CITY OF ALBUQUERQUE

Hydrology Section Planning Department
David S. Campbell, Director

Timothy M. Keller, Mayor

April 27, 2018

Fred C. Arfman, P.E.
Isaacson & Arfman, PA
128 Monroe St NE
Albuquerque, NM 87108

Re: Clean Machine Car Wash
4200 San Mateo St NE
Request 30-Day Temporary C.O. - Accepted
Engineer's Stamp dated: 5-5-16 (G18D049)
Certification dated: 5-24-17

Dear Mr. Arfman,

Based on the Certification received 5/25/2017, Hydrology has no objection to the extension of the Temporary Certification of Occupancy. Prior to Hydrology release for Permanent CO the Work Order Close out must be complete and accepted.

If you have any questions, you can contact me at 924-3686 or jhughes@cabq.gov .

Sincerely,

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

CC-email, Serna, Yvette M.; Fox, Debi; Tena, Victoria C.; Sandoval, Darlene M.; Zamora, Renee

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Clean Machine Car Wash Building Permit #: _____ City Drainage #: G18/D049

DRB#: NA EPC#: NA Work Order#: 631771

Legal Description: Lot 1A, Block 48, Unit 4, Altamont Addition

City Address: 4200 San Mateo Blvd NE - Albuquerque, NM

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman / Bryan Bobrick

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: _____ E-mail: bryanb@iacivil.com
freda@iacivil.com

Owner: Clean Machine Car Wash, LLC Contact: Bob Powers

Address: 4446 East Flower - Phoenix, AZ 85018

Phone#: (505) 400-2323 Fax#: _____ E-mail: bobp@comcast.net

Architect: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Other Contact: Wayjohn Surveying, Inc. Contact: Thomas Wayjohn

Address: 330 Louisiana Blvd. NE - Albuquerque, NM 87108

Phone#: (505) 255-2052 Fax#: _____ E-mail: tom@wayjohn.com

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

X ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
X GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ____ Yes X No

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY

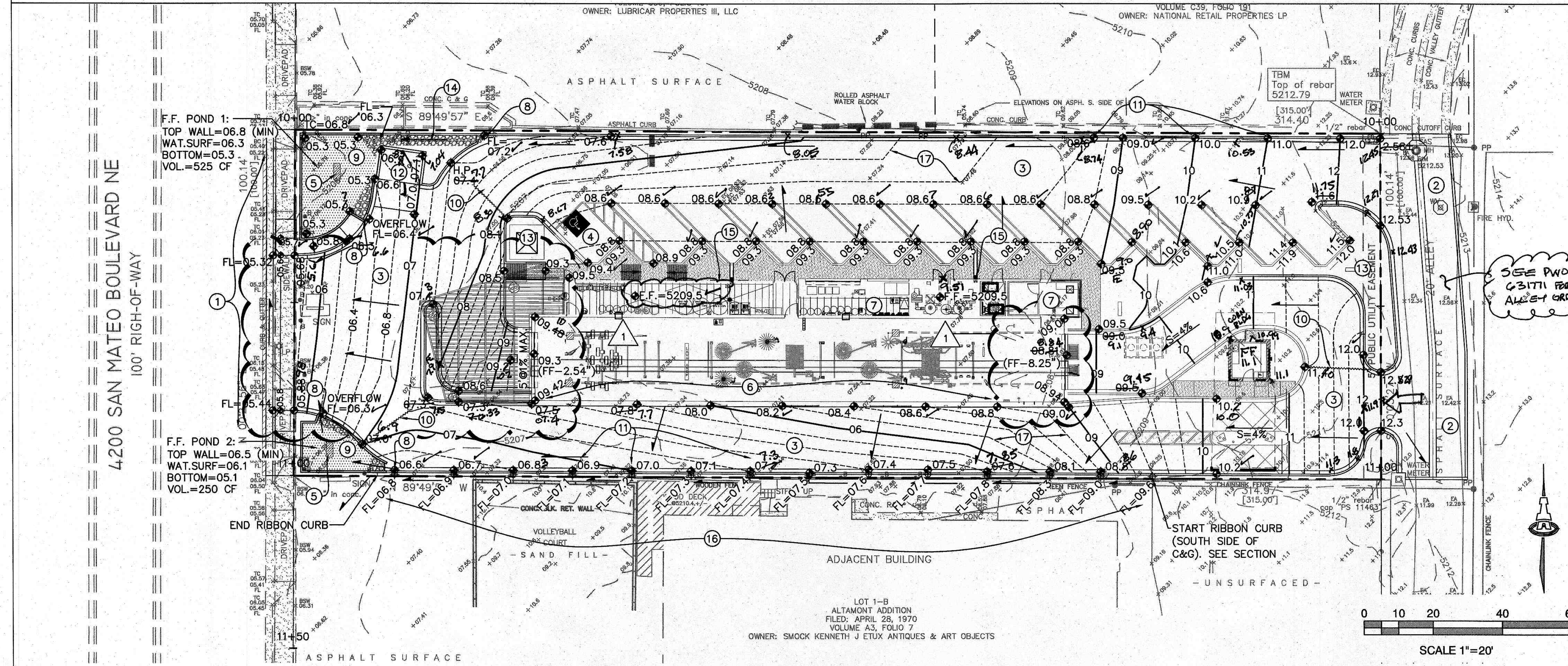
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
____ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL
____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR

____ PRE-DESIGN MEETING
____ OTHER (SPECIFY) _____

DATE SUBMITTED: March 21, 2018 By: Fred C. Arfman

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

GRADING AND DRAINAGE PLAN



KEYED NOTES

1. NOT USED
2. CONSTRUCTION WITHIN THE PUBLIC ALLEY AND WITHIN THE R.O.W. INCLUDING REMOVE / REPLACE ASPHALT PAVEMENT, DRIVEPADS AND NEW CONCRETE ALLEY GUTTER, SHALL BE CONSTRUCTED BY PUBLIC WORK ORDER 631771.
3. PROPOSED PAVING. SEE PAVING PLAN (CP–101_ AND DETAILS (CP–501) FOR PAVEMENT MATERIAL, JOINT INFORMATION, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
4. CONSTRUCT HC PARKING PAVEMENT TO ADA STANDARDS. MAX. 2% SLOPE IN ANY DIRECTION.
5. CONSTRUCT INFILTRATION TRENCH. SEE CG–501 FOR DETAIL.
6. BUILDING EXTENDED STEMWALL TO ACHIEVE GRADES SHOWN. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
7. SEE ARCHITECTURAL FOR INTERIOR TRANSITIONS BETWEEN CAR WASH AREA AND OFFICE SPACES.
8. CONSTRUCT 24" WIDE (BOTTOM WIDTH) CURB CUT AT FLOWLINE (FL=) SHOWN TO PASS DISCHARGE INTO AND OUT OF (OVERFLOW LOCATION) 'FIRST FLUSH' RETENTION PONDING AREAS. PROVIDE FRACTURED FACE ROCK EROSION PROTECTION AT INLET AND OVERFLOW (LIMITS HATCHED). ALL 'FIRST FLUSH' PONDING AND CURB CUTS MUST BE INSTALLED PER PLAN. SEE CP–501 FOR POND CURB DETAIL.
9. HATCHED AREA REPRESENTS EXTENTS OF 'FIRST FLUSH' RETENTION PONDING. CONSTRUCT TO ELEVATIONS SHOWN.
10. PAVEMENT GRADE BREAK.
11. NOTE: TO ENSURE READABILITY, NOT ALL PAVEMENT SPOT ELEVATIONS SHOW ADJACENT TOP OF CURB / TOP OF WALK. TEXT SHOWN WITHIN FLOWLINE REPRESENTS FLOWLINE ELEVATION. ADD 0.5' TYPICAL FOR TOP OF ADJACENT CURB OR WALK ELEVATIONS.
12. CONSTRUCT NEW CONCRETE DUMPSTER PAD AND ENCLOSURE AT ELEVATIONS SHOWN.
13. DEPRESS LANDSCAPING FOR WATER HARVESTING. TYPICAL. NOTE: NO WATER HARVESTING SHALL OCCUR WITHIN 10' OF BUILDING.
14. CONSTRUCT 3' WIDE FRACTURED FACE ROCK SWALE AT ELEVATIONS SHOWN. SEE CG–501 FOR DETAIL.
15. ROOF STORMWATER DISCHARGE TO SIDEWALK INLET PIPED THROUGH FACE OF CURB. SEE ARCHITECTURAL FOR DETAIL.
16. CONSTRUCT CONCRETE RIBBON CURB (4" THICK X 12" WIDE) ALONG BACK OF ON–SITE CURB AND GUTTER AT FLOWLINE ELEVATIONS SHOWN TO DIRECT ADJACENT PROPERTY STORMWATER WEST. TOP OF CURB AT PROPERTY LINE TO BE 1/4" BELOW EXISTING GRADE ON ADJACENT PROPERTY. SEE DETAIL ON SHEET CG–501.
17. 0.2' CONTOURS ARE PROVIDED WHERE NECESSARY TO CLARIFY DRAINAGE INTENT.

