

CITY OF ALBUQUERQUE



December 16, 2011

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

**Re: Office Warehouse Development, 5454 Pasadena Ave NE,
Request for Permanent C.O.—Approved
Engineer's Stamp dated: 2/11/11 (B18/D018)
Certification dated: 12-15-11**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 12-15-11, the above referenced certification is approved for release of a Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Curtis Cherne, P.E.
Principal Engineer-Hydrology,
Development and Building Services

C: CO Clerk—Katrina Sigala
e-mail

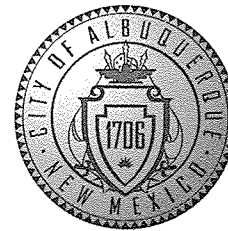
PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

CITY OF ALBUQUERQUE



December 16, 2011

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

**Re: Office Warehouse Development, 5454 Pasadena Ave NE,
Request for Permanent C.O.—Approved
Engineer's Stamp dated: 2/11/11 (B18/D018)
Certification dated: 12-15-11**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 12-15-11, the above referenced certification is approved for release of a Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Curtis Cherne, P.E.
Principal Engineer-Hydrology,
Development and Building Services

C: CO Clerk—Katrina Sigala
e-mail

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(Rev. 12/05)

PROJECT TITLE: Office / Warehouse Development ZONE MAP/DRG. FILE B18 / D018
 DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Lot 5-A, Block 3, Tract A, Unit B, North Albuquerque Acres, Bernalillo County, NM
 CITY ADDRESS: 5454 Pasadena N.E.

ENGINEERING FIRM: ISSACSON & ARFMAN, PA CONTACT: Asa Nilsson-Weber
 ADDRESS: 128 MONROE NE PHONE: 268-8828
 CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87108

OWNER: Mechenbier Construction CONTACT: John Mechenbier
 ADDRESS: _____ PHONE: 314-7700
 CITY, STATE: Albuquerque, NM ZIP CODE: _____

ARCHITECT: Slagle Herr Architects CONTACT: Bill Kleinschmidt
 ADDRESS: _____ PHONE: 246-0870
 CITY, STATE: Albuquerque, NM ZIP CODE: _____

SURVEYING FIRM: Forstbauer Surveying LICENSED SURVEYOR: Ron Forstbauer
 ADDRESS: 4116 Lomas Blvd. NE PHONE: 268-2112
 CITY, STATE: Albuquerque, NM ZIP CODE: 87110

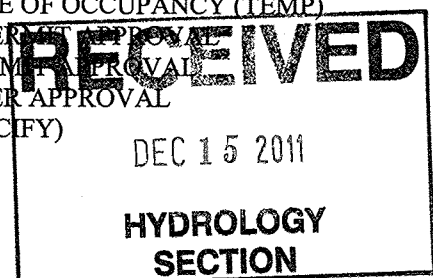
CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL 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
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☒ CERTIFICATE OF OCCUPANCY (PERM)
☐ CERTIFICATE OF OCCUPANCY (TEMP)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY) _____

