

# WORD IN DEED

# NTENJERU RESOURCE CENTER

## MUKONO, UGANDA

PROJECT LOCATION: NTENJERU, UGANDA (SOUTH OF MUKONO)

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### GENERAL NOTES

- ALL WORK TO BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND AGENCIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM THE GOVERNING BUILDING DEPARTMENT PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS OF DRAWINGS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY WORK.
- THE CONTRACTOR SHALL NOTIFY ENGINEERING MINISTRIES INTERNATIONAL, EAST AFRICA (EMI EA) OF ANY CONFLICT OR DISCREPANCY DISCOVERED BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS ENCOUNTERED ON THE SITE. CONSTRUCTION SHALL NOT PROCEED UNTIL CORRECTIONS HAVE BEEN MADE AND RELATED PLANS OR CLARIFICATIONS HAVE BEEN REISSUED. CONSTRUCTION CAN ONLY BEGIN AFTER THE ISSUE(S) HAS BEEN RESOLVED.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCING. THE CONTRACTOR SHALL MAINTAIN STABILITY OF ADJACENT PROPERTIES AND STRUCTURES DURING ALL PHASES OF CONSTRUCTION, INCLUDING THE ADDITION OF WHATEVER SHORING, SHEETING AND/OR BRACING THAT MAY BE REQUIRED.
- PROJECT DOCUMENTS ARE THE PROPERTY OF EMI EA AND ARE INTENDED FOR USE ON THIS SITE ONLY AND SHOULD NOT BE REPRODUCED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF EMI EA.
- ALL FOOTINGS TO BE CENTERED ON WALL LINES. CAREFULLY LAY OUT FOOTING AND FOUNDATION WALL LOCATIONS ACCORDING TO DIMENSIONS SHOWN ON STRUCTURAL ENGINEER'S PLANS.
- DRAWING DIMENSIONS ARE EITHER FROM THE FACE OF OR FROM THE CENTER OF CONCRETE POSTS, MASONRY WALLS, IRON BEAMS, RAFTERS AND TRUSSES. SPECIAL ATTENTION MUST BE MADE TO THE LOCATION OF EACH DIMENSION LINE. THIS IS CRITICAL SINCE IT MAY VARY.
- ALL COPIES MUST BE PRINTED TO SCALE.
- PLAN CUTS ARE ASSUMED TO BE TAKEN AT 1000mm ABOVE FF UNLESS NOTED OTHERWISE.
- ALL RETAINING WALLS TO BE CONSTRUCTED ACCORDING TO STANDARD PRACTICES AND PER THE STRUCTURAL ENGINEER'S DESIGNS, WHICH ARE NOT SUPPLIED BY EMI EA, AS NEEDED IN LOCATIONS ON CIVIL GRADING PLAN. CONSTRUCTION TYPE USED MUST BE APPROVED AS PER ITEM #1 ABOVE.
- EXTERIOR SLABS, SKIRT WALKS, AND SIDEWALKS WILL BE SLOPED AT A MINIMUM OF 1% AWAY FROM BUILDING. ELEVATION LEVELS FOR ELEVATED SLABS, PORCHES, AND STEPS ARE GIVEN AT BUILDING WALL AND SHOULD SLOPE AWAY FROM WALL.
- EXTERIOR GRADE WILL BE SLOPED AT A MINIMUM OF 2% AWAY FROM BUILDING FOR A DISTANCE OF 2000mm MINIMUM. ALL SWALES SHALL DRAIN AWAY FROM BUILDINGS.
- ALL MANUFACTURED ITEMS SHALL BE INSTALLED OR APPLIED AS DIRECTED BY THE MANUFACTURER'S RECOMMENDATIONS.
- EMI EA PROVIDES DESIGNS FOR NONPROFIT ORGANIZATIONS THROUGHOUT EAST AFRICA. DURING THE TIME FRAME OF THIS PROJECT, EMI EA HAS RESEARCHED COMMONLY OBTAINABLE CONSTRUCTION PRODUCTS AND USED DESIGNS THAT ARE TYPICAL TO EAST AFRICA SO THAT LOCAL CONTRACTORS CAN CONSTRUCT THE DESIGN. IT IS REQUIRED THAT ALL GENERAL CONTRACTORS BE FULLY FAMILIAR WITH THE CONSTRUCTION PRACTICES NECESSARY AND FULLY ABLE TO READ AND UNDERSTAND THE EMI EA SUPPLIED PROJECT DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO READ AND STUDY IN DETAIL THE GIVEN PLANS. BEFORE CONSTRUCTION COMMENCES, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO FIND ANY MISTAKES AND RAISE ANY QUESTIONS WHEN INTERPRETING THE PROJECT DOCUMENTS, AND BRING THOSE TO THE ATTENTION OF EMI EA FOR CORRECTION OR CLARIFICATION.
- THIS WORK IS LICENSED UNDER THE CREATIVE COMMONS ATTRIBUTION-NONCOMMERCIAL-NO DERIVATIVE WORKS 3.0 UNITED STATES LICENSE. TO VIEW A COPY OF THIS LICENSE, VISIT [HTTP://CREATIVECOMMONS.ORG/LICENSES/BY-NC-ND/3.0/US/](http://creativecommons.org/licenses/by-nc-nd/3.0/us/) OR SEND A LETTER TO CREATIVE COMMONS, 171 SECOND STREET, SUITE 300, SAN FRANCISCO, CALIFORNIA, 94105, USA.

