## CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Interim Director



Mayor Timothy M. Keller

December 8, 2021

Graeme Means, P.E. High Mesa Consulting Group 6010-B Midway Park Blvd NE Albuquerque, NM 87109

Re: Los Altos Park Renovation – Phase I, K20D037

Dear Mr. Means,

Based upon the information provided in your submittal received 11/29/2021, the Grading & Drainage Plans is approved with following conditions:

- 1. The plans approved were with Engineer's Stamp date of 11/23/2021 for sheets C100, C101A, CG101-107, CG108-110, CG113 & CG501, Engineer's Stamp date of 8/03/2021 for sheet CG107, and Engineer's Stamp date of 12/03/2021 for sheets CG111 & CG112.
- 2. Payment-in-Lieu for Storm Water Quality Volume Requirement is \$30,160.00 (please see attached payment sheet).
- 3. Please attach a copy of this approved plan in the construction set. Prior to approval of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.
- 4. Contractor must obtain all the necessary permits from NMDOT to perform work within the NMDOT right-of-way.

If you have any questions, please contact me at 924-3999.

www.cabq.gov

PO Box 1293

Albuquerque

NM 87103

Sincerely,

Shahab Biazar, P.E., CFM City Engineer, Planning Dept. Development and Review Services

C: file



#### TREASURY DIVISION DAILY DEPOSIT

## Transmittals for: PROJECTS Only

# Payment-in-Lieu for Storm Water Quality Volume Requirement

CASH COUNT	AMOUNT	ACCOUNT NUMBER	FUND NUMBER	BUSINESS UNIT	PROJECT ID	ACTIVITY ID	AMOUNT
TOTAL CHECKS	\$ 30,160.00	461615	305	PCDMD	24_MS4	7547210	\$ 30,160.00
TOTAL AMOUNT						TOTAL DEPOSIT	\$30,160.00

1

The Payment-in-Lieu can be paid at the Plaza del Sol Treasury, 600 2<sup>nd</sup> St. NW. **Bring three copies of this invoice to the Treasury** and provide a copy of the receipt to Hydrology, Suite 201, 600 2<sup>nd</sup> St. NW, or e-mail with the Hydrology submittal to PLNDRS@cabq.gov.



## City of Albuquerque

## Planning Department

### Development & Building Services Division

#### DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title:	Building Po	ermit #:	Hydrology File #:
			Work Order#:
Legal Description:			
City Address:			
Applicant:			Contact:
Address:			
			E-mail:
Other Contact:			Contact:
			E-mail:
TYPE OF DEVELOPMENT:	PLAT (# of lots)	RESIDENCE	DRB SITE ADMIN SITE
IS THIS A RESUBMITTAL?	Yes No		
DEPARTMENT TRANSPOR	TATION HY	DROLOGY/DRAINAC	GE.
TYPE OF SUBMITTAL:  ENGINEER/ARCHITECT CERT PAD CERTIFICATION CONCEPTUAL G & D PLAN GRADING PLAN DRAINAGE REPORT DRAINAGE MASTER PLAN FLOODPLAIN DEVELOPMENT ELEVATION CERTIFICATE CLOMR/LOMR TRAFFIC CIRCULATION LAY TRAFFIC IMPACT STUDY (TIL STREET LIGHT LAYOUT OTHER (SPECIFY) PRE-DESIGN MEETING?	T PERMIT APPLIC  OUT (TCL)  S)	CERTIFICA  PRELIMINA  SITE PLAN  SITE PLAN  FINAL PLA  SIA/ RELE  FOUNDAT  GRADING  SO-19 APP  PAVING PLOODEN  CLOMR/LO  FLOODPLA	ASE OF FINANCIAL GUARANTEE ION PERMIT APPROVAL PERMIT APPROVAL ROVAL ERMIT APPROVAL PAD CERTIFICATION DER APPROVAL OMR AIN DEVELOPMENT PERMIT
DATE SUBMITTED:	By:		PECIFY)
COA STAFF:		C SUBMITTAL RECEIVED:	

FEE PAID:\_\_\_\_\_

#### INTRODUCTION AND EXECUTIVE SUMMARY

THIS SITE IS LOCATED SOUTH OF LOMAS, NEAR THE SOUTHWEST CORNER OF THE INTERSECTION OF EUBANK BLVD NE AND LOMAS BLVD NE. THE PROJECT REPRESENTS A REDEVELOPMENT OF A PREVIOUSLY DEVELOPED SITE (CITY-OWNED LOS ALTOS PARK) WITHIN AN INFILL AREA. THIS PROJECT CONSISTS OF THE PHASE 1 DEVELOPMENT OF THE EAST PORTION OF THE XISTING PARK. INCLUDED IN THIS WORK WILL BE THE COMPLETE REMOVAL OF THE EXISTING SOFTBALL FIELDS, TENNIS COURTS, AND HORSESHOE PITS, ALONG WITH ASSOCIATED PARKING AND ACCESS ROADS. THESE ITEMS WILL BE REPLACED WITH A NEW SOFTBALL FIELD COMPLEX, CONCESSIONS / RESTROOM BUILDING, AND ASSOCIATED PAVED PARKING AND ACCESS

HIS DRAINAGE PLAN ADDRESSES THE DRAINAGE CONCEPTS AND IMPROVEMENTS PROPOSED FOR DEVELOPMENT OF THE PHASE 1 PARK REDEVELOPMENT. THIS PLAN IS SUBMITTED IN SUPPORT OF BUILDING PERMIT APPROVAL BY THE CITY OF

#### II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP, THE PROJECT SITE IS BOUNDED BY LOMAS BLVD NE TO THE NORTH, EUBANK BLVD NE TO THE EAST, INTERSTATE 40 RIGHT OF WAY TO THE SOUTH, AND THE EXISTING IMPROVED PORTIONS OF THE LOS ALTOS PARK TO THE WEST (LE. LOS ALTOS POOL ALBUQUEROUE GARDEN CENTER). ALL PERIMETER STREETS REFERENCED ABOVE ARE FULLY DEVELOPED PUBLIC STREETS WITH CURB, GUTTER AND SIDEWALKS. THE MAJORITY OF THE SITE IS OWNED BY THE CITY OF ALBUQUERQUE AND OPERATED BY THE CITY OF ALBUQUERQUE PARKS AND RECREATION DEPARTMENT. AS SHOWN BY THE BOUNDARY SURVEY, PORTIONS OF THE EXISTING PARK ARE LOCATED ON NMDOT RIGHT-OF-WAY. THE COA AND NMDOT HAVE ENTERED INTO A RIGHT-OF-WAY USE AGREEMENT TO ALLOW THE CONTINUED USE OF THE PORTIONS OF THE DEVELOPED AREA WITHIN NMDOT RGHT-OF-WAY FOR PUBLIC RECREATIONAL USE.

AS INDICATED BY PANEL 358 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, DATED AUGUST 16, 2012, THIS PHASE 1 PROJECT SITE DOES NOT LINE WITHIN A DESIGNATED FLOOD HAZARD ZONE. THE SITE DOES LIE IMMEDIATELY ADJACENT TO A ZONE 'AO' DESIGNATED FLOOD HAZARD ZONE ASSOCIATED WITH LOMAS BLVD NE RIGHT OF WAY. WHERE THE 1% ANNUAL CHANCE FLOOD DISCHARGE IS DENOTED TO BE CONTAINED WITHIN THE PUBLIC RIGHT OF WAY.THE FLOOD MAP INDICATES THAT THIS FLOOD HAZARD ZONE AO' DOES IMPACT THE WEST PORTION OF THE OVERALL LOS ALTOS PARK, BUT THAT IS BEYOND THE LIMITS OF THIS PHASE 1 EVELOPMENT, AND AS SUCH DOES NOT IMPACT THIS PROJECT REDEVELOPMENT. THE LOS ALTOS PARK PROJECT SITE CURRENTLY DISCHARGES FREELY TO THE INTERSTATE 40 NMDOT DRAINAGE CHANNEL, BASED UPON HISTORIC CONDITIONS PREVIOUSLY APPROVED PARK DEVELOPMENT PLANS, AND EXISTING AGREEMENTS BETWEEN THE CITY OF ALBUQUERQUE AND THE NM DEPARTMENT OF TRANSPORTATION.

#### III. BACKGROUND DOCUMENTS & RESEARCH

#### THE PREPARATION OF THIS PLAN RELIED UPON THE FOLLOWING DOCUMENTS:

• TOPOGRAPHIC AND UTILITY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP (NMPS 11184) DATED 12/08/2020. THIS REFERENCED SURVEY PROVIDES THE BASIS FOR THE EXISTING CONDITIONS OF THE SITE. BOUNDARY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP (NMPS 11184) DATED 8/23/2021. THIS REFERENCED SURVEY DENOTES THE EXISTING BOUNDARY LIMITS FOR THE PARK AND THE EXISTING ONSITE FASEMENTS LOS ALTOS SKATE PARK SITE DRAINAGE PLAN PREPARED BY HOLMES & NARVER INC. DATED 04-14-1999. THIS REFERENCED DRAINAGE PLAN DENOTED THE EXISTING DRAINAGE PATTERNS FOR LOS ALTOS PARK, AND ESTABLISHED THE EXISTING HISTORICAL CONDITION OF FREE DISCHARGE FROM THE PARK TO THE INTERSTATE 40 RIGHT OF WAY / DRAINAGE

#### IV. EXISTING CONDITIONS

THE PROJECT SITE CONSISTS OF FOUR EXISTING SOFTBALL FIELDS, SIX TENNIS COURTS, SEVERAL HORSHOE PITS, AND ASSOCIATED LANDSCAPING, PAVED PARKING AND ACCESS IMPROVEMENTS. THERE IS ALSO AN EXISTING SPORTS OFFICE BUILDING AT THE SOUTHWEST CORNER OF THE EXISTING PROJECT AREA. STORMWATER GENERATED BY THE OVERALL PROJECT SITE GENERALLY SHEETFLOWS FROM NORTHEAST TO SOUTHWEST ACROSS THE FIELDS. TENNIS COURTS, AND OTHER LANDSCAPED IMPROVEMENTS INTO THE EXISTING PARKING LOTS AND ACCESS ROADS, AND IS THEN CONVEYED ALONG THE PAVED ACCESS ROADS TO RELEASE AT TWO POINTS OF DISCHARGE INTO THE I-40 RIGHT-OF-WAY AND ULTIMATELY INTO THE I-40 DRAINAGE CHANNEL. THIS PROJECT SITE IS DIVIDED INTO TWO SUB-BASINS, 'WEST' AND 'EAST', BASED UPON THEIR POINTS OF DISCHARGE INTO THE INTERSTATE 40 (I-40) DRAINAGE CHANNEL

THE 'WEST' DRAINAGE SUB-BASIN IS MADE OF THE NORTH AND WEST PORTIONS OF THIS PROJECT SITE. AS NOTED ABOVE, THIS BASIN SHEET FLOWS ACROSS THE SITE FROM NORTHEAST TO SOUTH WEST, ULTIMATELY DISCHARGING FROM THE SITE TO THE I-40 RIGHT-OF WAY VIA AN ACCESS ROAD CURB CUT LOCATED IMMEDIATELY UPSTREAM OF AN EXISTING LARGE (DOUBLE D') STORMWATER INLET WITHIN THE NMDOT RIGHT OF WAY. THIS INLET IS CONNECTED VIA LARGE DIAMETER RCP PIPES TO THE 40 DRAINAGE CHANNEL. THERE IS NO EXISTING PONDING WITHIN THIS SUB-BASIN, THIS STORMWATER FREE DISCHARGES TO

THE 'EAST' DRAINAGE SUB-BASIN CONSISTS OF THE SOUTH AND EAST PORTIONS OF THE PROJECT SITE. THIS BASIN GENERALLY SHEETFLOWS ACROSS THE SITE FROM NORTHEAST TO SOUTHWEST, AND ULTIMATELY DISCHARGES INTO THE NMDOT RIGHT OF WAY. THE EXISTING SUB-BASIN DOES NOT HAVE A SPECIFIC POINT OF DISCHARGE BUT INSTEAD GENERALLY OVERLAND SHEET FLOWS INTO THE I-40 RIGHT-OF-WAY. WITHIN THE RIGHT OF WAY, THERE IS AN EXISTING UNPAVED FLOWLINE THAT ULTIMATELY DRAINS TO AN EXISTING LARGE (DOUBLE 'D') STORMWATER INLET THAT DISCHARGES TO THE I-40 DRAINAGE CHANNEL VIA LARGE DIAMETER RCP PIPING. THÈERE IS NÓ EXISTING PONDING WITHIN THIS SUB—BASIN, THIS STORMWATER FREE DISCHARGES TO THE I-40 DRAINAGE CHANNEL.

THERE ARE NO OFFSITE FLOWS FROM THE ADJACENT PUBLIC STREETS TO THE NORTH AND EAST. THERE ARE NO OFFSITE FLOWS FROM THE LOS ALTOS POOL AND ALBUQUERQUE GARDEN CENTER TO THE WEST, OR FROM I-40 NMDOT RIGHT-OF-WAY O THE SOUTH, AS THEY ARE TOPOGRAPHICALLY LOWER THAN THE PROJECT SITE. THERE ARE OFFSITE FLOWS ONTO THE SOUTHEAST CORNER OF THE SITE THAT DISCHARGE FROM A LARGE **54"** RCP CULVERT EXTENDING ACROSS EUBANK BLVD NE. THIS CULVERT RELEASES ~160 CFS OF STORMWATER DURING A 100-YEAR, 6 HR STORM EVENT INTO THE SITE, AND IS CONVEYED ACROSS THE SOUTHEAST CORNER OF THE SITE VIA AN EXISTING COMBINATION CONCRETE VALLEY GUTTER AND EARTHEN DRAINAGE CHANNEL. TO DISCHARGE TO ULTIMATELY DISCHARGE INTO THE I—40 RIGHT—OF—WAY TO THE SOUTH. THE EARTHEN PORTIONS OF THE CHANNEL ARE STABILIZED WITH TURF GRASS. UPON RELEASE INTO THE I-40 RIGHT-OF-WAY, AN UNPAYED FLOWLINE CONTINUES TO CONVEY THIS OFFSITE STORMWATER EAST TO WEST TO AN EXISTING 54" RCP STORM CULVERT THAT RELEASES DIRECTLY INTO THE I-40 DRAINAGE CHANNEL.

