A - GENERAL NOTES

1. THE STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE BRITISH VIRGIN ISLANDS BUILDING CODE.
2. THE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, M&E AND ALL OTHER RELEVANT DRAWINGS. FOR A COMPLETE LIST OF DRAWINGS PLEASE REFER TO THE MAIN CONSULTANT.
3. THE DRAWINGS ARE DONE TO SCALE, HOWEVER PLEASE REFER TO THE PRINTED DIMENSIONS FOR ALL SETTING OUT.
4. THE ARCHITECTURAL DRAWINGS SHOULD BE USED AS THE BASE FOR ALL SETTING OUT.
5. ALL DIMENSIONS ARE TO BE CONFIRMED AT SITE PRIOR TO COMMENCEMENT OF WORK.
6. THE CONTRACTOR SHALL NOTIFY THE RELEVANT PERSON AT LEAST 24 HOURS PRIOR TO POURING CONCRETE.
7. THE CONTRACTOR IS REQUIRED TO MAKE SUBMISSIONS FOR ALL RELEVANT ITEMS USED ON THE CONTRACT. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO:

   7.1. CONCRETE MIX DESIGN
   7.2. TIMBER STRESS GRADING
   7.3. STRUCTURAL STEELWORK
   7.4. TIMBER TRUSSES
   7.5. REINFORCEMENT

B - LOADINGS

1. THE LOADING USED FOR THE DESIGN OF THE MEMBERS IS GENERALLY IN ACCORDANCE WITH THE BRITISH VIRGIN ISLANDS BUILDING CODE, HOWEVER SPECIFIC LOADINGS ARE AS FOLLOWS:

   1.1. DEAD LOADS

CONCRETE	24.0 kN/m³
STEEL	77.0 kN/m³
SOIL	18.0 kN/m³
TIMBER	6.50 kN/m³
CEILING CONSTRUCTION	1.15 kN/m²
FLOOR FINISHES	2.35 kN/m²
WALLS & PARTITIONS	
LIGHTWEIGHT METAL STUD WALLS	1.0 kN/m²
8" THK MASONRY	3.0 kN/m²
PERMANENT L/W PARTITIONS	1.0 kN/m² allowance
M & E FIXTURES	0.25 kN/m² allowance or specific for heavier items
GREEN ROOF	Calculated as per build-up

   1.2. LIVE LOADS

SERVICE LOAD (roof)	0.6 kN/m²
AVE. FLOOR LOAD (main floor)	1.5 kN/m² (residential)
AVE. FLOOR LOAD (balconies & decks)	2.0 kN/m² (residential)
FLEXIBLE LIGHTWEIGHT PARTITIONS	1.0 kN/m² allowance

   1.3. WIND LOADS — calculated from min. 150 mph wind speed

2. ALL LOADINGS ARE IN ACCORDANCE WITH BRITISH STANDARD 6399-1:1996.
3. THE BASIC WIND LOADING HAS BEEN SUBJECT TO THE EXTERNAL AND INTERNAL PRESSURE COEFFICIENTS AS SET DOWN IN THE RELEVANT BRITISH STANDARD 6399-2:1997.
4. SEISMIC LOADING HAS BEEN TAKEN FROM THE CARIBBEAN UNIFORM BUILDING CODE (CUBIC) PART 2 SECTION 3.

