Harmon Rita T.

From: Don R. Briggs <drbriggs@bernco.gov>
Sent: Monday, May 19, 2014 3:36 PM
To: Harmon Rita T.
Cc: Sims, Timothy E.; Ortiz, Monica; Dennis Lorenz
Subject: RE: 9100 Florence NE (B20D024)

Thank you Rita. I will add this correspondence to our file.

Best Regards
Don

From: Harmon Rita T. [mailto:rharmon@cabq.gov]
Sent: Monday, May 19, 2014 3:29 PM
To: Don R. Briggs
Cc: Sims, Timothy E.; Ortiz, Monica; Dennis Lorenz
Subject: 9100 Florence NE (B20D024)

Mr. Don Briggs,

This email serves to notify you that the City of Albuquerque, Development and Review Department has reviewed the Amended Grading and Drainage Plan (Engineer's Stamp date 5-19-14) for the Property at 9100 Florence Ave. NE.
The discharge from the Proposed development is less than the existing conditions discharge. Therefore, the City takes no issue and accepts the proposed discharge from this site.

Sincerely,

Rita Harmon, P.E.
Senior Engineer
Planning Department
Development & Review Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3695
f 505-924-3864

LORENZ
DESIGN & CONSULTING, LLC
Civil Engineering | Construction Management

April 30, 2014

Curtis Cherne, PE
Principal Engineer, Hydrology
Development and Building Services
City of Albuquerque
Plaza Del Sol
Albuquerque, New Mexico 87102

SUBJECT: 9100 FLORENCE AVENUE NE (B-20)
Bernalillo County Ref : PWDN 20140036

Dear Curtis:

Submitted herewith in support of the subject project are the following:

1. Amended Grading and Drainage Plan dated 04-29-2014.
2. Grading and Drainage Plan of record Dated 12-9-1996.
3. Bernalillo County Case Comments.

This project involves the construction of a residential building addition on the subject property. The site is located at 9100 Florence Avenue NE, Bernalillo County, New Mexico. Although the property is located within Bernalillo County, the property has frontage along Ventura Street NE, a City of Albuquerque public right of way. All site runoff drains westward to Ventura and Florence, where it is collected by City storm drainage improvements located downstream. Developed runoff that exceeds the threshold established by the Masterplan is ponded on-site in accordance with County criteria.

The Plan is in compliance with the Grading and Drainage Plan of record dated 12-9-1996, and the Final Drainage Masterplan for North Albuquerque Acres.

Since the property drains to City right of way, Bernalillo County has requested a letter stating acceptance of the Plan. A simple email to Don Briggs or myself would be acceptable. This request has come late in the review process. I trust you are able to respond in a timely manner. Thank you for your assistance. Please call me with any questions.

Sincerely,

LORENZ DESIGN & CONSULTING, LLC

Dennis A. Lorenz, PE

RECEIVED
APR 30 2014
LAND DEVELOPMENT SECTION

P\14-007.CC04302014

2501 Rio Grande Boulevard NW, Suite A | Albuquerque, New Mexico 87104 | [505] 888-6088 P | [505] 242-6655 F

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 04/2009)

B20D024

PROJECT TITLE: 9100 Florence Ave NE ZONE MAP: B-20
DRB#: NA EPC#: NA WORK ORDER#: NA

LEGAL DESCRIPTION: Lot 1, Block 20, Tract 1, Unit 3, North Albuquerque Acres
CITY ADDRESS: 9100 Florence Avenue NE

ENGINEERING FIRM: Lorenz Design & Consulting, LLC CONTACT: Dennis Lorenz
ADDRESS: 2501 Rio Grande Blvd NE, Suite A PHONE: 888-6088
CITY, STATE: Albuquerque, NM ZIP CODE: 87104

OWNER: Jon Hager CONTACT: Jon Hager
ADDRESS: 9100 Florence Avenue NE PHONE:
CITY, STATE: Albuquerque, NM ZIP CODE: 87122

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

SURVEYOR: Harris Surveying CONTACT: Anthony Harris
ADDRESS: 2412-D Monroe NE PHONE: 889-8056
CITY, STATE: Albuquerque, NM ZIP CODE: 87110

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

TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- X 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 (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:
- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- ____ S. DEV. FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TEMP)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION
- X OTHER ~~(SPECIFY) SO-19~~ SEE COVER LETTER

RECEIVED
APR 30 2014
LAND DEVELOPMENT SECTION

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

DATE SUBMITTED: 4.30.14 BY: DENNIS LORENZ

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.

County of Bernalillo
Case Comments Report

Permit: PWDN2014-0036

Department: PW Development Review

Activity: Engineering Review

Action: Additional Info Required

Note Date: 04/14/2014

Comment: COMMENTS FOR PLAN WITH ENGINEER'S SEAL DATED 4/9/2014

1) Please revise hydrology calculations based on an allowable 43, 20, 20, 17 land treatment balance for the A, B, C, D land treatments respectively.

2) As a protion of the lot drains to the City of Albuquerque right of way. Please provide a letter from the City indicating acceptace of this discharge.

RECEIVED
APR 30 2014
LAND DEVELOPMENT SECTION

Harmon Rita T.

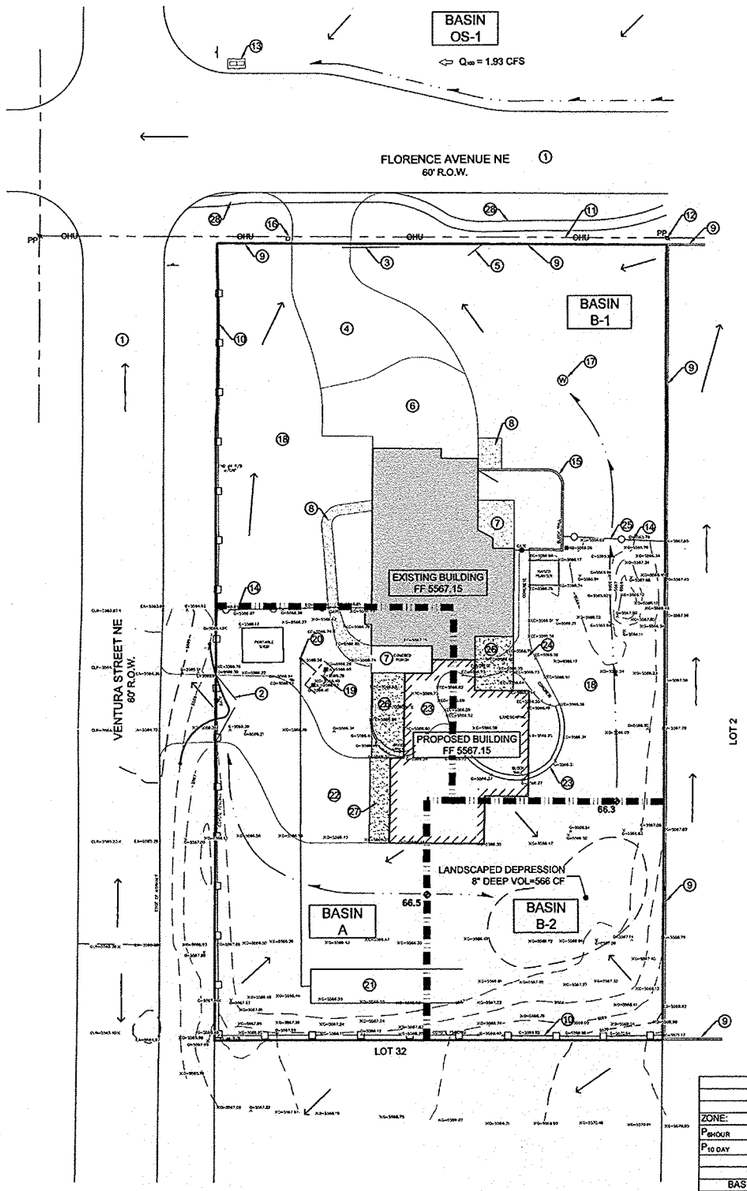
From: Dennis Lorenz <Dennisl@lorenznm.com>
Sent: Monday, May 19, 2014 11:39 AM
To: Harmon Rita T.
Cc: Don Briggs (drbriggs@bernco.gov)
Subject: 9100 Florence NE
Attachments: 9100 Florence.pdf

