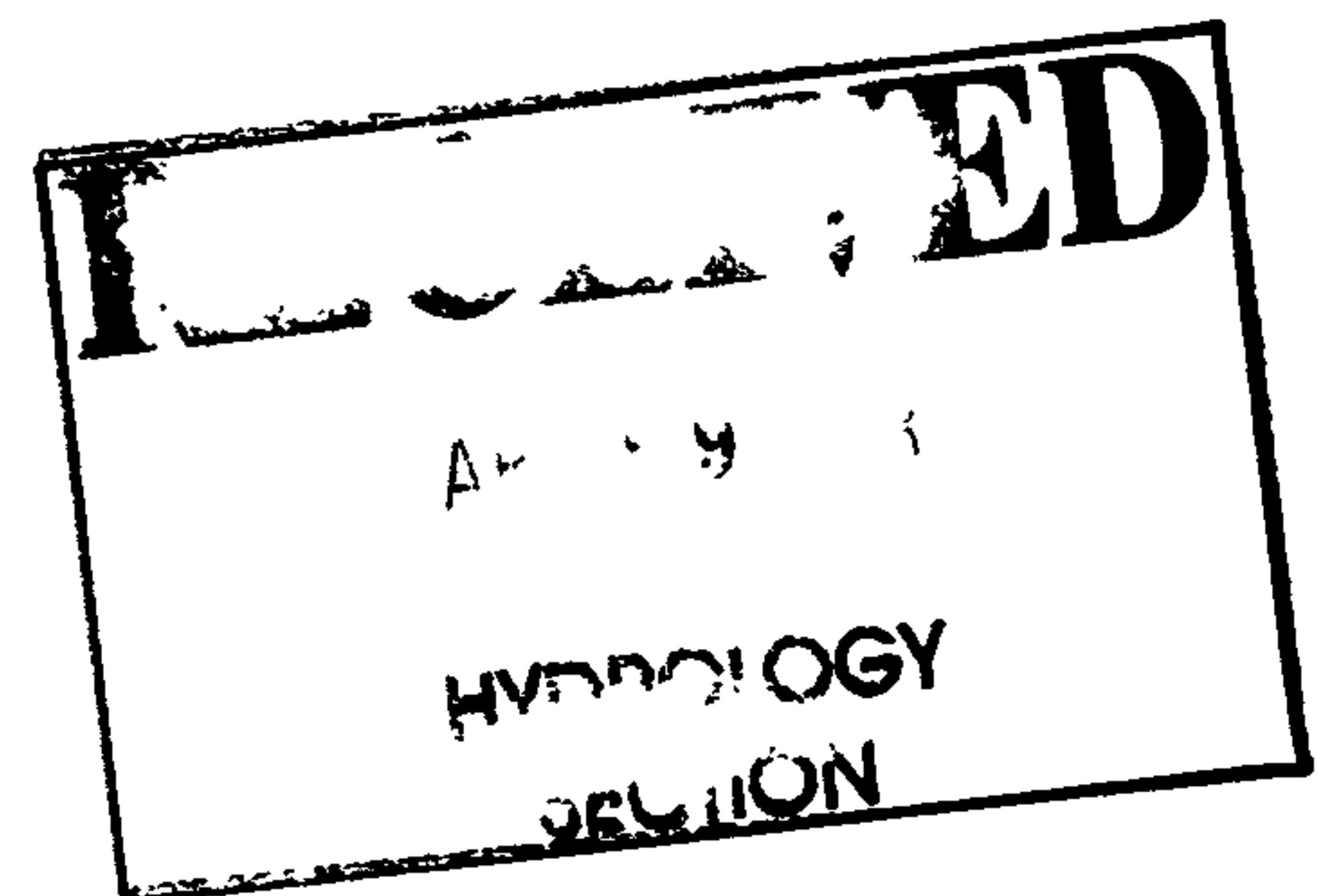


Drainage Report

for

FedEx Freight Albuquerque



Prepared by:

Wilson & Company, Inc.
4900 Lang Ave NE
Albuquerque, New Mexico 87109
(505) 348-4191

April 2008
WCI File No: 0760004400

WILSON
& COMPANY

Drainage Report

for

FedEx Freight Albuquerque



Prepared by:

**Daniel S. Aguirre, PE
NM #11955**

**Wilson & Company, Inc.
4900 Lang Ave NE
Albuquerque, New Mexico 87109
(505) 348-4191**

**April 2008
WCI File No: 0760004400**

Table of Contents

	<u>Page No.</u>
Site Information	3
Drainage Narrative	3-5
Conclusion	5
Exhibit 1	6
Exhibit 2	7
Exhibit 3	8
Appendix A – Hydrology	
Appendix B – Hydraulics	
Plate 1 - Basin Boundary Map	
Plate 2A – 2C– Grading Plan, Drainage Details	

Site Description

The project site, identified as FedEx Freight Albuquerque, is located east of I-40 and west of Airport Road NW at the intersection of Los Volcanes Road NW and Gallatin Place NW. (See Location Map - Exhibit 1 on Page 6). The 22.43 acre project site is bounded on the north by Fortuna Road NW, on the west by the proposed extension of Gallatin Place NW, on the south by Los Volcanes Road NW, on the southeast by Lot 2 Atrisco Business Park Unit 2 and on the northeast by undeveloped land identified as Tract D of the Bulk Land Plat of Tracts A Thru D, Meridian Business Park II. The site is currently undeveloped, covered with native grasses, and has had little or no previous impact from human activity.

Legal Description

Tract C of Bulk Land Plat of Tracts A Thru D, Meridian Business Park II, A Replat of Lot 3 and Tracts S-1A, S-2A-2 Atrisco Business Park Unit 2.

Flood Hazard Zones

The site is not located in a flood zone as shown on Panels 326 and 328 of 825 of the FEMA Flood Insurance Rate Map for Bernalillo County, New Mexico. See Flood Insurance Rate Map – Exhibit 2, Page 7.

Soils

Soils onsite consist of Loamy Fine Sands and Sandy Clay as indicated on Sheet No, 30 of the SCS Bernalillo County Soil Survey. See Soils Map – Exhibit 3, Page 8.

Drainage

This site is identified as part of Basin 200.1, in the “Master Drainage Plan for the Atrisco Business Park” dated September 1992, Revised March 1993/October 1993, and further delineated in the approved “Drainage Report for Meridian Business Park II, a Supplement to the Master Drainage Plan”, prepared by Wilson & Company and dated August 2007. The Master Drainage Plan dictates an allowable discharge rate of 0.1 cfs/acre for properties within the Master Drainage Plan area, with ultimate collection of discharge from Basin 200.1 on Airport Road into the North/South Coors Connection Watershed.

The “Drainage Report for Meridian Business Park II, a Supplement to the Master Drainage Plan”, prepared by Wilson & Company and dated August 2007, designates Tract C as Basin 200.1C on Plate 1 – Proposed Improvements/Drainage Basin Map for Fully Developed Conditions. In that report, using the Rational Method in Chapter 22 Section 2 of the City of Albuquerque’s Development Process Manual for Precipitation Zone 1, the site was analyzed using 15% Land Treatment B and 85% Land Treatment D. From the report Table 1: Summary of Fully Developed Flows indicates a Q_{100} of 90.1 cfs and Table 2: Summary of Allowable Discharge indicates a Q_{100} of 2.2 cfs. This allowable discharge is described as being released from a generic ‘Pond 3’ into the existing 24” SD in Los Volcanes Road NW.

Additionally, on the north frontage of the project site, per the “West Mesa Diversion Project Drainage Analysis” collection infrastructure for the discharge from Basin C4-D and Basin 1-40-2 of that Analysis must be provided and tied to an existing 30” cap located roughly at the intersection of Fortuna Road NW and 76th Street NW.

The Bulk Land Plat of Tracts A Thru D, Meridian Business Park II also creates a 60' wide Right-of-Way for the northward extension of Gallatin Place NW to Fortuna Road NW. The Master Drainage Plan allows for the free discharge of street runoff to the overall system.

Proposed Improvements

The 22.43 acres of the FedEx Freight Albuquerque, Tract C as referenced in the Legal Description above, is being developed as a Federal Express transfer center comprised of a large warehouse, maintenance shop and a small office.

Onsite

The site, located in Precipitation Zone 1, is comprised of 7 sub-basins consisting of landscaped areas and asphalt paving. See Plate 1 - Basin Boundary Map. These basins will be collected with inlets and appropriately sized storm drains onsite and directed to a detention pond located on the south end of the site. The allowable 0.1 cfs/acre discharge of 2.24 cfs for the 22.4 acre FedEx Freight Albuquerque site will then discharge through an appropriately sized orifice in an 18" pipe. This pipe will tie to a manhole in an existing 24" storm drain located along the southern border of the site and adjacent to Los Volcanes Road NW. (See Plates 2A, B & C – Grading Plan, Appendix A – Hydrology and Appendix B – Hydraulics).

grading plan has 10 cfs going north to tract D?

The Site Hydrology – FedEx Freight Albuquerque found in Appendix A, provides Basin information and a Site Hydrograph, from which the total fully developed pond volume requirement of 2.93 Ac-Ft has been generated.

Fortuna Road NW

A street flow analysis, found in Appendix A of the Wilson & Company 'Drainage Report for Meridian Business Park II, was completed to determine the size and location of inlets for the storm drain extension in Fortuna NW. Future inlets will be constructed at the returns of Fortuna Road NW and Gallatin Place NW that will tie to storm drain stub-outs provided by this project. As part of this project, an inlet and stub-out will be constructed at approximately the lot line between Lots 182 and 181 and drain to a 30" storm drain which will be constructed to tie into the existing 30" cap located roughly at the intersection of Fortuna Road NW and 76th Street NW. The continuation of this storm drain system has not been completed further east of this site, so this infrastructure will remain unutilized. To accommodate the roadway drainage along the site frontage and a required 10% of fully developed flows generated by Lots 181 through 185A Town of Atrisco Grant - Airport Unit in the interim, a temporary retention pond with a volume of 1.84 Ac-Ft will be constructed on Tract D of the Bulk Land Plat of Meridian Business Park II. (See Appendix A for Site Hydrology for Temporary Ponding Requirements).

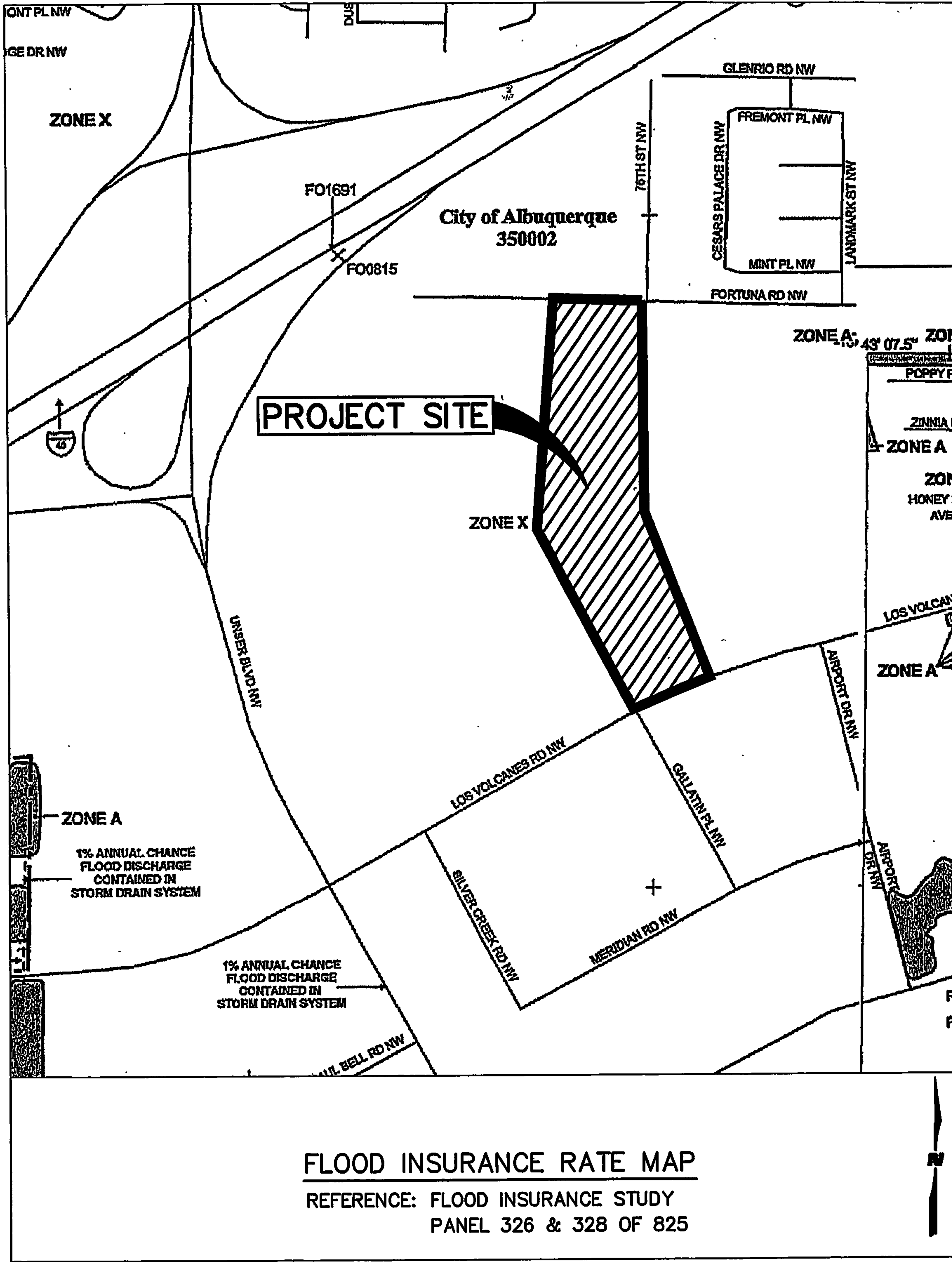
Gallatin Place NW

Street flow analysis for the proposed Gallatin Place NW extension, included in Appendix A, indicates the need for construction of inlets at the intersection of Gallatin Place NW and Los Volcanes Rd NW in conjunction with the roadway construction.

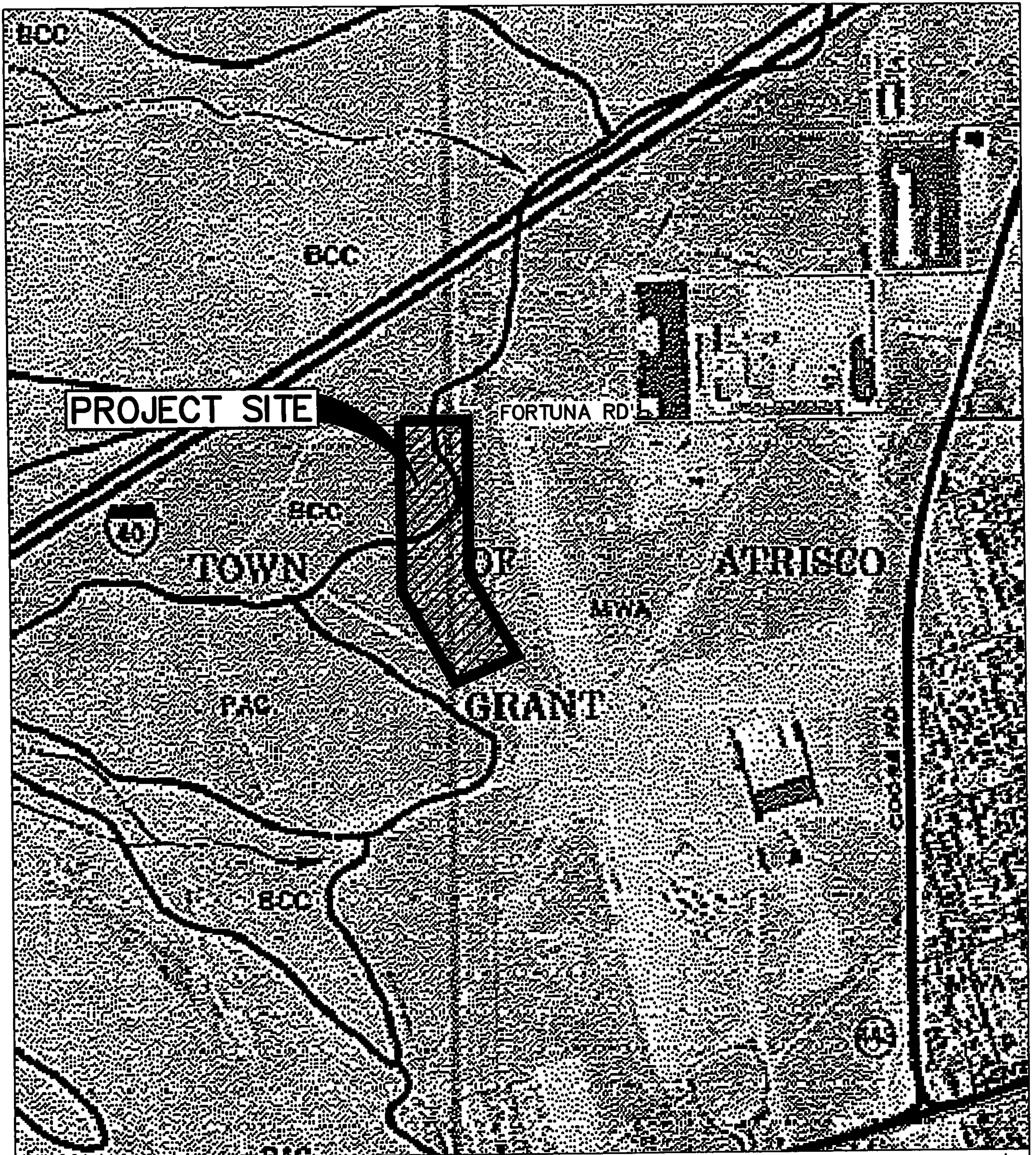
Conclusion

The development of FedEx Freight Albuquerque has been analyzed in this report. The project's design adheres to the requirements of the approved "Master Drainage Plan for Atrisco Business Park" dated September 1992, Revised March 1993/October 1993, the "West Mesa Diversion Project Drainage Analysis" and the "Drainage Report for Meridian Business Park II, a Supplement to the Master Drainage Plan", prepared by Wilson & Company and dated August 2007. These requirements are met by discharging the allowable 0.1 cfs/acre or 2.24 cfs for this 22.4 acre site and by detaining the remaining volume in a 2.93± Ac-Ft pond onsite.

no it doesn't
all runoff to go to
Los Volcanes



FLOOD INSURANCE MAP — EXHIBIT 2



SOILS MAP

REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY
SHEET NO. 30

Appendix A

Hydrology

The Calculations shown below represent the flows for a 100-year 6-hour design event. The hydrology is per the "Section 22.2 of the Development Process Manual for the City of Albuquerque, New Mexico, latest revision.

where is 201

Proposed Flow Calculations															
Basin	Area acres	Land Treatment								Peak Discharge (cfs/acre) - Zone 1				Q100 cfs	V100 ac-ft
		%A	area	%B	area	%C	area	%D	area	A	B	C	D		
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	2.03	2.87	4.37	0.0	0.000
202	6.16	0.00	0.00	0.12	0.74	0.00	0.00	0.88	5.42	1.29	2.03	2.87	4.37	25.2	1.112
203	1.67	0.00	0.00	0.08	0.14	0.00	0.00	0.92	1.53	1.29	2.03	2.87	4.37	7.0	0.310
204	4.01	0.00	0.00	0.08	0.32	0.00	0.00	0.92	3.69	1.29	2.03	2.87	4.37	16.8	0.747
205	3.64	0.00	0.00	0.07	0.25	0.00	0.00	0.93	3.39	1.29	2.03	2.87	4.37	15.3	0.683
206	1.74	0.00	0.00	0.11	0.20	0.00	0.00	0.89	1.54	1.29	2.03	2.87	4.37	7.1	0.316
207	2.50	0.00	0.00	0.50	1.25	0.00	0.00	0.50	1.25	1.29	2.03	2.87	4.37	8.0	0.317
	19.72		0.00		2.90		0.00		16.82					79.4	3.484
										Excess Precipitation, E-Zone 1					
										0.44	0.67	0.99	1.97	E =	1.78
										Depth - 100 Year Event					
										P ₃₆₀ =	2.35	P ₁₄₄₀ =	2.75		
Total Proposed On-Site =														79.4	3.484

Site Hydrograph Calculations

Time to Peak

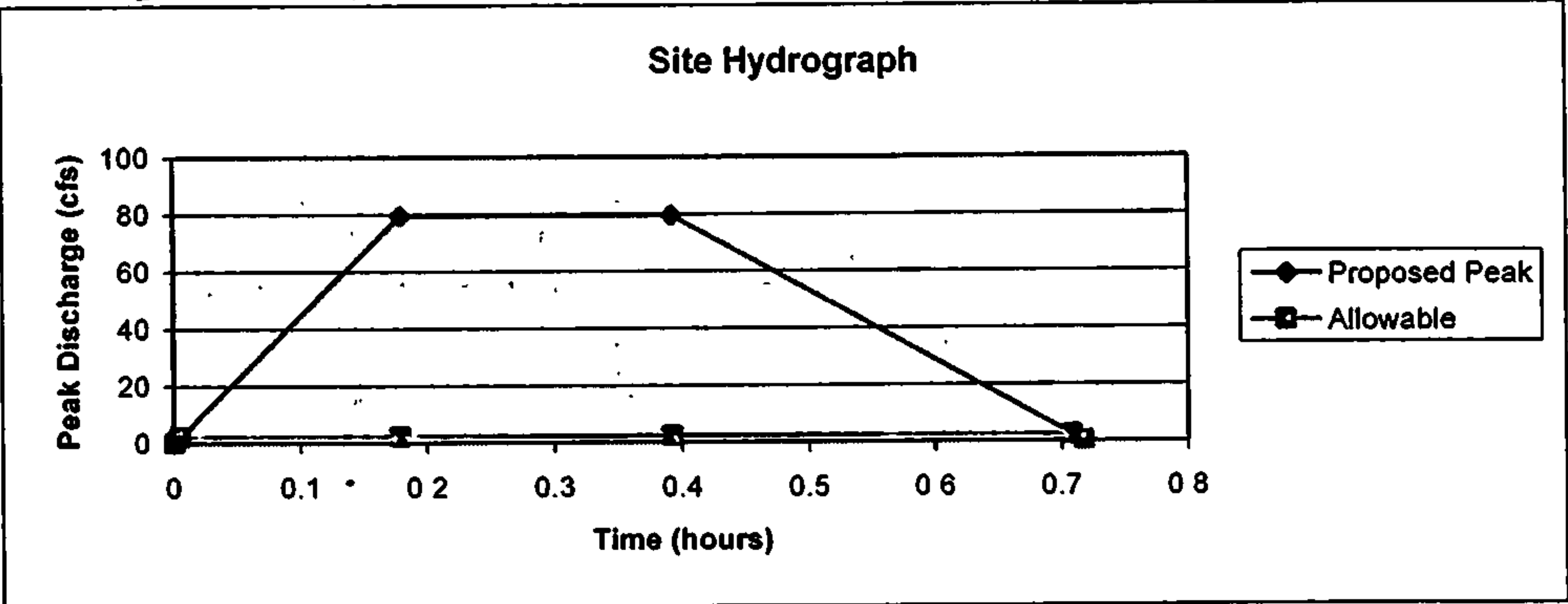
$t_p = (0.7 \cdot t_c) + (1.6 \cdot A_d / A_T) / 12 =$
0.179

Duration

$d = .25 \cdot A_d / A_T =$
0.213

Total Time

$t_B = 2.107 \cdot E \cdot A_T / Q_P - .25 \cdot A_d / A_T =$
0.718



Storage required to discharge

2.24 cfs = 127307.76 CF

2.92 Ac-Ft

2243 ac

1690 B 2

85% D 2

3.3 ac = 6.9 cfs

19.1 = 83.5

9.4 cfs

9.1

COMP. JMF

CK. KLS/DSA

DATE 11/30/07

**WILSON
& COMPANY**

LOC.

