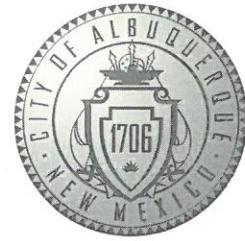


CITY OF ALBUQUERQUE

Hydrology Section Planning Department
David S. Campbell, Director



Timothy M. Keller, Mayor

July 2, 2018

Dennis Lorenz
Lorenz Design & Consulting LLC
2501 Rio Grande NW Suite A
Albuquerque, NM 87104

RE: **Silver Star Auto Haus**
5111 Wilshire Ave. NE
Grading & Drainage Plan Engineer's Stamp Date: 5/30/2018
Hydrology File: C17D014A1

Dear Mr. Lorenz:

Based on the information provided in the submittal received on 6/14/2018 the above-referenced Grading and Drainage Plan is approved for Building Permit and SO-19 Permit. Please attach a copy of this approved plan in the construction sets when submitting for a building permit.

Prior to Certificate of Occupancy (For Information):

- PO Box 1293
- Albuquerque
- NM 87103
- www.cabq.gov
1. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required. The submittal/resubmittal fee for this request is: \$150.
 2. The Drain Line Thru Curb must be inspected and approved by storm drain maintenance (Jason Rodriguez, jtrodriguez@cabq.gov or 857-8607).
 3. The Drainage Covenant to insure maintenance of the pond, pump and force main must be recorded with Bernalillo County and a copy included with the drainage certification.
 - a. Use the correct form titled Drainage Covenant, not Private Facility Drainage Covenant.
 - b. White out is not allowed; new notarized owner's signature is required.
 - c. The original signed and notarized document must be submitted to Madeline Carruthers along with a \$25 check payable to Bernalillo County for the recording fees for each document to be recorded. The submittal must be made to Madeline on the 4th floor not to Hydrology. She will route it for legal review.
 - d. Exhibit 'A' is not legible. It should be at a larger scale and can be on multiple 8.5" x 11" sheets.

If you have any questions, please contact me at 924-3986 or jhughes@cabq.gov.

Sincerely,

James D. Hughes
Principal Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 3/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

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

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

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

Other Contact: _____ **Contact:** _____

Address: _____

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

Check all that Apply:

IS THIS A RESUBMITTAL?: ____ Yes ____ No

DEPARTMENT:

- ____ HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

- ____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE MASTER PLAN
____ DRAINAGE REPORT
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)

____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
____ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL

____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

TRACT E-1A2
DISTRICT SUBDIVISION, UNIT 1
FILED: FEBRUARY 4, 1998
VOLUME 98C, FOLIO 37

10' PRIVATE DRAINAGE EASEMENT
FILED: SEPTEMBER 10, 2007
BOOK 2007C, PAGE 268
AND BOOK 93C, PAGE 63

FND #5 REBAR
W/CAP (ILLEGIBLE)

FND #5 REBAR
W/CAP "HUGG"

TRACT D-1A2
DISTRICT SUBDIVISION, UNIT 1
MARCH 5, 1993
BOOK 93C, PAGE 53

TRACT D-1A3
DISTRICT SUBDIVISION, UNIT 1
MARCH 5, 1993
BOOK 93C, PAGE 53

PUBLIC SIDEWALK EASEMENT
FILED: SEPTEMBER 10, 2007
BOOK 2007C, PAGE 268

WILSHIRE AVENUE N.E.

60' R/W
(2007C/268)

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 construction 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 within 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 legal 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 _{HOUR}		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 route 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 0.34"

Site Area Type D = 0.68 ac.

Storage requirement = $A(0.34") = 0.68 \text{ ac}(43,560 \text{ sf/ac})(0.34"/12"/\text{ft}) = 839 \text{ cf}$

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

Total first flush volume within pond = $0.032 \text{ ac}(43,560 \text{ sf/ac})(1.0') = 1,394 \text{ cf}$

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 FACILITIES. THIS PLAN RECOMMENDS ALL LANDSCAPED AREAS BE DEPRESSED A MINIMUM OF 3-INCHES BELOW THE ADJACENT PAVED SURFACE TO RETAIN THE FIRST FLUSH RUNOFF.

PROJECT DATA

PROPERTY ADDRESS:

5111 WILSHIRE AVE NE
ALBUQUERQUE, NEW MEXICO

LEGAL DESCRIPTION:

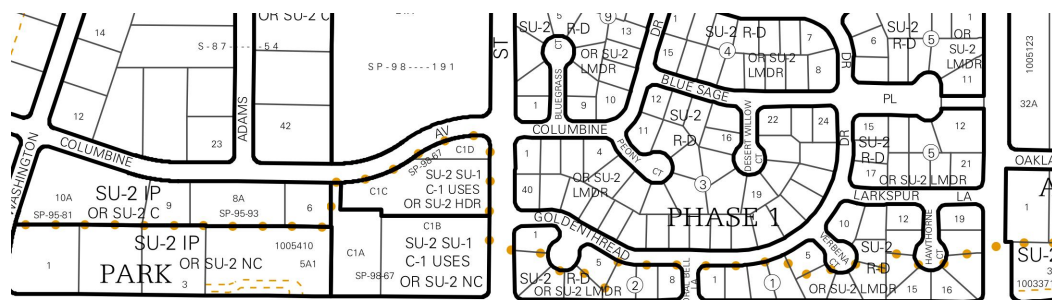
TRACT D-1A1-B
LOOP INDUSTRIAL DISTRICT
SUBDIVISION
ALBUQUERQUE, NEW MEXICO

SURVEY:

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

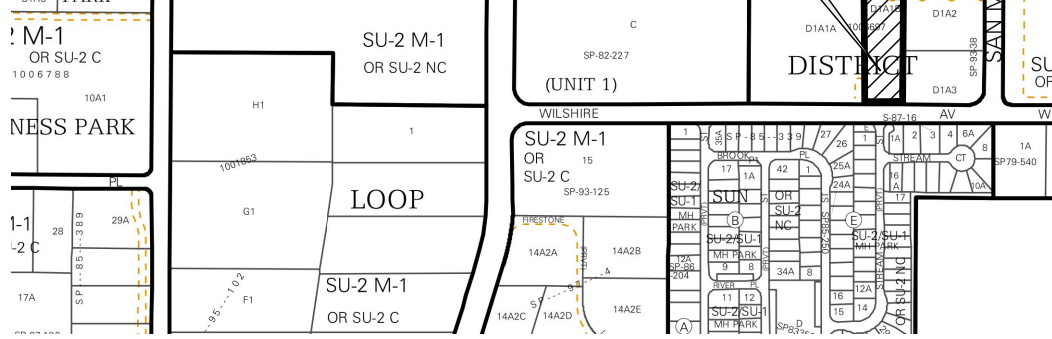
GENERAL NOTES

- LDC recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
- 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.
- 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.
- 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.
- 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.
- LDC recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
- 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.
- All spot elevations are finished grade or top of pavement, unless noted otherwise.
- The City of Albuquerque has received its EPA MS4 Permit for stormwater quality with an effective date of March 1, 2012.
- See Site Plan for dimension control and location of all site improvements.



PROJECT LOCATION

LOCATION MAP C-17-Z NTS



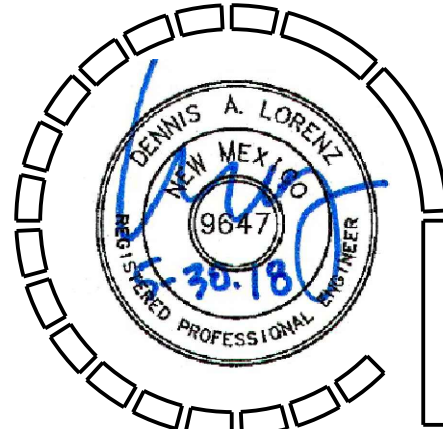
FIRM PANEL 35001C0137H NTS

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/FINISH 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	○	—
IRRIGATION BOX	□	—
DRAINAGE RIDGE LINE	---	---

KEYED NOTES

- EXISTING CONCRETE CURB.
- EXISTING CONCRETE SIDEWALK.
- EXISTING HANDICAP RAMP.
- EXISTING CONCRETE VALLE GUTTER.
- EXISTING ASPHALT PAVEMENT.
- EXISTING BLOCK WALL.
- EXISTING 6" CHAIN LINK FENCE.
- REMOVE AND SALVAGE EXISTING 6" CHAIN LINK FENCE.
- EXISTING WIRE FENCE IN DISREPAIR. COORDINATE REPAIR WITH ADJACENT PROPERTY OWNER.
- EXISTING PRIVATE 10" STORM DRAIN.
- EXISTING WATER METER.
- REM & DISPOSE EXISTING CONCRETE CURB ACROSS NEW ENTRY.
- CONSTRUCT 6" CONCRETE CURB. SEE SHEET C-3.0.
- CONSTRUCT TURNDOWN SIDEWALK. SEE SHEET C-3.
- CONSTRUCT HANDICAP RAMP. SEE SHEET C-3.
- CONSTRUCT 8" WIDE CONCRETE SIDEWALK AT 1:12.
- CONSTRUCT ASPHALT PAVEMENT. SEE SHEET C-3.
- CONSTRUCT GRAVEL SURFACING. SEE SHEET C-3.
- CONSTRUCT REFUSE ENCLOSURE. SEE SITE PLAN.
- INSTALL BICYCLE RACK. SEE SITE PLAN.
- INSTALL HANDICAPPED PARKING STRIPING AND SIGNAGE. SEE SITE PLAN.
- INSTALL CONCRETE TIRE STOPS AT ALL PARKING SPACES.
- EDGE OF PAVEMENT. NO CURBING.
- CONSTRUCT RETAINING WALL ALONG EAST PROPERTY LINE. SEE SHEET C-3.
- CONSTRUCT RETAINING WALL ALONG WEST PROPERTY LINE. SEE SHEET C-3.
- CONSTRUCT POND OVERFLOW SPILLWAY. SEE SHEET C-3.
- INSTALL STORM INLET WITH SUMP PUMP AND ELECTRIC SUPPLY. SEE DETAIL K/C-3.
- POND PUMP DISCHARGE LINE.
- CONSTRUCT 3" CURB PENETRATION. SEE COA STD DWG 2235. SEE NOTICE TO CONTRACTOR ON SHEET C-3.
- PROVIDE 12" CURB BLOCKOUT FOR DRAINAGE.
- DIRECTION OF ROOF DRAINAGE.
- NEW LANDSCAPING. SEE LANDSCAPE PLAN.
- EXISTING LANDSCAPING TO REMAIN. SEE LANDSCAPE PLAN.