## DEVELOPED CONDITIONS

THE PROJECT PHASE 1 DEVELOPED CONDITIONS CONSISTS OF 5 NEW SOFTBALL FIELDS TO REPLACE THE EXISTING 4 FIELDS, A NEW CONCESSIONS / RESTROOM BUILDING, PAVED PARKING AND ACCESS ROAD IMPROVEMENTS, AND ASSOCIATED LANDSCAPING IMPROVEMENTS. THE EXISTING SPORTS OFFICE BUILDING AT THE SOUTHWEST CORNER OF THE SITE WILL REMAIN IN PLACE, THE OVERALL PHASE 1 SITE DRAINAGE PATTERN WILL BE SIMILAR TO THE EXISTING DRAINAGE PATTERN FOR THE SITE, WITH STORMWATER RUNOFF DRAINING GENERALLY FROM NORTHEAST TO SOUTHWEST, AND ULTIMATELY THE ENTIRE 'ROJECT SITE WILL CONTINUE TO DISCHARGE TO THE 1—40 NMDOT DRAINAGE CHANNEL. WHILE THE PROPOSED SITE WILL TAKE ADVANTAGE OF SEVERAL SMALL AREAS OF LANDSCAPED DEPRESSED AREAS TO CAPTURE AND TREAT STORMWATER " MAXIMUM EXTENT PRACTICABLE, THIS PROJECT DEVELOPMENT DOES NOT INCLUDE ANY DEDICATED PONDING AREAS DUE TO TH LIMITED OPPORTUNITIES RESULTING FROM THE SITE DESIGN REQUIREMENTS. THE PROJECT SITE WILL CONTINUE TO BE DIVIDED INTO TWO SUB-BASINS, 'WEST' AND 'EAST', THAT REPEAT THE EXISTING DRAINAGE PATTERN OF FREE DISCHARGE AT TWO FIXED POINTS OF DISCHARGE INTO THE I-40 RIGHT-OF-WAY / DRAINAGE CHANNEL.

THE 'WEST' DRAINAGE SUB-BASIN IS MADE UP OF THE WESTERN PORTION OF THE PROJECT SITE, AND ALSO INCLUDES THE NORTHEAST PARKING LOT, NORTH ACCESS ROAD, WEST ACCESS ROAD, AND SPORTS OFFICE BUILDING, STORMWATER RUNOFF GENERATED BY THIS BASIN WILL DRAIN FROM NORTHEAST TO SOLITHWEST VIA SURFACE FLOW ACROSS THE SOFTBALL FIELDS PARKING LOTS AND ACCESS ROADS, AND VIA NEW SUBSURFACE STORM DRAIN IMPROVEMENTS IN THE NORTH AND WEST ACCESS ROADS. SURFACE FLOW AND SUBSURFACE PIPED DRAINAGE WILL ULTIMATELY CONVERGE AT A NEW ACCESS ROAD CURB INLET LOCATED AT THE SOUTHWEST CORNER OF THE SITE, NEAR THE LOS ALTOS POOL. ALL SUB-BASIN 'WEST STORMWATER WILL BE COMBINED AT THIS INLET AND FREE DISCHARGE TO THE I-40 NMDOT RIGHT-OF-WAY VIA A NEW PRIVATE SUBSURFACE STORM PIPE CONNECTION INTO THE EXISTING LARGE DOUBLE 'D' STORM INLET LOCATED IN THE RIGHT OF WAY AS REFERENCED IN THE EXISTING CONDITIONS. AS NOTED ABOVE, THE I-40 STORM INLET IS DIRECT CONNECTED TO HE I-40 DRAINAGE CHANNEL BY LARGE DIAMETER RCP PIPE. THIS DIRECT PIPE CONNECTION REPLACES EXISTING OVERLAND FLOW CONNECTIONS, AND AS SUCH WILL MANAGE THE DISCHARGE RELEASE IN AN IMPROVED MANNER THAT WILL SIGNIFICANTLY REDUCE SEDIMENT DELIVERY TO THE I-40 NMDOT RIGHT-OF-WAY.

THE 'EAST' DRAINAGE SUB-BASIN IS MADE UP OF THE EASTERN PORTION OF THE PROJECT SITE, AND INCLUDES THE SOUTHEAST PARKING LOT, THE EASTERN HALF OF THE SOUTH ACCESS ROAD AND THE NEW CONCESSIONS / RESTROOM BUILDING. STORMWATER RUNOFF GENERATED BY THIS BASIN WILL DRAIN FROM NORTHEAST TO SOUTHWEST ACROSS THE SITE VIA SURFACE FLOW ACROSS THE SOFTBALL FIELDS, PARKING LOT, AND ACCESS ROADS, AS WELL AS VIA NEW SUBSURFACE STORM DRAIN IMPROVEMENTS THAT WILL COLLECT RUNOFF FROM THE CONCESSIONS / RESTROOM BUILDING AND LOW POINTS IN THE SURROUNDING CENTRAL PEDESTRIAN ACCESS AND LANDSCAPED AREAS. SURFACE FLOW STORMWATER AND SUBSURFACE PIPED DRAINAGE WILL ULTIMATELY CONVERGE AT A NEW CURB INLET IN THE SOUTH ACCESS ROAD LOCATED IMMEDIATELY NORTH OF THE DOUBLE 'D' STORM INLET IN THE I-40 NMDOT RIGHT-OF-WAY REFERENCED IN THE EXISTING CONDITIONS. A NEW PRIVATE STORM DRAIN CONNECTION WILL BE MADE BETWEEN THE NEW CURB INLET AND THE EXISTING I-40 INLET TO DIRECT-PIPE THE SUB-BASIN 'EAST' STORMWATER INTO THE I-40 DRAINAGE SYSTEM. AS NOTED ABOVE, THE I-40 STORM INLET IS DIRECTLY CONNECTED TO THE 1-40 DRAINAGE CHANNEL BY LARGE DIAMETER RCP PIPE, SIMILAR TO THE 'WEST' SUB—BASIN DISCHARGE. THIS DIRFCT PIPE CONNECTION REPLACES EXISTING OVERLAND FLOW CONNECTIONS. AND AS SUCH WILL MANAGE THE DISCHARGE RELEASE IN AN IMPROVED MANNER THAT WILL SIGNIFICANTLY REDUCE SEDIMENT DELIVERY TO THE I-40 NMDOT RIGHT-OF-WAY.

IS NOTED IN THE EXISTING CONDITIONS ABOVE, THERE ARE NO OFFSITE FLOWS FROM LOMAS BLVD TO THE NORTH, EUBANK BLVD TO THE EAST, I-40 NMDOT RIGHT-OF-WAY TO THE SOUTH, OR LOS ALTOS POOL & ALBUQUERQUE GARDEN CENTER TO HE WEST. THERE CONTINUES TO BE OFFSITE FLOWS ONTO THE SOUTHEAST CORNER OF THE SITE FROM A LARGE **54"** RCF CULVERT EXTENDING ACROSS EUBANK BLVD NE. THIS CULVERT RELEASES ~160 CFS OF STORMWATER DURING A 100—YEAR, 6 HR STORM EVENT INTO THE SITE, AND IS CONVEYED ACROSS THE SOUTHEAST CORNER OF THE SITE VIA AN EXISTING COMBINATION CONCRETE VALLEY GUTTER AND EARTHEN DRAINAGE CHANNEL, TO ULTIMATELY DISCHARGE INTO THE I-40 RIGHT-OF-WAY TO THE SOUTH. THIS EXISTING VALLEY GUTTER AND FARTHEN DRAINAGE CHANNEL WILL BE MAINTAINED IN ITS EXISTING CONDITION, WHILE THE NEW SLOPE UP TO THE NEW SOUTH ACCESS ROAD LOCATED IMMEDIATELY ADJACENT TO THIS CHANNEL WILL BE STABILIZED WITH SHOTCRETE AND LARGE COBBLES TO MITIGATE POTENTIAL EROSION DURING ANY FUTURE 100-YEAR STORM EVENTS. AS PER THE EXISTING CONDITIONS, THESE OFFSITE FLOWS WILL CONTINUE TO ULTIMATELY DRAIN TO THE I-40 DRAINAGE CHANNEL

#### AS NOTED ABOVE, THIS SITE WILL INCLUDE SEVERAL DEPRESSED LANDSCAPED AREAS THAT WILL CAPTURE STORMWATER RUNOFF TO THE MAXIMUM EXTENT PRACTICABLE (4300 CF STORM WATER QUALITY RETENTION ONSITE). HOWEVER, DUE TO THE USER REQUIREMENTS OF THE SITE LIMITING OPPORTUNITIES FOR SIGNIFICANT RETENTION ONSITE. THE SITE WILL NOT RETAIN THE GENERATED STORM WATER QUALITY (FIRST FLUSH) VOLUME OF 8,070 CF (3,770 CF RELEASED). THEREFORE, THE SITE IS ANTICIPATED TO REQUIRE AN ALTERNATIVE OPTION OF A 'FEE-IN-LIEU' IN THE AMOUNT OF \$30,160 (3,770 CF \* \$8.00/CF) TO MEET THE CITY ORDINANCE REQUIREMENTS.

## VI. CALCULATIONS

CALCULATIONS ANALYZING THE EXISTING AND PROPOSED DEVELOPED CONDITIONS FOR THE 100 YEAR. 6-HOUR RAINFALL EVENT HAVE BEEN PREPARED FOR EACH DRAINAGE BASIN. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS. AS SET FORTH IN HE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. DEMONSTRATED BY THESE CALCULATIONS, THE PROPOSED DEVELOPMENT WILL RESULT IN MINIMAL DECREASE IN PEAK RATE OF DISCHARGE (-0.4 CFS FROM SUB-BASIN 'WEST'; -0.5 CFS FROM SUB-BASIN 'EAST') AND A MINIMAL INCREASE IN VOLUME F RUNOFF GENERATED (890 CF FROM SUB-BASIN 'WEST'; 430 CF FROM SUB-BASIN EAST). THIS INCREASED VOLUME OF RUNOFF GENERATED OF 1,320 CF WILL BE OFFSET BY THE STORMWATER QUALITY RETENTION CAPACITY ONSITE OF 1500 CF. THEREFORE, THE OVERALL SITE WILL RESULT IN A NET DECREASE (-180 CF) IN STORMWATER DISCHARGE RELEASED FROM THE

## VII. CONCLUSIONS

## THE FOLLOWING CONCLUSIONS HAVE BEEN ESTABLISHED AS A RESULT OF THE EVALUATIONS CONTAINED HEREIN:

RESULTING IN A NET DECREASE OF 180 CF DRAINING TO THE I—40 NMDOT RIGHT—OF—WAY

OVERALL PARK PROPERTY; FUTURE DEVELOPMENT FOR THE WESTERN PORTION OF THE PARK WILL REQUIRE SEPARATE . THE PROPOSED IMPROVEMENTS WILL MAINTAIN THE EXISTING DRAINAGE PATTERNS OF THE SITE, RELEASING GENERATED STORMWATER RUNOFF TO THE INTERSTATE-40 NMDOT RIGHT-OF-WAY / DRAINAGE CHANNEL VIA TWO DISCHARGE POINTS LOCATED IMMEDIATELY UPSTREAM OF NMDOT DRAINAGE INLET STRUCTURES. THESE NEW CONNECTIONS WILL BE DIRECT-PIPED CONNECTIONS. REPLACING EXISTING OVERLAND FLOW DISCHARGE. AND AS SUCH WILL MANAGE THE DISCHARGE RELEASE IN AN IMPROVED MANNER THAT WILL SIGNIFICANTLY REDUCE SEDIMENT DELIVERY TO THE I-40 NMDOT RIGHT-OF-WAY. THE PROPOSED IMPROVMENTS WILL MAINTAIN THE STATUS QUO FOR THE SITE OF FREE DISCHARGE TO THE I-40 NMDOT RIGHT-OF-WAY / DRAINAGE CHANNEL. THE PROPOSED IMPROVEMENTS WILL RESULT IN A MINIMAL DECREASE IN THE OVERALL PEAK RATE OF RUNOFF (-0.9 CFS) AND MINIMAL INCREASE IN VOLUME (1,320 CF) GENERATED BY THE SITE. THE INCREASE IN VOLUME OF RUNOFF GENERATED WILL BE OFFSET BY 1500 CF OF STORMWATER QUALITY RETENTION ONSITE,

. THIS DRAINAGE PLAN ADDRESSES THE PHASE 1 LOS ALTOS PARK IMPROVEMENTS FOR THE FASTERN PORTION OF THE

. THE PROPOSED DEVELOPMENT WILL NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES OR DOWNSTREAM DRAINAGE STORMWATER QUALITY DEPRESSED LANDSCAPED AREAS WILL CAPTURE AND TREAT STORMWATER RUNOFF FROM THE SITE TO THE MAXIMUM EXTENT PRACTICABLE ( $V_{SWQV}$  retained = **4300 CF**). However, this proposed site is not anticipated to meet city ordinance stormwater quality volume (first flush) retention / treatment volume requirements (FIRST FLUSH GENERATED = 8.070 CF). AS THIS IS A CITY PARK PROJECT, ADDRESSING THE FEE-IN-LIEU ALTERNATIVE OPTION FOR THE AMOUNT OF VOLUME RELEASED FROM THE OVERALL PROJECT SITE (3770 CF) WILL BE COORDINATED BETWEEN THE PARK OWNER AND THE CITY HYDROLOGY DEPARTMENT.

