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MECHANICAL ANCHORS:

1. SHALL BE "DROP-IN" INTERNALLY THREADED, FLUSH MOUNTED EXPANSION ANCHORS.
2. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS.
4. HEAVY DUTY SCREW ANCHORS MAY BE SUBSTITUTED IN PLACE OF EXPANSION ANCHORS OR WEDGE BOLTS. SIMPSON TITEN HD OR APPROVED EQUAL MAY BE USED.
5. ALL MECHANICAL ANCHORS SHALL BE AT A MINIMUM GALVANIZING ACCORDING TO ASTM A193 OR SHOW MANUFACTURER'S STANDARD ZINC PLATING IS ACCEPTABLE. EXTERIOR ANCHORS SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.

CONCRETE REPAIR PRODUCTS:

1. ALL CONCRETE SURFACES TO RECEIVE CONCRETE REPAIR PRODUCTS SHALL BE CLEANED AND ALL LOOSE CONCRETE REMOVED. REMOVE CONCRETE DOWN TO SOUND CONCRETE WITH CHIPPING HAMMERS AND PREPARE SURFACE AS REQUIRED BY MANUFACTURER'S REQUIREMENTS. REMOVE ALL DETEIORATED CONCRETE BACK TO SOUND CONCRETE. PROVIDE SAW CUT EDGE AROUND REPAIR TO ALLOW FOR CLEAN PATCH.
2. EXPOSED REINFORCING SHALL BE CLEANED BY WIREBRUSH TO REMOVE SCALE AND LOOSE MATERIALS. FOR LOCATIONS WHERE SECTION LOSS IN EXCESS OF 15% IS DISCOVERED ON REINFORCING, INSTALL NEW REINFORCING AS DETAILED.
3. ALL CONCRETE REPAIR PRODUCTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. ALL PRODUCTS SPECIFIED SHALL BE EITHER 'SIKA' PRODUCTS AS SPECIFIED MANUFACTURED BY SIKA CONSTRUCTION PRODUCTS CORP. 'SIO' PRODUCTS AS SPECIFIED MANUFACTURED BY SIO CORPORATION, OR OTHERWISE NOTED.
5. CONCRETE PATCH MATERIAL SHALL BE AS FOLLOWS:
 - A. 'SIKATOP 122 PLUS' FOR VERTICAL AND FLAT SURFACES.
 - B. 'SIO CR31C1 FULL-DEPTH REPAIR MORTAR - C1' FOR VERTICAL AND FLAT SURFACES.
 - C. 'SIO CR31C1X EXTENDED FULL-DEPTH REPAIR MORTAR - C1' FOR DEEP VERTICAL AND FLAT SURFACES.
 - D. 'SIKATOP 123 PLUS' FOR OVERHEAD REPAIRS.
 - E. 'SIO CR102C1 OVERHEAD MORTAR WITH C1' FOR OVERHEAD REPAIRS.
6. ALL PATCHING MORTARS SHALL HAVE AN INTEGRATED PENETRATING CORROSION INHIBITOR WHEN PATCHING REINFORCED CONCRETE.
7. CONCRETE BONDING AGENT SHALL BE SIKA ARMATEC 110 EPOCEM, SIO BONDING AGENT AND ADMIXTURE CR245, OR OTHER APPROVED EQUAL.
8. EPOXY FINE CRACK SEALANT SHALL BE SIKADUR 300, SIO CR100 THIN COAT MORTAR OR OTHER APPROVED EQUAL.
9. CRACK INJECTION SYSTEM SHALL BE SIKADUR 35 HI-MOD LPL OR APPROVED EQUAL.
10. LARGE CRACKS MAY BE FILLED WITH SIKADUR 31 HI-MOD PER MANUFACTURER'S INSTRUCTIONS.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL ROLLED SHAPES, AND COLUMN BASE PLATES SHALL COMPLY WITH ASTM A36, FY=36 KSI.
2. STRUCTURAL TUBING (TS) SHALL COMPLY WITH ASTM A500, GRADE B, FY=46 KSI.
3. STEEL PIPE SHALL COMPLY WITH ASTM A53, TYPE S, GRADE B, FY=35 KSI.
4. ALL BOLTS SHALL BE HIGH STRENGTH AND SHALL COMPLY WITH ASTM A325. BOLTS SHALL BE 3/4" DIAMETER ON 13/16" ROUND HOLES, UNLESS OTHERWISE NOTED.
5. ANCHOR BOLTS SHALL COMPLY WITH ASTM A36.
6. WELDING ELECTRODES SHALL BE E-70 SERIES, LOW HYDROGEN.
7. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH 'AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL BUILDINGS' AS SET FORTH ON THE LATEST REVISION OF THE 'AISC MANUAL OF STEEL CONSTRUCTION'.
8. PAINT ALL STRUCTURAL STEEL WITH ONE SHOP-COAT OF ENGINEER-APPROVED RUST INHIBITING PAINT. FIELD PATCH AFTER ERECTING AND CONNECTING.
9. THE FRAMES SHALL BE CARRIED UP TRUE AND PLUMB AND TEMPORARY BRACING SHALL BE INTRODUCED WHEREVER TO TAKE CARE OF ALL LOAD TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING EQUIPMENT AND OPERATION OF SAME. SUCH BRACING SHALL BE THE RESPONSIBILITY OF THE STEEL CONTRACTOR AND SHALL BE IN PLACE AS LONG AS REQUIRED FOR SAFETY.
10. ALL WELDED CONNECTIONS SHALL CONFORM TO THE 'AMERICAN WELDING SOCIETY CODE', AWS D1.1-T1, PROVISIONS SHALL BE MADE FOR FIELD INSPECTION AND TESTING OF WELDS. ALL SHOP WELDS SHALL BE TESTED BY NON-DESTRUCTIVE METHODS AND SHALL BE CERTIFIED.
11. ALL SHOP CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED. FIELD CONNECTIONS SHALL BE BOLTED, U.O.N.
12. ALL WELDING SHALL BE DONE BY STATE OF FLORIDA CERTIFIED WELDERS.
13. STRUCTURAL STEEL DETAILER TO DESIGN AND DETAIL ANY CONNECTION NOT DETAILED ON DRAWINGS (BASED ON LOADS SHOWN).
14. FOR FABRICATION OF WORK WHICH WILL BE EXPOSED TO PUBLIC VIEW IN THE COMPLETED STRUCTURE, USE ONLY MATERIALS WHICH ARE SMOOTH AND FREE OF SURFACE BLEMISHES, INCLUDING PITTING, SEAM MARKS, ROLLER MARKS, ROLLED TRADE NAMES AND ROUGHNESS. REMOVE SUCH BLEMISHES BY GRINDING, OR BY WELDING AND GRINDING, PRIOR TO CLEANING, TREATING AND APPLICATION OF SURFACE FINISHES.

DELEGATED ENGINEER NOTES:

1. DELEGATED ENGINEER:
 - A) DEFINITION - A FLORIDA REGISTERED PROFESSIONAL ENGINEER, NOT THE STRUCTURAL ENGINEER OF RECORD, WHO SPECIALIZES IN AND WHO UNDERTAKES THE DESIGN OF STRUCTURAL COMPONENTS OR STRUCTURAL SYSTEMS INCLUDED IN A SPECIFIC SUBMITTAL PREPARED FOR THIS PROJECT.

- B) SHALL BE:
 - 1) AN EMPLOYEE OR OFFICER OF A FABRICATOR.
 - 2) AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR.
 - 3) AN INDEPENDENT CONSULTANT RETAINED BY THE FABRICATOR OR HIS SUPPLIER.
 2. SUBMISSIONS AND RE-SUBMISSIONS FOR CUSTOM DESIGNED, MANUFACTURED OR FABRICATED LOAD-CARRYING ITEMS AND CUSTOM FABRICATED ITEMS WHICH ARE REQUIRED BY CODES OR STANDARDS TO RESIST FORCES AND STRESSES, INCLUDING THEIR CONNECTIONS, ANCHORAGES AND ATTACHMENTS REQUIRE A DELEGATED ENGINEER.
 3. THE FOLLOWING SYSTEMS AND COMPONENTS, AS A MINIMUM, REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A DELEGATED ENGINEER:
 - A) RAILINGS, EXTERIOR DOORS AND WINDOWS, SHORING AND RESHORING, GRILLES
 - B) CONCRETE DESIGN MIXES, CONCRETE REPAIR PRODUCTS AND EPOXY BONDING AGENTS
 4. FOR EACH CATEGORY OF SHOP DRAWINGS REQUIRING INPUT FROM A DELEGATED ENGINEER, THE CONTRACTOR SHALL ATTACH TO THE FIRST SHOP DRAWING SUBMITTAL A SIGNED AND SEALED LETTER FROM THE RESPONSIBLE DELEGATED ENGINEER STATING, 'I CERTIFY THAT THE DESIGN AND DRAFTING OF THE SHOP DRAWINGS WHICH ARE SIGNED AND SEALED BY ME WERE PREPARED UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE THE SHOP DRAWINGS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE CONTRACT DOCUMENTS.'
 5. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCTS UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
 6. SHOP DRAWINGS AND CALCULATIONS REQUIRE THE IMPRESSED SEAL, DATE AND SIGNATURE OF THE DELEGATED ENGINEER. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE IMPRESSED SEAL AND SIGNATURE OF THE DELEGATED ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. SEALS DO NOT REQUIRE SIGNATURE AND SEAL. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED BLUELINE PRINT FOR RECORD.
 7. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING INPUT DO NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
 8. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
 9. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:
 - A) THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
 - B) THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.
 - C) THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.)
 - D) THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)
 10. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED.
- SHOP DRAWING AND OTHER SUBMITTALS:
1. REVIEW OF SUBMITTALS BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTITIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SUBMITTALS REQUIRED BY THE CONTRACT DOCUMENTS TO BE SUBMITTED WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT COMMENT.
 2. BEFORE SUBMITTING THE FIRST SHOP DRAWING, SUBMIT THE SHOP DRAWING SUBMITTAL SCHEDULE, PREPARED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER CONSISTENT WITH THE FOLLOWING CRITERIA:
 - A) ALLOW ADEQUATE TIME FOR TRANSIT AND PROCESSING BEFORE FABRICATION. THE STRUCTURAL ENGINEER WILL REVIEW AN AVERAGE SUBMITTAL WITHIN 14 CALENDAR DAYS OF RECEIPT BY THEM.
 - B) SCHEDULE AND SUBMIT SHOP DRAWINGS FOR SPECIFIC COMPONENTS, SUCH AS COLUMNS, FOOTINGS, ETC., IN THEIR ENTIRETY. SHOP DRAWINGS FOR SIMILAR FLOORS SHALL BE SUBMITTED IN THE SAME PACKAGE.
 3. REVIEW OF SHOP DRAWINGS IS LIMITED TO TWO (2) REVIEWS PER SUBMITTAL WITHIN THE SCOPE OF BASIC SERVICES (IE. INITIAL SUBMITTAL REVIEW AND ONE RESUBMITTAL, IF NECESSARY). REVIEW OF ADDITIONAL RESUBMITTALS WILL BE CONSIDERED ADDITIONAL SERVICES, FOR WHICH THE GENERAL CONTRACTOR MAY BE HELD RESPONSIBLE. ADDITIONAL SERVICES COMPENSATION TO THE ENGINEER WILL BE IN ACCORDANCE WITH THE TERMS OF THE ARCHITECT-ENGINEER AGREEMENT FOR THIS PROJECT.
 4. ALL SUBMITTALS SHALL BE ACCOMPANIED BY A LETTER OF TRANSMITTAL. DO NOT COMBINE DIFFERENT SUBMITTALS ON THE SAME TRANSMITTAL.
 5. ALL SHOP DRAWINGS MUST BEAR EVIDENCE OF THE CONTRACTOR'S APPROVAL PRIOR TO SUBMITTING TO THE A/E.
 6. SUBMIT ONE REPRODUCIBLE AND TWO BLUELINE PRINTS TO THE ARCHITECT/ENGINEER FOR REVIEW. THE ARCHITECT/ENGINEER WILL RETURN THE REPRODUCIBLE AND RETAIN BLUELINES AFTER REVIEW.

