

**METHODOLOGY FOR WATERPROOFING:**

**METHOD 1:**

A QUALIFIED WATERPROOFING SPECIALIST IS TO CONDUCT THE FOLLOWING METHODOLOGY:

**1. PRELIMINARY INSPECTION:**

- a) CONDUCT A THOROUGH INSPECTION OF THE CURRENT STATE OF THE ROOF TO BE REPAIRED. THE ROOF AREA FEATURES CLAY TILES PLACED ON TOP OF IBR SHEETING, A WATERPROOFING MEMBRANE, AND SCREED.
- b) IDENTIFY THE LOCATION AND EXTENT OF THE WATER LEAKAGE INSIDE THE BUILDING.
- c) CHECK FOR ANY SIGNS OF WATER POOLING AT THE ROOF EDGES AND ASSESS THE DRAINAGE SYSTEM FOR BLOCKAGES OR INADEQUATE SLOPE.
- d) CAREFULLY REMOVE THE CLAY TILES AND IBR SHEETING TO EXPOSE THE WATERPROOFING MEMBRANE AND SCREED UNDERNEATH.

**2. SCREED ASSESSMENT AND REPLACEMENT:**

- a) ASSESS THE CONDITION OF THE WATERPROOFING MEMBRANE AND UNDERLYING SCREED. IF THE SCREED IS DAMAGED OR DETERIORATED, PLAN FOR ITS REMOVAL AND/OR REPAIR.
- b) IF THE SCREED NEEDS TO BE REPLACED, REMOVE THE OLD SCREED AND PREPARE THE SURFACE FOR NEW SCREED APPLICATION. EXISTING SCREED THICKNESS TO BE RECORDED PRIOR TO DEMOLITION.
- c) REPAIR THE SCREED WHERE FOUND TO BE NECESSARY USING AN EPOXY CEMENTITIOUS REPAIR MORTAR COMPOUND SUCH AS STONCOR PRO STRUCT 528 OR SIMILAR APPROVED. ENSURE THE SURFACE OF THE SCREED IS COMPLETELY SMOOTH, FIRM AND FREE OF ANY PROTRUSIONS
- d) ENSURE THE NEW SCREED IS PROPERLY SLOPED TO FACILITATE WATER DRAINAGE.
- e) STRUCTURAL ENGINEER WILL NEED TO BE NOTIFIED OF NEW SCREED THICKNESSES AND SCREED-TO-FALL LEVELS TO VERIFY THAT THE NEW LOADING WILL BE SAFE.

**3. WATERPROOFING MEMBRANE REPLACEMENT:**

- a) ONCE THE SCREED IS READY, APPLY A NEW WATERPROOFING MEMBRANE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. PLEASE BE ADVISED THAT THE WATERPROOFING FOR THIS PROJECT WILL NEED TO BE INSTALLED BY A QUALIFIED WATERPROOFING SPECIALIST. THIS IS A DESIGN AND SUPPLY ITEM, AND IT IS CRUCIAL THAT THE INSTALLATION IS CARRIED OUT ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND INDUSTRY STANDARDS TO ENSURE THE INTEGRITY AND LONGEVITY OF THE WATERPROOFING SYSTEM.

**4. DRAINAGE SYSTEM ASSESSMENT:**

- a) INSPECT AND CLEAN THE ROOF'S DRAINAGE SYSTEM, INCLUDING THE FULL BORES, TO ENSURE PROPER WATER FLOW AND PREVENT FUTURE BLOCKAGES.
- b) WHERE NECESSARY REPLACE FULL BORES WHERE REQUIRED.
- c) CONDITION OF BOX GUTTERS TO BE ASSESSED AND MADE GOOD / REPLACED.

**5. FINAL INSPECTION AND TESTING:**

- a) CONDUCT A FINAL INSPECTION OF THE ROOF TO ENSURE THAT ALL MATERIALS ARE PROPERLY INSTALLED AND THE ROOF IS WATERTIGHT.
- b) PERFORM A WATER TEST TO VERIFY THAT THERE ARE NO LEAKS AND THAT THE DRAINAGE SYSTEM IS FUNCTIONING CORRECTLY.

**6. DOCUMENTATION AND REPORTING:**

- a) PREPARE A DETAILED REPORT OF THE INSPECTION FINDINGS, REPAIR PROCESS, AND ANY RECOMMENDATIONS FOR FUTURE MAINTENANCE.
- b) PROVIDE THE BUILDING OWNER OR MANAGER WITH A COPY OF THE REPORT AND ANY WARRANTIES OR GUARANTEES FOR THE NEW WATERPROOFING SYSTEM.