FILE 0760004400

PROJ. GALLATINE, FORTUNA SHEET 1

SUBJ. FORTUNA RD OF 1

HYDROLOGY CALCS

FULLY DEVELOPED

FORTUNA RD SD MH-1

$$480 \text{ LF RDWY} \cdot 60 \text{ R/W} = 28,800 \text{ SF} = 0.66 \text{ ACRES}$$

$$\text{AREA D} = 0.66 \text{ ACRES} \quad \text{ZONE 1}$$

$$Q_p = 4.37 \text{ CFS/ACRE} \cdot 0.66 \text{ ACRES} = 2.88 \text{ CFS}$$

$$Q_{185A} = 5.15 \text{ CFS}$$

$$Q_{184} = 8.91 \text{ CFS}$$

$$Q_{SDMH-1} = Q_{RDWY} + Q_{185A} + Q_{184} = 2.88 + 5.15 + 8.91 = 16.94 \text{ CFS}$$

FORTUNA RD SD MH-2

$$420 \text{ LF RDWY} \cdot 60 \text{ R/W} = 25,200 \text{ LF} = 0.58 \text{ ACRES}$$

$$\text{AREA D} = 0.58 \text{ ACRES} \quad \text{ZONE 1}$$

$$Q_p = 4.37 \text{ CFS/ACRE} \cdot 0.58 \text{ ACRES} = 2.53 \text{ CFS}$$

$$Q_{183} = 13.01 \text{ CFS}$$

$$Q_{182} = 15.83 \text{ CFS}$$

$$Q_{181} = 17.07 \text{ CFS}$$

$$Q_{SDMH-2} = Q_{RDWY} + Q_{183} + Q_{182} + Q_{181} = 2.53 + 13.01 + 15.83 + 17.07 = 48.44 \text{ CFS}$$

Site Hydrology for Temporary Ponding Requirements:
Town of Atrisco Grant Airport Unit

Sheet 1 of 2

The Calculations shown below represent the flows for a 100-year 6-hour design event, used because this is temporary retention. The hydrology is per the "Section 22.2 of the Development Process Manual for the City of Albuquerque, New Mexico, latest revision.

Proposed Flow Calculations															
Basin	Area acres	Land Treatment								Peak Discharge (cfs/acre) - Zone 1				Q100 cfs	V100 ac-ft
		%A	area	%B	area	%C	area	%D	area	A	B	C	D		
Lot 181	4.54	0.00	0.00	0.10	0.45	0.00	0.00	0.90	4.09	1.29	2.03	2.87	4.37	18.8	0.832
Lot 182	4.21	0.00	0.00	0.10	0.42	0.00	0.00	0.90	3.79	1.29	2.03	2.87	4.37	17.4	0.772
Lot 183	3.46	0.00	0.00	0.10	0.35	0.00	0.00	0.90	3.11	1.29	2.03	2.87	4.37	14.3	0.634
Lot 184	2.37	0.00	0.00	0.10	0.24	0.00	0.00	0.90	2.13	1.29	2.03	2.87	4.37	9.8	0.435
185A	1.37	0.00	0.00	0.10	0.14	0.00	0.00	0.90	1.23	1.29	2.03	2.87	4.37	5.7	0.251
	15.95		0.00		1.60		0.00		14.36					66.0	2.924
										Excess Precipitation, E-Zone 1					
										0.44	0.67	0.99	1.97	E =	1.84
										Depth - 100 Year Event					
										P ₃₆₀ =	2.35	P ₁₄₄₀ =	2.75		
Total Proposed On-Site =														66.0	2.924

Ponding Requirement from Above:

2.924 Ac-Ft

Ten percent (10%) of the calculated volume OF 2.924 Ac-Ft or 0.29 Ac-Ft will be used in calculations for retention on this particular project per COA Hydrology.

Site Hydrology for Temporary Ponding Requirements:
Fortuna Rd NW, Gallatin Place NW & Onsite Basin 201

The Calculations shown below represent the flows for a 100-year 6-hour design event, used because this retention is temporary. The hydrology is per the "Section 22.2 of the Development Process Manual for the City of Albuquerque, New Mexico, latest revision.

Fortuna Rd Basin:
610 LF x 60' ROW, 40' F/F with 5' SW each side
Gallatin PI Basin:
160 LF x 60' ROW, 40' F/F with 5' SW each side

Proposed Flow Calculations															
Basin	Area acres	Land Treatment								Peak Discharge (cfs/acre) - Zone 1				Q100 cfs	V100 ac-ft
		%A	area	%B	area	%C	area	%D	area	A	B	C	D		
201	2.71	0.00	0.00	0.27	0.73	0.00	0.00	0.73	1.98	1.29	2.03	2.87	4.37	10.1	0.432
Fortuna	0.84	0.00	0.00	0.12	0.10	0.00	0.00	0.88	0.74	1.29	2.03	2.87	4.37	3.4	0.152
Gallatin	0.22	0.00	0.00	0.12	0.03	0.00	0.00	0.88	0.19	1.29	2.03	2.87	4.37	0.9	0.040
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	2.03	2.87	4.37	0.0	0.000
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	2.03	2.87	4.37	0.0	0.000
	3.77		0.00		0.86		0.00		2.91					14.5	0.623
										Excess Precipitation, E-Zone 1					
										0.44	0.67	0.99	1.97	E =	1.67
										Depth - 100 Year Event					
										P ₃₆₀ =	2.35	P ₁₄₄₀ =	2.75		
Total Proposed =														14.5	0.623

Fortuna Road NW Temporary Retention Ponding Requirement:

0.623 Ac-Ft

Fortuna Road NW TOTAL Temporary Retention Ponding Requirement:

$((0.62 + 0.1(2.92)) * 2 = 1.84 \text{ Ac-Ft}$

Please Note: The ponding volume requirement was doubled as this is a retention pond.

COMP. KIS
CK. DSA
DATE 1-11-08

**WILSON
& COMPANY**

LOC. _____ FILE 076004400
PROJ. MBPII-FEDEX SHEET 1
SUBJ. GALLATIN PL OF 1
Hydro CALCS

GALLATIN PL

1800' LF ROADWAY
(HIGH PT C STA 29+40 =)

40' F/F W/10 SW W/60' ROW

AREA B = 0.83 AC

ZONE 1

AREA D = 2.07 AC

$$Q_p = (0.83 * 2.03) + (2.07 * 4.37) = 10.73 \text{ cfs} / 2$$

$$= 5.37 \text{ cfs each side}$$

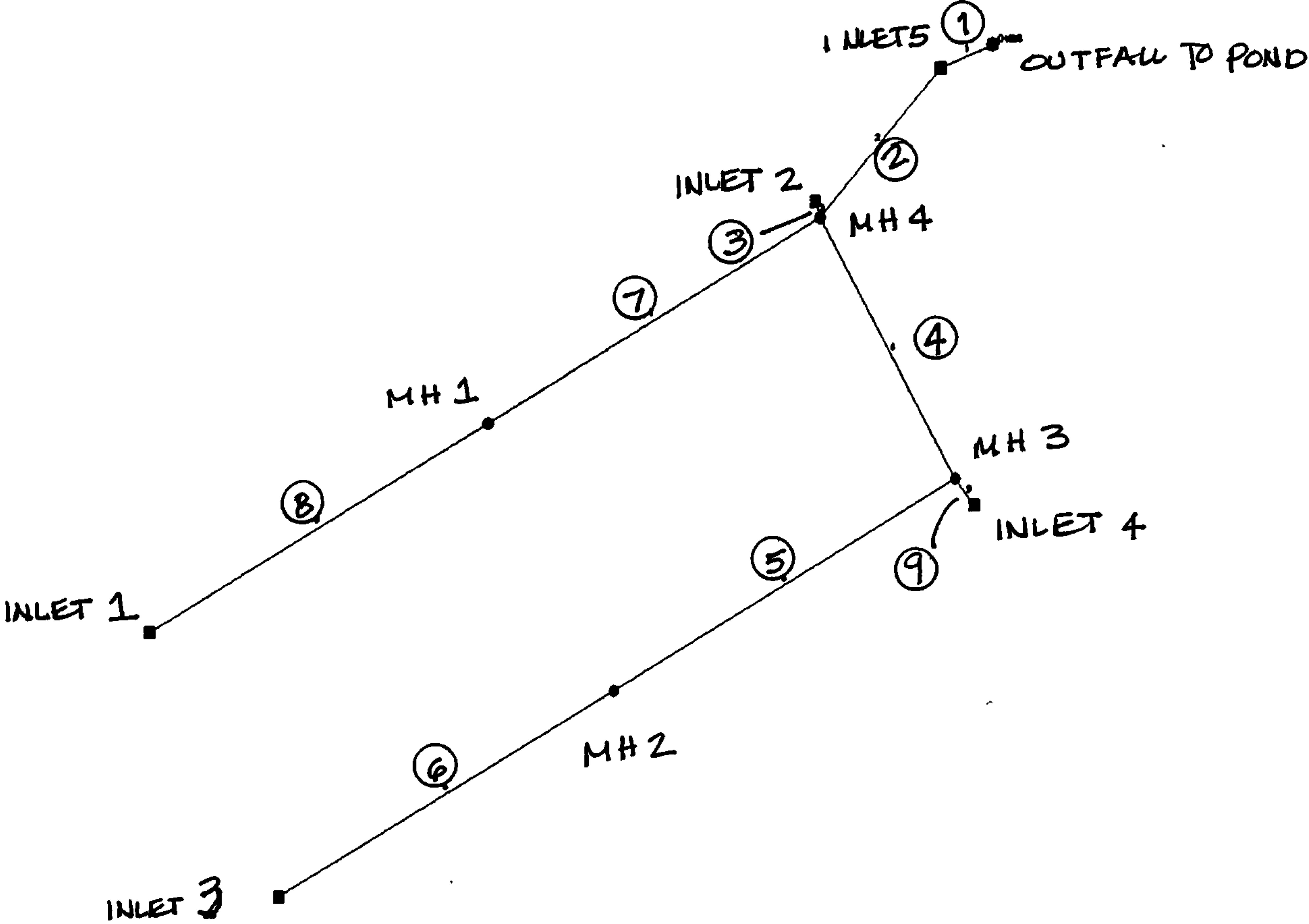
USE 1 TYPE A, 1 TYPE C C EACH RETURN



Appendix B

Hydraulics

Hydraflow Plan View



Storm Sewer Summary Report

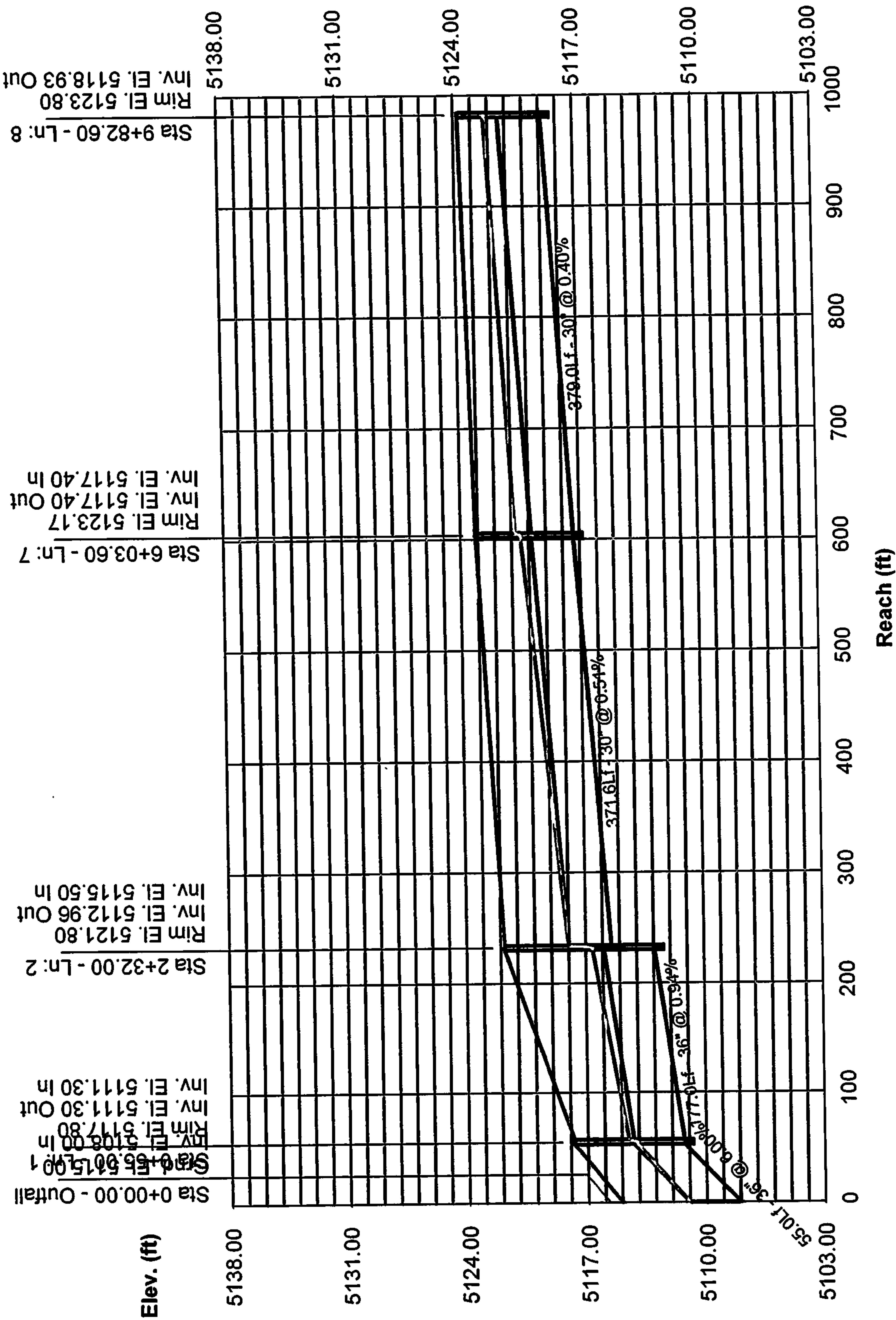
Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1		79.40	36 c	55.0	5108.00	5111.30	6.000	5111.00	5114.07	n/a	5114.07	End
2		71.40	36 c	177.0	5111.30	5112.96	0.938	5114.59*	5116.62*	0.00	5116.62	1
3		8.40	18 c	15.0	5117.27	5118.00	4.867	5117.90*	5120.22*	0.00	5120.22	2
4		29.40	30 c	270.0	5113.81	5115.46	0.611	5117.65*	5119.04*	0.00	5119.04	2
5		22.30	30 c	381.9	5115.46	5117.42	0.513	5119.27*	5120.40*	0.00	5120.40	4
6		7.00	30 c	375.0	5117.42	5119.37	0.520	5120.69	5120.82	0.00	5120.82	5
7		33.60	30 c	371.6	5115.50	5117.40	0.511	5118.00*	5120.50*	0.00	5120.50	2
8		25.20	30 c	379.0	5117.40	5118.93	0.404	5120.81*	5122.25*	0.00	5122.25	7
9		7.10	18 c	30.0	5116.46	5117.50	3.467	5119.34*	5119.48*	0.00	5119.48	4
Project File: fedex site pipes 4-28-08.stm							Number of lines: 9			Run Date: 04-29-2008		
NOTES: c = cir; e = ellip; b = box; Return period = 2 Yrs. ; *Surcharged (HGL above crown).												

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)	Inlet/ Rim El (ft)	
1	End	55.0	158.4	DrGrt	8.00	0.00	0.00	0.0	5108.00	6.00	5111.30	36	Cir	0.012	0.00	5117.80	
2	1	177.0	-26.2	MH	0.00	0.00	0.00	0.0	5111.30	0.94	5112.96	36	Cir	0.013	0.00	5121.80	
3	2	15.0	120.3	DrGrt	8.40	0.00	0.00	0.0	5117.27	4.87	5118.00	18	Cir	0.013	0.00	5121.30	
4	2	270.0	-71.2	MH	0.00	0.00	0.00	0.0	5113.81	0.61	5115.46	30	Cir	0.013	0.00	5122.00	
5	4	381.9	90.0	MH	15.30	0.00	0.00	0.0	5115.46	0.51	5117.42	30	Cir	0.013	0.00	5123.27	
6	5	375.0	0.0	DrGrt	7.00	0.00	0.00	0.0	5117.42	0.52	5119.37	30	Cir	0.013	0.00	5123.50	
7	2	371.6	18.8	MH	8.40	0.00	0.00	0.0	5115.50	0.51	5117.40	30	Cir	0.013	0.00	5123.17	
8	7	379.0	0.0	DrGrt	25.20	0.00	0.00	0.0	5117.40	0.40	5118.93	30	Cir	0.013	0.00	5123.80	
9	4	30.0	-9.6	DrGrt	7.10	0.00	0.00	0.0	5116.46	3.47	5117.50	18	Cir	0.013	0.00	5121.50	
Project File: fedex site pipes 4-28-08.stm												Number of lines: 9			Date: 04-29-2008		
Hydraflow Storm Sewers 2005																	

