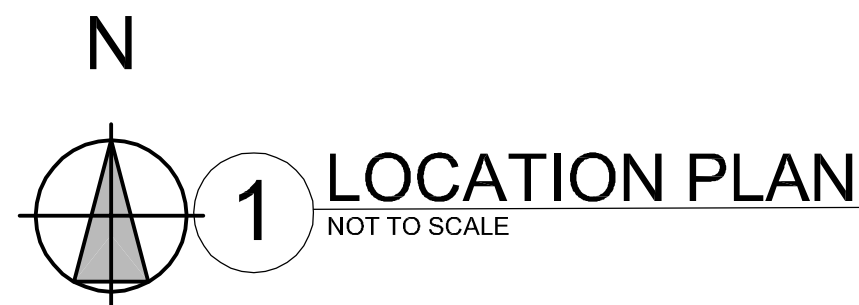
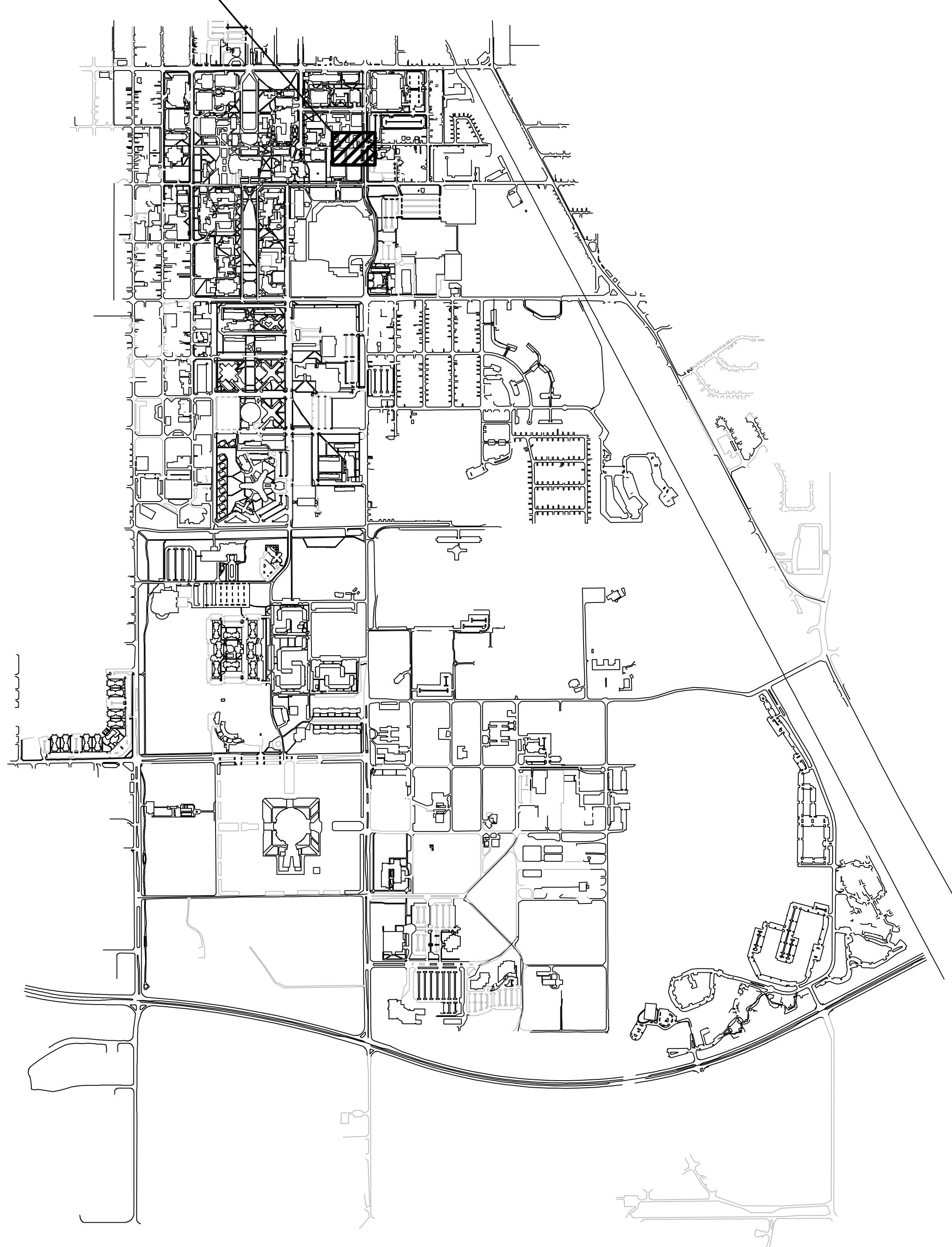


