

CITY OF ALBUQUERQUE



March 5, 2015

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

**Re: Pasadena Office Warehouse
5656 Pasadena NE
Grading and Drainage Plan
Permanent CO – Accepted
Engineer's Stamp dated: 7-14-14 (B18D019)
Certification dated: 3-4-15**

Dear Mr. Arfman,

PO Box 1293
Albuquerque
New Mexico 87103

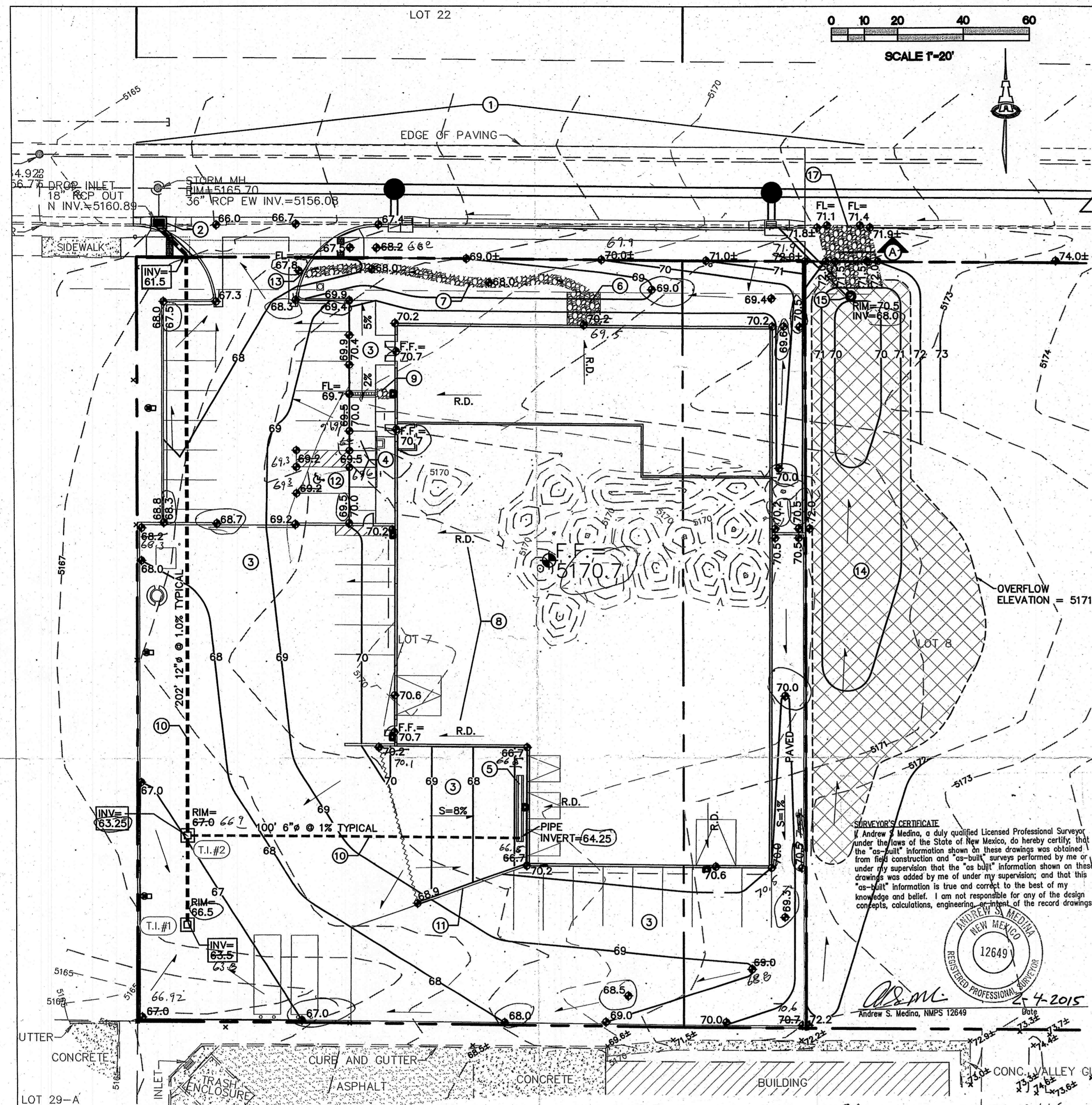
Based upon the information provided in your submittal received 3/5/2015, the above referenced Certification received is acceptable for the release of Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3986 or Rudy Rael at 924-3977.