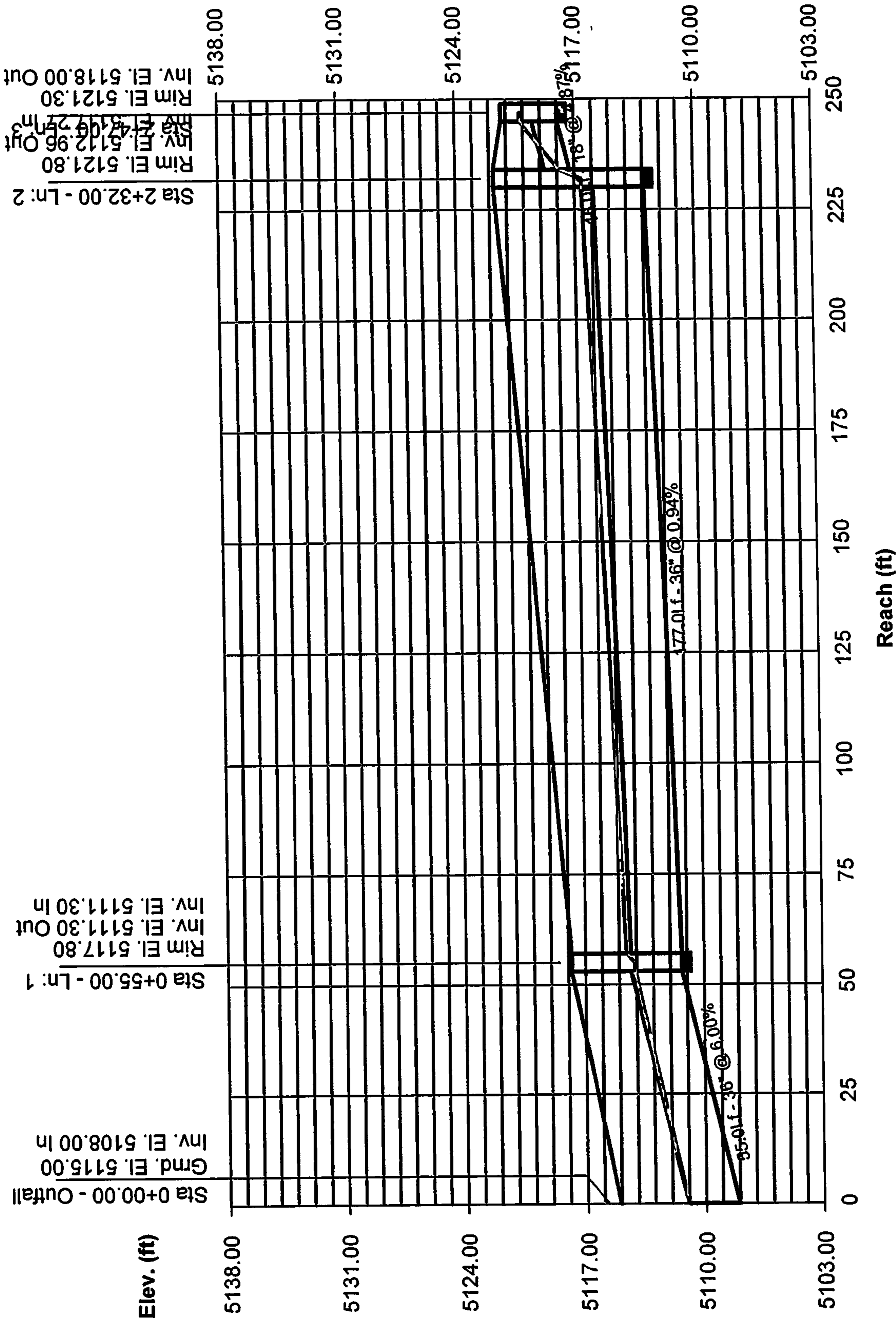
Storm Sewer Profile

Proj. file: fedex site pipes 4-28-08.stm



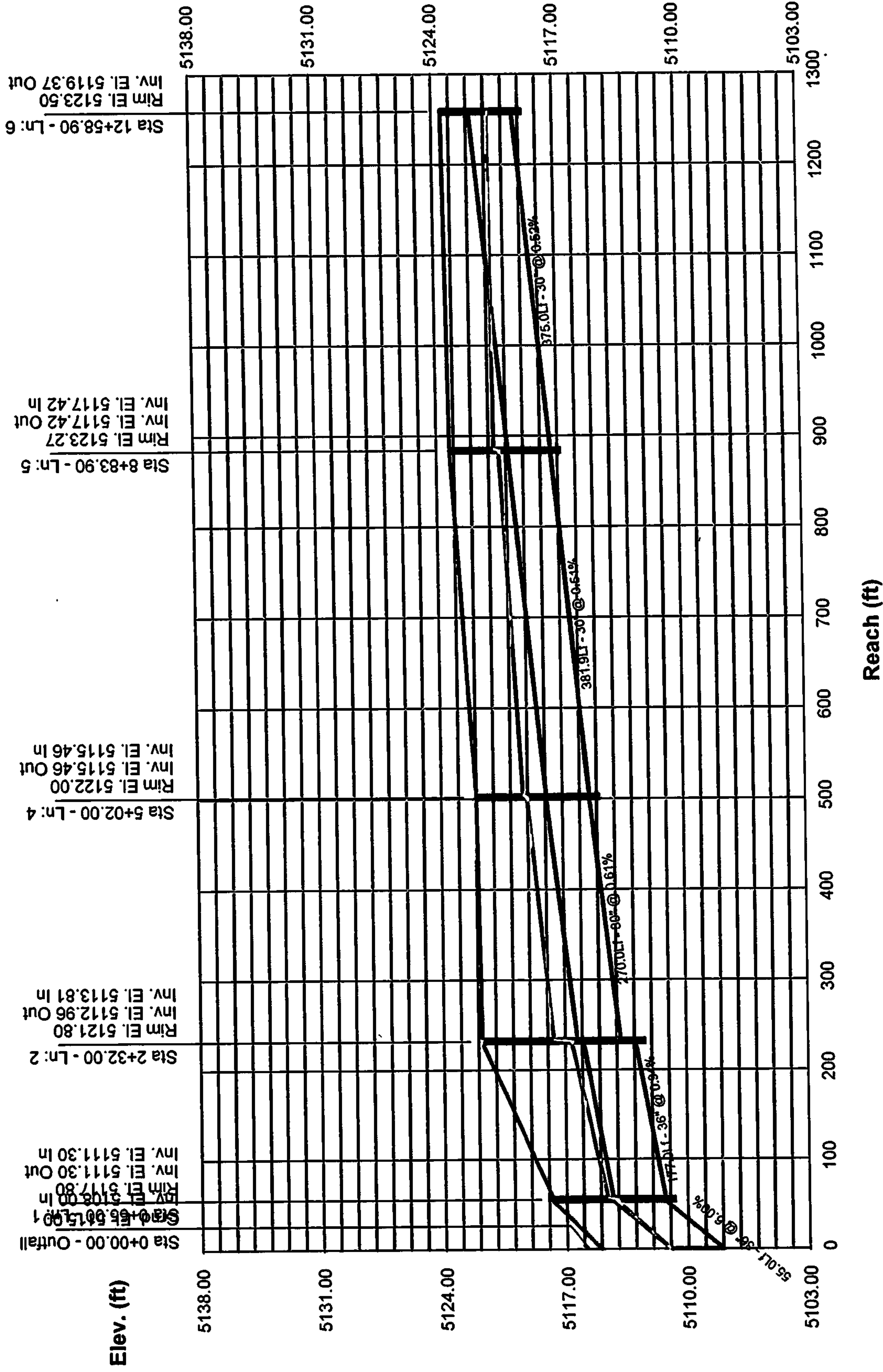
Storm Sewer Profile

Proj. file: fedex site pipes 4-28-08.stm



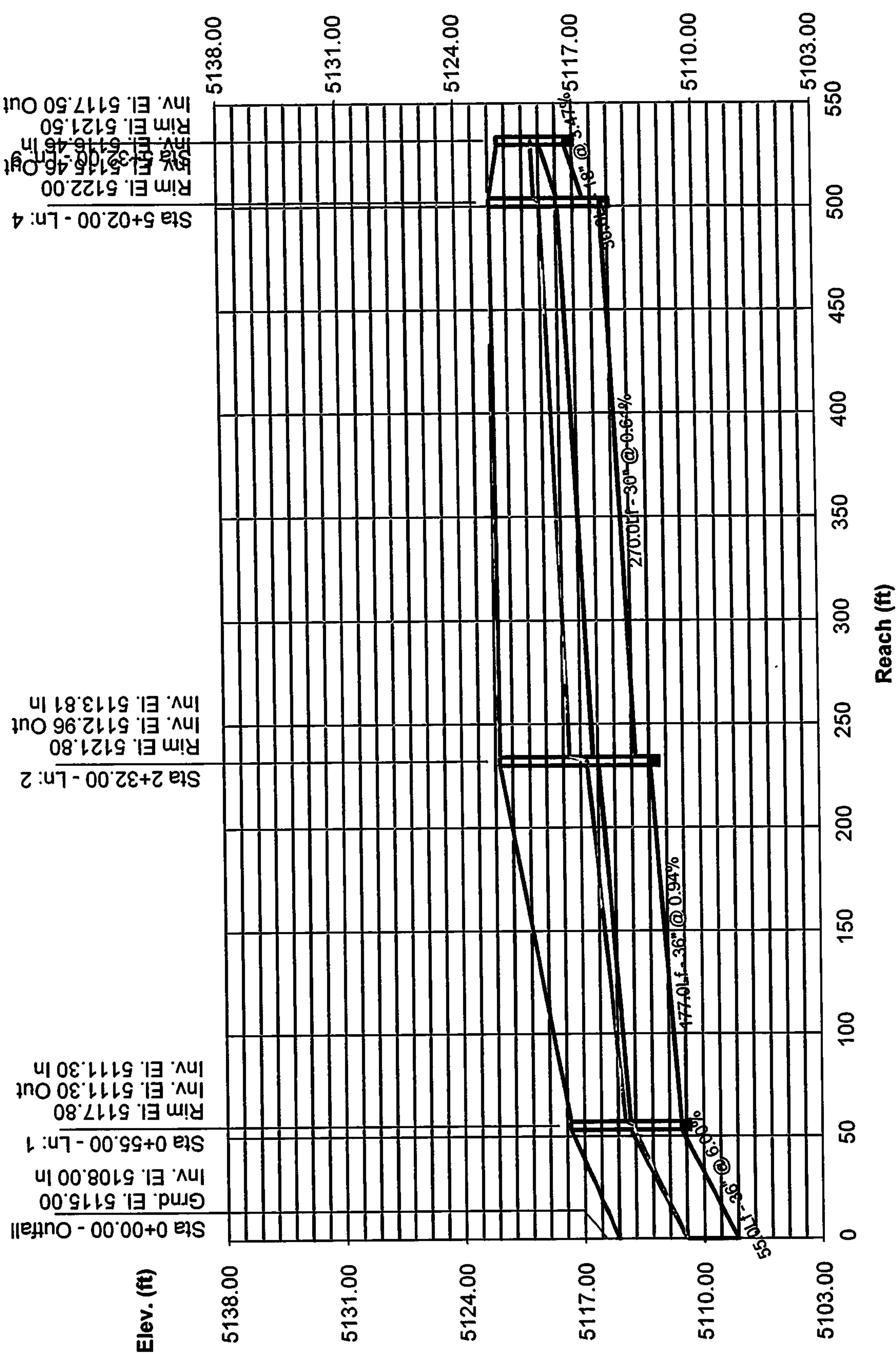
Storm Sewer Profile

Proj. file: fedex site pipes 4-28-08.stm



Storm Sewer Profile

Proj. file: fedex site pipes 4-28-08.stm



Nyloplast Drop In Grate Inlet Capacity Chart

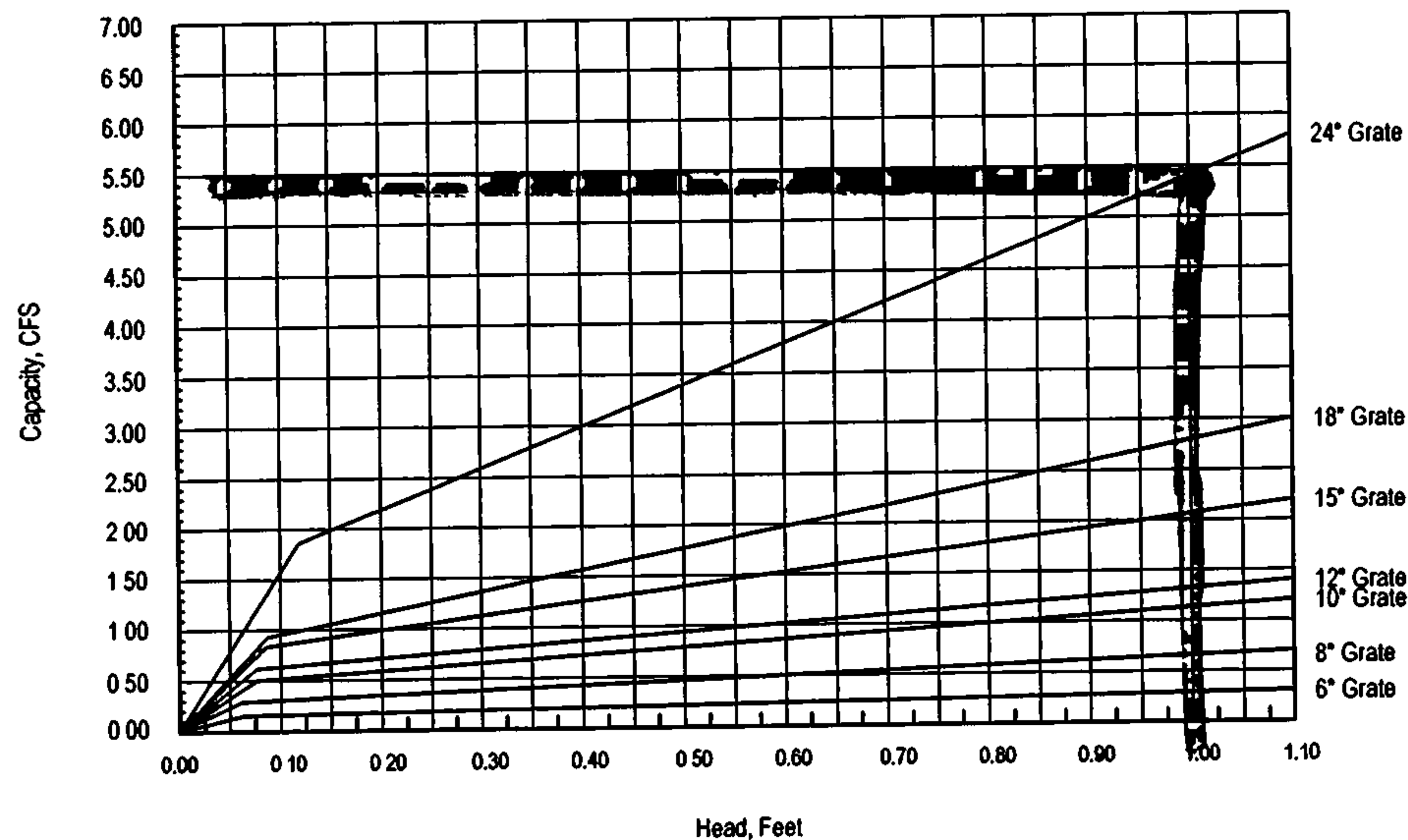
This chart is based on equations from the FAA Airport Drainage AC 150/5320-5B, 1970, Page 35. Certain assumptions have been made and no two installations will necessarily perform the same way. Safety factors should change with site conditions such that a safety factor 1.25 should be used for an inlet in pavement, and a safety factor of 2.0 should be used in turf areas.

S.S w/ 5% = 4.4 CFS

Outlet Pipe Size	Flow Rate CFS *
6"	0.662
8"	1.441
10"	2.612
12"	4.152
15"	7.126
18"	12.163
24"	25.821

* Maximum flow capacity before drop in grate begins to backfill.
Calculation based on an average pipe slope of 1%.

Nyloplast Drop In Grates 6", 8", 10", 12", 15", 18" and 24"



THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY AWA

DATE 29AUG00

APPD BY CJA

DATE 29AUG00

DWG SIZE A

MATERIAL

PROJECT NO/NAME

GRATE / COVER

SCALE 1:2 SHEET 1 OF 1

Nyloplast

TITLE

6" - 24" DROP IN INLET CAPACITY

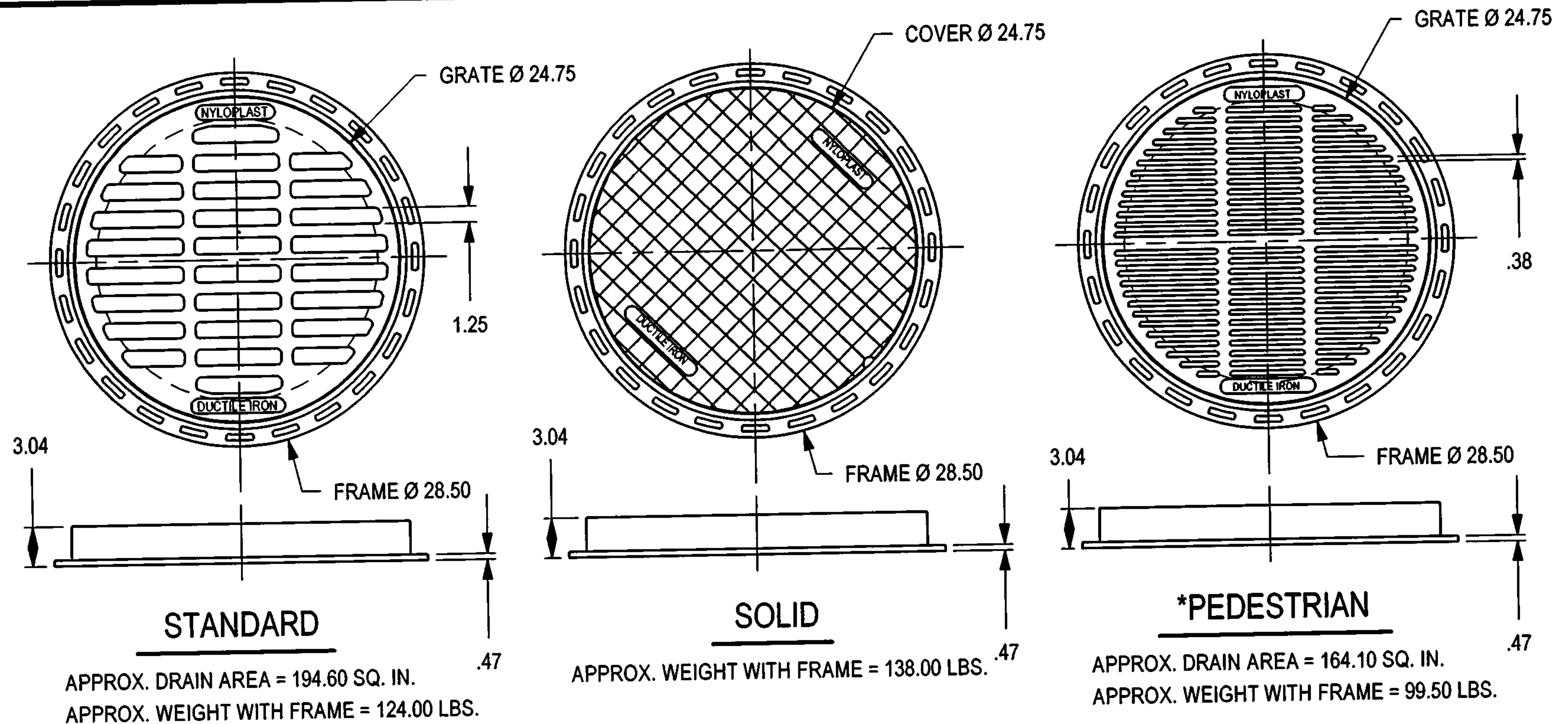
DWG NO.

7001-110-037

REV B

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

12-7-07



NYLOPLAST 24" GRATES/COVERS

STANDARD GRATE HAS H-25 HEAVY DUTY RATING
SOLID COVER HAS H-25 HEAVY DUTY RATING
PEDESTRIAN GRATE HAS H-10 MEDIUM DUTY RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM
A536 GRADE 70-50-05
MATERIAL: DUCTILE IRON
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST
PRICE INCLUDES FRAME & GRATE/COVER

* SIZE OF OPENING MEETS REQUIREMENTS OF AMERICAN DISABILITY
ACT AS STATED IN FEDERAL REGISTER PART III, DEPARTMENT OF
JUSTICE, 28 CFR PART 36. NONDISCRIMINATION ON THE BASIS OF
DISABILITY BY PUBLIC ACCOMMODATIONS AND IN COMMERCIAL
FACILITIES; FINAL RULE.

AVAILABLE JANUARY 1, 2002

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH
NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT
OR POSSESSION OF THIS PRINT DOES NOT CONFER,
TRANSFER, OR LICENSE THE USE OF THE DESIGN OR
TECHNICAL INFORMATION SHOWN HEREIN
REPRODUCTION OF THIS PRINT OR ANY INFORMATION
CONTAINED HEREIN, OR MANUFACTURE OF ANY
ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS
IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN
PERMISSION FROM NYLOPLAST.

DRAWN BY AWA
DATE 15AUG00

APPD BY CJA
DATE 15AUG00

DWG SIZE A

MATERIAL

DUCTILE IRON

PROJECT NO./NAME

GRATE / COVER

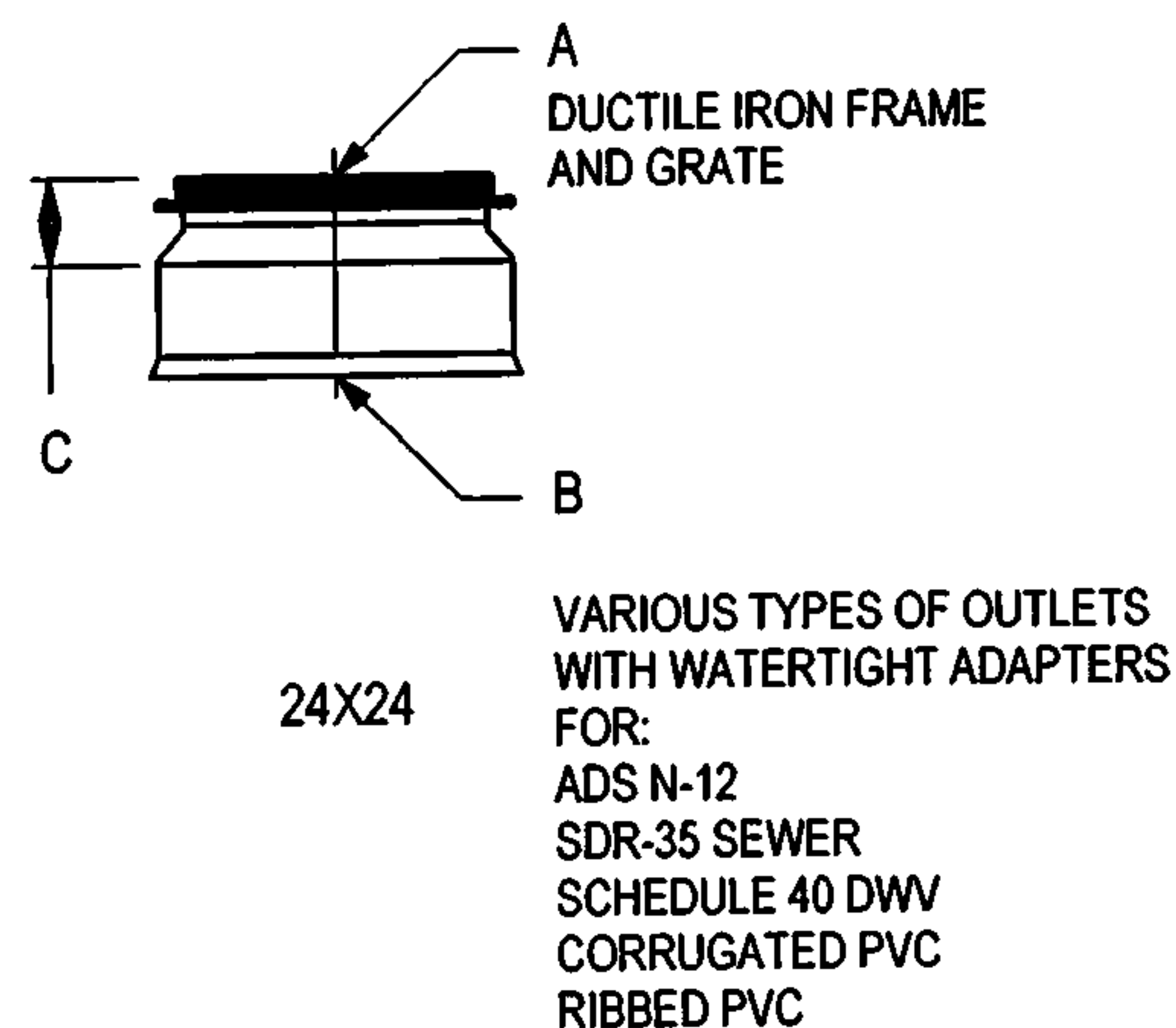
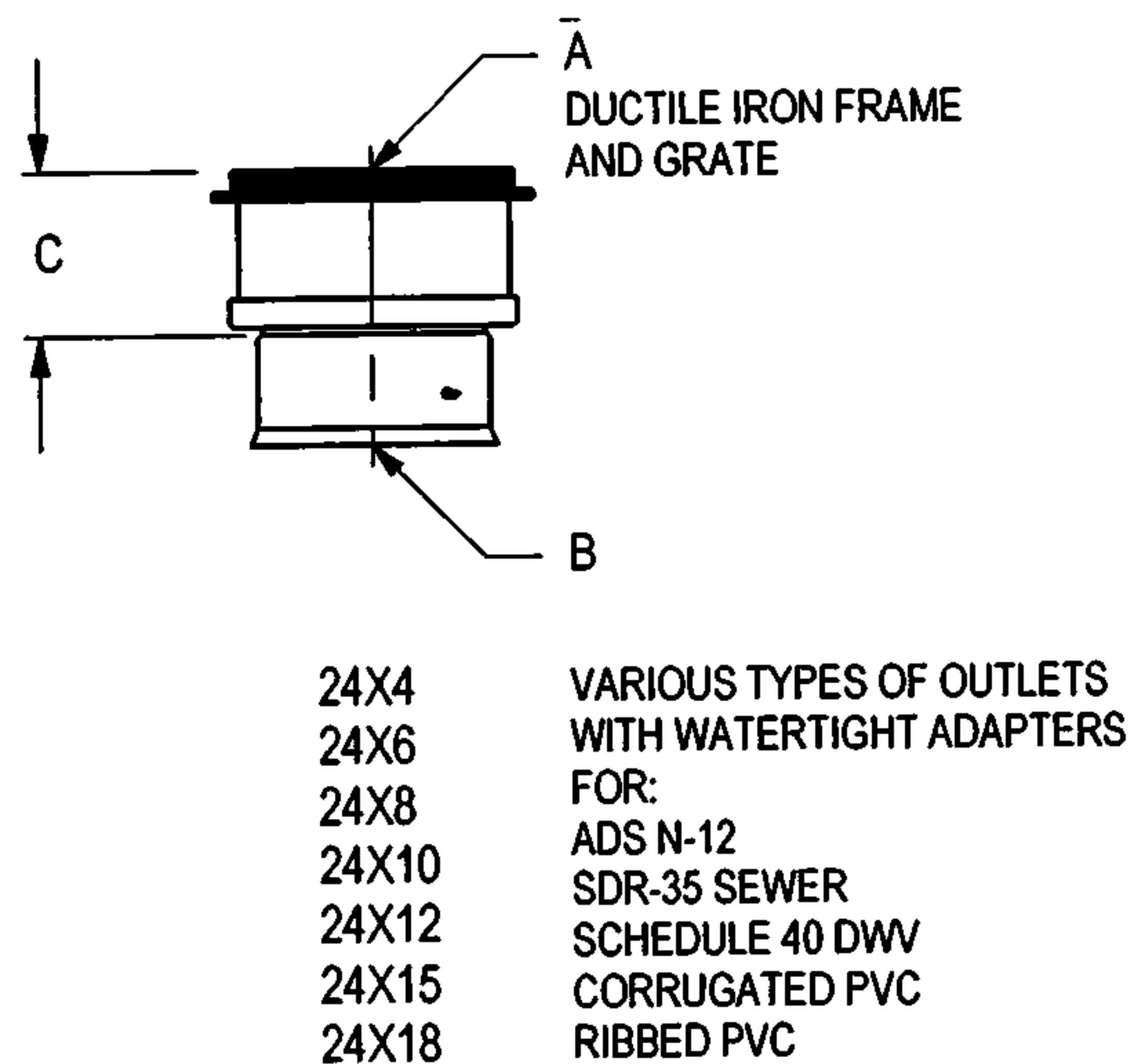
SCALE 1:12 SHEET 1 OF 1

Nyloplast

TITLE
NEW STYLE 24" STANDARD, SOLID & PEDESTRIAN

DWG NO. 7001-110-051 REV C

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com



A	B	C
24"	4"	15.00
24"	6"	15.00
24"	8"	15.00
24"	10"	15.00
24"	12"	15.00
24"	15"	15.00
24"	18"	10.00
24"	24"	10.25

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY CJA

DATE 6-28-99

APPD BY CJA

DATE 6-28-99

DWG SIZE A

MATERIAL

PROJECT NO./NAME

INLINE DRAIN

SCALE NTS SHEET 1 OF 1

Nyloplast

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE

24" DESIGN DETAILS

DWG NO.

7003-110-005

REV B

COMP.

KIS

CK.

DSA

DATE

4-25-08

WILSON
& COMPANY

LOC.

FILE

FED-EX

MBP.II

PROJ. 080004400

SHEET

1

SUBJ.

POND FEATURE

OF

1

CALLS

1) ORIFICE - OUTLET TO EXISTING SD MH IN
FORTUNA

$$Q = CA\sqrt{2gh}$$

$$A = \frac{Q}{C\sqrt{2gh}}$$

$$\frac{Q}{15.44} = 0.145$$

$$Q = 2.24$$

$$h = 8.25$$

$$C = .67$$

$$2g = 64.4$$

$$A = .145$$

$$\begin{aligned} .145 &= \pi r^2 \\ .2148 &= r \\ .43' &= D \\ 5.2" &= \end{aligned}$$

Flow → 18" SD

NSEL = 5117

$$h = 8.25$$

$$5108.75$$

$$5108.0$$

$$\begin{aligned} A &= .145 \text{ ft}^2 \\ A &= \pi r^2 \\ r &= \sqrt{\frac{A}{\pi}} \\ r &= \sqrt{\frac{.145}{\pi}} \\ r &= .215 \text{ ft} \\ D &= 4.3" \end{aligned}$$

2) EMERGENCY SPILLWAY

$$Q = CBh^{3/2}$$

$$Q = 79.4$$

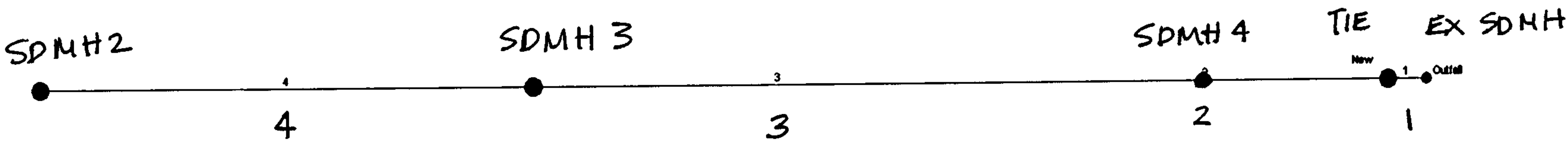
$$C = 3.0$$

(Cs varies 2.63 → 3.33, use 3.0)

$$h = 8"$$

$$B = 48' \mp$$

Hydraflow Plan View



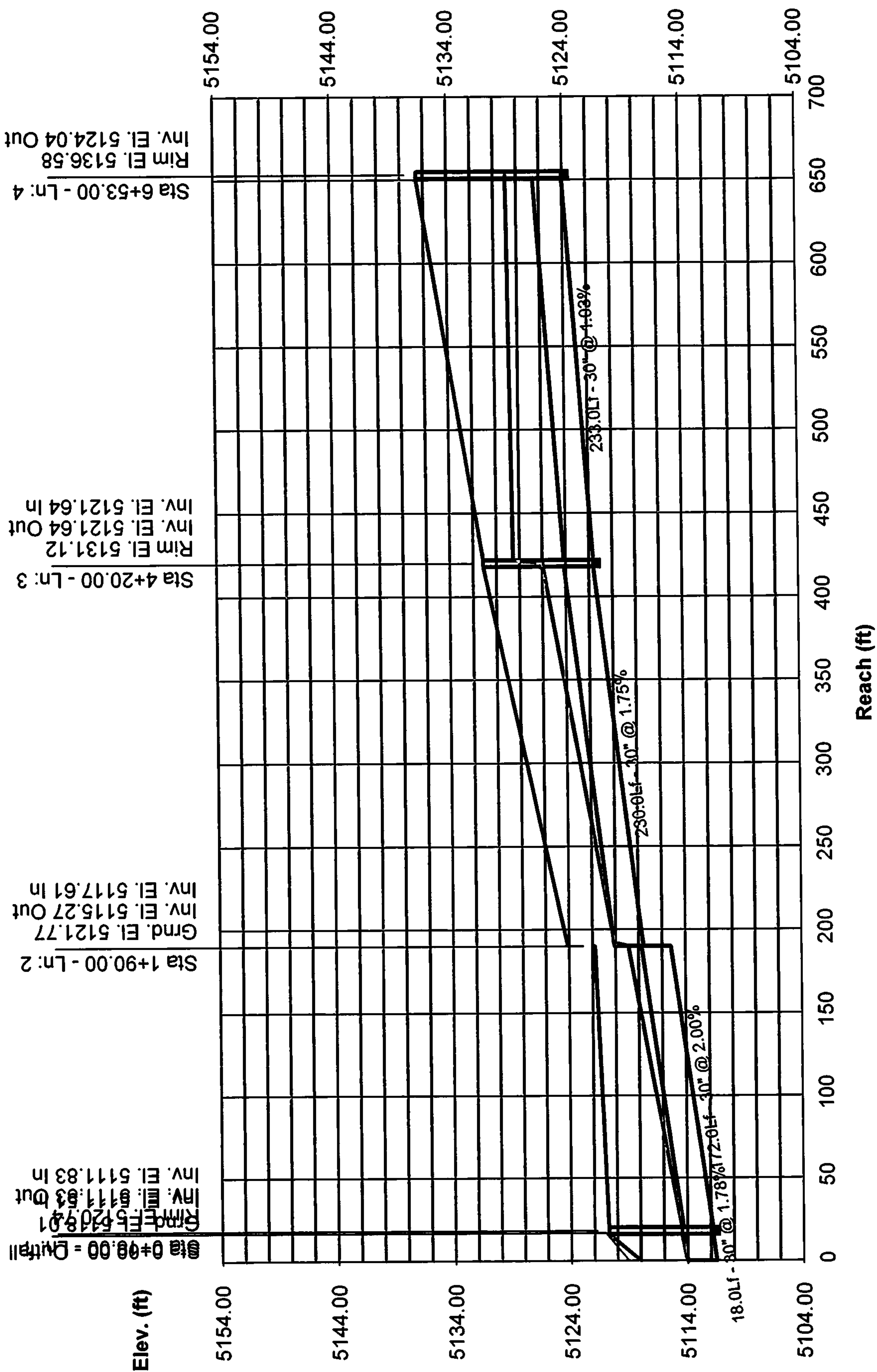
Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.
1	EX SD MH	65.38	30 c	18.0	5111.51	5111.83	1.780	5114.01*	5114.47*	0.00	5114.47	End
2	NEW	65.38	30 c	172.0	5111.83	5115.27	2.000	5114.47*	5118.84*	0.00	5118.84	1
3	SD MH-3	65.38	30 c	230.0	5117.61	5121.64	1.752	5120.11*	5125.96*	0.00	5125.96	2
4	SD MH-2	16.94	30 c	233.0	5121.64	5124.04	1.030	5128.53*	5128.93*	0.00	5128.93	3
Project File: FORTUNA ROAD 2-12-08.stm							Number of lines: 4			Run Date: 04-29-2008		
NOTES: c = cir; e = ellip; b = box; Return period = 2 Yrs. ; *Surcharged (HGL above crown).												

