

# CONSTRUCTION DOCUMENT SET

MARK ARMIJO ACADEMY

PORTABLE RELOCATION

MAY 17, 2021

# SHEET INDEX:

GENERAL

G-000 Cover Sheet

ELECTRICAL

E-001 ELECTRICAL LEGEND
ES-101 ELECTRICAL SITE PLAN
E-601 ELECTRICAL DIAGRAMS

SCOPE OF WORK:

Project scope of work to include the placement of portable classroom building located on the south western portion of

the campus. Scope to include the construction of

foundations, utility connections, and site work around the portable location as shown within the drawings.

# CIVIL

C-100 HYDROLOGY
C-101 GRADING AND DRAINAGE
AS-101 SITE PLAN

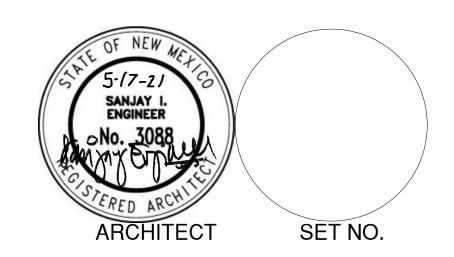
# STRUCTURAL

SKS-001 PORTABLE FOUNDATION PLAN SK2-002 FOOTING DETILS

**OWNER** Mark Armijo Academy Albuquerque, NM 87121 p\_505.873.7758 EST LA VIDA NI ATRISCO **CONSULTANTS** CE Miller Engineering Consultants 3500 Comanche NE, Bldg F Albuquerque, New Mexico 87107 p\_505.888.7500 PROJECT LOCATION UFF STRUCTURAL Walla Engineering Ltd 6501 Americas Pkwy NE Ste. 302 ALAMOSA Albuquerque, NM 87110 SKYVIEW WEST p\_505.881.3008 M/E/P/FP Bridgers and Paxton
4600-C Montgomery Blvd. NE
Albuquerque, New Mexico 87109
p\_505.883.4111 f\_505.888.1436 ENCANTO BOULT Bridge Blvd SW VILLAGE HOA LOS ALAMOS GARDE CIVIC TOWER ROAD ADDITION Bridge Blvd SW ANDIA COORS ROAD ADDITION 6800 Gonzales Rd SW Albuquerque, NM 87121 **VICINITY MAP** 



MAIL: 6501 Americas Pkwy NE Ste. 300 Albuquerque, NM 87110 p\_505.883.5200 www.fbtarch.com



# SCORES PLAZA SET ROUTE 66 SE

VICINITY MAP

ZONE ATLAS K-10-Z

MX-M

## DRAINAGE REPORT

## SITE LOCATION

The proposed project is located on approximately 3.3-acres of the campus of Mark Armijo Charter school. The overall site is estimated at 6 acres and can be accessed from Gonzales Road SW.

## **EXISTING CONDITIONS**

The overall existing site is estimated at 6 acres. The eastern 2.7 acres is currently partially developed with existing buildings and parking lot areas. There are two existing retention ponds that collect runoff from the eastern portion of this site. The pervious grading and drainage plan completed by Wooten Engineering in 2017 indicates that the two existing retention ponds can retain the 100-year, 10-day event. We have provided Sheet C-101 and C-102 prepared by Wooten Engineering as a part of this submittal for informational purposes only.

Based on the plan prepared by Wooten Engineering the western portion of the site to be developed under this project is called Basin C. For this submittal the site will be called Basin C to be consistent with the previously approved Wooten Plan.

Per the FMEA Panel on this sheet, the site does not lie within a 100-year FEMA floodplain and is not impacted by offsite flows.

## PROPOSED CONDITIONS

The proposed project would consist of a mass grading plan for the western portion of the site (Basin C). This phase will include mass grading of the site and the construction of a new retention pond (Pond C). The buildings, parking lots, playfield, and other improvements on the site are all improvement to be constructed in the future. Individual grading and drainage plans will be required for each future phase of development.

Basin C under future fully developed conditions will generate 0.594-acre feet during the 100-year, 10-day event. Pond C will be size to retain 100% of this volume. Pond C will be connected to existing Pond B with a 24" pipe. The existing emergency overflow spillway will be used for any overtopping flows from these ponds.

## **CONCLUSIONS**

When developed as indicated on the grading and drainage plan, the increased runoff from the site is estimated at 4.37 cfs, and 0.232 acre-feet during the 100-year, 24-hour event. The first flush pond volume required for the project estimated at 1975 cf. The proposed retention Pond C has a capacity of 0.720 acre-feet and is capable to retaining 100% of the 100-year, 10-day volume from Basin C.