PLEASE NOTE THAT ALL FINISHES, INCLUDING CEILING BOARDS, PAINTING, FLOOR FINISHES, ETC., ARE INCLUDED IN THE BILL OF QUANTITIES (BOQ). HOWEVER, THE IMPLEMENTATION OF THESE FINISHES WILL BE CARRIED OUT DIRECTLY BY THE CLIENT. THE CLIENT WILL COORDINATE THE INSTALLATION AND EXECUTION OF THESE FINISHES IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS OUTLINED ON THE DRAWINGS TO ENSURE THE DESIRED QUALITY AND AESTHETICS OF THE PROJECT.

**METHODOLOGY FOR WATERPROOFING:**

**METHOD 2:**

A QUALIFIED WATERPROOFING SPECIALIST IS TO CONDUCT THE FOLLOWING METHODOLOGY:

**1. PRELIMINARY INSPECTION:**

- a) CONDUCT A THOROUGH INSPECTION OF THE CURRENT STATE OF THE ROOF TO BE REPAIRED. THE ROOF AREA IS COVERED WITH A TOP LAYER OF A DETERIORATED WATERPROOFING MEMBRANE.
- b) IDENTIFY THE LOCATION AND EXTENT OF THE WATER LEAKAGE INSIDE THE BUILDING.
- c) CHECK FOR ANY SIGNS OF WATER POOLING AT THE ROOF EDGES AND ASSESS THE DRAINAGE SYSTEM FOR BLOCKAGES OR INADEQUATE SLOPE.
- d) INVESTIGATE THE CONFIGURATION OF THE SOLAR PANELS AND EQUIPMENT ON THE ROOF TO DETERMINE IF THEY NEED TO BE TEMPORARILY REMOVED OR PROTECTED DURING THE WATERPROOFING PROCESS.

**2. SCREED ASSESSMENT AND REPLACEMENT:**

- a) ASSESS THE CONDITION OF THE WATERPROOFING MEMBRANE AND UNDERLYING SCREED. IF THE SCREED IS DAMAGED OR DETERIORATED, PLAN FOR ITS REMOVAL AND/OR REPAIR.
- b) IF THE SCREED NEEDS TO BE REPLACED, REMOVE THE OLD SCREED AND PREPARE THE SURFACE FOR A NEW SCREED APPLICATION. EXISTING SCREED THICKNESS TO BE RECORDED PRIOR TO DEMOLITION.
- c) REPAIR THE SCREED WHERE FOUND TO BE NECESSARY USING AN EPOXY CEMENTITIOUS REPAIR MORTAR COMPOUND SUCH AS STONCOR PRO STRUCT 528 OR SIMILAR APPROVED. ENSURE THE SURFACE OF THE SCREED IS COMPLETELY SMOOTH, FIRM AND FREE OF ANY PROTRUSIONS
- d) ENSURE THE NEW SCREED IS PROPERLY SLOPED TO FACILITATE WATER DRAINAGE.
- e) STRUCTURAL ENGINEER WILL NEED TO BE NOTIFIED OF NEW SCREED THICKNESS AND SCREED-TO-FALL LEVELS TO VERIFY THAT THE NEW LOADING WILL BE SAFE.

**3. WATERPROOFING MEMBRANE REPLACEMENT:**

- a) ONCE THE SCREED IS READY, APPLY A NEW WATERPROOFING MEMBRANE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. PLEASE BE ADVISED THAT THE WATERPROOFING FOR THIS PROJECT WILL NEED TO BE INSTALLED BY A QUALIFIED WATERPROOFING SPECIALIST. THIS IS A DESIGN AND SUPPLY ITEM, AND IT IS CRUCIAL THAT THE INSTALLATION IS CARRIED OUT ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND INDUSTRY STANDARDS TO ENSURE THE INTEGRITY AND LONGEVITY OF THE WATERPROOFING SYSTEM.

**4. DRAINAGE SYSTEM ASSESSMENT:**

- a) INSPECT AND CLEAN THE ROOF'S DRAINAGE SYSTEM, INCLUDING THE FULL BORES, TO ENSURE PROPER WATER FLOW AND PREVENT FUTURE BLOCKAGES.
- b) WHERE NECESSARY REPLACE FULL BORES WHERE REQUIRED.
- c) CONDITION OF BOX GUTTERS TO BE ASSESSED AND MADE GOOD / REPLACED.