Sincerely,

Curtis Cherne, P.E.
Principal Engineer,
Planning Department

C: RR/CC
email



STORM DRAIN NOTES

- ALL STORM DRAIN LINES AND FITTINGS TO BE ADS N-12WT WATERTIGHT UNLESS NOTED.
- INSTALL ALL STORM DRAIN INLETS AND PIPE PER MANUFACTURER'S SPECIFICATIONS.
- SEE DIAGRAMS THIS SHEET FOR INLET INFORMATION.
- STORM DRAIN SYSTEM WILL REQUIRE REGULAR MAINTENANCE TO ENSURE PROPER FUNCTIONING DURING STORM EVENTS. ENGINEER RECOMMENDS THAT PROPERTY OWNER PUT IN PLACE INSPECTION AND MAINTENANCE CRITERIA SCHEDULED TO OCCUR MONTHLY AND AFTER EACH STORM EVENT.

(T.I.#2)

24" DIA. NYLOPLAST BASIN WITH LOCKING 2'X2' ROAD AND HIGHWAY GRATE AND CONCRETE COLLAR

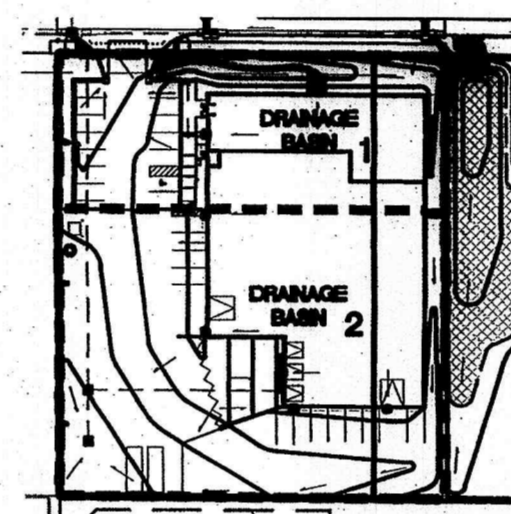
ADS ENVIROHOOD WATER QUALITY STRUCTURE

(T.I.#1)

18" DIA. NYLOPLAST BASIN WITH LOCKING 2'X2' ROAD AND HIGHWAY GRATE AND CONCRETE COLLAR

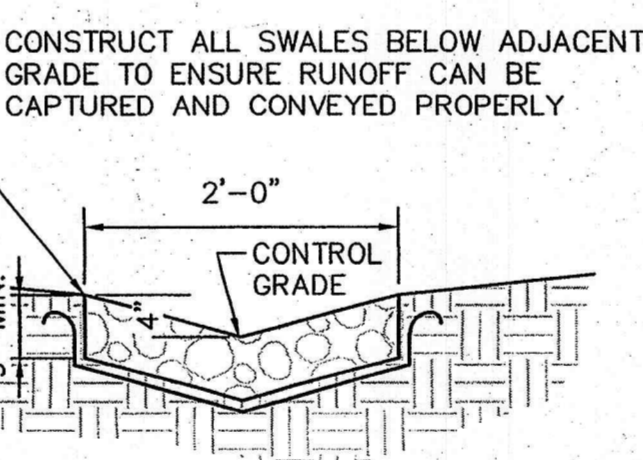
DRAINAGE INLETS

SCALE: N.T.S.



DRAINAGE BASINS

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.

GENERAL NOTES

- COORDINATE WORK WITH SITE PLAN, UTILITY PLAN.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES TO THE ENGINEER AND VERIFY THE ENGINEER'S INTENT BEFORE PROCEEDING.
- PAVEMENT GRADES IN MARKED HANDICAPPED PARKING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. DESIGN GRADES ARE APPROX. 1.8% TO ALLOW FOR CONSTRUCTION TOLERANCES.
- 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.
- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.
- 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.
- IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER.
- 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.
- A CURRENT STORMWATER CONTROL PERMIT, INCLUDING AN EROSION SEDIMENT CONTROL PLAN (E.S.C.) FOR EROSION AND SEDIMENT CONTROL, IS REQUIRED FOR ALL CONSTRUCTION, DEMOLITION, CLEARING, AND GRADING OPERATIONS THAT DISTURB THE SOIL ON ONE ACRE OR MORE OF LAND. OWNER WILL COORDINATE.
- 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.
- STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN ARE REQUIRED TO PROVIDE MANAGEMENT OF "FIRST FLUSH" (DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.44" OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM).
- ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES.
- UTILITIES IN PAVED AREAS SHALL BE HS-25 TRAFFIC RATED.
- TRANSITIONS BETWEEN NEW AND EXISTING SHALL BE SMOOTH.
- ALL EROSION PROTECTION SHALL BE (F.F. ROCK) 6" AVG. DIA. ANGULAR FACED ROCK PLACED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.).
- 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.

