

- CAS -

CONTRACTOR TO VERIFY LOCATIONS OF ANY

EXISTING UTILITIES ALONG THE PATH OF THE

PROPOSED CONDUITS. RELOCATE PROPOSED

PATH TO AVOID EXISTING UTILITY CONFLICTS

DATA FROM BUILDING PANEL

PARKING SYSTEM HIGH SPEED DATA TRANSFER LINE,

FIBER OPTIC 6 STRAND CABLE, CONDUIT TO HAVE NO SHARP ELBOWS, USE SWEEPING 90 DEGREE, WITH 12"

IN AND ONLY TO THE APPROVED FORCE

BEND RADIUS, WHEN INSTALLING ONLY PULL THE CABLE

PANEL PR-3

NEMA 3R EXTERIOR GRADE

**POWER PANEL & SUPPORT** 

ELECTRIC CABINET 'LCC'

DETAIL 8, SHEET C3.0

DATA TO P.O.S. SYSTEM

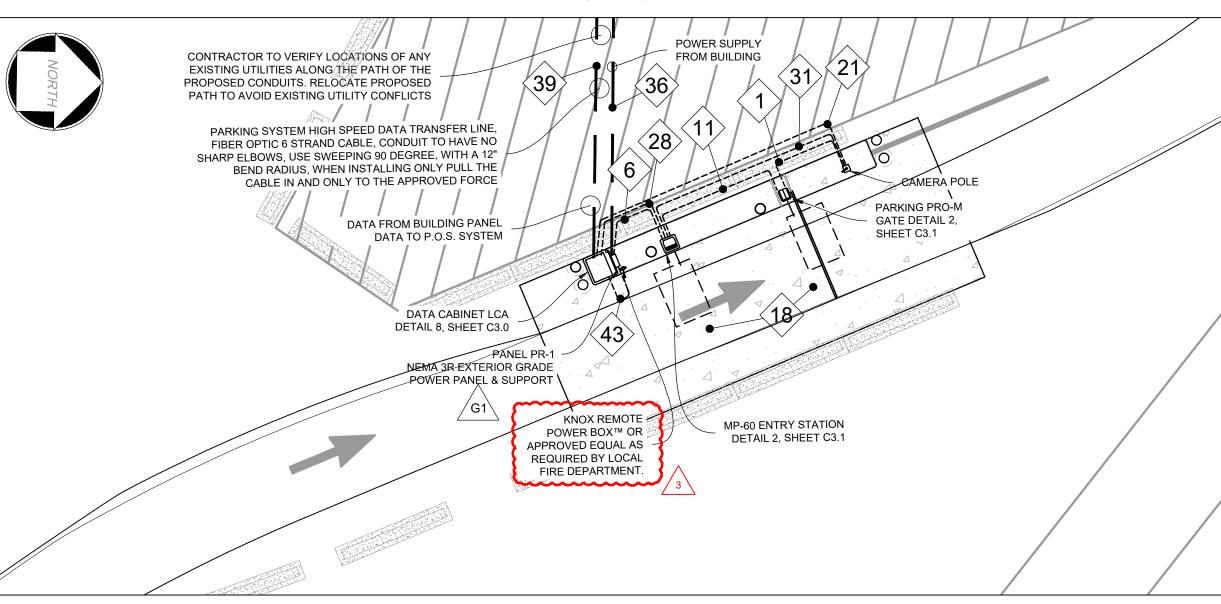
CONDUIT#	DESCRIPTION and NOMINAL SIZE	WIRE COUNT PER CONDUIT	ORIGIN	TERMINATION
1	CAMERA DATA/POWER (¾")	(1) CAT6 DATA CABLE PER CONDUIT	GATE	CAMERA
2	CAMERA DATA/POWER (¾")			
3	CAMERA DATA/POWER (¾")			
4	CAMERA DATA/POWER (¾")			
5	CAMERA DATA/POWER (¾")			
6	MP-60 ENTRY STATION POWER (¾")		PNL PR-1	ENTRY LANE DEVICE
7	MP-60 ENTRY STATION POWER (¾")	(3) #12 AWG CONTROL WIRING WITH (1) #12	PNL PR-2	
8	MP-60 ENTRY STATION POWER (¾")	GROUND WIRE PER CONDUIT	PNL PR-2	
9	SW-60 EXIT STATION POWER (¾")		PNL PR-3	EXIT LANE
10	SW-60 EXIT STATION POWER (¾")		PNL PR-3	DEVICE
11	ENTRY PARKING PRO-M GATE POWER (¾")	(2) #12 AWG CONTROL WIRING WITH (1) #12 GROUND WIRE PER CONDUIT (VERIFY WIRE REQUIREMENTS FOR SENSOR PADS WITH MANUFACTURER PRIOR TO INSTALLATION)	ENTRY LANE DEVICE	
12	ENTRY PARKING PRO-M GATE POWER (¾")			
13	ENTRY PARKING PRO-M GATE POWER (¾")		DEVIOL	GATE