C - FOUNDATIONS

1. THE FOUNDATION SYSTEM CONSISTS OF STRIP AND ISOLATED FOUNDATIONS WITH THE MINIMUM REINFORCING TO BE 0.15% OF THE GROSS CROSS SECTIONAL AREA.
2. FOUNDATIONS ARE DESIGNED FOR **250 kN/m²** ALLOWABLE SOIL BEARING PRESSURE, ASSUMED TO BE SOLID UNDISTURBED ROCK. IF CONDITIONS ON SITE ARE DIFFERENT NOTIFY CSE.
3. ALL FOUNDATIONS ARE TO BE TAKEN DOWN TO THE LEVEL SHOWN ON THE DRAWINGS. ANY SOFT SPOTS IN THE GROUND SHALL BE EXCAVATED AND REPLACED WITH AN APPROVED BACKFILL MATERIAL, FILLED AND COMPACTED IN 8" LAYERS, AND 2" OF LEAN MIX CONCRETE.
4. NO BACKFILL SHALL BE PLACED AGAINST FOUNDATION WALLS UNLESS SUPPORTING SLABS ARE IN PLACE AND SET OR THE WALLS ARE ADEQUATELY BRACED.
5. PROVIDE DOWELS IN FOUNDATIONS FOR ALL WALLS, COLUMNS, AND SHEAR WALLS OF SAME NUMBER AND SIZE AS THE VERTICAL REINFORCEMENT ABOVE, U.N.O.
6. PROVIDE WATERSTOPS IN ALL VERTICAL CONSTRUCTION JOINTS IN BASEMENT WALLS.
7. THE STRUCTURAL ENGINEER IS TO BE NOTIFIED IN REASONABLE TIME FOR AN INSPECTION OF THE FOUNDATIONS TO BE CARRIED OUT.

D - CONCRETE MASONRY UNITS (CMU)

1. CONCRETE MASONRY UNITS SHALL HAVE A MINIMUM AVERAGE STRENGTH AT 28 DAYS OF 1900 PSI, AS PER ASTM C90.
2. ALL BLOCKS MUST BE 2 CORE HOLLOW BLOCKS.
3. MORTAR SHALL BE TYPE S AS SPECIFIED IN THE BRITISH VIRGIN ISLANDS BUILDING CODE, WITH MINIMUM 2500 PSI COMPRESSIVE STRENGTH.
4. ALL MASONRY UNITS SHALL BE PLACED IN RUNNING BOND, WITH $\frac{3}{8}$" MORTAR JOINTS.
5. THE CONTRACTOR SHALL SUBMIT THE PROPOSED MORTAR MIX DESIGN AND TEST RESULTS PRIOR TO WORK AT SITE. NO BEACH SAND IS PERMITTED IN THE MORTAR MIX.
6. ALL BLOCKS MUST BE SATURATED/SURFACE DRY BEFORE WORK COMMENCES.
7. STEEL REINFORCEMENT FOR MASONRY CONSTRUCTION

   7.1. STIFFENER COLUMNS AND RING OR CAPPING BEAMS SHALL BE PROVIDED AS SHOWN ON THE RELEVANT DRAWINGS. THESE MUST BE CAST AFTER THE CMU WALL CONSTRUCTION.

   7.2. THE FOLLOWING REINFORCEMENT SHOULD BE PROVIDED AS A MINIMUM TO ALL EXTERNAL AND INTERNAL WALLS, IN ADDITION TO THE ABOVE:

   7.2.1. VERTICAL REINFORCEMENT (BELOW AND ABOVE GROUND LEVEL) - #4 @ 24" O/C MINIMUM, WITH ADDITIONAL BARS IN CORES ADJACENT TO STRUCTURAL OPENINGS, U.N.O.

   7.2.2. VERTICAL BARS SHALL BE CENTRED IN THEIR CORES.

   7.2.4. HORIZONTAL REINFORCEMENT - LADDER TYPE REINFORCEMENT LAID AT MAX. EVERY 3 COURSES, U.N.O.

   7.2.5. LADDER TYPE REINFORCEMENT SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL, MIN. 9 GAUGE HIGH YIELD STEEL, E.G. 220 LADDER MESH REINFORCEMENT BY HOHMANN & BARNARD.

8. CONCRETE GROUT FOR MASONRY

   8.1. CONCRETE GROUT SHOULD ACHIEVE MIN. 3000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. THE MAXIMUM AGGREGATE SIZE IS TO BE $\frac{3}{8}$".

