

DS #:

5222

APN: 137-26-212-001, 137-26-212-002

PROJECT: Summerlin Village 21B Crystal Canyon Parcels A and B

SUBMITTAL:

4th

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM

DATE:

June 9, 2020

TO:

Land Development Services
Department of Building & Safety

FROM:

Jennifer Shinn, P.E.
Flood Control, Engr. Associate
Department of Public Works

SUBJECT:

Drainage Study for:

COPIES TO:

Summerlin Village 21B Crystal Canyon Parcels A and B

RCI Engineering

Cross Streets:

Carriage Hill Drive and Far Hills Avenue

Woodside Homes of Nevada, LLC

File Number:

F:\Depot\DSMemos\DS05222C.doc

Bart Anderson, P.E., DevCo

Parcel Number:

137-26-212-001, 137-26-212-002

CCRFCD

Zoning Action:

TMP-77543

FEMA Flood Zone

YES

NO

X

Proposed Storm Drain

YES

X

NO

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	11/21/2019	12/19/2019	See Comments Below	\$400.00	3653840: \$400
2 nd Submittal	2/11/2020	3/4/2020		\$400.00	3740442: \$400
3 rd Submittal	3/5/2020	3/12/2020	Conditionally Approved	N/C	--
4 th Submittal	6/4/2020	6/9/2020	Approved	N/C	--
TOTAL FEES (LDDRS):				\$800.00	----

REMARKS:

The Drainage Study for the subject project has been reviewed and:

X	is approved subject to conformance to all City standards and the following conditions:
	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.
	is conditionally approved subject to Clark County Public Works Department concurrence.

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Update and accepted by the *City of Las Vegas Flood Control Section*. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the *City of Las Vegas* reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS
HDR/JKS

T/R/S: T20S/R59E/S26
AREA K-26

REGIONAL FLOOD CONTROL DISTRICT



Steven C. Parrish, P.E.
General Manager/Chief
Engineer

BOARD OF DIRECTORS

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April 8, 2020

Mr. Oh Sang Kwon, P.E.
City of Las Vegas Department of Public Works
333 North Rancho Drive
Las Vegas, NV 89106

**DISTRICT CONCURRENCE: SUMMERLIN VILLAGE 21B CRYSTAL CANYON
PARCELS A AND B
(DS05222B) (RFCD No. 20-12480)**

Dear Mr. Kwon:

Clark County Regional Flood Control District (District) reviewed Technical Drainage Study dated November 21, 2019, Addendum No. 1 dated February 11, 2020, and Supplement No. 1 dated March 5, 2020 for above-mentioned project as submitted by RCI ENGINEERING. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas Department of Public Works dated March 12, 2020.

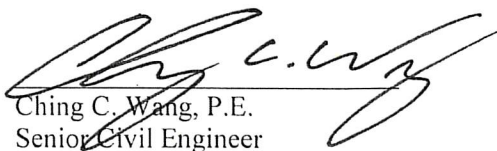
District concurs with acceptance of this Technical Drainage Study by City of Las Vegas Department of Public Works.

District's review of this project was limited to issues of Regional Flood Control Significance as defined in *Uniform Regulations for the Control of Drainage*.

Please be aware that as additional information becomes available and/or restudies of Flood Insurance Studies are performed, information submitted by RCI ENGINEERING may be superseded. Compliance with regulatory elements and design standards specified in *Uniform Regulations for the Control of Drainage* does not imply a guarantee that properties will be free from flooding or flood damage. The District, its officials, or employees assume no liability for information, data, or conclusions presented by consulting engineers. We, therefore, make no warranties, either expressed or implied, in conducting this review.

STEVEN C. PARRISH, P.E.
General Manager/Chief Engineer

BY:


Ching C. Wang, P.E.
Senior Civil Engineer

CCW:jb

c: Rick J. Read, P.E., RCI Engineering

P:\Letters and Memos\Local Drainage\Land Development & Drainage\2020\L-20-12480.doc

Supplement to the
**TECHNICAL DRAINAGE STUDY
FOR SUMMERLIN VILLAGE 21B
PARCELS A AND B
CRYSTAL CANYON**

Prepared for:

**Woodside Homes of Nevada
4670 South Fort Apache Road, Suite 200
Las Vegas, NV 89147
Phone: (702) 889-7824**

March 2020

PROJECT 4320.0009

**RCI Engineering
500 South Rancho Drive, Suite 17
Las Vegas, NV 89106
www.rcinevada.com**

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Summerlin Village 21B Crystal Canyon Parcels A and B Date: March 5, 2020

