CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director

Mayor Timothy M. Keller

December 1, 2020

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

RE: Human Bean Coffee Shop - Unser and Sage Marketplace
Sage Road SW
Grading and Drainage Plan
Engineer's Stamp Date: 11/13/20
Hydrology File: M10D021

Dear Mr. Arfman:

Based upon the information provided in your submittal received 11/13/2020, the Grading and Drainage Plan is approved for Building Permit.

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 approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

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.

The Payment in Lieu payment of **$5,184.00** must be paid prior to Permanent Release of Occupancy approval. Please use the attached City of Albuquerque Treasury Deposit form. Once the Owner paid the fee, please provide Hydrology with a copy of the receipt.

Also, please provide the Drainage Covenant for the proposed stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. There is a recording fee ($25, payable to Bernalillo County). Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996). Due to COVID-19, please follow the instructions:

Either email a pdf copy of the executed drainage covenant and the exhibit to clabadie@cabq.gov or either mail or drop off the originals. Please mail the $25.00 recording fee check made payable to Bernalillo County to:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director

Mayor Timothy M. Keller

Planning Dept./DRC
Attn: Charlotte LaBadie
600 2nd St. NW, Ste. 400
ABQ, NM, 87102

If you drop off the originals, there is a drop box outside the building labeled DRC. Once approved and recorded, Charlotte will email you a copy.

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

Sincerely,

Renée C. Brissette

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: Human Bean Coffee Shop Building Permit #: _____ Hydrology File #: M10

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

Legal Description: Tract A-3 of Unser and Sage Marketplace, Albuquerque, New Mexico

City Address: Sage Road SW

Applicant: Isaacson & Arfman, Inc. Contact: Fred Arfman / Bryan Bobrick

Address: 128 Monroe NE

Phone#: 505-268-8828 Fax#: _____ E-mail: freda@iacivil.com bryanb@iacivil.com

Owner: Human Bean Coffee Shop Contact: Keith Griego

Address: 1621 20th Ave. SE

Phone#: _____ Fax#: _____ E-mail: kidzacademystaff@gmail.com

TYPE OF SUBMITTAL: ____ PLAT (___# OF LOTS) ____ RESIDENCE ____ DRB SITE __X__ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes __X__ No

DEPARTMENT: ____ TRAFFIC/ TRANSPORTATION __X__ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ____ ENGINEER/ARCHITECT CERTIFICATION
- ____ PAD CERTIFICATION
- ____ CONCEPTUAL G & D PLAN
- __X__ GRADING PLAN
- ____ DRAINAGE MASTER PLAN
- __X__ 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:

- __X__ 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: November 13, 2020 By: Isaacson & Arfman, Inc. - Fred Arfman, P.E.

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

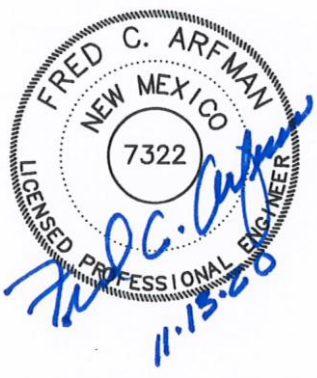
FEE PAID: _____

NOVEMBER 13, 2020

Supplemental Information

for

Human Bean Coffee Shop
Tract A-3, Sage & Unser Marketplace



by

Isaacson & Arfman, Inc.
EST. 1980
Civil Engineering Consultants

128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

CALCULATIONS: Tract 3 - Human Bean Coffee : 2-Nov-2020

Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020

100-YEAR, 6-HOUR CALCULATIONS

AREA OF SITE: 59647 SF = 1.37 ACRE

100-year, 6-hour

HISTORIC FLOWS:		Treatment SF	%	**DEVELOPED FLOWS:**		Treatment SF	%	**EXCESS PRECIP:**
								Precip. Zone 1
Area A	=	11929	20%	Area A	=	0	0%	E_A = 0.55
Area B	=	35788	60%	Area B	=	17927	30%	E_B = 0.73
Area C	=	11929	20%	Area C	=	0	0%	E_C = 0.95
Area D	=	0	0%	Area D	=	41720	70%	E_D = 2.24
Total Area	=	59647	100%	Total Area	=	59647	100%	

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

$$\text{Weighted E} = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$$

Historic E	=	0.74 in.		Developed E	=	1.79 in.

