.

STANDARD CONTROLS
The DSX2 LED area luminaire has a number of control options. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX2 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40ºC minimum ambient. U.S. Patent No. D670,857 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

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SYMBOLS

ELECTRICAL SYMBOLS

- DUPLEX RECEPTACLE
- QUAD RECEPTACLE
- DUPLEX RECEPTACLE - TOP SWITCHED
- QUAD RECEPTACLE - TOP SWITCHED
- SPECIAL RECEPTACLE
- FLOOR BOX WITH POWER / DATA / TV
- FLOOR BOX WITH POWER / DATA
- JUNCTION BOX
- SINGLE POLE SWITCH
- 3-WAY SWITCH
- DIMMER SWITCH
- MOTION SENSOR SWITCH

FIRE ALARM SYMBOLS

- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR PANEL
- F — FIRE ALARM MANUAL PULL STATION
- S — SMOKE DETECTOR
- S_{SB} — SMOKE DETECTOR WITH 520HZ SOUNDER BASE
- CARBON MONOXIDE DETECTOR
- H — HEAT DETECTOR
- WALL HORN STROBE
- $_{C}$ — CEILING HORN STROBE
- WALL STROBE
- CEILING STROBE
- RM — FIRE ALARM RELAY
- MM — MONITOR MODULE
- DH — MAGNETIC DOOR HOLDER

LIGHTING SYMBOLS

- 2 BULB SURFACE MOUNT FLOURESCENT
- 6" CAN LIGHT
- 6" WALL WASH CAN LIGHT
- 4" CAN LIGHT
- 2' LED TROFFER LIGHT
- 4' LED TROFFER LIGHT
- WALL MOUNT LIGHT
- DECORATIVE PENDANT LIGHT
- DECORATIVE PENDANT LIGHT
- OS — OCCUPANCY SENSOR

OTHER SYMBOLS

- FSD — FIRE SMOKE DAMPER
- MOTOR OR HVAC UNIT CONNECTION
- EXHAUST FAN
- HEARING IMPAIRED DOOR BELL BUTTON
- DATA OUTLET
- PHONE OUTLET
- PHONE / DATA OUTLET
- TV OUTLET
- $_{H}$ — HOUSE PHONE

GENERAL NOTES - ELECTRICAL

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANSHIP-LIKE MANNER.
2. ALL DIMENSIONS AND EXACT EQUIPMENT LOCATIONS ARE TO BE VERIFIED WITH MECHANICAL AND ARCHITECTURAL DRAWINGS AND CONDITIONS IN THE FIELD.
3. THE GC SHALL PROVIDE ACCESS TO ALL CONCEALED EQUIPMENT.
4. THE EC SHALL COORDINATE WITH OTHER TRADES AND CONSULT WITH MECHANICAL DRAWINGS FOR POWER REQUIREMENTS OF THOSE TRADES.
5. ALL FIRE WALL PENETRATIONS SHALL BE SEALED WITH AN APPROVED FIRE/SMOKE STOP MATERIAL. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE WALL ASSEMBLY LOCATIONS.
6. EC SHALL FURNISH ALL LABOR, MATERIALS, SUPERVISION, SUPPLIES AND REQUIREMENTS, REQUIRED OR OBVIOUSLY NECESSARY TO INSTALL, COMPLETE READY FOR USE ELECTRICAL SYSTEMS, EQUIPMENT AND ASSOCIATED ITEMS INCLUDED ON THE PLANS.
7. THE ELECTRICAL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES AND PROVIDE OTHERS WITH THE NECESSARY INFORMATION TO COMPLETE THIS INSTALLATION.
8. THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ALL SPECIFICATIONS PERTAINING TO THE ELECTRICAL SYSTEM.
9. ANY WORK INSTALLED CONTRARY TO, OR WITHOUT APPROVAL BY THE ENGINEER SHALL BE SUBJECT TO CHANGE AS DIRECTED BY THE ENGINEER.
10. ALL CIRCUITS ARE SHOWN DIAGRAMMATICALLY ONLY AND SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS.
11. ALL CONDUITS AND EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NEC, LOCAL AND STATE CODES GOVERNING SUCH INSTALLATION AND SHALL BE UL LISTED.
12. ALL UNFORESEEN CONDITIONS THAT MAY AFFECT SCOPE OF WORK / CODE VIOLATIONS, DISCOVERED DURING CONSTRUCTION, SHALL IMMEDIATELY BE BROUGHT TO THE ARCHITECT, OWNER, AND/OR ENGINEER.
13. A SET OF MARKED UP PRINTS (AS-BUILTS) SHALL BE PREPARED SHOWING ALL CHANGES MADE DURING CONSTRUCTION AND TURNED OVER TO THE OWNER AFTER CONSTRUCTION IS FINALIZED.
14. EC SHALL SUBMIT DRAWINGS OR CUT SHEETS ON ALL ELECTRICAL DEVICES, LIGHTING FIXTURES AND EQUIPMENT WHICH MAY BE SUBSTITUTED FROM THAT SPECIFIED IN CONTRACT DOCUMENTS.
15. ANY WIRING INSTALLED WHERE SUBJECT TO PHYSICAL DAMAGE SHALL BE INSTALLED IN CONDUIT AS REQUIRED BY THE NEC.

GENERAL NOTES - OTHER SYSTEMS

1. ALL CARD READER LOCATIONS SHALL HAVE A 3/4" ENT ROUTED TO AN ACCESSIBLE LOCATION.
2. CABLING FOR ALL SYSTEMS SHALL BE INSTALLED IN A NEAT AND WORKMANSHIP-LIKE MANNER. CABLING SHALL BE CONCEALED WHERE POSSIBLE. IF IT IS NOT POSSIBLE TO ROUTE CABLES IN A CONCEALED LOCATION, THEY SHALL BE ROUTED IN CONDUIT.
3. CAT6 CABLING SHALL NOT EXCEED 295' IN LENGTH UNDER ANY CIRCUMSTANCES.
4. DATA CABLING SHALL BE CERTIFIED WITH A FLUKE 1800 OR EQUAL CABLE CERTIFIER. DOCUMENTATION SHALL BE GIVEN TO THE OWNER UPON PROJECT COMPLETION DOCUMENTING THE CERTIFICATION FOR EACH DATA LOCATION.
5. PHONE / DATA LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND WITH FURNITURE LOCATIONS.
6. ENSURE THE NUMBER AND SIZE OF CONDUITS FOR FLOOR BOX LOW VOLTAGE CONNECTIONS IS ADEQUATE. POWER AND LOW VOLTAGE CABLING SHALL NOT BE ROUTED IN THE SAME CONDUIT.

GENERAL NOTES - FIRE ALARM

1. THE FIRE ALARM CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, SPECIFICATIONS AND VOLTAGE DROP AND BATTERY CALCULATIONS FOR THE FIRE ALARM SYSTEM TO BE INSTALLED. THESE DOCUMENTS SHALL BE SUBMITTED FOR REVIEW BY THE AHJ, THE DESIGN TEAM AND MARRIOTT.
2. FIRE ALARM SYSTEM AND DEVICE PLACEMENT IS SHOWN ON THESE DRAWINGS FOR REFERENCE ONLY. THE FIRE ALARM CONTRACTOR SHALL ENSURE THAT ALL APPLICABLE CODES AND STANDARDS ARE MET IN DEVICE PLACEMENT, COVERAGE ETC.
3. THE FIRE ALARM VENDOR SHALL BE A VENDOR APPROVED BY MARRIOTT. UNDER NO CIRCUMSTANCES WILL A VENDOR BE APPROVED OTHERWISE.
4. FIRE ALARM WIRING SHALL BE FPLR OR BETTER. FIRE ALARM CONTRACTOR SHALL ENSURE THAT ALL AHJ REQUIREMENTS FOR FIRE ALARM WIRING ARE MET.
5. WHERE SUBJECT TO PHYSICAL DAMAGE, FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT AS REQUIRED BY THE NEC.
6. THE FIRE ALARM SYSTEM SHALL MEET THE REQUIREMENTS SET FORTH IN THE MARRIOTT MODULE 14 LIFE SAFETY STANDARDS.
7. FIRE ALARM DEVICES SHALL BE WHITE IN COLOR EXCEPT WHERE REQUIRED TO BE OTHERWISE BY NATIONAL AND/OR LOCAL CODES.
8. SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER ALL TRADES HAVE COMPLETED CONSTRUCTION CLEANUP.
9. MAGNETIC DOOR HOLDERS WILL BE 24V AND POWERED AND CONTROLLED BY THE FIRE ALARM SYSTEM.
10. GUEST UNIT SMOKE DETECTORS SHALL BE MOUNTED ON A SOUNDER BASE AND SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM AND SHALL ANNUNCIATE AS SUPERVISORY AT THE FACP AND MONITORING CENTER.
11. ALL AUDIBLE NOTIFICATION IN SLEEPING UNITS SHALL BE 520HZ AS REQUIRED BY THE NFPA 72.
12. CARBON MONOXIDE DETECTORS SHALL HAVE AN INTEGRATED SOUNDER AND SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM AND SHALL ANNUNCIATE AS SUPERVISORY AT THE FACP AND MONITORING CENTER.

ELECTRICAL SHEET INDEX

SHEET #	SHEET NAME
E0.0	GENERAL NOTES, SYMBOLS, ABBREVIATIONS
E0.1	SITE PHOTOMETRICS PLAN
E0.2	ELECTRICAL SITE CUT SHEETS
E0.3	ELECTRICAL SITE PLAN
E1.1	1ST FLOOR POWER & SPECIAL SYSTEMS PLAN
E1.2	2ND FLOOR POWER & SPECIAL SYSTEMS PLAN
E1.3	3RD FLOOR POWER & SPECIAL SYSTEMS PLAN
E1.4	ROOF POWER PLAN
E2.1	1ST FLOOR LIGHTING PLAN
E2.2	2ND FLOOR LIGHTING PLAN
E2.3	3RD FLOOR LIGHTING PLAN
E3.1	ENLARGED GUEST UNIT POWER PLANS
E4.1	ELECTRICAL ONE LINE
E5.1	ELECTRICAL PANEL SCHEDULES
E5.2	ELECTRICAL PANEL SCHEDULES
E6.1	ELECTRICAL DETAILS

ABBREVIATIONS

A	AMPERES
AC	ABOVE COUNTER
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AL	ALUMINUM
AWG	AMERICAN WIRE GUAGE
BOF	BOTTOM OF FIXTURE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CEILING MOUNT
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
COD	CENTER OF DEVICE
CONST	CONSTRUCTION
CONT	CONTINUED
DET	DETAIL
DN	DOWN
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY LIGHT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F	FUSE
FAA	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FT	FEET OR FOOT
GC	GENERAL CONTRACTOR
G/GND	GROUND
GFI / GFCI	GROUND FAULT INTERRUPTER
GCP	GROUND FAULT PROTECTION
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
INT	INTERCOM
JB	JUNCTION BOX
MB	MAIN BREAKER
MC	METAL CLAD CABLE
MCC	MOTOR CONTROL CENTER
MS	MOTOR STARTER
MH	MANHOLE
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OL	OVERLOAD
OS	OCCUPANCY SENSOR
OFE	OWNER FURNISHED EQUIPMENT
PB	PULL BOX
PC	PHOTOCELL
PVC	POLYVINYL CHLORIDE CONDUIT
PP	POWER POLE
RCPT	RECEPTACLE
REQ	REQUIRED
REF	REFRIDGERATOR
SPEC	SPECIFICATION
TBD	TO BE DETERMINED
TOB	TOP OF BOX
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VA	VOLT AMPERE
WP	WEATHER PROOF
XFMR	TRANSFORMER

RELIANCE ELECTRIC
2775 W Hampden Ave., #100
Denver, Colorado 80110
(720) 749-2850 - www.relianceteam.com

Owner

SUNRIDGE HOTEL GROUP
7255 E. HAMPTON AVE.
SUITE 122
MESA, ARIZONA 85209
(480) 854-1414

Project

SPRINGHILL SUITES MARRIOTT

COTTONWOOD, ARIZONA

Team

Drawn By:	EJB
Checked By:	RM, WWB
Project Number:	8023

Revisions

#	Date	Revision Notes
0	2020/03/27	Development Drawings
1	2020/04/27	Updated Site Drawings
2	2020/04/29	95% Development Drawings
3	2020/05/05	Complete DD Set
4	2020/05/18	Updated Site Lighting
5		
6		
7		
8		
9		
10		

REGISTERED PROFESSIONAL ENGINEER
JONATHAN G. JOHNSON
29285
ARIZONA U.S.A.
EXP. 03/31/22

Sheet

E0.0

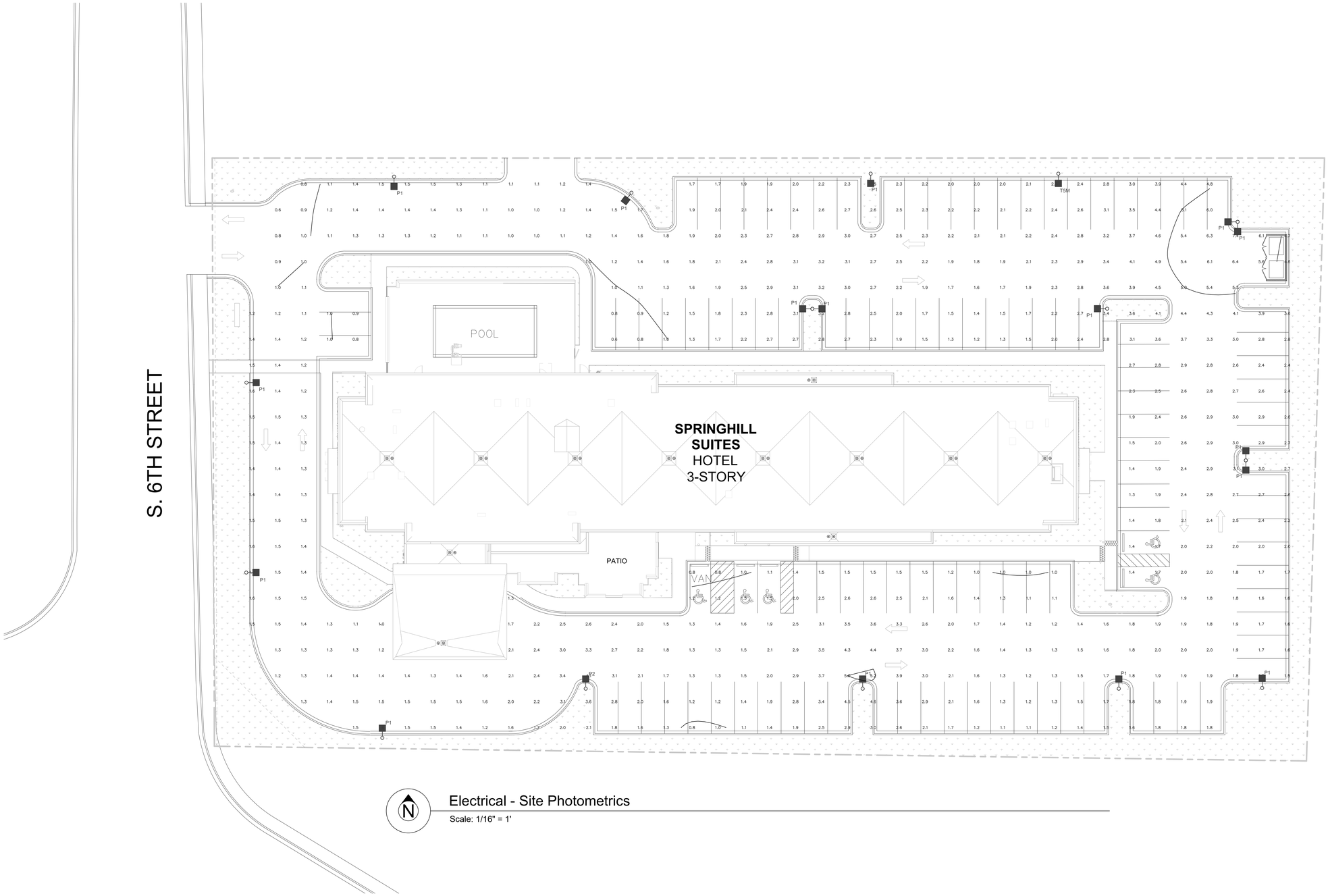
ELECTRICAL INFORMATION

CALCULATIONS

AVERAGE FOOT-CANDLES	2.11 fc
MAXIMUM FOOT-CANDLES	7.4 fc
MINIMUM FOOT-CANDLES	0.6 fc
MIN - MAX FC RATIO	0.08
MAX - MIN FC RATIO	11.99
AVG - MIN FC RATIO	3.42

SITE ELECTRICAL LEGEND

L1	POLE MOUNTED LED AREA LIGHT - SINGLE HEAD. +25' T.O.F.
L2	POLE MOUNTED LED AREA LIGHT - DUAL HEAD. +25' T.O.F.
B	BOLLARD LIGHT. +36" HIGH
T	ELECTRICAL UTILITY TRANSFORMER
M	ELECTRICAL UTILITY METER
T.O.F.	LUMINAIRE HEIGHT IS MEASURED FROM "TOP OF FIXTURE" TO ABOVE FINISH GRADE.
B.O.F	LUMINAIRE HEIGHT IS MEASURED FROM "BOTTOM OF FIXTURE" TO ABOVE FINISH GRADE.



