CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



Mayor Timothy M. Keller

March 12, 2025

Mark H. Burak, P.E. 1512 Sagebrush Trail SE Albuquerque, NM 87123

RE: North Coors Self Storage 615 Coors Blvd NW Permanent C.O. – Accepted Engineer's Certification Date: 02/11/2025 Engineer's Stamp Date: 01/07/20 Hydrology File: J10D047

Dear Mr. Burak:

Based on the Certification received 3/6/2025 and the site visit on 3/12/2025, this letter serves as
a "green tag" from Hydrology Section for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

Albuquerque If you have any questions, please contact me at 505-924-3314 or <u>amontoya@cabq.gov</u>.

NM 87103

www.cabq.gov

Sincerely, anthe Mart

Anthony Montoya, Jr., P.E., CFM Senior Engineer, Hydrology Planning Department, Development Review Services



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Glenrio Rd NW Softball Photinia PI NW a PI NW

VICINITY MAP J-10Z



FEMA FIRM 329H

Site Location - As shown by the Vicinity Map (Zone Atlas Map J-10), the proposed 2.2646 acre RV storage facility is located on a single parcel west of Coors Boulevard and south of Fortuna Road on Albuquerque's west side. At present, the site is undeveloped and drains roughly from south to north.

Legal Description -Portion of Tract Q-4, Atrisco Business Park Unit 4, City of Albuquerque, New Mexico.

Benchmark - Basis of elevation is from City of Albuquerque bench mark "23-J11" with elevation stamped 5,095.705 feet, NAVD 1988.

Flood Zone - As shown by Panel 329H of 825 of the National Flood Insurance Program Flood Insurance Rate Maps (FIRM) for the City of Albuquerque, New Mexico, dated August 16, 2012, this site does not lie within a designated flood hazard zone.

Existing Conditions - Currently, the project site is relatively flat and drains from north to south across the fully developed property. Near the southwest portion, a 78-inch diameter RCP storm drain traverses through the site to discharge into the Cedar Ridge Pond. A single Type C 8-foot diameter storm drain manhole is on the property in this area. A large flat top concrete cover with inlet allows localized runoff to enter the storm drain. Almost all of the existing storage unit complex does drain to this inlet. Two other locations show that the storage unit complex discharges onto the subject property.

Proposed Grading - The Grading and Drainage Plan shows 1) historical and as-built grades indicated by spot elevations and contours; 2) the limit of existing and as-built improvements. The ensuing area will be graded and lined with gravel to flow south and west to the historical drainage outfall points within the existing storm drain system. All runoff is to be collected and contained within the subject property and discharged to the existing storm drain. To obtain a positive slope of at least one-half percent, the existing flat top concrete inlet was removed and replaced with a new grated manhole lid inlet. To provide delineation of the storage unit spaces, a 18-inch concrete estate curb is proposed along the entrances to each space. Two elevated concrete curb islands will be constructed to delineate the limits of the internal RV storage area.

Water and sewer are to be extended to existing facilities as shown on the Plan.

Hydrologic Methods - The drainage basin map shows three offsite and seven separate onsite subbasins A-H to assess peak flow rates at various points around the project site culminating at either the existing storm drain inlet. The calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The process outlined in the DPM, Chapter 6 was used to quantify the peak flow rates and volumes. As shown by these calculations, the fully developed improvements will result in an increase in runoff generated by the site. Downstream capacity is sufficient to carry the entire peak runoff generated by the design storm.

The subject property will increase the existing peak runoff by about three cubic feet per second as shown on the calculations assuming 100% treatment D for all offsite basins and treatment C for all onsite basins. A spreadsheet for Precipitation Zone 1 is included on this plan. This spreadsheet outlines the peak runoff and volume generated for each subbasin for existing and proposed fully developed conditions.

Erosion Control Measures - The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property. This can be achieved by constructing temporary berms at the property lines and wetting the soil to keep it from blowing. The contractor shall promptly lean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street. The contractor shall secure "Topsoil Disturbance Permits" prior to beginning construction.