   8.2. GROUT TO BE USED OVER A MAXIMUM HEIGHT OF 6 COURSES, ALL CORES TO BE CLEANED PRIOR TO GROUTING.

E - CONCRETE

1. ALL INSITU CONCRETE SHALL BE IN ACCORDANCE WITH THE RELEVANT BRITISH AND AMERICAN STANDARDS.
2. CONCRETE SHALL ACHIEVE ITS 28 DAY COMPRESSIVE STRENGTH AND HAVE A MAXIMUM WATER/CEMENT RATIO AS DETAILED BELOW:

STRUCTURE	W/C	28 DAY STRENGTH
2.1. COLUMNS/FOOTINGS/BEAMS/SLABS	0.40	4500 PSI (based on cylinder strength)

3. ALL WATER SHALL BE ADDED TO THE CONCRETE AT THE BATCHING PLANT, NO FURTHER WATER SHALL BE ADDED AT THE SITE.
4. ALL CONCRETE SHALL BE POURED WITHIN 90 MINUTES OF BATCHING TIME.
5. ALL CONCRETE SHALL BE VIBRATED USING A POKER TYPE VIBRATOR. THESE SHALL BE ON SITE PRIOR TO THE CONCRETE ARRIVING. CONSECUTIVE POURS IN A VERTICAL MEMBER SHALL BE VIBRATED INTO THE POUR BELOW TO ENSURE MONOLITHIC CONSTRUCTION.
6. CONCRETE FINISHES SHALL BE IN COMPLIANCE WITH THE ARCHITECTURAL REQUIREMENTS.
7. ALL CONCRETE SHALL BE CURED IMMEDIATELY AFTER THE INITIAL SET OF THE CONCRETE USING A PROPRIETARY CURING COMPOUND. AS AN ALTERNATIVE, STRUCTURAL MEMBERS MAY BE CURED BY ENSURING THAT THE UNIT IS KEPT CONTINUOUSLY WET. CURING SHALL BE CONTINUOUS FOR AT LEAST 7 DAYS.
8. FORMWORK FOR CONCRETE SHALL BE DESIGNED AND ERECTED TO RESIST THE FORCES DEVELOPED BY THE WET CONCRETE. FORMWORK SHALL NOT BE STRIPPED UNTIL THE CONCRETE HAS ACHIEVED AT LEAST 50% OF ITS DESIGN STRENGTH. STRUCTURAL ITEMS SHALL REMAIN SUPPORTED UNTIL THE DESIGN STRENGTH HAS BEEN ACHIEVED.
9. ONE SET OF 5 TEST CYLINDERS SHALL BE TAKEN FOR EACH 50 CUBIC YARDS OF CONCRETE POURED, OR ONE SET PER DAY FOR SMALLER POURS. THE CYLINDERS SHALL BE CRUSHED TO DETERMINE THEIR COMPRESSIVE STRENGTH: ONE CYLINDER AT 7 DAYS AND 3 AT 28 DAYS. IF ALL CYLINDERS TESTED ARE SATISFACTORY, THEN THE 4TH CYLINDER CAN BE DISPOSED OF. ANY DISCREPANCIES IN THE TEST RESULTS WILL REQUIRE THE REMAINING CYLINDER TO BE TESTED AT 56 DAYS.
10. PLEASE REFER TO SPECIFICATION 033000 CAST-IN-PLACE CONCRETE FOR MORE INFORMATION.
11. NO MARINE AGGREGATE OR LOCAL BEACH SAND IS PERMITTED TO BE USED IN THE CONCRETE MIX. THE CONCRETE IS TO CONFORM WITH BS 8110 (all parts), BS 5328 (all parts), BS EN 206, BS 882, BS 812 AND OTHER PERTINENT CODES REFERENCED THEREIN. MOST CURRENT AMENDMENTS TAKE PRECEDENCE.

F - TIMBER ROOF/FLOOR

1. DEAD LOADS/SELF-WEIGHT - BASED ON TIMBER SPECIES SELECTED BY ARCHITECT.
2. LIVE LOADS - AS DETAILED IN THE BRITISH VIRGIN ISLANDS BUILDING CODE, AND AS PREVIOUSLY NOTED.
3. ALL STRUCTURAL TIMBER IS TO BE PRESSURE TREATED (PT) GRADE 1 FOR TERMITE RESISTANCE, U.N.O.
4. ALL TIMBER IS TO BE MACHINE STRESS GRADED.
5. ALL CONNECTORS SHALL BE STAINLESS STEEL AND PAINTED. USE BLACK BITUMEN PAINT WHEN HIDDEN. FOR EXPOSED CONNECTORS REFER TO PAINT COLOUR BY ARCHITECT.
6. ALL CONNECTORS SHALL HAVE MINIMUM 12 GAUGE THICKNESS.