## HYDROLOGY CALCULATIONS

## HYDROLOGY

Precipita	ation Zone 1	- 100-year \$	Storm	P(360) =	2.20	in	P(1440)=	2.66	P(10 day) =	3.67		
	Basin	L	and Treatn	nent Factor	s							
Basin	Area	Α	В	С	D	Ew	V(100-6)	V(100-24)	V(100-10 day)	Q(100)		
	(Ac)		(Acres	)		(in)	(af)	(af)	(af)	(cfs)		
Existing	Existing Conditions											
С	3.40	1.70	0.00	1.50	0.20	0.77	0.219	0.227	0.243	7.37		
Total	3.40									7.37		
Propose	Proposed Conditions											
С	3.40	0.00	0.50	1.30	1.60	1.40	0.398	0.459	0.594	11.74		
Total	3.40									11.74		

## FIRST FLUSH CALCULATIONS

VFF = (69,696 SF\* 0.34"/12)

VFF = 1,975 CF

VOLUME PROVIDED (AT 5031 TOP OF POND) = 0.720AF = 31,636.20 CF

# POND RATING CURVES

	WATER	R HARVES	T AREA		
Pond Ra	ating Tabl	e			
Side Slo	ре	3:1			
Depth	Area		Volume	Cum Volume	
(ft)	(sq ft)	(ac)	(ac-ft)	(ac-ft)	
5025	2856	0.066	0.000	0.000	
5026	3537	0.081	0.073	0.073	
5027	4290	0.098	0.090	0.163	
5028	5117	0.117	0.108	0.271	
5029	6010	0.138	0.128	0.399	
5030	6987	0.160	0.149	0.548	
5031	8021	0.184	0.172	0.720	top of pond

#### GENERAL NOTES:

- 1. EXISTING TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY TERRA LAND SURVEYS, LLC. CORRALES, NEW MEXICO APRIL 2020. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- 2. PROJECT BENCHMARK IS A CITY OF ALBUQUERQUE SURVEY BRASS DISC STAMPED "ACS BM 11-K10". TO REACH THE BENCHMARK FROM THE INTERSECTION OF CENTRAL AVENUE AND COORS BLVD. S.W., TRAVEL SOUTH ON COORS BLVD. 0.55 MILES TO THE INTERSECTION WITH GONZALES ROAD S.W. EPOXIED TO TOP OF S.S.E. CONCRETE CURB RETURN OF THE INTERSECTION. ELEVATION = 5,046.07 FEET (NAVD 1988 VERTICAL DATUM)
- 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- 4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.

5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION

- CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.

  6. 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.
- 7. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 8. 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.
- 10. 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.

- 11. 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
- 12. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- 13. SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND
- 14. 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.

HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.

- 15. 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.
- 16. 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.
- 17. THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS
- FOR REVIEW PRIOR TO CONSTRUCTION.

  18. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2014 EDITION OF THE NEW MEXICO STATE DEPARTMENT

OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY

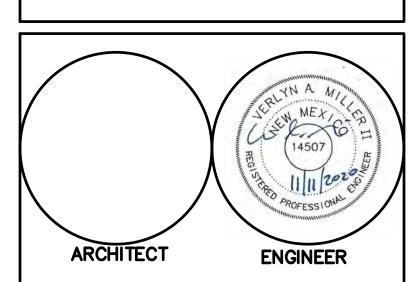
19. ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.

AND BRIDGE CONSTRUCTION (GREY BOOK).

- 20. 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.



