

June 22, 2016

Jackie McDowell McDowell Engineering, Inc. 7820 Beverly Hills Ave., NE Albuquerque, NM

Re: Santa Fe Tow Lot #13

8101 Jacs Ln., NE

**Traffic Circulation Layout** 

Engineer's/Architect's Stamp dated 6-21-16 (D16-D002A5)

Dear Ms. McDowell,

The TCL submittal received 6-21-16 is approved for Building Permit. A copy of the stamped and signed plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation.

When the site construction is completed and a Certificate of Occupancy (C.O.) is requested, use the original City stamped approved TCL for certification. Redline any minor changes and adjustments that were made in the field. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed <u>Drainage and Transportation Information Sheet</u> to front counter personnel for log in and evaluation by Transportation.

Albuquerque

PO Box 1293

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3690.

New Mexico 87103

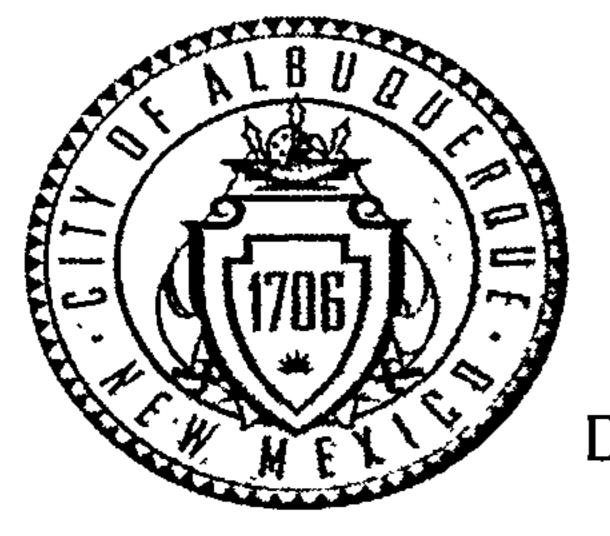
Sincerely,

www.cabq.gov

Racquel M. Michel, P.E.

Traffic Engineer, Planning Dept. Development Review Services

\gs via: email C: CO Clerk, File



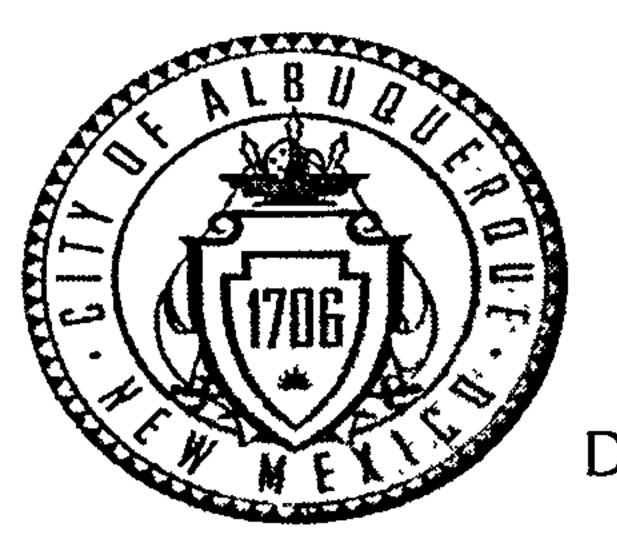
#### Planning Department

#### Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 02/2013)

Project Title: SANTA FE TOW LOT #13	Buildi	ing Permit #:	City Drainage #: 1010
DRB#:	PC#:	Work Order#	
Legal Description: LOT 13, BLUE SKY E	USINESS PARK		• · · · · · · · · · · · · · · · · · · ·
City Address: 8101 JACS LANE NE		<u> </u>	
Engineering Firm: MCDOWELL ENGI		Contact: JA	CKIE MCDOWELL
Address: 7820 BEVERLY HILLS AV		E moile iac	kmcdowell@comcast.net
Phone#: 505-828-2430	ax#: 505-821-4857		
Owner: ARMANDO BELTRAN	<u> </u>	Contact: A	RMANDO BELTRAN
Address: 8000 JACS LANE NE		·	
Phone#: 505-991-0312	ax#:	E-mail: <u>sar</u>	tafetow@gmail.com
Architect: RON MONTOYA DESIGN	S, INC.	Contact: R	ON MONTOYA
Address: 8724 ALAMEDA NE			
Phone#: 505-823-6474	ax#: 505-823-6487	E-mail:	
Surveyor: MIKE SHOOK		Contact: M	IKE SHOOK
Address: 612 CERRO DE ORTEGA D	R. SE		
	ax#:	E-mail:	F
Contractor:		Contact:	•
Address:			
Phone#:	ax#:	E-mail:	
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WAS A PRE-DESIGN CONFERENCE ATTENDI	<del></del>		
DATE SUBMITTED: 6-21-16	By: JACKIE MC	JUU VV ELL	

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



#### Planning Department

## Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 02/2013)

Project Title: SANTA FE TOW LO	T #13	Building Permit #: City Drainage #: DlbDC
DRB#:	EPC#:	Work Order#:
Legal Description: LOT 13, BLUE S	KY BUSINESS PARK	
City Address: 8101 JACS LANE N		
Engineering Firm: MCDOWELL E		Contact: JACKIE MCDOWELL
		Contact. <u>Ji toitab iviob vvaaaa</u>
Address: <u>7820 BEVERLY HILLS</u> Phone#: 505-828-2430	Fax#: 505-821-4857	E-mail: jackmcdowell@comcast.net
	•	•
Owner: ARMANDO BELTRAN		Contact: <u>ARMANDO BELTRAN</u>
Address: 8000 JACS LANE NE		E :: contofotorri@amail.com
Phone#: <u>505-991-0312</u>	Fax#:	E-mail: santafetow@gmail.com
Architect: RON MONTOYA DE	SIGNS. INC.	Contact: RON MONTOYA
Address: 8724 ALAMEDA NE		
Phone#: 505-823-6474	Fax#: 505-823-6487	E-mail:
NAIRE CHOOK		Contact: MIKE SHOOK
Surveyor: <u>MIKE SHOOK</u> Address: 612 CERRO DE ORTE	CA DD SE	Contact. IVIII CITO CIT
	Fax#:	E-mail:
Phone#: <u>505-896-1716</u>	Гахт.	· · · · · · · · · · · · · · · · · · ·
Contractor:		Contact:
Address:	<u> </u>	
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Phone#:		
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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 levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required based on the following levels of submittal may be required by a submi

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## McDowell Engineering, 9nc.

