

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

August 11, 2021

Verlyn Miller, P.E.
Miller Engineering Consultants, Inc
3500 Comanche NE Bldg. F
Albuquerque, NM 87107

**RE: Desert Springs Church – Parking Addition
705 Osuna Rd. NE
Grading and Drainage Plan
Engineer’s Stamp Date: 07/08/21
Hydrology File: E16D021**

Dear Mr. Miller:

PO Box 1293

Based upon the information provided in your submittal received 07/13/2021, the Grading & Drainage Plan is **not** approved for Grading Permit and Paving Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

1. According to the Agave Subdivision (E16D024) the storm sewer capacity allowed a Q_{100} of 39.3 cfs for the Church property. (See calculation below) Since the Proposed Q_{100} is 40.467 cfs, a detention will have to be designed. When designing this, please think about all the future developments for this site and ensure that the future Q_{100} will have room to expand the planned detention facility.

NM 87103

www.cabq.gov

	JEFF MORTENSEN & ASSOCIATES, INC.	JOB NO. <u>2005.0284</u>
	6010-B MIDWAY PARK BLVD. NE	SHEET NO. <u>1</u> OF <u>3</u>
	ALBUQUERQUE NEW MEXICO 87109	PREPARED BY <u>GN</u>
	505.345.4250 FAX 505.345.4254	DATE <u>7/7/05</u>

Total Flow in 48" SD (ALL FULLY DEVELOPED)		
(See Basin Map)		
SEGO COX	47 cfs	(from VDN MDP BYA10)
Rancho Mirage	17.6 cfs	(from E-16D024, Basins 5-9)
Tract M	105.4 cfs	(pro-rated from VDN MDP)
Church	39.3 cfs	(E6-D21)
AGAVE	20.0 cfs	
Street	7.9 cfs	(from CPN 5970.81 as-built)
	<u>237.2 cfs</u>	
① shown on P.i.P for CPN 5970.81 is 243 cfs (See attached)		
<u>Total Flow is less than Design Flow</u>		
Per P.i.P for CPN 5970.81, HGL @ MH # 7 ≈ 4 (full 48" pipe)		
Following Pressure Calculations use this HGL as starting point.		

CITY OF ALBUQUERQUE

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2. Since a detention facility will be needed, the required stormwater volume will be included in the detention facility.
3. If a detention pond is going to be planned, then please add the following note, "Pond side slopes need to be stabilized with Native Grass Seed with Aggregate Mulch or equal (Must satisfy the "Final Stabilization criteria" CGP 2.2.14.b.)".
4. As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov , 924-3420) 14 days prior to any earth disturbance.
5. Standard review fee of \$150 will be required at the time of resubmittal.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

PO Box 1293

Sincerely,

A handwritten signature in purple ink that reads "Renée C. Brissette".

Albuquerque

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Desert Springs Church Building Permit #: _____ Hydrology File #: _____

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

Legal Description: TRACT L-1, VISTA DEL NORTE SUBDIVISION

City Address: 705 OSUNA NE, ALB. NM. 87113

Applicant: Desert Springs Church Contact: Charlie Berger

Address: 705 OSUNA NE, ALB. NM. 87113

Phone#: _____ Fax#: _____ E-mail: charlie@CTBAAssociates.com

Other Contact: Miller Eng. Consult. Inc. Contact: Verlyn Miller

Address: 3500 Comanche NE. Bldg. F, ALB. NM. 87107

Phone#: 505-888-7500 Fax#: 505-888-3800 E-mail: Vmiller@mecn.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes No

DEPARTMENT _____ TRANSPORTATION _____ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- GRADING PLAN
- _____ DRAINAGE REPORT
- _____ DRAINAGE MASTER PLAN
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ STREET LIGHT LAYOUT
- _____ 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) _____

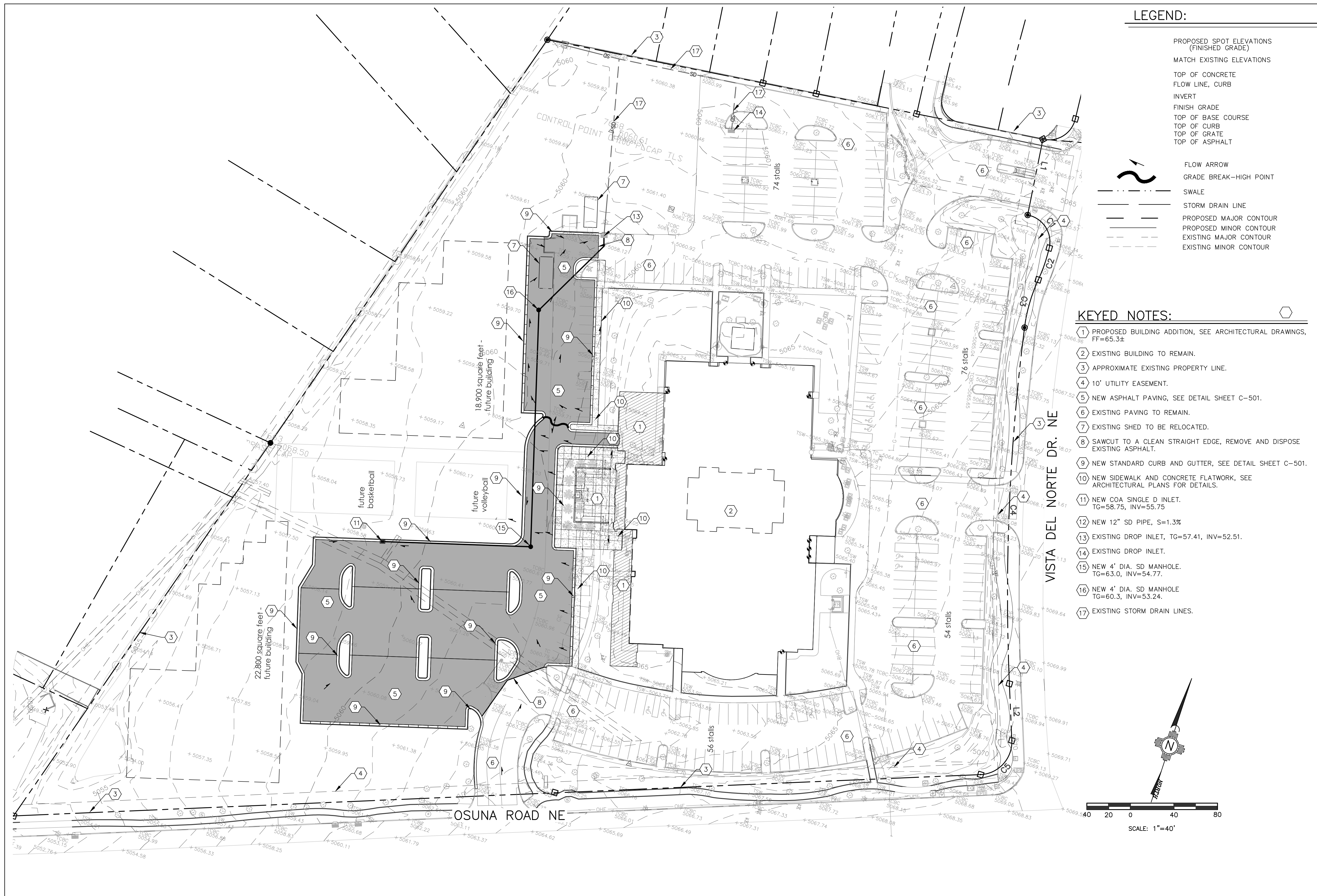
DATE SUBMITTED: 7.12.21 By: Verlyn A. Miller, P.E.