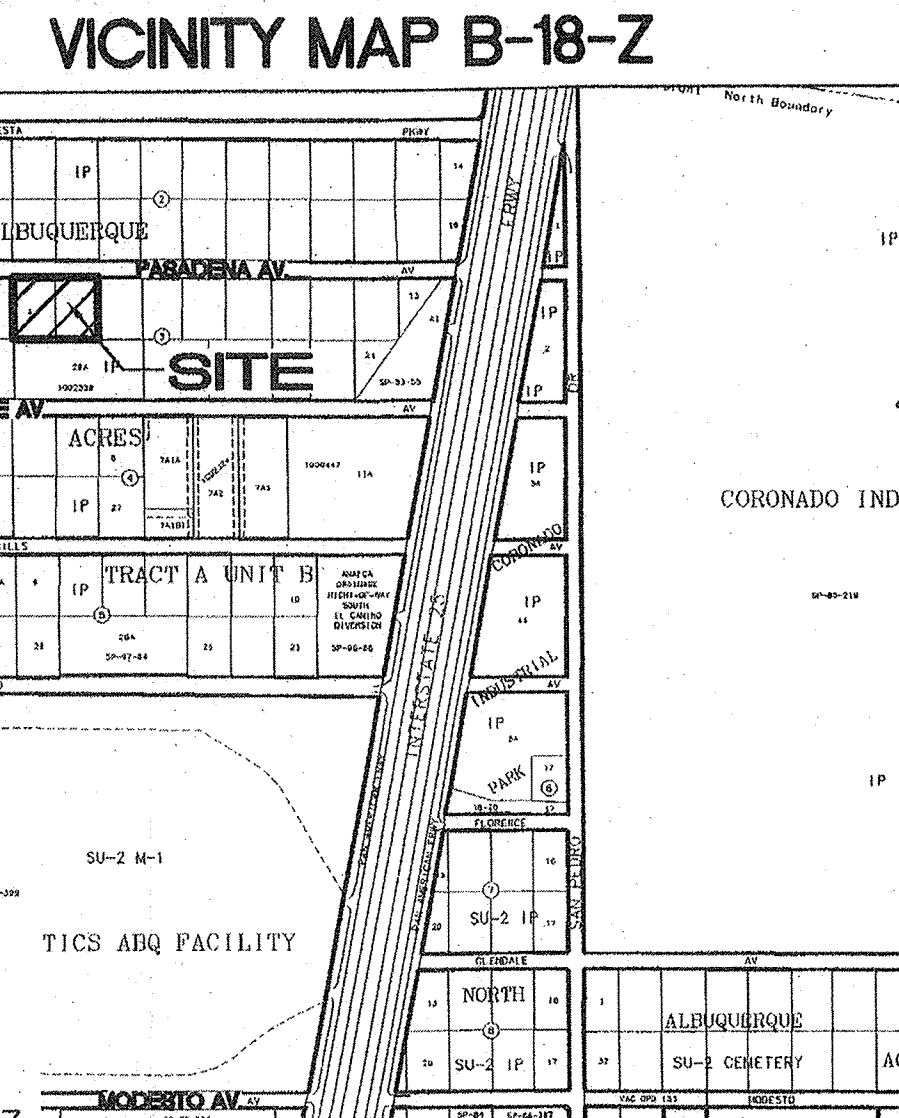
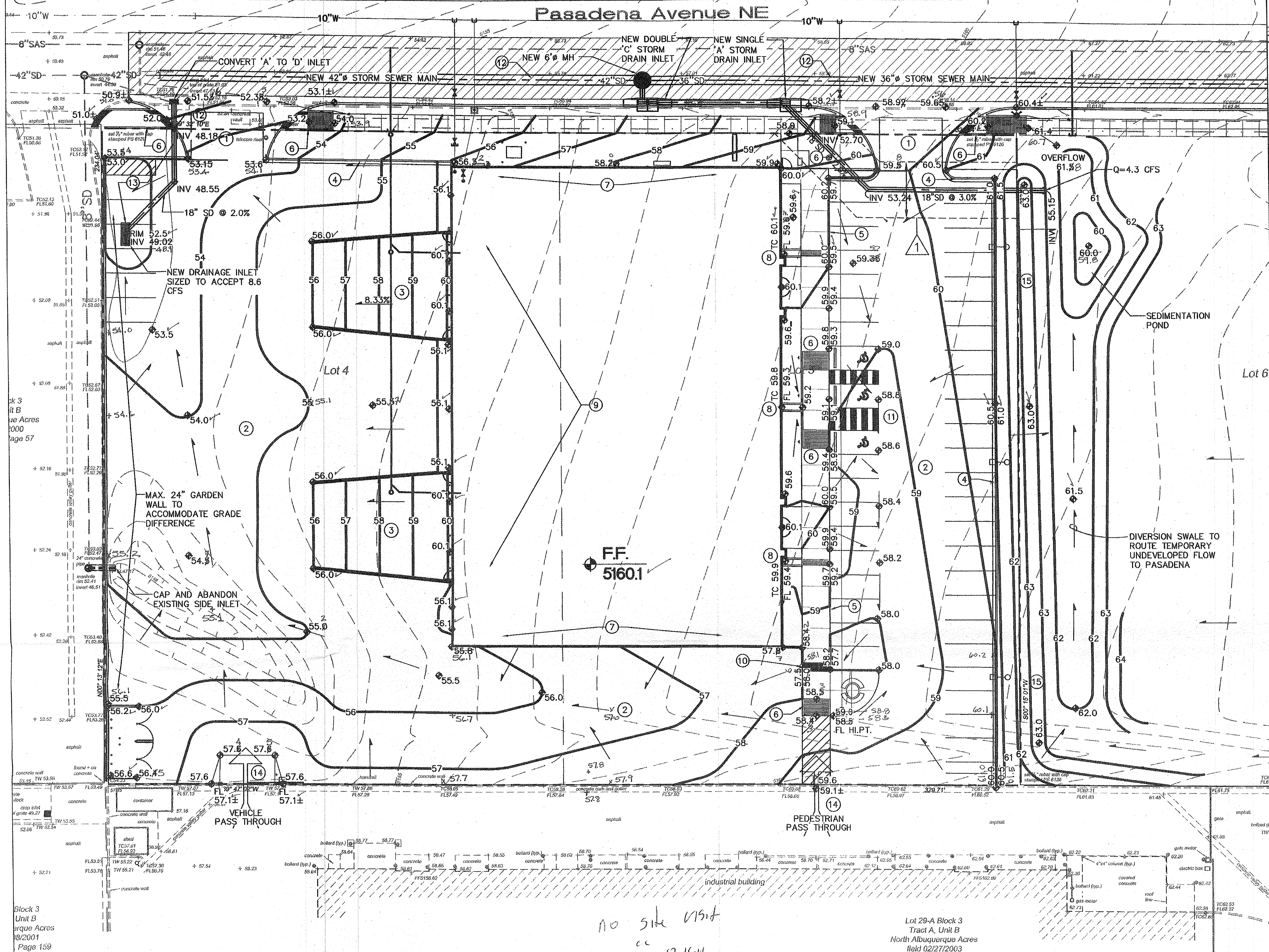
WAS A PRE-DESIGN CONFERENCE ATTENDED:
☐ YES
☐ NO
☐ COPY PROVIDED

SUBMITTED BY: FRED C. ARFMAN, PE DATE: 12-15-11
FOR: ISAACSON & ARFMAN -1/14/11



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 define 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.



