

CITY OF ALBUQUERQUE



December 2, 2014

Mr. Dennis Lorenz
Lorenz Design & Consulting
Suite A
2501 Rio Grande Blvd NW
Albuquerque, NM 87104

**Re: Abundant Life Gymnasium
Grading and Drainage Plan
Engineer's Stamp Date 11-24-14 (M10D006)**

Dear Mr. Lorenz,

Based upon the information provided in your submittal received November 24, 2014, the above referenced plan cannot be approved for Building Permit or SO19 until the following comments are addressed:

1. Receive approval from Bernalillo County for the amount of flow that is proposed to be discharged to the storm drain in Arenal Road. Although the site is in the City, the storm drain is not City storm drain.
2. When requesting SO-19 approval, provide two sets of paper copies of the plans.
3. For Detail J/C2.0, what are the various width and length dimensions of the channel?
4. The cross slope of the sidewalk adjacent to the proposed building is at 6.25%. Revise to meet ADA standards. Also at the proposed building, signage for the ADA parking is blocking the path at the top of the ramp. Move the ramp to be in front of the ADA striping and move the sign to the edge of the sidewalk. Give spot elevations on the sidewalk next to the ADA striping at the other locations on the site.
5. An existing building is at 89.12, but the proposed sidewalk is at 87.78. Are people using the existing building going to exit onto the sidewalk? If so, adjust the proposed grades. Provide a note that the nearby existing sheds will be removed.
6. The overflow spillway at the beginning of the channel is 88.0, but the end of the channel is 88.40 which is higher. Revise the spot elevations.
7. Provide more spot elevations for the swale on the east in the existing parking. Will storm water be able to drain out of that area?
8. Keyed note 13 is shown in two locations near the existing building but no wall is shown. What should be there; a wall or a different note?

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



If you have any questions, you can contact me at 924-3994.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Amy L. D. Niese', is written over the word 'Sincerely,'.

Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

C: e-mail

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 04/2009)

PROJECT TITLE: ABUNDANT LIFE GYMNASIUM ZONE MAP: M-10
DRB#: _____ EPC#: NA WORK ORDER#: NA

LEGAL DESCRIPTION: TRACT 2-A, SAN JOSE ARENAL

CITY ADDRESS: 2851 ARENAL ROAD SW

ENGINEERING FIRM: LORENZ DESIGN & CONSULTING CONTACT: DENNIS LORENZ
ADDRESS: 2501 RIO GRANDE BLVD. NW SUITE A PHONE: 888-6088
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87104

OWNER: ABUNDANT LIFE MINISTRIES CONTACT: LOREN MILLER
ADDRESS: 2851 ARENAL ROAD SW PHONE: 401-2526
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87121

ARCHITECT: RICK BENNETT ARCHITECTS CONTACT: R. BENNETT
ADDRESS: 1104 PARK AVENUE SW PHONE: 242-1859
CITY, STATE: ALBUQUERQUE, NEW MEXICO ZIP CODE: 87103

SURVEYOR: HARRIS SURVEYING CONTACT: G. MAPLES
ADDRESS: 2815-A 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
☒ 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
☐ OTHER (SPECIFY) SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