1. ALL CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL.
 8. DO NOT REPRODUCE THE STRUCTURAL CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS.
 9. MANUFACTURER'S LITERATURE: SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN THE CONSTRUCTION ON THE PROJECT.
 10. SHOP DRAWINGS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL NOT BE REVIEWED.
 11. FOR ADDITIONAL CRITERIA APPLICABLE TO SHOP DRAWINGS REQUIRING ENGINEERING INPUT BY A SPECIALTY ENGINEER, SEE SPECIALTY ENGINEER NOTES.
- REQUEST FOR INTERPRETATION (RFI):
1. RFI SHALL ORIGINATE WITH CONTRACTOR AND SHALL BE SUBMITTED IN THE FORM SPECIFIED WITHIN CONTRACT DOCUMENTS. RFI SHALL BE SUBMITTED IN A PROMPT MANNER AS TO AVOID DELAYS IN CONTRACTOR'S WORK.
 2. RFI SHALL BE SUBMITTED AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SHALL BE FORWARDED TO THE ENGINEER VIA THE ARCHITECT OR DIRECTLY BY THE CONTRACTOR TO THE ENGINEER WHEN APPROVED BY THE ARCHITECT.
 3. ENGINEER SHALL TAKE UP TO 5 BUSINESS DAYS TO REVIEW AND RETURN RFI'S. HOWEVER, THE ENGINEER WILL ATTEMPT TO EXPEDITE THE REVIEW OF RFI'S WITHIN A REASONABLE TIME FRAME.
 4. RFI RESPONSES ARE NOT INTENDED TO AUTHORIZE ANY INCREASE IN CONSTRUCTION COST, SCHEDULE OR TIME EXTENSIONS, OR CONSTRUCTION IN CONFLICT WITH ANY OF THE APPLICABLE CODES OR SPECIFIED DESIGN STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DESIGN TEAM IMMEDIATELY OF ANY PERCEIVED SCOPE, SCHEDULE COST IMPACTS OR ADJUSTMENTS. IF CONTRACTOR REQUESTS ADDITIONAL COST, INCREASE IN SCHEDULE OR ADJUSTMENT IN SCOPE, THE CONTRACTOR SHALL NOT PROCEED WITH ADDITIONAL WORK UNTIL APPROVED IN WRITING BY THE CONSTRUCTION ADMINISTRATOR.
- FORMWORK, SHORING & RESHORING :
1. PROVIDE, 3 A PACKAGE, SHORING AND RESHORING DRAWINGS PREPARED BY, OR UNDER THE DIRECT SUPERVISION OF A SPECIALTY ENGINEER AND CONFORMING TO THE REQUIREMENTS OF SPECIFICATION SECTION 03100 'CONCRETE FORMWORK'.
 2. DESIGN FORMS AND SHORES FOR HORIZONTAL CONCRETE MEMBERS FOR NOT LESS THAN DEAD LOAD PLUS 50 PSF CONSTRUCTION LOAD AND FOR THE CUMULATIVE LOADS OF SUPPORTED FLOOR DESIGN WOOD SHORES WITH A SAFETY FACTOR OF 3 AND METASHORES WITH A SAFETY FACTOR OF 2.
 3. THE MAXIMUM SUPERIMPOSED CONSTRUCTION LOAD APPLIED TO FLOORS SUPPORTING SHORES & RESHORES SHALL NOT EXCEED 75% OF THE LIVE LOAD SPECIFIED FOR SLABS AND JOISTS AND 60% OF THE LIVE LOAD SPECIFIED FOR BEAMS. NO CONSTRUCTION LOAD SHALL BE APPLIED TO ANY MEMBER UNTIL THE CONCRETE IS A MINIMUM OF 14 DAYS OLD AND THE 1 DAY STRENGTH IS 10% OF THE SPECIFIED 28 DAY STRENGTH.
 4. REMOVAL OF FORMWORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REMOVE FORMS IN SUCH A MANNER TO INSURE JOB SAFETY AND TO PREVENT DAMAGE TO AND CREEP DEFLECTION OF THE STRUCTURE. THE FOLLOWING ARE MINIMUM GOELINES FOR THE REMOVAL OF HORIZONTAL FORMWORK:
 - A) FOR AB SPANS LESS THAN 5'-0", FORMS MAY BE REMOVED 24 HOURS AFTER COMPLETING CONCRETE POUR. NO STRENGTH VERIFICATION IS REQUIRED PROVIDED THE AIR TEMPERATURE DOES NOT FALL BELOW 60°F DURING THE 24 HOUR PERIOD FOLLOWING THE POUR AND NORMAL TIME OF SET IS ACHIEVED. NO RESHORING IS REQUIRED.
 - B) FOR AB SPANS LESS THAN OR EQUAL TO 10'-0", FORMS MAY BE REMOVED 72 HOURS AFTER COMPLETING CONCRETE POUR PROVIDED CONCRETE STRENGTH IS A MINIMUM OF 2100 PSI. NO RESHORING IS REQUIRED.
 - C) FOR AB SPANS GREATER THAN 10'-0", FORMS MAY BE REMOVED 72 HOURS AFTER COMPLETING CONCRETE POUR PROVIDED CONCRETE STRENGTH IS 10% OF THE SPECIFIED 28 DAY STRENGTH BUT NOT LESS THAN 2500 PSI. RESHORE EACHWAY AS SOON AS FORMS ARE REMOVED.
 - D) DO NOT LOWER FLYING FORMS UNTIL THEY ARE TO BE FLOWN. RESHORE SLABS SOON AS FLYING FORMS ARE REMOVED.
 5. DO NOT REMOVE SHORING UNTIL CONCRETE HAS REACHED 10% OF THE SPECIFIED 28 DAY STRENGTH, BUT NOT LESS THAN 2500 PSI. AS A MINIMUM, SHORING AND RESHORE SHALL REMAIN IN PLACE AS FOLLOWS: (TIME MEASURED FROM COMPLETION OF CONCRETE POUR).

SHORE/RESHORES	SHORES	RESHORES
SLABS, 4"NS GREATER THAN 10" JOISTS	72 HOURS	1 DAY
JOISTS	72 HOURS	1 DAY
BEAMS	1 DAY	14 DAYS
CANTILERS:		
SLABS	1 DAY	14 DAYS
JOISTS	1 DAY	14 DAYS
BEAMS	1 DAY	14 DAYS
 6. FOR SPECIAL CONDITIONS SUCH AS TRANSFER BEAMS, TRANSFER COLUMNS OR WALLS (ANY OTHER STRUCTURAL ELEMENTS TRANSFERRING LOAD), THE SPECIALTY ENGINEER PREPARING THE FORMWORK SHOP DRAWINGS SHALL CONTACT THE ENGINEER OF RECORD FOR ADDITIONAL INFORMATION REGARDING LOADS TO BE TRANSFERRED AT THOSE ELEMENTS.
- THE SHORING AND RESHORING REPORT SHALL CONTAIN, AS A MINIMUM, THE FOLLOWING
- A. NAME AND LOCATION OF PROJECT, NAME OF SPECIALTY ENGINEER AND FIELD REPRESENTATIVE, PERMIT NUMBER, DATE, TIME OF DAY, WORKING CONDITIONS INCLUDING WEATHER AND TEMPERATURE.
 - B. HOURS REQUIRING CORRECTIONS.
 - C. ACCEPTED DEVIATIONS FROM SHORING AND RESHORING DRAWINGS.
 - D. ASAS ACCEPTED AND RELEASED FOR CONCRETE POUR.