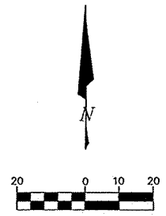
Rita:

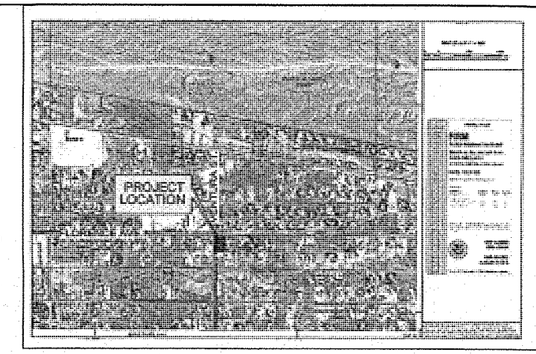
Attached is the updated Grading and Drainage plan for the subject project. At your request, we have subdivided Basin 'B' in to 2 basins. Basin B-1 drains north to Florence. Basin B-2 drains to the ponding area located in the rear yard. Since Basin B-2 is a closed basin, the proposed peak developed flowrate existing the property into City ROW will be less than the existing condition.

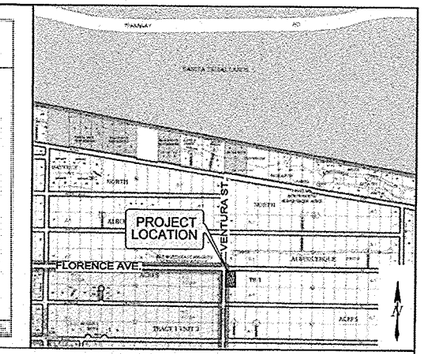
Thanks for your help. Call me if you have any additional concerns.

Dennis A. Lorenz, PE
Lorenz Design & Consulting, LLC
Office: 505-888-6088
Mobile: 505-220-0869









KEYED NOTES

1. EXISTING ASPHALT ROAD.
2. EXISTING SIDEYARD ACCESS GATE.
3. EXISTING FRONT GATE.
4. EXISTING GRAVEL DRIVE.
5. EXISTING MAN GATE.
6. EXISTING CONCRETE DRIVE.
7. EXISTING CONCRETE PATIO.
8. EXISTING CONCRETE SIDEWALK.
9. EXISTING 6' CMU BLOCK PERIMETER WALL.
10. EXISTING COYOTE FENCE.
11. EXISTING OVERHEAD UTILITIES.
12. EXISTING UTILITY POLE.
13. EXISTING NEIGHBORHOOD MAILBOX.
14. EXISTING WOOD FENCE.
15. EXISTING BLOCK WALL.
16. EXISTING UTILITY PEDESTAL.
17. EXISTNIG DOMESTIC WELL.
18. EXISTING LANDSCAPING.
19. APPROXIMATE LOCATION OF SEPTIC TANK.
20. NEW SEPTIC PUMP.
21. NEW SEPTIC LEACH FIELD.
22. NEW GRAVEL DRIVE.
23. REMOVE & DISPOSE CONCRETE PATIO AND GARDEN WALLS.
24. EXISTING CONCRETE WALK TO BE MODIFIED. COORDINATE WITH OWNER.
25. RAISE FENCE PICKETS 4-INCHES MINIMUM ABOVE GROUND FOR DRAINAGE.
26. NEW CONCRETE PATIO.
27. NEW CONCRETE GARAGE APRON.
28. EXISTING ASPHALT RECREATION TRAIL.

FIRM PANEL 35001C0141G

VICINITY MAP ZONE ATLAS B-20-Z

LEGEND

ITEM	EXISTING	PROPOSED
CONTROL MONUMENT (AS NOTED)	▲	
TELEPHONE RISER	T	
EX. EDGE OF PAVING		
PROPERTY LINE		
SPOT ELEVATION	× 75.5	01.5 ⊕
CONTOUR W/ ELEVATION	5800	5800
BLOCK WALL		
COYOTE FENCE		
WOOD FENCE		
DRAINAGE BASIN DIVIDE		
DIRECTION OF FLOW		←
DRAINAGE SWALE		
BUILDING HATCH		
CONCRETE HATCH		

PROJECT DATA

PROPERTY ADDRESS:

9100 FLORENCE AVENUE N.E.
ALBUQUERQUE, NM

LEGAL DESCRIPTION:

LOT 1, BLOCK, 20, TRACT 1, UNIT 3,
NORTH ALBUQUERQUE ACRES

PROJECT BENCHMARK:

CONTROL POINT CITY OF ALBUQUERQUE
STATION NO. "7-B20", NAVD 1988
ELEV. = 5,566.658'

SURVEY:

PROJECT SURVEYING BY
HARRIS SURVEYING, INC.
ALBUQUERQUE, NM 87110

PROJECT HYDROLOGY
9100 FLORENCE NE

ZONE:	3	AHYMO
P_{6HOUR}	2.60	
$P_{10\ DAY}$	4.90	

EXISTING CONDITIONS

BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL. (ac ft)
SITE	0.73	0.00	0.31	0.31	0.11	1.29	2.43	0.079
OS-1 *							193	

PROPOSED CONDITIONS

BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL. (ac ft)
SITE ***	0.73	0.00	0.30	0.30	0.13	1.33	2.47	0.081
A	0.20	0.00	0.08	0.08	0.04	1.36	0.68	0.023
B	0.53	0.00	0.22	0.22	0.09	1.32	1.78	0.058
B-1	0.41	0.00	0.17	0.17	0.07	1.32	1.38	0.045
B-2	0.12	0.00	0.05	0.05	0.02	1.31	0.40	0.013
OS-1 *							193	
NAA TEMPLATE**	0.73	0.31	0.15	0.15	0.12	1.12	2.09	0.068

* BASIN OS-1 PER THE "FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN"

** PER THE "FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN" THE SITE IS CLASSIFIED AS NORTH ABLUQUERQUE ACRES WITH THE FOLLOWING LAND TREATMENT PERCENTAGES: A=43%, B=20%, C=20%, D=17%

*** PROPOSED DEVELOPMENT EXCEEDS THE NAA THRESHOLD OF 0.068 ACRE FEET
A LANDSCAPED DEPRESSION WILL RETAIN 0.013 AC FT OR 566 CF OF EXCESS RUNOFF

Existing flow into street = 2.43 cfs
Proposed flow into st. fr. BASIN A & B1.
= 0.68 + 1.38 = 2.06 cfs
∴ proposed < existing
OK
5.14

TOPO CERTIFICATION:

I, DENNIS A. LORENZ, HEREBY CERTIFY THAT I PERSONALLY INSPECTED THE SITE SHOWN ON THIS PLAN ON APRIL 3, 2014, AND AS OF THAT DATE IT APPEARED THAT NO FILLING, GRADING, OR EXCAVATION HAD OCCURRED THEREON SINCE COMPLETION OF THE TOPOGRAPHIC SURVEY USED TO PREPARE THIS PLAN.

