FORT RODD HILL N.H.S.
LOWER BATTERY REHABILITATION
R.075097.001
KEY
1. ARTILLERY / S.A.A.
2. BATTERY COMMAND POST
3. CANTEN
4. COAL PROV. & GENERAL STORE
5. CISTERN & OIL STORE
6. EAST GUN EMLACEMENT
7. GUARDHOUSE
8. LOWER BATTERY WALLS
9. SEARCH LIGHT ENGINE ROOM
10. SEARCH LIGHT ENGINE CISTERN
11. UNDERGROUND ENGINE CISTERN
12. WEST GUN EMLACEMENT

LOWER BATTERY - SITE PLAN
SCALE: HTS

LOWER BATTERY

LOWER BATTERY REHABILITATION
Fort Rodd Hill N.H.S.

LOWER BATTERY SITE PLAN
ARTILLERY / S.A.A. STORE FLOOR PLAN

NOTES

GENERAL: PROVIDE ENGINEER CERTIFIED TEMPORARY SHORING PRIOR TO BEAM POCKET REPAIRS

DR REPAIR

CR2 REPAIR. SEE DETAIL

FR REPAIR ALONG FASCIA. SEE DETAIL

EXISTING STEEL BEAM EMBEDDED IN ROOF SLAB

BEAM POCKET REPAIR EACH END OF EACH STEEL BEAM (TYPICAL FOR EACH BEAM). SEE DETAIL

BEAM INSPECTION OPENING, MID-SPAN OF EACH STEEL BEAM (TYPICAL FOR EACH BEAM). SEE DETAIL

DRAINAGE GUTTER

ROCK FACE
ARTILLERY / S.A.A. STORE - SITE / ROOF PLAN

NOTES

1. SL, SE & CR2 REPAIRS OVER ENTIRE WALL AREA. REFER TO DETAIL & CMAR REPAIR AT EACH RAILING POST ATTACHMENT TO CONCRETE, 6 RAILING POSTS.

2. REMOVE ALL DEBRIS AND GROWTH FROM CONCRETE OVER ENTIRE AREA

3. DR REPAIR

4. CR2 REPAIR (TYPICAL). REFER TO DETAIL

5. SL REPAIR ALONG GUTTERS. REFER TO DETAIL

6. CMAR REPAIR AT RAILING CONNECTION TO WALL

EXISTING ROOFING SYSTEM TO BE REMOVED AND REPLACED WITH NEW, SEE ROOFING DETAILS

CMAR REPAIR AT EACH RAILING POST ATTACHMENT TO CONCRETE, 6 RAILING POSTS.

OUTLINE OF BEAM LOCATIONS EMBEDDED IN ROOF SLAB (TYPICAL). ALLOW FOR CONCRETE CRACK REPAIR (TOP OF ROOF SLAB) ALL ALONG EACH STEEL BEAM. ALSO ALLOW FOR 20m² SL REPAIRS OVER ROOF SLAB, AVERAGE 75mm DEPTH. SEE DETAIL.
ARTILLERY / S.A.A. STORE - ELEVATION A

ARTILLERY STORAGE

ARTILLERY / S.A.A. STORE - ELEVATION C

S.A.A STORAGE

NOTES

- CONCRETE SOUNDING EFFLORESCENCE CLEANING OVER ENTIRE SURFACE. SL REPAIRS ALLOW FOR 0.5m². SE REPAIRS ALLOW FOR 2m². Parging REPAIRS ALLOW FOR 3m². SEE DETAILS.

- CR1 REPAIR ALONG TOP OF WALL AROUND PERIMETER. SEE DETAIL.

- CR2 REPAIR. SEE DETAIL.

- LINTEL REPLACEMENT. SEE DETAIL.

- FR REPAIR ALONG FASCIA. SEE DETAIL.
NOTES

FOR INFORMATION ONLY.
WOOD WINDOWS TO BE REMOVED AND REINSTALLED BY OTHERS. WOOD WINDOW PLUG BY OTHERS TO BE REMOVED AND REINSTALLED AS REQUIRED UNDER THIS CONTRACT, TO PERFORM CONCRETE REPAIRS AND LINTEL REPLACEMENT WORK.

△ CR1 REPAIR ALL ALONG. SEE DETAIL.
△ CR2 REPAIR. SEE DETAIL.
△ FR REPAIR ALL ALONG FASCIA. SEE DETAIL.
△ CMAR REPAIR @ GRILL AND RAILING ATTACHMENTS.
△ LOCAL SPALL SL REPAIR. SEE DETAIL.
△ ATTACHED WOOD ELEMENTS SAND AND REPAINT.
△ CONCRETE SOUNDING EFFLORESCENCE CLEANING OVER ENTIRE SURFACE. SL REPAIRS ALLOW FOR 0.5m². SE REPAIRS ALLOW FOR 2m². PARGING REPAIRS ALLOW FOR 3m². SEE DETAILS & RESPECTIVELY.
ARTILLERY / S.A.A. STAIRWELL SECTION - NORTH VIEW

NOTES

⚠️ SL REPAIR ALL ALONG. SEE DETAIL

⚠️ CR2 REPAIR. SEE DETAIL
NOTES

⚠️ SCRAPE AND CLEAN EFFLORESCENCE TO BARE CONCRETE, ALL INTERIOR WALLS AND CEILINGS (TYPICAL)

⚠️ CR2 CRACK REPAIR. SEE DETAIL.

⚠️ SL REPAIR. SEE DETAIL.

BATTERY COMMAND POST FLOOR PLAN

SCALE 1:40
NOTES

- CRACKED CONCRETE SLAB SECTION REPLACEMENT. SEE DETAIL
- EXISTING ROOFING SYSTEM TO BE REMOVED AND REPLACED WITH NEW. SEE ROOFING DETAILS
- CR2 REPAIR. SEE DETAIL
- CLEAN OUT ROOF DRAINAGE TROUGH. "SL" REPAIR ALONG TROUGH AND THROUGH SLAB TO DOWNSPOUT. REVIEW DRAINAGE TROUGH FUNCTION WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO CASTING NEW CONCRETE
- CLEAN-OUT CONCRETE GUTTER ON ACTUAL GRADE. SL/SE REPAIR ALL ALONG GUTTER

BATTERY COMMAND POST - SITE / ROOF PLAN

SCALE: 1:30
NOTES

⚠️ CORRODED CANTILEVER STEEL REPLACEMENT AND ASSOCIATED CONCRETE REMOVAL / REPLACEMENT / SEE DETAIL. ⚠️

⚠️ CRACKED CONCRETE SLAB SECTION REPLACEMENT. SEE DETAIL. ⚠️

⚠️ WOOD ELEMENTS, SAND & REPAINT BOTH SIDES, ALL AROUND, INCLUDING METAL HARDWARE. ⚠️

⚠️ REMOVE LOOSE/DELAMINATED PARGING, OVER ENTIRE WALL AND SILL AREA. REPLACE SPALLED/DETERIORATED BRICK PARGING. "P" REPAIR, OVER ENTIRE WALL AREA AND WINDOW SILL. ALLOW FOR 40 BRICK REPLACEMENT, 10 BRICK Resetting. ⚠️

⚠️ CR1 REPAIR. SEE DETAIL. ⚠️

⚠️ WOOD POLE, REMOVE TO FACILITATE WORK. SAND & RE-PAINT, REINSTATE. ⚠️

⚠️ FR REPAIR ALL ALONG FASCIA. SEE DETAIL. ⚠️

BATTERY COMMAND POST - ELEVATION A

1

SCALE: 1:30

BATTERY COMMAND POST - ELEVATION B

2

SCALE: 1:30
BATTERY COMMAND POST - ELEVATION C

800

BATTERY COMMAND POST - ELEVATION D

800

NOTES

- CORRODED CANTILEVER STEEL REPLACEMENT AND ASSOCIATED CONCRETE REMOVAL / REPLACEMENT. SEE DETAIL.

- CRACKED CONCRETE SLAB SECTION REPLACEMENT.

- WOOD ELEMENTS, SAND & REPAINT BOTH SIDES ALL AROUND, INCLUDING METAL HARDWARE.

- REMOVE LOOSE/DELAMINATED PARGING, OVER ENTIRE WALL AND SILL AREA. REPLACE SPALLED/DETERIORATED BRICK PARGING "P" REPAIR, OVER ENTIRE WALL AREA AND WINDOW SILL. ALLOW FOR 40 BRICK REPLACEMENT, 10 BRICK RESETTING.

- WINDOW FRAME RESTORATION BY OTHERS.

- CR2 REPAIR. SEE DETAIL

- CR4 REPAIR. SEE DETAIL

- WOOD POLE. REMOVE TO FACILITATE WORK, SAND & REPAINT, REINSTATE.