14	EXIT PARKING PRO-M GATE POWER (¾")		EXIT LANE	
15	EXIT PARKING PRO-M GATE POWER (¾")		DEVICE	
16	EXIT SENSOR PADS POWER (¾")	(2) #12 AWG SENSOR WIRING WITHIN LOOP	EXIT LANE	
17	EXIT SENSOR PADS POWER (¾")	AREA (CONCRETE APRON) AND (3) #12	DEVICE/GATE	
18	ENTRY SENSOR PADS POWER (¾")	SHIELDED WIRE TO CONTROL UNIT (VERIFY) WIRE REQUIREMENTS FOR SENSOR PADS		SENSOR LOOF
19	ENTRY SENSOR PADS POWER (¾")	WITH MANUFACTURER PRIOR TO	ENTRY LANE DEVICE/GATE	
20	ENTRY SENSOR PADS POWER (¾")	INSTALLATION)	DEVICE/GATE	
21	DATA WIRING TO CAMERA (1")		CABINET/LCA	CAMERA
22	DATA WIRING TO CAMERA (1")		CABINET/LCB	
23	DATA WIRING TO CAMERA (1")	(3) CAT6 DATA CABLE PER CONDUIT	CABINET/LCB	
24	DATA WIRING TO CAMERA (1")		CABINET/LCC	
25	DATA WIRING TO CAMERA (1")		CABINET/LCC	
26	DATA WIRING TO SW-60 EXIT STATION (1")	(3) CAT6 DATA CABLE PER CONDUIT	CABINET/LCC	DEVICE
27	DATA WIRING TO SW-60 EXIT STATION (1")	(3) CAT6 DATA CABLE PER CONDUIT	CABINET/LCC	
28	DATA WIRING TO MP-60 ENTRY STATION (1")	(2) CAT6 DATA CABLE PER CONDUIT	CABINET/LCA	
29	DATA WIRING TO MP-60 ENTRY STATION (1")	(2) CAT6 DATA CABLE PER CONDUIT	CABINET/LCB	ENTRY LANE DEVICE
30	DATA WIRING TO MP-60 ENTRY STATION (1")	(2) CAT6 DATA CABLE PER CONDUIT	CABINET/LCB	DEVIOL
31	DATA WIRING TO CAMERA (1")			CAMERA
32	DATA WIRING TO CAMERA (1")		ENTRY LANE DEVICE	
33	DATA WIRING TO CAMERA (1")	18/4 UNSHIELDED COPPER WIRE	DEVICE	
34	DATA WIRING TO CAMERA (1")		EXIT LANE	
			DEV40E	1