AMENDED GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to Bernalillo County Storm Drainage Ordinance, this Amended Grading and Drainage Plan outlines the grading criteria for construction and the drainage management criteria for controlling developed runoff on and exiting the project site. A building addition is proposed on the existing 0.73-acre lot, with associated access, landscaping, drainage and utility improvements. This Plan is presented in support of a building permit application.

DRAINAGE MASTERPLANS

A Grading and Drainage Plan was submitted to support the original construction of the home (PWD 96-217). Development on this property is further governed by the ***Final Drainage Masterplan for North Albuquerque Acres (Masterplan)***, prepared by Resource Technologies, Inc., 1998.

EXISTING CONDITIONS

The 0.73-acre project site is presently developed. The site is located at 9100Florence Avenue NE, just west of Ventura Street NE. The site is bounded on the north by Florence Avenue, on the east and south by residential properties, and on the west by Ventura Street NE. All on-site drainage flows are managed by yard swales exiting the property on the north, through the existing driveway and man gate to Florence Avenue.

The following off-site drainage basins have minor impact on the site:

1. As shown by the ***Masterplan***, Basin OS-1 is a linear basin originating east of Holbrook Street NE. It peaks at approximately 193 cfs within a roadside swale along the north side of Florence Avenue. Since Florence is paved, and the site has solid perimeter walls along the north, this basin has no significant impact on this site.
2. The El Camino Arroyo is located approximately 700-feet south of the project site. As shown by the ***Masterplan***, the estimate peak 100 year flowrate is 660 cfs. Given the main channel is located south of Glendale Avenue NE, and that Glendale is paved, the El Camino Arroyo has no significant impact on this site.
3. Lot 2, located directly east of the site, drains north to Florence Avenue. The presence of a solid perimeter wall prevents off-site flows from entering the subject property.

As shown by the attached FIRM Panel, the property is located within a 500 year, Zone "X" Flood Zone.

PRPOSED CONDITIONS

As shown on the Plan, a building addition is proposed to the existing single-family residence, on an existing 0.73-acre County A-1 lot. The Plan proposed grading and drainage improvements to support construction of the building addition and related site improvements.

Drainage flows will be managed on-site by grading and drainage improvements recommended by this plan. All flows will drain around and away from proposed pad site with slopes not less than one percent. Care will be taken not to direct concentrated flows at downstream properties. All roof drains should discharge onto splash blocks to dissipate energy prior to release downstream.

As shown by the calculations, further development of the property will have negligible impact on downstream properties and improvements. The developed peak 100 year-6 hour flowrate and excess volume will increase slightly. A shallow landscaped depression will be provided in the southeast corner of the property (Basin B-2) to retain excess runoff exceeding the maximum developed flowrate allowed by the ***Masterplan***. This results in a net decrease of runoff exiting the site.

As required, the plan illustrates the location of the existing well and individual liquid waste system. The individual liquid waste system is located away from the proposed pond location and concentrated flows.

CALCULATIONS

The calculations contained herein define the 100-year/6-hour design storm falling within the project area under existing and developed conditions. The hydrology is per "Chapter 22, Development Process Manual, Vol. 2", 1997 Revision.

DRAINAGE PLAN NOTES

1. LDC recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. LDC assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes LDC to prepare the Certification, we must be notified PRIOR to placement of the fill.
6. LDC recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.
8. All spot elevations are top of pavement unless noted otherwise.

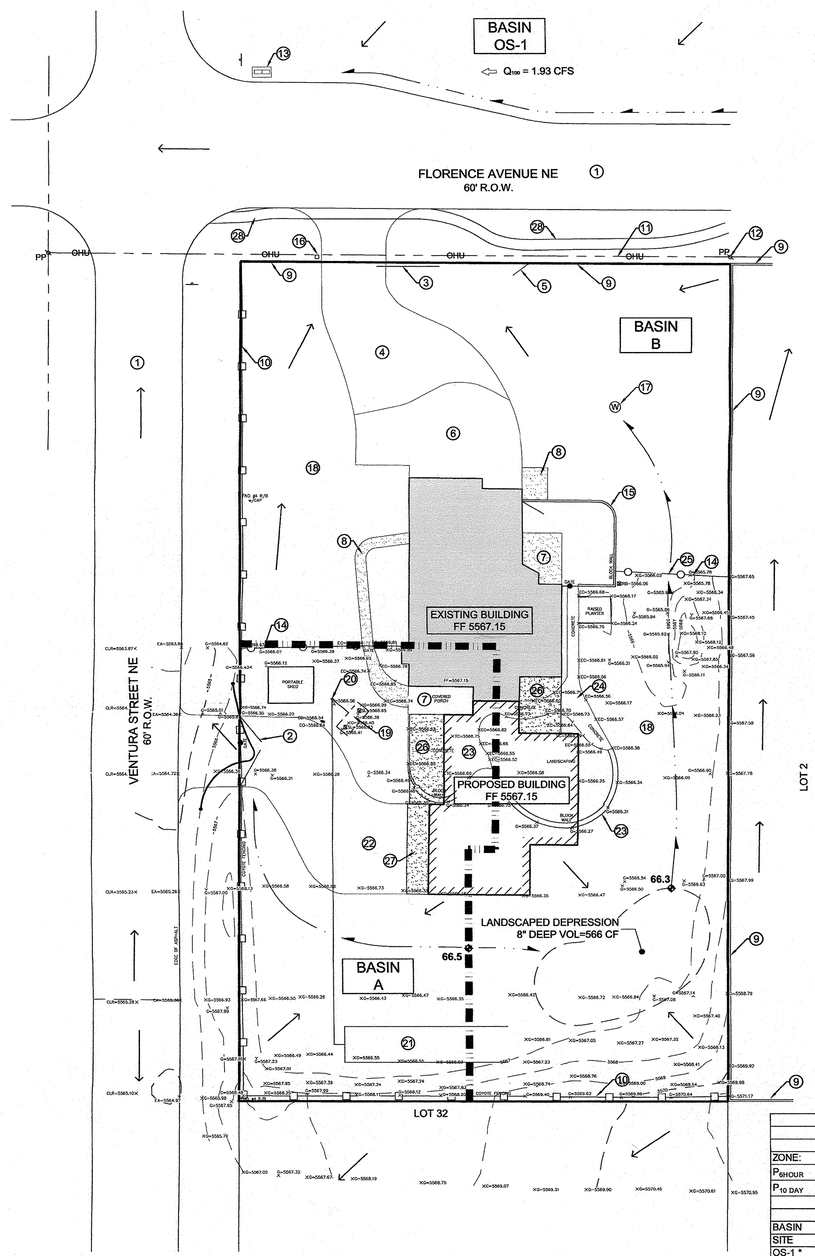
9100 FLORENCE AVENUE N.E.
AMENDED GRADING AND DRAINAGE PLAN