NO.	DATE	REVISION
1
2
3
4
5

PROJECT TITLE:
**EXISTING OFFICE BUILDING
STRUCTURAL REPAIRS**

OWNER:
CABI 301 COMMERCIAL LLP
19500 W. AVVENTURA, FL 33180

RE: SITE ADDRESS:
301 ARTHUR GODFREY ROAD
MIAMI BEACH, FL 33139

OPTIMUS STRUCTURAL DESIGN LLC

Tanya Homfield PE
C.A. No: 26217 61706
7550 NW 146 STREET, SUITE 305
MIAMI LAKES, FLORIDA 33016
Tel: 305.512.5560
Fax: 305.512.5561
E-mail: optimus@bellsouth.net

REAL ESTATE OF FLORIDA

Tanya Homfield
08/10/11

DRAWN BY : J.P.
CHECKED BY: T.H.
DATE : 08-16-2011
SCALE : AS SHOWN
FOR NO. :

S-O.1

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UP

TO THE BEST OF MY KNOWLEDGE, THE PLANS
COMPLY WITH THE FLORIDA BUILDING CODE.

PARKING SPACES

MEP NOTE:
SAND BLAST ALL DETERIORATED
STEEL SUPPORTS TO REMOVE RUST,
PAINT WITH GALV. COMPOUND.
(GALVACOTE OR APPROVED EQUAL.)

REPAIR / REPLACE
EXIST. DETERIORATED
STEEL BRACKETS &
PRECAST PANELS.

M.E.P.
EQUIPMENTS
SCHEMATIC REPRESENTATION
(VERIFY SITE & M.E.P. DWGS.)

PRECAST CONC. PANELS -
SEE REPAIR DETAILS FOR
DETERIORATED AREAS.
CLEAN OUT CLOGGED DRAIN
TO PROVIDE ADEQUATE
DRAINAGE AND PREVENT
WATER ACCUMULATION AT
THIS LOCATION.
COAT W/ SPECIFIED
WATERPROOFING COMPOUND
AFTER CONC. REPAIRS ARE
COMPLETED.

ROOF DECK SLAB

UPPER ROOF SLAB

REPAIR STEEL ROOF
DECK AS PER REPAIR DETAILS
CLEAN OUT CLOGGED DRAIN
IN THE ROOM TO PROVIDE ADEQUATE
DRAINAGE AND PREVENT
WATER ACCUMULATION AT
THIS LOCATION.

REPAIR CONC. SPALLED
& STAIR WALLS / BULKHEAD,
ETC. AS PER REPAIR DETAILS.

CLEAN OUT CLOGGED DRAIN
TO PROVIDE ADEQUATE
DRAINAGE AND PREVENT
WATER ACCUMULATION AT
THIS LOCATION.

WEST 41st STREET

PINE TREE DRIVE

Revised

NO.	DATE	REVISION
1	04-04-2012	BD COMMENTS

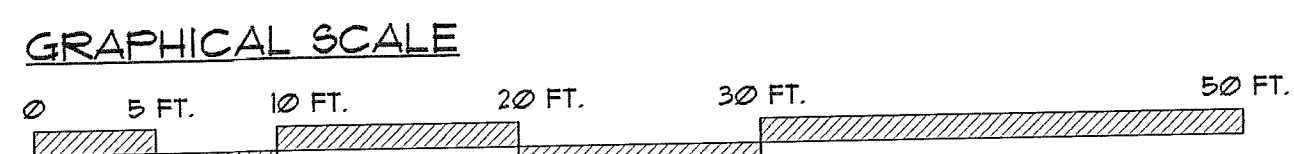
PROJECT TITLE:
**EXISTING OFFICE BUILDING
STRUCTURAL REPAIRS**

OWNER:
CABI 301 COMMERCIAL LLP
19950 W. CENTURA DRIVE #900
MIAMI BEACH, FL 33139

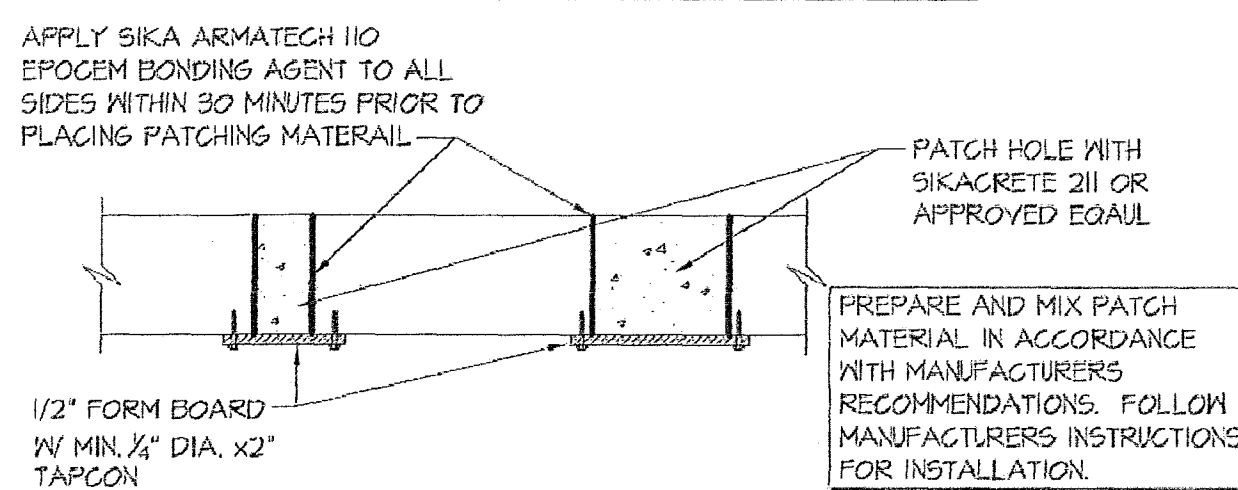
OPTIMUS STRUCTURAL DESIGN LLC
C.A. No: 26217 61706
Tonya Hamid PE
17850 NW 146 STREET, SUITE 305
MIAMI LAKES, FLORIDA 33016
Tel: 305.572.5860
E-mail: optimus@bellsouth.net

SCALE: 1"=10'-0"
04/14/2012

SCALE: 1"=10'-0"
S-1.0
of



TO THE BEST OF MY KNOWLEDGE, THE PLANS
AND SPECIFICATIONS COMPLY WITH THE
FLORIDA BUILDING CODE.



5 TYP. EDGE / OVERHEAD /
HORIZONTAL SPALL REPAIR
SCALE: NTS



1. CLEAN AREA ADJACENT TO CRACK OF BOND INHIBITING MATERIALS WITH TRISODIUM PHOSPHATE / WATER SOLUTION.
2. APPLY SEALER BY ROLLER, BRUSH OR HAND PRESSURE SPRAY. SEE MANUFACTURER'S RECOMMENDATION FOR ADDITIONAL INFORMATION.
3. SEALANT PRODUCTS SHALL BE SIKADUR 32 HIGH MOD EPOXY OR APPROVED EQUAL.

UTILIZE THIS REPAIR DETAIL FOR
CRACKS LESS THAN 20 MILS WIDE.
FIELD VERIFY EXISTING
CONDITIONS.

Diagram illustrating a cross-section of a reinforced concrete slab. The slab is shown with a central weld splice, indicated by a vertical line and the text "WELD SPLICE IF REQUIRED SEE DETAIL". The top surface of the slab is labeled "ROUGH PROFILE TO EDGE OF PATCH". A circular detail callout shows a cross-section of a reinforcement bar with a diameter of 4 units, indicated by the number "4" inside a circle.

- ## NOTES
1. REMOVE MINIMUM 1/2" BEHIND STEEL FOR MORTAR.
 2. SANDBLAST STEEL TO REMOVE CORROSION. SPLICE WHERE GREATER THAN 15% LOSS.
 3. PREPARE SURFACE PER MANUFACTURERS RECOMMENDATIONS. APPLY BONDING AGENT IF RECOMMENDED BY MANUFACTURER.
 4. TROWEL APPLY PATCHING MATERIAL PER MANUFACTURERS RECOMMENDATIONS. PATCHING MATERIAL SHALL BE SIKATOP 123 BY SIKA CORP. OR APPROVED EQUAL.

UTILIZE THIS REPAIR DETAIL
FOR SPALLS OVER 4" IN
DIAMETER OR EQUAL SIZE.

EXIST. METAL DECK
REPLACE DETERIORATED
PORTIONS WITH NEW
MATERIAL (TYP.)

EXISTING METAL
TRUSS (TYP.)

This technical drawing illustrates a cross-section of a bridge deck. The top portion shows a series of rectangular metal deck sections. An arrow points to one of these sections with the label 'EXIST. METAL DECK REPLACE DETERIORATED PORTIONS WITH NEW MATERIAL (TYP.)'. Below the deck, a truss structure is shown, consisting of vertical and diagonal members. An arrow points to one of the vertical members with the label 'EXISTING METAL TRUSS (TYP.)'.

1. ROOF STEEL DECK SHALL BE WELDED TO SUPPORTS WITH 5/8" DIA. PUDDLE WELDS.
36/7 WELDING LAYOUT SIDE LAP ATTACHMENT SHALL BE 6 * 10 TEK SCREWS PER SPAN.
2. ROOF DECK SHALL BE 20 GA., 1 1/2" DEEP TYPE B GALV. METAL DECK (VENTED).

NOTES

- (1) CLEAN AREA ADJACENT TO CRACK OF BOND INHIBITING MATERIALS WITH TRISODIUM PHOSPHATE / WATER SOLUTION.
- (2) SET PORTING DEVICES OVER CRACKS.
- (3) PLACE EPOXY RESIN ADHESIVE OVER CRACKS AND AROUND EACH INJECTION PORT A MINIMUM OF 1" WIDE BY A 1/4" THICK. ALLOW TO SET.
- (4) INJECT EPOXY RESIN ADHESIVE BY AUTOMATED INJECTION EQUIPMENT OR MANUAL METHOD.