Electrical - Site Photometrics

Scale: 1/16" = 1'

RELIANCE ELECTRIC
2775 W Hampden Ave., #100
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Project

SPRINGHILL SUITES MARRIOTT
COTTONWOOD, ARIZONA

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Drawn By: EJB
Checked By: RM, WWB
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4	2020/05/18	Updated Site Lighting
5		
6		
7		
8		
9		
10		

Sheet

E0.1

ELECTRICAL
SITE PHOTOMETRICS

D-Series Size 1
LED Area Luminaire

Catalog Number

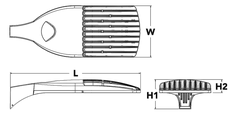
Notes Mounted on 20' High Square Pole

Type P1

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA: 1.01 ft² (0.09 m²)
Length: 33" (83.8 cm)
Width: 13" (33.0 cm)
Height H1: 7-1/2" (19.0 cm)
Height H2: 3-1/2"
Weight (max): 27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** P1 P4 P7 P2 P5 P8 P3 P6 P9 **Rotated optics** P10[1] P12[1] P11[1] P13[1]	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short [2] T5S Type V short [2] T5M Type V medium [2] T5W Type V wide [2] BLC Backlight control [3] LCCO Left corner cutoff [3] RCCO Right corner cutoff [3]	MVOLT [4] 120 [5] 208 [5] 240 [5] 277 [5] 347 [5] 480 [5]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket [2] SPUMBA Square pole universal mounting adaptor [6] RPUMBA Round pole universal mounting adaptor [6] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [7]

Control options		Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled [8] PIRHN Network, high/low motion/ambient sensor [9] PER NEMA twist-lock receptacle only (controls ordered separate) [10] PER5 Five-pin receptacle only (controls ordered separate) [10,11] PER7 Seven-pin receptacle only (controls ordered separate) [10,11] DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately) [12] DS Dual switching [12,14,15]	PIR High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 5fc [16,17] PIRH High/low, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 5fc [16,17] PIR1FC3V High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 1fc [16,17] PIRH1FC3V Bi-level, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 1fc [16,17] FAO Field adjustable output [13]	**Shipped installed** HS House-side shield [18] SF Single fuse (120, 277, 347V) [5] DF Double fuse (208, 240, 480V) [5] L90 Left rotated optics [1] R90 Right rotated optics [1] **Shipped separately** BS Bird spikes [19] EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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D-Series Size 2
LED Area Luminaire

Catalog Number

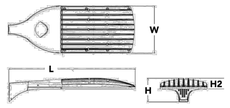
Notes

Type P2

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA: 1.1 ft² (0.10 m²)
Length: 40" (101.6 cm)
Width: 15" (38.1 cm)
Height 1: 7-1/4" (18.4 cm)
Height 2: (max): 3.5"
Weight: 36lbs



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX2 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX2 LED	**Forward optics** P1 P5 P2 P6 P3 P7 P4 P8 **Rotated optics**[1] P10 P13 P11 P14 P12	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I Short (Automotive) T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium T5VS Type V Very Short [2] T5S Type V Short [2] T5M Type V Medium [2] T5W Type V Wide [2] BLC Backlight control [3] LCCO Left corner cutoff [3] RCCO Right corner cutoff [3]	MVOLT [4] 120 [5] 208 [5] 240 [5] 277 [5] 347 [5] 480 [5]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket [2] SPUMBA Square pole universal mounting adaptor [6] RPUMBA Round pole universal mounting adaptor [6] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [7]

Control options		Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled [8] PIRHN Network, Bi-Level motion/ambient sensor [9] PER NEMA twist-lock receptacle only (no controls) [10] PER5 Five-wire receptacle only (no controls) [10,11] PER7 Seven-wire receptacle only (no controls) [10,11] DMG 0-10V dimming extend out back of housing for external control (no controls) [12] DS Dual switching [12,14]	PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enable at 5fc FAO Field Adjustable Output [13]	**Shipped installed** HS House-side shield [18] SF Single fuse (120, 277, 347V) [5] DF Double fuse (208, 240, 480V) [5] L90 Left rotated optics [1] R90 Right rotated optics [1] **Shipped separately** BS Bird spikes [19] EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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LITHONIA LIGHTING®

FEATURES & SPECIFICATIONS

INTENDED USE — Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION — **Pole Shaft:** The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (11-gauge, .1196"), or 50 KSI (7-gauge, .1793"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformly square in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: A top cap is provided for all poles that will receive drilling patterns for side-mount luminaire arm assemblies or when ordered with PT option.

Handhole: A reinforced handhole with grounding provision is provided at 18" from the base. Positioning the handhole lower may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".

Base Cover: A durable ABS plastic two-piece full base cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/ Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE – All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH – Standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to Hot-dipped Galvanized, Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

WARRANTY — 1-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Pole for:
Fixture types P1 & P2

Anchor Base Poles

SSS

SQUARE STRAIGHT STEEL

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: SSS 20 5C DM19 DDB

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[1]	Mounting[2]		Options		Finish[18]	
SSS	(See technical information table for complete ordering information.) 10'-39' (for 1/2 Ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) 20'	(See technical information table for complete ordering information.) 4C 4" 11g (.1196") 4G 4" 7g (.1793") 5C 5" 11g (.1196") 5G 5" 7g (.1793") 6G 6" 7g (.1793")	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) KAC/RAD/KSE/KSF/KVR/KVF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28 PL 2 at 180° with one side plugged DM29 2 at 90° DM39 3 at 90° DM49 4 at 90° CSX/DSX/AERIS™/OMERO™/HLA/KAX Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90°	AERIS™ Suspend drill mounting[4,5] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[4,5] DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed L/AB Less anchor bolts (Include when anchor bolts are not needed) VD Vibration damper TP Tamper resistant handhole cover fasteners HAxy Horizontal arm bracket (1 fixture)[6,8] FDLxy Festoon outlet less electrical[7] CPL12/xy 1/2" coupling[1] CPL34/xy 3/4" coupling[1] CPL1/xy 1" coupling[1] NPL12/xy 1/2" threaded nipple[1] NPL34/xy 3/4" threaded nipple[1] NPL1/xy 1" threaded nipple[1] EHRxy Extra handhole[6,7] MAEX Match existing[8] USPOM United States point of manufacture[9] IC Interior coating[10] UL UL listed with label (Includes NEC compliant cover) NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) Shipped separately (replacement kit available) (blank) FBC Full base cover (plastic) (blank) TC Top cap (blank) HHC Handhole cover	Standard colors DDB Dark bronze DWH White DBL Black DMB Medium bronze DNA Natural aluminum Classic colors DSS Sandstone DGC Charcoal gray DTG Tennis green DBR Bright red DSB Steel blue Architectural Colors and Special Finishes[11] Galvanized, Paint over Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes available.

See footnotes next page.

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Owner

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Project

SPRINGHILL SUITES MARRIOTT
COTTONWOOD, ARIZONA

Team

Drawn By: EJB
Checked By: RM, WWB
Project Number: 8023

Revisions

#	Date	Revision Notes
0	2020/03/27	Development Drawings
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REGISTERED PROFESSIONAL ENGINEER
JONATHAN D. ORANSON
ARIZONA U.S.A.
EXP. 03/31/22

Sheet

E0.2

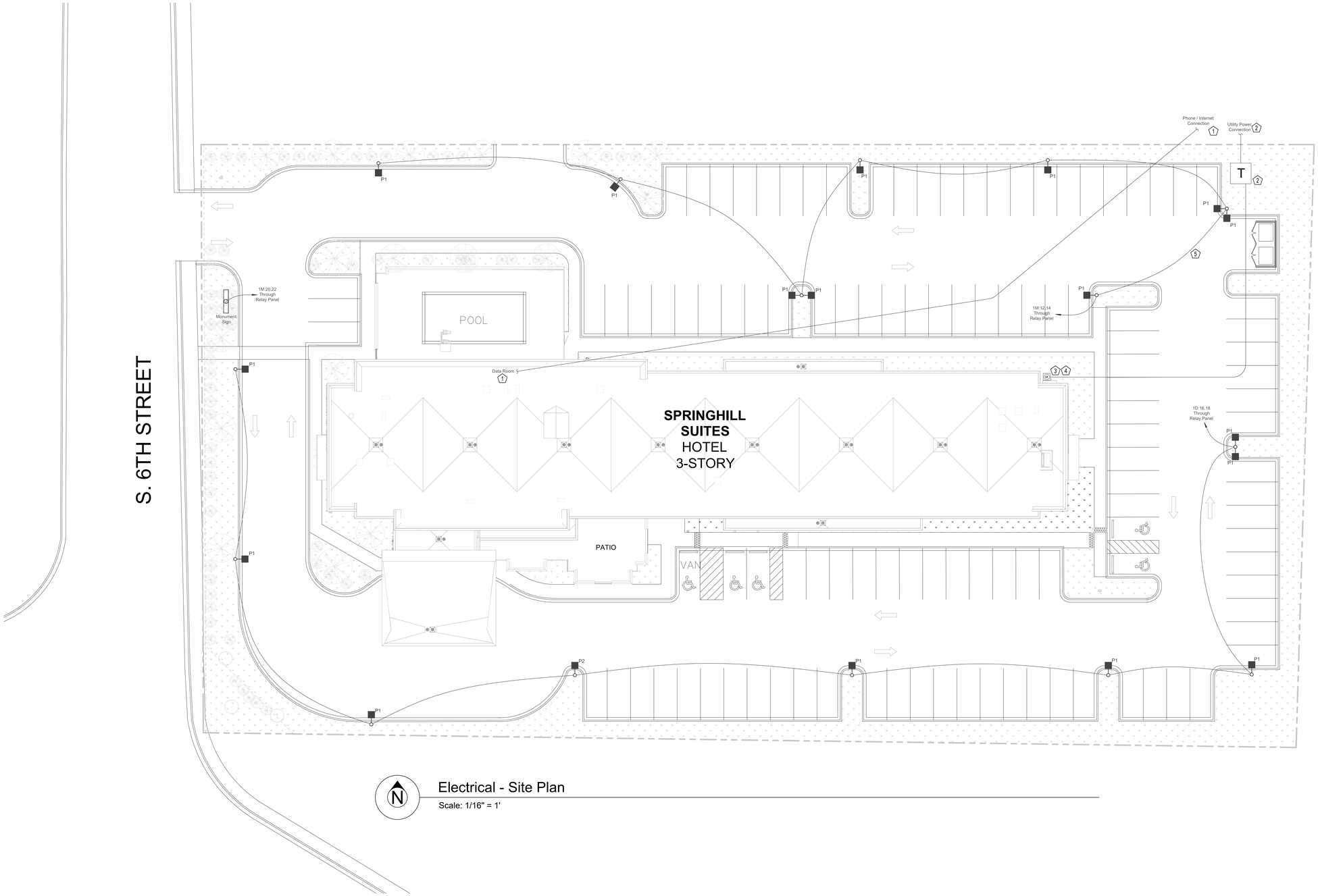
ELECTRICAL
SITE CUTSHEETS

SITE NOTES

1. ELECTRICAL CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR AND PHONE/INTERNET UTILITY SUPPLIER(S) FOR LOCATION OF CONNECTIONS TO THE PROPERTY. A MINIMUM OF (2) 4" PVC CONDUITS SHALL BE SUPPLIED FROM CONNECTION POINT TO THE 1ST FLOOR DATA ROOM.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH UTILITY POWER SUPPLIER FOR EXACT LOCATION AND DETAILS OF POWER CONNECTIONS TO THE PROPERTY AND FOR LOCATION OF ELECTRICAL TRANSFORMER.
3. ELECTRICAL METER SUPPLIED BY UTILITY POWER SUPPLIER. EXACT LOCATION TO BE COORDINATE WITH GENERAL CONTRACTOR.
4. PROVIDE A MINIMUM DEPTH OF 3 FEET CLEAR WORKING CLEARANCE IN FRONT OF ALL ELECTRICAL SERVICES AND PANELS IN ACCORDANCE WITH NEC 110.26. THE WIDTH OF THE WORKING SPACE SHALL BE THE WIDTH OF THE EQUIPMENT OR 30 INCHES WHICHEVER IS GREATER.
5. TRENCH ROUTING IS NOT PROVIDED ON THESE DRAWINGS. CONTRACTOR SHALL COORDINATE TRENCH ROUTING FOR UTILITIES AND SITE LIGHTING AND POWER WITH ALL OTHER TRADES. TYPICAL OF ALL SITE WIRING.

SITE ELECTRICAL LEGEND

L1	POLE MOUNTED LED AREA LIGHT - SINGLE HEAD. +25' T.O.F.
L2	POLE MOUNTED LED AREA LIGHT - DUAL HEAD. +25' T.O.F.
B	BOLLARD LIGHT. +36" HIGH
T	ELECTRICAL UTILITY TRANSFORMER
M	ELECTRICAL UTILITY METER
T.O.F.	LUMINAIRE HEIGHT IS MEASURED FROM "TOP OF FIXTURE" TO ABOVE FINISH GRADE.
B.O.F	LUMINAIRE HEIGHT IS MEASURED FROM "BOTTOM OF FIXTURE" TO ABOVE FINISH GRADE.



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Electrical - Site Plan

Scale: 1/16" = 1'

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SPRINGHILL SUITES MARRIOTT

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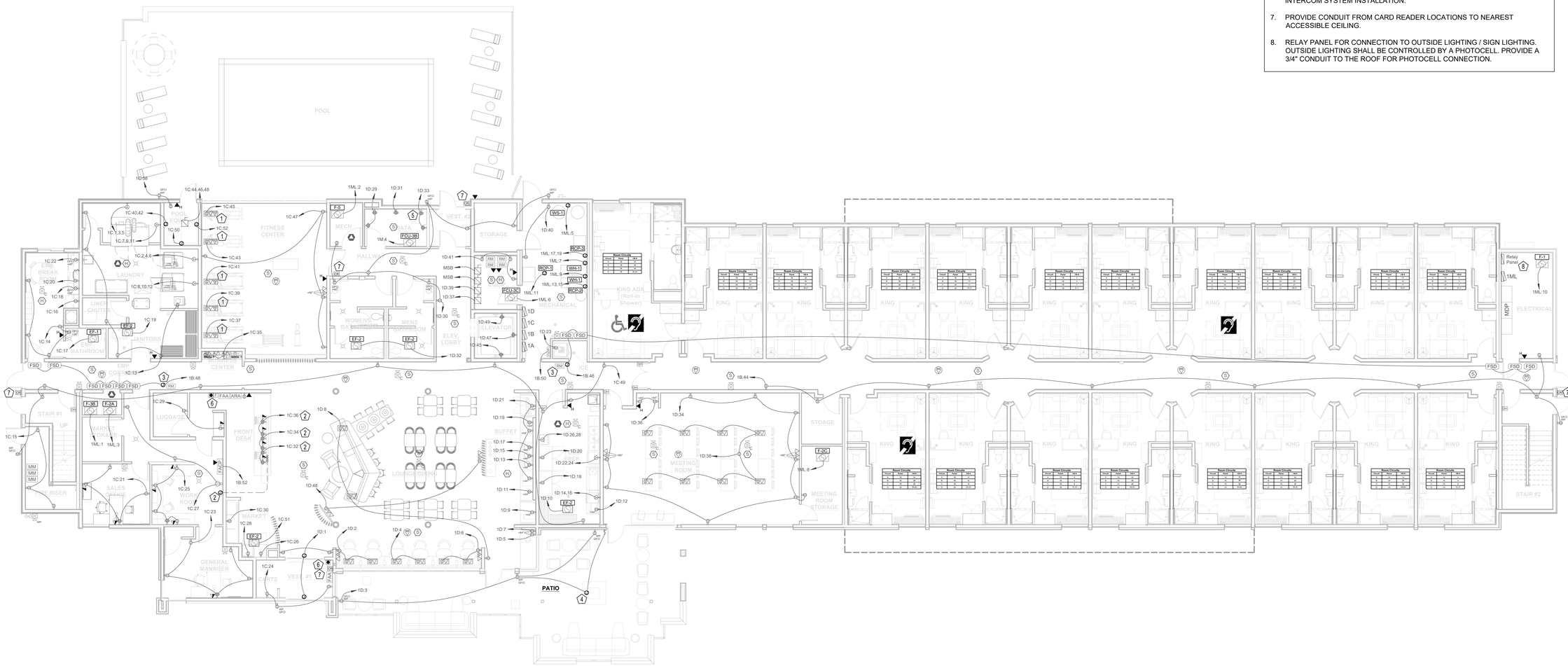
E0.3

ELECTRICAL
SITE PLAN

SHEET NOTES (⬠)

1. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ENOUGH CONDUITS ARE ROUTED TO THE FITNESS CENTER FLOOR BOXES TO CONTAIN THE ELECTRICAL, TV, AND DATA CONNECTIONS TO THE FITNESS EQUIPMENT. DATA AND TV CABLES SHALL NOT BE ROUTED IN THE SAME CONDUIT WITH POWER CABLES.
2. (2) 1-1/2" CONDUITS SHALL BE ROUTED FROM THE ACCESSIBLE CEILING IN THE WORK ROOM TO THE RECEPTION DESK FOR PHONE/DATA CABLING. ELECTRICAL HOME-RUNS FOR THE RECEPTION DESK SHALL BE ROUTED TO A JUNCTION BOX ABOVE THE ACCESSIBLE CEILING IN THE WORK ROOM.
3. POWER FOR FIRE/SMOKE DAMPERS SHALL RUN THROUGH A JUNCTION BOX FOR FIRE ALARM RELAY CONTROL. THIS JUNCTION BOX SHALL BE LOCATED BEFORE CONNECTIONS TO THE FIRE SMOKE DAMPERS. TYPICAL OF (2) LOCATIONS.
4. PROVIDE JUNCTION BOX FOR FIRE PIT ON PATIO.
5. LOCATION OF RECEPTACLES IN DATA ROOM SHALL BE COORDINATED WITH STRUCTURED CABLING INSTALLER.
6. PROVIDE CONDUIT FROM RECEPTION DESK AREA TO VESTIBULE FOR INTERCOM SYSTEM INSTALLATION.
7. PROVIDE CONDUIT FROM CARD READER LOCATIONS TO NEAREST ACCESSIBLE CEILING.
8. RELAY PANEL FOR CONNECTION TO OUTSIDE LIGHTING / SIGN LIGHTING. OUTSIDE LIGHTING SHALL BE CONTROLLED BY A PHOTOCELL. PROVIDE A 3/4" CONDUIT TO THE ROOF FOR PHOTOCELL CONNECTION.