- FR REPAIR ALL ALONG FASCIA. SEE DETAIL
CANTILEVER ROOF DETAIL
(EDGE ROOF AND BEAM REMOVAL AND REPLACEMENT)

SCALE: 1:5

1. 20 S.S. BAR DOWELS @ 500 o.c. 400mm EMBEDMENT
   **FR REPAIR ALL ALONG FASCIA SEE DETAIL**
   **NEW CONCRETE FORMED TO MATCH EXISTING PROFILE**

2. ASSUMED LOCATION OF HIDDEN CORRODED STEEL BEAM, CONNECTED TO CANTILEVER STEEL BEAM
   **NOTE: ALLOW FOR W150 X 100 X 12 BEAM SIDE, NEW BEAM HOT DIPPED GALVANIZED**

3. EXISTING ROOF SLAB - ROOFING NOT SHOWN FOR CLARITY
   **FR REPAIR ALL ALONG FASCIA SEE DETAIL**

4. 4-20mm S.S. BARS, 300mm EMB. INTO ADJACENT CONCRETE (TYP.) W/ EPOXY ADHESIVE

5. 4-10mm S.S. BENT LONG DOWELS, EQ. SPACING (2 EACH SIDE) OFFSET FROM SHORT DOWELS, 150 EMB. W/ EPOXY ADHESIVE

6. LOCATION OF CORRODED CANTILEVER STEEL BEAM
   **NOTE: ALLOW FOR W200 X 100 X 12 BEAM SIZE, NEW BEAM HOT DIPPED GALVANIZED**

7. PARGING REPLACEMENT

8. ADD OVERLAPPING 20mm DOWELS 400mm LENGTH, 200mm EMBEDMENT, EACH END (TYP.).

9. CANTILEVER ROOF DETAIL
   **BEAM REMOVAL AND REPLACEMENT**
   SCALE: 1:5

10. CANTILEVER ROOF DETAIL
    **(TYPICAL - PLAN)**
    SCALE: 1:10

**EDGE OF CONCRETE ROOF ABOVE**
CANTEEN
LOWER BATTERY

GENERAL NOTES:
-MISC FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL

ISOMETRIC VIEW - FRONT

LOCATION OF CANTEEN

SITE PLAN

ELEVATION KEY

ELEVATION A
ELEVATION B
ELEVATION C
ELEVATION D
ELEVATION E
ELEVATION F
CAAN EN - FLOOR PLAN

NOTES

- CR2 @ CRACK BELOW BEAM POCKET. SEE DETAIL.
- DEEP BEAM POCKET REPAIR AT EACH BEAM, BOTH ENDS. SEE DETAIL.
- EXPOSED BEAM CORROSION REPAIR (TYPICAL EACH BEAM). SEE DETAIL.
- EXISTING STEEL BEAM EXPOSED (TYPICAL).
- PARGING REPAIR IN HIGHLIGHTED AREA. SEE DETAIL.
- TYPICAL CR2 REPAIR IN ROOF. SEE DETAIL.
- HATCH TO CRAWLSPACE IN FLOOR (APPROX).
- EXISTING FLOORING IS ON TOP OF ORIGINAL.
- VENT LOCATION IN ROOF APPROX.
- EXISTING CONCRETE DRAINAGE SWALE.

GENERAL:
PLAN WITH ROOF BEAM LOCATIONS SHOWN ABOVE. BEAM LOCATIONS ARE APPROX. BASED ON ORIGINAL DRAWINGS. CONTRACTOR TO CONFIRM LOCATIONS ON SITE.
EXISTING CRACKS SHOWN ARE IN ROOF, UNLESS OTHERWISE NOTED.
ENGINEERED SHORING PRIOR TO BEAM BEAM POCKET REPAIR. DESIGNED TO SUIT EXPOSED BEAM LOWERING AND CORROSION REPAIR. REVIEW WITH DEPARTMENTAL REPRESENTATIVE PRIOR TO CONSTRUCTION.
CANTEEN - ROOF REBAR PLAN

NOTES

1. 10mm S.S. DOWELS EQUAL SPACING BETWEEN STEEL BEAMS TYPICAL FOR EACH SLOT (TYPICAL). SEE DETAIL.

2. 6 NEW SLOTS CUT INTO ROOF SLAB COMPLETE WITH NEW REINFORCING 20mm S.S. BARS. TYPICAL FOR ALL LOCATIONS. SEE DETAIL.

3. CONCRETE WALL BELOW

REBAR PLAN NOTES:
- IN ADDITION TO SLAB CRACK REPAIRS AT STEEL BEAMS AND NEW REINFORCEMENT CARRY OUT LOCAL SPALL REPAIR SL. OVER ROOF SLAB. ASSUME 20m² OF SL REPAIR, AVERAGE 75mm DEPTH. SEE DETAIL.
CA004

CANTEEN - SITE / ROOF PLAN

SCALE: 1:50

NOTES

⚠️ EXISTING ROOFING SYSTEM TO BE REMOVED AND REPLACED WITH NEW. SEE ROOFING DETAILS.

ALLOW FOR:
- CONCRETE CRACK REPAIR TOP OF ROOF SLAB ALONG EACH STEEL BEAM LOCATION. SEE DETAIL. 
- SL REPAIR TOP OF ROOF SLAB 20m², AVERAGE 75mm DEPTH.

CANOPY ROOFING REPLACEMENT. CAREFULLY DISMANTLE AND RECONSTRUCT IN-KIND. SALVAGE AND RE-USE EXISTING SOUND LUMBER. REPLACE IN-KIND DETERIORATED WOOD MEMBERS.

REPLACE EXISTING ANCHORAGE WITH S.S. ANCHORS MATCHING EXISTING DIMENSIONS. REPLACE SHINGLES IN-KIND.

OUTLINE OF EXISTING STEEL BEAM LOCATION BELOW ± TYPICAL.
CANTEEN - ELEVATION A

SCALE: 1:50

NOTES:
- CANOPY REMOVED FOR CLARITY
- CR1 REPAIR ALL ALONG. SEE DETAIL
- CR2 REPAIR. SEE DETAIL
- CR3 REPAIR WITH LINTEL REPLACEMENT. SEE DETAIL
- FR REPAIR ALL ALONG FASCIA. SEE DETAIL
- P REPAIR IN HIGHLIGHTED AREA. SEE DETAIL
- SL REPAIR. SEE DETAIL
- REMOVE WOODEN PLUGS. PARGING FILL REPAIR.
CANTEEN - ELEVATION B

1. CR1 REPAIR ALL ALONG. SEE DETAIL
2. CR2 REPAIR. SEE DETAIL
3. ROOFING REPLACEMENT. SEE DETAIL
4. EXISTING DOWNSPOUT REMOVE AND REPLACE WITH NEW FULL DOWNSPOUT.
5. EXISTING DOWNSPOUT REMOVE AND REINSTATE WHEN CONCRETE REPAIR IS COMPLETE.
6. SE REPAIR. SEE DETAIL
7. PARGING REPAIR IN HIGHLIGHTED AREA. SEE DETAIL
8. LOCAL SPALL REPAIR. SEE DETAIL
9. CONCRETE SOUNDING AND SE, SL, P REPAIRS OVER ENTIRE WALL. ALLOW FOR 3m² SE, 3m² SL, & 3m² P REPAIRS.
10. DR DRAIN REPAIR
11. CR3 REPAIR WITH LINTEL REPLACEMENT. SEE DETAIL
12. CR4 REPAIR @ WALL JUNCTION. SEE DETAIL
13. FR FASCIA REPAIR ALL ALONG. SEE DETAIL
14. CR4 REPAIR AT THIS JOINT
15. CANOPY ROOFING REPLACEMENT. CAREFULLY Dismantle and Reconstruct IN-KIND. Salvage and Re-use Existing Sound Lumber. Replace IN-KIND Deteriorated wood Members. Replace Existing Anchorage with S.S. Anchors Matching Existing Dimensions. Replace Shingles IN-KIND.
CANTÉEN - ÉVOLUTION E

NOTES

- CR1 REPAIR ALL ALONG. SEE DETAIL
- CR2 REPAIR. SEE DETAIL
- CR3 REPAIR WITH LINTEL REPLACEMENT. SEE DETAIL
- CR4 REPAIR @ WALL JUNCTION. SEE DETAIL
- FR REPAIR ALL ALONG FASCIA. SEE DETAIL
- PARGING REPAIR IN HIGHLIGHTED AREA. SEE DETAIL
- LOCAL SPALL REPAIR. SEE DETAIL
- CMAR @ GRILL ATTACHMENT. IRON GRILL SAND & REPAINT

SCALE: 1:60
CANTEEN - SECTION

SEE DETAIL THIS SHEET

AREA OF WALL AT BEAM ENDS TO BE OPENED, TO REMOVE BEAM OPENING, TO BE MINIMUM REQUIRED TO REPAIR BEAMS

CLEAN ALL CORROSION FROM TOP OF BEAM AND ALL AROUND BEAM. PAINT AND PROVIDE WATERPROOF MEMBRANE OVER TOP OF BEAM AND REINSTATE BEAM TIGHT TO UNDERSIDE OF ROOF SLAB

REPAIR BEAMS TO BE LOWERED ±150mm TEMPORARILY TO FACILITATE BEAM REPAIR AT TOP OF BEAM

FILL CAVITY CREATED BY BEAMS REMOVAL WITH NEW CONCRETE, DEEP SPALL MIX

SHORING SYSTEM AND PROTECTION TO BE DESIGNED, ENGINEERED, REVIEWED AND CERTIFIED BY PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA

PREPARE PARGING EACH SIDE OF NEW CONCRETE AND FINISH TO MATCH EXISTING EACH SIDE

THRU BEAM POCKET
(DEEP BEAM POCKET REPAIRS)

SCALE: 1:10

CANTEN SECTION & DETAIL

PARKS CANADA AGENCY
PACIFIC REGION

LOWER BATTERY REHABILITATION
Fort Rodd Hill N.H.S.
CASEMATE STORES
LOWER BATTERY

GENERAL NOTES:
- MISC FEATURES HAVE BEEN REMOVED FROM
ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.
DEFENSE WALL

CUT INTO EXISTING ROOFING AT FLASHING EDGE. REMOVE EXISTING FLASHING, RETAIN REMAINDER OF EXISTING ROOFING. INSTALL NEW FLASHING ALL AROUND AND NEW ROOFING SYSTEM OVER NEW FLASHING AND OVER ENTIRE EXISTING ROOFING, AS PER TYPICAL NEW ROOFING SYSTEM DETAILS.