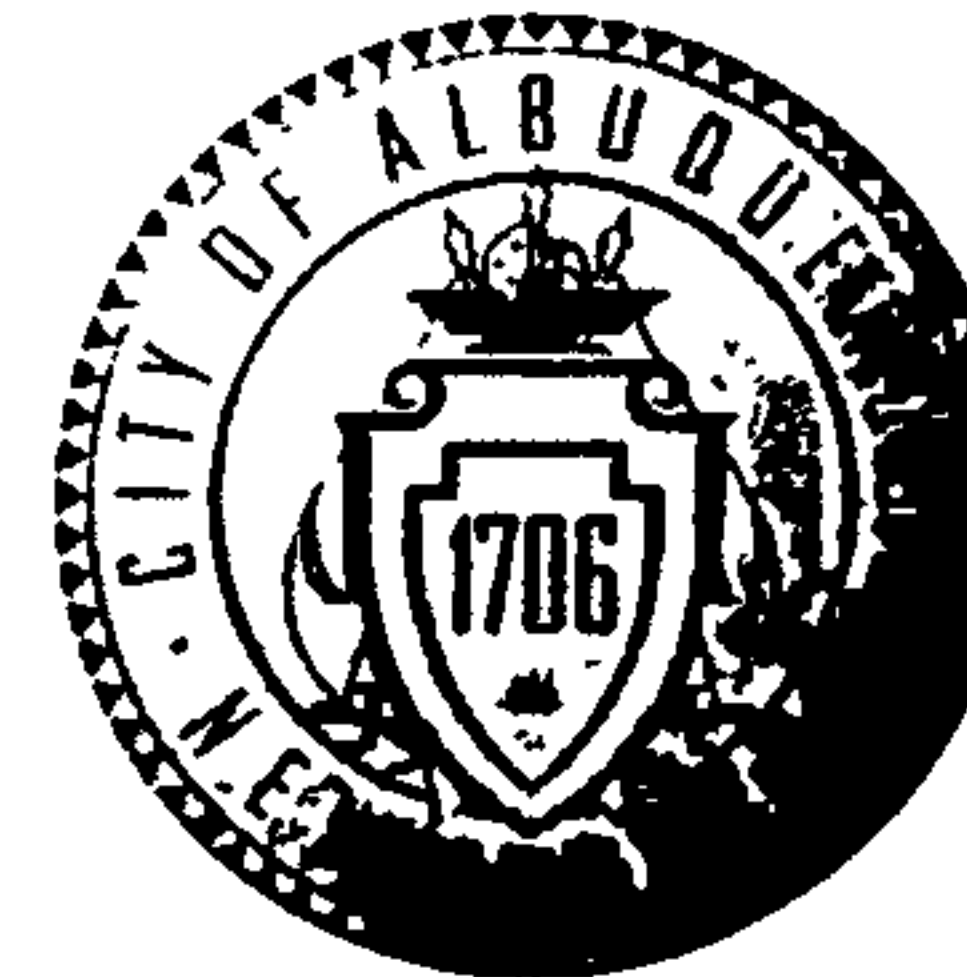
Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr line No.	Line length (ft)	Defl angle (deg)	Junc type	Known Q (cfs)	Drng area (ac)	Runoff coeff (C)	Inlet time (min)	Invert El Dn (ft)	Line slope (%)	Invert El Up (ft)	Line size (in)	Line type	N value (n)	J-loss coeff (K)	Inlet/ Rim El (ft)	
1	End	18.0	180.0	MH	0.00	0.00	0.00	0.0	5111.51	1.78	5111.83	30	Cir	0.013	0.00	5120.74	EX SD MH
2	1	172.0	0.0	None	0.00	0.00	0.00	0.0	5111.83	2.00	5115.27	30	Cir	0.013	0.00	0.00	NEW
3	2	230.0	0.0	MH	48.44	0.00	0.00	0.0	5117.61	1.75	5121.64	30	Cir	0.013	0.00	5131.12	SD MH-3
4	3	233.0	0.0	MH	16.94	0.00	0.00	0.0	5121.64	1.03	5124.04	30	Cir	0.013	0.00	5136.58	SD MH-2
Project File: FORTUNA ROAD 2-12-08.stm												Number of lines: 4				Date: 04-29-2008	

Storm Sewer Profile



CITY OF ALBUQUERQUE



January 26, 2009

Daniel S. Aguirre, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

**Re: Fed Ex Freight-Albuquerque, 7601 Los Volcanes Rd NW,
(J-10/D002G)**

Approval of Permanent Certificate of Occupancy,

Engineer's Stamp Dated: 4-21-08

Certification Stamp Date: 1-21-09

PO Box 1293

Mr. Aguirre,

Albuquerque

Based upon the information provided by our visual inspection on 1/23/09, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

NM 87103

If you have any questions, you can contact me at 924-3982. — — —

Sincerely,

www.cabq.gov

Timothy E. Sims
Plan Checker-Hydrology, Planning Dept
Development and Building Services

C: CO Clerk—Katrina Sigala
file

Scan
large
sheets
in this
staple

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 01/06 - KDM)

PROJECT TITLE: FedEx Freight Albuquerque ZONE MAP: J-10 / D002G
DRB#: 1006801 EPC#: _____ WORK ORDER#: 578082

LEGAL DESCRIPTION: Tract C of the Bulk Land Plat of Tracts A thru D Meridian Business Park II
CITY ADDRESS: 7601 Los Volcanes Rd NW

ENGINEERING FIRM: Wilson & Company CONTACT: Kristine Susco
ADDRESS: 4900 Lang Ave NE PHONE: (505) 348-4000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Angelo Brunacini CONTACT: Angelo Brunacini
ADDRESS: PO Box 6363 PHONE: (505) 833-2925
CITY, STATE: Albuquerque, NM ZIP CODE: 871972

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

SURVEYING FIRM: _____ LICENSED SURVEYOR: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

PROFESSIONAL LICENSED SURVEYOR SIGNATURE	LICENSE NO.	DATE
--	-------------	------

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

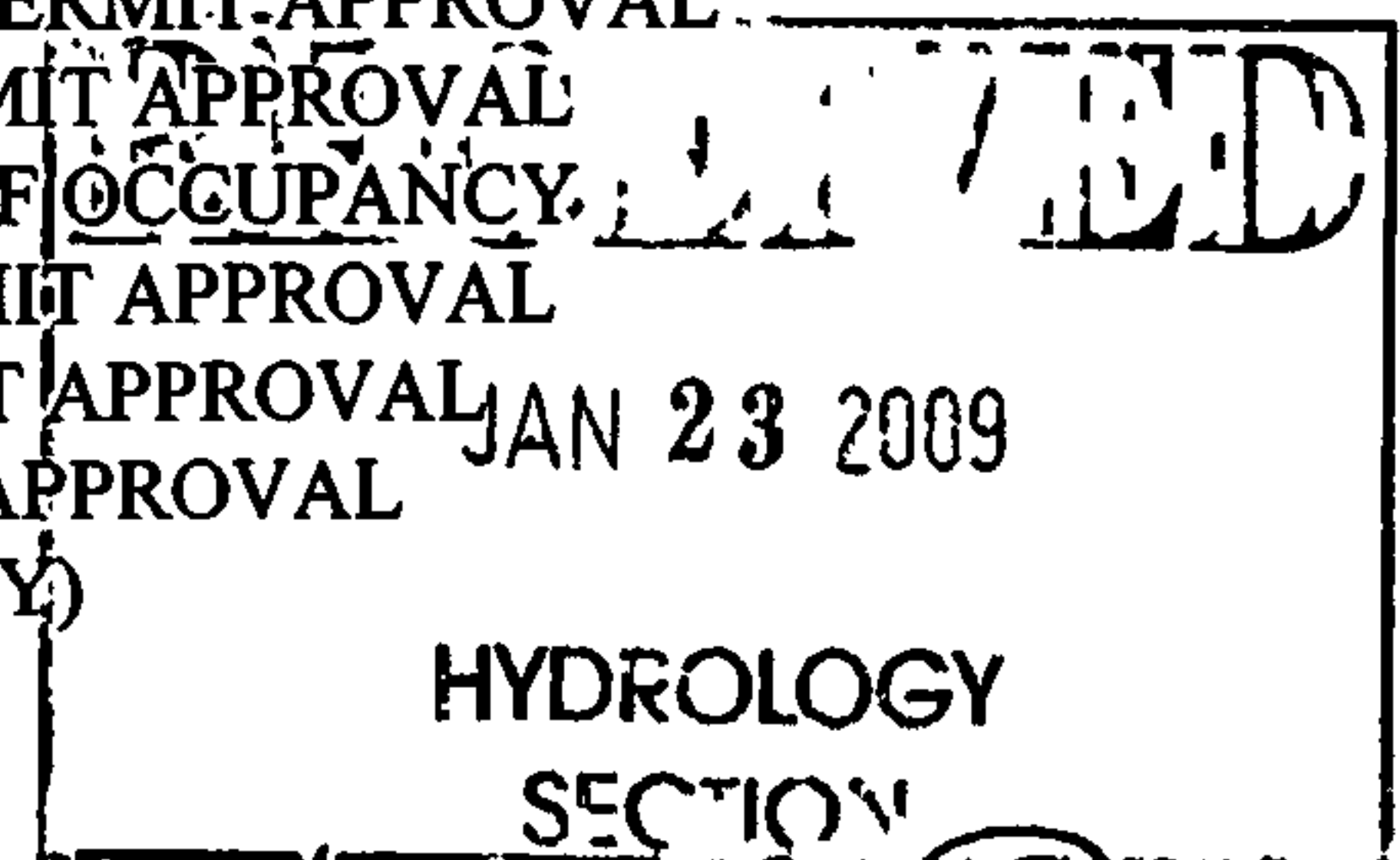
TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
☐ DRAINAGE REPORT	☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ DRAINAGE PLAN 1 st SUBMITTAL	☐ PRELIMINARY PLAT APPROVAL
☐ DRAINAGE PLAN RESUBMITTAL	☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ CONCEPTUAL G & D PLAN	☐ S. DEV. FOR BLDG. PERMIT APPROVAL
☐ GRADING PLAN	☐ SECTOR PLAN APPROVAL
☐ EROSION CONTROL PLAN	☐ FINAL PLAT APPROVAL
☒ ENGINEER'S CERT (HYDROLOGY)	☐ FOUNDATION PERMIT APPROVAL
☐ CLOMR/LOMR	☐ BUILDING PERMIT APPROVAL
☐ TRAFFIC CIRCULATION LAYOUT	☒ CERTIFICATE OF OCCUPANCY
☐ ENGINEER'S CERT (TCL)	☐ GRADING PERMIT APPROVAL
☐ ENGINEER'S CERT (DRB SITE PLAN)	☐ PAVING PERMIT APPROVAL
☐ OTHER-	☐ WORK ORDER APPROVAL
	☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: 1-23-09

BY: Kristine Susco



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.



CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT REVIEW BOARD

March 26, 2008

Project# 1006833
08DRB-70108 VACATION OF PUBLIC EASEMENT
08DRB-70111 VACATION OF PRIVATE EASEMENT
08DRB-70112 MAJOR - PRELIMINARY PLAT APPROVAL

SURV-TEK INC agent(s) for TABET LUMBER CO request(s) the above/ referenced action(s) for all or a portion of Tracts S-1A and S-2A-2, **ATRISCO BUSINESS PARK, UNIT 2** (TBK as Tract(s) A & B, MERIDIAN BUSINESS PARK II) together with Tract S-2A-1, **ATRISCO BUSINESS PARK, UNIT 2** (TBK as UNSER TOWNE CROSSING) zoned IP, located on the east side of UNSER BLVD NW BETWEEN LOS VOLCANES RD NW AND INTERSTATE ROUTE 40 containing approximately 70.3629 acre(s). (J-9, J-10)

AMAFCA No comment.
COG Unser Bd is a limited-access facility with full access provided at Los Volcanes and I-40. Also, access to Unser Bd between Central Av and Ouray Rd "shall be limited to full-access intersections." Additional access to Unser Bd will require the concurrence of NMDOT (the facility owner) and the TCC. For information purposes, the functional classification of Unser Bd is urban principal arterial.
TRANSIT No Comments received.
ZONING ENFORCEMENT No comment.
NEIGHBORHOOD COORDINATION Letters sent to: Avalon NA (R), Los Volcanes NA (R), Westside Merchants Assoc. (R), Laurelwood NA (R), Parkway NA (R)
APS Atrisco Business Park Unit 2 , Tracts S-1A and S-2A-2 Atrisco Business Park Unit 2 (tbka T A and B Meridian Business Park II) and Tract S-2A-1, Atrisco Business Park Unit 2 (tbka Un Towne Crossing) this site is located on Unser Blvd NW between Los Volcanes Rd NW and Interstate Route 40. The owner of the above property request approval for a Vacation of Public Utility Easement and a Private Drainage Easement, and Preliminary Plat approval to divide 3 existing Tracts into 16 new lots that will serve as a portion of the business park. This will have adverse impacts to the APS district.
POLICE DEPARTMENT No action required at this time.
FIRE DEPARTMENT

No Comments received.
PNM ELECTRIC & GAS VACATION OF PUBLIC EASEMENT: NO COMMENT VACATION OF PRIVATE EASEMENT: NO COMMENT MAJOR PRELIMINARY PLAT: APPROVED
COMCAST No Comments received.
QWEST No Comments received.
ENVIRONMENTAL HEALTH No Comments received.
M.R.G.C.D 1. No Adverse Comments. 2. Previously reviewed on 09/25/2007.
OPEN SPACE DIVISION Open Space has no adverse comments
CITY ENGINEER Provide a copy of the declaration of easements. The document should contain language that allows runoff from the new public road to drain through the private system and be privately maintained. The main storm drain trunk should be on the infrastructure list. Hydrology will coordinate with the vacation of easement J only if easement language in declaration is adequate.
TRANSPORTATION DEVELOPMENT No objection to vacation request. Defining the right of way width as "variable" is not adequate. Additional information must be provided. Prior to a complete review, the offsite mitigation must be determined. Additional right of way dedication may be required.
PARKS AND RECREATION Defer to affected agencies regarding the vacation requests. No objection to the plat.
ABCWUA No objection to Vacation requests. Public water/sewer line easements on Plat do not match lines shown on Utility Plan in some cases. Infrastructure in Gallatin should reference existing DRB and DRB project numbers.
PLANNING DEPARTMENT Refer to comments from Hydrology and affected utilities regarding proposed vacation(s). Plat must conform to an approved site development plan.
Site Plan - General - Please orient vicinity map on Sheet AS1 to match site plan; provide north arrows for all vicinity maps (AS1 and AS2). Identify the square symbol at the northeast corner of the interior intersection (all sheets and enlargements). A prominent note needs to be added which states that "Changes of use (e.g. from retail to restaurant or retail to office) will be subject to verification that minimum parking requirements can still be met for this entire site." Please revise the drawing of the continuous walkways through the Phase 2 parking lot such that the walkway joint lines are off-set from parking stall lines, similar to the

continuous walkways in Phase 1 and Phase 3 (Sheets AS1, AS2, and L1).

Large Retail Facility Regulations -

Primary and Secondary Driveways must have six-foot landscape buffers between stand up curbs and eight-foot sidewalks. Secondary Driveways must be a minimum 60 feet wide (back of sidewalk to back of sidewalk).

The proposed Site Plan for Subdivision exceeds the allowable block sizes. For more than one block of approximately 790 feet by 360 feet, approval must be granted by the EPC. It must be shown that the block sizes "meet the intent" of the regulations, that "the narrow side of the block abuts the adjacent street that provides the primary access;" and that "the center of the long side has a major entrance, including a forecourt."

The proposed site plan does not meet the requirement for parking to "be placed on at least two sides of a building" and "not dominate the building or street frontage" (for all phases). Total building square footage could be maintained by re-orienting shops/ junior anchors along Primary and Secondary Driveways.

The proposed site plan does not meet the requirement for "ten foot wide continuous walkway(s)" through double parking rows. Additionally, the walkways may not "be diminished to less than five feet width at any point" (allowance for up to three foot encroachment by planters, plus two foot parking overhang).

Direct pedestrian connections need to be shown on the south side of the site (direct to each of Pads A, B and C), the west side (as near as possible from site entrance to Shop 7, and Pads D and E), the center (Shops 4, 10 and 11), and the northwest side (to future Restaurant). A continuous pedestrian connection needs to be shown on west side of Target (continue to Gallatin Place). Sidewalks are required on both sides of dedicated roadway (Towne Crossing Avenue at Gallatin Place). The pedestrian connection from Fortuna Road to Phase 2 needs to be shown at east end of Jr. Anchor 1 (in addition to, or in lieu of connection at the building's west end). A pedestrian connection is needed from the terminus of Fortuna Road to the north end of Phase 3.

An additional style of ornamental light fixture (maximum of 16 feet in height) is needed for pedestrian scale lighting along Primary and Secondary Driveways, and for plaza spaces.

The proposed plaza spaces must be calculated for the total building square footage of the phase, not just the main structure. Calculations, as well as seating and pedestrian amenities need to be shown for Phases 2 and 3. These spaces need to be shown "as the focal point for the development," which cannot be achieved as a linear plaza.

A maintenance agreement with the City is needed, addressing potential periods of vacancy of the development.

Elevations -

Assuming the undesignated panels of the Phase 1 main structure's west elevation (Target) are display windows, it appears that only 40% of this primary customer entry façade meets one of the three criteria for articulation; 50% is required. Additionally, this east elevation presents approximately 95 feet of a "façade[s] adjacent to a public street" that is subject to 50% articulation.

Please provide color elevations (may be reductions). The north elevation of Shop 4 and the south elevation of Shops 10 & 11 need to provide a storefront orientation to Town Crossing Avenue.

Landscaping -

Perimeter landscaping along Los Volcanes Road, Primary Driveways, and Secondary Driveways needs to be included in the initial development; the cross hatching on Sheets AS2 and L1 needs to be revised to clearly show these areas as part of the site plan for building permit. The cross hatching needs to be identified by note on Sheet L1.

Landscape planters need to be dimensioned (label some 'Typical' on Sheets AS3 and AS4). A Typical Section is needed to demonstrate how water harvesting will function to irrigate landscape areas.

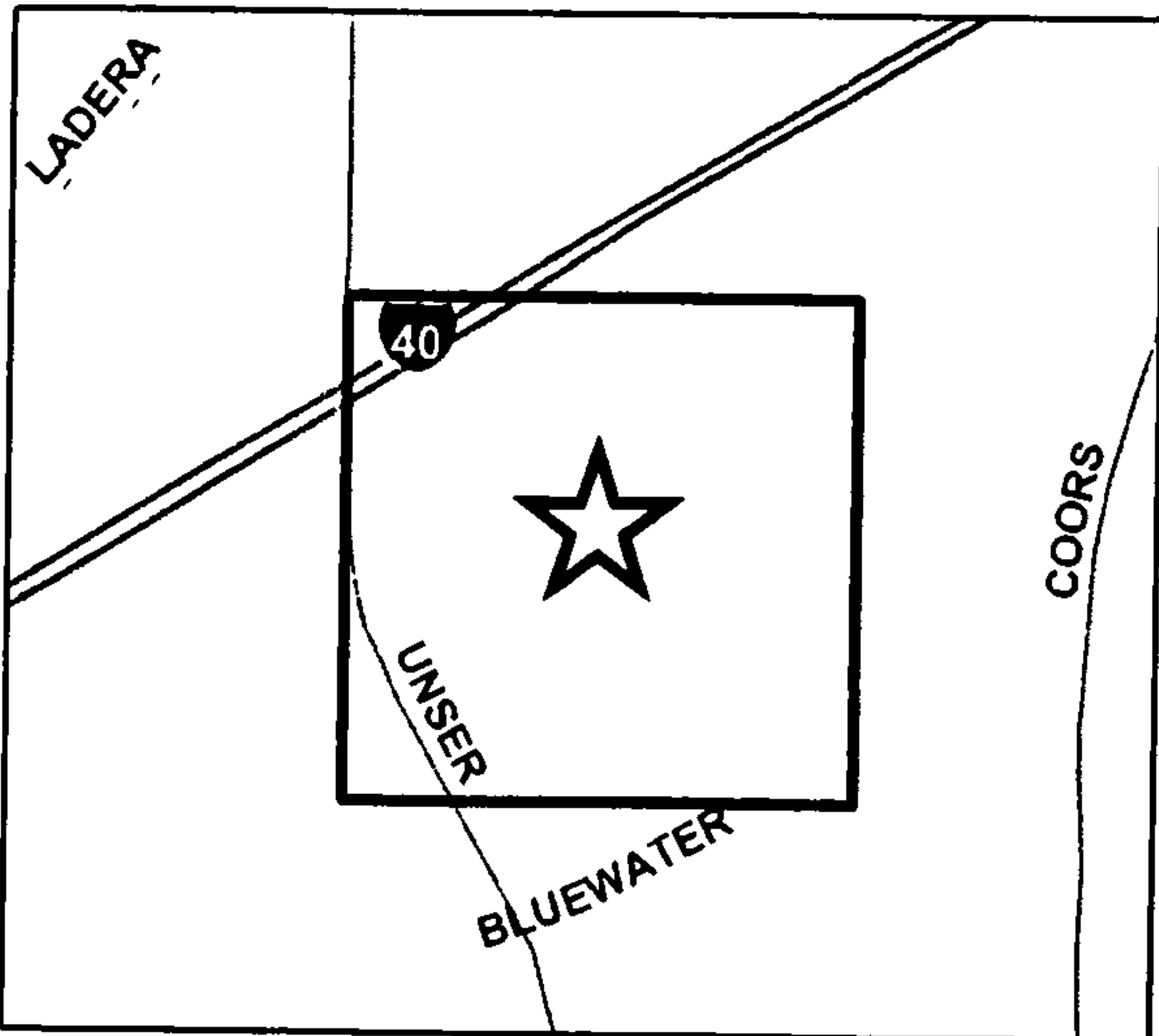
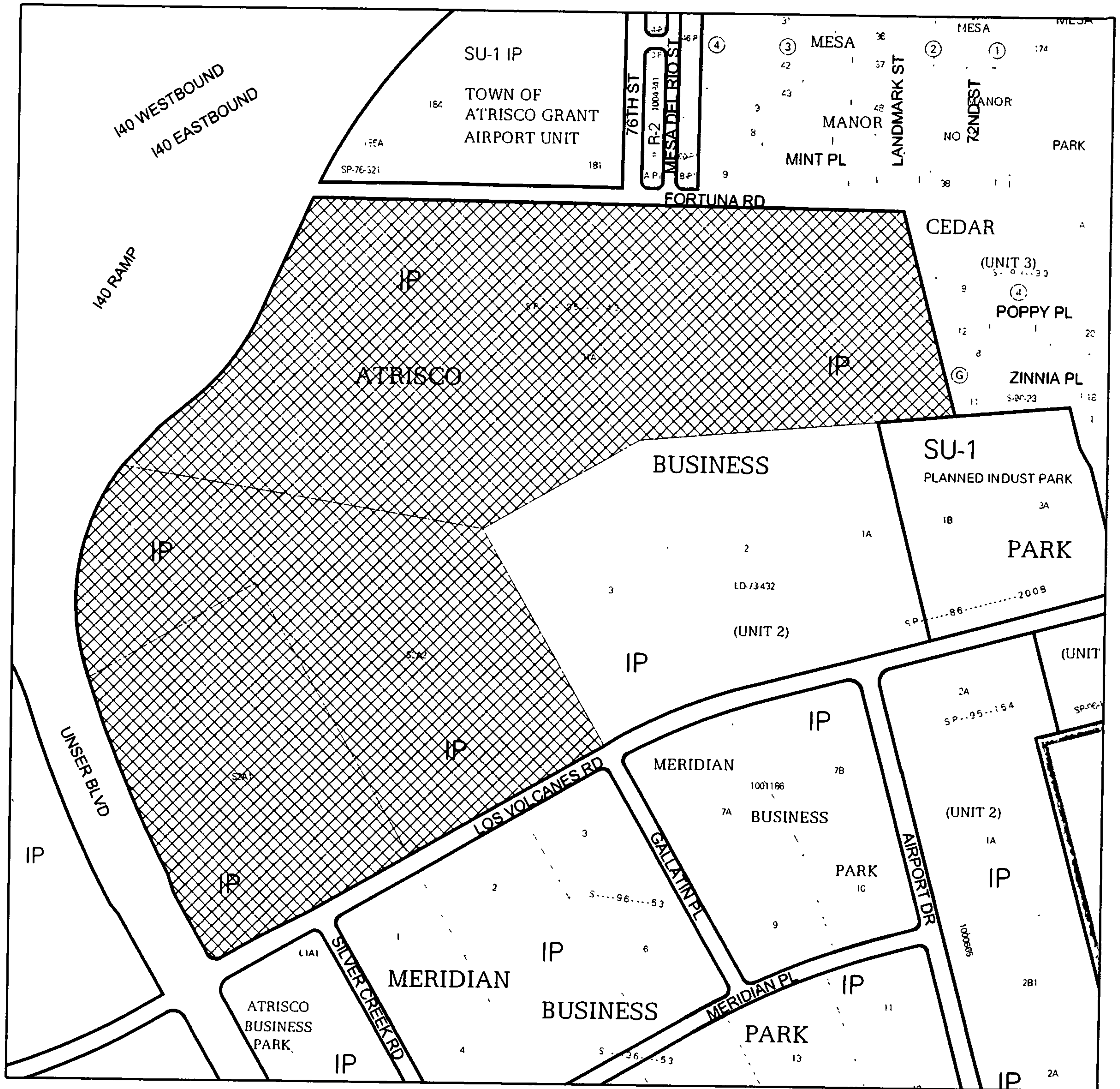
Signage -

