

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

June 30, 2017

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM, 87108

**RE: McMahon Market Place Lots 9C&D
Grading and Drainage Plan
Stamp Date: 6/27/17
Hydrology File: A11D011F**

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your re-submittal received 6/29/2017, the Grading Plan is approved for Grading and Paving Permits.

Albuquerque

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

New Mexico 87103

Reneé C. Brissette

www.cabq.gov

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department



June 26, 2017

Reneé Brissette, P.E.
Senior Engineer, Hydrology
City of Albuquerque Planning Dept.

**RE: McMahon Marketplace Lots 9C and D; Grading and Drainage Plan Resubmittal
Hydrology File: A11D011F**

Dear Ms. Brissette,

Included with this response is a copy of the revised Grading and Drainage Plan for the above referenced project. Revisions were made based on your review comments dated June 19, 2017. Following are numbered responses corresponding to your numbered comments:

1. An Erosion and Sediment Control Plan will be submitted to the storm water quality engineer.
2. Vicinity Map updated.
3. At the time the survey was created, the Taco Bell had not begun construction. We have utilized the Grading and Drainage Plan design available in the COA Hydrology files to coordinate. See Exhibit attached for Hydrology approved (temporary) Engineer's Certification which shows coordination. We have also modified note in that area to read:
Proposed grades shown this area were coordinated with the approved grading and drainage plan for Taco Bell. Minor field adjustments may be required. Match and provide smooth transition to existing retaining wall top and bottom elevations, existing sidewalk and curb & gutter. Field adjust to provide smooth transitions.
4. Cross section of the proposed retaining wall added.
5. Maximum retaining wall height limited to 8.0'.
6. Keyed note #3 calls out the 6' wide x 4' long x 1' deep erosion protection at each curb opening.
7. The basin labels have been enlarged for clarification.
8. The ponding volume charts have been resized for legibility.
9. The basin calculations are provided to the left of the overall development calculations.

Please don't hesitate to call me or Fred Arfman, the project engineer, with any questions.