CONSTRUCTION STAKING / LAYOUT

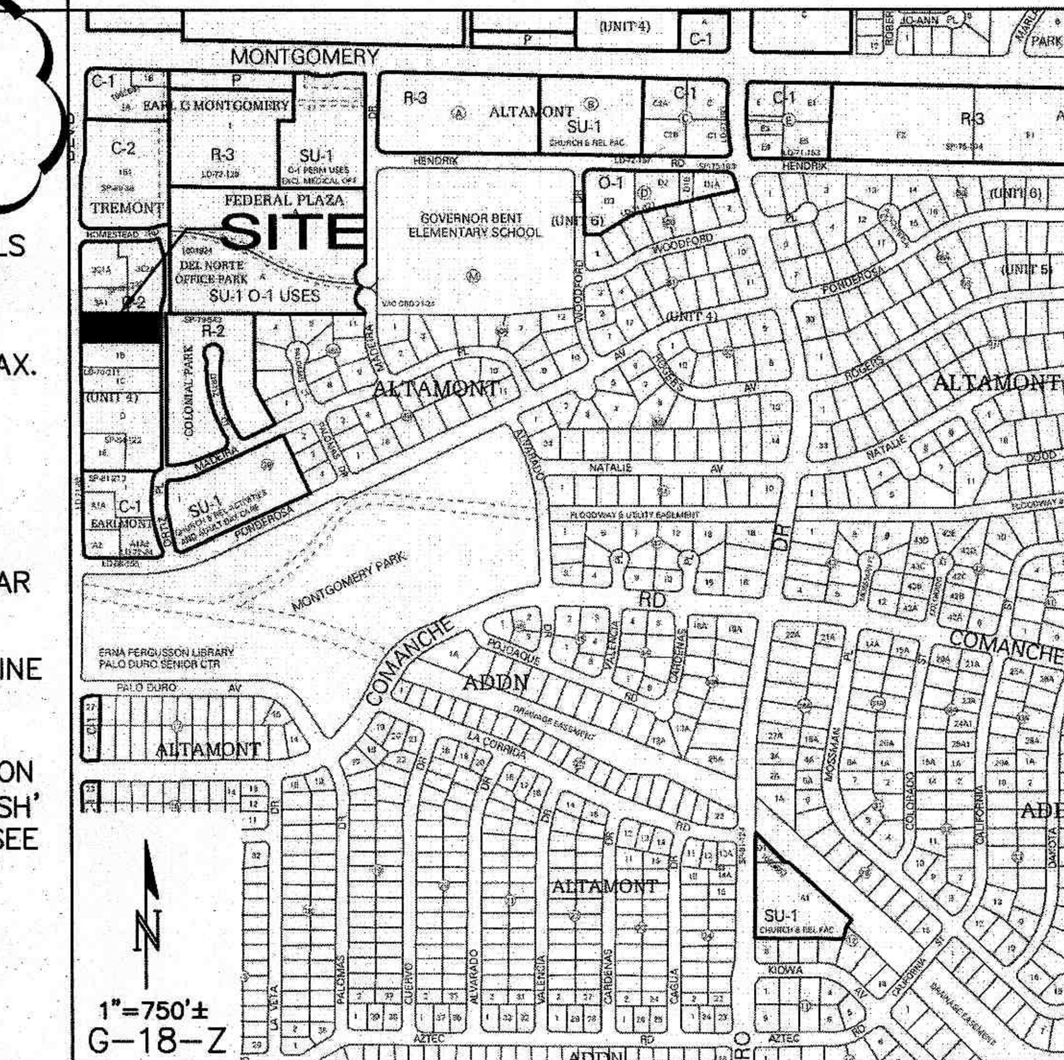
TO FACILITATE ACCURACY IN CONSTRUCTION STAKING, UPON WRITTEN REQUEST FROM THE CONTRACTOR, A FILE CONTAINING THE ELECTRONIC DATA COMPRISING THE SITE DEVELOPMENT DRAWINGS WILL BE FORWARDED TO THE LICENSED LAND SURVEYOR TO PERFORM CONSTRUCTION STAKING. ALL SITE CONSTRUCTION LAYOUT MUST BE PERFORMED BY A LICENSED SURVEYOR USING ELECTRONIC DATA PROVIDED IN AUTOCAD *.DWG (CURRENT VERSION) BY ISAACSON & ARFMAN, P.A. CONTACT PROJECT CIVIL ENGINEER AT (505)-268-8842

