



100% Design Review
NLCC BUILDING AT THE KABUL POWER PLANT
drawings dated Septemebr 28, 2010 - Revised October 26, 2010
WO-A-0070

Response Legend
A - Agree
D - Disagree
O - out of scope
AE - Agree with exception

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| ARCHITECTURAL DRAWINGS | | | | | | |
| A-1 | TH | Index Sheet | Mechanical drawings mislabeled as Structural | | | |
| A-3 | TH | A-101 | Columns 2' and 2" and 3' hard to read the ' symbol | | | |
| A-4 | TH | A-101 | Is 6.5 cm enough for raised floor access? | | | |
| A-5 | TH | A-101 | Restrooms and Janitors Closet should have ceramic floor tile for water resistance. | | | |
| A-6 | TH | A-101 | Need elevation and counter details for Kitchen | | | |
| A-7 | TH | A-101 | Suggest referencing Elevation and Section tags to the sheets they are drawn on. | | | |
| A-8 | TH | A-101 | Code Data Information missing. What is the building Use Group? Construction Type? Size? | | | |
| A-9 | TH | A-101 | Is Battery Room a Hazardous use, or Hazardous Storage? Check fire rating requirements per IBC Table 508.2 | | | |
| A-10 | TH | A-104 | Move exit lights from vestibules 2 & 3 to inside corridor, so that they will be visible in corridor | | | |
| A-11 | TH | A201,202 | Indicate wall sections on Elevations | | | |
| A-12 | TH | A201,202 | Column line at center of roof is 02" on plan, 03 on elevations | | | |
| A-13 | TH | A201,202 | How is roof ventilated? | | | |
| A-14 | TH | A301 | Gutter material should be galvanized. | | | |
| A-15 | TH | A401 | Toilet Accessories specified not indicated on plan. | | | |
| A-16 | TH | A401 | Indicate ceramic tile in Restroom. | | | |
| A-17 | TH | A501 | Is glass in doors tempered glass? | | | |
| A-18 | TH | A501 | No door frame attachment details included. | | | |
| A-19 | TH | A502 | Window W2 should hinge from top of frame | | | |
| A-20 | TH | A503 | No window frame attachment details shown. | | | |
| A-21 | TH | A503 | "3-D Wall Panel" indicated as 150mm and 200mm. More information is need on this wall, what is framing material that gypsum materials are attached to? A detail is needed on this wall construction. | | | |
| A-22 | TH | A503 | Section 1 indicates bottom of footing at 650mm below grade, frost line is 800mm | | | |
| A-23 | TH | A503 | Add note to see pre-engineered drawings for more information | | | |
| A-24 | TH | Specifications 07 11 13 | Where is bituminous damproofing being used? Indicate on drawings | | | |
| A-25 | TH | 07 42 13 | 1.3 Wall panel description not edited | | | |
| A-26 | TH | 08 81 00 | Glazing section referenced by other sections missing. | | | |
| A-27 | TH | 09 29 00 | Indicate where different types of gyp. bd. Are being used on the | | | |
| A-28 | TH | 09 30 00 | Did not see where tile materials are being used in the building. Use in Restrooms recommended. | | | |
| A-29 | TH | 09 51 00 | No manufacture/product specified for ACT or moisture resistant ACT | | | |
| A-31 | TH | 09 06 90 | Color Schedule referenced by other sections missing. | | | |
| A-32 | TH | 10 28 13 | Schedule not completed | | | |
| A-33 | TH | Specifications | Raised Access flooring not specified | | | |