### I. LOS ALTOS PARK - PHASE 1 ONSITE DRAINAGE BASINS CHARACTERISTICS

PRECIPITATION ZONE =

B. C. LAN	P <sub>100, 6 HR</sub> = P <sub>360</sub> = ND TREATMENTS	2.43	IN				
1.		EXISTING LA	AND TREA	TMENT	DEVELOPED L	AND TREAT	MENT
	ONSITE (WEST) DRAIN	532,920	SF		532,920	SF	
	BASIN	12.23	AC		12.23	AC	
	LAND TREATMENT	AREA (SF/	AC)	%	AREA (SF.	/AC)	%
	А						
	В	140,730	SF	26%	196,020	SF	37%
	В	3.23	AC	2070	4.50	AC	3/70
	C	150,730		28%	80,900	SF	15%
		3.47	AC	2070	1.86	AC	1370

<b>∧</b> a.		DEVE	LOPED LA	ND TREAT	MENT	
/1\	WEST SUB-BASIN	TOTAL AREA	LA	ND TREATI	MENT (AC	;)
	WEST SUB-BASIN	(AC)	Α	В	С	D
	WEST-1	3.56		0.26	0.26	3.02
	WEST-2	2.46		1.10	1.10	0.26
	WEST-3	6.21		3.10	0.50	2.60

	EXISTING LAND TREATMENT			DEVELOPED L.	AND TREA	TMENT
ONSITE (EAST) DRAIN	514,740	SF		514,740	SF	
BASIN	11.82			11.82	AC	
LAND TREATMENT	AREA (SF/	AC)	%	AREA (SF.	/AC)	%
А						
~						
В	189,940	_ ·	37%	248,200	SF	48%
Б	4.36	AC	57 70	5.70	AC	4070
C	215,800	SF	42%	145,140	SF	28%
C	4.96	AC	4270	3.34	AC	2070
D	109,000	SF	21%	121,400	SF	24%
Б	2.50	AC	2170	2.79	AC	24 70

a.		DEVELOPED LAND TREATMENT				
∖Г	EAST SUB-BASIN	TOTAL AREA	L/	ND TREATM	IENT (AC	:)
	EAST SOB-BASIN	(AC)	Α	В	С	D
Е	EAST-1	1.81		1.22	0.60	0.19
Е	EAST-2	1.93		1.00	0.45	0.48
F	AST-3	8.08		3.48	2.20	2.12

## **HYDROLOGY**

#### EXISTING CONDITION 100 YEAR STORM ONSITE (WEST) DRAIN BASIN

$WT_{E} = (E_{A} \cdot A_{A} + E_{B} \cdot A_{B} + E_{C} \cdot A_{C} + A_{C} \cdot A_{C} + A_$	<sup>A</sup> c + E <sub>D</sub> • A <sub>D</sub> )/A <sub>T</sub> 3.23) + (1.09 • 3.47) + (2.58 • 5.	.54)/12.23 =	1.70 IN
$V_{100,6  HR} = (E_W/12) \cdot A_T$	⇒ (1.70/12) • 12.23 =	1.7332 AC-FT =	75,500 CF
b. PEAK DISCHARGE 100-YR			
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_B$	λ <sub>-</sub> + Ω <sub>-</sub> • Δ <sub>-</sub>		
	+ (2.49 • 3.23) + (3.17 • 3.47) +	(4.49 • 5.54) =	43.9 CFS
·			-
ONSITE (EAST) DRAIN BASIN			
a. VOLUME 100-YR, 6-HR			

$\Rightarrow$ (0.67 • 0.00) + (0.86 • 4.3	36) + (1.09 • 4.96) + (2.58 • :	2.50)/11.82 =
$V_{100.6  HR} = (E_W/12) \cdot A_T$	⇒ (1.32/12) • 11.82 =	1.2998 AC-FT =
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C$	+ Q <sub>D</sub> • A <sub>D</sub>	
⇒ (1.84 • 0.00) +	$(2.49 \cdot 4.36) + (3.17 \cdot 4.96)$	+ (4.49 • 2.50) =

ONSITE (WEST) DRAIN BA	ASIN		
a. VOLUME 100-YR, 6-HR			
$WT_E = (E_A \cdot A_A + E_B \cdot A_B +$			
$\Rightarrow (0.67 \cdot 0.00) + (0.67 \cdot 0.00)$	I.86 • 4.50) + (1.09 • 1.86) + (2.5	58 • 5.88)/12.23 =	1.72 IN
$V_{100.6HR} = (E_W/12) \cdot A_T$	⇒ (1.72/12) • 12.23	= 1.7536 AC-FT =	76,390 CF
b. STORMWATER QUALIT	Y VOLUME (FIRST FLUSH) GE	NERATED	
$V_{SWQV} = ((P_{SWQV})/12) \cdot A_D$			
	⇒ ((0.42)/12) • (1.73) =	0.0876 AC-FT =	3,820 CF

#### WEST SUB-BASINS PEAK DISCHARGE RATES, INLET & STORM PIPE SIZING a. PEAK DISCHARGE RATE: $Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$

 $\Rightarrow$  (1.84 • 0.00) + (2.49 • 4.50) + (3.17 • 1.86) + (4.49 • 5.88) =

#### b. PIPE CAPACITY CALCULATED USING FLOWMASTER V6.0 - MANNING'S EQUATION FOR GRAWTY FLOW IN PIPES c. \*24" X 24" AND \*\*SINGLE / DOUBLE 'C' INLET CAPACITY CALCULATED USING EJ IRONWORK ORIFICE FLOW CALCULATOR

SUB-BASIN	PEAK DISCHARGE (100 YR)	INLET CAP		PIPE CAPACI	
	Q <sub>100</sub> (CFS)	(CFS)	SIZE	MIN. SLOPE	Q <sub>CAP</sub> (CFS)
WEST-1	13.6	14 **	24"	1.00%	14.1
WEST-2	7.4	8*	18"	0.85%	27.9
WEST-3	22.5	28**	24"	3.00%	52.4
WEST (COMBINED)	43.5	N/A	24"	3.00%	52.4

## 3. ONSITE (EAST) DRAIN BASIN

 $Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$ 

a. VOLUME 100-YR, 6-HR $WT_E = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D)/A_T$	
$\Rightarrow$ (0.67 • 0.00) + (0.86 • 5.70) + (1.09 • 3.34) + (2.58 • 2.79)/11.82 =	1.33 IN
$V_{100.6  HR} = (E_W/12) \cdot A_T$ $\Rightarrow (1.33/12) \cdot 11.82 =$ <b>1.3097 AC-F</b>	TT = 57,050 CF
b. STORMWATER QUALITY VOLUME (FIRST FLUSH) GENERATED $V_{SWQV} = ((P_{SWQV})/12) \cdot A_D$ $\Rightarrow ((0.42)/12) \cdot (2.79) = 0.0975 \text{ AC-F}$	FT = 4,250 CF
c. PEAK DISCHARGE 100-YR	
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$	
$\Rightarrow$ (1.84 • 0.00) + (2.49 • 5.70) + (3.17 • 3.34) + (4.49 • 2.79) =	= 37.3 CFS

## EAST SUB-BASINS PEAK DISCHARGE RATES, INLET & STORM PIPE SIZING

a. PEAK DISCHARGE RATE:  $Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$ b. PIPE CAPACITY CALCULATED USING FLOWMASTER V6.0 - MANNING'S EQUATION FOR GRAMTY FLOW IN PIPES c.\*24" X24" AND \*\*SINGLE / DOUBLE 'C' INLET CAPACITY CALCULATED USING EJ IRONWORK ORIFICE FLOW CALCULATOR

SUB-BASIN	PEAK DISCHARGE (100 YR)	INLET CAP	PIPE CAPACITY		
	Q <sub>100</sub> (CFS)	(CFS)	SIZE	MIN. SLOPE	Q <sub>CAP</sub> (CFS)
EAST-1	5.8	8*	18"	1.10%	14.8
EAST-2	6.1	8*	18"	1.50%	17.3
EAST-3	25.6	28**	24"	2.00%	42.8
EAST (COMBINED)	37.3	N/A	24"	2.00%	42.8

C. CC	MPARISON 100 YEAR STORM			
1.	ONSITE (WEST) BASIN GENERATED			
	a. VOLUME 100-YR, 6-HR			
	$\Delta V_{PROJECT SITE} = 76390 - 75500 =$	890 0	F	(INCREASE)
	b. PEAK DISCHARGE 100-YR			
	$\Delta Q_{100} = 43.5 - 43.9 =$	-0.4 0	CFS	(DECREASE)
	133			
2.	ONSITE (EAST) BASIN GENERATED			
	a. VOLUME 100-YR, 6-HR			
	$\Delta V_{PROJECT SITE} = 57050 - 56620 =$	430 0	CF.	(INCREASE)
	b. PEAK DISCHARGE 100-YR			
	$\Delta Q_{100} = 37.3 - 37.8 =$	-0.5 (	CFS	(DECREASE)
3.	OVERALL SITE STORMWATER DISCHARGE			
	V <sub>OVERALL</sub> SITE DEVELOPED GENERATED = 76390 + 57050 =	133,440	CF	
	Voverall site existing generated = 75500 + 56620 =	132,120	CF	
	VOVERALL SITE STORM WATER QUALITY VOLUME RETAINED =	4,300	CF	
	V <sub>OVERALL SITE DISCHARGE</sub> = 133440 - 132120 - 4300 =	-2980.0	CF	(DECREASE)

## $V_{\rm OVERALL~SWQV~GENERATED}$ = 8,070 CF > $V_{\rm SITE~SWQV~RETAINED}$ = 4300 CF; 3,770 CF RELEASED FROM SITE

### PROJECT BENCHMARK

AN AGRS BRASS DISK STAMPED "14-K20". SET FLUSH WITH THE TOP OF A CONCRETE CURB, ON THE NOSE OF THE ISLAND APPROXIMATELY 123' NORTH OF THE INTERSECTION OF COPPER AVENUE NE AND WYOMING BOULEVARD NE. ELEVATION = 5381.93 FEET (NAVD 1988)

## TEMPORARY BENCHMARK #201 (T.B.M.)

A #5 REBAR W/CAP STAMPED "HMCG CONTROL NMPS 11184", SET IN GRASS NORTHWEST OF A WHEELCHAIR RAMP, BETWEEN A BASEBALL FIELD AND A PARKING LOT, AS SHOWN ON SHEET C101. ELEVATION = 5425.88 FEET (NAVD 1988)

## TEMPORARY BENCHMARK #202 (T.B.M.)

A #5 REBAR W/CAP STAMPED "HMCG CONTROL NMPS 11184". SET IN GRASS NEAR THE EAST SIDE OF THE PROJECT SITE, BETWEEN A BASEBALL FIELD AND A PARKING LOT, AS SHOWN ON SHEET C101

## ELEVATION = 5434.33 FEET (NAVD 1988)

TEMPORARY BENCHMARK #204 (T.B.M.) A MAG NAIL, SET IN CONCRETE CURB JOINT NEAR THE SOUTHEAST CORNER OF THE LOOP ROAD THRU THE PROJECT SITE, AS SHOWN ON SHEET C101. ELEVATION = 5417.25 FEET (NAVD 1988)

## TEMPORARY BENCHMARK #207 (T.B.M.)

A MAG NAIL, SET IN CONCRETE CURB JOINT SOUTHEAST OF THE ALBUQUERQUE GARDEN CENTER, AS SHOWN ON SHEET C101. ELEVATION = 5410.14 FEET (NAVD 1988)

## TEMPORARY BENCHMARK #211 (T.B.M.)

A #5 REBAR W/CAP STAMPED "HMCG CONTROL NMPS 11184". SET IN DIRT NEAR THE WEST SIDE OF THE PROJECT SITE. NOT SHOWN. ELEVATION = 5390.22 FEET (NAVD 1988)

## TEMPORARY BENCHMARK #212 (T.B.M.)

A MAG NAIL, SET IN CONCRETE CURB JOINT EAST OF THE DRIVE ENTRANCE TO THE SKATE PARK, NOT SHOWN. ELEVATION = 5408.19 FEET (NAVD 1988)