G - PLYWOOD

1. ALL PLYWOOD TO BE PRESSURE TREATED.
2. PLYWOOD SHALL BE IDENTIFIED WITH THE APA GRADE TRADEMARK.
3. PLYWOOD SHALL BE FIRE RATED WHERE SPECIFIED BY ARCHITECT.
4. EXTERIOR - C-C EXTERIOR PLYWOOD OR STRUCTURAL 1
5. WALL, ROOF SHEATHING, SUB-FLOORING, - C-D INTERIOR PLYWOOD OR STRUCTURAL 11
6. INTERNAL WALLS - C-D INTERIOR PLYWOOD OR STRUCTURAL 11
7. ALL ROOF SHEATHING PLYWOOD IS TO BE HAND NAILED ONLY WITH STAINLESS STEEL COMMON ROUND WIRE NAILS. SPACE NAILS AS FOLLOWS:

   7.1. ALONG PLYWOOD EDGES - 10D COMMON NAILS @ 4" O/C

   7.2. TO INTERIOR MEMBERS - 10D COMMON NAILS @ 6" O/C

   7.3. TO INTERIOR MEMBERS FOR ROOF OVERHANGS, WITHIN 4' OF RIDGES HIPS AND VALLEYS - 10D COMMON NAILS @ 4" O/C

H - GROUND BEARING SLABS (GBS)

1. GROUND BEARING SLABS SHALL REST ON A MINIMUM 8" THICK LAYER OR APPROVED GRANULAR FILL MATERIAL. EACH LAYER OF FILL SHALL BE COMPACTED USING A VIBRATING ROLLER TO AT LEAST 95% DRY DENSITY. TESTS SHALL BE CARRIED OUT ON EACH LAYER USING THE MODIFIED PROCTOR TEST OR BY NUCLEAR DENSITY TESTING BY THE STRUCTURAL ENGINEER OR AN INDEPENDENT ENGINEER.
2. THE MINIMUM THICKNESS OF GROUND BEARING SLABS IS TO BE 6" UNLESS OTHERWISE NOTED. ALL SLABS TO BE REINFORCED WITH A MINIMUM OF #3 BARS AT 8" CENTRES OR EQUIVALENT. BARS ARE TO BE PLACED AT $1\frac{1}{2}$" FROM THE TOP SURFACE OF THE CONCRETE AND SHOULD BE HELD SECURELY IN PLACE USING APPROVED NON FERROUS CHAIRS OR SPACERS.
3. MIN. 1000 GAUGE POLYTHENE IS TO BE USED BETWEEN ALL CONCRETE SLABS AND THE GROUND ON WHICH IT SITS.
4. THE TOP LEVEL OF GROUND BEARING SLABS IS TO BE IN ACCORDANCE WITH THE SURFACE FINISH REQUIREMENTS OF THE ARCHITECT.
5. ALL SLABS TO HAVE EXPANSION JOINTS AS INDICATED ON THE DRAWINGS.

I - STEELWORK

1. THE MATERIAL GRADES SHALL BE AS FOLLOWS, UNLESS OTHERWISE SHOWN OR NOTED ON DRAWINGS:

   1.1 STRUCTURAL STEEL

ALL WIDE FLANGE AND TEE SECTIONS	ASTM A572 GRADE 50 OR A992
ALL CHANNEL AND ANGLE SECTIONS	ASTM A36
ALL PLATES AND CONNECTION MATERIAL	ASTM A36
ALL TUBULAR SECTIONS	ASTM A500, GRADE B
ALL PIPE SECTIONS	ASTM A53, GRADE B
ANCHOR RODS, U.N.O	ASTM F1554
ALL EXPOSED/EXTERIOR STEEL SHALL BE STAINLESS STEEL	

