

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services**

September 2, 2015

Dan Herr, RA
Slagle Herr Architects
413 2nd St., NW
Albuquerque, NM 87102

**Re: Parking Expansion for Dr. Haltom
10433 Lagrima De Oro
Traffic Circulation Layout - Revised
Engineer's/Architect's Stamp dated 8-28-15 (F21-D052)**

Dear Mr. Herr,

The TCL submittal received 8-31-15 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.

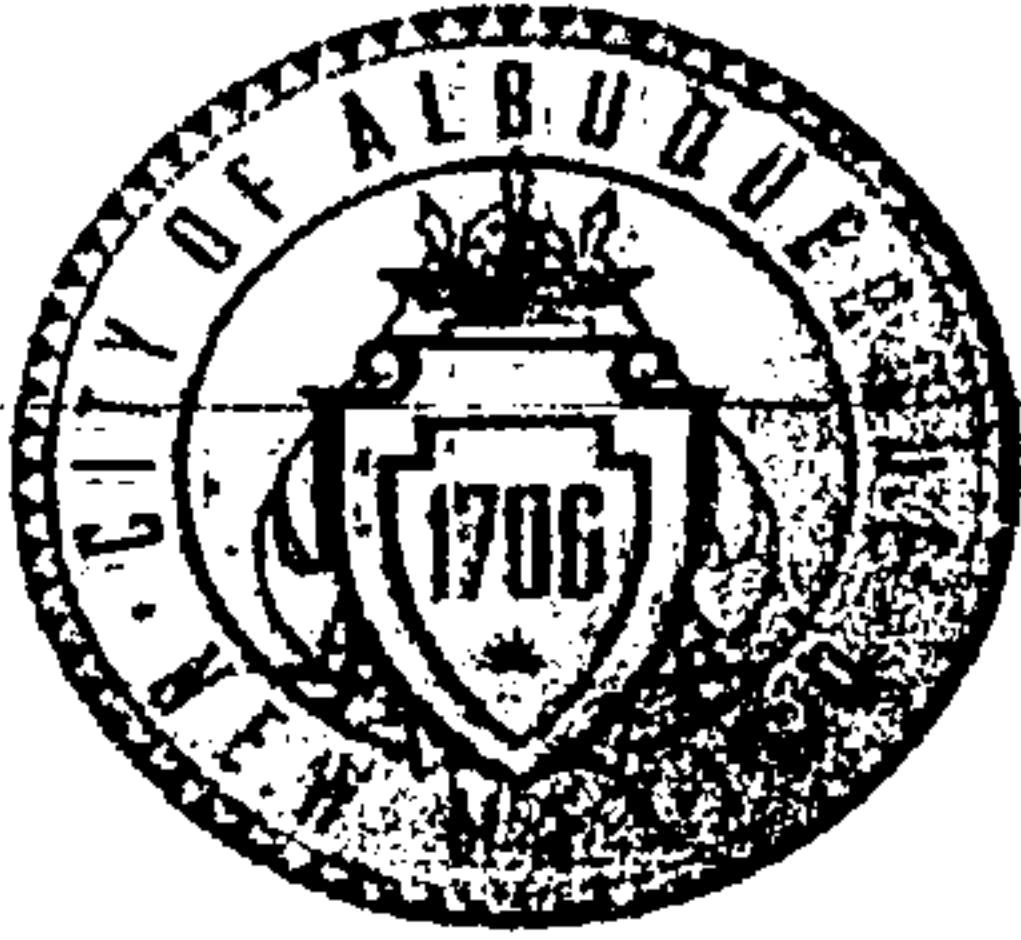
When the site construction is completed and a Certificate of Occupancy (C.O.) is requested, use the original City stamped approved TCL for certification. Redline any minor changes and adjustments that were made in the field. A NM registered architect or engineer must stamp, sign, and date the certification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

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.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

\gs via: email
C: CO Clerk, File



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Parking Expansion for Dr. Haltom Building Permit #: _____ City Drainage #: F21-0052

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lot 3-A, Lands of Bryant Witaker