CONSULTANT



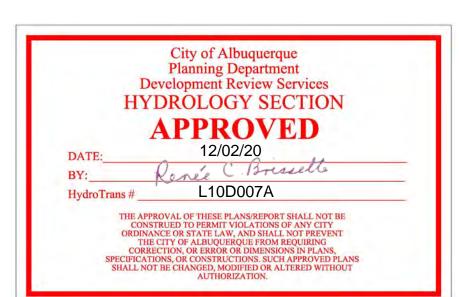
# Mark Armijo Academy - Master Plan

# **Project Status**

6800 Gonzales Rd SW Albuquerque, NM 87121

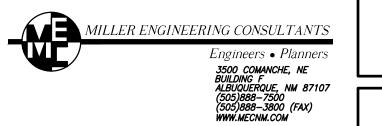
NOVEMBER 2020

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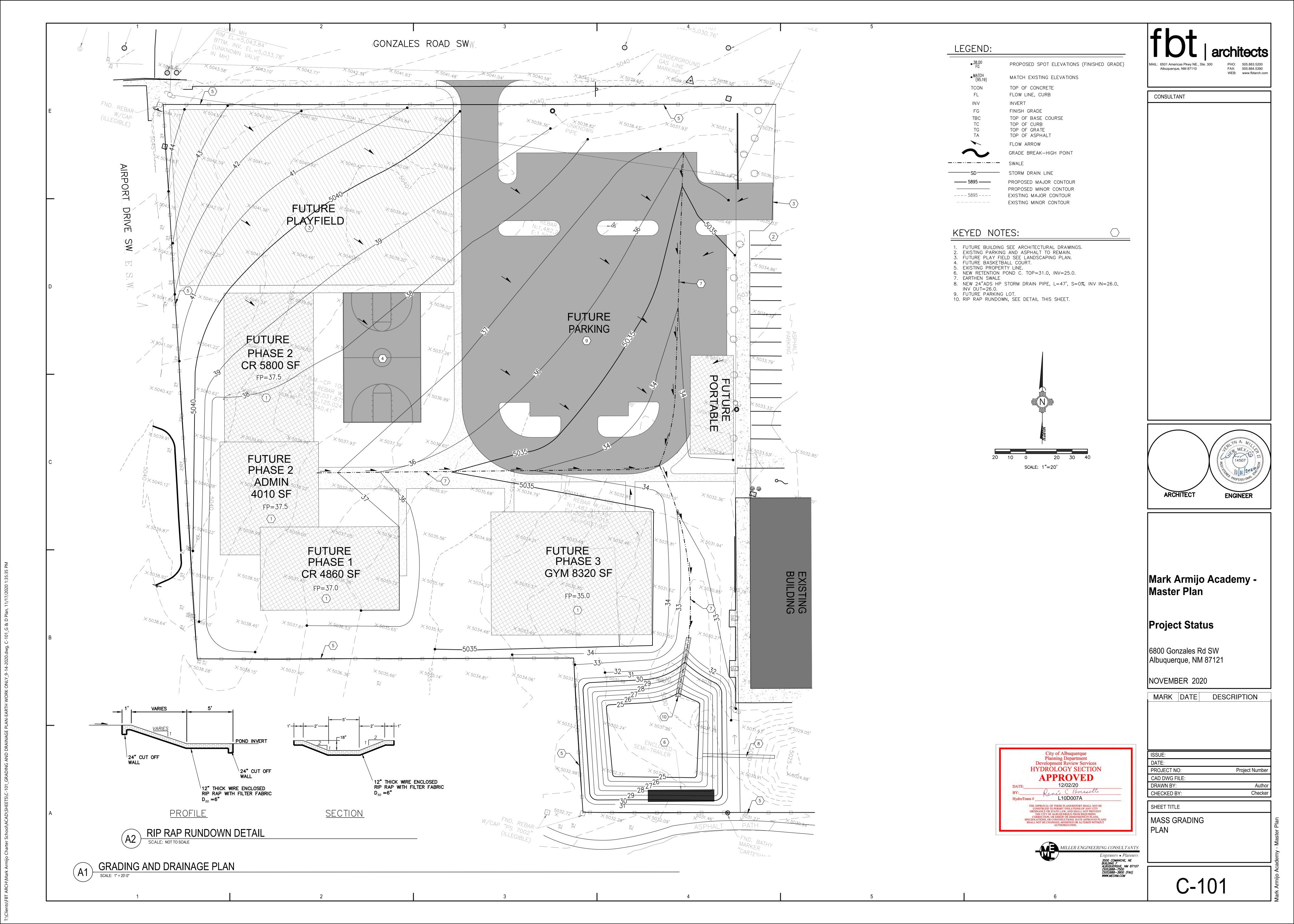


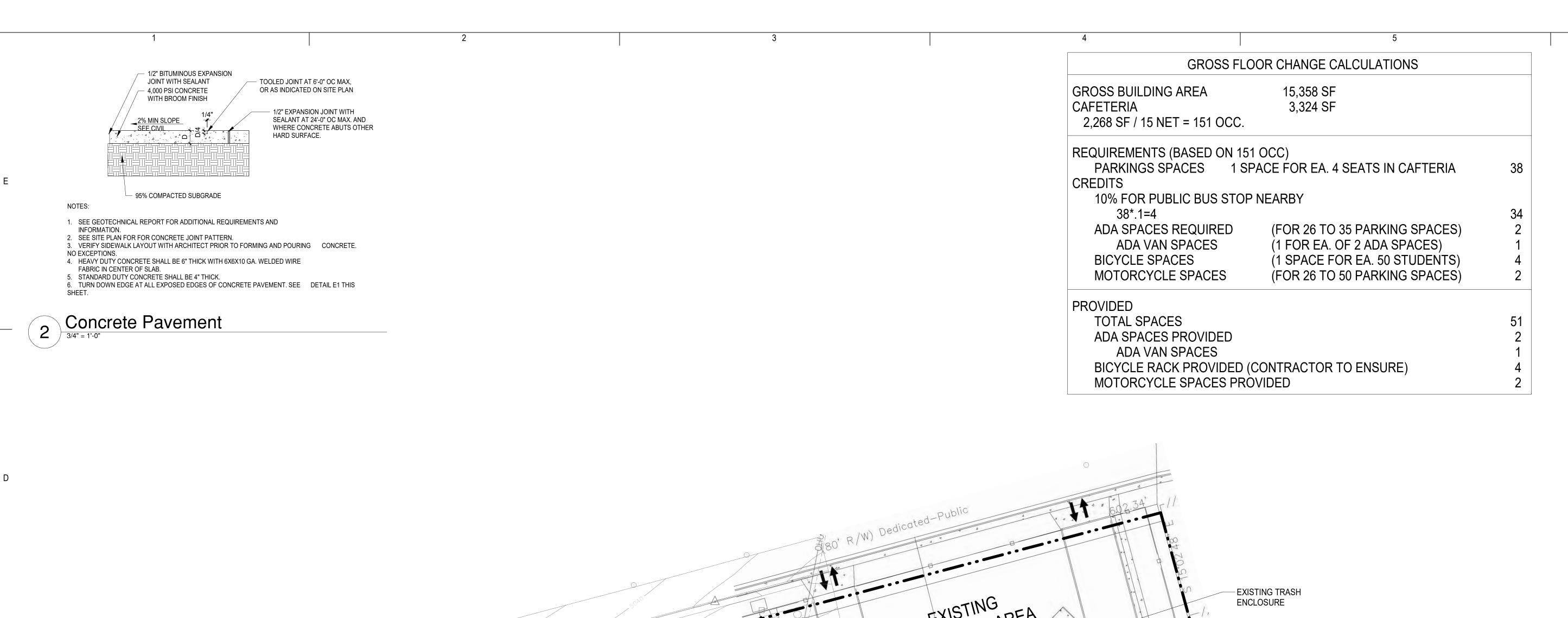
DATE:
PROJECT NO: Project Number
CAD DWG FILE:
DRAWN BY: Author
CHECKED BY: Checker