CONSTRUCTION NOTES:

- 1. Two working days prior to any excavation, contractor must contact line locating service at 765-1234 for location of existing utilities.
- 2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.
- 3. All work on this project shall be performed in accordance with applicable federal, state, and local laws, rules and regulations concerning construction safety and health.
- 4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque standards and procedures.
- 5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete or may be obsolete by the time construction commences. The Engineer has undertaken no field verification of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines, and makes no representation pertaining thereto, and assumes no responsibility or liability therefore. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is responsible for any and all damage caused by its failure to locate, identify, and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with the state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
- 6. An excavation/construction permit will be required before beginning any work within City right-ofway. An approved copy of these plans must be submitted at the time of application for this permit.
- 7. Maintenance of these facilities shall be the responsibility of the owner of the property served.



National Flood Hazard Layer FIRMette





SCALE: \equiv ΖU

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| TRAPEZOIDAL CHANNEL | | | | | | | | | | | |
|--|----------------------------------|---|--|---|--|--|--|--|--|--|--|
| Normal depth and critical depth parameters | | | | | | | | | | | |
| Internal Inverted Crown Near Inlet | | | | | | | | | | | |
| Input variables: | | Output Parameters: | | | | | | | | | |
| Discharge6.42Channel slope0.00500Manning's n0.035Bottom width0Left side slope50Right side slope50Curve Radius1000 | cfs ft/ft H:1 H:1 ft | Normal depth Normal velocity Froude number Critical Depth EGL Depth Scour Depth Superelevation Freeboard Channel Depth Sequent Depth | 0.37 0.94 0.38 0.26 0.38 0.75 0.00 2.02 2.39 0.23 | ft fps ft ft ft ft ft ft ft | | | | | | | |
| Note: Freeboard = (2+0.025(velocity)(depth)^(1/3)) BURAK | | | | | | | | | | | |
| For a complete listing of FREE OPEN AREAS and WEIR PERIMETERS of all NEENAH grates, refer to pages 327-332. R-2556 Inlet Frame, Grate Heavy Duty With $\frac{CALLOG GAPTE FT 14}{15256}$ Standard Grate (shown): Type 6 Alternate Grate(s): $\frac{V_{YPP} F Conceve}{V_{YPP} F Conceve}$ Available Lid: R-1556 | | | | | | | | | | | |

NEENAH GRATED INLET DETAIL

| RECTANGULAR GRATE DROP INLET SUMP CONDITION | | | | | | | | | | | |
|---|--------|---------------|--------------|----------|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
| -low depth, y | 0.25 | teet | | | | | | | | | |
| Grate Open area, A | 6.70 | sy.n. foot | Weir flow | 2.50 cfs | | | | | | | |
| Cloading percentage | 0.5 | % | Orifice flow | 4.01 cfs | | | | | | | |
| | 5.0 | | | 6.5 cfs | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 1. Orifice condition depends on bar config., grate size, depth. | | | | | | | | | | | |
| 2. Equations from FHWA H | IEC-12 | dated Ma | rch, 1984. | BURAK | | | | | | | |