1st Floor Power & Special Systems Plan

Scale: 1/8" = 1'

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REGISTERED PROFESSIONAL ENGINEER
20085
JONATHAN W. DORANSON
ELECTRICAL
ARIZONA U.S.A.
EXP. 03/31/22

Sheet

E1.1

1ST FLOOR POWER & SPECIAL SYSTEMS PLAN

SHEET NOTES (⬠)

1. COORDINATE WITH GENERAL CONTRACTOR FOR OUTLET LOCATIONS IN GUEST LAUNDRY.

2nd Floor Power & Special Systems Plan

Scale: 1/8" = 1'

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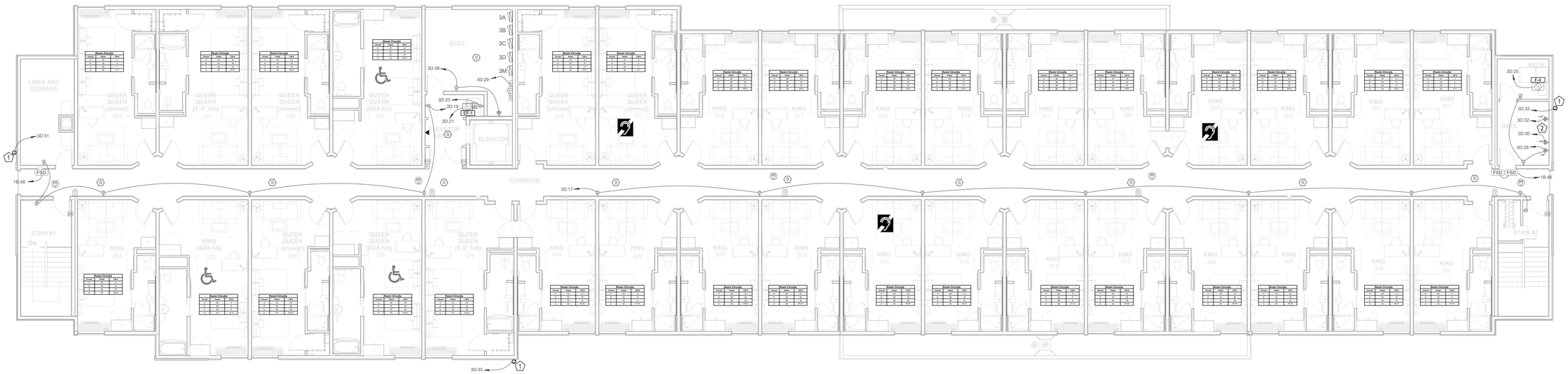
E1.2

2ND FLOOR POWER & SPECIAL SYSTEMS PLAN

SHEET NOTES (⬠)

1. ELECTRICAL CONNECTIONS FOR EXTERIOR SIGN LIGHTING. COORDINATE WITH SIGN INSTALLER FOR EXACT LOCATIONS.
2. EXACT NUMBER AND LOCATION OF OUTLETS IN THE DATA ROOM SHALL BE COORDINATED WITH THE STRUCTURED CABLING AND TV CABLING INSTALLER(S).



3rd Floor Power & Special Systems Plan

Scale: 1/8" = 1'

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SPRINGHILL SUITES MARRIOTT

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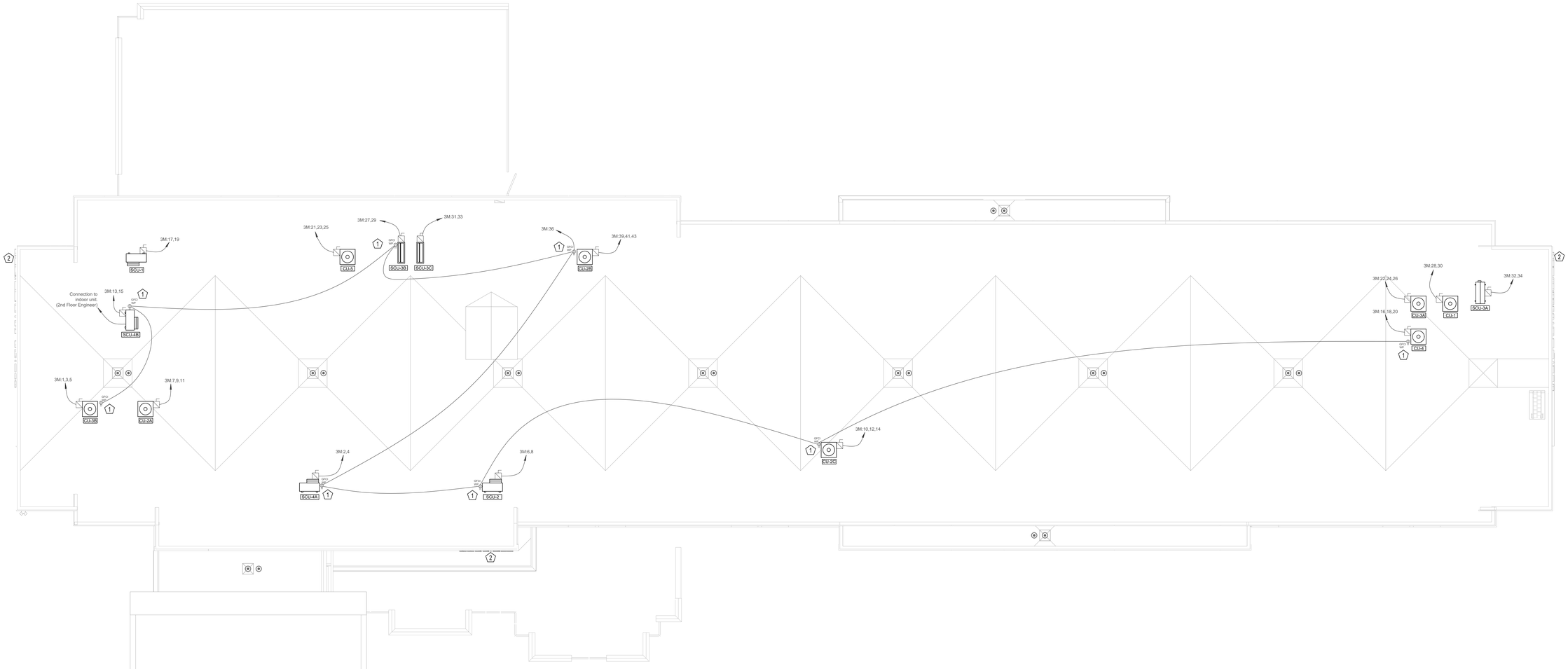
E1.3

3RD FLOOR POWER & SPECIAL SYSTEMS PLAN

SHEET NOTES (⬠)

1. ALL HVAC UNITS SHALL HAVE A RECEPTACLE OUTLET LOCATED WITHIN 25' FOR SERVICING. ADDITIONAL RECEPTACLES SHALL BE ADDED IF NECESSARY TO MEET THIS REQUIREMENT.
2. SEE 3RD FLOOR POWER PLAN (E1.3) FOR POWER CONNECTIONS TO EXTERIOR SIGN LIGHTING. COORDINATE WITH SIGN INSTALLERS FOR EXACT NUMBER AND LOCATION OF CONNECTIONS.



Roof Power Plan

Scale: 1/8" = 1'

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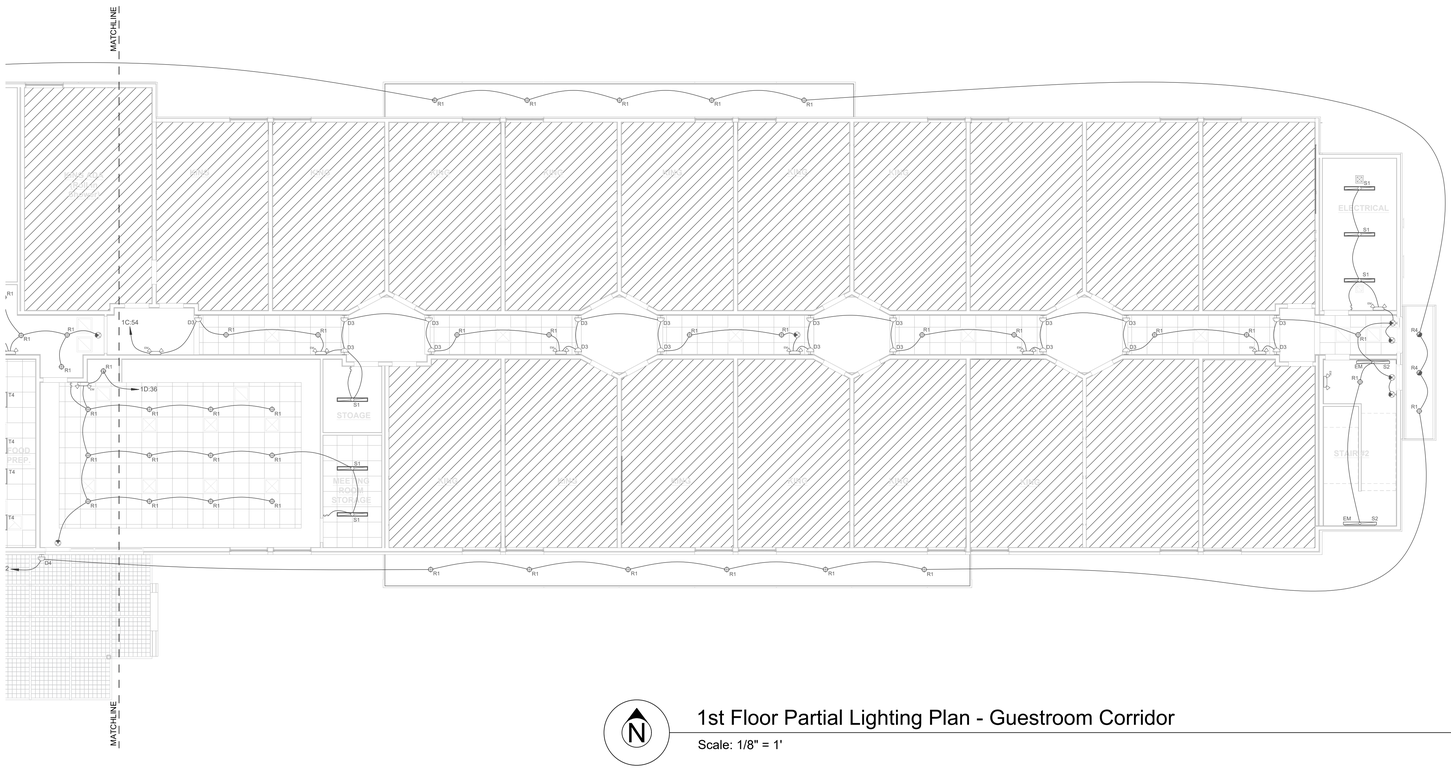
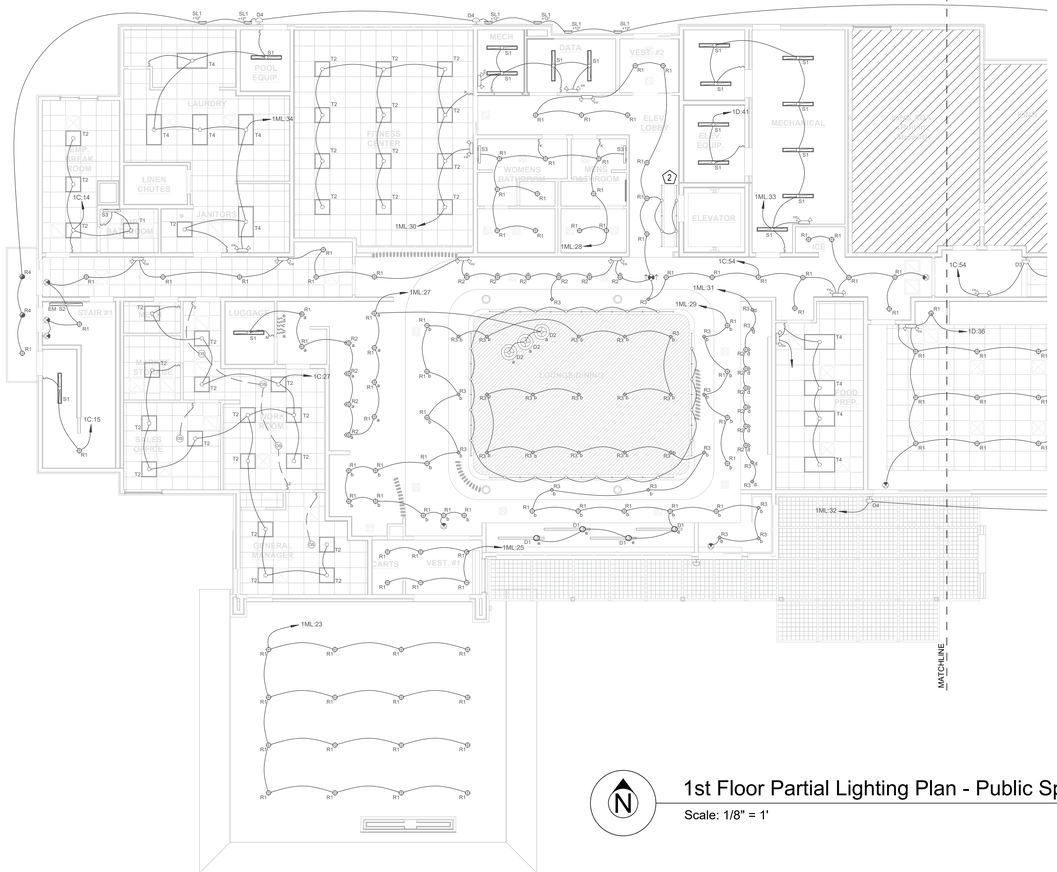
E1.4

ROOF ELECTRICAL POWER PLAN



1st Floor Partial Lighting Plan - Guestroom Corridor

Scale: 1/8" = 1'



1st Floor Partial Lighting Plan - Public Spaces

Scale: 1/8" = 1'

SHEET NOTES (⬠)

GENERAL LIGHTING NOTE:

IF CEILING FINISH TYPE CHANGES, CONTRACTOR SHALL COORDINATE WITH ARCHITECT, ENGINEER AND OWNER GROUP TO POTENTIALLY CHANGE RECESSED CAN LIGHTS TO SURFACE MOUNT PUCK LIGHTS WHERE APPLICABLE.

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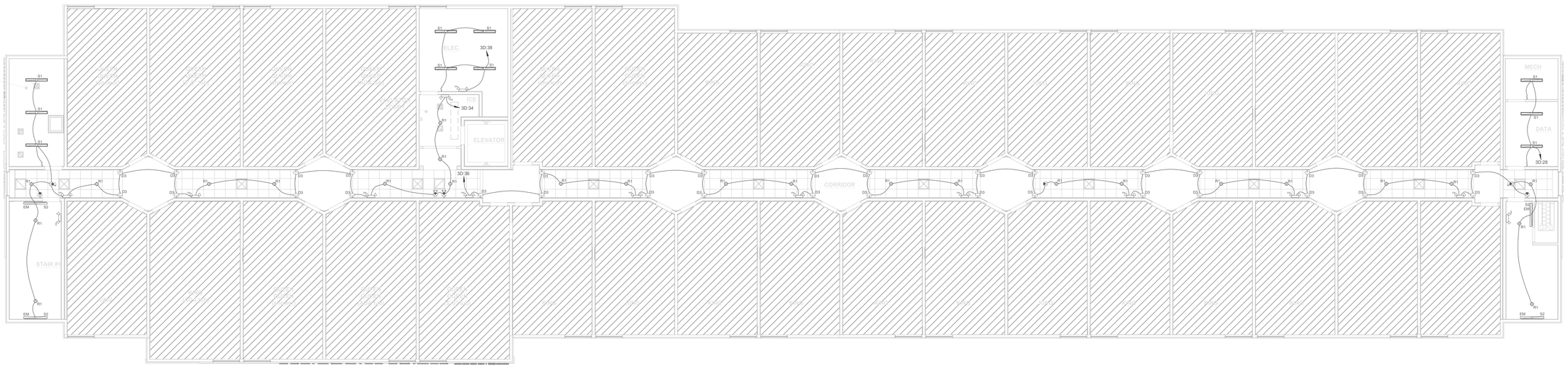
E2.1

1ST FLOOR
LIGHTING PLAN

SHEET NOTES (⬠)

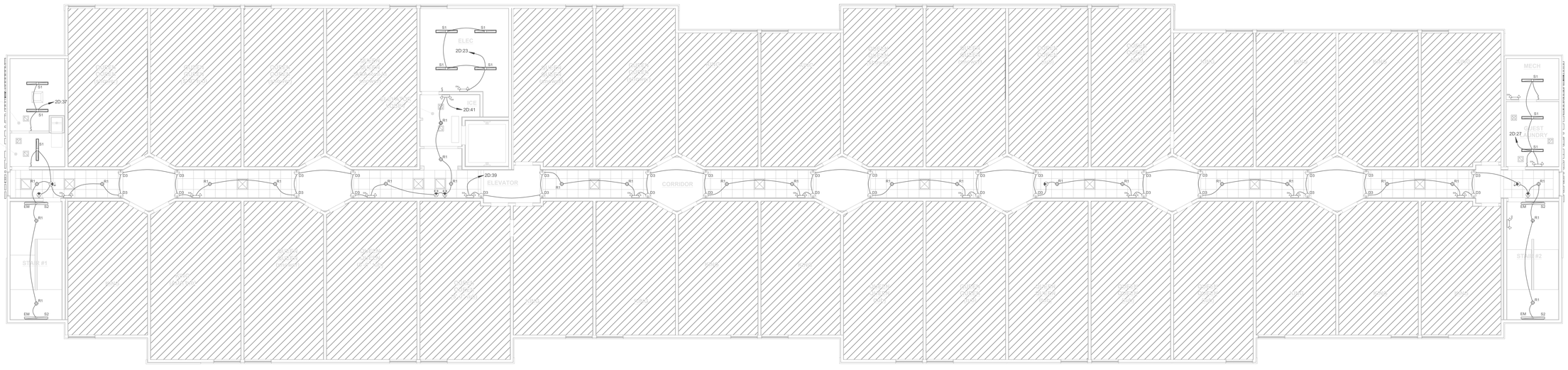
GENERAL LIGHTING NOTE:

IF CEILING FINISH TYPE CHANGES, CONTRACTOR SHALL COORDINATE WITH ARCHITECT, ENGINEER AND OWNER GROUP TO POTENTIALLY CHANGE RECESSED CAN LIGHTS TO SURFACE MOUNT PUCK LIGHTS WHERE APPLICABLE.