SHEET TITLE
HYDROLOGY



C-100





DBL. PORTABLE

ADA ACCESIBLE SOO PATHWAY FROM NEW PORTABLE TO PORTABLE TO EXISTING SCHOOL

1671 SF/20 = 84

PHASE 1 TEMPORARY

PORTABLE (

OVERALL SITE PLAN

1" = 30'-0"

EXISTING

#### GENERAL NOTES

- A. SUB GRADE PEREPERATION AND SOIL COMPACTION AT ALL CONCRETE WORK SHALL COMPOLY WITH REQUIREMENTS ON CIVIL DRAWINGS AND GEOTECHNICAL
- B. PROVIDE BROOM FINISH ON CONCRETE SIDEWALKS, UNLESS NOTED OTHERWISE.
- C. VERIFY SIDEWALK LAYOUT WITH ARCHITECT PRIOR TO FORMING AND POURING CONCRETE. NO EXCEPTIONS.
- D. FOR INFORMATION ON UTILITIES SEE SITE SURVEY SHEET, CIVIL UTILITY PLANS, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
- E. CONTRACTOR SHALL PAY FOR AND COORDINATE WITH LOCAL UTILITY COMPANIES FOR ALL UTILITY DISCONNECT, RECONNECT AND DEMO WORK.
- F. PATCH AND REPAIR ALL ASPHALT, CONCRETE, SOD, OTHER SITE ELEMENTS AS NECESSARY AT ALL AREAS OF NEW WORK, UTILITY TRENCHING AND CONTRACTOR STAGING/PARKING.
- G. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING SITE FEATURES, PLANTINGS, AND UTILITIES TO REMAIN. ANY DAMAGE TO EXISTING SITE FEATURES, PLANTINGS, AND UTILITIES TO REMAIN DUE TO CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- H. WHERE NEW CONCRETE PAVEMENT AND/OR CURBING IS SHOWN ADJACENT TO EXISTING, CONTRACTOR SHALL PROVIDE NEW CONCRETE PAVEMENT AND/OR CURBING UP TO AND FLUSH WITH EXISTING. LIMITS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY.
- I. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LAYOUT OF BOTH THE SITE AND BUILDING NELEMENTS. COORDINATE FIELD INFORMATION WITH THE ARCHITECT PRIOR TO ANY CONSTRUCTION ACTIVITY

THE CONSTRUCTION PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR

MAINTAINING ALTERNATE IRRIGATION METHODS AS REQUIRED FOR THE CAMPUS

- SITE AND BUILDING NELEMENTS. COORDINATE FIELD INFORMATION WITH THE ARCHITECT PRIOR TO ANY CONSTRUCTION ACTIVITY.

  J. ALL IRRIGATION SYSTEMS SHALL REMAIN ACTIVE THROUGH THE DURATION OF
- K. CONTRACTOR TO FIELD VERIFY ANY MODIFICATIONS WILL NOT COMPROMISE IRRIGATION SYSTEM ON ANY OTHER PORTION OF THE CAMPUS.

AND FIELDS DURING ANY REQUIRED OUTAGES FOR NEW WORK.

#### VEVALOTE LEGEND

VALUE DESCRIPTION

S01 EXISTING ASPHALT PAVING TO REMAIN. PATCH AND REPAIR AS NECESSARY TO PERFORM NEW WORK.

- EXISTING CHAIN-LINK FENCE TO REMAIN.

  EXISTING CONCRETE SIDEWALK TO REAMIN. PATCH AND REPAIR AS
- NECESSARY TO PERFORM NEW WORK.

  EXISTING OVERHEAD UTILITY LINE. SEE SURVEY. SEE ELECTRICAL.
- EXISTING TREES AND LANDSCAPING TO REMAIN. PROTECT. DAMAGE SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNER.
- NEW CONCRETE PAVED SIDEWALK SEE DETAIL D1/AS-101.
  NEW ADA RAMP AND LANDING BY BUILDING MANUFACTURER.

EXISTING BUILDING

TO REMAIN

EXISTING TO BUILDING TO

EXISTING RETENTION POND KEYNOTE LEGEND

SANJAY I.



fbt architects

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6501 Americas Parkway, Ste 301

Miller Engineering Consultants

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Bridgers and Paxton 4600 C Montgomery

