NAVAJO TECHNICAL UNIVERSITY

REQUEST FOR PROPOSALS

STUDENT PLAZA CONSTRUCTION PROJECT

Crownpoint, New Mexico

Issue Date	10/19/2026
Pre-Proposal / Site Walk	11/02/2026, 10am, Crownpoint
Questions Due	11/11/2026 by 5pm
Proposal Due	11/27/2026
Procurement Contact	Abe Bitok – a.bitok@navajotech.edu
Project Drawings	Attachment A – Student Plaza Construction Drawings

IMPORTANT: The construction drawings and specifications attached to this RFP are incorporated into the solicitation and shall be reviewed in their entirety by all proposers.

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Evaluation Sheet – For NTU Use

1. Invitation to Propose

Navajo Technical University (NTU) invites qualified, licensed, and experienced construction contractors to submit proposals for the construction of the NTU Student Plaza at the Crownpoint campus in Crownpoint, New Mexico.

The project will create a safe, accessible, durable, and attractive outdoor gathering space for students, employees, visitors, and the University community. The successful contractor shall provide all labor, supervision, materials, equipment, transportation, coordination, permits, testing, cleanup, and other services necessary for complete construction in accordance with the contract documents.

The construction drawings, plans, specifications, and related design documents attached to this RFP are an integral part of the Scope of Work.

2. Background

Navajo Technical University continues to invest in campus facilities that support student success, accessibility, safety, community engagement, and the overall student experience. The Student Plaza is intended to enhance the Crownpoint campus and provide an inviting outdoor environment that complements surrounding University facilities.

The contractor shall become thoroughly familiar with the project site, existing conditions, drawings, specifications, utility locations, access restrictions, and all conditions that may affect the work.

3. Project Location

Navajo Technical University
Lowerpoint Road, State Road 371
Crownpoint, New Mexico 87313

The exact project limits are identified in the attached construction drawings.

4. Scope of Work

The selected contractor shall furnish all labor, materials, equipment, tools, supervision, temporary facilities, transportation, and services required for complete construction of the Student Plaza. Work includes, but is not limited to:

- Mobilization and demobilization; site preparation and construction layout.
- Protection of existing buildings, utilities, sidewalks, landscaping, and campus improvements.
- Demolition/removal where shown; excavation, grading, compaction, and site preparation.
- Concrete flatwork, sidewalks, plaza paving, curbs, and related improvements shown in the drawings.
- Plaza features, site furnishings, benches, tables, seating, and amenities where specified.
- Landscaping, planting, irrigation, and restoration where indicated.
- Electrical infrastructure, site lighting, outlets, and related electrical work shown in the drawings.
- Drainage and stormwater improvements associated with the plaza.
- ADA-compliant accessible routes and associated improvements.
- Utility coordination and protection; required testing, inspections, and quality control.
- Construction fencing, barricades, pedestrian controls, daily cleanup, debris disposal, final restoration.
- Punch-list correction, warranties, closeout documents, and as-built information.

The contractor shall complete all work shown or reasonably implied by the attached drawings and specifications, whether or not each individual item is specifically listed above.

5. Construction Drawings and Documents

Attachment A – Student Plaza Construction Drawings shall establish the design intent and requirements. Proposers are responsible for reviewing the complete drawing package before submitting a proposal.

Conflicts, discrepancies, omissions, or conditions requiring clarification shall be submitted in writing before the RFP question deadline. No unauthorized design change or substitution may be made without prior written approval from NTU and, when applicable, the project architect/engineer.

6. Site Visit / Pre-Proposal Meeting

Date: 11/02/2026
Time: 10:00am
Location: Navajo Technical University, Crownpoint Campus
Meeting Location: Academic Building

Prospective contractors are strongly encouraged to inspect the site. Failure to adequately investigate existing conditions shall not relieve the selected contractor of its obligations under the contract documents.

7. Project Schedule

The proposer shall submit a preliminary construction schedule identifying Notice to Proceed, mobilization, long-lead procurement, major construction activities, inspections/testing, substantial completion, punch-list completion, and final completion.

Construction shall be coordinated with NTU to minimize disruption to classes, campus events, pedestrian circulation, and University operations.

8. Contractor Qualifications

- Company name, address, and New Mexico contractor license number/classification.
- Years in business and relevant construction experience.
- At least three similar projects completed within the past five years.
- Project references with current contact information.
- Proposed project manager, superintendent, and key personnel qualifications.
- Proposed major subcontractors and scopes.
- Evidence of bonding capacity and required insurance.
- Current workload and demonstrated ability to meet the proposed schedule.
- Safety record and approach to work on an active campus.

9. Proposal Requirements

A. Cover Letter

Brief introduction and identification of the person authorized to negotiate and execute a contract.

B. Firm Qualifications and Experience
Firm history, capabilities, licenses, and relevant project experience.

C. Project Team
Project manager, superintendent, key personnel, and major subcontractors.

D. Understanding of the Project
Understanding of the drawings, site conditions, objectives, constraints, and construction challenges.

E. Construction Approach
Site logistics, campus safety, pedestrian management, sequencing, quality control, schedule management, NTU coordination, protection of existing facilities, and cleanup.

F. Project Schedule
Preliminary schedule showing major activities and proposed completion.

G. Similar Project Experience
At least three comparable projects.

H. References
Client, contact person, telephone, and email for comparable projects.

I. Cost Proposal
Detailed lump-sum proposal for the complete Scope of Work. Clearly identify assumptions, allowances, alternates, and exclusions.

10. Safety and Campus Operations
Construction will occur on an active university campus. Safety is a primary requirement. The contractor shall comply with applicable federal, state, local, Navajo Nation, and NTU requirements and shall secure work areas, maintain barricades and warning signage, preserve safe access to adjacent facilities, coordinate shutdowns in advance, maintain an orderly site, and immediately report incidents or property/utility damage.

Construction activities shall be coordinated with the NTU Director of Support Services or designated NTU Project Manager.

11. ADA and Code Compliance
All work shall comply with applicable building codes, accessibility requirements, safety regulations, permitting requirements, inspections, and the approved construction documents. Accessible routes and facilities shall comply with applicable ADA requirements.

12. Quality of Work
All work shall be performed in a professional and workmanlike manner using new materials unless otherwise authorized. Materials and workmanship shall conform to the drawings, specifications, manufacturer requirements, applicable codes, and accepted industry standards. NTU may reject nonconforming work or materials.

13. Warranty

The selected contractor shall warrant the work against defects in workmanship and materials for a minimum of one year following final acceptance, unless a longer warranty is required by the contract documents, manufacturer, or applicable law. Manufacturer warranties shall be transferred to NTU at closeout.

14. Insurance and Bonding

Before commencing work, the successful contractor shall provide insurance and bonding required by NTU and applicable law, which may include Commercial General Liability, Automobile Liability, Workers' Compensation, Employer's Liability, Builder's Risk when applicable, Performance Bond, and Payment Bond. Final limits and requirements will be incorporated into the contract documents.

15. Evaluation Criteria

Evaluation Category	Points
Firm Qualifications and Relevant Experience	20
Project Team and Key Personnel	15
Understanding of Project and Construction Approach	20
Proposed Schedule and Ability to Complete Work	15
Past Performance and References	10
Cost Proposal / Overall Value	20
TOTAL	100

NTU reserves the right to conduct interviews, request clarification or additional information, verify references, and negotiate where permitted before making a final selection.

16. Proposal Submission

Proposal Due: 11/27/2026
Time: 5pm
Submit To:

Navajo Technical University, Procurement Department
Attention: Geraldine Gamble

P O BOX 849
Crownpoint, New Mexico 87313
RFP: NTU Student Plaza Construction Project

Late proposals may not be accepted. Proposers are responsible for complying with all NTU Procurement submission instructions.

17. Questions and Requests for Information

RFI / Question Deadline: 11/11/2026
Procurement Contact: Abe Bitok
Email: a.bitok@navajotech.edu
Telephone: 505 406 7277

Proposers shall not rely on oral interpretations. Official clarifications or changes will be issued by NTU through written addenda when necessary.

18. NTU Rights and Reservations

- Accept or reject any or all proposals; waive minor informalities where permitted.
- Request clarification or additional information; verify proposal information and references.
- Cancel or amend the solicitation and issue addenda.
- Negotiate the final scope, schedule, and contract amount where permitted.
- Award based on the best interests of NTU, or make no award.

Issuance of this RFP does not obligate NTU to award a contract or reimburse proposers for proposal preparation expenses.

19. Contract Documents

- Executed Construction Agreement
- Notice to Proceed
- This RFP
- Accepted contractor proposal
- Construction drawings
- Technical specifications
- Addenda
- Approved change orders
- Insurance and bonding documents
- Project schedule
- Applicable NTU procurement and construction requirements

The order of precedence established in the executed contract shall govern any conflict among contract documents.

20. Project Closeout

- Final punch-list completion
- As-built/redline drawings
- Product and O&M information
- Manufacturer and contractor warranties
- Inspection approvals and testing documentation
- Final lien releases or equivalent documentation
- Consent of surety, when applicable
- Final cleanup and site restoration
- Other documentation required by NTU

Final payment will be processed following satisfactory completion and acceptance and receipt of required closeout documentation.

Attachment C – Cost Proposal Form

Proposer: _____
New Mexico Contractor License No.: _____
Authorized Representative: _____

Cost Component	Amount
General Conditions	$ _____
Mobilization / Demobilization	$ _____
Site Work / Grading	$ _____
Demolition	$ _____
Concrete / Paving	$ _____
Landscaping / Irrigation	$ _____
Electrical / Site Lighting	$ _____
Site Furnishings	$ _____
Subcontractor Costs	$ _____
Allowances (describe)	$ _____
Bonds / Insurance	$ _____
Taxes (if applicable)	$ _____
Other (describe)	$ _____
TOTAL LUMP-SUM PROPOSAL	$ _____

Alternates / Allowances / Assumptions / Exclusions:

_____
_____
_____

Attachment D – Contractor Qualification / Reference Form

Firm Name: _____

Address: _____

Primary Contact: _____

Phone: _____

Email: _____

NM Contractor License No./Classification: _____

Years in Business: _____

Proposed Project Manager: _____

Proposed Superintendent: _____

Comparable Project References

Project 1: _____
Owner/Client: _____
Contact / Phone / Email: _____
Contract Amount: _____ Completion Date: _____
Brief Scope: _____

Project 2: _____
Owner/Client: _____
Contact / Phone / Email: _____
Contract Amount: _____ Completion Date: _____
Brief Scope: _____

Project 3: _____
Owner/Client: _____
Contact / Phone / Email: _____
Contract Amount: _____ Completion Date: _____
Brief Scope: _____

Proposal Certification & Signature Page

The undersigned certifies that the proposer has reviewed this RFP, the attached drawings and specifications, and any issued addenda; that the proposal is submitted without collusion; and that the proposer is authorized and prepared to perform the work if selected.

Legal Name of Proposer: _____

Authorized Representative: _____

Title: _____

Signature: _____

Date: _____

Telephone: _____

Email: _____

Addenda acknowledged (list numbers): _____

Evaluation Sheet – For NTU Use

Category	Maximum Points	Score	Evaluator Notes
Firm Qualifications and Relevant Experience	20		
Project Team and Key Personnel	15		
Understanding of Project and Construction Approach	20		
Proposed Schedule and Ability to Complete Work	15		
Past Performance and References	10		
Cost Proposal / Overall Value	20		
TOTAL	100		

Proposer Evaluated: _____
Evaluator: _____ Date: _____
Recommendation / Comments:

_____
_____

Attachments / Exhibits Checklist

- Attachment A – NTU Student Plaza Construction Drawings (to be attached by NTU)
- Attachment B – Technical Specifications, if applicable
- Attachment C – Cost Proposal Form
- Attachment D – Contractor Qualification / Reference Form
- Attachment E – Required NTU Procurement Forms, if applicable
- Attachment F – Applicable Insurance and Bonding Requirements, if applicable

End of Request for Proposals

NTU STUDENTS PLAZA

CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM
NAVAJO TECHNICAL UNIVERSITY

PROJECT TEAM

ARCHITECT
MERGE ARCHITECTURAL GROUP
CONTACT: CARLOS MURRIETA, AIA
E-MAIL: CAM@MERGEAG.COM
P: (602) 635-1581
555 E FILLMORE STREET, STE 100
PHOENIX, AZ 85004

PLUMBING AND ELECTRICAL ENGINEER
HAWKINS DESIGN GROUP
CONTACT: SCOTT ADLER, PE
E-MAIL: SCOTT@HAWKINSDG.COM
P: (480) 813-9000
1140 W. HARWELL RD.
GILBERT, AZ 85233

CIVIL ENGINEER
XCL ENGINEERING
CONTACT: OMAR CERVANTES
E-MAIL:
OMARCERVANTES@XCLENGINEERING.COM
P: (602) 790-2267
CHANDLER, AZ 85224

LANDSCAPE ARCHITECT
THE CAMPBELL COLLABORATIVE
CONTACT: DON CAMPBELL
E-MAIL: DON@CAMPBELLCOLLABORATIVE.COM
P: (602) 266-1644
111 E DUNLAP, SUITE 1-278
PHOENIX, AZ 85020

LIGHTING CONSULTANT
RC LURIE
CONTACT: PAIGE EBEYER
E-MAIL: PEBEYER@RCLURIE.COM
P: (623) 760-6512
1122 N 7TH ST
PHOENIX, AZ 85006

GENERAL INFORMATION

PROJECT TITLE: NTU STUDENTS PLAZA

ADDRESS: CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM

OWNER:
NAVAJO TECHNICAL UNIVERSITY
PO BOX 849
CROWNPOINT, NEW MEXICO 87313
PHONE: (505) 786-7905
CONTACT: ABRAHAM BITOK

APPLICABLE CODES:
2021 INTERNATIONAL EXISTING BUILDING CODE
2021 INTERNATIONAL BUILDING CODE
2023 NATIONAL ELECTRICAL CODE
2024 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL FUEL GAS CODE
2021 INTERNATIONAL FIRE CODE
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

PROJECT DESCRIPTION

NEW CONSTRUCTION OF A STUDENT PLAZA AT NAVAJO TECHNICAL UNIVERSITY CROWNPOINT CAMPUS, DESIGNED TO CONNECT THE WELLNESS CENTER, ACADEMIC BUILDING, AND FUTURE INTERDISCIPLINARY BUILDING. THE PLAZA PROVIDES FLEXIBLE GATHERING AREAS, SEATING, EV PARKING STALLS, AND A MULTI-FUNCTIONAL STAGE SPACE FOR UNIVERSITY ACTIVITIES, CAMPUS EVENTS, SPEECHES, AND FUTURE COMMENCEMENT CEREMONIES WHILE PROMOTING CULTURE, COMMUNITY, AND CAMPUS CONNECTION.

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G011 CAMPUS PLAN / SCOPE OF WORK

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GD01 GRADING AND DRAINAGE PLAN
GD02 GRADING AND DRAINAGE PLAN

LANDSCAPE
L1.0 LANDSCAPE

ARCHITECTURAL
D001 DEMOLITION SITE PLAN
A001 PLAZA PLAN
A100 UPPER AND LOWER PLAZA
A101 LOW PLAZA - PHASE 02
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A103 DETAILS UPPER PLAZA
A104 ENLARGED PLANS & DETAILS LOWER PLAZA
A105 PLAZA DETAILS
A106 ENLARGED PLANS - STAGE
A107 ELEVATIONS & SECTIONS STAGE
A108 SECTIONS & DETAILS - STAGE
A900 SITE DETAILS

ELECTRICAL
E000 ELECTRICAL SYMBOLS & SPECIFICATIONS
E100 PLAZA ELECTRICAL PLAN
E200 ELECTRICAL ONE-LINE DIAGRAM

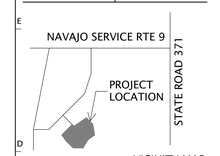
MERGE
ARCHITECTURAL
GROUP
555 E FILLMORE ST, SUITE 100
PHOENIX ARIZONA 85004
P (602) 635 1581
F (602) 635 1581
cam@mergeAG.com
cdc@mergeAG.com

SEAL

BID SET NOT FOR CONSTRUCTION

OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM



VICINITY MAP

REVISION
NUMBER DESCRIPTION DATE

PROJECT NO. 24C-010

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SHEET TITLE

TITLE SHEET

DATE 08.31.2026

SHEET **G001**

ABBREVIATIONS

ABV	above
AFF	above finished floor
ASC	above suspended ceiling
ACC	access
ACFL	access floor
AP	access panel
AC	acoustical
ACP	acoustical plaster
ACT	acoustical tile
ACR	acrylic plaster
ADD	addendum
ADH	adhesive
ADJ	adjacent
ADJT	adjustable
AGG	aggregate
A/C	air conditioning
ALT	alternate
AL	aluminum
ANC	anchor, anchorage
AB	anchor bolt
ANOD	anodized
APX	approximate
Arch	architect (ural)
AD	area drain
ASB	asbestos
ASPH	asphalt
AT	asphalt tile
AUTO	automatic

B

BP	back plaster (ed)
BSMT	basement
BRG	bearing
BPL	bearing plate
BJT	bed joint
BM	bench mark
BEL	below
BET	between
BEV	beveled
BIT	bituminous
BLK	block
BLKG	blocking
BD	board
BS	both sides
BW	both ways
BOT	bottom
BRK	brick
BRZ	bronze
BLDG	building
BUR	built up roofing
BBD	bulletin board

C

CAB	cabinet
CAD	cadmium
CPT	carpet (ed)
CSMT	casement
CI	cast iron
CIPC	cast-in-place concrete
CST	cast stone
CB	catch basin
CK	calk (ing), caulk (ing)
CLG	ceiling
CHT	ceiling height
CEM	cement
PCPL	cement plaster (portland)
CM	centimeter(s)
CER	ceramic
CT	ceramic tile
CMT	ceramic mosaic (tile)
CHBD	chalkboard
CHAM	chamfer
CR	chromium (plated)
CIR	circle
CIRC	circumference
CLR	clear (ance)
CLS	closure
COL	column
COMB	combination
COMPT	compartment
COMPO	composition (composite)
COMP	compress (ed), (ion), (ible)
CONC	concrete
CMU	concrete masonry unit
CX	connection
CONST	construction
CONT	continuous or continue
CONTR	contract (or)
CLL	contract limit line
CJT	control joint
CPR	copper
CG	corner guard
CORR	corrugated
CTR	counter
CFL	counterflashing
CS	countersink
CTSK	countersunk screw
CRS	course (s)
CRG	cross grain
CFT	cubic foot
CYD	cubic yard

D

DPR	damper
DP	dampproofing
DL	dead load
DEM	demolish, demolition
DMT	demountable
DEP	depressed
DTL	detail
DIAG	diagonal
DIAM	diameter
DIM	dimension
DPR	dispenser
DIV	division
DR	door
DA	doubleacting
DH	double hung
DTA	dovetail anchor
DTS	dovetail anchor slot
DS	downspout
D	drain
DRB	drainboard
DT	drain tile
DWR	drawer
DWG	drawing
DF	drinking fountain
DW	dumbwaiter

E

EF	each face
E	east
ELEC	electric (al)
EP	electrical panelboard
EWC	electrical water cooler
EL	elevation
ELEV	elevator
EMER	emergency
ENC	enclose (ure)
EQ	equal
EQP	equipment
ESC	escalator
EST	estimate
EXCA	excavate
EXH	exhaust
EXG	existing
EXMP	expanded metal plate
EB	expansion bolt
EXP	exposed
EXT	exterior
EXS	extra strength

F

FB	face brick
FOC	face of concrete
FOF	face of finish
FOM	face of masonry
FOS	face of studs
FF	factory finish
FAS	fasten, fastener
FN	fence
FBD	fiberboard
FGL	fiberglass
FIN	finish (ed)
FFE	finished floor elevation
FFL	finished floor line
FA	fire alarm
FBRK	fire brick
FE	fire extinguisher
FEC	fire extinguisher cabinet
FHS	fire hose station
FPL	fireplace
FP	fireproof
FRC	fire-resistant coating
FRT	fire-retardant
FLG	flashing
FHMS	flathead machine screw
FHWS	flathead wood screw
FLX	flexible
FLR	floor (ing)
FLCO	floor cleanout
FD	floor drain
FPL	floor plate
FLUR	fluorescent
FJT	flush joint
FTG	footing
FRG	forged
FND	foundation
FR	frame (d), (ing)
FRA	fresh air
FS	full size
FBO	furnished by others
FUR	furred (ing)
FUT	future

G

GA	gage, gauge
GV	galvanized
GI	galvanized iron
GP	galvanized pipe
GSS	galvanized steel plate
GKT	gasket (ed)
GC	general contract (or)
GL	glass, glazing
GLB	glass block
GLF	glass fiber
GCMU	glazed concrete masonry
GST	units
GB	glazed structural title
GD	grab bar
GRN	grade, grading
GVL	granite
GF	gravel
GT	ground face
GPDW	grout
GPL	gypsum dry wall
GPPL	gypsum lath
GPT	gypsum plaster
	gypsum tile

H

HH	handhole
HBD	hardboard
HDW	hardware
HWD	hardwood
HJT	head joint
HDR	header
HTG	heating
HVAC	heating/ventilation/air conditioning
HD	heavy duty
HT	height
HX	hexagonal
HES	high early-strength cement
HC	hollow core
HM	hollow metal
HOR	horizontal
HB	hose bibb
HWH	hot water heater

I

INCIN	incinerator
INCL	include (d), (ing)
ID	inside diameter
INS	insulate (d), (ion)
INSC	insulating concrete
INSF	insulating fill
INT	interior
ILK	interlock
INTM	intermediate
INV	invert
IPS	iron pipe size

J

JC	janitor's closet
JT	joint
JF	joint filler
J	joist

K

KCPL	Keene's cement plaster
KPL	kickplate
KIT	kitchen
KO	knockout

L

LBL	label
LAB	laboratory
LAD	ladder
LB	lag bolt
LAM	laminate (d)
LAV	lavatory
LH	left hand
L	length
LT	light
LC	light control
LP	lightproof
LW	lightweight
LWC	lightweight concrete
LMS	limestone
LTL	lintel
LL	live load
LVR	louver
LPT	low point

M

MB	machine bolt
MI	malleable iron
MH	manhole
MFR	manufacture (er)
MRB	marble
MAS	masonry
MO	masonry opening
MTL	material (s)
MAX	maximum
MECH	mechanic (al)
MC	medicine cabinet
MED	medium
MBR	member
MMB	membrane
MET	metal
MFD	metal floor decking
MTFR	metal furring
MRD	metal roof decking
MEHR	metal threshold
M	meter (s)
MM	millimeter (s)
MWK	millwork
MIN	minimum
MIR	mirror
MISC	miscellaneous
MOD	modular
MLD	molding, moulding
MR	mop receptor
MT	mount (ed), (ing)
MOV	movable
MULL	mullion

N

NL	nailable
NAT	natural
NI	nickel
NR	noise reduction
NRC	noise reduction coefficient
NOM	nominal
NMT	nonmetallic
N	north
NIC	not in contract
NTS	not to scale

O

OBS	obscure
OC	on center (s)
OP	opaque
OPG	opening
OJ	open-web joist
OPP	opposite
OPH	opposite hand
OPS	opposite surface
OD	outside diameter
OHMS	ovalhead machine screw
OHWS	ovalhead wood screw
OA	overall
OH	overhead
P	
PNT	paint (ed)
PNL	panel
PB	panic bar
PTD	paper towel dispenser
PTR	paper towel receptor
PAR	parallel
PK	parking
PBD	particle board
PTN	partition
PV	pave (d), (ing)
PVMT	pavement
PED	pedestal
PERF	perforate (d)
PERI	perimeter
PLAS	plaster
PL	plastic laminate
PG	plate glass
PWD	plywood
PT	point
PVC	polyvinyl chloride
PE	porcelain enamel
PTC	post-tensioned concrete
PCF	pounds per cubic foot
PFL	pounds per lineal foot
PSF	pounds per square foot
PSI	pounds per square inch
PCC	precast concrete
PFB	prefabricate (d)
PFN	prefinished
PRF	preformed
PSC	prestressed concrete
PL	property line
Q	
QT	quarry tile
R	
RBT	rabbet, rebate
RAD	radius
RL	rail (ing)
RWC	rainwater conductor
REF	reference
RFL	reflect (ed), (ive), (or)
REFR	refrigerator
REG	register
RE	reinforce (d), (ing)
RCP	reinforced concrete pipe
REM	remove
RES	resilient
RET	return
RA	return air
RVS	reverse (side)
REV	revision (s), revised
RH	right hand
ROW	right of way
R	riser
RVT	rivet
RD	roof drain
RFH	roof hatch
RFG	roofing
RM	room
RO	rough opening
RB	rubber base
RBT	rubber tile
RBL	rubble stone
S	
SFGL	safety glass
SCH	schedule
SCN	screen
SNT	sealant
STG	seating
SEC	section
SSK	service sink
SHTH	sheathing
SHT	sheet
SG	sheet glass
SH	shelf, shelving
SHO	shore (d), (ing)
SIM	similar
SKL	skylight
SL	sleeve
SC	solid core
SP	soundproof
S	south
SPC	spacer
SPK	speaker
SPL	special
SPEC	specification (s)
SQ	square
SST	stainless steel
STD	standard
STA	station
ST	steel
STO	storage
SD	storm drain
STR	structural
SCT	structural clay tile
SUS	suspended
SYM	symmetry (ical)
SYN	synthetic
SYS	system
T	
TKBD	tackboard
TKS	tackstrip
TEL	telephone
TV	television
TC	terra cotta
TZ	terrazzo
THK	thick (ness)
THR	threshold
TPTN	toilet partition
TPD	toilet paper dispenser
TOL	tolerance
T&G	tongue and groove
T	
TSL	top of slab
TST	top of steel
TW	top of wall
TB	towel bar
TR	transom
T	tread
TYP	typical
U	
UC	undercut
UNF	unfinished
UR	urinal
V	
VJ	v-joint (ed)
VB	vapor barrier
VAR	varnish
VNR	veneer
VRM	vermiculite
VERT	vertical
VG	vertical grain
VIN	vinyl
VAT	vinyl asbestos tile
VB	vinyl base
VF	vinyl fabric
VT	vinyl tile
W	
WSCT	wainscot
WTW	wall to wall
WH	wall hung
WC	water closet
WP	waterproofing
WR	water repellent
WS	waterstop
WWF	welded wire fabric
W	west
WHB	wheel bumper
W	width, wide
WIN	window
WG	wired glass
WM	wire mesh
WO	without
WD	wood
WB	wood base
WI	wrought iron

SYMBOLS USED AS ABBREVIATIONS

∠	ANGLE
℄	CENTERLINE
[	CHANNEL
d	PENNY
PL	PLATE
Φ	ROUND OR DIAMETER
@	AT
□	SQUARE

ANNOTATION SYMBOLS

WALL SECTION

BUILDING SECTION

DETAIL SECTION

PLAN/DETAIL CALLOUT

EXTERIOR ELEVATION

INTERIOR ELEVATION

BREAK LINE

INTERIOR PARTITION TYPE SYMBOL

WINDOW/ CURTAIN WALL/ STOREFRONT TYPE SYMBOL

BENCHMARK/ SPOT ELEVATION SYMBOL

COLUMN GRID/ LINE INDICATOR (NEW)

COLUMN GRID/ LINE INDICATOR (EXIST)

REVISION INDICATOR

DOOR TAG

CEILING TYPE w/ HEIGHT SYMBOL

NORTH ARROW

DIMENSION

ALIGNMENT INDICATOR

CAMPUS GENERAL NOTES

1. CONTRACTOR SHALL HAVE LIMITED USE OF THE PROJECT SITE FOR CONSTRUCTION OPERATIONS AS INDICATED ON THESE DRAWINGS BY THE CONTRACT LIMITS.
2. LIMITED USE OF PROJECT SITE TO WORK AREAS WITHIN THE CONTRACT LIMITS AS INDICATED. DO NOT DISTURB PORTIONS OF PROJECT SITE BEYOND AREAS IN WHICH THE WORK IS INDICATED.
   A. LIMITS ON USE OF SITE: CONFINE CONSTRUCTION OPERATIONS TO AREAS INDICATED ON THESE DRAWINGS OR AS PRE-COORDINATED WITH OWNER.
   B. DRIVEWAYS, WALKWAYS, AND ENTRANCES: KEEP DRIVEWAYS, PARKING, LOADING AREAS AND ENTRANCES SERVING PREMISES CLEAR AND AVAILABLE TO OWNER, OWNER'S EMPLOYEES, AND EMERGENCY VEHICLES AT ALL TIMES. DO NOT USE THESE AREAS FOR PARKING OR FOR STORAGE OF MATERIALS.
3. CONDITION OF EXISTING BUILDING: MAINTAIN PORTIONS OF EXISTING BUILDING AFFECTED BY CONSTRUCTION OPERATIONS IN A WEATHERTIGHT CONDITION THROUGHOUT CONSTRUCTION PERIOD. REPAIR DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
4. CONDITION OF EXISTING GROUNDS: MAINTAIN PORTIONS OF EXISTING GROUNDS, LANDSCAPING, AND HARDSCAPING AFFECTED BY CONSTRUCTION OPERATIONS THROUGHOUT CONSTRUCTION PERIOD. REPAIR DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.
5. COORDINATION WITH OCCUPANTS - FULL OWNER OCCUPANCY: OWNER WILL OCCUPY SITE AND EXISTING ADJACENT BUILDING(S) DURING ENTIRE CONSTRUCTION PERIOD. COOPERATE WITH OWNER DURING CONSTRUCTION OPERATIONS TO MINIMIZE CONFLICTS AND FACILITATE OWNER USAGE. PERFORM THE WORK SO AS NOT TO INTERFERE WITH OWNER'S DAY-TO-DAY OPERATIONS. MAINTAIN EXISTING EXITS UNLESS OTHERWISE INDICATED.
6. CONTRACTOR TO FULLY COMPLY WITH LIMITATIONS ON USE OF PUBLIC STREETS, WORK ON PUBLIC STREETS, RIGHTS OF WAY, AND OTHER REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
7. ON-SITE WORK HOURS: LIMIT WORK TO SITE AND ADJACENT EXISTING BUILDING TO NORMAL BUSINESS WORKING HOURS OF 7 A.M. TO 5 P.M., MONDAY THROUGH FRIDAY, UNLESS OTHERWISE INDICATED.
8. EXISTING UTILITY INTERRUPTIONS: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER PROVIDING TEMPORARY UTILITY SERVICES ACCORDING TO REQUIREMENTS INDICATED:
   A. NOTIFY OWNER NOT LESS THAN THREE BUSINESS DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS.
   B. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE PROCEEDING WITH UTILITY INTERRUPTIONS.
9. NOISE, VIBRATION, DUST, AND ODORS: COORDINATE OPERATIONS THAT MAY RESULT IN HIGH LEVELS OF NOISE AND VIBRATION, DUST, ODORS, OR OTHER DISRUPTION TO OWNER OCCUPANCY WITH OWNER.
   A. NOTIFY OWNER NOT LESS THAN THREE DAYS IN ADVANCE OF PROPOSED DISRUPTIVE OPERATIONS.
   B. OBTAIN OWNER'S WRITTEN PERMISSION BEFORE PROCEEDING WITH DISRUPTIVE OPERATIONS.
10. SMOKING AND CONTROLLED SUBSTANCE RESTRICTIONS: USE OF TOBACCO PRODUCTS, ALCOHOLIC BEVERAGES, AND OTHER CONTROLLED SUBSTANCES ON OWNER'S PROPERTY IS NOT PERMITTED.
11. EMPLOYEE IDENTIFICATION: PROVIDE IDENTIFICATION TAGS FOR CONTRACTOR PERSONNEL WORKING ON PROJECT SITE. REQUIRE PERSONNEL TO USE IDENTIFICATION TAGS AT ALL TIMES.
12. EMPLOYEE SCREENING: COMPLY WITH OWNER'S REQUIREMENTS FOR DRUG AND BACKGROUND SCREENING OF CONTRACTOR PERSONNEL.