On-Site Volume of Runoff: V360 = E*A / 12

Historic V_{360}	=	3668	CF	Developed V_{360}	=	8878 CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43{,}560$

For Precipitation Zone 1

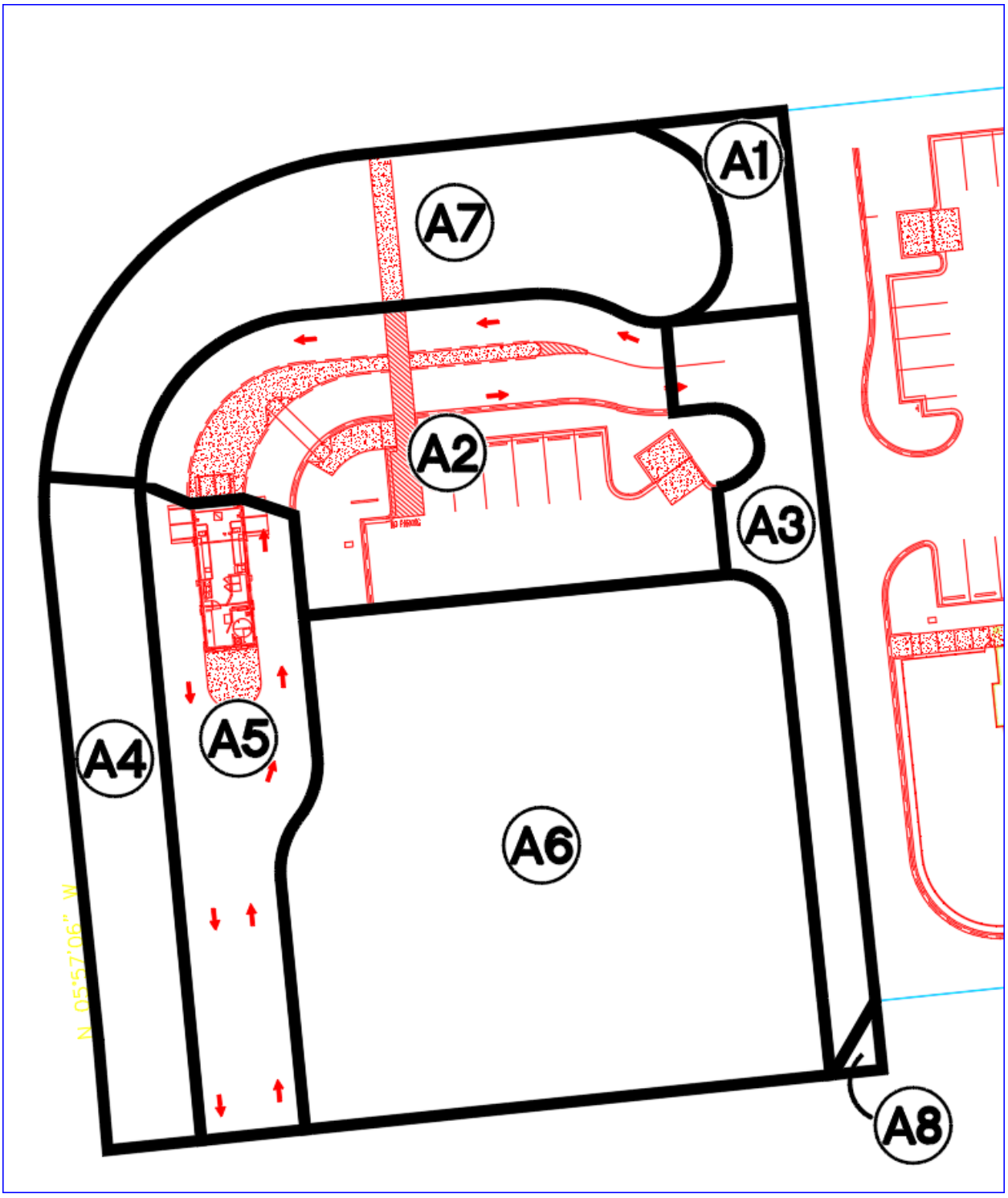
Q_{pA}	=	1.54		Q_{pC}	=	2.87
Q_{pB}	=	2.16		Q_{pD}	=	4.12
Historic Q_p	=	3.0	CFS	Developed Q_p	=	4.8 CFS

An amended Drainage Report (DR) for Unser and Sage Marketplace (previously approved dated October 18, 2020) is included with this submittal. The amended report specifically redistributes the discharge rates to DR Basins 1 and 2 for Tracts A-3 and A-4 while maintaining the total discharge rates as previously approved.

Per the amended report:

Allowable Tract A-3, Maximum discharge = 5.0 cfs
5.0 cfs to DR Basin 1 (Sage Road / Storm Drain)
0.0 cfs to DR Basin 2 (discharging through Tract 1 to the existing Drainage R.O.W.)

Tract A-3 Proposed Drainage Basins:



Tract A3 is limited to 5.0 cfs to the Sage / storm drain system:

Basin A1 to surface discharge to Sage @ 0.1
Basins A2, A3, A4, A5, A6 and A7 to SD @ 1.1+0.4+0.3+0.6+1.9+0.5 = 4.7 cfs
Total 4.8 cfs. Note: Basin A6 is assumed to be 85% impervious in the futre.

