

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



July 10, 2014

Bernie J. Montoya
BJM CONSULTANT
8624 Casa Verde Ave. NW
Albuquerque, NM 87120

Richard J. Berry, Mayor

**RE: Warehouse Addition -2655 Baylor Drive SE
Grading & Drainage Plan
Engineer's Stamp Date 6-30-2014 (File: M16D006)**

Dear Mr. Montoya:

Based upon the information provided in your submittal received 6-30-14, the above referenced plan is approved for Building Permit and SO-19.

Please attach a copy of this approved plan to the Building Permit construction sets prior to sign-off by Hydrology.

PO Box 1293

A separate Excavation/Barricading Permit is required for SO-19 construction within City ROW. A copy of this approval letter must be on hand when applying for the permit. To obtain a C.O., the storm drain work in the City ROW must be inspected and accepted. Please contact Jason Rodriguez, 857-8074, to schedule an inspection.

Albuquerque

Prior to Certificate of Occupancy release, an Engineer's Certification of Grading on this site, will be required per the DPM checklist.

New Mexico 87103

If you have any questions, you can contact me at 924-3695.

www.cabq.gov

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf via Email: Recipient, Tim Sims, Monica Ortiz

EXISTING EXCESS PRECIPITATION

$$\text{Weighed E} = E_a A_a + E_b A_b + E_c A_c + E_d A_d$$

$$A_a = 0 \quad A_b = 0 \quad A_c = 0.4595 \quad A_d = 0$$

$$E_a = 0.13 \quad E_b = .28 \quad E_c = .52 \quad E_d = 3.14$$

$$A_a + A_b + A_c + A_d$$

$$\text{EXISTING E} = E_c A_c = (.52)(0.4595)$$

$$= 0.52 \text{ INCHES}$$

$$0.4595$$

$$\text{Volume 360-10-year} = (0.52) \times (0.4595) / 12 = 0.01991 \text{ ac-ft} = 867.35 \text{ cf}$$

$$P_a = 0.38 \quad P_b = 0.95 \quad P_c = 1.71 \quad P_d = 3.14$$

$$Q_{360-10\text{-year}} = (.38) \times (0) + (.95) \times (0) + (1.71) \times (0.07682) + (3.14) \times (0) = 0.1313 \text{ cfs}$$

PROPOSED EXCESS PRECIPITATION

$$\text{Weighted E} = (.13) \times (0) + (.29) \times (0.03341) + (.52) \times (0.07682) + (1.34) \times (0.3477)$$