COA STAFF: _____

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

T:\Clients\CTB Architects\DESERT SPRING CHURCH\CADD\DRAINAGE\DRAINAGE PLAN.dwg, C-102 G & D-overall, 8/11/2021 12:00:18 PM



LEGEND:

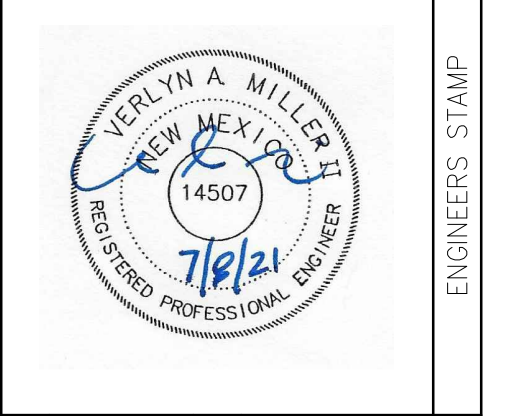
	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)
	MATCH EXISTING ELEVATIONS
	TOP OF CONCRETE
	FLOW LINE, CURB
	INVERT
	FINISH GRADE
	TOP OF BASE COURSE
	TOP OF CURB
	TOP OF GRATE
	TOP OF ASPHALT
	FLOW ARROW
	GRADE BREAK-HIGH POINT
	SWALE
	STORM DRAIN LINE
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR

- KEYED NOTES:**
- 1 PROPOSED BUILDING ADDITION, SEE ARCHITECTURAL DRAWINGS, FF=65.3±
 - 2 EXISTING BUILDING TO REMAIN.
 - 3 APPROXIMATE EXISTING PROPERTY LINE.
 - 4 10' UTILITY EASEMENT.
 - 5 NEW ASPHALT PAVING, SEE DETAIL SHEET C-501.
 - 6 EXISTING PAVING TO REMAIN.
 - 7 EXISTING SHED TO BE RELOCATED.
 - 8 SAWCUT TO A CLEAN STRAIGHT EDGE, REMOVE AND DISPOSE EXISTING ASPHALT.
 - 9 NEW STANDARD CURB AND GUTTER, SEE DETAIL SHEET C-501.
 - 10 NEW SIDEWALK AND CONCRETE FLATWORK, SEE ARCHITECTURAL PLANS FOR DETAILS.
 - 11 NEW COA SINGLE D INLET. TG=58.75, INV=55.75
 - 12 NEW 12" SD PIPE, S=1.3%
 - 13 EXISTING DROP INLET, TG=57.41, INV=52.51.
 - 14 EXISTING DROP INLET.
 - 15 NEW 4' DIA. SD MANHOLE. TG=63.0, INV=54.77.
 - 16 NEW 4' DIA. SD MANHOLE TG=60.3, INV=53.24.
 - 17 EXISTING STORM DRAIN LINES.

MILLER ENGINEERING CONSULTANTS
Engineers • Planners

3500 COMANCHE NE
SUITE 100
ALBUQUERQUE, NM 871107
(505) 868-7500
(505) 868-3800 (FAX)

DESIGNED	RPH	JOB # E-21-077
DRAWN	RPH	FILE
CHECKED	VAM	DATE 04/19/2021



NEW MEXICO
BERNALILLO COUNTY

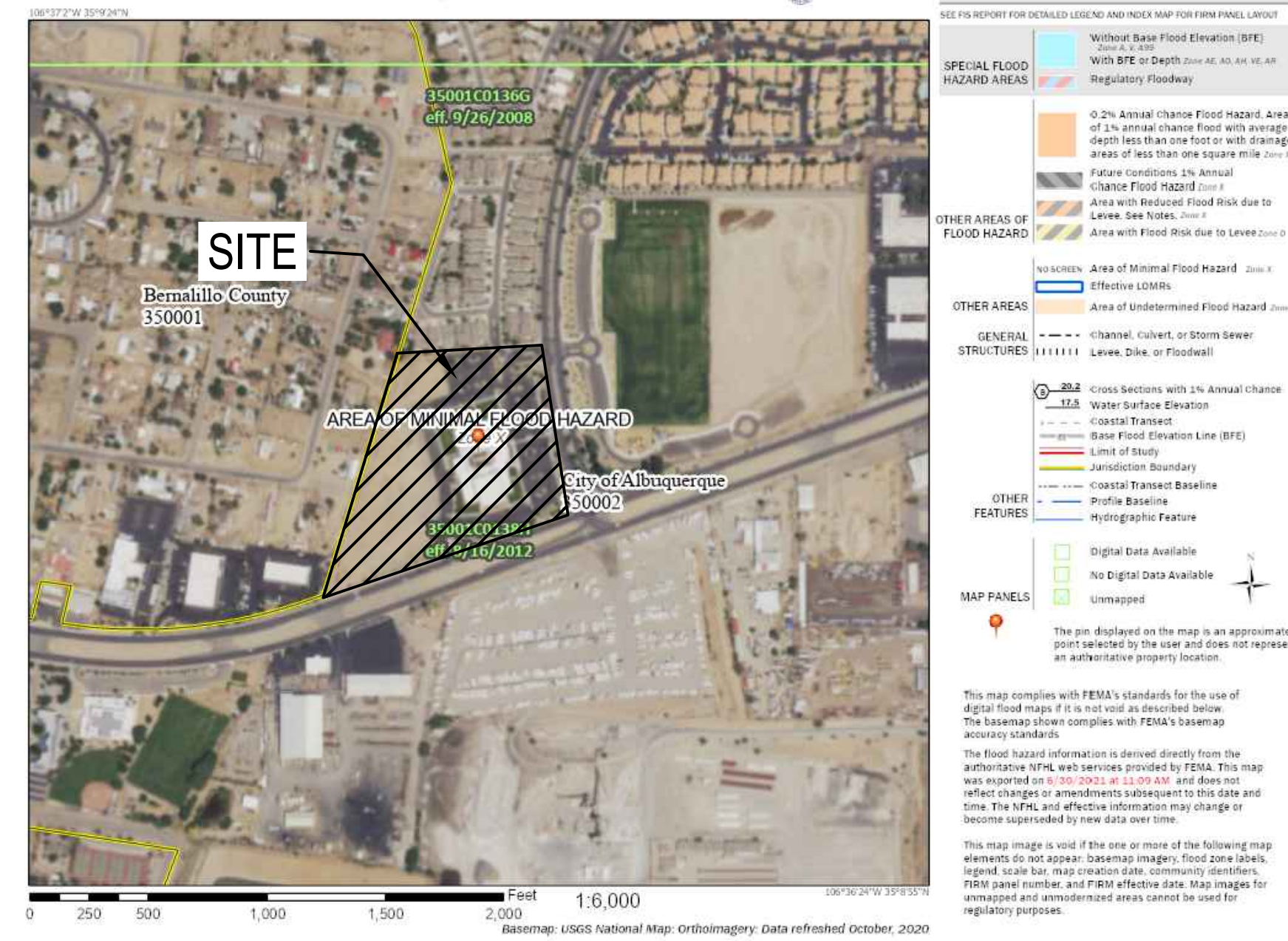
DESERT SPRINGS CHURCH
ALBUQUERQUE, N.M.