ORTHOGRAPHIC PLAN

SCALE: 1:50

CR1 ON THIS SIDE

ORTHOGRAPHIC ELEVATION B

SCALE: 1:50

NOTES

WOOD ROOF: CAREFULLY DISMANTLE AND RECONSTRUCT IN-KIND. SALVAGE AND RE-USE SOUND LUMBER. REPLACE IN-KIND DETERIORATED WOOD MEMBERS. REPLACE EXISTING ANCHORAGE WITH S.S. ANCHORS MATCHING EXISTING DIMENSIONS. REPLACE SHINGLES IN-KIND.

REMOVAL ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.25m^2 SL REPAIR, 1m^2 SE REPAIR, & 2m^2 PARGING REPAIR. SEE DETAILS RESPECTIVELY.

ALLOW FOR 10m CR1 CRACK REPAIR. SEE DETAIL

ALLOW FOR 15m CR2 CRACK REPAIR. SEE DETAIL

EROSION SPALL SE REPAIR. SEE DETAIL

LOCAL SPALL SL REPAIR. SEE DETAIL

SAND AND REPAINT DOOR. REPLACE DETERIORATED ELEMENTS IN KIND.

REMOVE AND REPLACE ROOFING AND FLASHING. SEE DETAIL.

GENERAL STORE
NOTES

WOOD ROOF. CAREFULLY DISMANTLE AND RECONSTRUCT IN-KIND. SALVAGE AND RE-USE SOUND LUMBER. REPLACE IN-KIND DETERIORATED WOOD MEMBERS. REPLACE EXISTING ANCHORAGE WITH S.S. ANCHORS MATCHING EXISTING DIMENSIONS. REPLACE SHINGLES IN-KIND.

ORTHOGONAL PLAN

RECTIFIED ELEVATION A

ORTHOGRAPHIC ELEVATION C

ORTHOGONAL ELEVATION E

ORTHOGONAL ELEVATION F

ORTHOGONAL ELEVATION D

SEE DEFENSIBLE WALLS "LB" PACKAGE FOR REPAIR CRITERIA.

ALLOW FOR 3m REPOINTING. 5 BRICK REPLACEMENT

REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 1m² SL REPAIR.

2m² SE REPAIR & 3m² PARGING REPAIR. SEE DETAILS RESPECTIVELY.

ALLOW FOR 20m CR2 CRACK REPAIR. SEE DETAIL.

PARGING REPAIR. SEE DETAIL.

FASCIA FR REPAIR. SEE DETAIL.

SAND AND REPAINT DOOR. REPLACE DETERIORATED ELEMENTS IN KIND. ON INTERIOR OF SHED; REMOVE/CLEAN ALL EFFLORESCENCE, PAINT, DEBRIS, GROWTH FROM ALL CONCRETE SURFACES.

ROOF COATING REPLACEMENT. GRIND TO REMOVE EXISTING COATING. SURFACE REPAIR OVER ENTIRE SURFACE. REPLACE WITH SPECIFIED ROOFING COATING. LAP COATING AND MEMBRANE MATERIAL 50mm DOWN THE FASCIA ON BOTH SIDES AND 75mm UP THE WALL JUNCTIONS WITH REGLET (SEE REGLET DETAIL).
GENERAL NOTES:
- MISC FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.
NOTES

- REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE AND BRICK. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 1m² SL REPAIR, 2m² SE REPAIR, & 3m² PARGING REPAIR. SEE DETAILS RESPECTIVELY.
- ALLOW FOR 30m CR2 CRACK REPAIR. SEE DETAIL
- CR4 REPAIR. SEE DETAIL
- FASCIA FR REPAIR. SEE DETAIL

**ORTHOGONAL ELEVATION A**

- SAND AND REPAINT DOOR. REPLACE DETERIORATED ELEMENTS IN KIND.
- EXISTING ROOFING SYSTEM TO BE REMOVED AND REPLACED WITH NEW.

**ORTHOGONAL ELEVATION B**

- ALLOW FOR 10% REPONTING OVER ENTIRE BRICK SURFACE AND 10 BRICK REPLACEMENT

**ORTHOGONAL ELEVATION C**

**ORTHOGONAL ELEVATION D**

- TOP SURFACE REPAIR OVER ENTIRE CONCRETE ROOF. COMPLETELY REMOVE VEGETATION OVERRGROWTH PRIOR TO COMMENCING REPAIRS.
EAST GUN EMPLACEMENT
LOWER BATTERY

GENERAL NOTES:
- ARCC FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.
EAST GUN EMLACEMENT - SITE PLAN

SCALE 1:80

NOTES

CR2 CRACK REPAIRS OVER ENTIRE SURFACE. CRACKS SHOWN ARE EXAMPLE CRACKS TO BE REPAIRED. SEE DETAIL.

CR2 CRACK REPAIRS EXTEND TO EXPOSED EDGE AND DOWN APPROX. 150mm OVER EDGE. SEE DETAIL.

DR REPAIR.

SL REPAIR OVER ENTIRE SURFACE. REMOVE ALL DEBRIS & GROWTH FROM CONCRETE BEFORE COMMENCING WORK. SEE DETAIL.

EXCAVATE APPROX. 300mm ALONG ENTIRE EDGE. SL REPAIRS ALL ALONG, FORMED FOR CLEAN EDGE.

TSR (TOP SURFACE REPAIR) OVER ENTIRE UPPER AND LOWER SURFACES: INCLUDING INSIDE OF GUN PLATFORM. SEE DETAIL.

AVERAGE 300mm OF OVERGROWTH REMOVAL ALL AROUND TOP OF GUN PLATFORM

REMOVE VEGETATION OVERGROWTH TO COMPLETELY EXPOSE CONCRETE EDGE PRIOR TO COMMENCING CONCRETE REPAIRS

CR4 CRACK REPAIR. SEE DETAIL

SL REPAIR PLUS RAISED SURFACE OVER SPAN OF 150mm SLOPED AWAY FROM WALL. SEE DETAIL

SL REPAIR UNDER CONCRETE PAD TO ACHIEVE FULL BEARING.
NOTES

WOOD ELEMENTS TO BE REPAIRED BY OTHERS. COORDINATE CONSTRUCTION WITH DEPARTMENTAL REPRESENTATIVE.

CR2 REPAIR. SEE DETAIL

FASCIA REPAIR (FR) AND LOCAL SPALL (SL) REPAIR ALL ALONG. SEE DETAIL AND

LOCAL SPALL (SL) REPAIR. SEE DETAIL

PARGING (P) REPAIR OVER CONCRETE INSET. SEE DETAIL

EFFLORESCENCE DEPOSIT CLEANING OF CONCRETE WALLS AND SOFFITS 2 TIMES (TYPICAL) AT START AND FINISH OF OTHER WORKS.

SE REPAIR OVER ERODED SURFACES. (TYPICAL) SEE DETAIL.
EAST GUN EMPLACEMENT - ELEVATION C

NOTES

WOOD ELEMENTS TO BE REPAIRED BY OTHERS. COORDINATE CONSTRUCTION WITH DEPARTMENTAL REPRESENTATIVE.

⚠️ FR AND LOCAL SPALL (SL) REPAIR ALL ALONG. SEE DETAIL 🧵 & 🧵

⚠️ DO NOT FILL

⚠️ CR2 REPAIR. SEE DETAIL 🧵 🧵
EAST GUN EMPLACEMENT

SHelter REfLECTIVE CEILING

EAST GUN EMPLACEMENT - ELEVATION D
(SECTION THROUGH SHELTER)

EAST GUN EMPLACEMENT - ELEVATION E
(SECTION THROUGH SHELTER)

NOTES

△ SE REPAIR OVER ERODED SURFACES (TYPICAL)
△ EFFLORESCENCE DEPOSIT CLEANING OVER ENTIRE SURFACE
△ PATCH ALL ANCHOR HOLES, WITH PARGING REPAIR MIX.
△ CR2 CRACK REPAIR. SEE DETAIL
△ SL REPAIR. SEE DETAIL

CR2 & CR4 REPAIR DETAIL
ALONG EDGE OF GUN EMPLACEMENT (REPAIR)

SCALE: 1:50

GRADE

CR2

TOP OF GUN EMPLACEMENT

ASSUMED SLABWALL JUNCTION

GUN EMPLACEMENT WALL

CR4 (SIM) ALONG CONSTRUCTION JOINT

UNDISTURBED SOIL

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
SASKATOON, SK • 520-401

No. Date Description
1 1/24/2014 East Gun Emplacement (D, E)

No. Date Description
1 1/24/2014 East Gun Emplacement (D, E)

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No. Date Description
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No. Date Description
1 1/24/2014 East Gun Emplacement (D, E)
GUARDHOUSE
LOWER BATTERY

GENERAL NOTES:
- MISC FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.

GUARDHOUSE LOCATION

SITE PLAN

ELEVATION KEY

ELEVATION B

ELEVATION A
GUARDHOUSE - FLOOR PLAN

NOTES

1. 10mm S.S. DOWELS EQUAL SPACING BETWEEN STEEL BEAMS TYPICAL FOR EACH SLOT. SEE DETAIL.

2. 5 NEW SLOTS CUT INTO ROOF SLAB COMPLETE WITH NEW REINFORCING 20mm S.S. BARS. TYPICAL FOR ALL LOCATIONS. SEE DETAIL.