Interstate Route 40 is classified as a Freeway and not an Arterial per the Long Range Roadway System; free-standing signs are not allowed. One free-standing sign will be allowed on Unser, two on Los Volcanes.

IT IS REQUIRED THAT THE APPLICANT AND/OR AGENT BE PRESENT AT THE HEARING

Cc: Surv-Tek Inc - 9284 Valley View Dr. NW - Albuquerque, NM 87114

Cc: Tabet Lumber Co. - 606 Baca Ave. - Belen, NM 87002



ZONING MAP

Note: Grey shading
indicates County.



1 inch equals 500 feet

Project Number:

1006833

Hearing Date:

3-26-08

Zone Map Page:

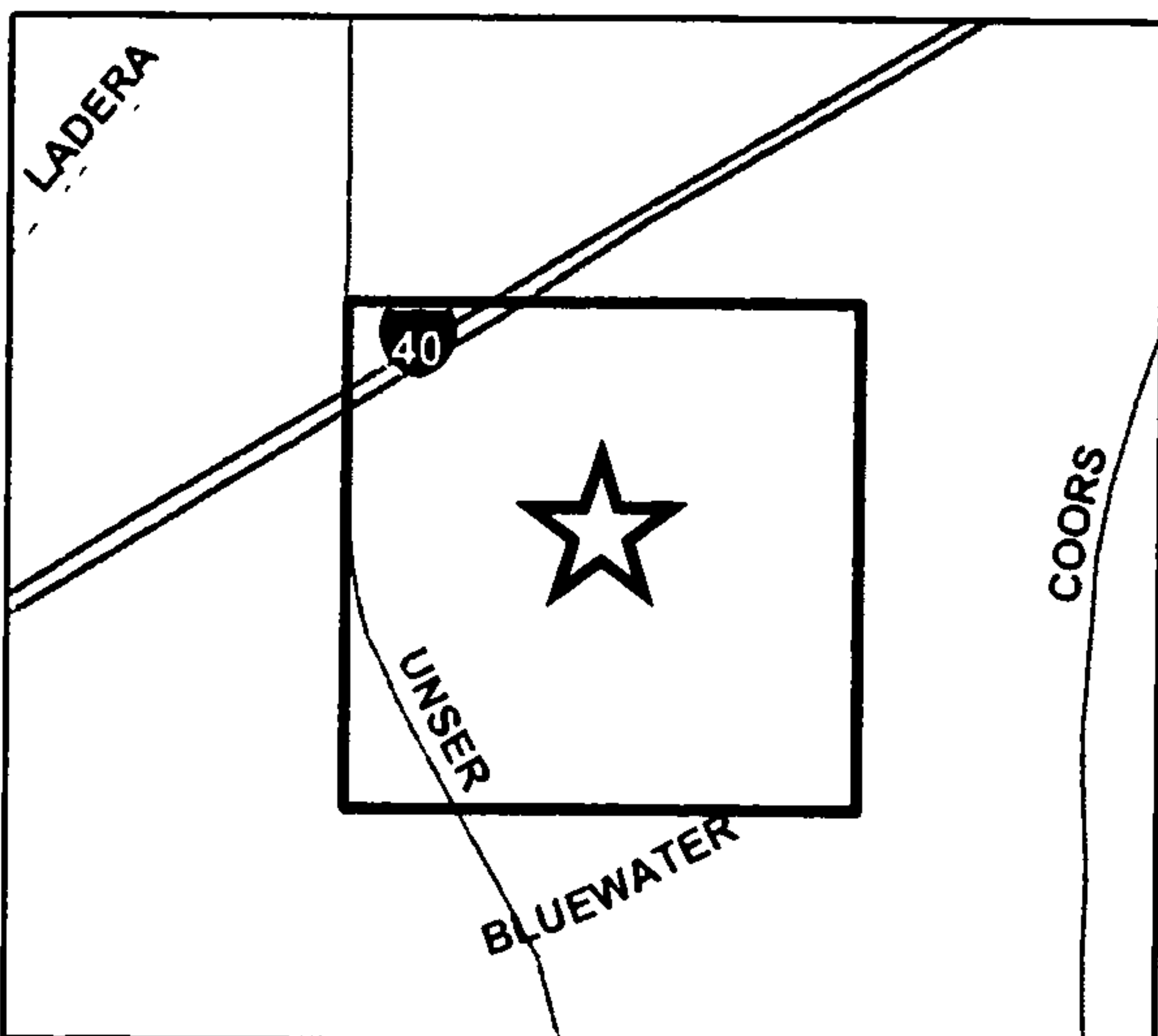
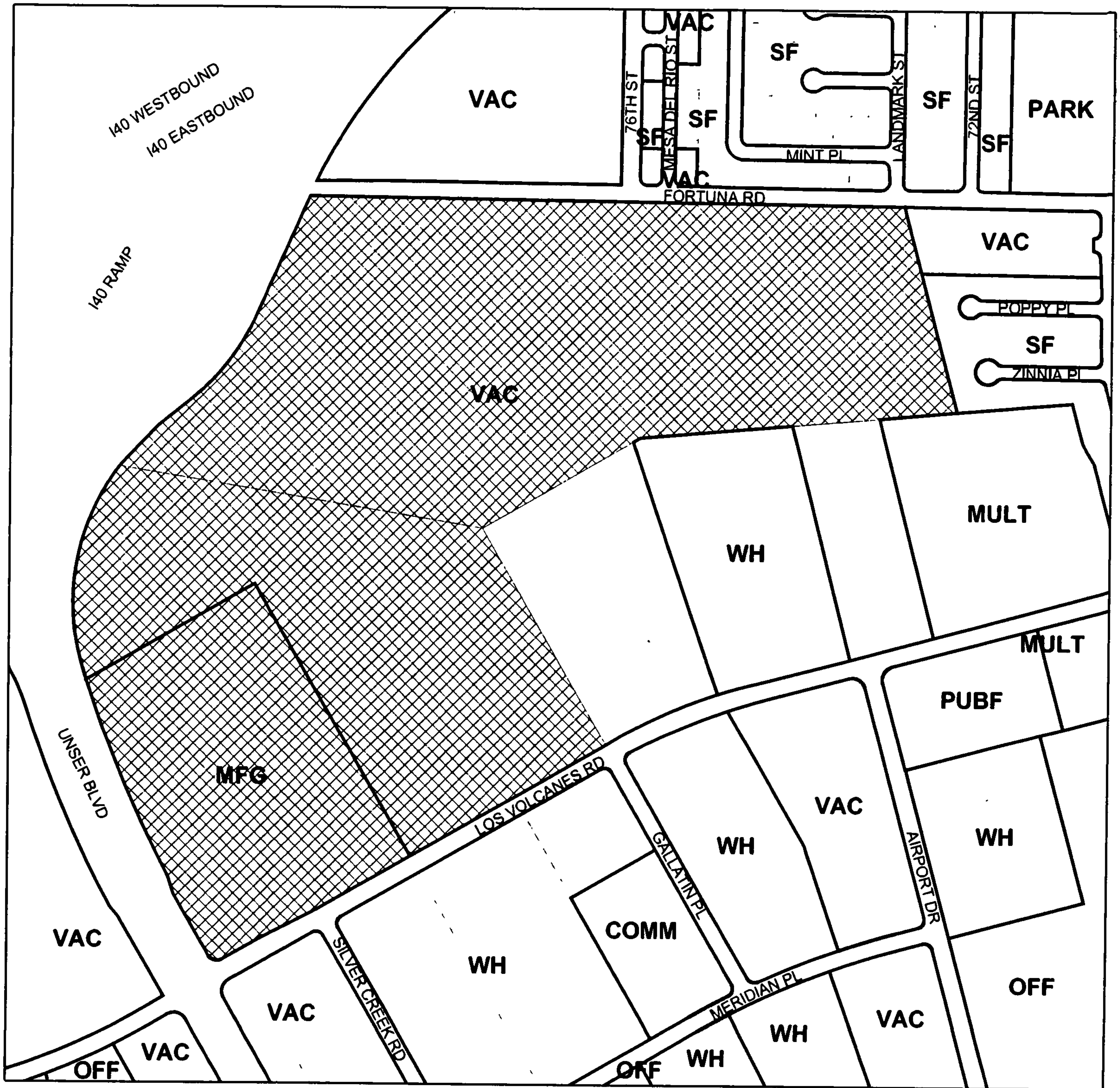
J-9 J-10

Additional Case Numbers:

08DRB-70108

08DRB-70111

08DRB-70112



LAND USE MAP

Note: Grey shading
indicates County.

KEY to Land Use Abbreviations

AGRI Agricultural
COMM Commercial - Retail
DRNG Drainage
MFG Manufacturing or Mining
MULT Multi-Family or Group Home
OFF Office
PARK Park, Recreation, or Open Space
PRKG Parking
PUBF Public Facility
SF Single Family
TRAN Transportation Facility
VAC Vacant Land or Abandoned Buildings
WH Warehousing & Storage



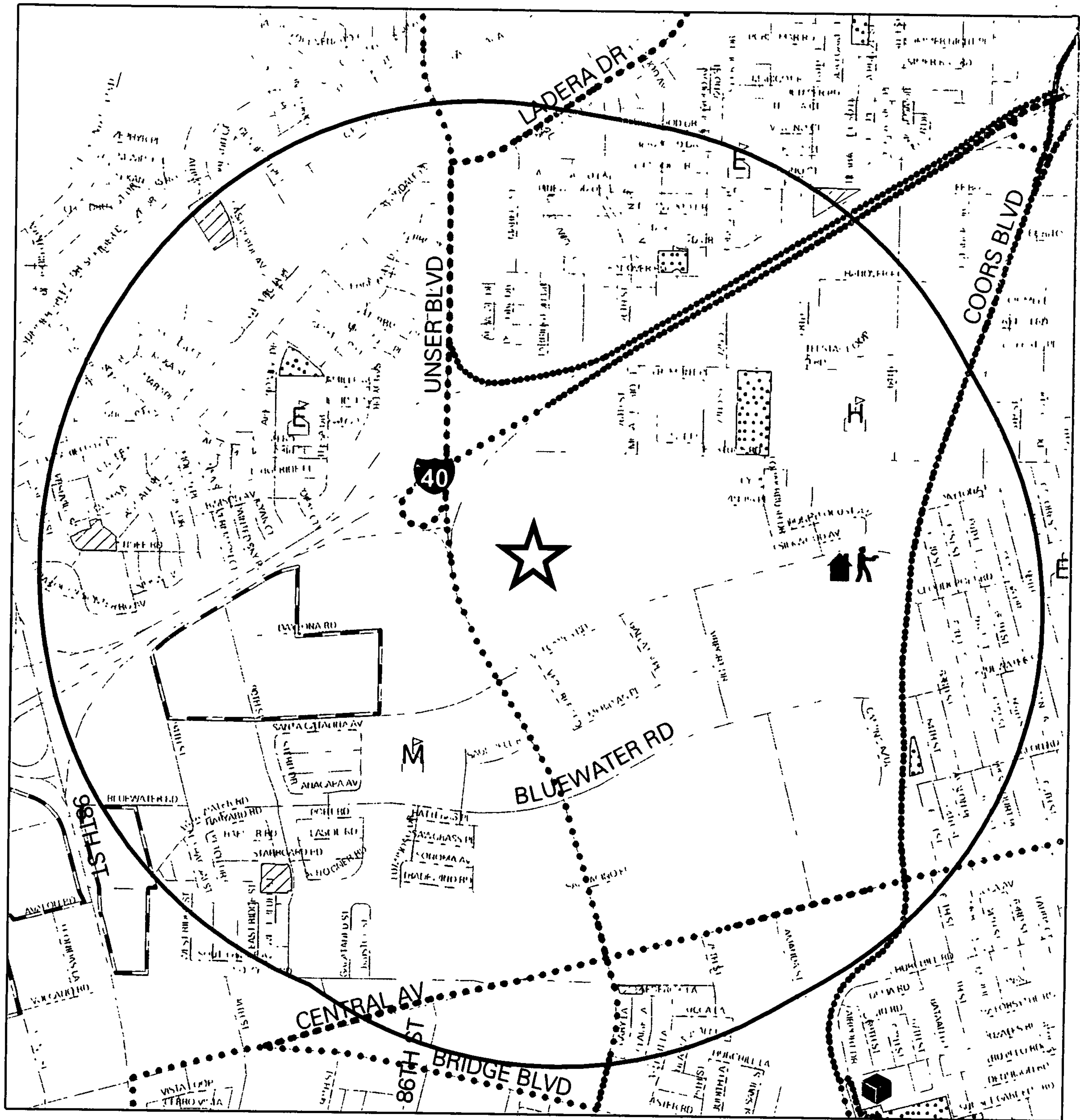
1 inch equals 500 feet

Project Number:
1006833

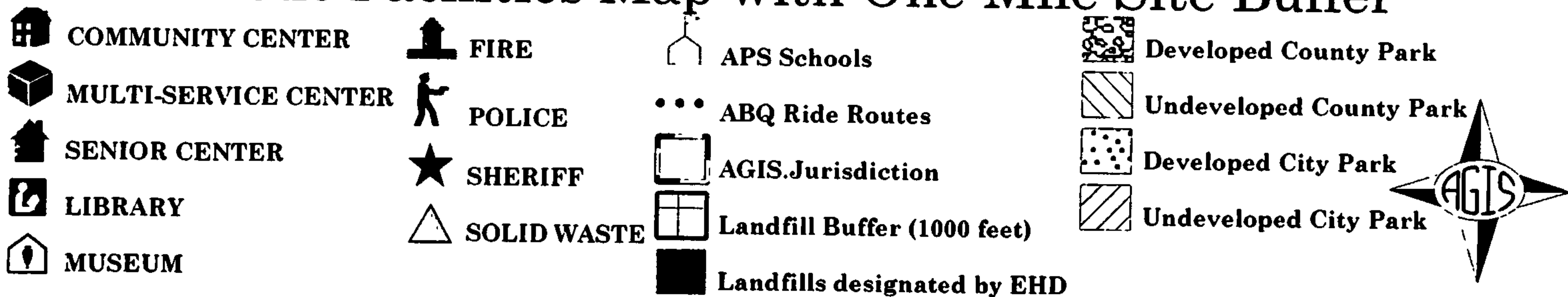
Hearing Date:
3-26-08

Zone Map Page:
J-9 J-10

Additional Case Numbers:
08DRB-70108
08DRB-70111
08DRB-70112



Public Facilities Map with One-Mile Site Buffer



Project Number: 10006833

0 0.5 1 Miles

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

January 29, 2009

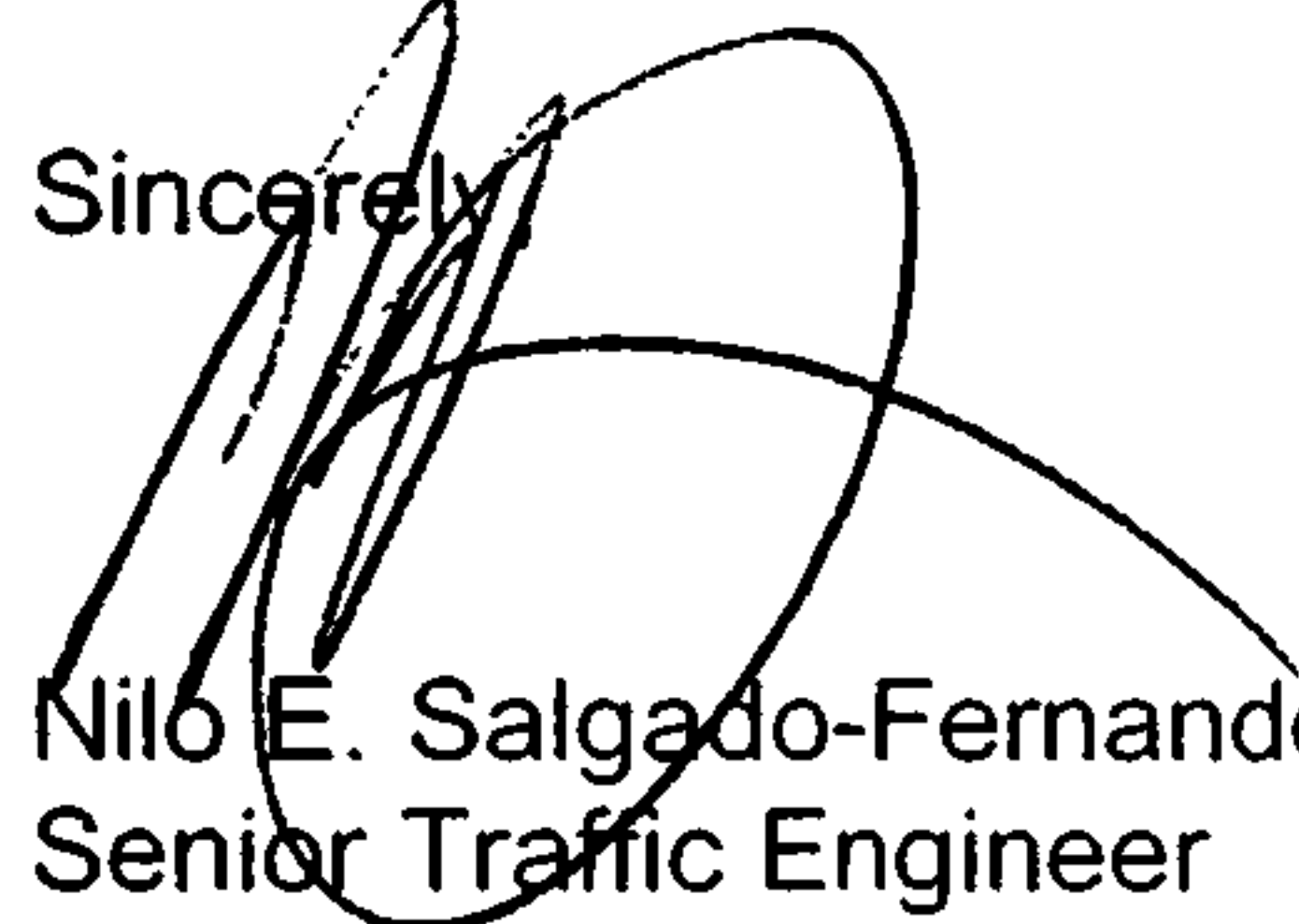
Claudio Antonio Vigil, Registered Architect
1801 Rio Grande Blvd NW
Albuquerque, NM 87104

Re: Certification Submittal for Final Building Certificate of Occupancy for
FedEx Freight-Service and Distribution Center, [J-10 / D002G]
7601 Los Volcanes Road NW
Architect's Stamp Dated 01/27/09

Dear Mr. Vigil:

The TCL / Letter of Certification submitted on January 29, 2009 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,


Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 01/06 - KDM)

PROJECT TITLE: FedEx Freight Albuquerque ZONE MAP: J-10/DoozG
DRB#: 02DRB-70240 EPC#: 1006801 WORK ORDER#: 578082

LEGAL DESCRIPTION: Tract C of the Bulk Land Plat of Tracts A thru D Meridian Business Park II
CITY ADDRESS: 7601 Los Volcanes Rd NW

ENGINEERING FIRM: Wilson & Company CONTACT: Kristine Susco
ADDRESS: 4900 Lang Ave NE PHONE: (505) 348-4000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Angelo Brunacini CONTACT: Angelo Brunacini
ADDRESS: PO Box 6363 PHONE: (505) 833-2925
CITY, STATE: Albuquerque, NM ZIP CODE: 87192

ARCHITECT: Claudio Vigil Architects CONTACT: Sandra M. Fairchild
ADDRESS: 1801 Rio Grande Boulevard, N.W. PHONE: (505) 841-1113
CITY, STATE: Albuquerque, N M ZIP CODE: 87104

SURVEYING FIRM: _____ LICENSED SURVEYOR: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

PROFESSIONAL LICENSED SURVEYOR SIGNATURE	LICENSE NO.	DATE
--	-------------	------

CONTRACTOR: Klinger Constructors, LLC CONTACT: Joe Reed
ADDRESS: 8701 Washington, N.E. PHONE: (505) 856-8202
CITY, STATE: Albuquerque, N.M. ZIP CODE: 87113

TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
☐ DRAINAGE REPORT	☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ DRAINAGE PLAN 1 st SUBMITTAL	☐ PRELIMINARY PLAT APPROVAL
☐ DRAINAGE PLAN RESUBMITTAL	☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ CONCEPTUAL G & D PLAN	☐ S. DEV. FOR BLDG. PERMIT APPROVAL
☐ GRADING PLAN	☐ SECTOR PLAN APPROVAL
☐ EROSION CONTROL PLAN	☐ FINAL PLAT APPROVAL
☐ ENGINEER'S CERT (HYDROLOGY)	☐ FOUNDATION PERMIT APPROVAL
☐ CLOMR/LOMR	☐ BUILDING PERMIT APPROVAL
☒ TRAFFIC CIRCULATION LAYOUT	☒ CERTIFICATE OF OCCUPANCY
☐ ENGINEER'S CERT (TCL)	☐ GRADING PERMIT APPROVAL
☒ ENGINEER'S CERT (DRB SITE PLAN)	☐ PAVING PERMIT APPROVAL
☐ OTHER-	☐ WORK ORDER APPROVAL
	☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES

☒ NO

☐ COPY PROVIDED

DATE SUBMITTED: 1-29-09

BY: [Signature]

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



January 27, 2009

Traffic Engineer
Development and Building Services
600 Second St. N.W
Albuquerque, New Mexico

**RE: TRAFFIC CERTIFICATION - Submittal
FedEx Freight – Service and Distribution Center
7601 Los Volcanes Road, N.W.**

To whom it may concern:

I, Claudio Vigil, NM Registered Architect 1236, of the firm Claudio Vigil Architects, hereby certify that this project is in substantial compliance with and in accordance with the design intent of the site development plan approved through administrative amendment and permit set. The record information documented and edited onto the approved TCL Site Plan has been obtained by Sandra Fairchild of the firm Claudio Vigil Architects. I further certify that I have personally visited the project site on January 23, 2009 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 Certificate of Occupancy.

