July 2026 Design Standard Updates

Details

Electrical

- **26 56 00 – 01 parking Light Street Light Pole Detail**
  - Added requirement for alignment of connections with handhole, the use of stranded wire, and for replacement of wire between poles.
- **26 56 00 – 02 Pedestrian Pole A Detail**
  - Added requirement for alignment of connections with handhole, the use of stranded wire, and for replacement of wire between poles.
- **26 56 00 – 03 Pedestrian Pole B Detail**
  - Added requirement for alignment of connections with handhole, the use of stranded wire, and for replacement of wire between poles.
- **26 56 00 – 04 Pedestrian Pole C Detail**
  - Added requirement for alignment of connections with handhole, the use of stranded wire, and for replacement of wire between poles.
- **26 56 00 – 06 Parking Garage Light Detail**
  - New standard detail and fixture.

Utilities

- **33 05 13 – 04 Vault or Tunnel Sump Pump Detail**
  - Specified basis of design pump: Zoeller 3000-Series dewatering pump.
- **33 63 00 – 01 Steam Distribution System Drip Trap Detail**
  - Added Armstrong SH-300 as approved steam trap for City Campus Systems and addition of a third required bend between check valve and condensate isolation valve.

Narratives

Architectural

- **Indoor Waste Containers**
  - New Narrative Section detailing UNL waste containers and placement.

Electrical

- **Building Electrical Systems – UNL**
  - Added requirement for emergency lighting in areas where individuals may experience enhanced difficulties in the event of an outage.

Specifications

Mechanical

- **23 07 19 – HVAC Piping Insulation**
  - Updated Chilled Water Insulation Thickness
- **23 09 00 – Digital Controls Equipment**
  - Specified if BACnet/IP is not available, interconnect shall be BACnet MSPT.

Process Interconnections

- **40 05 13 – Process Piping**
  - Specified Insulation Colors for Process Piping and added new lines to the standard.

January 2026 Design Standard Updates

Details

Mechanical

- **23 21 00-03 Small Coil Piping Schematic**
  - Clarified branch takeoffs from top of main
- **23 31 13 -01 Air Transfer Duct Detail:**
  - Added insulation requirements
- **23 31 13 -04 Return Air Boot Detail:**
  - New Design Standard Detail
- **33 61 00 -02 Air Release Valve Detail:**
  - Added 1/8” Drain Hole for Riser elbow fitting

Narratives

Architectural

- **Keying Systems & Lockset Functions – UNL**
  - Added paragraph detailing Key Boxes requirement for Fire Department rapid entry.

Audio Visual Systems

- **Audio Visual Systems - UNL**
  - Created new narrative detailing UNL A/V design expectations.
- **Digital Signs - UNL**
  - Created new narrative detailing the design of digital signage on the UNL campus.

Electrical

- **Building Electrical Systems – UNL**
  - Specified that arc flash studies are to be conducted in SKM only.
  - Updated lighting control section to specify nLight as the sole lighting control system on new projects.

Fire and Life Safety

- **Fire Alarm Systems – UNL**
  - Added paragraph detailing Pull Station locations.
- **Fire Protection Systems**
  - Added paragraph detailing Key Boxes requirement for Fire Department rapid entry.

Landscape

- **Site Furnishings**
  - Updated UNL Campus standard fabricated bollard.

Specifications

Fire Suppression

- **21 05 19 – Fire Suppression Gauges**
  - Corrected typo from “NPS” to “NPT” connection types

Plumbing

- **22 05 19 – Plumbing Meters and Gauges**
  - Corrected typo from “NPS” to “NPT” connection types

Mechanical

- **23 05 19 – HVAC Meters and Gauges**
  - Corrected typo from “NPS” to “NPT” connection types
- **23 36 00 – Air Terminal Units**
  - Detailed maintenance clearance zones in Section 3.E.

Electrical

- **26 09 23 – Lighting Controls**
  - Updated section 2.2.A Manufacturers to only allow for nLight systems.
  - Removed extraneous requirements in section 2.6.C. System no longer needs to contain a FIPS 140-2 cryptographic module. System does not need to support RESTful API control for various BACnet items.

July 2025 Design Standard Updates

General: General update to change FMP to FP&CP. All references of FMP or FPC shall hereafter be understood to be FP&CP.

Narratives

Architectural

- **Elevators and Conveying Systems**
  - Added requirement for non-proprietary video monitoring software accessible by third-party monitoring service.