### **LEGEND**

1.32 IN

56,620 CF

37.8 CFS

43.5 CFS

LLOLIND			
ADO	AUTOMATIC DOOR OPENER ASPHALT BUILDING OVERHANG COMMUNICATION CURB AND GUTTER CONCRETE CURB CONCRETE DRIVE PAD CAST IRON PIPE CONCRETE ISLAND CENTERLINE CENTERLINE OF DOOR CENTERLINE OF DOUBLE DOOR CHAINLINK FENCE CORRUGATED METAL PIPE CONCRETE MOW STRIP CONCRETE MASONRY UNIT CONCRETE CURB OPENING CONC CYLINDER PIPE CONCRETE RAMP CONCRETE RUNDOWN CONCRETE STEPS CONCRETE WALL EDGE OF ASPHALT EDGE OF CONCRETE	•	COMM CONDUIT
ASPH	AUTOMATIC DOOR OPENER	<b>⊕</b>	COMM UG MARKER
BOH	RIJI DING OVERHANG	0	COMM PULLBOX
C	COMMUNICATION	$\frac{\circ}{\circ}$	COMM POLE
C&G	CURR AND CUTTER	<u>©</u>	COMM RISER
CC	CONCRETE CLIRA	EBB)	ELEC BREAKER BOX
CDP	CONCRETE DRIVE DAD	Ē	ELEC CABINET
	CAST IDOM DIDE	•	ELEC CONDUIT
CI	CANCETT ICLAND		ELEC JUNCTION BOX
COLI	CONCRETE ISLAND	(EM)	ELEC METER
CL	CENTERLINE OF DOOR	⊞	ELEC OUTLET
CLD	CENTERLINE OF DOUBLE DOOR	E	ELEC PULLBOX
CLDD	CHAINING OF DOUBLE DOUR	0	METAL GUARD POST
CLF	CODDUCATED METAL DIDE	•	FENCE
CMP	CONCRETE MOW STRIP	$\oplus$	GASEPERM LOCATION MARKER
CMS	CONCRETE MACONDY LINIT	+GS	GAS SERVICE
CMU	CONCRETE MASUNKY UNIT	G	GAS VALVE BOX
CONC	CUNCRETE	(CB)	IRR CONTROL BOX
COP	CONC CYLINDED DIDE	0	IRR VALVE BOX
CP	CONCRETE DAMP	→ MLP	METAL LIGHT POLE
CR	CONCRETE RUNDOWN	<b>◯</b> MPP	METAL POWER POLE
CRD CS	CONCRETE RUNDOWN	·O· WLP	WOODEN LIGHT POLE
	CONCRETE SIEFS	◯ WPP	WOODEN POWER POLE
CSW	CONCRETE SIDEWALK	Q	GUY WIRE ANCHOR
CW	CONCRETE WALL	<u>@</u>	SAS SINGLE CO
EA EC	EDGE OF CONCRETE	(S) (GT) (8)	SAS MANHOLE
ET	ELECTRIC TRANSFORMER	(GT)	GREASE TRAP
EV	ELECTRIC TRANSFORMER	<u>@</u>	SD CO
FL	ELECTRIC TRANSFORMER ELECTRIC VAULT FLOWLINE	SD	SD MANHOLE
GRV	GRAVEL		METAL SIGN GENERAL
INV	INVERT ELEVATION	<b>**</b>	STATUE — ART WORK
MH	MANHOLE	₩	TRASH CAN
VIIV(V)		R R	TRAF CONTROL BOX
000(2)	OVERHEAD COMM. (# OF LINES) OVERHEAD ELECTRIC (# OF LINES)	led ED	TRAF PULL BOX
OHE(2)	OVERHEAD ELECTRIC (# OF LINES)	₩	
PLINI	PLANTER	×	POST INDICATOR VALVE WATER FAUCET
PT	PICNIC TABLE	*	
PVC	POLYVINYL CHLORIDE	w	WATER FOUNTAIN
RCP	REINFORCED CONCRETE PIPE		WL HOT BOX
RR	RIVER ROCK	<b>∞</b> ⊠	WATER METER BOX METER CAN WITH WATER
SAS	SANITARY SEWER	$\bowtie$	WATER VALVE BOX
SB	SPEED BUMP		FIRE DEPT CONNECTION
SD STP	STORM DRAIN STEEL POLE	Ö	FIRE HYDRANT
SWC	SIDEWALK CULVERT		
			LANDSCAPE ROCK/BOULDER
TA TC	TOP OF ASPHALT TOP OF CURB	**	XERISCAPE PLANT
TCO	TOP OF CORB TOP OF CONCRETE	W.E.	ALMOUALL LAM
TG	TOP OF CONCRETE TOP OF GRATE		
TRC	TRASH CAN	ZVVZ	CONTEEDUTE THE WALL DIVINE
		Z,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CONIFEROUS TREE AND DIAMETER
TW TYP	TOP OF WALL TYPICAL	√ V \1.2'ø	
VG	VALLEY GUTTER	ZWZ	SMALL CONIFEROUS TREE
WCR		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	WHEELCHAIR RAMP	7/1	DECIDINGLE THE AND DIAMETED
WGP	WOOD GUARD POST		DECIDUOUS TREE AND DIAMETER
WHB	WATERLINE HOTBOX	/ \1.2'ø	
WL	WATERLINE WHEEL STOP	*	SMALL DECIDUOUS TREE
WS WV	WHEEL STOP WATER VAULT	~///	
AA A	WATER VAULE	{ }	SHRUB
		Ö	SMALL SHRUB
		<u> </u>	
apwa l	JTILITY COLOR CODE		

	0	SMALL SH	HRUB		
APWA UTILITY COLOR CODE					
RED — ELECTRIC POWER LINES, CABLES, CONDUIT AND LIGHTING CABLES	-Е ———	—Е ———-	– Е — –	Е	
YELLOW — GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS	- G — — -	— G — — — -	- G	G	
ORANGE - COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT	-c	c	-c	c	
ORANGE - COMMUNICATION, FIBER OPTIC LINES	– FO — —	— — FO —		— F0 — — —	
BLUE - POTABLE WATER	- w — — -	— w — — —	— w — —	w	
BLUE - WATER FROM RECORD DWG	- W FRD	W FRD		— W FRD———	
GREEN -SANITARY SEWER AND DRAIN LINES	- SAS — —	——— SAS—		— SAS — — —	
GREEN - SANITARY SEWER FROM RECORD DWG	— SAS FRD		— SAS F	FRD — — —	· _

-SD - - - SD - - - SD - - - -

GREEN - STORM DRAIN LINES

## **GENERAL NOTES:**

- . ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL FXCEPT AS OTHERWISE STATED OR APPROVED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS—PUBLIC WORKS CONSTRUCTION-1986-UPDATE NO. 10.
- 2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING PUBLIC UTILITIES.

3. UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE TOPOGRAPHIC AND UTILITY

- SURVEY CONDUCTED BY THIS FIRM DATED 12/08/2021 AND INCLUDED AS SHEETS VF-101 THROUGH VF-108 OF THIS PLAN SET. THAT UTILITY SURVEY AND SUBSURFACE UTILITY ENGINEERING EFFORT IS NOT ALL-INCLUSIVE AND MAY NOT REPRESENT UTILITIES/INFRASTRUCTURE THAT HAVE BEEN ABANDONED-IN-PLACE. WERE INACCESSIBLE, OR OTHERWISE UNDETECTABLE DUE TO UNFORESEEN AND UNCONTROLLABLE SITE AND/OR UTILITY CONDITIONS. FURTHER, THAT UTILITY INVESTIGATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFORE. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUES, NEW MEXICO EXCAVATION LAWS (NM811). MUNICIPAL AND LOCAL ORDINANCES, SITE SPECIFIC RULES AND REGULATIONS,
- IF ANY, PERTAINING TO THE LOCATION OF THESE UTILITY LINES AND FACILITIES. 4. SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES. 5. ALL UTILITIES WITHIN THE PROJECT LIMITS THAT ARE RENDERED OBSOLETE AND / OR
- UNUSED AS A RESULT OF THIS PROJECT SHALL NOT BE ABANDONED IN PLACE, BUT SHALL INSTEAD BE COMPLETELY REMOVED WITHIN THE PROJECT AREA AND CAPPED AT THE PROJECT LIMITS, UNLESS OTHERWISE NOTED.
- 6. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING
- 7. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND
- 8. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING. 9. BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE OR PER COA
- STANDARD DRAWING 2465, WHICHEVER IS MORE STRINGENT. 10. TACK COAT REQUIREMENTS SHALL BE DETERMINED DURING CONSTRUCTION BY THE PROJECT ENGINEER.
- 11. SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- 12.IF CURB IS DEPRESSED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
- 13.ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE. 14.THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT http://www.abcwua.org/Water\_Shut\_off\_and\_Turn\_on\_Procedures.aspx.
- 15. CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHAL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE SPECIFICATIONS. 16.SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR
- CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION CONTRACTOR MUST REFER SECTION 19 OF THE STANDARD SPECIFICATION FOR TRAFFIC CONTROL. 17.TWO WEEKS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHOULD NOTIFY THE TRANSIT

SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED

- DEPARTMENT OF ANY IMPACT THE PROPOSED PROJECT WILL HAVE ON THE TRANSIT SYSTEM SUCH AS CAUSING DETOUR, OR CAUSE THE CLOSING OR RELOCATION OF A BUS STOP. THE CONTACT PERSON IS DOUGLAS GOFF, OFFICE PHONE 505-724-3137, CELL PHONE 505-206-0151, AND EMAIL DGOFF@CABQ.GOV
- 18.ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED STRIPING BY CONTRACTOR TO EXISTING LOCATION OR AS INDICATED BY THIS PLAN SET
- 19. CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THI CONTRACTOR. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926, SUBPART P-EXCAVATIONS 20.ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY MAY REQUIRE TWENTY-FOUR
- HOUR CONSTRUCTION 21.CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT
- 22. WHEN APPLICABLE, CONTRACTOR SHALL, ON BEHALF OF THE OWNER AND OPERATORS, SECURE "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY AND/OR FILE A NOTICE OF
- 23.CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY OF
- 24.ALL FILL SHALL BE CLEAN, FREE FROM VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS, AND SHALL NOT BE CONTAMINATED WITH HYDROCARBONS OR OTHER CHEMICAL CONTAMINANTS.
- 25.CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR EARTHWORK REQUIREMENTS, AS APPLICABLE. 26.CONTRACTOR SHALL TEST ASPHALT PAVEMENT SUBGRADE R-VALUE PRIOR TO

INTENT (N.O.I.) WITH THE EPA PRIOR TO BEGINNING CONSTRUCTION

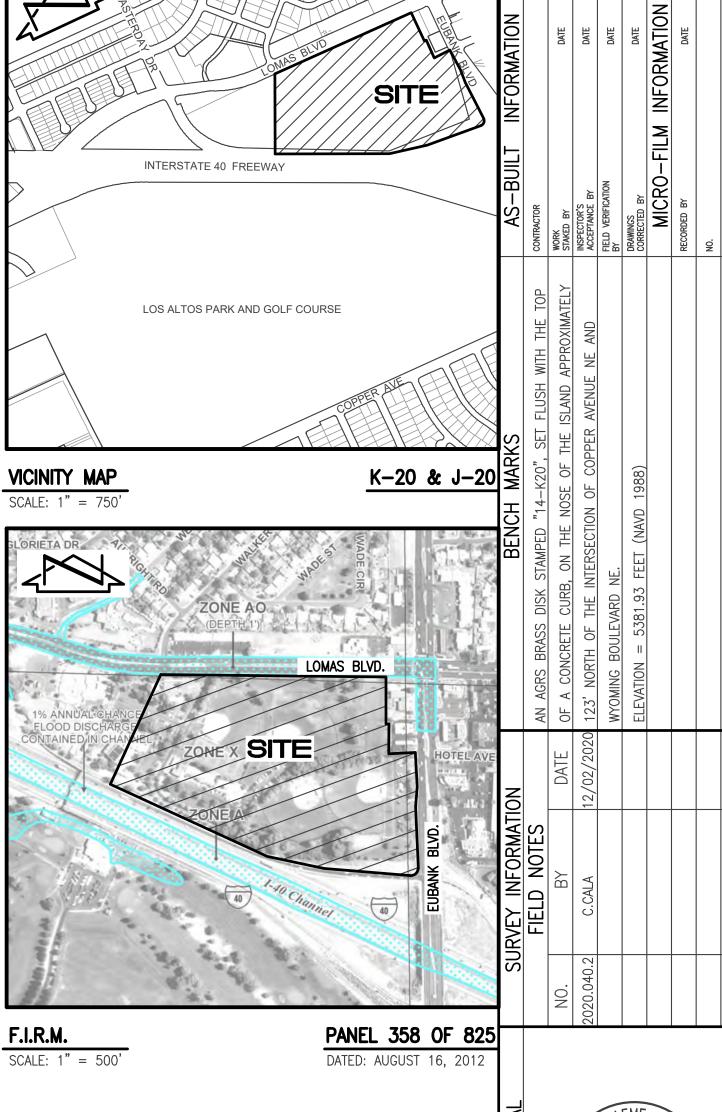
CONSTRUCTION. IN THE EVENT THE R-VALUE IS LESS THAN 50, CONTRACTOR SHALL REMOVE 2 FT. OF SUBGRADE MATERIAL AND IMPORT SUITABLE MATERIAL WITH R-VALUE 50 OR GREATER.

