

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

July 15, 2025

David B. Thompson, P.E.
Thompson Engineering Consultants, Inc.
PO Box 65760
Albuquerque, NM 87193

RE: Solare Collegiate Charter School
8801 Gibson Blvd SW
99999 Barbados Ave SW
Permanent C.O. – Phase 3.1 – Accepted
Engineer's Certification Date: 7/8/25
Engineer's Stamp Date: 9/16/24
Hydrology File: M09D031
Case # HYDR-2025-00249

PO Box 1293

Dear Mr. Thompson:

Albuquerque

Based on the Certification received 7/10/2025 and site visit on 7/14/2025, this letter serves as an approval from the Hydrology Section for Phase 3.1 of the Solare Collegiate Charter School for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

NM 87103

If you have any questions, please contact me at 505-924-3314 or amontoya@cabq.gov.

www.cabq.gov

Sincerely,

Anthony Montoya, Jr., P.E.
Senior Engineer, Hydrology
Planning Department, Development Review Services

GENERAL NOTES

- A. ALL DIMENSIONS ARE FACE OF CURB UNLESS OTHERWISE NOTED.
B. FIELD VERIFY ALL DIMENSIONS.
C. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, REQUEST CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.

POND 3

V AVAIL = 2,803 CU-FT
V REQ'D = 2,784 CU-FT

BASIN PRO 1

Q100 = 2.43 CU-FT/SEC
Area = 30,821 sf

BASIN PRO 3

Q100 = 10.37 CU-FT/SEC
Area = 124,411 sf

BASIN PRO 2

Q100 = 1.91 CU-FT/SEC
Area = 24,250 sf

POND 2

V AVAIL = 2,311 CU-FT
V REQ'D = 2,314 CU-FT

POND 1

V AVAIL = 4,946 CU-FT
V REQ'D = 4,897 CU-FT
WQ VOLUME = 2,644 CU-FT

12" STORM DRAIN

UNDERGROUND
ROOF DRAIN
LEADER TO 24" SD

4' SD MH

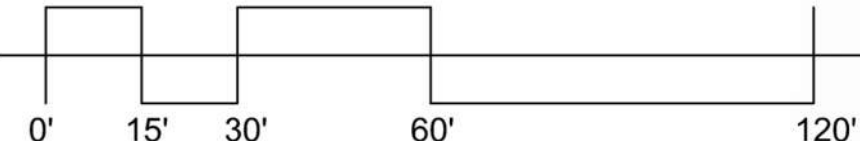
24" STORM DRAIN
FROM WEST
CAPPED AT
PROPERTY LINE

Certification only
applies to Phase 3.1

A1

DEVELOPED DRAINAGE PLAN

SCALE: 1" = 30'-0"



VI. PROPOSED DRAINAGE CONDITIONS

THE NEW BUILDINGS WILL ADD A TOTAL OF 17,180SF OF NEW ROOF. NEW SIDEWALKS, BASKETBALL COURT AND PARKING WILL ADD 16,614SF OF NEW IMPERVIOUS. THIS WILL REQUIRE AN ADDITIONAL 957 CUBIC FEET OF NEW WATER QUALITY VOLUME (BASED ON 0.34" OF RAIN FOR NEW IMPERVIOUS SURFACES).

WITH THE CREATION OF THE SOMBRA DEL OESTE SUBDIVISION TO THE WEST, THERE WILL BE A SIGNIFICANT REDUCTION IN FLOW RATE ENTERING THE EXISTING STORMWATER MANAGEMENT POND LOCATED AT THE CORNER OF GIBSON BOULEVARD AND BARBADOS AVE., SW. CURRENTLY THERE IS A 24" STORM DRAIN PIPE THAT CONVEYS 25.9-CFS IN THE PEAK CONDITION FROM A TEMPORARY POND THAT WILL BE ELIMINATED. THIS FLOW DID NOT ENTER THE DETENTION POND AT THE SE CORNER OF THE SITE. EXCESS RUNOFF WAS ALLOWED TO PASS AND FLOWED DIRECTLY INTO THE CITY STORM SYSTEM.

THE NEW PEAK RUNOFF RATE FOR THE FULLY DEVELOPED SITE WILL INCREASE FROM 12.94 TO 14.95 CFS FOR THE 100-YEAR, 6-HOUR EVENT. AS MENTION ABOVE THE POND AT THE SE CORNER WILL NOW HAVE LESS FLOW RATE (REMOVING 25.9-CFS) ENTERING THAT OCCURRED HISTORICALLY.

THIS WILL GENERATE AVAILABLE VOLUME WITHIN THE STORM POND FOR BOTH INCREASE IN PEAK RUNOFF RATES AND VOLUME, BUT ALSO TO STORM THE REQUIRED WATER QUALITY VOLUME.

