



**Addendum to the
Technical Drainage Study
for**

***PUBLIC STORAGE -
SUMMERLIN PHASE II***

Date Prepared:
May 2023

Prepared for:
PS Mountain West, LLC
701 Western Ave
Glendale, CA 91201
949.413.9696

Prepared by:
Kimley-Horn and Associates, Inc.
6671 Las Vegas Boulevard South, Suite 320
Las Vegas, NV 89119
702.862.3600

Kimley»»Horn

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: Public Storage - Summerlin Phase II Date: May 2023

Location of Development: a) Descriptive (Cross Streets) North/South: Desert Crossing Court
 East/West: Center Crossing Road

b) Section: 19 Township: 20S Range: 60E

c) APN : 138-19-419-016, 018 & 019

Name of Owner: Public Storage - Bryan Miranda

Telephone No.: 949.413.9696 Fax No.: n/a E-Mail Address: bmiranda@publicstorage.com

Address: 701 Western Ave, Glendale, CA 91201

Contact Person-Name: Rachael R. Dennis, P.E. Telephone No.: 702.734.5666

* E-Mail Address: Rachael.Dennis@kimley-horn.com Fax No.: _____

Firm: Kimley-Horn

Address: 6671 Las Vegas Boulevard South, #320, Las Vegas NV 89119

Type of Land Development/Land Disturbance Process:

<input type="checkbox"/>	Rezoning	<input type="checkbox"/>	Subdivision Map	<input type="checkbox"/>	Clearing and Grading Only
<input type="checkbox"/>	Parcel Map	<input type="checkbox"/>	Planned Unit Development	<input checked="" type="checkbox"/>	Other (Please specify below)
<input type="checkbox"/>	Large Parcel Map	<input checked="" type="checkbox"/>	Building Permit	<input type="checkbox"/>	Grading Permit

1. Total Owned Land Area: At Site: +/- 7.22 ac Being Developed/Disturbed: +/- 3.66 ac

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.): Commercial

5. Approximate upstream land area which drains to the subject site: +/- 7.11 ac

6. Has the site drainage been evaluated in the past? YES NO If yes, please identify documentation: Summ V8 CDS; Crossings Bus Cntr PHVII; Equinox Facility PHI; Nevada St Dev; JMA Arch.; Desert Crossing; Summ Pkwy Chnl; Pkwy West Office Pk

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: _____

1) CCRFCD Facility APSP 0069; & 2) Desert Crossing Court

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

Engineer's Seal 5/25/23

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.**

	Revision	Date

Local Entity File No. _____

REFERENCE: STANDARD FORM 1

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE: April 19, 2023
TO: Land Development Services Department of Building & Safety			FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:		Drainage Study for:	COPIES TO:
		Public Storage – Summerlin Phase II	Kimley Horn Associates
Cross Streets:	NWC Center Crossing Rd & Desert Crossing Rd		Public Storage
File Number:	F:\Depot\DSMemos\DS5666A.doc		Bart Anderson, P.E., DevCo
Parcel Number:	138-19-419-016 & 138-19-419-018 & 138-19-419-019		CCRFCD
Zoning Action:			NDOT
FEMA Flood Zone	YES	NO	X
Proposed Storm Drain	YES	NO	X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	3/30/2023	4/19/2023	See Comments Below	\$400.00	5204130: \$400
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

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

	is approved subject to conformance to all City standards and the following conditions:
X	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.

- Provide a copy of the zoning/planning conditions associated with this site with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.
 - Note that the NOFA **21-0793-CRG1** provided in the submittal expired two years from the approval date of January 12, 2021! Contact **City Planning** for further needed action.
- The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCD) master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.

Please note that effective March 15, 2019, the CCRFCD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

<http://gustfront.ccrfcd.org/LandDev/LandDev.aspx>

3. Sites with a grade difference of 2 feet above or below existing are required to have approval from the *City Planning and Development Department*. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the *City Planning Department* (229-6301). The engineer must provide Planning approval with the next submittal.
4. The project proposes to construct facilities and/or increase flows within *Nevada Department of Transportation* (NDOT) right-of-way (Summerlin Parkway). The engineer must contact NDOT for concurrence or encroachment permit for the proposed project prior to the final approval of the drainage study.
5. The subject development consists of three parcels. Address whether there is a tentative or final map to consolidate the properties into one single lot in the next submittal.
6. **Sheet C3.01** and **Sheet C3.02**: A 36"-diameter storm drain runs in *Desert Crossing Street* and along the eastern boundary of the subject site through an existing 32'-wide public drainage easement. However, the proposed grading plan revised the drainage easement substantially which presented two major problems:
 - a) The 36"-storm drain will be either directly under or within a very close proximity of a proposed new curb. In case the storm drain needs maintenance or repair in the future, the curb may need to be broken for the repair work, who is going to pay for the cost?
 - b) A retaining wall will be constructed basically in the middle of the drainage easement effectively cutting the easement into two halves. Explain how the maintenance crew have access to maintain the pipe in the future?
7. **Sheet C3.01**: There is a swale flow line of "29.70/FL/HP" between **PR BUILDING 2** and **EX BUILDING 1**. It is understood that this point will be the emergency overflow for the "28.69/FL/LP" of DI #2 to the south in case it is totally clogged. However, the water surface elevation of the emergency overflow will be almost touching the adjacent **EX BUILDING 1** at FFE = 2829.89.