$$0.4595$$

$$E = 0.51556$$

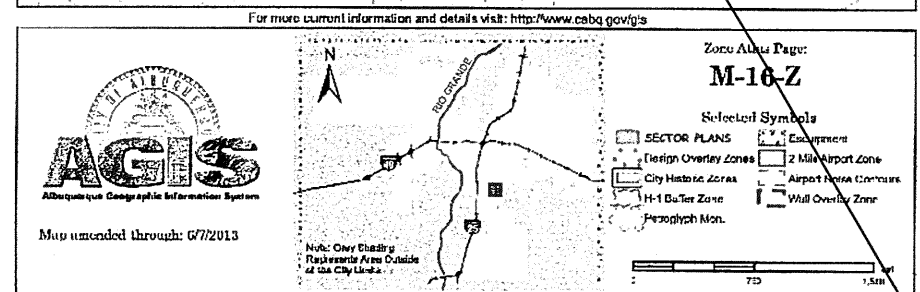
$$= 1.12 \text{ inches}$$

$$0.4595$$

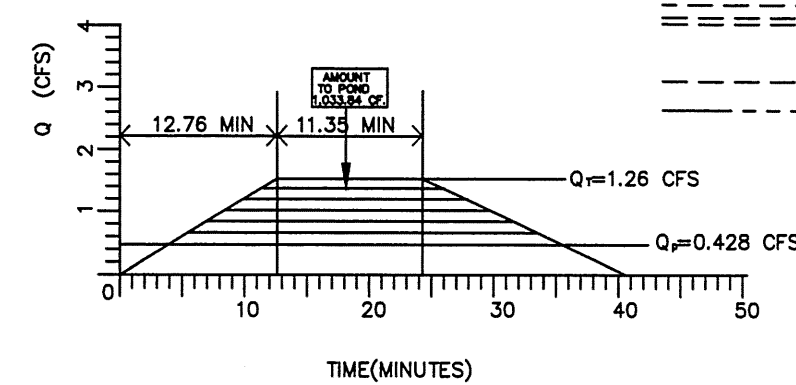
$$\text{Volume 360-10-year} = (1.12) \times (0.4595) / 12 = 0.04289 \text{ ac-ft} = 1,868.14 \text{ cf}$$

$$Q_{360-10\text{-year}} = (.38) \times (0) + (.95) \times (0.03541) + (1.71) \times (0.007682) + (3.14) \times (0.3477) = 1.26 \text{ cfs}$$





THIS LIES WITHIN BASIN G-17 AS DEFINED ON THE REPORTS. THE REPORTS SHOWN THAT BASIN G-17 DISCHARGE 103 CFS INTO GIBSON BLVD. SE UNDER FULLY DEVELOPED CONDITIONS.



DURATION OF PEAK
 $2.017 \cdot E^*A / Q$
 $2.017 \cdot 1.12 \cdot 0.4595 / 1.26 - .25 \cdot 0.3477 / 0.4595 = 40.29 \text{ MIN}$

(SPECIAL ORDER 19 - "SO-19")

1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH CALIFORNIA FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE MEDICAL CENTER POLICE DEPARTMENT (714) 373-1000.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED PRIOR TO ANY SIGNIFICANT DELAY.
5. BACKFILL/COMPACTION SHALL BE ACCORDING TO BACKFILL/STREET USE. WORK WITHIN CITY RIGHT-OF-WAY.
6. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER. THE PROPERTY IS NOT TO BE USED FOR ANY OTHER PURPOSE.
7. WORK ON ARTERIAL STRINGS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE	TITLE:
INSPECTOR			WAREHOUSE ADDITION FOR 2655 BAYLOR DR. S.E.
			MAP NO. M16

PROJECT AREA = 0.4595 ac.
BASIN B PLASTIC STORAGE WAREHOUSE
ZONE 2
PRECIPITATION: 360 = 2.35 in.
1440 = 2.75 in.
10day = 3.95 in.

	EXCESS PRECIPITATION:	PEAK DISCHARGE
TREATMENT A	0.53 in.	1.56 cfs/ac.
TREATMENT B	0.78 in.	2.28 cfs/ac.
TREATMENT C	1.13 in.	3.14 cfs/ac.
TREATMENT D	2.12 in.	4.70 cfs/ac.

	EXISTING CONDITIONS:	PROPOSED CONDITIONS:
	AREA	AREA
TREATMENT A	0 ac.	0 ac.
TREATMENT B	0 ac.	0.03541 ac.
TREATMENT C	0.4696 ac.	0.07682 ac.
TREATMENT D	0 ac.	0.3477 ac.

EXISTING EXCESS PRECIPITATION:

$$\text{Weighted E} = (0.53)(0.00) + (0.78)(0.00) + (1.13)(0.47) + (2.12)(0.00) / 0.46 \text{ ac.}$$

$$V_{100-360} = (1.15)(0.46) / 12 = 0.044221 \text{ ac-ft} = 1926 \text{ CF}$$

EXISTING PEAK DISCHARGE: _____

$$Q_{100} = (1.56) \times (0.00) + (2.28) \times (0.00) + (3.14) \times (0.47) + (4.70) \times (0.00) = 1.47 \text{ CFS}$$