SECTION B-B (FOR COLUMN TIES & BEAM STIRRUPS)

EXIST. PRECAST CONCRETE
PANELS - REPAIR SPALLED AREAS
AS PER DETAILS
PROVIDE ADEQUATE DRAINAGE
AT AREAS WITH STANDING
WATER

EXIST. STEEL PLATES (TYP.)
VERIFY LOCATION AND DIMENSIONS ON SITE
ALL DETERIORATED PLATES MUST BE
SAND BLASTED AND REPLACED / REPAIRED
BASED ON DEGREE OF DETERIORATION
SEE DETAIL 12 / 3-20

The diagram shows a cross-section of a shaft with a bearing. A horizontal line represents the shaft's axis. Above the axis, a bracket labeled "AFFECTED LOSS CROSS SECTION" spans a portion of the shaft. Below the axis, two diameters are indicated: "ORIGINAL BEAR DIA" on the left and "DAMAGED BEAR DIA" on the right. The "DAMAGED BEAR DIA" is shown as a smaller circle within the larger "ORIGINAL BEAR DIA" circle, indicating a reduction in diameter. Below the diagram, text reads: "IF DAMAGED BEARING DIAMETER HAS LOST MORE THAN 1/8 OF ITS ORIGINAL DIAMETER SEE OPTIONS 'A' OR 'B' FOR REPLACING A NEW BAR." Below this text, the label "DAMAGED BEARING BAR" is centered.

DETAIL "A"
5/8"x3"

EXISTING UNLAPAGED REINFORCEMENT

48 BAR DIA#

12 BAR DIA#

OPTION "A" TENSION SPLICE

DETAIL "B"
5/8"x3"

48 BAR DIA#

12 BAR DIA#

NEW REINFORCING BAR QUANTITY & CONFIGURATION RUST-PROOF COATED

BAR-LOOK REPORT COATED COUPLER (DUE TO MATCH EXISTING REINFORCEMENT)

LOOKSHEAR BOL

OPTION "B" TENSION MECHANICAL COUPLER

6"

12" TO 24"

6" MIN

6" LAP MIN

12' LAP MAX.

#4 @ 12" TO MATCH DOVEL LOCATION,
PROVIDE MINIMUM LAPS AS SHOWN

#4 DOWEL @ 12" O.C. EPOXY
INTO EXISTING AT 6" O.C.
W/ 6" EMBEDMENT. EPOXY W/
EPOXY BONDING AGENT

FORM BOARD W/
IN. 1/4" DIA. X 2"
AFCON

6" MIN

SILACRETE ZII PATCH
MATERIAL INSTALL
ACCORDING TO
MANUFACTURERS
RECOMMENDATIONS

EXISTING SLAB

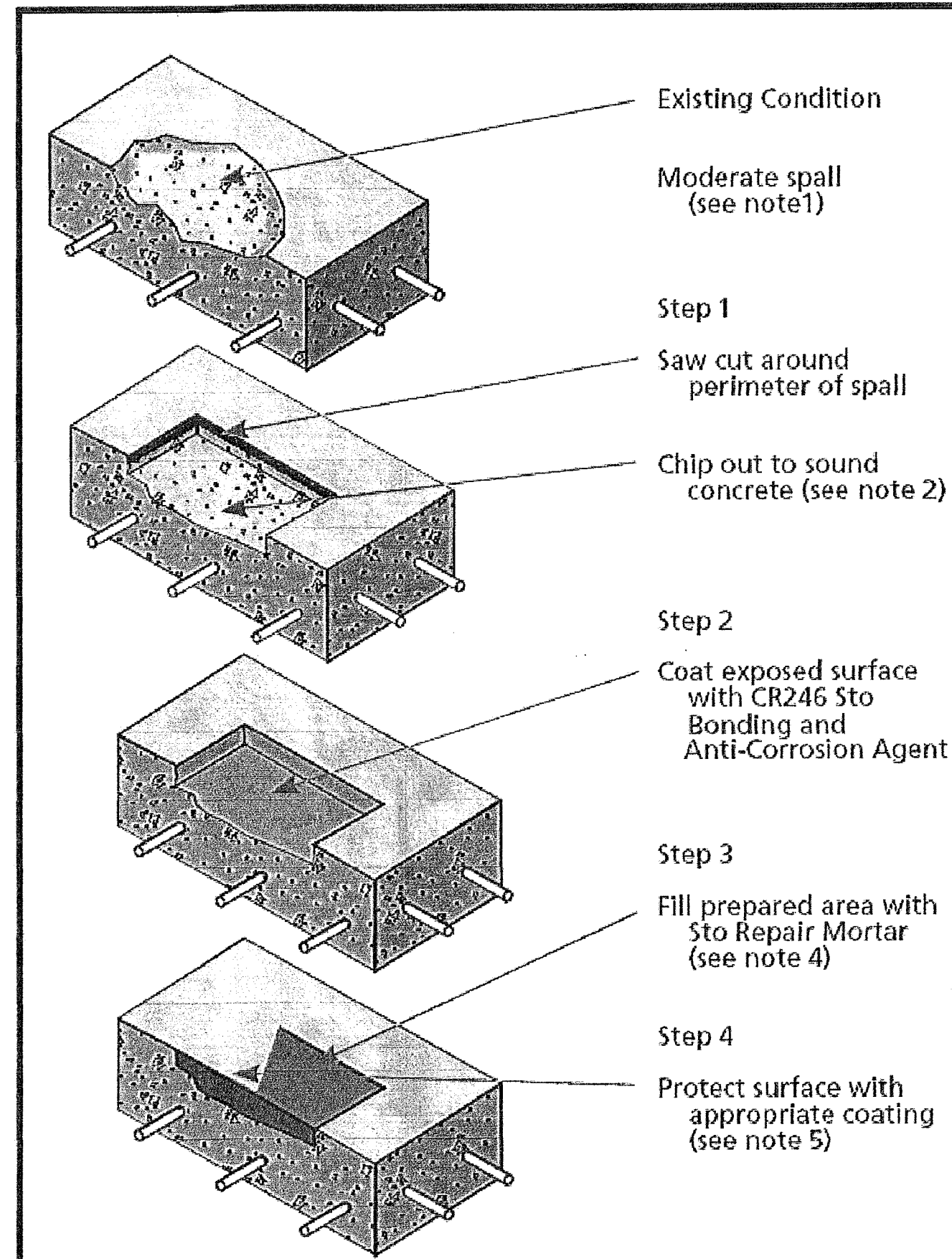
CLEAN & PREP SURFACE TO
ROUGHENED EDGE APPLY
EPOXY BONDING AGENT

8'-1"

TO THE BEST OF MY KNOWLEDGE, THE PLANS
AND SPECIFICATIONS COMPLY WITH THE
FLORIDA BUILDING CODE

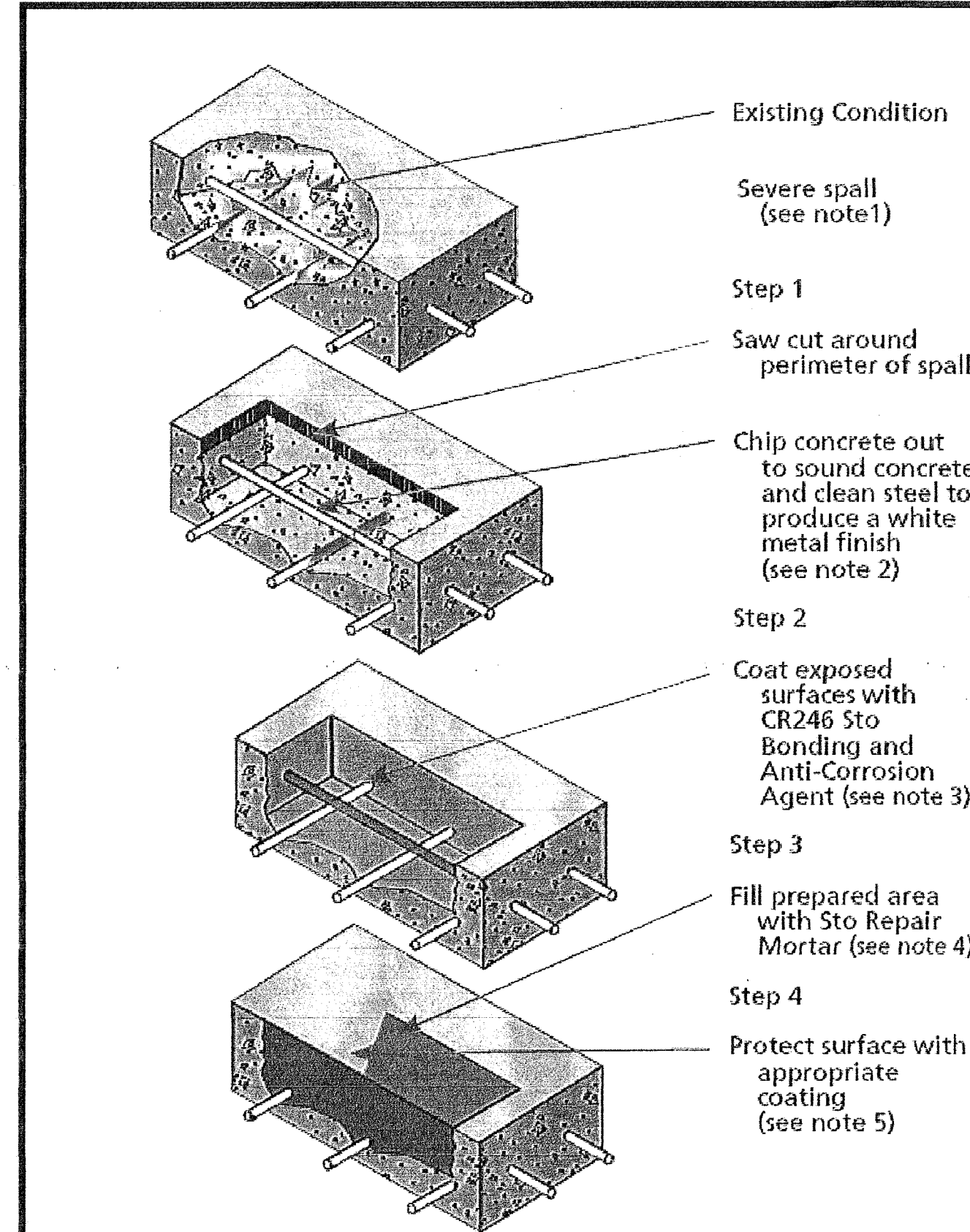
LAP LENGTH TABLE		
BAR SIZE	TENSION & SLAB BEAMS / RIBS $f_{cr} = 3200$ PSI MIN.	COMPRESSION (COLUMNS)
#3	21"	12"
#4	28"	12"
#5	36"	14"
#6	43"	16"
#7	62"	20"
#8	71"	22"
#9	80"	24"