GRADING AND DRAINAGE PLAN OVERALL

MARK	DATE	REVISION DESCRIPTION

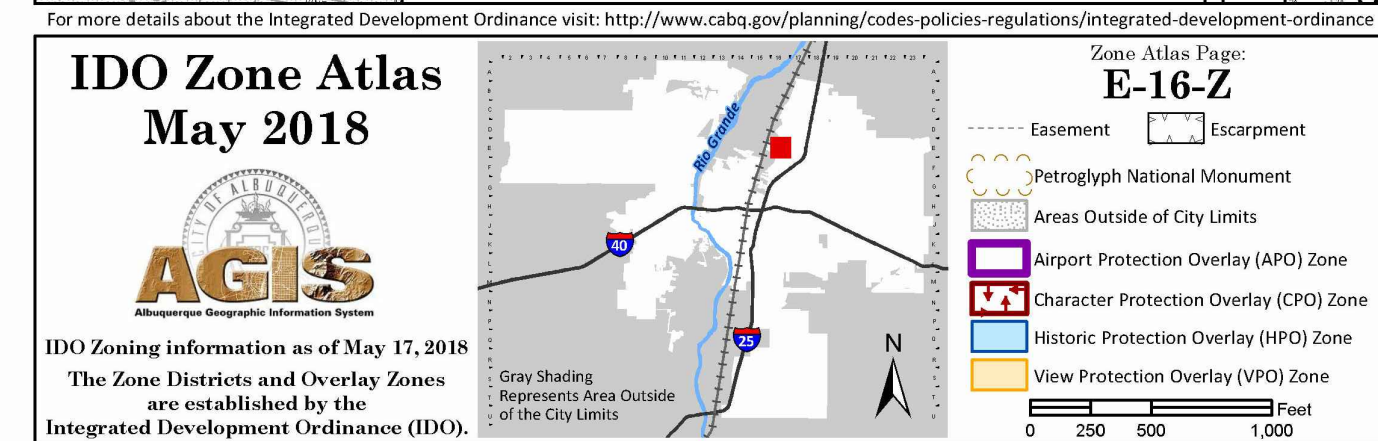
DRAINAGE REPORT

National Flood Hazard Layer FIRMette



FLOOD ZONE MAP

FLOOD ZONE MAP 35001C0138H



SITE LOCATION

The proposed project is located on an approximate 10-acre parcel at the intersection of Osuna and Vista Del Norte Drive NE. The site can be accessed from Osuna Boulevard west of I-25.

EXISTING CONDITIONS

The overall existing site is estimated at 10 acres and is partially developed with a church, parking lots and associated improvements. Site drainage is currently collected by an onsite storm drain system.

Per the FMEA Panel on Sheet C-100 the site does not lie within a 100-year FEMA floodplain and is not impacted by any offsite flows.

PROPOSED CONDITIONS

The proposed project would consist of a new building addition to the existing church building and a parking lot expansion to the west side of the church building. The finish floor of the new building addition will match the finish floor of the existing building per the grading and drainage plan (Sheet C-101). Site drainage from the building addition and parking lot expansion will be collected by new area drain which will connect to the existing onsite storm drain system.

The runoff from the site under existing and proposed conditions is estimated in the hydrology table on Sheet C-100.

CONCLUSIONS

When developed as indicated on the grading and drainage plan, the increased runoff from the site is estimated at 1.87 cfs, and 0.139 acre-feet during the 100-year, 24-hour event. The first flush pond volume for the new impervious areas is estimated at 1830 cf. The owner has agreed to pay a fee in lieu of first flush ponding for this site.

GENERAL NOTES:

- EXISTING TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY PRECISION SURVEYS, INC., ALBUQUERQUE, NEW MEXICO NOVEMBER, 2019. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- PROJECT BENCHMARK IS A CITY OF ALBUQUERQUE SURVEY BRASS DISC STAMPED "ZAB-B, 1994". LOCATED ON THE I-25 EAST FRONTAGE ROAD NE., 0.13 MI ± NORTHERLY OF CENTERLINE PASSEO DEL NORTE, 447± SOUTHERLY OF CENTERLINE CARMEL AVE. (MEASURED ALONG SAID FRONTAGE ROAD), 68.8 FT. NORTHERLY OF NMSHC BRASS CAP "397-96.81" ON THE I-25 EAST RIGHT-OF-WAY LINE, 24.0 FT. EASTERLY OF THE MOST EASTERLY WHITE STRIPE ON SAID FRONTAGE ROAD, 1.7 FT. WESTERLY OF THE I-25 EAST RIGHT-OF-WAY FENCE, 0.25 FT. BELOW SAID ACCESS COVER.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
- THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
- THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
- THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%. ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
- ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
- THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
- THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2014 EDITION OF THE NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION (GREY BOOK).
- ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.
- THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY NRCS FIELD OFFICE REPRESENTATIVE APPROPRIATE FOR PROJECT LOCATION.

ALL DISTURBED AREAS, NOT ADDRESSED BY ARCHITECTURAL LANDSCAPE PLAN WITH SLOPES OF LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ANY SLOPES THAT ARE 3:1 OR STEEPER SLOPES SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL.

		Precipitation Zone 2 - 100-year Storm P(360) = 2.33 in				P(1440) = 2.75 in			
Basin	Basin Area (Ac)	Land Treatment Factors				Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
		A	B	C	D				
Existing Conditions									
A	10.250	0.000	1.000	4.590	4.660	1.546	1.320	1.476	38.595
Total	10.250							1.476	38.595
Proposed Conditions									
A	10.250	0.000	1.000	3.390	5.860	1.66	1.419	1.615	40.467
Total	10.250							1.615	40.467