PROJECT GENERAL NOTES:

1. CONTRACTOR TO COORDINATE WITH OWNER ALL DAMAGED EXISTING CONDITIONS PRIOR TO START OF WORK.
2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL EXISTING CONDITIONS AND DIMENSIONS AT JOB SITE FOR COMPARISON WITH DRAWINGS AND SPECIFICATIONS PRIOR TO START OF AND DURING CONSTRUCTION. IF ANY DISCREPANCIES, INCONSISTENCIES OR OMISSIONS ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED IN WRITING FOR CLARIFICATION PRIOR TO PROCEEDING WITH WORK.
3. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL REFY ON WRITTEN DIMENSIONS AS GIVEN. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATIONS. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR AND COORDINATED WITH ALL OF THE WORK OF ALL TRADES IF DISCREPANCIES ARE FOUND THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE THE COMMENCEMENT OF RESUMPTION WORK.
4. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASUREMENTS TO PROTECT THE PUBLIC FROM ADJACENT CONSTRUCTION AND PROPERTIES FROM DAMAGE DUE TO THE CONSTRUCTION.
5. LEGAL EXITS SHALL NOT BE BLOCKED AT ANY TIME.
6. "EXIT" SIGN SHALL BE INSTALLED WHERE REQUIRED LOCATE AS SHOWN ON DRAWINGS AND AS DIRECTED BY ARCHITECT AND BUILDING INSPECTORS IN FIELD.
7. ACCESSIBILITY: THE FACILITY SHOWN ON THESE DRAWINGS WHERE DESIGNED TO THE BEST OF OUR KNOWLEDGE AND INFORMATION, IN ACCORDANCE WITH THE AMERICAN WITH DISABILITIES ACT AND ACCESSIBILITY STANDARDS.
8. WORK SHALL COMPLY WITH APPLICABLE CODES AND ORDINANCES.
9. WHEN WORK NOT SPECIALLY CALLED OUT, OR IF WORK IS REQUIRED TO COMPLETE THE PROJECT, OR INDIVIDUAL PORTIONS OF THE PROJECT, IT SHALL BE PROVIDED AND SHALL BE OF THE BEST MATERIALS AND WORKMANSHIP.
10. THE OWNER MAY UTILIZE SEPARATE CONTRACTORS (I.E. SPECIAL SYSTEMS, ETC) DURING THE COURSE OF THE CONSTRUCTION. THE CONTRACTOR, AS A COURTESY TO THE OWNER, IS TO COMMUNICATE AND COORDINATE WORK SCHEDULES WITH THE OWNERS SEPARATE CONTRACTORS TO INSURE NON-CONFLICT WORK AND SCHEDULES.
11. DETAILS ARE TYPICAL OR SIMILAR THROUGHOUT SUBJECT TO MODIFICATION FOR SPECIFIC CONDITION.
12. ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.
13. PAINT ALL EXPOSED MATERIALS ON THE PROJECT BY SPECIFICATION REQUIREMENTS U.N.O. COORDINATE WITH ARCHITECT FOR ANY UNCLEAR CONDITION.
14. FINAL CLEANUP AND DISPOSAL: REMOVE DEBRIS, RUBBISH AND WASTE MATERIAL FROM THE SITE TO A LAWFUL DISPOSAL AREA AND PAY ALL HAULING AND DUMPING COSTS. CONFORM TO PERTAINING FEDERAL STATE AND LOCAL LAWS, REGULATIONS AND ORDERS UPON COMPLETION OF WORK. ALL CONSTRUCTIONS AREAS SHALL BE LEFT VACUUM-CLEAN AND FREE FROM DEBRIS. CLEAN ALL DUST, DIRT, STAINS, AND MARKS, PAINT, SPOTS, DROPPINGS, AND OTHER BLEMISHES.

SITE GENERAL NOTES:

1. TEMPORARY PEDESTRIAN PROTECTION SHALL BE PROVIDED WHERE REQUIRED BY BUILDING USER'S TRAFFIC. COORDINATE WITH OWNER.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES BELOW GRADE AND RELATED SERVICES CONNECTIONS WITH THE RESPECTIVE UTILITY COMPANIES.
3. CONTRACTOR SHALL COORDINATE THE REMOVAL, ABANDONMENT, AND/OR RELOCATION OF EXITING UTILITIES ABOVE OR BELOW GRADE WITH THE RESPECTIVE UTILITY COMPANIES.
4. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM WITH ALL APPLICABLE CODES & ORDINANCES.
5. ALL NEW UTILITIES WILL BE PLACED UNDERGROUND U.N.O. SEE CIVIL DRAWINGS.
6. ANY LIGHTING WILL BE REPLACED SO AS TO DIRECT LIGHT AWAY FROM ADJACENT RESIDENTIAL DISTRICTS AND WILL NOT EXCEED ONE FOOT CANDLE AT THE PROPERTY LINE. NO NOISE, ODOR OR VIBRATION EMITTED BY USES IN THE AREA OUTSIDE THE SITE.
7. LOCATE IRRIGATION CONTROL BOXES ON LANDSCAPE DRAWINGS & SET TOP LEVEL AT SIDEWALK LOCATIONS. PROVIDE CONCRETE BASE AND CASE FOR PROTECTION AS INDICATED BY ARCHITECT.
8. IDENTIFY LOCATIONS OF OVERFLOW AND ROOF DRAIN LEADER DISCHARGE AREAS AND PROVIDE SPLASHBLOCK OR RIP-RAP PER SITE AND CIVIL DRAWINGS.
9. PROVIDE TRENCH DRAINS AT ANY LOCATION WHERE STORMWATER CROSSES ANY PEDESTRIAN SIDEWALK, SEE SITE DETAILS FOR TYPICAL DETAIL.
10. ALL CONCRETE AT SIDEWALKS, EQUIPMENT PADS, RAMPS AND STAIRS TO BE PROVIDED WITH FIBER REINFORCING AS FOLLOWS: SYNTHETIC MICRO-FIBER MONOFILAMENT POLYPROPYLENE MICRO-FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE, COMPLYING WITH ASTM C 1116/C 1116M, TYPE III, 1/2 TO 1 1/2 INCHES LONG.
11. MAXIMUM CROSSSLOPES FOR SIDEWALKS NOT TO EXCEED 2.0%.
12. MINIMUM SLOPE AT SIDEWALKS FOR WATER DRAINAGE PURPOSES TO NO LESS THAN 1.0% AND NOT TO EXCEED 2%.
13. SIDEWALK AND SLAB CONTROL JOINTS NOT SHOWN FOR DRAWING CLARITY; CONTROL JOINTS TO BE PROVIDED AT 5'-0" O.C. MAXIMUM OR AT EQUAL SPACE DISTRIBUTED ALONG THE LENGHT OF THE SURFACE. SEE ALSO SITE DETAILS.
14. SIDEWALK AND SLAB CONSTRUCTION/EXPANSION JOINTS NOT SHOWN FOR DRAWING CLARITY; EXPANSION JOINTS TO BE PROVIDED AT 25'-0" O.C. MAXIMUM OR AT EQUAL SPACE DISTRIBUTED ALONG THE LENGHT OF THE SURFACE. SEE ALSO SITE DETAILS.

FLOOR PLAN NOTES:

1. DIMENSIONS SHOWN ON FLOOR PLANS, SECTIONS, ELEVATIONS AND DETAILS ARE TO CENTERLINE OF STUD, FINISH FACE OFMASONRY, CONCRETE, OR GUIDELINES, UNLESS NOTED OTHERWISE.
2. FINISH FLOOR ELEVATION TO BE +00.00 U.N.O.

WALL GENERAL NOTES:

1. FOR TYPICAL WALL STUD AND GAUGE, SEE MARK ON PLANS, STRUCTURAL NOTES AND WALL TYPE SCHEDULE.

EQUIPMENT INSTALLATION NOTES:

1. VERIFY THAT NEW WORK WILL ADEQUATELY FIT IN THE SPACE PROVIDED. MAINTAIN ALL MANUFACTURER'S RECOMMENDED AND CODE REQUIRED CLEAREANCES ALL AROUND EQUIPMENT.

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555 E FILLMORE ST, SUITE 100
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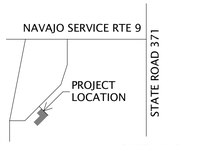
cdc@mergeAG.com

SEAL

BID SET NOT FOR CONSTRUCTION

OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM



VICINITY MAP

REVISION
NUMBER | DESCRIPTION | DATE

PROJECT NO. 24C-010

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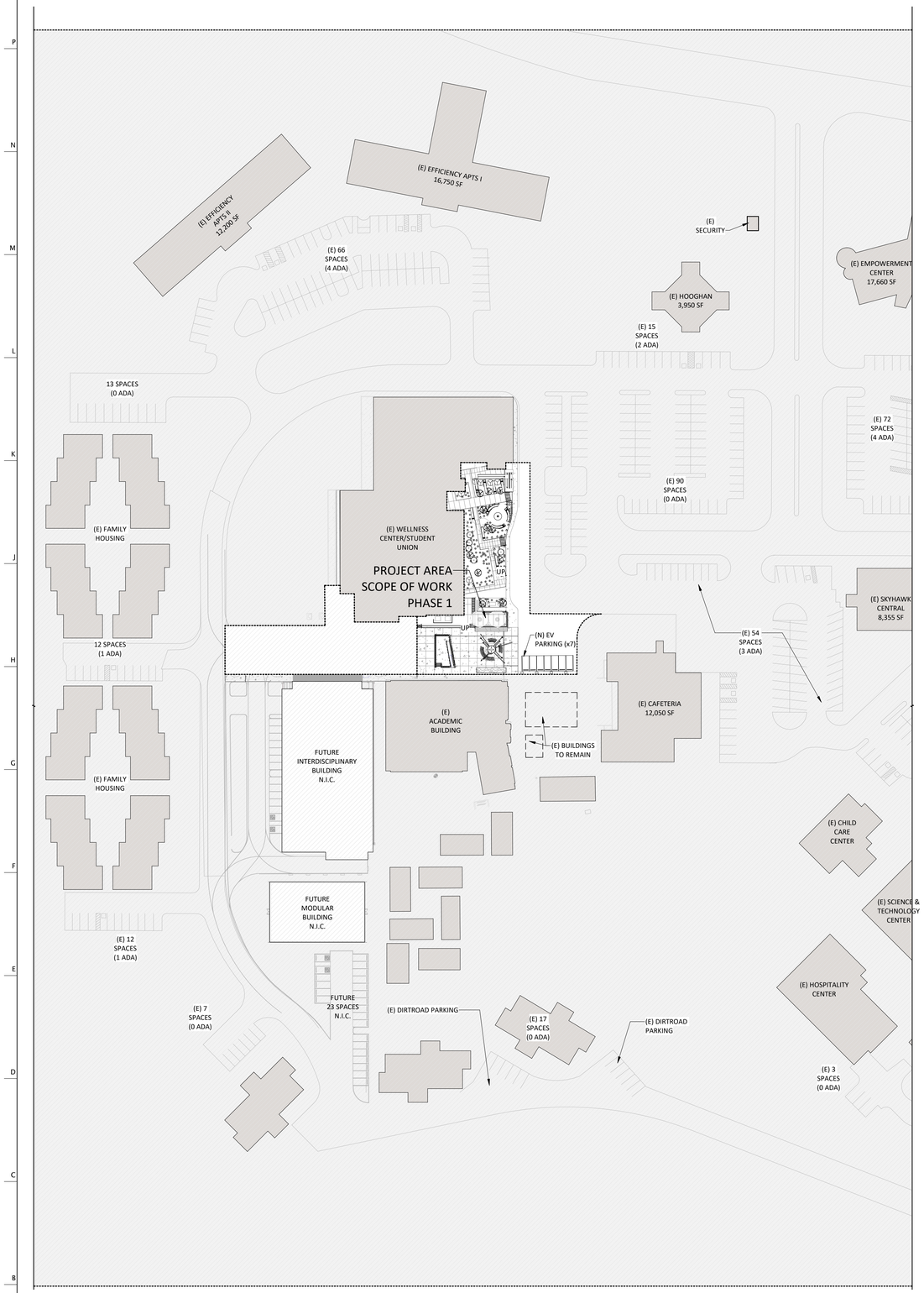
SHEET TITLE

GENERAL INFORMATION & NOTES

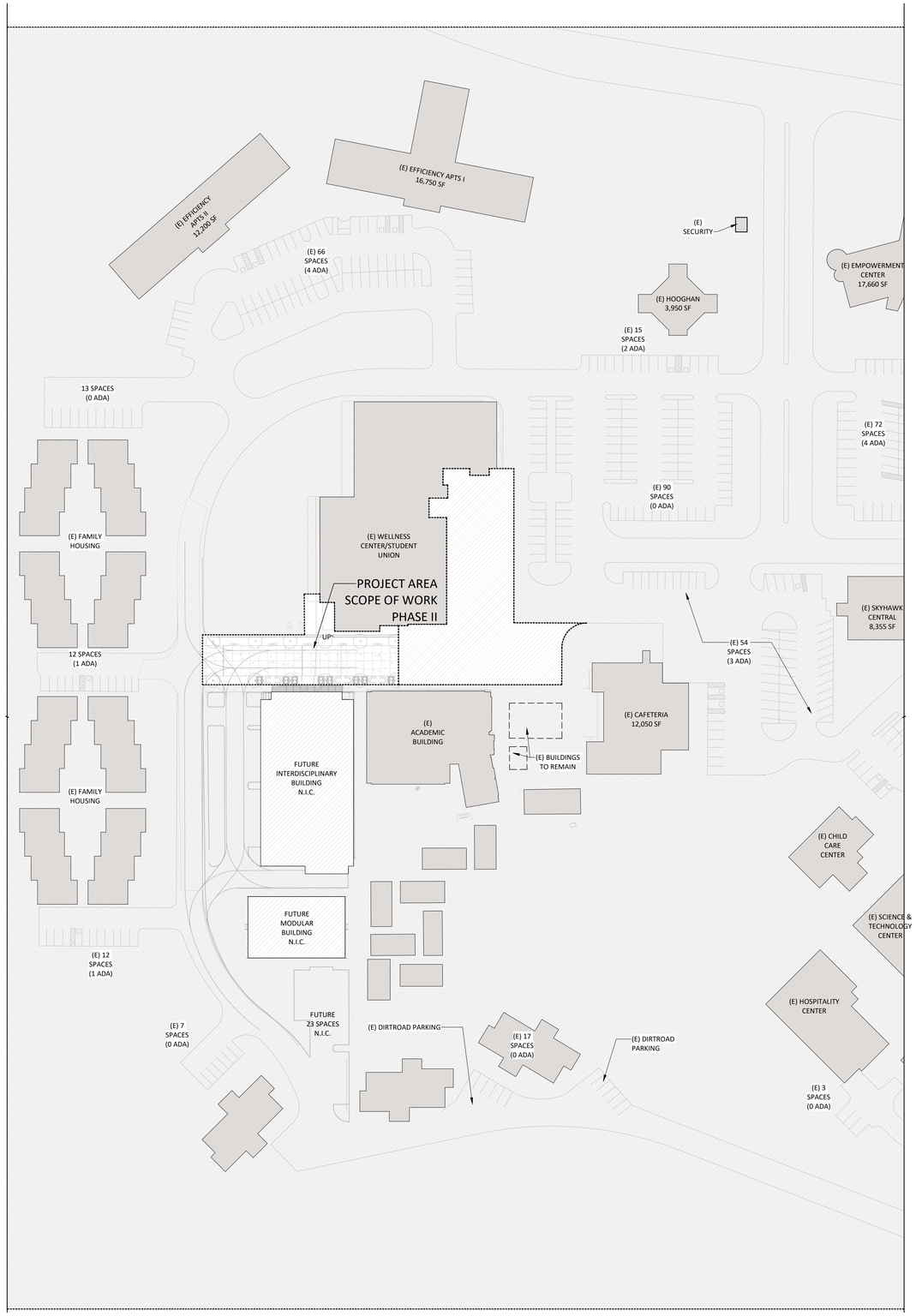
DATE 08.31.2026

SHEET

G010



CAMPUS SITE PLAN - PH. 1 **01**
1" = 60'-0"



CAMPUS SITE PLAN - PH. 2 **02**
1" = 60'-0"

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PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM

VICINITY MAP

REVISION

NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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SHEET TITLE

CAMPUS PLAN / SCOPE OF WORK

DATE 08.31.2026

SHEET **G011**

GRADING & DRAINAGE PLAN
NTU STUDENTS PLAZA
LOWERPOINT ROAD STATE HWY 371, CROWNPOINT NM 87313

ENGINEER'S NOTES

1. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE PRESENTED TO THE ENGINEER. ANYONE WHO TAKES IT UPON THEM SELF THE INTERPRETATION OF THE DRAWINGS OR MAKES REVISIONS TO THE SAME WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.
2. THE ESTIMATED QUANTITIES SHOWN ARE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETENESS & ACCURACY OF A DETAILED ESTIMATE BASED ON THESE PLANS, CURRENT CODES, & SITE VISITATION.
3. ALL EARTHWORK CONSTRUCTION SHALL CONFORM TO THE LATEST MARICOPA ASSOCIATION OF GOVERNMENTS STANDARD DETAILS AND/OR SPECIFICATIONS INCLUDING ANY SUPPLEMENTS THERETO, AND ALL ADDENDA. THE GRADING CONTRACTOR IS TO FOLLOW THE RECOMMENDATION OF THE SOIL INVESTIGATION REPORT AND LETTER.
4. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK & EXCESS OR DEFICIENCY IN QUANTITIES. NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.
5. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, POWER POLES, ETC.
7. THE SITE CONTRACTOR SHALL MAKE NO CLAIM AGAINST THE OWNER OR THE SURVEYOR REGARDING ALLEGED INACCURACY OF CONSTRUCTION STAKES SET BY THE SURVEYOR UNLESS ALL SURVEY STAKES SET BY THE ENGINEER ARE MAINTAINED INTACT AND CAN BE VERIFIED AS TO THEIR ORIGIN. IF, IN THE OPINION OF THE SURVEYOR, THE STAKES ARE NOT MAINTAINED INTACT AND CANNOT BE VERIFIED AS TO THEIR ORIGIN, ANY REMEDIAL WORK REQUIRED TO CORRECT ANY ITEM OF IMPROPER CONSTRUCTION WORK SHALL BE PERFORMED AT THE SOLE EXPENSE OF THE RESPONSIBLE CONTRACTOR OR SUBCONTRACTOR.
8. THE SURVEYOR WILL MAKE FIELD AS-BUILT MEASUREMENTS OF THE WORK UPON NOTIFICATION BY THE CLIENT OR HIS REPRESENTATIVE THAT THE WORK IS COMPLETE AND READY FOR AS-BUILT SURVEY. FOR PIPE WORK, THE UTILITY CONTRACTOR IS RESPONSIBLE FOR LEAVING TRENCHES OPEN SO THAT AS-BUILTS CAN BE PERFORMED TO COMPLY WITH THE CITY REQUIREMENTS. IF THE TRENCHES ARE BACKFILLED AND OBSCURED TO THE POINT THAT AS-BUILT MEASUREMENTS CANNOT BE PERFORMED, IT WILL BE THE RESPONSIBILITY OF THE UTILITY CONTRACTOR TO POTHOLE UTILITY TRENCHES AS NECESSARY TO COMPLETE AN AS-BUILT SURVEY.
9. THE SITE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION, CONDITION, AND PAVEMENT CROSS-SLOPE OF ALL EXISTING SURFACES AT POINTS OF TIE-IN AND MATCHING, PRIOR TO COMMENCEMENT OF GRADING, PAVING, CURB AND GUTTER, OR OTHER SURFACE CONSTRUCTION. SHOULD EXISTING LOCATIONS, ELEVATIONS, CONDITION, OR PAVEMENT CROSS-SLOPE DIFFER FROM THAT SHOWN ON THESE PLANS, RESULTING IN THE DESIGN INTENT REFLECTED ON THE PLANS NOT ABLE TO BE CONSTRUCTED, THE SITE CONTRACTOR SHALL NOTIFY THE OWNER'S AGENT IMMEDIATELY FOR DIRECTION ON HOW TO PROCEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR ACCEPTS RESPONSIBILITY FOR ALL COSTS ASSOCIATED WITH CORRECTIVE ACTION IF THESE PROCEDURES ARE NOT FOLLOWED.
10. EXISTING UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED ACCORDING TO INFORMATION PROVIDED BY THE AGENCY OPERATING EACH UTILITY. LOCATIONS SHOWN ARE APPROXIMATE ONLY, AND ARE NOT RELIABLE FOR CONSTRUCTION PURPOSES. CALL BLUE STAKE FOR FIELD LOCATION AT (602) 263-1100. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
11. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION, OR VARIANCE FROM THESE PLANS. ANY VARIATIONS FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER.
12. ANY INSPECTION BY THE CITY, COUNTY, ENGINEER, OR OTHER JURISDICTIONAL AGENCY, SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH APPLICABLE CODES AND AGENCY REQUIREMENTS.
13. THE GRADING CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL STORM DRAIN PIPES, STORM WATER RETENTION PIPES, AND DRAINAGE FACILITIES FROM DAMAGE DURING ALL STAGES OF CONSTRUCTION. THE DEPTH OF COVER ON THE STORM DRAIN PIPE IS DESIGNED FOR FINAL GRADE. THEREFORE, EXTRA CARE SUCH AS BERMING OVER PIPES, FLAGGING OR SIGNAGE SHOULD BE USED DURING CONSTRUCTION TO MAINTAIN COVER OR PROTECT THE PIPES.
14. THE ENGINEER MAKES NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO THE VARYING FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
15. FINISH GRADES SHOWN ON THESE PLANS ARE THE FINAL FINISH GRADES. THE GRADING CONTRACTOR IS RESPONSIBLE FOR OVER-EXCAVATING LANDSCAPE AREAS TO ALLOW FOR PLANTING AND UTILITY TRENCHING SPOILS FOR THE FINAL LANDSCAPE TREATMENT (DECOMPOSED GRANITE, LAWN, ETC.).
16. UNDERGROUND UTILITIES SHALL BE MARKED IN ACCORDANCE WITH SECTION 40-360 OF THE ARIZONA REVISED STATUTES AND LOCAL MUNICIPALITY REQUIREMENTS.

BASIS OF BEARING

THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 19, T17N, R12E OF NAVAJO MERIDIAN AND BASE LINE, NEW MEXICO. NORTH 00 DEGREES 42 MINUTES 55 SECONDS EAST.

BENCHMARK (BM)

MCKINLEY DESIGNATION ID: 1184

FOUND SURVEY DISK SET IN ROCK OUTCROP STAMPING 1184-3 1963. THE STATION IS LOCATED ON THE NAVAJO INDIAN RESERVATION, ABOUT 120 M (393.7 FT) SOUTH-SOUTHWEST OF THE WATER TANK IN CROWNPOINT. OWNERSHIP–NAVAJO NATION, CONTACT - NAVAJO LAND DEPARTMENT, TELEPHONE 520-871-5948, PO BOX 2409, WINDOW ROCK AZ 86515-2409. TO REACH THE STATION FROM INTERSTATE HIGHWAY 40 EXIT 53 IN THOREAU, GO NORTH ON STATE HIGHWAY 371 FOR 24.5 MI (39.4 KM), PASSING A RAILROAD OVERPASS AT 0.3 MI (0.5 KM) AND THE CONTINENTAL DIVIDE AT 16.3 MI (26.2 KM), TO A T-INTERSECTION WITH PAVED OLD STATE HIGHWAY 56. TURN LEFT, WEST FOR 0.1 MI (0.2 KM) TO A T-INTERSECTION. TURN RIGHT, NORTHWEST FOR 0.4 MI (0.6 KM) TO A CROSSROAD IN THE CROWNPOINT BOARDING SCHOOL COMPLEX. TURN LEFT, WEST FOR 0.2 MI (0.3 KM) TO A GRAVELLED PARKING LOT ON THE SOUTHWEST SIDE OF THE STREET. TURN LEFT, SOUTHWEST, CROSSING THE GRAVELLED PARKING LOT, ONTO A TRACK ROAD LEADING TO THE WATER TANK FOR 0.05 MI (0.08 KM) TO A Y-INTERSECTION. TURN LEFT, SOUTHWEST AND CLIMB THE MESA FOR 0.1 MI (0.2 KM), PROCEEDING STRAIGHT THROUGH A CROSSROAD, TO THE TOP OF THE MESA AND THE STATION ON THE LEFT. THE STATION IS A 0.05 M (0.16 FT) DIAMETER BRASS DISK EMBEDDED IN A LARGE SANDSTONE OUTCROP THAT IS FLUSH WITH THE SURFACE. THIS STATION IS PART OF THE NAVAJO CONTROL SYSTEM SET BY LIMBAUGH ENGINEERING AND AERIAL SURVEY IN 1963. LOCATED ABOUT 25 M (82.0 FT) EAST OF THE CENTERLINE OF THE TRACK ROAD AND 3 M (9.8 FT) EAST OF A PINON TREE. COUNTY DOT CAP IN A HAND HOLE STAMPED "T1S R2W 1/4 30 29 2018 54704" AT INTERSECTION OF SOUTH TUTHILL ROAD AND WEST ROCK WREN ROAD.

THIS PROJECT BENCHMARK ELEVATION = 7060.70 (PER NAVD88 VERT. DATUM)

TEMPORARY SITE BENCHMARKS (TBM)

PRIMARY TBM:

SET PK NAIL PAINTED WITH A WHITE CIRCLE AS SHOWN ON PLAN.

ELEVATION = 6905.56 FEET.

SCOPE OF WORK

CONSTRUCTION OF STUDENTS PLAZA WITH LANDSCAPE.

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION R4-30-301 OF THE RULES OF THE ARIZONA STATE BOARD OF TECHNICAL REGISTRATION, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE REVIEW OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY MARICOPA COUNTY IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

FINISH FLOOR CERTIFICATION

FINISHED FLOORS ARE SAFE FROM INUNDATION DURING A 100-YEAR PEAK RUN-OFF EVENT IF CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.

FLOOD ZONE

Community Number	Parcel Number	Panel Date	Suffix	FIRM Date	FIRM Zone	Base Flood Elevation (AO Zone, use depth)
350039	1275	2/17/10	E	8/20/26	X	

PLAN INDEX

Cover Sheet, General Notes..... GD01
Grading & Drainage Plan, Cross Sections..... GD02

PARCEL INFORMATION

Gross Area:	43,560 Sq.Ft. (1.00 Acres)
Zoning:	RU-43
Assessors Parcel Number:	400-58-977
Property Deed No.:	2018-0655820 M.C.R.

DATE OF SURVEY

January 2025

REFERENCE DATA

This survey is supported by the following record information:

DEED No. 2018-0655820, Maricopa County Records.

QUANTITIES

The quantities shown below are for permit purpose only, the contractor shall verify its own quantities.

Cut : 0 Cu.Yds.
Fill : 0 Cu.Yds.

OWNER

NAVAJO TECHNICAL UNIVERSITY,
LOWERPOINT ROAD STATE HWY 371,
CROWNPOINT, NM 87313
CONTACT:
PHONE:
EMAIL:

CIVIL ENGINEER

XCL ENGINEERING, L.L.C.
1460 SOUTH KAREN DRIVE,
CHANDLER, AZ 85286
CONTACT: OMAR CERVANTES, PE
PHONE: (480)275-2711
EMAIL: OCERVANTES@XCLENGINEERING.COM

ARCHITECT

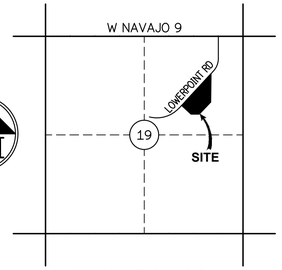
MERGE ARCHITECTURAL GROUP
555 E. FILLMORE ST., STE. 100
PHOENIX, AZ 85004
CONTACT: CARLOS MURRIETA, AIA
PHONE: (480) 544-8000
EMAIL: carm@mergeag.com

LEGEND

- Found Monument as Noted
- Found Brass Cap Flush
- Found Brass Cap in Hand Hole
- Set ½" Rebar
- Electric Manhole
- Utility Pole
- Guy Anchor
- Electric Meter
- Electric Juction Box
- Electric Vault
- Electric Transformer
- Electric Pull Box
- Light Pole w/Arm
- Electric Panel
- Electric Cabinet
- Light Pole
- Traffic Control Box
- Sign
- Fiber Optic Manhole
- Fiber Optic Marker
- Cable TV Pedestal
- Curb Inlet
- Catch Basin
- Storm Drain Manhole
- Fire Department Connection
- Fire Hydrant
- Air Release Valve
- Irrigation Valve
- Water Valve
- Gas Valve
- Water Manhole
- Water Meter
- Water Back Flow Preventer
- Water Stub Out
- Water Blow Off
- Drywell
- Sewer Clean Out
- Sewer Manhole
- Barricade
- Property Line
- Roadway Center Line
- Right-of-Way (ROW)
- Easement Line (PUE,Esmnt.)
- Breakline
- Iron Fence
- Chain Link Fence
- Barbwired Fence
- Overhead Electric Line
- Fiber Optic Line
- Gas Line
- Water Line
- Sewer Line
- Underground Electric Line
- Cable TV Line
- Telephone Line
- Stormdrain Pipe
- New Asphalt
- Concrete
- Blockwall
- Existing Asphalt
- Traffic Control Light
- Tree

ABBREVIATIONS

(R)	Record
(M)	Measured
PVC	Polyvinyl Chloride Conduit
RCP	Reinforced Concrete Pipe
CMP	Corrugated Metal Pipe
HDPE	High-density Polyethylene
DIP	Ductile Iron Pipe
DOT	Department of Transportation
FCD	Flood Control District
RLS	Registered Land Surveyor
APN	Assessor Parcel Number
POB	Point of Beginning
POC	Point of Commencing
FND	Found
BC	Brass Cap
BCHH	Brass Cap in Hand Hole
SEC	Section
CALC	Calculated
WSE	Water Surface Elevation
BFE	Base Flood Elevation
RFE	Regulatory Flood Elevation
AC	Asphalt Concrete
ABC	Aggregate Base Course



VICINITY MAP
SECTION 19, T17N, R12W
NOT TO SCALE

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1460 South Karen Drive,
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Ph: (480) 275-2711
www.xclengineering.com

CERTIFIED BY:

48178 OSCAR OMAR CERVANTES 04/30/26 REGISTERED PROFESSIONAL ENGINEER ARIZONA U.S.A.

TITLE: GRADING & DRAINAGE PLAN

PROJECT: NTU STUDENTS PLAZA
LOWERPOINT ROAD STATE HWY 371
CROWNPOINT NM 87313

DATE:	REV	DESCRIPTION
DATE1	DATE	

SCALE: 1:20
XCL No.: 26-0058

DRAWING No. GD01

SHEET 1 OF 2

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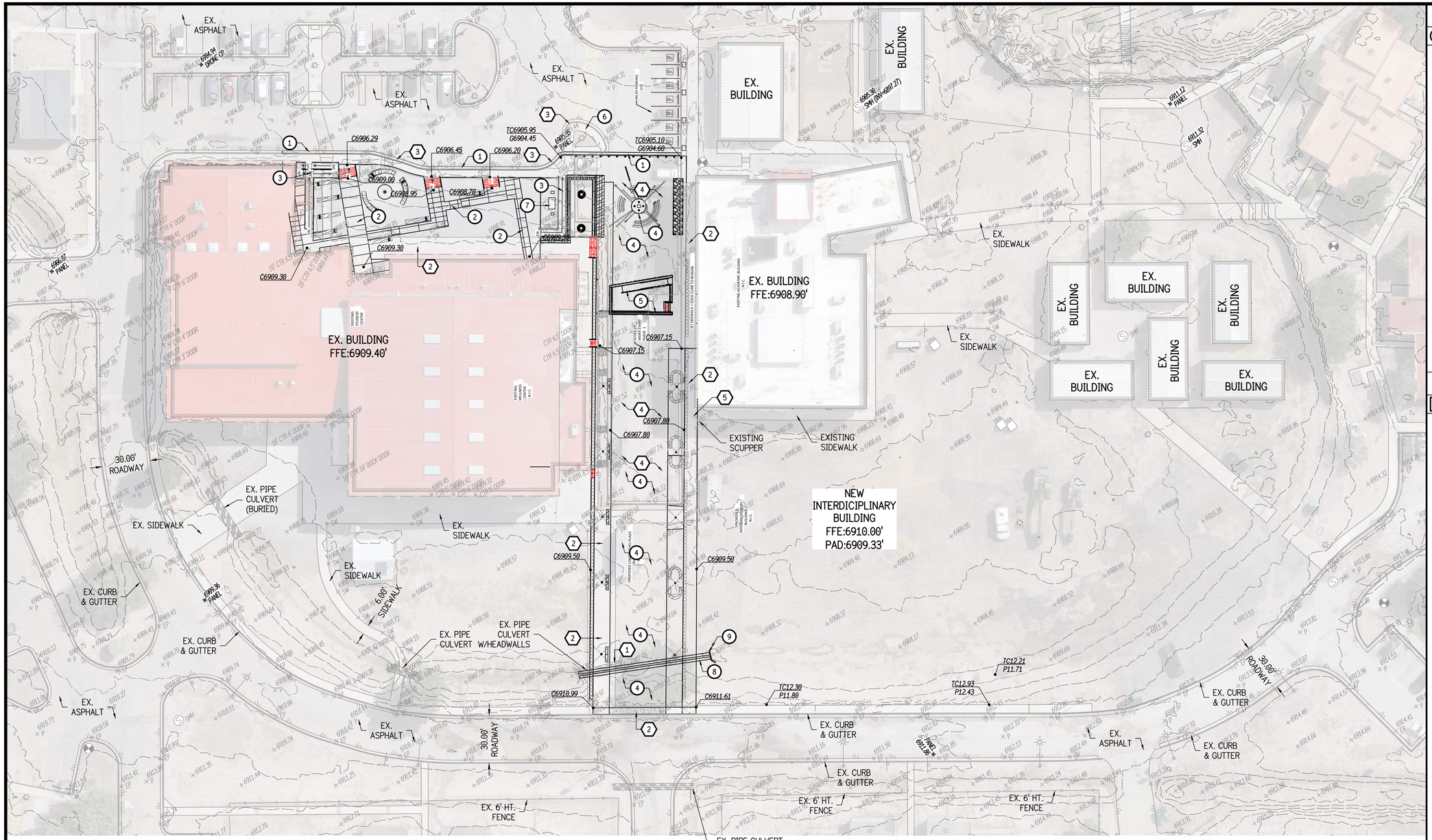
D:\ONEDRIVE_PROJECTS\26-0058 NTU - MERGE ARCHITECTURAL\SURVEY\TOPO SURVEY.DWG 8/31/26



CONSTRUCTION NOTES

ID	DESCRIPTION	QTY	UN
1	CONSTRUCT 6" CONCRETE CURB & GUTTER PER MCKINLEY COUNTY STANDARD DETAIL.		
2	CONSTRUCT 4" CONCRETE WALKWAY OVER 4" ABC. SEE ARCHITECTURAL PLANS FOR FINISHES AND ADDITIONAL DETAILS.		
3	CONSTRUCT PEDESTRIAN A.D.A. RAMP WITH HAND RAILS. LONGITUDINAL SLOPE NOT TO EXCEED 8%. SEE ARCHITECTURAL PLANS FOR MORE DETAILS.		
4	MONUMENT. SEE ARCHITECTURAL PLANS FOR MORE DETAILS.		
5	STUDENT'S STAGE. SEE ARCHITECTURAL PLANS FOR MORE DETAILS.		
6	INSTALL 2 1/2" A.C. OVER 6" A.B.C. PER GEOTECHNICAL REPORT RECOMMENDATIONS.		
7	EXISTING UTILITY BOX TO PROTECT IN PLACE.		
8	INSTALL 2-18" RGRCP PIPE CULVER		
9	INSTALL DOUBLE PIPE CONCRETE HEADWALL PER MCKINLEY COUNTY DETAIL.		

