



Draft
Midwifery Training
Khost, Faizabad, Bamyan Afghanistan
August 21, 2009

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

Comment #	Reviewer & Discipline	Reference	Comment	Response Code	Response	Back-Check	Response Code	Response	Back-Check		
						Civil /topo drawing were provided as part of this submittal and reviewed against standard practice, but did not provide a full construction level peer review.					
						• The labels on the plan views should match the labels on the detail sheets to avoid confusion.			This item has not been addressed		
						New Grading Plan	C101				
						• No existing conditions or demolition plan was provided so it is unclear whether there is any work is proposed on or around the existing building and or how this might be affected by the proposed construction.			This item has not been addressed		
						• The ambulance drop off has a 13% slope at the building entrance.			This item has not been addressed		
						• Overland flow from the northwest area of the site spills into the ambulance drop off for collection. This could be handled off the pavement to avoid compromising emergency drop offs.			This item has not been addressed		
						• Coordinates are provided on the property corners. The plans should provide a reference as to the coordinate systems used.			This item has not been addressed		
						• Contours in the south corner of the site look incorrect.			This item has not been addressed		
						Stormwater Management Plan	C102				
						• The plan calls for a concrete box on both sides of the project and for roof drains to tie into these culverts. No inverts or slopes are provided.			This item has not been addressed		
						• The plan calls for four stormwater discharges southwest of the building. No topo is provided beyond the property line and no inverts are shown on the pipes so we cannot determine the adequacy of the offsite area to drain the system.			This item has not been addressed		
						• Was the drainage system reviewed to determine if offsite discharge will have adverse impacts on any offsite areas?			This item has not been addressed		
						• The plan calls for construction of drain outlets off the property, does this create any local issues? Need to provide details.			This item has not been addressed		
						• Grading and spot grads should be clarified on the drainage plan to insure proper capture of runoff.			This item has not been addressed		
						Site Improvement Plan	C103				
C-1	Frenzel/Civil	General	Because there are no civil/topo drawings, the Civil review cannot consider issues of site grading, paving, drainage, stormwater handling, etc. The fact that some elevations are included in the site drawings implies that this info is available, but it was not provided	D	refer to civil drawings	• Hatches and line types in the legend should match those on the plan.		Provided topo line on the water and sewer site plan .and also water and sewer and storm water plan combined .Two fuel tanks are for generators and one is for hot water boiler and other one is shown on site it is propan gas tank.there is not existing facility to connect to water system .All of water plans indicate to scale .And on site indicate 50 CM holding tank for operation area water ,other holding tank is 36 CM for kitchen water and also black water flow to siptic tank all of sludge material come down afther that flow to leach field .Provided on distribution box invert level with finish level its enough Please see drawing (C104,C105,C106)	This item has not been addressed		
							• Road geometry at 90° turns is shown graphically incorrect.			This item has not been addressed	
							• Several annotations are miss directed and should be corrected.			This item has not been addressed	
							• Callout for "stone masonry 81cm above the natural ground level", define what this is, provide detail and limits.			This item has not been addressed	
							Water Plan		C104		
							• The water plan should be combined with sewer and drain to highlight conflicts. See comment C-2				This item has been addressed
							• The plan calls for 3 fuel tanks but only two are shown as connected to anything. Not sure why this information is on the Water Plan				
							• Drawing labeled NTS				This item has been addressed
							• The existing facility is not connected to the proposed water system, nor is the existing water source and its proximity to the proposed leachfield provided on the plans.				This item has not been addressed
							Sewer Water Site Plan		C105		
							• Water and drains do not show so it is difficult to check for conflicts. See comment C-2				This item has been addressed
							• The calculations call for a 50CM tank for kitchen waist and the plan calls for a 30 CM				This item has been addressed