3rd Floor Lighting Plan

Scale: 1/8" = 1'



2nd Floor Lighting Plan

Scale: 1/8" = 1'

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SPRINGHILL SUITES MARRIOTT

COTTONWOOD, ARIZONA

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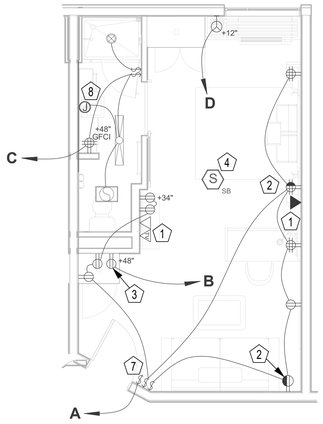
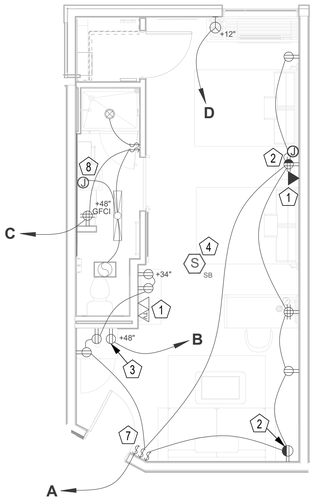
E2.2

2ND & 3RD FLOORS
LIGHTING PLAN



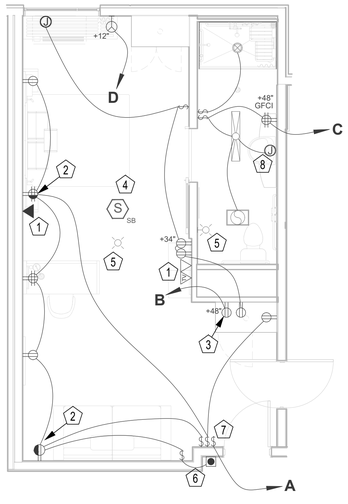
1 King Unit Power

Scale: 1/4" = 1'



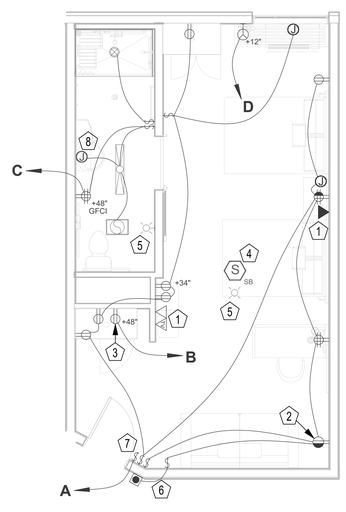
2 Queen Queen Unit Power

Scale: 1/4" = 1'



3 King Acc Unit Power

Scale: 1/4" = 1'



4 Queen Queen Acc Unit Power

Scale: 1/4" = 1'

SHEET NOTES (⬠)

1. EC TO PROVIDE 3/4" CONDUIT FROM PHONE/DATA/TV LOCATIONS TO ACCESSIBLE CORRIDOR CEILING. PROVIDE PULL STRING IN CONDUIT.
2. TOP OUTLET TO BE SWITCHED FOR LAMP.
3. OUTLET FOR MICROWAVE. MOUNT AT 48" AFF. COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS AND FURNITURE INSTALLERS.
4. SMOKE DETECTOR TO BE MOUNTED ON A 520HZ SOUNDER BASE AND CONNECTED TO THE BUILDING FIRE ALARM SYSTEM AS REQUIRED BY MARRIOTT MODULE 14, THE INTERNATIONAL FIRE CODE (IFC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA-72) WITH CITY OF COTTONWOOD AMENDMENTS. DETECTOR SHALL NOT BE MOUNTED DIRECTLY ABOVE THE BED UNLESS DETECTOR LED CAN BE DISABLED FOR NORMAL OPERATIONS.
5. FOR HEARING IMPAIRED UNITS, STROBES SHALL BE INSTALLED FOR FIRE ALARM AND DOOR BELL IN THE UNIT BEDROOM AND BATHROOM. TYPICAL OF ALL HEARING IMPAIRED UNITS. FIRE ALARM STROBE LOCATIONS AND INTENSITY SHALL MEET THE REQUIREMENTS OF THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA-72).
6. FOR HEARING IMPAIRED UNITS, PROVIDE AN ELECTRONIC DOOR BELL THAT WILL ACTUATE THE UNIT STROBES. THERE SHALL BE A DISCONNECT SWITCH IN THE UNIT TO DISABLE THE DOOR BELL. THE SWITCH PLATE SHALL BE MARKED "ADA DOORBELL DISABLE SWITCH". A JUNCTION BOX SHALL BE PROVIDED IN AN ACCESSIBLE LOCATION FOR DOORBELL TRANSFORMER. EDWARDS #592 OR EQUAL. TYPICAL OF ALL HEARING IMPAIRED UNITS.
7. A MASTER SWITCH SHALL BE PROVIDED IN EACH GUESTROOM. ALL LIGHTING CIRCUITS FOR THE GUESTROOM SHALL BE DISCONNECTED WITH THE MASTER SWITCH. THE SWITCH PLATE SHALL BE MARKED "MASTER".
8. JUNCTION BOX FOR LIGHTED MIRROR (PROVIDED BY OWNER). COORDINATE LOCATION WITH MIRROR INSTALLERS.

GENERAL NOTES

1. ALL ELEVATION DIMENSIONS FOR ELECTRICAL DEVICES ARE SHOWN TO CENTER FROM ABOVE FINISHED FLOOR. DETAILS AND DIMENSIONS ON THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE OVER ELECTRICAL DRAWINGS.
2. FOR ALL GUEST UNITS, PROVIDE TAMPER-RESISTANT RECEPTACLES IN ACCORDANCE WITH NEC 210.52. ALL 125V 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
3. FOR ALL GUEST UNIT LIVING AND SLEEPING AREAS, PROVIDE ARC-FAULT CIRCUIT PROTECTION PER NEC 210.12.
4. FINAL OUTLET LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND ELEVATORS AND WITH FURNITURE INSTALLERS.
5. IN FIRE RATED WALLS, DO NOT INSTALL OUTLET BOXES BACK-TO-BACK IN THE SAME STUD CAVITY. OUTLET BOXES SHALL BE OFFSET HORIZONTALLY BY A MINIMUM OF 4" FOR ADJACENT ROOMS OR HAVE ONE STUD OF SEPARATION. OUTLET BOXES INSTALLED IN THE SAME STUD CAVITY OR LESS THAN 24" APART, SHALL BE PROTECTED BY FIRE BLOCKING OR UL LISTED PROTECTIVE MATERIAL.

RELIANCE ELECTRIC
2775 W Hampden Ave., #100
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(720) 749-2850 - www.reliancteam.com

Owner

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7255 E. HAMPTON AVE.
SUITE 122
MESA, ARIZONA 85209
(480) 854-1414

Project

SPRINGHILL SUITES MARRIOTT
COTTONWOOD, ARIZONA

Team

Drawn By:	EJB
Checked By:	RM, WWB
Project Number:	8023

Revisions

#	Date	Revision Notes
0	2020/03/27	Development Drawings
1	2020/04/27	Updated Site Drawings
2	2020/04/29	95% Development Drawings
3	2020/05/05	Complete DD Set
4	2020/05/18	Updated Site Lighting
5		
6		
7		
8		
9		
10		

REGISTERED PROFESSIONAL ENGINEER
JONATHAN E. BORANSON
ARIZONA U.S.A.
EXP. 03/31/22

Sheet

E3.1

ENLARGED GUEST UNIT POWER PLANS

SERVICE CALCULATION

VOLTAGE: 120/208

NO.	PANEL NAME	Equipment @ 100%	Lights + 25%	50% of Receptacles	Kitchen / Other	Demand SubTotal	Demand Amps - No Rooms	Demand Amps Panel Total	Breaker Size	Wire Size	Connected Amps
1	1A	29,000	-	-	-	**29,000**	80	145	200	3/0	167
2	1B	29,100	-	1,310	-	**30,410**	84	149	200	3/0	165
3	1C	42,400	800	6,780	-	**49,980**	139	158	200	3/0	158
4	1D	21,020	3,750	6,170	11,505	**42,445**	118	134	200	3/0	150
5	1ML	25,000	19,950	-	-	**44,950**	125	128	150	3/0	121
6	2A	29,000	-	-	-	**29,000**	80	145	200	3/0	167
7	2B	29,000	-	-	-	**29,000**	80	145	200	3/0	167
8	2C	29,000	-	-	-	**29,000**	80	145	200	3/0	167
9	2D	40,760	3,300	2,850	-	**46,910**	130	154	200	3/0	162
10	3A	29,000	-	-	-	**29,000**	80	145	200	3/0	167
11	3B	29,000	-	-	-	**29,000**	80	145	200	3/0	167
12	3C	29,000	-	-	-	**29,000**	80	145	200	3/0	167
13	3D	12,840	8,265	4,510	-	**25,615**	71	99	150	3/0	106
14	3M	57,500	-	720	-	**58,220**	162	168	200	3/0	164
15	---	-	-	-	-	-	-	-			0
16	---	-	-	-	-	-	-	-			0
17	---	-	-	-	-	-	-	-			0
18	---	-	-	-	-	-	-	-			0
19	---	-	-	-	-	-	-	-			0
20	---	-	-	-	-	-	-	-			0
21	---	-	-	-	-	-	-	-			0
22	---	-	-	-	-	-	-	-			0
23	---	-	-	-	-	-	-	-			0
	Elevator 1	43,560				**43,560**	121		125	1/0	121
	Elevator 2	43,560				**43,560**	121		125	1/0	121
	25% of Largest Motor	10,890				**10,890**	30				30
	First 10 kva of Receptacles			10,000		**10,000**	28				28
	TOTAL	**529,630**	**36,065**	**32,340**	**11,505**	**609,540**	**1,692**	**-**	**-**	**-**	**2,495**

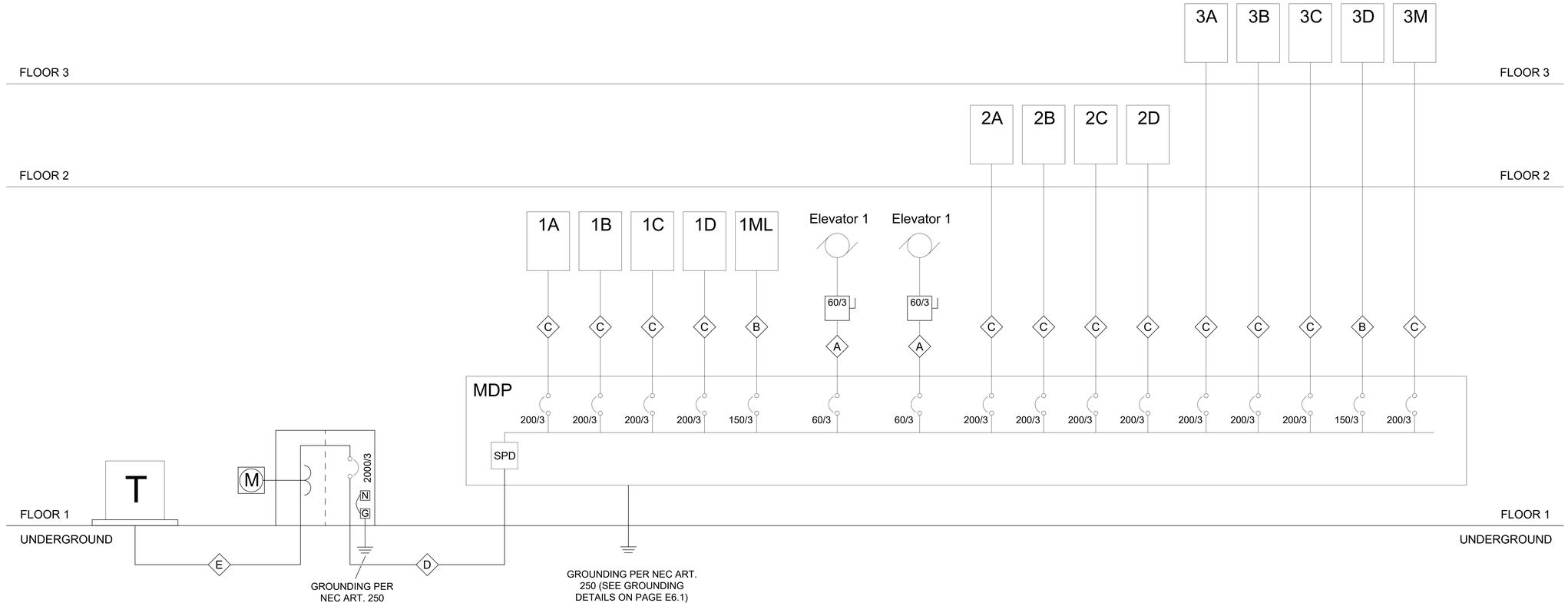
(G) GUEST ROOM LOAD (Tbl 220.42)

87 ROOMS @ 450 SqFt		78,300 VA
20,000 FIRST 20K VA @ 50%		10,000 VA
58,300 FROM 20K - 100K VA @ 40%		23,320 VA
0 OVER 100K VA @ 30%		0 VA
GUESTROOM TOTAL		33,320 VA
Other than Guestrooms Demand Subtotal		609,540 VA
	TOTAL	**642,860 VA**
		1,784 AMPS @ 208v

FEEDER SCHEDULE

FEEDER	CONDUCTORS	NEUTRAL	GROUND	CONDUIT	NOTES
A	(3) 1/0 AWG	1/0 AWG	#4 AWG	1-1/2"	
B	(3) 3/0 AWG	3/0 AWG	#4 AWG	2-1/2"	
C	(2) 3/0 AWG	3/0 AWG	#4 AWG	2"	C
D	(3) 700 KCMIL	500 KCMIL	600 KCMIL	4"	(7) SETS OF PARALLEL
E	(3) 700 KCMIL	500 KCMIL	N/A	4"	(7) SETS OF PARALLEL

* ALL CONDUCTORS ALUMINUM UNO



RELIANCE ELECTRIC

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Project

SPRINGHILL SUITES MARRIOTT

COTTONWOOD, ARIZONA

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Drawn By: EJB
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Revisions

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1	2020/04/27	Updated Site Drawings
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5		
6		
7		
8		
9		
10		

Sheet

E4.1

ELECTRICAL
ONE LINE

PANEL SCHEDULE

PANEL: 1A | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1	20	1	Spare				0	0			0				Spare	1	20	2
3	20	1	Guestroom 101 General	12	12	G	800		1600		800	G	12	12	Guestroom 102 General	1	20	4
5	20	1	Guestroom 101 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 102 Microwave	1	20	6
7	20	1	Guestroom 101 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 102 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 101	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 102	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 103 General	12	12	G	800	1600			800	G	12	12	Guestroom 104 General	1	20	14
15	20	1	Guestroom 103 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 104 Microwave	1	20	16
17	20	1	Guestroom 103 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 104 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 103	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 104	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 105 General	12	12	G	800			1600	800	G	12	12	Guestroom 106 General	1	20	24
25	20	1	Guestroom 105 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 106 Microwave	1	20	26
27	20	1	Guestroom 105 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 106 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 105	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 106	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 107 General	12	12	G	800		1600		800	G	12	12	Guestroom 108 General	1	20	34
35	20	1	Guestroom 107 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 108 Microwave	1	20	36
37	20	1	Guestroom 107 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 108 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 107	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 108	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 109 General	12	12	G	800	1600			800	G	12	12	Guestroom 110 General	1	20	44
45	20	1	Guestroom 109 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 110 Microwave	1	20	46
47	20	1	Guestroom 109 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 110 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 109	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 110	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

167 Connected Amps
52,125 VA
145 AMPS @ 208v

PANEL SCHEDULE

PANEL: 1B | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1		1	Spare				0	0			0				Spare	1		2
3	20	1	Guestroom 111 General	12	12	G	800		1600		800	G	12	12	Guestroom 112 General	1	20	4
5	20	1	Guestroom 111 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 112 Microwave	1	20	6
7	20	1	Guestroom 111 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 112 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 111	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 112	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 113 General	12	12	G	800	1600			800	G	12	12	Guestroom 114 General	1	20	14
15	20	1	Guestroom 113 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 114 Microwave	1	20	16
17	20	1	Guestroom 113 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 114 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 113	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 114	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 115 General	12	12	G	800			1600	800	G	12	12	Guestroom 116 General	1	20	24
25	20	1	Guestroom 115 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 116 Microwave	1	20	26
27	20	1	Guestroom 115 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 116 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 115	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 116	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 117 General	12	12	G	800		1600		800	G	12	12	Guestroom 121 General	1	20	34
35	20	1	Guestroom 117 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 121 Microwave	1	20	36
37	20	1	Guestroom 117 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 121 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 117	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 121	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 119 General	12	12	G	800	2420			1620	R	12	12	1st Guest Corridor Rec	1	20	44
45	20	1	Guestroom 119 Microwave	12	12	G	1500		3000		1500	E	12	12	West Fire/Smoke Dampers	1	20	46
47	20	1	Guestroom 119 Bathroom	12	12	G	800			2300	1500	E	12	12	East Fire/Smoke Dampers	1	20	48
49	20	2	PTAC - Guestroom 119	12	12	E	1450	1950			500	R	12	12	Fire Alarm Power Panel	1	20	50
51	20	-	--	12	12	E	1450		1950		500	R	12	12	Fire Alarm Control Panel	1	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,100
25% OF LARGEST MOTOR 725

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 2,620
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 27,900 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
27,900 FROM 20K - 100K VA @ 40% 11,160 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