REMOVAL NOTES

ID	DESCRIPTION	QTY	UN
1	REMOVED EXISTING CULVERT & HEADWALL.		
2	REMOVED EXISTING SIDEWALK.		
3	REMOVED EXISTING CURB & GUTTER.		
4	REMOVED EXISTING PAVEMENT.		
5	REMOVED EXISTING SCUPPER.		

0' 10' 20' 40' 60' Feet

SCALE: 1" = 20'

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Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

TITLE: **GRADING & DRAINAGE PLAN**

PROJECT: **NAVAJO TECHNICAL UNIVERSITY**
LOWERPOINT ROAD STATE HWY 371
CROWNPOINT NM 87313

DATE: 6/27/26 | SCALE: 1:20 | XCL No.: 26-0058

REV	DATE	DESCRIPTION

CERTIFIED BY:
OSCAR CERVANTES
49178 OSCAR OMAR CERVANTES
6/31/26
REGISTERED PROFESSIONAL ENGINEER
ARIZONA U.S.A.

DRAWING No. **GD02**
SHEET 2 OF 2

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D:\ONEDRIVE_PROJECTS\26-0058 NTU - MERGE ARCHITECTURAL\SURVEY\TOPO SURVEY.DWG 8/31/26

PLANT MATERIAL LEGEND

SYMBOL	BOTANICAL/COMMON NAME	USES	SIZE (Height,Canopy,& Caliber)	QUAN.
TREES				
	Forestiera neomexicana New Mexico Privet	TC,F	1.5" Cal. Double-Staked Typ.	
	Quercus buckleyi Texas Red Oak	F,W,FU	24" Box 9' 4' 1.5" Double-Staked Typ.	
	Robinia neomexicana New Mexican Locust	W,L,M,FP	24" Box 9' 4' 1.25" Double-Staked Typ.	
	Juniperus deppeana Alligator Juniper	W	24" Box 6' 3' 1.25" Double-Staked Typ.	
	Juniperus osteosperma Utah Juniper	W,M,TC,F,H,FP	24" Box 10' 4' 2" Double-Staked Typ.	
	Robinia p. 'Purple Robe' Purple Robe Black Locust	TC,F	24" Box 8' 5.5' 1.5" Double-Staked Typ.	
SHRUBS				
	Cercocarpus ledifolius Curleaf Mountain Mahogany	W,L,D	5 Gallon	
	Castilleja miniata 'Red' Red Indian Paintbrush	W,L	5 Gallon	
	Ephedra viridis Mormon Tea	M	5 Gallon	
	Rhus trilobata Three Leaf Sumac	B,W,L	5 Gallon	
	Ribes cereum Wax Currant	F,W,M	5 Gallon	
	Fallugia paradoxa 'Apache Plum' Apache Plum	W,L,TC	5 Gallon	
	Opuntia polyacantha Plains Prickly Pear	F,W,M	5 Gallon	
	Penstemon barbatus Scarlet Penstemon	F,W,M	1 Gallon (3 per symbol)	
	Chrysothamnus nauseosus 'Blue' Blue Rabbit Brush	F,W,M	5 Gallon	
GROUNDCOVERS				
	Mahonia repens Creeping Barberry		5 Gallon	
GRASSES				
	Andropogon scoparius Little Bluestem	F,W	5 Gallon	
	Bouteloua 'Zig Zag' Grama Grass	F,W	5 Gallon	
LANDSCAPE MATERIALS				
	Crushed Stone (From the area, as approved by the owner and architect) submit sample prior to installation		1/2" minus 2" Deep	
	Crushed Stone (From the area, as approved by the owner and architect) submit sample prior to installation		3 – 6" 3" Deep	

KEY TO PLANT USES

L	LIVESTOCK FOOD
M	MEDICINAL USES
F	FOOD FOR HUMANS
TC	TOOLS AND CRAFTS
B	BEVERAGES FOR HUMANS
C	CLOTHING
W	WILDLIFE FOOD
FU	FUEL
H	HOMES
FP	FENCE POST
S	SOAP
D	DYE
G	GLUE

LANDSCAPE PLAN

SCALE 1"=20'-0" 0 20 40 80

NORTH

CALL 8-1-1 TWO WORKING DAYS BEFORE YOU DIG.
811
Know what's below.
Call before you dig.

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Landscape Architects since 1983
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Donald Campbell RLA.
don@campbellcollaborative.com
T: (602) 266-1644 F: (602) 266-1607

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OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
NTU CAMPUS MASTER LABORATORY
CROWNPOINT CLINIC STATE ROAD 371

NAVAJO SERVICE RTE 9

PROJECT LOCATION

STATE ROAD 371

VICINITY M

REVISION

PROJECT NO.

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SHEET TITLE

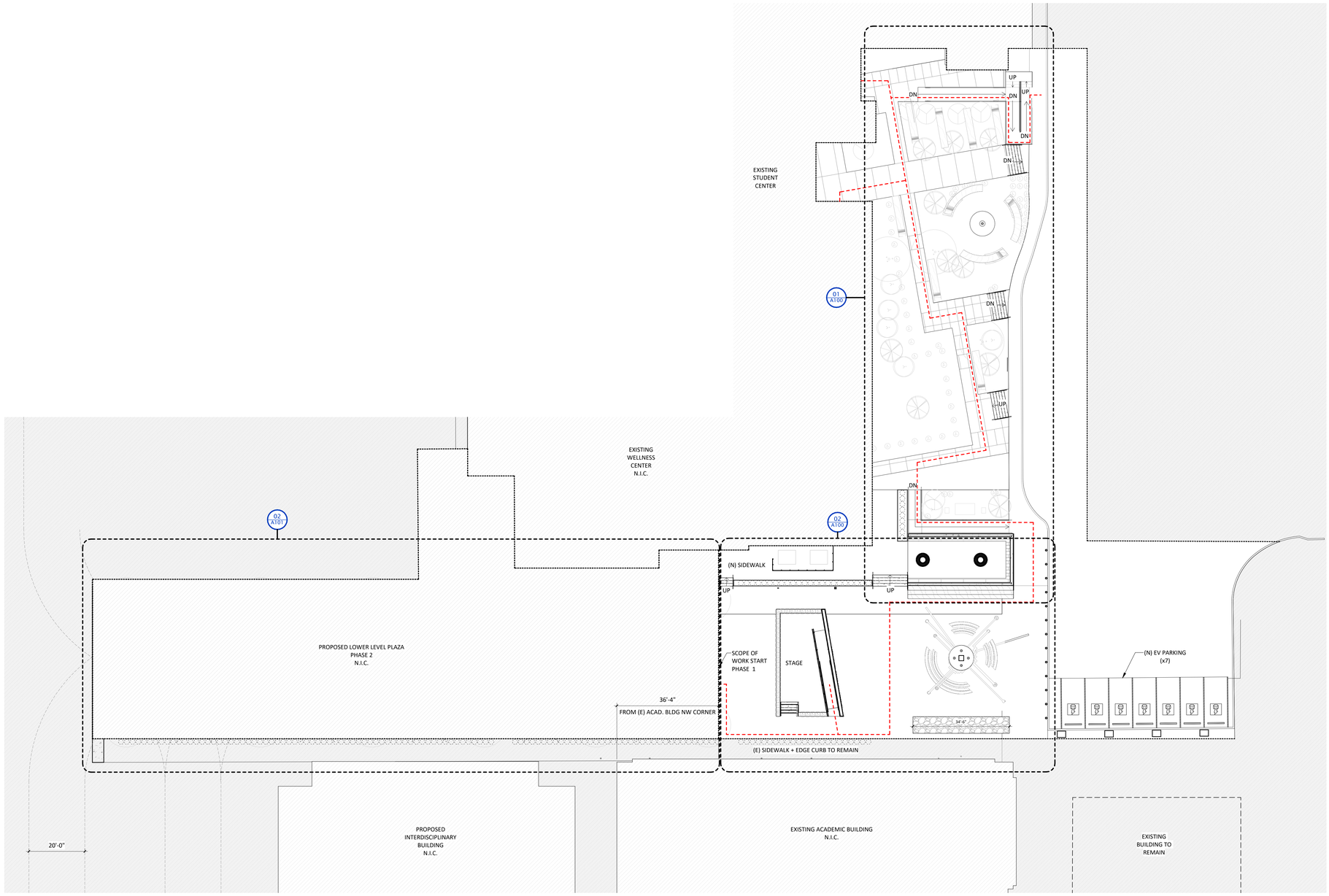
LANDSCAPE PLAN

DATE 08.18.2026

SHEET

L1.0

1 OF 4



PLAZA PLAN - PHASE 1 01
1/16" = 1'-0"

GENERAL SHEET NOTES

1. COORDINATE ALL SPOT ELEVATIONS, SLOPES AND DIMENSIONS WITH CIVIL/LANDSCAPE/STRUCTURAL DRAWINGS
2. PROVIDE POSITIVE DRAINAGE OF 1% MINIMUM / 2% MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS SUCH AS SIDEWALKS, PATIOS, STAIRS, ETC. UNLESS NOTED OTHERWISE
3. PROVIDE POSITIVE DRAINAGE AWAY FROM THE
4. BUILDING OF 5% FOR A DISTANCE OF 10 FEET UNLESS NOTED OTHERWISE.
5. FINISH GRADE SLOPES SHALL BE NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL UNLESS NOTED OTHERWISE.
6. CONTRACTOR TO ENSURE THAT AN ACCESSIBLE PATH CONNECTS THE ADA PARKING STALLS TO THE MAIN ENTRANC.
7. CONTRACTOR TO ENSURE POSITIVE DRAINAGE ACROSS ALL PAVED SURFACES.

SITE GENERAL NOTES

1. TEMPORARY PEDESTRIAN PROTECTION SHALL BE PROVIDED WHERE REQUIRED BY BUILDING USER'S TRAFFIC. COORDINATE WITH OWNER.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES BELOW GRADE AND RELATED SERVICES CONNECTIONS WITH THE RESPECTIVE UTILITY COMPANIES.
3. CONTRACTOR SHALL COORDINATE THE REMOVAL, ABANDONMENT, AND/OR RELOCATION OF EXITING UTILITIES ABOVE OR BELOW GRADE WITH THE RESPECTIVE UTILITY COMPANIES.
4. SEE LANDSCAPE DRAWINGS FOR PLANTING & GROUND MATERIALS TO BE INSTALLED.
5. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM WITH ALL APPLICABLE CODES & ORDINANCES.
6. THIS PROJECT IS LOCATED IN CROWNPOINT, NEW MEXICO, AND HAS BEEN DESIGNATED AS HAVING AN ASSURED WATER SUPPLY
7. ALL NEW UTILITIES WILL BE PLACED UNDERGROUND U.N.O. SEE CIVIL DRAWINGS.
8. ALL GROUND EQUIPMENT AND SATELLITE DISHES SHALL BE SCREENED TO THE HEIGHT OF THE TALLEST EQUIPMENT.
9. LOCATE IRRIGATION CONTROL BOXES ON LANDSCAPE DRAWINGS & SET TOP LEVEL AT SIDEWALK LOCATIONS. PROVIDE CONCRETE BASE AND CASE FOR PROTECTION AS INDICATED BY ARCHITECT.
10. PROVIDE SPLASHBLOCK OR RIP-RAP PER SITE AND CIVIL DRAWINGS.
11. PROVIDE TRENCH DRAINS AT ANY LOCATION WHERE STORMWATER CROSSES ANY PEDESTRIAN SIDEWALK, SEE SITE DETAILS FOR TYPICAL DETAIL.
12. ALL CONCRETE AT SIDEWALKS, EQUIPMENT PADS, RAMPS AND STAIRS TO BE PROVIDED WITH FIBER REINFORCING AS FOLLOWS: SYNTHETIC MICRO-FIBER MONOFILAMENT POLYPROPYLENE MICRO-FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE, COMPLYING WITH ASTM C 1116/C 1116M, TYPE III, 1/2 TO 1 1/2 INCHES LONG.
13. MAXIMUM CROSS-SLOPES FOR SIDEWALKS NOT TO EXCEED 2.0%.
14. MINIMUM SLOPE AT SIDEWALKS FOR WATER DRAINAGE PURPOSES TO NO LESS THAN 1.0% AND NOT TO EXCEED 2%.
15. SIDEWALK AND SLAB CONTROL JOINTS NOT SHOWN FOR DRAWING CLARITY; CONTROL JOINTS TO BE PROVIDED AT 5'-0" O.C. MAXIMUM OR AT EQUAL SPACE DISTRIBUTED ALONG THE LENGHT OF THE SURFACE. SEE ALSO SITE DETAILS.
16. SIDEWALK AND SLAB CONSTRUCTION/EXPANSION JOINTS NOT SHOWN FOR DRAWING CLARITY; EXPANSION JOINTS TO BE PROVIDED AT 25'-0" O.C. MAXIMUM OR AT EQUAL SPACE DISTRIBUTED ALONG THE LENGHT OF THE SURFACE. SEE ALSO SITE DETAILS.

GENERAL DESCRIPTION OF MATERIALS AND FINISHES

BENCHES: CO-04
CAST IN PLACE CONCRETE CONSTRUCTION PER DRAWINGS, BOARD FORMED FINISH WITH REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
NATURAL CONCRETE GREY COLOR
SITTING SURFACES MADE FROM POLY LUMBER (HIGH-DENSITY POLYETHYLENE, MIN. 4" THICKNESS PLANKS) ATTACHED TO CONCRETE BASES

SITE WALLS (CONCRETE EXPOSED TO VIEW)
CAST IN PLACE CONCRETE, BOARD FORMED FINISH WITH
REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
NATURAL CONCRETE GREY COLOR

SITE WALLS WITH STEEL PLATE FINISH ST-01
CAST IN PLACE CONCRETE, REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
NATURAL CONCRETE GREY COLOR

STEEL PLATE FINISH PER DRAWINGS, BLACKENED STEEL (HOT BLACKENING) WITH CLEAR COAT FINISH CONCEALED STAINLESS MOUNTING CLIPS ON BACKSIDE OF PANELS PER DETAILS. EXPOSED, COUNTERSUNK FASTENERS WHERE INDICATED ON DRAWINGS. SSTL FASTENERS TO BE BLACK OXIDE TREATED TO MATCH ADJACENT STEEL PLATE FINISH.

STAIRS & STEPS CO-01
CAST IN PLACE CONCRETE, SMOOTH ACID-WASHED FINISH WITH
REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
NATURAL CONCRETE GREY COLOR
PROVIDE STAINLESS STEEL INLAYS AT EACH TREAD NOSING FOR VISIBILITY OF TREAD EDGES.

FLATWORK
ALSO SEE CIVIL
FLAT CONCRETE SURFACES ON **LOWER PLAZA: CO-01**
ENGINEERED TO SUPPORT WEIGHTS OF EMERGENCY VEHICLES. LIGHT BROOM FINISH WITH REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
NATURAL CONCRETE GREY COLOR

CONTROL JOINT PATTERN PER DRAWINGS (10'x8' SPACING)
CAULK AND SAND JOINTS

FLAT CONCRETE SURFACES ON **LOWER PLAZA @ NTU LOGO: CO-02**
ACID WASHED FINISH WITH REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
INTEGRAL CONCRETE COLOR (COLOR T.B.D.)

FLAT CONCRETE SURFACES ON **UPPER PLAZA: CO-03**
SMOOTH ACID-WASHED FINISH WITH REACTIVE CONCRETE SEALERS (HYDROPHOBIC SILANE OR SILOXANE PENETRATING SEALER)
NATURAL CONCRETE GREY COLOR

CONTROL JOINT PATTERN PER DRAWINGS (10'x8' SPACING)
CAULK AND SAND JOINTS

PLAZA LEGEND

- PROPOSED PLANTING
- ACCESSIBILITY ROUTE
- FIRE TRUCK PATH
- LIGHTING
- EXISTING SITE/NOT IN SCOPE
- EXISTING/FUTURE BUILDINGS/NOT IN SCOPE

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SEAL

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OWNER INFORMATION
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Crownpoint Campus
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM

NAVAJO SERVICE RTE 9
PROJECT LOCATION
STATE ROAD 371
VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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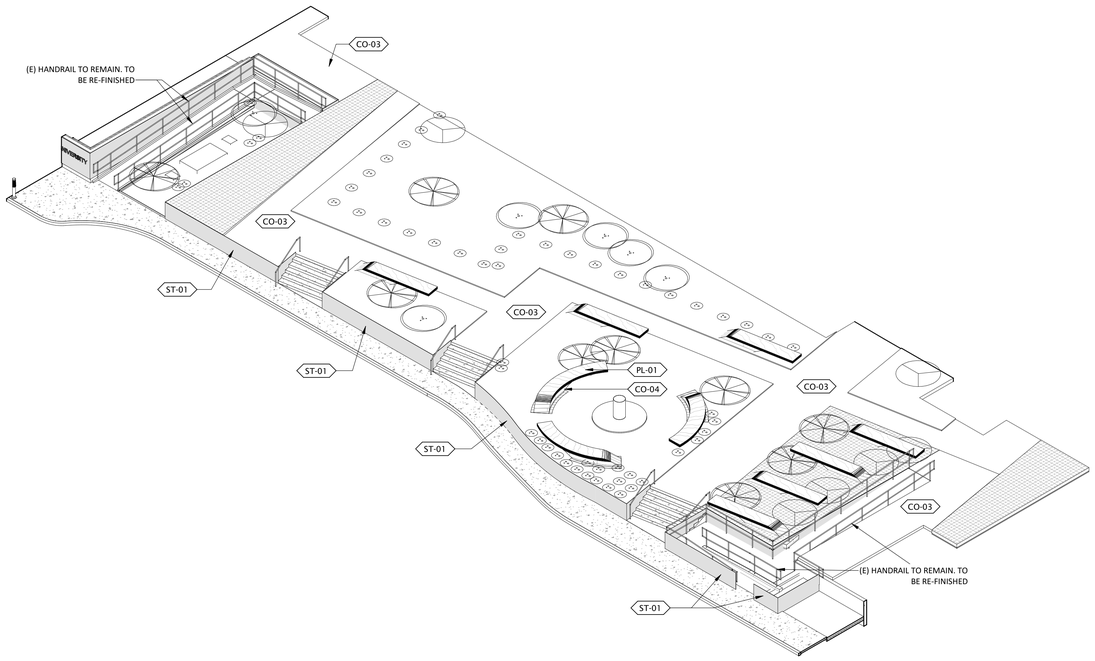
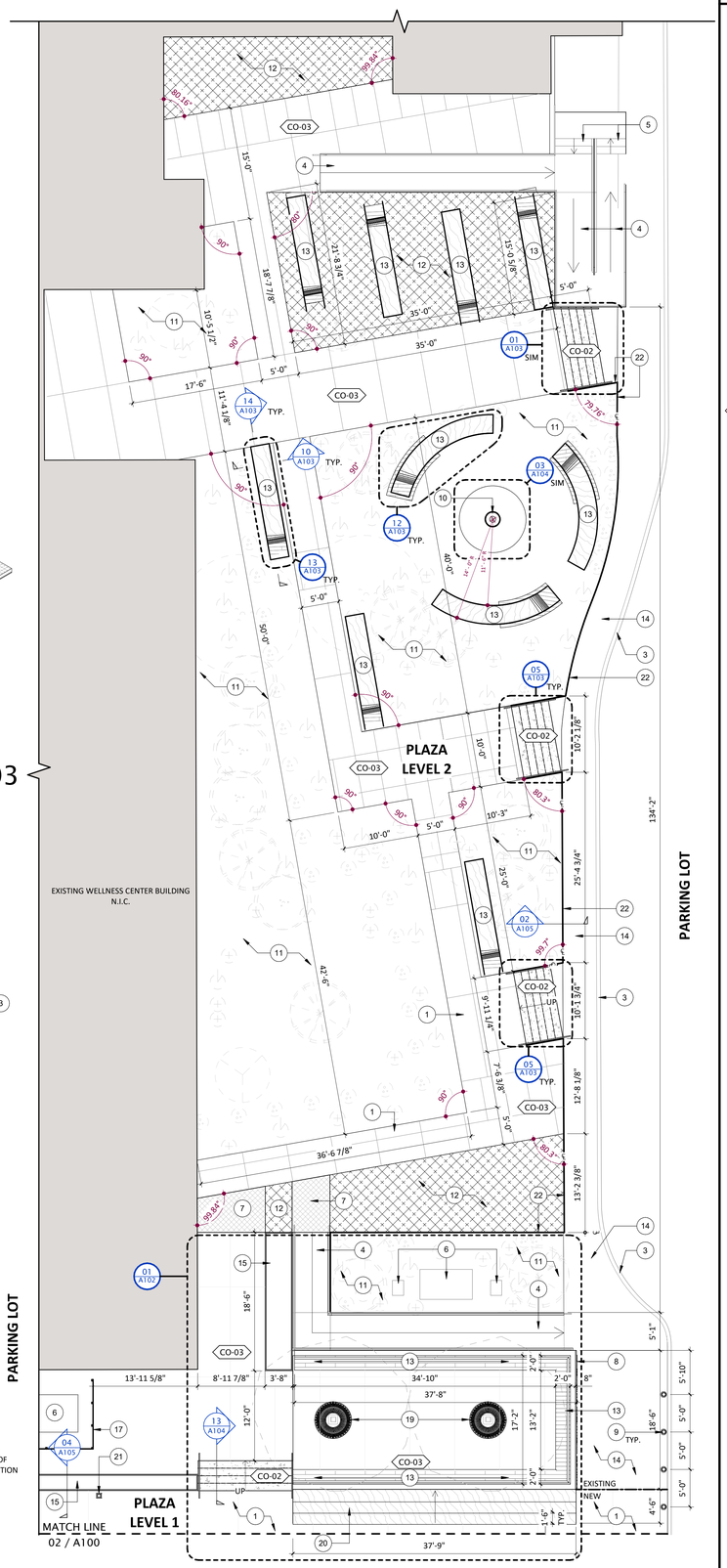
SHEET TITLE

PLAZA PLAN

DATE 08.31.2026
SHEET **A001**



AXON - OVERALL UPPER PLAZA - PHASE 1 03



LOW PLAZA LEVEL - PHASE 1 02
1/8" = 1'-0"

UPPER PLAZA LEVEL - PHASE 1 01
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DIMENSIONS SHOWN ON FLOOR PLANS, SECTIONS, ELEVATIONS AND DETAILS ARE TO FACE OF STUD, MASONRY, CONCRETE, OR GRIDELINES, UNLESS NOTED OTHERWISE.
2. COORDINATE WITH CIVIL DRAWINGS FOR FINISH FLOOR ELEVATION.

(00) KEYNOTES:

NOTE: NOT ALL KEYNOTES MAY BE USED ON THIS SHEET.

1. 4-INCH THICK, CAST-IN-PLACE CONCRETE SIDEWALK. OVER 4" A.B.C. - FINISH PER PATTERN AS INDICATED, CONTROL AND EXPANSION JOINTS PER SITE DETAILS.
2. 6-INCH THICK, CAST-IN-PLACE CONCRETE SIDEWALK. OVER 4" A.B.C. - FINISH PER PATTERN AS INDICATED, CONTROL AND EXPANSION JOINTS PER SITE DETAILS.
3. EXISTING CONCRETE CURB.
4. EXISTING RAMP AND GUARDRAILS TO REMAIN.
5. EXISTING STAIRS TO REMAIN.
6. EXISTING UTILITIES TO REMAIN.
7. ADA PEDESTRIAN CONNECTION.
8. NTU SIGNAGE, MOUNTED ON WALL.
9. 6" DIA. LIGHT BOLLARD.
10. 12" DIA. LIGHT-UP BOLLARD.
11. SEE LANDSCAPE DRAWINGS FOR PLANTING AND SUBSTRATE MATERIALS.
12. GRASSCRETE PAVERS, NATURAL CONCRETE GRAY.
13. CONCRETE BASE BENCH WITH PLASTIC POLY-LUMBER SEAT.
14. EXISTING SIDEWALK TO REMAIN.
15. 3/8" STEEL PLANTER.
16. NTU LOGO, INTEGRAL CONCRETE COLOR.
17. NEW PERFORATED METAL SCREEN FOR EXISTING UNITS, VERIFY IN SURVEY.
18. SCULPTURE, PROVIDED BY OWNER.
19. NEW TREE GRATES.
20. SPANISH STEPS WITH CONCRETE BASE AND PLASTIC POLY-LUMBER TOP.
21. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS.
22. 3/8" STEEL PLATE PANEL.
23. FIRE TRUCK ACCESS THROUGH PLAZA, ENGINEER TO DESIGN ACCORDINGLY.

(?) MATERIALS LEGEND:

CO-01
CODE: CO-01
LOCATION: LOWER PLAZA
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: NATURAL GREY CONCRETE
FINISH: LIGHT BROOM FINISH WITH REACTIVE CONCRETE SEALERS.
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

CO-02
CODE: CO-02
LOCATION: LOWER PLAZA @ NTU LOGO
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: INTEGRAL CONCRETE COLOR (COLOR T.B.D.)
FINISH: ACID WASHED FINISH WITH REACTIVE CONCRETE SEALERS
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

CO-03
CODE: CO-03
LOCATION: UPPER PLAZA
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: NATURAL GREY CONCRETE
FINISH: SMOOTH ACID WASHED FINISH WITH REACTIVE CONCRETE SEALERS
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

CO-04
CODE: CO-04
LOCATION: BENCHES & SITE WALLS
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: NATURAL GREY CONCRETE
FINISH: BOARD FORMED FINISH WITH REACTIVE CONCRETE SEALERS
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

ST-01
CODE: ST-01
LOCATION: SITE WALLS, STEEL PLATE
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: BLACKENED STEEL
FINISH: CLEAR COAT FINISH
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

L-01
CODE: L-01
LOCATION: STAGE PLANTERS
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: BY LANDSCAPE CONSULTANT
FINISH: -
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

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Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
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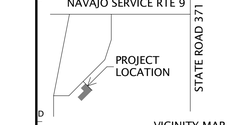
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM



VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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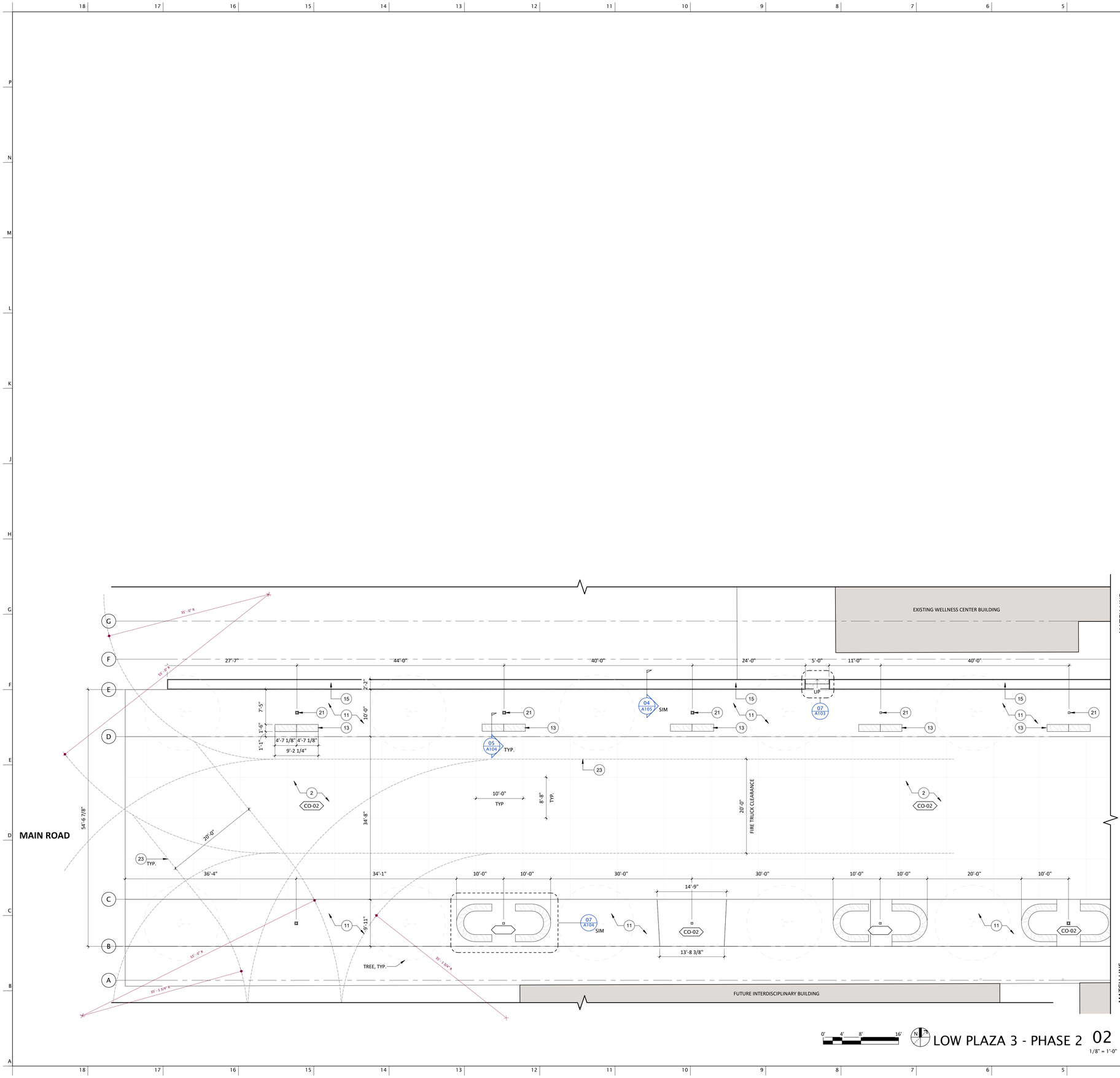
SHEET TITLE
UPPER AND LOWER PLAZA

DATE 08.31.2026
SHEET **A100**



FLOOR PLAN GENERAL NOTES

1. DIMENSIONS SHOWN ON FLOOR PLANS, SECTIONS, ELEVATIONS AND DETAILS ARE TO FACE OF STUD, MASONRY, CONCRETE, OR GRIDELINES, UNLESS NOTED OTHERWISE.
2. COORDINATE WITH CIVIL DRAWINGS FOR FINISH FLOOR ELEVATION.