Location of Development: a) Descriptive (Cross Streets) North/South: Carriage Hill Drive
East/West: Far Hills Avenue

b) Section: 26 Township: 20 South Range: 59 East

c) APN : 137-26-212-001, 137-26-212-002

Name of Owner: Woodside Homes of Nevada LLC

Telephone No.: 702-889-7824 Fax No.: _____ E-Mail Address: _____

Address: 4670 South Fort Apache Road, Suite 200, Las Vegas, NV 89147

Contact Person-Name: Rick J. Read, P.E. Telephone No.: 702-453-0800

* E-Mail Address: rread@rcinevada.com Fax No.: 702-453-0801

Firm: RCI Engineering

Address: 500 South Rancho Drive, Suite 17 Las Vegas, Nevada 89106

Type of Land Development/Land Disturbance Process:

☐	Rezoning	☐	Subdivision Map	☐	Clearing and Grading Only
☐	Parcel Map	☒	Planned Unit Development	☐	Other (Please specify below)
☐	Large Parcel Map	☐	Building Permit		

1. Total Owned Land Area: At Site: 27.6 acres Being Developed/Disturbed: 27.6 acres

2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? ☐ Yes** ☒ No

3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☒ Yes** ☐ No

4. Proposed type of development (Residential, Commercial, Etc.): Residential

5. Approximate upstream land area which drains to the subject site: 0 acres

6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: Update #1 to the Flood Control Master Plan Update Summerlin West Planning Area

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: East into storm drain in Carriage Hill Drive

8. Briefly describe your proposed schedule for the subject project: ASAP

Submit this form as part of the required drainage study to the local entity which has jurisdiction over the subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

***New Required Field**

****Review and concurrence of the Clark County Regional Flood Control District is required.**

Engineer's Seal

Local Entity File No.

Revision

Date

REFERENCE:

STANDARD FORM 1

RCI Engineering

March 5, 2020

City of Las Vegas
333 N. Rancho Drive
Las Vegas, NV 89106

RE: Crystal Canyon- Summerlin Village 21 Parcel A & B

Jennifer Shinn PE,

The purpose of this letter is to address the e-mail comment letter dated March 5, 2020 regarding the above-referenced project. The comment from the e-mail has been addressed below.

Comment 1: The maximum drop inlet length allowed in the CLV is 20'. Please revise inlet 4 to be a 20' inlet.

Response: Drop inlet #4 has been revised to 20 feet. A revised calculation has been enclosed for that drop inlet. The calculation based on a reduced length of the inlet by 2.5 feet shows that the ponding depth at the inlet will be 0.42 feet which is still below top of curb. The previous calculation using a 22.5 foot long inlet showed a ponding depth of 0.38 and reducing the length only resulted in an increase of ponding depth of 0.04 feet. That flow is easily contained in the street and no negative impact is made by reducing that length. Sheets G-4 and P-6 from the Unit 1 improvement plans have been enclosed. Figure 6 REV was revised so that the figure shows the latest information and has been enclosed. The revised drop inlet calculation and the previous submittals calculation have also been enclosed.

If you have any questions or require additional information please do not hesitate to contact us.

Sincerely,

Rick J. Read, P.E.

RCI Engineering

500 S. Rancho, Suite 17 - Las Vegas, NV 89106
Main 702.453.0800 www.RCINEVADA.com Fax 702.453.0801

Rick Read

From: Jennifer Shinn <jshinn@LasVegasNevada.GOV> on behalf of Jennifer Shinn
Sent: Thursday, March 5, 2020 9:57 AM
To: Rick Read
Cc: Chris Zrinyi
Subject: RE: Summerlin Village 21B Crystal Canyon Parcels A & B

Rick,
Yes, just the updated sheets as well as a copy of the new calc is acceptable.

Thanks,

Jennifer Shinn

Engineering Associate
Department of Public Works | City Engineering Division
Phone: (702) 229-6131
333 N. Rancho, floor | Las Vegas, NV 89106



lasvegasnevada.gov



Your opinion is important! Click [here](#) to take a short survey.

From: Rick Read <rread@rcinevada.com>
Sent: Thursday, March 5, 2020 9:36 AM
To: Jennifer Shinn <jshinn@LasVegasNevada.GOV>
Cc: Chris Zrinyi <czzrinyi@rcinevada.com>
Subject: RE: Summerlin Village 21B Crystal Canyon Parcels A & B

EXTERNAL EMAIL: This email originated from outside the organization, do not click links or open attachments unless you recognize the sender and know the content is safe.

Jennifer,

I did not realize that the maximum length was 20-feet. I used a 20 foot inlet in the calculation and the ponding is still below top of curb (0.42 ft). So it works OK. There are 4 different plans sets for this Project. Since this is a minor change, may we submit just the plan sheets that changed?