165 Connected Amps
53,605 VA
149 AMPS @ 208v

PANEL SCHEDULE

PANEL: 1C | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1	30	3	Dryer	10	10	E	2500	4000			1500	E	12	12	Washer	3	20	2
3	30	-	--	10	10	E	2500		4000		1500	E	12	12	--	-	20	4
5	30	-	--	10	10	E	2500			4000	1500	E	12	12	--	-	20	6
7	30	3	Dryer	10	10	E	2500	4000			1500	E	12	12	Washer	3	20	8
9	30	-	--	10	10	E	2500		4000		1500	E	12	12	--	-	20	10
11	30	-	--	10	10	E	2500			4000	1500	E	12	12	--	-	20	12
13	20	1	Laundry Rec	12	12	R	900	2220			1320	R	12	12	Break Room Rec/Lgt	1	20	14
15	20	1	Fire Riser Rec/Lgt	12	12	R	900		1080		180	R	12	12	Break Room Rec	1	20	16
17	20	1	Exhaust Fan - Breakroom	12	12	E	300			480	180	R	12	12	Break Room Rec	1	20	18
19	20	1	Exhaust Fan - Laundry	12	12	E	300	660			360	R	12	12	Break Room Rec	1	20	20
21	20	1	Sales Office Rec	12	12	R	720		900		180	R	12	12	Break Room Rec	1	20	22
23	20	1	General Manager Rec	12	12	R	1080			1620	540	R	12	12	Vestibule Rec	1	20	24
25	20	1	Work Room Rec	12	12	R	720	1720			1000	E	12	12	Market Refriderator	1	20	26
27	20	1	Work Room Rec	12	12	R	720		1720		1000	E	12	12	Market Refriderator	1	20	28
29	20	1	Luggage Rec	12	12	R	540			1540	1000	E	12	12	Market Refriderator	1	20	30
31	20	1	Spare	12	12	E	1500	2220			720	R	12	12	Reception Desk Rec	1	20	32
33	20	1	Spare	12	12	E	1500		2220		720	R	12	12	Reception Desk Rec	1	20	34
35	20	1	Business Center Rec	12	12	R	540			1260	720	R	12	12	Reception Desk Rec	1	20	36
37	20	1	Fitness Equipment	12	12	E	1000	1540			540	R	12	12	Pool Equip Rec	1	20	38
39	20	1	Fitness Equipment	12	12	E	1000		2000		1000	E	12	12	Pool Equip (GFI)	2	20	40
41	20	1	Fitness Equipment	12	12	E	1000			2000	1000	E	12	12	--	-	20	42
43	20	1	Fitness Equipment	12	12	E	1000	2000			1000	E	12	12	Pool Equip (GFI)	3	20	44
45	20	1	Fitness Equipment	12	12	E	1000		2000		1000	E	12	12	--	-	20	46
47	20	1	Fitness Center Rec	12	12	R	540			1540	1000	E	12	12	--	-	20	48
49	20	1	Lobby/Corridor Rec	12	12	R	1440	1940			500	E	12	12	Pool Equip (GFI)	1	20	50
51	20	1	Exhaust Fan - Market	12	12	E	300		1300		1000	E	12	12	Pool Equip	1	20	52
53		1	Bussed Space				0			800	800	L	12	12	Guestroom Corridor Lights	1	20	54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 42,400
25% OF LARGEST MOTOR 1,875

(L) LIGHTING LOAD
125% DEMAND FACTOR 800

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 10,000
50% OF REMAINING RECEPT. LOAD 1,780

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 0 VA
0 FIRST 20K VA @ 50% 0 VA
0 FROM 20K - 100K VA @ 40% 0 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

158 Connected Amps
56,855 VA
158 AMPS @ 208v

PANEL SCHEDULE

PANEL: 1D | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 9

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1	20	1	Entry Doors	12	12	E	500	860			360	R	12	12	Lounge Floorbox Rec	1	20	2
3	20	1	Patio Rec	12	12	R	720		1080		360	R	12	12	Lounge Floorbox Rec	1	20	4
5	20	1	Waffle Iron	12	12	E	1500			2040	540	R	12	12	Lounge Floorbox Rec	1	20	6
7	20	1	Waffle Iron	12	12	E	1500	2040			540	R	12	12	Dinging Floorbox Rec	1	20	8
9	20	1	Chiller	12	12	E	1500		1800		300	E	12	12	Exhaust Fan - Food Prep	1	20	10
11	20	1	Oatmeal Cooker	12	12	E	1500			3000	1500	K	12	12	Food Prep Microwave	1	20	12
13	20	1	Induction Cooker	12	12	E	500	3500			3000	K	10	8	Dishwasher	2	40	14
15	20	1	Induction Cooker	12	12	E	500		3500		3000	K	10	8	--	-	40	16
17	20	1	Induction Cooker	12	12	E	500			1700	1200	K	12	12	Freezer (GFI)	1	20	18
19	20	1	Toaster	12	12	E	1500	2500			1000	K	12	12	Refridgerator (GFI)	1	20	20
21	20	1	Bar Counter Rec	12	12	R	540		2540		2000	K	10	10	Counter Oven	2	30	22
23	20	1	1st Ice Machine	12	12	E	1320			3320	2000	K	10	10	--	-	30	24
25	20	1	Spare	12	12	E	1100	3100			2000	K	10	10	Coffee Brewer	2	30	26
27	20	1	Mini-Split FCU-3B Data	12	12	E	1500		3500		2000	K	10	10	--	-	30	28
29	20	1	Data Room Rec	12	12	R	720			2340	1620	R	12	12	Elev Lob / RR Rec	1	20	30
31	20	1	Data Room Rec	12	12	R	360	960			600	E	12	12	Exhaust Fan - Restrooms	1	20	32
33	20	1	Data Room Rec	12	12	R	720		2340		1620	R	12	12	Meeting Rec	1	20	34
35	20	1	Spare	12	12	E	1100			1460	360	R	12	12	Meeting Rec/Lgt	1	20	36
37	20	1	Elev Cab Lights	12	12	L	1500	2500			1000	R	12	12	Meeting Rec	1	20	38
39	20	1	Elev Cab Lights	12	12	L	1500		1680		180	R	12	12	Mech Rec	1	20	40
41	20	1	Elev Equip Rec/Lgt	12	12	R	900			1260	360	R	12	12	Mech Rec	1	20	42
43	20	1	Spare	12	12	E	1500	3000			1500	E	12	12	Water Heater	2	20	44
45	20	1	Elev Pit Rec	12	12	R	360		1860		1500	E	12	12	--	-	20	46
47	20	1	Elev Pit Rec	12	12	R	360			720	360	R	12	12	Dining TV Rec	1	20	48
49	20	1	Elev Pit Rec	12	12	R	360	1460			1100	E	12	12	Furnace F-1	1	20	50
51		1	Bussed Space				0		0		0				Bussed Space	1		52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 21,020
25% OF LARGEST MOTOR 750

(L) LIGHTING LOAD
125% DEMAND FACTOR 3,750

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 10,000
50% OF REMAINING RECEPT. LOAD 1,170

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 0 VA
0 FIRST 20K VA @ 50% 0 VA
0 FROM 20K - 100K VA @ 40% 0 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
65% DEMAND FACTOR 11,505 VA
Minus the smaller of Heating or AC VA

150 Connected Amps
48,195 VA
134 AMPS @ 208v

PANEL SCHEDULE

PANEL: 1ML | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1	20	1	Furnace F-3B	12	12	E	1100	2200			1100	E	12	12	Furnace F-5	1	20	2
3	20	1	Furnace F-2A	12	12	E	1100		3100		2000	E	10	10	Mini-Split FCU-3B	1	30	4
5	30	1	Water Softener	10	10	E	2500			4500	2000	E	10	10	Mini-Split FCU-3C	1	30	6
7	20	1	Water Heater	12	12	E	1500	2600			1100	E	12	12	Furnace F-2C	1	20	8
9	30	1	Water Heater	10	10	E	2500		3600		1100	E	12	12	Furnace F-1	1	20	10
11	20	1	Recirc Pump 1	12	12	E	1000			2500	1500	L	12	12	Site Lighting	2	20	12
13	30	2	Recirc Pump 2	10	10	E	2000	3500			1500	L	12	12	--	-	20	14
15	30	-	--	10	10	E	2000		3500		1500	L	12	12	Site Lighting	2	20	16
17	30	2	Recirc Pump 3	10	10	E	2000			3500	1500	L	12	12	--	-	20	18
19	30	-	--	10	10	E	2000	2900			900	L	12	12	Site Monument Sign	2	20	20
21		1	Spare				0		900		900	L	12	12	--	-	20	22
23	20	1	Porte-Cochere Lighting	12	12	L	1320			1320	0				Spare	1		24
25	20	1	Vestibule Lighting	12	12	L	900	900			0				Spare	1		26
27	20	1	Lobby Lighting	12	12	L	1000		2000		1000	L	12	12	Public RR Lighting	1	20	28
29	20	1	Lobby Lighting	12	12	L	1000			2000	1000	L	12	12	Fitness Center Lighting	1	20	30
31	20	1	Breakfast Lighting	12	12	L	900	2400			1500	L	12	12	Exterior Lights	1	20	32
33	20	1	Mechanical Lighting	12	12	L	1000		2000		1000	L	12	12	Laundry Room Lighting	1	20	34
35		1	Bussed Space				0			0	0				Bussed Space	1		36
37		1	Bussed Space				0	0			0				Bussed Space	1		38
39		1	Bussed Space				0		0		0				Bussed Space	1		40
41		1	Bussed Space				0			0	0				Bussed Space	1		42
43		1	Bussed Space				0	0			0				Bussed Space	1		44
45		1	Bussed Space				0		0		0				Bussed Space	1		46
47		1	Bussed Space				0			0	0				Bussed Space	1		48
49		1	Bussed Space				0	0			0				Bussed Space	1		50
51		1	Bussed Space				0		0		0				Bussed Space	1		52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 25,000
25% OF LARGEST MOTOR 1,000

(L) LIGHTING LOAD
125% DEMAND FACTOR 19,950

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 0 VA
0 FIRST 20K VA @ 50% 0 VA
0 FROM 20K - 100K VA @ 40% 0 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

121 Connected Amps
45,950 VA
128 AMPS @ 208v

PANEL SCHEDULE

PANEL: 2A | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1	20	1	Spare				0	0			0				Spare	1	20	2
3	20	1	Guestroom 201 General	12	12	G	800		1600		800	G	12	12	Guestroom 202 General	1	20	4
5	20	1	Guestroom 201 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 202 Microwave	1	20	6
7	20	1	Guestroom 201 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 202 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 201	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 202	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 203 General	12	12	G	800	1600			800	G	12	12	Guestroom 204 General	1	20	14
15	20	1	Guestroom 203 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 204 Microwave	1	20	16
17	20	1	Guestroom 203 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 204 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 203	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 204	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 205 General	12	12	G	800			1600	800	G	12	12	Guestroom 206 General	1	20	24
25	20	1	Guestroom 205 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 206 Microwave	1	20	26
27	20	1	Guestroom 205 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 206 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 205	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 206	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 207 General	12	12	G	800		1600		800	G	12	12	Guestroom 208 General	1	20	34
35	20	1	Guestroom 207 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 208 Microwave	1	20	36
37	20	1	Guestroom 207 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 208 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 207	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 208	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 209 General	12	12	G	800	1600			800	G	12	12	Guestroom 210 General	1	20	44
45	20	1	Guestroom 209 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 210 Microwave	1	20	46
47	20	1	Guestroom 209 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 210 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 209	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 210	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

167 Connected Amps
52,125 VA
145 AMPS @ 208v

PANEL SCHEDULE

PANEL: 2B | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1		1	Spare				0	0			0				Spare	1		2
3	20	1	Guestroom 211 General	12	12	G	800		1600		800	G	12	12	Guestroom 212 General	1	20	4
5	20	1	Guestroom 211 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 212 Microwave	1	20	6
7	20	1	Guestroom 211 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 212 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 211	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 212	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 213 General	12	12	G	800	1600			800	G	12	12	Guestroom 214 General	1	20	14
15	20	1	Guestroom 213 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 214 Microwave	1	20	16
17	20	1	Guestroom 213 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 214 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 213	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 214	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 215 General	12	12	G	800			1600	800	G	12	12	Guestroom 216 General	1	20	24
25	20	1	Guestroom 215 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 216 Microwave	1	20	26
27	20	1	Guestroom 215 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 216 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 215	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 216	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 217 General	12	12	G	800		1600		800	G	12	12	Guestroom 218 General	1	20	34
35	20	1	Guestroom 217 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 218 Microwave	1	20	36
37	20	1	Guestroom 217 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 218 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 217	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 218	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 219 General	12	12	G	800	1600			800	G	12	12	Guestroom 220 General	1	20	44
45	20	1	Guestroom 219 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 220 Microwave	1	20	46
47	20	1	Guestroom 219 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 220 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 219	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 220	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

167 Connected Amps
52,125 VA
145 AMPS @ 208v

PANEL SCHEDULE

PANEL: 2C | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1		1	Spare				0	0			0				Spare	1		2
3	20	1	Guestroom 221 General	12	12	G	800		1600		800	G	12	12	Guestroom 222 General	1	20	4
5	20	1	Guestroom 221 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 222 Microwave	1	20	6
7	20	1	Guestroom 221 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 222 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 221	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 322	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 223 General	12	12	G	800	1600			800	G	12	12	Guestroom 224 General	1	20	14
15	20	1	Guestroom 223 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 224 Microwave	1	20	16
17	20	1	Guestroom 223 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 224 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 223	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 224	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 227 General	12	12	G	800			1600	800	G	12	12	Guestroom 226 General	1	20	24
25	20	1	Guestroom 227 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 226 Microwave	1	20	26
27	20	1	Guestroom 227 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 226 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 227	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 226	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 229 General	12	12	G	800		1600		800	G	12	12	Guestroom 228 General	1	20	34
35	20	1	Guestroom 229 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 228 Microwave	1	20	36
37	20	1	Guestroom 229 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 228 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 229	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 228	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 231 General	12	12	G	800	1600			800	G	12	12	Guestroom 230 General	1	20	44
45	20	1	Guestroom 231 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 230 Microwave	1	20	46
47	20	1	Guestroom 231 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 230 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 231	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 230	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

167 Connected Amps
52,125 VA
145 AMPS @ 208v

PANEL SCHEDULE

PANEL: 2D | **SECTION: 1**
VOLTAGE: 120/208 | PHASE: 3
MOUNT: FLUSH | WIRE: 4
ENCLOSE: NEMA 1 | Location:

BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY
FED FROM:
MINIMUM AIC RATING: 22,000

USE
E = Equipment Load
L = Lighting Load (Continuous)
R = Receptacle Load
G = Guest Room Load
K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	AMPS	POLE	CIRCUIT NAME	FEEDER WIRE	GRD	CKT. LOAD USE	VA	LOAD / PHASE (VA) ØA	ØB	ØC	CKT. LOAD VA	USE	FEEDER GRD	WIRE	CIRCUIT NAME	BREAKER POLE	AMPS	NO.
1		1	Spare				0	0			0				Spare	1		2
3	20	1	Guestroom 233 General	12	12	G	800		1600		800	G	12	12	Guestroom 232 General	1	20	4
5	20	1	Guestroom 233 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 232 Microwave	1	20	6
7	20	1	Guestroom 233 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 232 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 233	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 232	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13		1	Spare				0	800			800	G	12	12	Guestroom 234 General	1	20	14
15		1	Spare				0		1500		1500	G	12	12	Guestroom 234 Microwave	1	20	16
17	20	1	2nd W Corridor Receptacles	12	12	R	1440			2240	800	G	12	12	Guestroom 234 Bathroom	1	20	18
19	20	1	2nd E Corridor Receptacles	12	12	R	900	2350			1450	E	12	12	PTAC - Guestroom 234	2	20	20
21	20	1	2nd Ice Exhaust Fan	12	12	E	1320		2770		1450	E	12	12	--	-	20	22
23	20	1	2nd Elec Lgt/Rec	12	12	R	1320			2640	1320	E	12	12	2nd Fire Alarm Power Panels	1	20	24
25	20	1	2nd Ice Machine	12	12	E	1320	2820			1500	E	12	12	Washer - Guest Laundry	1	20	26
27	20	1	Guest Laundry Rec/Lgt	12	12	R	1320		2820		1500	E	12	12	Washer - Guest Laundry	1	20	28
29	20	1	Exhaust Fan - Guest Laundry	12	12	E	300			1800	1500	E	12	12	Washer - Guest Laundry	1	20	30
31	20	1	Furnace F-3A	12	12	E	1500	4000			2500	E	10	10	Dryer - Guest Laundry	2	30	32
33	20	1	Furnace FCU-4B	12	12	E	1500		4000		2500	E	10	10	--	-	30	34
35	20	1	Exhaust Fan - Linen Storage	12	12	E	300			2800	2500	E	10	10	Dryer - Guest Laundry	2	30	36
37	20	1	Engineer Office Rec/Lgt	12	12	R	720	3220			2500	E	10	10	--	-	30	38
39	20	1	2nd Corridor Lighting	12	12	L	1320		3820		2500	E	10	10	Dryer - Guest Laundry	2	30	40
41	20	1	2nd Corridor Lighting	12	12	L	1320			3820	2500	E	10	10	--	-	30	42
43		1	Bussed Space				0	2500			2500	E	10	10	Dryer - Guest Laundry	2	30	44
45		1	Bussed Space				0		2500		2500	E	10	10	--	-	30	46
47		1	Bussed Space				0			0	0				Bussed Space	1		48
49		1	Bussed Space				0	0			0				Bussed Space	1		50
51		1	Bussed Space				0		0		0				Bussed Space	1		52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 40,760
25% OF LARGEST MOTOR 1,250

(L) LIGHTING LOAD
125% DEMAND FACTOR 3,300

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 5,700
50% OF REMAINING RECEPT. LOAD 0

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

(G) GUEST ROOM LOAD 9,300 VA
9,300 FIRST 20K VA @ 50% 4,650 VA
0 FROM 20K - 100K VA @ 40% 0 VA
0 OVER 100K VA @ 30% 0 VA

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA
Minus the smaller of Heating or AC VA

162 Connected Amps
55,660 VA
154 AMPS @ 208v

RELIANCE ELECTRIC
2775 W Hampden Ave., #100
Denver, Colorado 80110
(720) 749-2850 - www.relianceteam.com

Owner

SUNRIDGE HOTEL GROUP
7255 E. HAMPTON AVE.
SUITE 122
MESA, ARIZONA 85209
(480) 854-1414

Project

SPRINGHILL SUITES MARRIOTT

COTTONWOOD, ARIZONA

Team

Drawn By: EJB
Checked By: RM, WWB
Project Number: 8023

Revisions

#	Date	Revision Notes
0	2020/03/27	Development Drawings
1	2020/04/27	Updated Site Drawings
2	2020/04/29	95% Development Drawings
3	2020/05/05	Complete DD Set
4	2020/05/18	Updated Site Lighting
5		
6		
7		
8		
9		
10		

