DRAINAGE NARRATIVE

THE SITE IS LOCATED AT THE INTERSECTION OF CENTRAL AVE AND NEW YORK AVE, EAST OF THE ALBUQUERQUE AQUARIUM AND BIOPARK. THE APPROXIMATELY 2.8 ACRES OF THE ENTIRE DEVELOPMENT IS CURRENTLY FULLY DEVELOPED AND CONSISTS OF TWO COMPONENTS; THE EXISTING EL VADO SITE (SOUTHERN 1.32 ACRES) AND THE NEW CASA GRANDE TRACTS (NORTHERN 1.47 ACRES).

PER FEMA MAP PANEL #35001C0331H (THIS SHEET), THE SITE IS LOCATED WITHIN A FEMA DESIGNATED FLOOD ZONE "A". THIS MEANS THAT THE SITE IS SUBJECT TO FLOODS ON AN AVERAGE OF 1 FOOT OR LESS.

THE TWO PROJECTS (EL VADO AND CASA GRANDE) WILL BE PERMITTED SEPARATELY HOWEVER THIS DRAINAGE MANAGEMENT PLAN WILL COVER THE DRAINAGE SCHEME FOR BOTH DEVELOPMENTS. STAMPED AND

THE SITE IS LOCATED IN THE CITY OF ALBUQUERQUE, THEREFORE, THE THE SITE'S PROPOSED DRAINAGE. PRECIPITATION ZONE 2 WAS USED DUE PER SECTION 22.2. THE ONSITE STORM DRAINS WERE SIZED BASED OFF OF MANNING'S EQUATION. THE ONSITE INLETS WERE SIZED WITH THE INLETS IN SUMP CONDITION AND USING MANUFACTURER PROVIDED

THE CURRENT CONDITIONS OF THE SITE ARE EXTREMELY FLAT. BASED ON THE EXISTING SURVEY THERE ARE A NUMBER OF EXISTING INLETS LOCATED AT THE INTERSECTION OF CENTRAL AND NEW YORK AVE AS WELL AS TWO ADDITIONAL CURB INLETS LOCATED WITHIN NEW YORK AVE LARGER STORM EVENTS, DRAINAGE APPEARS TO BE CONVEYED IN NEW YORK AVE. VIA SURFACE FLOW UNTIL IT HAS AN OPPORTUNITY TO DRAIN INTO FURTHER DOWNSTREAM INLETS.

## PROPOSED CONDITIONS:

BOTH THE EL VADO SITE AND CASA GRANDE SITE ARE ALLOWED TO DISCHARGE ENTIRELY TO PUBLIC INFRASTRUCTURE.

THE DEVELOPED FLOWS FOR BOTH THE EL VADO SITE AND THE CASA GRANDE SITE WILL CONTINUE TO DRAIN TO THE EXISTING 18" STORM THE SITE WHICH DESCRIBED VERY LOOSE TO LOOSE SOILS PRESENT. THIS EXISTING EARTHQUAKE FAULTS ZONES, THE SITE HAS POTENTIAL FOR WOULD PREVENT ONSITE PONDING. SHALLOW WATER HARVESTING AREAS (LESS THEN 6") WILL BE PLACED THROUGHOUT THE LANDSCAPING AREAS AND MEDIAN ISLANDS IN AN ATTEMPT TO MEET THE "FIRST FLUSH" REQUIREMENTS BY THE CITY; HOWEVER DUE TO THE SOIL CHARACTERSITICS NOTED ABOVE THE REQUIRED FIRST FLUSH VOLUME WILL NOT BE MET. AS AN ALTERNATIVE TO THIS REQUIREMENT, WATER QUALITY INLETS/MANHOLES WILL BE INSTALLED ONSITE STETEGICALLY PLACED UPSTREAM OF THE POINT OF CONNECTION TO THE CITY SYSTEM

BASED ON THE PROPOSED SITE GRADING, THE SITE WILL BE DIVIDED INTO 13 ONSITE BASINS. BASIN 4 CONSISTS OF MOSTLY LAND WITHIN THE RIGHT OF WAY, AS SUCH WAS DESIGNED TO SURFACE FLOW AND DISCHARGE DIRECTLY TO CENTRAL AVE TO THE WEST.