Sincerely,
Isaacson & Arfman, PA

Bryan J. Bobrick

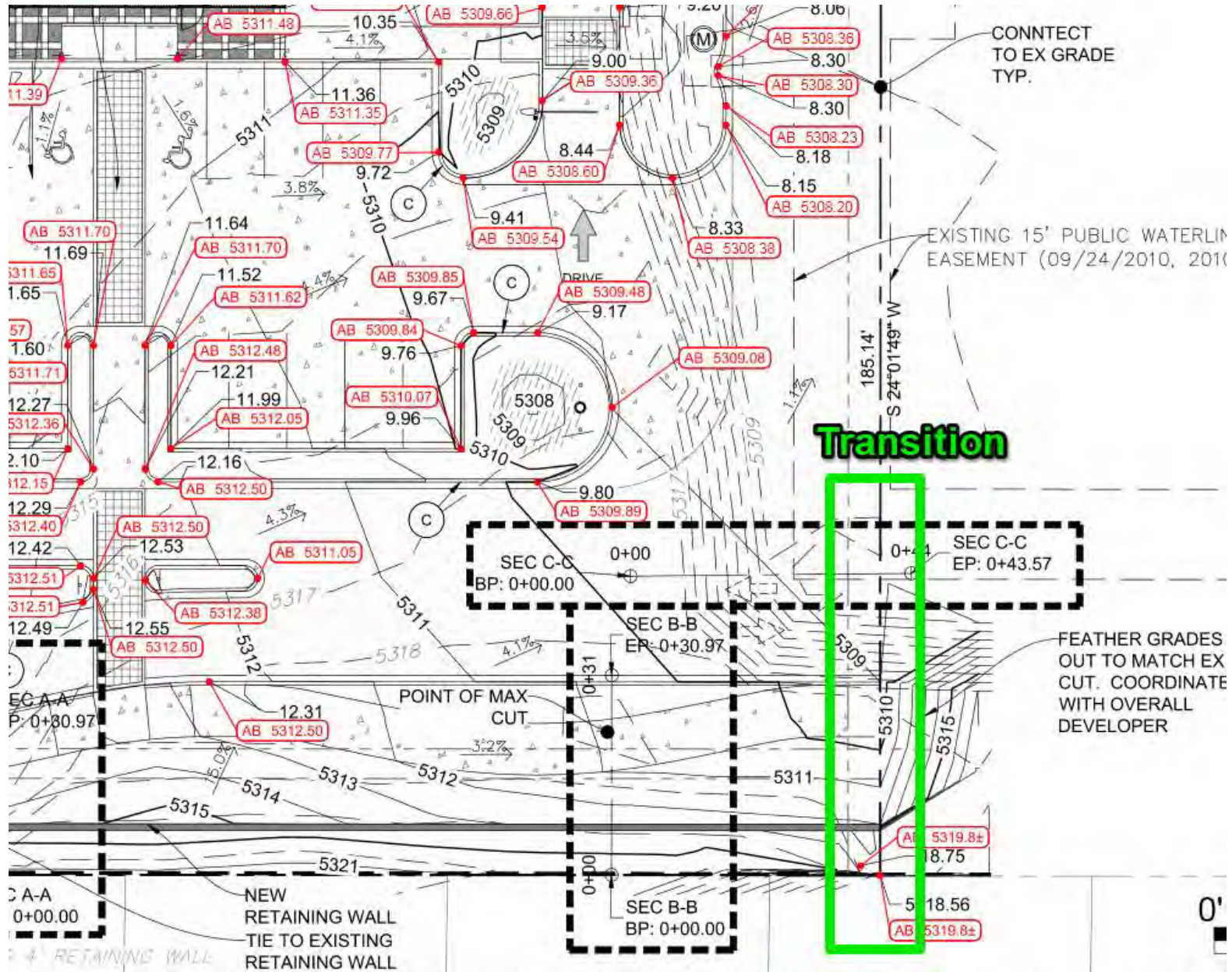
Bryan J. Bobrick
Project Designer



ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

Thomas O. Isaacson, PE(RET.) & LS(RET.) · Fred C. Arfman, PE · Åsa Nilsson-Wibler, PE



PROJECT DATA

PROPERTY: THE SITE IS A PORTION OF UNDEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP A-11. THE SITE IS BOUND TO THE EAST BY RIO DEL SOLE COURT, TO THE SOUTH BY FULLY DEVELOPED RESIDENTIAL, TO THE WEST BY COMMERCIAL (UNDER CONSTRUCTION) AND TO THE NORTH BY UNDEVELOPED MCMAHON MARKETPLACE.

SITE AREA: 1 ACRE

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE PEDESTRIAN ACCESS (ADA COMPLIANT) FROM THE EXISTING CUL-DE-SAC, PAVED ACCESS FROM FINELAND DRIVE (EAST) TO THE EXISTING PAVEMENT (WEST) PUBLIC UTILITY IMPROVEMENTS (BY SEPARATE PUBLIC WORK ORDER) AND ASSOCIATED ON-SITE PARKING AND LANDSCAPING.

LEGAL: A PORTION OF LOT 9, MCMAHON MARKETPLACE, CITY OF ALBUQUERQUE, NEW MEXICO.

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL SURVEY MONUMENT "9-A11", ELEVATION = 5301.647 (NAVD 1988)

OFF-SITE: NO OFF-SITE DRAINAGE WILL IMPACT THIS PROPERTY.

FLOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS MAP NO. 35001C0104H, MAP REVISED AUGUST 16, 2012.