3. CONCRETE WALL BELOW

4. S.S. BAR TERMINATED 150mm BACK FROM OUTSIDE EDGE OF SLAB TYPICAL EACH END

5. EXISTING STEEL BEAM LOCATION ± TYPICAL CRACK REPAIR (TOP OF ROOF SLAB) OVER EACH STEEL BEAM (TYPICAL). SEE DETAIL.

6. ROOF SLAB EDGE. 150mm OVERHANG FROM OUTSIDE EDGE OF EXTERIOR CONCRETE SLAB

7. EXISTING STEEL BEAM EMBEDDED IN ROOF SLAB

8. BEAM POCKET REPAIR TYPICAL EACH END OF EACH STEEL BEAM. SEE DETAIL.

BEAM INSPECTION OPENING, TYPICAL MID-SPAN OF EACH STEEL BEAM. SEE DETAIL.

THROUGH SLAB REPAIR (TSR). ESTIMATED AREA INDICATED TO BE CONFIRMED ON SITE WITH DEPARTMENTAL REPRESENTATIVE. PROVIDE SUPPLEMENTAL SHORING TO SUIT. ALLOW FOR 6m². SEE DETAIL.

SCALE 1:50
GUARDHOUSE - ROOF PLAN W/ CANOPY

NOTES

1. WOOD ROOF CEDAR SHINGLE REPLACEMENT. CAREFULLY DISMANTLE AND RECONSTRUCT IN-KIND. SALVAGE AND RE-USE EXISTING SOUND LUMBER. REPLACE IN-KIND DETERIORATED WOOD MEMBERS. REPLACE EXISTING ANCHORAGE WITH S.S. ANCHORS MATCHING EXISTING DIMENSIONS. REPLACE SHINGLES IN-KIND.

2. EXISTING ROOFING SYSTEM TO BE REMOVED AND REPLACED WITH NEW. SEE ROOFING DETAILS.

3. DRRAIN REPAIR.

4. TOP OF WALL CAP / COPING REPAIR ALL ALONG. SEE DETAIL.

5. CHIMNEY REPAIR. SEE SHEET GH12.

6. CLEAN, REMOVE DEBRIS & GROWTH FROM CONCRETE.
NOTES

- REMOVE ALL DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 2m² SL REPAIR, 10m² SE REPAIR, & 10m² PARGING REPAIRS. SEE DETAILS RESPECTIVELY.
- BUILD UP GRADE WITH NEW TOP SOIL AND SEED TO CREATE MINIMUM 10% SLOPE AWAY FROM WALL.
- CR2 VERTICAL CRACK REPAIR ENTIRE HEIGHT OF CHIMNEY. SEE DETAIL.
- CR2 CRACK REPAIR. SEE DETAIL.

- CR4 CRACK REPAIR ALONG ROOF / WALL JUNCTION. SEE DETAIL.
- DR DRAIN REPAIR.
- TOP OF WALL CAP / COPING REPAIR ALL ALONG. SEE DETAIL.

CHIMNEY REPAIR. SEE SHEET GH12.

OUTLINE OF BEAM LOCATIONS EMBEDED IN ROOF SLAB. SHOWN ON SHEET GH02. ALLOW CONCRETE CRACK REPAIR (TOP OF ROOF SLAB) ALL ALONG EACH STEEL BEAM. PLUS 20 ADDITIONAL METRES. ALSO ALLOW FOR 20m² SL REPAIRS OVER ROOF SLAB. AVERAGE 75mm DEPTH OVER VARIOUS LOCATIONS. PLUS 6m² THROUGH SLAB, TBR REPAIR.
GUARDHOUSE - ELEVATION A

NOTES
FOR INFORMATION ONLY:
WOOD WINDOWS TO BE REMOVED AND REINSTALLED BY OTHERS. WOOD WINDOW PLUG BY OTHERS TO BE REMOVED AND REINSTALLED AS REQUIRED UNDER THIS CONTRACT, TO PERFORM CONCRETE REPAIRS AND LINTEL REPLACEMENT WORK.

1. REMOVE ALL DEBRIS. GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 1m² SL REPAIR, 2m² SE REPAIR. SEE DETAILS

2. WOOD ROOF SYSTEM REPAIR:
   -CEDAR shake REMOVAL, PROTECTION OF WOOD DECKING.
   -WOOD FRAME DISMANTLING, FROM CONCRETE ROOF, RETAIN AND PROTECT SOUND ELEMENTS.
   -EXAMINATION OF ELEMENT CONDITION WITH DEPARTMENTAL REPRESENTATIVE
   -REPLACEMENT OF DECAYED ELEMENTS IN KIND. ALLOW FOR 10% DECKING REPLACEMENT & REPLACEMENT OF ALL METAL ANCHORS. SEE DETAIL

3. CR2 CRACK REPAIR. SEE DETAIL

4. LOCAL SPALL SL REPAIR. SEE DETAIL

5. WOOD ROOF CEDAR SHINGLE REPLACEMENT. SEE SHEETS GH03 & GH11
GUARDHOUSE - ELEVATION B

SCALE: 1:50

NOTES
FOR INFORMATION ONLY:
WOOD WINDOWS TO BE REMOVED AND REINSTALLED BY OTHERS. WOOD WINDOW PLUG BY OTHERS TO BE REMOVED AND REINSTALLED AS REQUIRED UNDER THIS CONTRACT, TO PERFORM CONCRETE REPAIRS AND LINTEL REPLACEMENT WORK.

![Diagram of GUARDHOUSE - ELEVATION B]

- CONCRETE SOUNDING EFFLORESCENCE CLEANING OVER ENTIRE SURFACE. SL REPAIRS ALLOW FOR 2m². SE REPAIRS ALLOW FOR 5m². P PARGING REPAIRS ALLOW FOR 5m². SEE DETAILS & respectively.

- WOOD ROOF SYSTEM REPAIR:
  - CEDAR SHAKE REMOVAL, PROTECTION OF WOOD DECKING
  - WOOD FRAME DISMANTLING, FROM CONCRETE ROOF, RETAIN AND PROTECT SOUND ELEMENTS.
  - EXAMINATION OF ELEMENT CONDITION WITH DEPARTMENTAL REPRESENTATIVE.
  - REPLACEMENT OF DECAYED ELEMENTS IN KIND. ALLOW FOR 10% DECKING REPLACEMENT & REPLACEMENT OF ALL METAL ANCHORS. SEE DETAIL.

- CR1 CRACK REPAIR ALL ALONG. SEE DETAIL
- CR2 CRACK REPAIR. SEE DETAIL

- CR3 CRACK REPAIR WITH LINTEL REPLACEMENT. COORDINATE WITH WINDOW REMOVAL / RESTORATION. SEE DETAIL
- CR4 CRACK REPAIR. SEE DETAIL
- LOCAL SPALL SL REPAIR. SEE DETAIL
- EROSION SPALL SE REPAIR. SEE DETAIL
- FR REPAIR ALL ALONG FAScia. SEE DETAIL
- P PARGING REPAIR IN HIGHLIGHTED AREA. SEE DETAIL

- WOOD ROOF CEDAR SHAKE REPLACEMENT. SEE SHEETS GH03 AND GH11
GUARDHOUSE - ELEVATION C

SCALE: 1:50

(WITH LATRINE)

NOTES

CONCRETE SOUNDING EFFLORESCENCE CLEANING OVER ENTIRE SURFACE. SL REPAIRS ALLOW FOR 1m². SE REPAIRS ALLOW FOR 1m². P GARGOYE REPAIRS ALLOW FOR 1m². SEE DETAILS.

WOOD ROOF SYSTEM REPAIR.

-CECIL SHAKE REMOVAL. PROTECTION OF WOOD DECKING.

-WOOD FRAME DISMANTLING. FROM CONCRETE ROOF, RETAIN AND PROTECT SOUND ELEMENTS.

-EXAMINATION OF ELEMENT CONDITION WITH DEPARTMENTAL REPRESENTATIVE. REPLACEMENT OF DECAYED ELEMENTS IN KIND. ALLOW FOR 10% DECKING REPLACEMENT & REPLACEMENT OF ALL METAL ANCHORS. SEE DETAIL.

CR2 CRACK REPAIR. SEE DETAIL

CR3 CRACK REPAIR WITH LINTEL REPLACEMENT. COORDINATE WITH WINDOW REMOVAL / RESTORATION. SEE DETAIL

CR4 CRACK REPAIR. SEE DETAIL

GUARDHOUSE - ELEVATION D

SCALE: 1:50

(WITHOUT LATRINE)

LOCAL SPALL SL REPAIR. SEE DETAIL

FR REPAIR ALL ALONG FASCIA. SEE DETAIL

REMOVE. REPLACE CONDUIT IN KIND.

WOOD ROOF CEDAR SHAKE REPLACEMENT. SEE SHEETS GH03 & GH11

WOOD ELEMENTS SAND & REPAINT. SEE SPEC FOR DETAILS.

LOCAL SPALL SL REPAIR ALL ALONG AFTER WOOD REMOVED FOR WOOD ROOF SYSTEM REPAIR

DR DRAIN REPAIR
NOTES

CONCRETE SOUNDING EFFLORESCENCE CLEANING OVER ENTIRE SURFACE. LOCAL SPALL REPAIRS ALLOW FOR 1m². SE REPAIRS ALLOW FOR 1m². P DRAINING REPAIRS ALLOW FOR 3m². SEE DETAILS & respectively.