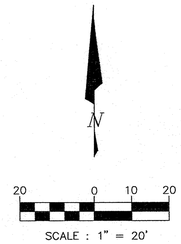
DENNIS A. LORENZ NEW MEXICO 9647 REGISTERED PROFESSIONAL ENGINEER

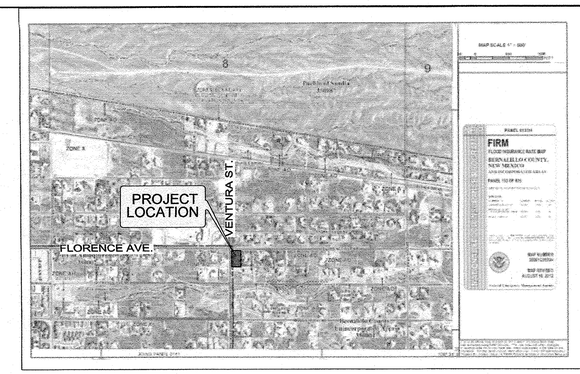
LORENZ DESIGN & CONSULTING, LLC
Civil Engineering | Construction Management
2501 Rio Grande Blvd NW, Suite A Albuquerque, New Mexico 87104
Ph: 505-888-8068 Fax: 505-242-6655

DRAWN BY: J.M.T	DATE: 05/19/2014
CHECKED BY: D.A.L	SHEET 1 OF 1
FILE: 14-007 G & D	

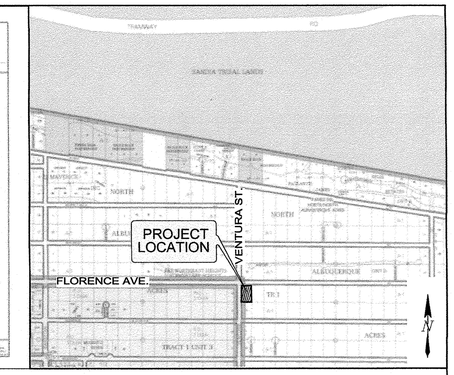
(saved electronically in Drainage File)







FIRM PANEL 35001C0141G



VICINITY MAP ZONE ATLAS B-20-Z

KEYED NOTES

1. EXISTING ASPHALT ROAD.
2. EXISTING SIDEYARD ACCESS GATE.
3. EXISTING FRONT GATE.
4. EXISTING GRAVEL DRIVE.
5. EXISTING MAN GATE.
6. EXISTING CONCRETE DRIVE.
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28. EXISTING ASPHALT RECREATION TRAIL.

PROJECT DATA

PROPERTY ADDRESS:

9100 FLORENCE AVENUE N.E.
ALBUQUERQUE, NM

LEGAL DESCRIPTION:

LOT 1, BLOCK, 20, TRACT 1, UNIT 3,
NORTH ALBUQUERQUE ACRES

PROJECT BENCHMARK:

CONTROL POINT CITY OF ALBUQUERQUE
STATION NO. "7-B20", NAVD 1988
ELEV. = 5,566.658'

SURVEY:

PROJECT SURVEYING BY
HARRIS SURVEYING, INC.
ALBUQUERQUE, NM 87110

PROJECT HYDROLOGY								
9100 FLORENCE NE								
ZONE:	3	AHYMO						
P_{6HOUR}	2.60							
$P_{10\ DAY}$	4.90							
EXISTING CONDITIONS								
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)
SITE	0.73	0.00	0.31	0.31	0.11	1.29	2.43	0.079
OS-1 *							193	
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OS-1 *							193	
NAA TEMPLATE**	0.73	0.31	0.15	0.15	0.12	1.12	2.09	0.068

* BASIN OS-1 PER THE "FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN"

** PER THE "FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN" THE SITE IS CLASSIFIED AS NORTH ABLUQUERQUE ACRES WITH THE FOLLOWING LAND TREATMENT PERCENTAGES: A=43%, B=20%, C=20%, D=17%

*** PROPOSED DEVELOPMENT EXCEEDS THE NAA THRESHOLD OF 0.068 ACRE FEET
A LANDSCAPED DEPRESSION WILL RETAIN 0.013 AC FT OR 566 CF OF EXCESS RUNOFF

AMENDED GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

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DRAINAGE MASTERPLANS

A Grading and Drainage Plan was submitted to support the original construction of the home (PWD 96-217). Development on this property is further governed by the ***Final Drainage Masterplan for North Albuquerque Acres (Masterplan)***, prepared by Resource Technologies, Inc., 1998.

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1. As shown by the ***Masterplan***, Basin OS-1 is a linear basin originating east of Holbrook Street NE. It peaks at approximately 193 cfs within a roadside swale along the north side of Florence Avenue. Since Florence is paved, and the site has solid perimeter walls along the north, this basin has no significant impact on this site.
2. The El Camino Arroyo is located approximately 700-feet south of the project site. As shown by the ***Masterplan***, the estimate peak 100 year flowrate is 660 cfs. Given the main channel is located south of Glendale Avenue NE, and that Glendale is paved, the El Camino Arroyo has no significant impact on this site.
3. Lot 2, located directly east of the site, drains north to Florence Avenue. The presence of a solid perimeter wall prevents off-site flows from entering the subject property.

As shown by the attached FIRM Panel, the property is located within a 500 year, Zone "X" Flood Zone.

PRPOSED CONDITIONS

As shown on the Plan, a building addition is proposed to the existing single-family residence, on an existing 0.73-acre County A-1 lot. The Plan proposed grading and drainage improvements to support construction of the building addition and related site improvements.

Drainage flows will be managed on-site by grading and drainage improvements recommended by this plan. All flows will drain around and away from proposed pad site with slopes not less than one percent. Care will be taken not to direct concentrated flows at downstream properties. All roof drains should discharge onto splash blocks to dissipate energy prior to release downstream.

As shown by the calculations, further development of the property will have negligible impact on downstream properties and improvements. The developed peak 100 year-6 hour flowrate and excess volume will increase slightly. A shallow landscaped depression will be provided in the southeast corner of the property to retain excess runoff exceeding the maximum developed flowrate allowed by the ***Masterplan.***

As required, the plan illustrates the location of the existing well and individual liquid waste system. The individual liquid waste system is located away from the proposed pond location and concentrated flows.

CALCULATIONS

The calculations contained herein define the 100-year/6-hour design storm falling within the project area under existing and developed conditions. The hydrology is per "Chapter 22, Development Process Manual, Vol. 2", 1997 Revision.

.247 cfs

TOPO CERTIFICATION:

I, DENNIS A. LORENZ, HEREBY CERTIFY THAT I PERSONALLY INSPECTED THE SITE SHOWN ON THIS PLAN ON APRIL 3, 2014, AND AS OF THAT DATE IT APPEARED THAT NO FILLING, GRADING, OR EXCAVATION HAD OCCURRED THEREON SINCE COMPLETION OF THE TOPOGRAPHIC SURVEY USED TO PREPARE THIS PLAN.