DRAINAGE PLAN CONCEPT: THIS SITE IS ANALYZED AS PART OF THE MCMAHON MARKETPLACE DRAINAGE MANAGEMENT PLAN (DMP) DATED 05/07/10 PREPARED BY BOHANNAN-HUSTON INC. THE SITE IS CURRENTLY UNDEVELOPED. PER THE DMP, THE OVERALL MCMAHON MARKETPLACE PROPERTY IS PERMITTED 41.55 CFS DISCHARGE. THIS PROPERTY WILL DISCHARGE AFTER FIRST FLUSH RETENTION IS ACHIEVED. REQUIRED MCMAHON MARKETPLACE DETENTION WILL BE PROVIDED AS PART OF THE UPCOMING DEVELOPMENT OF LOTS 5 AND 6A WHICH WILL PROVIDE THE DETENTION TO LIMIT OVERALL DISCHARGE TO 41.55 CFS.

STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF "FIRST FLUSH" DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM.

TEMPORARY FIRST FLUSH RETENTION PONDS WILL BE CONSTRUCTED WITHIN THE UNDEVELOPED PORTIONS OF LOT 9. STORM WATER FROM THE IMPERVIOUS AREAS SHALL BE DIRECTED TO THESE AREAS. STORMWATER WILL THEN FREE DISCHARGE TO FOLLOW THE HISTORIC FLOWPATHS.

ENGINEER: FRED C. ARFMAN, NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE, 87111
TELEPHONE: (505) 268-8828

SURVEYOR: RUSS P. HUGG, NMPS NO. 9750
SURV-TEK, INC.
9384 VALLEY VIEW DR. NW, 87114
TELEPHONE: (505) 897-3366

LEGEND

EXISTING SPOT ELEVATION

EXISTING CONTOUR

PROPOSED CONTOUR (1' INCREMENT)

PROPOSED SPOT ELEVATION

FLOW ARROW

PROPOSED WATER HARVESTING / FIRST FLUSH PONDING AREA

LIMITS OF EROSION CONTROL

CONSTRUCTION STAKING / LAYOUT

UPON WRITTEN REQUEST COORDINATED THROUGH THE PROJECT ARCHITECT, THE ELECTRONIC FILE OF THE GRADING AND DRAINAGE WILL BE PROVIDED TO THE CONTRACTOR FOR VERTICAL CONTROL. DO NOT USE THIS PLAN FOR PROJECT STAKING.

SITE CONSTRUCTION LAYOUT / STAKING SHALL BE COORDINATED WITH THE ARCHITECT USING THE ARCHITECT PROVIDED SITE PLAN.

KEYED NOTES

1. CONSTRUCT PROPOSED PAVING / WALKS / CURB AND GUTTER TO ELEVATIONS SHOWN. SEE PAVING PLAN FOR PAVEMENT MATERIAL, EXTENTS, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
2. CONSTRUCT ADA COMPLIANT HANDICAP ACCESS RAMP. MAX. 1:12 SLOPE, MAX. 2% CROSS-SLOPE. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
3. PROVIDE 4' WIDE CURB OPENING (ASPHALT CURB) AT LOWPOINT SHOWN. CONSTRUCT 6' WIDE X 4' LONG X 1' DEEP EROSION PROTECTION AT OUTFALL.
4. TEMPORARY "FIRST FLUSH" RETENTION PONDING AREA.
5. INSTALL 3" AVG. DIA. ANGULAR ROCK EROSION PROTECTION TO EXTENTS SHOWN AND ALL SLOPES >3:1. SEE CG-2 FOR ADDITIONAL INFORMATION.
6. DEPRESS LANDSCAPE FOR WATER HARVESTING.
7. INSTALL 6" FLOOR DRAIN IN DUMPSTER PAD AT LOCATION / RIM / INVERT ELEVATIONS SHOWN. EXTEND 4" DISCHARGE (FOR FUTURE GREASE TRAP INSTALLATION). DISCHARGE TO 1 CY WRAPPED GRAVEL AT INVERT ELEVATION SHOWN..
8. CONSTRUCT STEPS TO ACHIEVE GRADE TRANSITION SHOWN. SEE ARCHITECTURAL FOR DETAILS.
9. EXISTING WATER LINE THIS AREA TO BE RELOCATED (VERTICAL AND HORIZONTALLY) BY PUBLIC WORK ORDER.
10. CONSTRUCT RETAINING WALL LINE TO ACHIEVE GRADE TRANSITIONS SHOWN. GRADES PROVIDED EACH SIDE REFLECT FINISH GRADES. SEE ARCHITECTURAL FOR INFORMATION RE: STRUCTURAL DESIGN, GUARDRAILS, ADDITIONAL WALL HEIGHT, CONSTRUCTION DETAILS, ETC.
11. TRANSITION TO EXISTING GRADES @ 5:1 MAX. SLOPE.

