



- ## 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.
 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 BLI to prepare the Certification, we must be notified PRIOR to placement of the fill.
 6. BLI 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.

GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of the construction of a 6,364-sf addition to the Immanuel Lutheran Church, located at 300 Gold SE, in Albuquerque, New Mexico. Proposed site improvements include paving, landscaping, utility, grading, and drainage improvements.

EXISTING CONDITIONS

The project site is approximately 0.70-acre in size and is located at 300 Gold Avenue Se, between Edith Boulevard and Arno Street Se. The site is presently an undeveloped dirt lot, currently being used for overflow parking and auxiliary uses. The property once consisted of single family residences that have since been torn down. The site is located east of the current Immanuel Lutheran Church, and north of an existing single family residence. A playground and basketball court are located immediately south the proposed building addition. The proposed parking lot site is currently used as irrigated open space.

Site topography slopes from east to west at approximately 3.5-percent. The improved perimeter streets divert all off-site storm water runoff. On-site flows drain westward to the vacated alley, which conveys runoff south to Silver Avenue. The parking lot site also drains southward to Silver Avenue. The existing church buildings drain north and east to Gold Avenue and Arno Street. The existing building located due west from the building adding site drains east to the vacated alley. A portion of the existing gymnasium drains onto the proposed parking lot site.

As shown by the attached FIRM Panel, this site is not impacted by a mapped Flood Hazard Zone. ✓

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the construction of a 6,364-sf building addition and remote parking lot, with associated site improvements. The Plan shows the elevations and detail necessary to properly grade and construct the required paving and drainage improvements. Flow arrows give the direction of drainage flows and the project hydrology is tabulated for both existing and proposed conditions.

As shown by the Plan, the storm will discharge all developed runoff to the existing perimeter streets. The perimeter streets convey all excess runoff to existing public drop inlets and 72-inch storm drain located at Broadway Boulevard SE. On-site flows from the existing Church buildings will be accepted by the proposed site improvements and conveyed to the project outfall points. As shown by the Plan, Basin "A" and Basin "B" which consists mainly of the building addition will drain through curb penetrations to Gold Avenue and Edith Blvd. Basin "C" drains south to Silver, and Basin "D" drains through a new crevice to Silver.

Since this is an infill site free discharge of developed runoff is considered appropriate. As shown by the Project Hydrology the calculated increase in peak flowrate to be discharged from the site is 0.2 cfs. The calculated increase in volume is 706 cubic feet.

EROSION CONTROL

Since the disturbed area is determined to be less than 1.0-acre a Storm Water Pollution Prevention Plan and Notice of Intent are not required. However, temporary erosion control will be required during the construction phase to protect downstream property and improvements from sediment and uncontrolled runoff. This Plan recommends the placement of silt fencing along the construction boundaries to mitigate sediment deposition into the adjoining properties and public streets. It is the Contractor's responsibility to properly maintain these facilities during the construction phase of the project.

CALCULATIONS

Calculations are provided which define the 100-year/6 hour design storm falling with the project area under existing and proposed condition. Hydrology is per "Section 22.2, Part A, DPM, Vol 2" updated July 1997.

ZONE = 2 P360 = 2.36"									
EXISTING									
BASIN	A	As	Ab	Ac	Ad	E	V 360	Q 360	
A	0.11	0.00	0.00	0.11	0.00	1.13	0.0104	0.4	
B	0.03	0.00	0.00	0.03	0.00	1.13	0.0028	0.1	
C	0.84	0.00	0.00	0.74	0.10	1.25	0.0574	2.8	
D	0.24	0.00	0.18	0.00	0.06	1.12	0.0224	0.7	
SITE	1.22	0.00	0.18	0.88	0.16	1.21	0.1229	4.0	
DEVELOPED BASIN									
BASIN	A	As	Ab	Ac	Ad	E	V 360	Q 360	
A	0.11	0.00	0.00	0.02	0.09	1.92	0.0178	0.5	
B	0.03	0.00	0.00	0.00	0.03	2.12	0.0053	0.1	
C	0.84	0.00	0.00	0.65	0.13	1.26	0.0582	2.8	
D	0.24	0.00	0.00	0.18	0.06	1.38	0.0276	0.8	
SITE	1.22	0.00	0.06	0.85	0.37	1.31	0.1391	4.0	

COMPARISON

$\Delta Q = + 0.2 \text{ CFS}$
 $\Delta \text{VOL} = + 0.0162 \text{ AF}$
 $= 706 \text{ CF}$

DRAINAGE PLAN NOTES



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REVISIONS

No.	DATE	DESCRIPTION

SHEET TITLE:
GRADING & DRAINAGE
DETAILS

DESIGNED:	SCALE:
CHECKED:	JOB NO: 0355
DATE: 05-11-04	COMP. FILE:

C0.2

GRADING & DRAINAGE DETAILS