THE UNIVERSITY OF OKLAHOMA
TELECOM TRANSFORMER 2400V-12.5KV
PRIMARY ELECTRICAL DISTRIBUTION SYSTEM CONVERSION

PROJECT LOCATION



SHEET INDEX

- G001 TITLE SHEET
- E201 SITE PLAN
- E601 PED SINGLE LINE DIAGRAMS
- E701 ELECTRICAL SPECIFICATIONS

CONSTRUCTION DRAWINGS
10/24/2022

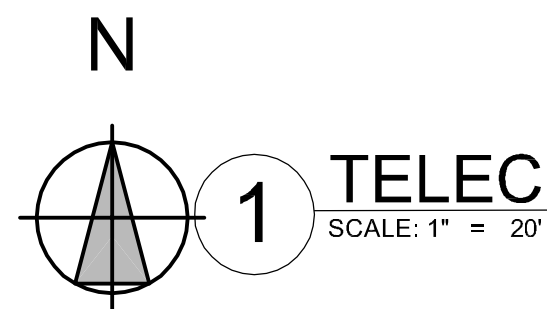


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PRIOR TO ANY EXCAVATION.



**Gwin Engineering
Consultants, LLC**
342592 E 880 Road, Chandler, OK 74834
Phone: (405) 850-0205
Email: ogwin@gwin-engineering.com
Oklahoma CA # 7649; Expires 6/30/2024

DRAWING TITLE	TITLE SHEET
DATE	09/20/2022
PROJECT NUMBER	222802
DRAWING NUMBER	G001



TELECOM MAINTENANCE PRIMARY SITE PLAN

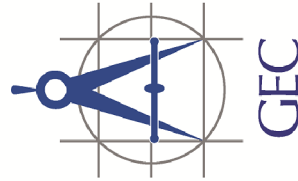
DRAWING GENERAL NOTES

- A. ALL MV CABLE, TRANSFORMERS, METER, CAN AND METERING CT'S WILL BE SUPPLIED BY OUFM UTILITIES. CONTRACTOR WILL INSTALL MV CABLES, TRANSFORMERS AND METERING, AND WILL SUPPLY AND INSTALL ALL OTHER MATERIALS.
- B. UNLESS NOTED OTHERWISE, RETURN ANY SALVAGED EQUIPMENT TO OUFM UTILITIES.
- C. THE DESCRIPTION OF THE WORK TO BE PERFORMED MAY NOT BE IN THE OPTIMUM ORDER TO MINIMIZE ANY BUILDING OUTAGES. ADJUST THE SEQUENCE OF ACTIVITIES TO ACHIEVE THIS BASED ON FOUND CONDITIONS.
- D. BEFORE DE-ENERGISING EXISTING TRANSFORMER, MEASURE AND MAKE NOTE OF THE 3 PHASE ROTATION. ENSURE THE NEW SECONDARY WIRING IS CONNECTED IN THE SAME ROTATION.
- E. THE CONTRACTOR SHALL MAKE GOOD ANY LANDSCAPE, SIDEWALK, SOLID SLAB SOD ON ALL DISTURBED AREAS, ETC. DISTURBED DURING THE WORK.
- F. ANY EARTH DISTURBED AROUND EXISTING EQUIPMENT PADS MUST BE RECOMPACTED TO 90%THEORETICAL MAXIMUM DENSITY.
- G. ALL WORK PERFORMED AND MATERIALS SUPPLIED SHALL CONFORM TO THE PLANS AND/OR PROJECT SPECIFICATIONS.
- H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES AND GOVERNMENTAL AGENCIES WHO MIGHT HAVE UTILITY LINES ON OR ABOUT THE PREMISES, OR WHO MIGHT BE AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL ALSO COORDINATE THEIR ACTIVITIES WITH THE UTILITY COMPANIES TO ENSURE COMPLIANCE WITH THE PROJECT SCHEDULE. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT EXISTING UTILITY LINES, AND SHALL REPAIR ANY DAMAGES AT THEIR OWN EXPENSE.
- J. MEDIUM VOLTAGE TERMINATIONS AND SPLICES ARE TO BE "ELASTOMOLD" BRAND.
- K. CONNECT ALL CONCENTRIC NEUTRALS TO EACH OTHER AND GROUND/GROUNDING LUG OR BAR AT EACH TRANSFORMER AND SECTOR CAN.