IN ORDER TO MAINTAIN THE INTEGRITY OF HORIZONTAL AND VERTICAL CONTROL FOR THE SITE, THE SURVEYOR EMPLOYED BY THE CONTRACTOR TO PERFORM CONSTRUCTION LAYOUT STAKING SHALL SET AND PROTECT ADDITIONAL TRAVERSE POINTS OUTSIDE THE AREAS OF CONSTRUCTION ACTIVITY.

LEGEND

× 4958.63	EXISTING SPOT ELEVATION
—4958—	EXISTING CONTOUR
—08—	PROPOSED CONTOUR (1' INCREMENT)
------	PROPOSED CONTOUR (0.2' INCREMENT)
08.3	PROPOSED SPOT ELEVATION
→	FLOW ARROW
FF = 5209.5	FINISH FLOOR ELEVATION
	PROPOSED GRADE BREAK
	PROPOSED FIRST FLUSH RETENTION PONDING AREA.

VICINITY MAP



PROJECT DATA

PROPERTY: THE SITE IS A FULLY DEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP G–18. THE SITE IS BOUND TO THE EAST BY A PUBLIC ALLEY, TO THE WEST BY SAN MATEO BLVD. NE, AND TO THE NORTH AND SOUTH BY FULLY DEVELOPED COMMERCIAL PROPERTIES.

SITE AREA: 0.72 ACRES

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE DEMOLITION OF THE EXISTING BUILDING / SITE AND NEW CONSTRUCTION TO INCLUDE A CAR WASH WITH OFFICE, CONCRETE PAVED ACCESS AND PARKING, PEDESTRIAN WALKS, DRAINAGE IMPROVEMENTS, AND LANDSCAPING.

LEGAL: LOT ONE–A (1–A) IN BLOCK FORTY–EIGHT (48) IN UNIT NO. 4 OF ALTAMONT, AN ADDITION TO THE CITY OF ALBUQUERQUE, NEW MEXICO.