FIRST FLUSH CALCULATIONS

$$VFF = (52,272 \text{ SF} \cdot 0.42) / 12$$

$$VFF = 1829.52 \text{ CF}$$

MILLER ENGINEERING CONSULTANTS
Engineers • Planners

3500 COMANCHE NE
ALBUQUERQUE, NM 87110
(505)868-7500
(505)868-3800 (FAX)

DESIGNED: RPH E-20-062
DRAWN: RPH C-100.dwg
CHECKED: VAM
DATE: 7-08-2021

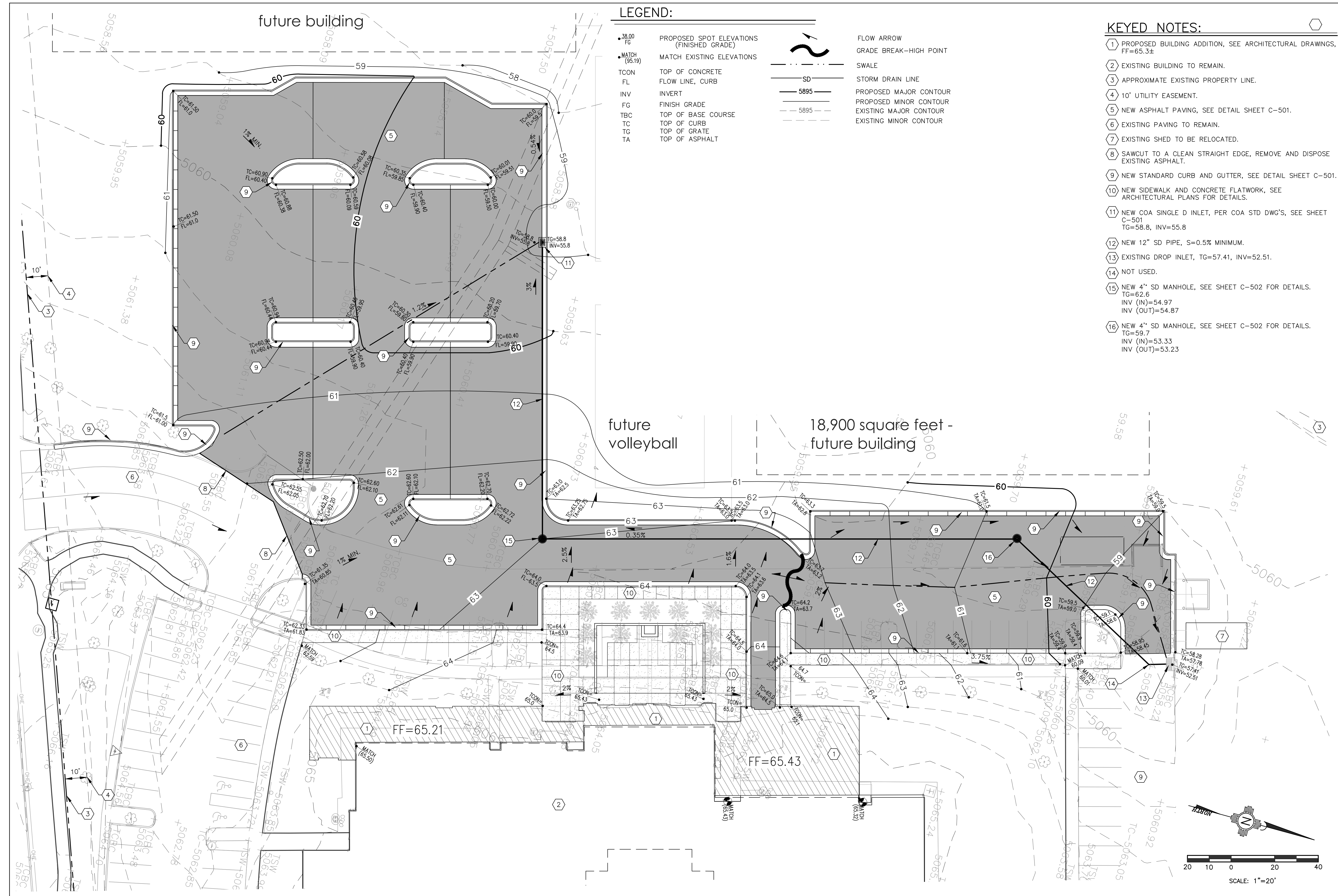
BERNARD A. MILLER
REGISTERED PROFESSIONAL ENGINEER
14507
7/12/21

ENGINEER'S STAMP

NEW MEXICO
BERNALILLO COUNTY
DESERT SPRINGS CHURCH
ALBUQUERQUE, N.M.
HYDROLOGY
DETAILS

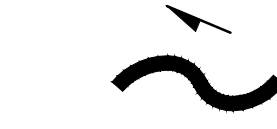
REVISION	DESCRIPTION	DATE	MARK

C-100

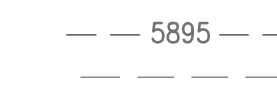
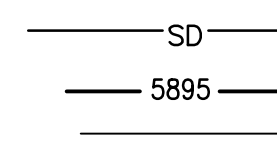


LEGEND:

- 38.00 PROPOSED SPOT ELEVATIONS (FINISHED GRADE)
- MATCH (35.19) MATCH EXISTING ELEVATIONS
- TCON TOP OF CONCRETE
- FL FLOW LINE, CURB
- INV INVERT
- FG FINISH GRADE
- TBC TOP OF BASE COURSE
- TC TOP OF CURB
- TG TOP OF GRATE
- TA TOP OF ASPHALT



- FLOW ARROW
- GRADE BREAK—HIGH POINT
- SWALE
- SD STORM DRAIN LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR



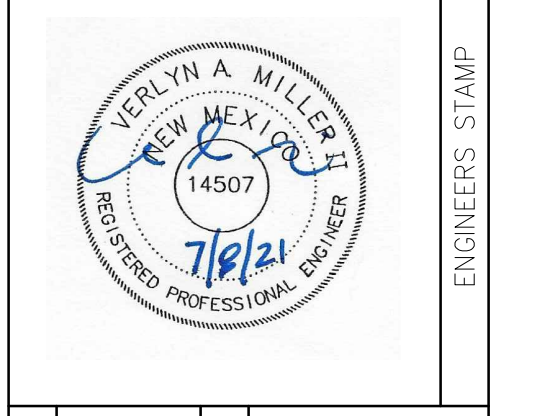
KEYED NOTES:

- 1 PROPOSED BUILDING ADDITION, SEE ARCHITECTURAL DRAWINGS, FF=65.3±
- 2 EXISTING BUILDING TO REMAIN.
- 3 APPROXIMATE EXISTING PROPERTY LINE.
- 4 10' UTILITY EASEMENT.
- 5 NEW ASPHALT PAVING, SEE DETAIL SHEET C-501.
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- 7 EXISTING SHED TO BE RELOCATED.
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- 9 NEW STANDARD CURB AND GUTTER, SEE DETAIL SHEET C-501.
- 10 NEW SIDEWALK AND CONCRETE FLATWORK, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 11 NEW COA SINGLE D INLET, PER COA STD DWG'S, SEE SHEET C-501
TG=58.8, INV=55.8
- 12 NEW 12" SD PIPE, S=0.5% MINIMUM.
- 13 EXISTING DROP INLET, TG=57.41, INV=52.51.
- 14 NOT USED.
- 15 NEW 4" SD MANHOLE, SEE SHEET C-502 FOR DETAILS.
TG=62.6
INV (IN)=54.97
INV (OUT)=54.87
- 16 NEW 4" SD MANHOLE, SEE SHEET C-502 FOR DETAILS.
TG=59.7
INV (IN)=53.33
INV (OUT)=53.23

MILLER ENGINEERING CONSULTANTS
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3500 COMANCHE NE
ALBUQUERQUE, NM 87107
(505)888-2500
(505)888-3800 (FAX)

DESIGNED	RPH	JOB #	E-20-062
DRAWN	RPH	FILE	C-101.dwg
CHECKED	VAM	DATE	04/19/2021



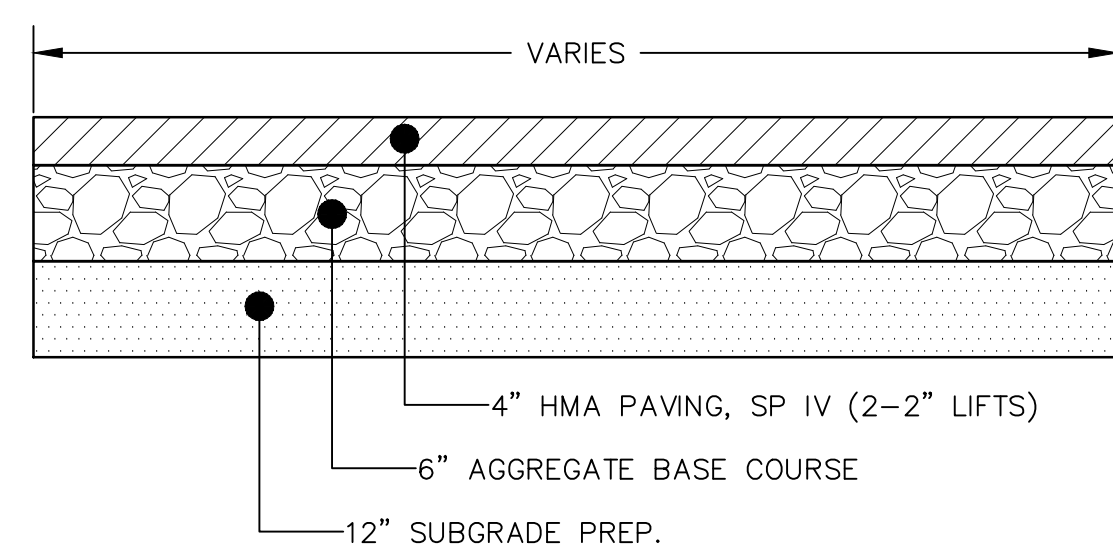
NEW MEXICO

DESERT SPRINGS CHURCH
ALBUQUERQUE, N.M.