4.29.14

RECEIVED APR 30 2014 LAND DEVELOPMENT SECTION

LEGEND

ITEM	EXISTING	PROPOSED
CONTROL MONUMENT (AS NOTED)	△	
TELEPHONE RISER	T	
EX. EDGE OF PAVING		
PROPERTY LINE		
SPOT ELEVATION	× 75.5	01.5
CONTOUR W/ ELEVATION	5800	5800
BLOCK WALL		
COYOTE FENCE		
WOOD FENCE		
DRAINAGE BASIN DIVIDE		
DIRECTION OF FLOW		
DRAINAGE SWALE		
BUILDING HATCH		
CONCRETE HATCH		

OBS
Dennis Send a revised pdf

DRAINAGE PLAN NOTES

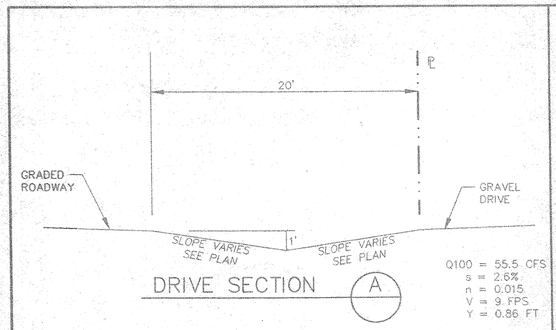
1. LDC recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. LDC assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes LDC to prepare the Certification, we must be notified PRIOR to placement of the fill.
6. LDC recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.
8. All spot elevations are top of pavement unless noted otherwise.

9100 FLORENCE AVENUE N.E.
AMENDED GRADING AND DRAINAGE PLAN

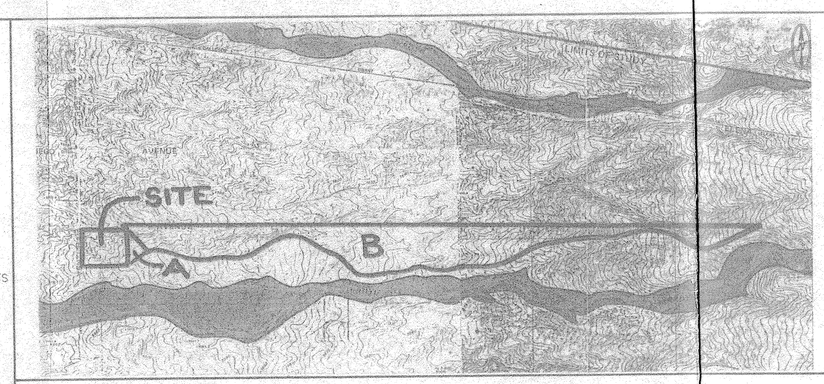
DENNIS A. LORENZ NEW MEXICO 9647 REGISTERED PROFESSIONAL ENGINEER

LORENZ DESIGN & CONSULTING, LLC
Civil Engineering | Construction Management
2501 Rio Grande Blvd NW, Suite A Albuquerque, New Mexico 87104
Ph: 505-888-6088 Fax: 505-242-6655

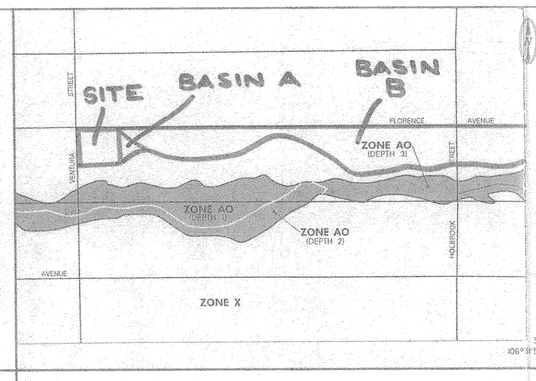
DRAWN BY: J.M.T	DATE: 04/29/2014
CHECKED BY: D.A.L.	SHEET 1 OF 1
FILE: 14-007 G & D	



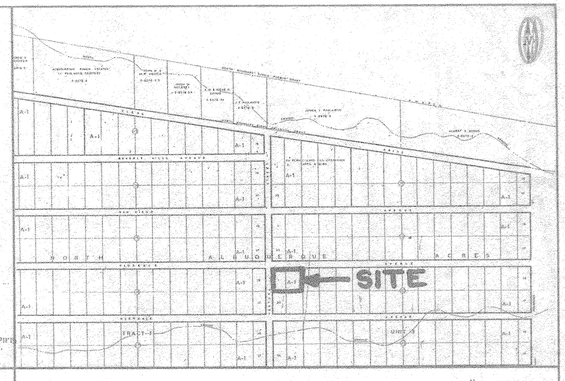
DRIVE SECTION (A)



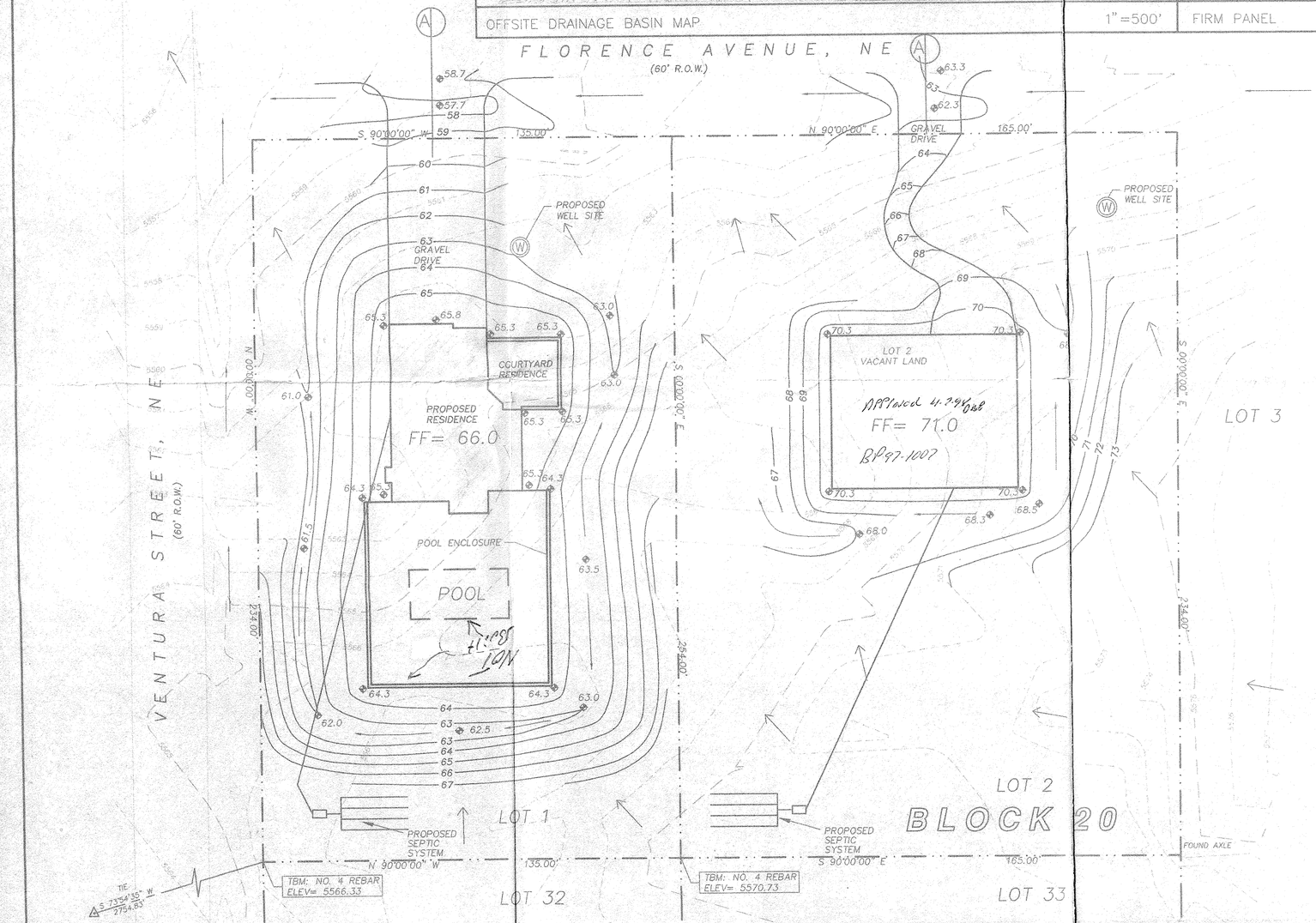
OFFSITE DRAINAGE BASIN MAP 1"=500'