Registered Professional Engineer (Electrical)
CERTIFICATE NO. 36085
JONATHAN A. CORANSON
Date Signed 05/19/20
ARIZONA U.S.A.
EXP. 03/31/22

Sheet

E5.1

ELECTRICAL
PANEL SCHEDULES

PANEL SCHEDULE

PANEL: 3A **SECTION: 1**
VOLTAGE: 120/208 PHASE: 3
MOUNT: FLUSH WIRE: 4
ENCLOSE: NEMA 1 Location:
BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY FED FROM:
MINIMUM A/C RATING: 22,000
USE: E = Equipment Load; L = Lighting Load (Continuous); R = Receptacle Load; G = Guest Room Load; K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	BREAKER A/3P/1	BREAKER POLE	CIRCUIT NAME	FEEDER WIRE	FEEDER GRD	FEEDER USE	CKT. LOAD VA	LOAD / PHASE (VA) ØA	LOAD / PHASE (VA) ØB	LOAD / PHASE (VA) ØC	CKT. LOAD VA	FEEDER USE	FEEDER GRD	FEEDER WIRE	CIRCUIT NAME	BREAKER POLE	BREAKER A/3P/1	BREAKER NO.
1	20	1	Spare				0	0			0				Spare	1	20	2
3	20	1	Guestroom 301 General	12	12	G	800		1600		800	G	12	12	Guestroom 302 General	1	20	4
5	20	1	Guestroom 301 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 302 Microwave	1	20	6
7	20	1	Guestroom 301 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 302 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 301	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 302	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 303 General	12	12	G	800	1600			800	G	12	12	Guestroom 304 General	1	20	14
15	20	1	Guestroom 303 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 304 Microwave	1	20	16
17	20	1	Guestroom 303 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 304 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 303	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 304	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 305 General	12	12	G	800			1600	800	G	12	12	Guestroom 306 General	1	20	24
25	20	1	Guestroom 305 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 306 Microwave	1	20	26
27	20	1	Guestroom 305 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 306 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 305	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 306	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 307 General	12	12	G	800		1600		800	G	12	12	Guestroom 308 General	1	20	34
35	20	1	Guestroom 307 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 308 Microwave	1	20	36
37	20	1	Guestroom 307 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 308 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 307	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 308	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 309 General	12	12	G	800	1600			800	G	12	12	Guestroom 310 General	1	20	44
45	20	1	Guestroom 309 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 310 Microwave	1	20	46
47	20	1	Guestroom 309 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 310 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 309	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 310	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

167 Connected Amps
52,125 VA
145 AMPS @ 208v

Minus the smaller of Heating or AC VA

PANEL SCHEDULE

PANEL: 3B **SECTION: 1**
VOLTAGE: 120/208 PHASE: 3
MOUNT: FLUSH WIRE: 4
ENCLOSE: NEMA 1 Location:
BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY FED FROM:
MINIMUM A/C RATING: 22,000
USE: E = Equipment Load; L = Lighting Load (Continuous); R = Receptacle Load; G = Guest Room Load; K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	BREAKER A/3P/1	BREAKER POLE	CIRCUIT NAME	FEEDER WIRE	FEEDER GRD	FEEDER USE	CKT. LOAD VA	LOAD / PHASE (VA) ØA	LOAD / PHASE (VA) ØB	LOAD / PHASE (VA) ØC	CKT. LOAD VA	FEEDER USE	FEEDER GRD	FEEDER WIRE	CIRCUIT NAME	BREAKER POLE	BREAKER A/3P/1	BREAKER NO.
1	20	1	Spare				0	0			0				Spare	1	20	2
3	20	1	Guestroom 311 General	12	12	G	800		1600		800	G	12	12	Guestroom 312 General	1	20	4
5	20	1	Guestroom 311 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 312 Microwave	1	20	6
7	20	1	Guestroom 311 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 312 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 311	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 312	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 313 General	12	12	G	800	1600			800	G	12	12	Guestroom 314 General	1	20	14
15	20	1	Guestroom 313 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 314 Microwave	1	20	16
17	20	1	Guestroom 313 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 314 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 313	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 314	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 315 General	12	12	G	800			1600	800	G	12	12	Guestroom 316 General	1	20	24
25	20	1	Guestroom 315 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 316 Microwave	1	20	26
27	20	1	Guestroom 315 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 316 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 315	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 316	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 317 General	12	12	G	800		1600		800	G	12	12	Guestroom 318 General	1	20	34
35	20	1	Guestroom 317 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 318 Microwave	1	20	36
37	20	1	Guestroom 317 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 318 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 317	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 318	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 319 General	12	12	G	800	1600			800	G	12	12	Guestroom 320 General	1	20	44
45	20	1	Guestroom 319 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 320 Microwave	1	20	46
47	20	1	Guestroom 319 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 320 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 319	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 320	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

167 Connected Amps
52,125 VA
145 AMPS @ 208v

Minus the smaller of Heating or AC VA

PANEL SCHEDULE

PANEL: 3C **SECTION: 1**
VOLTAGE: 120/208 PHASE: 3
MOUNT: FLUSH WIRE: 4
ENCLOSE: NEMA 1 Location:
BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY FED FROM:
MINIMUM A/C RATING: 22,000
USE: E = Equipment Load; L = Lighting Load (Continuous); R = Receptacle Load; G = Guest Room Load; K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	BREAKER A/3P/1	BREAKER POLE	CIRCUIT NAME	FEEDER WIRE	FEEDER GRD	FEEDER USE	CKT. LOAD VA	LOAD / PHASE (VA) ØA	LOAD / PHASE (VA) ØB	LOAD / PHASE (VA) ØC	CKT. LOAD VA	FEEDER USE	FEEDER GRD	FEEDER WIRE	CIRCUIT NAME	BREAKER POLE	BREAKER A/3P/1	BREAKER NO.
1	20	1	Spare				0	0			0				Spare	1	20	2
3	20	1	Guestroom 321 General	12	12	G	800		1600		800	G	12	12	Guestroom 322 General	1	20	4
5	20	1	Guestroom 321 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 322 Microwave	1	20	6
7	20	1	Guestroom 321 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 322 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 321	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 322	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13	20	1	Guestroom 323 General	12	12	G	800	1600			800	G	12	12	Guestroom 324 General	1	20	14
15	20	1	Guestroom 323 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 324 Microwave	1	20	16
17	20	1	Guestroom 323 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 324 Bathroom	1	20	18
19	20	2	PTAC - Guestroom 323	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 324	2	20	20
21	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	22
23	20	1	Guestroom 327 General	12	12	G	800			1600	800	G	12	12	Guestroom 326 General	1	20	24
25	20	1	Guestroom 327 Microwave	12	12	G	1500	3000			1500	G	12	12	Guestroom 326 Microwave	1	20	26
27	20	1	Guestroom 327 Bathroom	12	12	G	800		1600		800	G	12	12	Guestroom 326 Bathroom	1	20	28
29	20	2	PTAC - Guestroom 327	12	12	E	1450			2900	1450	E	12	12	PTAC - Guestroom 326	2	20	30
31	20	-	--	12	12	E	1450	2900			1450	E	12	12	--	-	20	32
33	20	1	Guestroom 329 General	12	12	G	800		1600		800	G	12	12	Guestroom 328 General	1	20	34
35	20	1	Guestroom 329 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 328 Microwave	1	20	36
37	20	1	Guestroom 329 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 328 Bathroom	1	20	38
39	20	2	PTAC - Guestroom 329	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 328	2	20	40
41	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	42
43	20	1	Guestroom 331 General	12	12	G	800	1600			800	G	12	12	Guestroom 330 General	1	20	44
45	20	1	Guestroom 331 Microwave	12	12	G	1500		3000		1500	G	12	12	Guestroom 330 Microwave	1	20	46
47	20	1	Guestroom 331 Bathroom	12	12	G	800			1600	800	G	12	12	Guestroom 330 Bathroom	1	20	48
49	20	2	PTAC - Guestroom 331	12	12	E	1450	2900			1450	E	12	12	PTAC - Guestroom 330	2	20	50
51	20	-	--	12	12	E	1450		2900		1450	E	12	12	--	-	20	52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 29,000
25% OF LARGEST MOTOR 725

(G) GUEST ROOM LOAD 31,000 VA
20,000 FIRST 20K VA @ 50% 10,000 VA
31,000 FROM 20K - 100K VA @ 40% 12,400 VA
0 OVER 100K VA @ 30% 0 VA

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 0
50% OF REMAINING RECEPT. LOAD 0

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

167 Connected Amps
52,125 VA
145 AMPS @ 208v

Minus the smaller of Heating or AC VA

PANEL SCHEDULE

PANEL: 3D **SECTION: 1**
VOLTAGE: 120/208 PHASE: 3
MOUNT: FLUSH WIRE: 4
ENCLOSE: NEMA 1 Location:
BUS AMPS: 125
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY FED FROM:
MINIMUM A/C RATING: 22,000
USE: E = Equipment Load; L = Lighting Load (Continuous); R = Receptacle Load; G = Guest Room Load; K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	BREAKER A/3P/1	BREAKER POLE	CIRCUIT NAME	FEEDER WIRE	FEEDER GRD	FEEDER USE	CKT. LOAD VA	LOAD / PHASE (VA) ØA	LOAD / PHASE (VA) ØB	LOAD / PHASE (VA) ØC	CKT. LOAD VA	FEEDER USE	FEEDER GRD	FEEDER WIRE	CIRCUIT NAME	BREAKER POLE	BREAKER A/3P/1	BREAKER NO.
1		1	Spare				0	0			0				Spare	1		2
3	20	1	Guestroom 333 General	12	12	G	800		1600		800	G	12	12	Guestroom 332 General	1	20	4
5	20	1	Guestroom 333 Microwave	12	12	G	1500			3000	1500	G	12	12	Guestroom 332 Microwave	1	20	6
7	20	1	Guestroom 333 Bathroom	12	12	G	800	1600			800	G	12	12	Guestroom 332 Bathroom	1	20	8
9	20	2	PTAC - Guestroom 333	12	12	E	1450		2900		1450	E	12	12	PTAC - Guestroom 332	2	20	10
11	20	-	--	12	12	E	1450			2900	1450	E	12	12	--	-	20	12
13		1	Spare				0	800			800	G	12	12	Guestroom 334 General	1	20	14
15		1	Spare				0		1500		1500	G	12	12	Guestroom 334 Microwave	1	20	16
17	20	1	3rd W Corridor Receptacles	12	12	R	1320			2120	800	G	12	12	Guestroom 334 Bathroom	1	20	18
19	20	1	3rd E Corridor Receptacles	12	12	R	1320	2770			1450	E	12	12	PTAC - Guestroom 334	2	20	20
21	20	1	3rd Ice Exhaust Fan	12	12	E	1320		2770		1450	E	12	12	--	-	20	22
23	20	1	3rd Ice Machine	12	12	E	1500			1500	0				Spare	1		24
25	20	1	Furnace F-4	12	12	R	1100	1100			0				Spare	1		26
27		1	Spare				0		1320		1320	R	12	12	3rd Data / Mech Rec/Light	1	20	28
29	20	1	3rd Fire Alarm Power Panels	12	12	E	1320			2640	1320	R	12	12	3rd Data Quad Rec	1	20	30
31	20	1	Exterior Signs	12	12	L	1500	2820			1320	R	12	12	3rd Data Quad Rec	1	20	32
33	20	1	Exterior Signs	12	12	L	1500		2820		1320	L	12	12	3rd Corridor Lighting	1	20	34
35	20	1	Exterior Signs	12	12	L	1500			2820	1320	L	12	12	3rd Corridor Lighting	1	20	36
37		1	Bussed Space				0	1320			1320	R	12	12	3rd Elec Rec/Ligt	1	20	38
39		1	Bussed Space				0		0		0				Bussed Space	1		40
41		1	Bussed Space				0			0	0				Bussed Space	1		42
43		1	Bussed Space				0	0			0				Bussed Space	1		44
45		1	Bussed Space				0		0		0				Bussed Space	1		46
47		1	Bussed Space				0			0	0				Bussed Space	1		48
49		1	Bussed Space				0	0			0				Bussed Space	1		50
51		1	Bussed Space				0		0		0				Bussed Space	1		52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

ØA	ØB	ØC	Tti Connected
10410	12910	14980	38300
87	108	125	33 Amps Neutral Load

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 12,840
25% OF LARGEST MOTOR 725

(G) GUEST ROOM LOAD 9,300 VA
9,300 FIRST 20K VA @ 50% 4,650 VA
0 FROM 20K - 100K VA @ 40% 0 VA
0 OVER 100K VA @ 30% 0 VA

(L) LIGHTING LOAD
125% DEMAND FACTOR 8,265

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 9,020
50% OF REMAINING RECEPT. LOAD 0

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

106 Connected Amps
35,500 VA
99 AMPS @ 208v

Minus the smaller of Heating or AC VA

PANEL SCHEDULE

PANEL: 3M **SECTION: 1**
VOLTAGE: 120/208 PHASE: 3
MOUNT: FLUSH WIRE: 4
ENCLOSE: NEMA 1 Location:
BUS AMPS: 225
MAIN OVER CURRENT DEVICE: MAIN LUGS ONLY FED FROM:
MINIMUM A/C RATING: 22,000
USE: E = Equipment Load; L = Lighting Load (Continuous); R = Receptacle Load; G = Guest Room Load; K = Kitchen Loads
No of Equipment: 0

BREAKER NO.	BREAKER A/3P/1	BREAKER POLE	CIRCUIT NAME	FEEDER WIRE	FEEDER GRD	FEEDER USE	CKT. LOAD VA	LOAD / PHASE (VA) ØA	LOAD / PHASE (VA) ØB	LOAD / PHASE (VA) ØC	CKT. LOAD VA	FEEDER USE	FEEDER GRD	FEEDER WIRE	CIRCUIT NAME	BREAKER POLE	BREAKER A/3P/1	BREAKER NO.
1	30	3	CU-3B	12	12	E	1700	2700			1000	E	12	12	SCU-4A	2	20	2
3	30	-	--	12	12	E	1700		2700		1000	E	12	12	--	-	20	4
5	30	-	--	12	12	E	1700			3400	1700	E	12	12	SCU-2	2	20	6
7	20	3	CU-2A	12	12	E	1600	3300			1700	E	12	12	--	-	20	8
9	20	-	--	12	12	E	1600		3800		2200	E	10	10	CU-2C	3	30	10
11	20	-	--	12	12	E	1600			3800	2200	E	10	10	--	-	30	12
13	20	2	SCU-4B	12	12	E	1000	3200			2200	E	10	10	--	-	30	14
15	20	-	--	12	12	E	1000		2900		1900	E	12	12	CU-4	3	20	16
17	20	2	SCU-1	12	12	E	1100			3000	1900	E	12	12	--	-	20	18
19	20	-	--	12	12	E	1100	3000			1900	E	12	12	--	-	20	20
21	20	3	CU-5	12	12	E	1100		2500		1400	E	12	12	CU-3A	3	20	22
23	20	-	--	12	12	E	1100			2500	1400	E	12	12	--	-	20	24
25	20	-	--	12	12	E	1100	2500			1400	E	12	12	--	-	20	26
27	20	2	SCU-3B	12	12	E	1200		2600		1400	E	12	12	CU-1	2	20	28
29	20	-	--	12	12	E	1200			2600	1400	E	12	12	--	-	20	30
31	20	2	SCU-3C	12	12	E	1200	2200			1000	E	12	12	SCU-3A	2	20	32
33	20	-	--	12	12	E	1200		2200		1000	E	12	12	--	-	20	34
35	20	2	RH-1	12	12	E	1000			2440	1440	R	12	12	Roof Outlets	1	20	36
37	20	-	--	12	12	E	1000	1000			0				Bussed Space	1		38
39	30	3	CU-2B	10	10	E	2200		2200		0				Bussed Space	1		40
41	30	-	--	10	10	E	2200			2200	0				Bussed Space	1		42
43	30	-	--	10	10	E	2200	2200			0				Bussed Space	1		44
45		1	Bussed Space				0		0		0				Bussed Space	1		46
47		1	Bussed Space				0			0	0				Bussed Space	1		48
49		1	Bussed Space				0	0			0				Bussed Space	1		50
51		1	Bussed Space				0		0		0				Bussed Space	1		52
53		1	Bussed Space				0			0	0				Bussed Space	1		54

LOAD SUMMARY

(E) EQUIPMENT LOAD
100% DEMAND FACTOR 57,500
25% OF LARGEST MOTOR 1,650

(G) GUEST ROOM LOAD 0 VA
0 FIRST 20K VA @ 50% 0 VA
0 FROM 20K - 100K VA @ 40% 0 VA
0 OVER 100K VA @ 30% 0 VA

(L) LIGHTING LOAD
125% DEMAND FACTOR 0

(R) RECEPTACLE LOAD
100% OF FIRST 10,000 (NEC 220.44) 1,440
50% OF REMAINING RECEPT. LOAD 0

(K) KITCHEN LOAD (NEC 220.20)
100% DEMAND FACTOR - VA

(H) SUPPLEMENTAL HEAT
65% DEMAND FACTOR 0

164 Connected Amps
60,590 VA
168 AMPS @ 208v

Minus the smaller of Heating or AC VA

RELIANCE ELECTRIC
2775 W Hampden Ave., #100
Denver, Colorado 80110
(720) 749-2850 - www.reliancetean.com