(00) KEYNOTES:

NOTE: NOT ALL KEYNOTES MAY BE USED ON THIS SHEET.

1. 4-INCH THICK, CAST-IN-PLACE CONCRETE SIDEWALK. OVER 4" A.B.C. - FINISH PER PATTERN AS INDICATED, CONTROL AND EXPANSION JOINTS PER SITE DETAILS.
2. 6-INCH THICK, CAST-IN-PLACE CONCRETE SIDEWALK. OVER 4" A.B.C. - FINISH PER PATTERN AS INDICATED, CONTROL AND EXPANSION JOINTS PER SITE DETAILS.
3. EXISTING CONCRETE CURB.
4. EXISTING RAMP AND GUARDRAILS TO REMAIN.
5. EXISTING STAIRS TO REMAIN.
6. EXISTING UTILITIES TO REMAIN.
7. ADA PEDESTRIAN CONNECTION.
8. NTU SIGNAGE, MOUNTED ON WALL.
9. 6" DIA. LIGHT BOLLARD.
10. 12" DIA. LIGHT-UP BOLLARD.
11. SEE LANDSCAPE DRAWINGS FOR PLANTING AND SUBSTRATE MATERIALS.
12. GRASSCRETE PAVERS, NATURAL CONCRETE GRAY.
13. CONCRETE BASE BENCH WITH PLASTIC POLY-LUMBER SEAT.
14. EXISTING SIDEWALK TO REMAIN.
15. 3/8" STEEL PLANTER.
16. NTU LOGO, INTEGRAL CONCRETE COLOR.
17. NEW PERFORATED METAL SCREEN FOR EXISTING UNITS, VERIFY IN SURVEY.
18. SCULPTURE, PROVIDED BY OWNER.
19. NEW TREE GRATES.
20. SPANISH STEPS WITH CONCRETE BASE AND PLASTIC POLY-LUMBER TOP.
21. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS.
22. 3/8" STEEL PLATE PANEL.
23. FIRE TRUCK ACCESS THROUGH PLAZA, ENGINEER TO DESIGN ACCORDINGLY.

(?) MATERIALS LEGEND:

CO-01
CODE: CO-01
LOCATION: LOWER PLAZA
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: NATURAL GREY CONCRETE
FINISH: LIGHT BROOM FINISH WITH REACTIVE CONCRETE SEALERS.
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

CO-02
CODE: CO-02
LOCATION: LOWER PLAZA @ NTU LOGO
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: INTEGRAL CONCRETE COLOR (COLOR T.B.D.)
FINISH: ACID WASHED FINISH WITH REACTIVE CONCRETE SEALERS
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

CO-03
CODE: CO-03
LOCATION: UPPER PLAZA
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: NATURAL GREY CONCRETE
FINISH: SMOOTH ACID WASHED FINISH WITH REACTIVE CONCRETE SEALERS
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

CO-04
CODE: CO-04
LOCATION: BENCHES & SITE WALLS
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: NATURAL GREY CONCRETE
FINISH: BOARD FORMED FINISH WITH REACTIVE CONCRETE SEALERS
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

ST-01
CODE: ST-01
LOCATION: SITE WALLS, STEEL PLATE
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: BLACKENED STEEL
FINISH: CLEAR COAT FINISH
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

L-01
CODE: L-01
LOCATION: STAGE PLANTERS
MANUFACTURER: -
MODEL NUMBER: -
SIZE: -
COLOR: BY LANDSCAPE CONSULTANT
FINISH: -
NOTE: SEE SHEET A001 FOR MORE INFORMATION.
CONTACT: -

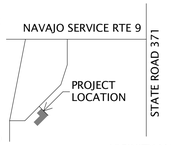
MERGE ARCHITECTURAL GROUP
555 E FILLMORE ST, SUITE 100
PHOENIX ARIZONA 85004
P (602) 635 1581
F (602) 635 1581
cam@mergeAG.com
cdc@mergeAG.com

SEAL

BID SET NOT FOR CONSTRUCTION

OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM



VICINITY MAP

REVISION

NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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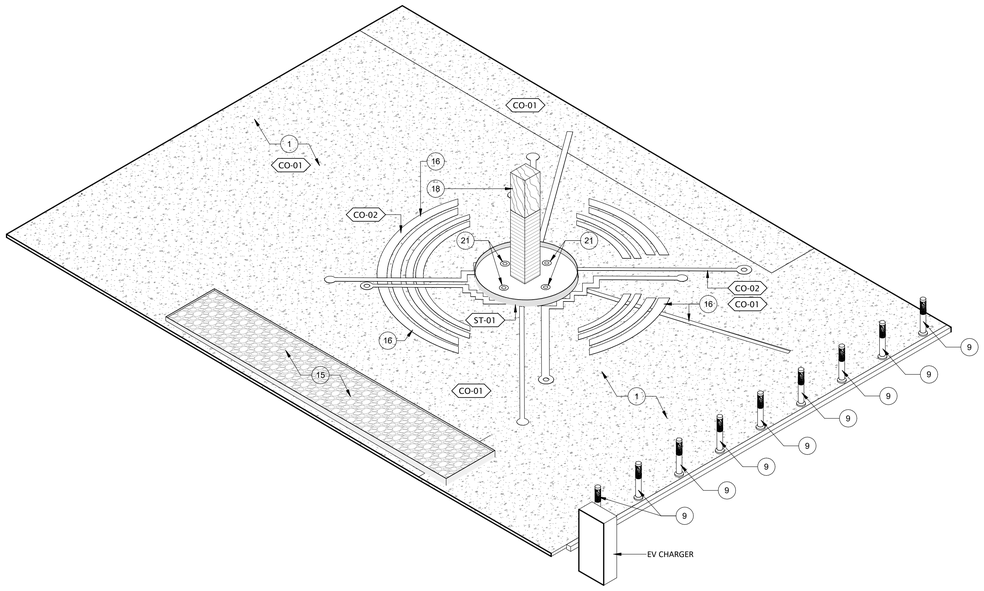
SHEET TITLE

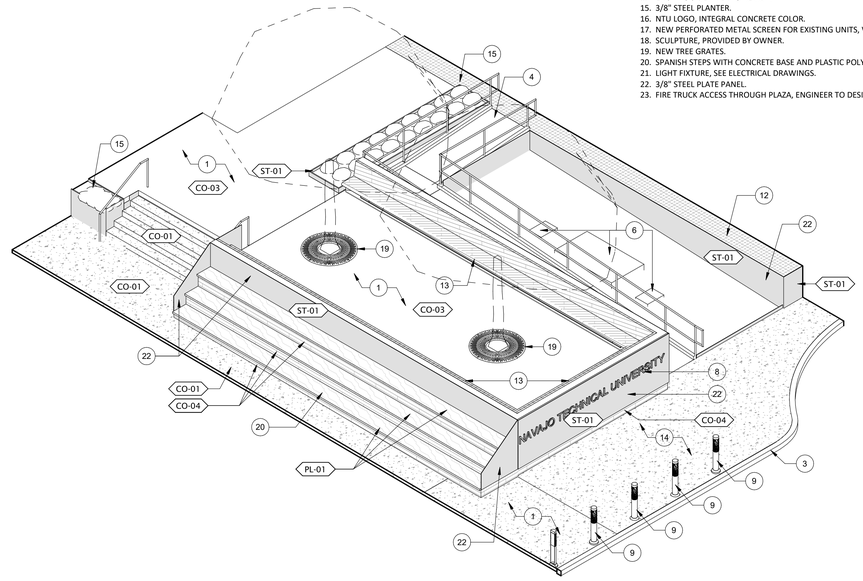
LOW PLAZA - PHASE 02

DATE 08.31.2026

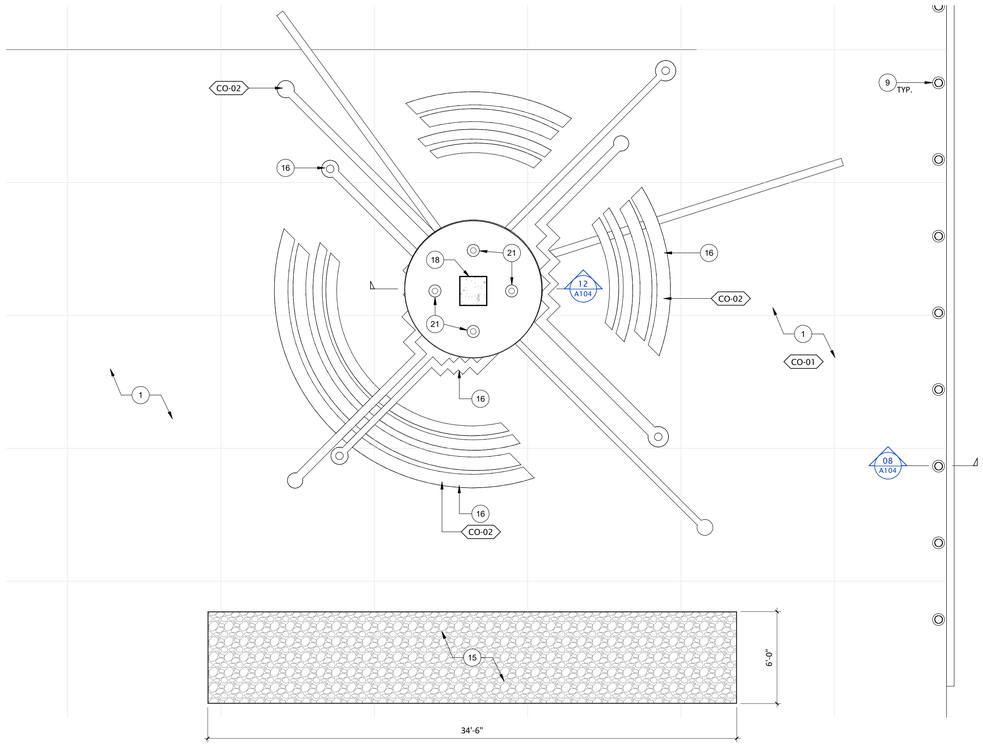
SHEET **A101**



AXON - STATUE AREA 04

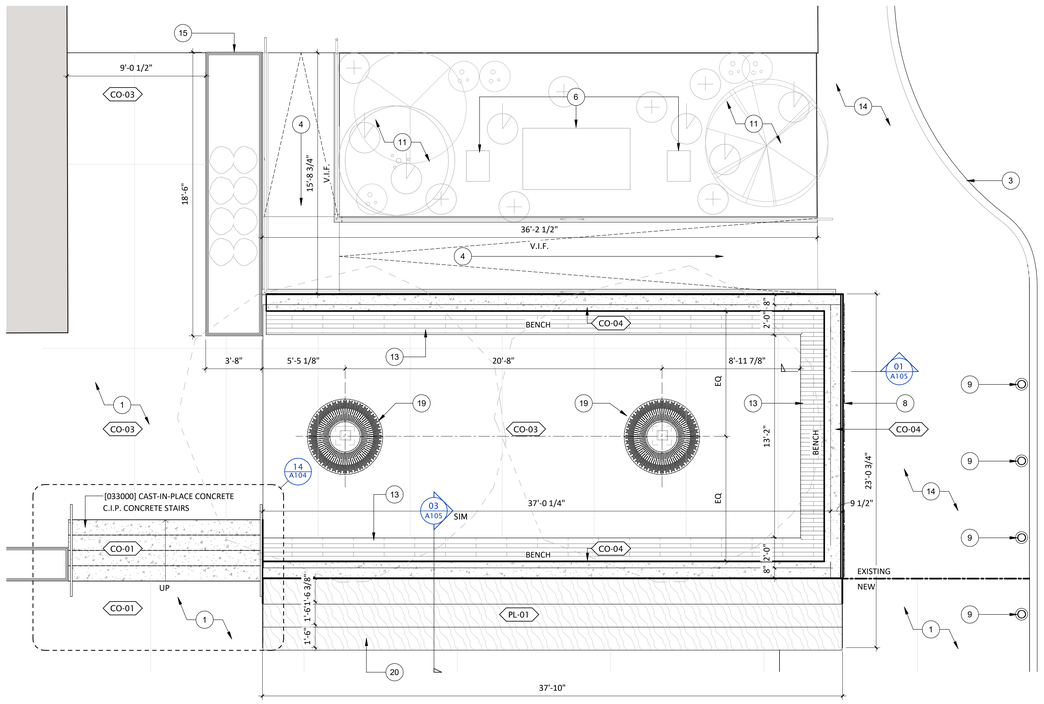


AXON - PLANTER SEATING 02



ENLARGED PLAN MONUMENT & GROUND GRAPHICS 03

1/4" = 1'-0"



ENLARGED PLANTER BENCH DETAIL 01

1/4" = 1'-0"

MERGE
ARCHITECTURAL
GROUP
555 E FILLMORE ST, SUITE 100
PHOENIX ARIZONA 85004
P (602) 635 1581
F (602) 635 1581
cam@mergeAG.com
cdc@mergeAG.com

00 KEYNOTES:

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22. 3/8" STEEL PLATE PANEL.
23. FIRE TRUCK ACCESS THROUGH PLAZA, ENGINEER TO DESIGN ACCORDINGLY.

MATERIALS LEGEND:

SEE SHEET A001 FOR MORE INFORMATION

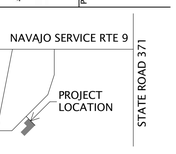
CO-01	NATURAL GRAY LIGHT BROOM CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-02	INTEGRAL CONCRETE COLOR ACID WASHED FINISH CONCRETE WITH REACTIVE SEALERS.
CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-04	NATURAL GRAY BOARD FORMED CONCRETE FINISH WITH REACTIVE SEALERS
ST-01	BLACKENED STEEL CLEAR COAT FINISH
L-01	LANDSCAPE PER CONSULTANTS

SEAL

BID SET NOT FOR CONSTRUCTION

OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM



VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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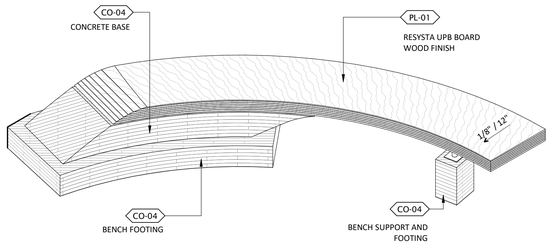
SHEET TITLE

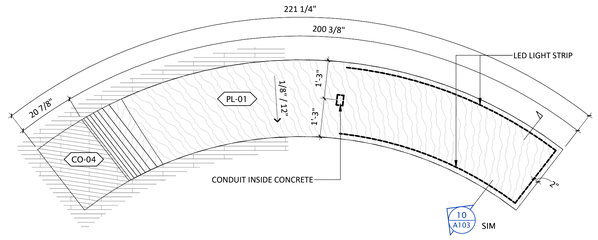
ENLARGED PLANS & AXON VIEWS

DATE 08.31.2026

SHEET **A102**

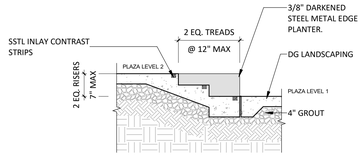


CURVED BENCH - AXON 16



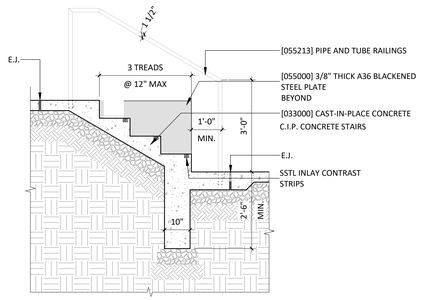
CURVED BENCH - PLAN 12

1/2" = 1'-0"



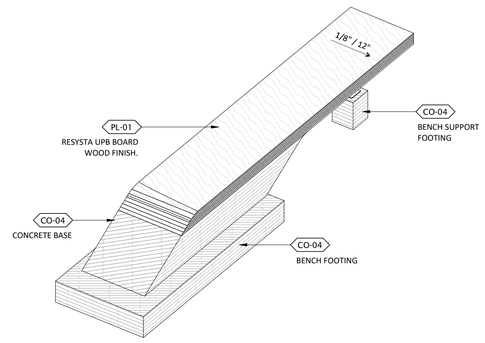
STAIRS 06 SECTION 08

1/2" = 1'-0"

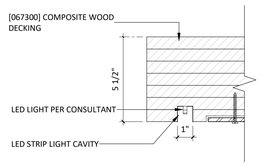


STAIRS 04

1/2" = 1'-0"

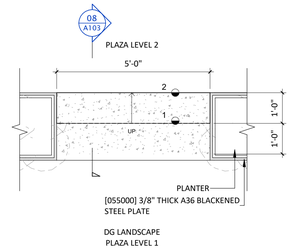


STRAIGHT BENCH - AXON 15



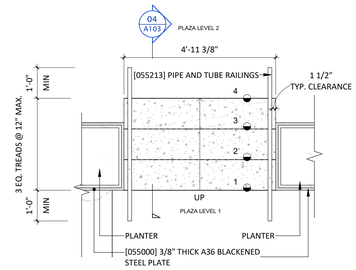
BENCH RECESSED LIGHT 11

3" = 1'-0"



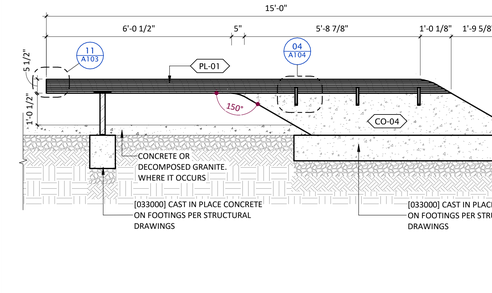
ENLARGED STAIRS 07

1/2" = 1'-0"



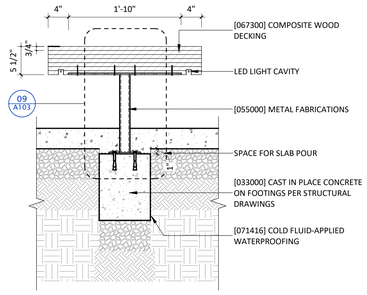
ENLARGED STAIRS 03

1/2" = 1'-0"



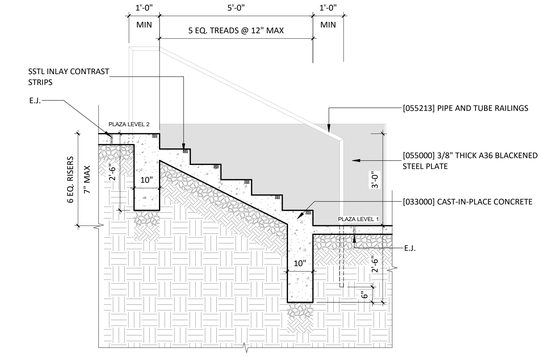
BENCH DETAIL 14

1/2" = 1'-0"



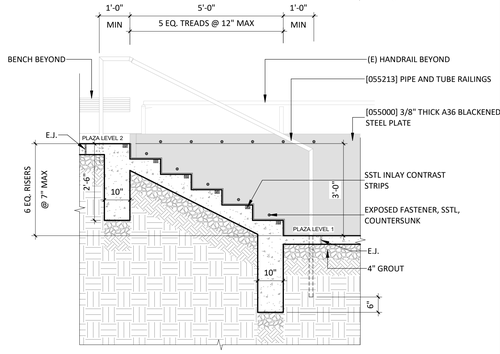
BENCH SUPPORT SECTION 10

1" = 1'-0"



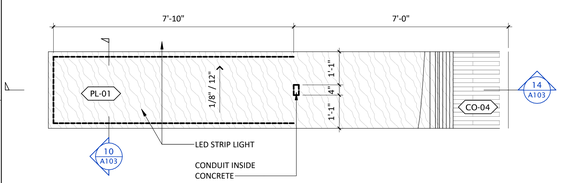
STAIRS 06

1/2" = 1'-0"



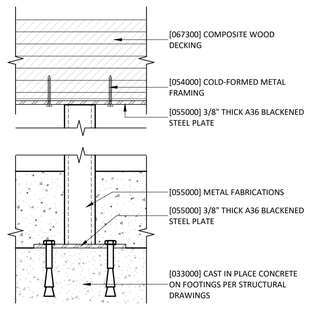
STAIRS 02

1/2" = 1'-0"



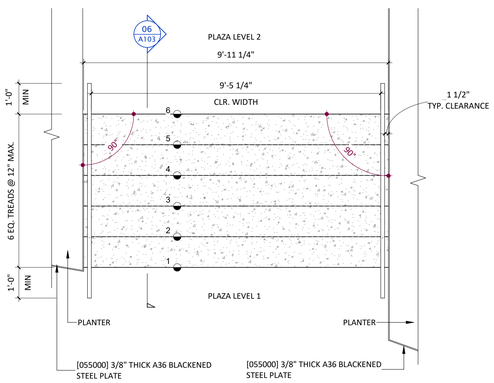
STRAIGHT BENCH - PLAN 13

1/2" = 1'-0"



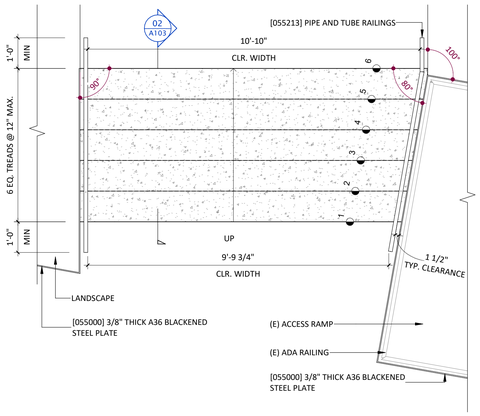
BENCH SUPPORT ATTACHMENT 09

3" = 1'-0"



ENLARGED STAIRS 05

1/2" = 1'-0"



ENLARGED STAIRS 01

1/2" = 1'-0"

MERGE
ARCHITECTURAL
GROUP
555 E FILLMORE ST, SUITE 100
PHOENIX ARIZONA 85004
P (602) 635 1581
F (602) 635 1581
cam@mergeAG.com
cdc@mergeAG.com

MATERIALS LEGEND:

SEE SHEET A001 FOR MORE INFORMATION

CO-01	NATURAL GRAY LIGHT BROOM CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-02	INTEGRAL CONCRETE COLOR ACID WASHED FINISH CONCRETE WITH REACTIVE SEALERS.
CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-04	NATURAL GRAY BOARD FORMED CONCRETE FINISH WITH REACTIVE SEALERS
ST-01	BLACKENED STEEL CLEAR COAT FINISH
L-01	LANDSCAPE PER CONSULTANTS

SEAL

BID SET NOT FOR CONSTRUCTION

OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM

VICINITY MAP

REVISION

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PROJECT NO. 24C-010

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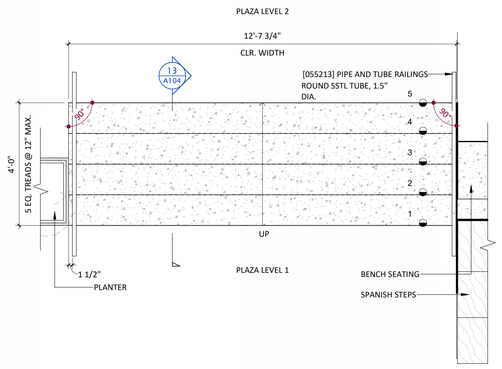
SHEET TITLE

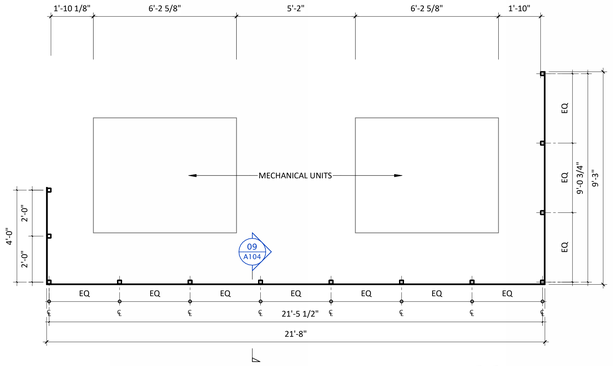
DETAILS UPPER PLAZA

DATE 08.31.2026

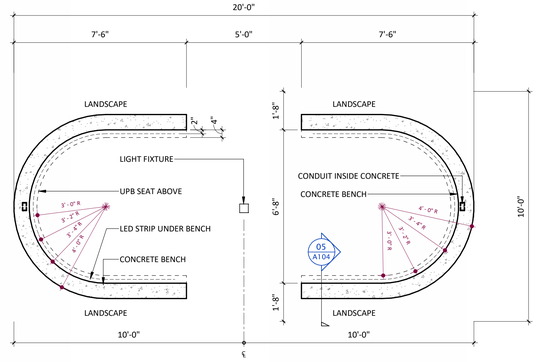
SHEET **A103**



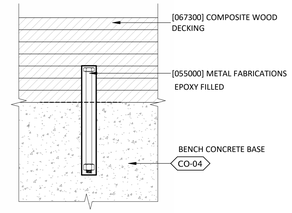
ENLARGED STAIRS 14
1/2" = 1'-0"



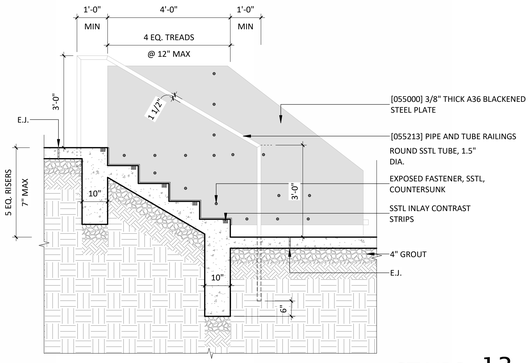
MECH SCREEN - PLAN 11
3/8" = 1'-0"



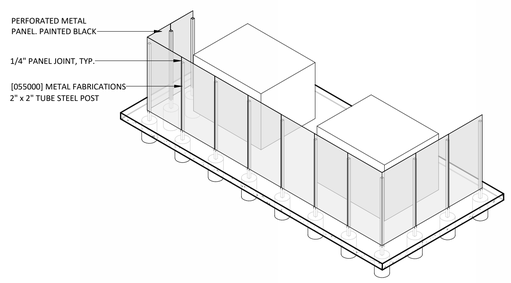
SEATING AREA - PLAN 07
3/8" = 1'-0"



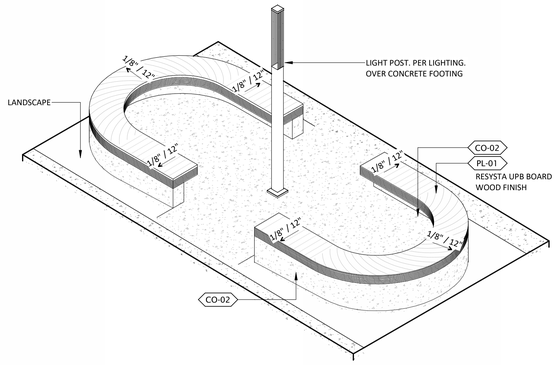
BENCH SEAT ATTACHMENT 04
3" = 1'-0"



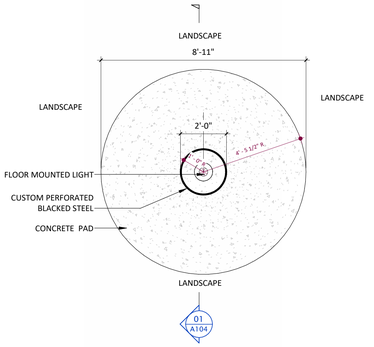
STAIRS 13
1/2" = 1'-0"



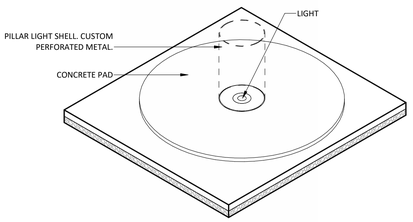
MECH SCREEN - AXON 10



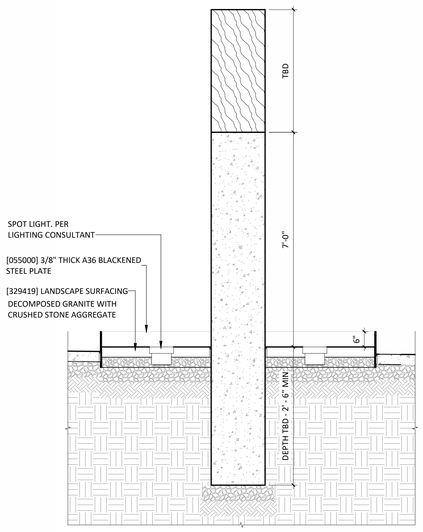
SEATING AREA - AXON 06



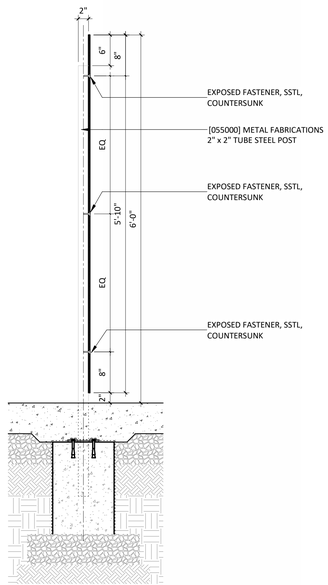
PILLAR LIGHT - PLAN 03
3/8" = 1'-0"



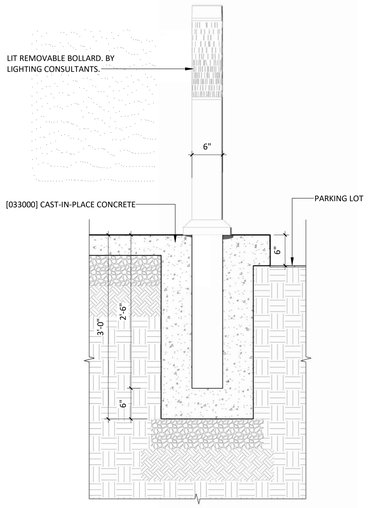
PILAR LIGHT - AXON 02



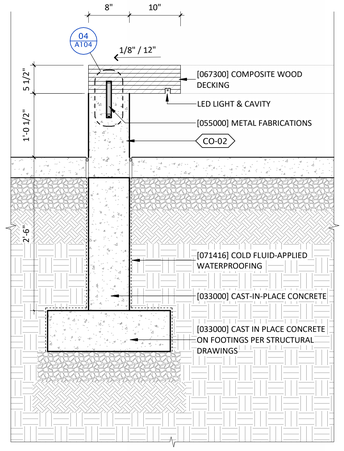
MONUMENT SECTION 12
1/2" = 1'-0"