Albuquerque, NM 87109

CONSULTANTS

STRUCTURAL

p 505.881.3008

p 505.888.7500

p 505.883.4111

M/E/P/FP

Walla Engineering

Albuquerque, NM 87110

Mark Armijo Academy - Site Development Plan

# CONSTRUCTION DOCUMENTS

6800 Gonzales Rd SW Albuquerque, NM 87121

JUNE 2021

MARK DATE DESCRIPTION

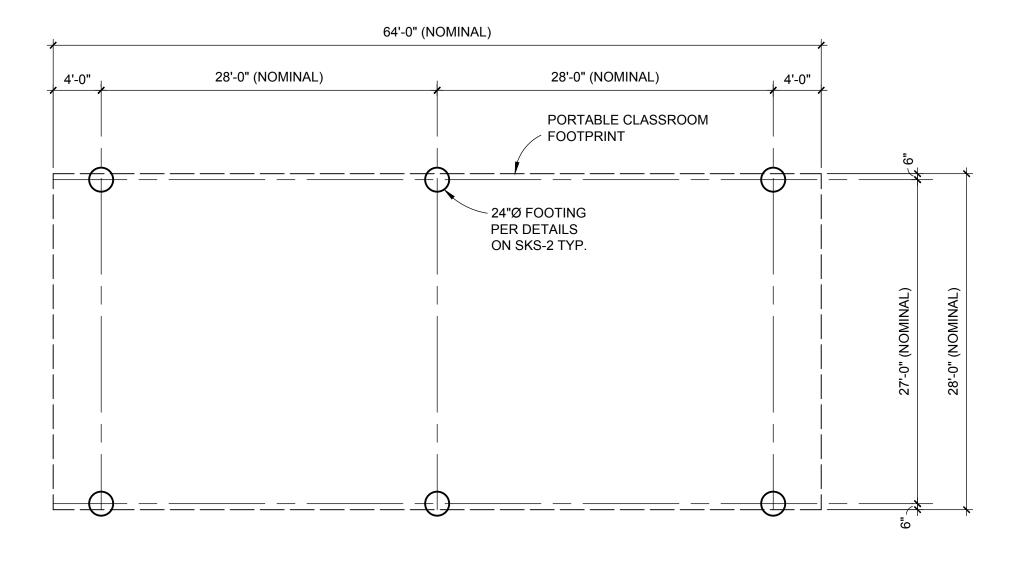
ISSUE:	CONSTRUCTION DOCUMENTS
DATE:	JUNE 2021
PROJECT NO:	Project Number
DRAWN BY:	A.A
CHECKED BY:	JTT

SHEET TITLE

OVERALL SITE PLAN

AS-101





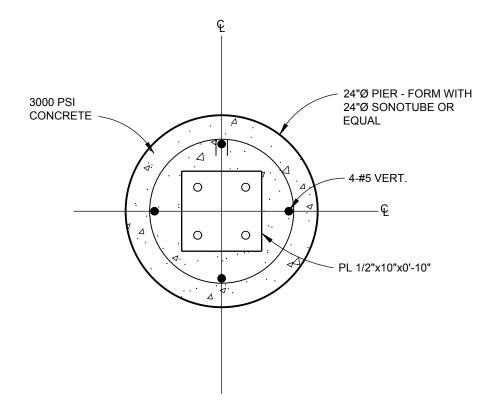
## DOUBLE PORTABLE CLASSROOM FOUNDATION PLAN

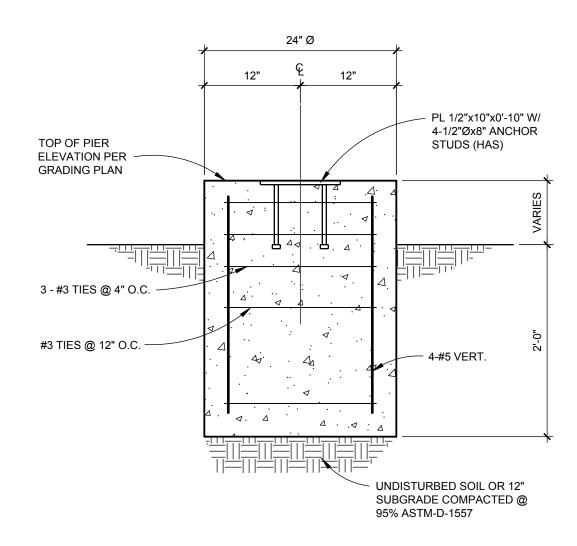
1/8" = 1'-0"



	SHEET NO JOB SUBJECT CLIENT BY
	SKS-1 OF 2  MARK ARMIJO ACADEMY  PORTABLE CLASSROOM FOUNDATION FBT JOB NO. F01-1620  LEK DATE 12-31-2020  MJW DATE 12-31-2020
1830 1831 1831	OF 2 MY OM FOUNDATION NO. F01-1620 NO. F01-1620 ATE 12-31-2020 DATE 12-31-2020







**SECTION** PLAN

#### **FOOTING DETAILS**

SCALE: 1"=1'-0"



	SHEET NO  JOB  SUBJECT  CLIENT  BY  CHECKED BY
1030 May 1000 May 100	SKS-2 OF 2  MARK ARMIJO ACADEMY  PORTABLE CLASSROOM FOUNDATION FBT JOB NO. DATE 12-31-2020  MJW DATE 12-31-2020
	ON 2020

VARIABLE FREQUENCY DRIVE

CLEARANCES.

**GROUND BAR** 

| UPS-A |

ATS-1

 $\vdash G \vdash \vdash$ 

REFER TO

DEMOLITION

PLANS FOR

ADDITIONAL

INFORMATION

UNINTERRUPTABLE POWER SUPPLY. DASHED LINES INDICATE

AUTOMATIC TRANSFER SWITCH. DASHED LINES INDICATE CLEARANCES.

