CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director

Mayor Timothy M. Keller

April 20, 2023

Fred C. Arfman, PE
Isaacson & Arfman, Inc
128 Monroe Street NE,
Albuquerque, NM 87108

RE: Avanyu North Buildings G & H
Northwesterly Portion of all Indian Pueblo Council Property (formerly Albuquerque Indian School)
2500 12th Street NW
Grading & Drainage Plan
Engineers Stamp Date: 04/10/2023
Hydrology File: H13D113

Dear Mr. Arfman,

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 4/11/2023, the Grading & Drainage Plan is approved for Building Permit approval. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

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, 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3695 or tchen@cabq.gov.

Sincerely,

Tiequan Chen, P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

Project Title: Avanyu North Buildings G & H **Building Permit #**_____ **Hydrology File #** H13D113

DRB#_____ **EPC#**_____

Legal Description: Northwesterly Portion of all Indian Pueblo Council Property (formerly Albuquerque Indian School) City Address OR Parcel 2500 12th Street NW

~~**Applicant**~~**/Agent:** Isaacson & Arfman, Inc. **Contact:** Fred C. Arfman or Bryan J. Bobrick

Address: 128 Monroe Street NE **Phone:** (505) 268-8828

Email: freda@iacivil.com or byanb@iacivil.com

~~**Applicant**~~**/Owner:** _____ **Contact:** _____

Address: _____ **Phone:** _____

Email: _____

TYPE OF DEVELOPMENT: ___PLAT (#of lots) __RESIDENCE __DRB SITE__X__ ADMIN SITE: ____

RE-SUBMITTAL: __X__YES _____ NO

DEPARTMENT: _____TRANSPORTATION __X__ HYDROLOGY/DRAINAGE

Check all that apply:

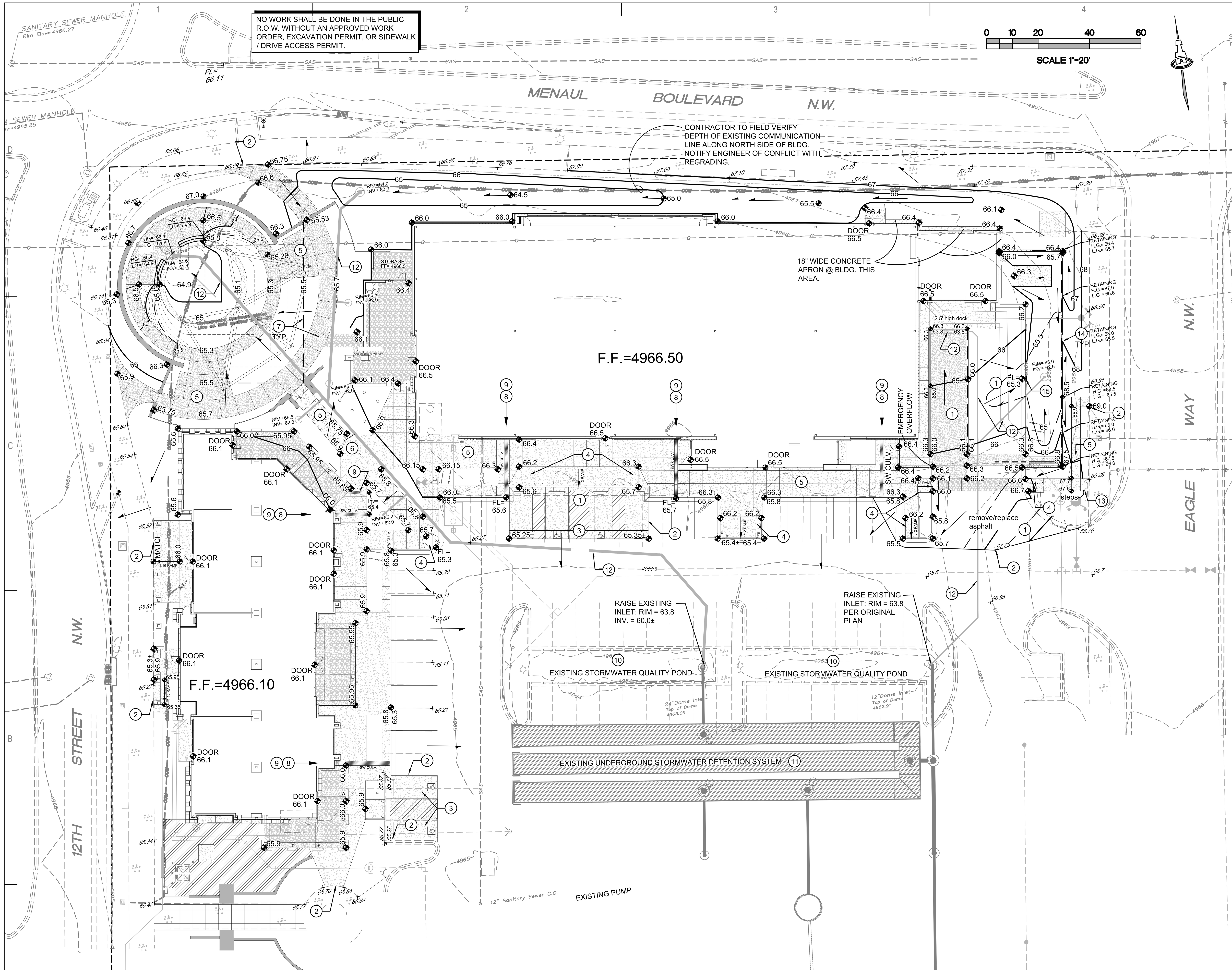
TYPE OF SUBMITTAL:

___ENGINEER/ARCHITECT CERTIFICATION
___PAD CERTIFICATION
___CONCEPTUAL G&D PLAN
X GRADING PLAN
___DRAINAGE REPORT
___DRAINAGE MASTER PLAN
___FLOOD PLAN DEVELOPMENT PERMIT APP.
___ELEVATION CERTIFICATE
___CLOMR/LOMR
___TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
___TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
___TRAFFIC IMPACT STUDY (TIS)
___STREET LIGHT LAYOUT
___OTHER (SPECIFY)
___PRE-DESIGN MEETING?

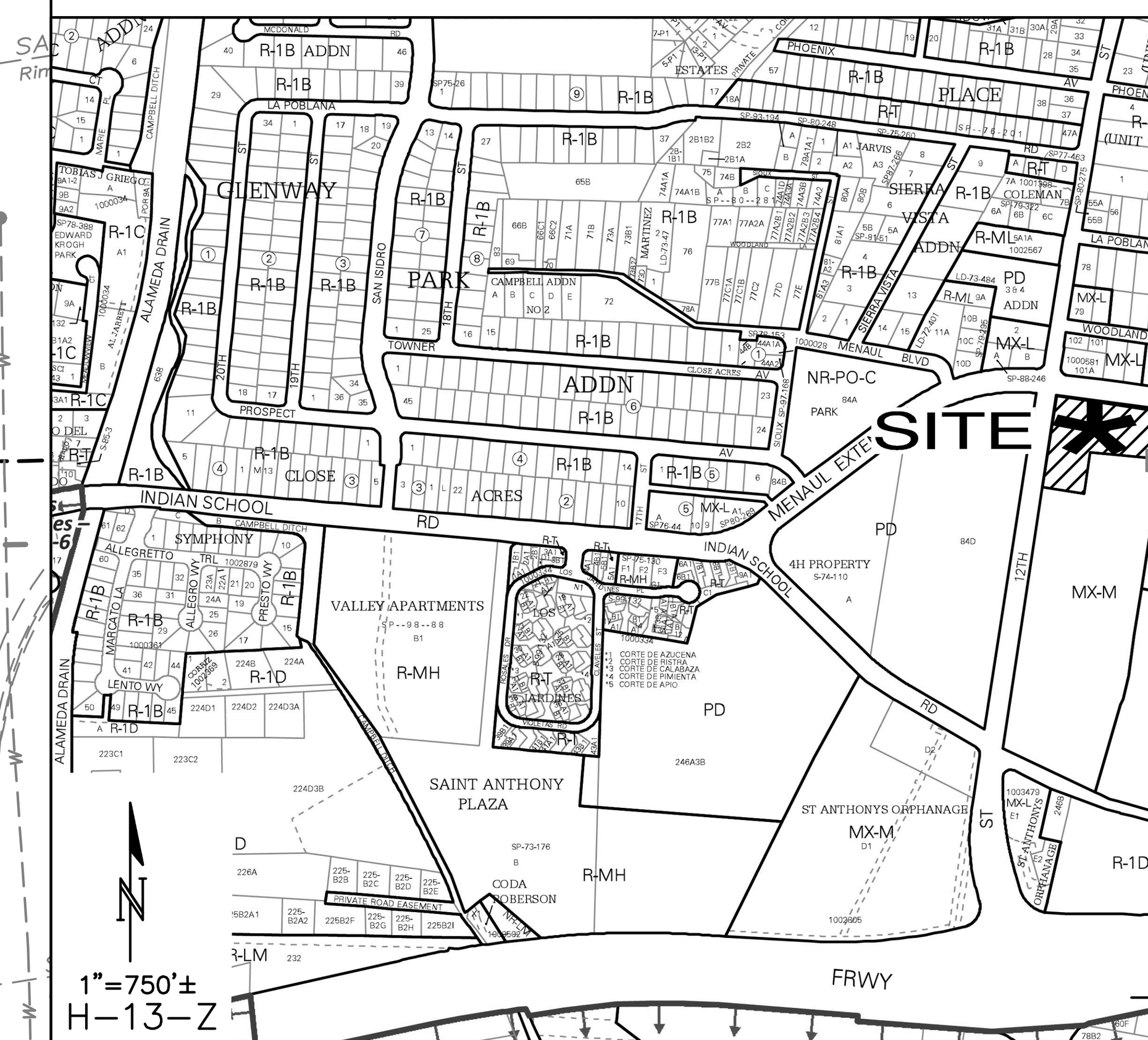
TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X BUILDING PERMIT APPROVAL
___CERTIFICATE OF OCCUPANCY
___CONCEPTUAL TCL DRB APPROVAL
___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
___FLOOD PLAN DEVELOPMENT PERMIT
___OTHER (SPECIFY)_____