City Address: 10433 Lagrima de Oro

Engineering Firm: Rio Grande Engineering

Contact: David Soule

Address: 1606 Central, Suite 201

Phone#: 872-0999

Fax#: 872-2205

E-mail: david@riograndeengineering.com

Owner: Haltom Family Ltd. Ptnrs

Contact: Tucker Haltom

Address: 253 Spring Creek PI NE, Albuquerque, 87122

Phone#: 856-5185

Fax#: _____

E-mail: haltom@aol.com

Architect: Slagle Herr Architects

Contact: Dan Herr

Address: 413 2nd Street SW, Albuquerque, NM 87102

Phone#: 246-0870

Fax#: _____

E-mail: dan@slagleherr.com

Surveyor: Tony Harris

Contact: Tony Harris

Address: 2412-D Monroe St NE, Albuquerque, NM 87110

Phone#: 889-8056

Fax#: 889-8645

E-mail: surveyh@swcp.com

Contractor: undetermined

Contact: _____

Address: _____

Phone#: _____

Fax#: _____

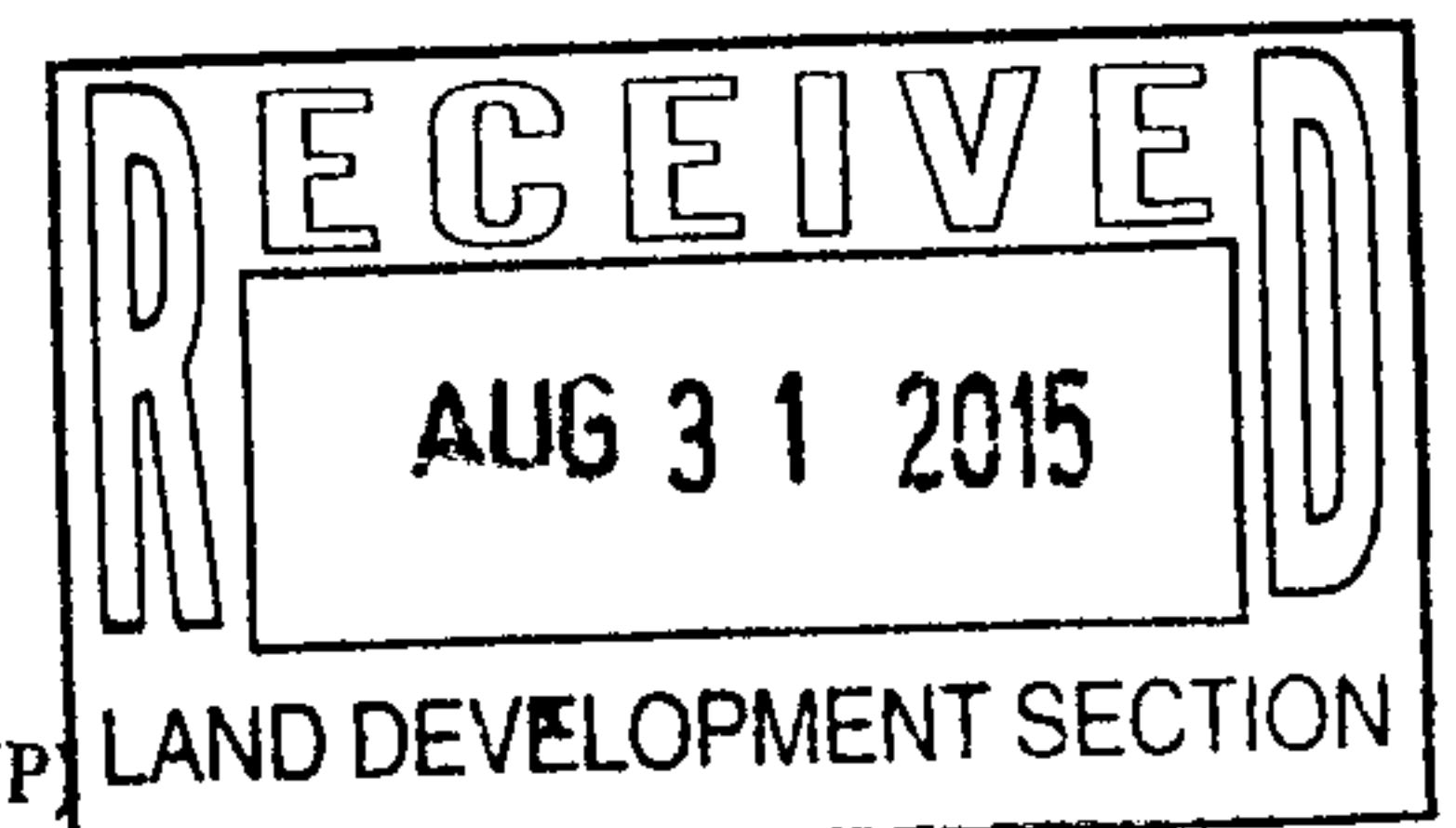
E-mail: _____

TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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



WAS A PRE-DESIGN CONFERENCE ATTENDED: _____

Yes ☒ No ☐ Copy Provided

DATE SUBMITTED: 8/31/2015

By: Dan Herr

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

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

CITY OF ALBUQUERQUE



***Planning Department
Transportation Development Services***

July 31, 2015

Dan Herr, RA
Slagle Herr Architects
413 2nd St., NW
Albuquerque, NM 87102

**Re: Parking Expansion for Dr. Haltom
10433 Lagrima De Oro
Traffic Circulation Layout
Engineer's/Architect's Stamp dated 7-28-15 (F21-D052)**

Dear Mr. Herr,

Based upon the information provided in your submittal received 7-28-15, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Clarify the extents of the development to the west of the existing building. Please detail property lines. If parcels have been re-platted, please provide documentation of platting action.
2. Due to the increase in parking spaces, an additional Handicap parking space will be required. Removal of the island south of the existing marked pedestrian walkway can accommodate the additional ADA parking space.
3. Please include a copy of your shared access agreement with the adjacent property owner, if applicable.
4. Please include two copies of the traffic circulation layout at the next submittal.

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 me at (505) 924-3630.

Sincerely,

Racquel M. Michel, P.E.
Senior Engineer, Planning Dept.
Development Review Services

c: File, CO Clerk



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Parking Expansion for Dr. Haltom Building Permit #: _____ City Drainage #: E21D052
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: Lot 3-A, Lands of Bryant Witaker
City Address: 10433 Lagrima de Oro

Engineering Firm: Rio Grande Engineering Contact: David Soule
Address: 1606 Central, Suite 201
Phone#: 872-0999 Fax#: 872-2205 E-mail: david@riograndeengineering.com

Owner: Haltom Family Ltd. Ptnrs Contact: Tucker Haltom
Address: 253 Spring Creek PI NE, Albuquerque, 87122
Phone#: 856-5185 Fax#: _____ E-mail: haltom@aol.com

Architect: Slagle Herr Architects Contact: Dan Herr
Address: 413 2nd Street SW, Albuquerque, NM 87102
Phone#: 246-0870 Fax#: _____ E-mail: dan@slagleherr.com

Surveyor: Tony Harris Contact: Tony Harris
Address: 2412-D Monroe St NE, Albuquerque, NM 87110
Phone#: 889-8056 Fax#: 889-8645 E-mail: surveyh@swcp.com

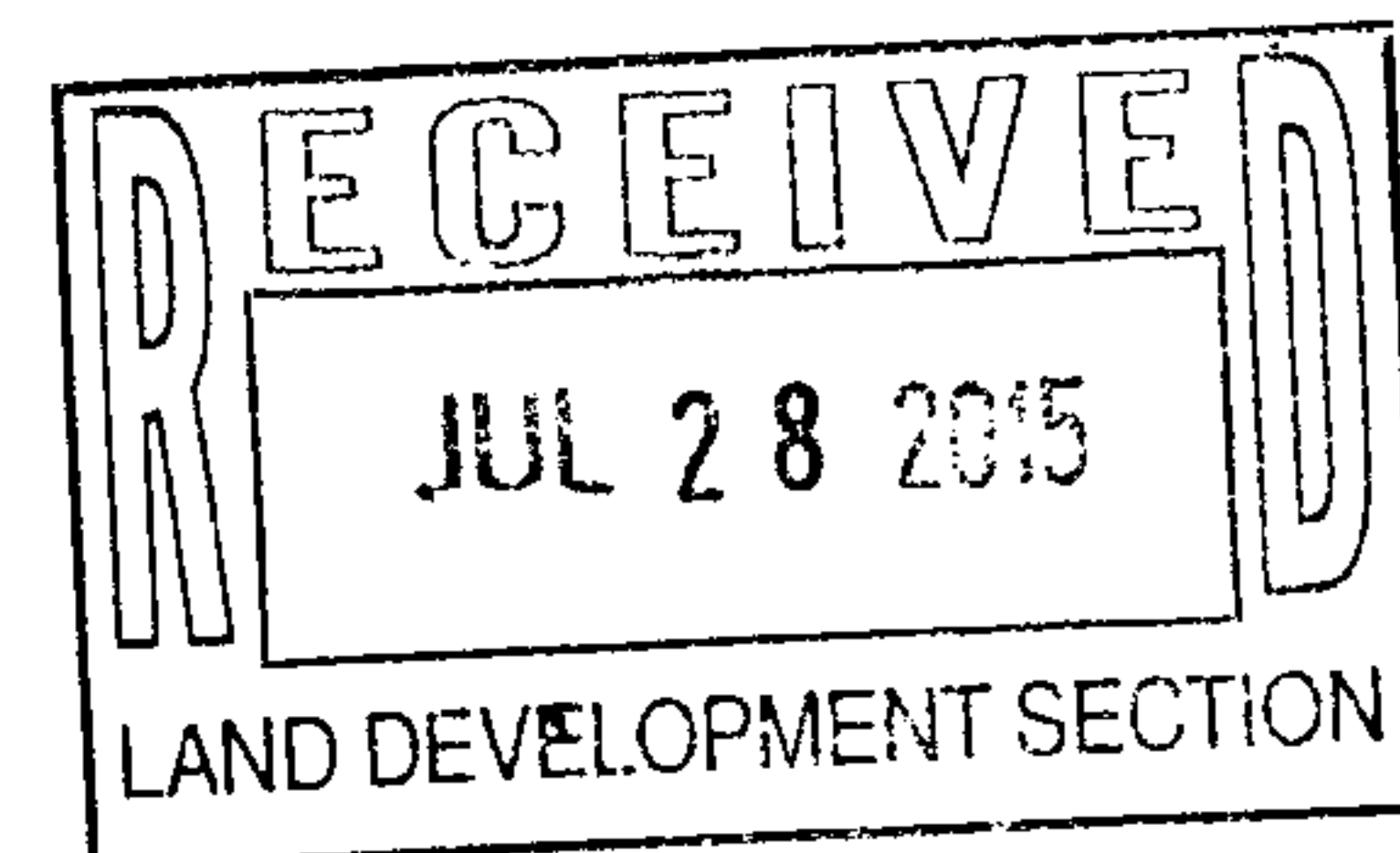
Contractor: undetermined Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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