Basins A8 will drain south @ 0.01 cfs

BASIN NO. A1		**DESCRIPTION**		Add description here
Area of basin flows =	1414	SF	=	0.03 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

Sub-basin Weighted Excess Precipitation:				LAND TREATMENT	
Weighted E	=	2.24	in.	A =	0%
Sub-basin Volume of Runoff:				B =	0%
V_{360}	=	264	CF	C =	0%
Sub-basin Peak Discharge Rate:				D =	100%
Q_P	=	0.1	cfs	Stormwater Quality Volume	40 CF

BASIN NO. A2		**DESCRIPTION**		
Area of basin flows =	11760	SF	=	0.3 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

Sub-basin Weighted Excess Precipitation:				LAND TREATMENT	
Weighted E	=	2.09	in.	A =	0%
Sub-basin Volume of Runoff:				B =	10%
V_{360}	=	2047	CF	C =	0%
Sub-basin Peak Discharge Rate:				D =	90%
Q_P	=	1.1	cfs	FIRST FLUSH VOL.	300 CF

BASIN NO. A3		**DESCRIPTION**		
Area of basin flows =	4326	SF	=	0.1 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

Sub-basin Weighted Excess Precipitation:				LAND TREATMENT	
Weighted E	=	2.24	in.	A =	0%
Sub-basin Volume of Runoff:				B =	0%
V_{360}	=	808	CF	C =	0%
Sub-basin Peak Discharge Rate:				D =	100%
Q_P	=	0.4	cfs	FIRST FLUSH VOL.	123 CF

BASIN NO. A4		**DESCRIPTION**		
Area of basin flows =	5250	SF	=	0.1 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

Sub-basin Weighted Excess Precipitation:				LAND TREATMENT	
Weighted E	=	0.80	in.	A =	0%
Sub-basin Volume of Runoff:				B =	70%
V_{360}	=	348	CF	C =	30%
Sub-basin Peak Discharge Rate:				D =	0%
Q_P	=	0.3	cfs	FIRST FLUSH VOL.	0 CF

BASIN NO. A5 | **DESCRIPTION**

Area of basin flows = 6719 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:

Weighted E = 2.24 in.

Sub-basin Volume of Runoff:

V_{360} = 1254 CF

Sub-basin Peak Discharge Rate:

Q_P = 0.6 cfs

A = 0%
B = 0%
C = 0%
D = 100%

FIRST FLUSH VOL.
190 CF

BASIN NO. A6 | **DESCRIPTION**

Area of basin flows = 21291 SF = 0.5 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

LAND TREATMENT

Sub-basin Weighted Excess Precipitation:

Weighted E = 2.01 in.

Sub-basin Volume of Runoff:

V_{360} = 3572 CF

Sub-basin Peak Discharge Rate:

Q_P = 1.9 cfs

A = 0%
B = 15%
C = 0%
D = 85%

FIRST FLUSH VOL.
513 CF

BASIN NO. A7 | **DESCRIPTION**

Area of basin flows = 8745 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:

Weighted E = 0.81 in.

Sub-basin Volume of Runoff:

V_{360} = 587 CF

Sub-basin Peak Discharge Rate:

Q_P = 0.5 cfs

A = 0%
B = 95%
C = 0%
D = 5%

FIRST FLUSH VOL.
12 CF

BASIN NO. A8 | **DESCRIPTION**

Area of basin flows = 142 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:

Weighted E = 2.24 in.

Sub-basin Volume of Runoff:

V_{360} = 27 CF

Sub-basin Peak Discharge Rate:

Q_P = 0.0 cfs

A = 0%
B = 0%
C = 0%
D = 100%

FIRST FLUSH VOL.
4 CF

DRAINAGE ANALYSIS

The referenced PROPERTY (Tract A-3 of Unser and Sage Marketplace) is an undeveloped commercial property located within City of Albuquerque (C.O.A.) Vicinity Map M-10-Z. The 1.3693 acre site is bound to the east and south by undeveloped commercial property, to the west by Unser Road SW, and to the north by Sage Road SW.

Proposed improvements include a commercial drive-thru building with associated site walks, parking and landscaping.

The approved Drainage Master Plan (DMP) for Unser and Sage Marketplace, prepared by Isaacson & Arfman (dated 10/18/2010) identified the overall basins, drainage patterns and allowable discharge rates from each of the five tracts.