Jackie Sedillo McDowell, P.E. Civil Engineering Consultant

MAY 2 4 2015

LAND DEVELOPMENT SECTION

May 23, 2016

Ms. Racquel Michel, PE Traffic Engineer Planning Dept. Development Review Services City of Albuquerque PO Box 1293 Albuquerque, NM 87103

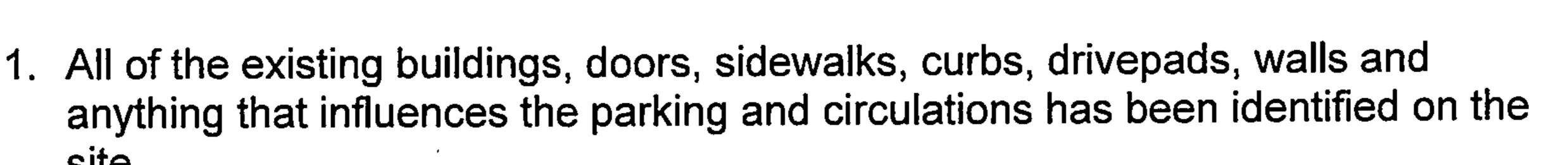
Santa Fe Tow Lot #13, 8101 Jacs Lane NE, Traffic Circulation Fa

Certification Letter (D16D002A5)

Dear Ms. Michel:

site.

We received your comments at reply as follows:



- 2. All drive aisle widths and radii have been shown.
- 3. The width of the proposed drive pad has been shown.
- 4. The ADA ramps and sidewalk from the public ROW is per DWG. 2425 and the detail has been added to the plan.
- 5. A 6 ft. wide ADA accessible pedestrian pathway was added from the public sidewalk to the building entrance and is clearly shown and detailed.
- 6. A 6 ft. wide ADA accessible pedestrian pathway has been added from the HC parking stall access aisle to the building entrance and the pathway is clearly shown.
- 7. A barrier with note is provided between landscaping and parking areas and/or drive aisles.
- 8. Design delivery vehicle route has been added/shown on the plan.

# McDowell Engineering, 9nc.

Jackie Sedillo McDowell, P.E. Civil Engineering Consultant

- 9. Service vehicle and/or refuse vehicle maneuvering is contained on site and owner will provide a copy of refuse approval.
- 10. A sight distance note has been added to the plan per the detail.
- 11. The note has been added to the plan.
- 12. Two copies of the traffic circulation layout are attached.

Your timely approval of this plan is appreciated.

Sincerely,

MCDOWELL ENGINEERING, INC.

Jackie S. McDowell, P.E.

Copy: Owners



## Planning Department Transportation Development Services

November 19, 2015

Jackie McDowell McDowell Engineering, Inc. 7820 Beverly Hills Ave., NE Albuquerque, NM

Re: Santa Fe Tow Lot #13

8101 Jacs Ln., NE

**Traffic Circulation Layout** 

Engineer's/Architect's Stamp dated11-17-15 (D16-D002A5)

Dear Ms. McDowell,

Based upon the information provided in your submittal received 11-18-15, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

PO Box 1293

- 1. Please identify all existing buildings, doors, sidewalks, curbs, drive pads, walls and anything that influences the parking and circulation on the site.
- 2. Show all drive aisle widths and radii.

Albuquerque

- 3. Please detail the width of the proposed drive pad.
- 4. Please detail the ADA ramps and sidewalk from the Public R.O.W.

New Mexico 87103

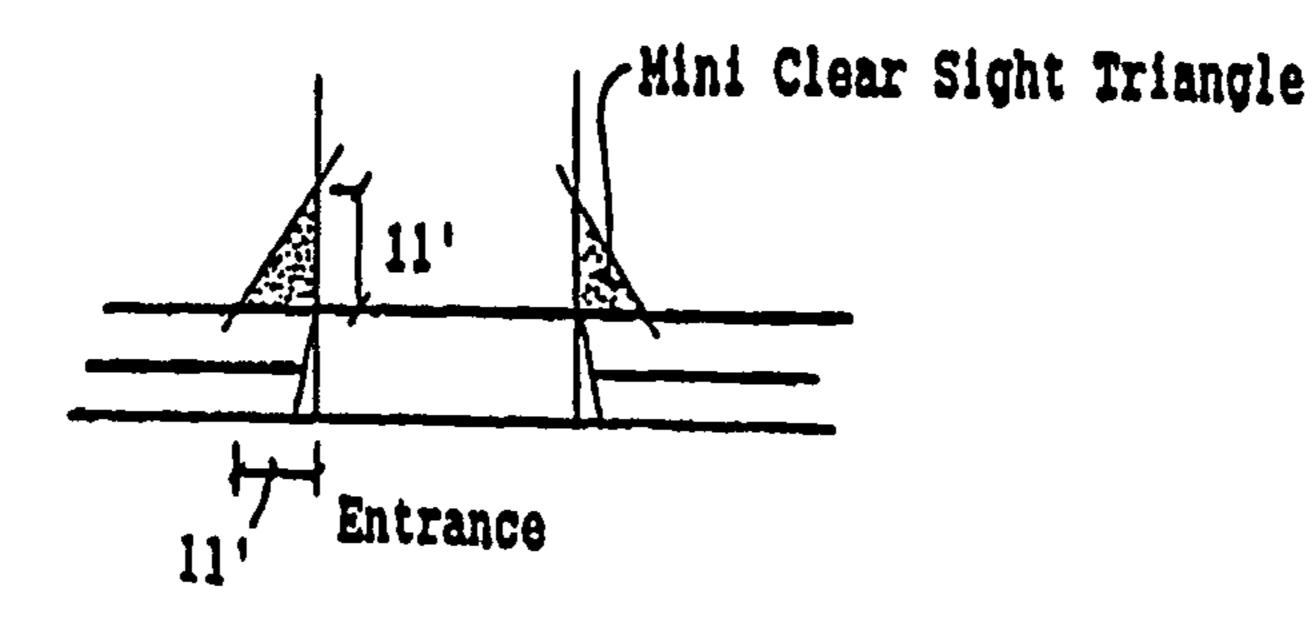
5. Per the DPM, a 6 ft. wide ADA accessible pedestrian pathway is required from the public sidewalk to the building entrances. Please clearly show this pathway and provide details.

www.cabq.gov

- 6. Per the DPM, a 6 ft. wide ADA accessible pedestrian pathway is required from the HC parking stall access aisles to the building entrances. Please clearly show this pathway.
- 7. Provide a min 6" or max 8" high concrete barrier curb or other acceptable barrier between landscaping and parking areas and/or drive aisles.
- 8. Design delivery vehicle route needs to be shown.
- Service vehicle and/or refuse vehicle maneuvering must be contained on-site; provide a copy of refuse approval.



10. Please provide a sight distance exhibit (see the *Development Process Manual*, *Chapter 23, Section 3, Part D.5 Intersection Sight Distance*). Please show this detail for the entrance/exit on Jacs Ln.



PO Box 1293

- 11. Please add the following note to the clear sight triangle: "Landscaping and signage will not interfere with clear sight requirements. Therefore, signs, walls, trees, and shrubbery between 3 and 8 feet tall (as measured from the gutter pan) will not be acceptable in this area."
- 12. Please include two copies of the traffic circulation layout at the next submittal.

Albuquerque

Resubmit acceptable package along with fully completed Drainage Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation. If you have any questions, please contact Gary Sandoval (505) 924-3675 or me at 924-3991.