   1.2 WELDING ELECTRODES — E70XX LOW HYDROGEN

   1.3 BOLTING MATERIALS — ASTM A325 OR F1852 (TWIST-OFF TYPE), OR A490, U.N.O.

2. SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE STRUCTURAL ENGINEER BEFORE FABRICATION.
3. SHOP DRAWINGS SHALL INCLUDE COMPLETE INFORMATION FOR THE FABRICATION AND ERECTION OF THE STRUCTURE'S COMPONENTS, INCLUDING THE LOCATION, TYPE, AND SIZE OF BOLTS,WELDS, MEMBER SIZES AND LENGTHS, CONNECTION DETAILS, BLOCKS, COPES, AND CUTS.
4. STEEL FRAMES OR BEAMS SHALL BE ERECTED TRUE AND PLUMB WITHIN THE LIMITS DEFINED UNDER THE RELEVANT BS CODE OF STANDARD PRACTICE. TEMPORARY BRACING SHALL BE PROVIDED WHEREVER NECESSARY TO RESIST ALL CONSTRUCTION LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED TO. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY.
5. WELDING ELECTRODES AND FLUXES SHALL CONFORM WITH BS 5950-2 SPECIFICATIONS. MANUFACTURER'S CERTIFICATION SHALL CONSTITUTE SUFFICIENT EVIDENCE OF CONFORMITY WITH THE SPECIFICATIONS.
6. POSITIONING, ALIGNMENT AND PLUMBNESS - NO PERMANENT BOLTING OR WELDING SHALL BE PERMITTED UNTIL AS MUCH OF THE STRUCTURE IS STIFFENED AND ALIGNED AS NECESSARY TO ENSURE STABILITY.
7. FOR FIREPROOFING REQUIREMENTS AND ASSEMBLIES SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
8. ANY STEEL WHICH IS TO BE ENCLOSED BUT NOT SPRAY FIREPROOFED SHALL BE CLEANED TO SSPC SP-3 AND SHOP PAINTED WITH ALKYD PRIMER OR EQUIVALENT APPROVED MATERIAL.
9. WELD TYPES AND THICKNESS ARE NOTED ON THE DRAWINGS AS NECESSARY. SIZE OF WELDS SHALL NOT BE SMALLER THAN 1/4".
10. PROVIDE STAINLESS STEEL BOLTS FOR STEEL PERMANENTLY EXPOSED TO WEATHER U.N.O. WHERE GALVANIZED BOLTS ARE NOTED, GALVANIZING SHALL BE DONE BY THE BOLT MANUFACTURER. INSTALL WITH DIRECT TENSION INDICATORS.
11. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADdITIONAL STEEL, CONNECTIONS, GUYING, ETC. REQUIRED FOR ERECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY AND SAFETY OF THE WORK DURING CONSTRUCTION.
12. WELDERS SHALL BE CERTIFIED BY AWS AS REQUIRED. SLAG SHALL BE REMOVED FROM ALL WELDS FOR INSPECTION.
13. FIELD CUTTING OF STRUCTURAL STEEL IS NOT PERMITTED EXCEPT WHERE ACCEPTED BY THE ENGINEER IN REVIEW OF DRAWINGS SUBMITTED BY THE CONTRACTOR. CUTTING OR ENLARGEMENT OF BOLT HOLES WITH TORCHES IS STRICTLY PROHIBITED.
14. OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FABRICATION AND INSTALLATION OF WORK PRIOR TO DETAILING. PRECISE MEASUREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
15. THE STEEL DETAILER SHALL VISIT THE JOB SITE AS MANY TIMES AS NECESSARY TO FAMILIARIZE HIMSELF WITH THE EXISTING FIELD CONDITIONS AND OBTAIN ALL NECESSARY INFORMATION NEEDED TO COMPLETE THE JOB.
16. ALL STEEL WHICH IS NOT STAINLESS OR HAS NOT BEEN HOT DIP GALVANIZED IN THE SHOP, BUT IS PERMANENTLY EXPOSED TO WEATHER SHALL BE BLAST CLEANED TO SSPC SP-6, SHOP PAINTED WITH ZINC-RICH PRIMER AND TOP COATED WITH EPOXY-BASED PAINT.

