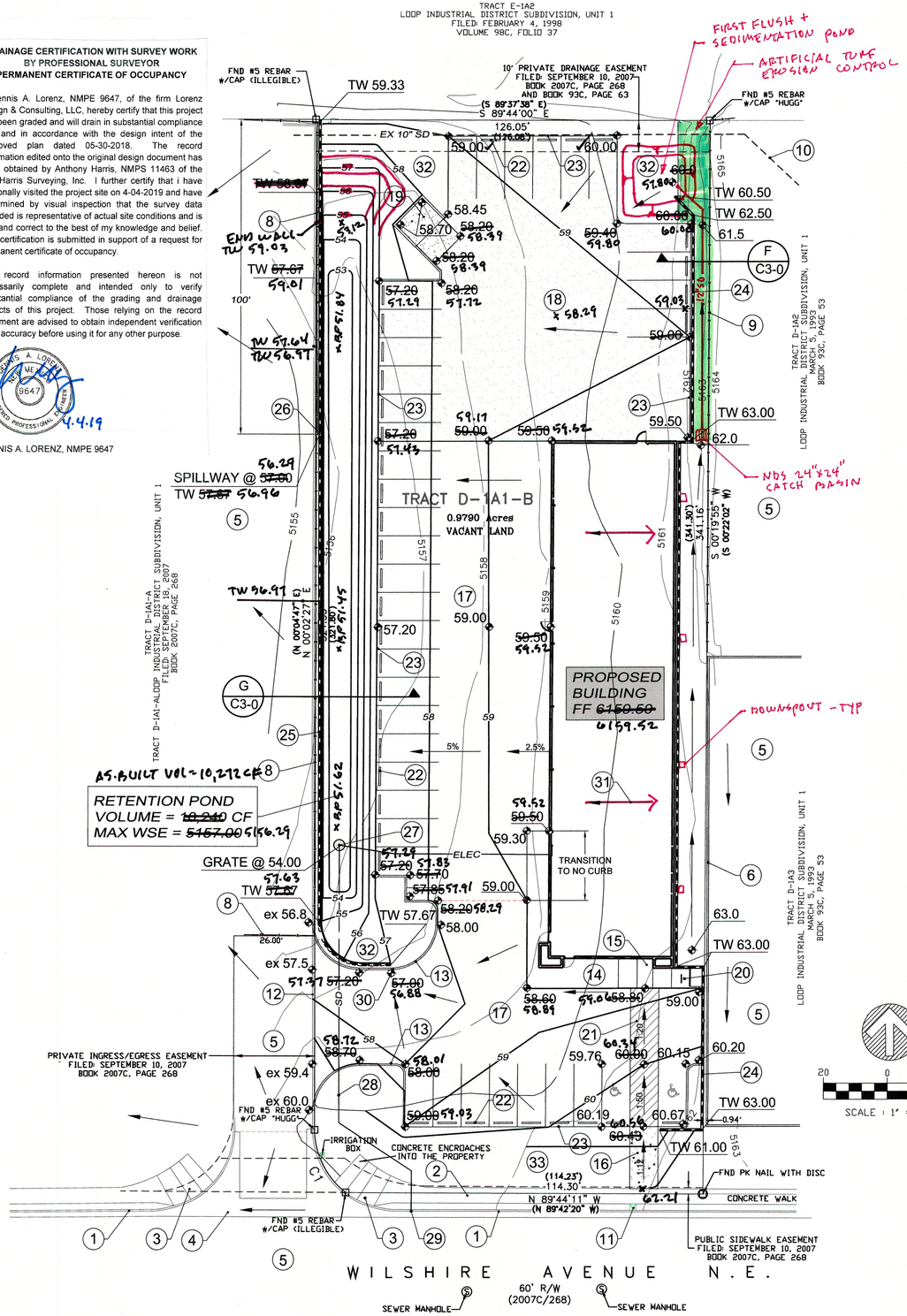
DRAINAGE CERTIFICATION WITH SURVEY WORK
BY PROFESSIONAL SURVEYOR
PERMANENT CERTIFICATE OF OCCUPANCY

I, Dennis A. Lorenz, NMPE 9647, of the firm Lorenz Design & Consulting, LLC, hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 05-30-2018. The record information edited onto the original design document has been obtained by Anthony Harris, NMPS 11463 of the firm Harris Surveying, Inc. I further certify that i have personally visited the project site on 4-04-2019 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is 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.

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

DENNIS A. LORENZ, NMPE 9647



GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to the 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 design and comstruction of the Silver Star Auto Haus, located at 5111 Wilshire Avenue NE. The project includes a 6,000 square foot building with paving, landscaping, utility, grading, and drainage improvements to support the project. The purpose of this Plan is to support site development plan and building permit approval. The scope of this plan is to present grading and drainage criteria for the safe management of excess runoff impacting the site from upstream drainage basins, and controlling excess runoff from the project site in a well-managed, non-erosive manner.