New Mexico 87103

www.cabq.gov

Racquel M. Michel, P.E.

Traffic Engineer, Planning Dept. Development Review Services

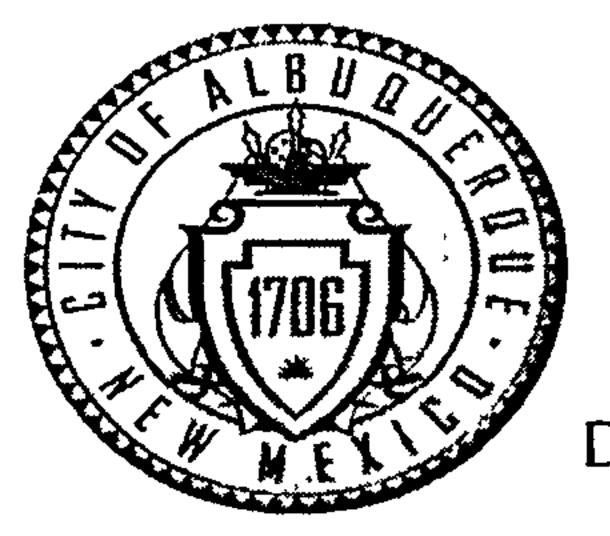
\gs

Sincerely,

via: email

C:

CO Clerk, File



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#### Planning Department

#### Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: SANTA FE TOW LOT #1	3 Building Per	mit #: City Drainage #: 10002
	EPC#:	Work Order#:
Legal Description: LOT 13, BLUE SKY	BUSINESS PARK	
City Address: 8101 JACS LANE NE		
Engineering Firm: MCDOWELL ENGI	NIEEDING INC	Contact: JACKIE MCDOWELL
Address: 7820 BEVERLY HILLS AV		Comaci. JACKIE MCDO WELLE
	Fax#: 505-821-4857	E-mail: jackmcdowell@comcast.net
Owner: ARMANDO BELTRAN	<del></del>	Contact: <u>ARMANDO BELTRAN</u>
Address: 8000 JACS LANE NE	·-··-·	
Phone#: <u>505-991-0312</u>	Fax#:	E-mail: <u>santafetow@gmail.com</u>
Architect: RON MONTOYA DESIGN	IS. INC.	Contact: RON MONTOYA
Address: 8724 ALAMEDA NE		
	Fax#: 505-823-6487	E-mail:
Survey MIVE SHOOV		Contact: MIKE SHOOK
Surveyor: MIKE SHOOK  612 CERRO DE ORTECA E	ND CIE	Contact: IVIIVE SHOOK
Address: 612 CERRO DE ORTEGA I		E:1.
Phone#: <u>505-896-1716</u>	Fax#:	E-mail:
Contractor:		Contact:
Address:		
Phone#:	Fax#:	E-mail:
TYPE OF SUBMITTAL:	CHECK TYPE OF AP	PROVAL/ACCEPTANCE SOUGHT:
DRAINAGE REPORT	<del>-</del>	ARANTEE RELEASE
DRAINAGE PLAN 1st SUBMITTAL	PRELIMINARY PLA	
DRAINAGE PLAN RESUBMITTAL	S. DEV. PLAN FOR	
CONCEPTUAL G & D PLAN		
GRADING PLAN	SECTOR PLAN APP	117/1 4.25.3 4 52 71883 111111
EROSION & SEDIMENT CONTROL PLA		11111
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ENGINEER'S CERT (DRB SITE PLAN)	GRADING PERMIT	
ENGINEER'S CERT (ESC)	PAVING PERMIT AI	
SO-19	WORK ORDER APP	<del></del>
OTHER (SPECIFY)	GRADING CERTIFIC	<del></del>
WAS A PRE-DESIGN CONFERENCE ATTEND	<del></del>	Copy Provided
DATE SUBMITTED: 11-18-15	By: JACKIE MCDOV	VELL

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#### Jackie McDowell

From:

Jackie McDowell [JackMcDowell@comcast.net]

Sent:

Wednesday, November 18, 2015 1:20 PM

To:

'PLNDRS@cabq.gov'; 'MOrtiz@cabq.gov'; 'rrael@cabq.gov'

Subject:

BELTRAN, SANTA FE TOW, LOT 13 TCL PLAN

Attachments: TCLdrainageinfosheet-1.pdf; TCL.pdf

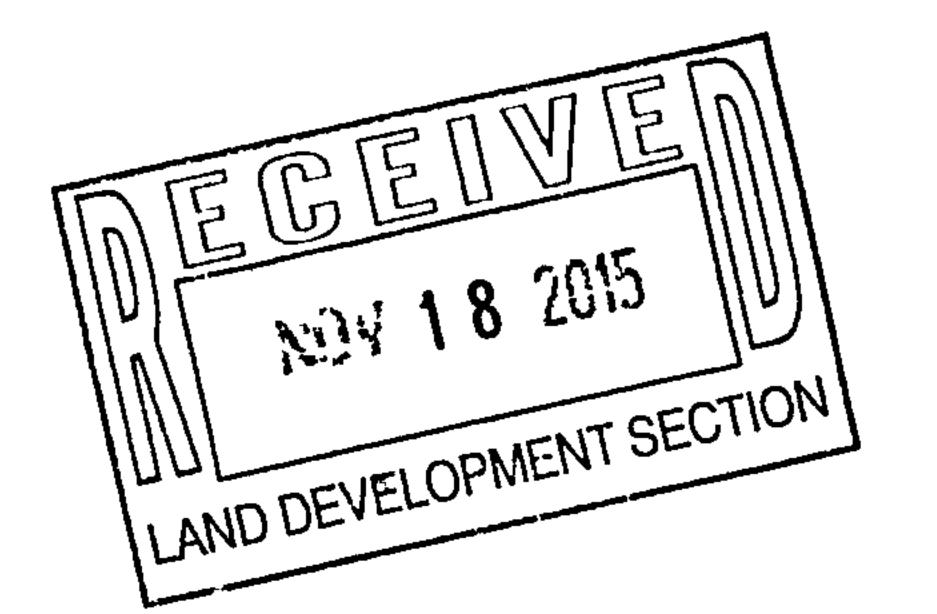
COA Transportation Development Section:

Attached is the information sheet and TCL plan I will be submitting today.

Jackie S. McDowell, PE MCDOWELL ENGINEERING, INC.

7820 Beverly Hills Ave. NE Albuquerque, NM 87122 Voice: (505) 828-2430 Fax: (505) 821-4857

email: JackMcDowell@comcast.net





Richard J. Berry, Mayor

June 6, 2016

Jackie S. Mcdowell, P.E. McDowell Engineering, Inc. 7820 Beverly Hills Ave NE Albuquerque, NM, 87122

**RE:** Lot 13

Blue Sky Business Park

Grading and Drainage Plan (Stamp Date 5-23-2016)

Hydrology File: D16D002A5

Dear Ms. McDowell:

Based upon the information provided in your submittal received 5-24-2016, the above-referenced plan is approved for Building Permit and SO-19 Permit with the following conditions:

- 1. The perimeter wall that is proposed is shown conflicting with the utility boxes called out to remain. Furthermore, there will need to be concurrence from the Gas Company and the owner of the utility boxes to block off access, to place a wall within the gas easement, potentially over existing gas and other utility lines. Evidence of the Gas Company's concurrence will be required for Certificate of Occupancy approval. It should be the responsibility of the Owner/Owner's Representative to coordinate with the utility company, not the Contractor's during construction.
- 2. Please make sure the Contractor adheres to the attached SO-19 Building Notes.

