### CITY OF ALBUQUERQUE

*Hydrology Section Planning Department* David S. Campbell, Director



Timothy M. Keller, Mayor

January 24, 2018

Åsa Weber Isaacson & Arfman, P.A. 128 Monroe St NE Albuquerque, NM 87108

#### RE: Anderson Heights Unit 5 Park Engineer's Stamp Date: 2/15/2018 Hydrology File: N08D006C1

Dear Ms. Weber:

Based on the information provided in the submittal received on 2/15/2018 the abovereferenced Grading and Drainage Plan cannot be approved for Grading Permit until the following comments are addressed.

#### PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

- 1. A Public Sidewalk Easement must be recorded to contain the Sidewalks around the Perimeter of the site where they are located outside of the public Right of Way. The original notarized easement, covenant, and request for release of covenant must be submitted to Madeline Carruthers along with a \$25 check payable to Bernalillo County for the recording fees for each document to be recorded.
- 2. The Public Right of way and any other property lines and easements must be clearly indicated on the G&D Plan. State the source of the survey information in a note on the G&D Plan.
- 3. Typical sections must be added on the G&D Plan thru the edges of the site showing existing and proposed grade, existing and proposed improvements (Sidewalks & C&G), the property line, and maximum and minimum dimensions both vertical and horizontal. Per DPM 22.5.B, "Care should be taken to ensure that existing foundations, retaining walls, stable slopes or other structures are not endangered and that the adjacent property is not damaged or its use constrained due to grading at or near the property line" particularly on the east side.
- 4. Add a note on the plan stating that an Excavation Permit is required for all work in the Public Right of Way.

If you have any questions, please contact me at 924-3986 or jhughes@cabq.gov.

Sincerely, James D. Hugher

James D. Hughes Principal Engineer, Planning Dept. Development Review Services



## City of Albuquerque

Planning Department Development & Building Services Division DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title:	Building Permit #:	City Drainage #:		
DRB#: EPC#:		Work Order#:		
Legal Description:				
City Address:				
Engineering Firm:		Contact:		
Address:				
Phone#: Fax#:		E-mail:		
Owner:		Contact:		
Address:				
Phone#: Fax#:		_ E-mail:		
Architect:		Contact:		
Address:				
Phone#: Fax#:		E-mail:		
Other Contact:		Contact:		
Address:				
Phone#: Fax#:		E-mail:		
TYPE OF SUBMITTAL: ENGINEER ARCHITECT CERTIFICATION	PRELIMINARY PLAT APPROVAL SITE PLAN FOR SUB'D APPROVAL SITE PLAN FOR BLDG. PERMIT APPROVAL			
CONCEPTUAL G & D PLAN _X_ GRADING PLAN		T APPROVAL		
DRAINAGE MASTER PLAN		SE OF FINANCIAL GUARANTEE		
DRAINAGE REPORT		DN PERMIT APPROVAL ERMIT APPROVAL		
CLOMR/LOMR	SO-19 APPR			
		RMIT APPROVAL		
TRAFFIC CIRCULATION LAYOUT (TCL)	GRADING/ F	PAD CERTIFICATION		
TRAFFIC IMPACT STUDY (TIS)	WORK ORDE			
EROSION & SEDIMENT CONTROL PLAN (ESC)	CLOMR/LON	ЛR		
OTHER (SPECIFY)	PRE-DESIGN	MEETING		
	OTHER (SPI	ECIFY)		
IS THIS A RESUBMITTAL?: Yes X No				
DATE SUBMITTED: February 15, 2018 By:	Åsa Nilsson-Weber			