PRIOR PHASES OF THE SITE DID NOT INCLUDE PROVISIONS FOR CONVEYING STORM RUNOFF FROM THIS PHASE. TO COMPENSATE, A SHALLOW PONDING AREA WILL NEED TO BE CREATED NEAR THE BASKETBALL COURT. THIS WILL ACT AS A DETENTION POND FOR THE RUNOFF FROM THE CURRENT COURTYARD AND THE NEW BASKETBALL COURT. A 12" PVC DRAIN LINE WILL CONVEY EXCESS RUNOFF AROUND THE ADDITION FOR 4 CLASSROOMS AND WILL CONNECT INTO THE 24" SD LINE ALONG GIBSON.

NEW ROOFS WILL ALL DRAIN AWAY FROM THE COURTYARD. THE SOUTHERN BUILDING WILL DISCHARGE INTO AN EXISTING SWALE ALONG GIBSON. THIS SWALE DRAINS TO THE EXISTING POND LOCATED AT THE SE CORNER OF THE PROJECT SITE.

NORTHERN BUILDINGS WILL HAVE THE ROOFS DIRECTING WATER TO A SWALE ALONG THE NORTHERN SIDE OF THE SITE. A NEW SHALLOW PONDING AREA WILL BE CREATED BETWEEN THE KINDERGARTEN BUILDING AND THE NEW PARKING LOT TO HARVEST SOME OF THE RUNOFF. A SIDEWALK CULVERT WILL ALLOW THE EXCESS RUNOFF FROM THE POND TO ENTER THE NEW PARKING LOT. THE SITES NATURAL SLOPE IS TO THE SE, AND THE RUNOFF WILL BE DIRECTED TO THE LARGE POND.

VII. CONCLUSIONS

THE PRIOR SITE PLANS INCLUDED RUNOFF FROM THE PARCEL TO THE WEST. THE CREATION OF THE SOMBRA DEL OESTE SUBDIVISION HAS ELIMINATED THE OFFSITE FLOWS THAT FORMERLY ENTERED THE PROJECT SITE. OFFSITE FLOW ACCOUNTED FOR 25.9CFS (ACCORDING TO THE DMG PLANS). THE CURRENT DESIGN IS SHOWING AN OVERALL REDUCTION IN ON-SITE FLOWS DUE TO ADDITIONAL PONDING AREAS.

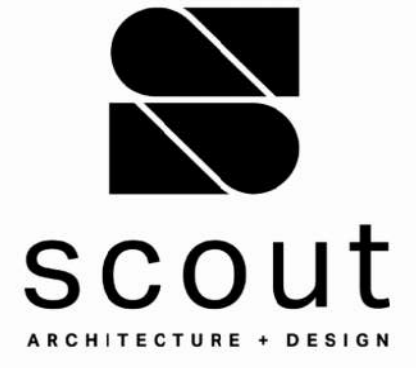
LEGEND

- PROPERTY LINE
EASEMENT

Drainage Summary				
Project:	Solare Collegiate Charter School			
Project Number:	TEC Solare			
Date:	08/02/24			
By:	MTD			
Site Location				
Precipitation Zone	1 Per COA DPM Chapter 6			
Existing summary				
Basin Name	Ex Basin 1			
Area (sf)	179492			
Area (acres)	4.12			
%A Land treatment	0			
%B Land treatment	50			
%C Land treatment	0			
%D Land treatment	50			
Soil Treatment (acres)				
Area "A"	0.00			
Area "B"	2.06			
Area "C"	0.00			
Area "D"	2.06			
Excess Runoff (acre-feet)				
100yr. 6hr.	0.5089	acre-ft.		
10yr. 6hr.	0.2901	acre-ft.		
2yr. 6hr.	0.1597	acre-ft.		
100yr. 24hr.	0.5648	acre-ft.		
Peak Discharge (cfs)		cfs		
100 yr.	12.94	cfs		
10yr.	6.95	cfs		
2yr.	3.25	cfs		
Proposed summary				
Basin Name	Pro Basin 1	Pro Basin 2	Pro Basin 3	
Area (sf)	30521	24250	124411	
Area (acres)	0.708	0.557	2.855	
%A Land treatment				
%B Land treatment	35	35	25	
%C Land treatment				
%D Land treatment	65	65	75	
Soil Treatment (acres)				
Area "A"	0.00	0.00	0.00	
Area "B"	0.25	0.19	0.71	
Area "C"	0.00	0.00	0.00	
Area "D"	0.45	0.36	2.14	
Excess Runoff (acre-feet)				
100yr. 6hr.	0.1109	0.0794	0.4433	acre-ft.
10yr. 6hr.	0.0602	0.0473	0.2707	acre-ft.
2yr. 6hr.	0.0325	0.0279	0.1448	acre-ft.
100yr. 24hr.	0.1193	0.0839	0.5290	acre-ft.
100yr. 10day	0.1672	0.1356	0.7521	acre-ft.
Peak Discharge (cfs)				
100 yr.	2.43	1.91	10.37	cfs
10yr.	1.38	1.09	6.08	cfs
2yr.	0.72	0.57	3.36	cfs
Water Quality Ponding Volume (cf)	587.6	445.6	2843.7	cf
Water Quality Acre Feet	0.0133	0.0103	0.0657	acre-ft.