**REFERENCE TAGS** 

MECHANICAL EQUIPMENT REFERENCE

DENOTES MOUNTING HEIGHT AFF

KITCHEN EQUIPMENT REFERENCE

MEDICAL EQUIPMENT REFERENCE

KEYED NOTE REFERENCE

DASHED SYMBOL INDICATES EXISTING

DEVICE OR EQUIPMENT TO BE REMOVED

AREAS. CAPPED AND ABANDONED IF IN

INDICATES EXISTING DEVICE OR EQUIPMENT

SOLID SYMBOL, LIGHTER IN COLOR

EXISTING CONDUIT TO BE REUSED

UNACCESSIBLE AREA

-X X X X

REMOVE EXISTING RACEWAY IN ALL ACCESSIBLE

CT ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT

MANHOLE - POWER OR COMMUNICATION

HAND HOLE - POWER OR COMMUNICATION

AS INDICATED ON PLANS

AS INDICATED ON PLANS

TELECOMMUNICATION PEDESTAL

ENGINE GENERATOR

**TELEVISION PEDESTAL** 

DELTA CONNECTED

WYE CONNECTED

VFD CONNECTION

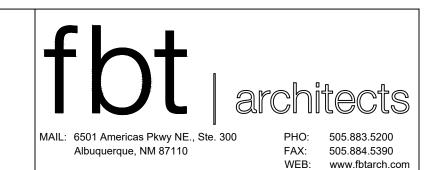
MOTOR CONNECTION

GENERATOR

VFD

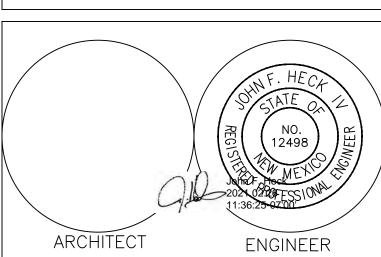
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UPS



CONSULTANT





## Mark Armijo Academy -**Master Plan**

100% CD

6800 Gonzales Rd SW Albuquerque, NM 87121

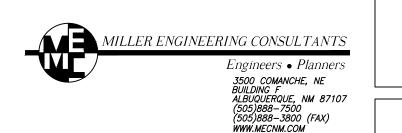
FEBRUARY 2021

MARK DATE DESCRIPTION

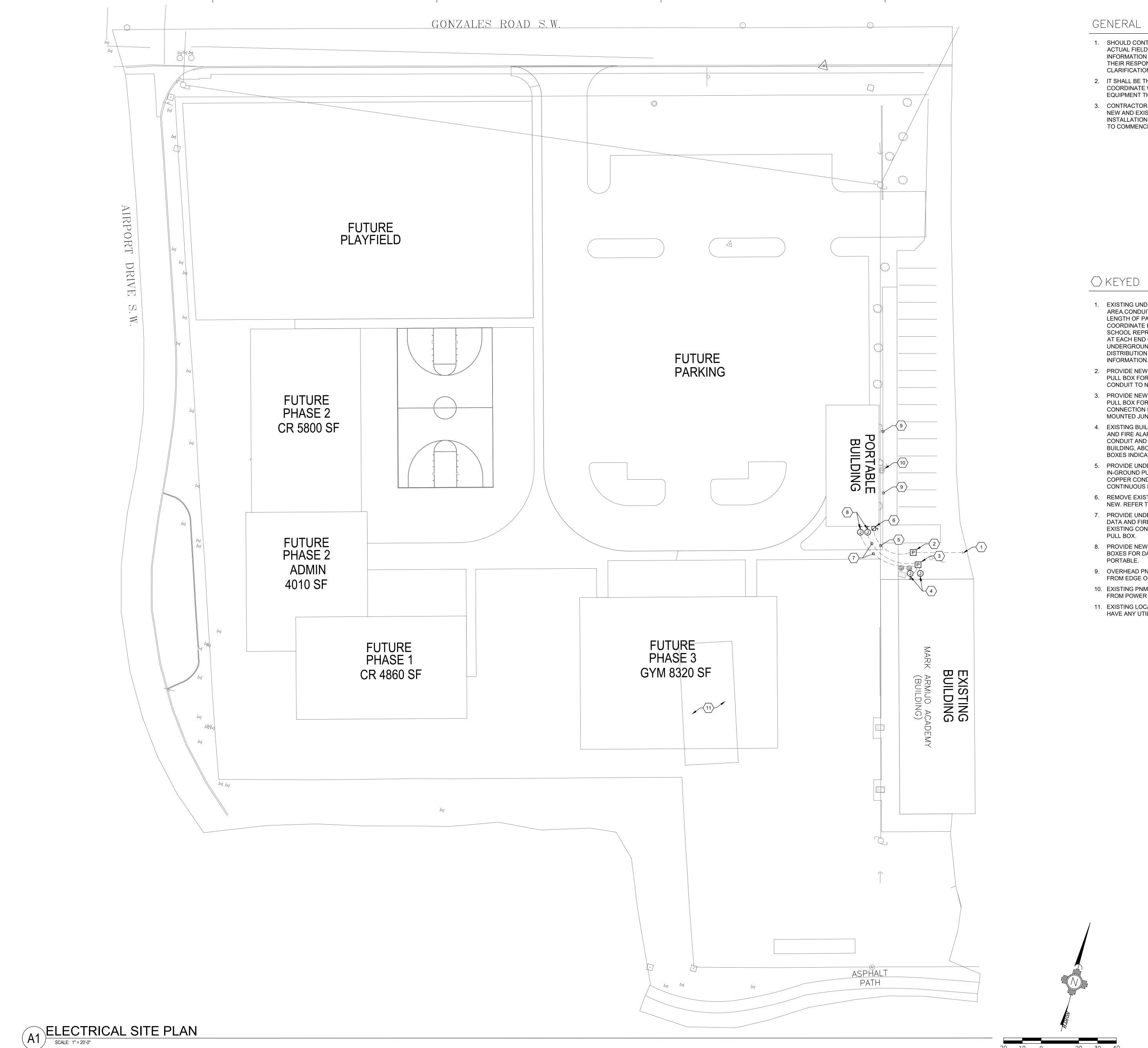
PROJECT NO: Project Number CAD DWG FILE: DRAWN BY:

CHECKED BY: SHEET TITLE

**ELECTRICAL LEGEND** 



E-001





- 1. SHOULD CONTRACTOR AT ANY TIME NOTICE THAT THE ACTUAL FIELD CONDITIONS DO NOT CORRESPOND TO THE INFORMATION GIVEN ON THE DRAWINGS, THEN IT WILL BE THEIR RESPONSIBILITY TO NOTIFY THE ENGINEER FOR CLARIFICATION, PRIOR TO COMMENCING SUCH WORK.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL TRADES FOR THE EXACT LOCATION OF EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS.
- 3. CONTRACTOR WILL REFER TO SHEET SERIES "C" FOR OTHER NEW AND EXISTING UTILITIES. MUST COORDINATE INSTALLATION OF ALL UTILITIES SHOWN ON THIS SHEET PRIOR TO COMMENCEMENT OF ANY WORK.

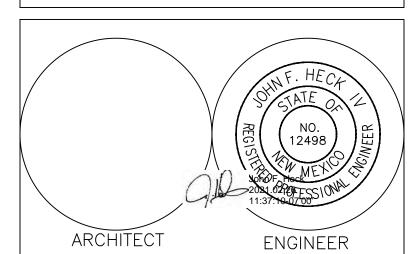


CONSULTANT



- 1. EXISTING UNDERGROUND 2" CONDUIT FROM UNDER PARKING AREA.CONDUIT ENDS ARE BURIED AND EXTEND UNDER LENGTH OF PARKING AREA FROM EAST TO WEST. COORDINATE EXACT LOCATION OF CONDUIT ENDS WITH SCHOOL REPRESENTATIVE. PROVIDE AN IN-GROUND PULL BOX AT EACH END OF CONDUIT. ON EAST END EXTEND UNDERGROUND CONDUIT FROM PULL BOX TO MAIN DISTRIBUTION PANEL. REFER TO SHEET E601 FOR ADDITIONAL
- 2. PROVIDE NEW CODE SIZED, PRECAST CONCRETE IN-GROUND PULL BOX FOR EXTENSION OF EXISTING UNDERGROUND 2" CONDUIT TO NEW PORTABLE.
- 3. PROVIDE NEW CODE SIZED, PRECAST CONCRETE IN-GROUND PULL BOX FOR EXTENSION OF DATA AND FIRE ALARM CONNECTION FROM MAIN BUILDING VIA EXISTING WALL MOUNTED JUNCTION BOXES LOCATED ON MAIN BUILDING
- 4. EXISTING BUILDING MOUNTED JUNCTION BOXES FOR DATA AND FIRE ALARM CONNECTION FROM MAIN BUILDING. EXTEND CONDUIT AND WIRE FROM RESPECTIVE SOURCES IN MAIN BUILDING, ABOVE LAY-IN TILE CEILING SPACE, TO JUNCTION BOXES INDICATED AND DOWN TO IN-GROUND PULL BOX.
- 5. PROVIDE UNDERGROUND 2" CONDUIT EXTENSION FROM IN-GROUND PULL BOX TO NEW PORTABLE ALONG WITH (3) #1 COPPER CONDUCTORS AND A #6 GND AS A SINGLE CONTINUOUS RUN FROM MAIN DISTRIBUTION PANEL.
- 6. REMOVE EXISTING DISCONNECT SWITCH AND REPLACE WITH NEW. REFER TO SHEET E601 FOR ADDITIONAL INFORMATION.
- 7. PROVIDE UNDERGROUND 1" CONDUIT AND CONDUCTORS FOR DATA AND FIRE ALARM CONNECTION TO PORTABLE FROM EXISTING CONNECTIONS IN MAIN BUILDING VIA IN-GROUND
- 8. PROVIDE NEW WEATHERPROOF, WALL MOUNTED JUNCTION BOXES FOR DATA AND FIRE ALARM CONNECTION TO
- 9. OVERHEAD PNM POWER LINES. MAINTAIN A MINIMUM OF 5'-0" FROM EDGE OF PORTABLE ROOF TO OVERHEAD LINES.
- 10. EXISTING PNM POWER POLE. MAINTAIN A MINIMUM OF 10'-0" FROM POWER POLE FOR PNM ACCESS.
- 11. EXISTING LOCATION OF PORTABLE. DOES NOT PRESENTLY HAVE ANY UTILITY SERVICES.

20 10 0 20 30 40 SCALE: 1"=20'



Mark Armijo Academy -**Master Plan** 

100% CD

6800 Gonzales Rd SW Albuquerque, NM 87121

FEBRUARY 2021

MARK DATE DESCRIPTION

PROJECT NO: Project Number

CAD DWG FILE: DRAWN BY:

CHECKED BY:

SHEET TITLE ELECTRICAL SITE PLAN

MILLER ENGINEERING CONSULTANTS

Engineers • Planners

3500 COMANCHE, NE 3500 COMANCHE, NE BUILDING F ALBUQUERQUE, NM 87107 (505)888-7500 (505)888-3800 (FAX) WWW.MECNM.COM

ES101

## GENERAL NOTES:

- 1. SHOULD CONTRACTOR AT ANY TIME NOTICE THAT THE ACTUAL FIELD CONDITIONS DO NOT CORRESPOND TO THE INFORMATION GIVEN ON THE DRAWINGS, THEN IT WILL BE THEIR RESPONSIBILITY TO NOTIFY THE ENGINEER FOR CLARIFICATION, PRIOR TO COMMENCING SUCH WORK.
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL TRADES FOR THE EXACT LOCATION OF EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS.