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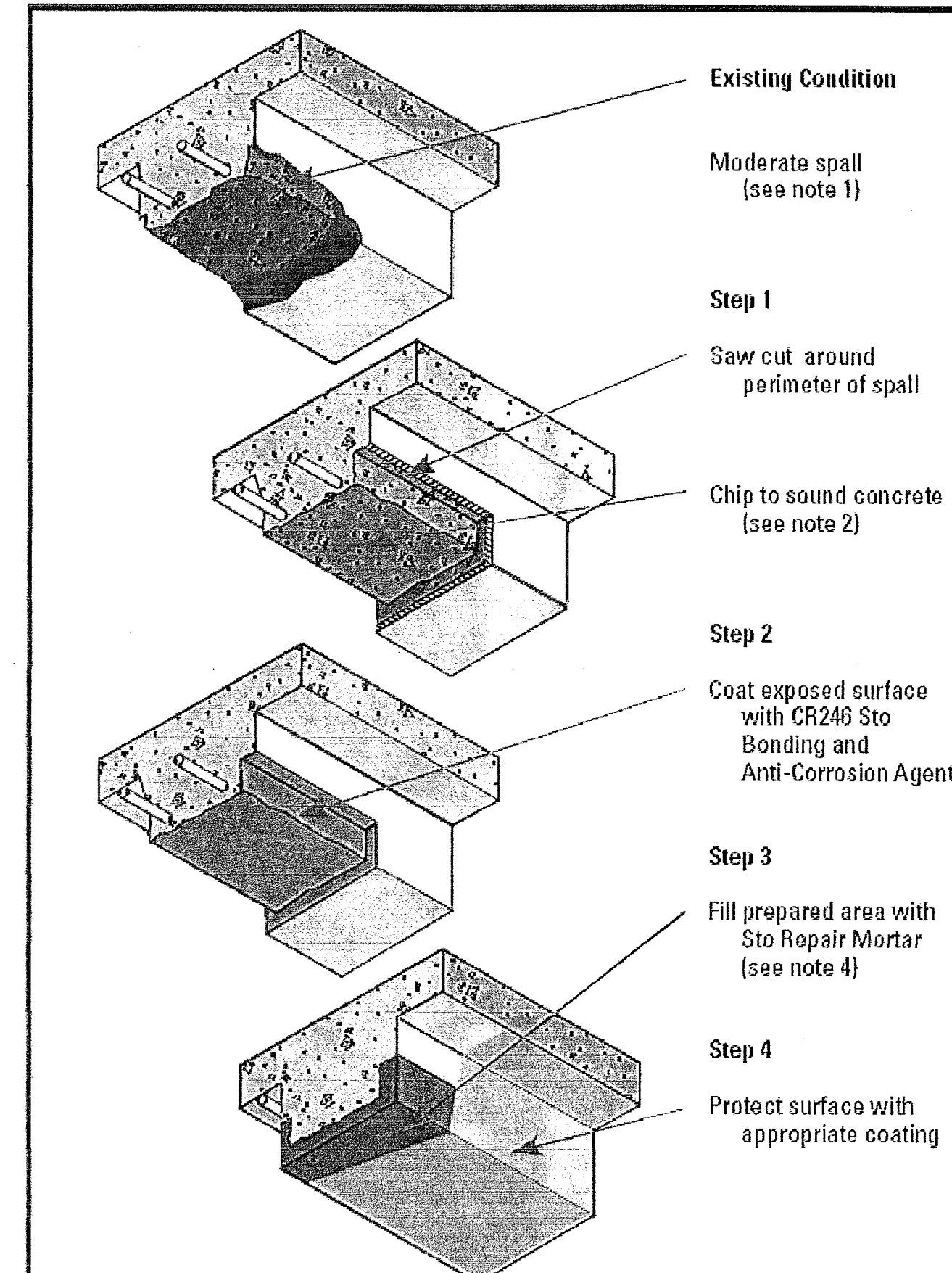
Notes:

- 1) Moderate spalls are deeper than 1/4" (7mm) with some aggregate loss, but no exposed re-bar.
- 2) Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3) Apply a 20 mil coating of CR246 Sto Bonding and Anti-Corrosion Agent on to the prepared SSD surface to insure proper bond of the repair material.
- 4) Fill excavation with appropriate Sto Repair Mortar, consolidate, finish and cure.
- 5) Apply protective coating to prepared substrate.
- 6) For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.



Notes:

- 1) Severe spalls are deeper than 1/4" (7mm) with aggregate loss and exposed re-bar.
- 2) Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3) Apply two 10 mil coats (total 20 mils) of CR246 Sto Bonding and Anti-Corrosion Agent on to the prepared steel and one 20 mil coat to SSD concrete surface to insure protection of steel and proper bond of repair material.
- 4) Fill excavation with appropriate Sto Repair Mortar, consolidate, finish and cure as required.
- 5) Apply protective coating to prepared substrate.
- 6) For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.



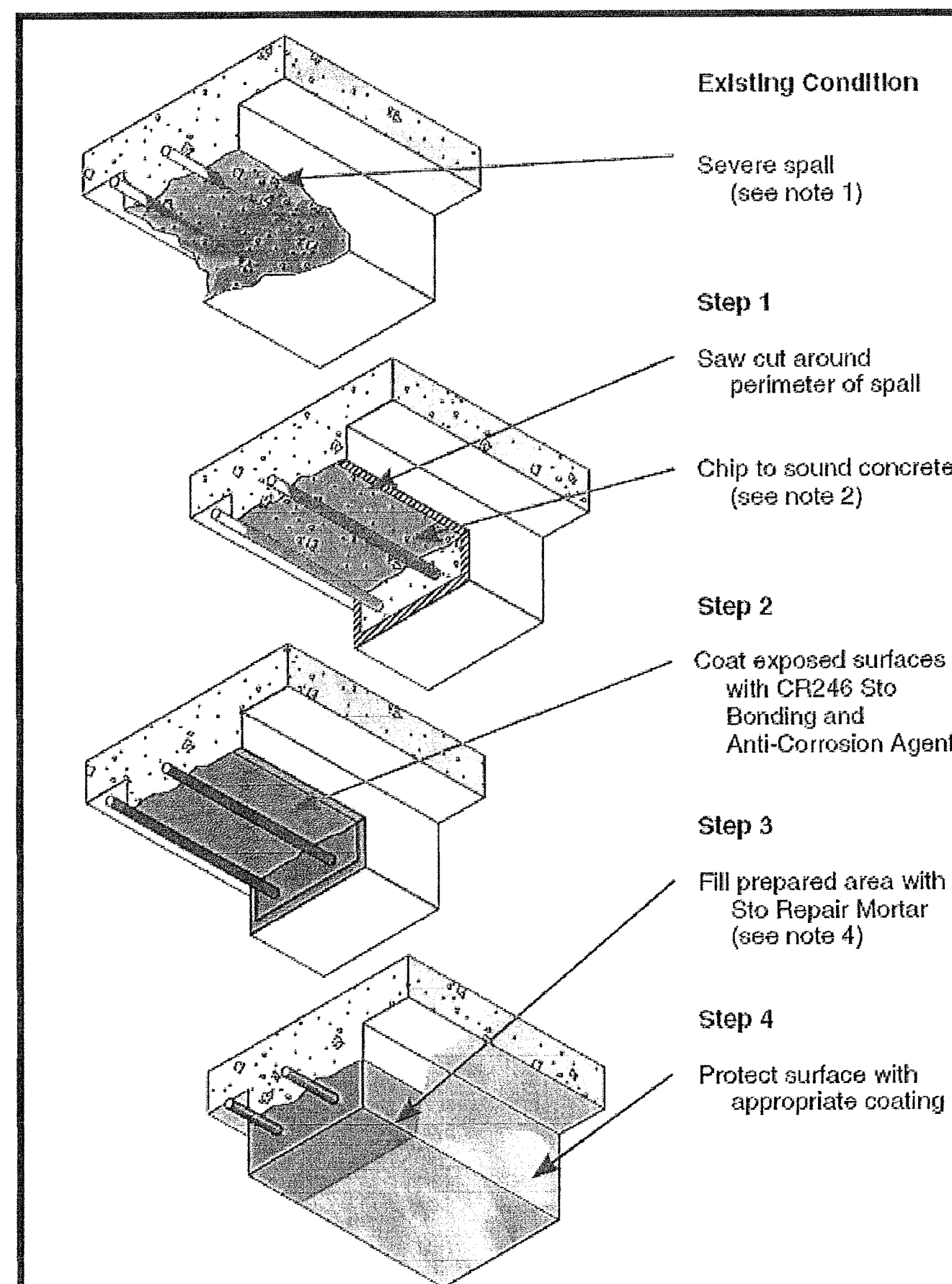
Notes:

- 1) Moderate, spalls are deeper than 1/4" (7mm) with aggregate loss, but no exposed re-bar.
- 2) Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3) Apply a 20 mil coat of CR246 Sto Bonding and Anti-Corrosion Agent on to the prepared SSD surface to insure proper bond of the repair material.
- 4) Fill excavation with appropriate Sto Repair Mortar, consolidate, finish and cure as required.
- 5) Apply protective coating to prepared substrate.
- 6) For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.