GRADING AND DRAINAGE PLAN

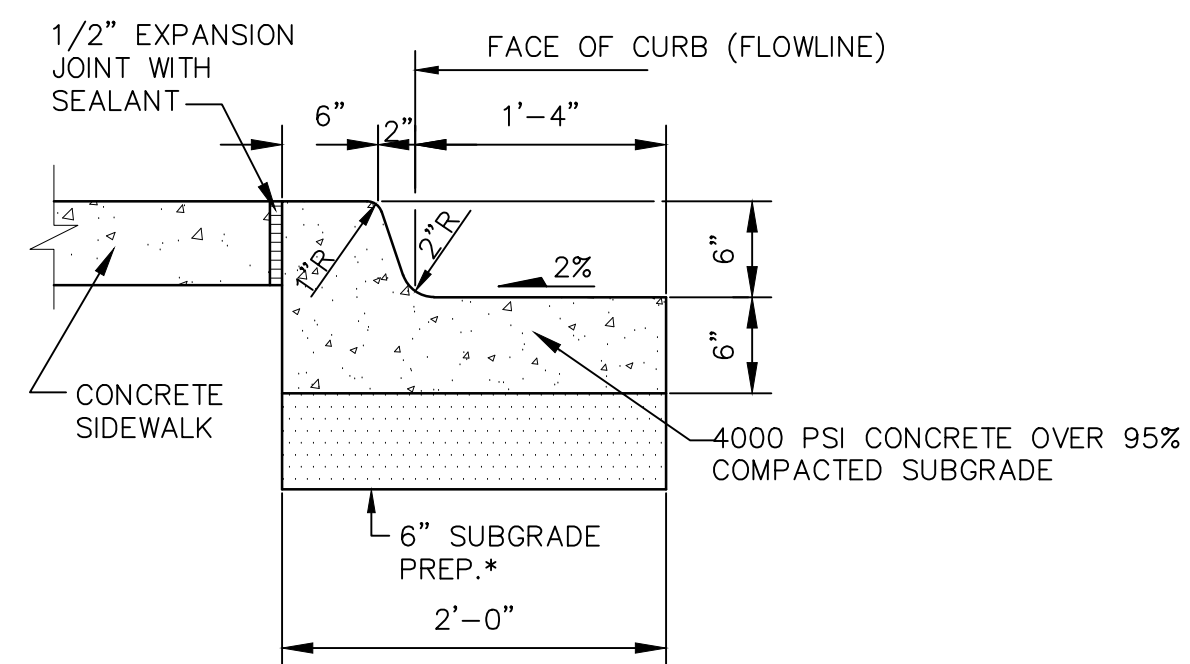
MARK	DATE	REVISION DESCRIPTION

T:\Clients\CTB Architects\DESERT SPRING CHURCH\CADD\SHEETS\C-101_G & D Plan_7/13/2021 10:51:35 AM



D1 HEAVY DUTY ASPHALT PAVING DETAIL

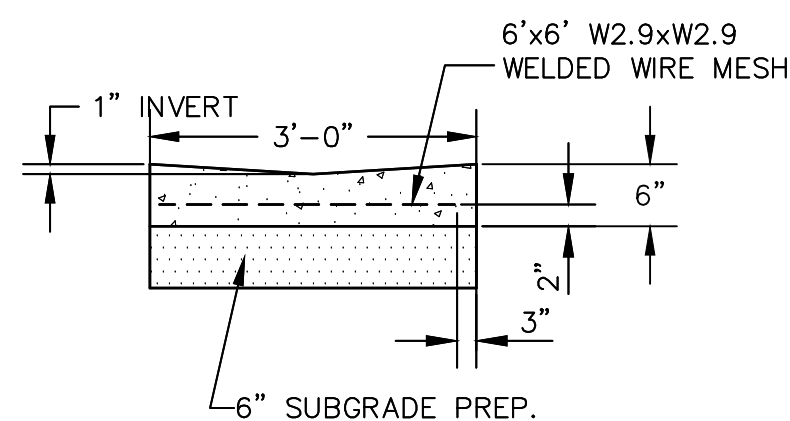
SCALE: NOT TO SCALE



- NOTES:**
1. SEE PLAN FOR SIDEWALK JOINT PATTERN.
 2. CONSTRUCT 1/2" EXPANSION JOINTS WITH SEALANT @40'-0" O.C. MAX.
 3. CONSTRUCT 1 1/2" DEEP TOOLED CONTROL JOINTS @5'-0" O.C. MAX.
 4. MATCH TOP OF EXISTING SIDEWALK AND MAINTAIN EXISTING FLOWLINE.