WOOD ROOF SYSTEM REPAIR:
- CEDAR SHAKE REMOVAL, PROTECTION OF WOOD DECKING.
- WOOD FRAME DISMANTLING, FROM CONCRETE ROOF, RETAIN AND PROTECT SOUND ELEMENTS.
- EXAMINATION OF ELEMENT CONDITION WITH DEPARTMENTAL REPRESENTATIVE
- REPLACEMENT OF DECAYED ELEMENTS IN KIND. ALLOW FOR 10% DECKING REPLACEMENT & REPLACEMENT OF ALL METAL ANCHORS. SEE DETAIL

CR1 CRACK REPAIR ALL ALONG. SEE DETAIL

BUILD UP GRADE FOR 10% SLOPE AWAY FROM WALL

CR4 CRACK REPAIR. SEE DETAIL

LOCAL SPALL SL REPAIR. SEE DETAIL

TOP OF WALL CAP/COPING REPAIR (TYPICAL). SEE DETAIL

FR REPAIR ALL ALONG FASCIA. SEE DETAIL

SE REPAIR. SEE DETAIL

CR2 CRACK REPAIR. SEE DETAIL

GUARDHOUSE - ELEVATION E

SCALE 1:50

GUARDHOUSE - ELEVATION F

SCALE 1:50

NOTES FOR ELEVATION F ONLY:
- ALLOW FOR 1m² OF SL REPAIRS
- ALLOW FOR 1m² OF SE REPAIRS
- ALLOW FOR 3m² OF P REPAIRS
EXISTING CORRODED STEEL LINTEL REMOVED AND REPLACED WITH NEW MATCHING EXISTING SIZE AND PROFILE.

FOUR EXISTING WOOD WINDOWS WILL BE REMOVED AND RESTORED OFF SITE BY OTHERS WHO WILL ALSO INSTALL TEMPORARY WOOD WINDOW PLUG. UNDER THIS CONTRACT, WINDOW PLUG TO BE MAINTAINED, REMOVED REINSTALLED AS REQUIRED TO PERFORM THE WORK AS PART OF THIS CONTRACT. REFER TO PLAN FOR WINDOW LOCATIONS.

CONCRETE REPAIR "CRY" TYPICAL FROM INTERIOR. SEE DETAIL

EXISTING SLAB ON GRADE (DEPTH UNKNOWN)

EXISTING VENTED AIR SPACE

CONCRETE SLAB ON GRADE (DEPTH UNKNOWN)

CONCRETE PAD (SIZE & DEPTH UNKNOWN)

EXISTING VERTICAL GUN LOOPHOLE

EXISTING WOOD FLOOR TO BE CAREFULLY PROTECTED.

REINSTATE AIR CIRCULATION IN EACH ROOM BY OPENING UP EXISTING VENTING. APPLY REMOVABLE FRAME CW DIAMOND BACK SCREEN OR SIMILAR TO PREVENT RODENT INFILTRATION AT EACH OPENING IN CRAWLSPACE. TERRA-COTTA VENT TO REMAIN INTACT. TYPICAL FOR ALL.

GUARDHOUSE - SECTION

SCALE: 1:30
EXISTING ROOFING SYSTEM

EXISTING FLASHING

EXISTING CEDAR SHAKES

EXISTING 19x89 - TONGUE & GROOVE PLANKS

EXISTING CORRODED W6x25 STEEL LINTEL FOR REPLACEMENT

EXISTING WOOD RAFTER W/ MOULDING

EXISTING ANCHOR EXISTING 38x89 WOOD BLOCKING EMBEDDED INTO CONCRETE

EXISTING STEEL BEAM EMBEDDED

EXISTING CONCRETE FOR REMOVAL AND REPLACEMENT, REQUIRED FOR LINTEL REPLACEMENT

EXISTING WINDOW OPENING

GUARDHOUSE - CANOPY CONNECTION @ WALL AND ROOF (EXISTING)

SCALE: NTS
EXISTING EMBEDDED STEEL BEAM

- ROOF MEMBRANE
  - 1 BASE COAT ON CLEAN CONCRETE ROOF SLAB
  - 1 BASE COAT WITH MESH OVER-LAP METAL DRIP EDGE
  - 2ND BASE COAT WITH MESH (4" TO 6" WIDE)
  - 2 BASE COATS
  - 2 TOP COATS

DEPRESSION CUT AND GRINDED ALONG SOUND CONCRETE EDGE 100mm WIDE x 5mm DEEP MAX.
TO SUIT NEW FLASHING

S.S. FLASHING
FASTENERS

NEW FLASHING INSTALLATION
TO COVER ENTIRE EXPOSED EDGE
BASE COAT COVER ENTIRE EXPOSED EDGE OF CONCRETE

EXISTING DRIP EDGE
MAINTAINED

NEW FLASHING INSTALLATION W/NEW REGLET & FLASHING -
FORMED AND CUT TO SUIT W/ LEAD WEDGES TO SECURE IN REGLET

100% NEW CEDAR SHAKES
REPLACEMENT

EXISTING 19X38 - TONGUE & GROOVE PLANKS REINSTALLED

NEW WATERPROOF MEMBRANE OVERTOP OF RAFTERS

WOOD RAFTERS REINSTATED (ALLOW FOR 20% REPLACEMENT IN KIND)

NEW PRE-PAINTED CUSTOM MILLED BLOCKING TO FIT RAFTER W/ WATERPROOF MEMBRANE

NEW 12mm S.S. ANCHORS INSTALLATION WITH EPOXY (100mm DEEP & 13mm THICK) BETWEEN EVERY RAFTER

SL REPAIR AND FILL SLOT LEFT AFTER WOOD BLOCKING REMOVED WITH PARGING MIX

CORRODED STEEL UNTIL TO BE REPLACED WITH NEW TO MATCH, W/150 x 100 HOT-DIPPED GALVANIZED

WINDOW PLUG BY OTHERS - REMOVE AND REINSTALL AS REQUIRED

GUARDHOUSE - CANOPY CONNECTION @ ROOF AND WALL
(NEW)
GUARDHOUSE - CHIMNEY SADDLE INSTALLATION

(NEW - SECTION)

GUARDHOUSE - CHIMNEY SADDLE INSTALLATION

(NEW - ELEVATION)

GUARDHOUSE - CHIMNEY SADDLE INSTALLATION

(NEW - TOP VIEW)
REINFORCING NOTES:

A - NEW SLOTS CUT INTO ROOF SLAB COMPLETE WITH NEW REINFORCING 20mm S.S. BARS, TYPICAL ALL LOCATIONS. SEE DETAIL.

B - NEW REINFORCING 20mm S.S. BARS, 150mm EMB. ON ONE SIDE ONLY, AS SHOWN ON PLAN.

C - NEW 900mm LENGTH, 20mm S.S. BARS, 300mm EMB. INTO ADJACENT CONCRETE (TYP.) W/ EPOXY ADHESIVE.

D - NEW REINFORCING 20mm S.S. BARS, 300mm EMB. ON ONE SIDE ONLY (AS SHOWN ON PLAN) @ 400 o.c. PLACE OTHER END OF BAR 25mm AWAY FROM BEAM'S WEB (AS SHOWN IN DETAIL).

E - NEW REINFORCING 20mm S.S. BARS @ 400 o.c. PLACE END OF BAR 25mm AWAY FROM BEAM'S WEB AS SHOWN IN DETAIL.

F - 10mm S.S. BENT SHORT DOWELS
GUARDHOUSE - THROUGH SLAB REPAIR
(NEW - ELEVATION)

REINFORCING NOTES:

A - NEW SLOTS CUT INTO ROOF SLAB COMPLETE WITH NEW REINFORCING 20mm S.S. BARS, TYPICAL ALL LOCATIONS. SEE DETAIL

B - NEW REINFORCING 20mm S.S. BARS, 150mm EMB. ON ONE SIDE ONLY, AS SHOWN ON PLAN.

C - NEW 900mm LENGTH, 20mm S.S. BARS, 300mm EMB. INTO ADJACENT CONCRETE (TYP.) W/ EPOXY ADHESIVE.

D - NEW REINFORCING 20mm S.S. BARS, 300mm EMB. ON ONE SIDE ONLY (AS SHOWN ON PLAN) @ 400 o.c. PLACE OTHER END OF BAR 25mm AWAY FROM BEAM'S WEB (AS SHOWN IN DETAIL)

E - NEW REINFORCING 20mm S.S. BARS @ 400 o.c. PLACE END OF BAR 25mm AWAY FROM BEAM'S WEB AS SHOWN IN DETAIL.

F - 10mm S.S. BENT SHORT DOWELS
DEFENSIBLE WALLS
LOWER BATTERY

GENERAL NOTES:
- MISC FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.

LOWER BATTERY WALLS SITE PLAN AND ELEVATION KEY
1. **RECTIFIED ELEVATION A**
   - SCALE: 1:50

2. **RECTIFIED ELEVATION A - CONT'D**
   - SCALE: 1:50

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**NOTES**

- REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.5m² SL REPAIR; 2m² SE REPAIR; & 1m² PARGING REPAIR. SEE DETAILS RESPECTIVELY.

- CR1 CRACK REPAIR. SEE DETAIL.

- ALLOW FOR 10m CR2 CRACK REPAIR. SEE DETAIL.

- TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS; & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL.

- LOCAL SPALL SL REPAIR. SEE DETAIL.

- EROSION SPALL SE REPAIR. SEE DETAIL.

- PARGING REPAIR TO FILL HOLES IN HIGHLIGHTED AREA. SEE DETAIL.
**RECTIFIED ELEVATION B**

**SCALE: 1:50**

**NOTE: REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.5m² SL REPAIR, 2m² SE REPAIR, & 2m² PARGING REPAIR. SEE DETAILS & RESPECTIVELY.**

**ALLOW FOR 25m CR2 CRACK REPAIR. SEE DETAIL.**

**RECTIFIED ELEVATION B - CONT'D**

**SCALE: 1:50**

**NOTE: TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS, & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL.**

**EROSION SPALL SE REPAIR. SEE DETAIL.**
RECTIFIED ELEVATION B - CONT'D

NOTES

⚠ REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.5m² SL REPAIR, 3m² SE REPAIR, & 2m² PARGING REPAIR. SEE DETAILS RESPECTIVELY.