Revise the emergency overflow high point to be at least six inches below the FFE of the adjacent **EX BUILDING 1**. Address and resolve in the next submittal.
8. **Sheet C3.02** and **Sheet C3.04**: Per the plan, the finished grade outside **PR BUILDING 2** is in general higher than the FFE=2821.20. However, the detail section shows the finished grade is flush with the FFE which is not accurate. Review and revise accordingly.
9. Provide a note on the grading plans: All onsite storm drains and the associated storm facilities are privately owned and to be privately maintained by the property owner".
10. Add a note in all pertinent sheets for the construction of all storm drain drop inlets per a newly adopted USDCCA Drawing No. 421 (*Stormwater Quality Management Stamp and Sign Detail*).
11. Add Standard Note No. 6 to the "Stormwater Management Notes" column on the *General Notes Sheet (C0.02)*: **Post-Construction BMPs (PCBMPs) / Control Measures noted on the Grading Plans are mandatory permanent regulatory stormwater pollution controls. These PCBMPs must be installed per the approved plans and must be permanently maintained.**

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
AYS

T/R/S: T20S/R60E/19
AREA L-19



May 25, 2023

Mr. Albert Sung, P.E.
City of Las Vegas Flood Control
333 Rancho Drive
Las Vegas, NV 89106

RE: *Addendum to the Technical Drainage Study for Public Storage – Summerlin Phase II*

Dear Mr. Sung,

Attached is one (1) copy of the *Addendum to the Technical Drainage Study for Public Storage - Summerlin Phase II* for your review. This letter certifies that all items provided on the electronic submittal (CD) match the paper version bound into the study.

With Kimley-Horn, you should expect more and will experience better. Please contact me at (702) 734-5666 or rachael.dennis@kimley-horn.com should you have any questions or concerns.

information.

Sincerely,

A handwritten signature in black ink that reads "Rachael R. Dennis".

Rachael R. Dennis, P.E.

A handwritten signature in blue ink that reads "Abhusan Achhami".

Abhusan Achhami, Analyst

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May 25, 2023

Albert Sung, P.E.
City of Las Vegas
Department of Public Works
495 S. Main Street
Las Vegas, NV 89101

RE: Technical Drainage Study for Public Storage – Summerlin Phase II (DS5666)

The purpose of this letter is to provide satisfactory answers to the comments issued in the subject Comment Letter dated December 8, 2022. These comments have been reviewed and are addressed herein.

Comment 1: Provide a copy of the zoning/planning conditions associated with this site with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.

- Note that the NOFA 21-0793-CRG1 provided in the submittal expired two years from the approval date of January 12, 2021! Contact *City Planning* for further needed action.

Response: The Zoning and Planning Conditions (21-0793-CRG1) for the proposed site was issued with an incorrect date and has been re-issued with the corrected date and a copy has been included in **Appendix A**.

Comment 2: The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District (CCRFCD)* master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.

Please note that effective March 15, 2019, the CCRFCD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

<http://gustfront.ccrfcd.org/LandDev/LandDev.aspx>

Response: Noted. Upon conditional approval by CLV, the study will be submitted to CCRFCD for concurrence.

Comment 3: Sites with a grade difference of 2 feet above or below existing are required to have approval from the *City Planning and Development Department*. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the *City Planning Department (229-6301)*. The engineer must provide Planning approval with the next submittal.

Response: A copy of the grade difference justification letter, approved by CLV Department of Planning on May 17, 2023, has been included in **Appendix A**.

Comment 4: The project proposes to construct facilities and/or increase flows within *Nevada Department of Transportation (NDOT)* right-of-way (Summerlin Parkway). The engineer must contact NDOT for concurrence or encroachment permit for the proposed project prior to the final approval of the drainage study.

Response: Noted. Upon conditional approval by CLV, the study will be submitted to NDOT for concurrence.

Comment 5: The subject development consists of three parcels. Address whether there is a tentative or final map to consolidate the properties into one single lot in the next submittal.

Response: A Record of Survey (ROS) is currently in process to combine the three parcels into a single lot. A preliminary copy of the ROS has been included in **Appendix A**. Note that the ROS has not been finalized or approved and has only been provided as a courtesy.

Comment 6: Sheet C3.01 and Sheet C3.02: A 36"-diameter storm drain runs *in Desert Crossing Street* and along the eastern boundary of the subject site through an existing 32'-wide public drainage easement.