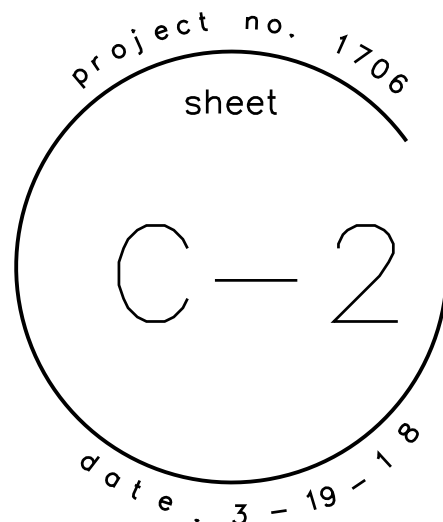
LORENZ
DESIGN & CONSULTING, LLC
Civil Engineering | Construction Management

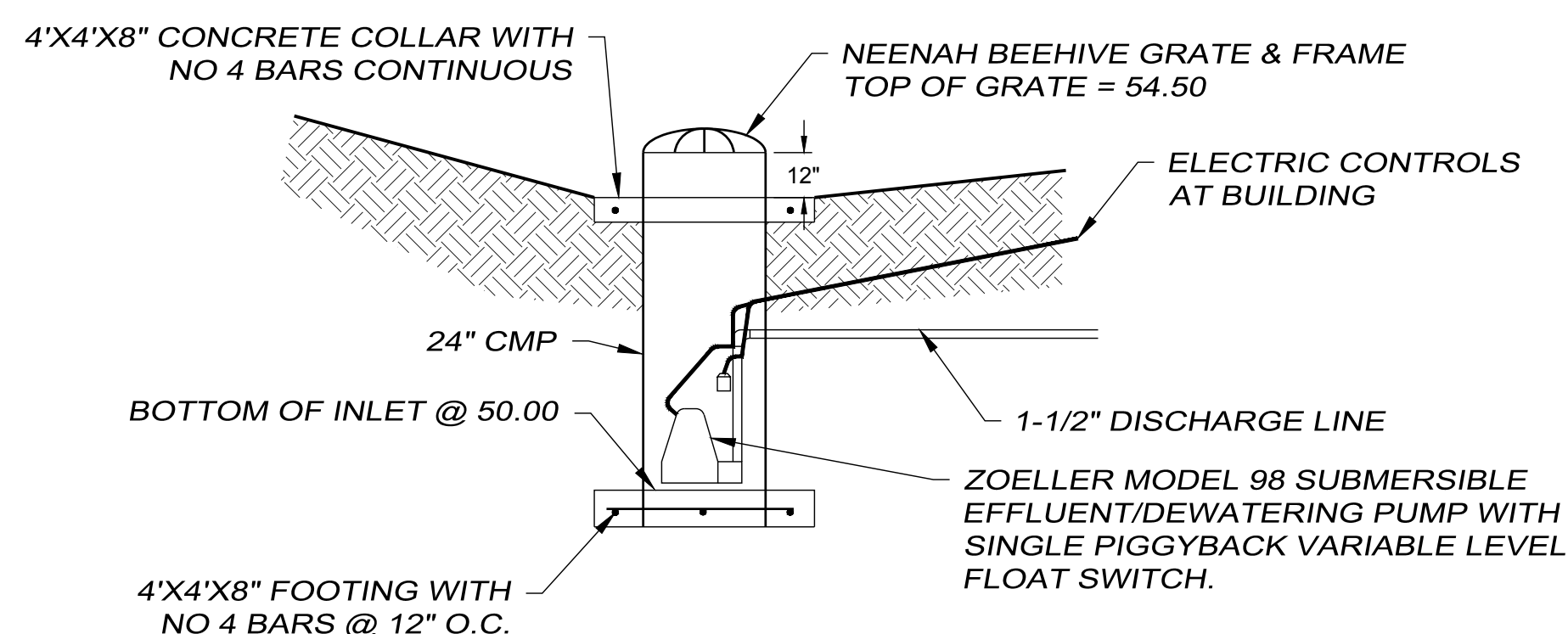
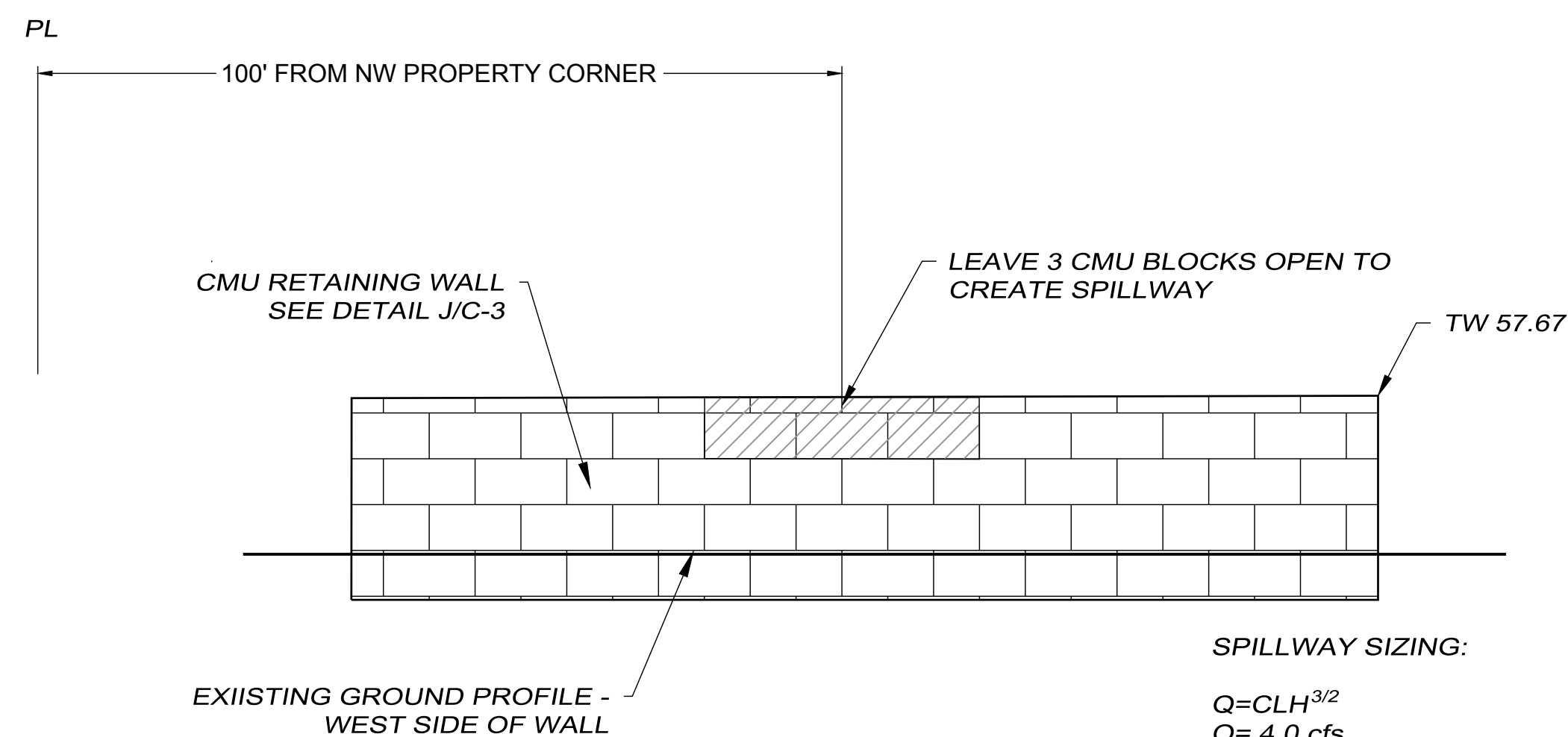
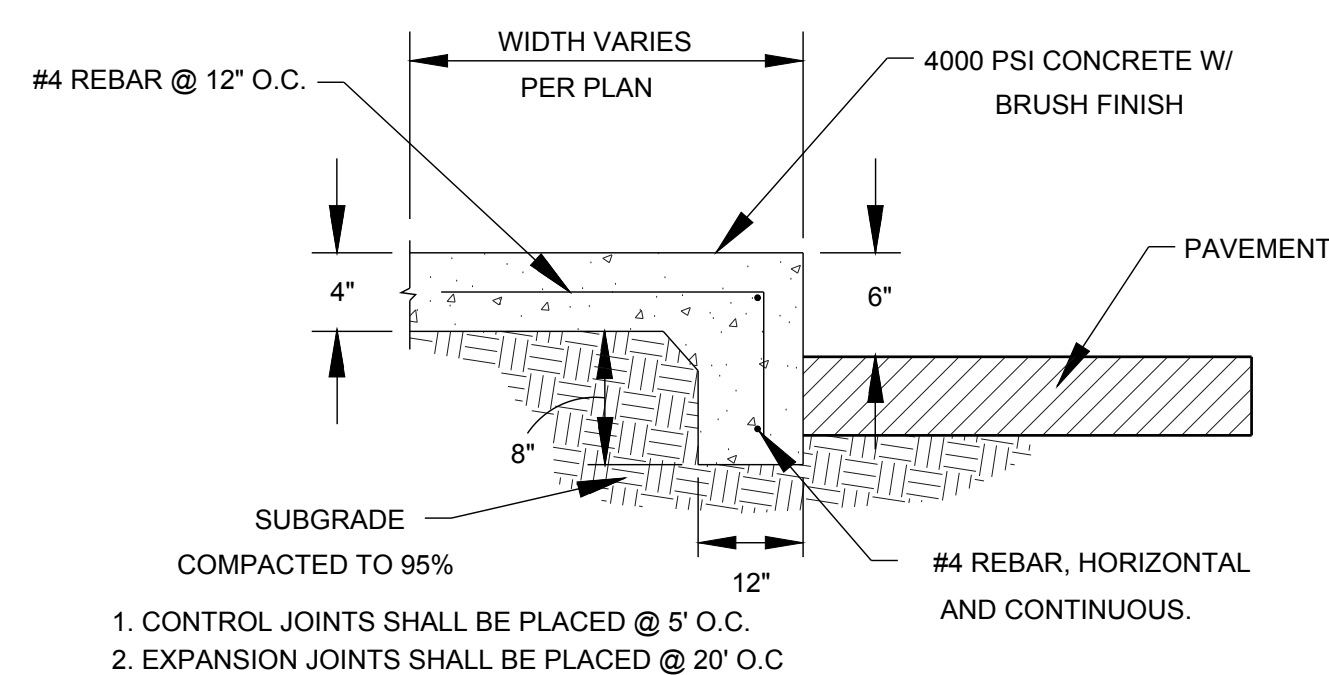