## EXISTING EASEMENT KEYED NOTES

- (2) 10' PNM AND MST&T EASEMENT (5' ANCHOR EASEMENTS) (3) 10' PNM AND MST&T EASEMENT (5' ANCHOR EASEMENTS)  $\langle$  4 angle 5' PNM AND MST&T ANCHOR EASEMENT  $\langle$  5 angle 5' PNM AND MST&T ANCHOR EASEMENT (6) APPROXIMATE LOCATION OF DRAINAGEWAY EASEMENT
- (7) 5' PNM AND MST&T EASEMENT
- 8 > PNM EASEMENT

(1) 10' PNM EASEMENT

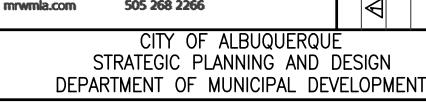
- 9) 10' PNM AND MST&T EASEMENT **(10)** 10' PNM AND MST&T EASEMENT
- (11) 10' ACCESS EASEMENT # (11b) ACCESS EASEMENT #2
- (11¢) ACCESS EASEMENT #3 12) 15' X 21' PNM AND MST&T EASEMENT
- (34) ABCWUA LOVE WELL #3 EASEMENT (3b) ABCWUA LOVE WELL #3 ACCESS EASEMENT (15) PNM EASEMENT



08/31/21

2020.040.3 MESA Consulting Group

6010-B Midway Park Blvd. NE • Albuquerque, New Mexico 87109 Phone: 505.345.4250 • Fax: 505.345.4254 • www.highmesacg.com LANDSCAPE ARCHITECTS 505 268 2266



LOS ALTOS PARK RENOVATION - PHASE 1 CIVIL COVER SHEET, NOTES, LEGEND AND VICINITY MAP

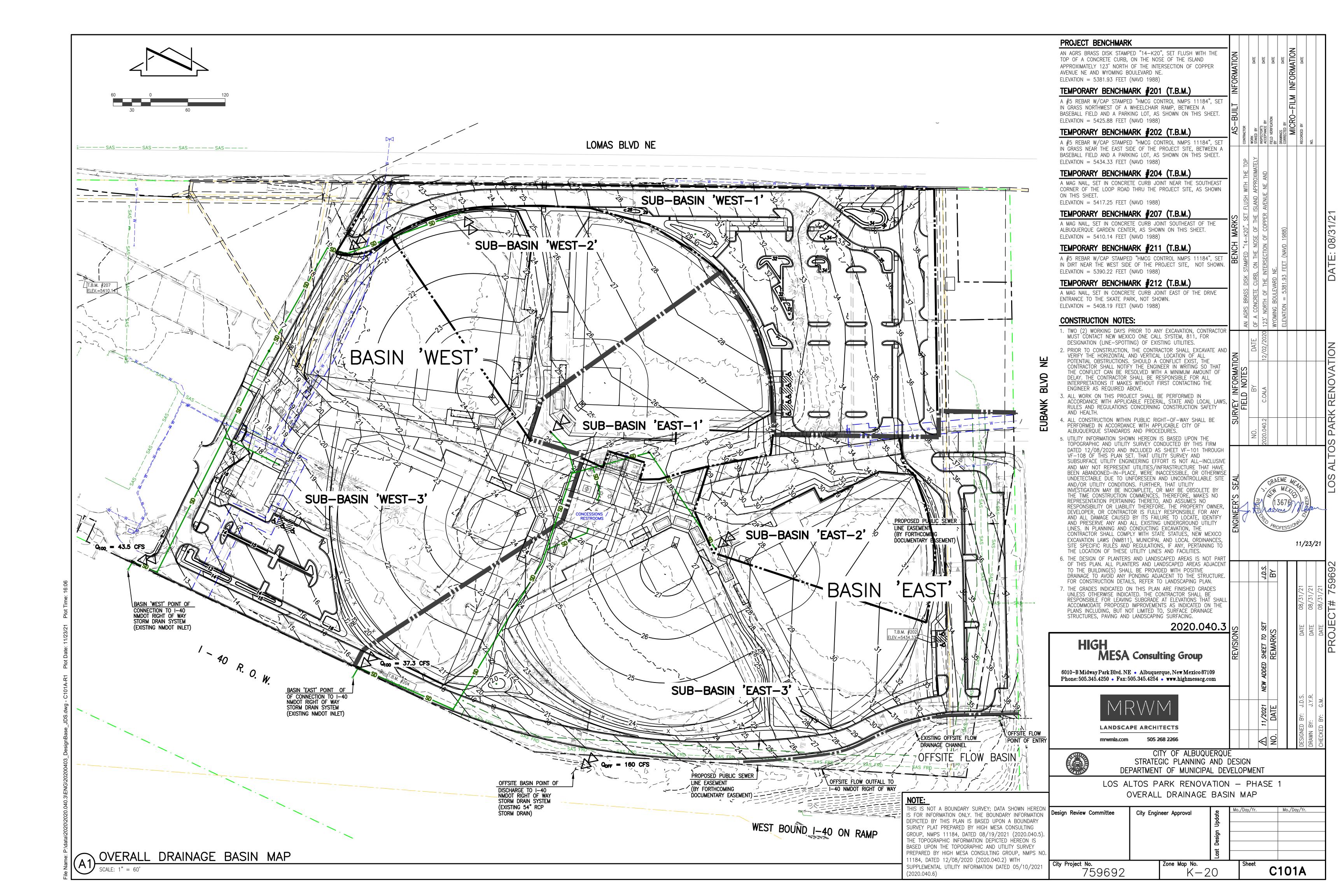
Design Review Committee City Engineer Approval