### GENERAL SPECIFICATIONS AND NOTES

#### CONSTRUCTION SUPERVISOR'S CONSTRUCTION & MATERIAL NOTES

(NOTES AND DETAILS SUPPLIED BY THE STRUCTURAL ENGINEER SHALL SUPERSEDE THESE IF DISCREPANCIES OCCUR.)  
CONSTRUCTION SUPERVISOR SHALL VERIFY THE FOLLOWING:

- CEMENT WORKS**
- FOR REINFORCED CONCRETE, THE GRADE OF CONCRETE SHALL BE A MINIMUM OF 18MPa WITH A MAX AGGREGATE SIZE OF 25mm AND A MAXIMUM WATER TO CEMENT RATIO OF 1:2:1.
  - FOR UNREINFORCED FOOTINGS AND SLABS WITHOUT INTEGRAL SLAB BEAM TO BE COVERED WITH A SCREED COAT, THE GRADE OF CONCRETE SHALL BE A MINIMUM OF 18MPa WITH A MAX AGGREGATE SIZE OF 25mm AND A MAXIMUM WATER TO CEMENT RATIO OF 1:2:1.
  - CEMENT USED SHALL BE PORTLAND CEMENT. FRESH CEMENT SHALL BE USED. CEMENT WHICH REQUIRES STORAGE ON SITE SHALL BE KEPT DRY. CEMENT WHICH IS OLDER THAN 3 MONTHS FROM DATE OF MANUFACTURE SHALL NOT BE USED.
  - SAND SHALL BE PIT SAND AND CLEAN OF IMPURITIES SUCH AS CLAY, SALT, MICA AND ORGANIC MATTER. SAND OBTAINED FROM RIVER OR LAKE BOTTOMS SHALL BE CLEAN.
  - AGGREGATE SHALL BE FREE AND CLEAN OF THE ABOVE MENTIONED IMPURITIES AND SHOULD BE MADE UP OF STONES OF DIFFERENT SIZES WELL GRADED FROM LARGE (25mm) TO SMALL (INCLUSIVE OF SAND). MAXIMUM AGGREGATE SIZE TO BE USED IN MIX DESIGN SHALL BE 25mm AS DESCRIBED IN A ABOVE.
  - MORTAR SHALL BE A 1:3 CEMENT TO SAND RATIO. MORTAR JOINT THICKNESS SHALL BE 16mm.
  - PLASTER SHALL BE A 1:4 CEMENT TO SAND RATIO.
- STEEL**
- ALL REINFORCING STEEL SHALL BE TWISTED OR DEFORMED BARS OR RIBBED STEEL WITH AN ULTIMATE YIELD STRENGTH OF 425N/mm<sup>2</sup> (60 KSI).
  - ALL BEAM AND COLUMN STRIRUP REINFORCEMENT SHALL BE ROUND BARS, AND HAVE AN ULTIMATE TENSILE STRENGTH OF 250 N/mm<sup>2</sup> (40 KSI). ALL HOOPS, HOOKS, AND BENDS ARE PER DETAIL. M033.0.
  - ALL REINFORCING STEEL SHALL BE SUPPORTED AND SECURED AGAINST MOVEMENT DURING PLACEMENT OF CONCRETE BY THE USE OF 'CHAIR' SPACERS OR EQUIVALENT METHODS.
  - ALL COLUMN STRIRUPS ARE TO BE CLOSED HOOPS AS SHOWN ON DRAWINGS. BEAM STRIRUPS MAY BE CLOSED HOOP OR 'U' SHAPE.