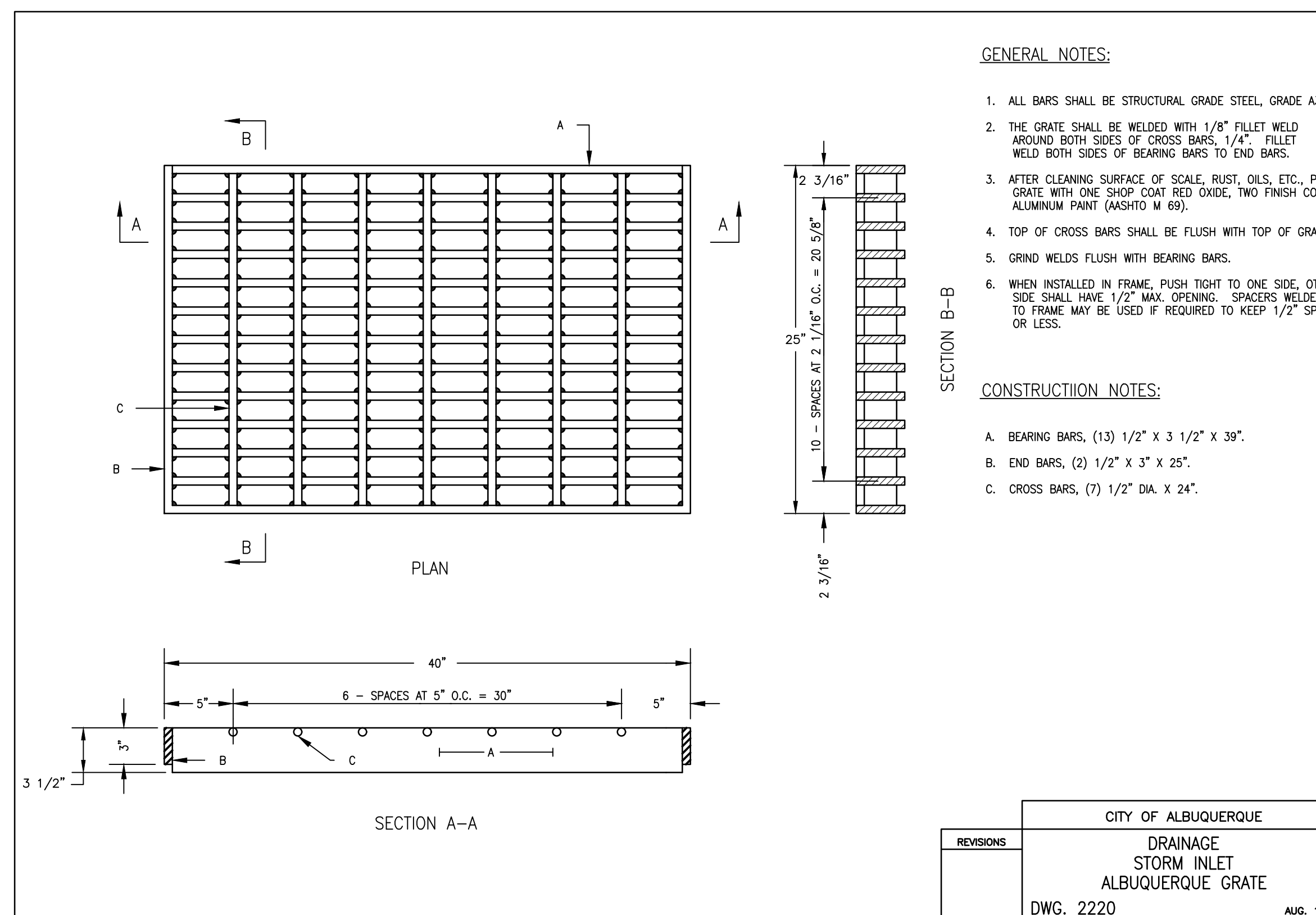
D2 TYPICAL CURB AND GUTTER SECTION

SCALE: NOT TO SCALE



C2 CONCRETE VALLEY GUTTER DETAIL

SCALE: NONE



GENERAL NOTES:

1. ALL BARS SHALL BE STRUCTURAL GRADE STEEL, GRADE A36.
2. THE GRATE SHALL BE WELDED WITH 1/8" FILLET WELD AROUND BOTH SIDES OF CROSS BARS, 1/4" FILLET WELD BOTH SIDES OF BEARING BARS TO END BARS.
3. AFTER CLEANING SURFACE OF SCALE, RUST, OILS, ETC., PAINT GRATE WITH ONE SHOP COAT RED OXIDE, TWO FINISH COATS ALUMINUM PAINT (ASHITO M 69).
4. TOP OF CROSS BARS SHALL BE FLUSH WITH TOP OF GRATE.
5. GRIND WELDS FLUSH WITH BEARING BARS.
6. WHEN INSTALLED IN FRAME, PUSH TIGHT TO ONE SIDE, OTHER SIDE SHALL HAVE 1/2" MAX. OPENING. SPACERS WELDED TO FRAME MAY BE USED IF REQUIRED TO KEEP 1/2" SPACE OR LESS.

CONSTRUCTION NOTES:

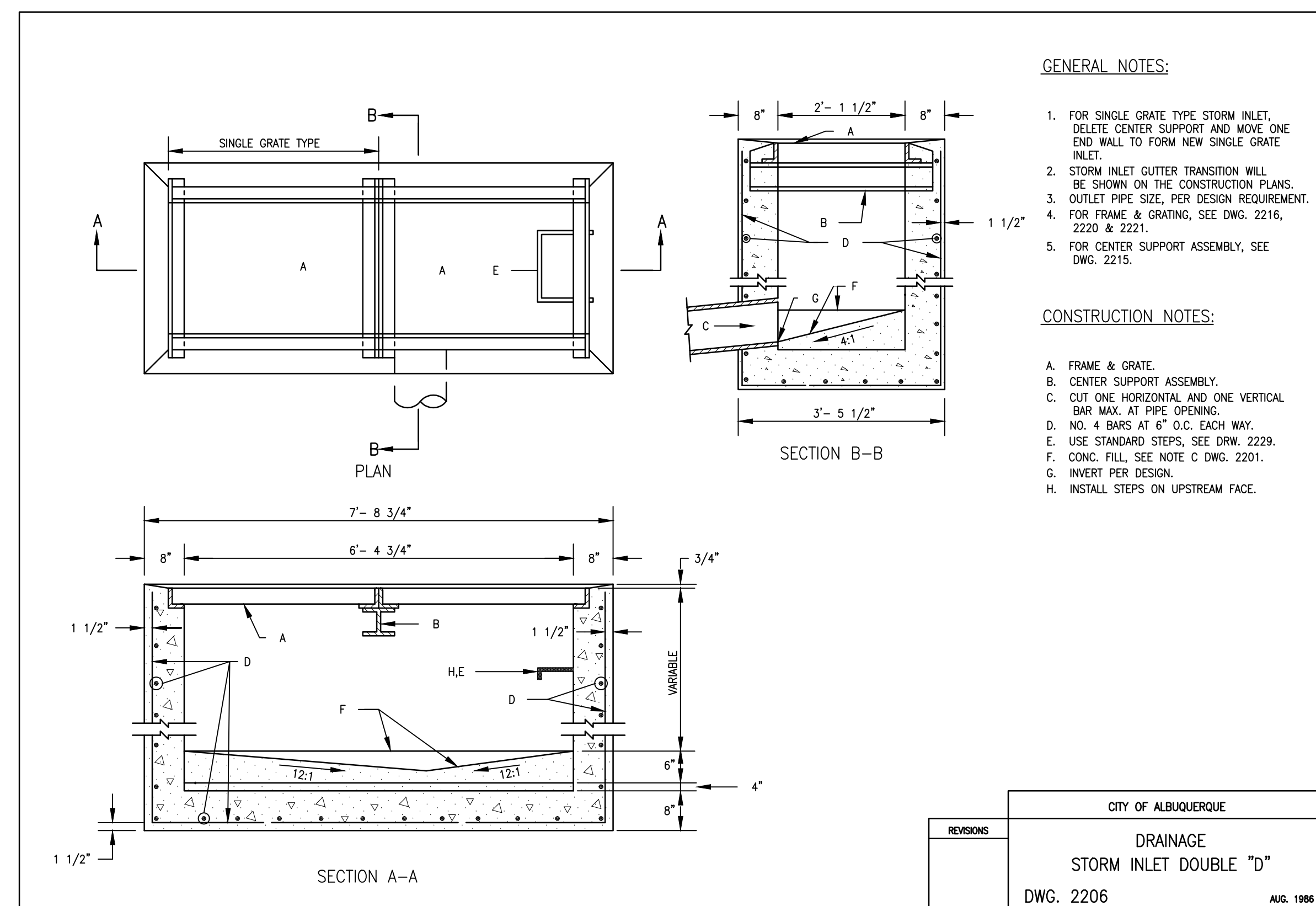
- A. BEARING BARS, (13) 1/2" X 3 1/2" X 39".
- B. END BARS, (2) 1/2" X 3" X 25".
- C. CROSS BARS, (7) 1/2" DIA. X 24".