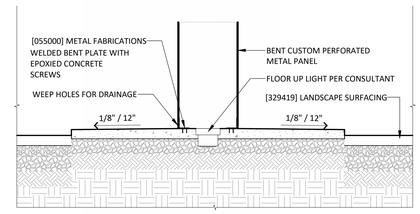
TYP. SECTION @ SCREEN WALL 09
1" = 1'-0"



BOLLARD SECTION 08
1" = 1'-0"



SEATING AREA - SECTION 05
1" = 1'-0"



PILLAR LIGHT 01
1/2" = 1'-0"

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MATERIALS LEGEND:

SEE SHEET A001 FOR MORE INFORMATION

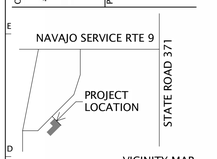
CO-01	NATURAL GRAY LIGHT BROOM CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-02	INTEGRAL CONCRETE COLOR ACID WASHED FINISH CONCRETE WITH REACTIVE SEALERS.
CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-04	NATURAL GRAY BOARD FORMED CONCRETE FINISH WITH REACTIVE SEALERS
ST-01	BLACKENED STEEL CLEAR COAT FINISH
L-01	LANDSCAPE PER CONSULTANTS

SEAL

BID SET NOT FOR CONSTRUCTION

OWNER INFORMATION
NAVAJO TECHNICAL UNIVERSITY
Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

PROJECT
NTU STUDENTS PLAZA
CROWNPOINT CAMPUS STATE ROAD 371
CROWNPOINT, NM



VICINITY MAP

REVISION

NUMBER	DESCRIPTION	DATE

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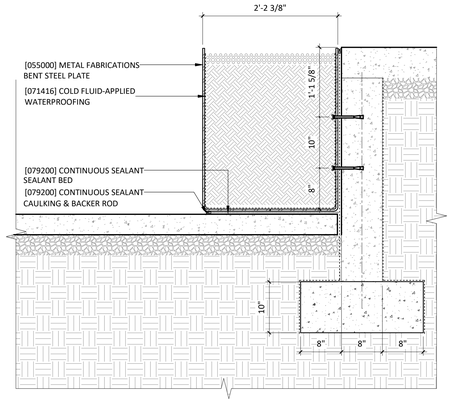
SHEET TITLE

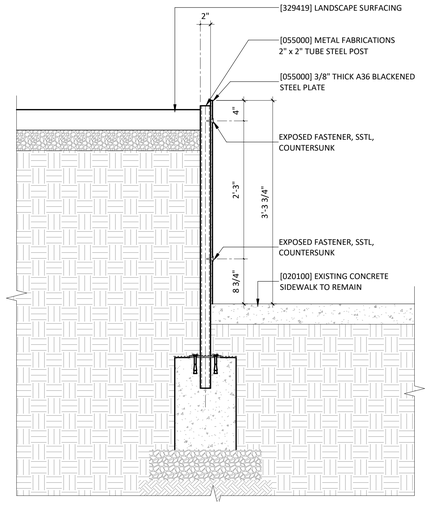
ENLARGED PLANS & DETAILS LOWER PLAZA

DATE 08.31.2026

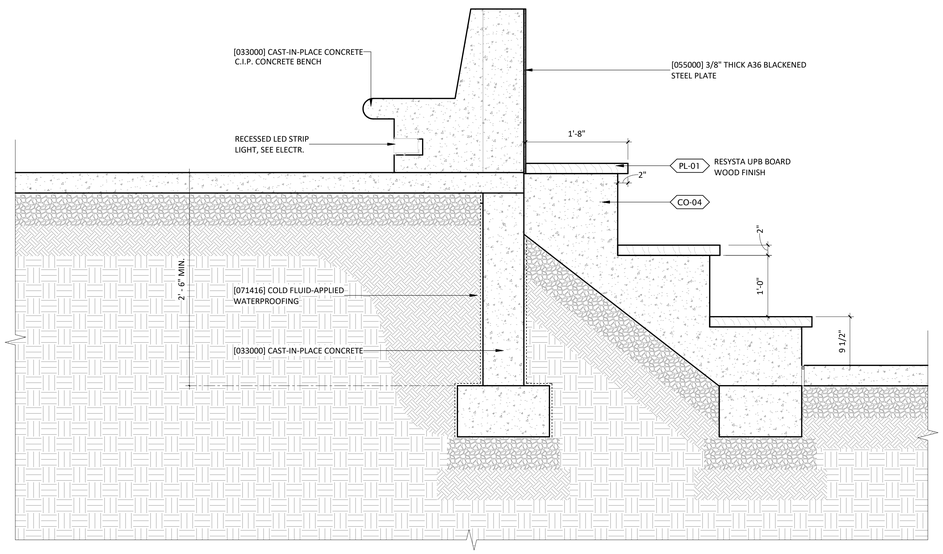
SHEET **A104**



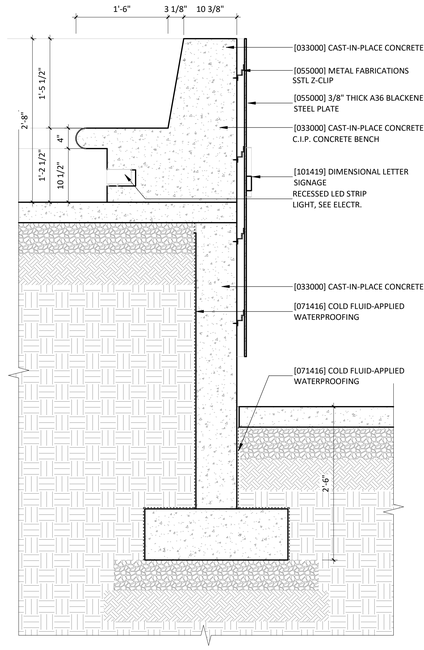
PLANTER @ LOWER PLAZA 04
1" = 1'-0"



STEEL PLATE @ LANDSCAPE 02
1" = 1'-0"



PLANTER BENCH CROSS SECTION 03
1" = 1'-0"



PLANTER BENCH & SIGN 01
1" = 1'-0"

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MATERIALS LEGEND:

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CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-04	NATURAL GRAY BOARD FORMED CONCRETE FINISH WITH REACTIVE SEALERS
ST-01	BLACKENED STEEL CLEAR COAT FINISH
L-01	LANDSCAPE PER CONSULTANTS

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Crownpoint Campus
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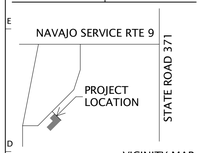

VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

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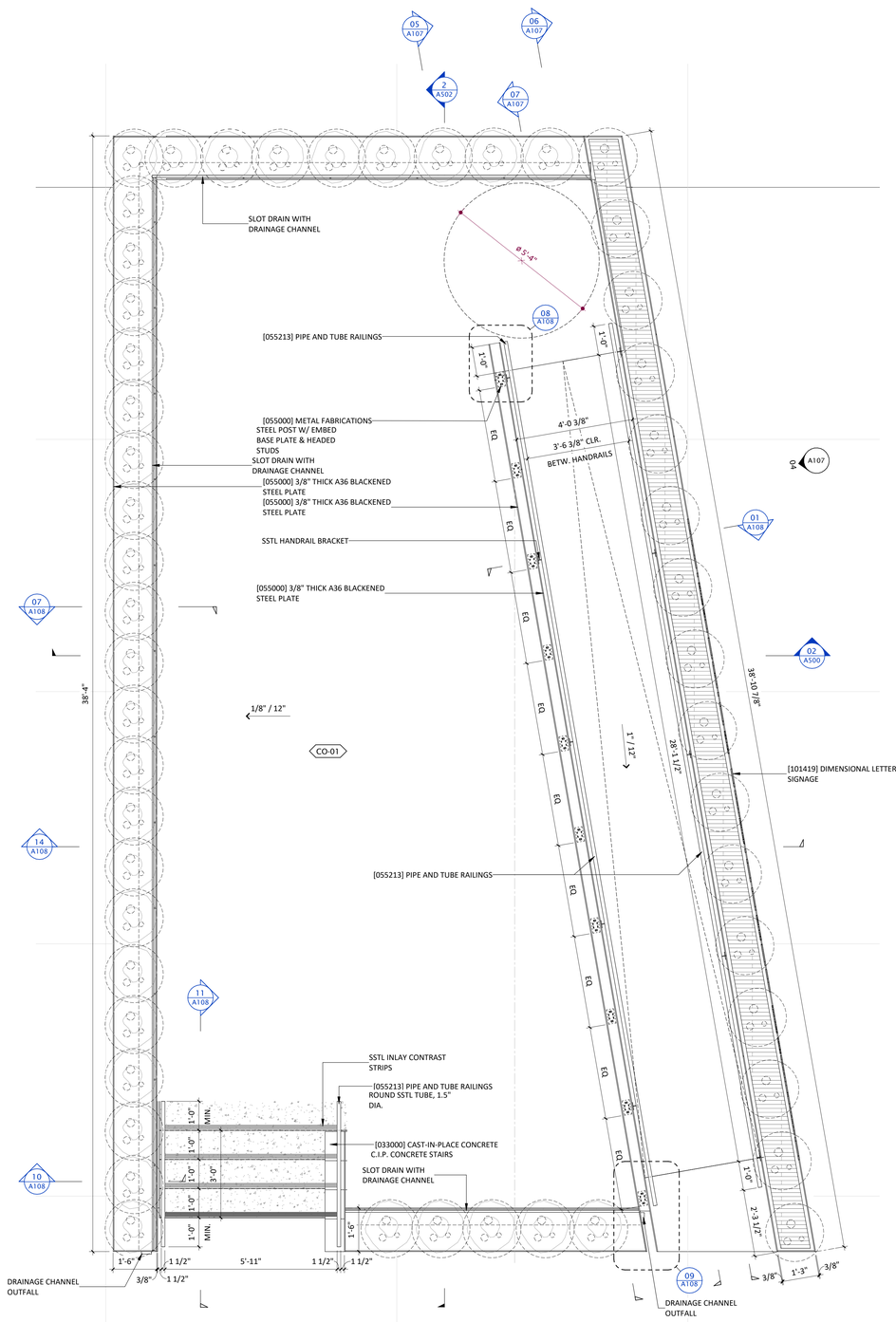
SHEET TITLE

PLAZA DETAILS

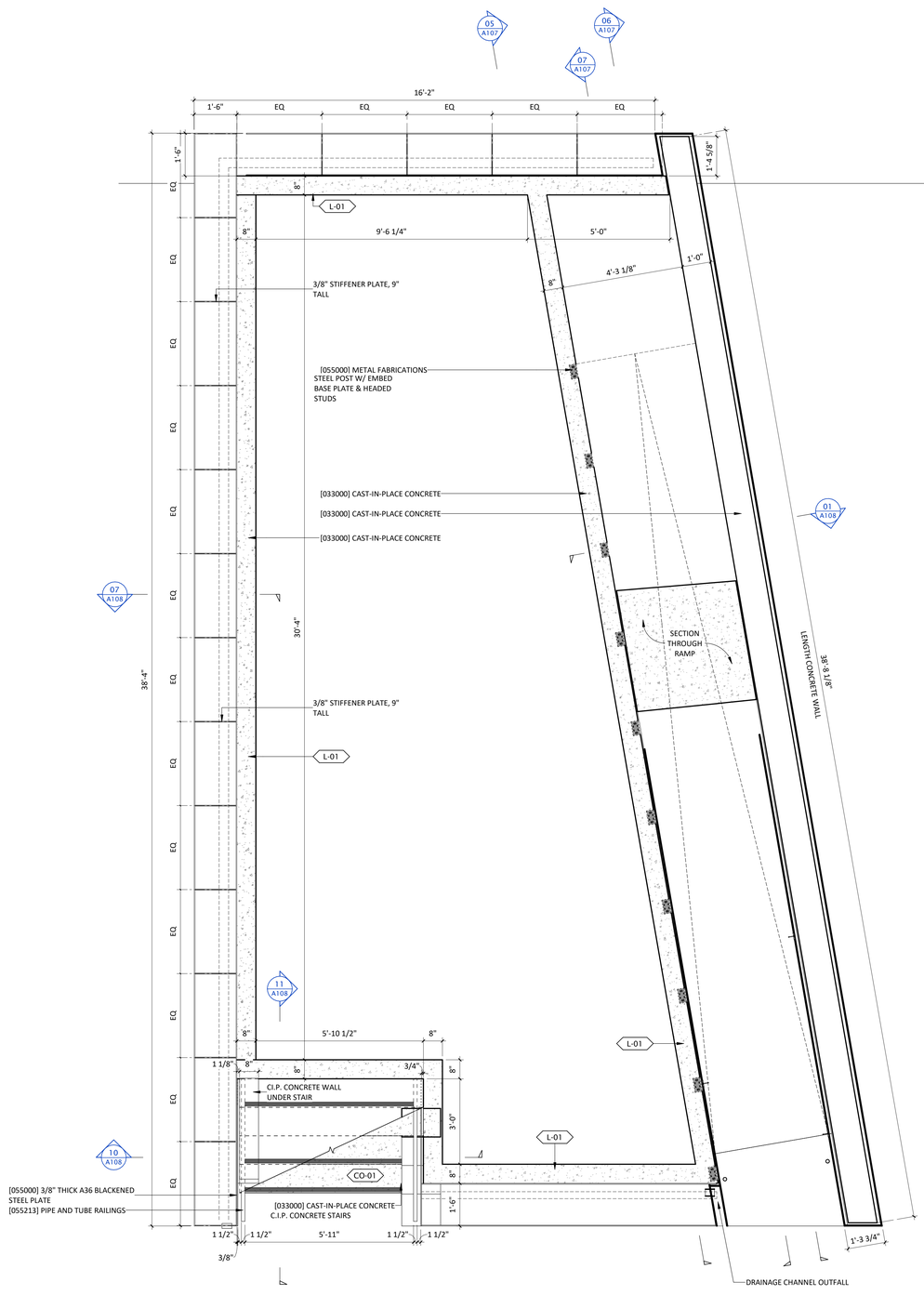
DATE 08.31.2026

SHEET **A105**



ENLARGED STAGE PLAN 01

1/2" = 1'-0"



ENLARGED STAGE PLAN - STEM WALLS 02

1/2" = 1'-0"

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CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-04	NATURAL GRAY BOARD FORMED CONCRETE FINISH WITH REACTIVE SEALERS
ST-01	BLACKENED STEEL CLEAR COAT FINISH
L-01	LANDSCAPE PER CONSULTANTS

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Crownpoint Campus
State Road 371
Crownpoint, New Mexico 87313

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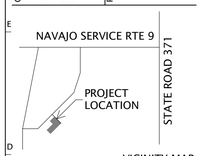
CROWNPOINT, NM



VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

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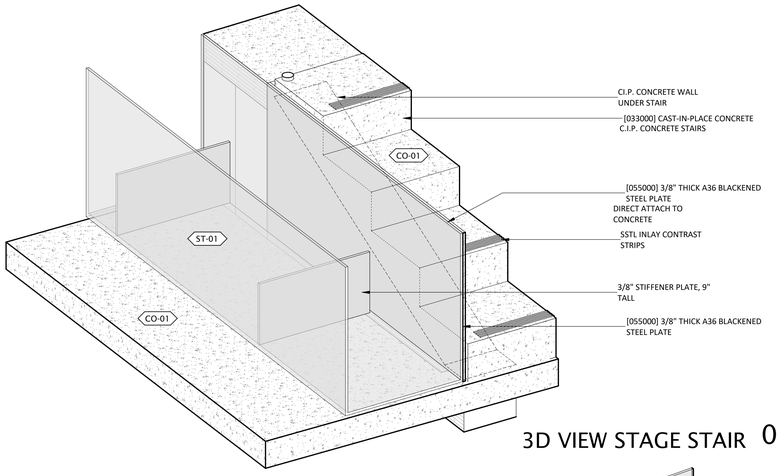
SHEET TITLE

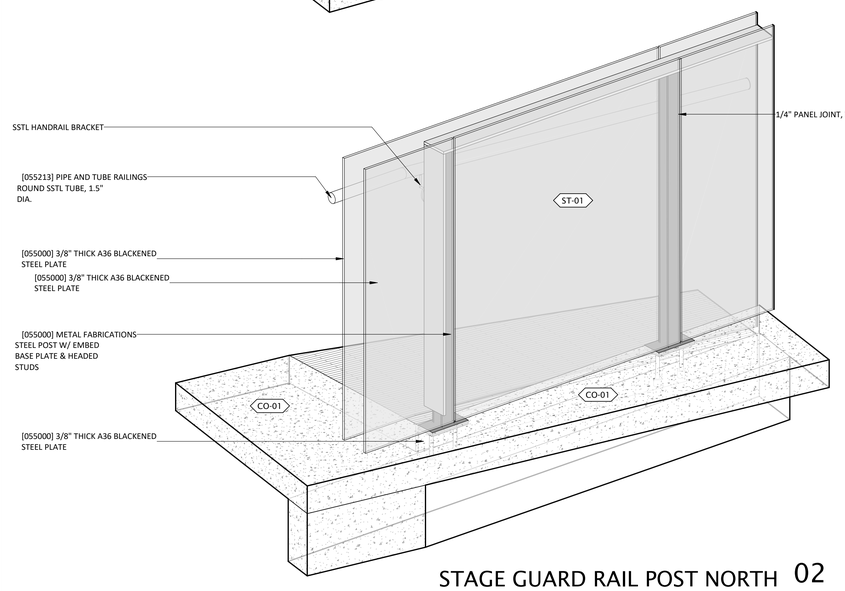
ENLARGED PLANS - STAGE

DATE 08.31.2026

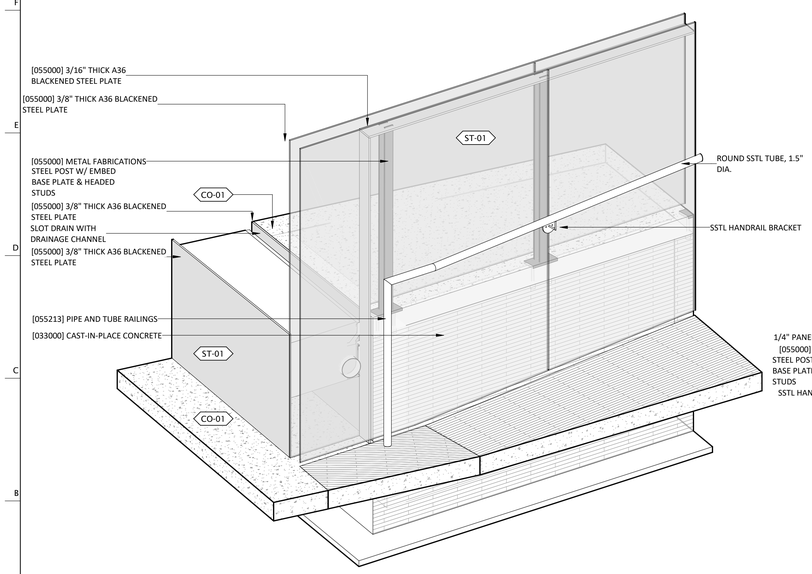
SHEET **A106**



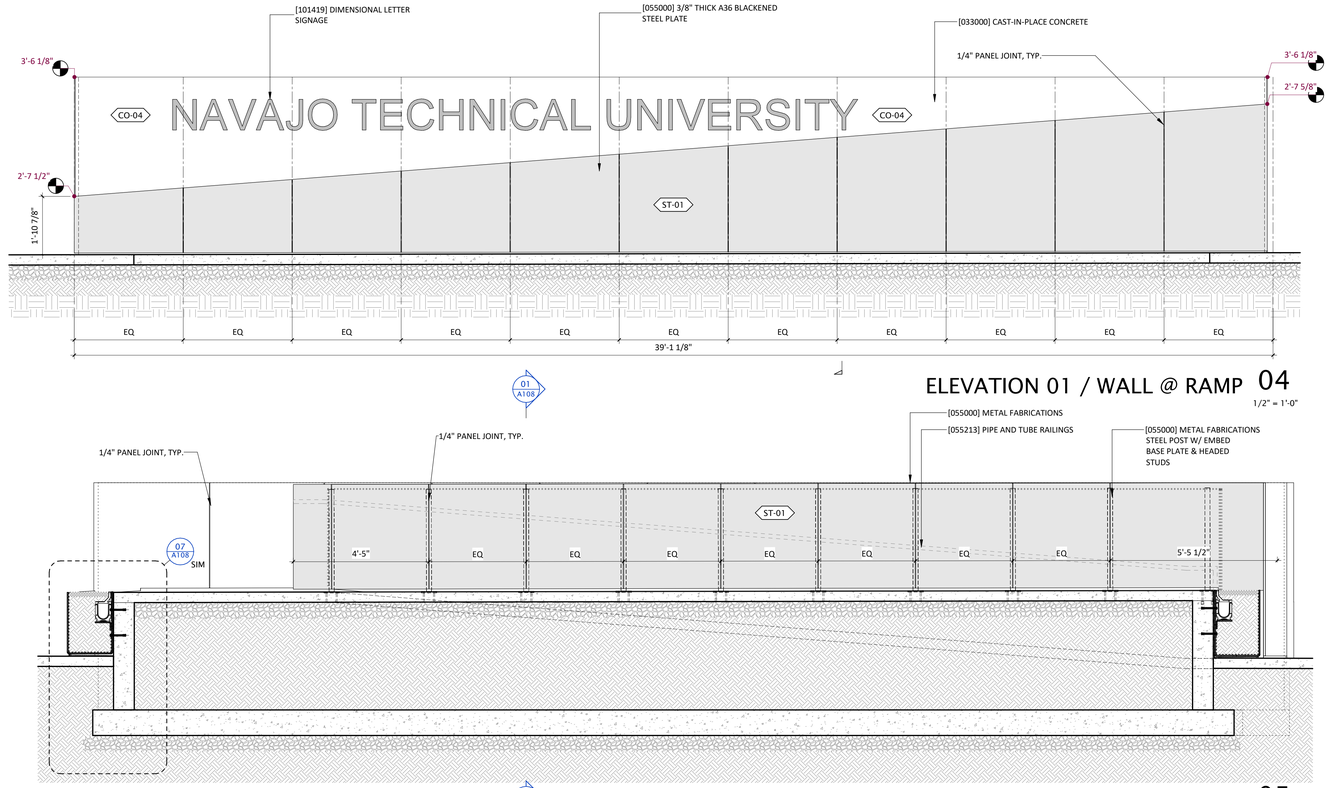
3D VIEW STAGE STAIR 01



STAGE GUARD RAIL POST NORTH 02



STAGE GUARD RAIL POST SOUTH 03

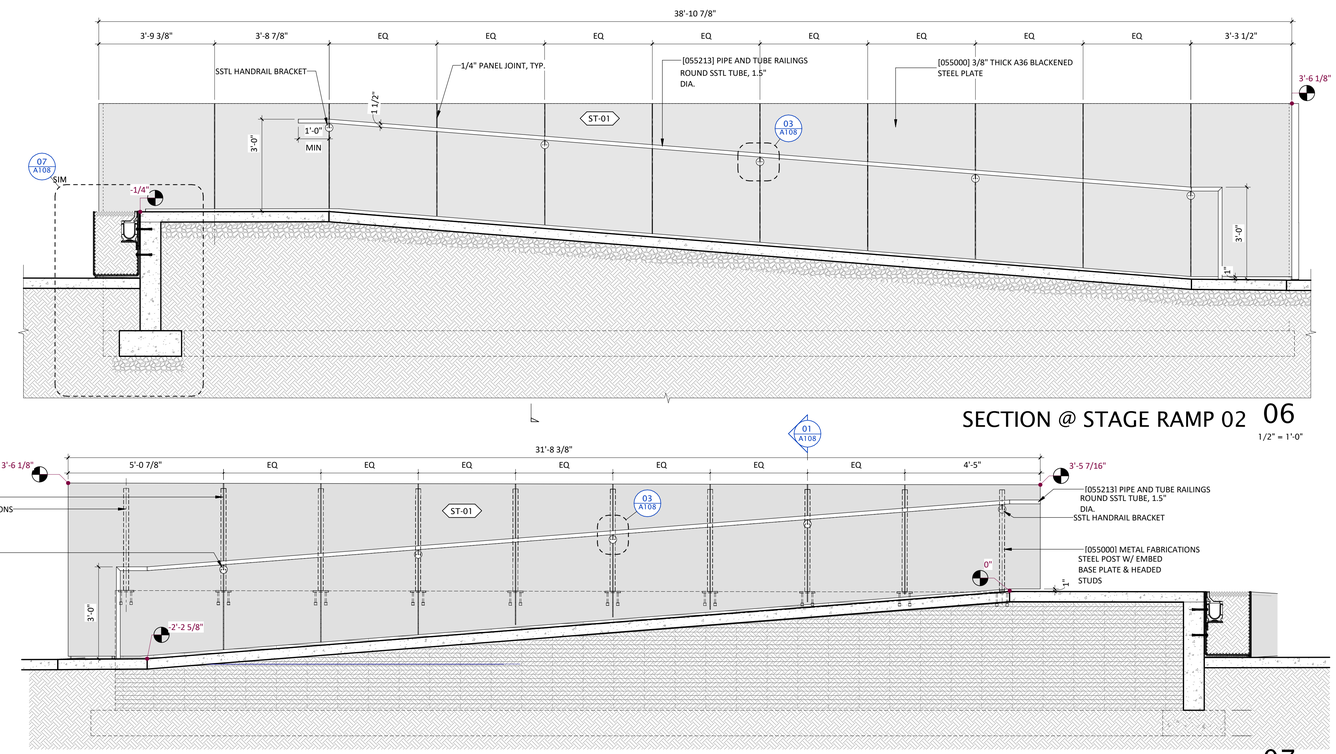


ELEVATION 01 / WALL @ RAMP 04

1/2" = 1'-0"

ELEVATION 02 / WALL @ RAMP 05

1/2" = 1'-0"



SECTION @ STAGE RAMP 02 06

1/2" = 1'-0"

SECTION @ STAGE RAMP 03 07

1/2" = 1'-0"

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MATERIALS LEGEND:

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CO-03	NATURAL GRAY LIGHT SMOOTH ACID WASHED CONCRETE FINISH WITH REACTIVE CONCRETE SEALERS
CO-04	NATURAL GRAY BOARD FORMED CONCRETE FINISH WITH REACTIVE SEALERS
ST-01	BLACKENED STEEL CLEAR COAT FINISH
L-01	LANDSCAPE PER CONSULTANTS

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Skeet Road 87313
Crownpoint, New Mexico

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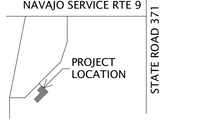
CROWNPOINT, NM



VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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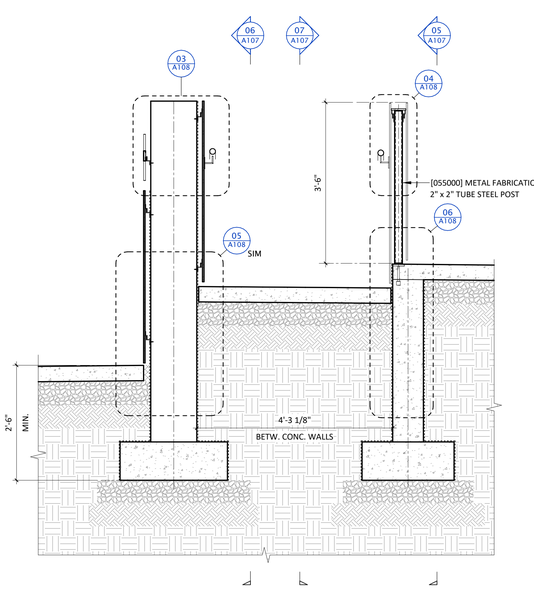
SHEET TITLE

ELEVATIONS & SECTIONS STAGE

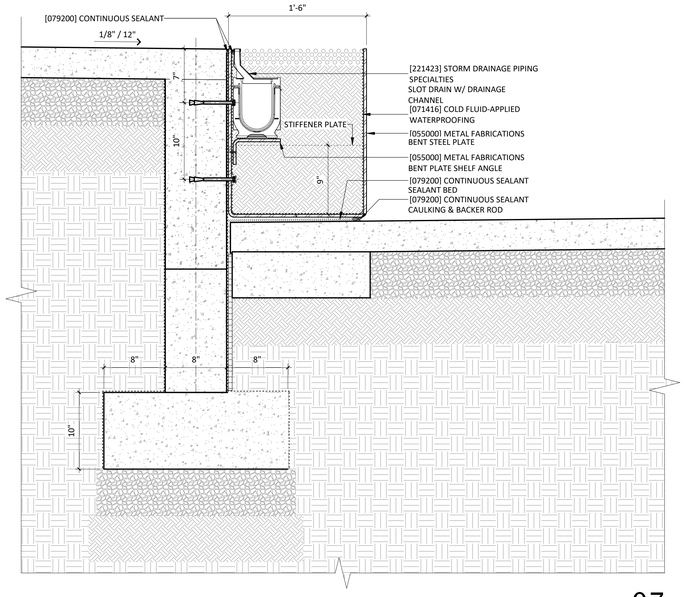
DATE 08.31.2026

SHEET **A107**



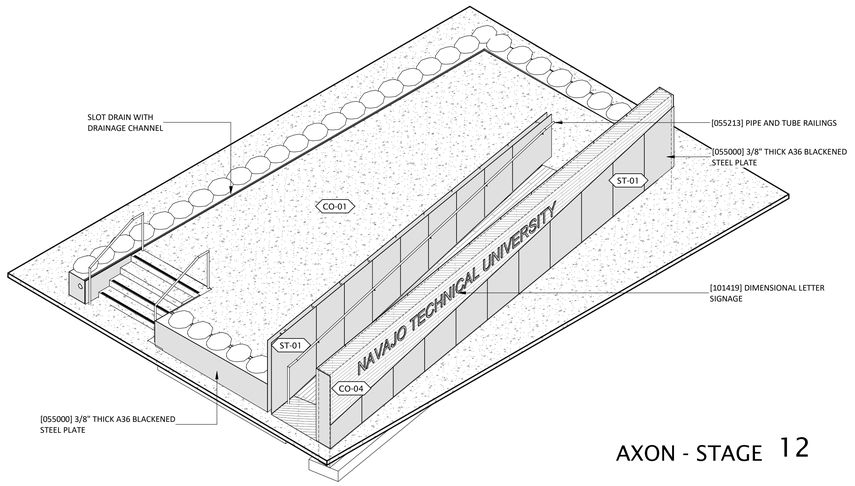
TYP. CROSS SECTION STAGE RAMP 01

3/4" = 1'-0"