DATE SUBMITTED: April 10, 2023



VICINITY MAP H-13



KEYED NOTES

1. CONSTRUCT NEW PAVING AT ELEVATIONS SHOWN. SEE PAVING PLAN FOR MATERIAL, EXTENTS, JOINTS, CURB & GUTTER EXTENTS, AND PAVING SECTIONS. NOTE: TO ENSURE READABILITY, NOT ALL PAVEMENT SPOT ELEVATIONS SHOW ADJACENT TOP OF CURB / TOP OF WALK ELEVATIONS. TEXT SHOWN WITHIN FLOWLINE INDICATES FLOWLINE ELEVATION. ADD 0.5' TYPICAL FOR TOP OF CURB / TOP OF ADJACENT WALK ELEVATIONS UNLESS NOTED.
2. PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.
3. SLOPE WITHIN ACCESSIBLE PARKING AREAS TO BE ADA COMPLAINT. SLOPE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION
4. CONSTRUCT ADA COMPLIANT RAMP. LONGITUDINAL SLOPE SHALL NOT EXCEED 12:1 (8.3%). CROSS SLOPE SHALL NOT EXCEED 2%.
5. CONSTRUCT ADA COMPLIANT PEDESTRIAN WALK AT ELEVATIONS SHOWN. LONGITUDINAL SLOPE SHALL NOT EXCEED 20:1 (5%). CROSS SLOPE SHALL NOT EXCEED 2%.
6. HIGH POINT / GRADE BREAK LOCATION.
7. 0.5' (— —) AND 0.1' (------) DESIGN CONTOURS ARE SHOWN DASHED WHERE NECESSARY TO CLARIFY GRADING CONCEPT.
8. CONCENTRATED ROOF DISCHARGE DIRECTION. NO MAIN ROOF AREA MAY DISCHARGE TO 12TH STREET OR MENAUL BLVD.
9. CONSTRUCT 1.5' WIDE (BOTTOM WIDTH) COVERED SIDEWALK CULVERT TO PASS CONCENTRATED ROOF DISCHARGE TO PAVEMENT. SEE ARCHITECTURAL FOR SPECIFIC ROOF DISCHARGE LOCATIONS. CONSTRUCT PER COA STD. DWG. 2236. SEE CG-501 FOR ADDITIONAL INFORMATION.
10. EXISTING STORMWATER QUALITY RETENTION POND
11. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES INCLUDING STORM DRAIN SYSTEM AND UNDERGROUND STORMWATER DETENTION SYSTEM THIS AREA.
12. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-502 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
13. CONSTRUCT CONCRETE STEPS TO ACHIEVE REQUIRED GRADE DIFFERENCE. SEE ARCHITECTURAL FOR DETAILS.
14. SERVICE YARD LOWER THAN SURROUNDING GRADE. RETAINING AT WALL REQUIRED. H.G. = HIGH SIDE GRADE, L.G. = LOW SIDE GRADE TO DETERMINE REQUIRED RETAINING.
15. PROVIDE 1.5' WIDE (BOTTOM WIDTH) CURB OPENING TO PASS FLOW TO LANDSCAPE. INSTALL 3'X3'X8" DEEP EROSION PROTECTION AT OPENING.

PROJECT INFORMATION

PROPERTY: THE SITE IS A PREVIOUSLY DEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP H-13. THE SITE IS BOUND TO THE EAST BY EAGLE WAY NW, TO THE SOUTH BY DEVELOPED COMMERCIAL PROPERTY, TO THE NORTH BY MENAUL BLVD. NW AND TO THE WEST BY 12TH STREET NW.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE TWO COMMERCIAL BUILDINGS WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING INCLUDING A LARGE PLAZA AT THE CORNER OF 12TH AND MENAUL BLVD.

LEGAL: THE NORTHWESTERLY PORTION OF ALL INDIAN PUEBLO COUNCIL PROPERTY (FORMERLY ALBUQUERQUE INDIAN SCHOOL) .

ADDRESS: 12TH STREET NW, ALBUQUERQUE, NM 87104.

BENCHMARK: ELEVATIONS ARE BASED ON CITY OF ALBUQUERUQUE STATION NO. "7-H13", HAVING AN ELEVATION OF 4964.364, NAVD 1988

OFF-SITE: THIS PROPERTY HOUSES A STORM LIFT STATION THAT HAS BEEN DESIGNED TO SERVE THIS PROPERTY AS WELL AS THE PLAZA AND RETAIL PROPERTIES TO THE SOUTH.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #35001C0331H EFFECTIVE DATE 8/16/2012, THE SITE IS LOCATED WITHIN FLOODZONE 'X' SHADED DESIGNATED AS AREAS WITH REDUCED FLOOD RISK DUE TO LEVEE.

DRAINAGE PLAN CONCEPT: THE FULL DEVELOPMENT OF THIS PROPERTY WAS MASTER PLANNED AS PART OF COA HYDROLOGY PROJECT H13D113. PREVIOUS PHASED CONSTRUCTION INCLUDED BLDGS. D, E, AND F, AND THE MAJORITY OF SITE PAVEMENT. ALL STORMWATER QUALITY RETENTION AND STORMWATER DETENTION IS EXISTING. ON-SITE RUNOFF WILL BE ROUTED TO EXISTING SURFACE STORMWATER QUALITY / DETENTION PONDS AND AN EXISTING SUB-SURFACE DETENTION SYSTEM. THE PREVIOUSLY CONSTRUCTED PRIVATE STORM DRAIN SYSTEM IS DESIGNED TO SLOWLY DISCHARGE TO AN EXISTING STORM LIFT STATION PRESET TO PUMP TO THE PUBLIC STORM DRAIN SYSTEM AT THE PREVIOUSLY APPROVED RATE OF 2.0 CFS WHICH INCLUDES THIS PROJECT AS WELL AS THE PLAZA AND RETAIL PROPERTIES TO THE SOUTH - SAME OWNER).