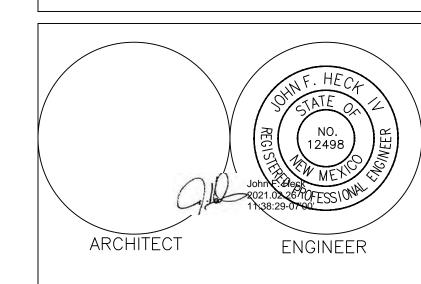


CONSULTANT



# 

- EXISTING EQUIPMENT WILL REMAIN AS PRESENTLY INSTALLED.
   PROVIDE NEW 2 POLE, 240V CIRCUIT BREAKER. SIZE AS INDICATED. CIRCUIT BREAKER TO MATCH PANEL AIC RATING AND FAMILY OF CIRCUIT BREAKERS PRESENTLY INSTALLED.
- 3. EXISTING UNDERGROUND 2" CONDUIT UNDER PARKING AREA. INTERCEPT AND EXTEND TO NEW IN-GROUND PULL BOX.
- 4. PROVIDE UNDERGROUND 2" CONDUIT EXTENSION FROM PULL BOX TO EXISTING MAIN DISTRIBUTION PANEL.
- 5. PROVIDE UNDERGROUND 2" CONDUIT EXTENSION FROM PULL BOX TO NEW PORTABLE DISCONNECT SWITCH.
- 6. PROVIDE CONDUCTORS, SIZE AS INDICATED, AS A SINGLE CONTINUOUS RUN FROM PORTABLE DISCONNECT SWITCH, THROUGH IN-GROUND PULL BOXES, TO EXISTING MAIN DISTRIBUTION PANEL.
- 7. PORTABLE MOUNTED DISCONNECT SWITCH. PROVIDE 250V RATED, 100A, NEMA 3R, KNIFE BLADE, FUSED DISCONNECT. RECONNECT EXISTING CONDUCTORS PRESENTLY INSTALLED FROM EXISTING PANEL IN PORTABLE TO SECONDARY SIDE OF DISCONNECT.
- 8. PROVIDE A GROUND ROD ELECTRODE SYSTEM PER NEC 250. DO NOT BOND GROUND AND NEUTRAL CONDUCTORS.



## Mark Armijo Academy -Master Plan

## 100% CD

6800 Gonzales Rd SW Albuquerque, NM 87121

FEBRUARY 2021

MARK DATE DESCRIPTION

Project Number

CAD DWG FILE:
DRAWN BY:
CHECKED BY:
SHEET TITLE

ELECTRICAL

DIAGRAMS

E-601

C1 ELECTRICAL DIAGRAMS

SCALE: 1" = 20'-0"

Ele	Elec. Service Calc M.A Academy Portable Load											
Description of Load	Sq. Ft.	Connected Load KVA	Demand % Multiplier	Demand Load KVA	Service % Multiplier	Service Load KVA	Notes					
Portable	1,200	12	100%	12	100%	15						
Subtotal of lo	Subtotal of loads KVA 12 12 12											
	Total Service load KVA											
	Voltage of Service (240-1PH)											
	Total Service Ampacity											
1,200	12,000	VA										
	NOTES											



Max	aximum voltage drop for a Branch Circuit shall be less than 3% (NEC 210.19.A. FPN 4).													
Maxi	imum voltage drop for a Feeder shall be less	than 3% (I	NEC 215.2	2. FPN 2	2).									
Maxi	imum combined voltage drop for a Feeder ar	d Breake	r shall be	less th	an 5%.									
					•			Load	Qty					•
		Type of	***************************************		Conductor	Length		Current	Parrallel	Load on		Voltage	% Volta	ge Drop
Run Feeder or Branch Circuit Run:		Circuit	Voltage	Phase	Material	(ft)	Size	(Amps)	Runs	feeder	Resistance	Drop	Feeder	Branch
	MDP TO PORTABLE DISCONNECT	Feeder	240	1		150	1	100	1	100	0.154	4.62	1.93%	

# VOLTAGE DROP CALCULATION

KNOWN FAULT INFORMATION SECOND TRANSF							TRANSFORMER	SFORMER IN SYSTEM (DRY-TYPE)				FEEDER	FEEDER/BRANCH CIRCUIT CALCULATION						RESULT		
Fault Point	Equipment	Source of Fault	Available Fault Current	Voltage:	PHASE:	XFMR Size (kVA):	Secondary Voltage:	Xfmr Impedence (Ohms):	Xfmr Impedence (user input):	"f" factor	"M" factor	Conductor Type	Conductor Size	3 single conductors?	Conduit Type	Number o	f Length to fault	"C" value	"f" factor	"M" factor	Available Short Circuit Current at Fault:
F1	MDP	PNM POLE	65000	240	1							С	600	Υ	S	1	150	22965	3.538	0.220	14324
F2	PORTABLE DISCONNECT	MDP	14324	240	1							С	1	Υ	S	1	150	7293	2.455	0.289	4146

A3 FAULT CURRENT CALCULATION

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