New Mexico 87103

Please attach a copy of this approved plan in the construction sets when submitting for the building permit. Prior to Certificate of Occupancy release, Engineering Certification per the DPM Checklist will be required.

www.cabq.gov

PO Box 1293

Albuquerque

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

Abiel Carrillo, P.E.

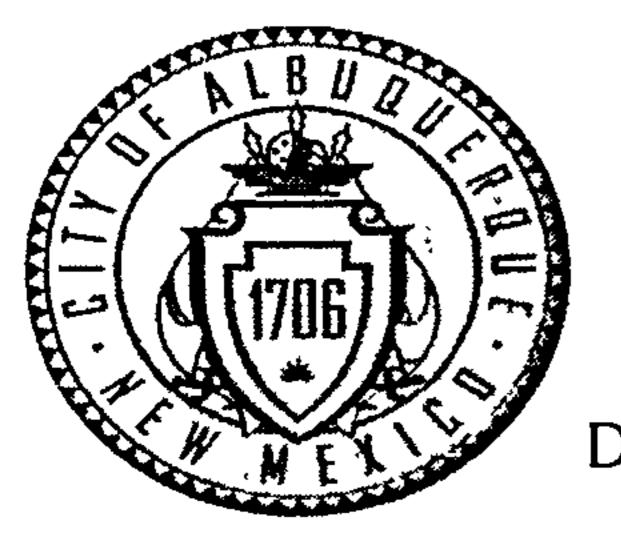
Sincerely,

Principal Engineer, Planning Dept.

Development Review Services

Orig: Drainage file





#### Planning Department

#### Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: SANTA FE TOW LOT #13	Building Permit #:	City Drainage #: D16 000
DRB#:		Work Order#:
Legal Description: LOT 13, BLUE SKY BUSINES	SSPARK	
City Address: 8101 JACS LANE NE		
Engineering Firm: MCDOWELL ENGINEERIN	G, INC.	Contact: JACKIE MCDOWELL
Address: 7820 BEVERLY HILLS AVE. NE		
	-821-4857	E-mail: jackmcdowell@comcast.net
Owner: ARMANDO BELTRAN		Contact: ARMANDO BELTRAN_
Address: 8000 JACS LANE NE		
Phone#: 505-991-0312 Fax#:		E-mail: santafetow@gmail.com
Architect: RON MONTOYA DESIGNS, INC.		Contact: RON MONTOYA
Address: 8724 ALAMEDA NE		
	-823-6487	E-mail:
Surveyor: MIKE SHOOK		Contact: MIKE SHOOK
Address: 612 CERRO DE ORTEGA DR. SE		
Phone#: 505-896-1716 Fax#:		E-mail:
Contractor:	•	Contact:
Address:		
Phone#: Fax#:		E-mail:
TYPE OF SUBMITTAL:	CHECK TYPE OF APPROV	AL/ACCEPTANCE SOUGHT:
DRAINAGE REPORT .	SIA/FINANCIAL GUARAN	TEE RELEASE
DRAINAGE PLAN 1st SUBMITTAL	PRELIMINARY PLAT APP	ROVAL // A
X DRAINAGE PLAN RESUBMITTAL	S. DEV. PLAN FOR SUB'D	APPROVAL (1)
CONCEPTUAL G & D PLAN	S. DEV. FOR BLDG. PERM	IT APPROVAL OF TO THE CO.
GRADING PLAN	SECTOR PLAN APPROVA	
EROSION & SEDIMENT CONTROL PLAN (ESC)	FINAL PLAT APPROVAL	
ENGINEER'S CERT (HYDROLOGY)	CERTIFICATE OF OCCUPA	ANCY (中RM) MAY 2 4 2015
CLOMR/LOMR	CERTIFICATE OF OCCUPA	ANCY (TOL TEMP)
TRAFFIC CIRCULATION LAYOUT (TCL)	FOUNDATION PERMIT AI	PPROYEAND DEVELOPMENT SECTION
ENGINEER'S CERT (TCL)	X BUILDING PERMIT APPRO	OVAL
ENGINEER'S CERT (DRB SITE PLAN)	GRADING PERMIT APPRO	OVAL SO-19 APPROVAL
ENGINEER'S CERT (ESC)	PAVING PERMIT APPROV	AL ESC PERMIT APPROVAL
SO-19	WORK ORDER APPROVA	L ESC CERT. ACCEPTANCE
OTHER (SPECIFY)	GRADING CERTIFICATIO	OTHER (SPECIFY)
WAS A PRE-DESIGN CONFERENCE ATTENDED:	Yes X No C	opy Provided
DATE SUBMITTED: 5-24-16	By: JACKIE MCDOWELI	

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

## McDowell Engineering, 9nc.

Jackie Sedillo McDowell, P.E. Civil Engineering Consultant

May 23, 2016

Mr. Abiel Carrillo, PE
Principal Engineer, Planning Dept.
Development Review Services
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

RE: Santa Fe Tow Lot #13, Blue Sky Business Park, Grading & Drainage Plan,

Hydrology File: D16D002A5

Dear Mr. Carrillo:

We received your comments at reply as follows:

- 1. According to the Blue Sky Business Park Grading and Drainage Plan (2005) (thanks for sending me the portion of the report that applies to this site) the allowable discharge for this portion of Sub-basin 1-13 is 6.09 cfs [er 1.36 acres, or 4.48 cfs/acre. Therefore, the allowable discharge from this site is 4.48 cfs/ac x 0.95 acres = 4.25 cfs. The proposed discharge is 4.17 cfs, and therefore is in compliance with the approved plan.
- The calculations have been modified to have all of the area shown for land treatment "A" to be moved to land treatment type "C".
- 3. First flush depressed landscaped areas/ponds have been provided at 3 locations on the plan.
- 4. Roof flows will be routed through the first flush ponds.
- 5. The limits of the paving have been shown.
- 6. A note has been added to the plan to require coordination with the utility company for the existing utility boxes and access and wall construction.

Your timely approval of this plan is appreciated.