VICINITY MAP

1"=750'±
A-11-Z

MARTIN FM GRUMMER
ARCHITECT
331 WELLESLEY PLACE NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-2507

PETERSON
PROPERTIES

FRED C. ARFMAN
NEW MEXICO
7322
LICENSED PROFESSIONAL ENGINEER
06-27-17

MCMAHON MARKET PLACE
LOTS 9c&d
McMAHON BLVD & UNSER BLVD NW
ALBUQUERQUE, NM 87114
GRADING & DRAINAGE PLAN

LOT
9
C&D

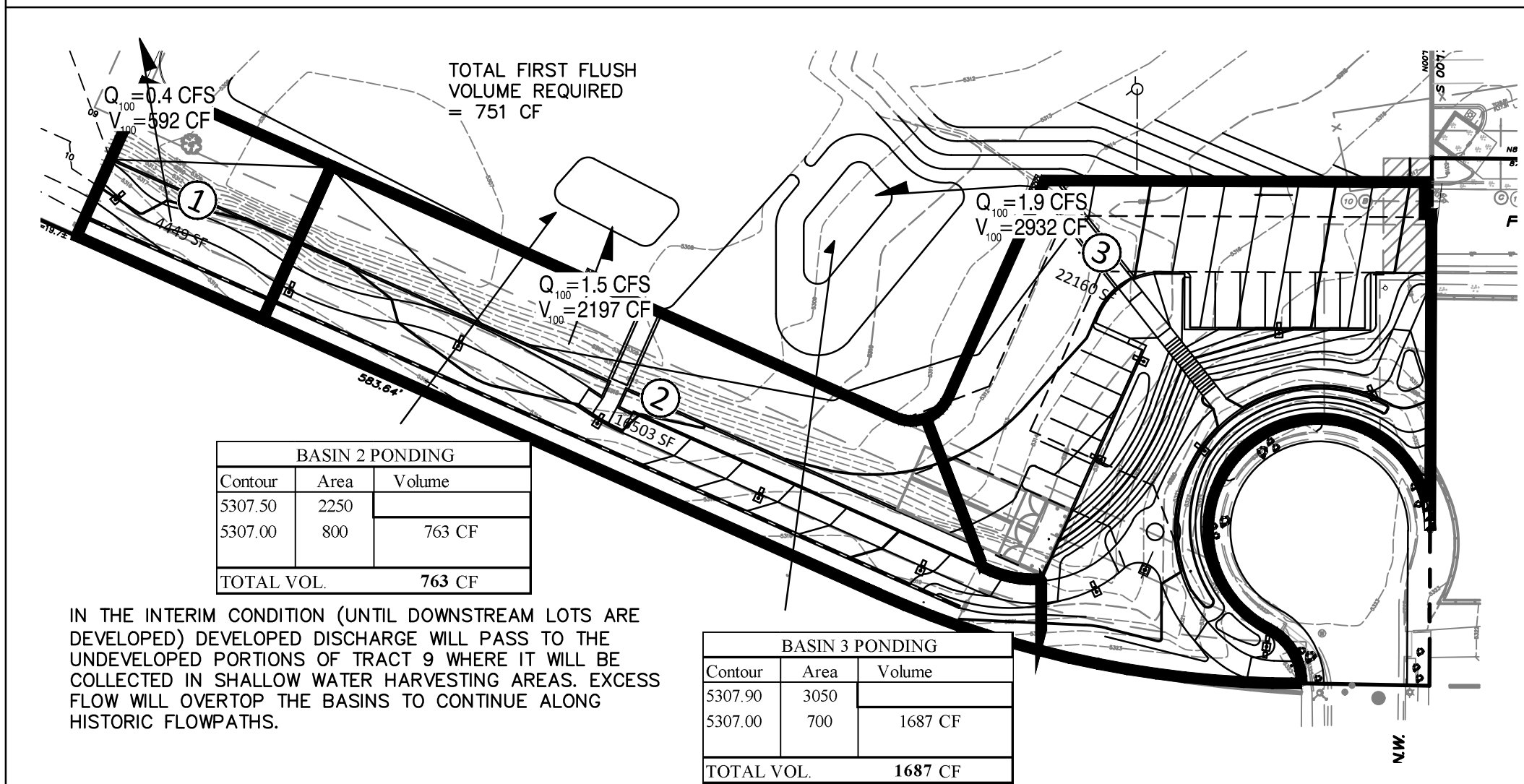
DATE:
DRAWN BY:
CHECKED BY:
VERIFIED BY:

REVISIONS

SHEET NO:
C-1

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com
2216 CG-101.dwg Jun 27, 2017

DRAINAGE BASINS



GENERAL GRADING AND STORM DRAIN NOTES

- A. PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- B. IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR INSTRUCTIONS.
- C. THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AN NDPES PERMIT, AND AN EROSION AND SEDIMENT CONTROL (ESC) PERMIT FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES MEET THE EPA THRESHOLD. (SWPPP, NDPES PERMIT, AND ESC PLAN BY OTHERS.) A CURRENT CITY-APPROVED ESC PERMIT MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING, BUILDING, OR WORK ORDER PERMIT. CONTRACTOR SHALL COORDINATE WITH OWNER TO DETERMINE WHO WILL PREPARE SWPPP AND INSPECT REQUIRED ELEMENTS.
- D. IF THE SITE IS SMALL ENOUGH NOT TO REQUIRE A SWPPP/NDPES PERMIT (LESS THAN ONE ACRE), THE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR USING EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PUBLIC RIGHT-OF-WAY.
- E. MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.
- F. WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH.
- G. PAVEMENT GRADES IN MARKED HANDICAPPED PARKING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. FOR ALL ACCESSIBLE ROUTES, MAXIMUM ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGITUDINAL SLOPE WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY GUIDELINES OR CITY CODES, WHICHEVER IS MORE STRINGENT.
- H. ALL EROSION PROTECTION TO BE INSTALLED AS 3" AVG. DIA. ANGULAR FACED ROCK (F.F. ROCK) PLACED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.).
- I. SIDESLOPES STEEPER THAN 3:1 BUT LESS THAN 2:1 MUST HAVE PERMANENT EROSION PROTECTION INSTALLED, TYPICAL NO SLOPE SHALL BE STEEPER THAN 2:1.
- J. FIRST FLUSH BASIN DESIGN PARAMETERS AND STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN TO BE STRICTLY ADHERED TO FOR CERTIFICATION PURPOSES.
- K. POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. PERIODIC INSPECTION AND CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- L. FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE (FOR CERTIFICATE OF OCCUPANCY) CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES:
- M. AS-BUILT SPOT ELEVATIONS AT EACH DESIGN SPOT ELEVATION SHOWN ON THE APPROVED PLAN;
- N. TOP AND BOTTOM ELEVATIONS AS REQUIRED TO DEFINE THE PERIMETER OF PONDS (TO BE USED BY ENGINEER TO CALCULATE AS-BUILT VOLUME PROVIDED);
- O. ALL CONSTRUCTION, INCLUDING DRAIN INLETS, PIPES AND PONDS SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN IN ORDER TO RECEIVE ENGINEER'S CERTIFICATION.