**5. FINAL INSPECTION AND TESTING:**

- a) CONDUCT A FINAL INSPECTION OF THE ROOF TO ENSURE THAT ALL MATERIALS ARE PROPERLY INSTALLED AND THE ROOF IS WATERTIGHT.
- b) PERFORM A WATER TEST TO VERIFY THAT THERE ARE NO LEAKS AND THAT THE DRAINAGE SYSTEM IS FUNCTIONING CORRECTLY.

**6. DOCUMENTATION AND REPORTING:**

- a) PREPARE A DETAILED REPORT OF THE INSPECTION FINDINGS, REPAIR PROCESS, AND ANY RECOMMENDATIONS FOR FUTURE MAINTENANCE.
- b) PROVIDE THE BUILDING OWNER OR MANAGER WITH A COPY OF THE REPORT AND ANY WARRANTIES OR GUARANTEES FOR THE NEW WATERPROOFING SYSTEM.

PLEASE NOTE THAT ALL FINISHES, INCLUDING CEILING BOARDS, PAINTING, FLOOR FINISHES, ETC., ARE INCLUDED IN THE BILL OF QUANTITIES (BOQ). HOWEVER, THE IMPLEMENTATION OF THESE FINISHES WILL BE CARRIED OUT DIRECTLY BY THE CLIENT. THE CLIENT WILL COORDINATE THE INSTALLATION AND EXECUTION OF THESE FINISHES IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS OUTLINED ON THE DRAWINGS TO ENSURE THE DESIRED QUALITY AND AESTHETICS OF THE PROJECT.

**METHODOLOGY FOR RESTORING DAMAGED PAINTWORK AND PLASTER**

RESTORING DAMAGED PAINTWORK AND PLASTER IS A MULTI-STEP PROCESS THAT INVOLVES PREPARATION, REPAIR, AND FINISHING. THE STEPS AND METHODOLOGY TO FOLLOW INCLUDE:

- 1. ASSESSMENT:** INSPECT THE DAMAGED AREAS TO DETERMINE THE EXTENT OF THE DAMAGE TO BOTH PAINT AND PLASTER. CHECK FOR UNDERLYING ISSUES THAT MAY HAVE CAUSED THE DAMAGE, SUCH AS MOISTURE OR STRUCTURAL PROBLEMS.

- 2. SURFACE PREPARATION:** REMOVE ALL LOOSE AND FLAKING PAINT WITH A PAINT SCRAPER OR WIRE BRUSH. FOR PLASTER DAMAGE, USE A CHISEL OR SIMILAR TOOL TO REMOVE ANY LOOSE OR CRUMBLING PLASTER. CLEAN THE SURFACES THOROUGHLY TO REMOVE DUST, DEBRIS, AND ANY OILY OR GREASY RESIDUES.

**3. DAMAGE REPAIR:**

FOR PLASTER:

- a) DAMPEN THE AREA TO BE REPAIRED TO HELP THE NEW PLASTER ADHERE.
- b) APPLY A PLASTER BONDING AGENT IF NECESSARY, ESPECIALLY FOR LARGER REPAIRS.
- c) FILL HOLES OR CRACKS WITH AN APPROPRIATE PLASTER COMPOUND OR PATCHING PLASTER. USE MULTIPLE LAYERS FOR DEEPER REPAIRS, ALLOWING EACH LAYER TO DRY BEFORE APPLYING THE NEXT.
- d) SMOOTH THE FINAL LAYER WITH A TROWEL OR PLASTERING FLOAT AND ALLOW IT TO DRY COMPLETELY.

FOR PAINT:

- a) ONCE PLASTER REPAIRS ARE DRY, LIGHTLY SAND THE SURFACE FOR A SMOOTH FINISH.
- b) APPLY A PRIMER-SEALER OVER THE PLASTER REPAIRS TO ENSURE AN EVEN FINISH AND GOOD PAINT ADHESION.

- 4. SANDING AND CLEANING:** ONCE ALL REPAIRS ARE DRY, SAND THE REPAIRED AREAS AND ANY ROUGH EDGES WHERE THE OLD PAINT MEETS THE NEW PLASTER. CLEAN THE DUST OFF THE WALLS WITH A DAMP CLOTH OR SPONGE AND ALLOW THE SURFACE TO DRY.