⚠ ALLOW FOR 30m CR2 CRACK REPAIR. SEE DETAIL.

⚠ TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS; & 100% PARGING REPAIRS ON COPING AND FASCIA. SEE DETAIL.

⚠ EROSION SPALL SE REPAIR. SEE DETAIL.
NOTES

\[ \text{REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.25m² SL REPAIR; 0.5m² SE REPAIR; & 1m² PARGING REPAIR. SEE DETAILS} \]

\[ \text{ALLOW FOR 20m CR2 CRACK REPAIR. SEE DETAIL} \]

\[ \text{TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS; & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL} \]
RECTIFIED ELEVATION H

NOTES

1. REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.5m² SL REPAIR; 2m² SE REPAIR; & 2m² PARGING REPAIR. SEE DETAILS RESPECTIVELY.

2. ALLOW FOR 25m CR2 CRACK REPAIR. SEE DETAIL

3. CR4 CRACK REPAIR. SEE DETAIL

4. TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR; VARIOUS LOCATIONS; & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL

5. LOCAL SPALL SL REPAIR. SEE DETAIL

6. EROSION SPALL SE REPAIR. SEE DETAIL

7. PARGING REPAIR TO HINT HOLES IN HIGHLIGHTED AREA. SEE DETAIL
NOTES

- REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.5m² SL REPAIR; 1m² SE REPAIR; & 1m² PARGING REPAIR. SEE DETAILS & RESPECTIVELY.

- ALLOW FOR 10m CR2 CRACK REPAIR. SEE DETAIL

- CRM CRACK REPAIR. SEE DETAIL

- TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS. & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL

- PARGING REPAIR TO FILL HOLES IN HIGHLIGHTED AREA. SEE DETAIL
NOTES

1. REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 1 m² SL REPAIR, 4 m² SE REPAIR, & 2 m² PARING REPAIR. SEE DETAILS RESPECTIVELY.

2. ALLOW FOR 40 m CR2 CRACK REPAIR. SEE DETAIL.

3. TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 1 m² SL REPAIR, VARIOUS LOCATIONS; & 100% PARGING REPAIR ON COPING AND PASCIA SEE DETAIL.
NOTES

REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 1m² SL REPAIR, 2m² SE REPAIR; & 2m² PARGING REPAIR. SEE DETAILS.

ALLOW FOR 30m CR2 CRACK REPAIR. SEE DETAIL.

TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 1m² SL REPAIR, VARIOUS LOCATIONS; & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL.

EROSION SPALL SE REPAIR. SEE DETAIL.

LOCAL SPALL SL REPAIR. SEE DETAIL.
NOTES

\[\text{REMOVE ALL EFFLORESCENCE, DEBRIS, GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 1m² SL REPAIR, 2m² SE REPAIR, & 2m² PARGING REPAIR. SEE DETAILS} \]

\[\text{ALLOW FOR 3m CR2 CRACK REPAIR. SEE DETAIL} \]

\[\text{TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS & 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL} \]

\[\text{EROSION SPALL SE REPAIR. SEE DETAIL} \]

\[\text{TOP SURFACE REPAIR ALL OVER. ALLOW FOR 20m CR2 REPAIR. ALLOW FOR 0.5m² SL REPAIR, VARIOUS LOCATIONS. SEE DETAIL} \]

\[\text{PARGING REPAIR TO FILL HOLES IN HIGHLIGHTED AREA. SEE DETAIL} \]

\[\text{DR DRAINAGE REPAIR} \]
**ORTHOGRAPHIC WALL AND STAIR PLAN**

**NOTES**

- COPING AND FASCIA FOR ENTIRE LOWER BATTERY DEFENSIVE WALL APPROXIMATELY 150m² SURFACE AREA
- ALLOW FOR 60m CR2 CRACK REPAIR. SEE DETAIL
- TOP OF WALL CAP / COPING REPAIR ALL ALONG. ALLOW FOR 2m³ SL REPAIR. VARIOUS LOCATIONS. 100% PARGING REPAIR ON COPING AND FASCIA. SEE DETAIL.
- TOP SURFACE REPAIR ALONG STAIRS. ALLOW FOR 30m CR2 REPAIR (NO CAULKING). ALLOW FOR 3m³ SL REPAIR. VARIOUS LOCATIONS. SEE DETAIL.
SEARCHLIGHT ENGINE ROOM

GENERAL NOTES:
-MISC FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.
SEARCHLIGHT ENGINE ROOM - PLAN

GENERAL NOTES:
1. PROVIDE ENGINEER CERTIFIED TEMPORARY SHORING PRIOR TO BEAM POCKET REPAIRS
2. EFFLORESCENCE DEPOSIT AND LOOSE PAINT REMOVAL, SCRAPE AND SAND, ALL WALLS AND SOFFIT.

NOTES:

- BEAM POCKET REPAIR (TYPICAL) EACH BEAM END. EACH STEEL BEAM. SEE DETAIL
- EXTERIOR WALL ABOVE
- BULKHEAD ABOVE / CEILING HEIGHT CHANGE
- VENT OPENINGS ABOVE (TYPICAL)
  - 10mm S.S. DOWELS EQUAL SPACING BETWEEN STEEL BEAMS TYPICAL FOR EACH SLOT. SEE DETAIL
  - 5 NEW SLOTS CUT INTO ROOF SLAB COMPLETE WITH NEW REINFORCING 20mm S.S. BARS. TYPICAL FOR ALL LOCATIONS. SEE DETAIL
- S.S. BAR TERMINATED 130mm BACK FROM OUTSIDE EDGE OF SLAB TYPICAL EACH END
  - BEAM INSPECTION OPENING, MID-SPAN OF EACH BEAM. SEE DETAIL.
SEARCHLIGHT ENGINE ROOM - ELEVATION A

NOTES

- CR1 CRACK REPAIR. SEE DETAIL
- CR2 CRACK REPAIR (TYPICAL UNLESS OTHERWISE NOTED). SEE DETAIL
- CR4 CRACK REPAIR. SEE DETAIL
- SCRAPE, SAND AND REPAINT ALL METAL GRILLS (TYPICAL)
- REMOVE EXISTING ANCHORS. LOCAL SPALL REPAIR. SEE DETAIL
- PARGING REPAIR IN HIGHLIGHTED AREA. SEE DETAIL
- REMOVE BIOLOGICAL GROWTH WITHIN HIGHLIGHTED AREA
- FR REPAIR AND REMOVE ELASTOMETRIC COATING ALL ALONG
SEARCHLIGHT ENGINE ROOM - ELEVATION B

SCALE: 1:50

NOTES

⚠ CR1 REPAIR. SEE DETAIL
⚠ CR2 REPAIR. SEE DETAIL
⚠ FR REPAIR AND REMOVE ELASTOMETRIC COATING ALL ALONG. SEE DETAIL
⚠ NEW REGLET AND ROOF MEMBRANE TERMINATION. SEE DETAIL
SEARCHLIGHT ENGINE ROOM - ELEVATION C

NOTES

⚠️ FR REPAIR AND REMOVE ELASTOMETRIC COATING ALL ALONG. SEE DETAIL.
SEARCHLIGHT ENGINE ROOM - ELEVATION D

NOTES

⚠️ CR1 CRACK REPAIR. SEE DETAIL

⚠️ CR2 CRACK REPAIR. SEE DETAIL

⚠️ FR REPAIR AND REMOVE ELASTOMETRIC COATING ALL ALONG. SEE DETAIL
SEARCHLIGHT ENGINE ROOM - ROOF PLAN

SCALE: 1:50

GENERAL NOTES:
REMOVAL OF EXISTING ROOFING TO INCLUDE ELASTOMETRIC COATING APPLIED TO FASCIAS

NOTES

- EXISTING ROOFING SYSTEM TO BE REMOVED AND REPLACED WITH NEW. SEE ROOFING DETAILS.
- REMOVE AND REPLACE ALL 4 EXISTING VENTS. REFER TO SPECIFICATIONS.
- APPROX. EXISTING EMBEDDED BEAM LOCATION (TYPICAL).
- CRACK REPAIR OVER BEAM. TYPICAL. SEE DETAIL (Image)
EXISTING CONCRETE ROOF W/ PARGING

EXISTING DRIP EDGE

EXISTING CONCRETE WALL

EXISTING MORTAR CANT

EXISTING CONCRETE ROOF W/ PARGING

EXISTING DRIP EDGE

EXISTING CONCRETE WALL

EXISTING MORTAR CANT

EXISTING CONCRETE ROOF W/ PARGING

SEARCHLIGHT ROOF EDGE
(EXISTING)

SEARCHLIGHT ROOF EDGE
(NEW REPAIR)

NOTE: FLASHING IS REQUIRED ON ALL EDGES OF NEW AND REPAIRED CONCRETE FOR SEARCHLIGHT ENGINE BUILDING (REMOVED ON OTHER DRAWINGS FOR CLARITY OF CONCRETE REPAIRS)

SPECIFIED MEMBRANE TO EXTEND OVER FLASHING

FLASHING TO BE SECURED TO EXISTING CONCRETE & EXTEND OVER FASCIA

NEW OR REPAIRED CONCRETE. SEE SHEET

SPECIFIED COATING

NEW MORTAR CANT INSTALLATION 75mm [3"] x 75mm [3"]