KEYED NOTES

1. CONSTRUCT SITE ENTRANCE PER C.O.A. STD DWG #2425 & 2426. MATCH EXISTING FLOWLINE ELEVATIONS TO PROVIDE A SMOOTH RIDING TRANSITION. CONSTRUCT CONCRETE VALLEY GUTTER / HANDICAP RAMPS (PER C.O.A. STD. DWG. 2426) MATCHING EXISTING TOP OF WALK / FLOWLINE ELEVATIONS. TRANSITION CURB HEIGHT FROM 8" TO 6" OVER LENGTH OF RADIUS. SEE ARCHITECTURAL FOR DIMENSIONS / DETAILS / DEMOLITION OF EXISTING CURBS.
2. PROPOSED ASPHALT PAVING. SEE ARCHITECTURAL FOR SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC.
3. PROPOSED CONCRETE PAVING. SEE ARCHITECTURAL FOR JOINT INFORMATION, DIMENSIONS, ETC.
4. CONSTRUCT 6" HIGH MEDIAN CURB AND GUTTER AT ALL ON-SITE LOCATIONS. SEE SHEET CG-102 FOR DETAIL.
5. CONSTRUCT TURNED DOWN CONCRETE WALK THIS AREA. SEE ARCHITECTURAL FOR DETAIL.
6. CONSTRUCT ADA ACCESS RAMP. SEE ARCHITECTURAL FOR RAMP LOCATIONS / DIMENSIONS AND ADDITIONAL INFORMATION.
7. CONSTRUCT STEM WALL TRANSITIONS AS REQUIRED TO ACHIEVE GRADE DIFFERENCES SHOWN. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION (DESIGN BY OTHERS).
8. ROOF FLOW TO EAST TO BE PASSED TO ASPHALT PAVEMENT VIA RAMP OR 'U' SHAPED CONCRETE CHANNEL WITH COVERED SIDEWALK CULVERT. FLOWLINE ELEVATION (FL) AND TOP OF CHANNEL CURB (TC) AT BUILDING SHOWN. MINIMUM SLOPE = 1% TO ASPHALT.
9. ROOF FLOW TO WEST SIDE TO BE COLLECTED AND RELEASED DIRECTLY TO PAVEMENT. SEE ARCHITECTURAL FOR SPECIFIC OUTFALL POINTS.
10. CONSTRUCT 2' WIDE (BOTTOM WIDTH) SIDEWALK CULVERT WITH 'U' SHAPED CONCRETE RUNDOWN WITH 2' CURB RADI TO PASS FLOW. SEE SHEET CG-102 FOR DETAIL.
11. CONSTRUCT HC PARKING PAVEMENT TO ADA STANDARDS. MAX. 2% SLOPE IN ANY DIRECTION.
12. ALL IMPROVEMENTS IN THE CITY R.O.W. WILL BE CONSTRUCTED BY SEPARATE WORK ORDER. STUBS TO BE PROVIDED TO THE PROPERTY LINE WHERE NECESSARY.
13. CONSTRUCT TYPE DOUBLE 'D' STORM DRAIN INLET AT RIM=52.5, INV=49.0, EXTEND 18" ADS N-12 WATERTIGHT PIPE TO STUB PROVIDED AT PROPERTY LINE.
14. AT PEDESTRIAN AND VEHICLE TRANSITIONS TO EXISTING PROPERTY TO SOUTH, MAINTAIN GRADES SHOWN TO KEEP LOT 29-A FLOWS FROM ENTERING SITE.
15. TEMPORARY COMPACTED EARTH BERM. TOP OF BERM = 63.0 TYP.

PROJECT DATA

LEGAL DESCRIPTION: LOT 5-A, BLOCK 3 TRACT A, UNIT B NORTH ALBUQUERQUE ACRES BERNALILLO COUNTY, NEW MEXICO

ADDRESS: 5454 PASADENA AVE. NE, ALBUQ., NM 87113

SITE AREA: 1.766 AC

FLOOD ZONE: 100 YEAR FLOOD ZONE DESIGNATION: ZONE X, AS SHOWN ON F.I.R.M. PANEL 35001C0129G DATED SEPTEMBER 26, 2008. THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD PLAIN.

ENGINEER: FRED C. ARFMAN, PE #7322 ISAACSON & ARFMAN, P.A. 128 MONROE ST NE, ABQ. NM 87108 PHONE: (505) 268-8828

SURVEYOR: RONALD A. FORSTBAUER: NMPS NO. 6126 FORSTBAUER SURVEYING, L.L.C. 4116 LOMAS BOULEVARD NE ALBUQUERQUE, NEW MEXICO 87110 PHONE: (505) 268-2112

BENCHMARK: CITY OF ALBUQUERQUE 6-B17, AN ALUMINUM DISK ON CONCRETE CURB, WNW QUADRANT OF SAN MATEO BLVD. NE & SAN DIEGO AVE. NE ELEVATION: 5153.322 NAVD88.

LEGEND

- EXISTING CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FLOWLINE
- FINISH FLOOR ELEVATION

EASEMENT NOTES

1. 20' CROSS-LOT DRAINAGE EASEMENT. DOC# 2011014306 FILED: 02/09/2011

DRAINAGE CONCEPT

PROPERTY: THE SITE IS BOUND TO THE EAST BY UNDEVELOPED COMMERCIAL, TO THE WEST AND SOUTH BY DEVELOPED COMMERCIAL AND TO THE NORTH BY PASADENA BLVD.