1 CONCRETE DECK SPALLS - MODERATE
SCALE = N.T.S.

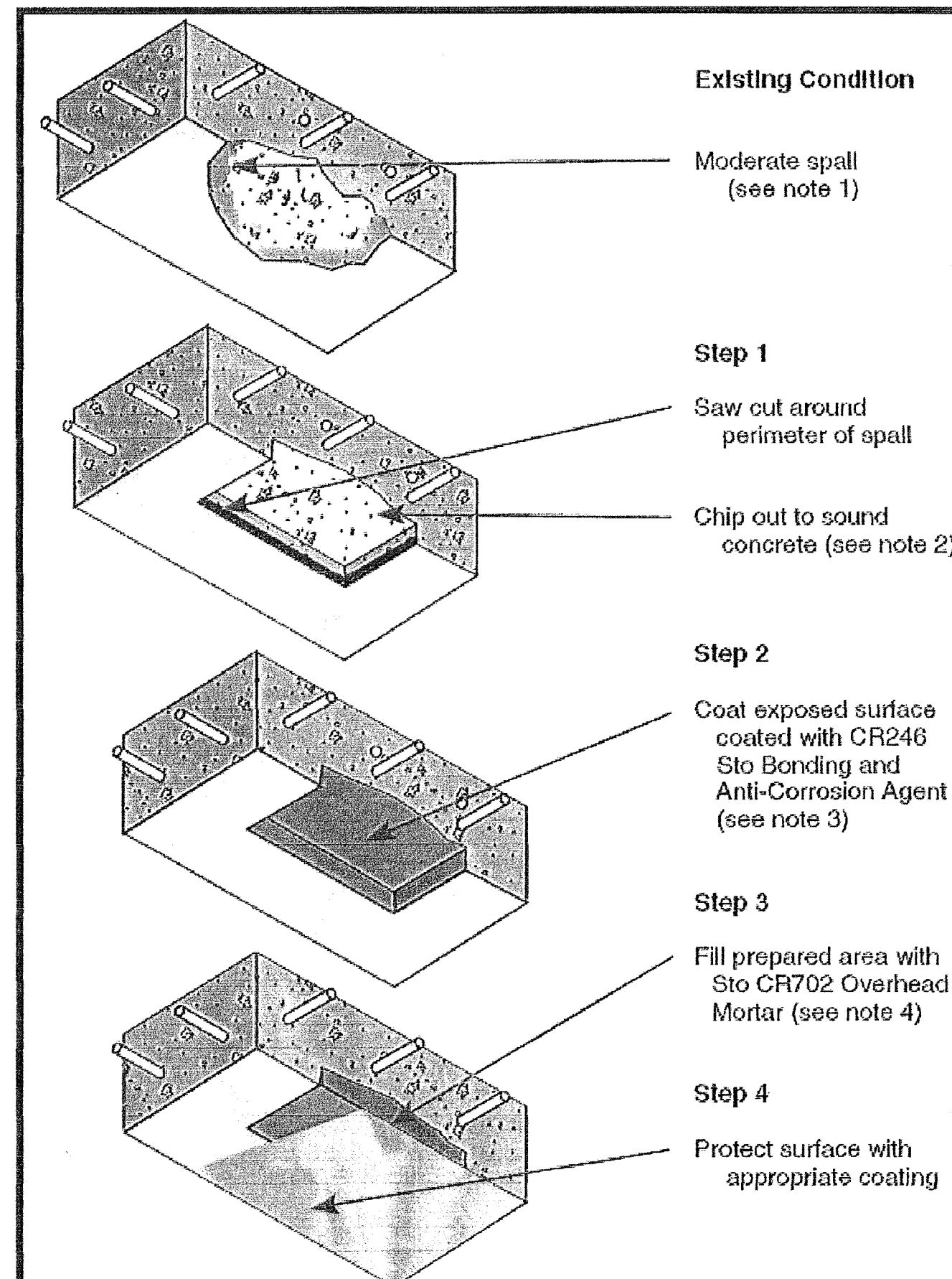
2 CONCRETE DECK SPALLS - SEVERE
SCALE = N.T.S.

3 CONCRETE BEAM SPALLS - MODERATE
SCALE = N.T.S.



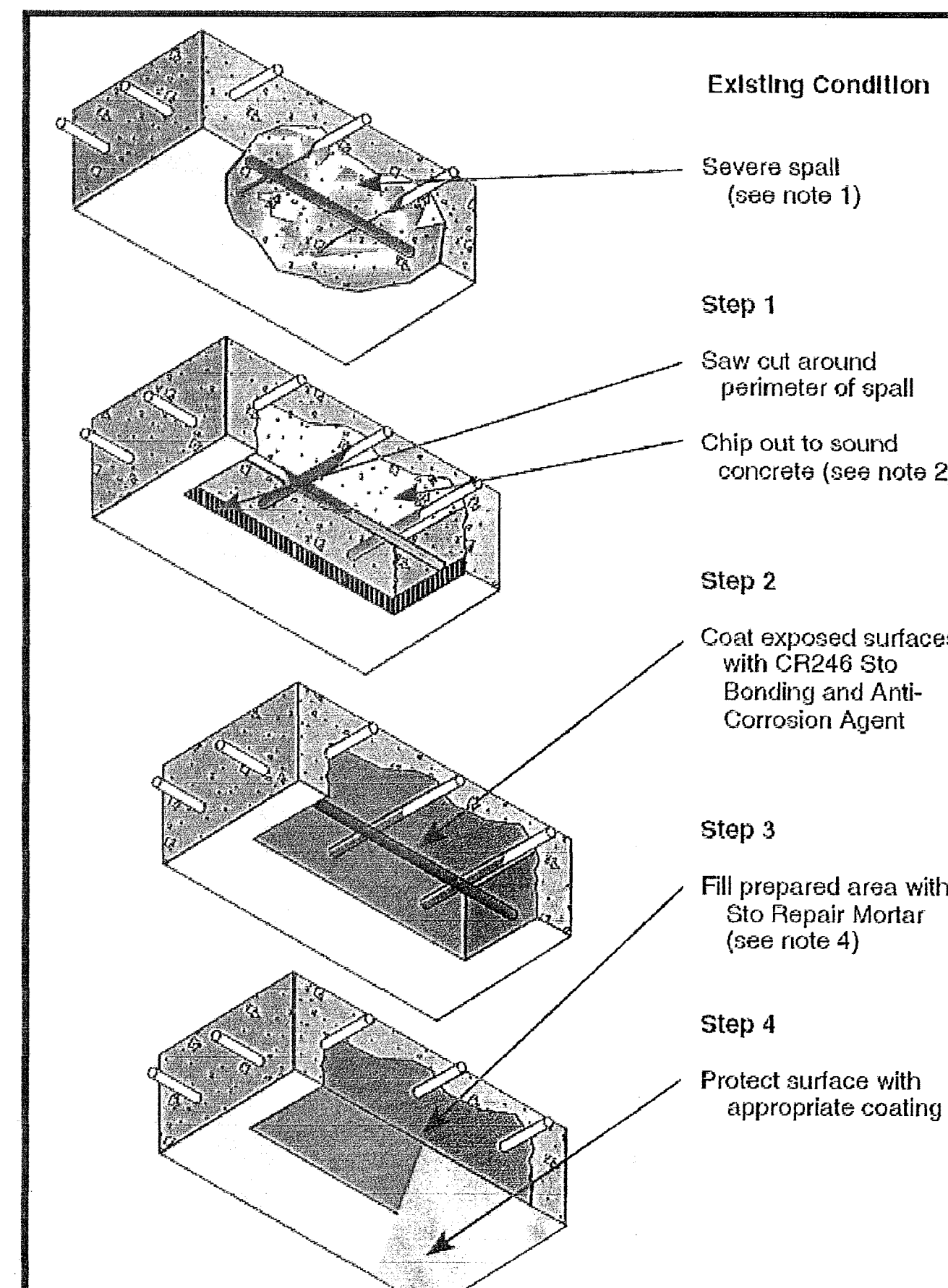
Notes:

- 1) Severe spalls are deeper than 1/4" (7mm) with aggregate loss, and exposed re-bar.
- 2) Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3) Apply two 10 mil coats (total 20 mils) of CR246 Sto Bonding and Anti-Corrosion Agent on to the prepared steel and one 20 mil coat to SSD concrete surface to insure protection of steel and proper bond of repair material.
- 4) Fill excavation with appropriate Sto Repair Mortar, consolidate, finish and cure as required.
- 5) Apply protective coating to prepared substrate followings.
- 6) For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.



Notes:

- 1) Moderate spalls are chipped deeper than 1/4" (7 mm) with some aggregate loss, but no exposed re-bar.
- 2) Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3) Apply a 20 mil coating of CR246 Sto Bonding and Anti-Corrosion Agent on to the prepared SSD surface to insure proper bond of the repair material.
- 4) Fill excavation with Sto CR702 Overhead Mortar, consolidate, finish and cure as required.
- 5) Apply protective coating to prepared substrate.
- 6) For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.



Notes:

- 1) Severe spalls are deeper than 1/4" (7 mm) with some aggregate loss and exposed re-bar.
- 2) Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3) Apply two 10 mil coats (total 20 mils) of CR246 Sto Bonding and Anti-Corrosion Agent on to the prepared steel and one 20 mil coat to SSD concrete surface to insure protection of steel and proper bond of repair material.
- 4) Fill excavation with appropriate Sto CR702 Overhead Mortar, consolidate, finish and cure as required.
- 5) Apply protective coating to prepared substrate.
- 6) For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.