An amended Drainage Master Plan (DMP) is submitted with this Grading and Drainage Plan to redistribute the allowable discharge from Tract A-3 and Tract A-4 (same owner):

Original DMP approved discharge rates:

Tract A-3 1.37 acre @ Maximum Discharge = 5.5 cfs
- 5.5 cfs to Basin 1 (Sage Road / Storm Drain system)
- 0.0 cfs to Basin 2 (South to the existing Drainage R.O.W)

Tract A-4 1.10 acre @ Maximum Discharge = 4.4 cfs
- 2.7 cfs to Basin 1 (Sage Road / Storm Drain system)
- 1.7 cfs to Basin 2 (South to the existing Drainage R.O.W)

Amended DMP discharge rates:

Tract A-3 1.37 acre @ Maximum Discharge = 5.3 cfs
- 5.0 cfs to Basin 1 (Sage Road / Storm Drain system)
- 0.3 cfs to Basin 2 (South to the existing Drainage R.O.W)

Tract A-4 1.10 acre @ Maximum Discharge = 4.7 cfs
- 3.2 cfs to Basin 1 (Sage Road / Storm Drain system)
- 1.4 cfs to Basin 2 (South to the existing Drainage R.O.W)

Total Tract 3 + Tract 4 discharge to Basin 1
= 5.0 cfs (Tract 3) + 3.2 cfs (Tract 4) = 8.2 cfs (no change to DMP total)

Total Tract 3 + Tract 4 discharge to Basin 2
= 0.3 cfs (Tract 3) + 1.4 cfs (Tract 4) = 1.7 cfs (no change to DMP total)

ADA COMPLIANCE

SIDEWALK(S) AND RAMP(S):
TARGET CROSS SLOPE = 1% TO 1.5%.
CROSS SLOPE SHALL NOT EXCEED 2%

ACCESSIBLE RAMP(S): TARGET LONGITUDINAL SLOPE = 7%
LONGITUDINAL SLOPE SHALL NOT EXCEED 12:1 (8.3%).

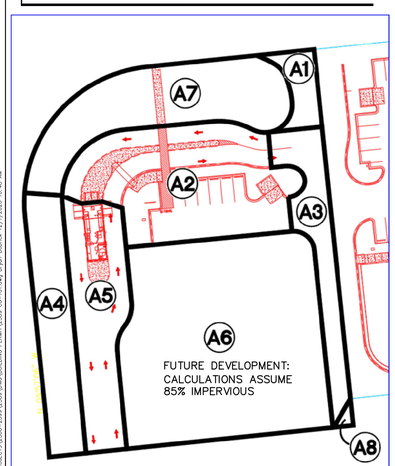
ACCESSIBLE PARKING: TARGET SLOPE = 1% TO 1.5%.
SLOPE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION

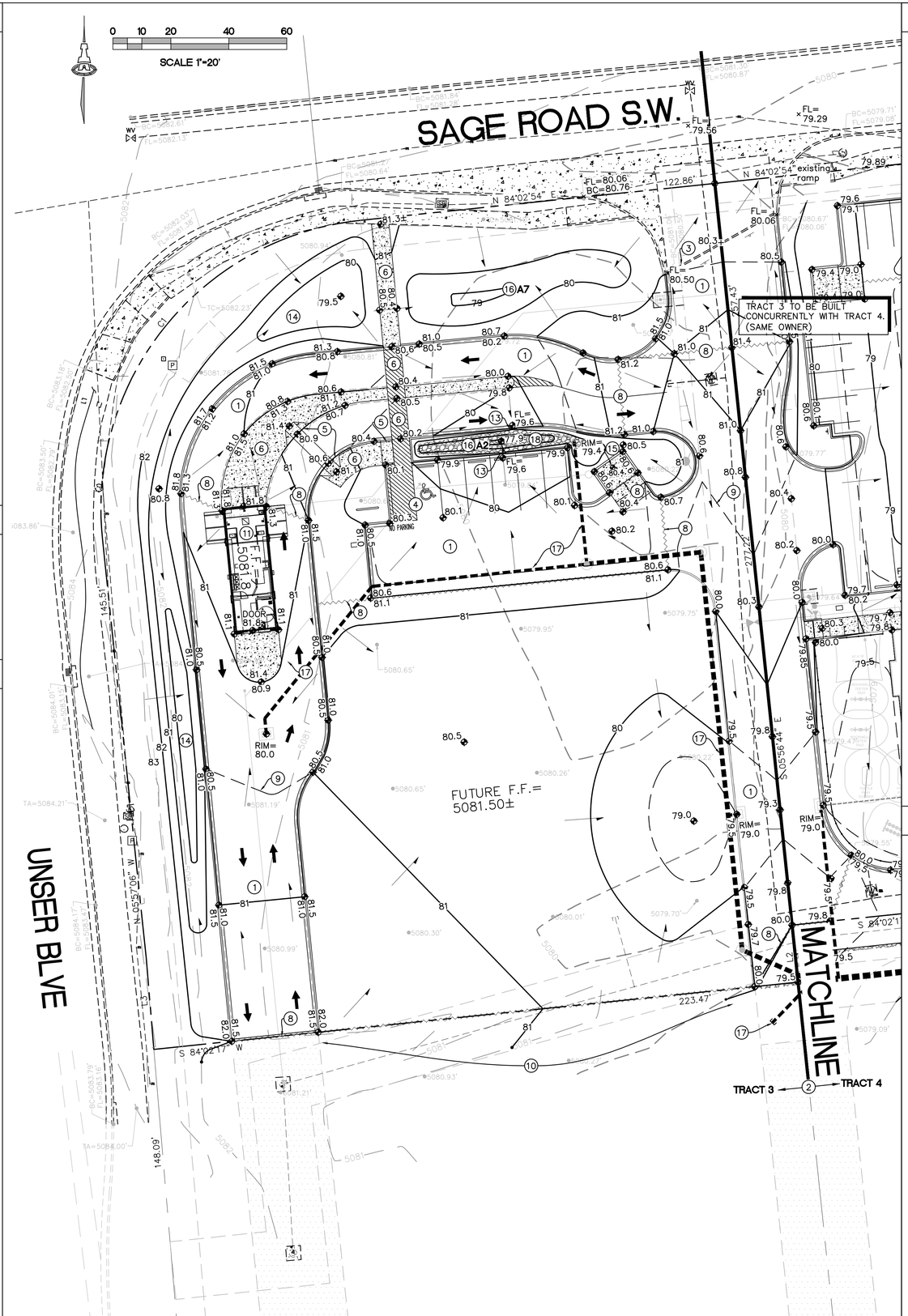
DRAINAGE BASINS

SEE SUPPLEMENTAL INFORMATION PACKET FOR ADDITIONAL INFORMATION.

BASIN SUMMARY

Basin No.	Discharge (Q)	SWQ Volume
A1	0.1	40
A2	1.1	300
A3	0.4	123
A4	0.3	
A5	0.6	190
A6	1.9	513
A7	0.5	12
A8	0.0	4
TOTAL	4.9	1182





KEYED NOTES

THESE NOTES ARE USED ON SHEETS CG-101 (HUMAN BEAN COFFEE: TRACT A-3) AND CG-102 (KIDZ ACADEMY: TRACT A-4). NOT ALL NOTES ARE USED ON EACH SHEET.

1. NEW PAVING AT ELEVATIONS SHOWN. SEE PAVING PLAN FOR MATERIAL, EXTENTS, JOINTS 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.
2. TRACT A-3 AND TRACT A-4 SITE IMPROVEMENTS WILL BE CONSTRUCTED CONCURRENTLY. SEPARATE GRADING AND DRAINAGE PLANS ARE PROVIDED FOR COA HYDROLOGY ROUTING. SEE SHEETS CG-101 AND CG-102.
3. PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.
4. ADA COMPLIANT PARKING SPACE AND ACCESS AISLE. MAXIMUM SLOPE = 2% IN ANY DIRECTION.
5. ADA COMPLIANT SLOPE ACCESS RAMP.
6. ADA COMPLIANT PEDESTRIAN ACCESS WALK AT ELEVATIONS SHOWN. MAX. 5% SLOPE, MAX. 2% CROSS-SLOPE.
7. CONTRACTOR TO FIELD VERIFY AND CORRECT EXISTING PAVEMENT TO ENSURE POSITIVE DRAINAGE TO PROPOSED STORM DRAIN INLET (TRACT 4 ONLY).
8. HIGH POINT / GRADE BREAK LOCATION.
9. 0.5' DESIGN CONTOURS ARE SHOWN DASHED WHERE NECESSARY TO CLARIFY GRADING CONCEPT.
10. 5:1 MAXIMUM GRADE TRANSITION TO EXISTING GRADES.
11. SEE ARCHITECTURAL AND PLUMBING PLANS FOR SPECIFIC DOWNSPOUT LOCATIONS. OWNER'S OPTION: SURFACE DISCHARGE TO PAVEMENT VIA CONCRETE RUNDOWN. PIPE DISCHARGE THROUGH FACE OF CURB OR PIPE DOWNSPOUT DIRECTLY INTO ADJACENT STORM DRAIN LINE.
12. PROVIDE 12" WIDE OPENING IN CURB TO PASS FLOW.
13. PROVIDE 24" WIDE OPENING IN CURB TO PASS FLOW.
14. DEPRESS LANDSCAPING 18" MAX. DEPTH FOR WATER HARVESTING THIS AREA. NO WATER HARVESTING SHALL OCCUR WITHIN 10' OF ANY BUILDING.
15. CONSTRUCT SLOPED CONCRETE DUMPSTER PAD TO DIRECT LOCALIZED STORMWATER TO PROPOSED SANITARY SEWER DRAINAGE INLET. SEE UTILITY PLAN.
16. CONSTRUCT 18" MAX. DEPTH STORMWATER QUALITY RETENTION POND AT ELEVATIONS SHOWN. ALL STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
17. CONSTRUCT PRIVATE STORM DRAIN SYSTEM. SEE SHEET CG-501 FOR SIZES / SLOPES / INLET INFORMATION / MATERIALS.
18. INSTALL 4" AVG. DIA. X 8" DEEP ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. ALL EROSION PROTECTION TO BE INSTALLED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.)
19. INSTALL 4"ø WRAPPED ADS PERFORATED DRAIN PIPE WITH FILTER SOCK IN 18"X18"XLENGTH GRAVEL BED WITHIN PLAY AREA. COORDINATE ALIGNMENT WITH OWNER TO MISS PLAYGROUND EQUIPMENT. CONNECT TO MAIN USING INSERTA-TEE. (TRACT A-4 ONLY).