FIRM PANEL 1"=500'



B-20 LOCATION MAP 1"=800'



NOTE:
NO PERIMETER FENCING IS PROPOSED BY THIS PLAN

1 inch = 20 ft.

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
INPUT FILE = 6019.DAT

RUN DATE (MON/DAY/YR) =12/04/1996
USER NO.= BRASHERNE.101

COMMAND	HYDROGRAPH IDENTIFICATION		FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
START											
RAINFALL TYPE= 1											
SEDIMENT BULK											
COMPUTE NM HYD	SITE	-	1		.00252	3.85	.11	.83105	1.500	2.367	PER IMP= .00
COMPUTE NM HYD	A	-	2		.00072	1.10	.03	.83105	1.500	2.404	PER IMP= .00
COMPUTE NM HYD	B	-	3		.03000	35.39	1.13	.83105	1.567	1.843	PER IMP= .00
COMPUTE NM HYD	SITE*	-	4		.00252	5.80	.19	1.37012	1.500	3.595	PER IMP= 17.00
COMPUTE NM HYD	A*	-	5		.00072	1.67	.05	1.37012	1.500	3.632	PER IMP= 17.00
COMPUTE NM HYD	B*	-	6		.03000	55.50	2.19	1.37012	1.567	2.890	PER IMP= 17.00
FINISH											

* DEVELOPED CONDITIONS

GRADING AND DRAINAGE PLAN

SCOPE

Pursuant to Bernalillo County Ordinance No. 90-6, Section 11.E, the Drainage Plan shown hereon outlines the drainage management criteria for controlling developed runoff on and exiting the project site. A single family home is proposed on each of the two lots included in the Plan, together with associated access, landscaping, and utility improvements.

EXISTING CONDITIONS

Presently the 1.61 acre site is undeveloped. The site is located at the southeast corner of Florence Avenue, NE and Ventura Street NE. The site is bounded on the east and south by undeveloped residential lots. It is bounded on the north by Florence Avenue, NE and on the west by Ventura Street NE. Both streets are unimproved dirt roads.

The site is well-vegetated with native grasses and shrubs. Site topography drains from southeast to northwest at slopes varying from 1% to 15%. All flow discharges from the site at the northwest corner of the site, where it freely runs across the Ventura Street/Florence Avenue intersection.

Offsite flows enter the site from the east (Basin "A"). Basin A is a very small basin (about half an acre). This study also examines flows in the roadside swale on the south side of Florence Avenue in order to size the driveway dip sections.

As shown by the attached Floodway Map, this site does not lie within a 100 year flood hazard zone.

PROPOSED CONDITIONS

As shown on the Plan, each lot will have a structure located approximately in the center of the lot. Flows from Basin A will continue to drain across the lots and discharge into the roadside swale on Florence Avenue. Flows will be directed around the homes via swales as shown. All roof drains will discharge onto splash blocks to dissipate energy prior to release downstream.

Driveways will contain 1-foot dip sections where they traverse the Florence Avenue roadside swale. The dip sections are sized to carry the 55.5 cfs flow generated by the 100 year-6 hour storm.

Locations of proposed septic drain fields and wells are shown on the plan. They have been positioned outside of concentrated flow areas.

No perimeter fencing is proposed on this plan.

CALCULATIONS

The calculations shown hereon define the 100-year/6 hour design storm falling within the project area under existing and developed conditions. the hydrology is per "Section 22.2, Part A, Development Process Manual, Vol 2," dated January, 1993. All flowrates include a 20 percent bulking factor.

```
*                6079\RUTLEDGE\FLORENCE & VENTURA (6019.DAT)
*                100-YEAR  6 HOUR RAINFALL
*
START                TIME=0.0 PUNCH CODE=0  PRINT LINE=0
RAINFALL             TYPE=1  RAIN QUARTER=0   RAIN ONE=2.20
                     RAIN SIX=2.65  RAIN DAY=3.05 DT=0.033333
SEDIMENT BULK        CODE=1  BULK FACTOR=1.2

* EXISTING CONDITION (ON SITE)
COMPUTE NM HYD       ID=1   HYD NO= SITE  DA=0.00252 SQ MI
                     PER A=100 PER B=0 PER C=0
                     PER D=0 TP=0.13HR MASSRAIN=-1
PRINT HYD            ID=1 CODE=5

* EXISTING CONDITION (OFF SITE)
COMPUTE NM HYD       ID=2   HYD NO= A DA=0.00071 SQ MI
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                     PER D=0 TP=0.13HR MASSRAIN=-1
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* EXISTING CONDITION (OFFSITE)
COMPUTE NM HYD       ID=3   HYD NO= B DA=0.03 SQ MI
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                     PER D=0 TP=0.18HR MASSRAIN=-1
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* DEVELOPED CONDITION (ON SITE)
COMPUTE NM HYD       ID=4   HYD NO= SITE* DA=0.00252 SQ MI
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* DEVELOPED CONDITION (OFF SITE)
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* DEVELOPED CONDITION (OFF SITE)
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                     PER D=17 TP=0.18HR MASSRAIN=-1
PRINT HYD            ID=6 CODE=5


FINISH
```

LEGEND

—— 6001 ——	EXISTING CONTOUR ELEVATION
02.5 ×	EXISTING SPOT ELEVATION
—— 01 ——	PROPOSED CONTOUR ELEVATION
—— · · ——	PROPERTY LINE
01.5 ◆	PROPOSED SPOT ELEVATION
←	DIRECTION OF FLOW
———	DRAINAGE SWALE
— — — —	DRAINAGE BASIN DIVIDE

PROPERTY ADDRESS

Florence Avenue NE

LEGAL DESCRIPTION

NAA, Tract 1, Unit 3, Block 20, Lots 1 and 2

PROJECT BENCHMARK

ACS Monument 1-B20, Elev. 5474

SURVEY

Topographic and Field Measurement by
Precision Surveys Inc.
Dated November, 1996

I, Dennis A. Lorenz, hereby certify that I personally inspected the site shown on this plan on November 8, 1995, and as of that date it appeared that no filling, grading, or excavation had occurred thereon since completion of the topographic survey used to prepare this plan.