  - ALL ANCHOR BOLTS AND CONNECTIONS SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF 250N/mm<sup>2</sup> (40 KSI).
  - MINIMUM LAP SPICE LENGTH SHALL BE 450mm FOR R8 BARS, 550mm FOR Y12 BARS AND 675mm FOR Y16 BARS.
- CONCRETE MIXING**
- WATER SHALL BE ADDED UP TO THE MAXIMUM AMOUNT ALLOWED IN NOTE A IN ORDER TO OBTAIN A WORKABLE MIX THAT CAN BE PROPERLY PLACED AND CONSOLIDATED BY VIBRATION.
  - CONCRETE SHOULD BE THOROUGHLY MIXED BY A MECHANICAL MIXER AND QUICKLY PLACED IN ITS POSITION. DO NOT DROP CONCRETE INTO FORMS, BUT PLACE IT FROM AS CLOSE TO THE BEARING SURFACE AS POSSIBLE TO AVOID SEGREGATION. AFTER PLACING, IT MUST BE WELL CONSOLIDATED BY ROCCING OR VIBRATING MECHANICALLY TO REMOVE ALL AIR POCKETS.
- CONCRETE CURING**
- CONCRETE SHALL BE CURED FOR AT LEAST SEVEN (7) DAYS AFTER PLACEMENT BY COVERING WITH SAND AND BY WATERING DAILY. FORMS MAY NOT BE REMOVED UNTIL THE SPECIFIED TIME PERIOD HAS EXPIRED. NO LOADING SHOULD BE PLACED ON THE CONCRETE UNTIL AFTER 28 DAYS.
- CONCRETE SPECIFICATIONS**
- PROVIDE 20mm CHAMBERS ON ALL EXPOSED CORNERS OF CONCRETE EXCEPT THOSE ABUTTING MASONRY UNITS.
  - CLEAR CONCRETE COVER ON ALL REINFORCEMENT SHALL BE AS FOLLOWS:  
CONCRETE CAST AGAINST EARTH..... 75mm  
CONCRETE EXPOSED TO WEATHER..... 50mm  
SLAB BARS NOT EXPOSED TO EARTH OR WEATHER..... 20mm  
BEAMS AND COLUMNS NOT EXPOSED TO WEATHER..... 40mm
- FOUNDATIONS**
- ALL FOOTINGS SHALL BE ON UNDISTURBED SOIL HAVING A MINIMUM BEARING CAPACITY OF 100kPa (2000psf).
  - FOUNDATIONS TO BE TAKEN DOWN TO 1000mm BELOW STRIPPED GROUND LEVEL. CIVIL ENGINEER TO APPROVE ALL EXCAVATIONS BEFORE CONCRETE BLINDING IS LAID.
  - WEAK POCKETS OF BEARING STRATA TO BE EXCAVATED AND FILLED WITH A COMPATIBLE MATERIAL SUITABLE FOR BEARING.
  - DO NOT BACKFILL UNTIL REINFORCED CONCRETE REACHES FULL DESIGN STRENGTH. OR UNLESS WALLS ARE ADEQUATELY BRACED.
  - NOTIFY EMI EA IMMEDIATELY IF POOR OR QUESTIONABLE SUBGRADE CONDITIONS ARE ENCOUNTERED DURING EXCAVATION.