- P. GRADING OF FIRST FLUSH BASINS WILL BE INSPECTED AS PART OF ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. DURING LANDSCAPING, FIRST FLUSH BASINS WILL BE SMOOTHLY INTEGRATED INTO LANDSCAPING WHILE MAINTAINING REQUIRED TOP AND BOTTOM ELEVATION, VOLUME AND INLET / OVERFLOW ELEVATIONS.
- Q. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF ALL WORK RELATED TO PROPOSED STORM DRAINS SHOWN ON THIS PLAN INCLUDING: TRENCHING, BACKFILL, SUPPORTS, INLETS, WATER QUALITY FEATURES, EROSION CONTROL FEATURES, TESTING AND CLEANING. ANY WORK NOT ACCEPTED BY THE ARCHITECT OR ENGINEER DUE TO IMPROPER WORKMANSHIP OR LACK OF PROPER COORDINATION SHALL BE REMOVED AND CORRECTLY INSTALLED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED.
- R. MINIMUM COVER FOR STORM DRAIN PIPES SHALL BE 12", UNLESS OTHERWISE NOTED.
- S. STORM DRAINS SHALL BE INSTALLED PRIOR TO SURFACE IMPROVEMENTS SUCH AS PAVEMENT, SIDEWALKS, AND LANDSCAPING.
- T. CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTIONS TO ROOF DOWNSPOUTS AND ALL NECESSARY FITTINGS. FITTING COSTS SHALL BE INCIDENTAL.
- U. TRENCHING, BORING, AND JACKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH COA SPEC. SECT. 700. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY PER ASTM D-1557.
- V. ALL INLET AND AREA DRAIN RINGS & GRATES, MANHOLE RINGS & COVERS, AND OTHER SURFACE FEATURES SHALL BE ADJUSTED TO FINISHED GRADE, UNLESS OTHERWISE NOTED ON THE PLANS.
- W. ALL STORM DRAIN CROSSINGS OF WATER AND SEWER LINES SHALL HAVE 18" MIN CLEARANCE. IF 18" CLEARANCE IS NOT POSSIBLE, CONTACT THE ENGINEER AND / OR ARCHITECT IMMEDIATELY.
- X. HDPE PIPE SHALL BE ADS N-12 (WATERTIGHT) OR ENGINEER APPROVED EQUIVALENT. HDPE PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- Y. PVC PIPES SHALL BE PVC SDR-35, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- Z. STORM DRAINS SHALL BE INSTALLED AT INVERTS AND SLOPES SPECIFIED ON THE PLANS. THE PIPE SHALL DRAIN AT A CONSTANT SLOPE BETWEEN FITTINGS AND MANHOLES. THE PIPE SHALL DRAIN TOWARD THE OUTLET AT ALL LOCATIONS.

BASIN CALCULATIONS

THE DEVELOPED AREA WILL DISCHARGE 3.8± CFS DURING A 100-YEAR 6-HOUR STORM.

BASIN 1: APPROXIMATELY 0.4 CFS WILL DISCHARGE FROM THE PROPOSED PARKING TO THE EXISTING WEST PAVEMENT.

BASIN 2: APPROXIMATELY 1.5 CFS WILL DISCHARGE FROM THE PROPOSED PAVEMENT VIA A 4' WIDE OPENING AT THE CENTER PAVEMENT LOWPOINT.

BASIN 3: APPROXIMATELY 1.9 CFS WILL DISCHARGE FROM THE PROPOSED PAVEMENT VIA A 4' WIDE OPENING AT THE EAST PAVEMENT LOWPOINT.