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						<ul style="list-style-type: none"> The site has two sewer systems, we assume that there is one for grey water and one for black water. However both systems are connected to the leach field. Needs clarification. 			This item has not been addressed	
						<ul style="list-style-type: none"> Two different details of the leaching area are on C218. This should be clarified. Detail the pile ends. 			This item has been partially addressed. Put tees over the inlet and outlet pipe to prevent scum from entering the pipe. Tank to be designed in accordance with International Private Sewage Disposal Code, Section 802	
						<ul style="list-style-type: none"> No finished grades are provided over or around the leaching system, but it appears to have 3 to 4 meters of cover. This system will need to be vented. Consideration should be given to reducing the depth of the sewer. The engineer should verify that the pipes are structurally adequate for this cover. 			This item has not been addressed	
						<ul style="list-style-type: none"> The incinerator and fetus burial area are situated partially over the leach field. The field may be deep enough to tolerate the incinerator however with 3 to 4 M of backfill settlement could be an issue. Fetal Burial will be addressed under Comment C26 			The incinerator has been moved - This item has not been fully addressed	
						<ul style="list-style-type: none"> Drawing labeled NTS 			This item has been addressed	
C-2	Frenzel/Civil	General	Civil, mechanical, and plumbing design information is all shown on the same site drawings (P-Series). A clear distinction is needed to separate the responsibilities of the civil, mechanical, and plumbing reviewers to avoid duplication or gaps in the review effort.	D	provided water and sewer site plan separately please see sheet C104,C105	We did not receive the (P series) drawings ,reference under this comment as part of out package ,but the failure to show separation of underground utilities on the civil drawings ,in response to this comment creates some confusion especially for the construction of these utilities . see comment C1	C104,C105,C102	A	separated mechanical , water and sewer facility equipments . And also provided a new combined site plane (water ,sewer and storm water .Please see drawing(C106)	We agree that the utilities in the civil drawings show more clearly in the revised drawings.
C-3	Frenzel/Civil	P-001	There are some undefined abbreviations and acronyms in the plans (e.g., P-118: YCO, FL, IL). The legend should be updated.	A	revised sheet P001	Sheet P001 was updated . The legend on sheet C103 should be updated with abbreviations shown on the civil drawings .	C103	A	Implemented .Please see drawing (P001)	Abbreviations on the Civil drawings are shown on the Plumbing Drawings and remain a source of confusion.
C-4	Frenzel/Civil	General	Most of the site drawings include the annotation "NTS" (which usually means "not to scale") in the border. Scaled drawings should be provided, with the scale noted and displayed on the plan view. Without this information a complete review of the site drawings cannot be provided.	A	Implemented	Sheets C104 and C105 are still labels NTS.		A	Indicated to scale and removed NTS. Please see drawing (C104,C105)	This item has been addressed
C-5	Frenzel/Civil	General	The geotechnical report provided contains only a general discussion of the depth to water table, and it is not clear how this info was obtained, since the depth is stated to exceed 40 - 70 m below ground surface, and the subsurface geotech investigation was limited to 3 m deep hand borings. There is no hydrogeologic data available. Without site specific hydrogeologic info, it will not be possible to provide a meaningful review of water well designs, or of the available water supply.			The lack of geotechnical and hydrogeologic data is a significant oversight .The proximity of the leach field to the proposed well ,about 130M for a 18240 L/day system will require a more significant investigation than just a perk test . A burial area in close proximity to the well raises additional sanitary concerns . The project raises significant hydrogeologic concerns See comment C26				This item has not been addressed
C-6	Frenzel/Civil	General	There are no well construction details provided. Without this information it is not possible to provide any review of the well.			We received no well design or details .				This item has not been addressed
C-7	Frenzel/Civil	General	There is no indication of whether water treatment will be required for the well. If so, additional information required would include: raw water quality data, water treatment standards, and treatment details. No review of the water supply quality is possible with the information available.			We concur this information should be provided .				This item not addressed