DRAINAGE PLAN NOTES

1. BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. BLI assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
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6. BLI recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
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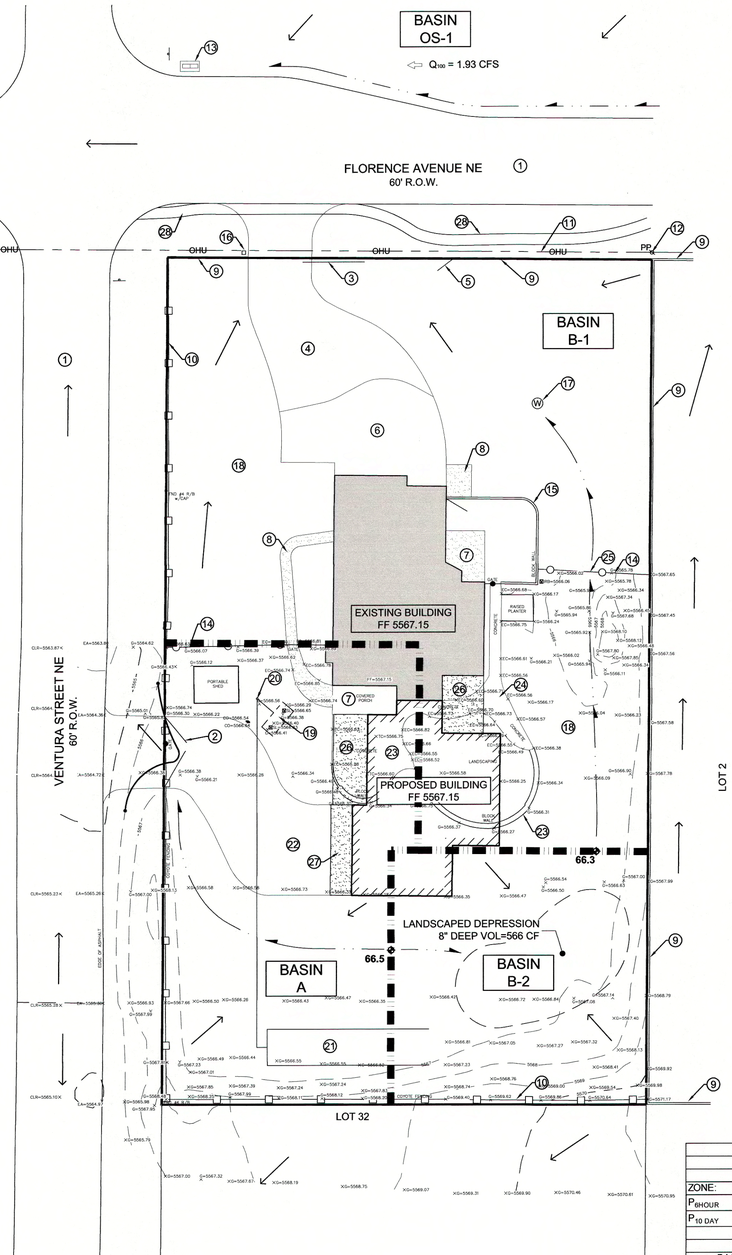
CUSTOM HOMES

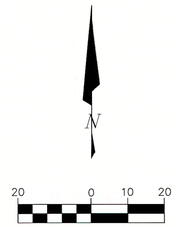
GRADING & DRAINAGE PLAN

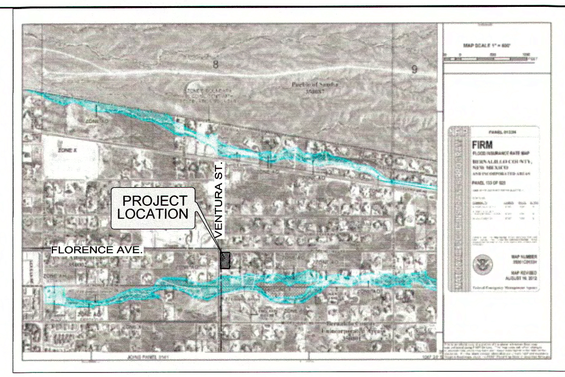
DENNIS A. LORENZ — NEW MEXICO — 6857 — REGISTERED PROFESSIONAL ENGINEER
12-9-96

BLI BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE Building 1 Suite 210
Albuquerque, New Mexico 87110
Ph: 505-888-6086 Fax: 505-888-6188

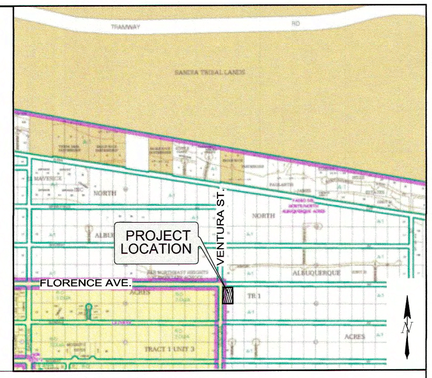
DRAWN BY: D.D.E.	DATE: NOVEMBER, 1996
CHECKED BY: D.A.L.	SHEET 1 OF 1
FILE: 6019G-D.DWG	







FIRM PANEL 35001C0141G



VICINITY MAP ZONE ATLAS B-20-Z

KEYED NOTES

1. EXISTING ASPHALT ROAD.
2. EXISTING SIDEYARD ACCESS GATE.
3. EXISTING FRONT GATE.
4. EXISTING GRAVEL DRIVE.
5. EXISTING MAN GATE.
6. EXISTING CONCRETE DRIVE.
7. EXISTING CONCRETE PATIO.
8. EXISTING CONCRETE SIDEWALK.
9. EXISTING 6' CMU BLOCK PERIMETER WALL.
10. EXISTING COYOTE FENCE.
11. EXISTING OVERHEAD UTILITIES.
12. EXISTING UTILITY POLE.
13. EXISTING NEIGHBORHOOD MAILBOX.
14. EXISTING WOOD FENCE.
15. EXISTING BLOCK WALL.
16. EXISTING UTILITY PEDESTAL.
17. EXISTNIG DOMESTIC WELL.
18. EXISTING LANDSCAPING.
19. APPROXIMATE LOCATION OF SEPTIC TANK.
20. NEW SEPTIC PUMP.
21. NEW SEPTIC LEACH FIELD.
22. NEW GRAVEL DRIVE.
23. REMOVE & DISPOSE CONCRETE PATIO AND GARDEN WALLS.
24. EXISTING CONCRETE WALK TO BE MODIFIED. COORDINATE WITH OWNER.
25. RAISE FENCE PICKETS 4-INCHES MINIMUM ABOVE GROUND FOR DRAINAGE.
26. NEW CONCRETE PATIO.
27. NEW CONCRETE GARAGE APRON.
28. EXISTING ASPHALT RECREATION TRAIL.