KEYED NOTES

1. EXISTING TELECOM TRANSFORMER, 2400V-120/208V TO BE REPLACED WITH 12.5KV-120/208V UNIT ON SAME PAD, TRANSFERRING EXISTING GROUNDING CONNECTIONS AND SECONDARY WIRING TO NEW TRANSFORMER.
2. EXISTING 200A-1/0 12.5KV PRIMARY FROM PAD MOUNTED SWITCHING CUBICLE (PMS) BY POWER DISTRIBUTION CENTER (PDC) TO WAGNER HALL. CABLE IS IN RIGID CONDUIT IN TUNNEL, DIRECT-BURIED POLY PIPE FROM TUNNEL TO TRANSFORMER.
3. NEW 4 POINT SECTIONALIZING CAN ON 4" HOUSEKEEPING PAD OVER TUNNEL EXTENSION. CORE DRILL FOUR, 4" HOLES BELOW IT INTO TUNNEL FOR PRIMARY CABLING.
4. EXISTING JUNCTION BOX IN TUNNEL WITH COIL OF WAGNER HALL FEEDER INSTALLED FOR FUTURE EXTENSION TO TELECOM TRANSFORMER. REMOVE COILED CABLE FROM BOX, CUT, EXTEND, TERMINATE AND CONNECT TO/TROUGH NEW SECTIONALIZING CAN.
5. INSTALL NEW SET OF THREE, 1/0 AWG, 15KV CONCENTRIC NEUTRAL PRIMARY CABLES IN TUNNEL FROM SECTIONALIZING CAN TO TELECOM TRANSFORMER LOCATION. WHEN OLD TRANSFORMER IS REMOVED AND NEW (12.5KV) INSTALLED IN ITS PLACE, TERMINATE AND CONNECT TO IT. CONFIRM CORRECT SECONDARY PHASE ROTATION BEFORE RECONNECTING TO BUILDING.
6. EXISTING 2400V, (15KV WIRE) FEEDER FROM PDC BREAKER F1 TO TELECOMS TRANSFORMER. AFTER CUT OVER TO NEW 12.5KV SYSTEM DEMO WIRE FROM TUNNELS AND PDC.