LEGEND

4965	EXISTING CONTOUR
66.95	EXISTING SPOT ELEVATION
65	PROPOSED 1.0' CONTOUR
65.5	PROPOSED 0.5' CONTOUR
65.4	PROPOSED SPOT ELEVATION
	FLOW DIRECTION
FF = 4966.XX	FINISH FLOOR ELEVATION

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City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 4/20/2023
BY:
HydroTrans # H13D113

Architect Engineer

FRED C. ARFMAN NEW MEXICO 7322 LICENSED PROFESSIONAL ENGINEER
04/10/2023

AVANYU NORTH - BUILDINGS G & H

AVANYU PLAZA

2500 12th Street
Albuquerque, NM

Key Plan
NTS

No	Date	Description
Revision Schedule		

ISSUE:
PROJECT NUMBER:
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DRAWN BY:
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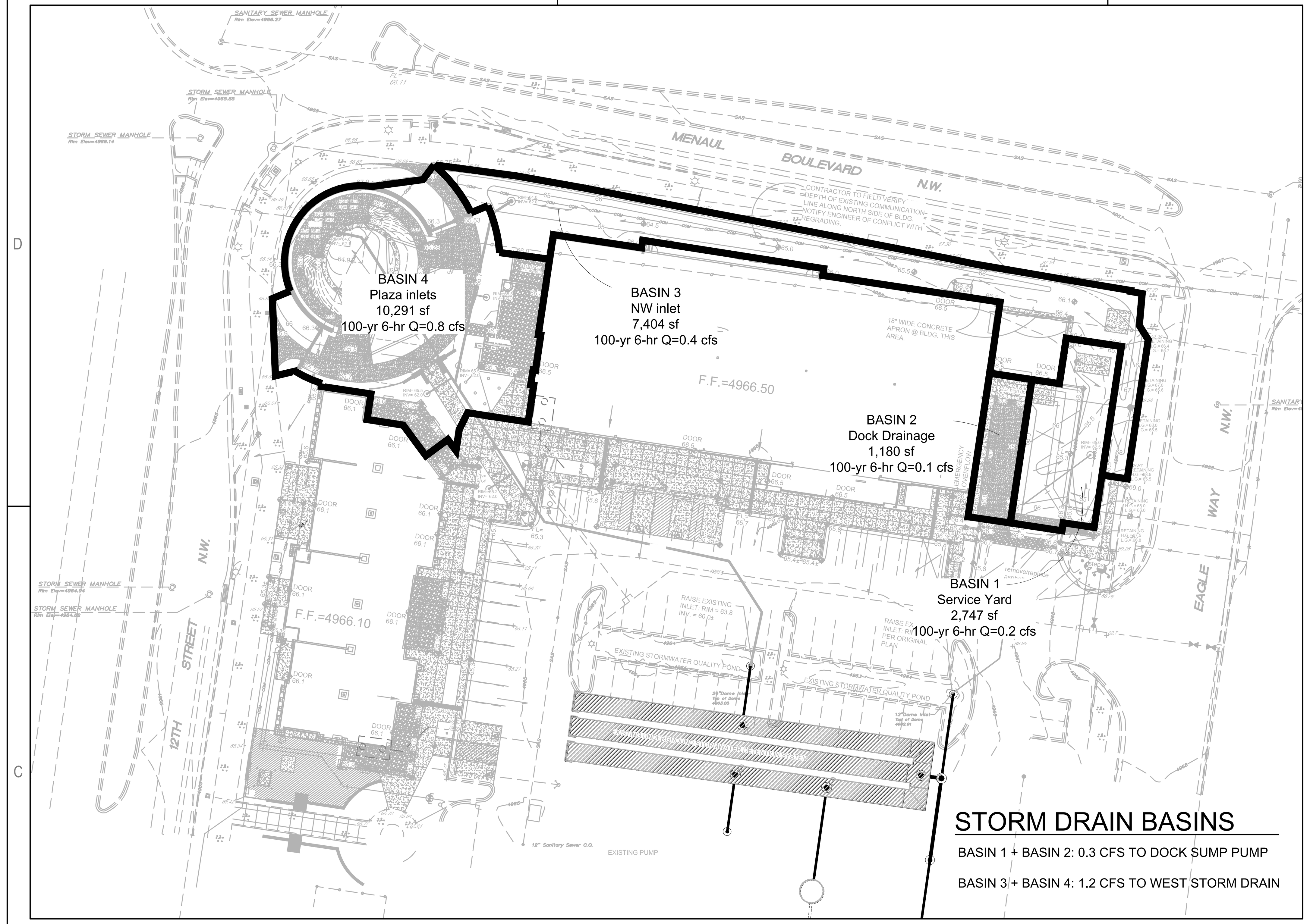
DATE:

SHEET TITLE

GRADING & DRAINAGE PLAN

CG-101



STORM DRAIN BASINS

BASIN 1 + BASIN 2: 0.3 CFS TO DOCK SUMP PUMP

BASIN 3 + BASIN 4: 1.2 CFS TO WEST STORM DRAIN

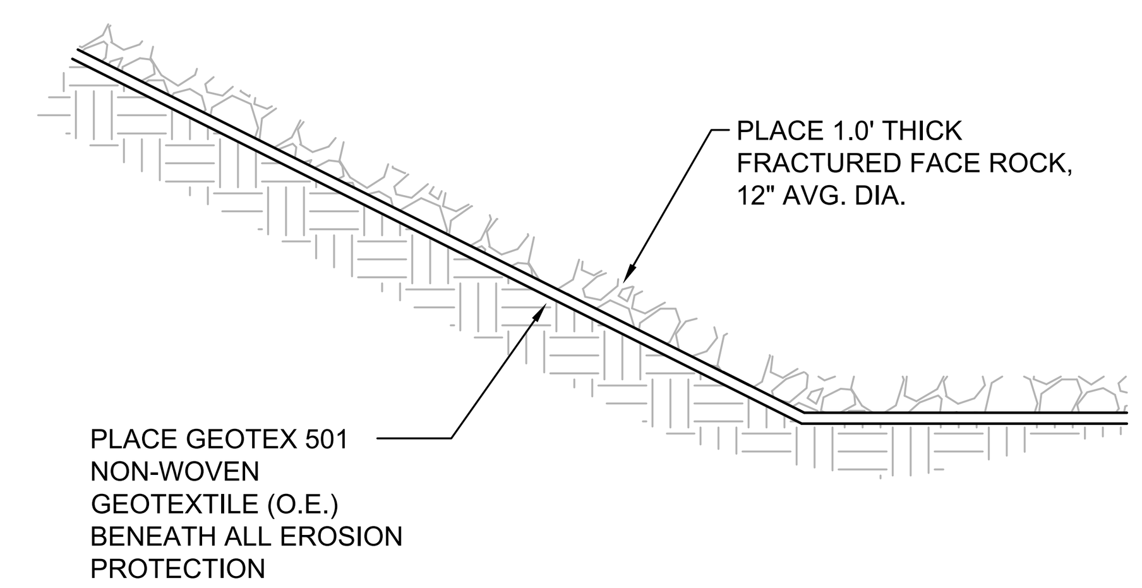
BASIN NO. 1		DESCRIPTION	Service Yard to East Storm Drain / Sump Pump
Area of basin flows =	2747 SF	=	0.06 Ac.
The following calculations are based on Treatment %'s as shown in table to the right			LAND TREATMENT
Sub-basin Weighted Excess Precipitation:			A = 0%
Weighted E =	1.64 in.		B = 45%
Sub-basin Volume of Runoff:			C = 0%
V_{360} =	376 CF		D = 55%
Sub-basin Peak Discharge Rate:			
Q_P =	0.2 cfs		

BASIN NO. 2		DESCRIPTION	Dock are to Sump Pump
Area of basin flows =	1180 SF	=	0.0 Ac.
The following calculations are based on Treatment %'s as shown in table to the right			LAND TREATMENT
Sub-basin Weighted Excess Precipitation:			A = 0%
Weighted E =	2.33 in.		B = 0%
Sub-basin Volume of Runoff:			C = 0%
V_{360} =	229 CF		D = 100%
Sub-basin Peak Discharge Rate:			
Q_P =	0.1 cfs		

BASIN NO. 3		DESCRIPTION	North Basin to NW Inlet
Area of basin flows =	7404 SF	=	0.2 Ac.
The following calculations are based on Treatment %'s as shown in table to the right			LAND TREATMENT
Sub-basin Weighted Excess Precipitation:			A = 0%
Weighted E =	0.98 in.		B = 88%
Sub-basin Volume of Runoff:			C = 0%
V_{360} =	607 CF		D = 12%
Sub-basin Peak Discharge Rate:			
Q_P =	0.4 cfs		