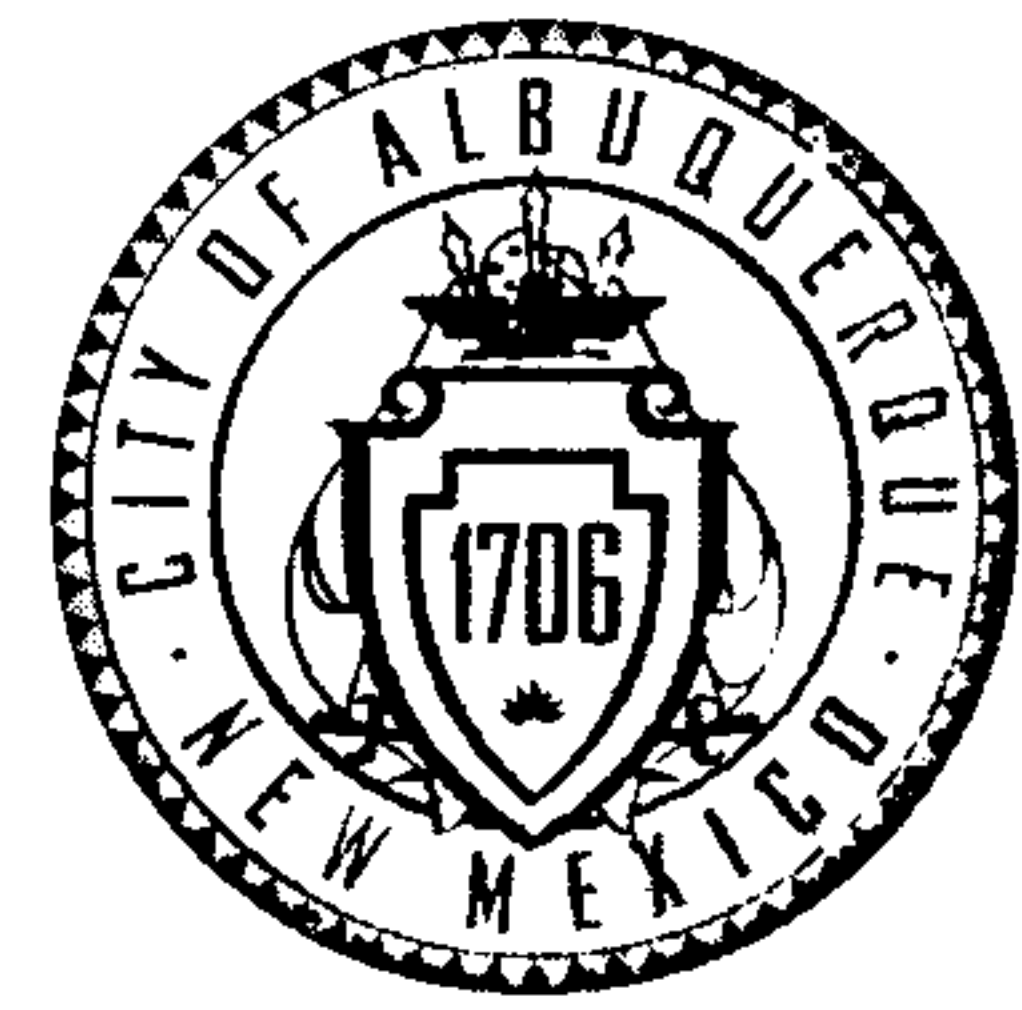


WAS A PRE-DESIGN CONFERENCE ATTENDED: Yes ☒ No ☐ Copy Provided _____
DATE SUBMITTED: 8/28/2015 By: Dan Herr

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

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

CITY OF ALBUQUERQUE



August 5, 2015

David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

**RE: Haltom Dental Office
10433 LaGrima Del Oro NE
Grading and Drainage Plan
Engineers Stamp Date 8/3/15 (F21D052)**

Dear Mr. Soule,

Based upon the information provided in your submittal received 8/4/15, this plan is approved for Grading Permit and Paving Permit.

Please attach a copy of this approved plan to the construction sets in the permitting process prior to sign-off by Hydrology. Once the project is complete send the Hydrology Department a PDF of the As-Built for our records.

PO Box 1293

Albuquerque

If you have any questions, please contact me at 924-3695 or Rudy Rael at 924-3977.

New Mexico 87103

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

www.cabq.gov

RR/RH
C: File

CITY OF ALBUQUERQUE

July 30, 2015



David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

RE: **Haltom Dental**
10433 LaGrima Del Oro NE
Grading and Drainage Plan
Engineers Stamp Date 7/1/15 (F21D052)

Dear Mr. Soule,

Based upon the information provided in your submittal received 7/2/15, this plan cannot be approved for Grading Permit and Paving Permit until the following comments are addressed.