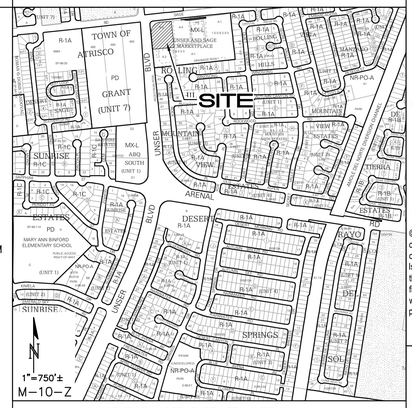
LEGEND

- 76 — PROPOSED CONTOUR – 1' INCREMENT
- 74.5 — PROPOSED CONTOUR – 0.5' INCREMENT
- 78.3 — PROPOSED SPOT ELEVATION
- 78.3 — PUBLIC WORK ORDER SPOT ELEVATION
- FLOW ARROW
- F.F.= FINISH FLOOR ELEVATION
- PROPOSED STORM DRAIN
- ROCK EROSION PROTECTION

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 12/01/20
BY: René C. Brissette
HydroTrans # M10D021

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.

VICINITY MAP



PROJECT DATA

LEGAL DESCRIPTION: TRACT "A-3" OF UNSER AND SAGE MARKETPLACE, ALBUQUERQUE, NEW MEXICO

SITE AREA: _____ ACRES

FLOOD ZONE: THE SUBJECT PROPERTY APPEARS TO LIE WITHIN "ZONE X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN) AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE MAP: 35001C0336H, MAP REVISION DATE: AUGUST 16, 2012.

ENGINEER: ISAACSON & ARFMAN, P.A.
128 MONROE ST NE, ABQ. NM 87108
PHONE: (505) 268-8828

SURVEYOR: CSI-CARTESIAN SURVEYS INC.
P.O. BOX 44414, RIO RANCHO, N.M. 87174
PHONE (505) 896 – 3050

OFFSITE FLOW: NO OFFSITE FLOW AFFECTS THIS PROPERTY OTHER THAN WHAT IS TO BE PASSED WITHIN THE SHARED STORM DRAIN SYSTEM / EASEMENT.

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL STATION MONUMENT "1-M10", ELEVATION = 5082.757 FEET (NAVD 1988).

STORMWATER QUALITY REQ'S

ALL NEW DEVELOPMENT AND REDEVELOPMENT PROJECTS SHALL APPLY BEST MANAGEMENT PRACTICES (BMPS) TO MANAGE THE STORMWATER QUALITY VOLUME (SWQV) BY MANAGEMENT ON-SITE, OR PAYMENT-IN-LIEU, OR PRIVATE OFF-SITE MITIGATION.

FOR NEW DEVELOPMENT SITES, THE CABQ STORMWATER QUALITY VOLUME (SWQV) IS BASED ON THE 90TH PERCENTILE STORM EVENT OR 0.42".

THE IMPERVIOUS AREA FOR THE PORTION OF THE PROPERTY TO BE DEVELOPED (BASINS A1, A2, A3, A4, A5, A7 AND A8) IS 23,622 SF (FUTURE BASIN A6 DEVELOPMENT IS NOT INCLUDED): THE TOTAL REQUIRED S.Q. RETENTION VOLUME = 0.42/12 * 23,622 SF = 827 CF.

TWO SWQ RETENTION PONDS WILL BE CONSTRUCTED AS SHOWN (DRAINAGE BASIN PONDS A1 AND A2).

POND A7		
Contour	Area	Volume
5080	1000	
5079.0	60	530 CF
POND VOLUME =		**530** CF

PER BASIN CALCS: BASIN A7 REQUIRES 12 CF OF SWQV.

POND A2		
Contour	Area	Volume
5079.4	240	
5079	160	80 CF
5078	15	88 CF
POND VOLUME =		**167** CF

PER BASIN CALCS: BASIN A2 REQUIRES 300 CF OF SWQV.

TOTAL SWQV PROVIDED = 167+12 = 179 CF.

A "PAYMENT IN-LIEU FOR S.Q. VOLUME REQUIREMENT" TREASURY DEPOSIT SLIP WILL BE PROVIDED BY C.O.A. HYDROLOGY BASED ON THE PORTION OF S.Q. VOLUME THAT IS NOT RETAINED ON-SITE (827 – 179 = 648 CF) @ $8.00 / CF FOR COMMERCIAL.