All work necessary to support the facility has been completed, and is in substantial compliance with the approved site development plan.

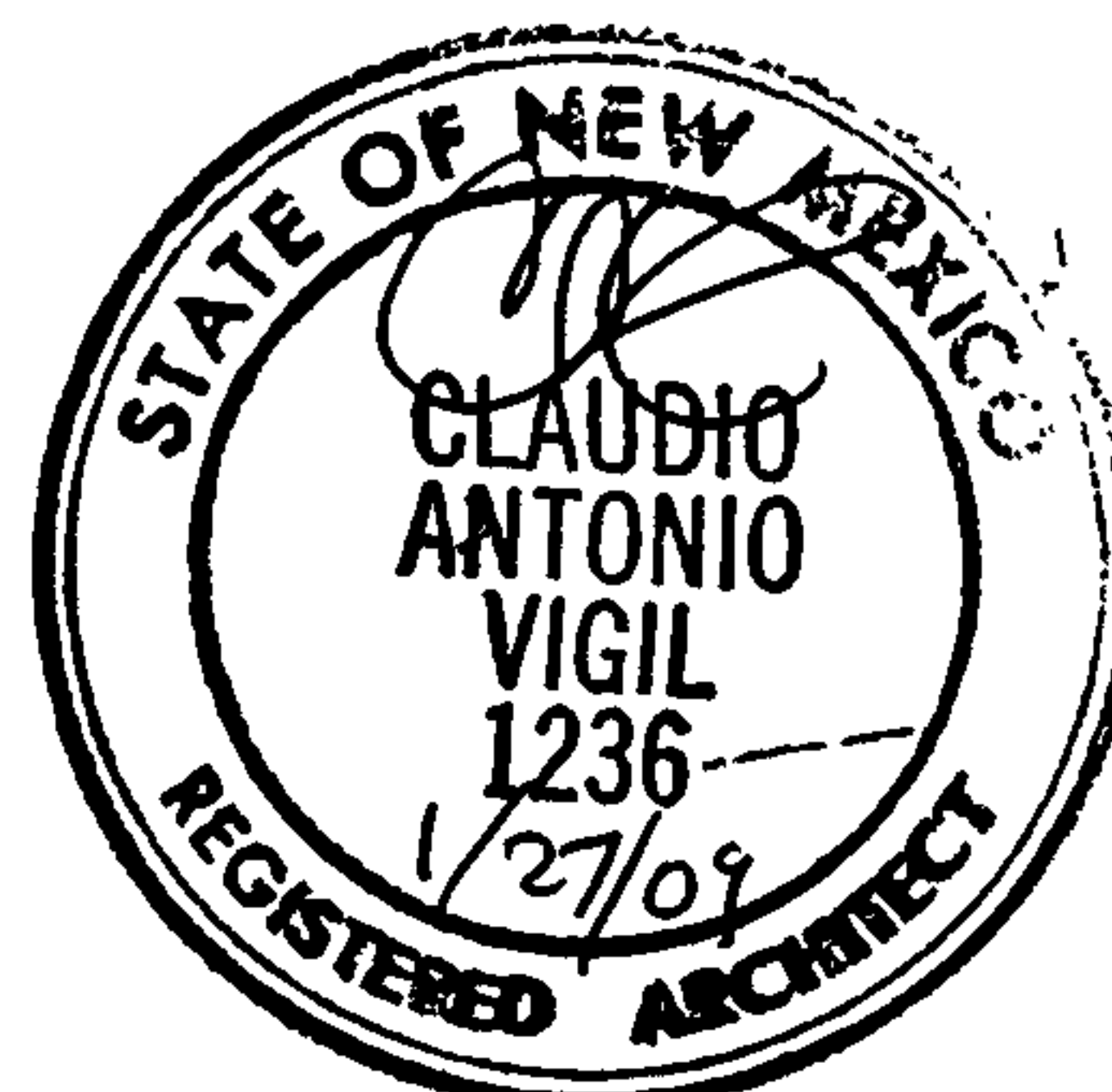
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.



Signature of Architect

1/27/09
Date

ARCHITECT'S STAMP



AGREEMENT AND COVENANT

This Agreement and Covenant, between the City of Albuquerque, New Mexico ("City") and Brunacini Development Ltd., Co., ("User") is made in Albuquerque, New Mexico and is entered into as of the date of recording this Agreement with the Bernalillo County Clerk.

1. Recital. The User is the owner of certain real property ("User's Property") located On Fortuna Rd NW southeast of the Intersection of Fortuna Rd NW with the vacant ROW of 76th Street NW, in Albuquerque, New Mexico, and more particularly described as: (give legal description and filing information)

TRACT D OF THE BULK LAND PLAT, TRACTS A THRU D, MERIDIAN BUSINESS PARK II, RECORDED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY ON 04/29/08, DOCUMENT# 2008047900, BOOK 2008C, PGE 0100.

The City is the owner of certain real property, easement or public right-of-way ("City's Property") in the vicinity of, contiguous to, abutting or within User's Property, and more particularly described as:

TEMPORARY 210' x 220' PUBLIC RETENTION POND EASEMENT

The User wishes to construct upon, improve or repair and to maintain the following improvement ("Improvement") on the City's Property (or already has done so):

TEMPORARY PUBLIC RETENTION POND WITH RIP RAP RUNDOWN

A sketch of the proposed or existing Improvement is attached as Exhibit A and made a part of this Agreement.

The City agrees to permit the Improvement to exist on the City's Property provided the User complies with the terms of this Agreement.

2. City Use of City's Property and City Liability. The City has the right to enter upon the City's Property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the User. If the Work affects the Improvement the City will not be financially or otherwise responsible for rebuilding or repairing the Improvement. The User promptly will repair the Improvement to the City's satisfaction. The cost of repairing the Improvement will be paid by User.

Doc# 2008050727

05/05/2008 03:25 PM Page 1 of 5
AGRE R: \$17.00 M. Toulouse, Bernalillo County



3. User's Responsibility for Improvement. The User will be solely responsible for constructing, maintaining, repairing and, if required, removing the Improvement, all in accordance with standards required by the City as per the approved Grading and Drainage Plan J10/D2G on file at the City Engineer's office. The User will be solely responsible for paying all related costs. The User will not permit the Improvement to constitute a hazard to the health or safety of the general public or to interfere with the City's use of the City's Property. The User will conform with all applicable laws, ordinances and regulations.

4. Use of the Improvement. If the City's Property is a public right-of-way, it shall be open to the use of the general public at all times, subject to reasonable curtailment during periods of construction, maintenance or repair.

5. Demand for Repair, Modification or Removal. The City may send written notice ("Notice") to the User requiring the User to repair, modify or remove the Improvement within 30 days ("Deadline") and the User will comply promptly with the requirements of the Notice. If removal is demanded, the City also may require the User to return the City's Property to its original condition by the Deadline. The User will perform all required work by the Deadline, at User's sole expense.

6. Failure to Perform by User and Emergency Work by City. If the User fails to comply with the terms of the Notice by the Deadline stated, or, if the City determines that an emergency condition exists, the City may perform the work itself. The City then may assess the User for the cost of the work and for any other expenses or damages which result from User's failure to perform. The User agrees promptly to pay the City the amount assessed. If the User fails to pay the City within thirty (30) days after the City gives the User written notice of the amount due, the City may impose a lien against User's Property for the total resulting amount.

7. Cancellation of Agreement and Release of Covenant. This Agreement may be canceled and User's covenants released by the City at will by the City's mailing to the User notice of the City's intention to record a Cancellation and Release with the Bernalillo County Clerk. The Cancellation and Release will be effective thirty (30) days after the date of mailing the notice to the User unless a later date is stated in the notice or the Cancellation and Release. After the effective date, the City will record the Cancellation and Release with the Bernalillo County Clerk.

8. Condemnation. If any part of the User's Property is ever condemned by the City, the User will forego all claims to compensation for any portion of User's structure which encroaches on City Property and for severance damage to the remaining portion of User's structure on User's Property.

9. Assessment. Nothing in this Agreement shall be construed to relieve the User, his heirs, assigns and successors from an assessment against User's Property for improvements to the City Property under a duly authorized and approved Special Assessment District. The parties specifically agree that the value of the Improvement will not reduce the amount assessed by the City.

10. Notice. For purposes of giving formal written notice to the User, User's address is:

10. Notice. For purposes of giving formal written notice to the User, User's address is:
7400 Meridian Place NW, Suite D
Albuquerque, NM 87121

Notice may be given to the User either in person or by mailing the notice by regular U.S. mail, postage paid. Notice will be considered to have been received by the User within three (3) days after the notice is mailed if there is no actual evidence of receipt. The User may change User's address by giving written notice of the change by certified mail, return receipt requested, to the City Engineer at P.O. Box 1293, Albuquerque, New Mexico 87103.

11. Indemnification. The User agrees to defend, indemnify and hold harmless the City, its officials, agents and employees from and against any and all claims, actions, suits or proceedings of any kind brought against said parties as a result of User's use of the City's Property. To the extent, if at all, Section 56-7-1 NMSA 1978 is applicable to this Agreement, this Agreement to indemnify will not extend to liability, claims, damages, losses or expenses, including attorneys' fees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or (2) the giving of or the failure to give direction or instructions by the indemnitee, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

12. Term. This Agreement shall continue until revoked by the City pursuant to Section 7 above.

13. Binding on User's Property. The covenants and obligations of the User set forth herein shall be binding on User, his heirs assigns and successors and on User's Property and constitute covenants running with User's Property until released by the City.

14. Entire Agreement. This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral or written, whether previous to the execution hereof or contemporaneous herewith.

15. Changes of Agreement. Changes to this Agreement are not binding unless made in writing, signed by both parties.

16. Construction and Severability. If any part of this Agreement is held to be invalid or unenforceable, the remainder of the Agreement will remain valid and enforceable if the remainder is reasonably capable of completion.

17. Captions. The captions to the sections or paragraphs of this Agreement are not part of this Agreement and will not affect the meaning or construction of any of its provisions.

CITY OF ALBUQUERQUE:

By:

**Bruce J. Perlman, Ph.D.,
Chief Administrative Officer**

Date:

5-05-08

USER:

By:

~~Name: Angelo Brunacini~~

Title: Managing Member, Brunacini
Development Ltd., Co

Date:

3-6-08

APPROVED:

Richard Dourte, City Engineer

CITY'S ACKNOWLEDGMENT

[illegible]

This instrument was acknowledged before me on this 5th day of May, 2008 by Richard Dauter, Civil Engineer for Bruce J. Perlman, Ph. D., Chief Administrative Officer for the City of Albuquerque, a New Mexico municipal corporation, on behalf of the corporation.

My Commission Expires:

10-07-08

Linda Evans
Notary Public

USER'S ACKNOWLEDGMENT

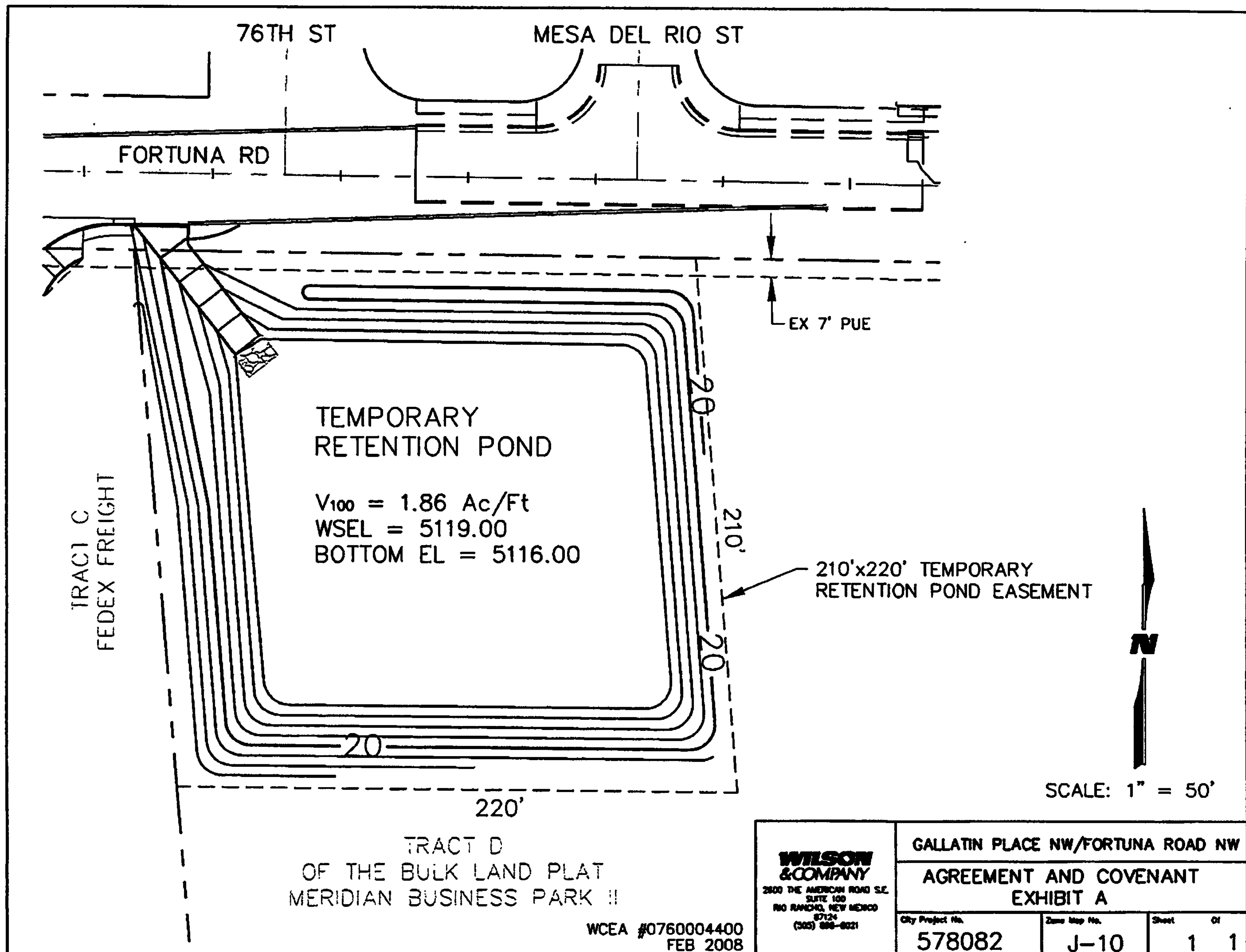
STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

This instrument was acknowledged before me on this 6 day of March,
2009 by Angelo Brunacini, Managing Member, Brunacini Development Ltd., Co.

My Commission Expires:

545-2009

Bernadette L. Kewster
Notary Public



**WILSON
& COMPANY**
 2800 THE AMERICAN ROAD S.E.
 SUITE 100
 RIO RANCHO, NEW MEXICO
 87124
 (305) 888-8021

GALLATIN PLACE NW/FORTUNA ROAD NW

AGREEMENT AND COVENANT
EXHIBIT A

City Project No.

578082

Zone Map No.

J-10

Sheet

Of

1

1

WCEA #0760004400
FEB 2008

CITY OF ALBUQUERQUE



October 1, 2007

Daniel S. Aguirre, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NE
Albuquerque, NM 87109

**Re: Fed Ex Freight Albuquerque Preliminary Grading Plan
Engineer's Stamp dated 8-31-07 (J10/D002G)**

Dear Mr. Aguirre,

Based upon the information provided in your submittal dated 9-25-07, the above referenced plan cannot be approved for Site Development Plan for Building Permit action by the DRB until the following comments are addressed:

P.O. Box 1293

- A storm drain will be required in Gallatin PL NW. Provide the proposed infrastructure improvements along with supporting information.
- Provide a site-specific narrative.

Albuquerque

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

New Mexico 87103

Sincerely,

Curtis A. Cherne, P.E.
Engineering Associate, Planning Dept.
Development and Building Services

www.cabq.gov

C: file
Brad Bingham

CITY OF ALBUQUERQUE



October 16, 2007

Dan Aguirre, PE
Wilson & Company
4900 Lang Ave NE
Albuquerque, NM 87109

Re: FedEx Freight Preliminary Grading Plan
Engineer Stamp 10-9-07 (J10/D2G)

Dear Mr. Aguirre,

Based upon information provided in your submittal dated 10-9-07, the above referenced plan is approved for Site Plan for Building Permit action by the DRB.

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

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

C: file

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

CITY OF ALBUQUERQUE



September 10, 2007

Daniel S. Aguirre, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NE
Albuquerque, NM 87109

**Re: Meridian Business Park II Drainage Report and Basin Map
Engineer's Stamp dated 8-30-07 (J10/D002G)**

Dear Mr. Aguirre,

Based upon the information provided in your submittal dated 9-4-07, the above referenced plan cannot be approved for Preliminary Plat action by the DRB until the following comment is addressed:

- A Conceptual Grading and Drainage Plan is required.

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

Sincerely,

Curtis A. Cheme, P.E.
Engineering Associate, Planning Dept.
Development and Building Services

C: file
Brad Bingham

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 01/06 - KDM)

PROJECT TITLE: FedEx Freight Albuquerque

ZONE MAP: J-10

DRB#: 1000845

EPC#: _____

WORK ORDER#: _____

XXXXXX

LEGAL DESCRIPTION: Lot 3 Tract S-1, Tract S-2A-2, and Tract S-1a, Unit 2 Atrisco Business Park

CITY ADDRESS: Fortuna Drive NW

ENGINEERING FIRM: Wilson & Company

ADDRESS: 4900 Lang Ave NE

CITY, STATE: Albuquerque, NM

CONTACT: Kristine Susco

PHONE: (505) 348-4000

ZIP CODE: 87109

OWNER: Angelo Brunacini

ADDRESS: PO Box 6363

CITY, STATE: Albuquerque, NM

CONTACT: Angelo Brunacini

PHONE: (505) 833-2925

ZIP CODE: 871972

ARCHITECT: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

ZIP CODE: _____

SURVEYING FIRM: _____

LICENSED SURVEYOR: _____

ADDRESS: _____

PHONE: _____

CITY, STATE: _____

ZIP CODE: _____

PROFESSIONAL LICENSED SURVEYOR SIGNATURE

LICENSE NO.

DATE

CONTRACTOR: _____

ADDRESS: _____

CITY, STATE: _____

CONTACT: _____

PHONE: _____

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'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ OTHER-

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
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

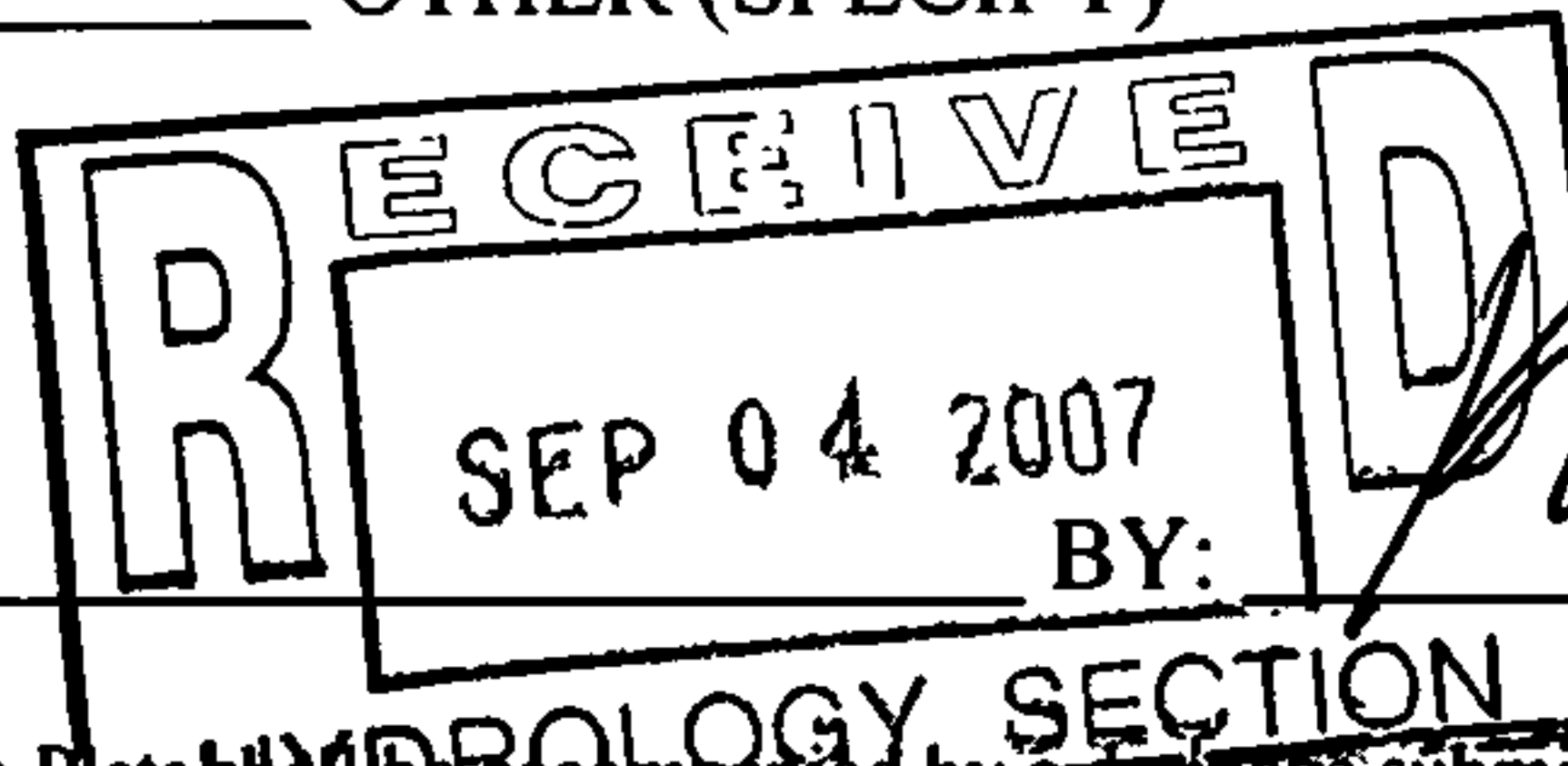
WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES

☐ NO

☐ COPY PROVIDED

DATE SUBMITTED: 8-21-07 9-4-07



Requests for approvals of Site Development Plans and/or Subdivision Plans 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.