Sincerely,

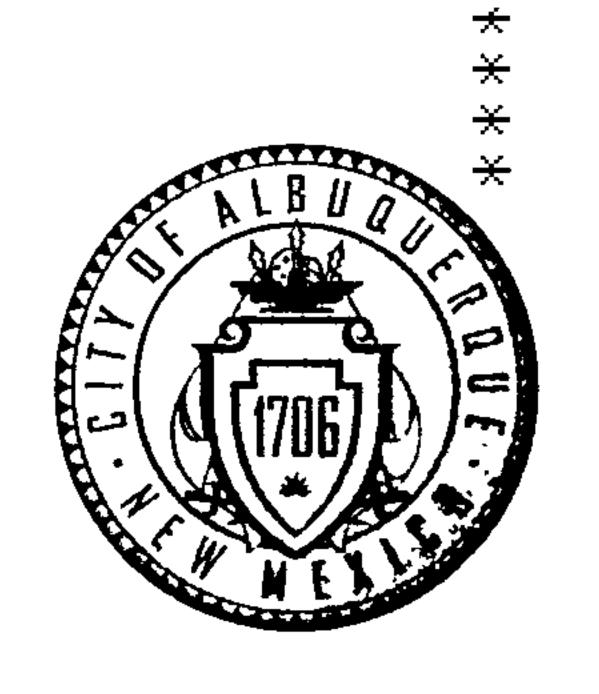
MCDOWELL ENGINEERING, INC.

Jackie S. McDowell, P.E.

Copy: Owners

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MAY 2 4 2016
LAND DEVELOPMENT SECTION



Richard J. Berry, Mayor

December 22, 2015

Jackie S. Mcdowell, P.E. McDowell Engineering, Inc. 7820 Beverly Hills Ave NE Albuquerque, NM, 87122

**RE:** Lot 13

Blue Sky Business Park Grading and Drainage Plan (Stamp Date 11/3/2015) Hydrology File: D16D002A5

Dear Ms. McDowell:

Based upon the information provided in your submittal received 11-06-2015, the above-referenced plan cannot be approved for Building Permit until the following items are addressed:

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

- 1. The Blue Sky Business Park Grading and Drainage Plan (2005), calculates the allowable discharge from this property (Sub-basin 1-13) including half of Jacs Lane. The drainage calculations for this project should match this format to confirm compliance with the overall plan. See attached Sheets 2 and 3 of the Grading Masterplan for the Development for reference.
- 2. It appears that the hydrology calculations for the area between the proposed wall and El Pueblo Rd. assume a land treatment "A". This area has been compacted for utility installations, railroad track construction and vacant lot grading, so it should be considered with treatment "C" (which applies to unpaved parking, vacant lots, and soil compacted by human activity).
- 3. The first flush must be managed on site, per the City's Drainage Ordinance: <a href="https://www.cabq.gov/planning/documents/SignificantDrainageOrdinanceChanges0414.">https://www.cabq.gov/planning/documents/SignificantDrainageOrdinanceChanges0414.</a>
  <a href="pdf">pdf</a>, effective May 2014. The first flush volume is equal to the impervious surface area times 0.44 inches (minus 0.1 inches for initial abstraction). Landscaped areas may be depressed and used for first flush volume routing.
- 4. Roof flows (to the most practicable extent) must be routed through a first flush pond.



- 5. Show the limits of paving for the proposed car lot.
- 6. The perimeter wall that is proposed is shown conflicting with the utility boxes called out to remain. Furthermore, there will need to be concurrence from the Gas Company and the owner of the utility boxes to block off access, to place a wall within the gas easement, potentially over existing gas and other utility lines.

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

Sincerely,

Abiel Carrillo, P.E.

Principal Engineer, Planning Dept.

Development Review Services

Albuquerque

PO Box 1293

New Mexico 87103

www.cabq.gov

Orig: Drainage file



# TITIS D

## City of Albuquerque

## Planning Department

#### Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: SANTA FE TOW LOT #	<i>‡</i> 13	Building Permit #:	City Drainage #: 100000
DRB#:	EPC#:		Work Order#:
Legal Description: LOT 13, BLUE SKY	BUSINESS PARK		
City Address: 8101 JACS LANE NE	<del> </del>		<u>, </u>
Engineering Firm: MCDOWELL ENG		}	Contact: JACKIE MCDOWELL
Address: 7820 BEVERLY HILLS A			
Phone#: 505-828-2430	_ Fax#: <u>505-821-4857</u>	•	E-mail: jackmcdowell@comcast.net
Owner: ARMANDO BELTRAN Address: 8000 JACS LANE NE		······	Contact: ARMANDO BELTRAN
Phone#: 505-991-0312	Fax#:		E-mail: santafetow@gmail.com
Architect: RON MONTOYA DESIG			Contact: RON MONTOYA
Address: 8724 ALAMEDA NE			T <sup>n</sup> . 11.
Phone#: 505-823-6474	Fax#: <u>505-823-6487</u>		E-mail:
Surveyor: MIKE SHOOK	* مغينه		Contact: MIKE SHOOK
Address: 612 CERRO DE ORTEGA	DR. SE		· · · · · · · · · · · · · · · · · · ·
Phone#: 505-896-1716	_ Fax#:		E-mail:
Contractor:		<u>.                                    </u>	Contact:
Address:			
Phone#:	_ Fax#:	·····	E-mail:
TYPE OF SUBMITTAL:	CHECK	TYPE OF APPROVA	L/ACCEPTANCE SOUGHT:
DRAINAGE REPORT	SIA/FI	NANCIAL GUARANT	EE RELEASE
DRAINAGE PLAN 1st SUBMITTAL	<del></del>	MINARY PLAT APPR	
DRAINAGE PLAN RESUBMITTAL		'. PLAN FOR SUB'D A	11 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
CONCEPTUAL G & D PLAN  GRADING PLAN	<del></del>	Y. FOR BLDG. PERMIT	
EROSION & SEDIMENT CONTROL PL	<del></del>	OR PLAN APPROVAL PLAT APPROVAL	NOV 0 6 2015
ENGINEER'S CERT (IIYDROLOGY)		FICATE OF OCCUPA	
CLOMR/LOMR			NCY (TCL TEMP) AND DEVELOPMENT SECTION
TRAFFIC CIRCULATION LAYOUT (TO		DATION PERMIT APP	PROVAL
ENGINEER'S CERT (TCL)	X BUILD	ING PERMIT APPRO	VAL 59.00
ENGINEER'S CERT (DRB SITE PLAN)	GRAD	ING PERMIT APPROV	VAL SO-19 APPROVAL
ENGINEER'S CERT (ESC)	PAVIN	IG PERMIT APPROVA	L ESC PERMIT APPROVAL
SO-19		ORDER APPROVAL	<del></del>
OTHER (SPECIFY)	GRAD	ING CERTIFICATION	OTHER (SPECIFY)
WAS A PRE-DESIGN CONFERENCE ATTEN	IDED: Yes	X No Cor	py Provided
DATE SUBMITTED: 11-6-15	By: <u>JACKI</u>	E MCDOWELL	<u></u>

- 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
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#### DRAINAGE (CONCEPTUAL) PLAN

#### I. INTRODUCTION AND EXECUTIVE SUMMARY

THIS PROJECT. IDENTIFIED AS SUBDIVISION OF TRACT T-4, VISTA DEL NORTE, IS LOCATED IN THE NORTH VALLEY JUST SOUTH OF PASEO DEL NORTE BLVD. AND EL PUEBLO ROAD, AND WEST OF AND ADJACENT TO THE AMAFCA NORTH DIVERSION CHANNEL, TRACT T-4 IS CURRENTLY A VACANT TRACT CONSISTING OF 22.654 ACRES, AND IS PROPOSED TO BE SUBDIVIDED INTO 13 LOTS, RANGING IN SIZE FROM 0.5245 ACRES TO 4.3973 ACRES. THE TRACT IS ZONED M-2.

