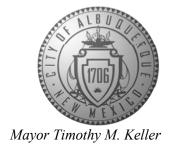
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



6/25/2025

Jesus Lopez, P.E. Smith Engineering Company 2201 San Pedro Dr NE Albuquerque, NM 87110

RE: Isleta Amphitheater Additional Parking

5601 University Blvd. SE

Drainage Plan

Engineer's Stamp Date: 7/23/2025

Hydrology File: R15D002C Case # HYDR-2025-00222

Dear Mr. Lopez:

Based upon the information provided in your submittal received 7/23/2025, the Drainage Plan is approved for Grading and Building Permit.

PO Box 1293

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to

Albuquerque

any earth disturbance.

NM 87103

If you have any questions, please contact me at 924-3695 or tchen@cabq.gov.

Sincerely,

www.cabq.gov

Tiequan Chen, P.E.

Principal Engineer, Hydrology

Planning Department, Development Review Services

BACKGROUNI

THE ISLETA AMPHITHEATER ADDITIONAL PARKING LOT PROJECT WILL INCREASE THE PARKING COUNT BY A TOTAL OF 2,500 SPACES AT FULL BUILD OUT IN SUPPORT OF EVENTS HELD AT THE ISLETA AMPHITHEATER. THE PROPOSED DEVELOPMENT IS AN APPROXIMATELY 10-AC PARKING LOT AND ASSOCIATED ACCESS ROADS ALONG WITH A PEDESTRIAN TRAIL FROM THE PARKING LOT TO THE AMPHITHEATER ENTRANCE. FEMA FLOODWAY MAP DATED SEPTEMBER 26, 2008 INDICATES THE SITE IS LOCATED WITHIN FEMA FLOOD ZONE X, AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

THE PROPOSED PARKING LOT IS SITUATED ABOVE THE CLOSED 'SOUTH BROADWAY LANDFILL' WHICH WAS OPERATED BY THE COUNTY UNTIL 1989. SINCE THEN, POST-CLOSURE MONITORING WAS HELD AT THE SITE UNTIL 2022. COORDINATION WITH NMED IS UNDERWAY FOR PERMITTING OF THE CONSTRUCTION ACTIVITIES ON THE CLOSED LANDFILL. THIS PROJECT PROPOSES FILL CONSTRUCTION ONLY WITHIN THE LANDFILL BOUNDARY TO REDUCE THE RISK OF UNCOVERING LANDFILL TRASH AND DEBRIS.

BECAUSE THE SITE IS SITUATED ON THE CLOSED LANDFILL, INFILTRATION INTO THE LANDFILL IS NOT RECOMMENDED. THEREFORE, STORMWATER RETENTION AND WATER QUALITY VOLUMES ARE NOT RECOMMENDED FOR THIS DEVELOPMENT.

METHODOLOG'

THE CITY OF ALBUQUERQUE DPM CHAPTER 6 WAS USED TO PERFORM HYDROLOGIC CALCULATIONS FOR THE SITE. THE SITE IS SITUATED WITHIN ZONE 2 OF THE DPM'S PRECIPITATION ZONES. THE PEAK FLOW RATES WERE DEVELOPED FOR THE 100-YEAR DESIGN STORM USING TABLE 6.2.14 AND EQUATION 6.6. AS THESE BASINS ARE RELATIVELY SMALL, CONVEYANCE ROUTING WAS NOT CONDUCTED AND THE TOTAL FLOW RATE IS THE SIMPLE SUMMATION OF THE BASINS. THE 100-YEAR 6-HOUR VOLUME WAS CALCULATED USING TABLE 6.2.13 AND EQUATIONS 6.1 AND 6.2. RETENTION PONDS ARE NOT RECOMMENDED FOR THIS DEVELOPMENT, THEREFORE THE 100-YEAR 6-HOUR VOLUMES ARE USED FOR COMPARISON.

BASINS LABELED "EX" AND "PR" ARE EXISTING AND PROPOSED BASINS WITHIN THE PROJECT BOUNDARY. BASINS LABELED "OFF EX" AND "OFF PR" ARE OFFSITE EXISTING AND PROPOSED CONTRIBUTING BASINS TO THE PROJECT SITE.