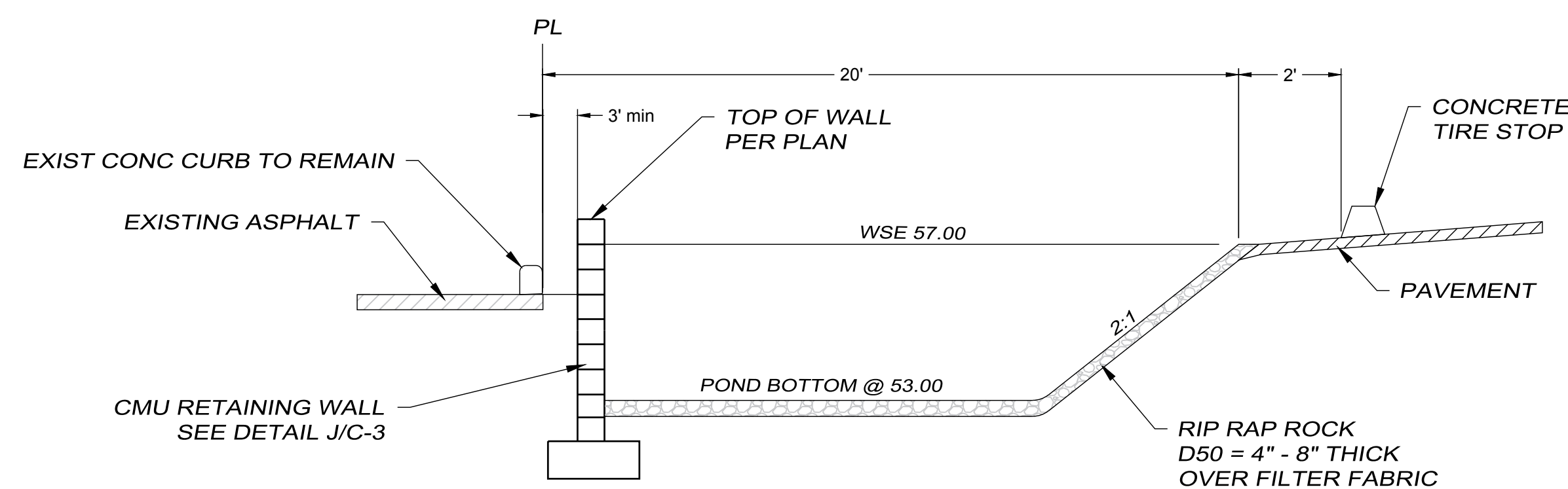
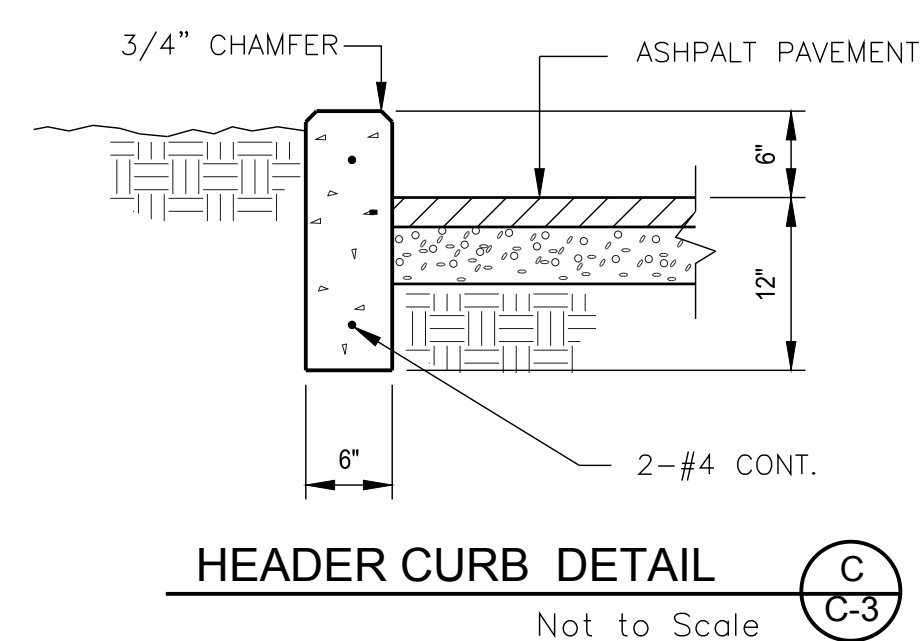
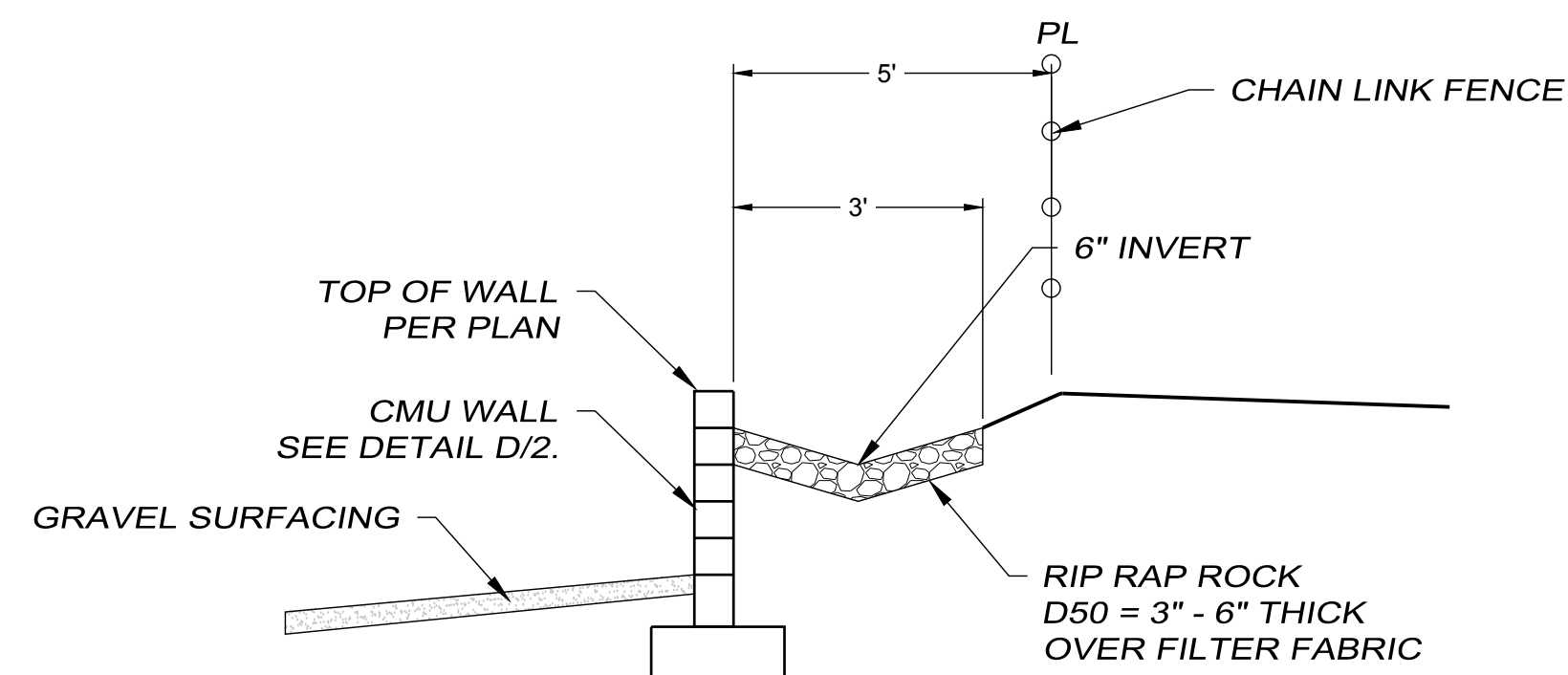