DEVICE

## SAW CUT EXISTING PAVEMENT TO FORM A CLEAN ED PARKING PRO-M GATE DETAIL 2, SHEET C3.1 CAMERA POLE MP-60 ENTRY STATION CONTRACTOR SHALL PERFORM PROOF ROLL FOLLOWING THE PA AGGREGATE REMOVAL AND SUBGRADE COMPACTION, PROOF RO DETAIL 2, SHEET C3.1 DEFLECTIONS AND SOIL CONDITIONS THAT ARE OBSERVED DURIN CONSTRUCTION DETERMINE IF FURTHER EXCAVATIONS ARE NEC CONTRACTOR SHALL EXCAVATE DOWN TO FIRM SOIL OR AS DIRE CONTRACTOR TO VERIFY LOCATIONS OF ANY EXISTING UTILITIES ALONG THE PATH OF THE TWO INDIVIDUAL VEHICLE **〈33**〉 PROPOSED CONDUITS. RELOCATE PROPOSED SENSOR LOOPS. EXACT KNOX REMOTE PATH TO AVOID EXISTING UTILITY CONFLICTS LOCATION AND POWER BOX™ OR APPROVED EQUAL AS INSTALLATION METHOD PARKING SYSTEM HIGH SPEED DATA TRANSFER PER MANUFACTURER REQUIRED BY LOCA FIRE DEPARTMENT. LINE, FIBER OPTIC 6 STRAND CABLE, CONDUIT TO RECOMENDATIONS (TYP 2 PARKING PRO-M GATE HAVE NO SHARP ELBOWS, USE SWEEPING 90 LOCATIONS). DETAIL 2, SHEET C3.1 DEGREE, WITH A 12" BEND RADIUS, WHEN INSTALLING ONLY PULL THE CABLE IN AND ONLY NEMA 3R EXTERIOR GRADE POWER PANEL & SUPPORT TO THE APPROVED FORCE DATA FROM BUILDING PANEL CAMERA DATA TO P.O.S. SYSTEM ELECTRIC CABINET LCB POLE DETAIL 8, SHEET C3.0 POWER SUPPLY MP-60 ENTRY STATION \_ FROM BUILDING DETAIL 2, SHEET C3.1

ENLARGED WEST ENTRANCE (GATES 2 & 3) WORK AREA ROUTING CONDUIT PLAN

35 DATA WIRING TO CAMERA (1")



ENLARGED NORTH ENTRANCE (GATE 1)
WORK AREA ROUTING CONDUIT PLAN

CONDUIT SCHEDULE (CONT.)							
CONDUIT#	DESCRIPTION and NOMINAL SIZE	WIRE COUNT PER CONDUIT	ORIGIN	TERMINATIO			
36	ELECTRIC CABINET POWER ( 1-1/4")	(3)#2 AWG & (1)#8 AWG GND - 1 1/4" PVC SCHEDULE 40 UNDERGROUND CONDUIT.	BUILDING POWER PANEL	PNL PR-1			
37	ELECTRIC CABINET POWER ( 1-1/4")	(3)#2 AWG & (1)#8 AWG GND - 1 1/4" PVC SCHEDULE 40 UNDERGROUND CONDUIT.	BUILDING POWER PANEL	PNL PR-2			
38	ELECTRIC CABINET POWER ( 1-1/4")	(3)#2 AWG & (1)#8 AWG GND - 1 1/4" PVC SCHEDULE 40 UNDERGROUND CONDUIT.	BUILDING POWER PANEL	PNL PR-3			
39	DATA WIRING (1")		BUILDING NETWORK PANEL	CABINET/L			
40	DATA WIRING (1")	6-STRAND SINGLEMODE FIBER OPTIC CABLE		CABINET/L			
41	DATA WIRING (1")	SABLE		CABINET/LO			
42	ELECTRIC CABINET POWER ( 1")	2-10 AWG & 1-10 AWG GND - 1" PVC SCHEDULE 40 UNDERGROUND CONDUIT.	PNL PR-1	CABINET/LO			
43	ELECTRIC CABINET POWER ( 1")		PNL PR-2	CABINET/L			
44	ELECTRIC CABINET POWER ( 1")		PNL PR-3	CABINET/LO			

\*ELECTRICIAN TO DETERMINE REQUIRED WIRE AND CONDUIT SIZE BASED ON LENGTH OF RUN FROM ELECTRICAL CABINET TO BUILDING ELECTRICAL PANEL.