Mechanical

- **Airside Components and Systems**
  - Fixed typo's
- **Cooling Systems**
  - Fixed typo's
- **HVAC Controls and Building Automation Systems - UNL**
  - Removed Modbus from BAS Integration
  - All BACnet/IP communication devices need to be BTL Certified
- **Laboratory Ventilation**
  - Fixed typo's
  - Remove exception to bypass N+1 exhaust requirements
- **Miscellaneous Mechanical Equipment Schedule Requirements**
  - Updated section formatting
- **Steam Systems**
  - Updated section formatting

Utilities

- **Chilled Water Distribution System**
  - Updated "Utility and Energy Management" to "Husker Energy & Power"
  - Updated System Temperature/Pressures
- **Storm Water Drainage Systems**
  - Updated broken or outdated links
- **Utility Metering**
  - Updated reference Detail drawings

Specifications

Heating Ventilation and Air Conditioning

- **23 09 00 Digital Control Equipment**
  - Removed Modbus from BAS Integration
  - All BACnet/IP communication devices need to be BTL Certified
- **23 36 50 Laboratory Airflow Control System**
  - Specification name and number updated
- **23 73 13 Air Handling Units**
  - Updated section formatting.

January 2025 Design Standard Updates

Details

Mechanical

- **23 31 13 03 Single Duct Air Terminal Unit Ceiling Diffuser:**
  - Cleaned up detail formatting.
- **33 00 00 02 Typical Building Steam System Piping Schematic:**
  - Cleaned up detail formatting.
  - Corrected mislabeled MPC.
  - Added N.C. note to MPS bypass valve.
- **33 63 00 05 Steam Metering Piping:**
  - Cleaned up detail formatting.
- **33 70 00 03 Transformer Pad Detail:**
  - Relabeled detail spec section.

Narratives

Access Control

- **Electronic Door Access Control System:**
  - Specified which items will be furnished by UNL BSM.

Architectural

- **Custodial Facilities**
  - Cleaned up section formatting.
- **Floors**
  - Specified terrazzo use must be approved by NU FPCP project manager.

Electrical

- **Building Electrical Systems**
  - Added clarification that new ATS neutral configuration should match / not compromise existing ATSs.
  - Added requirement for restroom emergency lighting.
  - Added requirement for red conduit for fire alarm wiring.

Fire and Life Safety

- **Fire Alarm Systems – UNL**
  - Added requirement for red conduit for fire alarm wiring
- **Fire Alarm Systems – UNO**
  - Added new narrative specific to UNO.

General

- **Codes, Standards, and Regulations**
  - Updated NEC year to current 2023 adoption.
- **Sustainability:**
  - Updated link to new policy location.

Mechanical

- **Plumbing Systems**
  - Specified Ohio Medical compressors are not allowed.

Utilities

- **Utility Metering**
  - Updated spec section for pressure sensors schematic diagram.
  - Updated spec section for steam flow meter schematic diagram.

Specifications

General

- **08 71 00 Door Hardware**
  - Specification created

Fire Suppression

- **21 05 00 Basic Fire Suppression Requirements**
  - Fixed typos and updated formatting

Plumbing

- **22 05 19 Plumbing Meters and Gages**
  - Updated section formatting

Heating Ventilation and Air Conditioning

- **23 36 13 Lab Valves**
  - Specification created
- **23 73 13 Air handling Units**
  - Specified Fan array controls are provided by UNL BSM.
  - Q-Pac Fan Systems or equal are not allowed with custom packaged air handlers.

Electrical

- **26 00 00 Basic Electrical Requirements**
  - Added restriction on aluminum wiring in relation to 26 05 19 – Conductors & Cables.
  - Replaced metal halide callout for exterior lighting fixtures with LED.
- **26 81 00 Fire Alarm – UNL**
  - Specification created

July 2024 Design Standards Updates

General: General update to change Design Guidelines to Design Standards. All references of Design Guidelines shall hereafter be understood to be Design Standards.

Details

Architectural

- **UNK Restroom Standards:**
  - Created restroom designs for UNK.

Electrical

- **26 56 00 01 Parking Light Street Pole:**
  - Removed top hand hole.
  - Removed surge protector requirement
  - Required connections be wrapped with heat shrink in lieu of vinyl tape.
- **26 56 00 02 Pedestrian Pole A:**
  - Downsized copper ground
  - Reduced depth of concrete collar
  - Required connections be wrapped with heat shrink in lieu of vinyl tape.
- **26 56 00 03 Pedestrian Pole B:**
  - Downsized copper ground.
  - Reduced depth of concrete collar.
  - Required connections be wrapped with heat shrink in lieu of vinyl tape.
- **26 56 00 04 Pedestrian Pole C:**
  - Downsized copper ground.
  - Reduced depth of concrete collar.
  - Required connections be wrapped with heat shrink in lieu of vinyl tape.
- **26 56 00 05 Light Pole Fuse Wiring Diagram:**
  - Removed previous SPD detail.

Mechanical

- **23 21 00 06 Terminal Heating Unit Hydronic Coil Piping:**
  - Updated correct uses for detail.
- **23 31 13 03 Single Duct Air Terminal Unit Ceiling Diffuser:**
  - Added keynote 7 about damper.
- **23 37 00 02 Outside Air Louver Plenum Construction:**
  - Added required snow screen to detail.