4 CONCRETE BEAM SPALLS - SEVERE
SCALE = N.T.S.

5 OVERHEAD CONCRETE SPALLS - MODERATE
SCALE = N.T.S.

6 OVERHEAD CONCRETE SPALLS - SEVERE
SCALE = N.T.S.

NO.	DATE	REVISION

PROJECT TITLE:
**EXISTING OFFICE BUILDING
STRUCTURAL REPAIRS**

OWNER:
CABI 301 COMMERCIAL LLP
18950 W. COUNTRY CLUB DRIVE #900
Aventura, FL 33160

SITE ADDRESS:
301 ARTHUR GODFREY ROAD
MIAMI BEACH, FL 33139

OPTIMUS STRUCTURAL DESIGN LLC

Tanya Homfeld PE
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E-mail: optimus@bellsouth.net

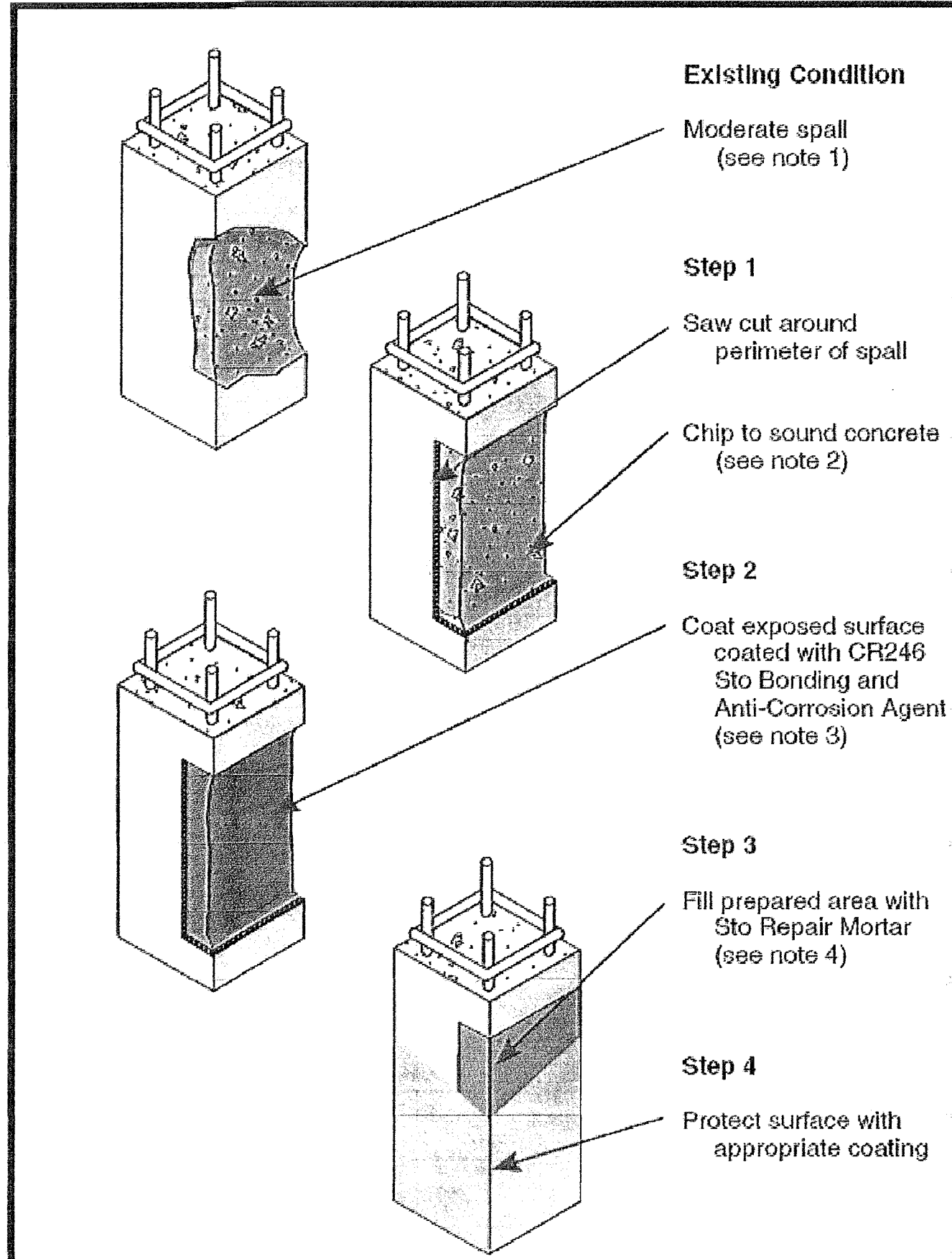
REAL ESTATE OF FLORIDA

T. J. J. 09/21/11

DRAWN BY : JP.
CHECKED BY : TH.
DATE : 08-16-2011
SCALE : AS SHOWN
JOB NO. :
S-3.0
of

TO THE BEST OF MY KNOWLEDGE, THE PLANS
AND SPECIFICATIONS COMPLY WITH THE
FLORIDA BUILDING CODE.

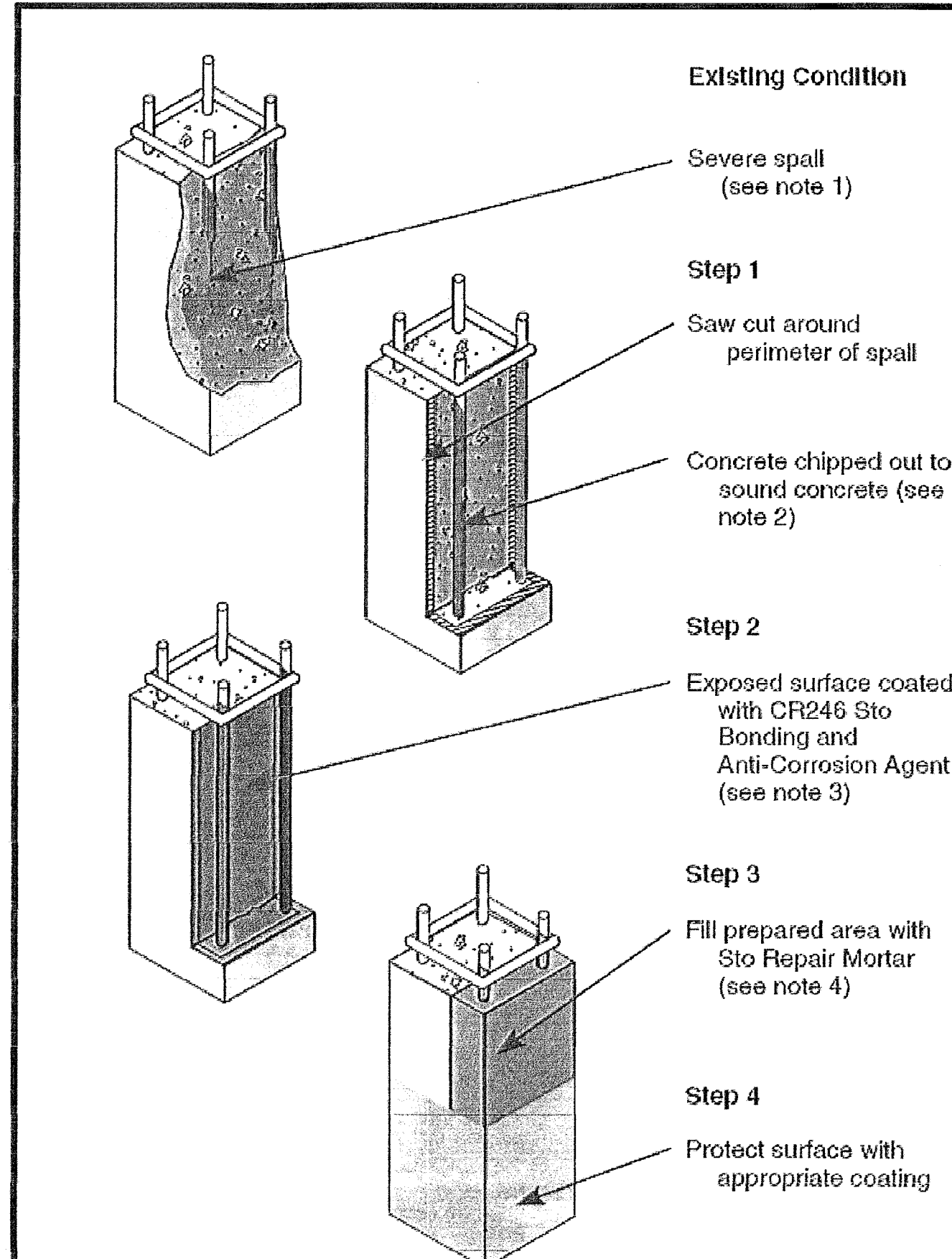
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Notes:

- 1] Moderate spalls are deeper than 1/4" (7 mm) with aggregate loss, but no exposed re-bar.
- 2] Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3] Apply a 20 mil coating of CR246 Sto Bonding and Anti-Corrosion Agent onto the prepared SSD surface to insure proper bond of the repair material.
- 4] Fill excavation with appropriate Sto Repair Mortar, consolidate, finish and cure as required.
- 5] Apply protective coating to prepared substrate.
- 6] For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.