Thanks,

Rick J. Read, PE



500 South Rancho Drive, Suite 17
Las Vegas, NV 89106
Direct 702-998-2102

From: Jennifer Shinn [mailto:jshinn@LasVegasNevada.GOV]
Sent: Wednesday, March 4, 2020 2:40 PM
To: Rick Read <rread@rcinevada.com>
Subject: Summerlin Village 21B Crystal Canyon Parcels A & B

Hi Rick,

I finished my review of the addendum but have 1 comment that needs to be addressed before I can conditionally approve the study:
The maximum drop inlet length allowed in CLV is 20'. Please revise Inlet 4 to be a maximum of 20'. If inlets are in series, they shall be spaced a minimum of 20' apart.

You may provide the updated calcs and plans as a no charge supplement. Let me know when you submit it so I can pull it from the stack, review, and kick it out ASAP.

Let me know if you have any questions.

Thanks,

Jennifer Shinn

Engineering Associate
Department of Public Works | City Engineering Division
Phone: (702) 229-6131
333 N. Rancho, floor | Las Vegas, NV 89106



lasvegasnevada.gov



Your opinion is important! Click [here](#) to take a short survey.



March 5, 2020

City of Las Vegas
Flood Control
333 N Rancho Dr.
Las Vegas, NV 89106

**RE: Certification Letter for Paper and Digital Plans for the
 Technical Drainage Study for Summerlin Village 21 Parcels A and B.**

Jennifer Shinn PE,

This letter has been provided as certification that the paper version of the plans match the digital PDF plans on the CD submitted with the drainage study.

Sincerely,
RCI Engineering

Rick J. Read, P.E.

Original

Hydraulic Analysis Report

Project Data

Project Title:

Designer:

Project Date: Friday, October 04, 2019

Project Units: U.S. Customary Units

Notes:

Curb and Gutter Analysis: DI 4

Notes:

Gutter Input Parameters

Longitudinal Slope of Road: 0.0050 ft/ft

Cross-Slope of Pavement: 0.0200 ft/ft

Uniform Gutter Geometry

Manning's n: 0.0160

Gutter Width: 2.0000 ft

Design Flow: 23.0000 cfs

Gutter Result Parameters

Width of Spread: 26.6025 ft

Gutter Depression: 0.0000 in

Area of Flow: 7.0769 ft²

E_o (Gutter Flow to Total Flow): 0.1883

Gutter Depth at Curb: 6.3846 in

Inlet Input Parameters

Inlet Location: Inlet in Sag

Percent Clogging: 0.0000 %

Inlet Type: Sweeper Combo

Grate Type: P - 1-7/8

Grate Width: 2.0000 ft

Grate Length: 13.3300 ft

Length of Inlet: 15.0000 ft

Curb opening height: 6.0000 in

Local Depression: 4.0000 in

Inlet Result Parameters

Perimeter: 22.6000 ft

Effective Perimeter: 22.6000 ft

Area: 36.4940 ft²

Effective Area: 36.4940 ft²

Depth at curb face (upstream of local depression): 0.3842 ft

Computed Width of Spread at Sag: 19.2121 ft

Flow type: Weir Flow

Efficiency: 1.0000

Clogging Factor (50%)

Grate, $13.33 \times 1.5 = 20'$

Curb Opening $15.0 \times 1.5 = 22.5'$

22.5' Long Type CM2 Inlet W/2.5' Sweeper (8 Grates)

Intercept 23 cfs

Bypass 0 cfs

Ponding Depth = 0.38

REVISED

Hydraulic Analysis Report

Project Data

Project Title:

Designer:

Project Date: Friday, October 04, 2019

Project Units: U.S. Customary Units

Notes:

Curb and Gutter Analysis: DI 4

Notes:

Gutter Input Parameters

Longitudinal Slope of Road: 0.0050 ft/ft

Cross-Slope of Pavement: 0.0200 ft/ft

Uniform Gutter Geometry

Manning's n: 0.0160

Gutter Width: 2.0000 ft

Design Flow: 23.0000 cfs

Gutter Result Parameters

Width of Spread: 26.6025 ft

Gutter Depression: 0.0000 in

Area of Flow: 7.0769 ft²

E_o (Gutter Flow to Total Flow): 0.1883

Gutter Depth at Curb: 6.3846 in

Inlet Input Parameters

Inlet Location: Inlet in Sag

Percent Clogging: 0.0000 %

Inlet Type: Sweeper Combo

Grate Type: P - 1-7/8

Grate Width: 2.0000 ft

Grate Length: 11.6670 ft

Length of Inlet: 13.3300 ft

Curb opening height: 6.0000 in

Local Depression: 4.0000 in

Inlet Result Parameters

Perimeter: 20.9300 ft

Effective Perimeter: 20.9300 ft

Area: 32.1089 ft²

Effective Area: 32.1089 ft²

Depth at curb face (upstream of local depression): 0.4146 ft

Computed Width of Spread at Sag: 20.7324 ft

Flow type: Weir Flow

Efficiency: 1.0000

Clogging Factor (50%)