EXISTING CONDITIONS

THE PROJECT AREA IS MOSTLY BARREN LAND WITH SPARCE BRUSH VEGETATION AND SANDY SOILS. THE LANDFILL AREA HAS MINIMAL VEGETATIVE COVER AND IS HIGHLY DISTURBED BY VEHICULAR TRAFFIC. IN GENERAL, THE SITE SLOPES FROM SOUTHEAST TO NORTHWEST INTO A TRIBUTARY CHANNEL TO THE TIJERAS ARROYO, APPROXIMATELY ONE MILE DOWNSTREAM OF THE PROJECT. THE SLOPES VARY FROM FLAT AREAS (0% TO 4%) TO EMBANKMENT SIDE SLOPES (33% TO 50%).

THERE ARE TWO EXISTING ASPHALT ROADS WITHIN THE PROJECT BOUNDARY - THE MESA DEL SOL (MDS) "NORTH-SOUTH" ROAD AND THE "EAST PARKING ACCESS" ROAD. THESE ROADS PRIMARLY CONTRIBUTE TO THE EXISTING CONDITIONS IMPERVIOUS AREAS, ALONG WITH VARIOUS FEATURES SUCH AS TANKS, SHEDS, CONCRETE PADS, ETC.

BASIN EX1 ENCOMPASSES MOST OF THE PROJECT THAT IS SITUATED WITHIN THE LANDFILL. IN GENERAL, THIS BASIN IS HIGHLY DISTURBED AND SHEET FLOWS STORMWATER FROM SOUTH TO NORTH. THE STORMWATER EVENTUALLY DRAINS INTO THE TRIBUTARY TO THE TIJERAS ARROYO.

BASIN EX2 IS A SMALLER BASIN BETWEEN EX1 AND THE ISLETA AMPHITHEATER. THIS BASIN IS ROUTED VIA EXISTING CHANNELS INTO A SERIES OF BASINS BEFORE OVERTOPPING THE EXISTING EAST PARKING ACCESS ROAD AND INTO THE TRIBUTARY BRANCH OF THE TIJERAS ARROYO.

BASINS OFF EX1, OFF EX2, AND OFF EX3 ARE CONTRIBUTING BASINS TO THE PROJECT SITE. THESE BASINS ARE PART OF THE MDS REGIONAL SPORTS COMPLEX DRAINAGE MASTER PLAN WHICH ARE PROPOSED TO PROVIDE FULL RETENTION OF THE 100-YEAR 10-DAY STORMWATER VOI UMF

BASIN OFF EX4 IS A PORTION OF THE MDS NORTH-SOUTH ROAD WHICH DRAINS INTO THE PROJECT SITE.

DEVELOPED CONDITIONS

UNDER DEVELOPED CONDITIONS, THE PARKING LOT WILL BE SURFACED WITH PERVIOUS BASECOURSE. THE EAST PARKING ACCESS ROAD WILL BE RECONSTRUCTED TO PROVIDE SMOOTH ROAD SLOPES INTO THE PARKING LOT. A 12 FT WIDE PEDESTRIAN PATH WILL BE INSTALLED TO PROVIDE ACCESS FROM THE PARKING LOT TO THE ENTRANCE OF THE ISLETA AMPHITHEATER. THE PARKING LOT WILL BE GRADED TO PROMOTE IMMEDIATE RUNOFF OF STORMWATER (APPROXIMATELY 3%) MINIMIZING INFILTRATION INTO THE CLOSED LANDFILL. A SWALE WILL BE INSTALLED AT THE NORTH SIDE OF THE PARKING LOT TO CAPTURE SURFACE SHEET FLOW RUNOFF FROM THE PARKING LOT AND CONVEY IT INTO THE TRIBUTARY BRANCH OF THE TIJERAS ARROYO. ADDITIONALLY, A CULVERT WILL BE INSTALLED TO ALLEVIATE THE OVERTOPPING OF THE EAST PARKING ACCESS ROAD FROM BASIN EX2. A SWALE WILL ALSO BE INSTALLED ON THE EAST SIDE OF THE RECONSTRUCTED EAST PARKING ACCESS ROAD TO CONVEY STORMWATER INTO THE NEW CULVERT INSTEAD OF OVERTOPPING THE ROAD.