- Provide build notes on the G&D plan. **ADDED**
- Provide the benchmark. **ADDED**
- Provide a date on the signature line/remove X-XX-13. **ADDED**
- Provide a curb cut in the Southeast corner of parking lot. **ADDED**
- Depress all landscaping areas. **ADDED**
- Provide spot elevations along swale. **ADDED**
- Provide invert at beginning of swale. **ADDED**
- Show location of wall in Bio Swale Detail **ADDED**
- Extend sidewalk culvert 2 feet inside property line. **ADDED**

PO Box 1293

Albuquerque

New Mexico 87103

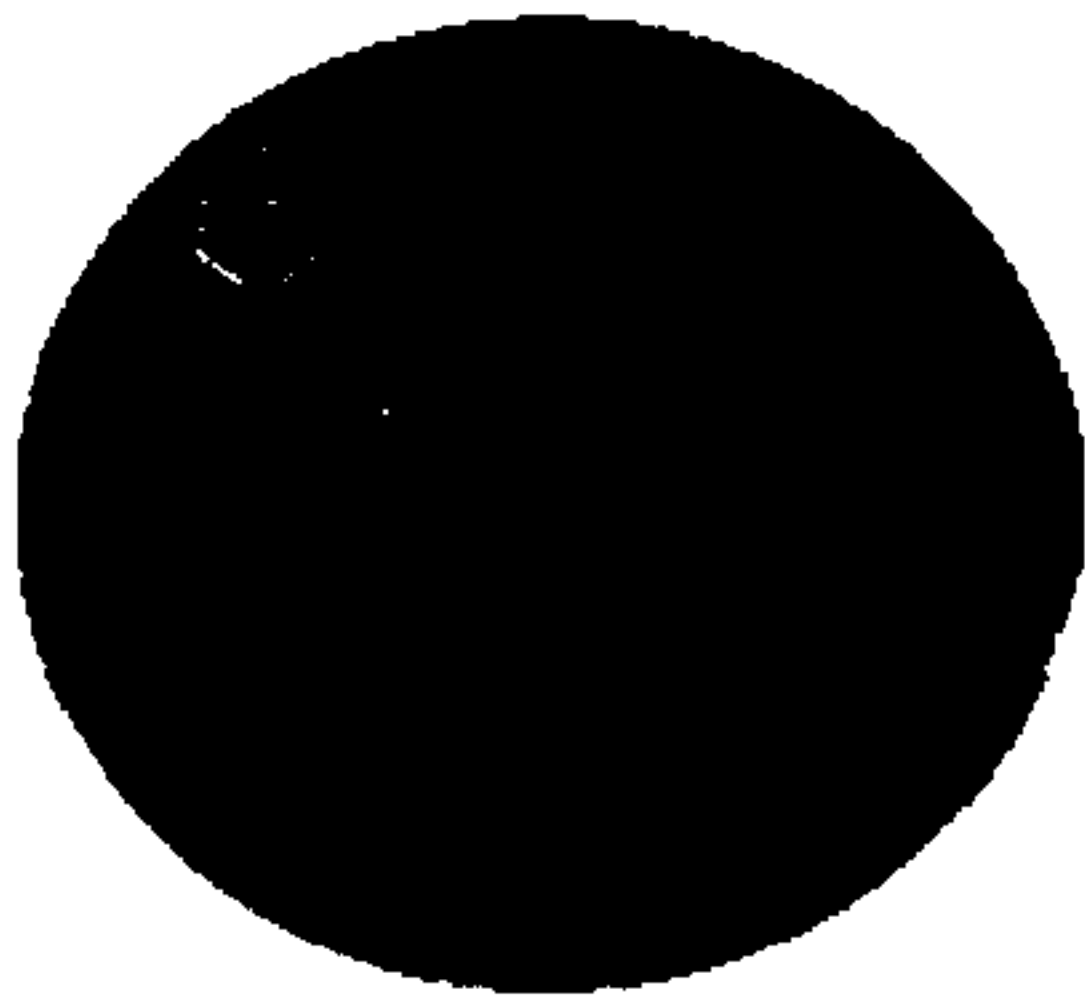
www.cabq.gov

If you have any questions, please contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

RR/RH
C: File



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: HALTOM DENTAL Building Permit #: _____ City Drainage #: F21-D52

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: LOT 2A LANDS OF BRYANT AND WITAKER

City Address: 10433 LAGRIMA DEL ORO NE

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: TUCKER HALTOM PROFIT SHARE PLAN Contact: _____

Address: 10433 LAGRIMA DEL ORO ST NE 87111

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

Architect: JOE SLAGLE Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

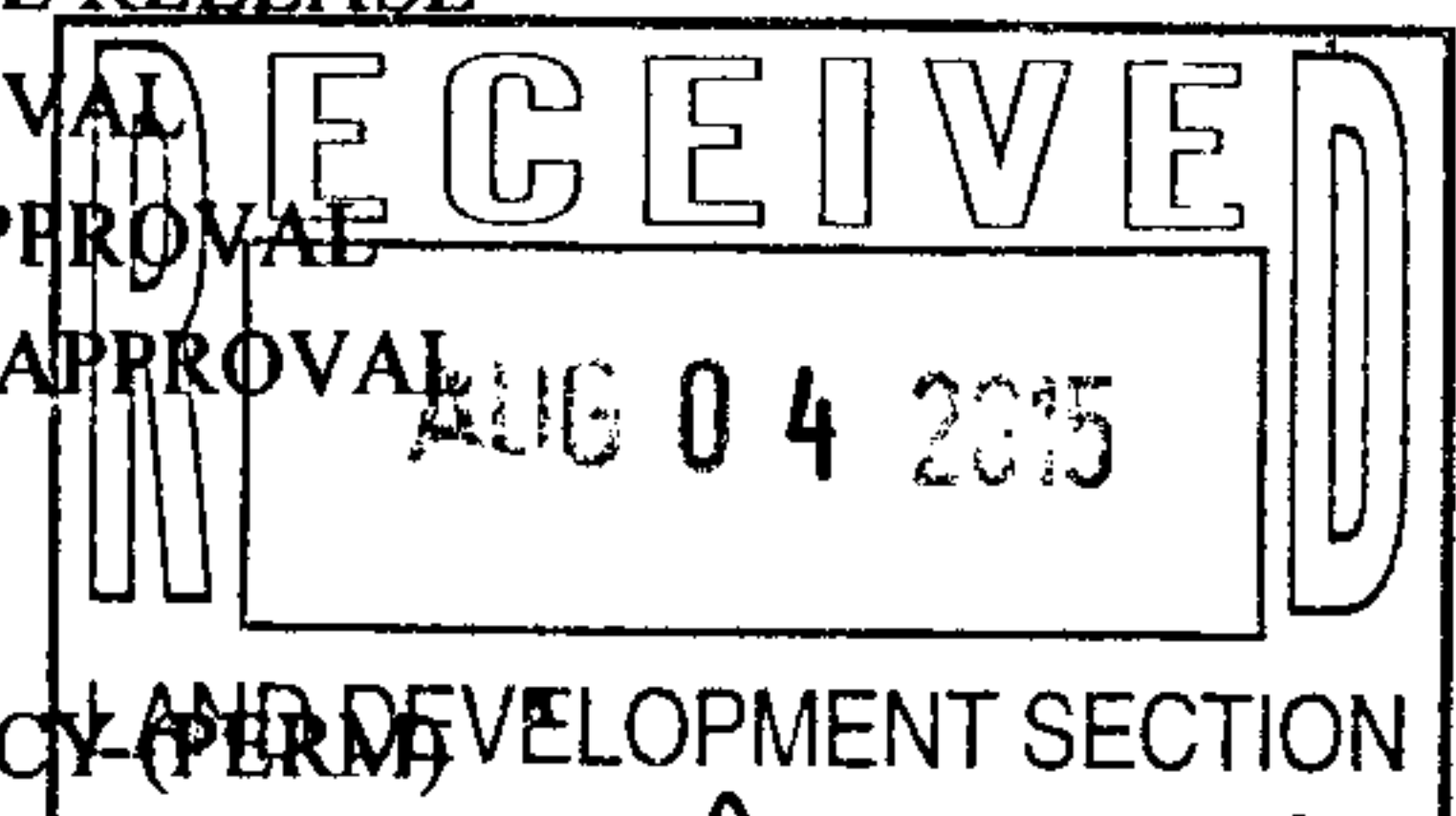
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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