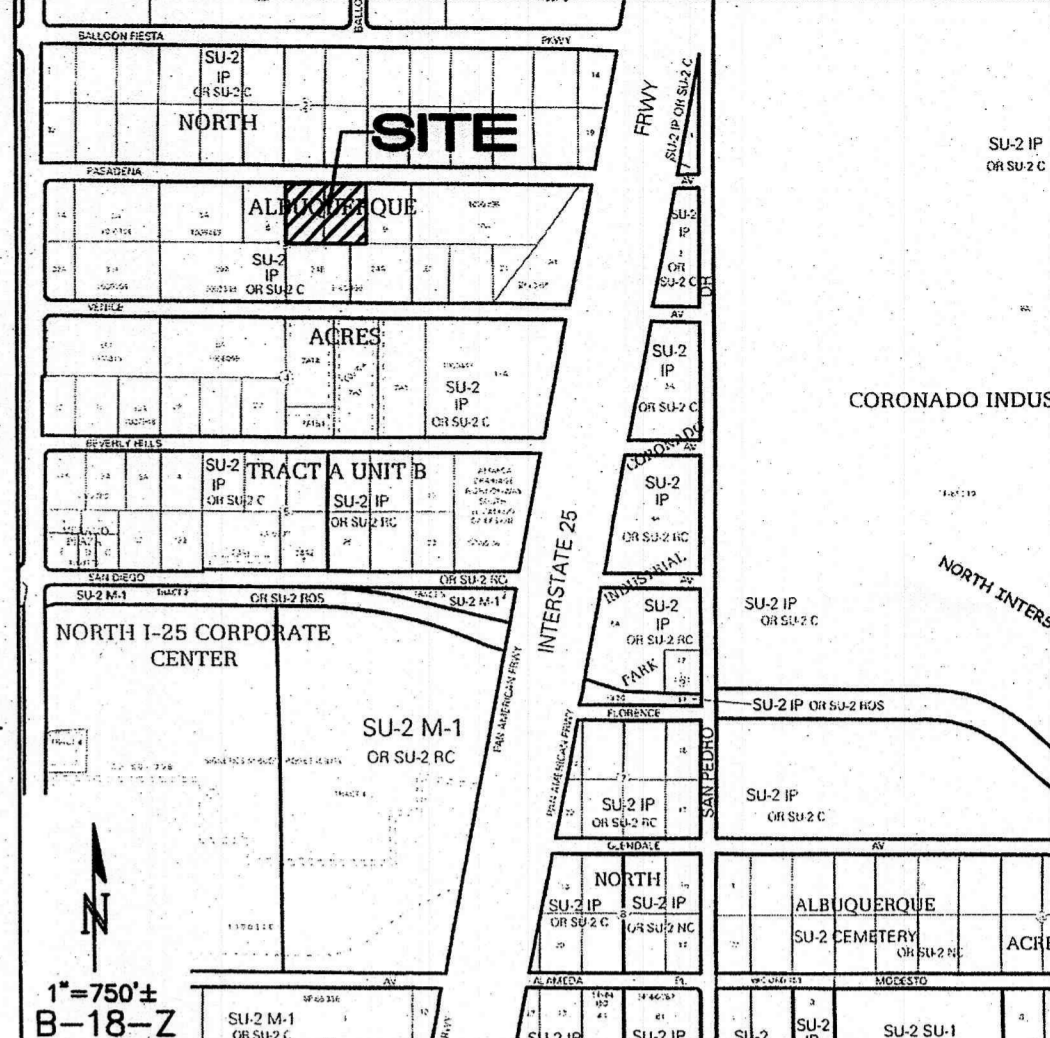
KEYED NOTES

- CONSTRUCTION WITHIN THE R.O.W INCLUDING SITE ENTRANCE, CONCRETE VALLEY GUTTER, STREET PAVEMENT, HANDICAP RAMPS, PUBLIC SIDEWALK, PUBLIC STORM DRAIN EXTENSION AND INLETS AND PRIVATE STORM DRAIN STUB TO PROPERTY TO BE CONSTRUCTED UNDER PUBLIC WORK ORDER #630983.
- EXISTING WEST YEST 'A' INLET TO BE CONVERTED TO A TYPE 'D' INLET BY PUBLIC WORK ORDER #630983.
- PROPOSED PAVING. SEE ARCHITECTURAL FOR PAVEMENT MATERIAL, JOINT INFORMATION, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
- CONSTRUCT ADA ACCESS RAMP(S) AT MAX. 1:12 SLOPE. SEE ARCHITECTURAL FOR RAMP DIMENSIONS AND ADDITIONAL INFORMATION.
- INSTALL 20 LF DOCK TRENCH DRAIN (ACO K100S KLASIKDRAIN WITH CLASS E GRATE) WITH BUILT-IN SLOPE. RIM=66.6 TYPICAL. EXTEND OUTLET PIPE TO STORM DRAIN AS SHOWN.
- ROOF FLOW TO SURFACE DISCHARGE TO THE NORTH. CONSTRUCT 10'X10'X1' DEEP F.F. ROCK EROSION PROTECTION AT OUTLET.
- CONSTRUCT 3' WIDE X 1' DEEP X 6" DEEPRESS F.F. ROCK SWALE TO PASS ROOF DISCHARGE TO 2' WIDE CURB OPENING.
- ROOF FLOW TO SURFACE DISCHARGE TO THE WEST.
- CONSTRUCT F.F. ROCK SWALE (SEE DETAIL) AND 12" WIDE SIDEWALK TRENCH DRAIN WITH PEDESTRIAN RATED GRATE TO PASS ROOF DISCHARGE.
- CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE STORM DRAIN NOTES AND DETAILS THIS SHEET FOR ADDITIONAL INFORMATION.
- CONSTRUCT DOCK RETAINING WALL TO ACHIEVE GRADES SHOWN. DESIGN BY OTHERS.
- CONSTRUCT HC PARKING PAVEMENT TO ADA STANDARDS. MAX. 2% SLOPE IN ANY DIRECTION.
- 2' WIDE CURB CUT TO BE CONSTRUCTED AS PART OF PUBLIC WORK ORDER.