PROPOSED EXCESS PRECIPITATION:

$$\text{Weighted } E = (0.53) \times (0.00) + (0.78) \times (0.04) + (1.13) \times (0.08) + (2.12) \times (0.35) / 0.46 \text{ ac.}$$

$$= 1.85 \text{ in.}$$

$$V_{100-360} = (1.85) \times (0.46) / 12.0 = 0.070963 \text{ ac-ft} = 3091 \text{ CF}$$

$$V_{100-1440} = (0.07) + (0.35) \times (2.75 - 2.35) / 12 = 0.082553 \quad \text{ac-ft} = 3596 \text{ CF}$$

$$V_{100-10dgy} = (0.07) + (0.35) \times (3.95 - 2.35) / 12 = 0.117323 \quad \text{gc-ft} = 5111 \text{ CF}$$

PROPOSED PEAK DISCHARGE:

$$Q_{100} = (1.56) \times (0.00) + (2.28) \times (0.04) + (3.14) \times (0.08) + (4.70) \times (0.35) = 1.96 \text{ CFS}$$

INCREASE 1.96 CFS - 1.47 CFS = 0.49 CFS

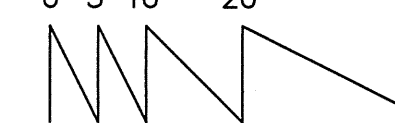
HISTORICAL FLOW RATE = 1.47 CFS DEVELOPED FLOW RATE = 1.96

PROPOSED FLOW RATE 1.96 CFS - PUMP RATE 0.428 CFS = 1.53 CFS

Q proposed 1.96 CFS - Q pump 0.428 cfs = 1.5 CFS = 1.5 CFS HISTORICAL (ROUND OFF)

NORTH

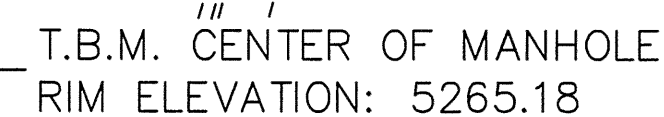
0 5' 10' 20'



VOLUME BY AVERAGE END

CONTOUR	AREA SQ FT	DEPTH FT	VOLUME CU FT
5358.2	4,992		
5358	2112	0.20	710
5357.25	1071	0.75	803

TOTAL VOLUME PROVIDED		1.513
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PROPERTY LINE

PROPERTY LINE

EXISTING CONTOUR

PROPOSED CONTOUR

DESIGNED SPOT ELEVATIONS

EXISTING SPOT ELEVATIONS

DOWN SPOUT

FLOW DIRECTION
ABBREVIATION LEGEND

TOP OF CON. PAD	-	TCP
TOP OF CURB	-	TC
TOP OF ASPHALT	-	TA
FLOWLINE	-	FL
TOP OF WALL	-	TW
ROOF FLOWS	-	RF
TOP OF SIDEWALK	-	TSW

BENCHMARK:

LOCATED ON THE NORTHWEST QUADRANT OF
THE INTERSECTION OF YALE AVE. S.E.
AND KATHRYN AVE. S.E.
ELEVATION 5164.18

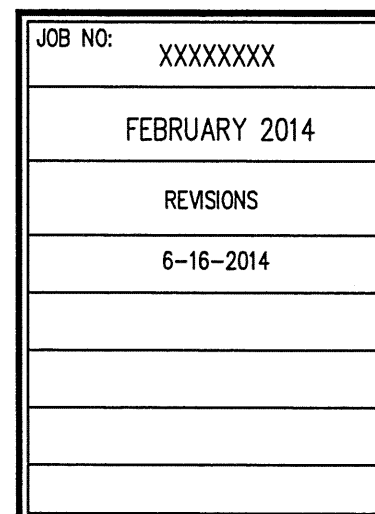
DRAINAGE PLAN

Sheet Title

Drawn By: H Hood B1M

Project Name
BAYLOR WAREHOUSE ADDITION
22655 BAYLOR DRIVE S.E.
ALBUQUERQUE, NEW MEXICO

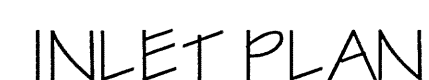
SHEET NO.



SHEET NO.