ELECTRICIAN TO VERIFY REQUIRED WIRE & CONDUIT SIZE BASED ON LENGTH OF RUN FROM ELECTRICAL CABINET TO BUILDING ELECTRICAL PANEL.

## **GENERAL NOTES**

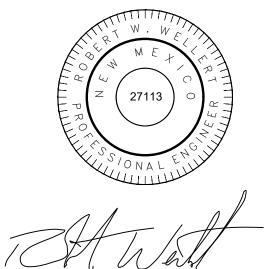
- A. REFER TO WELLERT CORPORATION'S CIVIL PLANS FOR ADDITIONAL DETAILS.
- B. THE ELECTRICAL INSTALLATION MUST MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE STATE OR LOCAL CODES. AS INTERPRETED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- C. CONDUIT PENETRATIONS THRU ISLANDS AND BUILDINGS ARE DEPICTED FOR REFERENCE ONLY. ACTUAL LOCATIONS OF PENETRATIONS SHALL BE PER EQUIPMENT MANUFACTURER SPECIFICATIONS, REFERENCED DETAILS AND FIELD DETERMINATIONS.
- D. ALL WIRING AND CONDUIT FOR POWER AND DATA, AND RELATED EQUIPMENT TO BE PROVIDED AND INSTALLED BY PROJECT ELECTRICIAN. FOR EACH ELECTRICAL RACEWAY SYSTEM INDICATED, PROVIDE A COMPLETE ASSEMBLY OF CONDUIT WITH FITTINGS INCLUDING, BUT NOT NECESSARILY LIMITED TO, CONNECTORS, NIPPLES, COUPLINGS, EXPANSION FITTINGS, BUSHINGS, LOCKOUTS AND OTHER COMPONENTS AND ACCESSORIES AS NEEDED TO FORM A COMPLETE SYSTEM FOR THE TYPE INDICATED AND AS REQUIRED BY NFPA 70, LATEST EDITION.
- E. ALL CONDUITS SHALL BE RIGID NON-METALLIC CONDUIT (PVC COMPLYING WITH NFPA 70 ARTICLE 352) WHERE PERMITTED BY NFPA 70.
- F. PROVIDE GROUNDING AND BONDING OF ALL METAL RACEWAYS, THE METAL ARMOR OR METALLIC SHEATH ON CABLES, AND ALL NON-CURRENT-CARRYING METAL PARTS REGARDLESS OF VOLTAGE AS REQUIRED BY NFPA 70. GROUNDING AND BONDING SHALL COMPLY WITH N.E.C. REQUIREMENTS.
- G. VERIFY THE EXACT LOCATION AND MOUNTING HEIGHTS OF WALL, FLOOR AND CEILING MOUNTED DEVICES AND EQUIPMENT WITH THE EXISTING CONDITIONS BEFORE ROUGH-IN OF THE ELECTRICAL WORK. DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR RESOLUTION PRIOR TO ROUGH-IN.
- H. COORDINATE THE ELECTRICAL WORK WITH ALL TRADES ON SITE AND WITH THE OWNER'S REPRESENTATIVE. REFER TO THE CIVIL PLANS TO PROPERLY PLAN AND INSTALL THE ELECTRICAL SYSTEMS AND EQUIPMENT.
- ALL WIRE FOR POWER AND CONTROL SYSTEMS SHALL BE 600 VOLT THHN-THWN, 90 DEGREE INSULATED AND SHALL BE COPPER. ALL WIRE
  FOR COMMUNICATIONS SYSTEMS SHALL BE COPPER.
- J. INDOOR WIRING NOT SUBJECT TO PHYSICAL DAMAGE SHALL BE RUN IN EMT THIN-WALL CONDUIT. RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT SHALL BE INSTALLED IN LOCATIONS WHERE SUBJECT TO SEVERE PHYSICAL DAMAGE. TYPE MC CABLE MAY BE INSTALLED CONCEALED WITHIN WALL AND CEILING SPACES FOR BRANCH CIRCUIT WIRING
- K. UNDERGROUND WIRING SHALL BE INSTALLED IN PVC SCHEDULE 40 CONDUIT AND AT 24" MINIMUM BELOW DRIVES AND PARKING SURFACES.
  TRANSITION TO RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT WHERE TRANSITIONING FROM BELOW GRADE TO ABOVE GRADE.
- L. FIRE SEAL OPENINGS AROUND ALL CONDUIT PENETRATIONS TO BUILDINGS. PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE SEALED WITH LISTED FIRE RATED MATERIALS.
- M. ALL COMPONENTS FOR ELECTRICAL EQUIPMENT TO BE INSTALLED WILL BE UL RATED, BEAR THE UL SEAL AND BE STATE APPROVED.
- N. PANEL DIRECTORIES ARE REQUIRED TO BE UPDATED BY THE ELECTRICAL CONTRACTOR PRIOR TO OBTAINING FINAL OCCUPANCY. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO TRACE EXISTING BRANCH CIRCUIT WIRING THAT IS TO BE MODIFIED AS PART OF THIS CONTRACT, UPDATE THE PANEL DIRECTORIES IN THE FIELD, AND MEASURE LOAD READINGS ON THE PANELS TO ENSURE THAT NO PANEL OR BRANCH CIRCUIT SERVING THE SPACE IS OVERLOADED.