A DRAINAGE COVENANT WILL BE REQUIRED FOR THE SWQV PONDS PRIOR TO RELEASE OF CERTIFICATE OF OCCUPANCY. THE ORIGINAL NOTARIZED FORM AND EXHIBIT 'A' ALONG WITH THE RECORDING FEE (PAYABLE TO CITY OF ALBUQUERQUE) WILL BE SUBMITTED BY THE OWNER.

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-268-8828 | www.iacivil.com

2389 CG-101.dwg 1 December 2020

FRED C. ARFMAN
NEW MEXICO
7322
LICENSED PROFESSIONAL ENGINEER
11-13-20
Engineer

KIDZ ACADEMY
HUMAN BEAN COFFEE SHOP
Albuquerque, New Mexico
Unser & Sage Marketplace

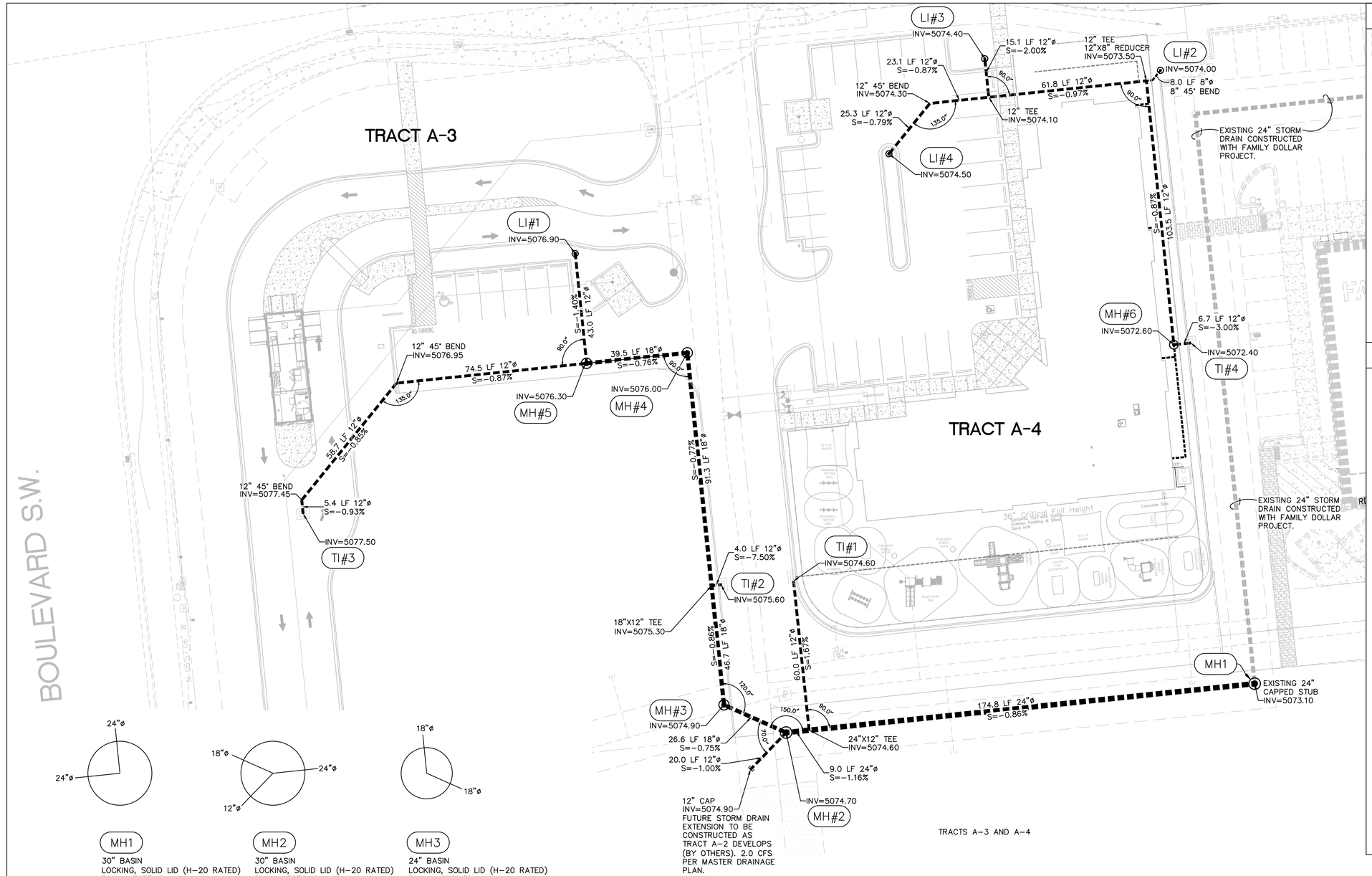
No	Description	Date

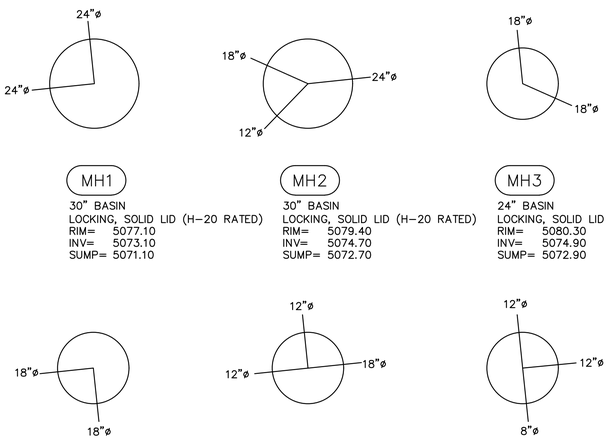
ISSUE: CONSTRUCTION DOCUMENTS
PROJECT NUMBER: IA 2360
FILE: -
DRAWN BY: BJB
CHECKED BY: FCA
DATE: 11-13-2020

SHEET TITLE
GRADING AND DRAINAGE PLAN

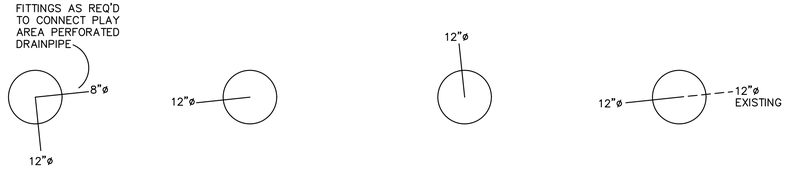
SHEET NUMBER
CG-102

M:\PROJECTS\2300-2399\2389\DWG\BUILDING PERMIT\2389 CG-101.dwg Bryan Blalock 12/7/2020 10:48 AM

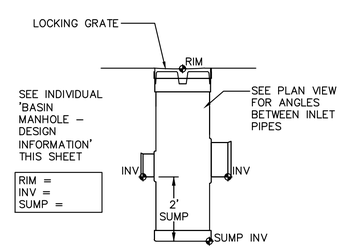




NYLOPLAST BASIN MANHOLE DESIGN
Scale: N.T.S.



NYLOPLAST BASIN MANHOLE
Scale: N.T.S.



LEGEND

NYLOPLAST BASINS: SEE BASIN LAYOUT DIAGRAMS THIS SHEET FOR BASIN DIAMETERS, CONNECTING PIPE SIZES, PIPE ANGLES, PIPE INVERT(S), GRATE TYPE,

(MH#) ALL MANHOLES (MH#) SHALL BE CONSTRUCTED WITH:
- LOCKING, SOLID RIM
- 2.0' SUMP
- 8" WIDE X 6" DEEP CONCRETE COLLAR