J - REINFORCING STEEL

1. REINFORCING STEEL SHALL BE NEW DEFORMED BARS IN ACCORDANCE WITH ASTM A-615. ALL BARS TO BE GRADE 60.
2. MINIMUM COVER TO REINFORCEMENT TO BE IN ACCORDANCE WITH THE BRITISH VIRGIN ISLANDS BUILDING CODE.
3. ALL REINFORCEMENT IS TO BE SECURELY TIED IN PLACE AT EACH LOCATION WHERE THE BARS CROSS. REINFORCEMENT IS ALSO TO BE SECURELY FIXED OFF THE FORMWORK, TO PREVENT ANY MOVEMENT DURING THE PLACING OR VIBRATING OF THE CONCRETE. USE PROPRIETARY SPACERS ONLY, OR SPACERS MADE OFF SITE.
4. REINFORCEMENT SHALL BE LAPPED AS FOLLOWS, EXPRESSED AS A MULTIPLE OF THE BAR DIAMETER:

   4.1. TENSION ANCHORAGE AND LAP LENGTH — 40
   4.2. COMPRESSION ANCHORAGE LENGTH — 32
   4.3. COMPRESSION LAP LENGTH — 40

MINIMUM CONCRETE COVER

STRUCTURAL ELEMENT		COVER IMPERIAL	COVER METRIC
FOOTING		3"	75 mm
RC WALL		2"	50 mm
COLUMN		1 1/2"	38 mm
BEAM		1 1/2"	38 mm
SUSPENDED SLAB	TOP	1 1/2"	38 mm
	BOT	1 1/2"	38 mm
SLAB ON GROUND		2"	

REBAR SIZE/DIAMETER CONVERSION TABLE

AMERICAN BAR SIZE	METRIC EQUIVALENT
#10	32 mm
#8	25 mm
#6	20 mm
#5	16 mm
#4	12 mm
#3	10 mm
#2	8 mm

REBAR DEVELOPMENT LENGTH & STANDARD HOOK DETAILS

BAR DIAMETER (In)	MIN. DEVT. LENGTH Ldh (In) TOP BARS	OTHERS
#3	16	12
#4	19	14
#5	26	19
#6	32	24
#8	48	37
#9	53	41
#10	61	47

BAR DIAMETER (In)	BASIC DEVELOPMENT LENGTH Lhb (In)
#3	6
#4	7
#5	10
#6	12
#8	15
#9	17
#10	19

DEVELOPMENT LENGTH, Ldh SHALL BE AS FOLLOWS:

(a) For hooks with side cover (normal to plane of hook) not less than $2\frac{1}{2}$", and for 90 deg. hooks with cover on bar extension beyond hook not less than 2", use 0.7 Lhb.

(b)For bars with hooks enclosed vertically or horizontally with perpendicular ties or stirrups along the full dev't length, spaced not greater than 3db, use 0.8 Lhb.

(c) For bars not included in (a) & (b), use 1.0 Lhb.

BAR LAYER LEGEND

BAR DIAMETER (In)	D (In)	L (In) 180° HOOK	L (In) 90° HOOK
#3	3	2 1/2	5
#4	3	2 1/2	6
#5	4	2 1/2	8
#6	5	3	10
#8	6	4	12
#9	9	5	14
#10	10	5	16

BAR DIAMETER (In)	D (In)	L (In)
#3	2	3
#4	2	3

BAR SIZE (In)	LAP SPLICE (In) TOP BARS	OTHERS
#3	21	17
#4	25	22
#5	33	28
#6	41	34
#8	62	45

K - ABBREVIATIONS

@ - At
& - And
℄ - Center Line
Ø - Diameter
RL - Ridge Line
Add'l - Additional
BC - Bottom Chord
Chb - Concrete Hollow Block
Col - Column
Conc - Concrete
Conn - Connection
Cont - Continious
Deg ° - Degree
Det - Detail
EF - Each Face
EGL - Existing Grade LIne
Elev - Elevation
EQ - Equal
EW - Each Way
Exst - Existing
FFL - Finished Floor Line
FGL - Finished Grade Line
Ga - Gage
GFL - Ground Floor Line
Hor - Horizontal
Kg - Kilogram
kN - Kilonewton
kN/m³ - Kilonewton per Cubic Meter
kPa - Kilopascal
GBS - Ground bearing slab
Lg - Long
M,m - Meter
Max - Maximum
Min - Minimum
Misc - Miscellaneous
mm - Millimeter
MPa - Megapascal
NGL - Natural Grade Line
mm - Millimeter
No.(#) - Number
OC - On Center
Opp - Opposite
PCF - Pounds per cubic foot
PEJ - Preformed Expansion Joint
PLF - Pounds per linear foot
PSF - Pounds per square foot
PSI - Pounds per square inch
RC - Reinforced Concrete
Reinf - Reinforcement
Schd - Schedule
ST - Steel Strut
STD - Standard
STL - Steel
Sym - Symmetry
TC - Top Chord
Thk - Thick
TYP - Typical
Ver - Vertical
w/ - With