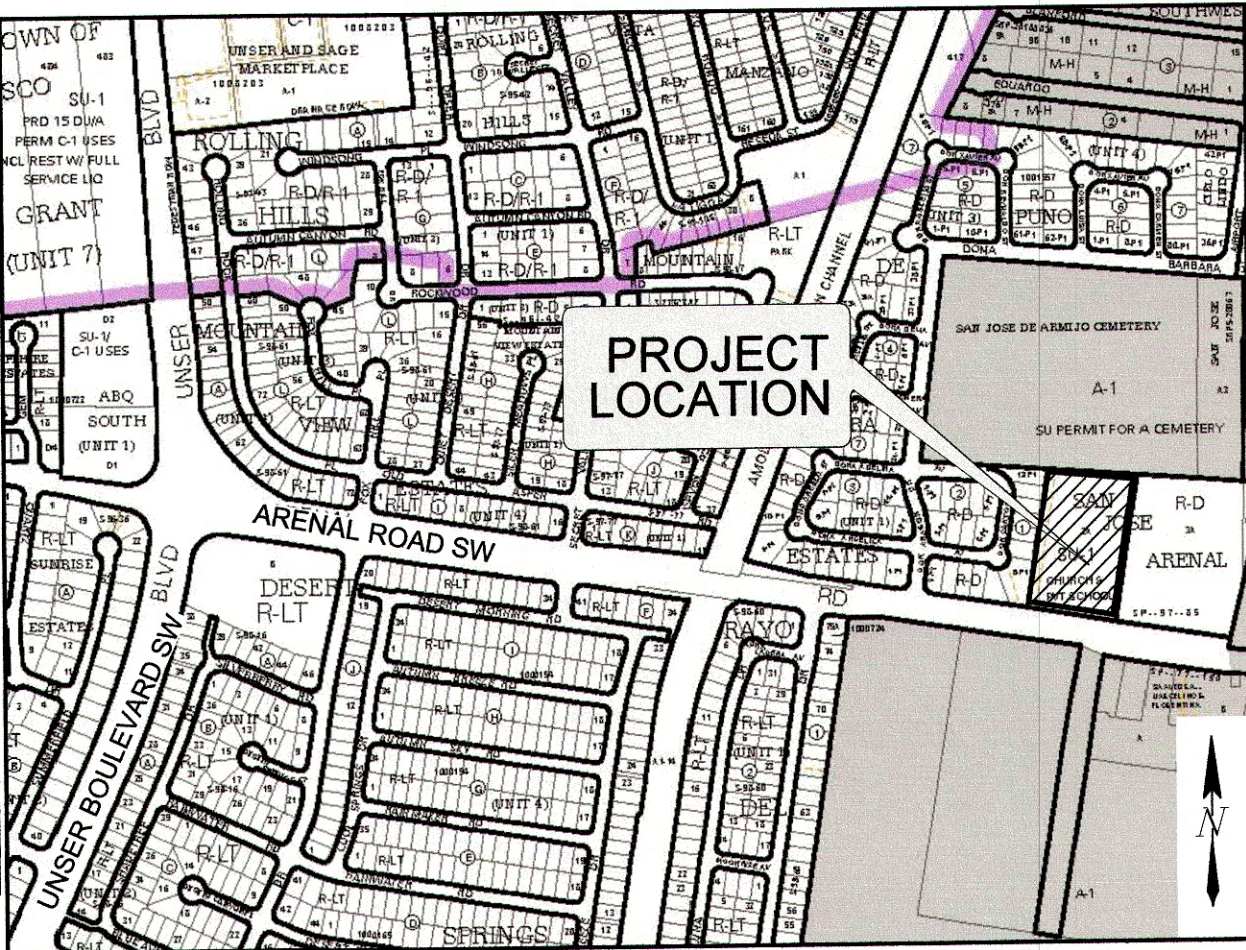
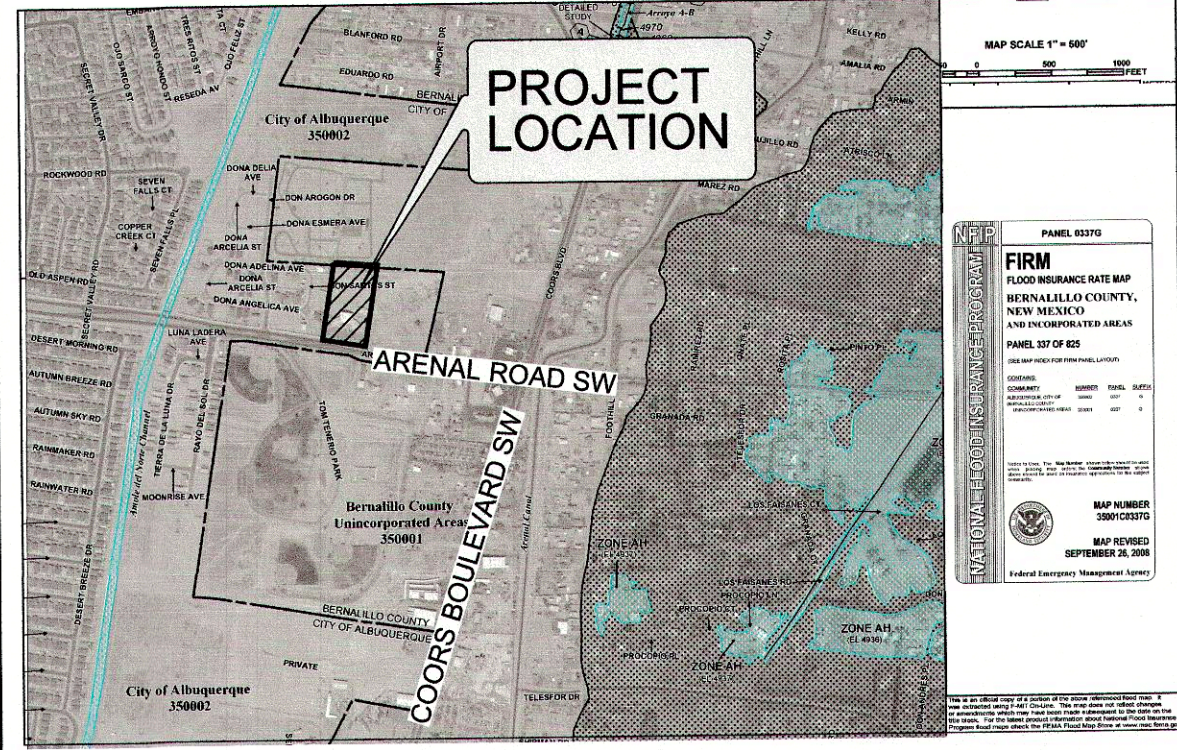
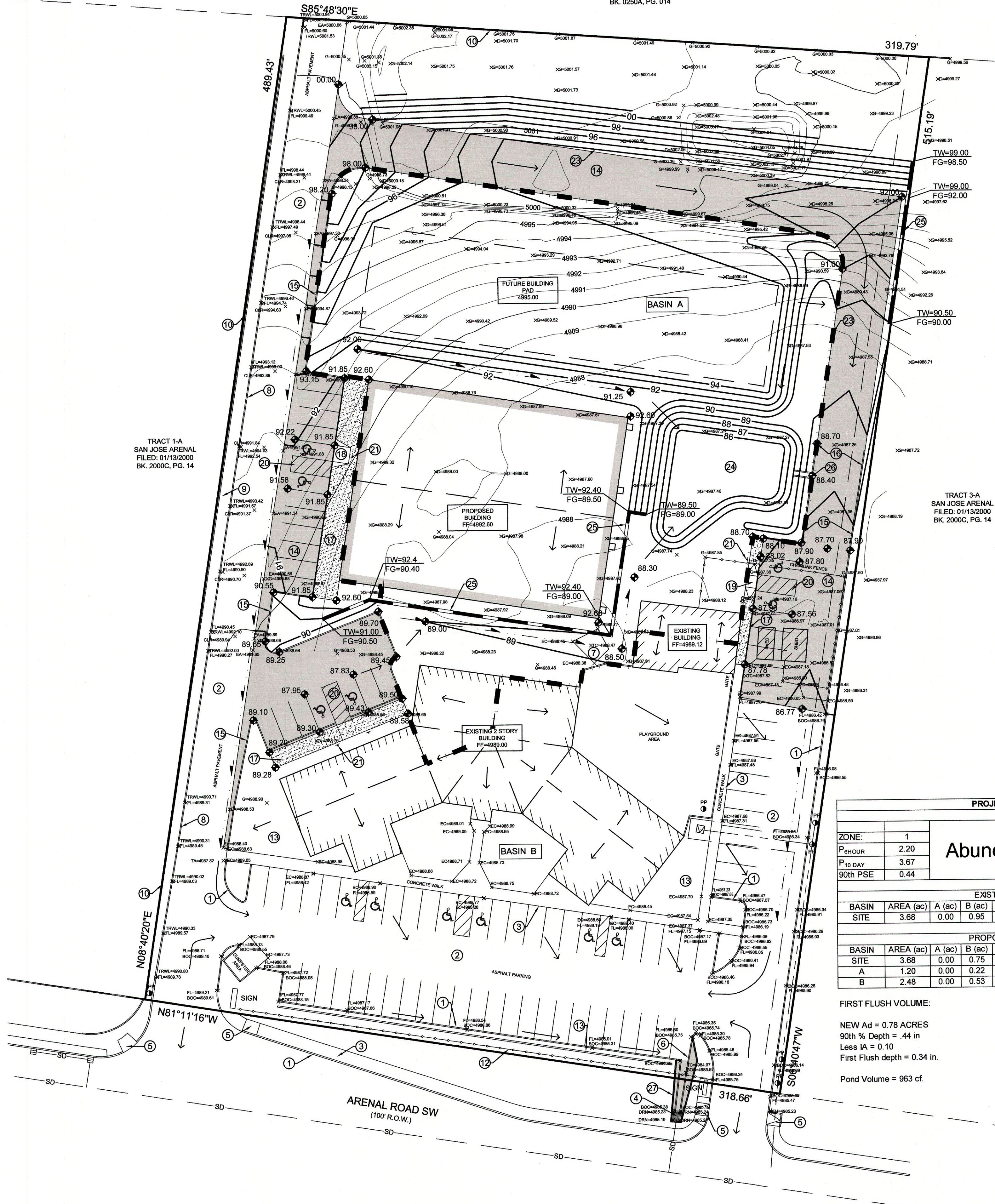
☒ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: 11-24-2014 BY: DENNIS A. 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.