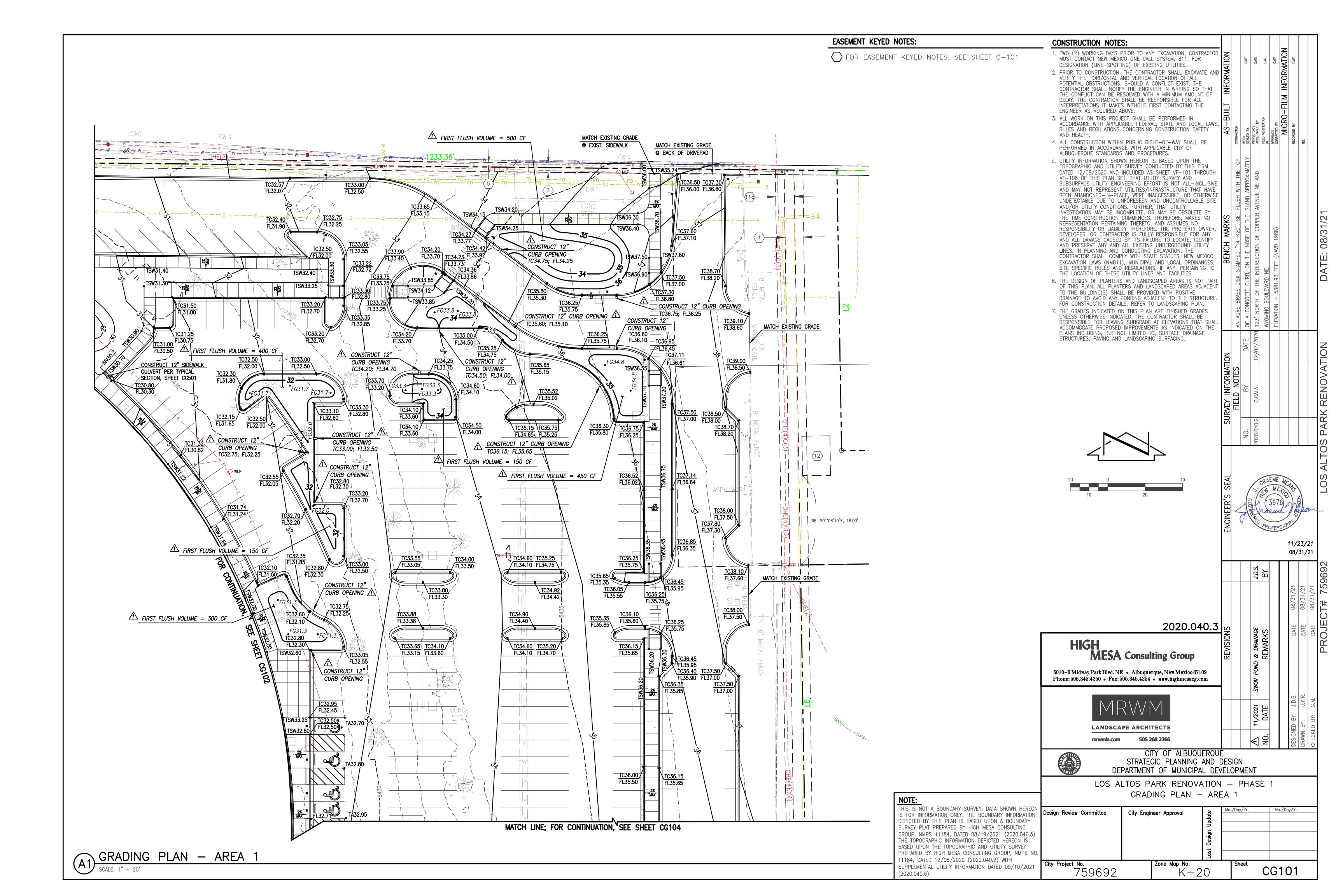
(14) ABCWUA EASEMENT

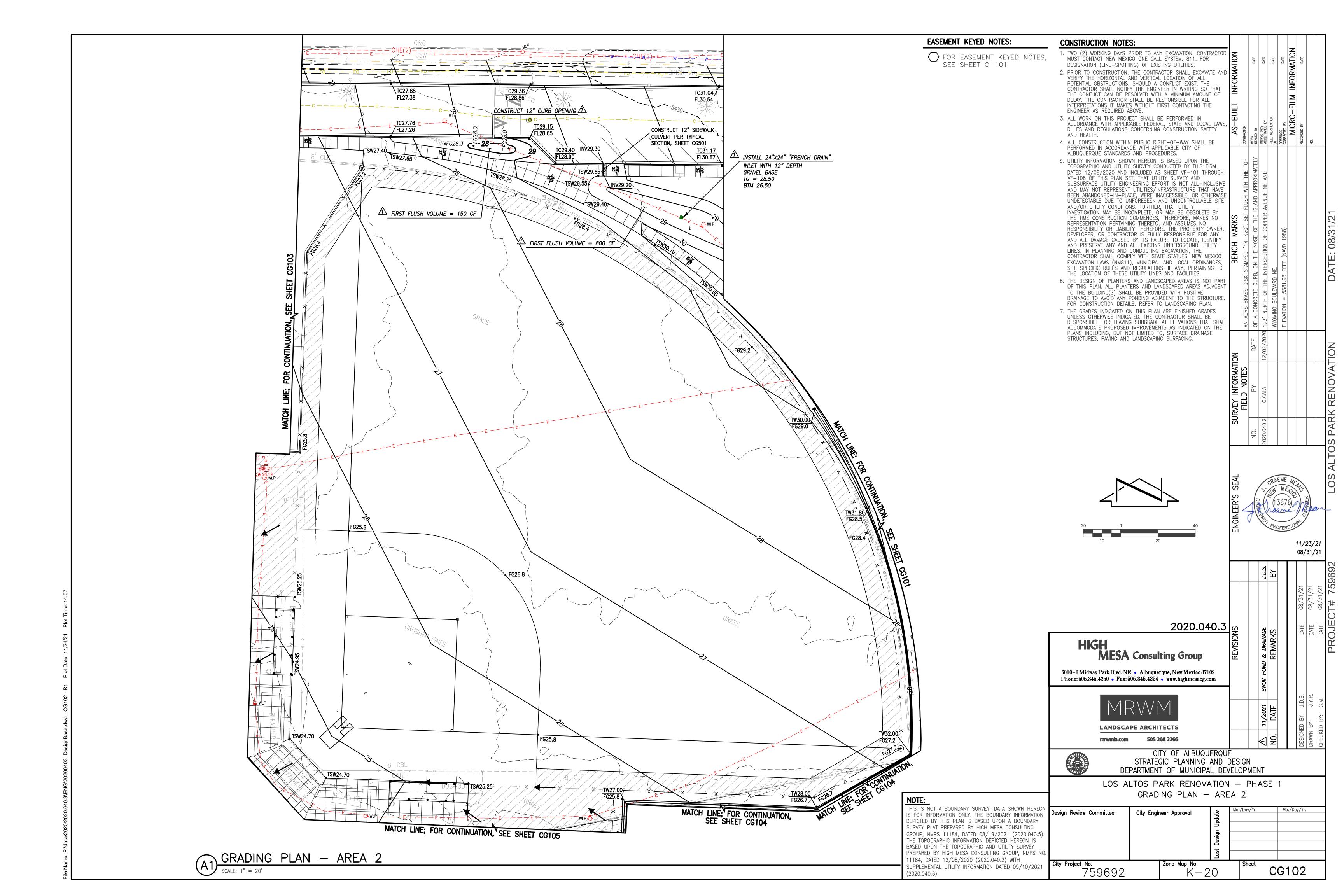
City Project No. 759692

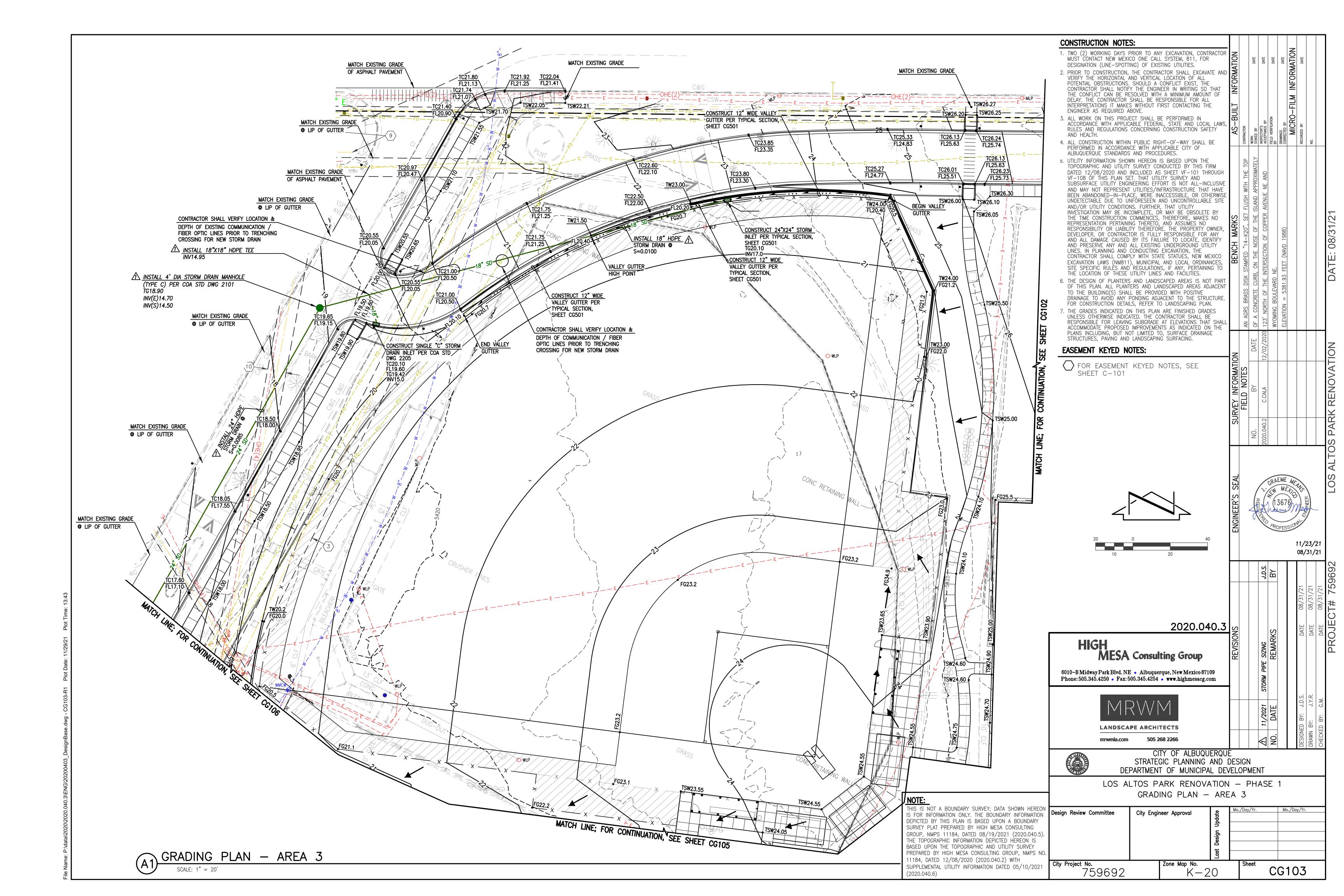
HIGH

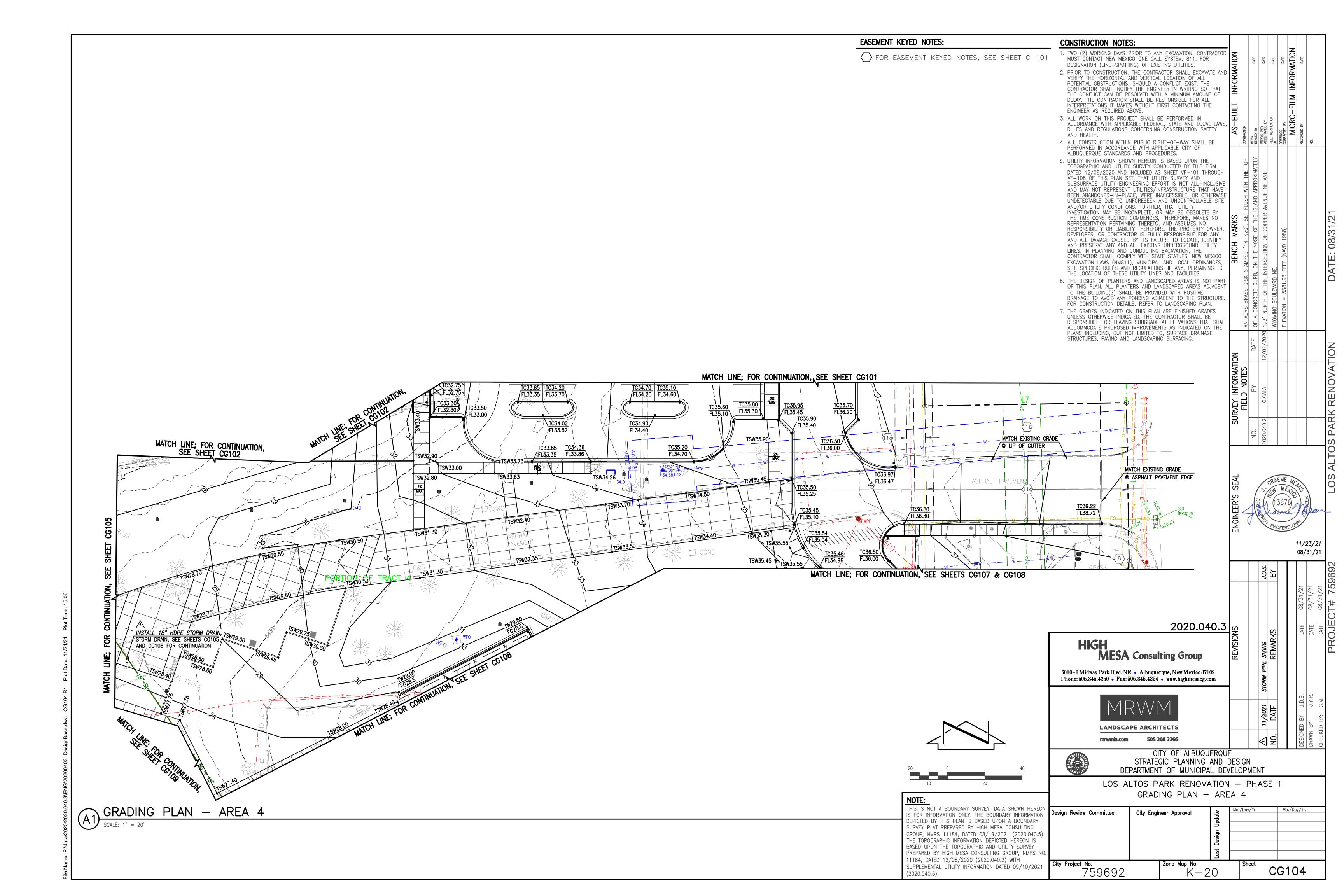
Zone Map No.

