## SYMBOLS OF ALTERATIONS

### ALTERATIONS

Main items:

- Loss of original surface, leading to smoothed shapes
- Mortar joint leakage
- Fragmentation and breakage of the stone material: the complete or partial breaking up of a stone, into portions of variable dimensions that are irregular in form, thickness and volume
- Alteration of stone this symbol indicates the presence of loss of original surface, fragmentation and mortar joint leakage
- Wall with intense biological patina
- ✱ Presence of shrubby vegetation
- Graffiti Engraving, scratching, cutting or application of paint, ink or similar matter on the stone surface

### STRUCTURAL FAILURES

Main items:

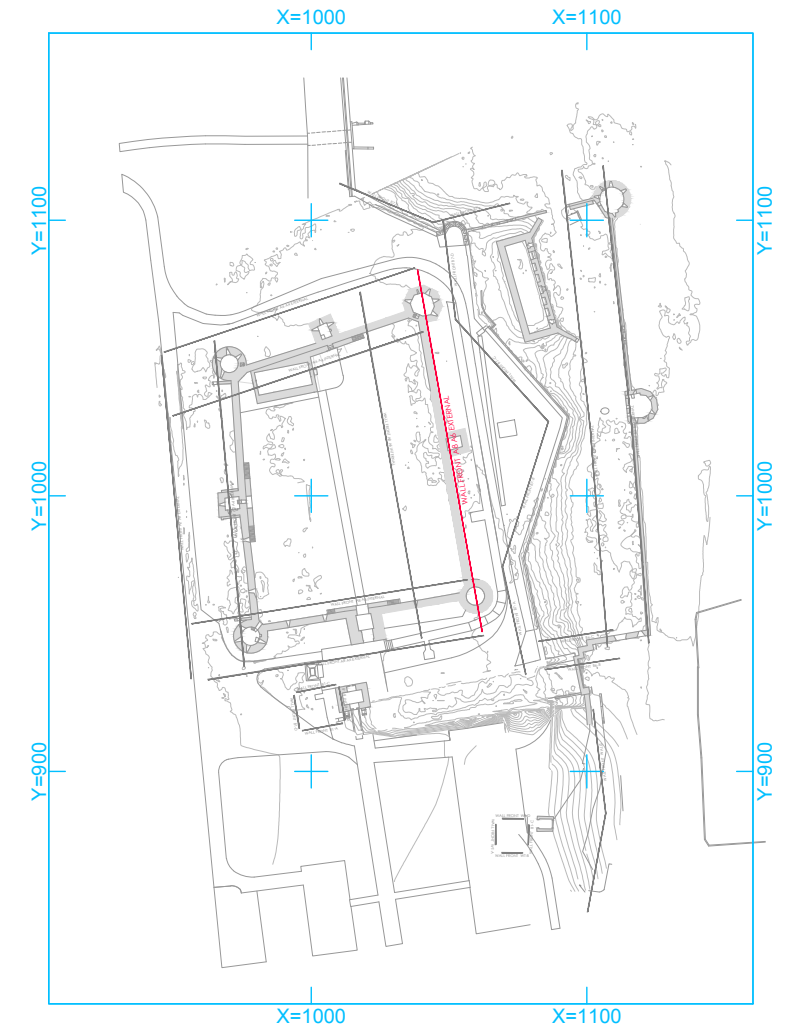
- Crack: Minor crack with a width of about 0.1 mm
- Deep crack: Crack that crosses completely the stone piece
- Filled crack
- Detachment of the facing stones
- Swelling
- Collapse

### RECENT INTERVENTIONS

Main items:

- Cementitious patches
- Roof tiles
- Layer of cement plaster

- Not detectable



N

This project is funded by the European Union

European Union Confidence Building Measures Programme
Programul Uniunii Europene "Măsuri de Promovare a Încrederii"
Программа Европейского Союза "Меры по укреплению доверия"

**CLIENT:** European Union Delegation to Moldova through its operational contractor UNDP

Technical Expertise and develop Detailed Technical Design for
CONSERVATION AND RESTORATION WORKS OF BENDER FORTRESS (Phase I)

DETAILED TECHNICAL DESIGN

*TEAM LEADER*

Studio Berlucchi srl
*Arch. Eng. Nicola Berlucchi - Eng. Nicola Fumagalli*
*With the collaboration of*
*Arch. Flavia Mainardi, Eng. Alessandro Trevisi*
www.studioberlucchi.it

*INTERNATIONAL EXPERTS*

Prof. Donatella Fiorani
*Conservation expert*

Prof. Carlo Blasi
*Structure restoration expert*

www.geogra.it
GEOGRA' srl
*Architectonical Survey*

SOING srl
*Diagnostics and analysis*

Arch. Carlotta Cocco
*GBC HB Expert*

*LOCAL EXPERTS*

Arch. Serghei Garconiţa
*Certified local Architect*
*series 2017-P number 1608*

Eng. Stanislav Condratenco
*Certified local Engineer*
*series 2018-P number 0089*

Arch. Corina Fisticanu
*Assistant local Architect*

Eng. Evgheni Cutia
*Assistant local Engineer*

Dr. Sergiu Musteata
*Archaeologist*

Dr. Igor Nicoara
*Geologist*

| | | | |
|---|---|---|---|
| C | | | |
| B | | | |
| A | | | |
| - | 07-2020 | first emission | C226_RER_002.dwg |
| | DATE | REVISION | FILE NAME |

TITLE:
DECAY PHENOMENA AND CRACKS MAPPING
External Elevation | Towers A8-A6 wall front

| ASSIGN. CODE | PRATICA | PARTE | DISC. PROG. | NUMERO | REV. |
|---|---|---|---|---|---|
| C226 | - | R | ER | 002 | - |

REPRESENTATION SCALE: 1:50

INTERNAL CODE: C226_RR_02 in Technical Expertise

EXPERT STAMP AND SIGNATURE:

This project is funded by the European Union
and implemented by the
United Nations Development Programme

UNDP
Empowered lives.
Resilient nations.