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C-8	Frenzel/Civil	General	The geotechnical reports provided for each site do not include any soil percolation/infiltration test data, Without this information it isn't possible to provide a meaningful assessment of the leach field or seepage pit design.	A	will do during of construction . Now we used average percolation number 0.049	The response "will do during construction" begs the question , what if the soil doesn't perk or if ground water is too high geologic and hydrogeologic testing will allow on opportunity to address this issue before the project goes to construction.	A	will do during of construction. Now we used average percolation number 0.049	This item not addressed
C-9	Frenzel/Civil	General	A list of preferred/available materials (e.g., piping) should be provided to verify that the project is readily buildable at the site.			We concur - no reference provided .			This item not addressed
C-10	Frenzel/Civil	General	The drawings have a box checked indicating "For Tender". But the Specs are in an essentially unedited state. This package is not ready for tender to bidders.			We concur, this project is not ready to go to tender .			This item not addressed
C-11	Frenzel/Civil	General	Many of the plumbing/civil sheets include notes indicating that water piping will be Schedule 80 UPVC. "UPVC" is not defined in the abbreviations list, but usually means "unplasticized" or <i>rigid</i> PVC. This would not be an advisable material for underground exterior installation. An appropriate water pipe material, with ASTM or other standard designation should be selected and defined for exterior underground installation. The selection should be coordinated with the specs.	D	UPVC pipes are available to good quality in Afghanistan then other pipes and approved in the all of us army crops project	We have research and used UPVC for underground piping on several projects in Iraq ,due to the lack of availability of standard PVC .It is suitable for buried waste pipe but not always for potable water.Consideration should be given to using push on joints rather than solvent weld as it add s come flexibility to the system .UPVC is not to be used for potable water unless certified by an independent internationally recognized agency .	A	UPVC pipes are available to good quality in Afghanistan then other pipes and approved in the all of us army crops project	This item has been addressed
C-12	Frenzel/Civil	General	Many of the plumbing/civil sheets include notes indicating that sewer piping will be Schedule 40 ASTM D2625 piping. This material is typically used for interior DWV piping, and would not be advisable for underground exterior installation. An appropriate available sewer pipe material , with ASTM or other standard designation should be selected and defined for exterior underground installation. The selection should be coordinated with the specs.	D	sewer pipe ASTMD 2665cm use to inside the building or outside the building.sch edule 40	We typically use schedule 40 for underground gravity sewer .We did not receive the specifications for review .	A	Sewer pipe indicate ASTMD 2665 .Please see plumbing general notes . (21)	This item has been addressed