BASIN 1 CONTRIBUTES TO A SMALL POND ALONG THE EASTERN PORTION OF THE CASA GRANDE PROPERTY, THIS THEN ULTIMATELY OUTFALLS INTO THE ADJACENT HAMMERHEAD ROAD. BASIN 2 AND 3 DISCHARGE INTO AREA INLETS WITHIN THE CASA GRANDE PARKING LOT. THIS FLOW THEN CONNECTS TO THE EXISTING STORM DRAIN WITHIN NEW YORK AVE. BASIN 5 DISCHARGES INTO A CURB INLET ALONG THE WESTERN PORTION OF THE CASA GRANDE SITE. THIS STORM DRAIN THEN DIRECTLY CONNECTS TO THE EXISTING STORM DRAIN WITHIN NEW YORK AVE. AS WELL.

BASINS 6, 7, AND 8 DISCHARGE TO AREA INLETS WITHIN THE FIRE ACCESS ROAD OR PARKING LOT. THIS FLOW THEN CONNECTS TO THE EXISTING STORM DRAIN AT THE SAME MANHOLE AS BASINS 2 AND 3. BASINS 9, 10, 11 AND 12 ARE ALL SMALL BASINS CONTRIBUTING TO SMALLER DOME INLETS AROUND THE POOL AREA AND COURTYARD ON THE EL VADO SITE. BASIN 13 INCLUDES THE AMPHITHEATER WHICH WILL CONNECT TO THE ONSITE STORM DRAIN. BASINS 9, 10, 11, 12, AND 13 ALL DISCHARGE TO THE BACK OF AN EXISTING INLET WITHIN CENTRAL AVE.

INLET 1 ON THE CASA GRANDE SITE IS A WATER QUALITY INLET PER THE CITY OF ALBUQUERQUE HYDROLOGY DEPARTMENT'S REQUIREMENT. THIS INLET WILL TREAT BASIN 2 AND 3

INLET 4 WITHIN THE MEDIAN LANDSCAPE IS ANOTHER PROPOSED WATER QUALITY INLET AND WILL BE USED TO TREAT BASINS 6, 7 AND 8.

A WATER QUALITY MANHOLE LOCATED ON THE WESTERN SIDE OF EL VADO WILL BE CONSTRUCTED PER THE SAME HYDROLOGY REQUIREMENT. THIS MANHOLE IS THE FURTHEST POINT DOWNSTREAM ON THE EL VADO SITE.

THIS DRAINAGE MANAGEMENT PLAN AND GRADING PLANS DEMONSTRATE THAT THE DRAINAGE ELEMENTS PROPSOED WITH THE PROJECT ARE CAPABLE OF SAFELY CONVEYING THE 100 YEAR, 6 HOUR STORM EVENT IN ACCORDANCE WITH THE DEVELOPMENT PROCESS MANUAL. WITH THIS SUBMITTAL WE ARE SEEKING CITY OF ALBUQUERQUE HYDROLOGY APPROVAL IN SUPPORT OF FOUNDATION PERMIT, BUILDING PERMIT APPROVAL AND PUBLIC WORK ORDER APPROVAL.

TS=TOP OF SIDEWALK

FGH=FINISH GROUND HIGH,

FGL=FINISH GROUND LOW

TG=TOP OF GRATE,

ONADINO LLOLIND			
	- PROPERTY LINE		PROPOSED CURB & GUTTER
	- PROJECT LIMITS OF GRADING	S=2.0%	DIRECTION OF FLOW
	EXISTING INDEX CONTOUR		WATER BLOCK/GRADE
— — —5024— — -	EXISTING INTERMEDIATE CONTOUR		BREAK PROPOSED STORM DRAIN
<b>◆</b> 5025.25	EXISTING GROUND SPOT ELEVATION	•	PROPOSED STORM DRAIN
<i>5025</i>	- PROPOSED INDEX CONTOUR		MANHOLE
502 <b>4</b>	<ul> <li>PROPOSED INTERMEDIATE CONTOUR</li> </ul>		PROPOSED STORM DRAIN INLETS
<b>●</b> 26.75	PROPOSED FINISHED GRADE		PROPOSED RETAINING WALL
<b>⊕</b> 20.70	SPOT ELEVATION TC=TOP OF CURB,		EASEMENT
	FL=FLOW LINE,		PROPOSED WATER

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PROPOSED WATER

FLUSH REQUIREMENT)

HARVESTING AREAS (FIRST

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**EROSION AND SEDIMENT** CONTROL PLAN

**ESC 101**