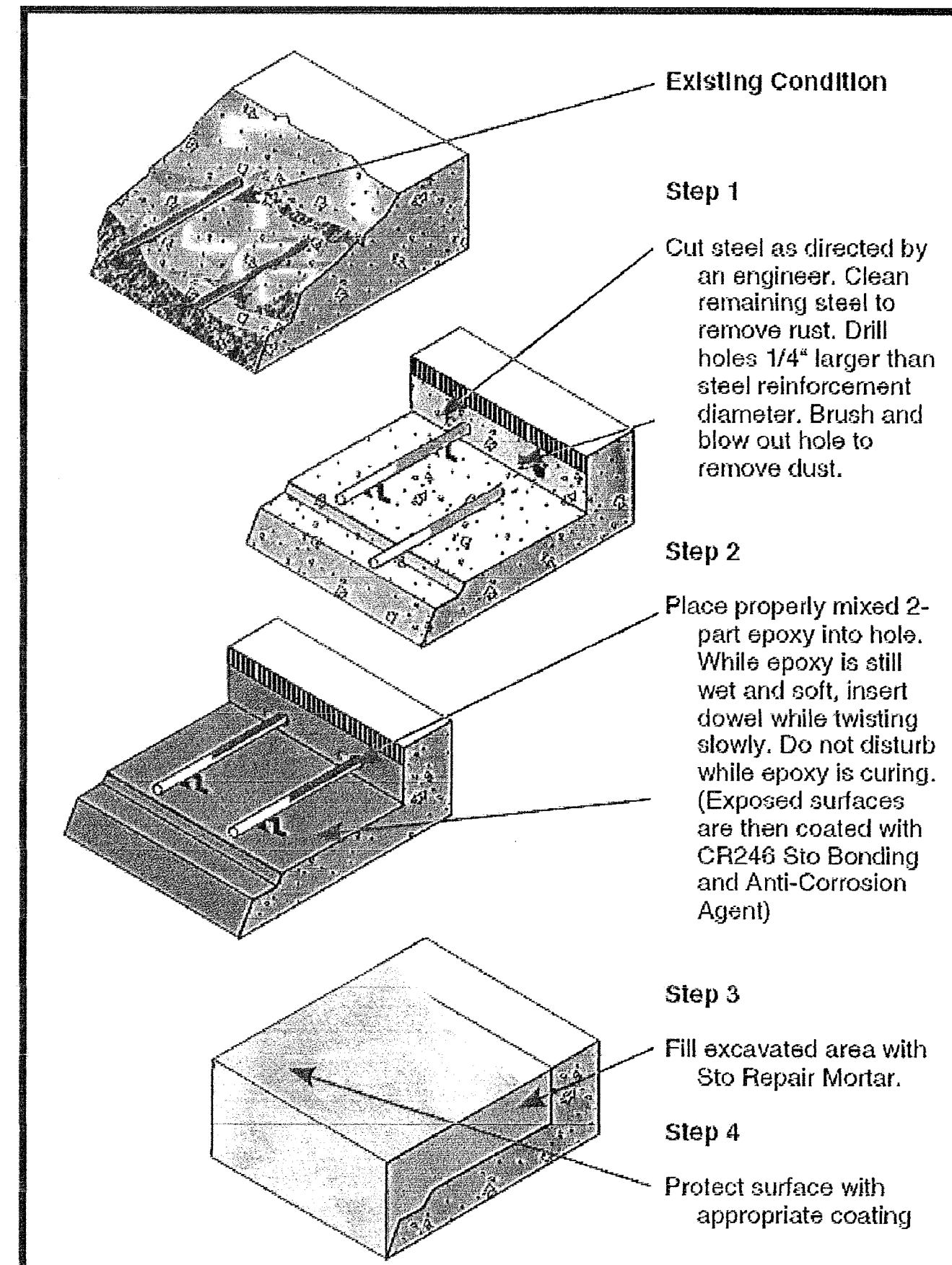
1 CONCRETE COLUMN SPALLS - MODERATE
SCALE = N.T.S.



Notes:

- 1] Severe spalls are deeper than 1/4" (7 mm) with aggregate loss, and exposed re-bar.
- 2] Pressure wash after excavation to remove dust, laitance, and other bond inhibiting materials, SSD substrate.
- 3] Apply two 10 mil coatings (total 20 mils) of CR246 Sto Bonding and Anti-Corrosion Agent onto the prepared steel and one 20 mil coat to SSD concrete surface to insure protection of steel and proper bond of repair material.
- 4] Fill excavation with appropriate Sto Repair Mortar, consolidate, finish and cure as required.
- 5] Apply protective coating to prepared substrate.
- 6] For Sto material selection, physical properties, mixing, application and curing information refer to appropriate Sto Technical Bulletins.

2 CONCRETE COLUMN SPALLS - SEVERE
SCALE = N.T.S.



Notes:

- 1] For Concrete Repair, see appropriate detail for surface preparation and repair procedure.
- 2] Before cutting steel reinforcement, consult a structural engineer to determine what type of precautions are necessary (in particular for elevated slabs/columns/beams). The engineer will determine the location of splice or dowelling as well as the necessary development length requirements.
- 3] Fill and screed excavated area with the appropriate Sto Repair Mortar, consolidate, finish and cure as required.
- 4] Apply protective coating to prepared substrate.

3 HORIZONTAL DOWELING REPAIRS
SCALE = N.T.S.

TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE.

NO.	DATE	REVISION
1		

PROJECT TITLE:
**EXISTING OFFICE BUILDING
STRUCTURAL REPAIRS**

SITE ADDRESS:
301 ARTHUR GODFREY ROAD
MIAMI BEACH, FL 33139

OWNER:
CAB 301 COUNTRY CLUB DRIVE #900
AVENTURA, FL 33160

OPTIMUS STRUCTURAL DESIGN LLC

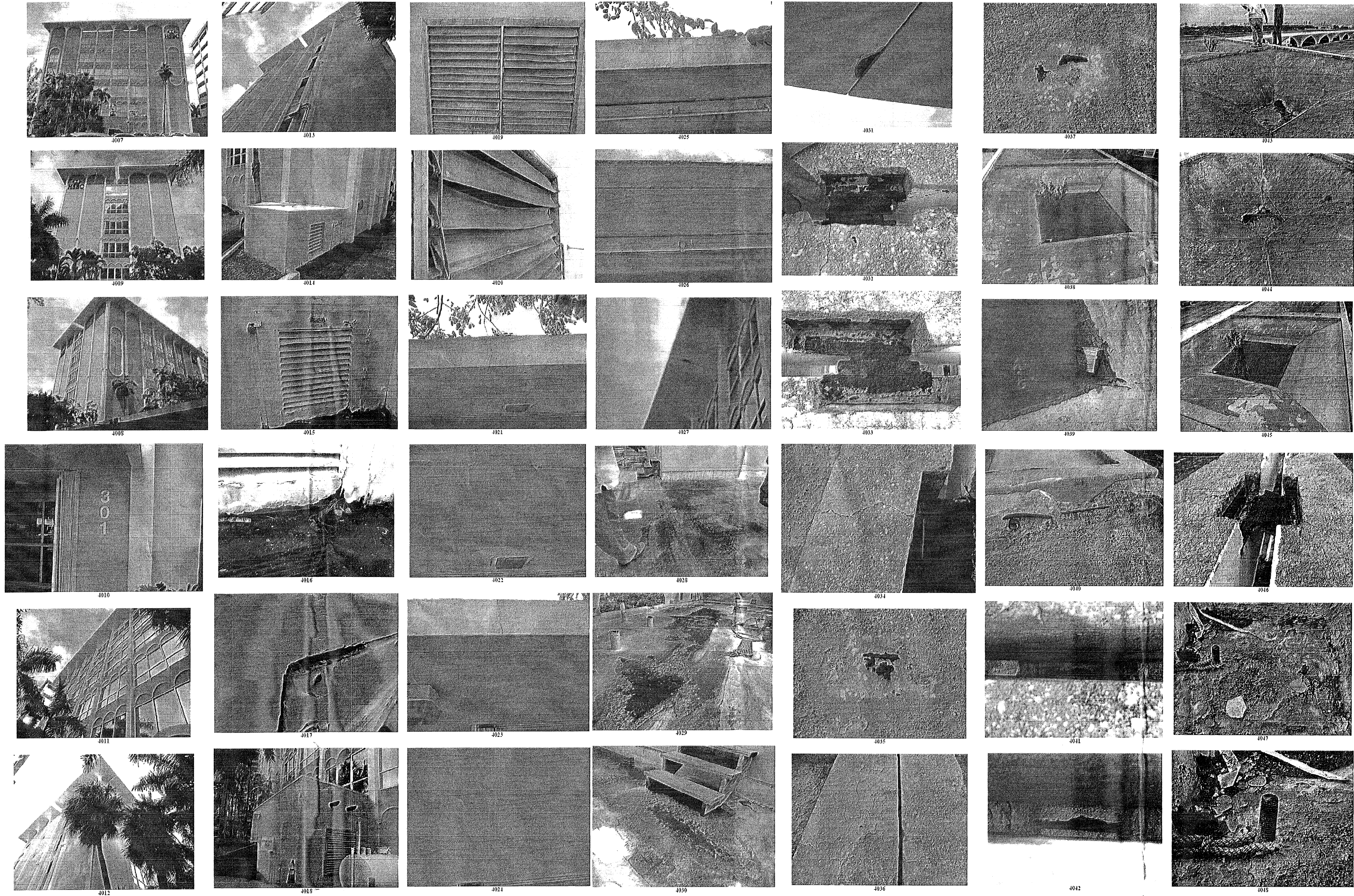
Tonyo Homed PE
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E-mail: optimus@bellsouth.net

FLORIDA
T. J. L. P.
06/04/11

DRAWN BY : J.P.
CHECKED BY : T.H.
DATE : 06-16-2011
SCALE : AS SHOWN
JOB NO. :

S-4.0
of

The Contractor Shall Check And Verify All Dimensions Of The Work And Be Responsible For Same. Reporting Any Discrepancies To The Architect Or Engineer Before Commencing Work. Drawings Not To Be Scaled.



PICTURES OF EXISTING STRUCTURE TAKEN ON 06/28/2011 - 1 OF 2

TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE FLORIDA BUILDING CODE.

DRAWN BY :	JP
CHECKED BY :	TH
DATE :	08-16-2011
SCALE :	AS SHOWN
JOB. NO. :	
S-5.0	
of	

STATE OF FLORIDA
<i>TH</i>
08/16/11

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FORT LAUDERDALE, FLORIDA 33016	
TEL: 305.512.4861	
FAX: 305.512.4861	
E-mail: optimus@bellsouth.net	

PROJECT TITLE:	
EXISTING OFFICE BUILDING	
STRUCTURAL REPAIRS	
OWNER:	CABI 301 COMMERCIAL LLP
19950 W. COUNTRY CLUB DRIVE #900	
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MIAMI BEACH, FL 33139	

NO.	DATE	REVISION
1	---	---