SANITARY DUMP STATION DETAILS





| Hydrologic | c Calculations - COA DPM 22.2 (100-Year, 6-Hour Storm) North Coors Self Storage - Phase 4 | | | | | | | | | | | | | | | | | | |
|------------------------|---|--------------------------|------------|-----------|----------|-----------|----------|-----------|-------------------|-------------------|------------------|------------------------|-----------|------------|-------------|----------|-----------|-------------------|------------------------|
| Burak Con | DPM Che | Table 6 2 | P60 | P360 | P1440 | P4days | P10days | | | Precipitation | (DPM Ch6 | Table 6 2 | P60 | P360 | P1440 | P4days | P10days | February 2025 | |
| Zone 1 | | | 1 69 | 2 17 | 2 49 | 3 12 | 3 9 | | | Zone 1 | | | 1 69 | 2 17 | 2 49 | 3 12 | 3.9 | | |
| Excess | (DPM Che | 6 Table 6.7) | | | | | 0.0 | | | Excess | (DPM Ch6 | Table 6.7) | | | | | 010 | | |
| Precipitation | 0.55 | inches-A | 0.73 | inches-B | 0.95 | inches-C | 2.24 i | nches-D | | Precipitation | 0.55 | inches-A | 0.73 | inches-B | 0.95 | inches-C | 2.24 | inches-D | |
| Peak Discharge | (DPM Ch6 1.54 | 6 Table 6.8) cfs/ac-A | 2.16 | cfs/ac-B | 2.87 | cfs/ac-C | 4.12 (| cfs/ac-D | | Peak Discharge | (DPM Ch6 1.54 | Table 6.8) cfs/ac-A | 2.16 | cfs/ac-B | 2.87 | cfs/ac-C | 4.12 | cfs/ac-D | |
| | | | | | | | | | | | | | | | | | | | |
| Drainage | Land Trea | atments - Ex | xisting C | Condition | s | | | | | Land Treat | ments - Ful | ly Develop | oed Con | ditions | | | | | Drainage |
| Areas | A | Percent A | В | Percent B | С | Percent C | D | Percent D | Area (sf) | A | Percent A | В | Percent B | С | Percent C | D | Percent D | Area (sf) | Areas |
| Offsite 1 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 0.97 | 100% | 42,409 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 0.97 | 100% | 42,409 | Offsite 1 |
| Offsite 2 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 0.83 | 100% | 36,302 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 0.83 | 100% | 36,302 | Offsite 2 |
| Offsite 3 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 0.59 | 100% | 25,675 104 386 | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 0.59 | 100% | 25,675 104 386 | Offsite 3 |
| | | | | | | | | | 104,000 | | | | | | | | | 104,000 | |
| Basin A | 0.17 | 100% | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 7,497 | 0.00 | 0% | 0.00 | 0% | 0.17 | 97% | 0.01 | 3% | 7,497 | Basin A |
| Basin B Basin C | 0.39 | 100% | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 15,784 | 0.00 | 0% | 0.00 | 0% | 0.39 | 100% | 0.00 | 0% | 15,784 | Basin C |
| Basin D | 0.40 | 100% | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 17,445 | 0.00 | 0% | 0.00 | 0% | 0.28 | 70% | 0.12 | 30% | 17,445 | Basin D |
| Basin E Basin F | 0.25 | 100% | 0.00 | 0% 0% | 0.00 | 0% 0% | 0.00 | 0% | 10,810 10 181 | 0.00 | 0% 0% | 0.00 | 0% 0% | 0.25 | 100% 85% | 0.00 | 0% 15% | 10,810 | Basin E Basin F |
| Basin G | 0.23 | 100% | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 10,224 | 0.00 | 0% | 0.00 | 0% | 0.13 | 55% | 0.11 | 45% | 10,224 | Basin G |
| Basin H | 0.20 | 100% | 0.00 | 0% | 0.00 | 0% | 0.00 | 0% | 8,746 | 0.00 | 0% | 0.00 | 0% | 0.20 | 100% | 0.00 | 0% | 8,746 | Basin H |
| | | | | | | | | | 97,003 | | | | | | | | | 97,003 | |
| | Deals Els | Boto Est | ting O- | ditions | | | | | 400 | Dock Elem | Data Davi | lanad Q- | litions | | | | | 400 | |
| Discharge | Peak Flow | / Rate - Exis | sting Con | aitions | ~ | | | | 100 yr | Peak Flow I | Rate - Devel | opea Conc | aitions | 0 | | | | 100 yr | Dischargo |