NEW OR REPAIRED CONCRETE. SEE SHEET

ROOF COATING SYSTEM

- 1 BASE COAT ON CLEAN CONCRETE ROOF
- 1 BASE COAT WITH MESH OVER-LAP
- 2 BASE COATS
- 2 TOP COATS

SEE TYPICAL DETAIL OF METAL FASCIA EDGE THIS SHEET

FACTORY FINISHED METAL FLASHING TO ENTIRE ROOF OVER NEW OR REPLACED CONCRETE

ROOF COATING SYSTEM

PROTECTED S.S. METAL FASTENER

BASE COAT OVER ENTIRE EXPOSED EDGE

EXISTING DRIP EDGE MAINTAINED

TYPICAL DETAIL OF METAL FASCIA EDGE
(EXCEPT DOWNWARD SIDE)
SEARCH LIGHT ENGINE CISTERN

LOCATION OF SEARCH LIGHT ENGINE CISTERN

SITE PLAN

ELEVATION KEY
SEARCHLIGHT CISTERN - ROOF PLAN

NOTES

VEGETATION OVER GROWTH. REMOVE TO COMPLETELY
EXPOSE CONCRETE PRIOR TO CONCRETE REPAIRS

REMOVE ALL EFFLORESCENCE / BIOLOGICAL GROWTH TO
COMPLETE TOP SURFACE REPAIR

CR2 CRACK REPAIR TYPICAL. SEE DETAIL

TOP SURFACE REPAIR OVER ENTIRE SURFACE AS REQUIRED
NOTES

VEGETATION OVER GROWTH. REMOVE TO COMPLETELY
EXPOSE CONCRETE PRIOR TO CONCRETE REPAIRS

REMOVE ALL EFFLORESCENCE / BIOLOGICAL GROWTH TO
COMPLETE TOP SURFACE REPAIR

CR2 CRACK REPAIR TYPICAL. SEE DETAIL

REMOVE ALL DEBRIS, GROWTH FROM CONCRETE. CONCRETE
SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR
0.5m² SL REPAIR, 1m² SE REPAIR, & 1m³ PARKING REPAIRS. SEE
DETAILS

SEARCHLIGHT CISTERN - ELEVATION A

SCALE: 1:30
SEARCHLIGHT CISTERN - ELEVATION B

SCALE: 1:30

NOTES

⚠️ VEGETATION OVER GROWTH. REMOVE TO COMPLETELY EXPOSE CONCRETE PRIOR TO CONCRETE REPAIRS

⚠️ REMOVE ALL DEBRIS. GROWTH FROM CONCRETE. CONCRETE SOUNDING AND REPAIR OVER ENTIRE SURFACE. ALLOW FOR 0.5m² SL REPAIR, 1m² SE REPAIR, & 1m² PARGING REPAIRS. SEE DETAIL

⚠️ CR2 CRACK REPAIR TYPICAL. SEE DETAIL

⚠️ TOP SURFACE REPAIR OVER ENTIRE SURFACE AS REQUIRED

⚠️ METAL DRAIN PIPE. SAND & REPAINT.
UNDERGROUND MAGAZINE
LOWER BATTERY
UNDERGROUND MAGAZINE FLOOR PLAN

NOTES

- EXISTING EMBEDDED STEEL BEAMS
- REMOVE PARGING COVER ON BEAMS TO EXPOSE UNDERSIDE. CONCRETE WALLS & SOFFIT - SOUND ALL SURFACES AND REMOVE ALL LOOSE PAINT. SEE SPEC FOR DETAILS
- BEAM POCKET REPAIR EACH END OF BEAM. SEE DETAIL
- BEAM EDGE REPAIR. SEE DETAIL

- EFFLORESCENCE DEPOSITS CLEANING OVER ALL WALLS, SOFFITS, VAULTS 2 SEPARATE TIMES, AT START OF CONSTRUCTION AND COMPLETION OF ALL OTHER WORKS
- PAINTED WALLS AND VAULTS - SCRAPE AND SAND LOOSE PAINT REMOVAL. SEE SPEC FOR DETAIL.
- DR DRAIN REPAIR
WEST GUN EMPLACEMENT

LOWER BATTERY

GENERAL NOTE:
- MISCELLANEOUS FEATURES HAVE BEEN REMOVED FROM ELEVATIONS TO PROVIDE MAXIMUM BUILDING DETAIL.

SITE PLAN

ELEVATION KEY
**NOTES**

1. **CR2 CRACK REPAIRS OVER ENTIRE SURFACE. CRACKS SHOWN ARE EXAMPLE CRACKS TO BE REPAIRED. SEE DETAIL.**
2. **CR2 CRACK REPAIRS EXTEND TO EXPOSED EDGE AND DOWN APPROX. 150mm OVER EDGE. SEE DETAIL.**
3. **DR DRAIN REPAIR.**
4. **SL (LOCAL SPALL) REPAIR OVER ENTIRE SURFACE. REMOVE ALL DEBRIS & GROWTH FROM CONCRETE BEFORE COMMENCING WORK. SEE DETAIL.**
5. **EXCAVATE APPROX. 300mm ALONG ENTIRE EDGE. SL REPAIRS ALL ALONG. FORMED FOR CLEAN EDGE.**

**WEST GUN EMLACEMENT - SITE PLAN**

1. **TSR (TOP SURFACE REPAIR) OVER ENTIRE UPPER AND LOWER SURFACES. INCLUDING INSIDE OF GUN PLATFORM. SEE DETAIL.**
2. **AVERAGE 300mm OF OVERGROWTH REMOVAL ALL AROUND TOP OF GUN PLATFORM**
3. **REMOVE VEGETATION OVERGROWTH ALL AROUND TO COMPLETELY EXPOSE CONCRETE EDGE PRIOR TO COMMENCING CONCRETE REPAIRS.**
4. **CR4 CRACK REPAIR AT SLABWALL JUNCTION. CONTINUED 150mm ± OVER EDGE. SEE DETAIL.**
5. **SL REPAIR PLUS RAISED SURFACE OVER SPAN OF 150mm ± SLOPED AWAY FROM WALL. SEE DETAIL.**

**GENERAL NOTES:**

OVER ENTIRE AREA, VARIOUS LOCATIONS:

- ALLOW FOR 50m² OF CR2 REPAIRS
- ALLOW FOR 10m² OF SL REPAIRS, VARIOUS LOCATIONS
- ALLOW FOR 10m² OF SE REPAIRS, VARIOUS LOCATIONS

**SL REPAIR UNDER CONCRETE PAD TO ACHIEVE FULL BEARING.**

**CLEAN TRACK REPAIR.**

**CLEAN OUT / REMOVE GROWTH - CIRCULAR TROUGH AROUND INSIDE OF GUN EMLACEMENT - DRAIN TO DRAIN.**

**CREATE TROUGH TO DRAIN AS PART OF CR / SL REPAIR.**
WEST GUN EMPLACEMENT - ELEVATION A

WOOD
SCALE: 1:60

WEST GUN EMPLACEMENT - ELEVATION B

WOOD ELEMENTS TO BE REPAIRED BY OTHERS. COORDINATE CONSTRUCTION WITH DEPARTMENTAL REPRESENTATIVE

NOTES

⚠️ CR2 REPAIR (TYPICAL). SEE DETAIL

⚠️ FASCIA REPAIR (FR) AND LOCAL SPALL (SL) REPAIR ALONG. SEE DETAIL

⚠️ EFFLORESCENCE DEPOSIT CLEANING OF CONCRETE WALLS AND SOFFITS; 2 TIMES (TYPICAL) ONCE AT START AND ONCE AT FINISH OF OTHER WORKS.

⚠️ SE REPAIR OVER ERODED SURFACES. (TYPICAL) SEE DETAIL

⚠️ CR4 REPAIR AT VERTICAL WALL JUNCTION

⚠️ STONE RESET AND REPOINT REPAIR OVER STONE WALL
WEST GUN EMBLACEMENT - ELEVATION C

SCALE: 1:50

WEST GUN EMBLACEMENT - ELEVATION D

SCALE: 1:50

NOTES

- Fascia repair (FR) and local spall (SL) repair all along. See detail.
- Local spall (SL) repair. See detail.
- SE repair over eroded surfaces. (Typical) See detail.
- Wood frame & door replacement. Full replacement with existing hardware by others.
- Stone repoint & reset repair over stone wall.
CR1 ROOF/WALL JUNCTION CRACK FROM CORROSION JACKING (EXISTING, EXPOSED STEEL BEAM)

NOTE: THIS DRAWING IS A REPRESENTATION OF EXISTING CONDITION. FOR REFERENCE ONLY.