- O. PROVIDE LABELS FOR NEW PANEL BOARDS TO WARN OF POTENTIAL ARC FLASH HAZARDS IN ACCORDANCE WITH NEC 110.16(A).
- P. PROVIDE LABEL TO INDICATE MAXIMUM AVAILABLE FAULT CURRENT AT SERVICE EQUIPMENT IN ACCORDANCE WITH NEC 110.24(A).
- Q. DO NOT INSTALL ANY NEW ELECTRICAL EQUIPMENT IN EXISTING HAZARDOUS LOCATIONS.
- R. PARKING SYSTEMS OVER 300 FEET FROM THE NETWORK SYSTEM, THE CAT6 CABLE WILL REQUIRE A SIGNAL EXTENDER TO BE INSTALLED, CONTRACTOR TO VERIFY REQUIREMENTS AND INSTALL EQUIPMENT AS NECESSARY TO CORRECT FUNCTION.
- S. FIBER OPTIC CABLE TO CAT 6 CONVERTER WILL BE REQUIRED, USE TRENDNET (T1-F11SFP) WITH POWER TRANSFORMER TRENDNET TI-M6024, AND FIBER OPTIC CONNECTOR TRENDNET TI-MGBSX.
- T. TIBA PARKING SYSTEMS #MP-60 ENTRY STATION. 120/208V, 1 PHASE, 0.8 KW. PROVIDE AND INSTALL 3-12 AWG & 1-12 AWG GND ¾" C. FOR POWER TO EQUIPMENT. ALSO PROVIDE AND INSTALL 1" CONDUIT FOR LOW VOLTAGE CABLING TO EQUIPMENT. COORDINATE EXACT LOCATION WITH CIVIL PLANS AND OWNER, AND COORDINATE EXACT ELECTRICAL CONNECTIONS, WIRING, AND LOW VOLTAGE REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. REFER TO CIVIL PLANS AND CONDUIT ROUTING PLAN BY WELLERT CORPORATION FOR ADDITIONAL INFORMATION.
- U. TIBA PARKING SYSTEMS #PRO-M-T PARKING GATE. 120/208V, 1 PHASE, 0.1 KW. PROVIDE AND INSTALL 3-12 AWG & 1-12 AWG GND ¾" C. FOR POWER TO EQUIPMENT. ALSO PROVIDE AND INSTALL 1" CONDUIT FOR LOW VOLTAGE CABLING TO EQUIPMENT. COORDINATE EXACT LOCATION WITH CIVIL PLANS AND OWNER, AND COORDINATE EXACT ELECTRICAL CONNECTIONS, WIRING, AND LOW VOLTAGE REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. REFER TO CIVIL PLANS AND CONDUIT ROUTING PLAN BY WELLERT CORPORATION FOR ADDITIONAL INFORMATION.
- V. VEHICLE SENSOR LOOP. 120V, 1 PHASE, 0.2 KW PRESUMED. PROVIDE AND INSTALL 3-12 AWG ¾" C. FOR POWER TO EQUIPMENT. COORDINATE EXACT LOCATION WITH CIVIL PLANS AND OWNER, AND COORDINATE EXACT ELECTRICAL CONNECTIONS AND WIRING REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. REFER TO CIVIL PLANS AND CONDUIT ROUTING PLAN BY WELLERT CORPORATION FOR ADDITIONAL INFORMATION.
- W. CAMERA POLE. 12V,DC, 0.2 KW PRESUMED. PROVIDE AND INSTALL CAT6 CABLE 3/4" C. FOR POWER TO EQUIPMENT. ALSO, PROVIDE AND INSTALL 1" CONDUIT FOR LOW VOLTAGE CABLING TO EQUIPMENT. COORDINATE EXACT LOCATION WITH CIVIL PLANS AND OWNER, AND COORDINATE EXACT ELECTRICAL CONNECTIONS, WIRING, AND LOW VOLTAGE REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. REFER TO CIVIL PLANS AND CONDUIT ROUTING PLAN BY WELLERT CORPORATION FOR ADDITIONAL INFORMATION.
- X. TIBA PARKING SYSTEMS #SW-60 EXIT STATION. 120/208V, 1 PHASE, 0.8 KW. PROVIDE AND INSTALL 3-12 AWG & 1-12 AWG GND ¾" C. FOR POWER TO EQUIPMENT. ALSO PROVIDE LOW VOLTAGE CABLING TO EQUIPMENT. COORDINATE EXACT LOCATION WITH CIVIL PLANS AND OWNER, AND COORDINATE EXACT ELECTRICAL CONNECTIONS, WIRING, AND LOW VOLTAGE REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. REFER TO CIVIL PLANS AND CONDUIT ROUTING PLAN BY WELLERT CORPORATION FOR ADDITIONAL INFORMATION.
- Y. PROPOSED CONDUIT ROUTING TO EXISTING ELECTRICAL ROOM. ROUTE CONDUITS OVERHEAD IN EXISTING BUILDING, AND COORDINATE EXACT ROUTING IN FIELD WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN.