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_

	A.	ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT. WHERE APPLICABLE, CITY OF ALBUQUERQUE STANDARDS APPLY.	Н.	CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVE SHALL ONLY OBSTRUCT DESIGNATED TRAFFIC LANES IF BARRICADING PERMITS HAVE BEEN OBTAINED.
В.	THE CONTRACTOR SHALL ABIDE BY ALL STATE, LOCAL, AND FEDERAL LAWS, CODES, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA AND ADA REQUIREMENTS.		THE CONTRACTOR SHALL MAINTAIN ALL BARRICADING AN SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL BARRICADING AT THE END AND BEGIN PAVEMENT GRADES IN MARKED HANDICAPPED PARKING	
		ALL SUBGRADE, OVEREXCAVATION, BACKFILL, AND FILL SHALL BE PLACED AND / OR COMPACTED PER THE GEOTECHNICAL REPORT AND CITY OF ALBUQUERQUE SPECIFICATIONS.		EXCEED 2.0% IN ANY DIRECTION. FOR ALL ACCESSIBLE F ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGI WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY CITY CODES, WHICHEVER IS MORE STRINGENT.
	D.	COORDINATE WORK WITH SITE PLAN, PAVING PLAN, DEMOLITION PLAN, AND LANDSCAPE PLAN.	К.	ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE LEGALLY DISPOSED OF OFFSITE.
	E.	IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING OBSTRUCTIONS, AND CONDITION OF ALL EXISTING INFRASTRUCTURE PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND VERIFY THE INTENT BEFORE PROCEEDING.	L.	PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONC TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MA CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND I
	F.	CONTRACTOR SHALL OBTAIN ALL REQUIRED INSPECTIONS OF THE WORK.		EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN I MATERIAL THICKNESSES.
G.	CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT STRUCTURES RESULTING FROM	М.	MAXIMUM UNPROTECTED SLOPES SHALL BE 4:1.	
		THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING EXISTING CONDITIONS PRIOR TO CONSTRUCTION.	N.	EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY O WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CO

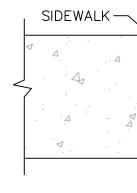
Area of basin flows =

BASIN NO.

BASIN NO. Area of basin flows =

SHALLOW DEPRESSED LANDSCAPING WILL BE CONSTRUCTED AROUND THE PERIMETER OF THE PARK WITH A MAIN PONDING AREA PROVIDED WITHIN THE NORTHEAST PORTION. THESE AREAS WILL HARVEST STORMWATER AND PROVIDE FIRST FLUSH VOLUME. THE TOTAL VOLUME REQUIRED = 148 CF (BASIN 1) + 99 CF (BASIN 2) = 247 CF

COMPLETELY COVER SCREW

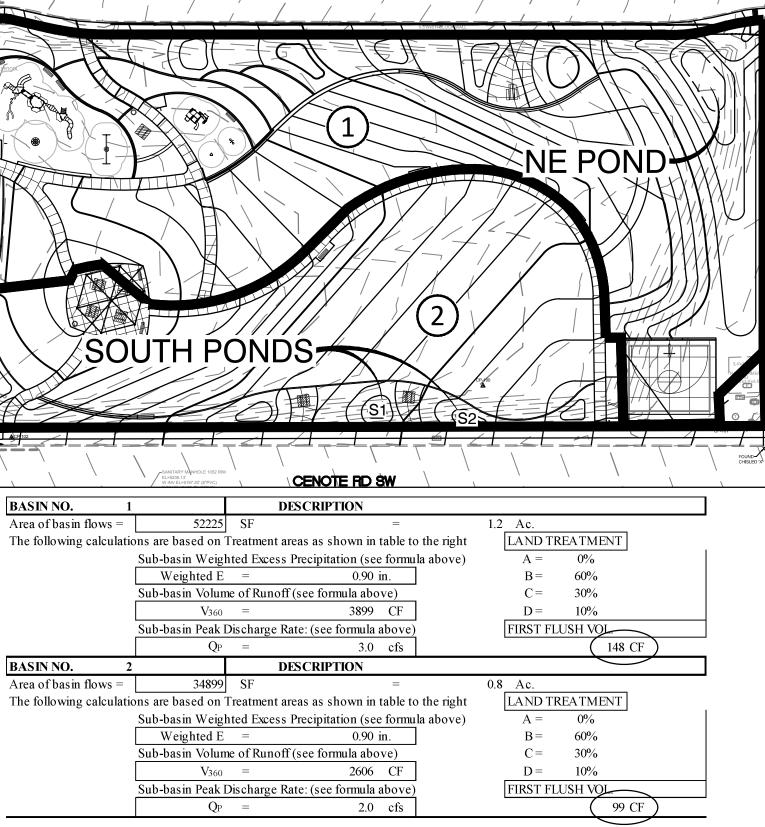




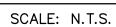
- VEWAYS. EQUIPMENT APPROPRIATE
- AND CONSTRUCTION FY THE PROPER SINNING OF EACH DAY. AREAS SHALL NOT
- ROUTES, MAXIMUM IGITUDINAL SLOPE LITY GUIDELINES OR
- BE CLEARED AND
- REPRESENT TOP OF NCRETE BUILDING PAD, MATERIAL, ETC.). DETERMINE MINUS FINISH
- ATE MANNER ONLY AND OR MAY NOT EXIST CONTACT NM-811 FOR