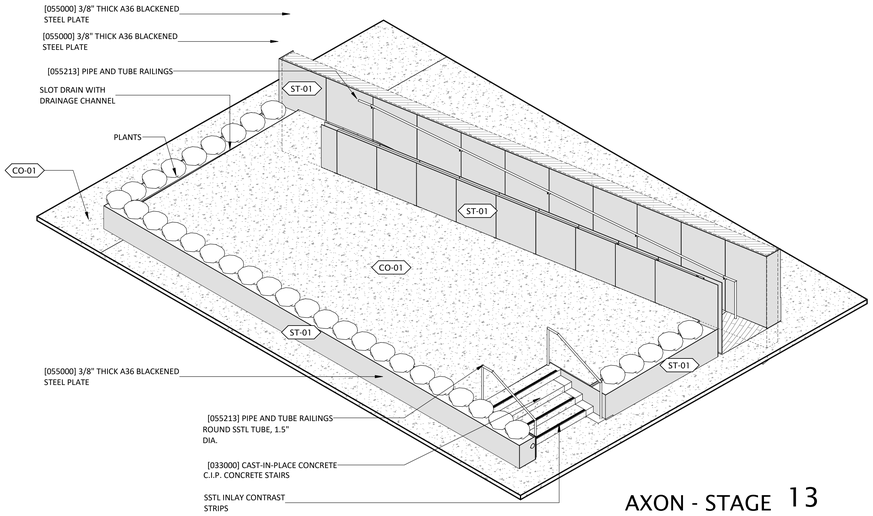


STAGE PLANTER SECTION 1 07

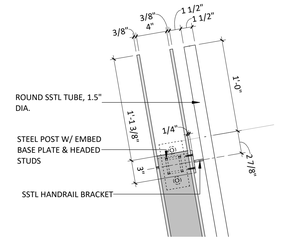
1 1/2" = 1'-0"



AXON - STAGE 12

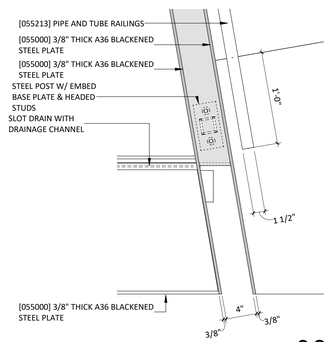


AXON - STAGE 13



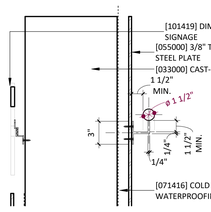
RAMP GUARD DET. 01 08

1 1/2" = 1'-0"



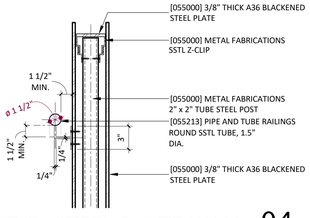
RAMP GUARD DET. 02 09

1 1/2" = 1'-0"



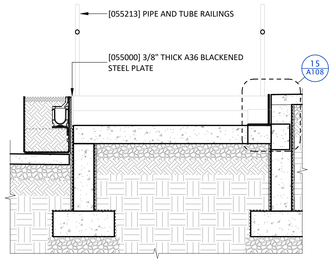
HANDRAIL @ STAGE WALL 03

1 1/2" = 1'-0"



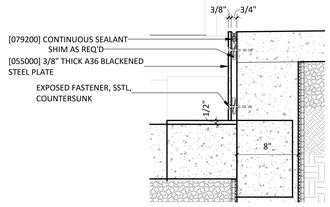
T.O. STEEL PLATE WALL 04

1 1/2" = 1'-0"



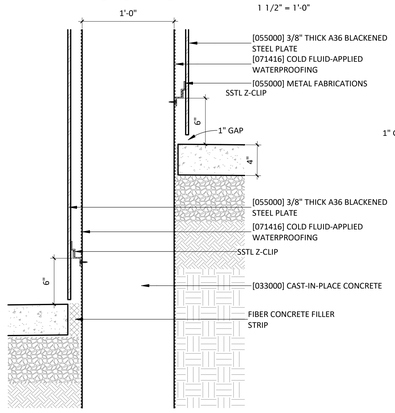
STAGE PLANTER SECTION 2 10

1/2" = 1'-0"



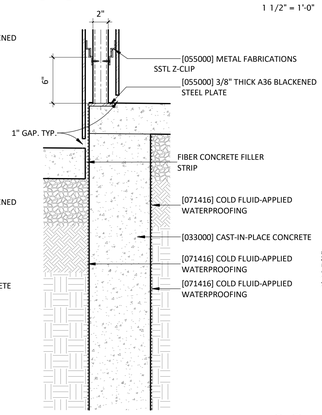
STAGE STAIR - CROSS SECTION 15

1 1/2" = 1'-0"



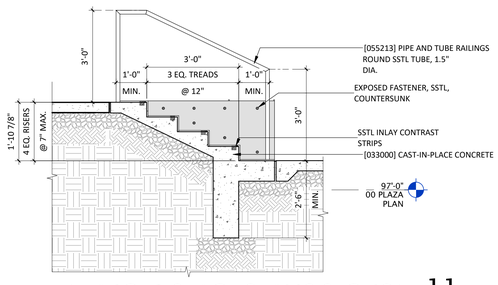
B.O. STAGE WALL 05

1 1/2" = 1'-0"



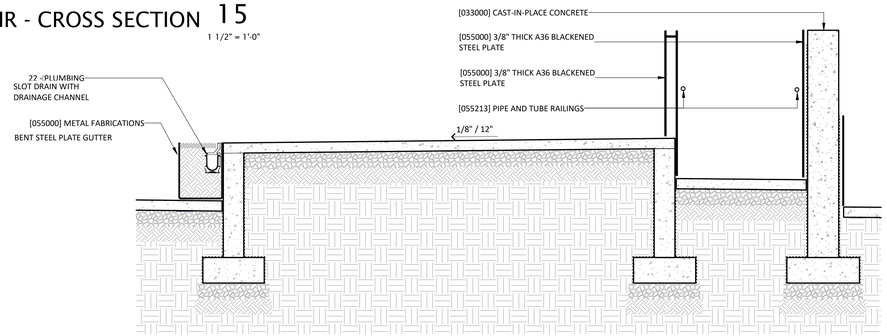
B.O. STEEL PLATE WALL 06

1 1/2" = 1'-0"



ENLARGED STAGE STAIRS SECTION 11

1/2" = 1'-0"



CROSS SECTION STAGE 14

1/2" = 1'-0"

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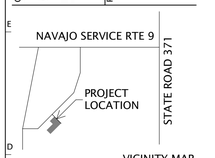
CROWNPOINT, NM



VICINITY MAP

REVISION

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PROJECT NO. 24C-010

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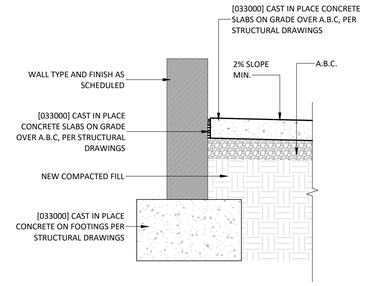
SHEET TITLE

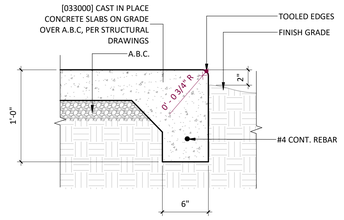
SECTIONS & DETAILS - STAGE

DATE 08.31.2026

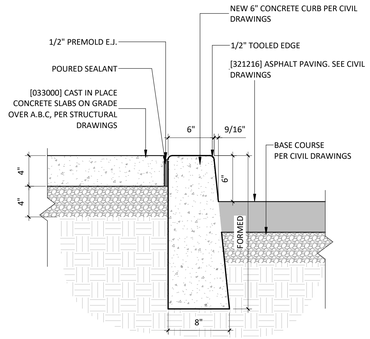
SHEET **A108**



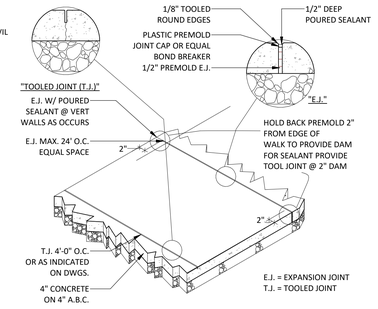
001D TYP. SIDEWALK @ WALL 04
1" = 1'-0"



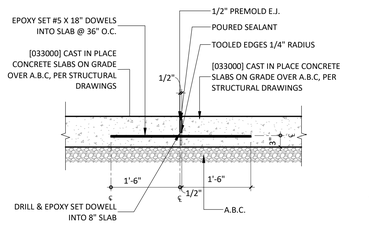
001C SIDEWALK @ LANDSCAPE 03
1 1/2" = 1'-0"



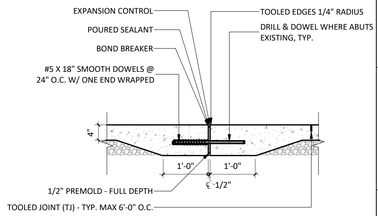
001K CURB @ ASPHALT/ SIDEWALK EDGE 06
1 1/2" = 1'-0"



001B SIDEWALK JOINT 02
1/2" = 1'-0"



001E TYP. CONSTRUCTION JOINT 05
3/4" = 1'-0"



001A TYP. SIDEWALK (EJ) 01
3/4" = 1'-0"

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SEAL

BID SET NOT FOR CONSTRUCTION

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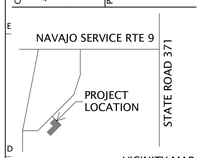

VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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SHEET TITLE

SITE DETAILS

DATE 08.31.2026

SHEET **A900**

ELECTRICAL SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS MAY NOT BE USED FOR THIS PROJECT.

A. GENERAL

- JUNCTION BOX (4" SQUARE MINIMUM)
- INDICATES HOMERUN.
- CIRCUIT CONDUCTORS. LONG DASH INDICATES NEUTRAL CONDUCTOR, SHORT DASH INDICATES PHASE CONDUCTORS. CODE SIZED EQUIPMENT GROUND NOT INDICATED BUT REQUIRED.
- ISOLATED GROUNDING CONDUCTOR. GREEN, INSULATED WITH YELLOW STRIPE.
- GROUNDING CONDUCTOR. GREEN, INSULATED, SIZE PER PLAN.
- SURFACE PANELBOARD
- FLUSH PANELBOARD
- TRANSFORMER. (KVA SIZE AS NOTED). GROUNDING SYSTEM TO BUILDING STEEL (IF APPLICABLE).
- CONDUIT STUB-UP ABOVE CEILING
- CONDUIT STUB-DOWN TO FLOOR BELOW
- CONDUIT IN UNDERGROUND/SLAB
- CONDUIT STUB-UP WITH CAP
- CONDUIT SEAL-OFF
- FLEXIBLE CONDUIT. PROVIDE LIQUID TIGHT FLEX IN WET OR EXTERIOR LOCATIONS AND AT CONNECTIONS TO VIBRATING EQUIPMENT AND/OR TRANSFORMERS.
- CONDUIT CONCEALED IN WALLS OR ABOVE CEILING.

B. POWER

- 20A SPEC GRADE SINGLE RECEPTACLE MOUNTED AT +15" TO BOTTOM OR AS NOTED
- 20A SPEC GRADE DUPLEX RECEPTACLE MOUNTED AT +15" TO BOTTOM OR AS NOTED
- 20A SPEC GRADE FOURPLEX RECEPTACLE MOUNTED AT +15" TO BOTTOM OR AS NOTED
- 20A SPEC GRADE DUPLEX CONVENIENCE OUTLET MOUNTED ABOVE COUNTER. VERIFY EXACT HEIGHT WITH ARCHITECTURAL ELEVATIONS.
- 20A SPEC GRADE FOURPLEX CONVENIENCE OUTLET MOUNTED ABOVE COUNTER. VERIFY EXACT HEIGHT WITH ARCHITECTURAL ELEVATIONS.
- SPECIAL OUTLET AS NOTED ON DRAWINGS – VERIFY NEMA RATING BEFORE INSTALLATION
- SPECIAL OUTLET AS NOTED ON DRAWINGS

  X =
  C – MOUNTED IN CEILING / RF – REFRIGERATOR
  DW – DISHWASHER / SD – SINK DISPOSAL. PROVIDE SWITCH ABOVE COUNTER.
  MW – MICROWAVE / UCR – UNDERCOUNTER REFRIGERATOR
  P – PEDISTAL MOUNTED / VM – VENDING MACHINE
  PD – PEDIATRIC SAFE
- ISOLATED GROUNDING OUTLET AT +15" TO BOTTOM OR AS NOTED. "LEVITON" #5362-IG (ORANGE) RECEPTACLE WITH ISOLATED GROUND.
- 20A SPEC GRADE HALF SWITCHED DUPLEX RECEPTACLE AT +15" TO BOTTOM OR AS NOTED.
- DUAL COMPARTMENT POWER/TELE DATA POLE
- FLUSH FLOOR POWER OUTLET WITH FLUSH-IN-USE COVERS – WITH 20A SPEC GRADE RECEPTACLES DUPLEX OR FOURPLEX. HUBBELL, THOMAS & BETTS, CARLON OR EQUAL. RATED FOR SCRUB WATER.
- 20A SPEC GRADE GFCI DUPLEX RECEPTACLE AT +15" TO BOTTOM OR AS NOTED.
- 20A SPEC GRADE GFCI DUPLEX RECEPTACLE AT +6" ABOVE COUNTER TO BOTTOM OR AS NOTED.
- DROP CORD POWER OUTLET – WITH 20A SPEC GRADE RECEPTACLES DUPLEX OR FOURPLEX. HUBBELL, THOMAS & BETTS, CARLON OR EQUAL.
- "J" BOX FLUSH MOUNTED IN WALL FOR SYSTEMS FURNITURE POWER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SUPPLIER PRIOR TO ROUGH-IN. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FINAL CONNECTION TO SYSTEM FURNITURE.
- WIRE MOLD. LENGTH AND TYPE AS NOTED ON DRAWINGS. MOUNT AS NOTED ON THE DRAWINGS.

C. COMMUNICATIONS

- FLUSH FLOOR COMBINATION TELEPHONE/DATA OUTLET – PROVIDE 1" MIN CONDUIT TO ABOVE ACCESSIBLE CEILING. HUBBELL, THOMAS & BETTS, CARLON OR EQUAL. RATED FOR SCRUB WATER.
- DATA OUTLET AT +15" A.F.F. TO BOTTOM OF WALL FIXTURE OR AS NOTED. PROVIDE 3/4" CONDUIT STUBBED TO +4" ABOVE FINISHED CEILING.
- TELEPHONE OUTLET AT +15" A.F.F. TO BOTTOM OF WALL FIXTURES OR AS NOTED. PROVIDE 3/4" CONDUIT STUBBED TO +4" ABOVE FINISHED CEILING OR AS NOTED:

  X=
  P – PAY PHONE
  W – WALL PHONE OUTLET MOUNTED AT +44" A.F.F.
- COMBINATION TELEPHONE/DATA OUTLET AT +15" A.F.F. TO BOTTOM OF WALL FIXTURES OR AS NOTED. PROVIDE 3/4"C. STUBBED TO +4" ABOVE FINISHED CEILING.
- DIGITAL CABLE TELEVISION OUTLET
- TELEVISION OUTLET WITH DEVICES
- "J" BOX FLUSH MOUNTED IN WALL FOR SYSTEMS FURNITURE TELE/DATA WITH 1-1/4" EMPTY CONDUIT STUBBED ABOVE CEILING. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SUPPLIER PRIOR TO ROUGH-IN. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FINAL CONNECTION TO SYSTEM FURNITURE.
- TELEPHONE TERMINAL BOARD "TMB". 3/4" PLYWOOD TELEPHONE MOUNTING BOARD WITH #6 COPPER GROUND & DEDICATED FOURPLEX CONVENIENCE OUTLET. FURNISH IN ACCORDANCE WITH TELEPHONE COMPANY'S REQUIREMENTS. SIZE AS NOTED ON DRAWINGS. PLYWOOD SHALL BE TYPE "CDX".

D. LIGHTING

- STANDARD SWITCH AND COVER PLATE WITH LOCKING DEVICE (BRADY NO. 2AF98 OR EQUAL)
- SINGLE POLE SWITCH MOUNTED AT +44" TO CENTER OF DEVICE OR AS NOTED.
- TWO POLE SWITCH MOUNTED AT +44" TO CENTER OF DEVICE OR AS NOTED.
- THREE WAY SWITCH MOUNTED AT +44" TO CENTER OF DEVICE OR AS NOTED.
- FOUR WAY SWITCH MOUNTED AT +44" TO CENTER OF DEVICE OR AS NOTED.
- SINGLE POLE SWITCH WITH PILOT LIGHT AT +44" TO CENTER OF DEVICE OR AS NOTED.
- 2000W SLIDE CONTROL DIMMER AT AT +44" TO CENTER OF DEVICE OR AS NOTED.
- SWITCH KEY OPERATED MTD AT +44" TO CENTER OF DEVICE OR AS NOTED.
- LOW VOLTAGE SLIDE CONTROL DIMMER WITH PRESET AT +44". CONTRACTOR SHALL SUPPLY SPECIFIC (ELECTRONIC AND/OR MAGNETIC) TO SUIT LOADS.
- WALL MOUNTED OCCUPANCY SENSOR. LUTRON-DUAL TECHNOLOGY OR EQUAL. IN RESTROOMS: LUTRON-ULTRASONIC. PROGRAM: MANUAL ON/AUTO OFF UNLESS NOTED OTHERWISE.
- SINGLE POLE UP-OFF-DOWN SWITCH FOR CONTROL OF PROJECTION SCREEN. MOUNTED AT +44" TO CENTER OF DEVICE OR AS NOTED.
- LOW VOLTAGE PUSH BUTTON CONTROL STATION AS NOTED. VERIFY MOUNTING HEIGHT.
- ROOF MOUNTED PHOTOCELL (AIM NORTH) INTERMATIC #EK4136S OR EQUAL.
- ASTRONOMIC ELECTRONIC 4 POLE LIGHTING TIMESWITCH, INTERMATIC #ET2845CR OR EQUAL.
- CEILING MOUNTED OCCUPANCY SENSOR 360°. LUTRON-DUAL TECHNOLOGY OR EQUAL. IN RESTROOMS: LUTRON-ULTRASONIC. IN WAREHOUSE: LUTRON-HIGHBAY. (WR) WIDE ANGLE (LR) LONG RANGE.
- WALL/CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SHALL BE PROGRAMMED AS VACANCY SENSOR. MANUAL ON/AUTO OFF.
- OCCUPANCY SENSOR – POWER PACK OR SLAVE PACK.
- LED STRIP LIGHTING FIXTURE – AS NOTED ON DRAWINGS.
- LED LIGHTING FIXTURE – AS NOTED ON DRAWINGS SURFACE MOUNTED.
- RECESSED GRID W/FLEXIBLE CONNECTION.
- INDICATES NIGHTLIGHT (NL) AND/OR EMERGENCY FIXTURE WITH 1400 LUMEN MINIMUM (UNSWITCHED) – AS NOTED ON DRAWING.
- WALL MOUNTED LIGHTING FIXTURE – AS NOTED ON DRAWINGS.
- CEILING MOUNTED LIGHTING FIXTURE – AS NOTE ON DRAWINGS.
- LED HIGH/LOW BAY FIXTURE
- WALL WASH LIGHTING FIXTURE. AIM AS DIRECTED BY ARCHITECT.
- TRACK LIGHTING SYSTEM WITH TRACK FIXTURE HEADS AS INDICATED ON PLANS. VERIFY TYPE LINE OR LOW VOLTAGE.
- POLE MOUNTED AREA LIGHT (ARM MOUNTED) VERIFY HEIGHT SEE POLE DETAIL.
- POLE MOUNTED AREA LIGHT (POST TOP) VERIFY HEIGHT SEE POLE DETAIL.
- WALL PACK.
- SINGLE FACE EXIT SIGN, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION. DIRECTIONAL ARROW AS INDICATED ON PLANS (CEILING OR WALL.)
- COMBINATION EMERGENCY EXIT SIGN WITH DUAL HEAD LIGHTS WITH EMERGENCY BATTERY BACK-UP.

D. LIGHTING CONTINUED

- DOUBLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION. DIRECTIONAL ARROW AS INDICATED ON PLANS (CEILING OR WALL)
- DUAL HEAD EMERGENCY BATTERY PACK, SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATIONS.

E. MECHANICAL

- CONTACTOR – FURNISHED AND INSTALL BY OTHERS
- CONTACTOR – FURNISHED/INSTALLED BY ELECTRICAL CONTRACTOR SIZE AS NOTED
- MOTOR STARTER/CONTROLLER– FURNISHED WITH MOTOR.
- MOTOR STARTER/CONTROLLER – FURNISHED/INSTALLED BY ELECTRICAL CONTRACTOR.
- MOTOR – SIZE AS INDICATED ON DRAWINGS.
- DISCONNECT SWITCH – SIZE AND FUSES AS PER MANUFACTURER'S RECOMMENDATIONS (WEATHERPROOF WHERE OUTSIDE). N.F. INDICATES NON-FUSED.
- COMBINATION FUSIBLE DISCONNECT/MOTOR CONTROLLER – 30/3P WITH MIN. SIZE 1 MAGNETIC STARTER (UNLESS NOTED OTHERWISE). PROVIDE FUSES PER MANUFACTURER'S REQUIREMENTS. N.F. INDICATES NON-FUSED.
- HORSEPOWER RATED MANUAL MOTOR STARTER WITH THERMAL OVERLOAD(S). OVERLOAD HEATERS TO BE SIZED PER HORSEPOWER AND MANUFACTURER'S REQUIREMENTS.

F. FIRE ALARM

- FIRE ALARM PULL STATION AT +48".
- FIRE ALARM STROBE: +80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER.
- FIRE ALARM HORN/STROBE: +80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER.
- FIRE ALARM MAGNETIC DOOR HOLDER
- FIRE ALARM BELL
- FAAP – FIRE ALARM ANNUNCIATOR PANEL
- FACP – FIRE ALARM CONTROL PANEL
- FIRE ALARM HEAT DETECTOR.
- FIRE ALARM SMOKE DETECTOR.
- FIRE ALARM DUCT SMOKE DETECTOR.
- CARBON MONOXIDE DETECTOR.
- FIRE ALARM TAMPER SWITCH.
- FIRE ALARM FLOW SWITCH.
- SPEAKER.

G. ONE LINE DIAGRAM

- (M) METER, (S) SOCKET, (B) BLANK
- (M) METER, (S) SOCKET, (B) BLANK, WITH CURRENT TRANSFORMERS.
- BREAKER AS INDICATED.
- FUSED SWITCH.
- BREAKER WITH SHUNT TRIP (SIZE AS INDICATED)
- PULLOUT FUSE

H. SECURITY

- LOW VOLTAGE CARD READER WITH 3/4" EMPTY CONDUIT STUBBED INTO ACCESSABLE CEILING SPACE
- LOW VOLTAGE KEYPAD
- SURVEILLANCE CAMERA

I. ABBREVIATIONS

A	AMPERE
AIC	AVAILABLE INTERRUPTING CURRENT
AI	ALUMINUM
AFC	AVAILABLE FAULT CURRENT
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AIR HANDLER UNIT
APS	ARIZONA PUBLIC SERVICE – (UTILITY CO.)
C	CONDUIT
CCT	CORRECTED COLOR TEMP.
CRI	COLOR RENDERING INDEX
CU	COPPER
D	DEDICATED
DP	DUST – IGNITION PROOF
E	EXISTING
EC	EMPTY CONDUIT
EDF	ELECTRIC DRINKING FOUNTAIN
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
EM	EMERGENCY LIGHT. BYPASS LOCAL SWITCHING AND PROVIDED BATTERY PACK.
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND/BOND CONDUCTOR
GWH	GAS WATER HEATER
IAW	IN ACCORDANCE WITH
IG	ISOLATED GROUND
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUG ONLY
N	NEW ITEM
NR	NEW LOCATION OF RELOCATED EXISTING ITEM
NL	NIGHT LIGHT. BYPASS LOCAL SWITCHING.
PNL	PANELBOARD
R	EXISTING TO BE RELOCATED
SES	SERVICE ENTRANCE SECTION
SRP	SALT RIVER PROJECT – (UTILITY CO.)
SWBD	SWITCHBOARD
TEP	TUCSON ELECTRONIC POWER
TMB	3/4" PLYWOOD TELEPHONE MOUNTING BOARD WITH #6 CU. SOLID GROUND.
TTC	TELEPHONE TERMINAL CABINET (SIZE INDICATED ON DRAWINGS)
UFER	CONCRETE ENCASED ELECTRODE
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
VA	VOLT AMPERES
W	WATT
WG	WIRE GUARD
WH	WATER HEATER
WP	WEATHERPROOF (RAIN TIGHT) WEATHER RESISTANT NEMA 3R OR NEMA 4 IN-USE
WR	WEATHER RESISTANT
X	EXISTING TO BE REMOVED
XP	EXPLOSION PROOF

ELECTRICAL SPECIFICATIONS

UPDATED: 08-07-2025

SOME SPECIFICATIONS MAY NOT BE USED FOR THIS PROJECT.

1.0 INTENT

1.1 FURNISH AND INSTALL A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

1.2 ALL DRAWINGS ARE SCHEMATIC IN NATURE AND THE REQUIRED INSTALLATION IS NOT LIMITED TO WHAT IS SHOWN. ALL APPURTENANCES NECESSARY TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM MUST BE INCLUDED IN THE CONTRACTORS BID AND WORK.

2.0 GENERAL

2.1 THE CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS BID OR WORK. NO ALLOWANCES WILL BE MADE FOR EXISTING CONDITIONS OR THE CONTRACTORS FAILURE TO ACCOMMODATE EXISTING CONDITIONS ON HIS BID.

2.2 IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN CLARIFICATION OF ANY APPARENT CONFLICT OR INCONSISTENCY IN THE DRAWINGS, SPECIFICATION, OR DESIGN, PRIOR TO HIS BID AND IN WRITING WITH THE ENGINEER. OTHERWISE THE CONTRACTOR ACCEPTS RESPONSIBILITY TO CORRECT (AT HIS COST) ANY SUCH ITEMS TO MEET THE INTENT AS INTERPRETED BY THE ENGINEER.

2.3 ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE MOST RECENT ADOPTED EDITIONS OF THE NFPA, NATIONAL ELECTRIC CODE, IBC, APPLICABLE CITY AND STATE CODES AND ORDINANCES, THE AMERICANS WITH DISABILITIES ACT, E.P.A. REGULATIONS (INCLUDING EPACT 1992), INTERNATIONAL ENERGY CONSERVATION CODE (IECC)/TITLE 24/ASHRAE 90.1 AND UTILITY COMPANY REQUIREMENTS. THE FOREGOING CODES AND REGULATIONS ARE REQUIREMENTS AND ARE INCORPORATED IN THIS SPECIFICATION FOR THIS WORK BY REFERENCE.

2.4 THE CONTRACTOR SHALL COORDINATE AND PROVIDE INFORMATION AS REQUIRED TO ALL SERVING UTILITIES IN A TIMELY MANNER AS NECESSARY TO PROVIDE THE SERVICE REQUIRED AND MEET UTILITY REQUIREMENTS. IMMEDIATE COORDINATION WILL BE REQUIRED FOR MOST PROJECTS. FIELD COORDINATE ALL REQUIREMENTS WITH UTILITY Co. PRIOR TO TRENCHING.

2.5 REFER TO ARCHITECTURAL, MECHANICAL, CIVIL, STRUCTURAL, AND/OR EQUIPMENT SUPPLIERS DRAWINGS AND SPECIFICATIONS FOR EXACT EQUIPMENT LOCATIONS, LOADS AND ADDITIONAL REQUIREMENTS. REPRESENTATIONS OF THE WORK SPECIFIC TO THE OTHER DISCIPLINES IS SHOWN ON THE ELECTRICAL DRAWINGS FOR CLARITY ONLY.

2.6 THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL EQUIPMENT HE SUPPLIES. ALL EQUIPMENT SHALL BE INSTALLED STRICTLY PER MANUFACTURERS RECOMMENDATIONS. OTHERWISE THE CONTRACTOR ASSUMES RESPONSIBILITY (AT HIS COST) TO CORRECT AND REMEDY ANY INSTALLATION NOT IN COMPLIANCE WITH THE MANUFACTURES RECOMMENDATIONS AND INTENTIONS AS INTERPRETED BY THE ENGINEER.

2.7 ANY VARIANCE OR EXCEPTIONS TO THE DRAWINGS AND SPECIFICATIONS MUST BE REQUESTED AND APPROVED IN WRITING. INTERIM VERBAL APPROVALS WILL ONLY BE PROVIDED WHEN THE ENGINEER DETERMINES THIS TO BE JUSTIFIED AND MUST BE CONFIRMED IN WRITING TO BE FINAL.

2.8 THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS, VARIANCES, AND APPROVALS, ETC. (AT HIS COST) WHICH MAY BE REQUIRED FOR COMPLETION OF THIS WORK.

2.9 PRIOR TO ROUGH-IN, THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL LIGHT FIXTURES AND WIRING DEVICES: TO INCLUDE MOUNTING HEIGHT AND LOCATIONS WITH ARCHITECT/OWNER. ALL CONFLICTS SHALL BE REPORTED TO THE ENGINEER/ARCHITECT.

2.10 THE ELECTRICAL CONTRACTOR SHALL PROVIDE EQUIPMENT AND SUPPORT FOR PROGRESS AND FINAL INSPECTIONS. THIS INCLUDES COMPLETE ACCESS TO ALL EQUIPMENT. ADDITIONALLY A COMPLETE SET OF SPARE FUSES FOR ALL FUSES USED AND A 5% SUPPLY OF ALL LIGHT BULBS PROVIDED IN FIXTURES (TO A MAXIMUM OF 15 FOR EACH STYLE) SHALL BE PROVIDED TO THE OWNER AT FINAL INSPECTION.

2.11 RECONSTRUCTION (TO INCLUDE TENANT IMPROVEMENTS). ALL RECONSTRUCTION OF EXISTING FACILITIES AND EQUIPMENT SHALL REQUIRE COMPLETE RENOVATION (MAKE GOOD AS NEW) FOR ALL EXISTING EQUIPMENT UPON WHICH WORK IS PERFORMED OR EQUIPMENT WHICH IS AFFECTED BY THE WORK PERFORMED. THIS WILL INCLUDE THESE FOLLOWING REQUIREMENTS:
2.11.1 VERIFICATION OF EXISTING SES COMPLIANCE WITH NEC "GROUNDING" ARTICLES.
2.11.2 VERIFICATION OF CABLE SIZE AND AMPACITY OF EXISTING FEEDERS AND BRANCH CIRCUITS WITH NEC TABLES.
2.11.3 EXISTING LIGHT FIXTURES TO BE REUSED MUST BE CLEANED, RE-LAMPED, AND RESTORED TO "LIKE NEW" CONDITION.
2.11.4 EXISTING PANEL BOARDS, SWITCH BOARDS, AND TRANSFORMERS WHICH ARE INCLUDED IN THE PROJECT WORK SHALL HAVE PREVENTATIVE MAINTENANCE PERFORMED TO INCLUDE RE-TORQUING OF ALL LUGS, CLEANING AND INSPECTION.
2.11.5 VERIFY PROPER WORKING CONDITION OF ALL EXISTING EMERGENCY FIXTURES AND EXIT SIGNS. REPAIR OR REPLACE AS REQUIRED.

IN THE EVENT THAT INSPECTION REVEALS DISCREPANCIES AND/OR NONCOMPLIANCE THE OWNER AND THE ENGINEER SHALL BE NOTIFIED IN WRITING, AND EQUIPMENT BROUGHT INTO COMPLIANCE.

3.0 MATERIALS AND METHODS

3.1 THE USE OF **EMT** IS ACCEPTABLE IN ACCORDANCE WITH NEC ARTICLE "ELECTRICAL METALLIC TUBING". EMT SHALL NOT BE USED WHERE IT IS SUBJECT TO SEVERE PHYSICAL DAMAGE. EMT FITTINGS SHALL BE COMPRESSION TYPE. MINIMUM TRADE CONDUIT SIZE IS 1/2" AND 3/4" FOR HOME RUNS.

3.2 **CONDUCTORS** SHALL BE 600V COPPER (98 % CONDUCTIVITY). MINIMUM LINE VOLTAGE WIRE SIZE IS #12 A.W.G. #6 AND SMALLER SHALL HAVE THHN/THHW INSULATION. #4 AND LARGER SHALL HAVE XHHW/XHHW-2 INSULATION. ALL CONDUCTORS SHALL HAVE 90° RATED INSULATION. ALL 120V, 20A BRANCH CIRCUIT CONDUCTORS (#12) OVER 100' IN LENGTH TO BE #10'S MINIMUM. ALL 277V, 20A BRANCH CIRCUIT CONDUCTORS (#12) OVER 200' IN LENGTH TO BE #10'S MINIMUM.