- 5. PRIMING:** APPLY A COAT OF PRIMER TO ALL REPAIRED AREAS. IF THERE IS A SIGNIFICANT COLOUR DIFFERENCE OR IF STAINS ARE PRESENT, APPLY PRIMER TO THE ENTIRE WALL.

- 6. PAINTING:** ONCE THE PRIMER IS DRY, APPLY AT LEAST TWO COATS OF PAINT, ALLOWING EACH COAT TO DRY ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. USE A BRUSH FOR EDGES AND CORNERS AND A ROLLER FOR LARGER, FLAT AREAS.

- 7. FINISHING TOUCHES:** INSPECT THE PAINTED AREAS FOR ANY MISSES OR UNEVEN PATCHES AND APPLY TOUCH-UPS AS NECESSARY. CLEAN UP ALL TOOLS AND DISPOSE OF ANY WASTE ACCORDING TO LOCAL REGULATIONS.

- 8. PREVENTION:** ADDRESS ANY ENVIRONMENTAL FACTORS THAT CONTRIBUTED TO THE DAMAGE, SUCH AS FIXING LEAKS OR IMPROVING VENTILATION.

- 9. QUALITY CHECK AND MAINTENANCE:** CONDUCT A FINAL INSPECTION OF THE PAINTWORK AND PLASTER TO ENSURE THE RESTORATION MEETS YOUR QUALITY STANDARDS. SET UP A SCHEDULE FOR REGULAR MAINTENANCE CHECKS TO DETECT AND MITIGATE ANY FUTURE DAMAGE EARLY.

EACH STEP SHOULD BE TAILORED TO THE SPECIFIC CONDITIONS OF THE WALL AND THE TYPE OF DAMAGE. FOR SIGNIFICANT REPAIRS OR HISTORICAL RESTORATIONS, CONSULT WITH PROFESSIONALS WHO SPECIALIZE IN SUCH WORK. SAFETY CONSIDERATIONS ARE PARAMOUNT, PARTICULARLY WHEN DEALING WITH LEAD PAINT OR WORKING AT HEIGHTS.

**METHODOLOGY FOR REPAIRING EXISTING STEEL ROOF/MEMBER CORROSION.**

REPAIRING CORROSION IN EXISTING STEEL ROOFS AND MEMBERS INVOLVES A SERIES OF STEPS AIMED AT NOT ONLY ADDRESSING THE CURRENT CORROSION BUT ALSO PREVENTING FUTURE DAMAGE. THE STEPS AND METHODOLOGY TO FOLLOW INCLUDE:

- 1. INSPECTION AND ASSESSMENT:** PERFORM A THOROUGH INSPECTION OF THE STEEL ROOF AND MEMBERS TO ASSESS THE EXTENT OF THE CORROSION, IDENTIFY AREAS WITH SURFACE RUST AND MORE SERIOUS CORROSION THAT MAY HAVE COMPROMISED THE STRUCTURAL INTEGRITY OF THE MEMBERS.

- 2. SURFACE PREPARATION:** REMOVE RUST AND LOOSE MATERIAL FROM THE CORRODED AREAS USING METHODS LIKE WIRE BRUSHING, SANDBLASTING, OR GRINDING. CLEAN THE SURFACES THOROUGHLY TO ENSURE PROPER ADHESION OF PROTECTIVE COATINGS.

- 3. STRUCTURAL ASSESSMENT:** DETERMINE IF THE CORROSION HAS AFFECTED THE STRUCTURAL CAPACITY OF THE STEEL MEMBERS. CONSULT WITH A STRUCTURAL ENGINEER TO EVALUATE WHETHER REINFORCEMENT OR REPLACEMENT IS REQUIRED.

- 4. TREATMENT OF CORROSION:** TREAT THE AFFECTED AREA WITH A RUST NEUTRALIZER OR CONVERTER AS APPROPRIATE. APPLY A CORROSION INHIBITOR TO PREVENT FURTHER RUST FORMATION.

- 5. APPLICATION OF PROTECTIVE COATINGS:** APPLY A SUITABLE PRIMER THAT IS DESIGNED FOR CORROSION PROTECTION ON METAL SURFACES. FOLLOW WITH ONE OR MORE TOPCOATS OF A HIGH-PERFORMANCE PAINT SYSTEM DESIGNED FOR STEEL STRUCTURES, ENSURING THAT THE COATING IS APPROPRIATE FOR THE ENVIRONMENTAL CONDITIONS THE STEEL IS EXPOSED TO.