DESIGNED	RFH	FILE	C-501.dwg
DRAWN	RFH	CHECKED	VAM
DATE	07/08/2021		

CITY OF ALBUQUERQUE
DRAINAGE STORM INLET
ALBUQUERQUE GRATE
DWG. 2220
AUG. 1986

C4 STORM DRAIN INLET GRATE

SCALE: NOT TO SCALE



GENERAL NOTES:

1. FOR SINGLE GRATE TYPE STORM INLET, DELETE CENTER SUPPORT AND MOVE ONE END WALL TO FORM NEW SINGLE GRATE INLET.
2. STORM INLET GUTTER TRANSITION WILL BE SHOWN ON THE CONSTRUCTION PLANS.
3. OUTLET PIPE SIZE, PER DESIGN REQUIREMENT.
4. FOR FRAME & GRATING, SEE DWG. 2216, 2220 & 2221.
5. FOR CENTER SUPPORT ASSEMBLY, SEE DWG. 2215.

CONSTRUCTION NOTES:

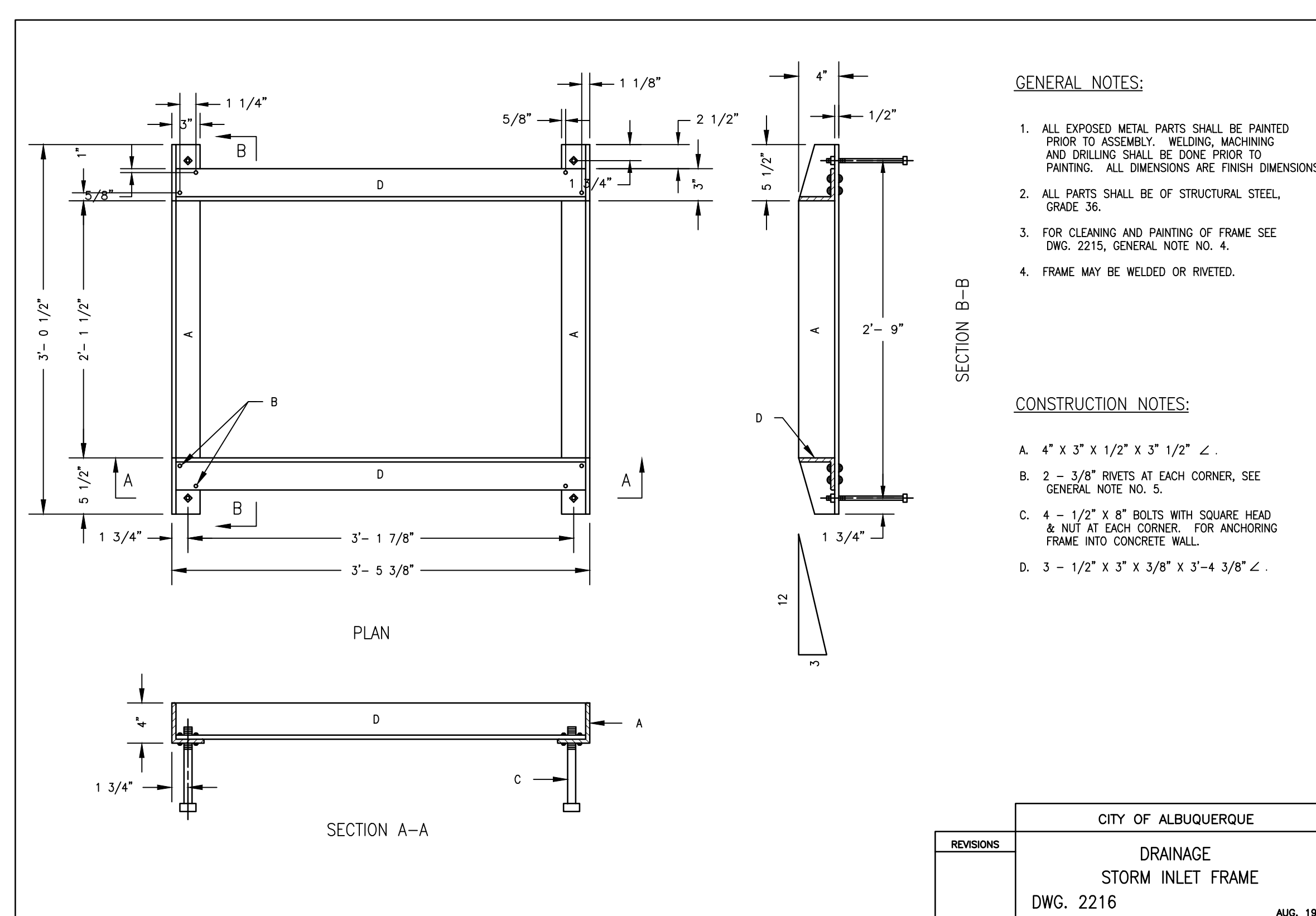
- A. FRAME & GRATE.
- B. CENTER SUPPORT ASSEMBLY.
- C. CUT ONE HORIZONTAL AND ONE VERTICAL BAR MAX. AT PIPE OPENING.
- D. NO. 4 BARS AT 6" O.C. EACH WAY.
- E. USE STANDARD STEPS, SEE DRW. 2229.
- F. CONC. FILL, SEE NOTE C DWG. 2201.
- G. INVERT PER DESIGN.
- H. INSTALL STEPS ON UPSTREAM FACE.

REVISIONS			

CITY OF ALBUQUERQUE
DRAINAGE STORM INLET DOUBLE "D"
DWG. 2206
AUG. 1986

A1 STORM DRAIN INLET SINGLE "D"

SCALE: NOT TO SCALE



GENERAL NOTES:

1. ALL EXPOSED METAL PARTS SHALL BE PAINTED PRIOR TO ASSEMBLY. WELDING, MACHINING AND DRILLING SHALL BE DONE PRIOR TO PAINTING. ALL DIMENSIONS ARE FINISH DIMENSIONS.
2. ALL PARTS SHALL BE OF STRUCTURAL STEEL, GRADE 36.
3. FOR CLEANING AND PAINTING OF FRAME SEE DWG. 2215, GENERAL NOTE NO. 4.
4. FRAME MAY BE WELDED OR RIVETED.

CONSTRUCTION NOTES:

- A. 4" X 3" X 1/2" X 3' 1/2" L.
- B. 2 - 3/8" RIVETS AT EACH CORNER, SEE GENERAL NOTE NO. 5.
- C. 4 - 1/2" X 8" BOLTS WITH SQUARE HEAD & NUT AT EACH CORNER. FOR ANCHORING FRAME INTO CONCRETE WALL.
- D. 3 - 1/2" X 3" X 3/8" X 3'-4 3/8" L.