(TD#) ALL TRAFFIC RATED DRAIN INLETS (TD#) SHALL BE CONSTRUCTED WITH:
- LOCKING, 2'X3' TRAFFIC INLET
- 2.0' SUMP
- 12" WIDE X 8" DEEP CONCRETE COLLAR

ADS INLINE DRAINS:

(LI#) ALL LANDSCAPE AREA DRAIN INLETS (LI#) SHALL BE CONSTRUCTED WITH:
- 12" DIA. ADS INLINE DRAIN WITH 12" OUTLET.
- 12"ø LOCKING, DOMED GRATE AT RIM AND INVERT ELEVATIONS SHOW ON PLAN.
- 6" WIDE X 6" DEEP CONCRETE COLLAR

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 PVC SCHD 40.
- = 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. ROOF DISCHARGE (RD). SEE PLUMBING PLAN FOR SPECIFIC LOCATIONS AND SIZES. FOR DIRECT CONNECTIONS TO STORM DRAIN (SEE GRADING AND DRAINAGE PLAN KEYED NOTE 11,) EXTEND TO MAIN, MIN. 0.5% SLOPE, AND CONNECT USING TO MAIN USING 'INSERTA-TEE' OR REQUIRED FITTINGS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES.

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2389 CG-101.dwg 13 November 2020

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7322
LICENSED PROFESSIONAL ENGINEER
11-13-20
Engineer

KIDZ ACADEMY
HUMAN BEAN COFFEE SHOP
Albuquerque, New Mexico
Unser & Sage Marketplace

ISSUE: CONSTRUCTION DOCUMENTS			
PROJECT NUMBER: IA 2380			
FILE:	-		
DRAWN BY:	BJB		
CHECKED BY:	FCA		
DATE:	11-13-2020		

No	Date	Description

SHEET TITLE
STORM DRAIN DETAILS

SHEET NUMBER
CG-501

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