- GRADE ADJACENT PROPERTY TO PROVIDE SHALLOW DESILTATION BASIN AT ELEVATIONS SHOWN.
- CONSTRUCT TEMPORARY POND INLET (24" DIA. ADS INLINE DRAIN WITH 12" OUTLET AND 24" DIA. DOMED GRATE) AT RIM / INVERT ELEVATIONS SHOWN. MAKE WATERTIGHT CONNECTION TO STORM DRAIN STUB PROVIDED BY PUBLIC WORK ORDER.
- CONSTRUCT 0.5' DEEP F.F. ROCK OVERFLOW TO PASS FLOW TO PASADENA PAVEMENT. SEE SECTION THIS SHEET.
- CUT 15' WIDE OPENING IN TEMPORARY ASPHALT CURB.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FINISH FLOOR ELEVATION
- INVERT ELEVATION
- STORM DRAIN
- FRACTURED FACE ROCK EROSION CONTROL. SEE GENERAL NOTE 'O'.

VICINITY MAP



PROJECT DATA

PROPERTY: THE SITE IS AN UNDEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP C-17. THE SITE IS BOUND TO THE EAST AND WEST BY UNDEVELOPED COMMERCIAL PROPERTY, TO THE NORTH BY PASADENA N.E. AND TO THE SOUTH BY DEVELOPED COMMERCIAL PROPERTY.

SITE AREA: 46,879 SF = 1.076 AC

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A 17,256 SF OFFICE / WAREHOUSE BUILDING WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

LEGAL: LOT 7 AND A PORTION OF LOT 8, BLOCK 3, TRACT A, UNIT B, NORTH ALBUQUERQUE ACRES BERNALILLO COUNTY, NEW MEXICO

ADDRESS: 5656 PASADENA N.E., 87113

BENCHMARK: CC_EG_11_12_11N_R3E NAVD 1988 ELEVATION 5135.56

OFF-SITE: OFF-SITE FLOW BASED ON NATURAL GRADES ON UNDEVELOPED PROPERTIES WILL BE ACCEPTED INTO A TEMPORARY SEDIMENT POND LOCATED ON LOT 8 (SAME OWNER) WITH OVERFLOW TO PASADENA VIA A 2' WIDE COVERED SIDEWALK CULVERT.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP 35001C0129H, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