ADDRESS: 4200 SAN MATEO BLVD NE, ALBUQUERQUE, NM 87110

BENCHMARK: ACS STATION 23–G–18: 1" METALLIC DISC STAMPED "ACS BM 23–G18" EPOXIED TO THE TOP OF CURB ESE RETURN OF COMANCHE ROAD, NE AND LA CORRIDA ROAD, NE. ELEV. 5224.168 NAVD 1988

TEMPORARY BENCHMARKS: TOP OF 1/2" REBAR AT NE PROPERTY CORNER. ELEV. 5212.79 (NAVD 1988)

OFF–SITE: OFF–SITE DRAINAGE FROM THE PROPERTY TO THE SOUTH WILL BE REDIRECTED WEST ALONG THE SOUTH PROPERTY LINE VIA A CONCRETE GUTTER.

FLOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100–YEAR FLOOD PLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS PER MAP NO. 35001C0139G, EFFECTIVE DATE SEPTEMBER 26, 2008.

DRAINAGE PLAN CONCEPT: THIS SITE IS AN INFILL PROPERTY LOCATED IN A FULLY DEVELOPED PART OF THE CITY. THE PROPERTY WILL CONTINUE TO DRAIN FROM WEST TO EAST.

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.

FIRST FLUSH RETENTION PONDS WILL BE CONSTRUCTED AT THE NORTHWEST AND SOUTHWEST PROPERTY CORNERS (WITHIN THE LANDSCAPING). STORM WATER FROM THE IMPERVIOUS AREAS SHALL BE DIRECTED TO THESE PONDS VIA CURB OPENINGS BEFORE FREE DISCHARGING (</= 85% TREATMENT D) TO SAN MATEO BLVD. N.E. THERE WILL BE NO SIGNIFICANT CHANGE TO THE 100–YEAR, 6–HOUR DISCHARGE RATE. SEE CG–501 FOR FIRST FLUSH RETENTION POND LOCATIONS AND VOLUMES.

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

SURVEYOR: ANTHONY L. HARRIS, NMPS 11463
THE SURVEY OFFICE, LLC
333 LOMAS BLVD. N.E.
TELEPHONE: (505) 998–0303

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE 7322, of the firm Isaacson & Arfman, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 05-05-2016. The record information edited onto the original design document has been obtained by Thomas D. Johnson, NMPS 14269, of the firm WayJohn Surveying, Inc. I further certify that I have personally visited the project site on 05-24-2017 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Fred C. Arfman NMPE 7322

05-24-2017
Date

FRED C. ARFMAN NEW MEXICO 7322 PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

FRED C. ARFMAN NEW MEXICO 7322 LICENSED PROFESSIONAL ENGINEER 05.05.16

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com

2128 CG–101.dwg May 05,2016

CLEAN MACHINE CAR WASH
4200 SAN MATEO BLVD NE

CLEAN MACHINE CAR WASH, LLC.

GRADING & DRAINAGE PLAN

Date:	No.	Revision:	Date:	Job No.
04–01–16	1	Update entry / exit grades	04-01-2016	2128
Drawn By: BJB				CG-101
Ckd By: FCA				SH. OF

1/2

GENERAL NOTES

A. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT OR CITY OF ALBUQUERQUE SPECIFICATIONS IF NO GEOTECHNICAL REPORT IS MADE AVAILABLE BY THE OWNER.

B. 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.

C. ALL SUBGRADE, OVEREXCAVATION, BACKFILL, AND FILL SHALL BE PLACED AND / OR COMPACTED PER THE GEOTECHNICAL REPORT / CITY OF ALBUQUERQUE SPECIFICATIONS.

D. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION, OR PRIOR TO OCCUPANCY, AS APPROPRIATE. IF PERMITS ARE DELAYED OR ISSUED WITH CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY.

E. COORDINATE WORK WITH SITE PLAN, PAVING PLAN, UTILITY PLAN, DEMOLITION PLAN, AND LANDSCAPE PLAN.

F. 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 ARCHITECT AND VERIFY THE ARCHITECT'S INTENT BEFORE PROCEEDING.

G. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SAFETY.