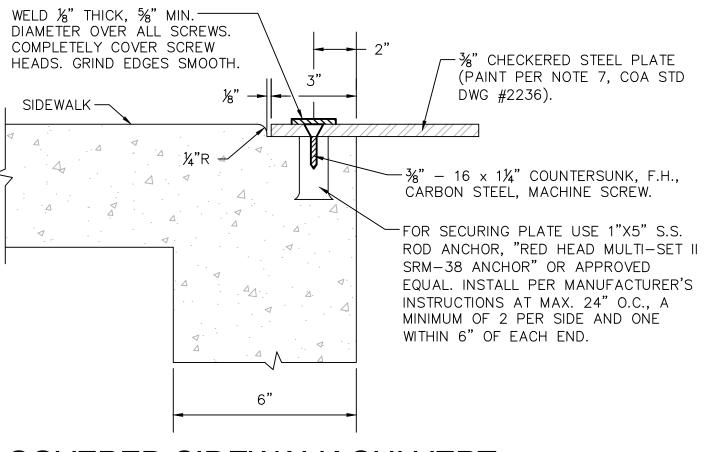
- UTILITY LINE SPOTS TWO WORKING DAYS PRIOR TO CONDUCTING SIT WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. THE CONTRACTOR S RESPONSIBLE FOR COORDINATION OF NECESSARY DRY UTILITY ADJUST
- O. A CURRENT STORMWATER CONTROL PERMIT, INCLUDING AN EROSION SEDIMENT CONTROL PLAN (E.S.C.) FOR EROSION AND SEDIMENT CONTROL PLAN (E.S.C.) REQUIRED FOR ALL CONSTRUCTION, DEMOLITION CLEARING, AND GRA OPERATIONS THAT DISTURB THE SOIL ON ONE ACRE OR MORE OF I OWNER WILL COORDINATE.
- P. POST-CONSTRUCTION MAINTENANCE FOR STORMWATER FACILITIES WI THE RESPONSIBLITY OF THE FACILITIES OWNER. PERIODIC INSPECTION CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER.
- Q. STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN ARE REQU PROVIDE MANAGEMENT OF 'FIRST FLUSH' (DEFINED AS THE 90TH PE STORM EVENT OR 0.44" OF STORMWATER WHICH DISCHARGES DIRECT PUBLIC STORM DRAINAGE SYSTEM).
- R. ADJUST ANY RIMS OF EXISTING UTILITY FEATURES AS NECESSARY NEW GRADES. UTILITIES IN PAVED AREAS SHALL BE HS-25 TRAFFIC
- S. PAVING AND ROADWAY GRADES SHALL BE ±0.1' FROM PLAN ELEVAT