3.3 WHEN SEPARATE BRANCH CIRCUIT NEUTRAL CONDUCTORS ARE USED WITH EACH PHASE CONDUCTOR OR SYSTEMS FURNITURE IS INDICATED, THE MINIMUM NEUTRAL CONDUCTOR SIZE SHALL BE #10 A.W.G. STRANDED COPPER.

3.4 ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE. (MINIMUM 20 AMPS RATED FOR RECEPTACLES AND SWITCHES). HUBBELL, PASS & SEYMOUR, BRYANT, OR LEVITON ARE ACCEPTABLE. ALL SPECIAL RECEPTACLES AND GROUND FAULT PROTECTION DEVICES MUST BE PERMANENTLY MARKED WITH ENGRAVED COVER PLATES. INDICATE USE AND CIRCUIT NUMBER.

3.5 COVER PLATES AND DEVICES SHALL BE PHENOLIC PLASTIC (WHITE OR COLOR SELECTED BY ARCHITECT) IN OFFICE/COMMERCIAL/OR LIVING AREAS, AND GALVANIZED STEEL IN WAREHOUSE/INDUSTRIAL/MANUFACTURING AREAS OR AREAS SUBJECT TO PHYSICAL ABUSE.

3.6 ALL CONDUCTORS TO BE CONCEALED EXCEPT TO SURFACE MOUNTED PANELS AND AT THE CEILING OF EXPOSED STRUCTURE AREAS. CONDUITS WILL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.

3.7 FLEXIBLE METAL CONDUIT (SEAL TITE FOR EXTERIOR APPLICATIONS) SHALL BE USED FOR CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION (E.G. MOTORS) WITH A MAX. OF 6ft.

3.8 THE USE OF **MC CABLE** IS ACCEPTABLE (UPON OWNER NOTIFICATION AND APPROVAL) AND MAY BE USED IN ACCORDANCE WITH NEC ARTICLE "METAL-CLAD CABLE: TYPE MC", BUT LIMITED TO USE FOR CONCEALED BRANCH CIRCUITS ONLY, ADDITIONALLY MC CABLE MAY NOT BE USED FOR HOME RUNS OR OUTDOORS.

3.9 NON-METALLIC CONDUIT (MIN. SCHEDULE 40) MAY BE USED ONLY IN OR UNDER SLABS & IN CONCRETE OR MASONRY WALLS. MIN. 24" COVER REQUIRED FOR UNDERGROUND USE.

3.10 **FUSES** SHALL BE BUSSMAN, LITTLEFUSE, OR GOULD SHAWMUT.

3.11 CONDUCTORS WILL BE SOLID AND/OR STRANDED WITH INSULATION CONTINUOUSLY COLOR COATED UP TO AND INCLUDING SIZE #6 A.W.G. GROUNDING/BONDING CONDUCTORS SHALL BE U.L. LABELED ROPE STRAND.

3.12 CONNECTIONS OR SPLICES SHALL BE EXOTHERMIC WELD (CAD WELD OR THOMAS AND BETTS FURSEWELD) FOR GROUNDING/BONDING CONDUCTORS.

3.13 NEW CONDUCTORS SHALL BE CONTINUOUS. HYDRAULIC CRIMP SPLICES OR CONNECTIONS ARE EXCEPTIONS AND REQUIRE SPECIFIC APPROVAL IN WRITING BY HAWKINS DESIGN GROUP.

3.14 ALL CONDUIT SUPPORT SYSTEMS SHALL BE INSTALLED ON THE BUILDING STRUCTURE. UNISTRUT, BEELINE, SUPERSTRUT STEEL CITY SPRING STEEL FASTENERS OR CADDY MOUNTING SYSTEMS ARE ACCEPTABLE. NO CONDUIT WILL BE SUPPORTED BY THE CEILING WIRES, TIE WIRE OR GRID SYSTEM. PERFORATED STRAPS OR OTHER PIPING AND CONDUIT STRAPS ARE NOT ACCEPTABLE SUPPORTS.

3.15 ACCEPTABLE MANUFACTURES FOR **SWITCH GEAR, DISTRIBUTION GEAR** AND RELATED COMPONENTS ARE: EATON, SQUARE D, ACME TRANSFORMERS, ABB, SIEMENS, HAMMOND POWER SOLUNTIONS, AND CUTLER-HAMMER.

3.16 CONDUCTORS SHALL BE COLOR CODED FOR BRANCH CIRCUITS AND PHASE LEGS OF FEEDERS TO PANEL BOARDS, SWITCHBOARDS, ETC. IN ACCORDANCE WITH NEC AND LOCAL MUNICIPAL REQUIREMENTS. SPECIFIC REQUIREMENTS INCLUDE THE FOLLOWING.
- 120-V, 2-WIRE CIRCUIT; GROUNDED NEUTRAL-WHITE; UNGROUNDED LEG-BLACK.
- 208Y/120-V, 3-PHASE, 4-WIRE: GROUNDED NEUTRAL-WHITE;PHASE A-BLACK; PHASE B-RED; PHASE C-BLUE.
- 240/120-V, 3 WIRE, SINGLE PHASE CIRCUIT: GROUNDED NEUTRAL-WHITE; PHASE A-BLACK; PHASE B-RED.
- 240-V, DELTA, 3-PHASE, 3-WIRE: PHASE A-BLACK; PHASE B-RED; PHASE C-BLUE.
- 240/120-V, 3-PHASE, 4-WIRE, HIGH-LEG DELTA: GROUNDED NEUTRAL-WHITE;HIGH LEG (208-V TO NEUTRAL)-ORANGE; PHASE A-BLACK; PHASE C-BLUE.
- 480Y/277-V, 3-PHASE, 4-WIRE: GROUNDED NEUTRAL-GRAY;PHASE A-BROWN; PHASE B-ORANGE; PHASE C-YELLOW.
- 480-V, DELTA, 3-PHASE, 3-WIRE: PHASE A-BROWN; PHASE B-ORANGE; PHASE C-YELLOW.
- 480-V, DELTA, 3-PHASE, 3-WIRE: PHASE A-BROWN; PHASE B-ORANGE; PHASE C-YELLOW.
- EQUIPMENT GROUNDING CONDUCTORS-GREEN; ISOLATED GROUNDS-GREEN WITH A YELLOW STRIPE.

3.17 ALL INSTALLATIONS WITHIN PLENUM RATED CEILING SPACE SHALL BE IN ACCORDANCE WITH NEC ARTICLE "WIRING METHODS" WITH REGARDS TO SMOKE DEVELOPMENT AND FLAME SPREAD.

3.18 ALL UNDERGROUND CABLE, PIPE AND CONDUITS SHALL BE DETECTABLE (METALLIC) OR HAVE A DETECTABLE UNDERGROUND LOCATION DEVICE INSTALLED WITH IT. THE RECOMMENDED DETECTABLE UNDERGROUND LOCATION DEVICE IS A #18 OR LARGER COPPER TRACER WIRE SECURELY ATTACHED TO THE TOP OF ANY NON-METALLIC CABLE, PIPE OR CONDUIT AT 8'-0" O/C AND SHALL HAVE A MINIMUM OF 12" OF TRACER WIRE ACCESSIBLE AT ALL ABOVE GRADE TERMINATIONS.

3.19 ALL HORIZONTAL UNDERGROUND CONDUIT RUNS (INCLUDING UNDER CONCRETE SLABS) SHALL BE A MINIMUM OF 24" BELOW GRADE.

3.20 ALL MATERIAL & DEVICES USED EXTERIOR OF THE BUILDING SHALL BE LISTED U.L. FOR WATERPROOF APPLICATIONS.

4.0 SUBMITTALS

4.1 SUBMIT 6 SETS OF SHOP DRAWINGS AND SAMPLES FOR ALL EQUIPMENT PRIOR TO ORDERING IN A TIMELY MANNER, SUBMITTALS SHALL INCLUDE LIGHT FIXTURES (INCLUDING LIGHT POLES), LIGHTING CONTROLS, SWITCHBOARDS, PANELBOARDS, BREAKERS, STARTERS, HVAC ELECTRICAL EQUIPMENT AND TRANSFORMERS.
4.1.1 SHOP DRAWINGS SHALL INCLUDE LAYOUT DIMENSIONS AND IDENTIFICATION OF SPECIFIC EQUIPMENT FOR INSTALLATION, MINIMUM NEC CLEARANCES SHALL BE INDICATED.
4.1.2 THE CONTRACTOR SHALL INCLUDE COMPARISON DATA AND SAMPLES FOR BOTH THE SUBSTITUTE AND SPECIFIED ITEMS WHEN SUBSTITUTIONS ARE PROPOSED. THE CONTRACTOR REMAINS RESPONSIBLE TO PROVIDE THE ORIGINALLY SPECIFIED INSTALLATION IN ACCORDANCE WITH THE ORIGINAL DELIVERY DATE (AT HIS COST) WHEN SUBSTITUTIONS ARE NOT APPROVED.

4.2 THE CONTRACTOR SHALL PROVIDE PROOF OF PERFORMANCE BOND WITH HIS INITIAL SUBMITTALS (E.G. SHOP DRAWINGS) TO INCLUDE WARRANTY FOR THE WARRANTY PERIOD (2 YEARS).

4.3 THE CONTRACTOR SHALL SUBMIT COMPLETE AND ACCURATE "AS BUILT" DRAWING TO THE OWNER AND ENGINEER WITHIN 2 WEEKS OF OWNER ACCEPTANCE. PROVIDE 4 SETS OF BLUELINES OR REPRODUCIBLES. FAILURE TO COMPLY WILL RESULT IN WITHHOLDING OF PAYMENTS DUE, AND ASSESSMENT OF CHARGES (AGAINST THE CONTRACTOR) FOR AS-BUILT DEVELOPMENT BY THE ENGINEER AT THE CURRENT HOURLY RATE.

4.4 PROVIDE A LETTER TO THE OWNER AND ENGINEER CERTIFYING ALL EQUIPMENT AND TERMINATION'S ARE PROPERLY TORQUED. THIS CERTIFICATION SHALL BE EXECUTED BY A LICENSED CONTRACTOR, AND WRITTEN CERTIFICATION PROVIDED ON COMPANY LETTERHEAD.

4.5 PROVIDE 2 COPIES OF ALL MANUFACTURER/SUPPLIER WARRANTIES AND GUARANTEES TO THE OWNER WITHIN 2 WEEKS OF FINAL ACCEPTANCE BY THE OWNER.

4.6 TESTS
4.6.1 SUBMIT 2 COPIES OF ALL INDEPENDENT TEST RESULTS FOR THE ELECTRICAL POWER DISTRIBUTION SYSTEM AS A COMPLETE PACKAGE TO THE OWNER AND ENGINEER. PACKAGE MUST PROVIDE SPECIFIC VALUES OF TEST DATA OBTAINED AGAINST ACCEPTANCE CRITERIA (SIMPLE PASS/FAIL ALONE IS INADEQUATE).
4.6.2 TESTING PERSONAL SHALL BE CERTIFIED BY THE NATIONAL ELECTRIC TESTING ASSOCIATION (NETA) OR NATIOANL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET).
4.6.3 ALL TESTING SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS OR NATIONALLY RECOGNIZED STANDARDS AND PRACTICES.
4.6.4 GROUNDING SYSTEM FALL OF POTENTIAL (RESISTANCE TO GROUND) TESTING.
4.6.4.1 GROUND SHALL PROVIDE 5 OHMS OR LESS RESISTANCE TO GROUND AND LESS THAN 0.5 OHMS POINT-TO-POINT BETWEEN THE MAIN GROUNDING ELECTRODE SYSTEM AND ELECTRICAL EQUIPMENT FRAMES, SYSTEM NEUTRAL AND/OR DERIVED NEUTRAL POINTS (REFERENCE IEEE STANDARDS 81-1983 AND 81-1991) AND SHALL NOT BE PERFORMED WITHIN 24 HOURS AFTER RAINFALL.
4.6.5 OVER-POTENTIAL (HI-POT) TESTING
4.6.5.1 SHALL BE PERFORMED ON ALL BUSSES 1000A OR GREATER OR ON MODIFICATIONS OF SERVICES GREATER THAN 400 AMPS.
4.6.5.2 TEST BOTH PHASE-TO-PHASE AND PHASE-TO-GROUND FOR AT LEAST ONE MINUTE.
4.6.6 GROUND FAULT PROTECTION TESTING
4.6.6.1 PROVIDE GROUND-FAULT PROTECTION TESTING BY CURRENT INJECTION AT SENSOR.
4.6.6.2 TEST PRIMARY CONTROL VOLTAGE TO NOT EXCEED 57% OF THE RATED VOLTAGE.
4.6.6.3 VERIFY PICK-UP TIME AND TIME-DELAY SETTINGS PROVIDED BY ENGINEER.
4.6.6.4 TEST GFP RELAY TIMING.
4.6.6.5 TEST INTEGRITY OF GROUNDED CONDUCTOR AND ITS INSULATION RESISTANCE TO GROUND.
4.6.7 INSULATION RESISTANCE (MEGGER) TESTING
4.6.7.1 TESTING SHALL BE 1000 VOLTS FOR ONE MINUTE AND SHALL PROVIDE 50 MEGAOHMS RESISTANCE OR GREATER.
4.6.7.2 TEST BOTH PHASE-TO-PHASE AND PHASE-TO-GROUND.

5.0 WARRANTY

5.1 THE CONTRACTOR SHALL GUARANTEE ALL MATERIAL AND/OR WORKMANSHIP FURNISHED BY HIM UNDER THIS CONTRACT FOR A PERIOD OF **TWO YEARS** FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. ANY DEFECTS DEVELOPING DURING THE WARRANTY PERIOD TRACEABLE TO MATERIALS OR WORKMANSHIP SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.

5.2 THE OWNER RETAINS THE RIGHT TO REQUIRE REMOVAL AND INSTALLATION (AT ANY TIME) OF ANY MATERIAL OR EQUIPMENT NOT IN COMPLIANCE WITH THE PROVISIONS AND STANDARDS OF THESE DRAWINGS AND SPECIFICATIONS. NO CLAIM FOR ADDITIONAL COMPENSATION WILL BE ALLOWED FOR WORK PERFORMED IN THIS REGARD.

5.3 THE CONTRACTOR AGREES TO TRANSFER ALL MANUFACTURER'S/SUPPLIER'S WARRANTIES AND GUARANTEES TO THE OWNER. THIS INCLUDES COMPLETION OF ALL DOCUMENTATION FOR THE MANUFACTURER/SUPPLIER.

6.0 SERVICE

6.1 PROVIDE AND INSTALL NEW SERVICE SECTION AS SHOWN ON DRAWINGS. S.E.S. SHALL BEAR U.L. LABEL, HAVE COPPER BUSSING – SILVER PLATED, AND AMPERAGE RATING AS SHOWN ON DRAWINGS. METERING AND PRIMARY PULL SECTION SHALL BE BARRIERED FROM OTHER WORK AND APPROVED BY BOTH THE LOCAL UTILITY COMPANY AND AUTHORITY HAVING JURISDICTION.

6.2 GROUND FAULT PROTECTION SHALL BE PROVIDED FOR SERVICES (480V L-L) WITH DISCONNECTS 1000A OR GREATER.

6.3 GROUND FAULT PROTECTION ON MAINS AND SUB-MAINS MUST HAVE AUDIBLE/VISIBLE ALARMS.

6.4 ENCLOSURES SHALL MEET U.L. AND PUBLIC UTILITY REQUIREMENTS-PHYSICALLY BARRIERED BETWEEN SECTIONS, LINE AND LOAD, BOTH BARRIERED.

6.5 NO COVERS GREATER THAN 1/3 HEIGHT OF EQUIPMENT.

6.6 FULL SIZED NEUTRAL BUSSING AND FULLY RATED (NON-TAPERED) BUSSING WILL BE STANDARD. THIS INCLUDES MAXIMUM RATINGS FOR SUPPLY AND SECTION (i.e. HORIZONTAL AND VERTICAL) BUSSES (UNLESS NOTED OTHERWISE). CENTER FEED SUPPLY BUSSES SHALL BE MAXIMUM RATED ON EITHER SIDE OF THE FEED. ALL SPACE WILL BE FULLY BUSSED FOR FUTURE. ALL BUSSING WILL BE PHYSICALLY BARRIERED.

6.7 ALL SERVICES SHALL BE U.L. LISTED FOR FRONT ACCESSIBILITY ONLY.

6.8 ALL SERVICE SECTIONS SHALL BE OF A CONSISTENT HEIGHT AND INCLUDE PROTECTION OF OPERATIONAL DEVICES AND METERS FROM PHYSICAL DAMAGE.

6.9 PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL FREESTANDING ELECTRICAL SERVICE ENTRANCE EQUIPMENT PER LOCAL UTILITY COMPANY SPECIFICATIONS.

6.10 **SERVICE COORDINATION STUDY**
6.10.1 **DESCRIPTION**
6.10.1.1 WHEN ADJUSTABLE TRIP CIRCUIT BREAKERS OR 2-TIER GROUND FAULT SYSTEM IS SPECIFIED, PROVIDE A SHORT-CIRCUIT AND PROTECTIVE DEVICE COORDINATION STUDY FOR THE ELECTRICAL DISTRIBUTION SYSTEM. THE INTENT OF THESE STUDIES ARE TO VERIFY THAT THE SPECIFIED AND SUPPLIED EQUIPMENT ARE PROPERLY RATED, CORRECTLY APPLIED, AND WITHIN INDUSTRY AND MANUFACTURER'S TOLERANCES.
6.10.1.2 THE SHORT CIRCUIT STUDY SHALL INCLUDE ALL PORTIONS OF THE ELECTRICAL DISTRIBUTION SYSTEM FROM THE NORMAL AND ALTERNATE SOURCES OF POWER THROUGHOUT THE DISTRIBUTION SYSTEM DOWN TO THE SMALLEST PROTECTIVE DEVICE. THE SHORT CIRCUIT STUDY SHALL CONSIDER OPERATION DURING NORMAL CONDITIONS, ALTERNATE OPERATIONS, EMERGENCY POWER CONDITIONS AND ANY OTHER OPERATIONS WHICH COULD RESULT IN MAXIMUM FAULT CONDITIONS.
6.10.1.3 THE COORDINATION STUDY WILL DETERMINE THE CORRECT SETTINGS FOR THE PROTECTIVE DEVICES WHICH WILL MINIMIZE THE DAMAGE CAUSED BY AN ELECTRICAL FAULT AND ALLOW FOR SELECTIVE COORDINATION BETWEEN THE DEVICES. THE COORDINATION STUDY SHALL INCLUDE THE CLOSET UPSTREAM UTILITY PROTECTIVE DEVICE DOWN TO THE PANELBOARD MAIN, BRANCH OR FEEDER CIRCUIT BREAKERS. THE COORDINATION STUDY SHALL CONSIDER OPERATION DURING NORMAL CONDITIONS, ALTERNATE OPERATIONS AND DURING EMERGENCY POWER CONDITIONS.
6.10.2 **QUALIFICATIONS**
6.10.2.1 THE CONTRACTOR SHALL HAVE THE COORDINATION STUDY PREPARED BY QUALIFIED ENGINEERS OF AN INDEPENDENT CONSULTANT AND OR MANUFACTURER. THE CONSULTANT/MANUFACTURER SHALL BE AN EXPERIENCED REGISTERED PROFESSIONAL ELECTRICAL ENGINEER (LICENSED IN THE STATE WHERE THE PROJECT IS COMPLETED) SPECIALIZING IN PERFORMING POWER SYSTEM STUDIES.
6.10.3 **SUBMITTALS**
6.10.3.1 THE CONTRACTOR SHALL SUBMIT THE POWER SYSTEM STUDIES IN CONJUNCTION WITH THE EQUIPMENT SUBMITTALS. THE ELECTRICAL SUBMITTALS WILL BE REVIEWED BUT WILL NOT BE APPROVED UNLESS THE POWER SYSTEM STUDIES HAVE BEEN RECEIVED AND REVIEWED.

6.11 **PROTECTIVE DEVICE COORDINATION STUDY**
6.11.1 ALL REQUIREMENTS OF THE CURRENT NATIONAL ELECTRICAL CODE AND NFPA 5000 SHALL BE ADHERED TO.
6.11.2 THE COORDINATION STUDY SHALL INCLUDE THE CLOSEST UPSTREAM UTILITY PROTECTIVE DEVICE DOWN TO THE PANELBOARD MAIN, BRANCH, OR FEEDER CIRCUIT BREAKERS. PREPARE THE COORDINATION CURVES TO DETERMINE THE REQUIRED SETTINGS OF PROTECTIVE DEVICES TO ASSURE SELECTIVE COORDINATION.
6.11.3 THE PHASE AND GROUND OVERCURRENT PROTECTION SHALL BE INCLUDED, AS WELL AS SETTINGS FOR ALL OTHER ADJUSTABLE PROTECTIVE DEVICES.
6.11.4 GRAPHICALLY ILLUSTRATE ON LOG-LOG PAPER THAT ADEQUATE TIME SEPARATION EXISTS BETWEEN DEVICES. SUFFICIENT CURVES SHALL BE USED TO CLEARLY INDICATE THE COORDINATION ACHIEVED BETWEEN DEVICES. REASONABLE COORDINATION INTERVALS AND SEPARATION OF CHARACTERISTIC CURVES SHALL BE MAINTAINED. PLOT THE SPECIFIC TIME-CURRENT CHARACTERISTICS OF EACH PROTECTIVE DEVICE IN SUCH A MANNER THAT THE UPSTREAM DEVICES WILL BE CLEARLY DEPICTED ON THE SHEET.
6.11.5 THE FOLLOWING SPECIFIC INFORMATION SHALL ALSO BE SHOWN ON THE COORDINATION CURVES:
6.11.5.1 DEVICE IDENTIFICATIONS.
6.11.5.2 TIME AND CURRENT RATIO FOR CURVES.
6.11.5.3 FUSE, CIRCUIT BREAKER, AND RELAY CURVES, SHOWING COMPLETE OPERATING BANDS OF LOW VOLTAGE CIRCUIT BREAKER TRIP CURVES.
6.11.5.4 LOW VOLTAGE EQUIPMENT CIRCUIT BREAKER TRIP DEVICES, INCLUDING MANUFACTURES TOLERANCE BANDS.
6.11.5.5 PERTINENT TRANSFORMER FULL-LOAD CURRENTS AT 100 AND 600 PERCENT.
6.11.5.6 GROUND FAULT PROTECTIVE DEVICE SETTINGS.
6.11.5.7 OTHER SYSTEM LOAD PROTECTIVE DEVICES FOR LARGEST BRANCH CIRCUIT AND FEEDER CIRCUIT BREAKER IN EACH MOTOR CONTROL CENTER AND PANELBOARD.
6.11.6 DEVELOP A TABLE TO SUMMARIZE THE SETTINGS SELECTED FOR THE PROTECTIVE DEVICES. INCLUDE IN THE TABLE THE FOLLOWING:
6.11.6.1 DEVICE IDENTIFICATIONS.
6.11.6.2 DURRENT TRANSFORMER RATIO, RELAY TAP, TIME DELAY AND INSTANTANEOUS PICKUP.
6.11.6.3 CIRCUIT BREAKER SENSOR RATING, LONG-TIME, SHORT-TIME AND INSTANTANEOUS SETTINGS AND TIME BANDS.
6.11.6.4 FUSE RATING AND TYPE.
6.11.6.5 GROUND FAULT PICKUP AND TIME DELAY.

6.12 **ANALYSIS**
6.12.1 ANALYZE THE SHORT CIRCUIT CALCULATIONS AND HIGHLIGHT ANY EQUIPMENT THAT IS DETERMINED TO BE UNDERRATED AS SPECIFIED OR NOT COORDINATED. PROPOSE APPROACHES TO EFFECTIVELY PROTECT THE UNDERRATED EQUIPMENT. PROPOSED MAJOR CORRECTIVE MODIFICATIONS WILL BE TAKEN UNDER ADVISEMENT BY THE ENGINEER AND THE CONTRACTOR WILL BE GIVEN FURTHER INSTRUCTIONS.
6.12.2 AFTER DEVELOPING THE COORDINATION CURVES, HIGHLIGHT AREAS LACKING COORDINATION. FOR EACH SHEET, PRESENT A TECHNICAL EVALUATION WITH A DISCUSSION OF THE LOGICAL COMPROMISES FOR BEST COORDINATION.

6.13 **REPORT**
THE RESULTS OF THE POWER SYSTEM STUDY SHALL BE SUMMARIZED IN A FINAL REPORT. THE REPORT SHALL INCLUDE THE FOLLOWING SECTIONS:
6.13.1 PROTECTIVE DEVICE TIME VERSUS CURRENT COORDINATION CURVES, TABULATIONS OF RELAY AND CIRCUIT BREAKER TRIP SETTINGS, FUSE SELECTION AND COMMENTARY REGARDING SAME.
6.13.2 COPIES OF THE MANUFACTURERS TIME CURRENT CURVES FOR THE DEVICES STUDIED AND PLOTTED ON THE TIME CURRENT CURVES.

7.0 DISTRIBUTION

7.1 **PANELBOARDS** (EXISTING): ADD CIRCUIT BREAKERS (FULL SIZED BREAKERS) AS REQUIRED FOR CIRCUITING. MATCH PRECISELY BRAND AND PROVIDE A.I.C. RATING AS INDICATED ON DRAWINGS. TANDEM AND PIGGY-BACK BREAKERS ARE NOT PERMITTED. ALL LUGS OR CONNECTORS TO BE 60°C FOR PANEL LESS THAN OR EQUAL 100 AMPS AND 75°C RATED OF GREATER THAN 100AMPS MINIMUM.

7.2 **PANELBOARDS** (NEW): SHALL BE RATED AS SHOWN ON DRAWINGS WITH PLATED COPPER BUSSING. PROVIDE NEMA ENCLOSURES AS REQUIRED BY CODE FOR REGULATION. BACK BOXES ENLARGED FOR DOUBLE NEUTRALS AND LUGS CAPABLE OF OVERSIZING ISOLATED GROUND AND NORMAL GROUND BUS. ALL LUGS OR CONNECTORS TO BE 60°C FOR PANEL LESS THAN OR EQUAL 100 AMPS AND 75°C RATED OF GREATER THAN 100AMPS MINIMUM. PANELBOARD CABINET SHALL BE EQUIPPED WITH PIANO HINGES WITH DOOR IN DOOR CONSTRUCTION.

7.3 **CIRCUIT BREAKERS** WILL BE SWITCH RATED AND AMBIENT COMPENSATED FOR ALL CIRCUITS. PROVIDE SWITCHED NEUTRALS ON ALL CIRCUIT BREAKERS FEEDING CLASS 1 AND CLASS 2 AREAS WITH NEUTRALS. GFCI ON CIRCUITS WITH NEUTRALS TO DEVICES ABOVE CLASSIFIED AREAS. ALL LIGHTING PANELS/CIRCUIT BREAKERS SHALL BE RATED FOR CONTINUOUS DUTY. HACR RATED BREAKERS SHALL BE INSTALLED FOR ALL HVAC CIRCUITS CONTAINING MULTIPLE MOTOR LOADS.

7.4 ALL EQUIPMENT (PANELS, DISCONNECT SWITCHES, STARTERS, ETC.) WILL BE MARKED WITH BLACK OR RED ENGRAVERS STOCK TAGS EMBOSSED WITH 1/4" HIGH LETTERS DESCRIBING EACH ITEM. CONDUCTORS WILL BE MARKED AT ALL TERMINATION AND JUNCTION POINTS (PANELS, JUNCTION BOXES, SPLICES, ETC.) WITH LABELS BEARING THE PANEL AND CIRCUIT NUMBER WHICH FEEDS EACH CONDUCTOR (PER NEC 210.5).

7.5 ALL **PANELBOARDS** WILL HAVE TYPED DIRECTORY CARDS IDENTIFYING ALL CIRCUITS AND SPACES.

7.6 ACCEPTABLE MANUFACTURERS FOR **PANELBOARDS, SWITCHBOARDS, AND TRANSFORMERS** SHALL BE PER SECTION 3.15 OF THIS SPECIFICATION. TRANSFORMERS 15 KVA AND ABOVE SHALL BE 150°C TEMPERATURE RISE ABOVE 40°C AMBIENT. ALL INSULATING MATERIALS TO BE IN ACCORDANCE WITH NEMA ST20-1972 STANDARDS FOR A 220°C UL COMPONENT RECOGNIZED INSULATION SYSTEM. SINGLE PHASE TRANSFORMERS 15 KVA THROUGH 50 KVA, AND THREE PHASE TRANSFORMERS THROUGH 45 KVA SHALL BE DESIGNED SO THEY CAN BE EITHER FLOOR OR WALL MOUNTED. THE TRANSFORMER SHALL BE LISTED BY UNDERWRITERS LABORATORY FOR SPECIFIED TEMPERATURE RISE. TRANSFORMERS 75 KVA AND ABOVE SHALL BE DESIGNED FOR FLOOR INSTALLATION ONLY UNLESS NOTED OTHERWISE.

7.7 LABEL ALL PANELS/TRANSFORMERS/DISCONNECTS WITH "WARNING" – ELECTRICAL EQUIPMENT – DANGER – QUALIFIED PERSONNEL ONLY TO OPERATE ON OPEN EQUIPMENT.

7.8 **DISCONNECT SWITCHES** WILL BE COMMERCIAL-DUTY, QUICK-MAKE, QUICK-BREAK, HORSEPOWER RATED, NEMA 1 INDOOR, NEMA 3R GASKETED, (4X) NEMA 12, OR NEMA 7 AS APPLICABLE WITH FUSES PER DRAWING.

7.9 **MANUAL MOTOR** STARTERS WITH THERMAL OVERLOADS WILL BE PROVIDED FOR FRACTIONAL HORSEPOWER MOTORS 1/2 HP OR GREATER. SQUARE 'D' CLASS 2510, 2511, 2512. AMBIENT COMPENSATED AS REQUIRED.

7.10 **MAGNETIC MOTOR STARTERS** WITH THERMAL OVERLOADS, (2) AUXILIARY CONTACT SWITCHES, INTERNAL LINE VOLTAGE TO 24 VOLT TRANSFORMER (250VA. MIN) WITH PROPER PRIMARY/SECONDARY PROTECTION, AMBIENT COMPENSATED, RED RUNNING LIGHT, HAND-OFF-AUTO, ACROSS THE LINE STARTERS. SHALL BE PROVIDED WITH ALL MOTOR SHOWN ON THE DRAWING (1 H.P. TO 25 H.P.).

7.11 **CONTROL PANELS** CONTROL PANELS SHALL HAVE A WITHSTAND RATING OF 5,000 AMPS FOR .5 SEC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

8.0 LIGHT FIXTURES

8.1 FURNISH AND INSTALL ALL LIGHTING FIXTURES COMPLETE WITH LAMPS, WHIPS AND ACCESSORIES. ALL RECESSED FIXTURES WILL BE RATED FOR USE IN ANY CEILING APPLICATIONS AND BE THERMALLY PROTECTED.

8.2 MOUNTING TYPE AND VOLTAGE OF FIXTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. (4) EARTHQUAKE CLIPS WILL BE INSTALLED ON EACH FIXTURE MOUNTED IN GRID OR FLANGE TYPE CEILINGS. FLUORESCENT FIXTURE LENSES WILL BE 100% ACRYLIC, .125" THICK MINIMUM.

8.3 ALL FIXTURES TO BE INSTALLED IN SYMMETRICAL MANNER FREE FROM LIGHT LEAKS AND DIRTY LENSES OR REFLECTORS.

8.4 ALL LAY-IN FIXTURES IN ACOUSTICAL CEILING SYSTEMS WILL BE INSTALLED PER IBC STANDARD. VERIFY WITH LOCAL BUILDING AUTHORITY.
8.4.1 SUPPORT FIXTURES PER IBC WITH TWO LOOSE SIZE #9 WIRES TO STRUCTURES ON OPPOSITE CORNERS AND 2 TAUGHT SIZE #9 WIRE TO STRUCTURE AT CORNERS AND/OR FIXTURE SHALL BE FASTENED BY SCREWS INTO T-BAR RUNNERS IN ACCORDANCE WITH LOCAL AUTHORITY HAVING JURISDICTION.