Not verified email

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

DATE SUBMITTED: 7/1/15 By: _____

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

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

CITY OF ALBUQUERQUE

July 30, 2015



David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

RE: **Haltom Dental**
10433 LaGrima Del Oro NE
Grading and Drainage Plan
Engineers Stamp Date 7/1/15 (F21D052)

Dear Mr. Soule,

Based upon the information provided in your submittal received 7/2/15, this plan cannot be approved for Grading Permit and Paving Permit until the following comments are addressed.

- Provide build notes on the G&D plan.
- Provide the benchmark.
- Provide a date on the signature line/remove X-XX-13.
- Provide a curb cut in the Southeast corner of parking lot.
- Depress all landscaping areas.
- Provide spot elevations along swale.
- Provide invert at beginning of swale.
- Show location of wall in Bio Swale Detail.
- Extend sidewalk culvert 2 feet inside property line.

PO Box 1293

Albuquerque

New Mexico 87103

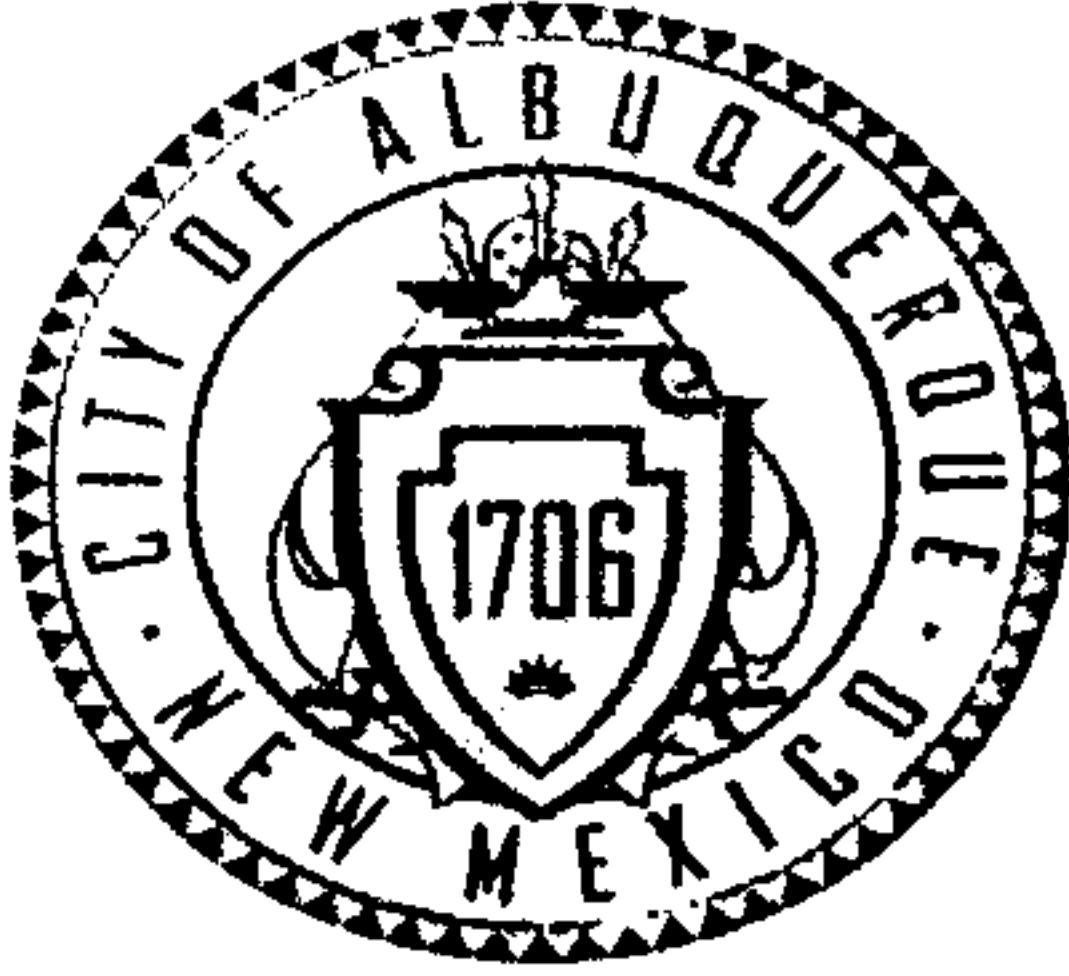
www.cabq.gov

If you have any questions, please contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

RR/RH
C: File



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: HALTOM DENTAL Building Permit #: _____ City Drainage #: F21 D052

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: LOT 2A LANDS OF BRYANT AND WITAKER

City Address: 10433 LAGRIMA DEL ORO NE

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: TUCKER HALTOM PROFIT SHARE PLAN Contact: _____