Drainage Report

for

MERIDIAN BUSINESS PARK II

**A Supplement to the
Master Drainage Plan for
Atrisco Business Park
Dated September 1992
Revised March 1993/ October 1993**

Prepared by:

**Wilson & Company, Inc.
4900 Lang Ave NE
Albuquerque, New Mexico 87109
(505) 348-4191**

**August 2007
WCI File No: 0760004400**

**WILSON
& COMPANY**

Drainage Report

for

MERIDIAN BUSINESS PARK II

**A Supplement to the
Master Drainage Plan for
Atrisco Business Park
Dated September 1992
Revised March 1993/ October 1993**



Prepared by:

**Daniel S. Aguirre, PE
NM #11955**

**Wilson & Company, Inc.
4900 Lang Ave NE
Albuquerque, New Mexico 87109
(505) 348-4191**

**January 2007
WCI File No: 0760004400**

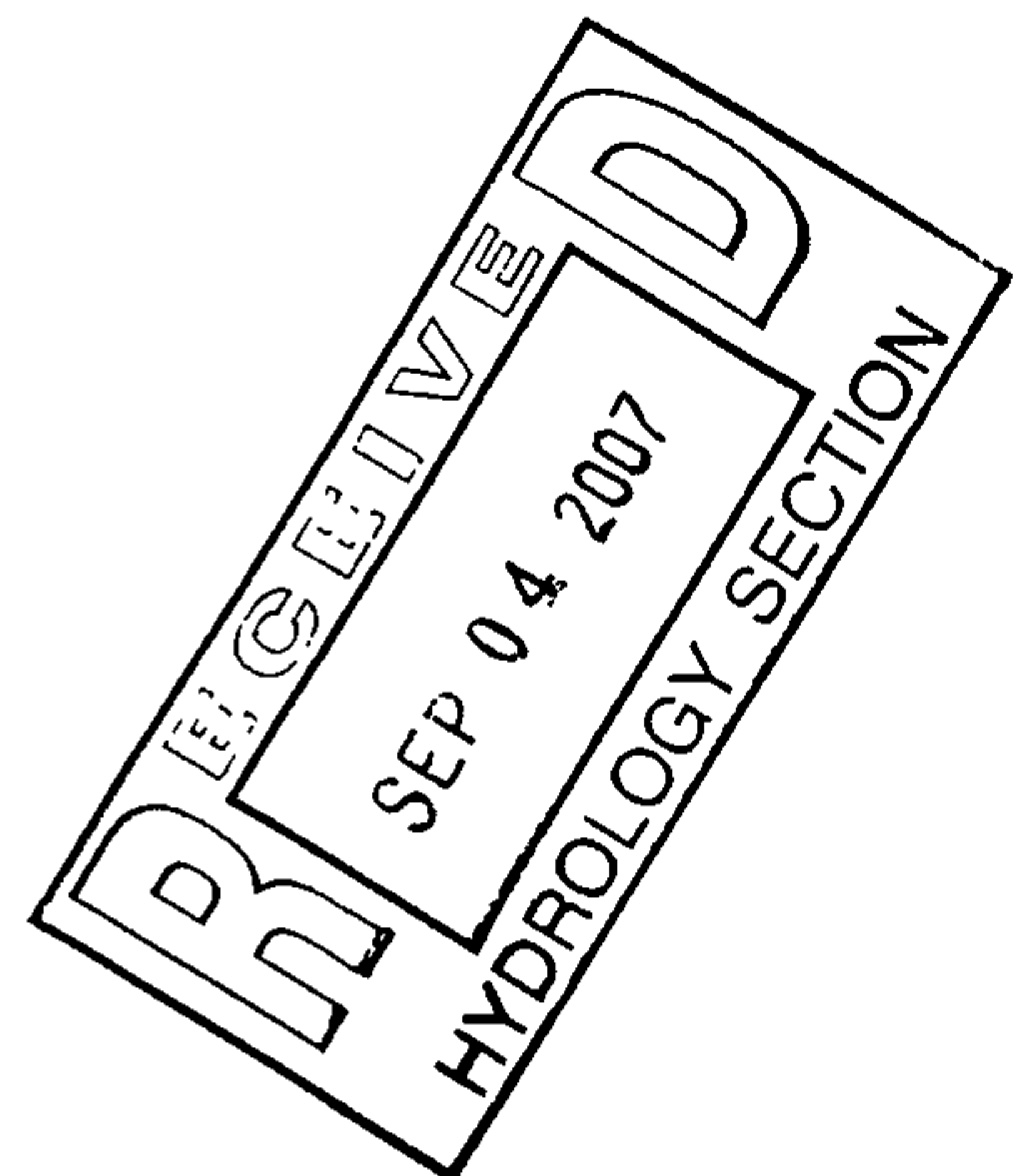


Table of Contents

	<u>Page No.</u>
Site Description	3
Legal Description	3
Flood Hazard Zone	3
Drainage	
Proposed Conditions per the “Master Drainage Plan for Atrisco Business Park”	
Dated September 1992, Revised March 1993/October 1993	3
Proposed Improvements	4
Conclusion	5
Appendix A – Fortuna Rd Storm Drain Analysis	
Appendix B – FEMA Flood Plan Map	
Plate 1 – Proposed Improvements/Drainage Basin Map-Fully Developed Condition	
Plate 2 – Atrisco Business Park Master Drainage Plan Overall Drainage Plan	

Site Description

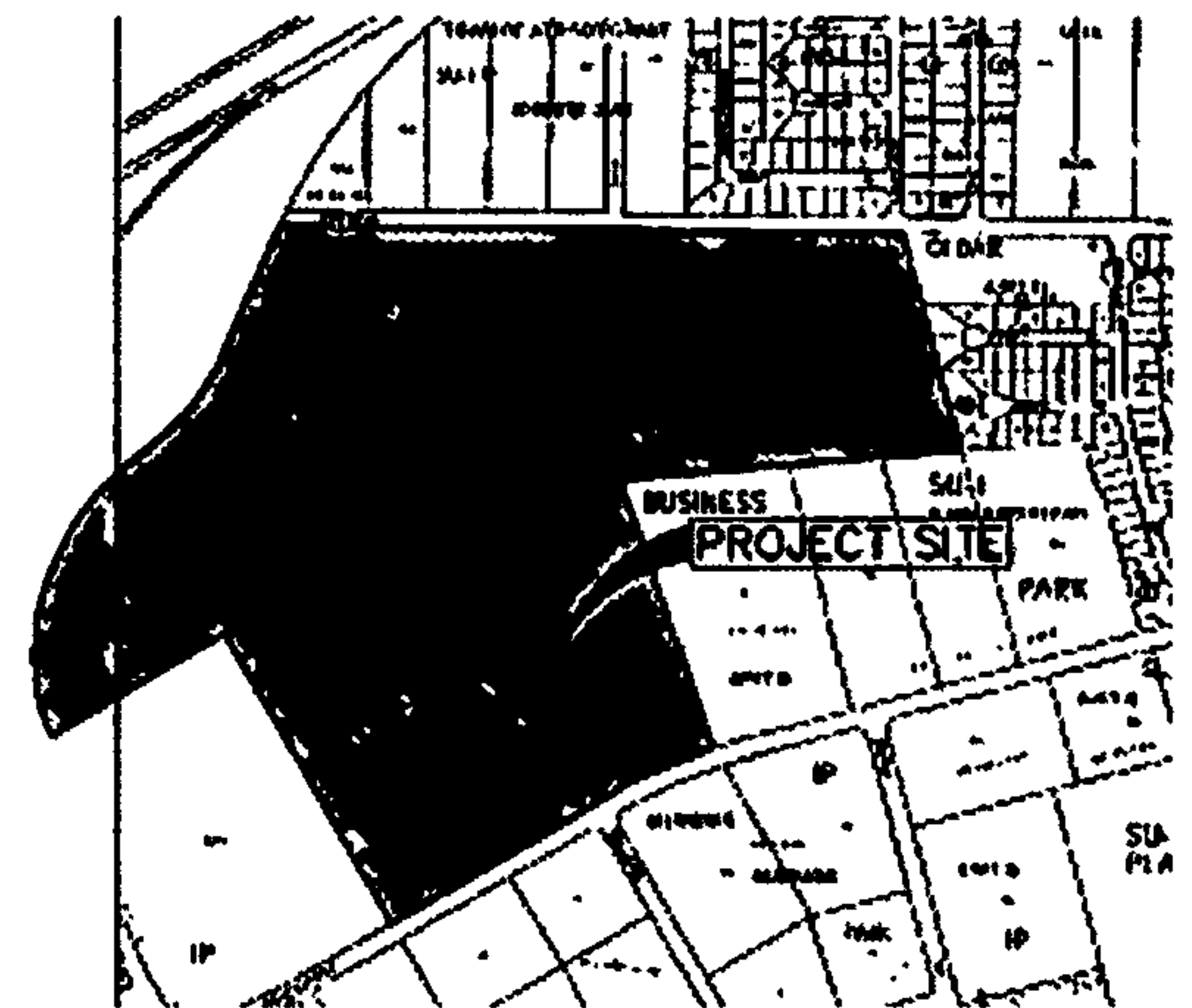
The project site, identified as Meridian Business Park II, is located at the intersection of Los Volcanes Road NW and the new Gallatin Place NW alignment. It is bounded on the north by Fortuna Road NW, on the west by Unser Blvd, on the south by Los Volcanes Road NW, and on the east by Airport Road. The 93.08 acre project site is located on the eastern boundary of the Unser Blvd. right-of-way. The site is currently undeveloped, covered with native grasses, and there has been no previous impact from human activity.

Legal Description

Lot 3 Tract S-1, Lot 2 Tract S-1, Lot 1A Tract S-1, Tract S-1A (Westerly Portion & Remainder), and Tract S-2A-2.

Flood Hazard Zones

A portion of the site is located in a flood zone as shown in Panel 27 of 50 of the FEMA Flood Plains Map. See Appendix B.



LOCATION MAP
ZONE ATLAS MAP NO. J-10

Drainage

Proposed Conditions per the "Master Drainage Plan for Atrisco Business Park" dated September 1992, Revised March 1993/October 1993

The existing ± 93.08 acre project site is identified as part of Basin 200.1, in the "Master Drainage Plan for the Atrisco Business Park" dated September 1992, Revised March 1993/October 1993, refer to Plate 2. The allowable discharge rate determined by this Master Drainage Plan is 0.1 cfs/acre along with fully developed free discharge to the streets with some exceptions. A proposed detention pond is currently located on the eastern portion of Tract S-1A to collect flow from Basin 200.1 per the Master Drainage Plan. The total acreage of Basin 200.1 is 133.2 acres, therefore it has an allowable discharge of 13.3 cfs. There are two watershed outfalls in this Master Drainage Plan, the North/South Coors Connection Storm Drain Watershed and the Tierra Bayita Storm Drain Watershed. The two are divided by the east right-of-way line of Unser Blvd. The Tierra Bayita Storm Drain collects discharge from the west side of the Unser right-of-way, and the North/South Coors Connection Storm Drain collects discharge from the east side of the right-of-way. The 13.3 cfs will be collected in the North/South Coors Connection Watershed in Airport Road.

On the north frontage of the project site, per the "West Mesa Diversion Project Drainage Analysis" at analysis point 13, 136 cfs will be discharged into a 36" storm drain in Fortuna Road NW. Refer to the "Summary of Peak Discharges and Peak Volumes Alternative 2A1 Developed Conditions" table in the "West Mesa Diversion Project Drainage Analysis". The 136 cfs is a total discharge from Basin C4-D and Basin 1-40-2. There is currently a 36" storm drain at the intersection of Fortuna Road NW and Mesa Del Rio Rd. On the west end of the 36" storm drain, a 30" cap has been provided for the continuation of storm drain in Fortuna Road NW, and a 36" cap has been provided for the proposed storm drain in 76th Street.

Proposed Improvements

Since the revised “Master Drainage Report for Atrisco Business Park” dated October 1993, one tract in Basin 200.1 has been developed, one is still for future development, and the remaining tract is being divided into 4 tracts which are treated as sub-basins of the original Basin 200.1. See Plate 1. These 4 sub-basins will each have their own developed flows and ponding requirements adhering to the Master Drainage Report, with an allowable discharge of 0.1 cfs/acre in fully developed conditions.

The fully developed flows were calculated using the Rational Method in Chapter 22 Section 2 of the City of Albuquerque’s Development Process Manual. The project site is located in Precipitation Zone 1, and was analyzed using 15% Land Treatment B and 85% Land Treatment D. See Table 1 below for Fully Developed Flows.

Table 1: Summary of Fully Developed Flows		
Basin	Area (acres)	100_{year}-24_{hour} Peak Flow (Q₁₀₀) cfs
200.1A	29.4	118.1
200.1B	21.0	84.4
200.1C	22.4	90.1
200.1D	20.3	81.5

Per the “Master Drainage Plan for the Atrisco Business Park” the allowable discharge rate was calculated using a discharge of 0.1 cfs/acre. Each tract will require a detention pond to limit the discharge to this rate. Table 2 shows the 100 year peak flow discharge allowed from the outlet of each pond.

Table 2: Summary of Allowable Discharge– Fully Developed	
Pond	100_{year} Peak Flow (Q₁₀₀) cfs
1	2.9
2	2.1
3	2.2
4	2.0
Total discharge to North/South Coors Connection	9.2 CFS

The total discharge of 5 cfs from both Pond 1 and Pond 2 will be collected in the conceptual 24” storm drain along Gallatin Place NW. This storm drain will be located in a 20’ private maintained easement that will tie into the existing 24” SD in Los Volcanes Road NW.

Pond 3 & 3A will discharge a total of 2.2 cfs into the proposed 24" storm drain that will be located within this site and will tie into the existing 24" storm drain in Los Volcanes Road NW.

Pond 4 will have a discharge of 2 cfs into the proposed 24" SD that will run along Lot1A in a 20' easement and will tie into the existing 24" SD in Los Volcanes Road NW.

An ultimate discharge of 9.2 cfs of the 13.3 cfs will discharge into the North/South Coors Connection, adhering to the Master Drainage Plan.

An extension of the storm drain in Fortuna Road NW will be required to collect the flow generated from Basin C4-D of the "West Mesa Diversion Project Drainage Analysis". This basin is comprised of Lots 185A, 184, 183, 182, and 181. Per this Drainage Analysis, a discharge of 3.76 cfs/acre to the street was determined for the fully developed conditions. Refer to Table 3 below for the allowable discharge.

Table 3: Summary of Allowable Free Discharge to Street – Fully Developed		
		100_{year}-24_{hour} Peak Flow
Lot	Area (acres)	(Q₁₀₀) cfs
185A	1.37	5.15
184	2.37	8.91
183	3.46	13.01
182	4.21	15.83
181	4.54	17.07

A street flow analysis was completed to determine the location of the of the storm drain extension. See Appendix A. Inlets will be provided at the return of Fortuna Road NW and Gallatin Place NW, and between Lots 182 and 181 with a 30" storm drain tying into the existing 30" cap provided.

Inlets will also be required in 76th Street to accommodate the 60 cfs generated from Basin 1-40-2 of the "West Mesa Diversion Project Drainage Analysis". These inlets will be located at the curb returns of 76th Street and Fortuna Road NW intersection. An extension of the 36" storm drain will be required from the east side of Mesa del Rio Street into the retention pond located in Tract A of the Cedar Ridge Estates.

Conclusion

The development of Meridian Businss Park II has been analyzed in this report. The project's design is adhering to the requirements of the approved " Master Drainage Plan for Atrisco Bunisess Park" dated September 1992, Revised March 1993/October 1993, with an ultimate discharge of 9.2 cfs into the North/South Coors Connection Watershed. As part of this development a segment of Fortuna Road NW will be constructed. A portion of the drainage system will be required to be built with the roadway in accordance with the "West Mesa Diversion Project Drainage Analysis" as described above.

APPENDIX A

Fortuna Rd

Worksheet for Irregular Channel

Project Description

Worksheet	FORTUNA RD
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data

Slope	0.022600 ft/ft
Discharge	43.00 cfs

Options

Current Roughness Method	Improved Lotter's Method
Open Channel Weighting	Improved Lotter's Method
Closed Channel Weighting	Horton's Method

Results

Mannings Coefficient	0.019
Water Surface Elev	0.52 ft
Elevation Range	0.00 to 0.67
Flow Area	9.6 ft ²
Wetted Perimeter	41.086 ft
Top Width	40.259 ft
Actual Depth	0.52 ft
Critical Elevation	0.61 ft
Critical Slope	0.007871 ft/ft
Velocity	4.47 ft/s
Velocity Head	0.31 ft
Specific Energy	0.83 ft
Froude Number	1.61
Flow Type	Supercritical

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00.000	0+40.334	0.019

Natural Channel Points

Station (ft)	Elevation (ft)
0+00.000	0.670
0+00.167	0.000
0+02.167	0.125
0+20.167	0.485
0+38.167	0.125
0+40.167	0.000
0+40.334	0.670

Cross Section

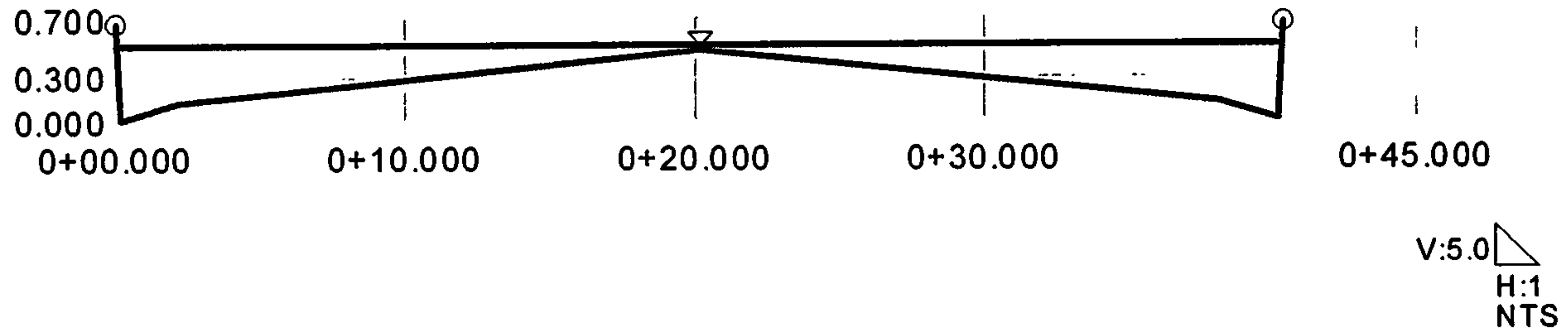
Cross Section for Irregular Channel

Project Description

Worksheet	FORTUNA RD
Flow Element	Irregular Chan
Method	Manning's For
Solve For	Channel Depth

Section Data

Mannings Coefficient	0.019
Slope	0.022600 ft/ft
Water Surface Elev	0.52 ft
Elevation Range	.00 to 0.67
Discharge	43.00 cfs



77

APPENDIX B

FLOODWAY
FLOOD BOUNDARY AND
FLOODWAY MAP
CITY OF
ALBUQUERQUE,
NEW MEXICO
BERNALILLO COUNTY

PANEL 27 OF 50

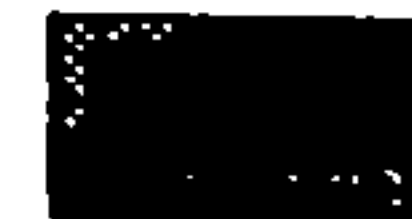
COMMUNITY-PANEL NUMBER
350002 0027
EFFECTIVE DATE:



Federal Emergency Management Agency

LEGEND

FLOOD BOUNDARY



PROJECT AREA

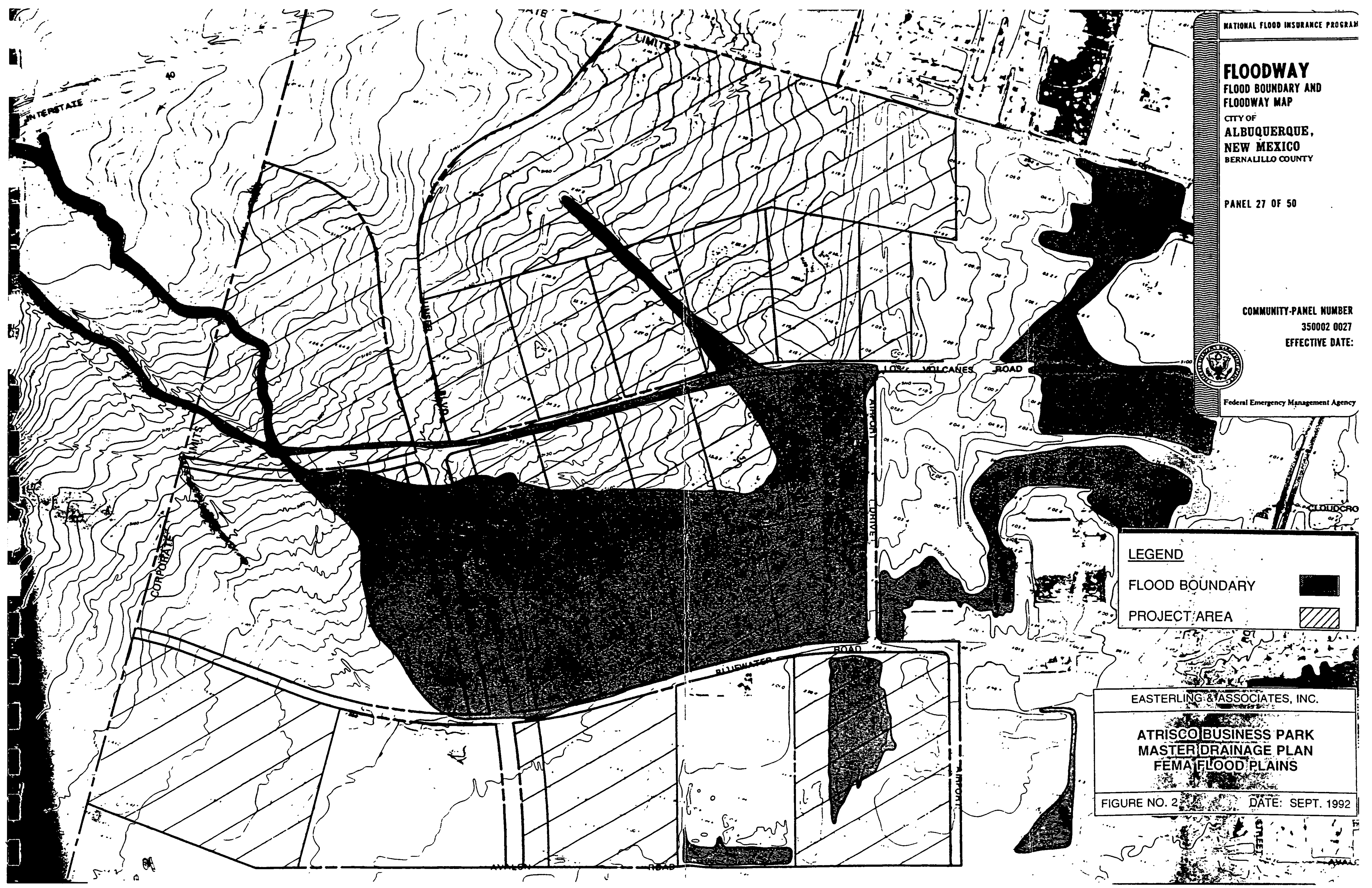


EASTERLING & ASSOCIATES, INC.

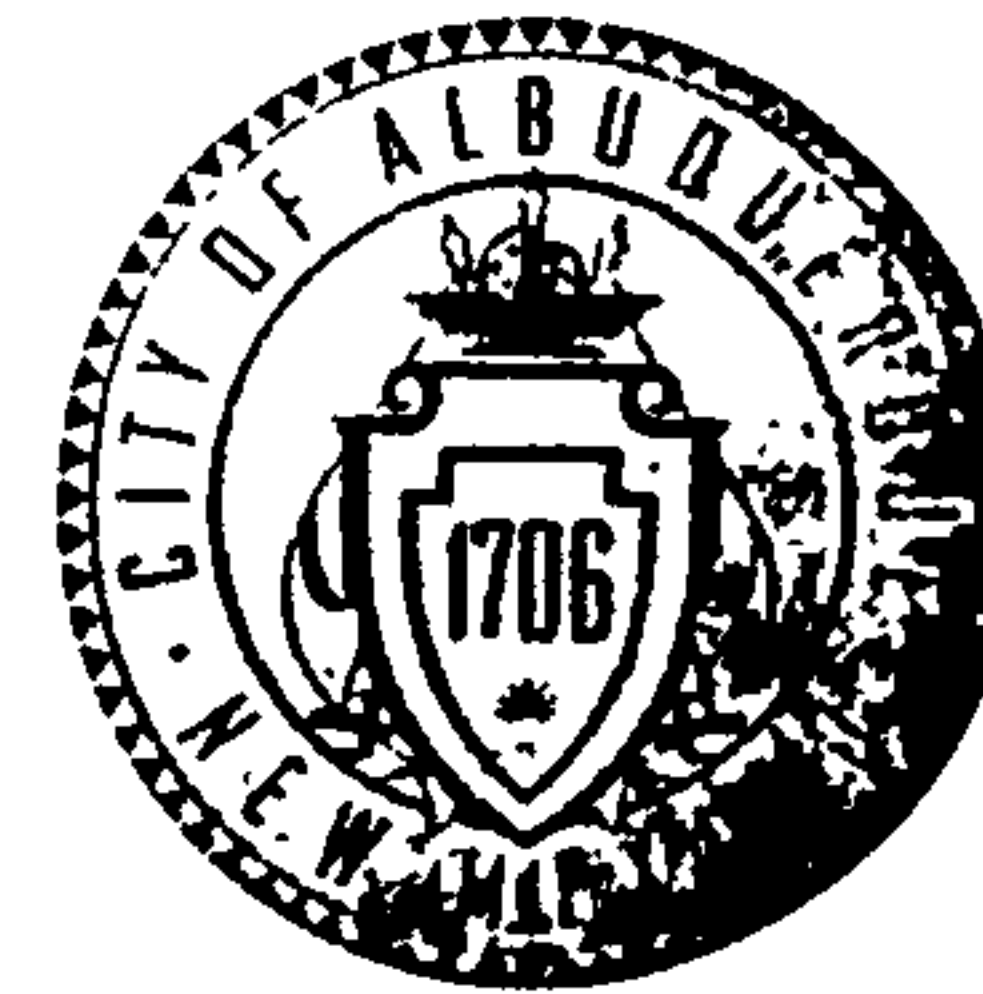
**ATRISCO BUSINESS PARK
MASTER DRAINAGE PLAN
FEMA FLOOD PLAINS**

FIGURE NO. 2

DATE: SEPT. 1992



CITY OF ALBUQUERQUE



November 10, 2008

Daniel S. Aguirre, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: Fed Ex Freight Grading Plan
Engineer's Stamp dated 4-21-08 (J10/D002G)

Dear Mr. Aguirre,

Based upon the information provided in your submittal received 4-29-08 and 6-16-08, the above referenced plan is approved for SO 19 Permit.