THE PROPOSED IMPROVEMENTS INCLUDE APPROX. 20,500 SF COMMERCIAL BUILDING WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

OFF-SITE: APPROXIMATELY 2 ACRES (UNDEVELOPED COMMERCIAL PROPERTY) EAST OF THE PROPERTY CURRENTLY DRAINS TOWARDS THE PROPERTY. AN EARTHEN BERM AND ASSOCIATED SWALE WILL BE CONSTRUCTED WITHIN THE ADJACENT PROPERTY (SAME OWNER) TO THE EAST TO DIVERT THESE FLOWS TO PASADENA AVE. TO CONTINUE ALONG THEIR HISTORIC FLOWPATH.

DRAINAGE PLAN CONCEPT: ALL SITE FLOW WILL BE CAPTURED ON-SITE WITHIN A NEW STORM DRAIN INLET LOCATED NEAR THE NORTHWEST CORNER OF LOT 4. THIS WILL FREE DISCHARGE TO THE PASADENA AVE. STORM SEWER SYSTEM WHICH WILL BE EXTENDED TO THE EAST END OF LOT 5. A SINGLE 'A' AND DOUBLE 'C' INLET WILL BE INSTALLED IN PASADENA AVE. PER THE APPROVED 'SAN MATEO BUSINESS PARK' DRAINAGE REPORT PREPARED BY C.L. WEISS ENGINEERING - DATED 9/22/99. DRAINAGE IMPROVEMENTS WITHIN THE R.O.W. WILL BE CONSTRUCTED BY SEPARATE WORK ORDER.

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE No. 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 02/11/2011. The record information edited onto the original design document has been obtained by Ron Surveying, NMPS 6126, of the firm Forstbauer Surveying. I further certify that I have personally visited the project site on 10/07/2011 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
Fred C. Arfman NMPE 7322
12.15.11
Date



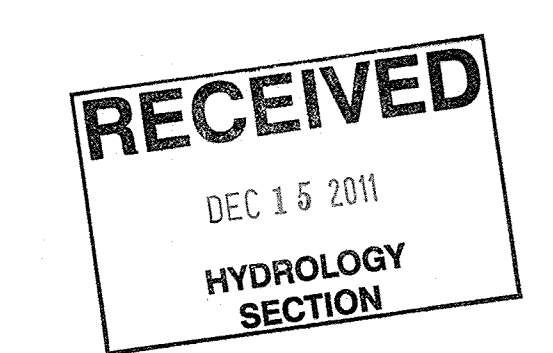
ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street NE
Albuquerque, New Mexico 87108
Ph: 505-268-8828 Fax: 505-268-2832
1800 66-101-496 Feb 11, 2011

ASA M. NILSSON-TESSER
NEW MEXICO
17631
Professional Engineer
2-11-11

MECHENBIER
CONSTRUCTION INC.
OFFICE/ WAREHOUSE
DEVELOPMENT AT
5454 PASADENA N.E.

Sierra
HERR
1600 rio grande n w
albuquerque
new mexico 87104
fax 505 246 0437

DRAINAGE AND GRADING PLAN



revisions:

date:
12/01/10
sheet:

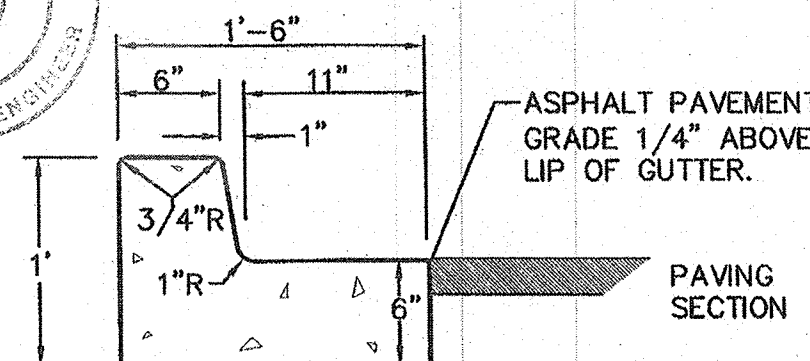
DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE No. 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 02/11/2011. The record information edited onto the original design document has been obtained by Ron Surveying, NMPS 6126, of the firm Forstbauer Surveying. I further certify that I have personally visited the project site on 10/07/2011 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
Fred C. Arfman NMPE 7322