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| CIVIL ENGINEERING DRAWINGS | | | | | | |
| C-1 | CTJ | Drawings V-101 | Existing underground utility lines should be shown to help identify and avoid conflicts. The existing duct bank and fire water lines have not been added to sheet V-101. Recommend all existing utilities be shown on V-101. | | | |
| C-2 | CTJ | Drawings C-103 | Plan scale does not match what is stated on plan (1:300). Please correct. Also, provide a bar scale on each plan for all scales stated. | | | |
| C-3 | CTJ | Drawings C-103 | Provide dimensions and/or coordinates so that culverts and manholes can be laid out in the field. Additional coordinates have not been provided. | | | |
| C-4 | CTJ | Drawings 103 | C- Provide sizes and slopes of the culvert pipes (both parking and stairs). Requested information has not been added. | | | |
| C-5 | CTJ | Drawings 103 | C- Provide rim and invert elevations for manholes and headwalls. Rim and invert elevations have not been added as requested. | | | |
| C-6 | CTJ | Drawings C-103 | The proposed drain pipe under the concrete parking lot seems to discharge under the existing concrete road to the southeast. There is no indication on the plan that there is an existing culvert pipe under the concrete road. Recommend elaborating as to how stormwater will exit the site. If there is an existing culvert, show it. | | | |
| C-7 | CTJ | Drawings 301 | C- Sheet C-101 indicates a proposed concrete parking area, however detail 1 on C-301 shows 150mm aggregate base course as the surface. Which is correct? If the surface is to be concrete, provide additional details for reinforcement (if required) and joints. | | | |
| C-8 | CTJ | Drawings C-301 | More detail should be provided on the cast iron cover, such as dimensions of the grate openings. | | | |
| C-9 | CTJ | Drawings 501 | C- Recommend showing a D in the dimension for pipe opening shown in the headwall detail and referencing the table below. | | | |
| C-10 | CTJ | Specifications | There is no specification section for the stormwater drainage system. | | | |
| C-11 | RBB | Drawings 104 | C- Building appears to be in a different position than on SP-102. Correct as required. | | | |
| C-12 | RBB | C-104 | Stormwater from Existing Admin Building cannot enter the proposed drainage system. Previously the ditch was used to collect this stormwater. Recommend removing curb in proposed parking area to allow this stormwater to enter as before. | | | |
| C-13 | RBB | C-501 | Label on Detail 1 should read CONCRETE PARKING AREA. | | | |
| C-14 | RBB | C-501 | Recommend using D as the dimension call on details 6 and 7 for the pipe diameter and referencing the table below. | | | |
| C-15 | RBB | SP-101 | Remove gravel hatch within southeastern half of proposed drive isle. | | | |

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| C-16 | RBB | SP-502 | Consider renaming sheet to PIPE TRENCH DETAILS | | | |
| C-17 | RBB | SP-503 | Consider renaming sheet to SEWER MANHOLE DETAILS | | | |
| C-18 | RBB | SP-503 | Detail 6 depicts a manhole cover frame. However, detail 4 does not. Either include frame in detail 4 or remove from detail 6. | | | |

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| STRUCTURAL COMMENTS | | | | | | |
| S-1 | FRS | Specifications | Metal Building Systems Sect 13 34 19 dated 28 Sept 2010 needs to be finalized to include specific design values (e.g. empty brackets and multiple-value brackets in the text). | | | |
| S-2 | FRS | Drawings S-101 | Show slab block out reentrant bars at corners of eastern toilet slab opening. | | | |
| S-3 | FRS | Drawings S-104 | Previous field welds were eliminated. Detail 2 indicates a field weld, is this intended? | | | |
| S-4 | FRS | Drawings S-502 | Should both legs of U-bar at 3D wall penetration be the same length? | | | |
| S-5 | FRS | Drawings S-501/502 | Placement of starter bars for 3D wall need to be located in exact position without tolerance to provide required clear cover. Consider achievable placement tolerances and that starter bars may shift during slab concreting. A significant effort to resolve locations after concreting (potentially many drill and grouted dowels). Resolution for any out of tolerance dowels will be responsibility of contractor. | | | |



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| MECHANICAL COMMENTS | | | | | | |
| M-1 | CSR | Drawing Index | Change Mechanical Drawing heading from "STRUCTURAL" to "MECHANICAL". | | | |
| M-2 | CSR | M-101 | Provide heating in toilet rooms F04 and F05 and in Rooms F21 and F21 unless confirmation is made that freezing of water pipes or fixtures will not occur. | | | |
| M-3 | CSR | M-101 | If wall mounted, show thermostats for air handler and split unit control. | | | |
| M-4 | CSR | M-101 | No relief air shown for spaces served by AHU-1. Confirm design intent is to relieve air through open windows. | | | |
| M-5 | CSR | M-102 | Indicate location for exhaust fan wall switch. | | | |
| M-6 | CSR | M-502 | Change drawing title to "Condensing Unit Details" to match Drawing Index. | | | |
| M-7 | CSR | M-503 | Fan schedule for REF-01 indicates a wall fan; change to a roof mounted model to match drawings. | | | |