A separate permit (SO 19) is required for construction within City ROW. A copy of this approval letter must be on hand when applying for the excavation/barricading permit.

To obtain a temporary or permanent CO, Engineer Certification of the Grading Plan per the DPM is required and the storm drain work in the City ROW must be inspected and accepted. Please contact Duane Schmitz, 235-8016, to schedule an inspection.

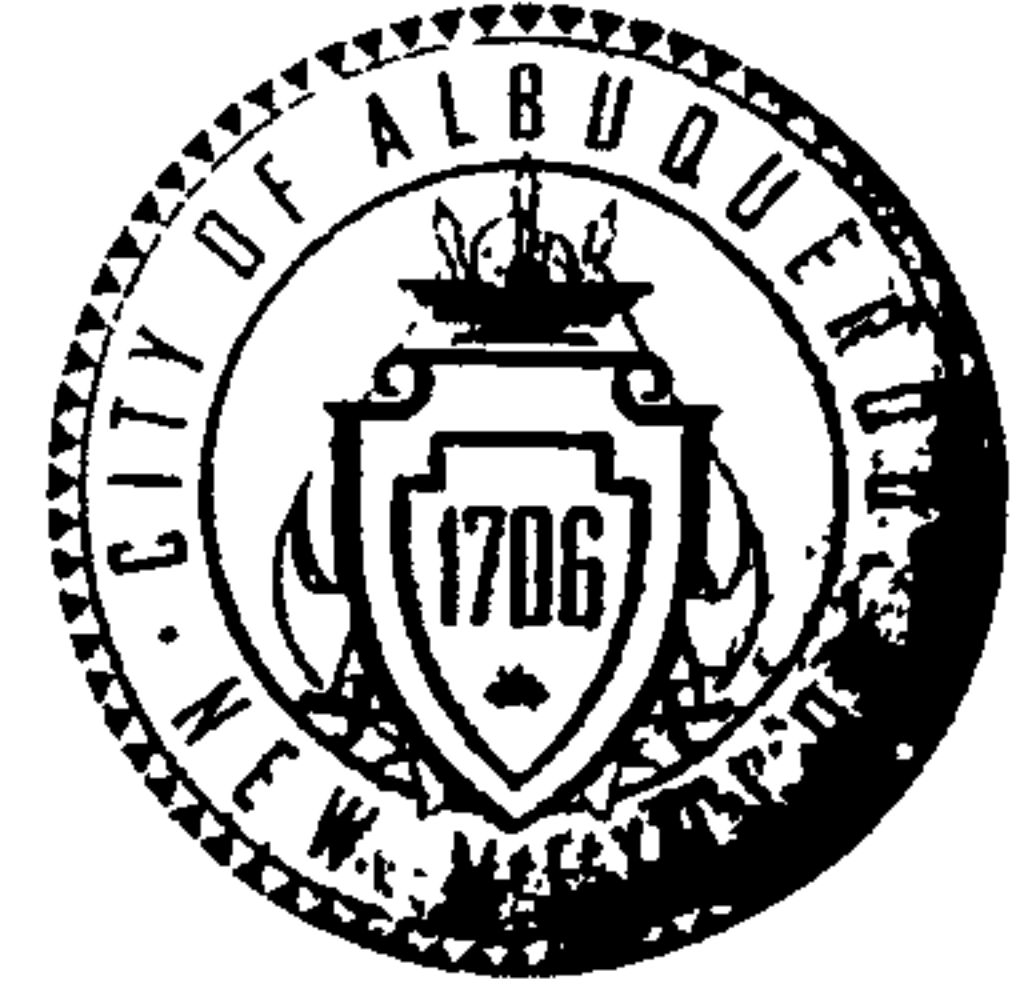
If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne, P.E.
Engineering Associate, Planning Dept.
Development and Building Services

C: file
Antoinette Baldonado, Excavation and Barricading
Duane Schmitz, Street/Storm Drain Maintenance

CITY OF ALBUQUERQUE



June 17, 2008

Daniel S. Aguirre, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: Fed Ex Freight Grading Plan
Engineer's Stamp dated 4-21-08 (J10/D002G)

Dear Mr. Aguirre,

Based upon the information provided in your submittal received 4-29-08 and 6-16-08, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

PO Box 1293

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. You are required to send a copy of your SWPPP on a CD to the following address:

Albuquerque

Department of Municipal Development, Storm Drainage Division, P.O. Box 1293, One Civic Plaza, Rm. 301, Albuquerque, NM 87103

NM 87103

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

www.cabq.gov

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

Sincerely,

Curtis A. Cherne, P.E.
Engineering Associate, Planning Dept.
Development and Building Services

C: file
Kathy Verhage, DMD

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 01/06 – KDM)

PROJECT TITLE: FedEx Freight Albuquerque ZONE MAP: J-10 / D002G
DRB#: 1006801 EPC#: _____ WORK ORDER#: 578082

LEGAL DESCRIPTION: Lot 3 Tract S-1, Tract S-2A-2, and Tract S-1a, Unit 2 Atrisco Business
CITY ADDRESS: Fortuna Drive NW

ENGINEERING FIRM: Wilson & Company CONTACT: Kristine Susco
ADDRESS: 4900 Lang Ave NE PHONE: (505) 348-4000
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: Angelo Brunacini CONTACT: Angelo Brunacini
ADDRESS: PO Box 6363 PHONE: (505) 833-2925
CITY, STATE: Albuquerque, NM ZIP CODE: 871972

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

SURVEYING FIRM: _____ LICENSED SURVEYOR: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

PROFESSIONAL LICENSED SURVEYOR SIGNATURE	LICENSE NO.	DATE
--	-------------	------

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

TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
☒ DRAINAGE REPORT	_____ SIA/FINANCIAL GUARANTEE RELEASE
_____ DRAINAGE PLAN 1 st SUBMITTAL	_____ PRELIMINARY PLAT APPROVAL
_____ DRAINAGE PLAN RESUBMITTAL	_____ S. DEV. PLAN FOR SUB'D APPROVAL
_____ CONCEPTUAL G & D PLAN	_____ S. DEV. FOR BLDG. PERMIT APPROVAL
_____ GRADING PLAN	_____ SECTOR PLAN APPROVAL
_____ EROSION CONTROL PLAN	_____ FINAL PLAT APPROVAL
_____ ENGINEER'S CERT (HYDROLOGY)	_____ FOUNDATION PERMIT APPROVAL
_____ CLOMR/LOMR	☒ BUILDING PERMIT APPROVAL
_____ TRAFFIC CIRCULATION LAYOUT	_____ CERTIFICATE OF OCCUPANCY
_____ ENGINEER'S CERT (TCL)	_____ GRADING PERMIT APPROVAL
_____ ENGINEER'S CERT (DRB SITE PLAN)	_____ PAVING PERMIT APPROVAL
_____ OTHER-	_____ WORK ORDER APPROVAL
	_____ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: 04-29-08

BY: Kristine Susco

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.

COMP. KISCK. LSADATE 6-13-08**WILSON
& COMPANY**

LOC

PROJ. 0760004400SUBJ. POND FEATUREFED EX
FILE MBP11

SHEET

OF 2CAUCSD ORIFICE - OUTLET TO EXISTING SD MH IN
FORTUNA

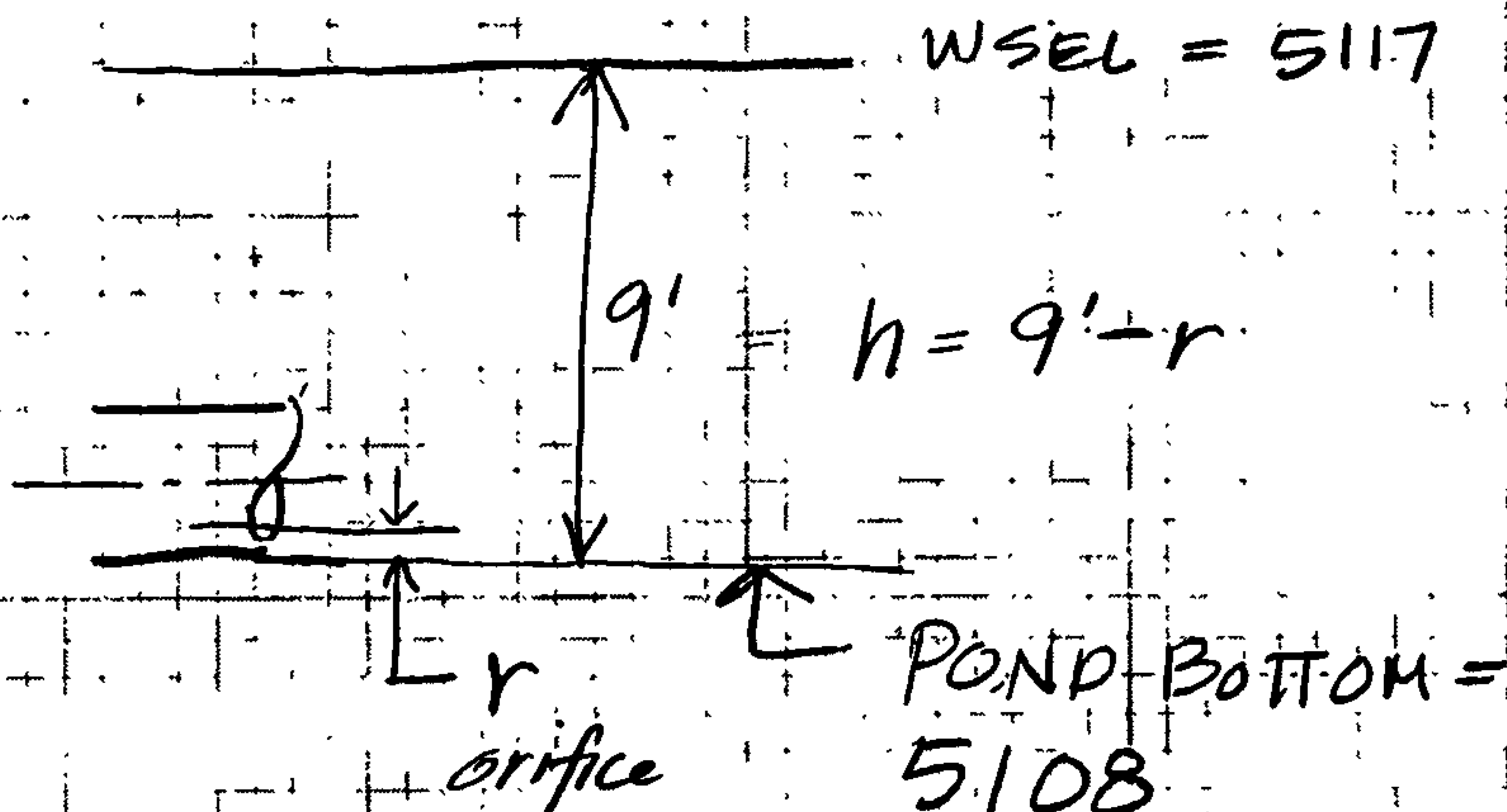
$$Q = CA\sqrt{2gh}$$

$$Q = 2.24$$

$$h = 9' - r$$

$$C = .67$$

$$g = 32.2$$

→ calc for A using $h=9'$ to establish baseline for iterations

$$A_{baseline} = 0.1389$$

$$0.1389 = \pi r^2;$$

$$0.2103 = r_{baseline}; (C_d_{baseline} = 5.05'') \checkmark$$

$$USE \quad h = 8.79'$$

$$A = 0.1405; \quad r = .2115, \quad 2.54''$$

$$d = 5.1'' \checkmark$$

Revised
6-16-08

COMP.

KIS

WILSON
& COMPANY

LOC.

FILE 076008400

CK.

DSA

PROJ.

MBPII-FEDEx

SHEET

1

DATE

10-8-07

SUBJ.

Hyd CALCS

OF

2

$$AREA = B + D \quad TOTAL \quad ZONE 1$$

$$3.2 A_e + 19.2 A_e = 22.4$$

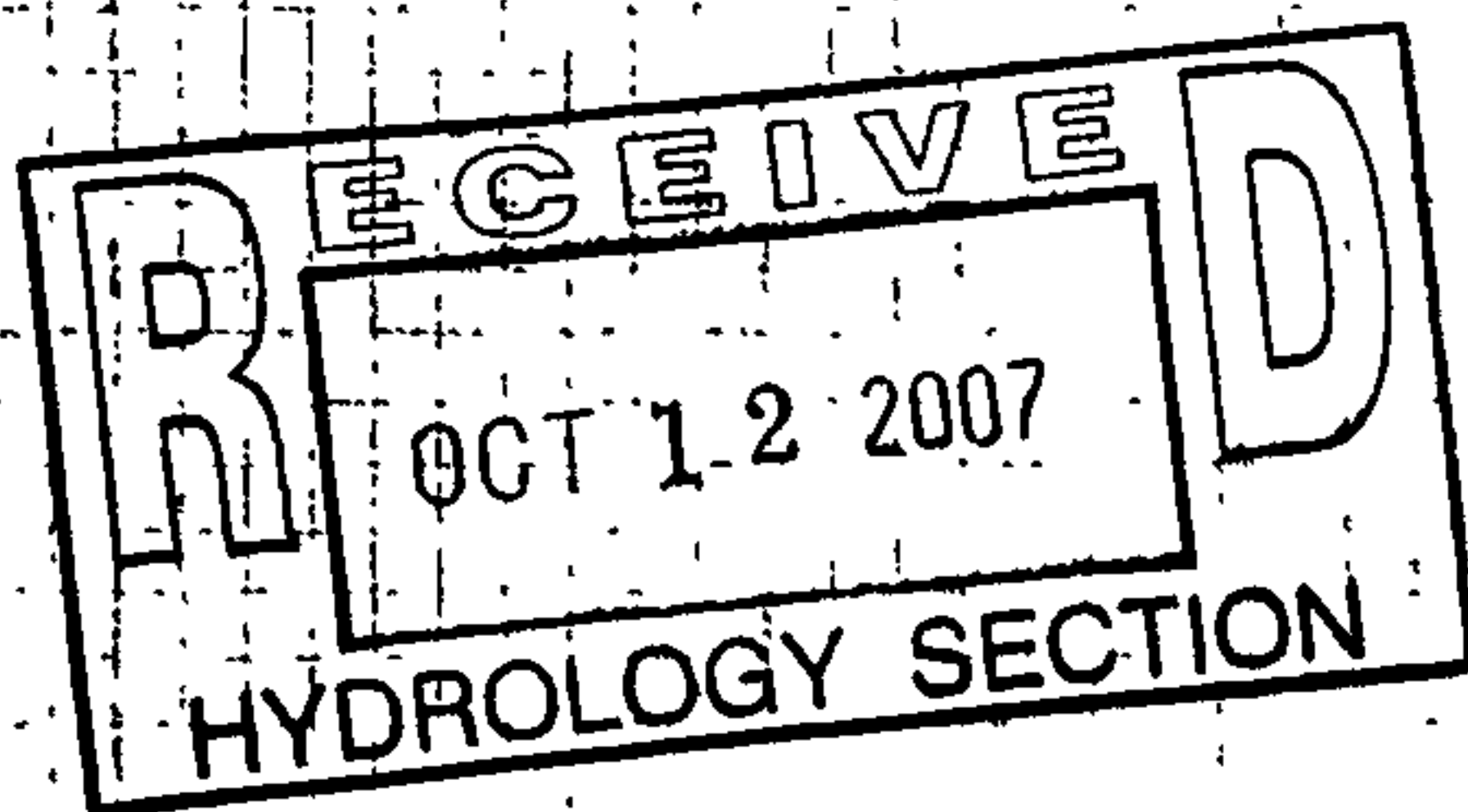
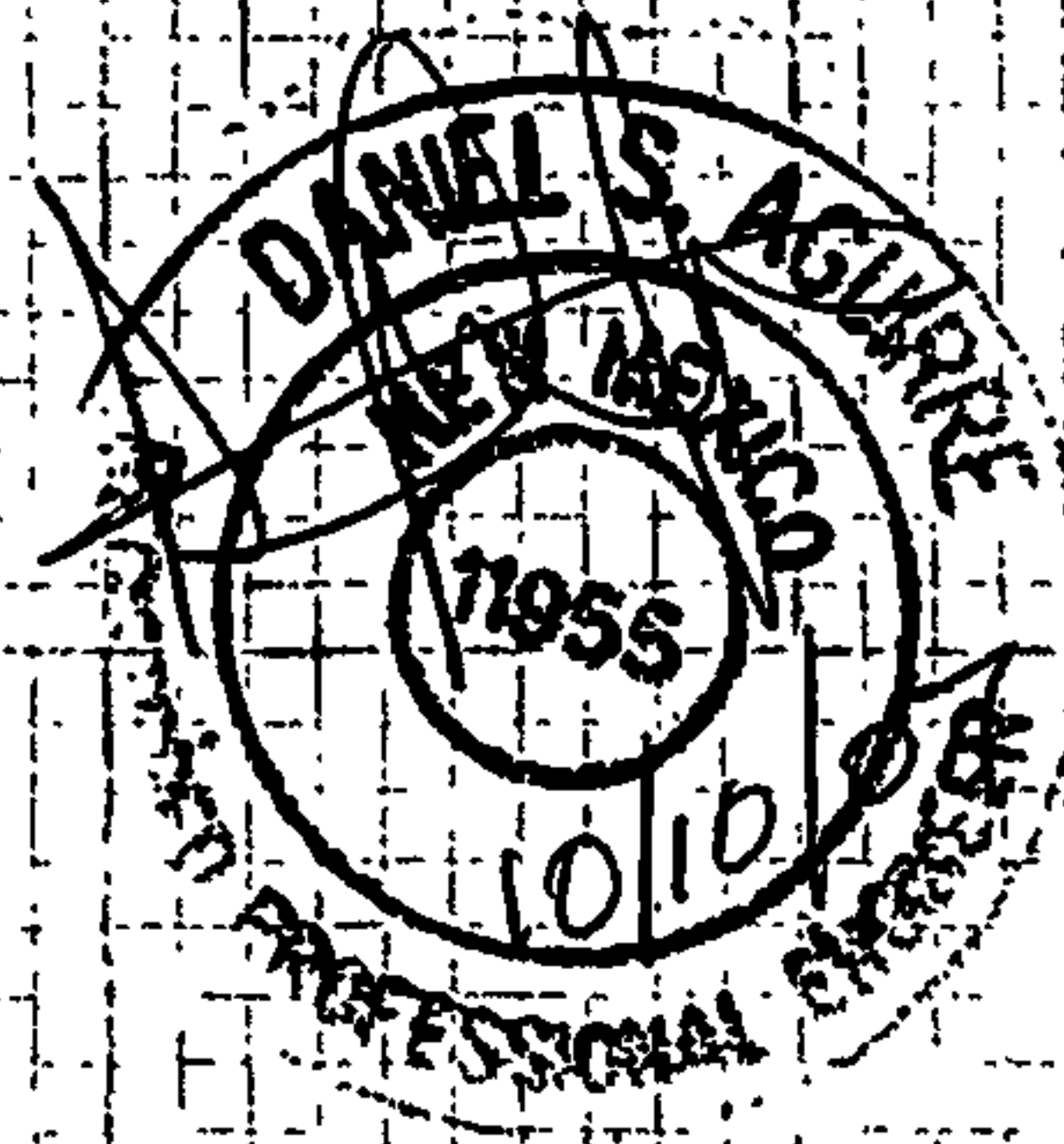
$$ALLOWABLE DISCHARGE \quad .1 \text{ CFS/AC} = 2.24 \text{ CFS}$$

$$Q = 3.2 \times 2.03 = 6.5 \text{ cfs} \quad 19.2 \times 4.37 = 83.9 = 90.4 \text{ cfs}$$

$$E = \frac{(.67) 3.2 + 2.97(19.2)}{22.4} = 1.78 \text{ IN.}$$

$$V_{360} = \frac{1.78 \times 22.4}{12} = 3.3 \text{ AC FT}$$

$$V_{24} = 3.3 + \frac{19.2(2.75 - 2.35)}{12} = 3.9 \text{ AC FT}$$



COMP. KISCK. DSADATE 10-8-07**WILSON
& COMPANY**

LOC.

FILE 076008400PROJ. MBP II-FDEX SHEET 2SUBJ. Hydrograph OF 2

$$A_T = 22.4 \text{ Ac} \quad A_D = 19.2 \text{ Ac} \quad t_c = .2 \text{ hr} \quad Q_p = 90.4 \text{ CFS}$$

$$E = 1.78 \text{ IN.}$$

$$T_B = (2.107 * 1.78 * 22.4 / 90.4) - (0.25 * 19.2 / 22.4)$$

$$= 0.929 - 0.214$$

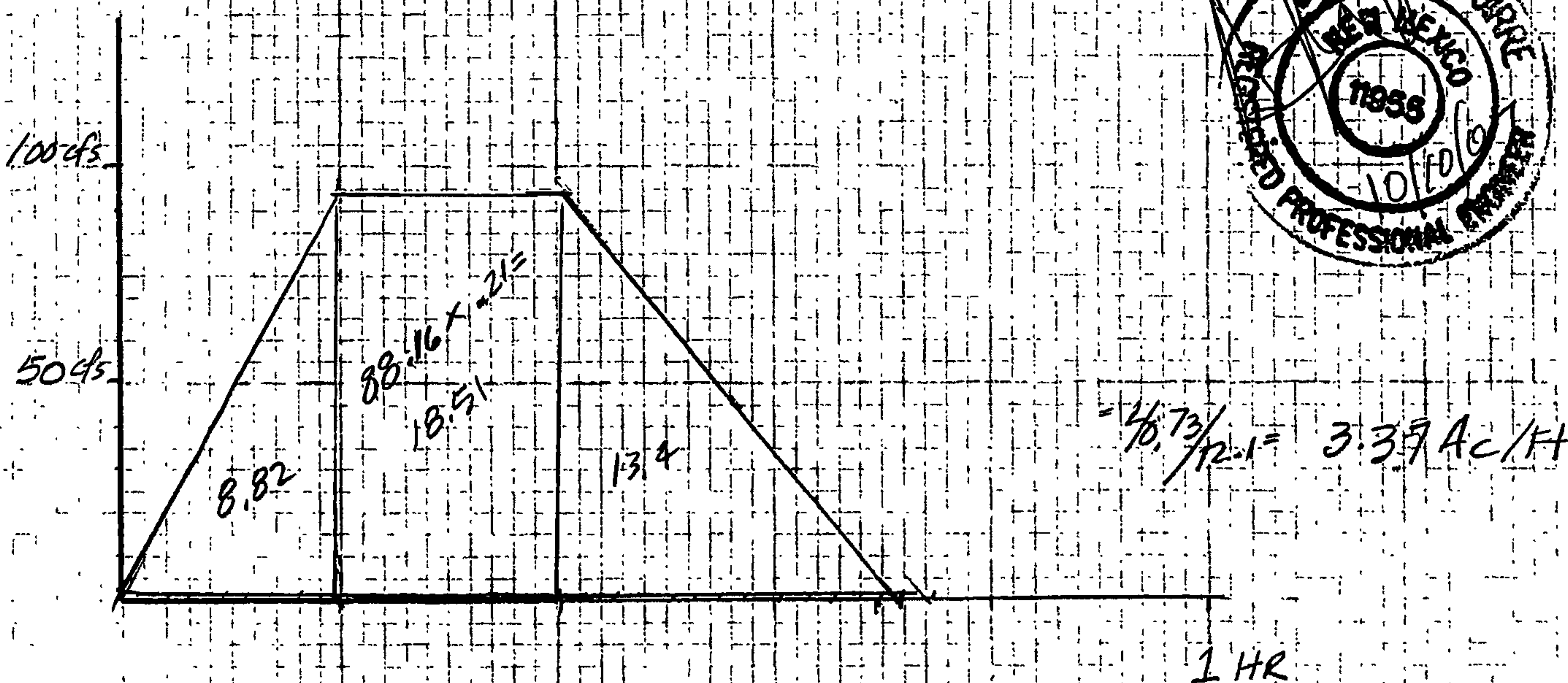
$$= 0.715 \text{ HRS}$$

$$t_p = (0.7 * .2) + ((1.6 - (19.2 / 22.4)) / 12)$$

$$= .20$$

$$\text{Duration} = .25 * 19.2 / 22.4$$

$$= 0.21 \text{ HRS}$$



COMP. KIS
CK. DSA
DATE 10-8-07

**WILSON
& COMPANY**

LOC. _____ FILE 076004400
PROJ. MERIDIANEPII SHEET 1
SUBJ. GALLATIN PL OF 1
Hydrology Calcs

GALLATIN PL

- 2070 LF Roadway • 60 RW = 2.85 Ac

AREA D = 2.85 Ac

Zone 1:

$$Q_p = 4.37 * 2.85 = 12.45 \text{ cfs or } 6.2 \text{ cfs/grate(s)/side}$$

~ USE 1 TYPE A, 1 TYPE C AT EACH RETURN