Revision		
-	27-04-19	GCP
	FOR CONSTRUCTION	

CLIENT:
RECOVERY AND DEVELOPMENT AGENCY
TORTOLA
BRITISH VIRGIN ISLANDS

ARCHITECT:

MAIN CONTRACTOR:

Civil & Structural Engineering Ltd
P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI.
Tel: (649) 941 4437 Fax: (649) 941 4670
E-Mail: info@csecaribbean.com

PROJECT:
A O SHIRLEY PAVILION ROOF
TORTOLA
BRITISH VIRGIN ISLANDS

DRAWING TITLE:
CONSTRUCTION NOTES

DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
PROJECT :	CSE 1781	REV.:	-
DRAWING :	ST-000	STATUS	CONSTRUCTION

NOTES:

1. Do not scale off these drawings.
2. Notify CSE of dimensional discrepancies.
3. All columns and walls centered on gridlines U.N.O.
4. All CSE drawings to be read in conjunction with Architectural and M&E drawings.
5. Foundation design based on 250 kPa soil bearing pressure, on solid undisturbed rock.

LEGEND:

- Denotes existing wall
F# - Pad footing designation
C# - Column designation
- Column below
- Column above

FOUNDATION/GROUND FLOOR PLAN
1/4"=1'-0"

Revision		
-	27-04-19	FOR CONSTRUCTION GCP

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	GENERAL ARRANGEMENT PLAN FOUNDATION/GROUND FLOOR PLAN	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-100		STATUS CONSTRUCTION	

NOTES:

1. Do not scale off these drawings.
2. Notify CSE of dimensional discrepancies.
3. All columns and walls centered on gridlines U.N.O.
4. All CSE drawings to be read in conjunction with Architectural and M&E drawings.
5. Foundation design based on 250 kPa soil bearing pressure, on solid undisturbed rock.

LEGEND:

B# - Structural beam designation
- Column below
- Column above

ROOF PLAN
1/4"=1'-0"

Revision		
-	27-04-19	GCP
	FOR CONSTRUCTION	

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	GENERAL ARRANGEMENT PLAN ROOF PLAN	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-101		STATUS CONSTRUCTION	

1 SECTION 1-1
1/4"=1'-0"

2 PAD FOUNDATION F-1
1/2"=1'-0"

3 SECTION THROUGH F-1/C-1
1/2"=1'-0"

4 PAD FOUNDATION F-2
1/2"=1'-0"

5 SECTION THROUGH F-2/C-1
1/2"=1'-0"

6 SECTION THROUGH PARAPET
1"=1'-0"

7 NEW BEAM TO EXISTING WALL DETAIL TYPE 1
1"=1'-0"

8 NEW BEAM (RB-1) TO EXISTING WALL DETAIL TYPE 2
1"=1'-0"

Revision		
-	27-04-19	GCP
	FOR CONSTRUCTION	

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	BUILDING SECTION 1-1 DETAILS	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-200		STATUS CONSTRUCTION	

NOTES:
1. To be read in conjunction with Architectural and M&E drawings.
2. Development length and bar hooks for slab rebar are not shown, refer to ST-000 & relevant details.

BAR LAYER LEGEND

ROOF SLAB BOTTOM REINFORCEMENT LAYOUT PLAN
1/4"=1'-0"

Revision			
-	27-04-19	GCP	FOR CONSTRUCTION

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	ROOF SLAB BOTTOM REINFORCEMENT LAYOUT PLAN	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-300		STATUS CONSTRUCTION	

NOTES:
1. To be read in conjunction with Architectural and M&E drawings.
2. Development length and bar hooks for slab rebar are not shown, refer to ST-000 & relevant details.