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ISSUES AND REVISIONS

NO.	DATE	DESCRIPTION
1	9-20-22	PRELIMINARY FOR REVIEW
2	10-24-22	FOR CONSTRUCTION

DESIGNED BY FR
DRAWN BY JAR
CHECKED BY FR

TELECOM TRANSFORMER
2400V-12.5KV PED
CONVERSION
UNIVERSITY OF OKLAHOMA
Norman, Oklahoma

DRAWING TITLE
SITE PLAN

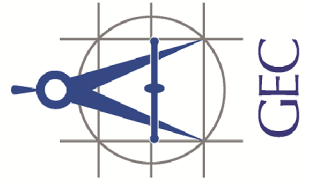
DATE
09/20/2022

PROJECT NUMBER
222802

DRAWING NUMBER

E201

OF



SEAL

1	9-20-22	PRELIMINARY FOR REVIEW
2	10-24-22	FOR CONSTRUCTION

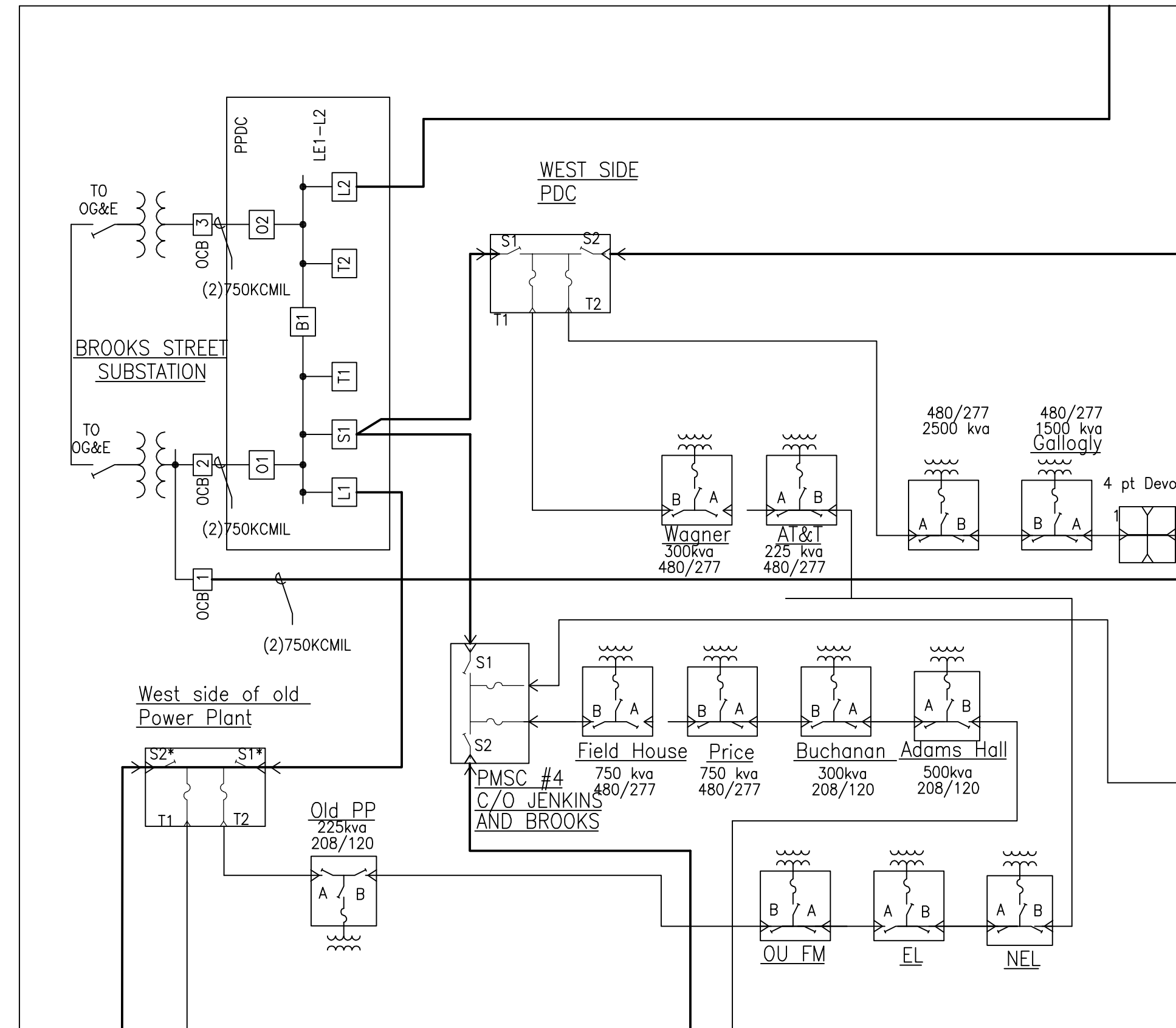
DESIGNED BY	FR
DRAWN BY	JAI
CHECKED BY	FR