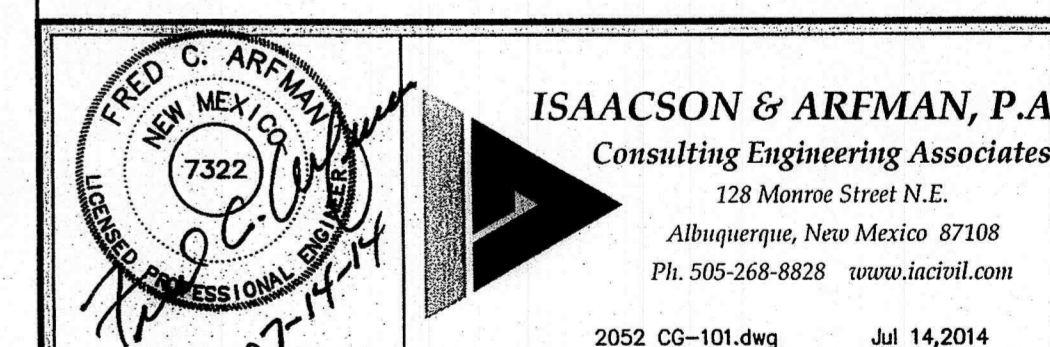
ON-SITE DRAINAGE PLAN CONCEPT: A PORTION OF THE SITE (BASIN 1) WILL SURFACE DISCHARGE VIA THE PROPOSED ENTRANCE DRIVE TO PASADENA N.E. A PRIVATE ON-SITE STORM DRAIN SYSTEM WILL BE INSTALLED TO COLLECT ON-SITE RUNOFF FROM THE DOCK AND SOUTHERN PORTION OF THE PROPERTY (BASIN 2) AND TIE TO THE BACK OF THE EXISTING PUBLIC STORM DRAIN INLET LOCATED AT THE NORTHWEST CORNER OF THE PROPERTY. SEE SUPPLEMENTAL INFORMATION PACKET FOR ADDITIONAL INFORMATION.

OFF-SITE: THE SUPPLEMENTAL INFORMATION AND CALCULATION PACKAGE PREPARED FOR THIS PROJECT BY ISAACSON & ARFMAN DATED JUNE 24, 2014 WAS APPROVED AS PART OF THE DRB PROCESS. THIS INCLUDED AN ANALYSIS OF THE PASADENA AVE. STORM DRAIN SYSTEM USING THE ORIGINAL "CITYCOP" DRAINAGE REPORT (1996) BY BOHANNAN-HUSTON, INC. AND THE SUBSEQUENT "SAN MATEO BUSINESS PARK" DRAINAGE REPORT (1999) BY C.L. WEISS ENGINEERING AS WELL AS THE AS-BUILT INFRASTRUCTURE INSTALLED WITHIN PASADENA VIA EARLIER DEVELOPMENT PROJECTS.

BASED ON MEETINGS, COORDINATION AND REVIEW OF THE SUPPLEMENTAL INFORMATION WITH C.O.A. HYDROLOGY STAFF (RITA HARMON, P.E. AND CURTIS CHERNE, P.E.) THIS SITE AND ALL PROPERTIES FRONTING PASADENA AVE. BETWEEN SAN MATEO BLVD. AND I-25 (28.8 ACRES) IS PERMITTED FREE DISCHARGE TO THE PUBLIC STORM DRAIN WITHIN PASADENA AVE.

ENGINEER: FRED C. ARFMAN, P.E.
ISAACSON & ARFMAN, PA
128 MONROE ST. 87111
505-268-8828

SURVEYOR: ANDREW S. MEDINA N.M.P.S. #12649
SANDIA LAND SURVEYING
15 CASA TERRENOS, PLACITAS, N.M. 87043
505-867-1241



5656 PASADENA N.E.
MECHENBIER CONSTRUCTION

GRADING & DRAINAGE PLAN

Date:	No.:	Revision:	Date:	Job No.
7/14/14				2052
Drawn By:				CG-101
Check By:				SH. OF

NOTE: TRENCH DRAIN SYSTEM BY ACO POLYMER PRODUCTS, OR APPROVED EQUAL.

TRENCH DRAIN THROUGH SIDEWALK

SCALE: N.T.S.