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C-13	Frenzel/Civil	P001	Notes 1 and 9 refer to pipe separation and should be coordinated for consistency with one another and the details on sheet P-126.	A	please see sheet C216 and C219 drawings	Details are provided on sheet C216 ,but are not consistent with the notes on P001.	A	Checked and removed some notes .Please see general notes (01,02,07) ,P001	The notes and details should be consistent to avoid confusion. Revise as necessary
C-14	Frenzel/Civil	P001	Note 8 refers to thrust blocking, but no details or standards are provided.	A	provided thrust blocking detail C219	Details are provided on C219.		Implemented .	This item has been addressed
C-15	Frenzel/Civil	General	There are numerous spelling errors throughout the documents which should be corrected to avoid misunderstandings with bidders/contractors.	A	checked	Most spelling errors seem to have been corrected ,still a couple on P001.	A	Checked spelling and errors .	See Note 13, Otherwise OK
C-16	Frenzel/Civil	P001	The line type and abbreviation for Waste Pipe (WP) and Drain Pipe (WP) are very similar.	A	changed	Drain pipe has been eliminated from the schedule .	A	Changed to other line.Please see drawing (P001)	Civil utilities have been eliminated from the legend on P001. Line type should be called out on Civil Plans.
C-17	Frenzel/Civil	General	Very small text font sizes should be increased to a minimum of 1/8" (at full scale) height to be readable on 1/2-size drawings.	A	checked	This item appears to have been corrected .	A	Corrected ,Implemented .	This item has been addressed
C-18	Frenzel/Civil	P118	Building sewer service locations and sizes are not always consistent with interior plumbing drawings P-107, 108, 109, 110, 111, and 112.	A	revised drawings	We did not receive these sheets and so could not confirm.	A	Checked and corrected .Please see drawings (P101) ,(P102)	Need to check Plumbing Drawings against Civil Drawing, still some inconsistencies. Clarify labels on Civil Drawings
C-19	Frenzel/Civil	Detail sheets P121 - P127	The detail sheets P121-122 (septic tank), P123 (leach field), P124 (grease interceptor), P125 (solids interceptor), P126 (trenches), and P127 (manholes) are missing some essential details including: depths, elevations, wall construction (material, thickness, reinforcement, etc.). Also some dimensions are given without units (m, cm, mm).	A	checked and corrected sheet C211 ,C212,C213	The dimensions appear to have been added .Note that there is a 50CM and 30CM holding tank detail. See comment C1 sheet C105 .Details are duplicated on C211,C212,C213,C214,C215 and include structural reinforcement on sheets C204,C205,C206,C207,C209 and C210 .Redundant sheets should	A	50 CM holding tank is for operation area waste water and 36 CM for kitchen waste water ,And other details was duplicate only indicate on Civil drawings .Please see (C204,C205,C206)	This item has been addressed
C-20	Frenzel/Civil	P124, P125	Piping layout is not consistent with plan view on sheet P118.			We do have sheet P118.			
C-21	Frenzel/Civil	P126	Trench details should provide different bedding dimensions for water and sewer, which use different diameters outside the building.	D	Trench details provided as typical .But on site can make different size .	Given the proposed pipe diameters we have no issue with the use of similar bedding.	A	Trench details provided as typical .But on site can make different size .	No details should be left for site interpretation. Correct Details!
C-22	Frenzel/Civil	P126	The sewer trench detail (01) shows bedding 150 mm thick, which is inappropriate for a pipe 160 mm diameter as shown on P118. Please coordinate.			The details and the general note conflict. Revise to match the notes ,300 mm of gravel fill is typical above the pipe .		300mm depend to detail 02 (typical case 3 parallel pipe please see drawing C212	This item has been addressed
C-23	Frenzel/Civil	P126	Detail 01: the use of manufactured small diameter (e.g., 8 - 13 mm) gravel is preferable over sand as bedding for flexible piping. Is this material available at economical prices.			While small diameter stone is desirable we consider sand appropriate bedding if stone is unavailable or cost prohibitive,			This item has been addressed
C-24	Frenzel/Civil	Specifications	Specifications are generally in an un-edited raw state. The process of editing and updating specs should be closely coordinated with the Specs.			No specification provided .			This item has not been addressed
C-25	Frenzel/Civil	Specifications	Specifications currently exceed 1700 pages, though that page number will certainly decrease when the specs are edited. The spec book should include a header or footer to make it easier to find .individual sections.	D	provided	No specification provided .			This item has not been addressed
C-26	Frenzel/Civil	Calculations	Please provide calc spreadsheets in digital format. It could significantly decrease review times.			In addition to the ability to provide the required daily demand hydrologic calculations should also consider. The proximity of the leachfield in relation to the well and the potential for pollution . The affect of the well and leachfield on adjacent wells (if any) No water supply is shown to the existing building. Assuming one exists, if the proposed well is adversely affects it how will the facility operate ? Are there other wells adjacent to the site , and will they be affected? How will the fetal burial area affect onsite or adjacent wells? Our sense is that this area should be moved offsite .	A	Provided leach field calculation used average percolation test on a PDF format .	This item has not been addressed



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C-27	Frenzel/Civil	Calc sheet 1 of 7	No supporting hydrogeologic info is provided for the well analysis. Without site specific hydrogeologic info, it will not be possible to provide a meaningful review of water well designs, or of the available water supply.			We fully concur with this comment. Failure to properly plan for the leachfield could derail the construction process ,especially given the depth of the sewer .In additions ,Percolation rates will affect the hydrologic calculations.			This item has not been addressed
C-27	Frenzel/Civil	Calc sheet 2 of 7	As stated above, soil percolation/infiltration test data has not been provided, Without this information it isn't possible to provide a meaningful assessment of the leach field or seepage pit design.						Need references of flow generation (How was the population and flow developed?) Need soils data.