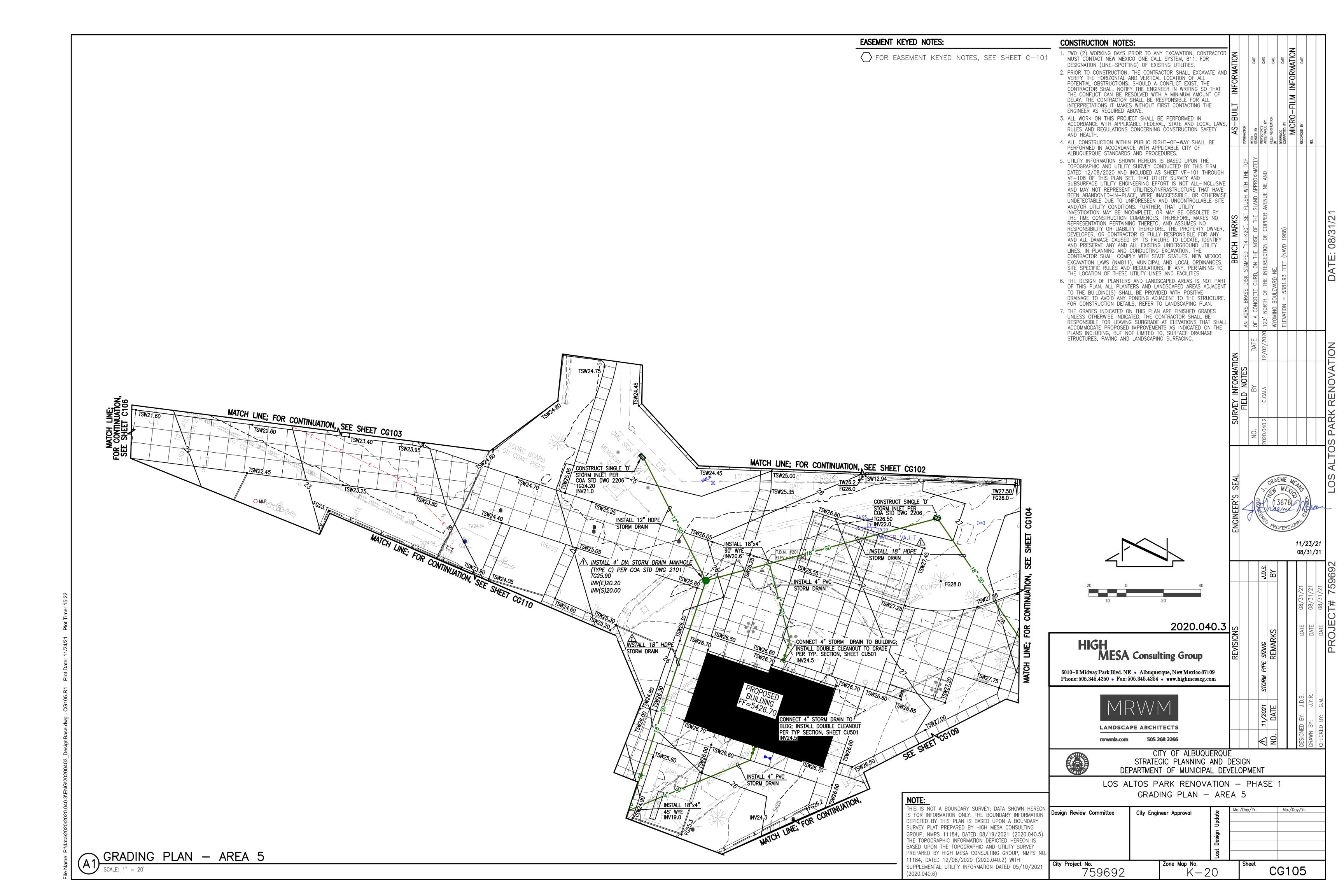


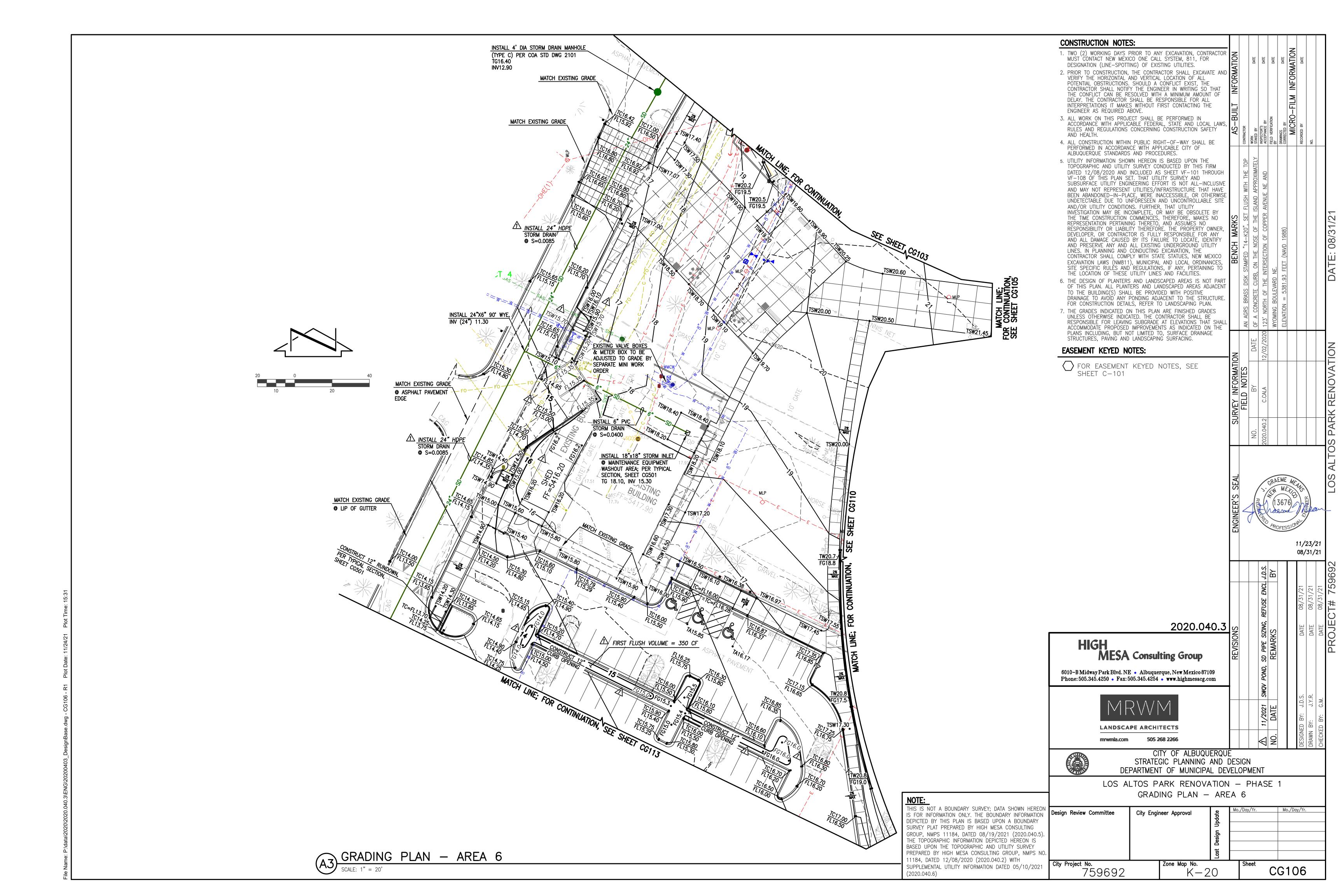


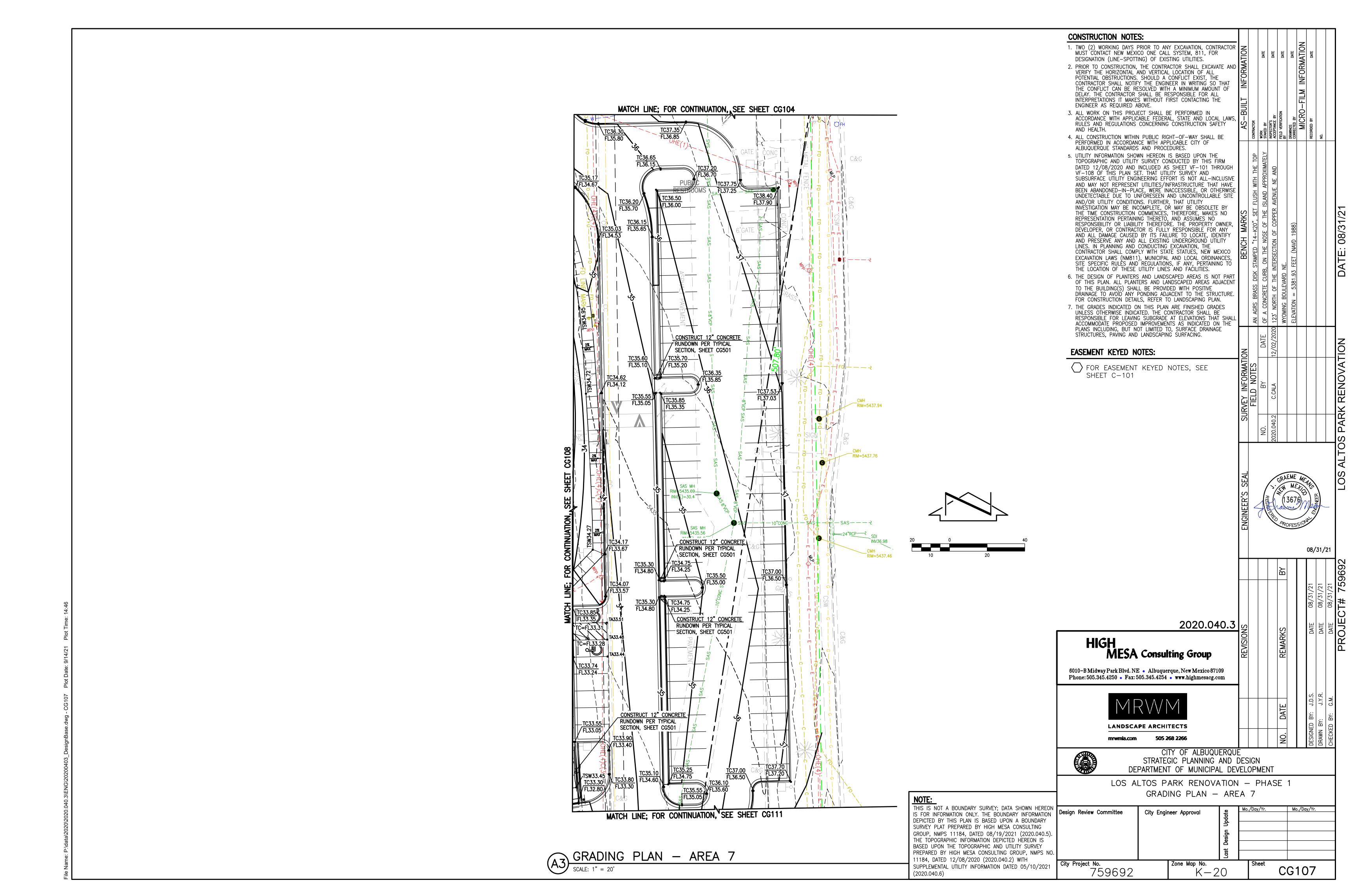


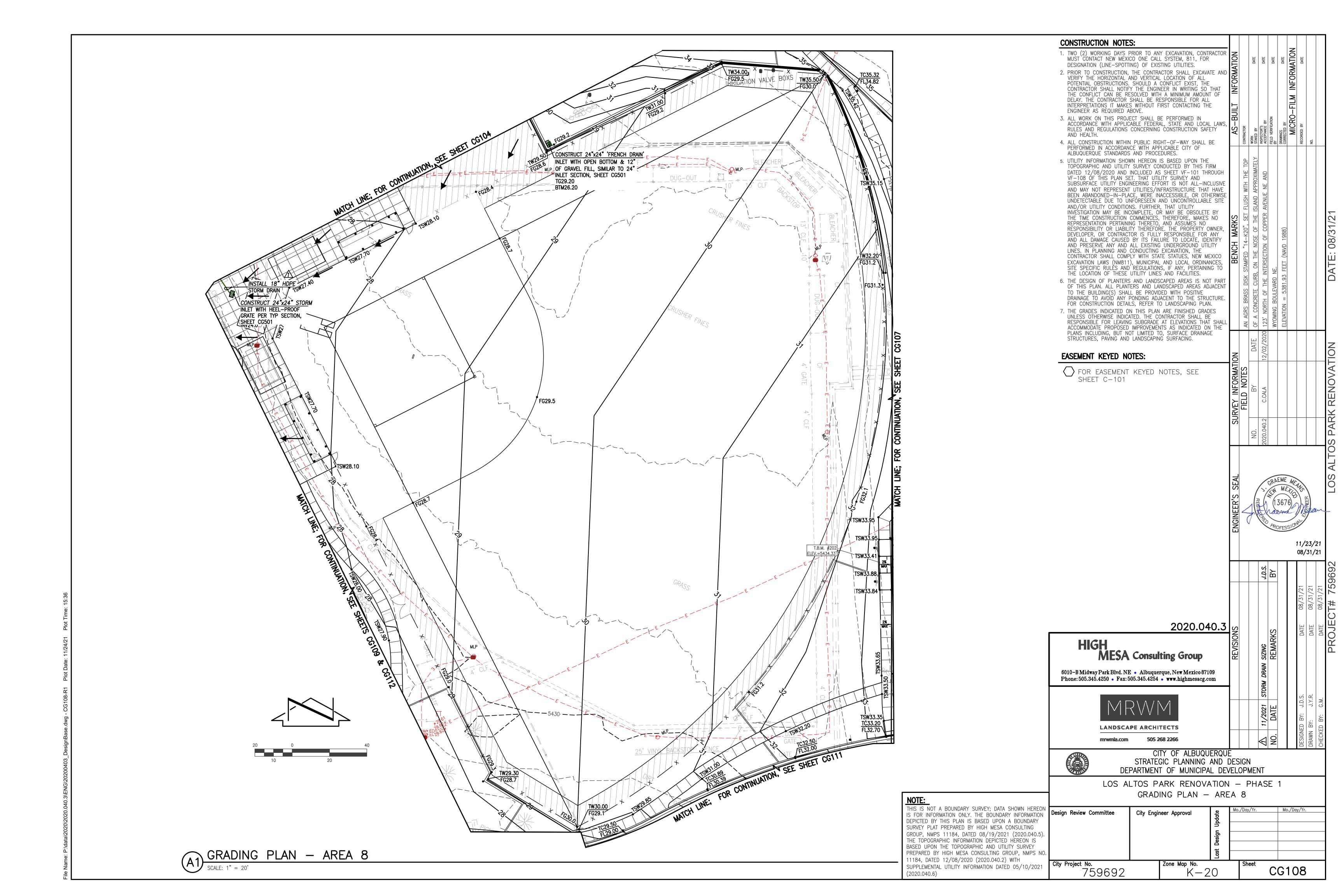


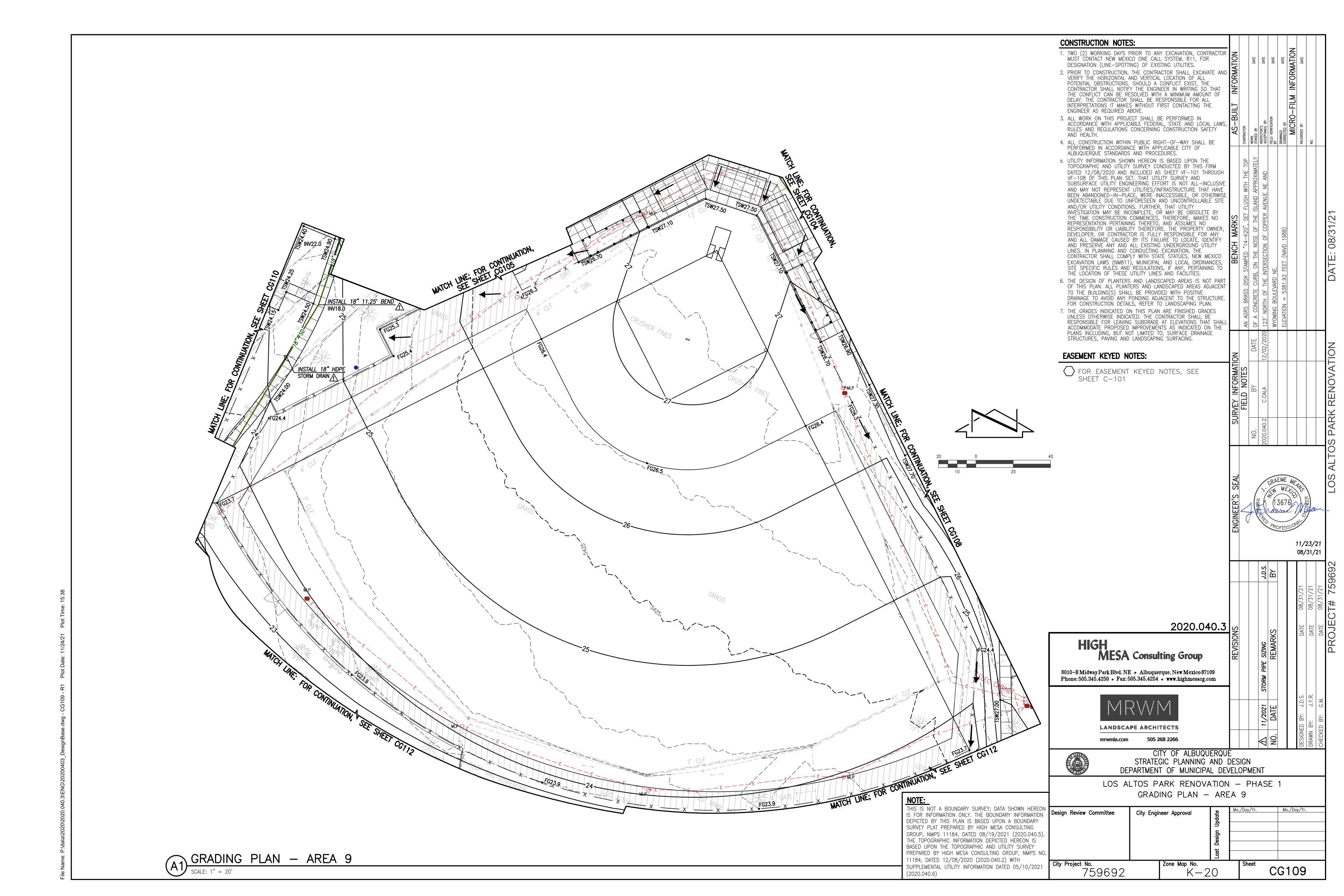


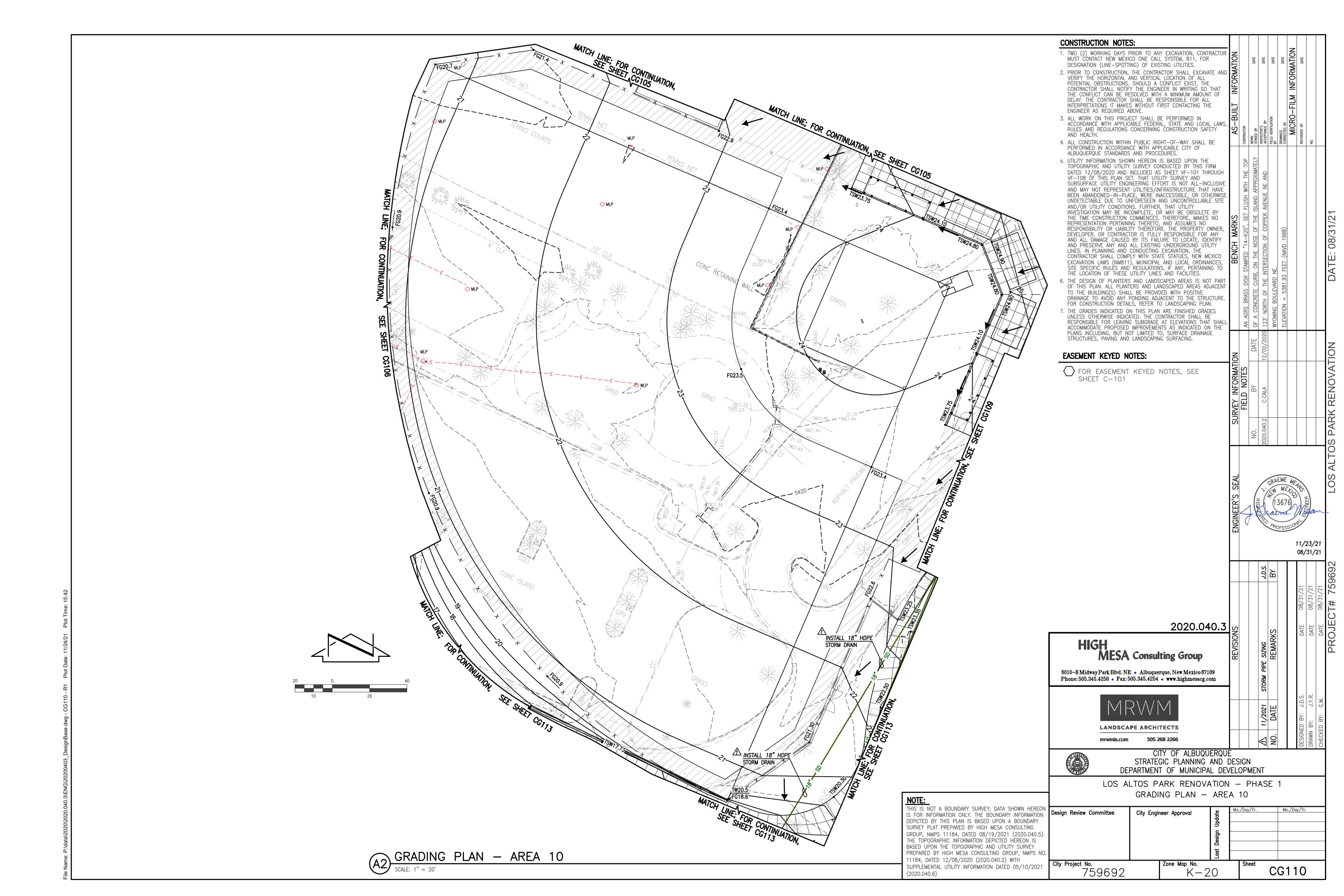


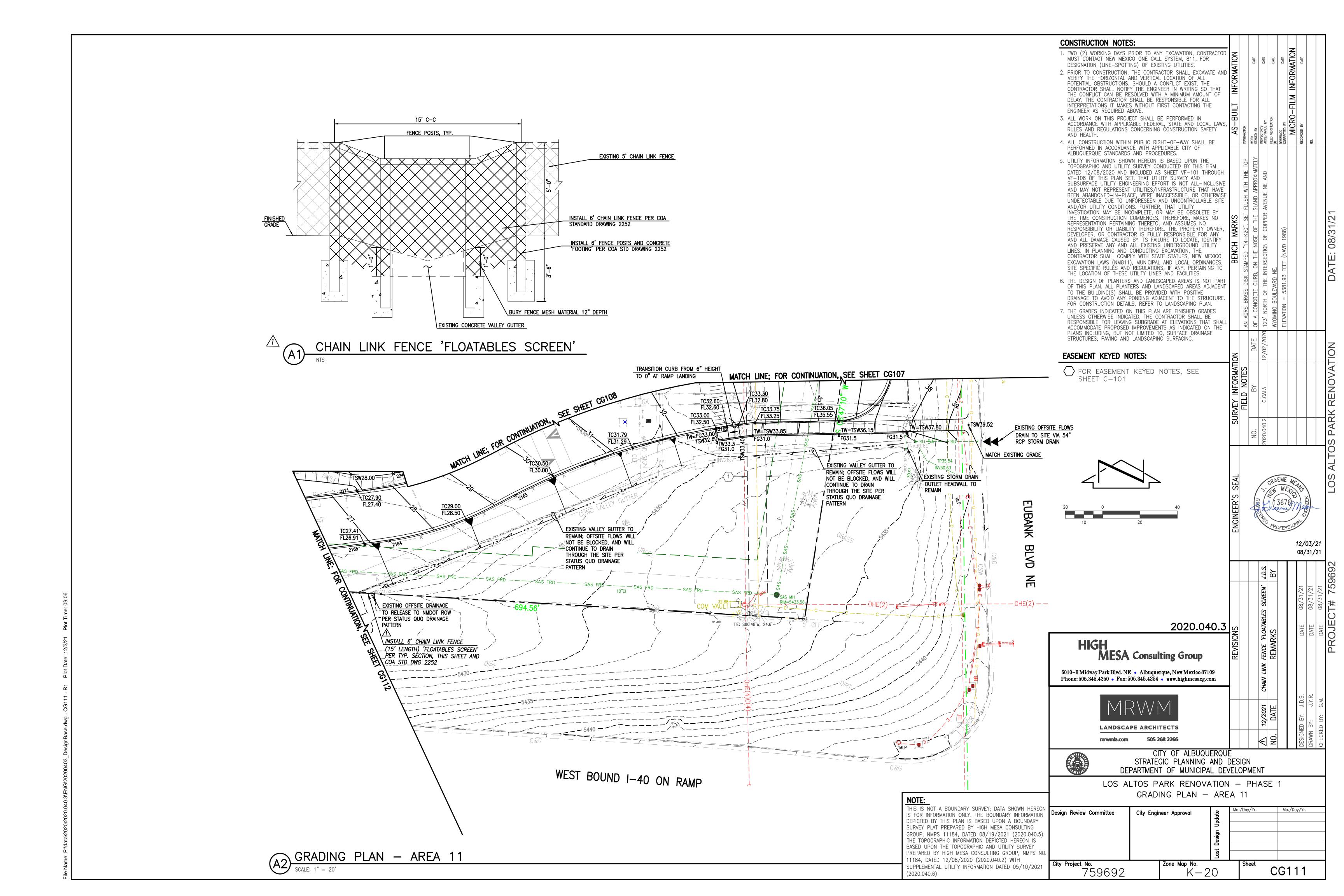