THIS TRACT WAS IDENTIFIED ON A MASTER DRAINAGE PLAN TO ALLOW DISCHARGE, OF THE RUNOFF TO A REGIONAL DETENTION POND LOCATED ON TR U-1, WEST OF TR T-4.

THIS PLAN ANALYZES DRAINAGE FROM ONLY TR T-4, RUNOFF WILL DISCHARGE TO POND LOCATED ON TR U-1 (LAS LOMITAS BUSINESS PARK SUBDIVISION) THE STORM SEWER IS SIZED TO ACCOMODATE RUNOFF FROM TR T-4.

THIS SUBMITTAL IS MADE IN SUPPORT OF SUBDIVISION PLAT, SITE PLAN FOR SUBDIVISION, GRADING PERMIT AND APPROVALS FOR CONSTRUCTION PURPOSES.

#### II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED ON THE SOUTH SIDE OF PASEO DEL NORTE BLVD. AND EL PUEBLO ROAD, WEST OF AND ADJACENT TO THE AMAFCA NORTH DIVERSION CHANNEL AS SHOWN ON ZONE ATLAS PAGE D-16. THE CURRENT LEGAL DESCRIPTION IS TRACT T-4, VISTA DEL NORTE. AS SHOWN BY PANEL 136 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, SEPTEMBER 20, 1996. THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. THE SITE DOES LIE ADJACENT TO THE NORTH DIVERSION CHANNEL, DESIGNATED AS BEING A FLOOD HAZARD ZONE A.

#### III. EXISTING CONDITIONS

AT PRESENT, THE SITE IS VACANT. THE SITE GENERALLY SLOPES FROM THE NORTHEAST CORNER TO THE WEST AND THE SOUTHWEST. THIS SITE IS NOT SUBJECT TO OFFSITE FLOWS AS THE LANDS TO THE WEST AND SOUTH ARE MUCH LOWER IN ELEVATION THAN THIS SITE, THE NORTH DIVERSION CHANNEL IS LOCATED TO THE EAST. EL PUEBLO ROAD AND THE RAILROAD TRACKS LOCATED NORTH OF THE SITE AT A LOWER ELEVATION THAN THE SITE, AND RUNOFF GENERATED FROM THE ROAD FLOWS TO THE NORTH AND WEST AND WILL NOT IMPACT THIS SITE.

THE LAND TO THE SOUTH HAD BEEN DEVELOPED INTO RESIDENTIAL LOTS, THE LAND TO THE WEST IS CURRENTLY VACANT. BUT IS IN THE PROCESS OF BEING DEVELOPED INTO INDUSTRIAL/COMMERCIAL

#### IV. DEVELOPED CONDITIONS

THE TRACT WILL BE SUBDIVIDED INTO 13 LOTS RANGING IN SIZE FROM 0.5245 ACRES TO 4.3973 ACRES. THE TRACT WILL BE SERVED BY A PRIVATE PAVED ROADWAY EXTENDING FROM THE NORTHWEST CORNER OF THE TRACT THROUGH THE PROPERTY AND TERMINATE AT A CUL-DE-SAC AT THE NORTH EDGE OF LOTS 6&7. THE ROADWAY WILL BE CRADED TO DIRECT RUNOFF FROM THE RAILROAD TRACKS SOUTH TO THE LOW SPOT (ROADWAY STATION 7+39.91) AND FROM THE CUL-DE-SAC NORTH TO THE LOW SPOT. THE SITE WILL BE MASS GRADED TO DIRECT THE RUNOFF FROM THE LOTS TO THE ROADWAY. THE RUNOFF WILL BE INTERCEPTED BY A SERIES OF DROP INLETS AND STORM SEWER PIPING TO DIRECT THE RUNOFF TO THE WEST PROPERTY LINE AS SHOWN ON THE GRADING AND DRAINAGE PLAN.

#### V. CALCULATIONS

CALCULATIONS ANALYZING THE SITE IN THE DEVELOPED CONDITION FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT HAVE BEEN PREPARED FOR THIS PROJECT. THE PROCEDURE FOR 40 ACRE OR SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED.

THE SITE WAS SPLIT INTO 13 SUB-BASINS (IDENTIFIED AS SUB-BASIN I-1 THROUGH SUB-BASIN I-13), SUB-BASINS I-1 THRU I-7 ARE LOCATED ON THE EAST SIDE OF THE PROPOSED ROADWAY, SUB-BASINS I-8 THRU I-13 ARE LOCATED ON THE WEST SIDE OF THE PROPOSED SUB-BASIN I-1 (0.31 AC) IS LOCATED ON THE NORTH PROPERTY LINE OF THE SITE AND INCLUDES A PORTION OF THE RAILROAD RIGHT-OF-WAY AFTER THE PROPOSED IMPROVEMENTS ARE COMPLETE, THE RUNOFF GENERATED FROM SUB-BASIN I-1 WILL CONTINUE TO RUN OFF-SITE. THE RUNOFF FROM SUB-BASIN I-8 (0.16 AC), LOCATED ON THE SOUTH PROPERTY LINE OF THE SITE, WILL ALSO CONTINUE TO RUN OFF-SITE FOLLOWING THE COMPLETION OF THE IMPROVEMENTS.

100% OF THE RUNOFF FROM SUB-BASIN I-2 THROUGH SUB-BASIN I-7 AND SUB-BASINS I-9 THROUGH I-13 WILL BE INTERCEPTED BY THE PROPOSED ROADWAY AND WILL BE DIRECTED TO THE WEST PROPERTY LINE AND TO THE DETENTION POND DESCRIBED ABOVE.