Grate, $11.67 \times 1.5 = 17.5'$

Curb Opening $13.33 \times 1.5 = 20'$

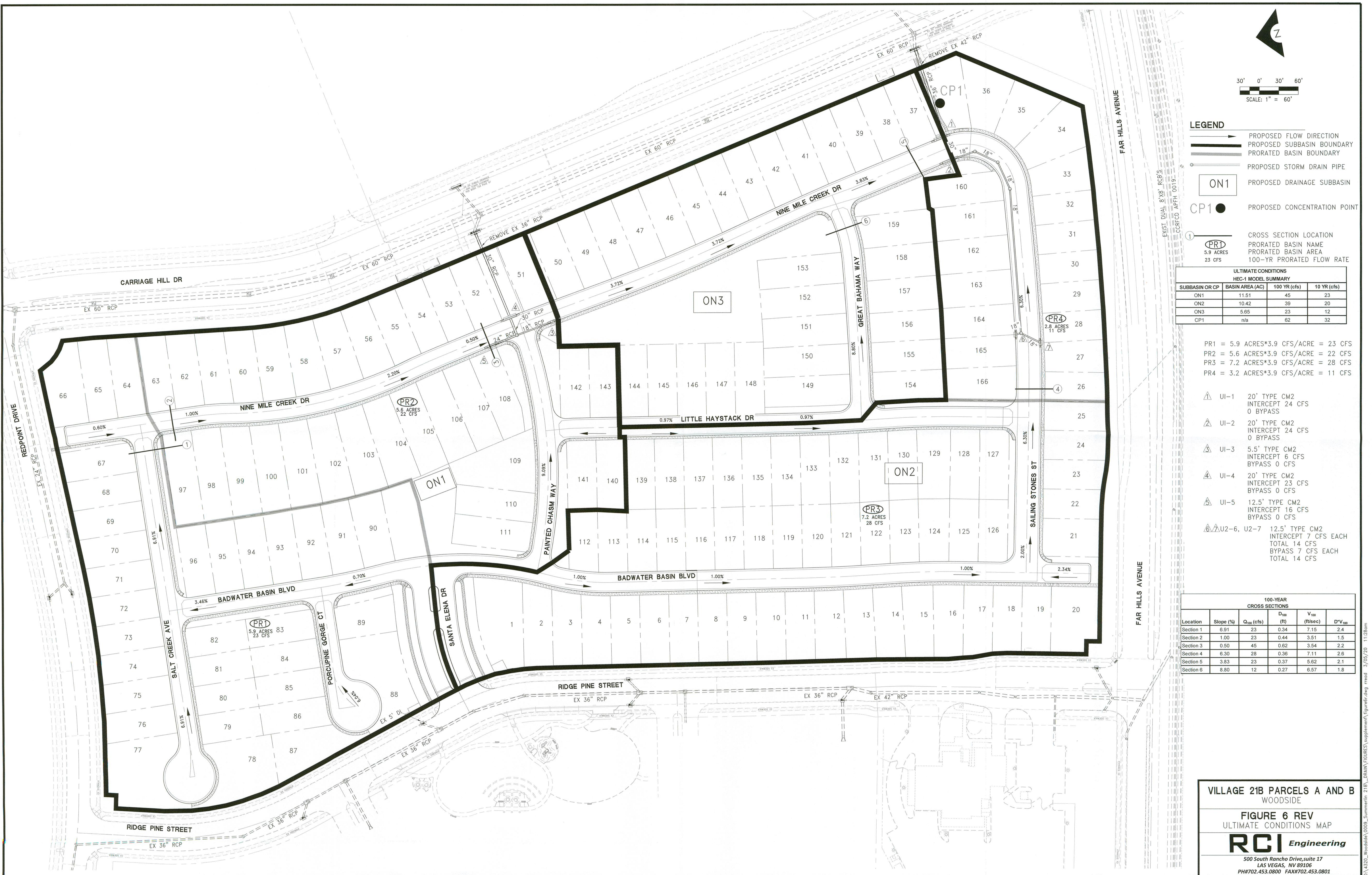
20' Long Type CM2 Inlet W/2.5' Sweeper (7 Grates)

Intercept 31 cfs

Bypass 0 cfs

Ponding Depth = 0.42

CHANGED BY .04 FT.



UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

FAST

Call before you
UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL
SYSTEM OF TRANSPORTATION



CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929

CITY OF LAS VEGAS BENCHMARK, MONUMENT ID 5LV0926W6
RIVET AND PLATE IN TOP OF CURB AT THE SE CORNER OF
CARRIAGE HILL AND FAR HILLS.

ELEVATION = 984.288 METERS
ELEVATION = 3229.29 U.S. SURVEY FEET (NAVD 88)

NORTH 79°08'32" WEST, BEING THE BEARING OF A PORTION OF
"FAR HILLS AVENUE" AS SHOWN BY MAP THEREOF IN BOOK 158,
PAGE 87 OF PLATS, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

ALL STRUCTURES SHOWN OR INDICATED ON THIS SUBMITTAL WITHIN THE PROPERTY REQUIRE A BUILDING PERMIT APPLICATION AND SUBMITTAL THIS INCLUDES BUILDINGS, ABOVE GROUND TANKS, SIGNS, RETAINING WALLS, FENCES, TRASH ENCLOSURES, SHADE STRUCTURES, STAIRWAYS, RAMPS, LIGHT FIXTURES, BOLLARDS, ETC. THIS DOES NOT INCLUDE ANY FLOOD CONTROL STRUCTURES SUCH AS PIPE CULVERTS, ARCH CULVERTS, HEADWALLS, ETC. THIS DOES NOT INCLUDE ANY WORK WITHIN A PUBLIC STREET RIGHT-OF-WAY. THIS DOES NOT INCLUDE PRIVATE STREETS. THE REVIEW OF CIVIL IMPROVEMENT AND/OR GRADING PLANS DOES NOT INCLUDE ANY REVIEW OF ANY STRUCTURE THAT REQUIRES A BUILDING PERMIT APPLICATION."

ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NUMBERS 32003C2150E AND 32003C2125E DATED SEPTEMBER 27, 2002, THE SITE IS LOCATED IN A FLOOD ZONE.

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS
REQUIRED BY CITY OF LAS VEGAS AND CLARK COUNTY UNIFORM
STANDARD DRAWING NUMBER 243. OWNER IS ALSO RESPONSIBLE TO
REPLACE ALL SURVEY MONUMENTATION DAMAGED, DESTROYED, OR
OBSCURED DURING CONSTRUCTION.

NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

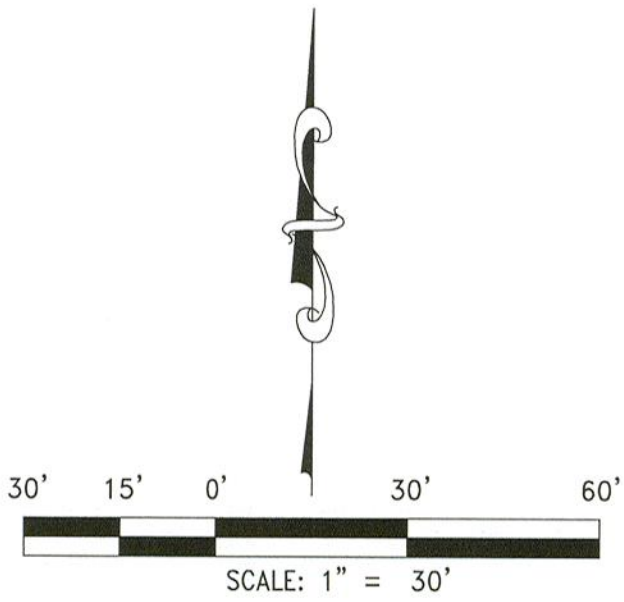
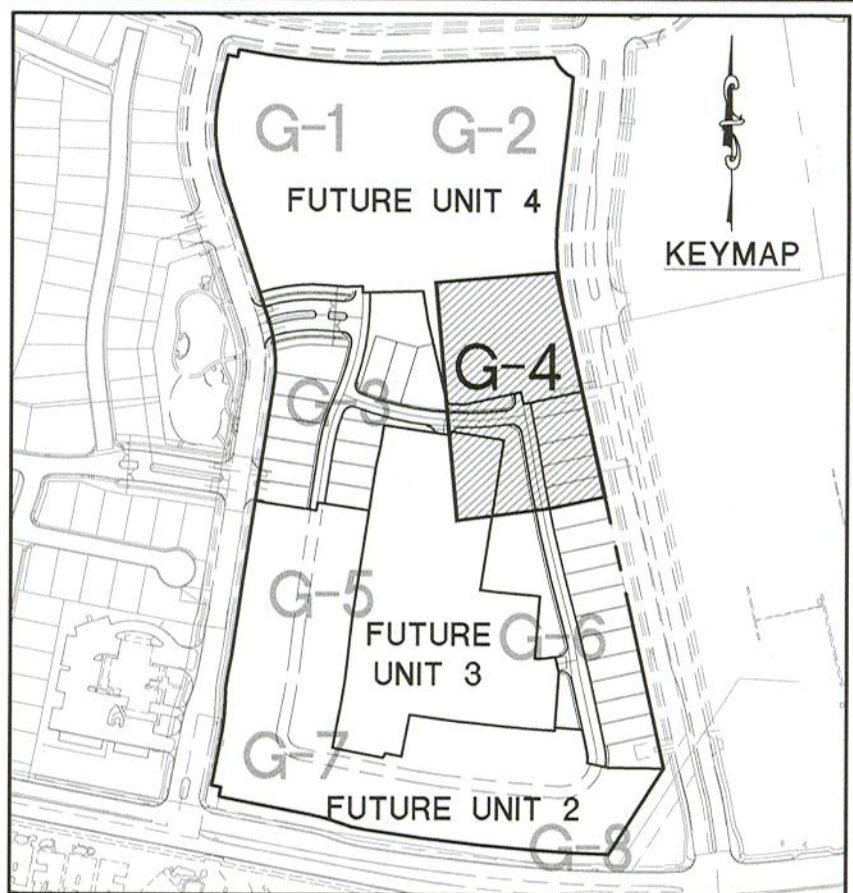
1. CONTRACTOR IS RESPONSIBLE FOR DUST AND EROSION CONTROL DURING CONSTRUCTION.
2. SEE DETAILED SHEET FOR ON-SITE PAVEMENT SECTIONS. CONTRACTOR TO VERIFY WITH SOILS REPORT.
3. SEE FINAL MAP FOR EXACT PROPERTY LINE DIMENSIONS.
4. ENGINEER TO BE NOTIFIED OF ANY DISCREPANCIES IMMEDIATELY.
5. THESE PLANS SHALL NOT, IN PART OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY THE GOVERNING AGENCIES.
6. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
7. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
8. SOIL REPORT NOTE:
GRADING SHALL BE IN ACCORDANCE
WITH SOILS REPORT PREPARED BY:
ENGINEER: GEOTEK
PROJECT NO. 14740-LV
DATED: APRIL 10, 2019
9. CUT/FILL ESTIMATES
EXISTING TO FINISH GRADE ELEVATIONS
NET CUT: 95,014 CY
NET FILL: 101,956 CY
10. SEE DETAIL 56/D-4 FOR TYPICAL LOT DRAINAGE
11. FOR STORMWATER RUN-OFF MANAGEMENT NOTES REFER TO SHEET N-1

ALL ON-SITE STORM DRAINS AND THE ASSOCIATED FACILITIES ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOA.

ALL PRIVATE STREETS ARE P.O.E.; PUBLIC
SEWER EASEMENTS AND PUBLIC DRAINAGE
EASEMENTS TO BE PRIVATELY MAINTAINED
BY HOA.

NO STRUCTURES AND NO TREES OR VEGETATION TALLER
THAN THREE FEET ALLOWED WITHIN CLV SEWER EASEMENT

- 1 CONSTRUCT AC PAVEMENT PER DETAILS 1 THRU 5 ON SHEET
- 2
- 3 CONSTRUCT "L" TYPE CURB AND GUTTER PER CAAUSD #216
- 4 CONSTRUCT "ROLL" TYPE CURB AND GUTTER PER CAAUSD
- 5 #217.2.51
- 6 CONSTRUCT #1 SIDEWALK PER CAAUSD #234 (5-INCH
- 7 THICK WHEN CONTIGUOUS TO "ROLL" TYPE CURB)
- 8 CONSTRUCT #5 SIDEWALK PER CAAUSD #234 (5-INCH
- 9 THICK WHEN CONTIGUOUS TO "ROLL" TYPE CURB)
- 10 CONSTRUCT #6 CROSSWALK PER CAAUSD #235 (CASE II)
- 11 IMPROVEMENT STD DWG #6-64
- 12 CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED
- 13 DOMES OR EQUIVALENT PER CAAUSD #235 (CASE I)
- 14 CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED D
- 15 OMES OR EQUIVALENT PER CAAUSD #235 (CASE II)
- 16 CONSTRUCT #5 TRANSITION FROM "L" TYPE CURB AND GUTTER
- 17 TO "ROLL" TYPE CURB AND GUTTER PER DETAIL 57 SHEET 0-4
- 18 CONSTRUCT "A" TYPE CURB AND GUTTER PER CAAUSD #219
- 19 CONSTRUCT #5 "CM2" DROP INLET PER CAAUSD #412.1,
- 20 CAAUSD #421, 1 GRATE
- 21 CONSTRUCT #12.5" "CM2" DROP INLET PER CAAUSD
- 22 #412.1, CAAUSD #421, 4 GRATES
- 23 CONSTRUCT #20 "CM2" DROP INLET PER CAAUSD #412.1,
- 24 CAAUSD #421, 7 GRATES
- 25 CALL BOX
- 26 CONSTRUCT #1 TYPE II-SD MANHOLE PER CAAUSD #405.2
- 27 CONSTRUCT SIDEWALK RAMP USING ARMOR TILE TRUNCATED
- 28 DOMES OR EQUIVALENT PER CAAUSD #235 (CASE II)
- 29 CONSTRUCT #10 HIGH CROWN SIDEWALK RAMP PER CAAUSD
- 30 #425.51 SHEET 3 OF 3
- 31 INSTALL 3" WIDE RIPRAP D50-60 THICKNESS=12"
- 32 CONSTRUCT ELECTRONICALLY CONTROLLED ACCESS GATES
- 33
- 34 CONSTRUCT #4 WIDE PEDESTRIAN ACCESS GATE