8.5 **LAMPS**
L.E.D.
8.5.2 3500KEVLIN TEMPERATURE UNLESS NOTED OTHERWISE.
8.5.1 80 CRI (COLOR RENDERING INDEX) MINIMUM.
FLUORESCENT LAMPS:
8.5.1 T8-3500 KELVIN TEMPERATURE UNLESS NOTED OTHERWISE.
8.5.2 80 CRI (COLOR RENDERING INDEX) MINIMUM.
H.I.D. LAMPS:
8.5.3 AS NOTED ON PLANS
INCANDESCENT LAMPS:
8.5.4 130V FOR ALL "A" TYPE LAMPS.

8.6 **BALLASTS**
8.6.1 ALL BALLASTS SHALL BE:
8.6.1.1 HIGH POWER FACTOR, UL LISTED, CBM CERTIFIED AND ETL TESTED.
8.6.1.2 HAVE A SOUND RATING OF "A"
8.6.1.3 HAVE THD < 10%
8.6.1.4 HAVE GREATER THAN 0.9 POWER FACTOR
8.6.2 FLUORESCENT BALLAST SHALL:
8.6.2.1 START RELIABLY DOWN TO AT LEAST 60°F (0°F WHEN INDICATED AS LOW TEMPERATURE ON THE DRAWINGS OR IN AN OPEN WAREHOUSE OR OUTDOORS)
8.6.2.2 BE RATED FOR AN AMBIENT OF AT LEAST 140°F.
8.6.2.3 ELECTRONIC TYPE (INSTANT OR RAPID START).
8.6.3 HID BALLASTS SHALL:
8.6.3.1 START RELIABLY DOWN TO AT LEAST – 20°F.
8.6.3.2 BE RATED FOR AN AMBIENT OF AT LEAST 131°F.
8.6.3.3 BE POTTED AND ENCASED WHEN INSTALLED IN AN OFFICE ENVIRONMENT.
8.6.3.4 HAVE PULSE START TECHNOLOGY.
8.6.4 ELECTRONIC DIMMING BALLAST SHALL:
8.6.4.1 WITHSTAND SURGES AS SPECIFIED IN ANSI C62.41
8.6.4.2 PREHEAT LAMP CATHODES BEFORE APPLYING ARC VOLTAGE
8.6.4.3 INTERNALLY LIMIT INRUSH CURRENT TO NOT EXCEED THREE AMPS AT 277 VOLTS OR SEVEN AMPS AT 120 VOLTS.
8.6.4.4 BE UL LISTED AND CLASS P THERMALLY PROTECTED
8.6.4.5 BE INAUDIBLE IN A 27Db AMBIENT THROUGHOUT THE DIMMING RANGE.
8.6.4.6 HAVE A DIMMING RANGE FROM 100% TO 10% ILLUMINANCE LEVEL.
8.6.4.7 ACCEPTABLE MANUFACTURERS: ADVANCE, MOTOROLA, LUTRON, HONEYWELL, AND MAGNETEK.

8.7 **DIMMERS AND SWITCHES**
8.7.1 ALL DEVICES SHALL BE UL LISTED SPECIFICALLY FOR THE REQUIRED LOADS (I.E., INCANDESCENT, FLUORESCENT, L.E.D., LOW VOLTAGE, ELECTRONIC LOW VOLTAGE).
8.7.2 DIMMERS AND SWITCHES SHALL MEET OR EXCEED ANSI/IEEE STD.C62.41-1980
8.7.3 DIMMERS AND SWITCHES SHALL MEET UL 20 AND UL 1472.
8.7.4 DIMMER CONTROL SHALL BE LINEAR SLIDE. DIMMER SHALL PROVIDE A SMOOTH AND CONTINUOUS SQUARE LAW DIMMING CURVE.
8.7.5 DIMMERS SHALL UTILIZE AN LC FILTERING NETWORK TO MINIMIZE INTERFERENCE WITH PROPERLY INSTALLED RADIO, AUDIO, AND VIDEO EQUIPMENT.
8.7.6 DIMMER CONTROL SLIDER SHALL BE CAPTURED.
8.7.7 FACEPLATE SHALL SNAP ON TO DEVICE WITH NO VISIBLE MEANS OF ATTACHMENT.
8.7.8 ACCEPTABLE MANUFACTURES FOR DIMMERS ARE LUTRON, LITHONIA, LEVITON AND PRESCOLITE, PHILIPS LIGHTOLIER OR PRIOR APPROVED EQUAL.
8.7.9 ALL DIMMERS WITH L.E.D.'S SHALL BE RATED/LISTED FOR USE WITH THE SPECIFIC LAMP OR LUMINAIRE.

8.8 **LIGHTING CONTACTORS**
8.8.1 LIGHTING CONTACTORS SHALL HAVE A WITHSTAND RATING OF 5KA SCCR FOR 0.5 SECONDS UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

8.9 **LIGHTING CONTROL PANELS**
8.9.1 PROGRAMMING SHALL BE COORDINATED WITH OWNER AND TENANT PRIOR TO COMPLETION OF PROJECT.
8.9.2 ALL PROGRAMMING SHALL MEET MINIMUM REQUIREMENTS OF ADOPTED INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
8.9.3 ALL RELAYS SHALL BE RATED FOR MINIMUM OF 5KA SCCR.

9.0 TELEPHONE SYSTEM

9.1 PROVIDE AND INSTALL A COMPLETE SYSTEM OF EMPTY RACEWAYS 3/4" EMT MINIMUM WITH PULL STRAP/CORD. PROVIDE REQUIRED/REQUESTED INFORMATION TO TELEPHONE COMPANY PRIOR TO INSTALLATION.

10.0 DATA/INFORMATION SYSTEM

10.1 PROVIDE AND INSTALL A COMPLETE SYSTEM OF RACEWAYS (CABLE TRAYS, J-HOOKS, CONDUIT SLEEVES) OF PREFERABLY OPEN CONSTRUCTION WITH PULL LINE. RACEWAYS TO BE CONTINUOUS.

NEW MEXICO BUILDING CODES
IECC: 2021 NEC: 2020

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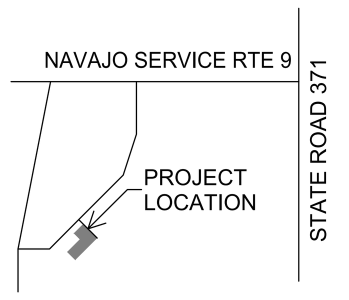

VICINITY MAP

REVISION		
NUMBER	DESCRIPTION	DATE

PROJECT NO. 24C-010

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SHEET TITLE
ELECTRICAL SYMBOLS & SPECIFICATIONS

DATE 08.31.2026

SHEET E000

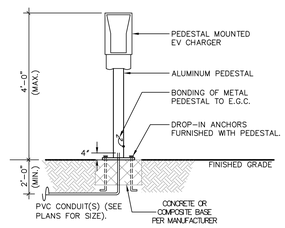
LUMINAIRE SCHEDULE

1. PROVIDE 90 MINUTE EMERGENCY BATTERY BACK-UP FOR ALL EMERGENCY FIXTURES. SEE SCHEDULE BELOW FOR SPECIFICATIONS AND LUMEN REQUIREMENTS.
2. MODULAR WIRING SYSTEM FOR LIGHT FIXTURES IS AN ACCEPTABLE ALTERNATE.
3. BASE BID FOR LUMINAIRES SHALL BE BASED ON MANUFACTURERS LISTED IN CONTRACT DOCUMENTS. UPON AWARD OF PROJECT, ALTERNATES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED WITH WRITTEN OWNER APPROVAL & AN ITEMIZED DEDUCT TO BASE BID.
4. ALTERNATE FIXTURE SELECTIONS MAY REQUIRE ADDITIONAL TIME FOR SUBMITTAL REVIEW & POSSIBLE ENGINEERING DESIGN CHANGES, TO BE BILLED TO THE CONTRACTOR.
5. PROVIDE MINIMUM 10 MINUTE TIME DELAY ON EMERGENCY FIXTURES WHEN HID AREA LIGHTING IS USED.

MARK	MANUFACTURER MODEL NUMBER	VOLTS	LAMPS, CRI/CCT INPUT WATTS	REMARKS/MOUNTING
S1	LUMINIS LQ420-L4L28-L1P469E-30K-MVOLT-NLTMSP	MVOLT	LED 27.0 WATTS	SQUARE POLE ILLUMINATED COLUMN LIGHT FIXTURE
S2	FORMS + SURFACES LBCYR-603	MVOLT	LED 6.0 WATTS	6" ROUND IMPACT RATED BOLLARD LIGHT FIXTURE
S3	WAYNE TYLER B240LED24W-3K-UNV-[XX]-[XX]-[XX]	MVOLT	LED 24.0 WATTS	11" ROUND CONCRETE BOLLARD LIGHT FIXTURE
S4	VISTA 1188-[XX]-NS-30-A-MV-CX-ND	MVOLT	LED 28.3 WATTS	IN GRADE SCULPTURE ACCENT UP-LIGHT
S5	BEULUX LWD16F-225-30-PC-DUD-[XX]-S	MVOLT	LED 3.0 WATTS/FT.	WET LOCATION ENCLOSED TAPE LIGHT, PROVIDE WITH ____V DIMMING POWER SUPPLY
S6	LUMENPULSE 48-30K-[XX]-2816LM-MVOLT	MVOLT	LED 10.0 WATTS	IN GRADE WALL SIGN ACCENT LIGHT FIXTURE, COORDINATE OPTICS WITH LIGHTING SUPPLIER WITH SIGN DESIGN
S7	STRUCTURA FELIX-MINI-L3050-30-[XX]-UNV-F	MVOLT	LED 13.0 WATTS	WET LOCATION DIRECTIONAL SPOT LIGHT FIXTURE AT STAGE

PEDESTAL MOUNTED EV CHARGER DETAIL

NTS



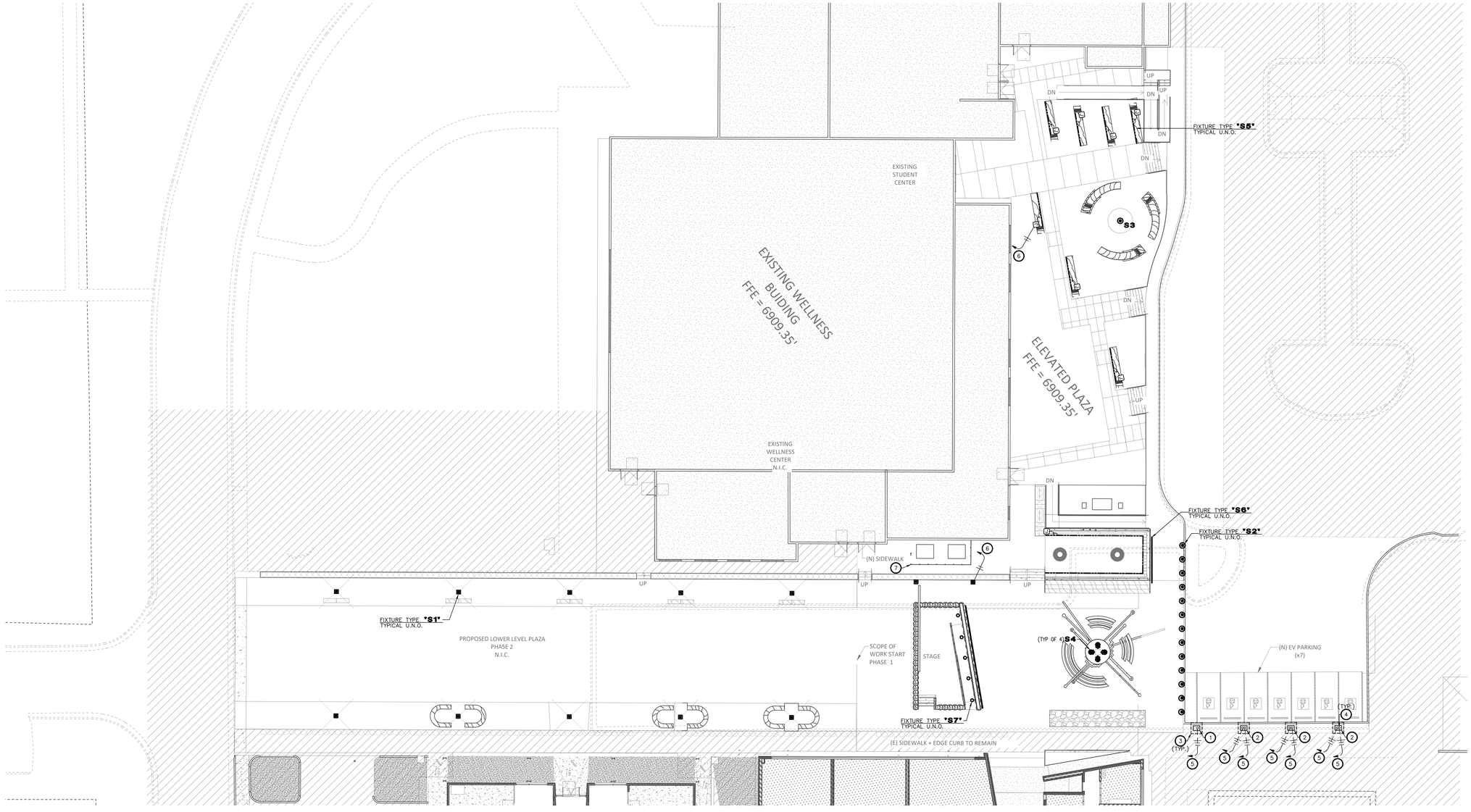
NOTE:
COORDINATE EXACT REQUIREMENTS FOR PARKING SIGNAGE, EQUIPMENT PROTECTION, AND ADA ACCESSIBILITY REQUIREMENTS WITH ARCHITECTURAL/CIVIL PLANS PRIOR TO ROUGH-IN.

KEYED NOTES

1. SINGLE-PORT PEDESTAL EV CHARGER (208V, 1ø, 32A) VERIFY EXACT ELECTRICAL REQUIREMENTS, AND MOUNTING DETAILS WITH MANUFACTURER PRIOR TO ROUGH-IN.
2. DOUBLE-PORT PEDESTAL EV CHARGER (208V, 1ø, 32A EACH) VERIFY EXACT ELECTRICAL REQUIREMENTS, AND MOUNTING DETAILS WITH MANUFACTURER PRIOR TO ROUGH-IN.
3. CONCRETE BASE PER PEDESTAL MANUFACTURER REQUIREMENTS, NO LESS THAN 2 FEET BEHIND CONCRETE WHEEL STOP FOR VEHICLE PROTECTION. VERIFY EXACT SIZE WITH MANUFACTURER PRIOR TO ROUGH-IN.
4. 3/4" OR 1" CONDUIT STUB(S) FROM ELECTRICAL PANELS AS NOTED IN SHEET E0.1.1. VERIFY EXACT STUB LOCATION AND HEIGHT WITH PEDESTAL MANUFACTURER PRIOR TO ROUGH-IN.
5. PROVIDE (3) #8 Cu., (1) #10 Cu. - 1" C. UNDERGROUND TO PANEL LOCATED IN ACADEMIC BUILDING.
6. LIGHTING CIRCUIT TO BE ROUTED THROUGH EXISTING LIGHTING CONTROL SYSTEM IN EXISTING WELLNESS CENTER BUILDING.
7. NEW SCREEN FENCE PROVIDED AROUND EXISTING HVAC UNITS, COORDINATE WITH LOCATIONS OF EXISTING HVAC UNIT DISCONNECTS TO NOT OBSTRUCT NEC 110.26 WORKING SPACE CLEARANCE IN FRONT OF DISCONNECTS.

GENERAL NOTES - SITE

1. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND COMPLETE CONTRACTUAL OBLIGATIONS.
2. ELECTRICAL CONTRACTOR SHALL CONTACT TELEPHONE COMPANY REGARDING EXACT LOCATION OF ALL PRIMARY SERVICE EQUIPMENT, TRENCH LOCATION, ETC.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TELEPHONE TRENCHING, BACKFILL, AND CONDUIT STUBS INTO TRENCH AS REQUIRED BY TELEPHONE COMPANY AND TO THEIR SPECIFICATIONS.
4. ALL WIRING FOR OUTSIDE LIGHTING SHALL BE A MINIMUM OF #10 COPPER WITH TYPE THWN INSULATION. RUN UNDERGROUND CIRCUITS IN P.V.C. AND PROVIDE A #10 COPPER BOND IN ADDITION TO CIRCUIT CONDUCTORS. UNDERGROUND WIRING SHALL COMPLY WITH APPLICABLE CODES OF THE NEC.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE NECESSARY SECONDARY CONDUCTORS, POWER TRENCHING, BACKFILL AND CONCRETE PADS FOR TRANSFORMERS AND SERVICE EQUIPMENT. ADDITIONALLY PROVIDE CONDUIT STUBS INTO TRENCH PER POWER COMPANY SPECIFICATIONS AND REQUIREMENTS.
6. ALL WIRING SHALL BE COPPER. WIRING #4 AWG AND LARGER SHALL BE XHHW TYPE INSULATION.



PLAZA ELECTRICAL PLAN 01

1/16" = 1'-0"

NEW MEXICO BUILDING CODES
IECC: 2021 NEC: 2020

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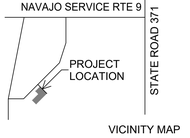

VICINITY MAP

REVISION NUMBER	DESCRIPTION	DATE

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SHEET TITLE

PLAZA ELECTRICAL PLAN

DATE 08.31.2026

SHEET **E100**

NEW PANELBOARD SCHEDULE "EV"

TYPE: **PANELBOARD**	NEMA TYPE: **NEMA 1**	MAIN TYPE: **M.L.O.**
VOLTAGE: **208Y/120V 3Ø 4W**	AFC: **XX,XXX**	FEED THRU: **NO**
MOUNTING: **SURFACE**	C/B RATING: **FULLY RATED**	ISO. GROUND: **NO**
BUS AMPS: **200**	C/B A.I.C.: **10,000**	SERVICE RATED: **NO**
PROVIDE GFCI CIRCUIT BREAKER	PROVIDE TIE BAR	EXIST. TO REMAIN UNCHANGED
HANDLE "LOCK-ON" DEVICE	CIRCUIT VIA LTG CONTROLS	EXIST. WITH CHANGED LOAD
HANDLE "LOCK-OFF" DEVICE	EXIST. W/ ALL LOAD REMOVED	NEW BREAKER WITH NEW LOAD

R = RECEPTS H = H.V.A.C. E = EQUIP. K = KITCHEN M = MISC. L = CONT. LIGHTING C = CONT. EQUIP.

T	AREA SERVED	C/B	#	AØ	BØ	CØ	#	C/B	T	AREA SERVED
C	EV CHARGER (a)	40/2	1	3328 / 3328			2	40/2	–	EV CHARGER (e)
			3		3328 / 3328		4			
C	EV CHARGER (b)	40/2	5			3328 / 3328	6	40/2	–	EV CHARGER (f)
			7	3328 / 3328			8			
C	EV CHARGER (c)	40/2	9		3328 / 3328		10	40/2	–	EV CHARGER (g)
			11			3328 / 3328	12			
C	EV CHARGER (d)	40/2	13	3328 / –			14	–/1	–	–
			15		3328 / –		16	–/1	–	–
–	–	–/1	17			– / –	18	–/1	–	–
–	–	–/1	19	– / –			20	–/1	–	–
–	–	–/1	21		– / –		22	–/1	–	–
–	–	–/1	23			– / –	24	–/1	–	–
–	–	–/1	25	– / –			26	–/1	–	–
–	–	–/1	27		– / –		28	–/1	–	–
–	–	–/1	29			– / –	30	–/1	–	–
–	–	–/1	31	– / –			32	–/1	–	–
–	–	–/1	33		– / –		34	–/1	–	–
–	–	–/1	35			– / –	36	–/1	–	–
–	–	–/1	37	– / –			38	–/1	–	–
–	–	–/1	39		– / –		40	–/1	–	–
–	–	–/1	41			– / –	42	–/1	–	–
NON-CONTINUOUS LOAD				6656	6656	6656		6656		VA / 120 V = 55.5 AMPS
CONTINUOUS LOAD				9984	9984	6656		9984		VA / 120 V = 83.2 AMPS
CONTINUOUS LOAD @ 25%				2496	2496	1664		2496		VA / 120 V = 20.8 AMPS
TOTAL LOAD PER PHASE				19136	19136	14976		19136		VA / 120 V = 159.5 AMPS

EXIST. PANELBOARD SCHEDULE "PNL"

TYPE: **PANELBOARD**	NEMA TYPE: **NEMA 1**	MAIN TYPE: **M.L.O.**
VOLTAGE: **208Y/120V 3Ø 4W**	AFC: **XX,XXX**	FEED THRU: **NO**
MOUNTING: **SURFACE**	C/B RATING: **FULLY RATED**	ISO. GROUND: **NO**
BUS AMPS: **225**	C/B A.I.C.: **10,000**	SERVICE RATED: **NO**
PROVIDE GFCI CIRCUIT BREAKER	PROVIDE TIE BAR	EXIST. TO REMAIN UNCHANGED
HANDLE "LOCK-ON" DEVICE	CIRCUIT VIA LTG CONTROLS	EXIST. WITH CHANGED LOAD
HANDLE "LOCK-OFF" DEVICE	EXIST. W/ ALL LOAD REMOVED	NEW BREAKER WITH NEW LOAD

R = RECEPTS H = H.V.A.C. E = EQUIP. K = KITCHEN M = MISC. L = CONT. LIGHTING C = CONT. EQUIP.

T	AREA SERVED	C/B	#	AØ	BØ	CØ	#	C/B	T	AREA SERVED
–	–	–/1	1	– / –			2	–/1	–	–
–	–	–/1	3		– / –		4	–/1	–	–
–	–	–/1	5			– / –	6	–/1	–	–
–	–	–/1	7	– / –			8	–/1	–	–
–	–	–/1	9		– / –		10	–/1	–	–
–	–	–/1	11			– / –	12	–/1	–	–
–	–	–/1	13	– / –			14	–/1	–	–
–	–	–/1	15		– / –		16	–/1	–	–
–	–	–/1	17			– / –	18	–/1	–	–
–	–	–/1	19	– / –			20	–/1	–	–
–	–	–/1	21		– / –		22	–/1	–	–
–	–	–/1	23			– / –	24	–/1	–	–
–	–	–/1	25	– / –			26	–/1	–	–
–	–	–/1	27		– / –		28	–/1	–	–
–	–	–/1	29			– / –	30	–/1	–	–
–	–	–/1	31	– / –			32	–/1	–	–
–	–	–/1	33		– / –		34	–/1	–	–
–	–	–/1	35			– / –	36	–/1	–	–
–	–	–/1	37	– / –			38	–/1	–	–
–	–	–/1	39		– / –		40	–/1	–	–
–	–	–/1	41			– / –	42	–/1	–	–
NON-CONTINUOUS LOAD				–	–	–		–		VA / 120 V = – AMPS
CONTINUOUS LOAD				–	–	–		–		VA / 120 V = – AMPS
CONTINUOUS LOAD @ 25%				–	–	–		–		VA / 120 V = – AMPS
TOTAL LOAD PER PHASE				–	–	–		–		VA / 120 V = – AMPS

KEYED NOTES

1. NEW 75KVA STEP-DOWN TRANSFORMER PRIMARY 480V 3-PHASE 3W – SECONDARY 208Y/120V 3-PHASE 4-WIRE.

GENERAL NOTES - ONE-LINE

1. THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS TO FULLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO BID. NO ADDITIONAL CONSIDERATIONS WILL BE ALLOWED AFTER THE BID.
2. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL INDICATED EQUIPMENT TO CODE COMPLIANT CLEARANCES. PROVIDE SUBMITTALS AS INDICATED IN SPECIFICATIONS TO PROPERLY COORDINATE PHYSICAL LOCATIONS OF NEW AND/OR EXISTING EQUIPMENT.
3. REFER TO ELECTRICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND COMPLETE CONTRACTUAL OBLIGATIONS.
4. ALL DASHED LINES ARE INDICATING EXISTING EQUIPMENT.
5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT DIRECTORY OR CIRCUIT IDENTIFICATION FOR PANELBOARDS AND SOURCE OF SUPPLY FOR SWITCHBOARDS AND PANELBOARDS SUPPLIED BY A FEEDER IN OTHER THAN ONE– TWO–FAMILY DWELLINGS IN ACCORDANCE WITH NEC 408.4(A)&(B).
6. WHERE A RACEWAY ENTERS A BUILDING OR STRUCTURE FROM AN UNDERGROUND DISTRIBUTION SYSTEM, ELECTRICAL CONTRACTOR SHALL PROVIDE RACEWAY SEALS PER NEC 225.27.
7. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FOR AND COORDINATE ALL TESTING AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, AND SHALL PROVIDE WRITTEN REPORTS TO THE ENGINEER OF ALL TEST RESULTS AND INSPECTION REPORTS FOR THIS DISCIPLINE.
8. WHERE SPECIAL INSPECTION/OBERVATION IS REQUIRED, QUALIFIED 3RD PARTY INDIVIDUALS ACCEPTABLE TO THE AUTHORITY HAVING JURSIDICTION SHALL WORK DIRECTLY FOR THE OWNER TO PERFORM ALL REQUIRED TESTING & INSPECTION.
9. UPON SUBSTANTIAL COMPLETION, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL ALLOW, AT THE ENGINEERS DISCRETION, FOR THE INSPECTION OF NEW WORK PRIOR TO ENERGIZING.
10. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ARC–FLASH HAZARD WARNING FIELD LABELING TO ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC 110.16.
11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MAXIMUM AVAILABLE FAULT CURRENT FIELD LABELING TO SERVICE EQUIPMENT INSTALLED IN OTHER THAN DWELLING UNITS IN ACCORDANCE WITH NEC 110.24.
12. GFP MUST BE ON–SITE TESTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ELECTRICAL CONTRACTOR SHALL PROVIDE COPY OF MANUFACTURER'S INSTRUCTIONS AND TEST RESULTS TO AUTHORITY HAVING JURISDICTION.
13. ALL EQUIPMENT RATED @ 1000 AMPS OR MORE SHALL BE TESTED IN CONFORMANCE WITH UL STANDARD 869 OR 891 FOR INSULATION BREAKDOWN PRIOR TO ITS BEING ENERGIZED. THIS TEST SHALL BE PERFORMED BY A TESTING FACILITY APPROVED BY THE BUILDING OFFICIAL. (SEE SECTION 4.6 OF ELECTRICAL SYSTEM SPECIFICATIONS).
14. ALL UNDERGROUND CONDUITS ENTERING BUILDING/STRUCTURE FROM OUTSIDE SHALL BE SEALED PER NEC 225.27 & 300.5(G).

FAULT CALCULATIONS

The following calculations are based on the "Point–to–Point" method

Three Phase: $f = \frac{\sqrt{3} \times L \times Isc_1}{C \times Vp}$, $M = 1/(1+f)$, $Isc_2 = Isc_1 \times M$

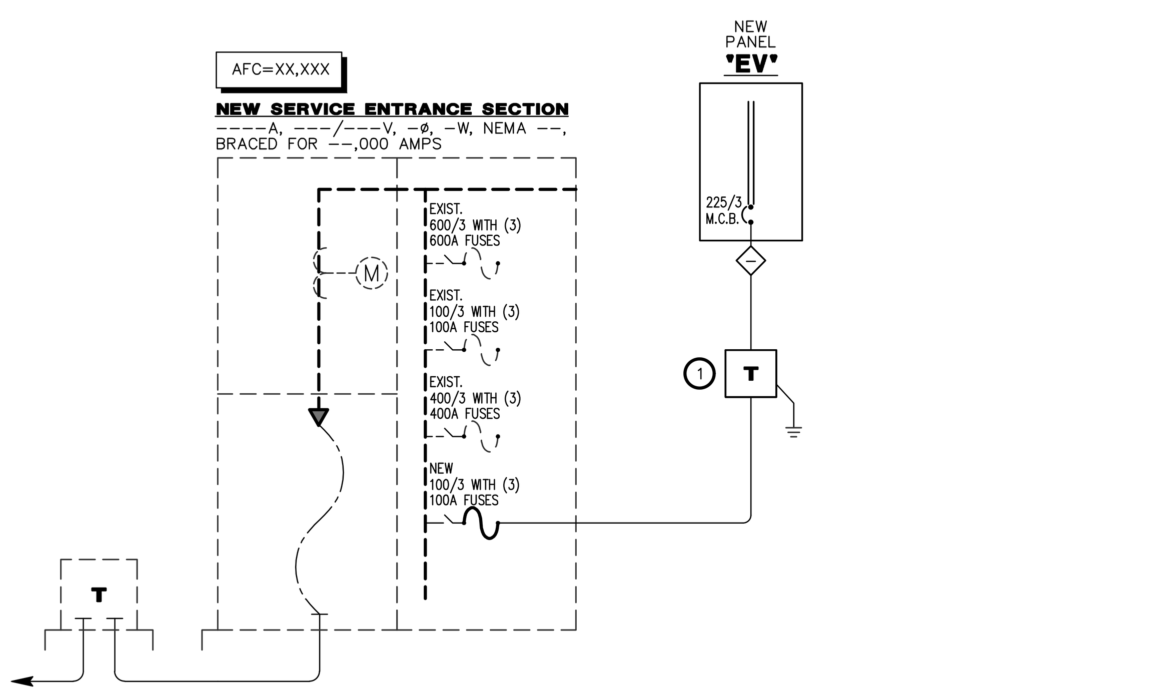
Single Phase: $f = \frac{2 \times L \times Isc_1}{C \times Vp}$, $M = 1/(1+f)$, $Isc_2 = Isc_1 \times M$

Three Phase Xfmr: $f = \frac{\sqrt{3} \times Isc_1 \times Vp \times \%Z}{100{,}000 \times kVA}$, $Isc_2 = \frac{Vp \times M \times Isc_1}{Vs}$

Single Phase Xfmr: $f = \frac{Isc_1 \times Vp \times \%Z}{100{,}000 \times kVA}$, $Isc_2 = \frac{Vp \times M \times Isc_1}{Vs}$

NOTE:
CONDUCTOR LENGTHS SHOWN ARE SHORTEST–PATH FOR USE IN CALCULATIONS ONLY AND ARE NOT INTENDED FOR USE IN BIDDING OR CONSTRUCTION. ACTUAL LENGTHS MUST BE MEASURED & VERIFIED BY THE CONTRACTOR, AND **REPORTED TO ENGINEER** IF DESIGN CHANGES ARE REQUIRED.

F#	SOURCE	Isc_1	C.	(SETS) OF WIRE SIZE	TYP.	'C' VALUE	Vp/(Vs)	ø	'L' feet	Xfmr kVA	Xfmr %Z	Isc_2
1	ACADEMIC	65000	NM	(1) OF #4/0's	Cu.	–	480	3	20	–	–	–
2	WELLNESS	65000	NM	(1) OF #4/0's	Cu.	–	480	3	20	–	–	–



ELECTRICAL ONE-LINE DIAGRAM - ACADEMIC BUILDING 01
NOT TO SCALE

ELECTRICAL ONE-LINE DIAGRAM - WELLNESS CENTER 02
NOT TO SCALE

NEW MEXICO BUILDING CODES
IECC: 2021 NEC: 2020

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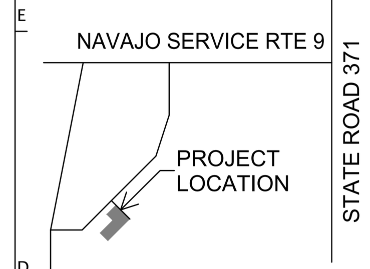

VICINITY MAP

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SHEET TITLE
ELECTRICAL ONE-LINE DIAGRAM

DATE 08.31.2026

SHEET **E200**