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| PLUMBING COMMENTS | | | | | | |
| P-1 | DCG | Specification | 22 00 00: Revise spec to include only items for this project. Examples of items in specs but not in project include, but not limited too: Vacuum breakers? Bathtub liners? Shower faucets? Wall faucets? Yard Hydrants? Service sink? Shower floors? Terrazzo mop sinks? Area drains? Roof drains? Multiple areas need clerical work (run-on sentences, large blank areas within | | | |
| P-2 | DCG | Specification | 22 07 19: Revise spec to include only items for this project. Examples of items in specs but not in project include, but not limited too: Pipe barrel? Jacketing? Dual temperature water piping? Condensate drain piping? Refrigerant suction piping? | | | |
| P-3 | DCG | Design Analysis (DA) | Confirm IPC 2006 and not IPC 2009. Expand description on piping types, fixtures and water heaters. | | | |
| P-4 | DCG | Plumbing Calculations | Confirm fixture types in calculations are matching to the plans. Service sink? JC? They don't always match the plans. | | | |
| P-5 | DCG | P-101 | Note 1: Indicates instantaneous water heaters yet I've seen none on the plans. Correct note or plans. Din EN1988 standard is not the referenced standard according to the DA. Correct. | | | |
| P-6 | DCG | P-101 | Note 5: DIN standards is not the referenced standard according to the DA. Correct. | | | |
| P-7 | DCG | P-101 | Note 7: Correct note. It is poorly written and does not match the DA or the specifications. | | | |
| P-8 | DCG | P-102 | Note 1: Indicates instantaneous water heaters yet I've seen none on the plans. Correct note or plans. Din EN1988 standard is not the referenced standard according to the DA. Correct. | | | |
| P-9 | DCG | P-102 | Note 5: DIN standards is not the referenced standard according to the DA. Correct. | | | |
| P-10 | DCG | P-102 | Note 7: Correct note. It is poorly written and does not match the DA or the specifications. | | | |
| P-11 | DCG | P-103 | Note 1 and 5: Notes and materials does not match specifications. Correct note for proper materials. | | | |
| P-12 | DCG | P-104 | Note 1 and 5: Notes and materials does not match specifications. Correct note for proper materials. | | | |
| P-13 | DCG | P-104 | Confirm vent risers are to be exposed in toilet rooms. Is vent | | | |
| P-14 | DCG | P-105 | Detail 1: Confirm if vent is required on lavatories? Provide identification for fixtures for clarity. Vent connection at bottom right of detail... pipe does not connect to anything. Is there a vent | | | |
| P-15 | DCG | P-105 | Detail 2: Provide identification for fixtures for clarity. Show trap primers and water hammer arrestors. At water heaters, schematic should match water heater detail. Piping at PT at water heaters is also incorrect. At "other side of the wall" water heater blowup, identify line sizes and where they continue to. On water service, | | | |
| P-16 | DCG | P-501 | Detail 01; at "temp. and Press valve" it indicates to see floor plans for location. Not shown on plans. Add union on line to expansion | | | |
| P-17 | DCG | P-501 | Detail 04: Label says this is floor drain detail, but it is not shown for a floor drain. | | | |
| P-18 | DCG | P-502 | Semi-recess service sink detail: Identify location of this installation? Doesn't match plans or there is a mis-identification on plans or this detail. Trap is too far from fixture. Can be no | | | |

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| P-19 | DCG | P-503 | Detail on right side: Detail call out is "Fixtures Plan and Sections" but doesn't call out what the detail is for. Trap is too far from fixture. Can be no more than 610mm from fixture outlet to trap | | | |
| P-20 | DCG | P-503 | Lavatory sink detail: Trap is too far from fixture. Can be no more than 610mm from fixture outlet to trap weir. | | | |
| P-21 | DCG | P-504 | Notes 1: Note does not make any sense. Amend note to read | | | |
| P-22 | DCG | P-504 | Water heater schedule: Identify recovery capacity of heater. Size appears undersized in accordance with DA calculations. | | | |
| P-23 | DCG | P-504 | Line type for Trap primer distribution (TPD) What is TPD stand for? Show trap primer lines on plans, schematics and details. | | | |

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| ELECTRICAL COMMENTS | | | | | | |
| E-1 | CMW | E-106 | Missing emergency exit discharge lighting on building exterior at all Vestibules. Recommend specifying an emergency lighting battery unit in each Vestibule with a remote head (2-heads) on the building exterior adjacent to the doors. | | | |
| E-2 | CMW | E-107 | General Notes - Note #2, correct reference to 'EG' series drawings. Should be 'G SERIES DRAWINGS'. | | | |
| E-3 | CMW | E-107 | Add 'WP' designation to receptacles installed outdoors. GFCI does not provide weatherproof protection for receptacles or cords plugged into receptacles. | | | |
| E-4 | CMW | E-108 | Mechanical drawings and specification 23 82 02 do not appear to specify motor branch circuit wiring from the air handling units to the condensing units. If condensing units are fed from air handling units - total connected load is as follows: 5.5-kW (fan), 37.0-kW (electric heat coils), 34.4-kW (condensing unit). This would require a 150-amp circuit breaker for each air handling unit. It is also not clear who is furnishing/installing the safety switches at the condensing units. The condensing units appear to be standalone, we believe they should receive their own motor branch circuit and be fed separately from the air handling unit. | | | |
| E-5 | CMW | F-110 | The square symbol with a 'V' depicted in the corridors is not defined on G-001. | | | |
| E-6 | CMW | F-110 | Missing fan shutdown equipment (duct mounted smoke detectors, fan shutdown relays) for the air handling units. Update alarm sequence to include fan shutdown. | | | |
| E-7 | CMW | F-110 | Drawing Title - spelling error. | | | |
| E-8 | CMW | T-111 | Numbered Notes - Note #2 spelling error 'SUBMITTAL'. | | | |