BASIN NO.	1	DESCRIPTION
Area of basin flows =	4449 SF	= 0.1 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	LAND TREATMENT	
Weighted E	A = 0%	
Sub-basin Volume of Runoff (see formula above)	B = 0%	
V ₅₀₀	C = 38%	
Sub-basin Peak Discharge Rate: (see formula above)	D = 62%	
Q _p	FIRST FLUSH VOL.	
Q _p	78 CF	

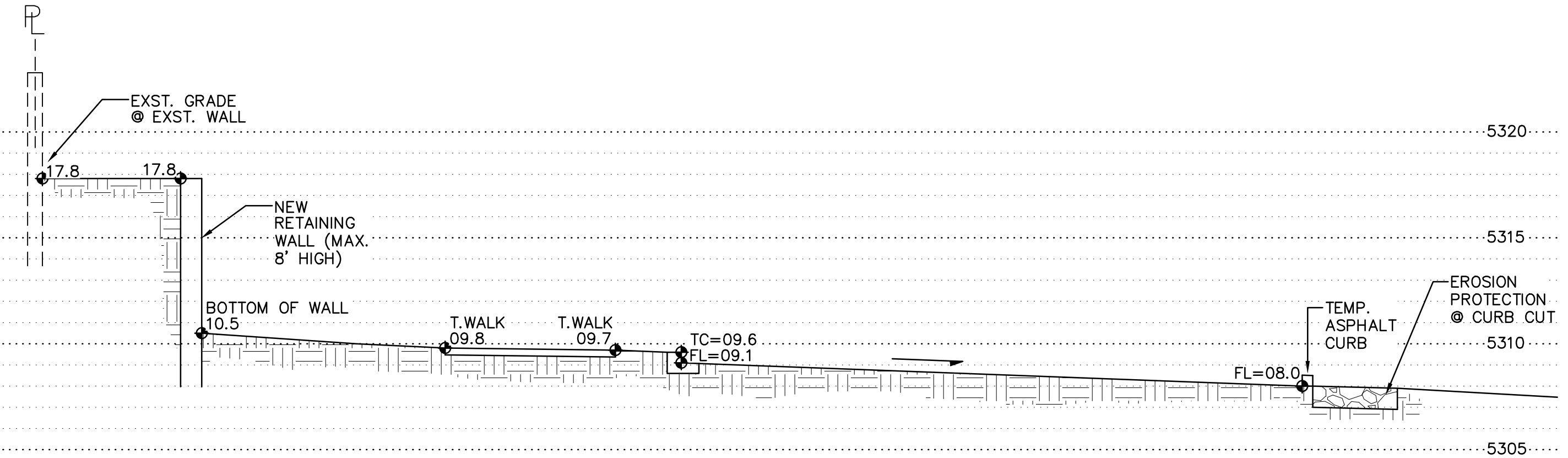
BASIN NO.	2	DESCRIPTION
Area of basin flows =	16503 SF	= 0.4 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	LAND TREATMENT	
Weighted E	A = 0%	
Sub-basin Volume of Runoff (see formula above)	B = 0%	
V ₅₀₀	C = 38%	
Sub-basin Peak Discharge Rate: (see formula above)	D = 62%	
Q _p	FIRST FLUSH VOL.	
Q _p	290 CF	

BASIN NO.	3	DESCRIPTION
Area of basin flows =	22160 SF	= 0.5 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	LAND TREATMENT	
Weighted E	A = 0%	
Sub-basin Volume of Runoff (see formula above)	B = 0%	
V ₅₀₀	C = 39%	
Sub-basin Peak Discharge Rate: (see formula above)	D = 61%	
Q _p	FIRST FLUSH VOL.	
Q _p	383 CF	