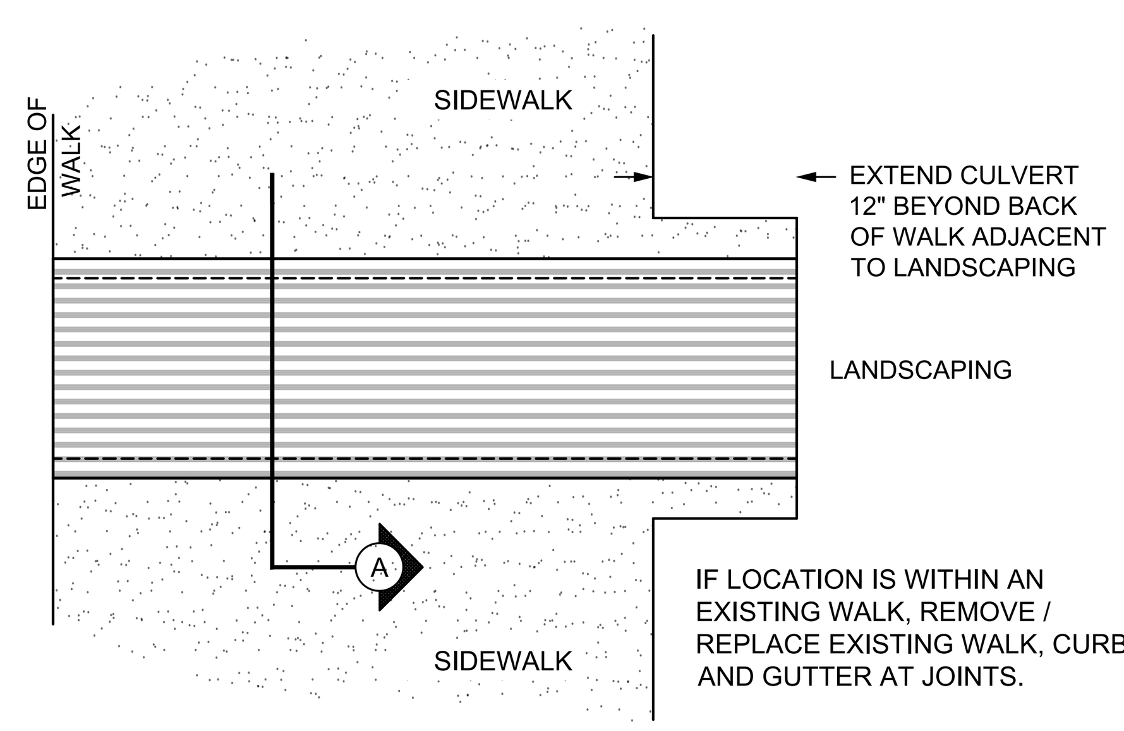
BASIN NO. 4		DESCRIPTION	Plaza Basin to Plaza Area Inlets
Area of basin flows =	10291 SF	=	0.2 Ac.
The following calculations are based on Treatment %'s as shown in table to the right			LAND TREATMENT
Sub-basin Weighted Excess Precipitation:			A = 0%
Weighted E =	1.64 in.		B = 45%
Sub-basin Volume of Runoff:			C = 0%
V_{360} =	1408 CF		D = 55%
Sub-basin Peak Discharge Rate:			
Q_P =	0.8 cfs		

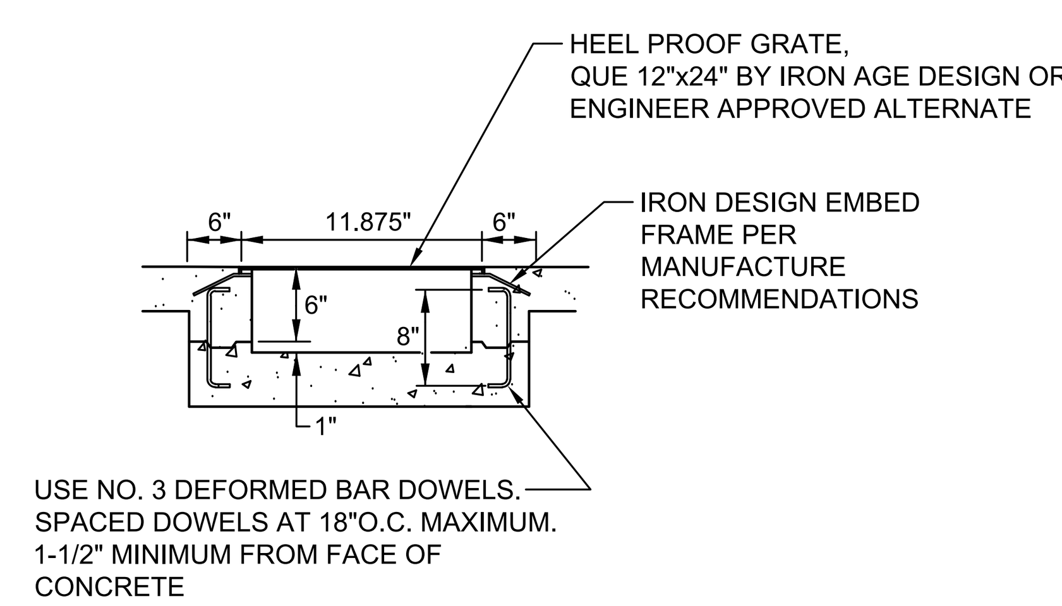
1. 6" AVERAGE DIAMETER (D60) ANGULAR ROCK (VARY BETWEEN 4" AND 8" DIAMETER
2. PLACE GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.) BENEATH ALL EROSION PROTECTION
3. INSTALL ALL EROSION PROTECTION FLUSH WITH ADJACENT GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY.



EROSION PROTECTION - MEDIUM

SCALE: N.T.S.