- 6. REPAIRS, REINFORCEMENT AND/OR REPLACEMENT:** IF STRUCTURAL DAMAGE HAS OCCURRED, THE STEEL MAY NEED TO BE REPAIRED OR REPLACED, WHICH MAY INCLUDE WELDING NEW STEEL SECTIONS, USING EPOXY REPAIR COMPOUNDS, OR BOLTING ON ADDITIONAL MEMBERS. ENSURE THAT ANY NEW STEEL IS TREATED WITH CORROSION PROTECTION BEFORE INSTALLATION.

- 7. SEALING AND WATERPROOFING:** SEAL ANY JOINTS OR AREAS WHERE WATER INGRESS COULD OCCUR USING APPROPRIATE SEALANTS AND WATERPROOFING METHODS.

- 8. REGULAR MAINTENANCE AND INSPECTION:** ESTABLISH A REGULAR INSPECTION AND MAINTENANCE SCHEDULE TO IDENTIFY AND TREAT ANY NEW SIGNS OF CORROSION EARLY ON. KEEP RECORDS OF ALL INSPECTIONS AND REPAIRS FOR FUTURE REFERENCE.

- 9. DOCUMENTATION AND QUALITY CONTROL:** DOCUMENT THE ENTIRE PROCESS, INCLUDING THE MATERIALS AND METHODS USED. CONDUCT QUALITY CONTROL CHECKS TO ENSURE THE WORK HAS BEEN CARRIED OUT TO THE APPROPRIATE STANDARDS.

PLEASE NOTE THIS METHODOLOGY MAY NEED TO BE ADJUSTED BASED ON THE SPECIFIC CIRCUMSTANCES AND THE ADVICE OF PROFESSIONALS, INCLUDING A CORROSION SPECIALIST AND A STRUCTURAL ENGINEER. ENVIRONMENTAL CONSIDERATIONS, THE TYPE OF STEEL, THE DEGREE OF EXISTING DAMAGE, AND FUTURE USE ALL INFLUENCE THE REPAIR STRATEGY. PLEASE NOTE THAT SAFETY PROTOCOLS MUST ALSO BE FOLLOWED, ESPECIALLY WHEN WORKING AT HEIGHTS OR WITH POTENTIALLY HAZARDOUS MATERIALS.

**METHODOLOGY FOR REPAIRING STRUCTURAL DAMAGE OF CONCRETE COLUMNS, SLABS, AND /OR BEAMS**

REPAIRING STRUCTURAL DAMAGE IN CONCRETE COLUMNS, SLABS, AND BEAMS IS A COMPLEX PROCESS THAT MUST BE UNDERTAKEN CAREFULLY TO ENSURE THE SAFETY AND INTEGRITY OF THE STRUCTURE. THE FOLLOWING IS A GENERAL METHODOLOGY TO BE FOLLOWED:

- 1. ASSESSMENT:** CONDUCT A THOROUGH INSPECTION OF THE CONCRETE STRUCTURE TO ASSESS THE EXTENT AND TYPE OF DAMAGE. IDENTIFY THE CAUSES OF THE DAMAGE, SUCH AS CORROSION OF REINFORCEMENT, CHEMICAL ATTACK, OVERLOAD, OR IMPACT.

- 2. DETAILED EVALUATION:** USE NON-DESTRUCTIVE TESTING METHODS SUCH AS ULTRASONIC TESTING, REBOUND HAMMER, AND CARBONATION TESTS TO ASSESS THE CONCRETE'S CONDITION. A STRUCTURAL ENGINEER WILL DETERMINE THE STRUCTURAL CAPACITY OF THE DAMAGED ELEMENTS RELATIVE TO THE ORIGINAL DESIGN LOADS. EVALUATE WHETHER TEMPORARY SUPPORTS ARE NEEDED DURING THE REPAIR PROCESS. THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY WORKS.

- 3. DESIGN OF REPAIR STRATEGY:** BASED ON THE ASSESSMENT, A REPAIR STRATEGY WILL BE DEVISED THAT MAY INCLUDE SHORING, REINFORCEMENT, REMOVAL AND REPLACEMENT OF DAMAGED CONCRETE, OR RETROFITTING. CONSULT WITH STRUCTURAL ENGINEERS TO ENSURE THAT THE REPAIR STRATEGY RESTORES THE STRUCTURAL INTEGRITY AND CONFORMS TO RELEVANT BUILDING CODES AND STANDARDS.