Owner

SUNRIDGE HOTEL GROUP
7255 E. HAMPTON AVE.
SUITE 122
MESA, ARIZONA 85209
(480) 654-1414

Project

SPRINGHILL SUITES MARRIOTT
COTTONWOOD, ARIZONA

Team

Drawn By: EJB
Checked By: RM, WWB
Project Number: 8023

Revisions

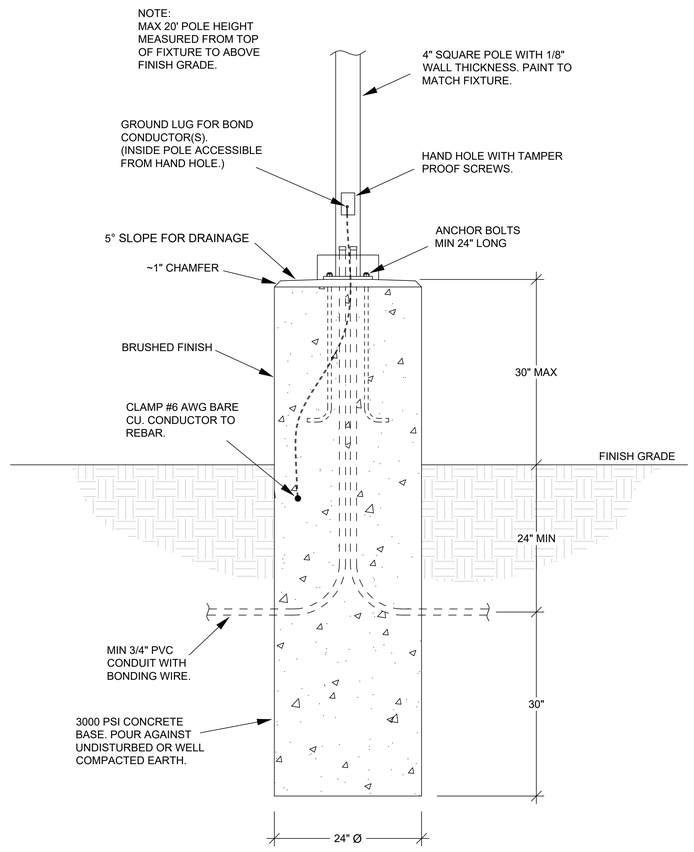
#	Date	Revision Notes
0	2020/03/27	Development Drawings
1	2020/04/27	Updated Site Drawings
2	2020/04/29	95% Development Drawings
3	2020/05/05	Complete DD Set
4	2020/05/18	Updated Site Lighting
5		
6		
7		
8		
9		
10		

Sheet

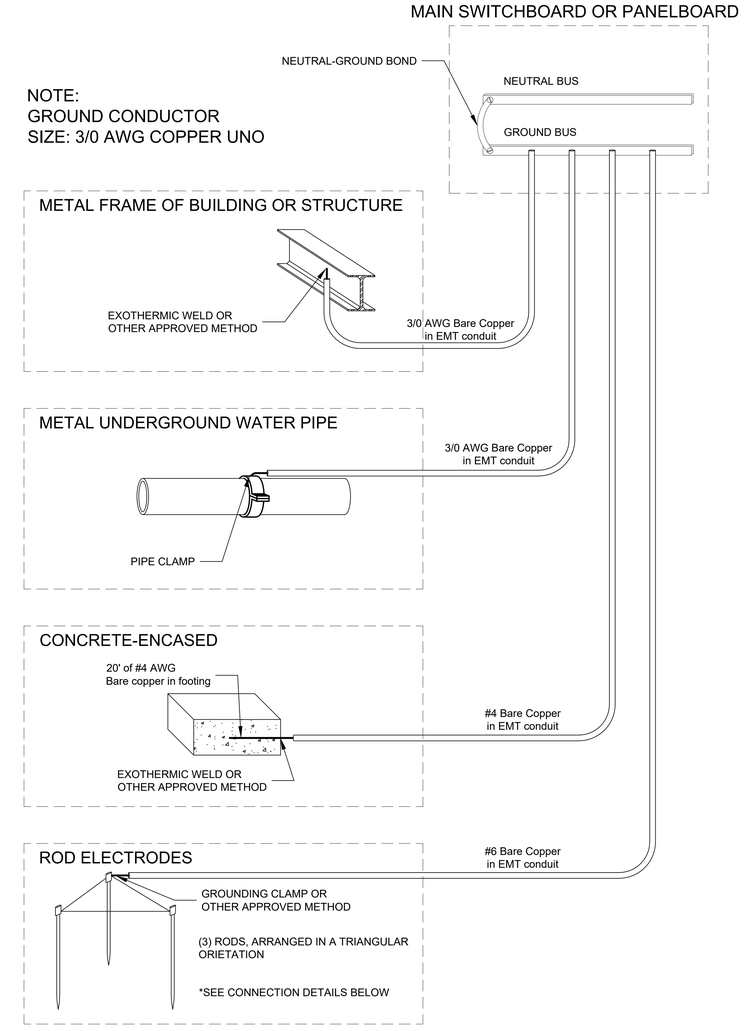
E5.2

ELECTRICAL
PANEL SCHEDULES

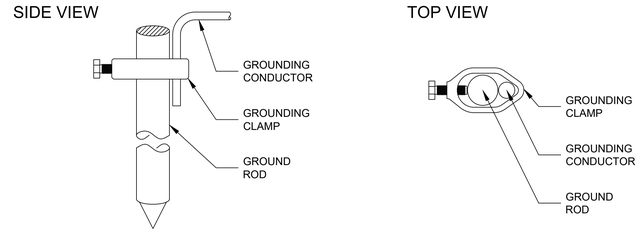
Pole Base Detail



Grounding Details



GROUND ROD CONNECTION DETAILS



RELIANCE ELECTRIC
2775 W Hampden Ave., #100
Denver, Colorado 80110
(720) 749-2850 - www.reliance team.com

Owner

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Project

SPRINGHILL SUITES MARRIOTT

COTTONWOOD, ARIZONA

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Drawn By:	EJB
Checked By:	RM, WWB
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Revisions

#	Date	Revision Notes
0	2020/03/27	Development Drawings
1	2020/04/27	Updated Site Drawings
2	2020/04/29	95% Development Drawings
3	2020/05/05	Complete DD Set
4	2020/05/18	Updated Site Lighting
5		
6		
7		
8		
9		
10		

Sheet

E6.1

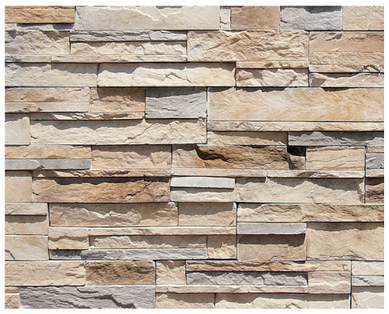
ELECTRICAL
DETAILS

COTTONWOOD SPRINGHILL SUITES

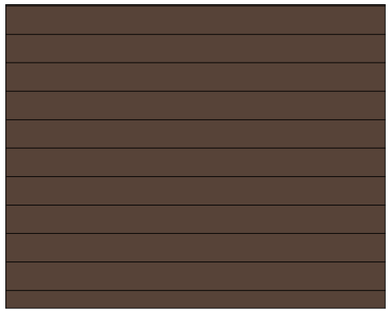
535 S 6TH STREET COTTONWOOD, ARIZONA 86326

NORTH ELEVATION

SOUTH ELEVATION



ST1 - MANUFACTURERED STONE VENEER
CORONADO, PRO-LODGE "OAKBROOK"



FC2 - FIBER CEMENT LAP SIDING
SAGIPER "CHOCOLATE BLACKWOOD"

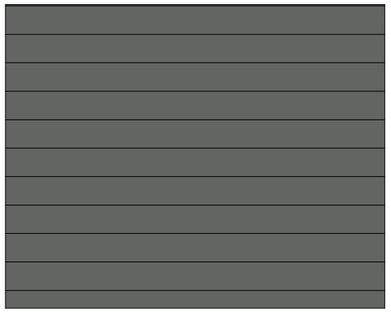
OWNER

SUNRIDGE PROPERTIES INC.
7255 E. HAMPTON AVE. SUITE 122
MESA, ARIZONA 85209
PHONE: (480) 854-1414
CONTACT: BRADON WELKER

ARCHITECT

THE RICHARDSON DESIGN PARTNERSHIP
510 SOUTH 600 EAST
SALT LAKE CITY, 84102
PHONE: 801-355-6868
CONTACT: ADAM FORD

EF1 - EIFS COLOR TO MATCH SW 6105



FC1 - FIBER CEMENT LAP SIDING
PAINTED TO MATCH SW7068

STAFF REPORT

TO: Planning and Zoning Commission

FROM: Gary Davis, Community Development Planner

MEETING: June 15, 2020

SUBJECT: **ZO-20-002 AMENDMENT TO SECTIONS 201 DEFINITIONS, GENERAL; 404 GENERAL PROVISIONS; 410 GA ZONE (GENERAL AGRICULTURE), 411 AR-43 ZONE (AGRICULTURAL RESIDENTIAL), 412 AR-43 ZONE (AGRICULTURAL RESIDENTIAL), 413 R-1 ZONE (SINGLE FAMILY RESIDENTIAL), 416 R-4 ZONE (SINGLE FAMILY/MULTIPLE FAMILY/MANUFACTURED HOME), 417 MH ZONE (MANUFACTURED HOME), 420 CR ZONE (COMMERCIAL RESIDENTIAL), AND 425 AR-70 ZONE (AGRICULTURAL RESIDENTIAL) - TINY HOUSES -** Consideration of a Zoning Ordinance text amendment to Section 404 General Provisions, creating Section CC Tiny Houses, with related text amendments to Sections 201, 410, 411, 412, 413, 416, 417, 420, and 425 regarding the standards for Tiny Houses.

BACKGROUND

In recent years Community Development staff has received numerous inquiries about placement of Tiny Houses, which are not currently defined or regulated in Cottonwood's Zoning Ordinance. While the frequency of these inquiries has fallen off somewhat over the past year, staff has been working to find appropriate ways to accommodate Tiny Houses as one means of supplementing the housing market, while maintaining the character of existing neighborhoods.

This report is a follow-up to discussions on previously proposed Tiny House code amendments at the January 27, 2020 Planning and Zoning Commission meeting and the February 4, 2020 City Council meeting. The Commission had recommended approval of the proposed amendments but the Council asked that staff rework the draft, particularly with respect to allowing non-site-built tiny houses to be installed in single family residential zones where only site-built homes are permitted.

Staff did additional research and found a useful model in Pima County. Their approach is to recognize that the term "tiny house" refers only to the *size* of the structure, not to the *type* of construction. The County has published a brief policy statement on its website explaining that tiny

houses will be permitted under existing regulations based on their type of construction like other structures of the same type. For example, tiny houses built on a chassis with wheels are considered recreational vehicles (RV's) and are regulated as such. Staff drafted new code amendments based on this approach and presented it to the City Council on May 19, 2020. The new draft resolved their initial concerns and they directed staff to proceed with the draft amendments.

STAFF ANALYSIS

Staff's new draft takes a similar approach to Pima County's, describing the distinction between types of Tiny Houses and which of the current regulations would apply to each type. The draft amendments add a definition of "Tiny House" (based on size only) and adds regulatory guidance in a new Section 404 based on three basic types of construction: 1) those on chassis and wheels, 2) those on chassis attached to a foundation, and 3) those that are either site-built or factory built and compliant with International Residential Code (IRC). The amendments also add tiny houses to the list of Permitted Uses and Conditional Uses in the GA, AR-70, AR-43, AR-20, R-1, R-4, MH, and CR zones. The following is a summary of the features of the proposed amendments (with references to the proposed Code sections):

- New definition of Tiny House defines Tiny House in terms of size only, not construction type (201, TINY HOUSE)
- **Tiny House on chassis and wheels** is an RV (201 RECREATIONAL VEHICLE; 404.CC.1)
- **Tiny House on chassis permanently attached to foundation** is a permitted use as a primary residence in R-4 and MH zones (404.CC.2; 416.B.3; 417.B.2 and B.4)
- **Tiny House on chassis permanently attached to foundation** is a permitted use as a guest house in GA, AR-70, AR-43, and CR zones (404.CC.2; 410.B.2; 411.B.2; 420.B.9, and 425.B.2) Note: guest houses are currently permitted uses in those zones
- **Tiny House on chassis permanently attached to foundation** is a conditional use as a guest house in AR-20 and R-1 zones (404.CC.2; 412.C.1; 413.C.5) Note: guest houses are currently conditional uses in those zones
- **Tiny House built to IRC** (on-site or meeting definition of "Factory-Built") is a permitted use as primary residence in GA, AR-70, AR-43, AR-20, R-1, R-2, R-3, R-4, and CR zones (404.CC.3)
- **Tiny House built to IRC** (on-site or meeting definition of "Factory-Built") is a permitted use as a guest house in GA, AR-70, AR-43, and CR zones (404.CC.3; 410.B.2; 411.B.2, 420.B.9, and 425.B.2) Note: guest houses are currently permitted uses in those zones
- **Tiny House built to IRC** (on-site or meeting definition of "Factory-Built") is a conditional use as a guest house in AR-20 and R-1 zones (404.CC.3; 412.C.1; 413.C.1) Note: guest houses are currently conditional uses in these zones
- Revised definition of Factory-Built Building clarifies that they must be built to adopted International Residential Code or International Building Code (201 BUILDING, FACTORY-BUILT)
- Revised definition of Recreational Vehicle (RV) specifies types of vehicles that are considered RVs, including Tiny House on chassis and wheels, and Park Trailer (201 RECREATIONAL VEHICLE, PARK TRAILER)

A Tiny House on a chassis and wheels is considered an RV and would be permitted only where RVs are permitted. The proposed addition to the definition of RV is mostly borrowed from the Prescott Valley Zoning Code and provides specific descriptions of vehicles that would fall under that definition, including Tiny Houses and Park Trailers, which Cottonwood's Zoning Ordinance currently does not address.

A Tiny House without wheels permanently mounted on a foundation would be permitted as a primary dwelling in the R-4 and MH zones only, and would be permitted as a guest house in those zones as well as zones that prohibit manufactured homes as a primary dwelling. The amendment includes a requirement that the owner provide documentation that the unit was built to current manufactured home codes or International Residential Code (IRC) standards.

A Tiny House that is built to IRC standards – either off-site or on-site – would be considered a single-family dwelling and would be permitted in zones where other site-built single-family homes are permitted – either as primary dwellings or guest houses. Because the current Zoning Ordinance has no minimum size for a single-family dwelling, a Tiny House that complies with IRC (whether it's site-built or "factory-built") would be permitted today as a primary dwelling unit wherever single-family dwellings are permitted. Likewise they would be permitted as a guest house wherever guest houses are permitted.

Guest houses, by the Code's definition, "must be clearly secondary and subordinate in size and location to the primary residence… and not be offered as a separate rental unit." In addition, the Code's general requirements (404.G.6.d) prohibit:

- More than 750 square feet of livable area
- Separate property address from the primary residence
- Separate utility meters from the primary residence
- Additional driveways (guest house must share a common driveway with the primary residence and must have at least one off-street parking space)
- Manufactured homes, mobile homes, and recreational vehicles

The last bullet is the only guest house provision proposed for change under these amendments. It would add an exception that permits tiny houses meeting the standards of the proposed Section 404.CC.

The 2018 International Residential Code, adopted by the City in 2019, includes special provisions for houses 400 square feet or smaller in its "Appendix Q Tiny Houses" (see attached). This appendix provides flexibility in design of site-built or factory-built Tiny Houses by easing building code standards for ceiling heights, lofts, and stairways.

RECOMMENDATION

Consider the proposed amendment to the Zoning Ordinance to provide a recommendation to the City Council to:

1. Amend Section 404 General Provisions, creating Section CC Tiny Houses, with related text amendments to Sections 201, 410, 411, 412, 413, 416, 417, 420, and 425 regarding the requirements for placement of Tiny Houses within the City of Cottonwood.

If the Commission desires to recommend approval of this item, the suggested motion is:

I move to recommend approval to the City Council amendments to Section 404 General Provisions, creating Section CC Tiny Houses, with related text amendments to Sections 201, 410, 411, 412, 413, 416, 417, 420, and 425 regarding the requirements for placement of Tiny Houses within the City of Cottonwood.

Attachments:

Draft Zoning Ordinance Text Amendments

IRC Appendix Q Tiny Houses

ARTICLE II – DEFINITIONS

SECTION 201. GENERAL.

. . . . .

BUILDING, FACTORY-BUILT – A residential or nonresidential building, including a dwelling unit or habitable room thereof, which is either wholly or in substantial part manufactured at an off-site location to be assembled on-site and is built to an International Residential Code or International Building Code standard as applicable. ~~except that it~~ It does not include a manufactured home, recreational vehicle, or mobile home as defined herein. A factory-built building used for residential purposes shall be considered a single-~~household~~ family dwelling unit.

. . . . .

DWELLING, SINGLE-FAMILY – A detached site-built or factory-built building designed exclusively for occupancy by or occupied by one family for residential purposes.

. . . . .

PARK TRAILER – (See Recreational Vehicle)

. . . . .

RECREATIONAL VEHICLE – A vehicular type unit primarily designed as temporary living quarters for recreational, camping or travel use; which either has its own motive power or is mounted on or drawn by another vehicle~~.~~, including the following types of vehicles: (a) a portable camping trailer mounted on wheels and constructed with collapsible partial side walls which fold for towing by another vehicle and unfold for camping; (b) a motor home designed to provide temporary living quarters for recreational, camping or travel use and built on or permanently attached to a self-propelled motor vehicle chassis or on a chassis cab or van that is an integral part of the completed vehicle; (c) a park trailer or tiny house built on a single chassis, mounted on wheels and designed to be connected to utilities necessary for operation of installed fixtures and appliances and has a gross trailer area of not less than three hundred twenty (320) square feet and not more than four hundred (400) square feet when it is set up, except that

it does not include fifth wheel trailers; (d) a travel trailer or tiny house mounted on wheels, designed to provide temporary living quarters for recreational, camping or travel use, of a size or weight that may or may not require special highway movement permits when towed by a motorized vehicle, and has a trailer area of less than three hundred twenty (320) square feet. This includes fifth wheel trailers. If a unit requires a size or weight permit, it must be manufactured to the standards for park trailers in the American National Standards Institute Code; or (e) a portable truck camper constructed to provide temporary living quarters for recreational, travel or camping use and consisting of a roof, floor and sides designed to be loaded onto and unloaded from the bed of a pickup truck. A recreational vehicle shall not be considered a dwelling or occupied as such, and is not a manufactured home.

. . . . .

TINY HOUSE – A building or vehicle designed for permanent or temporary residential use with a floor area no greater than 400 square feet excluding any loft area, built off-site or on-site.

. . . . .

ARTICLE IV – ZONING DISTRICTS

. . . . .

SECTION 404. GENERAL PROVISIONS.

. . . . .

G. YARD, LOT, AND AREA REQUIREMENTS.

. . . . .

6. Swimming Pools and Detached Accessory Buildings

. . . . .