However, the proposed grading plan revised the drainage easement substantially which presented two major problems:

- a) The 36"-storm drain will be either directly under or within a very close proximity of a proposed new curb. In case the storm drain needs maintenance or repair in the future, the curb may need to be broken for the repair work, who is going to pay for the cost?
- b) A retaining wall will be constructed basically in the middle of the drainage easement effectively cutting the easement into two halves. Explain how the maintenance crew have access to maintain the pipe in the future?

Response: The type of curb and proposed grading within the existing public drainage easement has been revised and the retaining wall has been removed. As discussed in a phone call with CLV on May 24, 2023, it is understood that the developer would be responsible for the cost of replacing improvements within the existing easement should CLV need to trench within the easement to maintain and/or repair the existing 36-inch RCP storm drain. It should be noted that the existing 36-inch RCP storm drain is located approximately 8-10 feet below the proposed improvements. Refer to the revised improvement plans in **Appendix C**.

Comment 7: Sheet C3.01: There is a swale flow line of “29.70/FL/HP” between PR BUILDING 2 and EX BUILDING 1. It is understood that this point will be the emergency overflow for the “28.69/FL/LP” of DI #2 to the south in case it is totally clogged. However, the water surface elevation of the emergency overflow will be almost touching the adjacent EX BUILDING 1 at FFE = 2829.89.

Revise the emergency overflow high point to be at least six inches below the FFE of the adjacent EX BUILDING 1. Address and resolve in the next submittal.

Response: In the unlikely event **DI#2** at the proposed low point becomes completely clogged, an emergency overflow path has been provided to protect the adjacent finished floors. As discussed in a phone call with CLV on May 17, 2023, the grading will remain unchanged between **Buildings 1 and 2** because the previously submitted emergency overflow weir calculation shows 3.5 cfs will overtop the high point (2828.70 feet) with a weir flow depth of **0.09 feet** yielding a water surface elevation of **2828.79 feet** (HP + weir depth) which is 0.10 feet below the existing **Building 1** finished floor elevation (2828.89 feet). Please note that this is an emergency overflow condition only and the proposed systems are designed to intercept and convey all onsite nuisance and storm flows up to a 100-year storm event.

Comment 8: Sheet C3.02 and Sheet C3.04: Per the plan, the finished grade outside PR BUILDING 2 is in general higher than the FFE=2821.20. However, the detail section shows the finished grade is flush with the FFE which is not accurate. Review and revise accordingly.

Response: **Details D and F** on **Sheet C3.04** have been corrected to show the finished grade adjacent to the building above the proposed finished floor. Refer to the revised improvement plans in **Appendix C**.

Comment 9: Provide a note on the grading plans: “All onsite storm drains and the associated storm facilities are privately owned and to be privately maintained by the property owner”.

Response: The grading plans has been revised to include the following note at the bottom of each sheet: “All onsite storm drain systems are privately owned and to be privately maintained by the property owner.” Refer to the improvement plans in **Appendix C**.

Comment 10: Add a note in all pertinent sheets for the construction of all storm drain drop inlets per a newly adopted USDCCA Drawing No. 421 (Stormwater Quality Management Stamp and Sign Detail).

Response: Storm Drain Construction Note 5 previously included reference to USDCCA Drawing No. 421. Sheet C3.01 has been revised to include the following note: “All storm drain drop inlets to be constructed per newly adopted USDCCA Drawing No. 421 (Stormwater Quality Management Stamp and Sign Detail).” Refer to the revised improvement plans in **Appendix C**.

Comment 11: Add Standard Note No. 6 to the “Stormwater Management Notes” column on the General Notes Sheet (C0.02): Post-Construction BMPs (PCBMPs) / Control Measures noted on the Grading Plans are mandatory permanent regulatory stormwater pollution controls. These PCBMPs must be installed per the approved plans and must be permanently maintained.

Response: **Standard Note No. 6** has been added to the “Stormwater Management Notes” column on the General Notes **Sheet C0.02** in **Appendix C**.

Additional Responses: Due to an existing waterline conflict, the invert for DI#3 and downstream manhole elevation was revised and the WSPG model was updated accordingly (**LAT2.WSW**) in **Appendix B**. Note that the HGL has been designed to be at least 1-foot below existing finished grade. All proposed facilities for the have been shown on **Figure WSPG** in **Appendix A** and the plans included in **Appendix C**

With Kimley-Horn, you should expect more and will experience better. Please contact me at (702) 734-5666 or rachael.dennis@kimley-horn.com should you have any questions or need any additional information.

Sincerely



Rachael R. Dennis, PE .



Abhusan Achhami, Analyst

LIST OF APPENDICES

Appendix A – Documents & Figures

- WSPG WSPG Exhibit
- Corrected NOFA (21-0793-CRG1)
- Justification Letter
- Preliminary Record of Survey

Appendix B – Hydraulic Calculations

- WSPG Model
 - PStorage Lateral 2 (LAT2.WSW)

Appendix C – Improvement Plans

Appendix D – Data CD