SAN JOSE DE ARMUO CEMETARY
QUICK CLAIM DEED
FILED: 09/20/1986
BK. 0250A, PG. 014



FIRM PANEL

35001CQ337G

VICINITY MAP

ZONE ATLAS M-10-Z

KEYED NOTES

- EXISTING CONCRETE CURB.
- EXISTING ASPHALT PAVEMENT.
- EXISTING CONCRETE SIDEWALK.
- EXISTING STORM INLET.
- EXISTING HANDICAP RAMP.
- REMOVE AND DISPOSE EXISTING CONCRETE CURB.
- EXISTING CONCRETE PAD TO BE REMOVED AND DISPOSED.
- EXISTING RETAINING WALL.
- EXISTING SLOPE PAVEMENT.
- EXISTING BLOCK WALL.
- EXISTING WROUGHT IRON FENCE.
- EXISTING LANDSCAPING.
- EXISTING CMU RETAINING WALL - 2 COURSES HIGH.
- CONSTRUCT ASPHALT PAVEMENT.
- CONSTRUCT CONCRETE CURB.
- END CONCRETE CURB.
- CONSTRUCT TURNDOWN SIDEWALK.
- CONSTRUCT HANDICAP RAMP-TYPE I PER DETAIL F/C2.0.
- CONSTRUCT HANDICAP RAMP-TYPE II PER DETAIL G/C2.0.
- INSTALL HANDICAP PARKING STRIPING PER CODE.
- INSTALL HANDICAP PARKING SIGNAGE PER CODE.
- NO CURB ALONG SIDEWALK. TOP OF PAVEMENT AT TOP OF SIDEWALK. INSTALL CONCRETE TIRE STOP.
- PROPOSED EDGE OF ASPHALT - NO CURB.
- CONSTRUCT STORMWATER RETENTION POND.
- CONSTRUCT RETAINING WALL. DESIGN BY OTHERS.
- CONSTRUCT CONCRETE OVERFLOW SPILLWAY PER DETAIL H/C2.0.
- REMOVE & DISPOSE EXISTING CONCRETE DRAINAGE CHANNEL. RECONSTRUCT PER DETAIL J/C2.0.

DRAINAGE PLAN 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 storm water quality with an effective date of March 1, 2012.
- In accordance with the City of Albuquerque drainage ordinance, effective May 12, 2014, all new development projects 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

SURVEY:

TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY HARRIS SURVEYING, INC., 2412-D MONROE STREET, NE, NEW MEXICO NOVEMBER 2014.