DRAFT

d. Detached Accessory Guest House in Residential Zones:

(1) Where listed as a Permitted or Conditional Use, one (1) detached guest house may be considered for parcels or lots with no more than one single-family dwelling.

(2) The parcel or lot must meet the minimum size required for the zoning district where the use is proposed and any other area requirements specified through the zoning.

(3) The guest house shall not exceed 750 square feet of livable building area.

(4) The guest house shall meet all setbacks and building separation requirements as the primary residence and it shall be located to the rear of the primary residence.

(5) The guest house shall not have a separate primary property address.

(6) The guest house shall not have a separate set of utility meters for water, electricity or natural gas; or separate sewer connections.

(7) One (1) additional off-street parking space shall be required for the Guest House, in addition to the off-street parking required for the primary residence. The guest house shall share a common driveway with the primary residence with no additional driveway access allowed from the street to accommodate the guest house.

(8) Manufactured homes, mobile homes, travel trailers, recreational vehicles and similar structures shall be prohibited for use as guest homes in all districts, except tiny houses as permitted per Section 404.CC.

(9) Guest homes may include a full kitchen; however, such units shall not be used as separate rental units. The guest house is intended for sole use by the occupants of the primary residence and their non-paying guests.

. . . . .

DRAFT

CC. TINY HOUSES.

1. For purposes of this Code, a tiny house built off-site and mounted on a mobile chassis is a recreational vehicle.
2. A tiny house built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation is permitted as a dwelling unit in the R-4 and MH zones, and as a guest house in the GA, AR-70, AR-43, AR-20, R-1, and CR zones, subject to the requirements for the zone. Certification that the structure was built to current manufactured housing codes or International Residential Codes shall be provided at the time of permit application. Fire sprinklers shall be installed in accordance with adopted fire codes.
3. A tiny house that is a site-built or factory-built building permanently affixed to a permanent foundation and built to current International Residential Code standards (including special provisions for tiny houses) is permitted as a single-family dwelling in the GA, AR-70, AR-43, AR-20, R-1, R-2, R-3, R-4, and CR zones, and as a guest house in the GA, AR-70, AR-43, AR-20, R-1, and CR zones, subject to the requirements for the zone. Fire sprinklers shall be installed in accordance with adopted fire codes.

. . . . .

SECTION 410. "GA" ZONE, GENERAL AGRICULTURE.

. . . . .

B. PERMITTED USES.

1. One (1) single-family dwelling. Mobile home(s) and manufactured home(s) are prohibited.
2. One (1) guest house. Guest house may be a site-built or factory-built building, or a tiny house built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation.

. . . . .

SECTION 411. "AR-43" ZONE, AGRICULTURAL RESIDENTIAL.

. . . . .

B. PERMITTED USES.

1. One (1) single-family dwelling. Mobile home(s) and manufactured home(s) are prohibited.
2. One (1) guest house. Guest house may be a site-built or factory-built building, or a tiny house built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation.

. . . . .

SECTION 412. "AR-43" ZONE, AGRICULTURAL RESIDENTIAL.

. . . . .

C. CONDITIONAL USES.

1. One (1) guest house provided the minimum lot area is one (1) acre. Guest house may be a site-built or factory-built building, or a tiny house that is built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation.

. . . . .

SECTION 413. "R-1" ZONE, SINGLE FAMILY RESIDENTIAL.

. . . . .

C. CONDITIONAL USES.

. . . . .

DRAFT

5. One (1) guest house provided the minimum lot area is 15,000 square feet. Guest house may be a site-built or factory-built building, or a tiny house that is built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation.

. . . . .

SECTION 416. "R-4" ZONE, SINGLE FAMILY/MULTIPLE FAMILY/MANUFACTURED HOME.

. . . . .

B. PERMITTED USES.

1. One (1) single-family dwelling.
2. Multiple-family dwellings.
3. One (1) manufactured home, or one (1) tiny house that is built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation, per lot or space within a manufactured home park.

. . . . .

SECTION 417. "MH" ZONE, MANUFACTURED HOME.

. . . . .

B. PERMITTED USES.

1. Manufactured Home Subdivisions.
2. One (1) manufactured home, or one (1) tiny house that is built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation, per lot in a manufactured home subdivision.
3. Manufactured Home Parks.
4. One (1) manufactured home, or one (1) tiny house that is built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation, per space in a manufactured home park.

DRAFT

. . . . .

SECTION 420. "CR" ZONE, COMMERCIAL RESIDENTIAL DISTRICT

. . . . .

B. PERMITTED USES

1. Single-family residential uses subject to the R-1 Zone property development standards.

. . . . .

9. One (1) guest house, as defined in Section 201 of this ordinance, for properties with no more than one (1) existing single-family dwelling. Guest house may be a site-built or factory-built building, or a tiny house that is built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation.

. . . . .

SECTION 425. "AR-70" ZONE, AGRICULTURAL RESIDENTIAL.

. . . . .

B. PERMITTED USES.

1. One (1) single-family dwelling. Manufactured homes are prohibited.
2. One (1) guest house. Guest house may be a site-built or factory-built building, or a tiny house built off-site on a chassis where the suspension/axle components have been removed and the chassis is permanently attached to a permanent foundation.

. . . . .

DRAFT

APPENDIX Q

TINY HOUSES

This provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User note:

About this appendix: *Appendix Q relaxes various requirements in the body of the code as they apply to houses that are 400 square feet in area or less. Attention is specifically paid to features such as compact stairs, including stair handrails and headroom, ladders, reduced ceiling heights in lofts and guard and emergency escape and rescue opening requirements at lofts.*

SECTION AQ101
GENERAL

AQ101.1 Scope. This appendix shall be applicable to *tiny houses* used as single *dwelling units*. *Tiny houses* shall comply with this code except as otherwise stated in this appendix.

SECTION AQ102
DEFINITIONS

AQ102.1 General. The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

EGRESS ROOF ACCESS WINDOW. A *skylight* or roof window designed and installed to satisfy the emergency escape and rescue opening requirements of Section R310.2.

LANDING PLATFORM. A landing provided as the top step of a stairway accessing a *loft*.

LOFT. A floor level located more than 30 inches (762 mm) above the main floor, open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm) and used as a living or sleeping space.

TINY HOUSE. A *dwelling* that is 400 square feet (37 m^2) or less in floor area excluding *lofts*.

SECTION AQ103
CEILING HEIGHT

AQ103.1 Minimum ceiling height. *Habitable space* and hallways in *tiny houses* shall have a ceiling height of not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches (1930 mm). Obstructions including, but not limited to, beams, girders, ducts and lighting, shall not extend below these minimum ceiling heights.

Exception: Ceiling heights in *lofts* are permitted to be less than 6 feet 8 inches (2032 mm).

SECTION AQ104
LOFTS

AQ104.1 Minimum loft area and dimensions. *Lofts* used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ104.1.1 through AQ104.1.3.

AQ104.1.1 Minimum area. *Lofts* shall have a floor area of not less than 35 square feet (3.25 m^2).

AQ104.1.2 Minimum dimensions. *Lofts* shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ104.1.3 Height effect on loft area. Portions of a *loft* with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a *loft* with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

AQ104.2 Loft access. The access to and primary egress from *lofts* shall be of any type described in Sections AQ104.2.1 through AQ104.2.4.

AQ104.2.1 Stairways. Stairways accessing *lofts* shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.5.

AQ104.2.1.1 Width. Stairways accessing a *loft* shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

AQ104.2.1.2 Headroom. The headroom in stairways accessing a *loft* shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

AQ104.2.1.3 Treads and risers. Risers for stairs accessing a *loft* shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.
2. The riser height shall be 15 inches (381 mm) minus three-fourths of the tread depth.

AQ104.2.1.4 Landing platforms. The top tread and riser of stairways accessing *lofts* shall be constructed as a *landing platform* where the *loft* ceiling height is less

than 6 feet 2 inches (1880 mm) where the stairway meets the *loft*. The *landing platform* shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the *loft*, and 16 to 18 inches (406 to 457 mm) in height measured from the *landing platform* to the *loft* floor.

AQ104.2.1.5 Handrails. Handrails shall comply with Section R311.7.8.

AQ104.2.1.6 Stairway guards. Guards at open sides of stairways shall comply with Section R312.1.

AQ104.2.2 Ladders. Ladders accessing *lofts* shall comply with Sections AQ104.2.1 and AQ104.2.2.

AQ104.2.2.1 Size and capacity. Ladders accessing *lofts* shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200-pound (75 kg) load on any rung. Rung spacing shall be uniform within $^3/_8$ inch (9.5 mm).

AQ104.2.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ104.2.3 Alternating tread devices. Alternating tread devices accessing *lofts* shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ104.2.4 Ships ladders. Ships ladders accessing *lofts* shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

AQ104.2.5 Loft Guards. *Loft* guards shall be located along the open side of *lofts*. *Loft* guards shall be not less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less.

SECTION AQ105
EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ105.1 General. *Tiny houses* shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: *Egress roof access windows* in *lofts* used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the *loft* floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

STAFF REPORT

TO: Planning and Zoning Commission

FROM: Gary Davis, Community Development Planner

MEETING: June 15, 2020

SUBJECT: **ZO-20-005 AMENDMENT TO SECTION 408 OUTDOOR LIGHTING -** Consideration of a Zoning Ordinance text amendment to Section 408.G Lighting Requirements regarding the standards for lighting on lots smaller than one half acre.

BACKGROUND

Staff proposes an amendment to Section 408.G.10 placing a new maximum lumen level for residential lots less than one half acre. Currently that section requires that "the total light output used for illumination of residential properties shall not exceed 10,000 lumens per net acre, of which no more than 3,300 lumens per net acre may be accounted for by lamps in unshielded fixtures…" Home builders have expressed concerns that this lumens-per-acre formula does not provide enough lighting to safely illuminate pathways and exterior doors on smaller lots.

Staff also proposes amendments to the lumen levels for unshielded lighting in Section 408.G.18 to correct inconsistencies with the levels stated in Section 408.G.10.

STAFF ANALYSIS

Staff researched standards supplied by the International Dark-Sky Association and those adopted by nearby dark-sky communities to arrive at an appropriate lumen level for lots smaller than one half acre. In addition, staff consulted home builders to set levels they believed to be sufficient but still be lower than other dark-sky communities. Staff believes the proposed limit of 4,500 lumens, with a maximum of 3,300 unshielded lumens per net acre, is a reasonable level that will provide adequate residential lighting while maintaining effective dark-sky standards.

RECOMMENDATION

Consider the proposed amendment to the Zoning Ordinance to provide a recommendation to the City Council to:

1. Amend Section 408 Outdoor Lighting regarding the requirements for lighting on lots smaller than one half acre.

If the Commission desires to recommend approval of this item, the suggested motion is:

I move to recommend approval to the City Council amendments to Section 408 Outdoor Lighting regarding the requirements for lighting on lots smaller than one half acre.

Attachments:

Draft Zoning Ordinance Text Amendments

SECTION 408. OUTDOOR LIGHTING.

. . . . .

G. LIGHTING REQUIREMENTS

1. Outdoor floodlighting by flood light projection above the horizontal is prohibited except for lamps specifically exempted under sections G.11 and G.18 and properly adjusted motion sensing lighting fixtures as defined in subsection F.20.

2. All light fixtures which are required to be shielded shall be installed in such a manner that the shielding complies with the definition of fully shielded fixtures.

3. All light fixtures, except street lamps, shall be aimed or shielded so that the direct illumination shall be confided to the property boundaries of the source. Particular care is to be taken to assure that the direct illumination does not fall onto or across any public or private street or road. Motion sensing lighting fixtures shall be properly adjusted, according to the manufacturer's instructions, to turn off when detected motion ceases.

4. The correlated color temperature (CCT) of all outdoor lighting shall not exceed 3000 Kelvins.

5. Search lights, laser source lights, strobe or flashing lights, motion or illusion lights or any similar high-intensity light shall not be permitted, except in emergencies by police and fire personnel at their direction or as permitted in subsection L.1.

6. Class 1 lighting, including but not limited to, sales, service, commercial, assembly, repair, maintenance, and industrial areas, may only continue in operation until 10:00 p.m., or for as long as the area is in active use.

7. Class 2 lighting shall have no time restrictions except as specified by the Planning & Zoning Commission for new projects.

8. Class 3 lighting, except for flag pole lighting, must extinguished after 10:00 p.m. or when the business closes, whichever is later, except the low-wattage holiday decorations may remain on all night from November 15 to January 15.

9. Multi-class lighting must conform to the time limitations of the strictest class.

10. Except as permitted in subsections G.11, G.12 and G.13, total outdoor light output, excluding streetlights used for illumination of public rights-of-way, of any commercial or industrial development project shall not exceed 100,000 initial lumens per net acre, averaged over the entire property. No more than 5,500 initial lumens per net acre may be accounted for by lamps in unshielded fixtures permitted in subsection G.18. The total light output used for illumination of

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residential properties shall not exceed 10,000 lumens per net acre, of which no more than 3,300 lumens per net acre may be accounted for by lamps in unshielded fixtures permitted in subsection G.18. The total light output on a residential lot smaller than one half acre shall not exceed 4,500 lumens, of which no more than 3,300 lumens per net acre may be accounted for by lamps in unshielded fixtures as permitted in subsection G.18. These lumens per net acre values are upper limits and not design goals; design goals should be the lowest levels that meet the requirements of the task.

11. Lighting, in all cases, for all outdoor athletic fields, courts, tracks or ranges shall be considered Class 1 (Color Rendition). Lighting allowed in this subsection shall be subject to approval of the Community Development Director. When the proposed lumens per acre exceeds the limits of subsection G.10, the installation shall be designed to achieve no greater than the minimum illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA). The installation shall also limit off-site spill (off the parcel containing the sports facility) to a maximum of 0.5 fc (5.4 lx) at any location on any non-residential property, and 0.05 fc (0.54 lx) at any location on any residential property, as measurable from any orientation of the measuring device. Every such lighting system design shall be certified by an Arizona registered engineer as conforming to all applicable restrictions of this Code. All events shall be scheduled so as to complete all activity by 10:00 p.m. Illumination of the playing field, court, track or range shall be permitted after 10:00 p.m. only to conclude a scheduled event that was unable to conclude before 10:00 p.m. due to unusual circumstances. Fully shielded lighting shall be required for fields designed for amateur, recreational or non-professional sports activity.

12. Lighting for Outdoor Display Lots shall be considered Class 1 (Color Rendition), and shall conform to the lumens per acre limits of subsection G.10 except as follows:
    a. All such lighting shall utilize fully shielded luminaries that are installed in a fashion that maintains the fully-shielded characteristics. When the proposed lumens per acre exceed the limits of subsection G.10 the installation shall be designed to achieve no greater than the minimum illuminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA). The installation shall also limit off-site spill (off the parcel containing the display lot) to a maximum of 0.5 fc (5.4 lx) at any location on any non-residential property, and 0.05 fc (0.54 lx) at any location on any residential property, as measurable from any orientation of the measuring device. Every such lighting system design shall be certified by an Arizona registered engineer as conforming to all applicable restrictions of this Code. Outdoor Display Lot lighting shall be turned off at 10:00 p.m. or within thirty minutes after closing of the business or activity, whichever is later.

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b. Lighting allowed in this subsection shall be subject to approval of the Community Development Director.

13. Lighting for Service Stations or similar canopies shall be considered Class 1 lighting. All luminaire shall be recessed within or installed flush against the lower surface of the canopies and utilize flat glass or plastic covers such that no part of the luminaire projects below the canopy skirt. The total light output used for illuminating service station canopies, defined as the sum of under-canopy initial bare-lamp outputs in lumens, shall not exceed forty (40) initial lumens per square foot of canopy. All lighting mounted under the canopy, except internally illuminated signs, shall be included in the total. Fifty percent (50%) of the lumen output of all lamps mounted within or under a canopy, except internally illuminated signs, is included in the lumen caps in subsection G.10.

14. Lighting used for all externally illuminated signs shall conform to all restrictions of the Code, shall be fully shielded, and shall be turned off at 10:00 p.m. or when the business closes, whichever is later.

15. All site lighting not directly associated with the special uses as permitted in subsections F.20, G.11, G.12 and G.13 shall conform to all lighting standards described in this Code.

16. Outdoor internally illuminated advertising signs shall either be constructed with an opaque background and translucent letters and symbols or with a colored (not white, cream, off-white, yellow or other light color) translucent background, with either translucent or opaque letters and symbols. Opaque means only that the material must not transmit light from the internal illumination source: the color of such opaque backgrounds is not restricted by this section. Lamps used for internal illumination od such signs shall not be included in the lumens per net acre limit set in subsection G.10. All illuminated signs shall be turned off at 10:00 p.m. or when the business closes, whichever is later.

17. All outdoor neon lighting is limited by the unshielded lighting limits of Section G.18 and shall be turned off at 10:00 p.m. or when the business closes, whichever is later.

18. The requirements for lamp source and shielding of light emissions for outdoor light fixtures are as follows:

    Shielding/Use Code:

    A= allowed, unshielded

    F= allowed, fully shielded

LAMP TYPE	SHIELDING

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Class 1, 2 and 3 lighting:

All lamp types above 1500 initial lumens	F (See Note 1)
All type below 1500 initial lumens	A (See Note 2)
All neon tube lighting	A (See Note 2)
Lamps in Motion Sensing Security Lights (F.20)	A (See G.3)

Note 1. Examples of lamp types of 1500 lumens and below (the acceptability of a particular light is decided by its lumen output, not wattage. Check manufacturer's specifications):

a. 100 Watt Standard Incandescent and less
b. 75 Watt Midbreak Tungsten-Halogen (quartz) and less
c. 25 Watt T-12 Cool White Fluorescent and less
d. 10 Watt Low Pressure Sodium and less
e. 25 Watt white Light Emitting Diode (LED) and less

Note 2. Lights shall be shielded whenever feasible to minimize light spilled into the night sky or adjacent properties. Unshielded lights (all types) are limited to a maximum of ~~5,000~~ 5,500 initial lumens per net acre (see subsection G.10). Residential parcels and Development Projects containing one net acre or less are allowed ~~5,000~~ 3,300 initial lumens of unshielded light per net acre (all Classes).

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