Utilities

- **33 63 00 01 Steam Distribution System Drip Trap:**
  - Changed number of 90-degree bends to 3.
- **33 63 00 03 Steam Isolation Valve By-Pass:**
  - Updated gauge type and valve material.
- **33 70 00 01 Vault Electrical:**
  - Changed junction box to stainless steel.
- **33 70 00 03 Transformer Pad:**
  - Added general notes 12, 13 and 14.
- **33 70 00 04 Switch Pad:**
  - No alterations without written consent.

Narratives

Architectural

- **Equipment Rooms, Mechanical:**
  - Specified material for watertight seal.

- **Floors:**
  - Specified material for watertight seal.
- **Laboratories, Chemical and Biological:**
  - Updates to fume hood sensors to increase air change rates.

Civil

- **Sidewalks and Rigid Pavement:**
  - Added stainless steel handrail requirement.

Closed Circuit Television

- **Closed Circuit Television – UNL:**
  - Created Narrative.

Electrical

- **Building Electrical Systems - UNL:**
  - Removed preference of integral SPDS to standalone units.

Energy Conservation

- **Energy Conservation:**
  - Updates to modeling, life cycle, BTUs and chilled beams.

Fire and Life Safety

- **Fire Alarm Systems – UNL:**
  - Made more specified for UNL with updated information and technology.

Landscape

- **Landscape Design Planting and Irrigation:**
  - Gave preferences on seeding vs sodding for different campuses.
- **Rigid Paving:**
  - Removed requirement for fiber reinforcement.

Mechanical

- **Airside Components and Systems:**
  - Set to most Current ASHRAE standards and allows for custodial and restroom exhaust to be combined for certain reasons.
- **Building Steam Systems:**
  - Added Buildings Without PRV's section.
- **Cooling Systems:**
  - Re-wrote exceptions for Plate and Frame exchangers and Buna-N sections.
  - Updated Chilled Water End Use
- **Heating Systems:**
  - Specified waterside temperature differential.
  - Introduced exception for automatic balancing valves.
- **HVAC Control and Building Automation Systems:**
  - Added exception for internal air handler and fire damper.
  - Specified Delta P valve.
- **HVAC Systems:**
  - Specified water source for chilled beams.
  - Gave requirements for DOAS systems
- **Mechanical Design Deliverables and Process:**
  - Updated estimated peak estimations.
- **Plumbing Systems:**
  - Designated the correct temperatures for Thermostatic mixing valves.

Utilities

- **Chilled Water Distribution System:**
  - Introduced consideration of building side booster pumps.
- **General Utilities Guidelines:**
  - Added requirements for major building renovations.
  - Included medium voltage instructions.
  - Added scheduling of shutdowns.
  - Gave vault dimensions.

- **Steam Distribution System*:***
    - Changed distribution piping requirements.
    - Added steam stop valve requirements.
    - Requires ASME B16.34 compliance.

Specifications

Heating Ventilation and Air Conditioning

- **23 33 00 Ductwork Accessories:**
    - Duct smoke detector to be provided by fire alarm installer.
- **23 73 13 Air Handling Units:**
    - Allows equal for specified backdraft dampers.
    - Allows Camfil fast frame clipless mounting with owner permission on frame filters.

Electrical

- **26 05 13 Medium Voltage MV Cable:**
    - Cable splices to be allowed with owner approval.
    - Removed outdated cable pull requirements
    - Removed requirement for testing immediately after installation. Testing after termination preparation remains required.
- **26 05 33 Raceways:**
    - Raceways in refrigerated areas shall be PVC or aluminum.
    - Requirement that fittings be same material added.
    - Removed section requiring only sections 8’ above floor and lower to be rigid steel or intermediate metal conduit.
    - Exposed raceways in utilities managed areas to be only rigid steel or intermediate conduit, unless approved otherwise.
    - Conductors over 600V shall be rigid steel conduit or intermediate metal conduit only.
- **26 12 00 Padmounted Liquid-Filled Medium-Voltage Transformers:**
    - Requirement of fiberglass shields around primary bushings.
- **26 24 13 Switchboards:**
    - Requirement of short-circuit, arc-flash, and coordination studies.
    - Require coordination curves be submitted.
    - Switchboards to be service entrance rated.
    - Drawing dimensions to be considered the basis of design.
    - Updated requirement that all breakers less than 250A be thermal-magnetic trip with inverse time current characteristics.
    - Requirement to install breakers with integral ground-fault protection per code.
    - Requirement to include all necessary control power and components.
    - Removal of sections involving fusible switchboards and other outdated equipment.
- **26 43 13 Surge Protection:**
    - Require that outdoor SPDs be suitable for Class C environments.
    - Updated language requiring all SPDs to be integral to equipment.
- **25 56 13 Lighting Poles:**
    - Added requirement that poles stored outside be unwrapped prior to storage.

Exterior Improvements

- **Turf and Grasses:**
    - Made applicable to all campuses not just UNL.

Process Interconnections

- **40 05 13 Process Piping:**
    - Specification created.