H. CONTRACTOR SHALL OBTAIN ALL REQUIRED INSPECTIONS OF THE WORK. CONTRACTOR SHALL REGULARLY UPDATE ARCHITECT REGARDING THE STATUS OF THE INSPECTIONS.

I. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT STRUCTURES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

J. CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS. EQUIPMENT SHALL ONLY OBSTRUCT DESIGNATED TRAFFIC LANES IF APPROPRIATE BARRICADING PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL IN THE RIGHT-OF-WAY.

K. THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN THAT CONFORMS TO THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL OBTAIN BARRICADING PERMITS FROM THE APPROPRIATE AUTHORITIES PRIOR TO ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.

L. THE CONTRACTOR SHALL MAINTAIN ALL BARRICADING AND CONSTRUCTION SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.

M. 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.

N. ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.

O. 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.

P. IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT.

Q. EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CONTACT NM-811 FOR UTILITY LINE SPOTS TWO WORKING DAYS PRIOR TO CONDUCTING SITE FIELD WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR IS FULLY 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF NECESSARY DRY UTILITY ADJUSTMENTS.

R. SOIL TESTING AND INSPECTION SERVICES DURING EARTHWORK OPERATIONS ARE REQUIRED. CONTRACTOR SHALL ALLOW TESTING LABS TO INSPECT AND APPROVE COMPACTED SUBGRADES, BACKFILL, AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS DONE. SHOULD COMPACTION TESTS INDICATE INADEQUATE DENSITY, CONTRACTOR SHALL PROVIDE ADDITIONAL COMPACTION AND TESTING AT THE CONTRACTOR'S SOLE EXPENSE.

S. CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING. CONTRACTOR SHALL LOCATE AND PRESERVE ALL BOUNDARY CORNERS AND REPLACE ANY LOST OR DISTURBED CORNERS AT CONTRACTOR'S SOLE EXPENSE. PROPERTY CORNERS SHALL ONLY BE RESET BY A REGISTERED LAND SURVEYOR.

T. 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, NPDES 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. OWNER WILL COORDINATE.

O. POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES (FIRST FLUSH PONDS) WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. PERIODIC INSPECTION AND CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER.

P. ADJUST ANY RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES. UTILITIES IN PAVED AREAS SHALL BE HS-25 TRAFFIC RATED.

Q. ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS AND POSITIVE SLOPE TOWARD EXISTING AND/OR PROPOSED DRAINAGE PATHS. PAVING AND ROADWAY GRADES SHALL BE ±0.1' FROM PLAN ELEVATIONS. BUILDING PAD ELEVATION SHALL BE ±0.05' FROM PLAN ELEVATION.

R. WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH.

S. ALL EROSION PROTECTION SHALL BE FRACTURED FACE ROCK (F.F. ROCK) = 6" AVG. DIA. ANGULAR FACED ROCK PLACED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.).

T. SIDESLOPES STEEPER THAN 3:1 BUT LESS THAN 2:1 MUST HAVE PERMANENT EROSION CONTROL (F.F. ROCK) INSTALLED, TYPICAL. NO SLOPE SHALL BE STEEPER THAN 2:1.

U. CONTRACTOR SHALL COMPLY WITH LOCAL REGULATIONS FOR RESEEDING OF DISTURBED AREAS.

V. POND DESIGN PARAMETERS AND STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN (TOP OF POND, BOTTOM OF POND, SIZE OF ORIFICE, AREA OF POND, ETC.) TO BE STRICTLY ADHERED TO FOR CERTIFICATION PURPOSES. SEE DETAIL SHEET FOR ADDITIONAL INFORMATION.

W. ENGINEER RECOMMENDS THAT OWNER MAINTAIN EROSION PROTECTION ELEMENTS. 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.