Address: 10433 LAGRIMA DEL OROST NE 87111

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

Architect: JOE SLAGLE Contact: _____

Address: _____

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

Surveyor: CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS

Address: _____

Phone#: 917.8921 Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

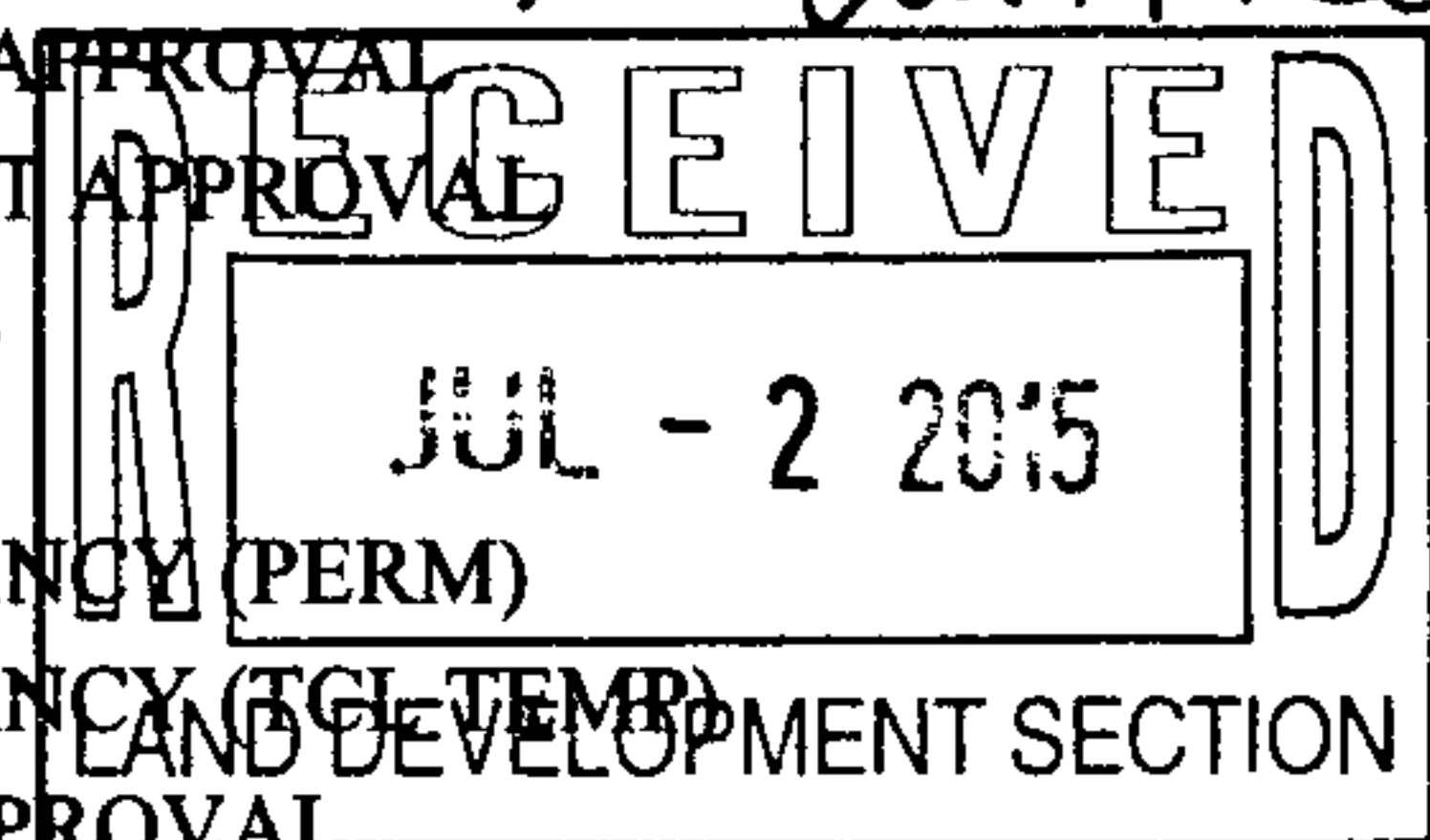
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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



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

DATE SUBMITTED: 7/1/15 By: _____

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

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

RIO GRANDE ENGINEERING OF NEW MEXICO, LLC

July 1, 2015

Hydrology Section
, Planning Department
Development Review
City of Albuquerque

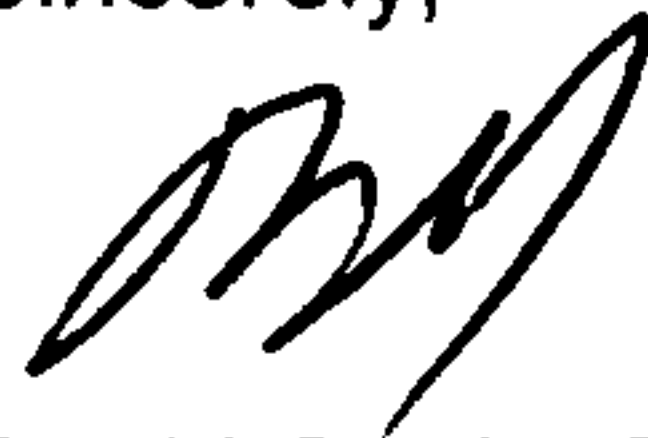
**RE: Grading and Drainage Plan
Haltom Dental**

Dear Sir or Madam:

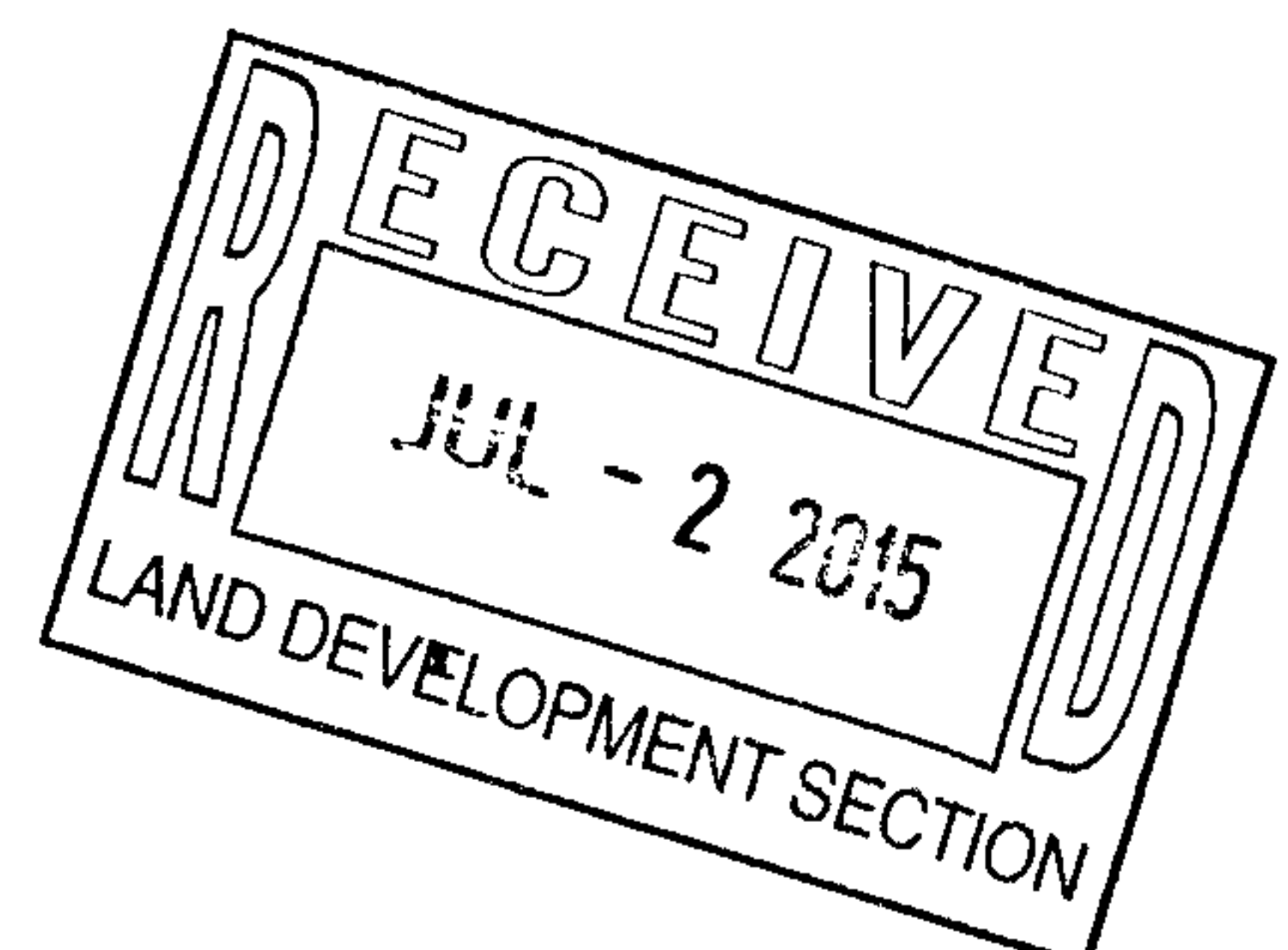
The purpose of this letter is to accompany the initial drainage submittal. The plan has been designed in conformance the adjacent properties drainage plans. The drainage plan allows for free discharge with first flush improvements. The site is divided into 2 basins, the north basin enters a retention pond that retains 423 cubic feet of the 606 cubic feet generated. The pond spills to a bioswale located along the sites western boundary. The southern basin enters this same bioswale via a series of 1' curb cuts. The total site generates .73 cfs which is an increase of .35 cfs from existing. The first flush volume retained is 438 cubic feet which exceed the 137 cubic feet required. Each curb opening has the capacity to convey 1.04 cfs and the swale can convey 1.06 cfs. The onsite improvements have been sized to safely pass the 100-year flow and retain in excess the first flush volume. The parking lot will be used as additional parking for the existing office to the east.