PROJECT DATA

PROPERTY ADDRESS:

9100 FLORENCE AVENUE N.E.
ALBUQUERQUE, NM

LEGAL DESCRIPTION:

LOT 1, BLOCK, 20, TRACT 1, UNIT 3,
NORTH ALBUQUERQUE ACRES

PROJECT BENCHMARK:

CONTROL POINT CITY OF ALBUQUERQUE
STATION NO. "7-B20", NAVD 1988
ELEV. = 5,566.658'

SURVEY:

PROJECT SURVEYING BY
HARRIS SURVEYING, INC.
ALBUQUERQUE, NM 87110

PROJECT HYDROLOGY

9100 FLORENCE NE

AHYMO

ZONE:	3
P_{6HOUR}	2.60
$P_{10\ DAY}$	4.90

EXISTING CONDITIONS

BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)
SITE	0.73	0.00	0.31	0.31	0.11	1.29	**2.43**	**0.079**
OS-1 *							**193**	

PROPOSED CONDITIONS

BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)
SITE ***	0.73	0.00	0.30	0.30	0.13	1.33	**2.47**	**0.081**
A	0.20	0.00	0.08	0.08	0.04	1.36	**0.68**	**0.023**
B	0.53	0.00	0.22	0.22	0.09	1.32	**1.78**	**0.058**
B-1	0.41	0.00	0.17	0.17	0.07	1.32	**1.38**	**0.045**
B-2	0.12	0.00	0.05	0.05	0.02	1.31	**0.40**	**0.013**
OS-1 *							**193**	
NAA TEMPLATE**	0.73	0.31	0.15	0.15	0.12	1.12	**2.09**	**0.068**

* BASIN OS-1 PER THE "FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN"

** PER THE "FINAL NORTH ALBUQUERQUE ACRES MASTER DRAINAGE PLAN" THE SITE IS CLASSIFIED AS NORTH ABLUQUERQUE ACRES WITH THE FOLLOWING LAND TREATMENT PERCENTAGES: A=43%, B=20%, C=20%, D=17%

*** PROPOSED DEVELOPMENT EXCEEDS THE NAA THRESHOLD OF 0.068 ACRE FEET A LANDSCAPED DEPRESSION WILL RETAIN 0.013 AC FT OR 566 CF OF EXCESS RUNOFF

AMENDED GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to Bernalillo County Storm Drainage Ordinance, this Amended Grading and Drainage Plan outlines the grading criteria for construction and the drainage management criteria for controlling developed runoff on and exiting the project site. A building addition is proposed on the existing 0.73-acre lot, with associated access, landscaping, drainage and utility improvements. This Plan is presented in support of a building permit application.

DRAINAGE MASTERPLANS

A Grading and Drainage Plan was submitted to support the original construction of the home (PWD 96-217). Development on this property is further governed by the ***Final Drainage Masterplan for North Albuquerque Acres (Masterplan)***, prepared by Resource Technologies, Inc., 1998.

EXISTING CONDITIONS

The 0.73-acre project site is presently developed. The site is located at 9100Florence Avenue NE, just west of Ventura Street NE. The site is bounded on the north by Florence Avenue, on the east and south by residential properties, and on the west by Ventura Street NE. All on-site drainage flows are managed by yard swales exiting the property on the north, through the existing driveway and man gate to Florence Avenue.

The following off-site drainage basins have minor impact on the site:

1. As shown by the ***Masterplan***, Basin OS-1 is a linear basin originating east of Holbrook Street NE. It peaks at approximately 193 cfs within a roadside swale along the north side of Florence Avenue. Since Florence is paved, and the site has solid perimeter walls along the north, this basin has no significant impact on this site.
2. The El Camino Arroyo is located approximately 700-feet south of the project site. As shown by the ***Masterplan***, the estimate peak 100 year flowrate is 660 cfs. Given the main channel is located south of Glendale Avenue NE, and that Glendale is paved, the El Camino Arroyo has no significant impact on this site.
3. Lot 2, located directly east of the site, drains north to Florence Avenue. The presence of a solid perimeter wall prevents off-site flows from entering the subject property.

As shown by the attached FIRM Panel, the property is located within a 500 year, Zone "X" Flood Zone.

PRPOSED CONDITIONS

As shown on the Plan, a building addition is proposed to the existing single-family residence, on an existing 0.73-acre County A-1 lot. The Plan proposed grading and drainage improvements to support construction of the building addition and related site improvements.

Drainage flows will be managed on-site by grading and drainage improvements recommended by this plan. All flows will drain around and away from proposed pad site with slopes not less than one percent. Care will be taken not to direct concentrated flows at downstream properties. All roof drains should discharge onto splash blocks to dissipate energy prior to release downstream.

As shown by the calculations, further development of the property will have negligible impact on downstream properties and improvements. The developed peak 100 year-6 hour flowrate and excess volume will increase slightly. A shallow landscaped depression will be provided in the southeast corner of the property (Basin B-2) to retain excess runoff exceeding the maximum developed flowrate allowed by the ***Masterplan.*** This results in a net decrease of runoff exiting the site.

As required, the plan illustrates the location of the existing well and individual liquid waste system. The individual liquid waste system is located away from the proposed pond location and concentrated flows.

CALCULATIONS

The calculations contained herein define the 100-year/6-hour design storm falling within the project area under existing and developed conditions. The hydrology is per "Chapter 22, Development Process Manual, Vol. 2", 1997 Revision.

TOPO CERTIFICATION:

I, DENNIS A. LORENZ, HEREBY CERTIFY THAT I PERSONALLY INSPECTED THE SITE SHOWN ON THIS PLAN ON APRIL 3, 2014, AND AS OF THAT DATE IT APPEARED THAT NO FILLING, GRADING, OR EXCAVATION HAD OCCURRED THEREON SINCE COMPLETION OF THE TOPOGRAPHIC SURVEY USED TO PREPARE THIS PLAN.

LEGEND

ITEM	EXISTING	PROPOSED
CONTROL MONUMENT (AS NOTED)	△	
TELEPHONE RISER	T	
EX. EDGE OF PAVING		
PROPERTY LINE		
SPOT ELEVATION	× 75.5	01.5 ◆
CONTOUR W/ ELEVATION	5800	5800
BLOCK WALL		
COYOTE FENCE		
WOOD FENCE		
DRAINAGE BASIN DIVIDE		
DIRECTION OF FLOW		
DRAINAGE SWALE		
BUILDING HATCH		
CONCRETE HATCH		

DRAINAGE PLAN NOTES

1. LDC recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. LDC assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes LDC to prepare the Certification, we must be notified PRIOR to placement of the fill.
6. LDC recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.
8. All spot elevations are top of pavement unless noted otherwise.

9100 FLORENCE AVENUE N.E.
AMENDED GRADING AND DRAINAGE PLAN

DENNIS A. LORENZ NEW MEXICO 9647 REGISTERED PROFESSIONAL ENGINEER 5.19.14

LORENZ DESIGN & CONSULTING, LLC
Civil Engineering I Construction Management
2501 Rio Grande Blvd NW, Suite A Albuquerque, New Mexico 87104
Ph: 505-888-6088 Fax: 505-242-6655

DRAWN BY: J.M.T	DATE: 05/19/2014
CHECKED BY: D.A.L.	SHEET 1 OF 1
FILE: 14-007 G & D	