#### DRAINAGE BASINS



# FIRST FLUSH CALCULATIONS





**COVERED SIDEWALK CULVERT** 

MODIFIED SECTION B-B FROM C.O.A. STD. DWG. #2236

G SITE FIELD LITIES PRIOR VULLY       T. WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH.         VINE TO VILLY       U.       ALL EROSION PROTECTION TO BE FRACTURED FACE ROCK (F.F. ROCK) DEFINED AS 6" AVG. DIA. ANGULAR FACED ROCK PLACED OVER GEOTEX SOI NON-WOVEN GEOTEXTILE (O.E.). NOTE: IF OWNER DOES NOT WANT LOOSE ROCK, GROUTED ROCK OR WRE ENCLOSED ROCK MAY BE SUBSTITUTED AT ALL AREAS REFERENCING F.F. ROCK EROSION PROTECTION. OWNER'S OPTION.         D GRADING OF LAND.       V. CONTRACTOR SHALL COMPLY WITH LOCAL REGULATIONS FOR RESEEDING OF DISTURBED AREAS. RESEEDING INSPECTION IS NOT INCLUDED AS PART OF ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE.         ES WILL BE COTION AND OF LAND.       V. POND AND STORM DRAIN DESIGN PARAMETERS (TOP OF POND, BOTTOM OF POND, RIMS, INVERTS, PIPE SIZES, AREA OF POND, ETC.) TO BE STRICTLY ADHERED TO.         REQUIRED TO TH PERCENTILE DIRECTLY TO A       V. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION PROTECTION ELEMENTS. ENGINEER RECOMMENDS THAT OWNER INSPECT ADHERED TO.         X. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INISTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.         ARY TO MATCH AFFIC RATED.       Y. MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.         PARAMETERS       CALCULATIONS: 2207 - Anderson Heights Park : 11-27-2017 Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol2, dated Jan, 1993 ON-SITE AREA OF SITE: <th>PROPERTY: THE SITE IS A PARTIALLY DEVELOPED PARK PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP N-08. THE SITE IS BOUND TO THE NORTH BY ANTLER TOOL RD SW, TO THE EAST BY FULLY DEVELOPED RESIDENTIAL PROPERTIES, TO THE EAST BY FULLY DEVELOPED RESIDENTIAL PROPERTIES, TO THE SOUTH BY CENOTE RD SW AND TO THE WEST BY BEAD ST SW.         PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE PLAYGROUNDS, GRASS FIELDS, WALKING PATHS, GAME COURTS AND ASSOCIATED LANDSCAPING AND DRAINAGE IMPROVEMENTS.         LEGAL: TRACT M, PLAT FOR ANDERSON HEIGHTS, UNIT 5.         ADDRESS: ALBUQUERQUE, NM 87121         AREA: 2.0 ACRES         OFF-SITE: NO OFF-SITE DRAINAGE IMPACTS THIS PROPERTY.         FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP NUMBER 35001C0319H, DATED AUGUST 15, 2012, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.         DRAINAGE PLAN CONCEPT: INITIALLY, DEMOLITION OF THE EXISTING RETAINING WALLS AND APPROXIMATELY 13,000 CY OF EXCESS DIRT WILL BE REMOVED FROM THE PROPERTY. THE PARK WILL BE GRADED TO DIRECT FLOW TO THE NORTH AND SOUTH TO FOLLOW HISTORIC FLOWPATHS, FIRST FLUSH RETENTION BASINS WILL BE CONSTRUCTED ADJACENT TO IMPERMEABLE PAVEMENT. DEPRESSED LANDSCAPING WILL BE PROVIDED THROUGHOUT THE PROPERTY.         THE ADDITION OF FIRST FLUSH STORMWATER RETENTION PONDS, INCREASED GRASS AREA, SELF PONDING PLAYGROUND AREAS AND DEPRESSED LANDSCAPING WILL HELP TO REDUCE THE OVERALL DISCHARGE FROM THE PROPERTY.</th> <th>BENCH MARKS     AS-BUILT     INFORMATION       1     "1-P8"     contractor     contractor       1     "1-P8"     contractor     contractor       FRQUE 3 1/4" ALUMINUM SURVEY CONTROL CAP     WORK     DATE       ERQUE 3 1/4" ALUMINUM SURVEY CONTROL CAP     NORECTORS     DATE       ERQUE 3 1/4" ALUMINUM SURVEY CONTROL CAP     NORECTORS     DATE       2002".     ERECTORD     FELD     DATE       2002".     CONSTEND BY     DATE     DATE       VAND COORS BLVD. SW.     DATE     DATE     DATE</th>	PROPERTY: THE SITE IS A PARTIALLY DEVELOPED PARK PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP N-08. THE SITE IS BOUND TO THE NORTH BY ANTLER TOOL RD SW, TO THE EAST BY FULLY DEVELOPED RESIDENTIAL PROPERTIES, TO THE EAST BY FULLY DEVELOPED RESIDENTIAL PROPERTIES, TO THE SOUTH BY CENOTE RD SW AND TO THE WEST BY BEAD ST SW.         PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE PLAYGROUNDS, GRASS FIELDS, WALKING PATHS, GAME COURTS AND ASSOCIATED LANDSCAPING AND DRAINAGE IMPROVEMENTS.         LEGAL: TRACT M, PLAT FOR ANDERSON HEIGHTS, UNIT 5.         ADDRESS: ALBUQUERQUE, NM 87121         AREA: 2.0 ACRES         OFF-SITE: NO OFF-SITE DRAINAGE IMPACTS THIS PROPERTY.         FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP NUMBER 35001C0319H, DATED AUGUST 15, 2012, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.         DRAINAGE PLAN CONCEPT: INITIALLY, DEMOLITION OF THE EXISTING RETAINING WALLS AND APPROXIMATELY 13,000 CY OF EXCESS DIRT WILL BE REMOVED FROM THE PROPERTY. THE PARK WILL BE GRADED TO DIRECT FLOW TO THE NORTH AND SOUTH TO FOLLOW HISTORIC FLOWPATHS, FIRST FLUSH RETENTION BASINS WILL BE CONSTRUCTED ADJACENT TO IMPERMEABLE PAVEMENT. DEPRESSED LANDSCAPING WILL BE PROVIDED THROUGHOUT THE PROPERTY.         THE ADDITION OF FIRST FLUSH STORMWATER RETENTION PONDS, INCREASED GRASS AREA, SELF PONDING PLAYGROUND AREAS AND DEPRESSED LANDSCAPING WILL HELP TO REDUCE THE OVERALL DISCHARGE FROM THE PROPERTY.	BENCH MARKS     AS-BUILT     INFORMATION       1     "1-P8"     contractor     contractor       1     "1-P8"     contractor     contractor       FRQUE 3 1/4" ALUMINUM SURVEY CONTROL CAP     WORK     DATE       ERQUE 3 1/4" ALUMINUM SURVEY CONTROL CAP     NORECTORS     DATE       ERQUE 3 1/4" ALUMINUM SURVEY CONTROL CAP     NORECTORS     DATE       2002".     ERECTORD     FELD     DATE       2002".     CONSTEND BY     DATE     DATE       VAND COORS BLVD. SW.     DATE     DATE     DATE
HISTORIC FLOWS: DEVELOPED FLOWS: EXCESS PRECIP: Treatment SF % Area A = $0 0 0\%$ Area B = $0 0 0\%$ Area B = $0 0 0\%$ Area C = $87124 100\%$ Area C = $87124 100\%$ Area D = $0 0 0\%$ Area D = $0 0 0\%$ Area D = $87122 10\%$ Area D = $87124 100\%$ Area D = $87124 100\%$ Area D = $87124 100\%$ Total Area = $87124 100\%$ On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm) Weighted E = $E_{AAA} + E_{BAB} + E_{CAC} + E_{DAD}$ AA + AB + A <sub>C</sub> + AD Historic E = $0.99$ in. Developed E = $0.90$ in. On-Site Volume of Runoff: V360 = $E^*A / 12$ Historic V <sub>360</sub> = $7188$ CF Developed V <sub>360</sub> = $6505$ CF On-Site Peak Discharge Rate: Qp = Q <sub>pA</sub> A <sub>A</sub> +Q <sub>pB</sub> A <sub>B</sub> +Q <sub>pC</sub> A <sub>C</sub> +Q <sub>pD</sub> A <sub>D</sub> / 43,560 For Precipitation Zone 1 Q <sub>pA</sub> = $1.29$ Q <sub>pC</sub> = $2.87$ Q <sub>p6</sub> = $2.03$ Q <sub>pD</sub> = $4.37$ Historic Q <sub>p</sub> = $5.7$ CFS Developed Q <sub>p</sub> = $5.0$ CFS $\frac{NE POND}{Contour Area Volume}$ BASIN 1 REQUIRED FIRST FLUSH = $148$ CF $\frac{SOUTH POND SI}{5200,0 192}$	128 MONROE ST. NE ALBUQUERQUE N.M., 87108 SURVEYOR: WILLIAM D. NEISH, NMPS#21081 WILSON & COMPANY 4900 LONG AVE. NE ALBUQUERQUE, N.M. 87109	ARCHITECTURAL     SURVEY INFORMATION       ARCHITECTURAL     SURVEY INFORMATION       FIELD     NOTES       FIELD     NOTES       NO.     BY       DATE     CONTROL STATION       FIELD     NOTES       NO.     BY       DATE     CONTROL STATION       FIELD     NO.       BY     DATE       CONTROL STATION     *1       State     State       CONTROL STATION     *1       State     State       State     State       State     *1-1-1       State     State       State     *1-1-1       State     *1       State     *1
TOTAL VOL.66 CFSOUTH POND S2 $ContourAreaVolume5198.00111115197.503035 CFTOTAL VOL.35 CFBASIN 2 REQUIRED FIRST FLUSH = 99 CF$	ΜΩΛΛ	PROLECT# 612700
	LANDSCAPE ARCHITECTS Morrow Reardon Wilkinson Miller, Ltd. mrwmla.com 505 268 2266 CITY OF ALBUQUERY STRATEGIC PLANNING AN PARKS AND RECREATION D Anderson Heights F GRADING NOTES AND DRAINAGE Design Review Committee City Engineer Approval City Project No. 612790 Zone Map No. N8	D DESIGN EPARTMENT ParK CALCULATIONS

SOUTH POND S1		
Contour	Area	Volume
5200.00	192	
5199.50	70	66 CF
TOTAL VOL		66 CE

SOUTH POND S2			
Contour	Area	Volume	
5198.00	111		
5197.50	30	35 CF	
TOTAL VOI		35 CE	