PROPERTY ADDRESS:

2851 ARENAL RD. SW, ALBUQUERQUE, NEW MEXICO

LEGAL DESCRIPTION:

TRACT 2-A, SAN JOSE ARENAL

PROJECT BENCHMARK

PROJECT BENCHMARK IS A FOUND CITY OF ALBUQUERQUE SURVEY CONTROL 3 1/4" ALUMINUM DISC STAMPED "4, M10 2002". TO REACH STATION FROM THE INTERSECTION OF COORS BOULEVARD AND ARENAL ROAD SW TRAVEL WEST ON ARENAL ROAD 0.48 MILES TO THE AMOLE DEL NORTE DIVERSION CHANNEL. THE STATION IS LOCATED ON THE SOUTH CURB ON CHANNEL CENTERLINE. ELEVATION = 5,011.16 FEET (NAVD 1988 VERTICAL DATUM).

LEGEND

ITEM	EXISTING	PROPOSED
CURB AND GUTTER		
HEADER CURB		
CURB ELEVATIONS		
SPOT ELEV.		16.7
RIGHT OF WAY		
EASEMENT		
CENTERLINE		
TOP OF ASPHALT ELEV.	TA 16.2	TA 16.2
RETAINING WALL		
FLOWLINE ELEV	EX FL 16.2	FL 16.2
FUTURE CURB AND GUTTER (N.I.C.)		
NEW PAVING		
DRAINAGE SWALE		
DIRECTION OF FLOW		
DRAINAGE BASIN DIVIDE		

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 construction of a 9,000 square foot gymnasium with paving, landscaping, utility, grading, and drainage improvements to support the project. The purpose of this Plan is to support 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 2851 Arenal Road SW, between Unser Blvd and Coors Road SW. The site is presently developed as Abundant Life Ministries. The southerly portion of the site is fully developed. The northerly portion is planned for future development. All excess runoff flows south by yard swales and paving improvements to an existing storm inlet located near the south east corner of the property. The inlet drains all site flows to a public storm drain located in Arenal Road SW. The north and west property boundaries are sealed by solid perimeter walls. The property to the east drains away from the property. 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.

DRAINAGE MASTERPLANS

The drainage plan of record, entitled *Grading and Drainage Plan for Abundant Life Church*, prepared by Frank Lovelady, PE, 10-29-1990, recommended temporary retention ponding pending construction of public storm drainage improvements. After construction of the Amole-Hubbel improvements, which captured all flows west of the project site, and the widening of Arenal Road in 2007, the retention ponds were removed. The project has functioned as a free discharge property since construction of those public improvements.

PROPOSED IMPROVEMENTS

As stated above, the project consists of the construction of a 9,000 square foot gymnasium with paving, landscaping, utility, grading, and drainage improvements. All developed runoff will be routed through landscaping to a retention pond capture the first flush before release into the perimeter streets. All excess runoff will be collected by the existing storm inlet and the public storm drain system located in Arenal Road SW. The channel draining to the existing storm inlet will be reconstructed to provide increased capacity. SO-19 permitting will apply.

Construction will disturb an area of more than 1.0 acres; therefore a Storm Water Pollution Prevention Plan will 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.

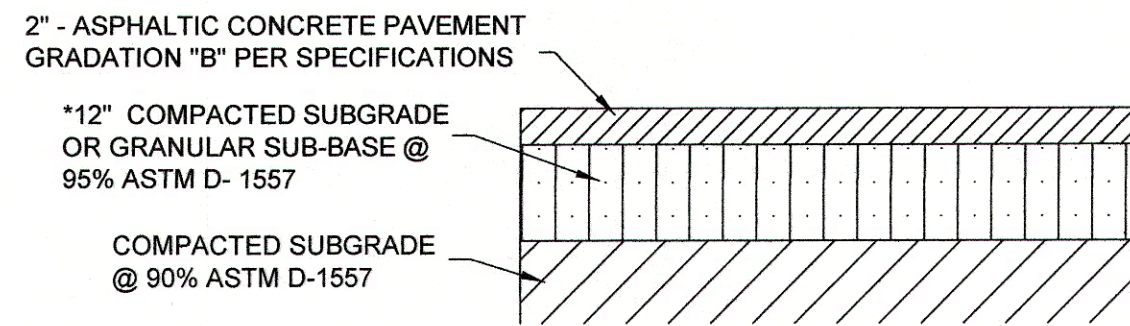
PROJECT HYDROLOGY									
AHYMO									
ZONE:	1								
P ₆ HOUR	2.20								
P ₁₀ DAY	3.67								
90th PSE	0.44								
Abundant Life Gymnasium									
EXISTING CONDITIONS									
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)	
SITE	3.68	0.00	0.95	1.58	1.15	1.21	11.49	0.372	
PROPOSED CONDITIONS									
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)	
SITE	3.68	0.00	0.75	1.00	1.93	1.44	12.83	0.441	
A	1.20	0.00	0.22	0.63	0.35	1.22	3.78	0.122	
B	2.48	0.00	0.53	0.37	1.58	1.55	9.04	0.320	

FIRST FLUSH VOLUME:

NEW Ad = 0.78 ACRES
90th % Depth = 44 in
Less IA = 0.10

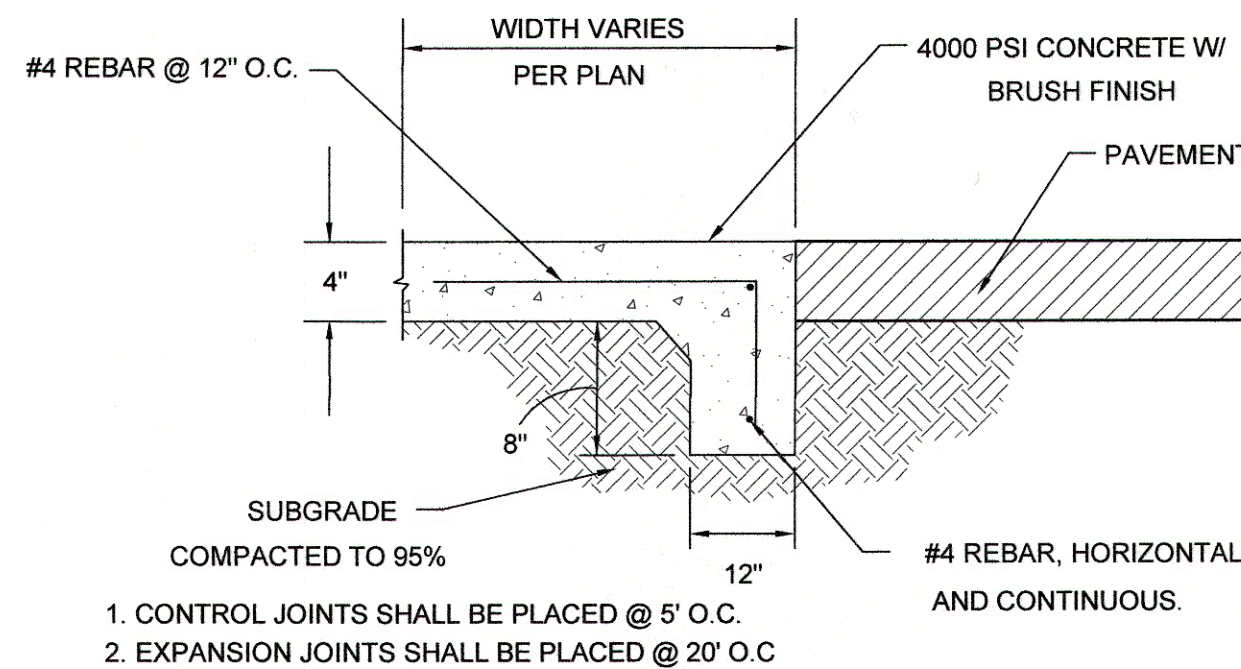
First Flush depth = 0.34 in.

Pond Volume = 963 cfs.



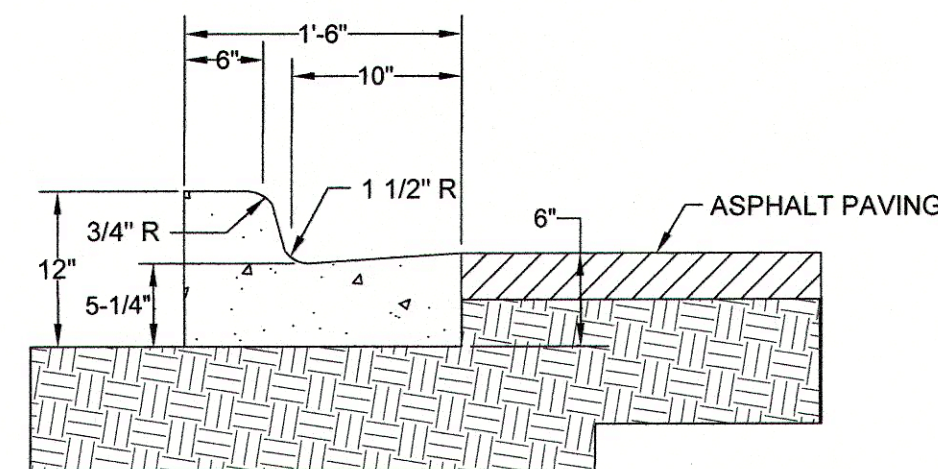
ASPHALT PAVEMENT
NTS

A
C-2.0



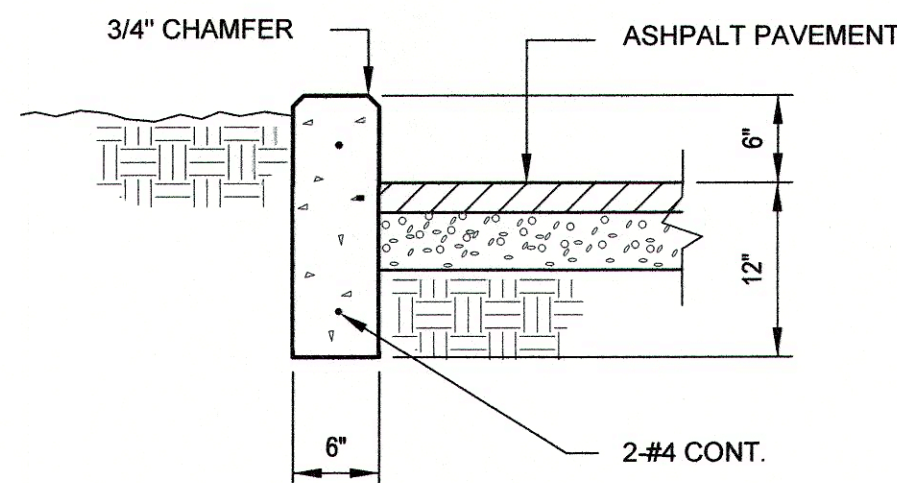
TURN DOWN SIDEWALK AT ACCESSIBLE ZONES
NTS