12.15.11
Date

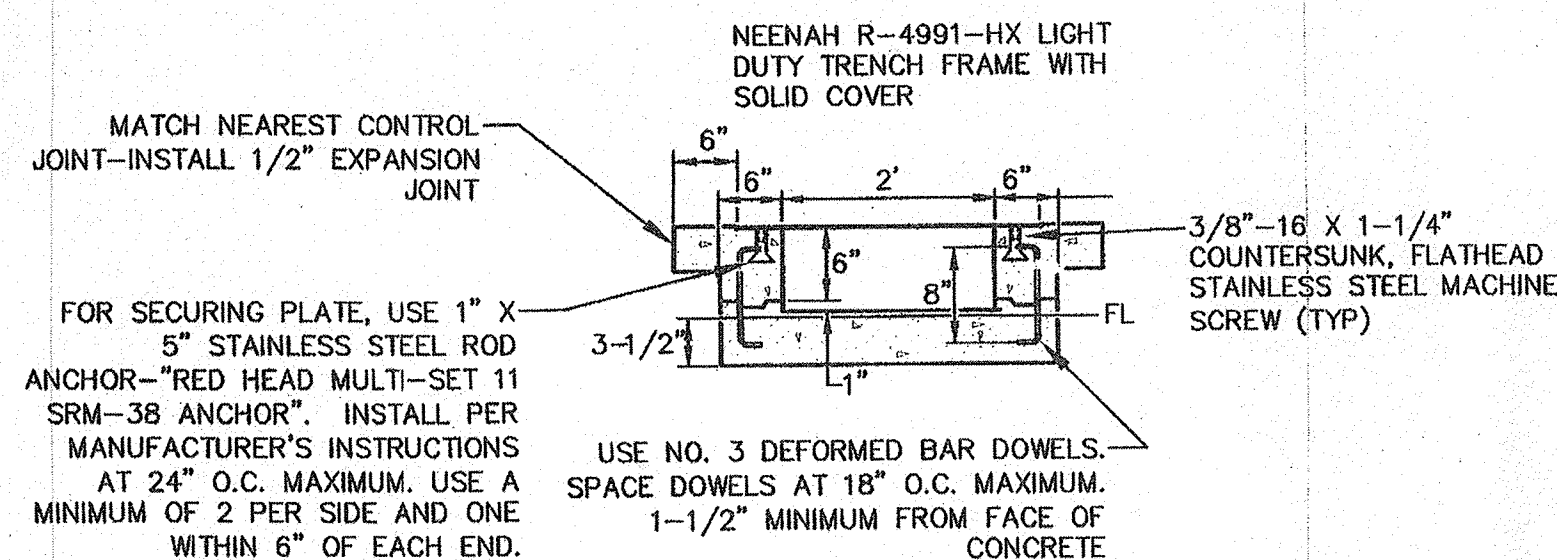
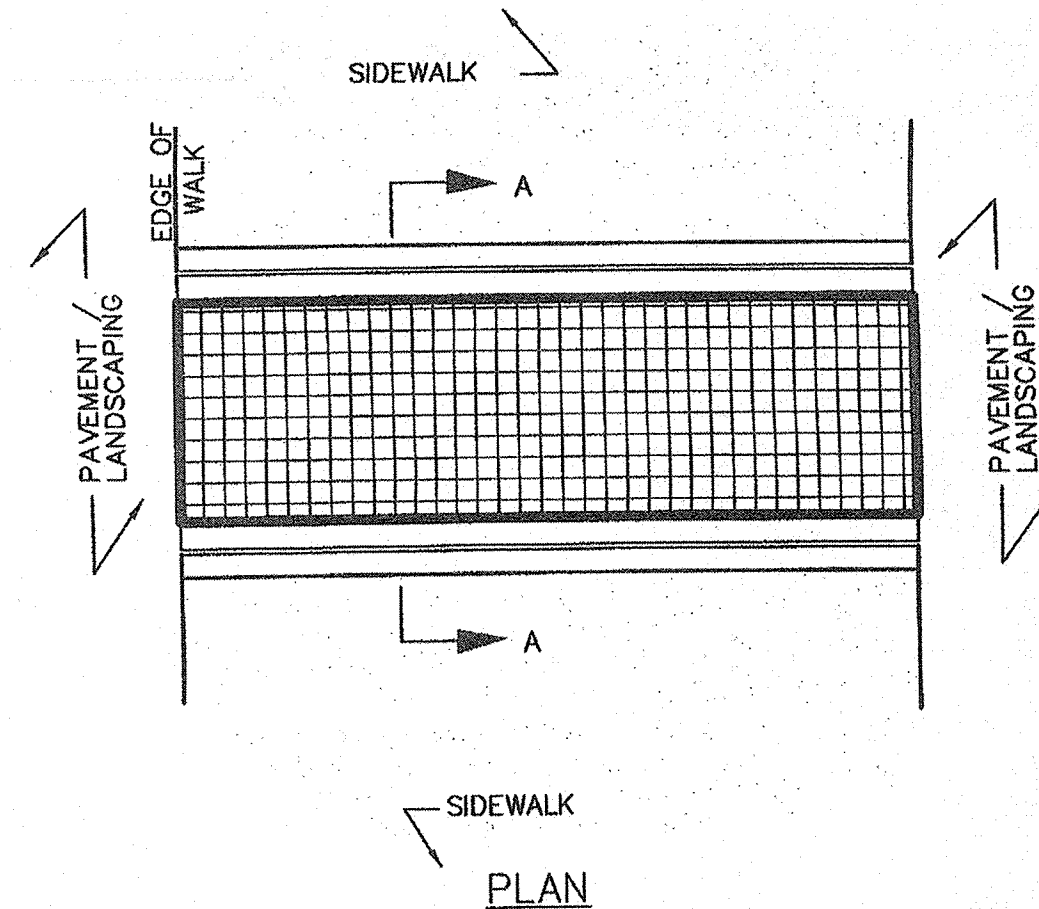


GENERAL NOTES

1. PROVIDE CONST. CONTROL JOINTS @ 6' O.C. MAX. AND 1/2" EXPANSION JOINTS @ 48' O.C. MAX.
2. EDGES SHOULD BE REMOVED WITH 3/8" EDGING TOOL.
3. MEDIAN C & G REQUIRE FULL FORM ON ALL FACES

1 MEDIAN CURB AND GUTTER

N.T.S.