67.5 = AS BUILT ELEV.
68.5 = MATCHED GRADES ON PLAN

SANDIA LAND SURVEYING, LLC
15 CASA TERRENOS
PLACITAS, NM 87043
257-8130

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 7/14/2014. The record information edited onto the original design document has been obtained by Andrew S. Medina, NMPS #12649, of the firm Sandia Land Surveying, LLC. I further certify that I have personally visited the project site on 2/4/2015 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 herein 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
Date: 02-05-2015
NMPE 7322



CALCULATIONS: 2052: 5656 PASADENA N.E. : May 8, 2014

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

ON-SITE					
AREA OF SITE:	46879	SF	=	1.1	
100-year, 6-hour					
ALLOWABLE DISCHARGE:			EXCESS PRECIP:		
Treatment	SF	%	Treatment	SF	% Precip. Zone
Area A	0	0%	Area A	0	0%
Area B	46879	100%	Area B	0	0%
Area C	0	0%	Area C	4688	10%
Area D	0	0%	Area D	42191	90%
Total Area	46879	100%	Total Area	46879	100%

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

Weighted E = $E_{Aa} + E_{Ab} + E_{Ac} + E_{Ad}$

Allowable E = 0.92 in. Developed E = 2.25 in.

On-Site Volume of Runoff: $V_{360} = E^*A / 12$

Allowable V_{360} = 3594 CF Developed V_{360} = 8802 CF

On-Site Peak Discharge Rate: $Q_p = Q_{Aa} + Q_{Ab} + Q_{Ac} + Q_{Ad} / 43,560$

For Precipitation Zone 3

$Q_{Aa} = 1.87$ $Q_{Ab} = 3.45$

$Q_{Ac} = 2.60$ $Q_{Ad} = 5.02$

Allowable Q_p = 2.8 CFS Developed Q_p = 5.2 CFS



March 4, 2015

Mr. Curtis Cherne, P.E.
Principal Engineer, Planning Department
Development and Review Services
City of Albuquerque, NM 87103

**Re: Pasadena Office Warehouse
Certificate of Permanent Occupancy
(B18/D019)**

Subj.: Re-Certification and response to City CO Review Comments

Dear Mr. Cherne,

Isaacson & Arfman, PA has caused for the final items to be completed at the referenced site and we also offer the following comments to the questions as found in your February 9, 2015 correspondence:

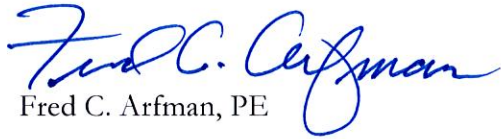
1. The domed inlet on the easterly offsite pond has been installed in substantial compliance with the approved plan.
2. The west side of the pond was raised to plan grades (72.0) to ensure that future offsite storm waters will not enter onto the site.
3. The Public Storm Drain Pasadena Ave. was constructed, as-built and is scheduled for Final Inspection on Thursday (03-05-2015) AT 10:00 AM. The system does not have any corrective action pending.
4. The onsite private sidewalk culvert was relocated with the engineer's consent to align with the roof drain location.
5. The sidewalk connect was added and supplemented with two 6" drain pipes. The pipes allow for the conveyance of landscaped and roof generated storm waters from the northerly area to the curb opening. The pipe flow carrying is sufficient to allow the storm waters to surface flow to the outlet.
6. The curb opening is approximately 20" as shown in the photo below.



7. The erosion control rock under and around the northerly roof drain has been installed as verified by the attached picture.

Please contact us directly if there are any questions on this re-certification.

Sincerely,
Isaacson & Arfman, PA


Fred C. Arfman, PE

Photos





City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

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: _____

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

- _____ DRAINAGE REPORT
- _____ DRAINAGE PLAN 1st SUBMITTAL
- _____ DRAINAGE PLAN RESUBMITTAL
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- _____ ENGINEER'S CERT (HYDROLOGY)
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ ENGINEER'S CERT (TCL)
- _____ ENGINEER'S CERT (DRB SITE PLAN)
- _____ ENGINEER'S CERT (ESC)
- _____ SO-19
- _____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- _____ SIA/FINANCIAL GUARANTEE RELEASE
- _____ PRELIMINARY PLAT APPROVAL
- _____ S. DEV. PLAN FOR SUB'D APPROVAL
- _____ S. DEV. FOR BLDG. PERMIT APPROVAL
- _____ SECTOR PLAN APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM)
- _____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- _____ FOUNDATION PERMIT APPROVAL
- _____ BUILDING PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ GRADING CERTIFICATION
- _____ SO-19 APPROVAL
- _____ ESC PERMIT APPROVAL
- _____ ESC CERT. ACCEPTANCE
- _____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: _____ Yes _____ No _____ Copy Provided

DATE SUBMITTED: _____ By: _____

Isaacson & Afman, P.A.

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development