- 4. REMOVAL OF DAMAGED CONCRETE:** CAREFULLY REMOVE DAMAGED OR SPALLED CONCRETE WITHOUT CAUSING ADDITIONAL DAMAGE TO THE REINFORCEMENT OR REMAINING SOUND CONCRETE. CUT BACK TO SOUND CONCRETE AND EXPOSE CORRODED REINFORCEMENT.

- 5. REINFORCEMENT TREATMENT:** CLEAN EXPOSED REINFORCEMENT BARS BY SANDBLASTING OR MECHANICAL MEANS TO REMOVE RUST. APPLY CORROSION INHIBITORS OR REPLACE SEVERELY CORRODED REINFORCEMENT BARS AS NECESSARY. IF ADDITIONAL REINFORCEMENT IS NEEDED, SECURE NEW BARS TO THE EXISTING ONES.

- 6. APPLICATION OF REPAIR MATERIALS:** SELECT A REPAIR MATERIAL THAT IS COMPATIBLE WITH THE EXISTING CONCRETE, CONSIDERING FACTORS LIKE THERMAL COMPATIBILITY, SHRINKAGE, AND BONDING STRENGTH. USE FORMWORK FOR CAST-IN-PLACE CONCRETE REPAIRS OR APPLY SHOTCRETE OR HAND-PACKED REPAIR MORTARS AS APPROPRIATE. THE STRUCTURAL ENGINEER SHOULD BE REQUESTED FOR INSPECTION PRIOR TO THE APPLICATION OF ANY AND ALL PRODUCTS.

- 7. CURING:** PROPERLY CURE THE REPAIR MATERIAL ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS TO ENSURE THE LONGEVITY OF THE REPAIR.

- 8. FINISHING:** FINISH THE REPAIRED SURFACE TO MATCH THE SURROUNDING AREAS. APPLY A PROTECTIVE COATING OR SEALANT IF ENVIRONMENTAL CONDITIONS WARRANT IT.

- 9. STRUCTURAL TESTING AND MONITORING:** PERFORM LOAD TESTING IF NECESSARY TO CONFIRM THAT THE REPAIRS MEET THE REQUIRED STRUCTURAL PERFORMANCE. ESTABLISH A MONITORING PROGRAM TO OBSERVE THE LONG-TERM PERFORMANCE OF THE REPAIRED STRUCTURE.

- 10. DOCUMENTATION:** KEEP DETAILED RECORDS OF THE REPAIR PROCESS, INCLUDING THE MATERIALS USED, METHODS, AND ANY CHANGES MADE TO THE ORIGINAL REPAIR STRATEGY. THESE DOCUMENTS ARE IMPORTANT FOR FUTURE MAINTENANCE AND REPAIR WORK.

THROUGHOUT THE REPAIR PROCESS, SAFETY MUST BE THE TOP PRIORITY, ENSURING THAT ALL PERSONNEL ARE USING THE PROPER SAFETY EQUIPMENT AND THAT THE WORK SITE IS SECURE. THE REPAIR METHODOLOGY MIGHT NEED TO BE ADJUSTED BASED ON THE SPECIFIC CONDITIONS ENCOUNTERED. THE ADVICE OF A STRUCTURAL ENGINEER MUST BE CONSULTED AND ADHERED TO WHERE STRUCTURAL DAMAGE IS ENCOUNTERED. THE REPAIRS SHOULD BE EXECUTED BY SKILLED PROFESSIONALS WITH EXPERIENCE IN STRUCTURAL CONCRETE REPAIRS.

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**ARCHITECT**

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**CONSULTING ENGINEER**

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**APPROVAL**

NAME: \_\_\_\_\_

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**PROJECT**

**SABS GROENKLOOF & NEFTA CAMPUS REPAIR, REPLACE & REHABILITATION**

**DRAWING TITLE**

**WATERPROOFING AND STRUCTURAL GENERAL METHODOLOGY**

**ISSUED FOR INFORMATION**

DRAWN BY	DESIGN BY	CHECKED BY
SCALE	DATE	SHEET SIZE
AS INDICATED	29 APRIL 2024	A1

PROJ NO	DISCIPLINE	DRAWING NUMBER	REVISION
23083	- SC	- 3300	- P00

SANS 2001 (Standardized Specification for Construction Works)  
 SANS 2001-Part CC1 Concrete Works (Structural)  
 SANS 2001-Part CM1 Masonry Walling  
 SANS 2001-Part CS1 Structural Steelwork