PRECIPITATION ZO	NE 2 Pa	seo = 2.35 l	NCHES PEAK	AT 1.5	HOURS
DRAINAGE AREA	AREA LAN	D TREATMEN	T (ACRES) ;	Q100 (CFS)	V100 \ (AF)
Sub-basin I-1	0.31	0.03	0.28	1.39	0.05
Sub-basin 1-2	2.42	0.24	2.18	10.80	0.40
Sub-basin 1-3	2.17	0.22	1.95	9.69	0.36
Sub-basin 1-4	2.33	0.23	2.10	10.43	0.39
Sub-basin 1–5	1.26	0.13	1.13	5.56	0.21
Sub-bosin I-6	1.62	0.16	1.44	7.15	0.26
Sub-basin 1-7	5.61	0.56	5.04	25.12	0.93
Sub-basin I-8	0.16	0.02	0.14	0.73	0.03
Sub-basin 1-9	2.78	0.28	2.52	12.57	0.47
Sub-basin I-10	0.81	0.08	0.72	3.73	0.14
Sub-basin I-11	0.64	0.06	0,58	2.94	0.11
Sub-basin I-12	1.18	0.12	1.06	5.30	0.20
Sub-bosin 1-13	1.36	0.14	1.22	6.09	0.23
TOTAL LESS SB I-1 and TOTAL SB I-1 Th		ID I-9 THRU	J 1-13		(2.0%) (98.0%)

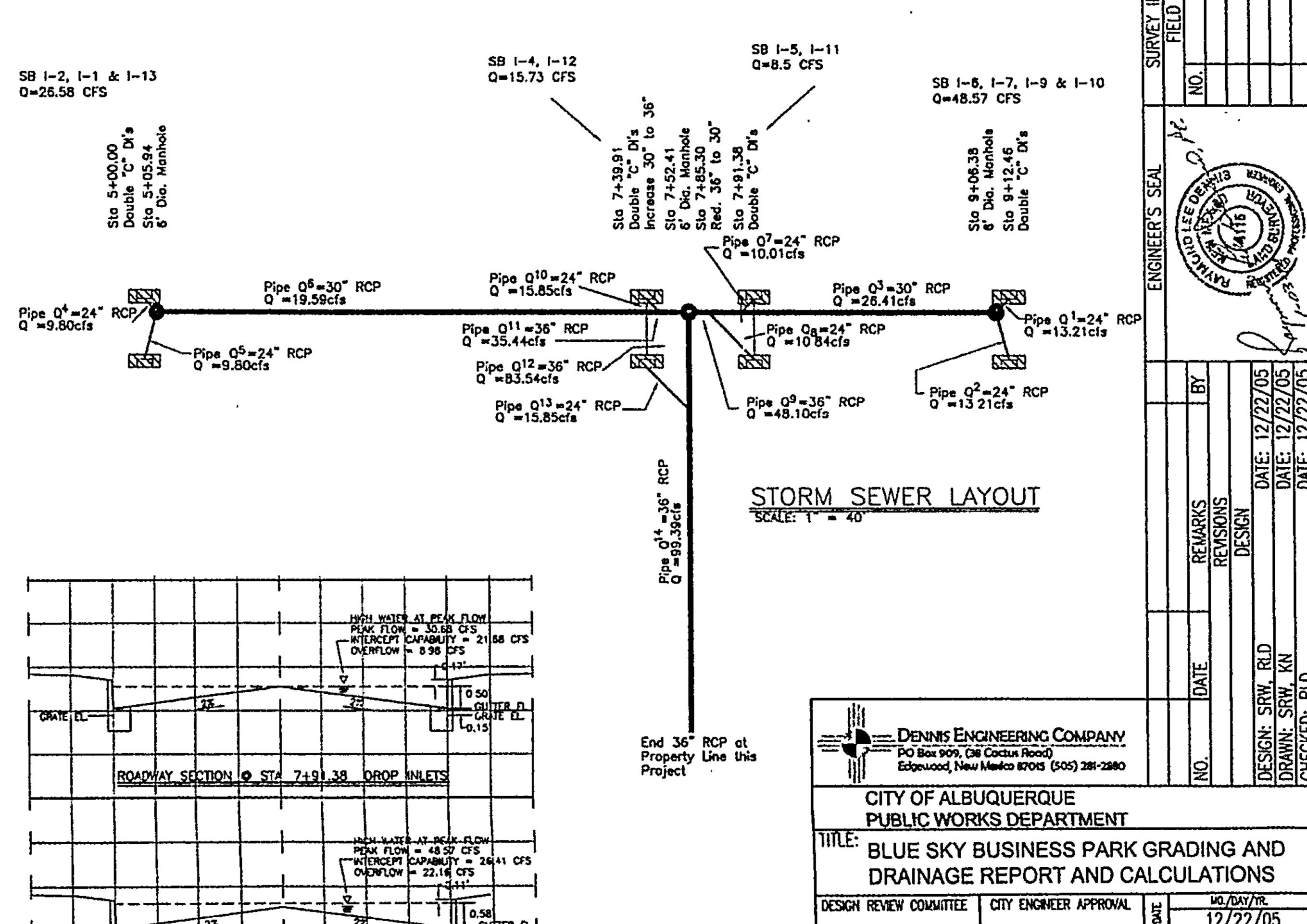
PIPE CALCULATIONS CATCH BASIN CALCULATIONS **Monnings** Equation CATCH BASIN CALCULATIONS USE STORM INLET DOUBLE "C". CURB OPENING - 6.5" 02 (f(3/s) = 13.21GRATING CAPACITIES FROM PLATE 22,3 D-6 , DPM S = 0.005 D1 (ft) = 1.86 D1 (in) =22.3424 5 = 0.005CURB INLET CAPACTIES FROM CHART TITLED CAPACITY OF CURB OPENING INLETS (ORIGIN UNKNOWN) D2 (ft) = 1.86 D2 (in) = 22 34 SUB-BASIN I-6 = 7.15 CFS SUB-BASIN I-7 = 25.12 CFS SUB-BASIN I-9 = 12.57 CFS DI's O STA 9+12.46 Q1 -Pipe Q<sup>2</sup> m = 2.16 Pipe Q' m = 2,16 SUB-BASIN 1-10 = 3.73 CFS COMBINE = 48.57 CFS 03 (f(3/s) = 26.41n = 0.013 04 (ft3/s) = 9.80n = 0.013 S = 0.005\$ - 0.005 = 48 57 CFS => 0 = 0 58' + 0.15' (DEPRESSED GRATE) = 0 73' D4 (ft) = 1.66 D4 (in) = 19 97 03 (ft) = 2.41- CURB OPENING CAPACITY + (GRATE CAPACITY - 15%) -> 03 (in) =28.9730 Pipe Q = [0.43 CFS/FT (65") + (1225 CFS ~ 1.84 CFS)] X 2 => 2641 CFS m = 2.1505 (13/s) = 98 n = 0.013 S = 0.005Q1 OVERFLOW #48 57 CFS - 26 41 CFS - 22.16 CFS Q6 (ft3/s) = 19 59 n = 0.013S = 0.005SUB-BASIN 1-5 - 5.56 CFS SUB-BASIN 1-11 - 294 CFS DI's O STA 7+91.38 Q2 -05 (ii) = 1 66 05 (ic) =19.9724 D6 (ft) = 2 16 Q1 OVERFLOW = 22.16 CFS COMBINE = 30 66 CFS 06 (in) = 25.90 30 Pipe Q\* = 30.66 CFS => D = 0.50' + 0.15' (DEPRESSED GRATE) = 0.65' m = 2.16m = 216 07 (tt3/s) = 10.84Q8 (ft3/s) = 10.84 = [0.36CFS/FT (6.57) + (10.0 - 1.50)] X 2 -> 21.68 CFS n = 0013 S = 0.005S = 0.005Q2 OVERFLOW =30 66 CFS - 21 68 CFS = 8 98 CFS . D7 (ft) = 1 73 D7 (in) =20,7424 08 (in) +20.74 24 DI's O STA 5+00.00 Q3 = SUB-BASIN 1-2 = 10.8 CFS SUB-BASIN 1-3 = 9.69 CFS Pipe Q<sup>16</sup> m = 2.16 Pipe Q\* SUB-BASIN 1-13 = 6.09 CFS COMBINE = 26.58 CFS m = 2.18Q9 (ft3/s) = 481Q10 (ft3/s) = 15.85n = 0.013 S = 0.005\$ - 0.005 = 26.58 D = 0.46' + 0.15' (DEPRESSED GRATE) = 0.61'09 (II) = 3 02 09 (in) =36 2736 D10 (ft) = 1 99 D10 (in) = 23 92 = [0 33 CFS/FT (6 5') + (9.0 CFS - 1.35 CFS)] X 2 -> 19.59 CFS Q3 OVERFLOW = 26 58 CFS - 19 59 CFS = 6.99 CFS Pipe 012 m = 2.16 m = 2.16Di's Q STA 7+39.91 Q4 = 012 (n3/a) = 83.54 n = 0.013SUB-BASIN 1-4 = 10.43 CFS SUB-BASIN 1-12 = 5.30 CFS Q11 (ft3/s) = 35 44 Q2 OVERFLOW - 8.98 CFS Q3 OVERFLOW - 6.99 CFS S = 0.0055 = 0.038COMBINE # 31.70 CFS # 31.70 CFS #> 0 # 0.49' + 0.15' (DEPRESSED GRATE) (USE 0.79' AVAILABLE) \*\* m = 2.16= [051 CFS/FT (65') + (14.0 CFS - 2.10 CFS)] X 2 -> 30.43 CFS Q13 (H3/s) = 15.85Q14 (113/s) = 99.39n = 0.013OVERFLOW = 30 43 CFS - 31 70 CFS = +1.27 CFS\* 5 = 0 038 D13 (ft) =1.99 \*DI SYSTEM IS CONSIDERED TO HAVE ADEQUATE CAPACITY, THE CALCULATIONS INDICATE AN OVERFLOW OF 1 27 CFS WHICH WILL OCCUR FOR A SHORT DURATION DURING THE PEAK OF THE STORM, THE HEAD OVER THE INLET! 013 (in) #23.92