Should you have any questions regarding this submittal, please do not hesitate to call me.

Sincerely,



David Soule, PE
Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199



Weighted E Method

LAGRIMA DEL ORO

											100-Year, 6-hr.		
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
# UPLAND	0	0.000	60%	0	20.0%	0.000	20.0%	0	0%	0.000	0.000	0.000	0.00
OVERALL EXISING	6810	0.156	70%	0.10944	30.0%	0.047	0.0%	0	0%	0.000	0.884	0.012	0.38
BASIN N	3480	0.080	0%	0	20.0%	0.016	20.0%	0.01598	60%	0.048	2.092	0.014	0.36
BASIN S	3330	0.076	0%	0	8.0%	0.006	12.0%	0.00917	80%	0.061	2.374	0.015	0.37
PROPOSED	6810	0.156	0%	0	14.1%	0.022	16.1%	0.02515	70%	0.109	2.230	0.029	0.73
COMPARISION		0.000		-0.109		-0.025		0.025		0.109		0.018	0.35

Equations:

Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted D * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

Where for 100-year, 6-hour storm (zone 4)

Ea= 0.8
Eb= 1.08
Ec= 1.46
Ed= 2.64

Qa= 2.2
Qb= 2.92
Qc= 3.73
Qd= 5.25

CURB OPENING CAPACITY

$Q = CLH^{1.5} = 2.95 \times 1 \times 5^{1.5} = 1.04$ CFS

CONTRIBUTING TO POND

0.36 CFS
606.68 CUBIC FEET

Pond volume required

FIRST FLUSH REQUIRED

FIRST FLUSH PROVIDED

EXISTING ONSITE DISCHARGE 0.38 CFS

PROPOSED ONSITE GENERATED 0.73 CFS

UPLAND 0.00 CFS

134.64 cf
438.00 cf

NARRATIVE

THIS SITE IS AN INFILL DEVELOPMENT NEAR THE BOTTOM OF THE BEAR CANYON WATER SHED. THIS SITE IS ADJACENT TO FREE DISCHARGING PROPERTIES WE ARE PROPOSING TO RETAIN THE NORTHERN BASINS FOR WATER QUALITY AND TO REDUCE FLOW TO LESS THAN HISTORICAL. THE PARKING LOT WILL PASS OVER WATER QUALITY SWALE BEFORE LEAVING SITE. THE PROPOSED INLET WILL BE CONSTRUCTED WITH THE SO19 PERMIT PROCESS

Channel Capacity

	Top Width	Bottom Width	Depth	Area	WP	R	Slope	Q Provided	Q Required	Velocity
	(ft)	(ft)	(ft)	(ft^2)	(ft)		(%)	(cfs)	(cfs)	(ft/s)
Beginning	3	1.5	0.5	1.13	3.30	0.3406226	0.15	1.06	0.74	0.66

Manning's Equation:

$$Q = 1.49/n * A * R^{(2/3)} * S^{(1/2)}$$

A = Area

R = D/4

S = Slope

n = 0.03

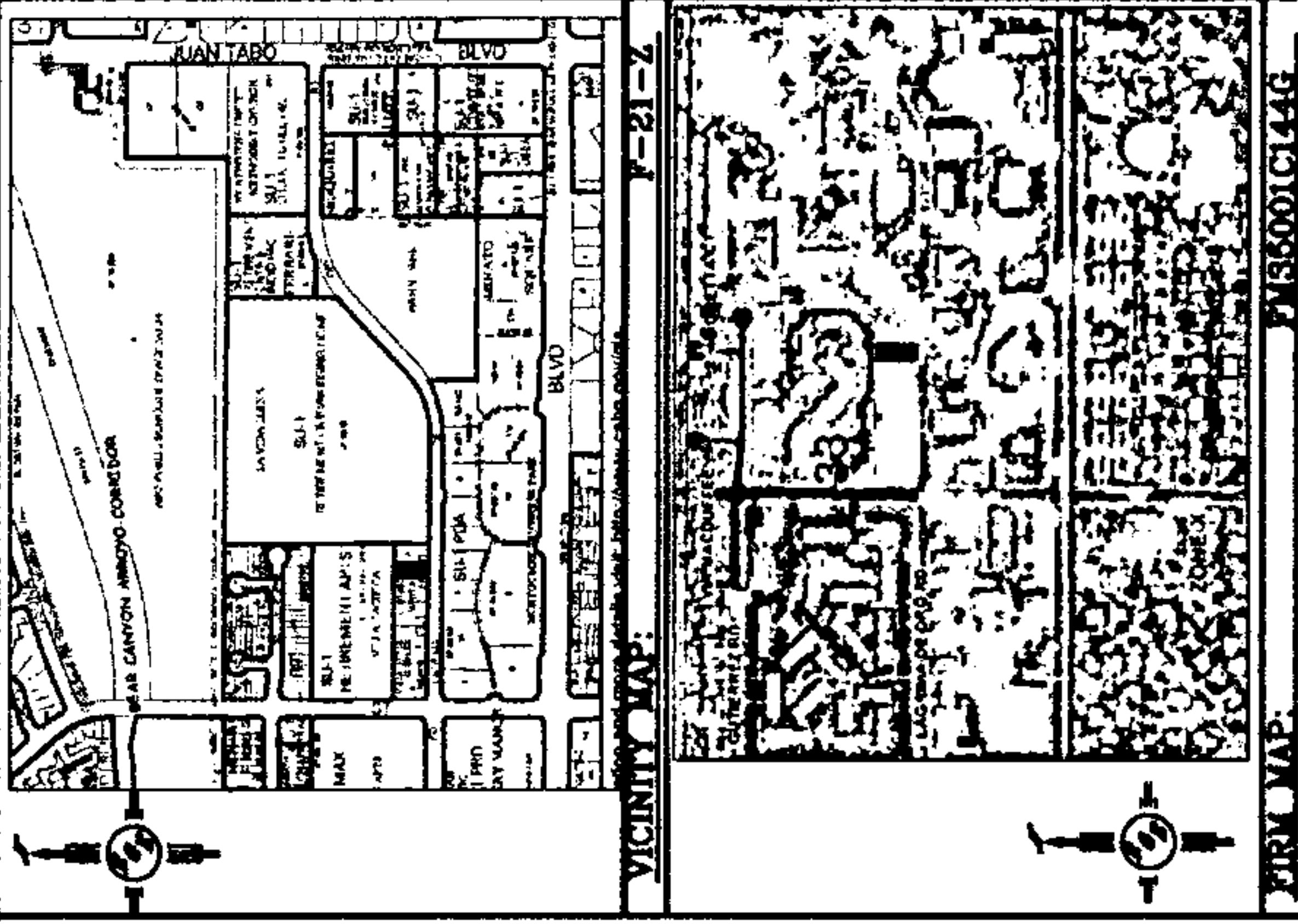
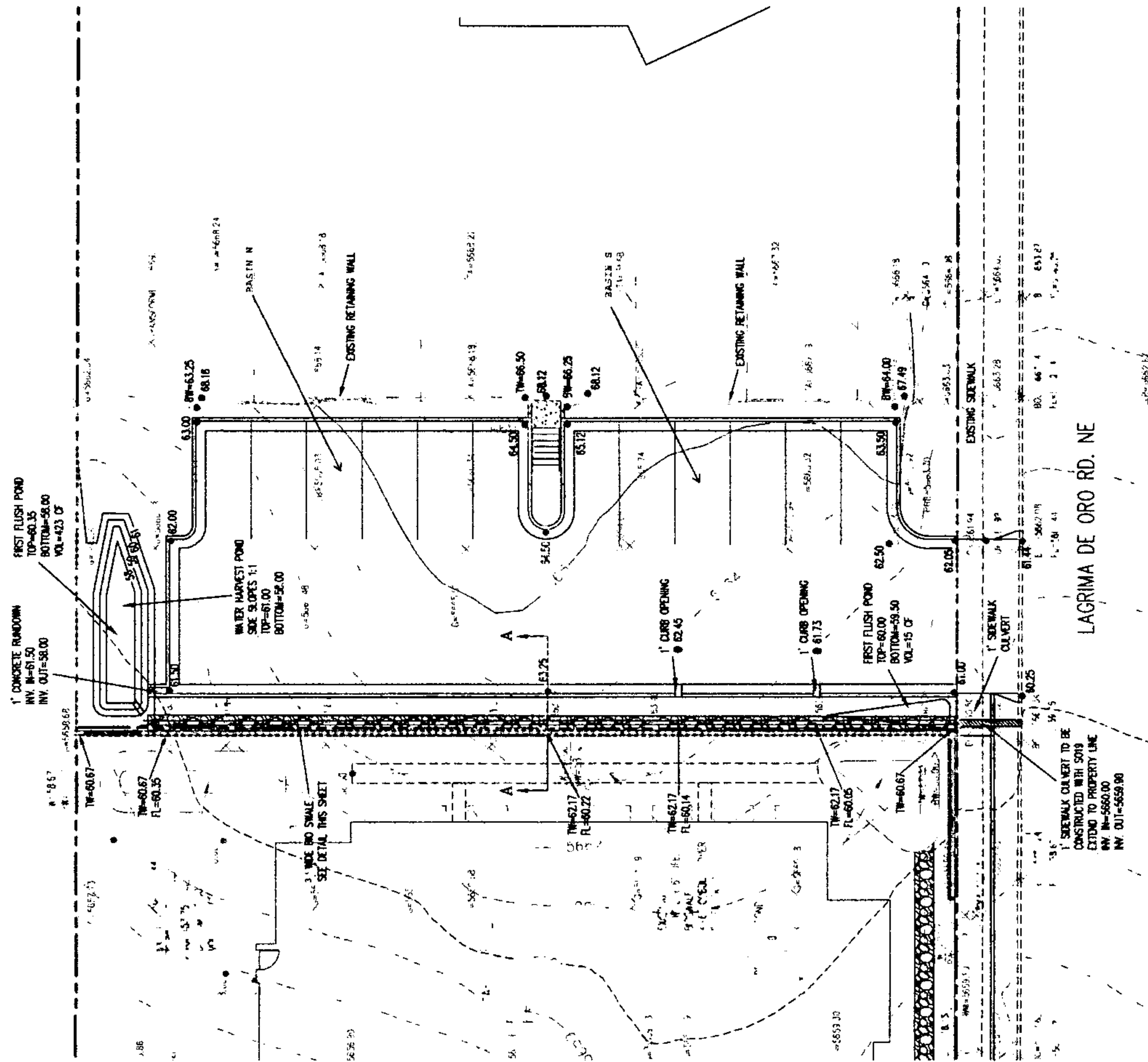
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL DIAL "811" (OR 505-280-1960) FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.
8. PRIOR TO POURING CONCRETE, CONTRACTOR SHALL NOTIFY THE STORM DRAIN INSPECTOR, 505-857-8074, TO INSPECT REINFORCEMENT.

APPROVAL	NAME:	DATE:
INSPECTOR		

CAUTION:
EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY
OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.



LEGAL DESCRIPTION:

LOT #2, BLOCK 19, PRIMROSE POINTE UNIT 6
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO

NOTE:

NOTES:
1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

LEGEND

[illegible]

1 DAVID SOULE, HAVE PERSONALLY INSPECTED THE PROPERTY ON X-XX-13,
NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH
THE TOPO SHOWN.

DAVID SOULE P.E. #14522

ENGINEER'S SEAL	LAGRIMA DE ORO PARKING LOT DR. HALTON OFFICE GRADING AND DRAINAGE PLAN	DRAWING BY GEM	JOB # 100000
		DATE 9-17-18	SHEET # 1 of 1