REVISIONS			

CITY OF ALBUQUERQUE
DRAINAGE STORM INLET FRAME
DWG. 2216
AUG. 1986

A3 STORM DRAIN INLET FRAME

SCALE: NOT TO SCALE

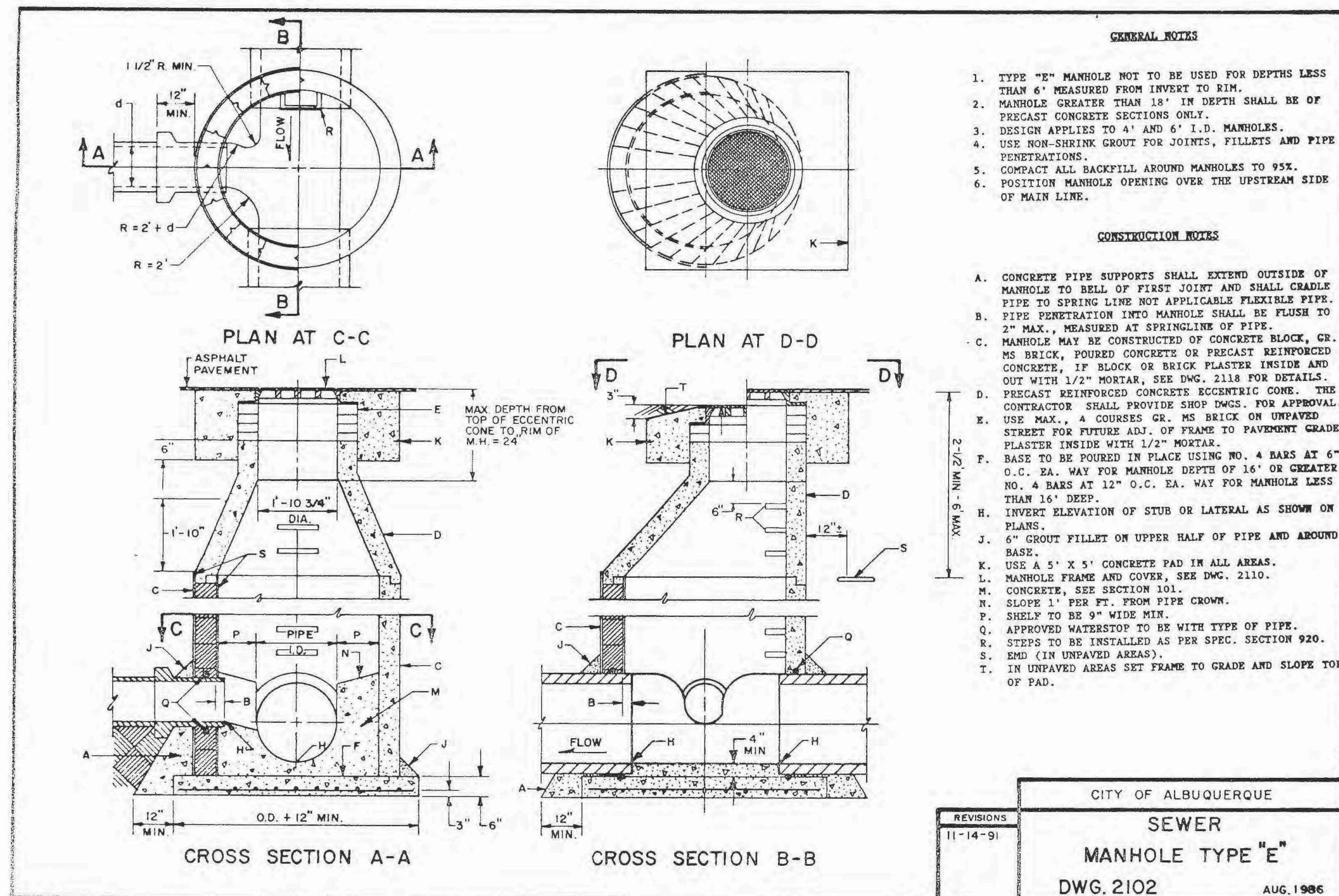
MILLER ENGINEERING CONSULTANTS
Engineers • Planners

3500 COMANCHE NE
ALBUQUERQUE, NM 87110
(505) 888-7500
(505) 888-3800 (FAX)

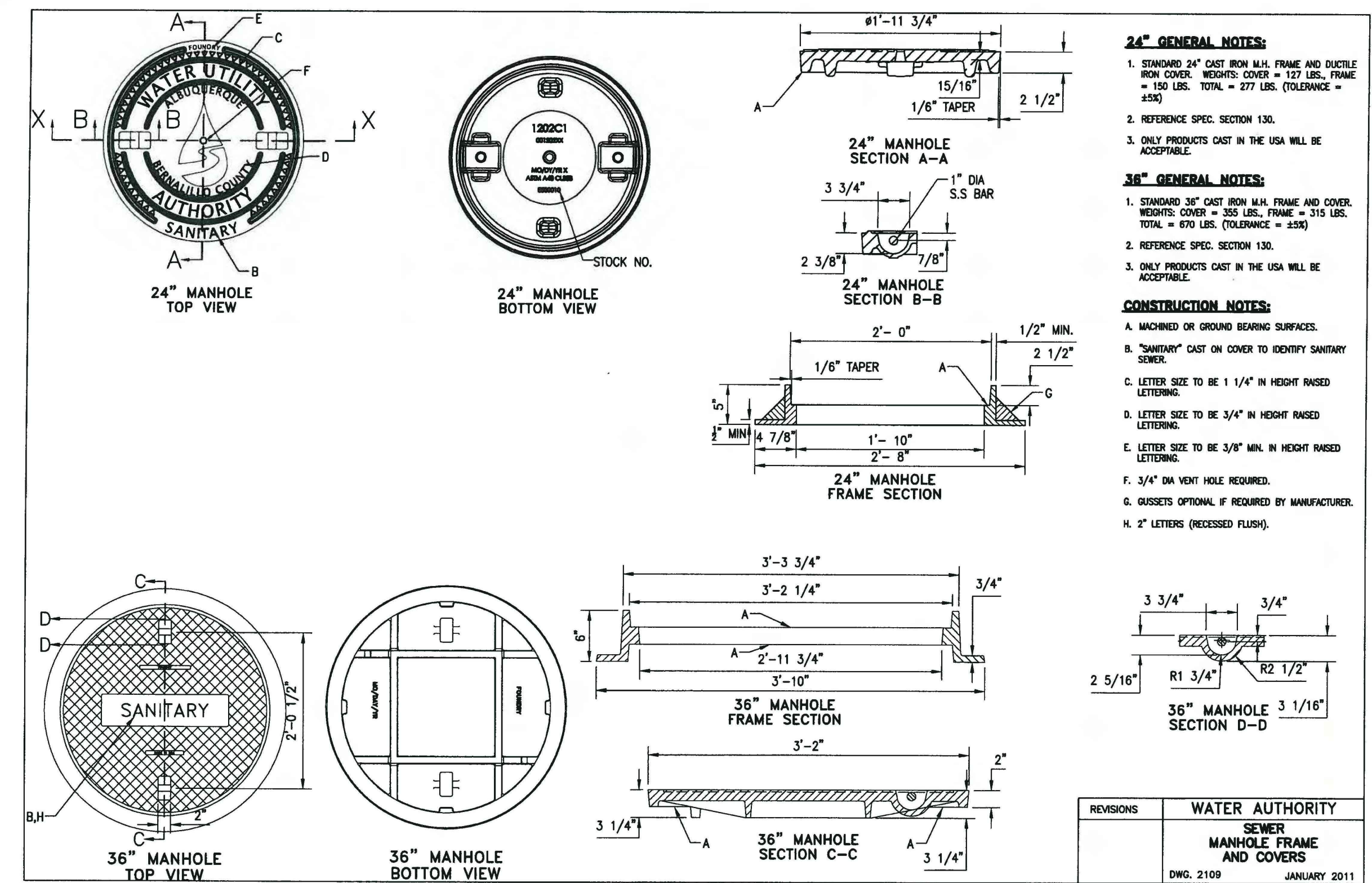
NEW MEXICO
BERNALILLO COUNTY
DESERT SPRINGS CHURCH
ALBUQUERQUE, N.M.
MISCELLANEOUS DETAILS

REVISION	DESCRIPTION	DATE	MARK

C-501



C1 SEWER MANHOLE TYPE "E" DETAIL
SCALE: NOT TO SCALE



C4 MANHOLE COVER DETAILS
SCALE: NOT TO SCALE



REVISION	DESCRIPTION	DATE	MARK

C-502