MAY RISE ABOVE THE 0.79' INDICATED FOR A VERY SHORT PERIOD, ALTHOUGH THE SYSTEM IS DESIGNED SO THAT THE OVERFLOW WILL NOT RUN OFF OF THE PROPERTY.

ROADWAY SECTION O STA 9+12.46 DROP INLETS

\*\* AVANLABLE HEAD R/W to R/W

40, 9 CONTANED IN THE STREET R/W ROADWAY SECTION O STA, 5+00 DROP INCETS ROADWAY SECTION O STA. 7+39.91 DROP INLETS



 $Q = 1.486/n^4 A^4 R^2/3^4 S^1/2$ 

Solved for  $D = ((m^*Q^*n)/S1/2)3/8$ 

ZONE HAP NO. D-16 SHEET

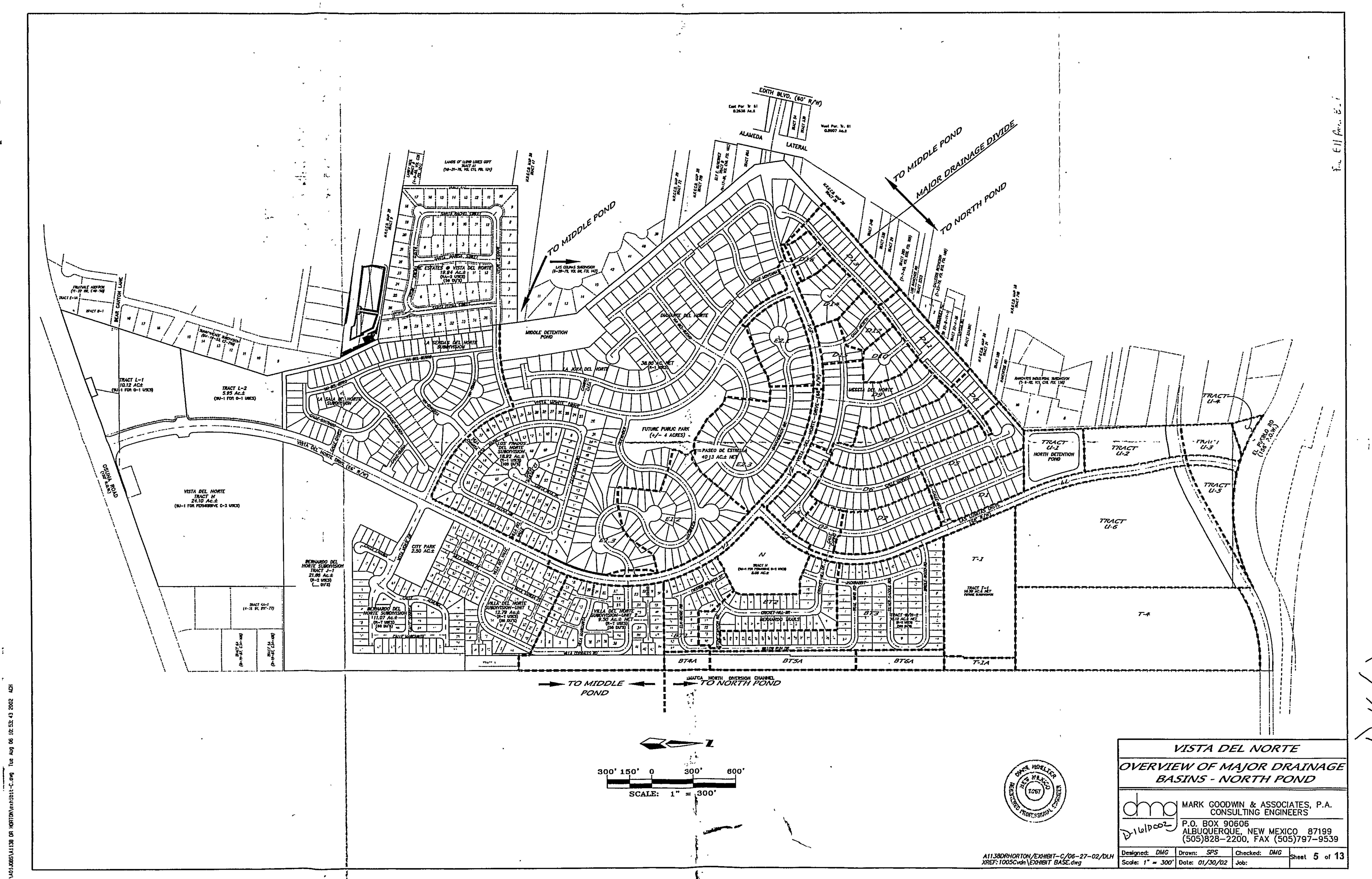
CITY PROJECT NO.

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Mell Son



7/9/