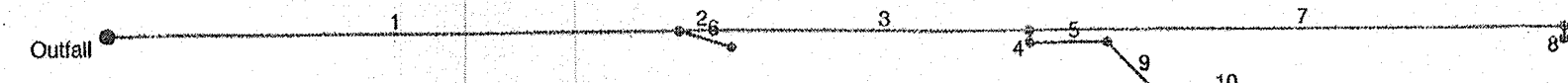


SECTION A-A

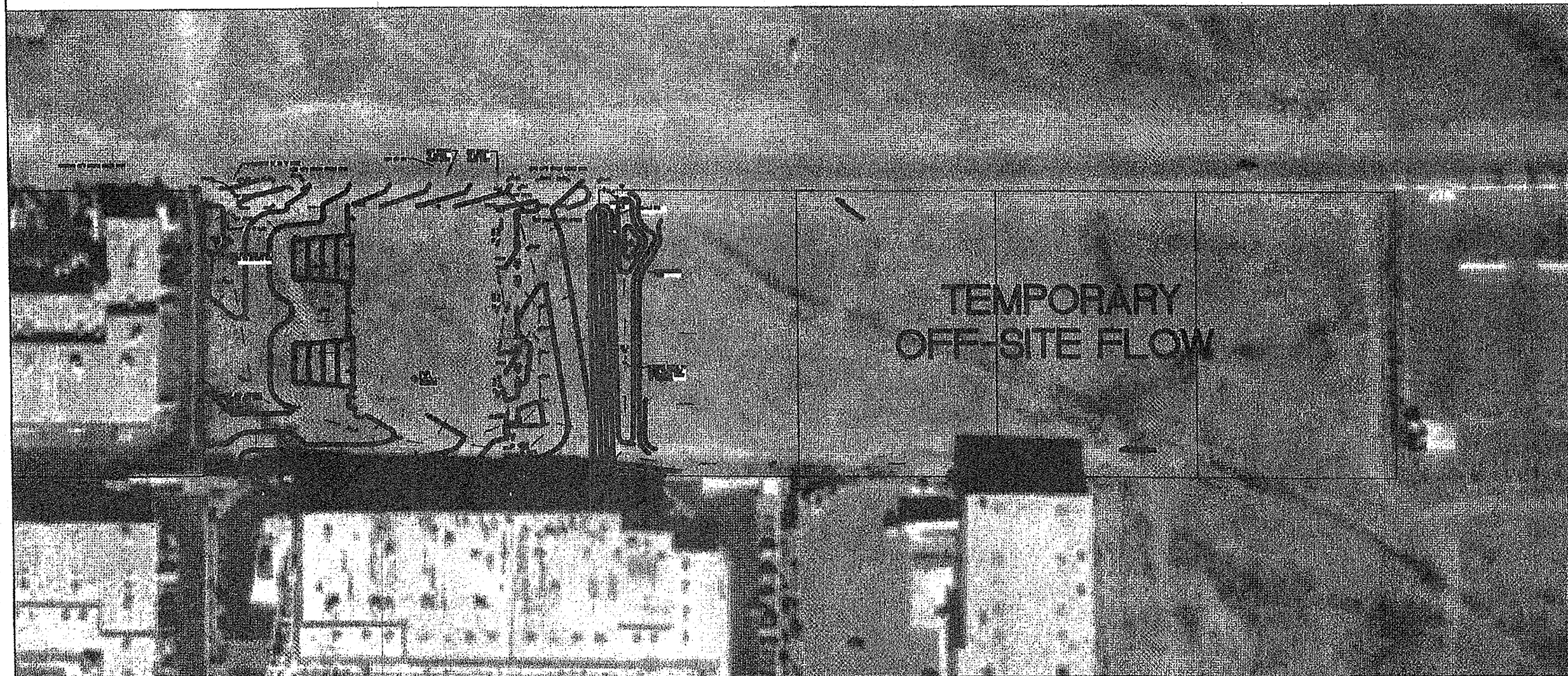
2 SIDEWALK CULVERT

N.T.S.

Hydraflow Storm Sewers Extension for AutoCAD® Civil 3D® 2009 Plan



OFF-SITE BASIN



CALCULATIONS

CALCULATIONS: Mechenbier Office / Warehouse : August 23, 2010

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

ON-SITE					
AREA OF SITE:	76945	SF	=	1.8	
HISTORIC FLOWS:	100-year, 6-hour				
Area A	0	%	Area A	0	%
Area B	0	%	Area B	1924	3%
Area C	76945	100%	Area C	3847	5%
Area D	0	0%	Area D	71174	93%
Total Area	76945	100%	Total Area	76945	100%
On-Site Weighted Excess Precipitation (100-year, 6-Hour Storm)					
Weighted E = $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$					
Historic E	=	1.29 in.	Developed E	=	2.27 in.
On-Site Volume of Runoff: V ₃₆₀ = $\frac{E \cdot A}{12}$					
Historic V ₃₆₀	=	8272 CF	Developed V ₃₆₀	=	14559 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 3					
Q _{pA}	=	1.87	Q _{pC}	=	3.45
Q _{pB}	=	2.60	Q _{pD}	=	5.02
Historic Q _p	=	6.1 CFS	Developed Q _p	=	8.6 CFS

ALL SITE DISCHARGE WILL
FREE DISCHARGE TO
PASADENA AVE. TO ENTER
THE EXISTING PUBLIC STORM
DRAIN SYSTEM.