TELECOM TRANSFORMER
2400V-12.5KV PED
CONVERSION
UNIVERSITY OF OKLAHOMA
Norman, Oklahoma

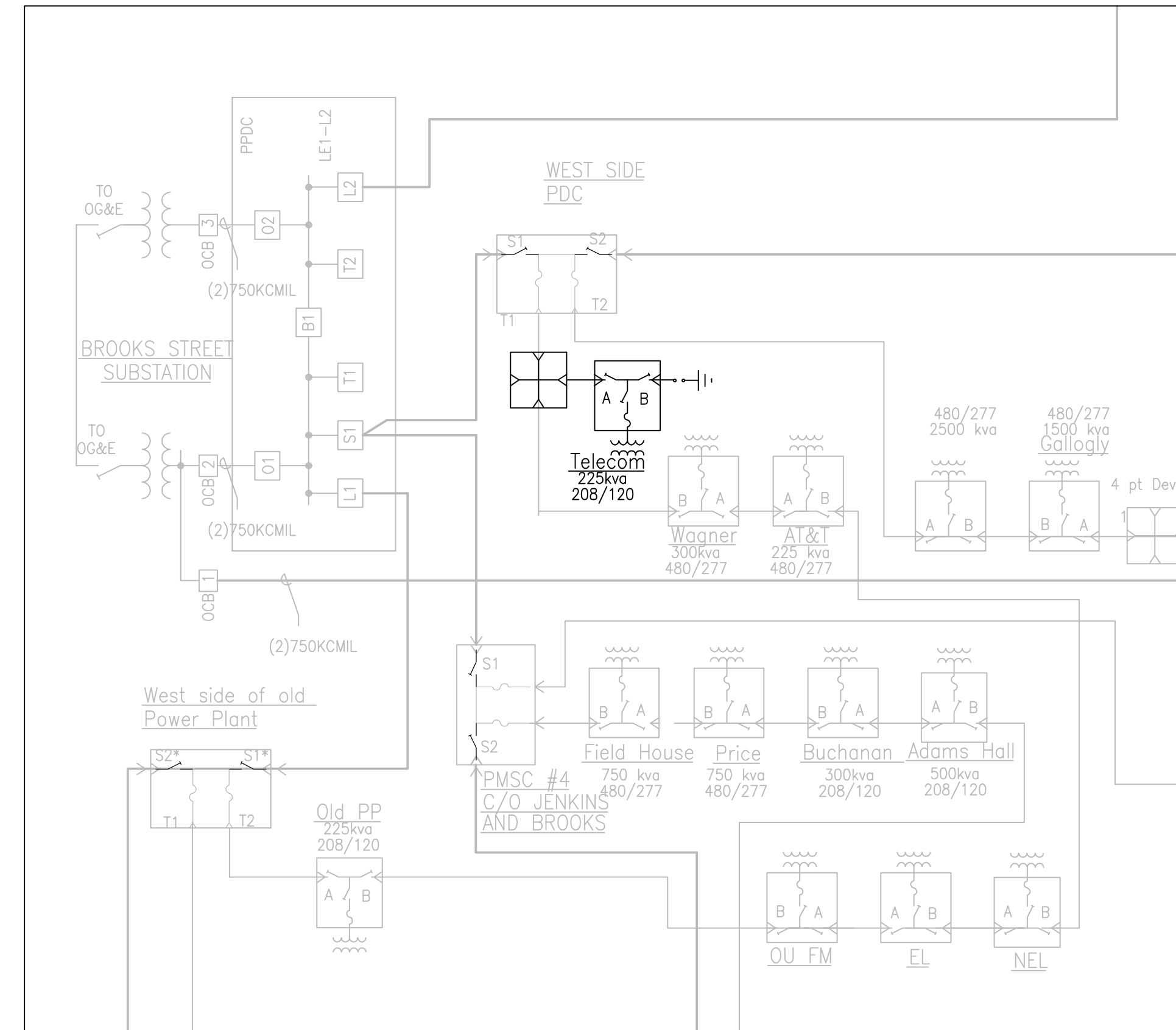
DRAWING TITLE	PED SINGLE LINE DIAGRAMS
DATE	09/20/2022
PROJECT NUMBER	222802
DRAWING NUMBER	

E601

DF



1 EXISTING PARTIAL SINGLE LINE DIAGRAM



2 NEW PARTIAL SINGLE LINE DIAGRAM

SYMBOL	DESCRIPTION		
	15KV, 750KCMIL, 600 A NOMINAL		3 POINT SECONALIZE TERMINAL
	15KV, 1/0 AWG, 200 A NOMINAL		4 POINT SECONALIZE TERMINAL
	15KV, 600A, NON LOAD BREAK CONNECTOR		TYPE 9, 15KV, FUSED SWITCHING CUBICLE RTE R-VAC (2-600A SWITCH AND 2-200A FUSE WITH DC SURGE ARRESTER FOR EACH SOURCE AND TAP SIDE BUSHING TERMINATION)
	15KV, 200A, LOAD BREAKER ELBOW		TYPE 11, 15KV, FUSED SWITCHING CUBICLE RTE R-VAC (3-600A SWITCH AND 1-200A SWITCH WITH DC SURGE ARRESTER FOR EACH SOURCE AND TAP SIDE BUSHING TERMINATION)
	9KV M.O.V. LIGHTNING ARRESTOR		15KV 3ø, TRANSFORMER, INTERNAL FUSE, HWAY SWITCH
	15KV PROTECTIVE CAP		TYPE 10, 15KV, SWITCHING CUBICLE RTE R-VAC (4-600A SWITCH WITH DC SURGE ARRESTER FOR EACH SOURCE AND TAP SIDE BUSHING TERMINATION)
	SECONALIZING DEVICE		
	SWITCH OR 3ø GROUP OF ELBOW		
	LOADBREAK GROUP OPERATED SWITCH		
	NON LOADBREAK SWITCH		
	FUSE		
	FAULT INDICATORS		
	TRANSFORMERS		