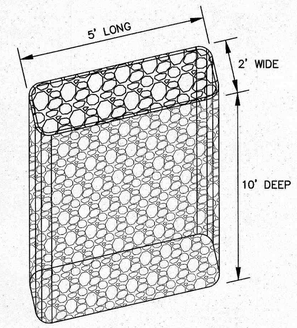
X. MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.

Y. IF THE SITE IS SMALL ENOUGH NOT TO REQUIRE A SWPPP/NPDES 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.

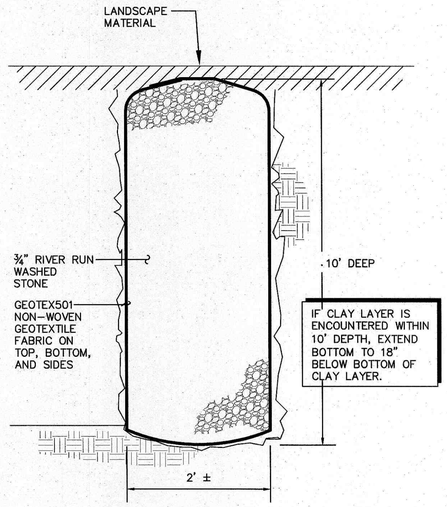
Z. FIVE WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (811) FOR LOCATION OF EXISTING UTILITIES.

AA. FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE, ALL CONSTRUCTION, INCLUDING RUNDOWNS AND POND OVERFLOW ELEVATIONS SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN IN ORDER TO RECEIVE ENGINEER'S CERTIFICATION.

AB. 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.



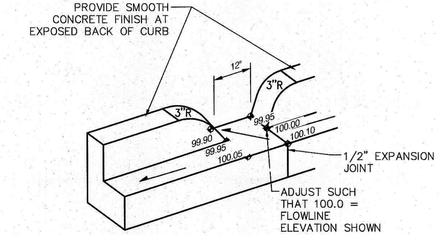
TYPICAL DIMENSIONS



IN-PLACE INFILTRATION TRENCH

PER PLAN

SCALE: N.T.S.



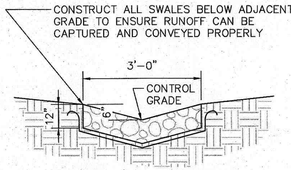
GENERAL NOTES

1. EDGES NOT SPECIFICALLY DIMENSIONED SHALL BE SHAPED WITH A 3/8" EDGING TOOL.

CURB OPENING

SEE CG-101 KEYED NOTE 10

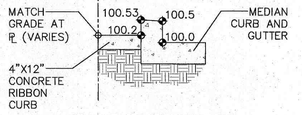
SCALE: N.T.S.



- VARY ANGULAR FACE ROCK SIZE BETWEEN 4" AND 8" DIA. (AVG.=6")
- PLACE GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.) BENEATH ALL EROSION PROTECTION

ROCK SWALE

SCALE: N.T.S.



RELATIVE GRADE TRANSITION ALONG SOUTH PROPERTY LINE

CONCRETE RIBBON CURB

AT BACK OF SOUTH CURB AND GUTTER WHERE INDICATED SCALE: N.T.S.

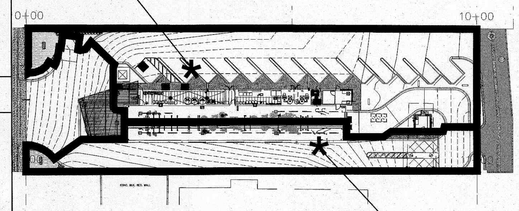
FIRST FLUSH CALCULATIONS

OVERALL PROPERTY	DESCRIPTION		
Area of basin flows =	31512 SF	=	0.72 Ac.
The following calculations are based on Treatment areas as shown in table to the right			LAND TREATMENT
Sub-basin Weighted Excess Precipitation (see formula above)			A = 0%
Weighted E =	2.16 in.		B = 10%
Sub-basin Volume of Runoff (see formula above)			C = 5%
V_{360} =	5679 CF		D = 85%
Sub-basin Peak Discharge Rate: (see formula above)			FIRST FLUSH VOL.
Q_P =	3.4 cfs		759 CF