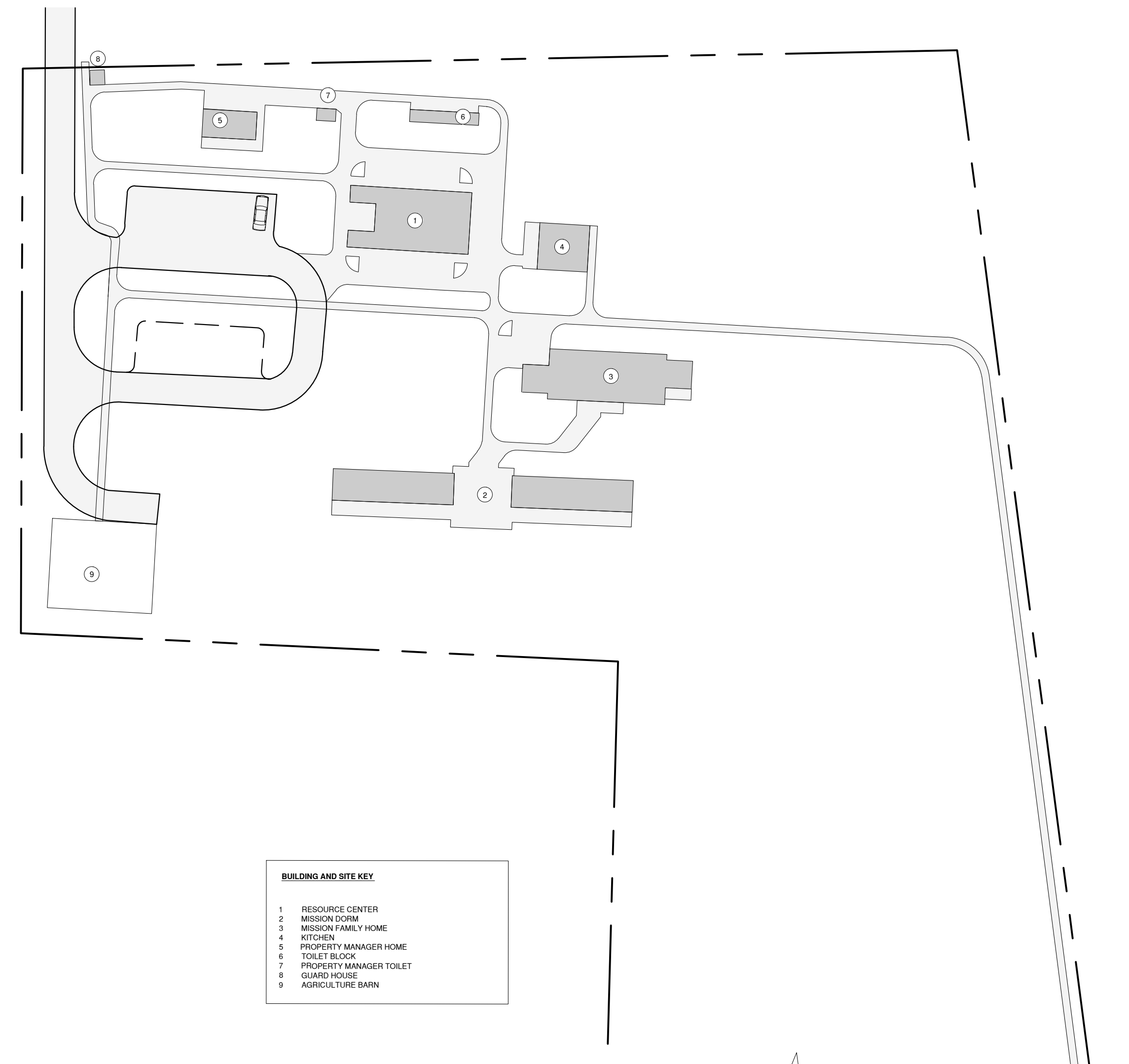
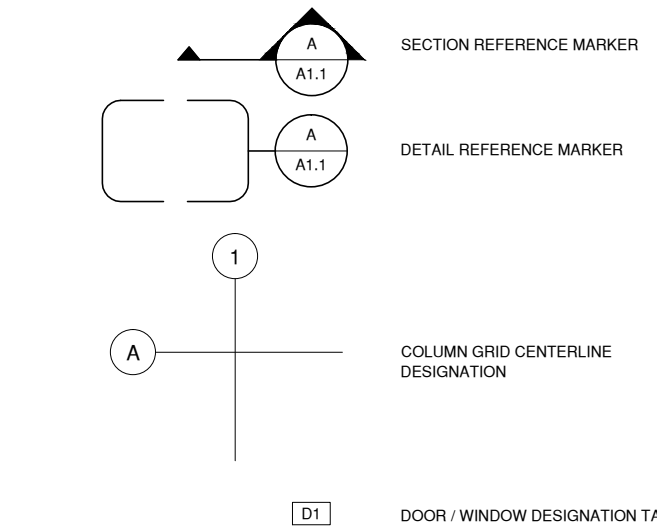
LEGEND	
	PROPERTY BOUNDARY
	PROPOSED MAJOR CONTOUR LINE
	PROPOSED MINOR CONTOUR LINE
	ROAD
	GRASS ROAD
	PROPOSED FENCE
	EXISTING FENCE (TO REMAIN)
	EXISTING FOOTPATH
	PROPOSED FOOTPATH (FUTURE PHASE)
	OVERHEAD POWER
	EXISTING OR PROPOSED DEVELOPMENT
	PROPOSED AGRICULTURAL FIELD