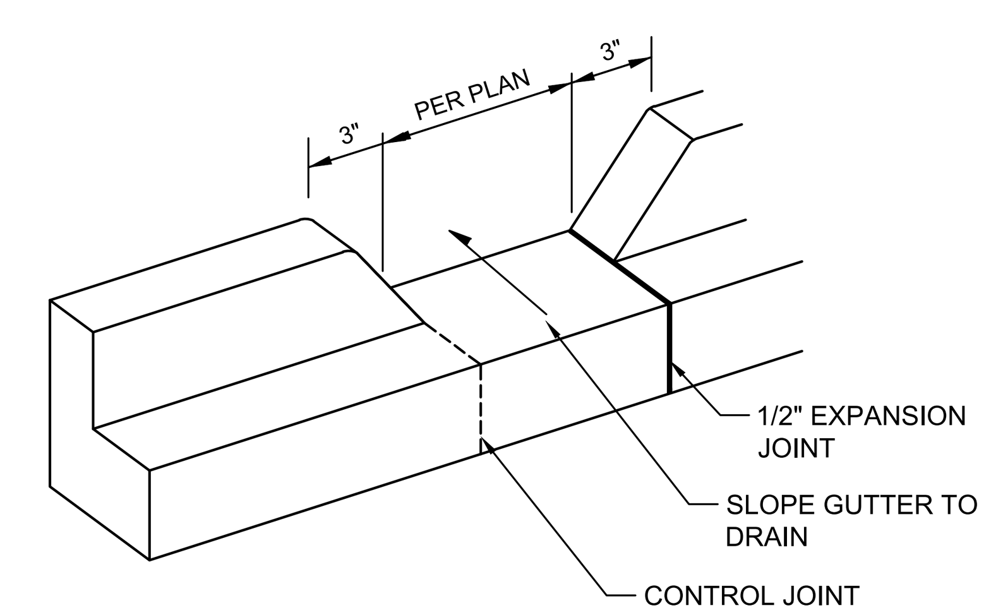


SECTION A

COVERED SIDEWALK CULVERT

CONSTRUCT PER COA STD. DWG 2236 WITH MODIFICATIONS PER THIS DETAIL

SCALE: N.T.S.



CURB OPENING

SCALE: N.T.S.

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AVANYU NORTH - BUILDINGS G & H

2500 12th Street
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AVANYU PLAZA

Key Plan

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No	Date	Description
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ISSUE:
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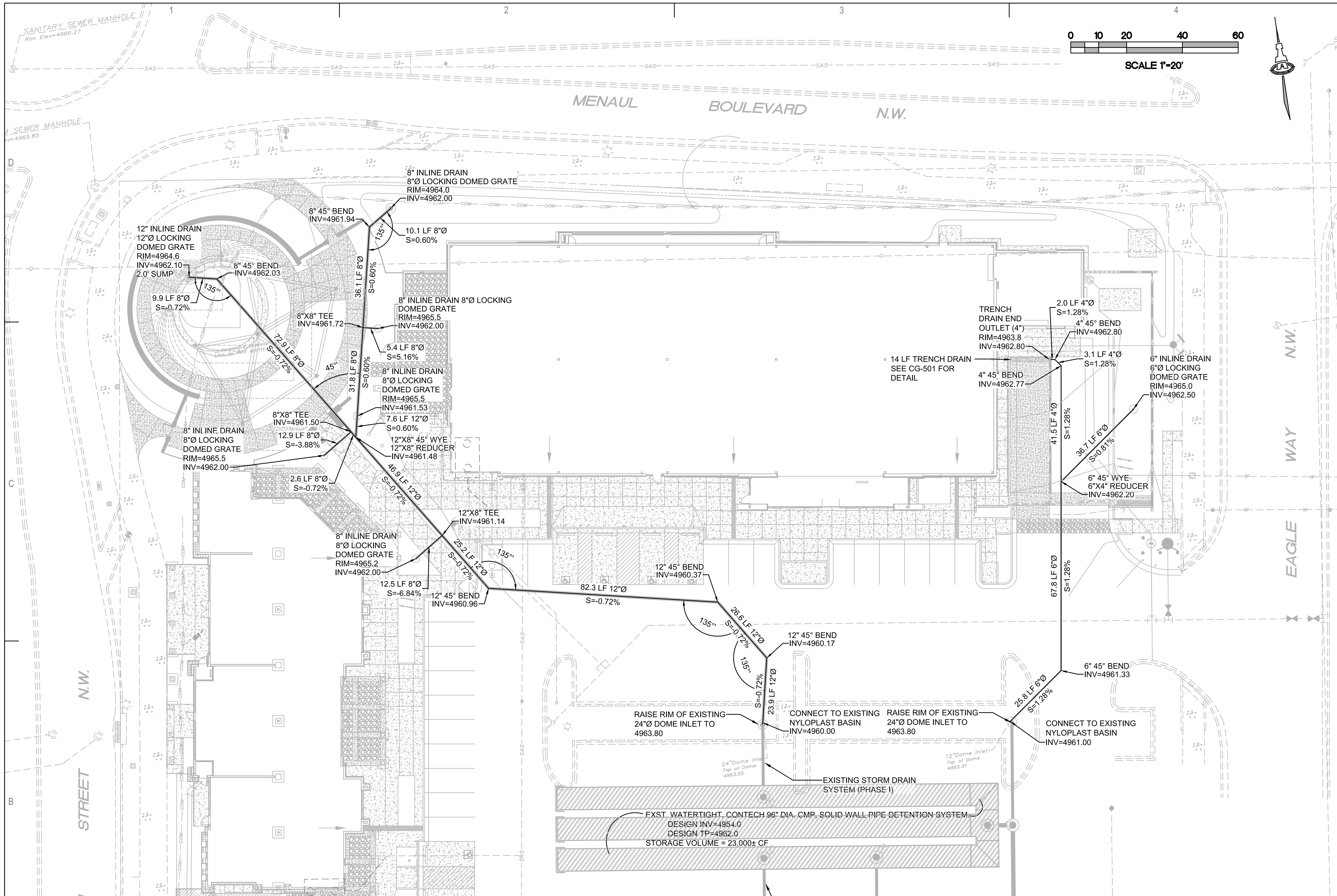
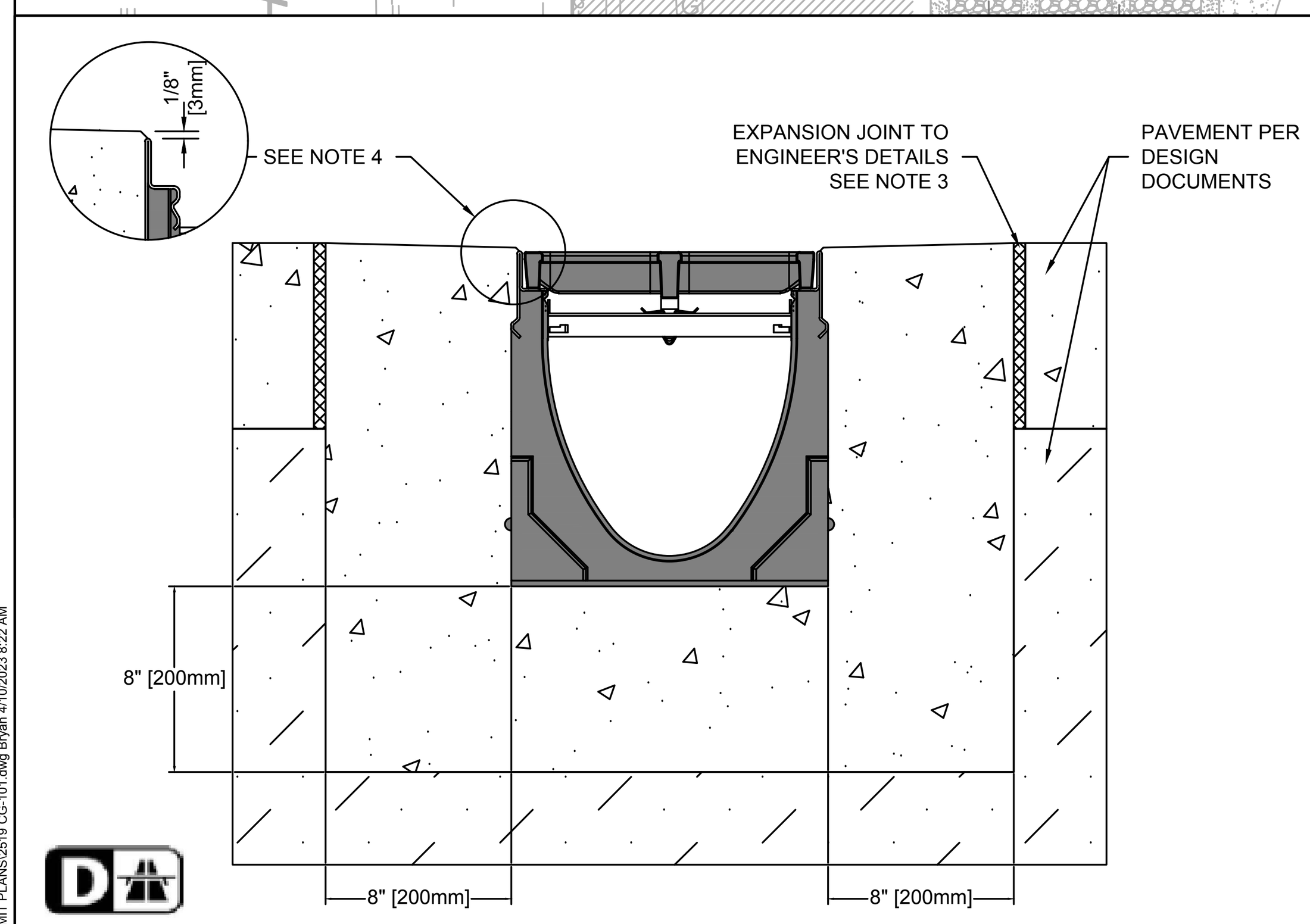
GRADING & DRAINAGE DETAILS