CR1 ROOF/WALL JUNCTION CRACK (REPAIR).
EMBEDDED OR EXPOSED BEAM - BEAM NOT SHOWN FOR CLARITY

CR1 ROOF/WALL JUNCTION CRACK FROM CORROSION JACKING (EXISTING, EMBEDDED STEEL BEAM)

NOTE: THIS DRAWING IS A REPRESENTATION OF EXISTING CONDITION. FOR REFERENCE ONLY.
CR2 GENERAL CRACK (EXISTING)

CRACK REPAIR MIX AS REQUIRED TO SQUARE OFF EDGE OF SAW-CUT
CRACK REPAIR MIX TO FILL SAW CUT AS DEEP AS POSSIBLE WITH HAND TOOLS

CR2 GENERAL CRACK (REPAIR)

12-20mm

SAND AGGREGATE FINISH
SEALANT AT 2:1 WIDTH/DEPTH RATIO
BACKER ROD / BOND BREAKER
SAW-CUT, ROUT OUT EXISTING CRACK TO SOUND MATERIAL DEPTH TO SUIT. SAW-CUT JUST BEYOND CRACK AS REQUIRED TO SUIT EXTENT OF LOOSE OR DETERIORATED CONCRETE EACH SIDE OF JOINT
EXISTING CRACK

CRACK REPAIR MIX AS REQUIRED TO SQUARE OFF EDGE OF SAW-CUT

CR2 CRACK WITH SPALL (EXISTING)

LINE OF SAW CUT MIN 12mm DEEP
12-75mm SHALLOW SPALL MIX PER REPAIR BL
>75mm DEEP SPALL MIX PER REPAIR BL

SAND AGGREGATE REPAIR
SEALANT AT 2:1 WIDTH/DEPTH RATIO
BACKER ROD / BOND BREAKER
CRACK REPAIR MIX 12-25mm DEEP REPAIR
EDGE OF REMOVAL TO SOUND CONCRETE
EXISTING CRACK

CRACK REPAIR MIX AS REQUIRED TO SQUARE OFF EDGE OF SAW-CUT
CRACK REPAIR MIX TO FILL SAW CUT AS DEEP AS POSSIBLE WITH HAND TOOLS

CRACKED, DELAMINATED AT EDGE OF CRACK

CR2 CRACK WITH SPALL (REPAIR)

NOTE: THIS DRAWING IS A REPRESENTATION OF EXISTING CONDITION. FOR REFERENCE ONLY.

NOTE: WITHOUT CAULKING ONLY WHERE NOTED ON PLAN DRAWINGS.
CR2 REPAIR FROM EXTERIOR / INTERIOR

4 - 20M GRP DOWELS 50mm LENGTH, VERTICALLY AND DIAGONAL INTO WALL. INSTALLED TO STITCH ACROSS CRACK FROM EXTERIOR. SET IN EPOXY ADHESIVE. 3mm EMBEDMENT FROM SURFACE. PLUG DRILL HOLE WITH PARING REPAIR MIX.

CR2 DOOR HEAD CRACK (PINNING REPAIR) - PLAN VIEW -

EMBEDMENT DETAIL (TYP.)

CR3 DOOR HEAD CRACK (PINNING REPAIR) - ELEVATION VIEW -
EXISTING STEEL LINTEL EMBEDDED IN CONCRETE W6 x 25

CONCRETE SPALLING, DELAMINATION ADJACENT TO CRACK. REPAIR PER CR2, WHERE CONCRETE DETERIORATION ADJACENT TO CRACK IS NOT SEVERE.

WHERE CONCRETE DETERIORATION IS SEVERE, REMOVE CONCRETE TO EXPOSE STEEL LINTEL (EXTERIOR SIDE). CLEAN CORROSION, REPAIR & DEEP SPALL PER REPAIR TYPE 8L LOCAL SPALL REPAIR. IN CASE OF SEVERE CORROSION LINTEL WALL REQUIRE REPLACEMENT. REFER TO 1:100

CR3 - WITHOUT LINTEL REPLACEMENT (REPAIR)

FOR CR3 WITH LINTEL REPLACEMENT REFER TO GUARD HOUSE DRAWING PACKAGE DETAILS OR 1:100

SCALE: NTS

PARKS CANADA AGENCY
FORT ROBB HILL N.H.S.

CONCRETE REPAIR CR3 DETAILS

PUBLIC WORKS AND GOVERNMENT SERVICES CANADA
1305-350 KING STREET WEST TORONTO, ON M5V 2C9

07EDM 0.2 / BOX 2241

TM DUMPHRY / PREDTIAL PAUL

0.76F215.001

PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
FR FASCIA (REPAIR)

- SAW-CUT AS REQUIRED
- AT JUNCTION OF NEW AND EXISTING PARGING

P PARGING (REPAIR)

- SAW-CUT AS REQUIRED
- AT JUNCTION OF NEW AND EXISTING PARGING

VARIES 12-75mm

SHALLOW SPALL, SL.
REPAIR AS REQUIRED.
SEE DETAILS

ROOFING NOT SHOWN
FOR CLARITY

EXISTING CONCRETE
ROOF SLAB

6mm S.S. PINS, AT DEEP SPALL
LOCATIONS, 150mm c.c. HORIZONTAL
AND VERTICAL SPACING.
75mm EMBEDMENT INTO SOUND
CONCRETE, SET IN EPOXY ADHESIVE

1mm S.S. WIRE WRAPPED
AROUND PINS

PARGING MIX OVER AREA OF
EROSION / DELAMINATED
PARGING REMOVAL

EXISTING CONCRETE

EDGE OF SOUND
CONCRETE

EXISTING SOUND
PARGING LAYER

PARGING MIX
CR5 WALL CAP/COPING CRACKS

1:10 SCALE

ELEVATION VIEW

SECTION VIEW AT COPING CRACK REPAIR

FOR LARGER SPALLS AT CRACKS SHALLOW OR DEEP SPALL MIX PER REPAIR EL. SEE DETAIL

RESTORED Drip EDEG AT SPALL MATCH ORIGIAL FORM

RESTORED Drip EDEG AT SPALL MATCH ORIGIAL FORM

REPAIR COPING CRACK REPAIR PER CR 3 SEE DETAILS

CONCRETE COPING/CAP

CONCRETE WALL

MATCH WALL CRACK CR 2 REPAIR BELOW WHERE CRACKS CONCEDE

CRACK REPAIR MIX SEALANT AND SAND AGGREGATE FINISH PER CR 3 REPAIR SEE DETAILS

CRACK REPAIR MIX FOR REPAIR UP TO 25mm DEPTH

DEPTH OF CRACKED, SPALLED, DELAMINATED CONCRETE ADJACENT TO CRACKS VARIES

DEPTH OF CRACKED, SPALLED, DELAMINATED CONCRETE ADJACENT TO CRACKS VARIES

DEVTALL S.S. PIN AT SPALL LOCATION 150mm O.O. HORIZONTAL AND VERTICAL SPACING 75mm EMBEDMENT INTO SOUND CONCRETE SET IN EPOXY ADHESIVE

CONCRETE WALL
PARING MIX OVER ENTIRE HORIZONTAL AND VERTICAL SURFACE. DEPTH VARIES TO SUIT LEVEL. OF CONCRETE SURFACE AFTER DETERIORATED CONCRETE REMOVED. MATCH ORIGINAL CONCRETE SURFACE.

6mm SS PINS AT DEEP SPALL LOCATIONS (SAME RATE AS CRS)

TOP OF WALL CAP (COPING REPAIR)

SCALE: NTS

CRACK REPAIR CR2 AS REQUIRED. SEALANT & SAND AGGREGATE

MINOR CRACK

MAJOR CRACK

SEALANT

CRACK REPAIR CR2 AT LOCATIONS OF EXISTING COPING CRACKS THAT ALIGN WITH WALL CRACKS AND AS OTHERWISE DESIGNATED. SEE DETAIL

CONCRETE SURFACE AFTER LOOSE, DETERIORATED CONCRETE REMOVED TO SOUND CONCRETE

LOCAL SHALLOW OR DEEP SPALL REPAIR PER SL

CONTINUOUS DROP EDGE RESTORED, TO MATCH ORIGINAL (TYPICAL)

CONCRETE COPING

CONCRETE WALL / PIER

SHALLOW SPALL MIX PER LOCAL SPALL REPAIR SL AS REQUIRED 12-75mm DEPTH

PARING MIX FOR REPAIR DEPTHS

0 - 25mm AS REQUIRED

DEEP SPALL MIX PER LOCAL SPALL REPAIR SL AS REQUIRED (DEPTH>75mm)

SOUND CONCRETE

TOP SURFACE (REPAIR)

SCALE: NTS

LOWER BATTERY REHABILITATION
Fort Rodd Hill N.H.S.

CONCRETE REPAIR DETAILS

PARKS CANADA AGENCY
MARIN REGION
1. BEAM EDGE REPAIR (BER) (STEEL BEAM EMBEDDED)
   - Existing concrete roof slab
   - Existing steel beam
   - At average of one location at each steel beam, make inspection pocket. For steel beam corrosion, clean corrosion and repair to make good following inspection. Use deep spall mix and methods.

2. BEAM INSPECTION OPENING (STEEL BEAM EMBEDDED)
   - Existing concrete roof slab
   - Existing steel beam
   - New rubberized membrane under steel within pocket
   - New concrete following steel repairs, use deep spall mix and methods
   - Concrete wall beyond
   - CHP out concrete to completely expose steel beam to end of beam at roof slab wall junction and 300mm back from interior face of wall. Clean corrosion to bare metal and coat all exposed steel with corrosion protection coating.

3. BEAM POCKET REPAIR (BPR) (STEEL BEAM EMBEDDED)
   - Saw cut to expose edge of steel. All along beam. Remove corrosion and paint all along bottom and edges of steel beam to bare metal. Finish repairs to saw cut edge. Coat steel with corrosion protective coating. Review similar work at coal stores building prior to commencing work.

4. ROOF SLAB REINFORCEMENT DETAIL
   - Existing roof slab
   - 20mm S.S. threaded bar & S.S. couplers to suit
   - 10mm S.S. threaded hooked bar dowels set in epoxy adhesive and drilled at slight angle. Epoxy adhesive at junction.

5. CONCRETE CRACK REPAIR (TOP OF ROOF SLAB)
   - 25mm N/O AVERAGE
   - 50mm AVERAGE DEPTH ALONG CRACK
   - 50mm AVERAGE DEPTH FOLLOWING CRACK
   - CHP out cracked, loose concrete all along crack and repair per spall repair gl. Use shallow spall mix. See detail.