Pond Routing and Volumes		Pond 1	Pond 2	Ex. Pond	
Incoming Flow Rate	Qin	2.43	1.78	11.62	cfs
Allowable Discharge Rate	Qout	0.6	0.556	6.5	cfs
Hydrology Zone		1	1		per Figure A-1
Area Total	At	0.708	0.557	2.855	acres
Area Type A	Aa	0	0	0	%
Area Type B	Ab	35	47	25	%
Area Type C	Ac	0	0	0	%
Area Type D Impervious	Ad	65	53	75	%
Excess runoff rates	A	0.55	0.55	0.55	
	B	0.73	0.73	0.73	
	C	0.95	0.95	0.95	
	D	2.24	2.24	2.24	
Weighted E (Excess Runoff)		1.71	1.53	1.86	
Time of Concentration		0.2	0.2	0.2	hours
Time to Peak	t _p = (t _c + 0.6Ad)/V ^{0.12}	0.219	0.229	0.211	hours
Time of Base		0.888	0.875	0.828	hours
Duration of Peak		0.163	0.132	0.180	hours
Time to end of peak		0.382	0.361	0.380	hours
Time when storage begins		0.054	0.007	0.100	hours
Time when storage ends		0.763	0.859	0.563	hours
Time incoming is less than discharge					
Volume Required during storm	acre-inch	0.767	0.842	1.374	acre inch
Volume Required during storm	cf	2784	3057	4986	cubic feet
Volume Stored in Pond during storm	cf	2893	2311	4940	cubic feet

Thompson Engineering Consultants, Inc.
tec@tmc.com
P.O. BOX 65750 ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199 FAX: (505) 830-9245



ARCHITECT/ENGINEER



SOLARE COLLEGIATE
CHARTER SCHOOL

8801 GIBSON BLVD SW
ALBUQUERQUE, NM 87121

CONSTRUCTION DOCUMENTS

REVISION DATE

DATE 9-12-24

PROJECT NO

DEVELOPED
DRAINAGE
PLAN

SHEET NO.

CD-2



SOLARE COLLEGIATE
CHARTER SCHOOL

8801 GIBSON BLVD SW
ALBUQUERQUE NM 87121

CONSTRUCTION
DOCUMENTS

REVISION	DATE
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DATE 9-12-24

PROJECT NO. _____

SITE GRADING PLAN

SHEET NO.


C201

City of Albuquerque
Planning Department
Development Review Services

HYDROLOGY SECTION

APPROVED

DATE: 10-10-2024

BY: 

HydroTrans # M09D031A

THE APPROVAL OF THIS STATEMENT SHALL NOT BE
CONSIDERED TO PERMIT VIOLATIONS OF ANY CITY
ORDINANCE OR ANY OTHER CITY OR STATE LAW,
CORRECTION OF, OR ORDER OF, THE CITY OF ALBUQUERQUE
SPECIFICATIONS, OR CONSTRUCTIONS, SUCH APPROVED PLANS
SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT
AUTHORIZATION.

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROVAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.

Grading and Drainage Cert.(M09D031A

I, David B. Thompson, NMPE 9677, of the firm Thompson Engineering Consultants, INC. (TEC), hereby certify that the Grading and Drainage Improvements for Solare Charter School located at 8801 Gibson Boulevard, SW is in substantial compliance with and in accordance with the design intent of the Grading and Drainage Plans dated 9-16-2014. I certify that I have personally visited the project site on July 8, 2025 and have determined by visual inspection that the actual site conditions shown on this plan to be true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy for Phase 3.1 of the building located at 8801 Gibson Boulevard, SW. A separate submittal for CO will be provided for the remainder of the campus that is still under construction.

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



LEGEND

_____	PROPERTY LINE
_____	EASEMENT
TSW	TOP OF SIDEWALK
FL	FLOWLINE
INV	INVERT
TOW	TOP OF WALL (FINISHED GRADE)
BOW	BOTTOM OF WALL (FINISHED GRADE)

Certification only
applies to Phase 3.1

3.1 GIBSON BOULEVARD S.W.


(124' R/W)



A1

SITE GRADING PLAN

SCALE: 1" = 30'-0"



P.O. BOX 65760 PHONE: (505) 271-2111
ALBUQUERQUE, NM 87193 FAX: (505) 830-9211