BAR LAYER LEGEND

ROOF SLAB TOP REINFORCEMENT LAYOUT PLAN
1/4"=1'-0"

Revision			
-	27-04-19	GCP	FOR CONSTRUCTION

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	ROOF SLAB TOP REINFORCEMENT LAYOUT PLAN	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-301		STATUS CONSTRUCTION	

NOTES:
1. To be read in conjunction with Architectural and M&E drawings.
2. To be read in conjunction with bar bending schedules (BBS).
3. Designed to British Standard (BS 8110), for bar mark conversion to US types see bar conversion table.

CONVERSION TABLE	
AMERICAN BAR SIZE	METRIC EQUIVALENT
#8	25 mm
#6	20 mm
#5	16 mm
#4	12 mm
#3	10 mm
#2	8 mm

1 B-1 (1 TOTAL)
1/2"-1'-0"

Revision		
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CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	RC BEAM DETAILS	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-400		STATUS CONSTRUCTION	

NOTES:
1. To be read in conjunction with Architectural and M&E drawings.
2. To be read in conjunction with bar bending schedules (BBS).
3. Designed to British Standard (BS 8110), for bar mark conversion to US types see bar conversion table.

CONVERSION TABLE	
AMERICAN BAR SIZE	METRIC EQUIVALENT
#8	25 mm
#6	20 mm
#5	16 mm
#4	12 mm
#3	10 mm
#2	8 mm

1 B-2 (1 TOTAL)
1/2"=1'-0"

Revision			
-	27-04-19	GCP	FOR CONSTRUCTION

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	RC BEAM DETAILS	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-401		STATUS CONSTRUCTION	

NOTES:
1. To be read in conjunction with Architectural and M&E drawings.
2. To be read in conjunction with bar bending schedules (BBS).
3. Designed to British Standard (BS 8110), for bar mark conversion to US types see bar conversion table.

CONVERSION TABLE	
AMERICAN BAR SIZE	METRIC EQUIVALENT
#8	25 mm
#6	20 mm
#5	16 mm
#4	12 mm
#3	10 mm
#2	8 mm

1 B-3 (1 TOTAL)
1/2"-1'-0"

Revision			
-	27-04-19	GCP	FOR CONSTRUCTION

CLIENT:	ARCHITECT:	MAIN CONTRACTOR:		PROJECT:	DRAWING TITLE:	DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
RECOVERY AND DEVELOPMENT AGENCY TORTOLA BRITISH VIRGIN ISLANDS			Civil & Structural Engineering Ltd P.O. Box 158, Providenciales, Turks & Caicos Islands, BWI. Tel: (649) 941 4437 Fax: (649) 941 4670 E-Mail: info@csecaribbean.com	A O SHIRLEY PAVILION ROOF TORTOLA BRITISH VIRGIN ISLANDS	RC BEAM DETAILS	PROJECT : CSE 1781		REV.: -	
						DRAWING : ST-402		STATUS CONSTRUCTION	

NOTES:
1. To be read in conjunction with Architectural and M&E drawings.
2. To be read in conjunction with bar bending schedules (BBS).
3. Designed to British Standard (BS 8110), for bar mark conversion to US types see bar conversion table.

CONVERSION TABLE	
AMERICAN BAR SIZE	METRIC EQUIVALENT
#8	25 mm
#6	20 mm
#5	16 mm
#4	12 mm
#3	10 mm
#2	8 mm

1 B-4 (2 TOTAL)
1/2"-1'-0"

2 B-5 (2 TOTAL)
1/2"-1'-0"

Revision		
-	27-04-19	GCP
	FOR CONSTRUCTION	

CLIENT:
RECOVERY AND DEVELOPMENT AGENCY
TORTOLA
BRITISH VIRGIN ISLANDS

ARCHITECT:

MAIN CONTRACTOR:

Civil & Structural Engineering Ltd
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PROJECT:
A O SHIRLEY PAVILION ROOF
TORTOLA
BRITISH VIRGIN ISLANDS

DRAWING TITLE:
RC BEAM DETAILS

DATE: 27-04-19	DRAWN: GCP	APPROVED: AH	SCALE: AS SHOWN
PROJECT :	CSE 1781	REV.:	-
DRAWING :	ST-403	STATUS	CONSTRUCTION