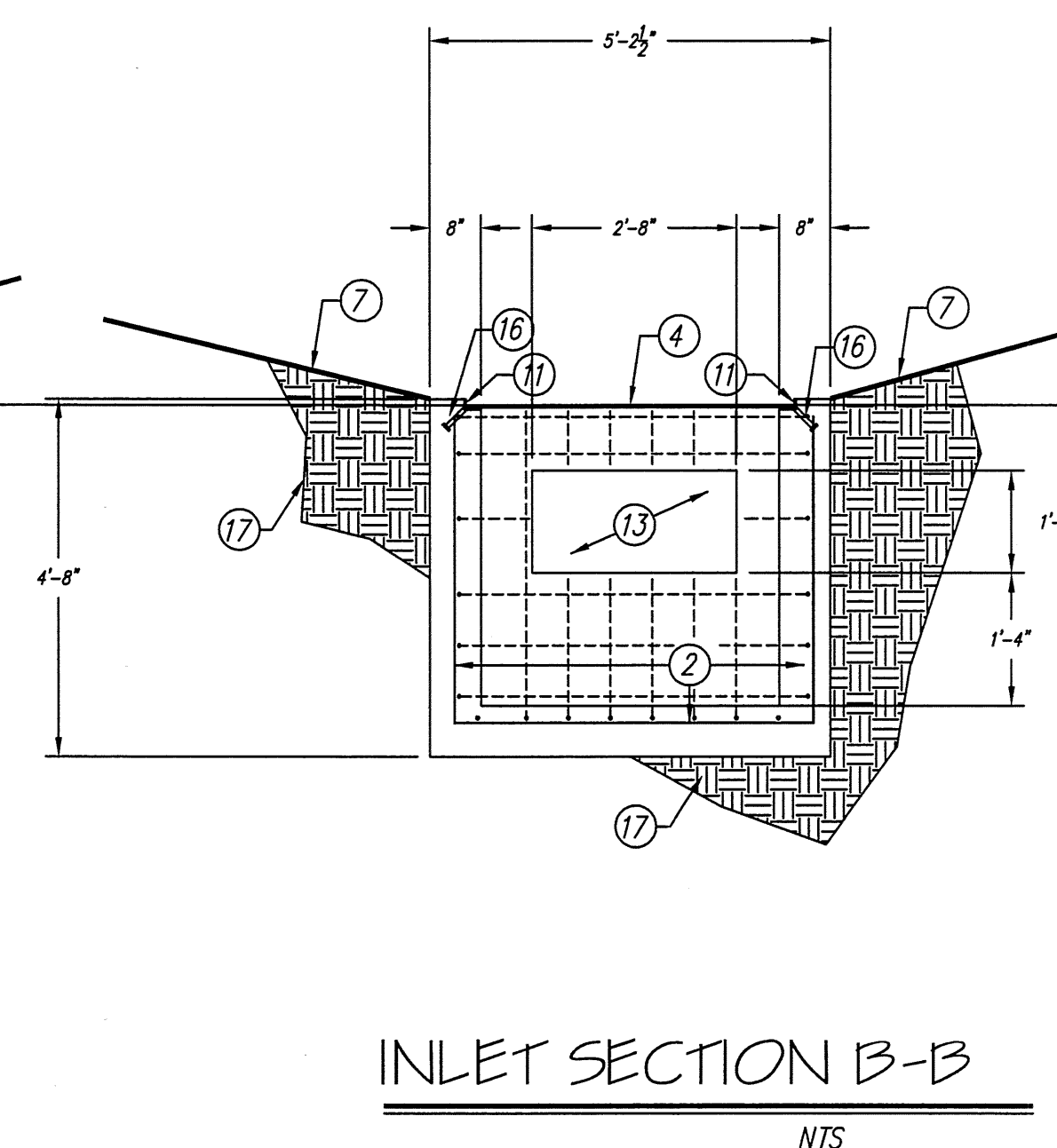


CONCRETE RETAINING WALL



NTS

SUMP WITH PUMP DETAIL



NTS

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INSPECTOR			WAREHOUSE ADDITION FOR 2655 BAYLOR DR. S.E.
			MAP NO. M16