FOR REVIEW ONLY			
REV	DESCRIPTION	BY	APPD. DATE
	DATE: March 05, 2020		
	HORIZ. SCALE: 1"=30'		
	VERT. SCALE: N/A		
	DRAWN BY: SRC		
	DESIGNED BY: MJD		
	CHECKED BY: CRZ		
	APPROVED BY: CRZ		
	PROJECT #:		4320.0009

Woodside Homes®
BETTER BY DESIGN

RCI ENGINEERING
500 SOUTH RANCHO DRIVE, SUITE 17, LAS VEGAS, NV 89106
PH#702.453.0800 FAX#702.453.0801
www.rcienvirob.com

IMPROVEMENT PLANS FOR
CRYSTAL CANYON UNIT 1
SUMMERLIN VILLAGE 21 PARCEL A AND B
A SINGLE FAMILY RESIDENTIAL SUBDIVISION

GRADING PLANS (SHEET 4 OF 8)

CITY OF LAS VEGAS

NEVADA

DATE: 3/5/20

DRAWING

G-4

SHT 6 OF 29

CLV DRAWING NUMBER

CLV PROJECT #

I HEREBY CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY DS #05222 ON FILE WITH CITY OF LAS VEGAS FOR THIS PROJECT.

CHRISTOPHER ZRINYI, PE NO. 13976

DATE _____

UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND OR OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES OR DISCREPANCIES.

Call
811

FAST

 **Call**
before you
UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL
SYSTEM OF TRANSPORTATION

AVOID HITTING OVERHEAD
POWER LINES. IT'S COSTLY.