EXISTING CONDITIONS

The property is located at 5111 Wilshire Avenue NE, between Jefferson Street and San Mateo Blvd NE. The site is presently undeveloped. Site topography slopes to the west. The site presently drains west onto Tract D-1A1 where excess runoff flows overland wihtin the paved parking lot to an existing private detention pond located at the northwest corner of Tract D-1A1. The pond was constructed with the development of Tract D-1A1 in accordance with the approved Grading and Drainage Plan for Tracts D-1A1 and D-1A2, prepared by Easterling & Associates, 1994. The pond drains at a controlled rate of 13.2 cfs to an existing public drainage system located in Jefferson Street NE. Per the approved plan, the project site was allowed to free discharge to the detention pond. Properties to the east drain either south to Wilshire Avenue, or north to the detention pond by an existing 10-inch private storm drain. No off site flows impact the site. As shown by the attached FIRM Panel the site does not lie within a mapped 100 year Flood Zone.

PROPOSED IMPROVEMENTS

As stated above, the project consists of the construction of a 6,000 square foot building with paving, landscaping, utility, grading, and drainage improvements. Although the approved Grading and Drainage Masterplan for the property allows free discharge across Tract D-1A1 to the existing detention pond, no drainage easements exist giving the site leagal permission to drain to the pond. The property owner has been unable to obtain a drainage easement, therefore, the developed site will retain the 100 year-10 day volume within a linear pond located along the west side of the site. The pond will evacuate by a sump pump designed to drain the pond within 24 hours. The pump discharge line will drain to Wilshire Avenue by a curb penetration.

First flush storage will be attained within the retention pond by elevating the pond outlet 1-foot above the pond bottom.

Construction will disturb an area of less than 1.0 acres; therefore a Storm Water Pollution Prevention Plan will not be required.

CALCULATIONS

The calculations shown hereon define the 100-year/6 hour design storm falling within the project area under existing and proposed conditions. The hydrology is per "Section 22.2, Part A, Development Process Manual, Vol 2", dated June 1997.

ZONE:	2	PROJECT HYDROLOGY
P_{6HOUR}	2.35	SILVER STAR AUTO HAUS
$P_{10\ DAY}$	3.95	AHYMO

EXISTING CONDITIONS									
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)	10 Day VOL (ac ft)
SITE	0.98	0.00	0.00	0.97	0.01	1.14	3.09	0.093	0.094

PROPOSED CONDITIONS									
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)	10 Day VOL (ac ft)
SITE	0.98	0.00	0.15	0.15	0.68	1.76	4.01	0.144	0.235

FIRST FLUSH CRITERIA

By ordinance the site is required to retain the 90th percentile rainfall depth. In order to comply with this criterion, where practical, all surface areas will be routed through landscaped areas before release to downstream public drainage facilities. The proposed plan will rout runoff through a permanent retention pond with flush storage. Storage in excess of the 90th percentile rainfall will be provided as illustrated below.

90th percentile depth	0.44"
Less initial abstraction	0.10"
Total retained depth	034"

Site Area Type D = 0.68 ac.
Storage requirement = Ad(0.34") = 0.68 ac(43,560 sf/ac)(0.34"/12"/ft) = 839 cf

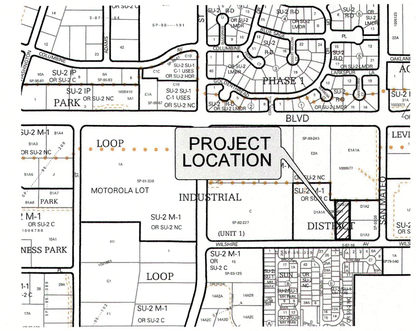
First flush storage to be provided within the retention pond, below the inlet grate elevation of 5154.00.

Total first flush volume within pond = 0.032 ac(43,560sf/ac)(1.0")=1,394 cf

IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DRAINAGE ORDINANCE, EFFECTIVE MAY 12, 2014, ALL NEW DEVELOPMENT PROJECT S ARE REQUIRED TO MANAGE THE RUNOFF WHICH OCCURS DURING THE 90TH PERCENTILE STORM EVENT. IN ORDER TO COMPLY WITH THIS CRITERIA, WHERE PRACTICAL, ALL SURFACE DRAINAGE SHALL BE ROUTED THROUGH LANDSCAPED AREAS BEFORE RELEASE INTO DOWNSTREAM DRAINAGE FACITLITIES. THIS PLAN RECOMMENDS ALL LANDSCAPED AREAS BE DEPRESSED A MINIMUM OF 3-INCHES BELOW THE ADJACENT PAVED SURFACE TO RETAIN THE FIRST FLUSH RUNOFF.