REQUIRED FIRST FLUSH POND VOL = 759 CF

FIRST FLUSH RETENTION VOLUME PROVIDED PER PLAN = 775 CF

THE NORTHERN PORTION OF THE SITE (0.41 ACRES) WILL DISCHARGE 2.0 CFS TO THE NW FIRST FLUSH BASIN WITH EXCESS DRAINING TO SAN MATEO BLVD. TO CONTINUE ALONG THE HISTORIC FLOWPATH.



THE SOUTHERN PORTION OF THE SITE (0.21 ACRES) WILL DISCHARGE 1.0 CFS TO THE SW FIRST FLUSH BASIN WITH EXCESS DRAINING TO SAN MATEO BLVD. TO CONTINUE ALONG THE HISTORIC FLOWPATH.

OVERALL SITE CALCULATIONS

CALCULATIONS: CLEAN MACHINE CAR WASH : November 2, 2015

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE

AREA OF SITE: 31512 SF = 0.7

100-year, 6-hour

HISTORIC FLOWS:		Treatment SF	%
Area A	=	0	0%
Area B	=	0	0%
Area C	=	6302.4	20%
Area D	=	25209.6	80%
Total Area	=	31512	100%

DEVELOPED FLOWS:		Treatment SF	%
Area A	=	0	0%
Area B	=	3151	10%
Area C	=	1576	5%
Area D	=	26785	85%
Total Area	=	31512	100%

EXCESS PRECIP:	Precip. Zone 3
E_A	= 0.66
E_B	= 0.92
E_C	= 1.29
E_D	= 2.36

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted $E = \frac{E_AA_A + E_BA_B + E_CA_C + E_DA_D}{A_A + A_B + A_C + A_D}$

Historic E	=	2.15 in.	Developed E	=	2.16 in.

On-Site Volume of Runoff: $V360$ = $E*A / 12$

Historic V_{360}	=	5635 CF	Developed V_{360}	=	5679 CF

On-Site Peak Discharge Rate: $Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D / 43{,}560$

For Precipitation Zone 3

Q_{PA}	=	1.87	Q_{PC}	=	3.45
Q_{PB}	=	2.60	Q_{PD}	=	5.02
Historic Q_P	=	3.4 CFS	Developed Q_P	=	3.4 CFS

ENGINEER'S CERTIFICATION

PER C.O.A. HYDROLOGY BUILDING PERMIT APPROVAL, PRIOR TO CERTIFICATE OF OCCUPANCY RELEASE, ENGINEER'S CERTIFICATION PER THE DPM CHECKLIST IS REQUIRED.

CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED, STAMPED AND DATED BY A LICENSED SURVEYOR WHICH INCLUDES:

- AS-BUILT SPOT ELEVATIONS AT EACH DESIGN SPOT ELEVATION SHOWN ON THE APPROVED PLAN;
- TOP AND BOTTOM ELEVATIONS DEFINING ALL FIRST FLUSH RETENTION PONDS, AND OTHER SITE PONDING;
- NOTE ANY ITEMS NOT CONSTRUCTED;
- SHOW LINEWORK FOR ANYTHING CONSTRUCTED DIFFERENT FROM THE APPROVED PLAN.

811 Know what's below. Call before you dig.

FRED C. ARFMAN NEW MEXICO 7322 LICENSED PROFESSIONAL ENGINEER 5-05-16

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2128 CG-101.dwg May 05,2016

CLEAN MACHINE CAR WASH
4200 SAN MATEO BLVD NE
CLEAN MACHINE CAR WASH, LLC.

GRADING & DRAINAGE DETAILS

Date:	No.	Revision:	Date:	Job No. 2128
Drawn By:				CG-501
Ckd By:				SH. OF

2/2