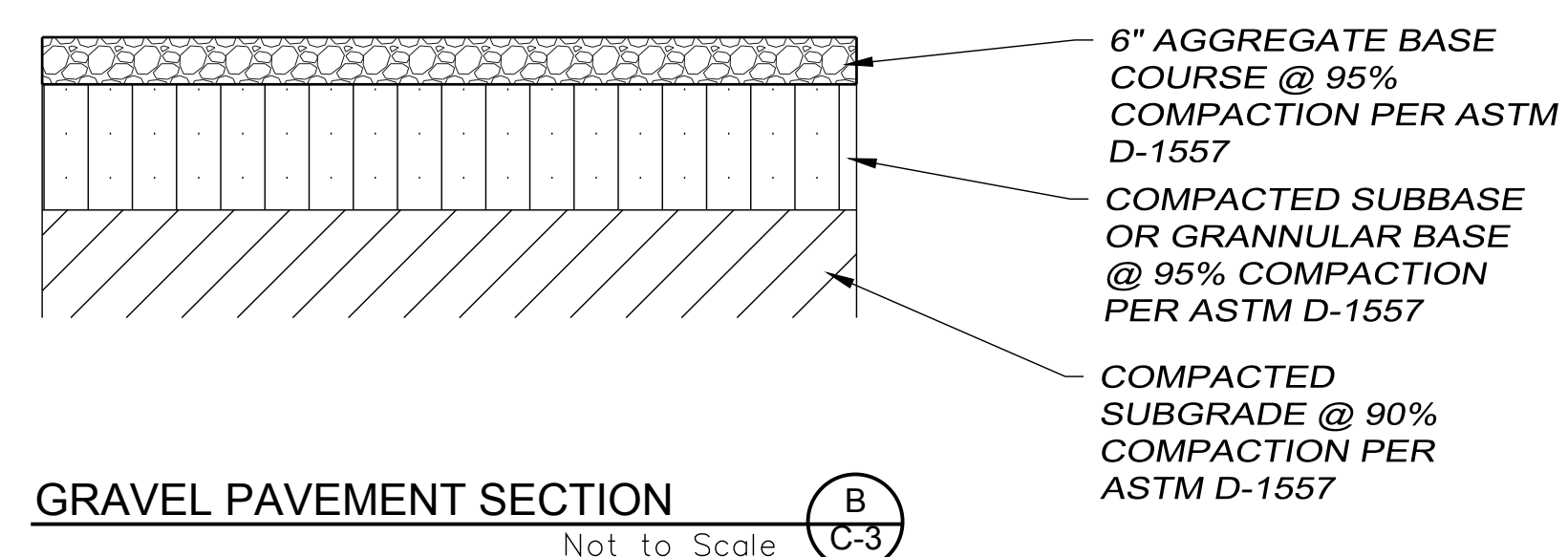
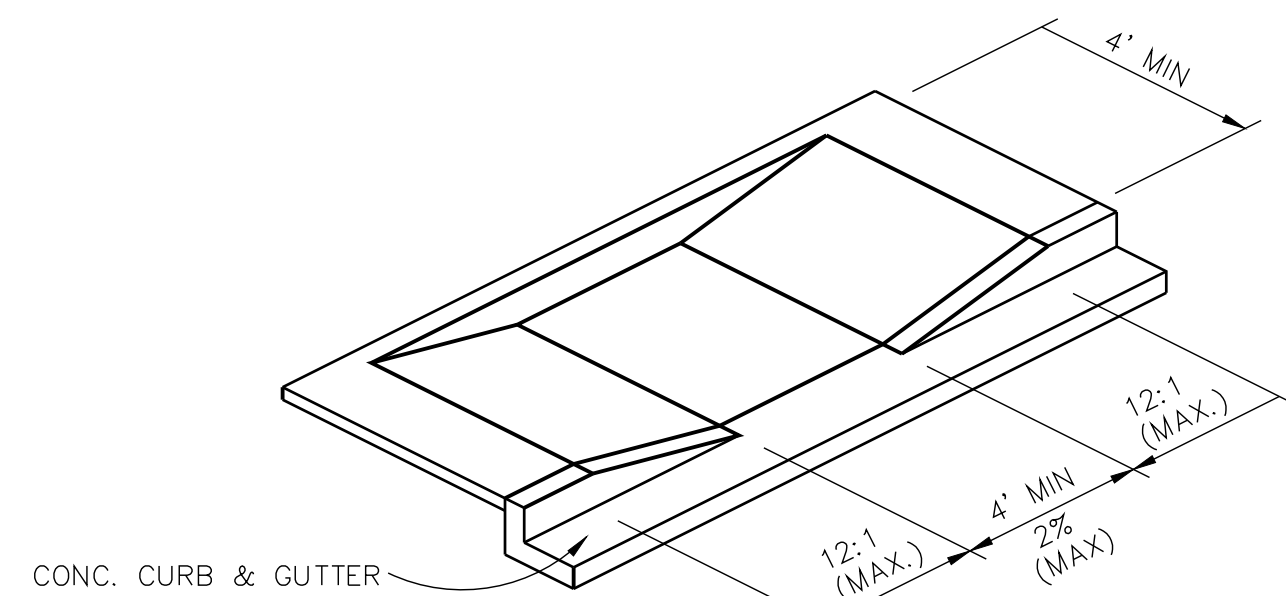
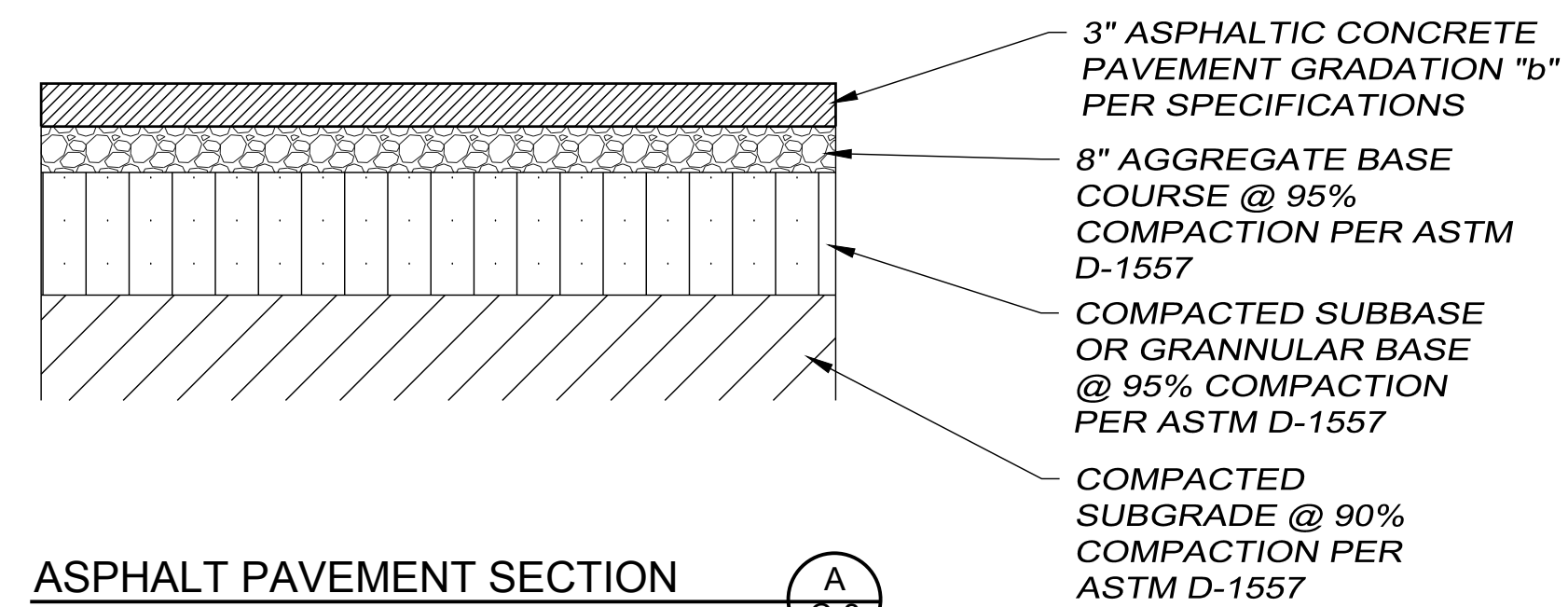
2501 Rio Grande Blvd NW, Suite A
Albuquerque, New Mexico 87104
Ph: 505-365-0606 Fax: 505-242-6665