B
C-2.0



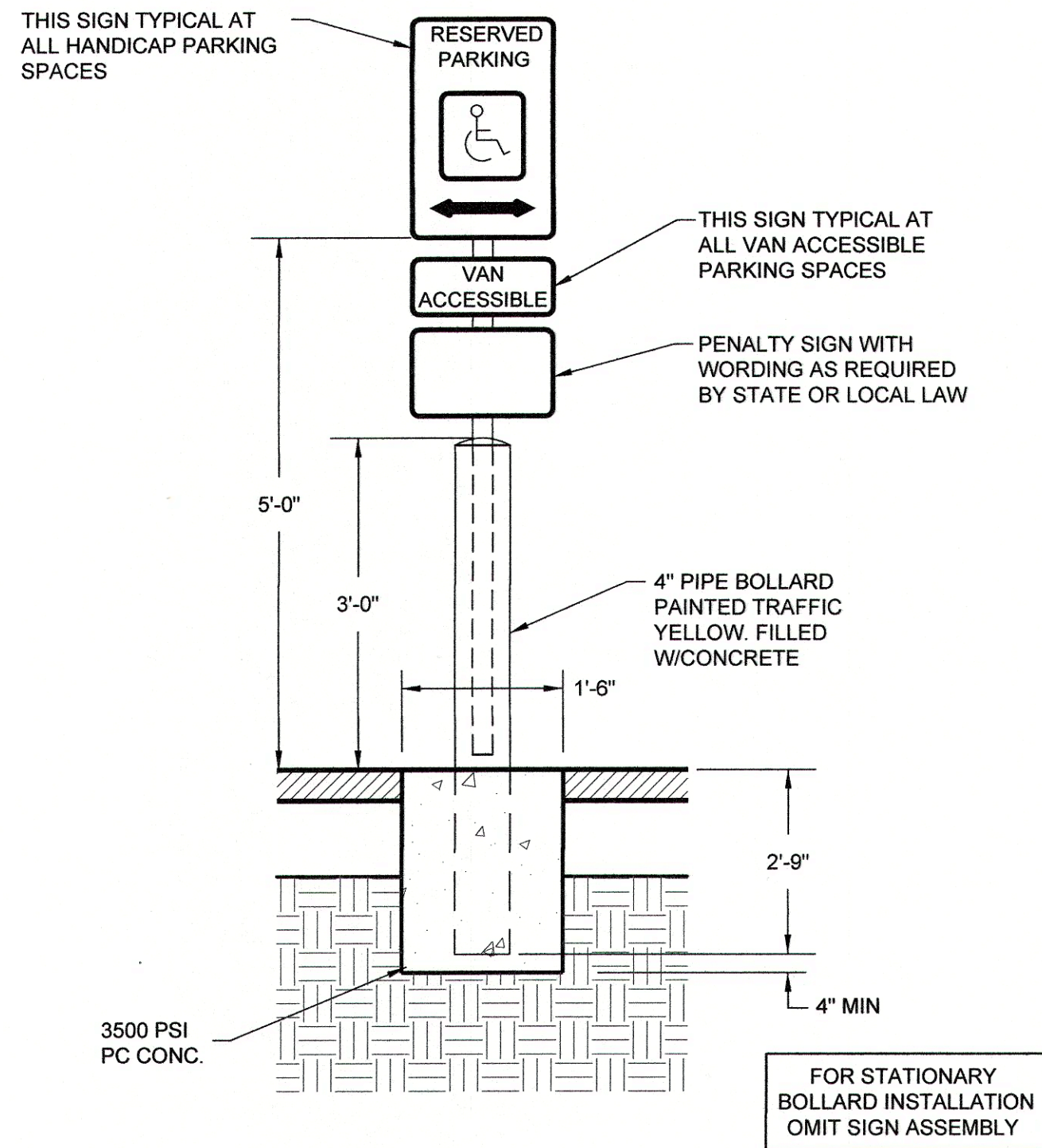
CONCRETE CURB AND GUTTER
NTS

C
C-2.0



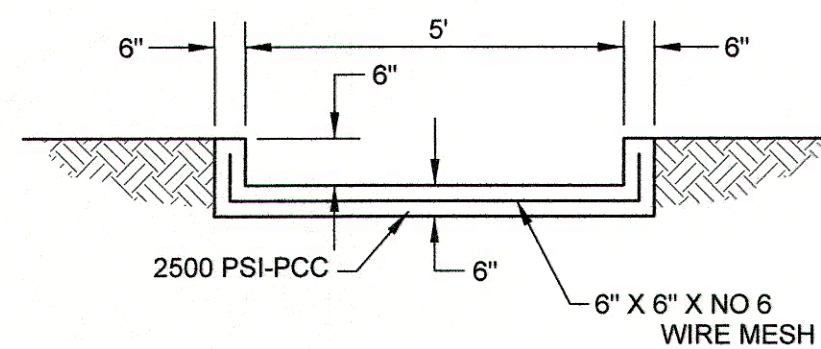
HEADER CURB DETAIL
NTS

D
C-2.0



HC SIGN ASSEMBLY / BOLLARD DETAIL
NTS

E
C-2.0



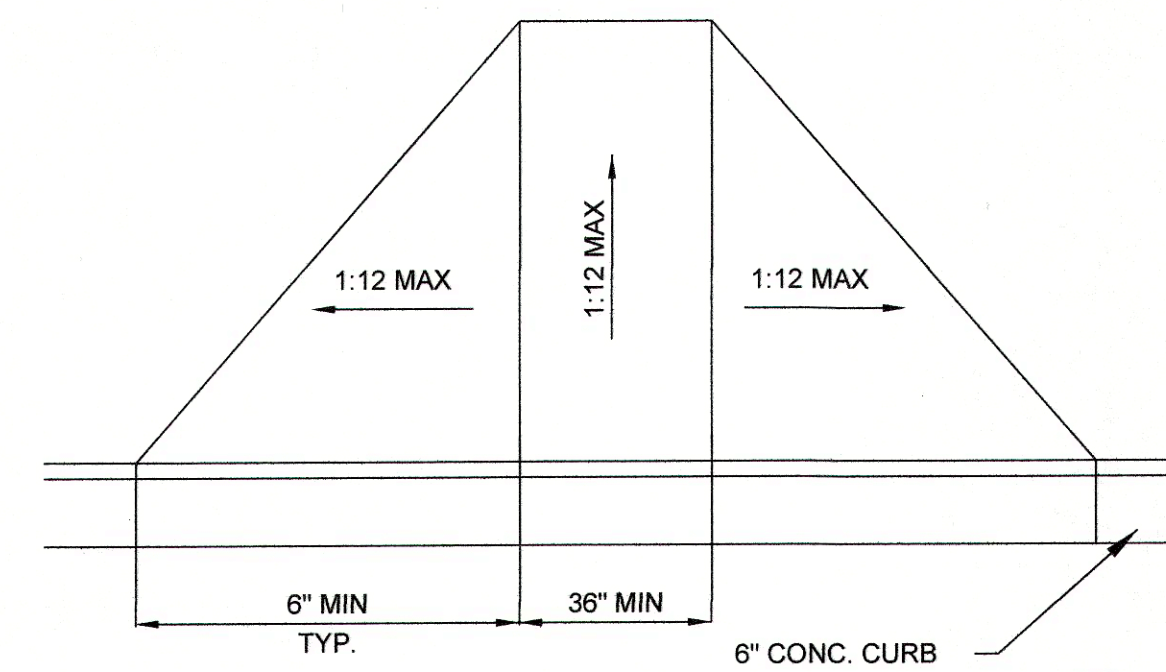
POND OVERFLOW SPILLWAY
NTS

H
C-2.0

**DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR**

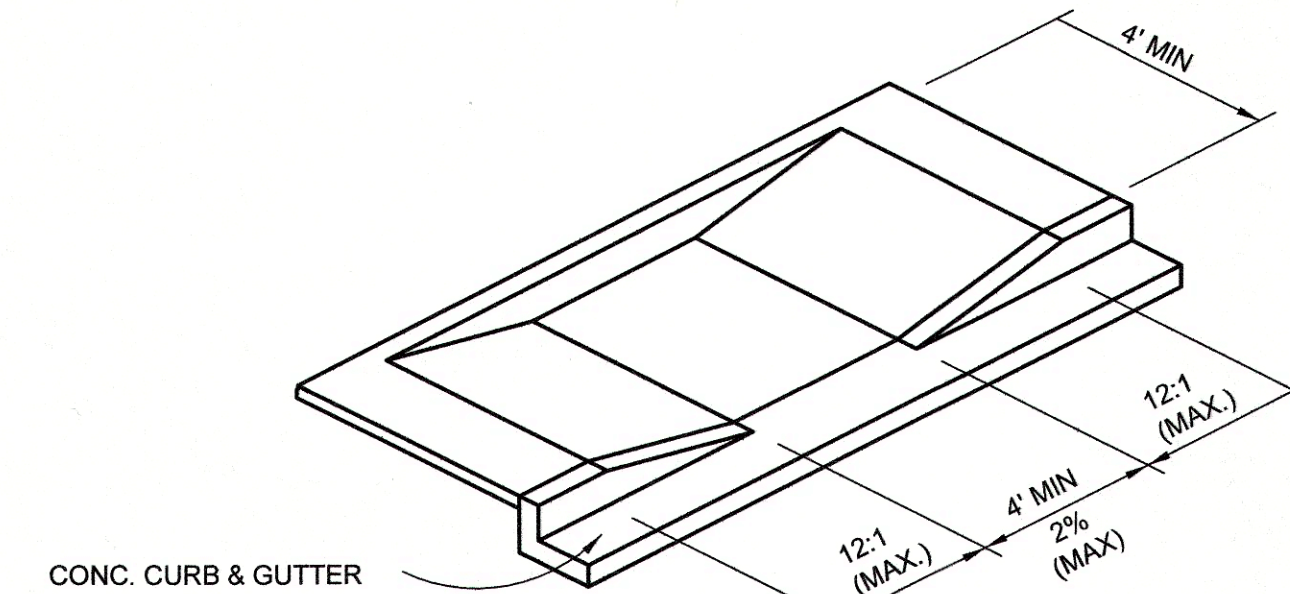
1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", 1986 EDITION, AS AMENDED THROUGH UPDATE NO. 7.
3. THREE WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234 FOR THE LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL CONSTRUCTIONS. 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.