BASIN PR1 AND PR 3 ARE DIVIDED FROM EX1 WITH THE IMPLEMENTATION OF THE RECONSTRUCTED EAST PARKING ACCESS ROAD. PR1 WILL SURFACE DRAIN INTO A SWALE ON THE NORTH SIDE OF THE PARKING LOT AND DISCHARGE INTO THE TRIBUTARY BRANCH OF THE TIJERAS ARROYO DOWNSTREAM OF THE PROPOSED CULVERT CROSSING THE EAST PARKING ACCESS ROAD.

BASIN PR2 INCLUDES THE ADDITION OF A 12-FT WIDE PEDESTRIAN PATH AND ASSOCIATED GRADING IMPROVEMENTS. THE NEW CULVERT WILL PICK UP THE FLOWS GENERATED FROM THIS BASIN AND CONVEY THEM UNDER THE EAST PARKING ACCESS ROAD INTO THE TRIBUTARY BRANCH OF THE TIJERAS ARROYO.

BASIN PR3 WILL CONVEY STORMWATER VIA THE NEW SWALE INTO THE UPSTREAM SIDE OF THE NEW CULVERT. PR3 CONTAINS SEVERAL NATURAL CHANNELS THAT WILL REMAIN UNDISTURBED AND CONVEY STORMWATER INTO THE UPSTREAM SIDE OF THE NEW CULVERT.

BASINS OFF PR1, OFF PR2, AND OFF PR3 INCLUDE RETENTION PONDS THAT CAPTURE THE FULL FLOW OF THE 100-YEAR DESIGN STORM PER THE MDS DRAINAGE MASTER PLAN. THESE VOLUMES ARE ELIMINATED FROM THE BASINS COMPARISON TABLE AS SHOWN BELOW.

BASIN OFF PR4 REMAINS UNCHANGED AND SURFACE FLOWS INTO BASINS PR2 AND PR3

HYDROLOGY BASIN CALCULATIONS											
BASIN ID	AREA (AC)	LAND TREATMENT %				Q (100-YR)	V (100YR-6HR)				
		Α	В	С	D	(CFS)	(AC-FT)				
EXISTING											
EX1	50.1	50%	20%	28%	2%	113.6	3.4				
EX2	5.5	20%	39%	39%	2%	14.0	0.4				
OFFEX1	2.0	0%	1%	81%	18%	6.6	0.2				
OFFEX2	3.0	0%	21%	47%	32%	10.0	0.3				
OFFEX3	2.3	0%	10%	60%	30%	7.7	0.3				
OFFEX4	1.7	0%	0%	63%	37%	6.0	0.2				
TOTAL EX	64.6					157.8	4.8				
PROPOSED											
PR1	39.9	50%	18%	30%	2%	91.0	2.7				
PR2	5.5	20%	38%	38%	4%	14.1	0.4				
PR3	10.2	30%	34%	34%	2%	24.9	0.7				
OFFPR1	2.0	0%	1%	81%	18%	6.6	0.2				
OFFPR2	3.0	0%	21%	47%	32%	10.0	0.3				
OFFPR3	2.3	0%	10%	60%	30%	7.7	0.3				
OFFPR4	1.7	0%	0%	63%	37%	6.0	0.2				
TOTAL PR	64.6					160.3	4.9				

PR3.											
BASINS COMPARISON											
BASIN ID CALCUL		TED FLOW		D W/ MDS JECT	TOTAL FLOW AT DISCHARGE POINT						
EXISTING	Q	V	Q	V	Q	V					
EX1	113.6	3.4			113.6	3.4					
EX2	14.0	0.4			14.0	0.4					
OFFEX1	6.6	0.2			6.6	0.2					
OFFEX2	10.0	0.3			10.0	0.3					
OFFEX3	7.7	0.3			7.7	0.3					
OFFEX4	6.0	0.2			6.0	0.2					
TOTAL EX	157.8	4.8	0.0	0.0	157.8	4.8					
PROPOSED	Q	V	Q	V	Q	V					
PR1	91.0	2.7			91.0	2.7					
PR2	14.1	0.4			14.1	0.4					
PR3	24.9	0.7			24.9	0.7					
OFFPR1	6.6	0.2	6.6	0.2	0.0	0.0					
OFFPR2	10.0	0.3	10.0	0.3	0.0	0.0					
OFFPR3	7.7	0.3	7.7	0.3	0.0	0.0					
OFFPR4	6.0	0.2			6.0	0.2					
TOTAL PR	160.3	4.9	24.3	0.8	136.1	4.1					