| Discharge | A | | | | <u> </u> | | <u> </u> | | Q (CIS) | А | | | | <u> </u> | | <u> </u> | | Q (CIS) | Discharge |
| Offsite 1 | 0.00 | | 0.00 | | 0.00 | | 4.01 | | 4.0 | 0.00 | | 0.00 | | 0.00 | | 4.01 | | 4.0 | Offsite 1 |
| Offsite 2 Offsite 3 | 0.00 | | 0.00 | | 0.00 | | 3.43 | | 3.4 | 0.00 | | 0.00 | | 0.00 | | 3.43 | | 3.4 | Offsite 2 Offsite 3 |
| | | | | | | | | | 9.9 | | | | | | | | | 9.9 | |
| Desir A | 0.07 | | 0.00 | | 0.00 | | 0.00 | | 0.2 | 0.00 | | 0.00 | | 0.49 | | 0.00 | | 0.5 | Desir A |
| Basin A Basin B | 0.27 | | 0.00 | | 0.00 | | 0.00 | | 0.3 | 0.00 | | 0.00 | | 1.12 | | 0.02 | | 1.1 | Basin B |
| Basin C | 0.56 | | 0.00 | | 0.00 | | 0.00 | | 0.6 | 0.00 | | 0.00 | | 1.04 | | 0.00 | | 1.0 | Basin C |
| Basin D | 0.62 | | 0.00 | | 0.00 | | 0.00 | | 0.6 2.0 | 0.00 | | 0.00 | | 0.80 | | 0.49 | | 1.3 4.0 | Basin D |
| Basin E | 0.38 | | 0.00 | | 0.00 | | 0.00 | | 0.4 | 0.00 | | 0.00 | | 0.71 | | 0.00 | | 0.7 | Basin E |
| Basin F | 0.36 | | 0.00 | | 0.00 | | 0.00 | | 0.4 | 0.00 | | 0.00 | | 0.57 | | 0.14 | | 0.7 | Basin F Basin G |
| Basin H | 0.30 | | 0.00 | | 0.00 | | 0.00 | | 0.4 | 0.00 | | 0.00 | | 0.58 | | 0.44 | | 0.6 | Basin H |
| | | | | | | Total | | | 3.14 | | | | | | Total | | | 6.19 | |
| | | | | | | | | | | | | | | | | | | | |
| Volume | Runoff Vo | lume - Existi | ing Cond | litions | | | | | 100 yr | Runoff Volu | ıme - Develo | oped Condi | itions | | | | | 100 yr | Volume |
| | Six Hour | Storm Even | nt | | | | | | V (cu-ft) | Six Hour S | torm Event | | | | | | | V (cu-ft) | |
| Offsite 1 | 0 | | 0 | | 0 | | 7,916 | | 7,916 | 0 | | 0 | | 0 | | 7,916 | | 7,916 | Offsite 1 |
| Offsite 3 | 0 | | 0 | | 0 | | 4,793 | | 4,793 | 0 | | 0 | | 0 | | 4,793 | | 4,793 | Offsite 3 |
| | 0.1.1 | | <u>,</u> | | <u>_</u> | | | | 19,485 | | | | | 570 | | 40 | | 19,485 | |
| Basin A Basin B | 344 778 | | 0 | | 0 | | 0 | | 344 778 | 0 | | 0 | | 1.344 | | 42 0 | | 1.344 | Basin A Basin B |
| Basin C | 723 | | Ō | | 0 | | 0 | | 723 | 0 | | Ō | | 1,250 | | 0 | | 1,250 | Basin C |
| Basin D Basin F | 800 495 | | 0 | | 0 | | 0 | | 800 495 | 0 | | 0 | | 967 856 | | 977 | | 1,944 | Basin D Basin F |
| Basin F | 467 | | 0 | | 0 | | 0 | | 467 | 0 | | Ö | | 685 | | 285 | | 970 | Basin F |
| Basin G | 469 | | 0 | | 0 | | 0 | | 469 | 0 | | 0 | | 445 | | 859 | | 1,304 | Basin G |
| Basin H | 401 | | U | | U | | U | | 401 | U | | U | | 692 | | U | | 8,285 | Basin H |
| | | | | | | | | | | | | | | | | | | | |
| Volume | Runoff Volu | me - Existing C | Conditions | | | | | | 100 yr / 10 day | Runoff Volum | e - Developed | Conditions | | | | | | 100 yr / 10 day | Volume |
| Offeite 4 | Ten Day S | storm Even | τ | | | | | | V (cu-ft) | Ten Day St | orm Event | | | | | | | V (cu-ft) | Offsite 1 |
| Offsite 2 | | | | | | | | | 12,010 | | | | | | | | | 11,102 | Offsite 2 |
| Offsite 3 | | | | | | | | | 8,494 | | | | | | | | | 7,852 | Offsite 3 |
| Peoin 4 | | | | | | | | | 244 | | | | | | | | | 644 | Basin A |
| Basin A Basin B | | | | | | | | | 544 778 | | | | | | | | | 1,344 | Basin B |
| Basin C | | | | | | | | | 723 | | | | | | | | | 1,250 | Basin C |
| Basin D Basin F | | | | | | | | | 800 495 | | | | | | | | | 2,567 856 | Basin D Basin E |
| Basin F | | | | | | | | | 467 | | | | | | | | | 1,152 | Basin F |
| Basin G | | | | | | | | | 469 | | | | | | | | | 1,852 | Basin G Basin H |
| Dasin H | | | | | | | | | 401 4.476 | | | | | | | | | 10.358 | Βασίη Π |
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HYDROLOGIC CALCULATIONS