CONSULTANT:



	NO.	DATE	REVISION DESCRIPTION	
	0	06/10/2024	ISSUED FOR PERMIT	
	1	08/01/2024	REVISED CONCRETE PADS AND BARRIER PLACEMENT	
	2	10/22/2024	REVISED STORAGE TRAILERS AND TIRE STORAGE LOCATIONS	
	3	12/17/2024	REVISED PER CITY COMMENTS	
_				



<u>PROJECT TITLE</u>

TA FACILITY #081
NEW PARKING
GATE
NEW PARKING
GATE SYSTEM

SITE ADDRESS:

2501 UNIVERSITY BLVD. N.E. ALBUQUERQUE, NEW MEXICO 87107

DATE: 06/10/2024

DESIGNED BY: SMW

DRAWN BY: SMW

CHECKED BY: RWW

FILE NAME: 240117-C #081 Parking Gate.dwg

AS STATED

JOB NUMBER: 240117

DRAWING TITLE:

CONDUIT PLAN

SHEET I

Know what's below.

Call before you dig.

FROM BUILDING SW-60 EXIT STATION DETAIL 2, SHEET C3.1 SW-60 EXIT STATION DETAIL 2, SHEET C3.1 TWO INDIVIDUAL VEHICLE SENSOR LOOPS. EXACT LOCATION AND INSTALLATION METHOD PER MANUFACTURER **RECOMENDATIONS (TYP 2** LOCATIONS). PARKING PRO-M GATE DETAIL 2, SHEET C3.1 CAMERA POLE PARKING PRO-M GATE DETAIL 2, SHEET C3.1 CAMERA POLE

ENLARGED SOUTH EXIT (GATES 4 & 5) WORK AREA ROUTING CONDUIT PLAN