APPROVALS: _____
INSPECTOR _____ DATE _____



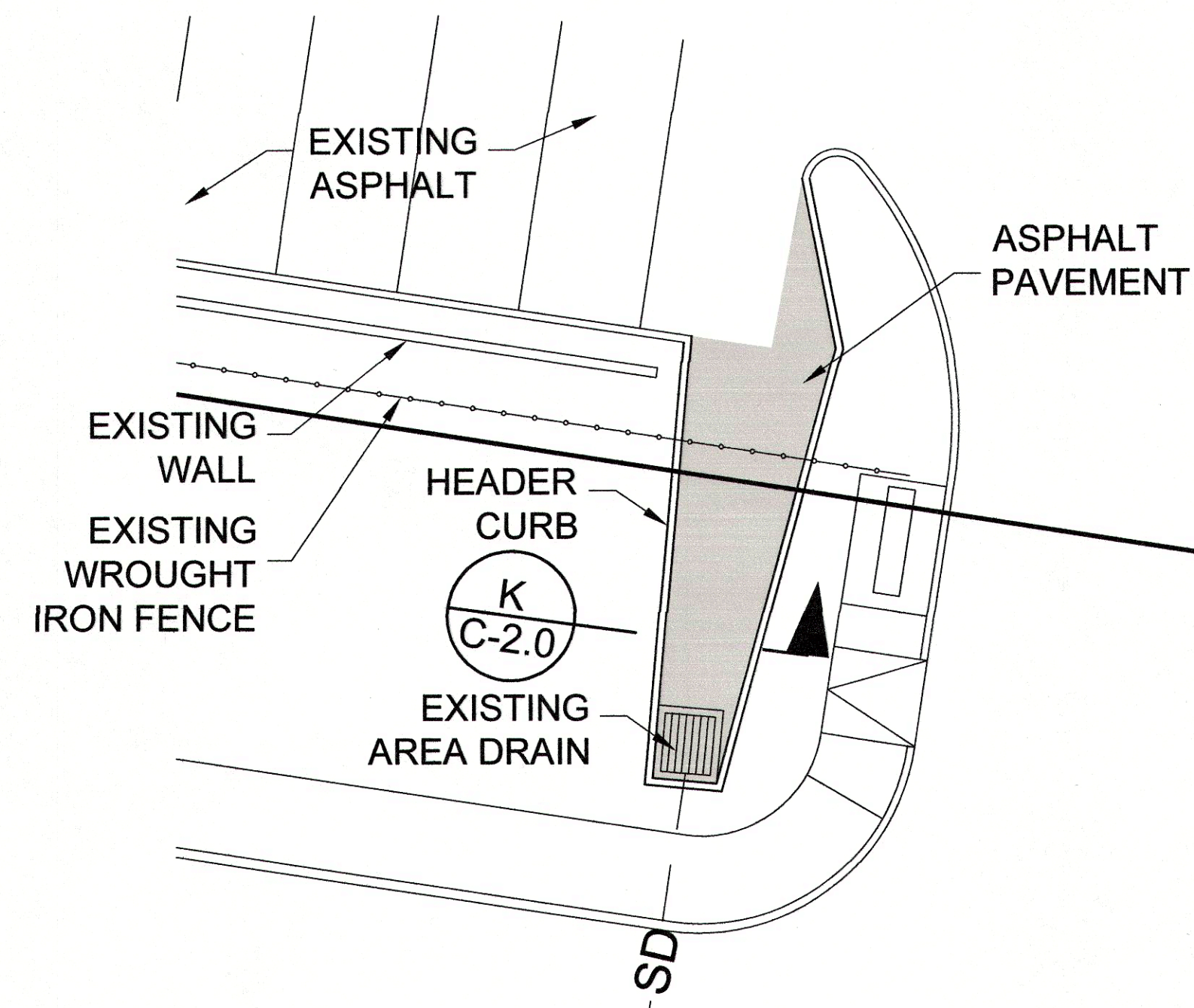
HANDICAP RAMP DETAIL
NTS

F
C-2.0



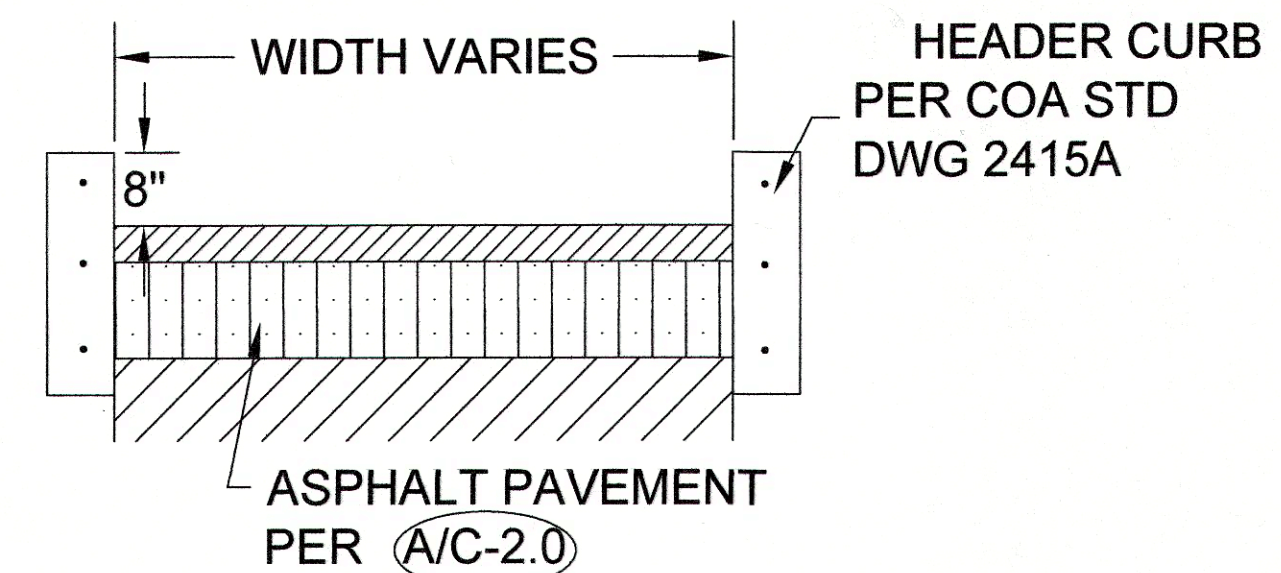
HANDICAP RAMP DETAIL
NTS

G
C-2.0



DRAINAGE CHANNEL DETAIL
NTS

J
C-2.0



DRAINAGE CHANNEL CROSS SECTION
NTS

K
C-2.0