GRADING & DRAINAGE PLAN

SILVER STAR AUTO HAUS
5111 WILSHIRE AVE. N.E.
ALBUQUERQUE, NEW MEXICO

SANDERS & ASSOCIATES ARCHITECTS, P.C. 6000 ROGERS AVE. N.E. ALBUQUERQUE N.M. 87110 (505) 255-5040 FAX (505) 255-5040





Private Drainage Facilities within City Right-of-Way

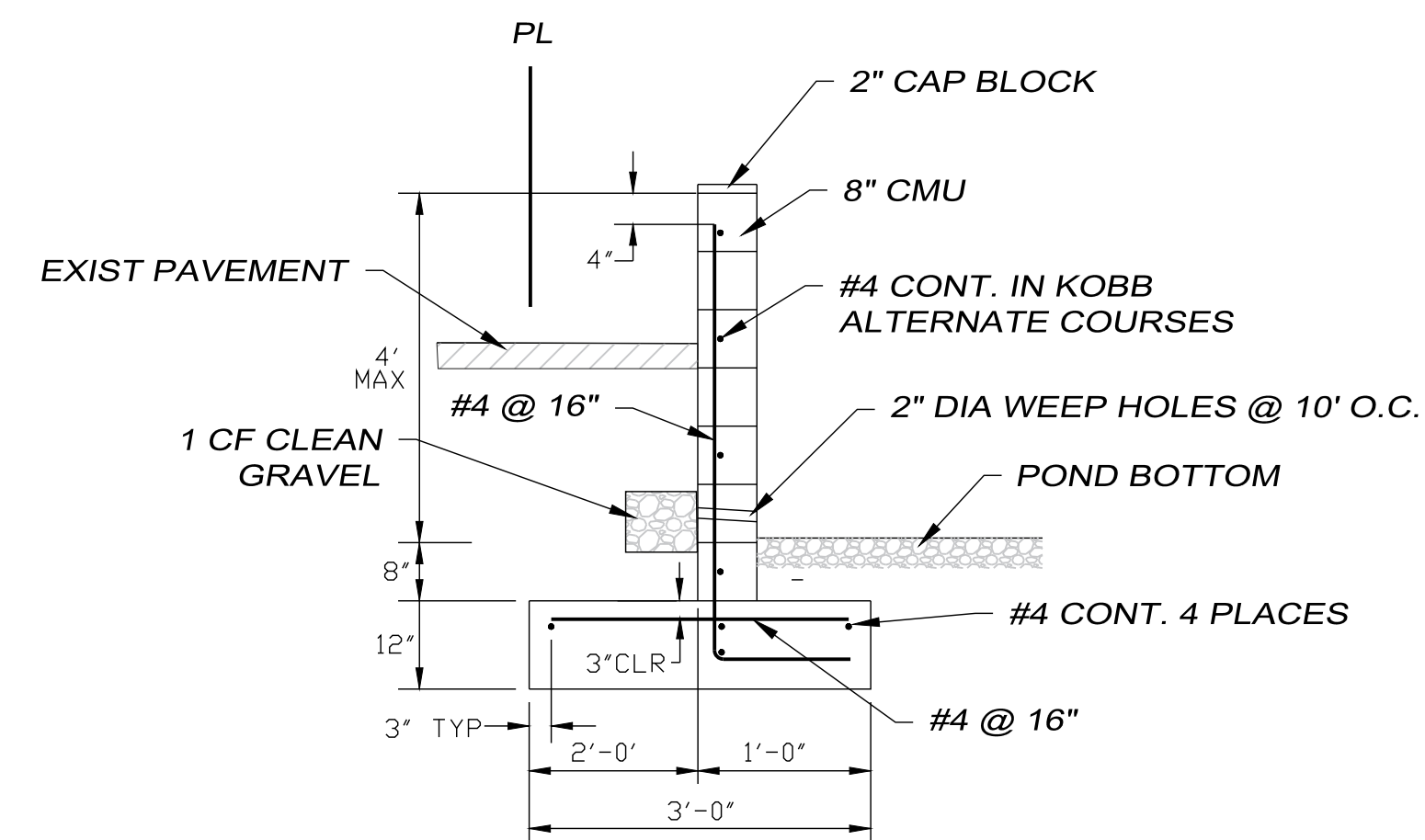
Notice to Contractor

(Special Order 19 ("SO-19")

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, the contractor must contact **New Mexico One Call, dial "811"** for [505] 260-1990 for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the 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 the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets shall be performed on a 24-hour basis.
8. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

STREET MAINTENANCE INSPECTOR

APPROVAL _____



CMU RETAINING WALL DETAIL

Not to Scale

RETAINING WALL NOTES:

1. ALL CELLS SHALL BE COMPLETELY FILLED WITH CONCRETE.
2. ALL WALL SECTIONS ARE DESIGNED BASED ON SPECIAL INSPECTION PER UBC.
3. CONTRACTOR SHALL SUBMIT TO OWNER RESULTS OF MASONRY TEST PRISMS BUILT AND TESTED PER UBC STD 24-26, UBC SEC 2405.
4. FOOTING SUBGRADE AND BASE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR PER ASTM D-1557.
5. 1/2" GEL EXPANSION JOINTS SHALL BE INSTALLED AT 30 FEET ON CENTER AND AT SECTION CHANGES.
6. ALL MASONRY SHALL BE LAID IN RUNNING BOND ONLY.
7. THIS RETAINING WALL IS DESIGNED EXCLUSIVELY FOR USE ON VILLAS TUSCANO AND IS NOT APPLICABLE TO ANY OTHER SITE.
8. ALL MASONRY SURFACES TO BE BACKFILL SHALL BE COATED WITH EMULSIFIED ASPHALT OR SHEARSTRENGTH PROMOTER AS APPROVED BY THE ENGINEER.
9. BEFORE CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ANY UTILITIES WHICH MAY BE WITHIN THE WORK AREA.
10. WALLS ARE DESIGNED ASSUMING THE FOLLOWING:

fc = 4000 psi; maximum aggregate size = 3/4"
fy = 60,000 psi (ASTM A-615 GR 60)
fm = 1500 psi
unit weight of backfill = 115 pcf
concrete / soil coeff of friction = 0.40
allowable soil bearing pressure = 1500 psf
active pressure = 34 psf / ft
slope active pressure = 34 psf / ft
passive pressure = 400 psf / ft

SUMP PUMP SELECTION

SELECT PUMP TO DRAIN POND
WITHIN 24 HRS.

$$\begin{aligned}\text{VOL POND} &= 10,240 \text{ CF} \\ &= 76,600 \text{ GAL}\end{aligned}$$

$$Q = \frac{76,600 \text{ GAL}}{24 \text{ hr}} \times \frac{1 \text{ hr}}{60 \text{ min}} = 53 \text{ GPM}$$

$$\begin{aligned}\text{REQ'D } H &= 8' + \text{FMC LOSS} \\ \Rightarrow \text{USE } H &= 10'\end{aligned}$$

→ SEE PUMP CURVE

Features and Benefits

Product Specifications

Technical Data

Sales and Marketing

Technical Support