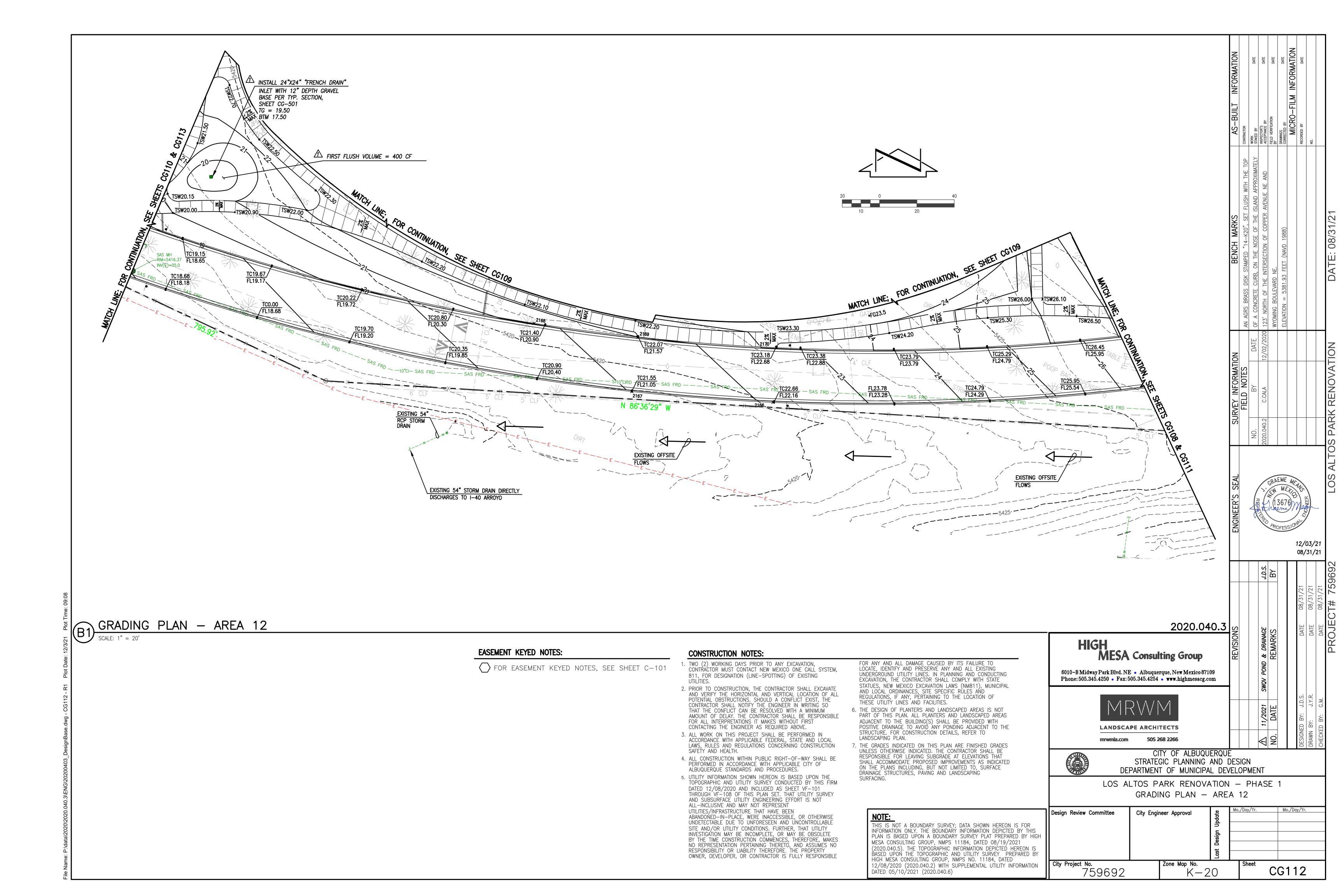


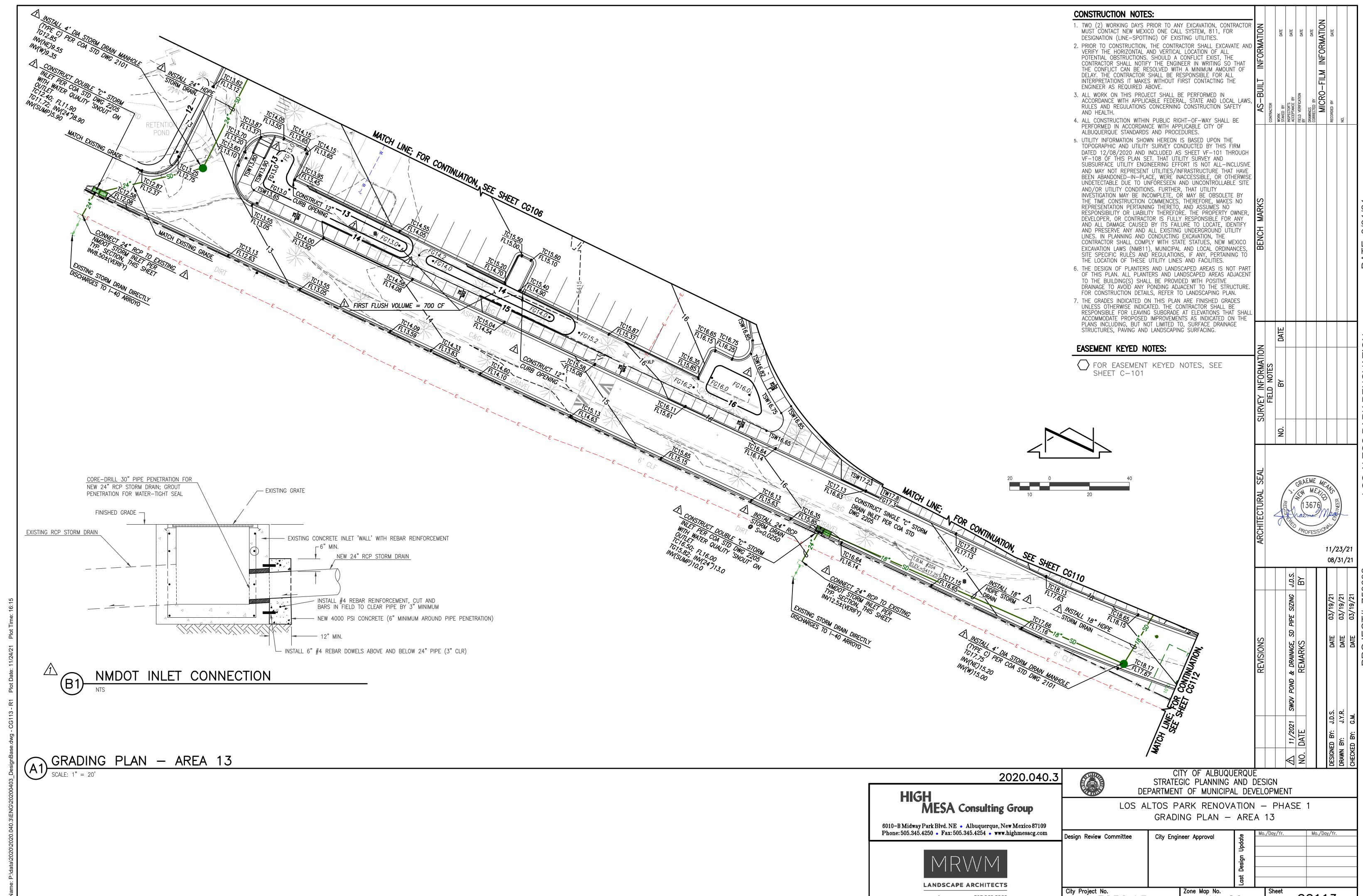












mrwmla.com

505 268 2266

Review Committee	City Engineer Approve	ıl	ıte	Mo./	Day/Yr.	Mo./Day/Yr.
			Update			
			Design			
			Last			
Project No.	Zone Map	No.			Sheet	00447
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