#### ABBREVIATIONS AND SYMBOL LEGEND

B.O.	BOTTOM OF	MTL	METAL
BS:####	BRITISH STANDARD	NTS	NOT TO SCALE
REF #	REFERENCE #	OC	ON CENTER
CL	CENTER LINE	OP	OPPOSITE HAND
CONC	CONCRETE	OPP	OPPOSITE
CONR	CONTINUOUS	RC	REINFORCED CONCRETE
CRS	CENTERS OR CENTER TO	REF	REFERENCE
DA	DIAMETER	RENF	REINFORCEMENT
DBL	DOUBLE	REQD	REQUIRED
B.F.	EACH WAY	RO	ROUGH OPENING
ELEV	ELEVATION	SIM	SINGLE
FFE	FINISHED FLOOR ELEVATION	SOL	SOLAR
F.O.	FACE OF	SP	SOAK PIT
GA	GAUGE	ST	STEEL
GC	GENERAL CONTRACTOR	STL	STEEL TANK
HT	HEIGHT	TBD	TO BE DETERMINED
HORIZ	HORIZONTAL	T.O.	TOP OF
m	METERS	TRK	TRICK
MAX	MAXIMUM	TYP	TYPICAL
MIN	MINIMUM	UNO	UNLESS OTHERWISE NOTED
MPa	MEGAPASCALS	VERT	VERTICAL
MO	MASONRY OPENING	VF	VERIFY IN FIELD

REFERENCES THE SPECIFIC DRAWING LETTER

REFERENCES THE SHEET NUMBER THE REFERENCED DRAWING CAN BE FOUND



BUILDING AND SITE KEY	
1	RESOURCE CENTER
2	MISSION DORM
3	MISSION FAMILY HOME
4	KITCHEN
5	PROPERTY MANAGER HOME
6	TOILET BLOCK
7	PROPERTY MANAGER TOILET
8	GUARD HOUSE
9	AGRICULTURE BARN