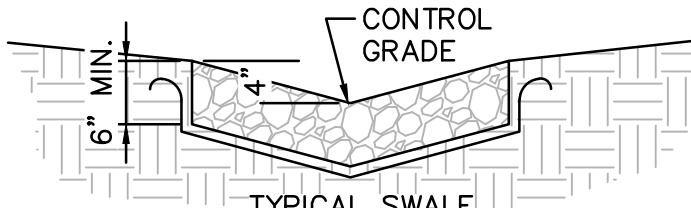
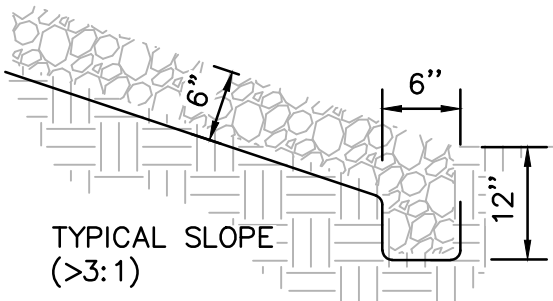
100-YEAR 6-HOUR STORM CALCULATIONS

CALCULATIONS: McMahon Marketplace - South Access : June 7, 2017				
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993				
ON-SITE				
AREA OF SITE:	43112	SF	=	0.99
100-year, 6-hour				
DEVELOPED FLOWS:			EXCESS PRECIP:	
		Treatment SF	%	Precip. Zone
Area A	=	0	0%	E _A = 0.44
Area B	=	6898	16%	E _B = 0.67
Area C	=	4311	10%	E _C = 0.99
Area D	=	31903	74%	E _D = 1.97
Total Area	=	43112	100%	
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)				
Weighted E =	$\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$			
	Developed E = 1.66 in.			
On-Site Volume of Runoff: V360 =				
	$\frac{E \cdot A}{12}$			
	Developed V ₃₆₀ = 5978 CF			
On-Site Peak Discharge Rate: $Q_p = \frac{Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D}{43,560}$				
For Precipitation Zone 1				
Q _{pA}	=	1.29	Q _{pC}	= 2.87
Q _{pB}	=	2.03	Q _{pD}	= 4.37
	Developed Q _p = 3.8 CFS			

SECTION A: SEE CG-1



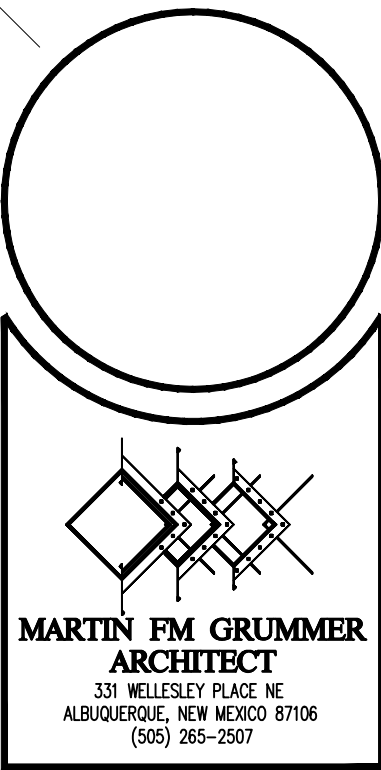
- 2" AVG. DIA. ANGULAR ROCK (1"-3")
- PLACE GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.) BENEATH ALL EROSION PROTECTION
- CONSTRUCT ALL EROSION PROTECTION INSET INTO (NOT ON TOP OF) GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY



ROCK EROSION PROTECTION

SCALE: N.T.S.

ALL DIMENSIONS ARE TO BE FIELD VERIFIED. IF THERE ARE DISCREPANCIES, PLEASE NOTIFY THE ARCHITECT. DRAWINGS ARE NOT TO BE SCALED. USE DIMENSIONS FOR ACCURACY.



McMAHON MARKET PLACE
LOTS 9c&d
McMAHON BLVD & UNSER BLVD NW
ALBUQUERQUE, NM 87114
GRADING & DRAINAGE DETAILS

LOT
9
C&D

DATE: _____

DRAWN BY: BJB

CHECKED BY: FCA

VERIFIED BY: _____

REVISIONS

SHEET NO:
C-2

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com
2216 CG-101.dwg Jun 27, 2017