ORIFICE EQUATION:

$$Q = CA(2gh)^{1/2}$$

Where:

$$C = 0.67$$

$$A = 2.35 \text{ ft}^2$$

$$g = 32.2 \text{ ft/sec}^2$$

$$h = \text{height of the water surface above the grate}$$

CAPACITY CALCULATIONS:

INLET #	
LOCATION	
h =	0.5 ft
Q _{capacity} =	8.917478 cfs
REQUIRED Q =	17.2 cfs
NUMBER OF GRATES REQUIRED =	2

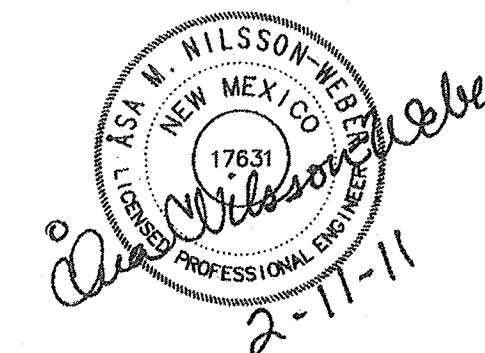
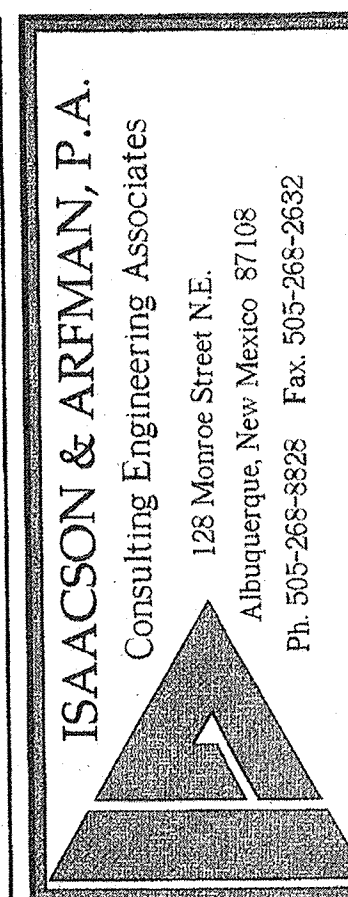
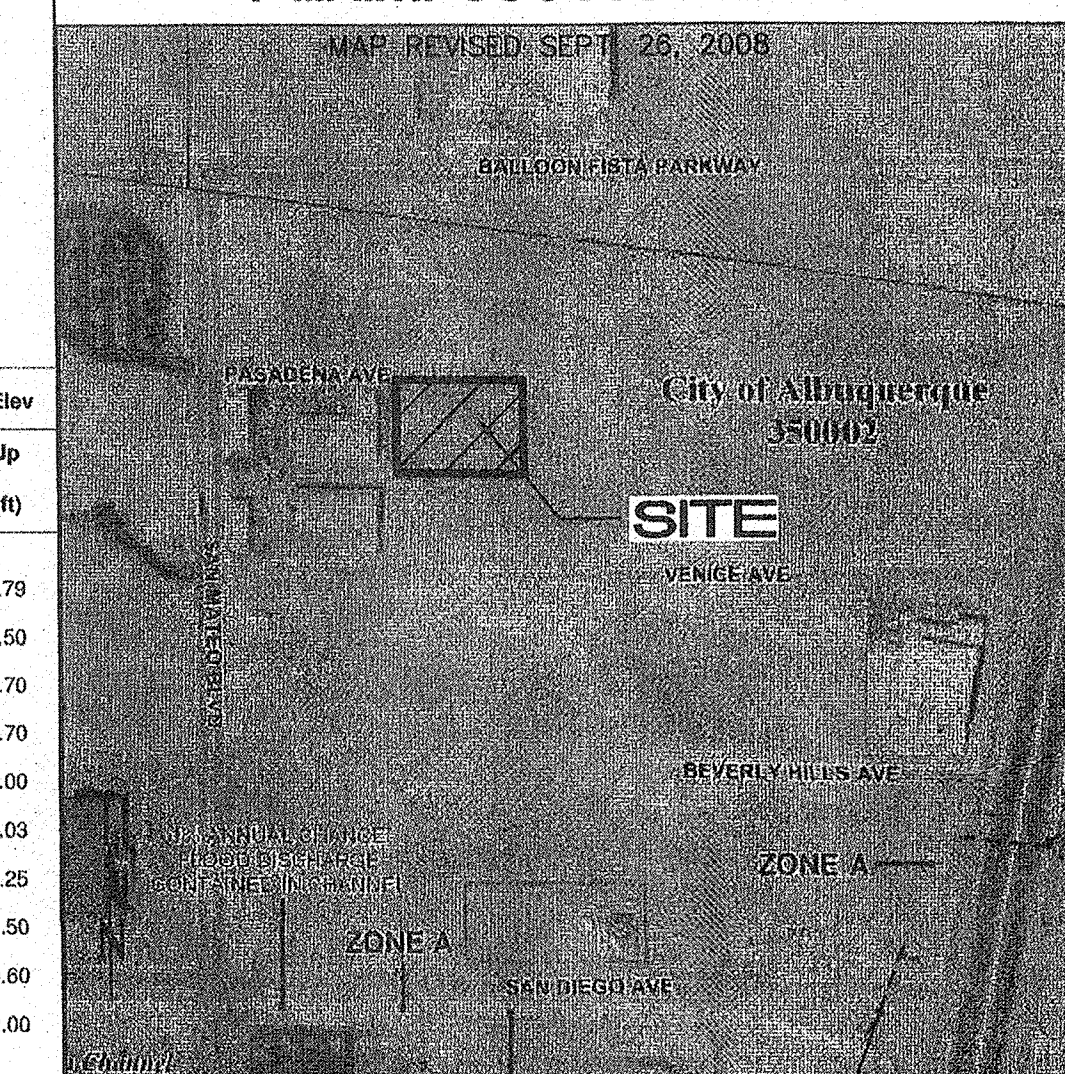
GENERAL NOTES

- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.
- ALL SUBGRADE, OVEREXCAVATION, AND FILL SHALL BE PLACED AND / OR COMPACTED PER THE GEOTECHNICAL REPORT AND CITY OF ALBUQUERQUE SPECIFICATIONS.
- FINAL GRADES SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF 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 MATERIAL THICKNESSES.
- MAXIMUM SLOPES SHALL BE 3:1 AND MINIMUM SLOPES SHALL BE 1% UNLESS OTHERWISE NOTED.
- FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES. THE 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.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES TO THE ARCHITECT / ENGINEER AND VERIFY THE ARCHITECT / ENGINEER'S INTENT BEFORE PROCEEDING.
- OWNER HAS ESTABLISHED PROPERTY BOUNDARY CORNERS. CONTRACTOR SHALL LOCATE AND PRESERVE ALL BOUNDARY CORNERS AND REPLACE ANY LOST OR DISTURBED CORNERS AT CONTRACTOR'S SOLE EXPENSE.
- OWNER WILL PROVIDE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND INSPECTION. CONTRACTOR SHALL COMPLY WITH THE BEST MANAGEMENT PRACTICES (BMP'S) AS SPECIFIED IN THE SWPPP, AND WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
- COORDINATE WORK WITH SITE PLAN, UTILITY PLAN AND LANDSCAPE PLAN.
- ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES, TYPICAL.
- ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS TO DRAIN TOWARD EXISTING AND / OR PROPOSED DRAINAGE PATHS. WHERE NEW GRADES ARE SHOWN AS MATCH OR '±', TRANSITIONS SHALL BE SMOOTH AND LEVEL. ANY NEW PAVING SURFACE HOLDING WATER (BIRDBATH) SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S SOLE EXPENSE.
- ALL AREAS REFERENCING EROSION PROTECTION SHALL BE 6" AVG. DIA. FRACTURED FACE ROCK (F.F. ROCK) PLACED OVER GEOTEX 50 NON-WOVEN GEOTEXTILE.
- SIDESLOPES STEEPER THAN 3:1 BUT LESS THAN 2:1 MUST HAVE PERMANENT EROSION CONTROL (FRACTURED FACE ROCK [F.F. ROCK] INSTALLED. NO SLOPE SHALL BE STEEPER THAN 2:1.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESEED WITH NATIVE GRASS PER C.O.A. SPECIFICATIONS SECTION 1012 (FOR SANDY SOILS) OR AS SPECIFIED ON THE LANDSCAPE PLAN.
- OWNER SHALL MAINTAIN EROSION PROTECTION ELEMENTS. OWNER SHALL INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.

EROSION CONTROL NOTES

- ALL COBBLE EROSION PROTECTION TO BE 6" AVG. DIA. ANGULAR FACED ROCK OVER PERMANENT EROSION CONTROL MATERIAL.
- OWNER SHALL INSPECT AND MAINTAIN DRAINAGE AND WATER HARVESTING IMPROVEMENTS ON AN ON-GOING BASIS. IN ADDITION, OWNER SHALL INSTALL / MAINTAIN ADDITIONAL EROSION PROTECTION ELEMENTS BASED ON ACTUAL EROSION PATTERNS WHICH DEVELOP OVER TIME.
- ALL DRAINAGE IMPROVEMENTS SHOWN ON THE APPROVED GRADING AND DRAINAGE PLAN MUST BE COMPLETED BEFORE AN ENGINEER'S CERTIFICATION CAN BE ISSUED.

F.I.R.M. 35001C0129G



MECHENBIER
CONSTRUCTION INC.
OFFICE/ WAREHOUSE
DEVELOPMENT AT
5454 PASADENA N.E.

S L A G L E
H E R R

1600 riograndenw
albuquerque
new mexico 87104
fax 505 246 0437

DRAINAGE AND
GRADING PLAN

RECEIVED

DEC 16 2011

HYDROLOGY
SECTION

revisions:

date:
12/01/10
sheet:

2 OF 2