**CALL BEFORE
YOU DO
OVERHEAD**



1-702-227-2929

CITY OF LAS VEGAS BENCHMARK, MONUMENT ID 5LV0926W6,
RIVET AND PLATE IN TOP OF CURB AT THE SE CORNER OF
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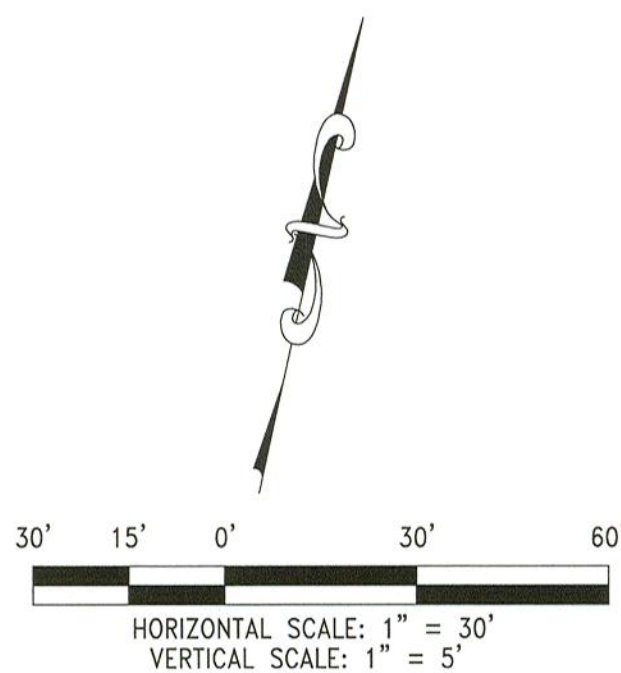
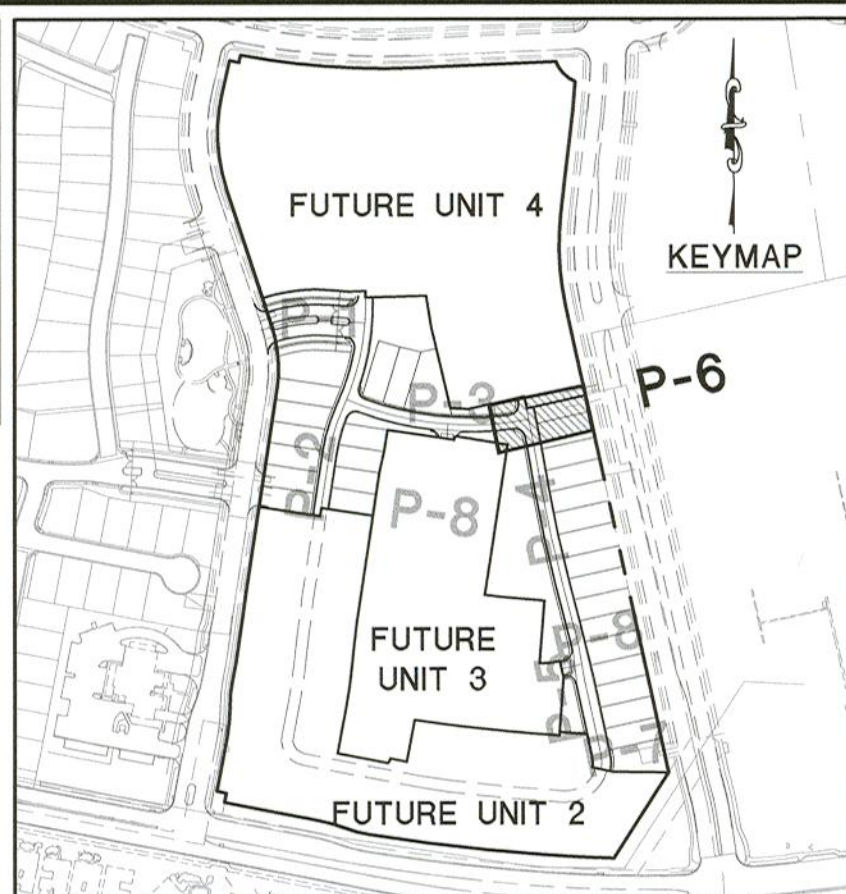
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"FAR HILLS AVENUE" AS SHOWN BY MAP THEREOF IN BOOK 158,
PAGE 87 OF PLATS, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

[illegible]

CURVE TABLE						
CURVE #	DELTA	RADIUS	LENGTH	TANGENT	"A"	"B"
C8	94°54'12"	20.00'	33.01'	21.66'	4.5'	9.5'
	0°14'03"	2692.50'	11.01'	5.50'		
C10	0°45'24"	2723.50'	35.96'	17.98'		
C20	0°23'02"	2692.50'	18.04'	9.02'		
C21	87°20'52"	20.00'	30.49'	19.09'	4.5'	9.5'
C22	8°55'58"	669.50'	104.38'	52.30'		



DATE: Month 05, 2020	REV	DESCRIPTION	BY	APP'D	DATE
HORIZ. SCALE: 1"=30'					
VERT. SCALE: 1"=5'					
DRAWN BY: SFG					
DESIGNED BY: MJD					
CHECKED BY: CRZ					
APPROVED BY: CRZ					
PROJECT #: 4326.0009					

Woodside Homes®



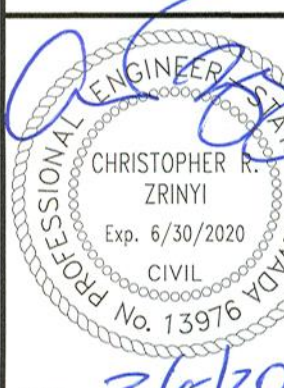
BETTER BY DESIGN

RCI ENGINEERING

			CITY OF LAS VEGAS										
0-4320	Woodside	0009	Summerlin	21R	CIWII	1P5 PH4SF	1 S0007	P-6	SUMMER IN21R	PHASE1	dwn mdia	3/05/20	12:28pm

IMPROVEMENT PLANS FOR
CRYSTAL CANYON UNIT 1
SUMMERLIN VILLAGE 21 PARCELS A AND B
SINGLE FAMILY RESIDENTIAL SUBDIVISION
PLAN AND PROFILE
NORTHERN EASEMENT

NEVADA



DATE: 3/5/20

P-6

SHT 24 OF 29

CLV PROJECT # _____