KEYED NOTES

1. *EXISTING CONCRETE CURB.*
2. *EXISTING CONCRETE SIDEWALK.*
3. *EXISTING HANDICAP RAMP.*
4. *EXISTING CONCRETE VALLE GUTTER.*
5. *EXISTING ASPHALT PAVEMENT.*
6. *EXISTING BLOCK WALL.*
7. *EXISTING 6' CHAIN LINK FENCE.*
8. *REMOVE AND SALVAGE EXISTING 6' CHAIN LINK FENCE.*
9. *EXISTING WIRE FENCE IN DISREPAIR. COORDINATE REPAIR WITH ADJACENT PROPERTY OWNER.*
10. *EXISTING PRIVATE 10" STORM DRAIN.*
11. *EXISTING WATER METER.*
12. *REM & DISPOSE EXISTING CONCRETE CURB ACROSS NEW ENTRY.*
13. *CONSTRUCT 6" CONCRETE CURB. SEE SHEET C-3.0.*
14. *CONSTRUCT TURNDOWN SIDEWALK. SEE SHEET C-3.*
15. *CONSTRUCT HANDICAP RAMP. SEE SHEET C-3.*
16. *CONSTRUCT 8' WIDE CONCRETE SIDEWALK AT 1:12.*
17. *CONSTRUCT ASPHALT PAVEMENT. SEE SHEET C-3.*
18. *CONSTRUCT GRAVEL SURFACING. SEE SHEET C-3.*
19. *CONSTRUCT REFUSE ENCLOSURE. SEE SITE PLAN.*
20. *INSTALL BICYCLE RACK. SEE SITE PLAN.*
21. *INSTALL HANDICAPPED PARKING STRIPING AND SIGNAGE. SEE SITE PLAN.*
22. *INSTALL CONCRETE TIRE STOPS AT ALL PARKING SPACES.*
23. *EDGE OF PAVEMENT. NO CURBING.*
24. *CONSTRUCT RETAINING WALL ALONG EAST PROPERTY LINE. SEE SHEET C-3.*
25. *CONSTRUCT RETAINING WALL ALONG WEST PROPERTY LINE. SEE SHEET C-3.*
26. *CONSTRUCT POND OVERFLOW SPILLWAY. SEE SHEET C-3.*
27. *INSTALL STORM INLET WITH SUMP PUMP AND ELECTRIC SUPPLY. SEE DETAIL K/C-3.*
28. *POND PUMP DISCHAGE LINE.*
29. *CONSTRUCT 3" CURB PENETRATION. SEE COA STD DWG 2235. SEE NOTICE TO CONTRACTOR ON SHEET C-3.*
30. *PROVIDE 12" CURB BLOCKOUT FOR DRAINAGE.*
31. *DIRECTION OF ROOF DRAINAGE.*
32. *NEW LANDSCAPING. SEE LANDSCAPE PLAN.*
33. *EXISTING LANDSCAPING TO REMAIN. SEE LANDSCAPE PLAN.*



LOCATION MAP C-17-Z NTS

FIRM PANEL 35001C0137H NTS

LEGEND

ITEM	EXISTING	PROPOSED
PROPERTY LINE		
SPOT ELEVATION	× 75.5	01.5 ◆
CONTOUR W/ ELEVATION	5800	5800
DIRECTION OF FLOW		
RIDGE LINE		
SLOPE GRADING		3 : 1
TOP CURB/FLOWLINE	EX TC 75.75 / EX FL 75.25	TC 75.75 / FL 75.25
TOP WALL/FINSIH GRADE	EX TW 75.75 / EX FG 75.25	TW 75.75 / FG 75.25
CONCRETE CURB		
BLOCK WALL		
RETAINING WALL		
STORM DRAIN	84" SD	24" SD
UTILITY POLE	PP	
WATER METER	WM	
SEWER MANHOLE	S	
IRRIGATION BOX		
DRAINAGE RIDGE LINE		
VERIFIED SPOT ELEV		◆59.25 59.23

PROJECT DATA

PROPERTY ADDRESS:

5111 WILSHIRE AVE NE
ALBUQUERQUE, NEW MEXICO

LEGAL DESCRIPTION:

TRACT D-1A1-B
LOOP INDUSTRIAL DISTRICT SUBDIVISION
ALBUQUERQUE, NEW MEXICO

SURVEY:

ALL PROJECT SURVEYING BY THE SURVEY OFFICE, LLC.
FEBRUARY 2018

GENERAL 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 finished grade or top of pavement, unless noted otherwise.**
9. **The City of Albuquerque has received its EPA MS4 Permit for stormwater quality with an effective date of March 1, 2012.**
10. **See Site Plan for dimension control and location of all site improvements.**

LORENZ DESIGN & CONSULTING, LLC
Civil Engineering | Construction Management
2401 Rio Grande Blvd NW, Suite A
Albuquerque, New Mexico 87104
Ph: 505-888-6088 Fax: 505-242-4655

GRADING & DRAINAGE PLAN

6000 ROGERS AVE. N.E. ALBUQUERQUE N.M. 87110 (505) 255-5040 FAX (505) 255-5040

SILVER STAR AUTO HAUS
5111 WILSHIRE AVE. N.E.
ALBUQUERQUE, NEW MEXICO
SANDERS & ASSOCIATES ARCHITECTS, P.C.

project no. 1706
sheet
C-2
date. 3-19-18