CG-501





NOTES:
1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

K200 KLASSIKDRAIN - LOAD CLASS D

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K200 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 8" (200mm) NOMINAL INTERNAL WIDTH WITH A 10.2" (260mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'QUICKLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

STORM DRAIN NOTES

A. ALL PRIVATE STORM DRAIN LINES AND FITTINGS SHALL BE THE FOLLOWING MATERIAL:
   - </= 12" DIA. SHALL BE EITHER ADS N-12 WT PIPE OR ADS MEGA GREEN WT PIPE OR PVC SCHD 40.
   - > 12" DIA. SHALL BE ADS N-12 WT PIPE OR ADS MEGA GREEN WT PIPE.

B. INSTALL ALL STORM DRAIN INLETS AND PIPE PER MANUFACTURER'S SPECIFICATIONS.

C. STORM DRAIN SYSTEM WILL REQUIRE REGULAR MAINTENANCE TO ENSURE PROPER FUNCTIONING DURING STORM EVENTS. ENGINEER RECOMMENDS THAT OWNER PUT IN PLACE INSPECTION AND MAINTENANCE REQUIREMENTS SCHEDULED TO OCCUR YEARLY AND AFTER MAJOR STORM EVENTS.

D. SEE TRENCH DRAIN DETAIL THIS SHEET FOR DOCK TRENCH DRAIN. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

E. SEE CN-101 FOR ADDITIONAL CIVIL NOTES.

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STORM DRAIN PLAN

CG-502

M:\PROJECTS\2500-2599\2519\DWG\- BUILDING PERMIT PLANS\2519 CG-101.dwg Bryan 4/10/2023