

Deep cold in place recycling

Alternative approach to
rehabilitate airport pavements



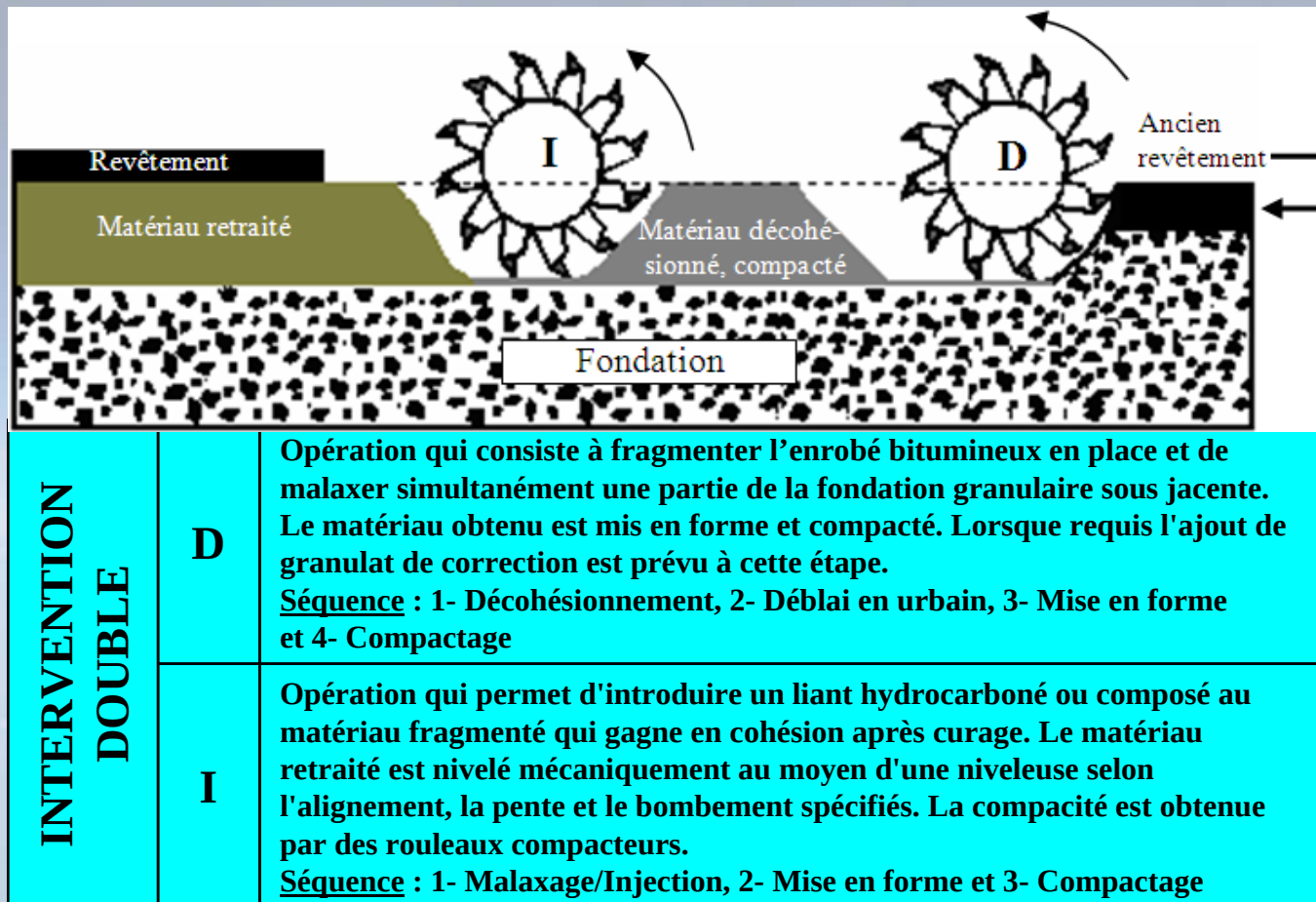




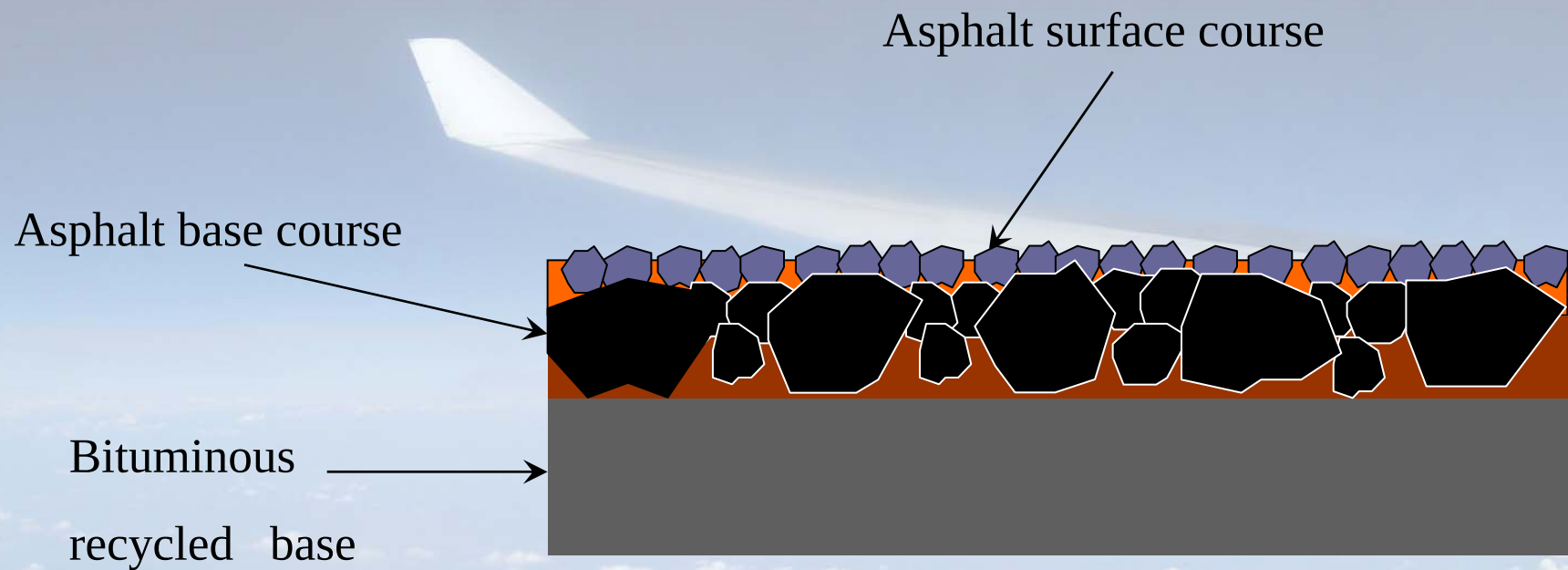




Full depth reclamation with bitumen stabilization



Typical section



Step # 1

- Survey existing profile
- Establish a target profile
- Transfer it in the grader electronic Trimble 3D profile controller (system precision of ± 5 mm)
- Sampling of existing pavement for mix design preparation

Step #2 – Pulverizing, grading and compaction

- Fragmentation of the old pavement into maximum size of 28mm which is blend with a part of the granular base
- Grade to profile
- Compaction

Pulverizing and grading



3D Set up



Precision grading



Compaction



Step #3 Bitumen injection

- 1. Bitumen injection / mixing:** reclaimer push a tanker and inject bitumen or emulsion through a computerized metering system to selected thickness (100-150mm)
- 2. Grading :** using the same 3D system to establish the final platform
- 3. Compaction :** to obtain maximum mix design and job reference optimized density

Final stabilization in process





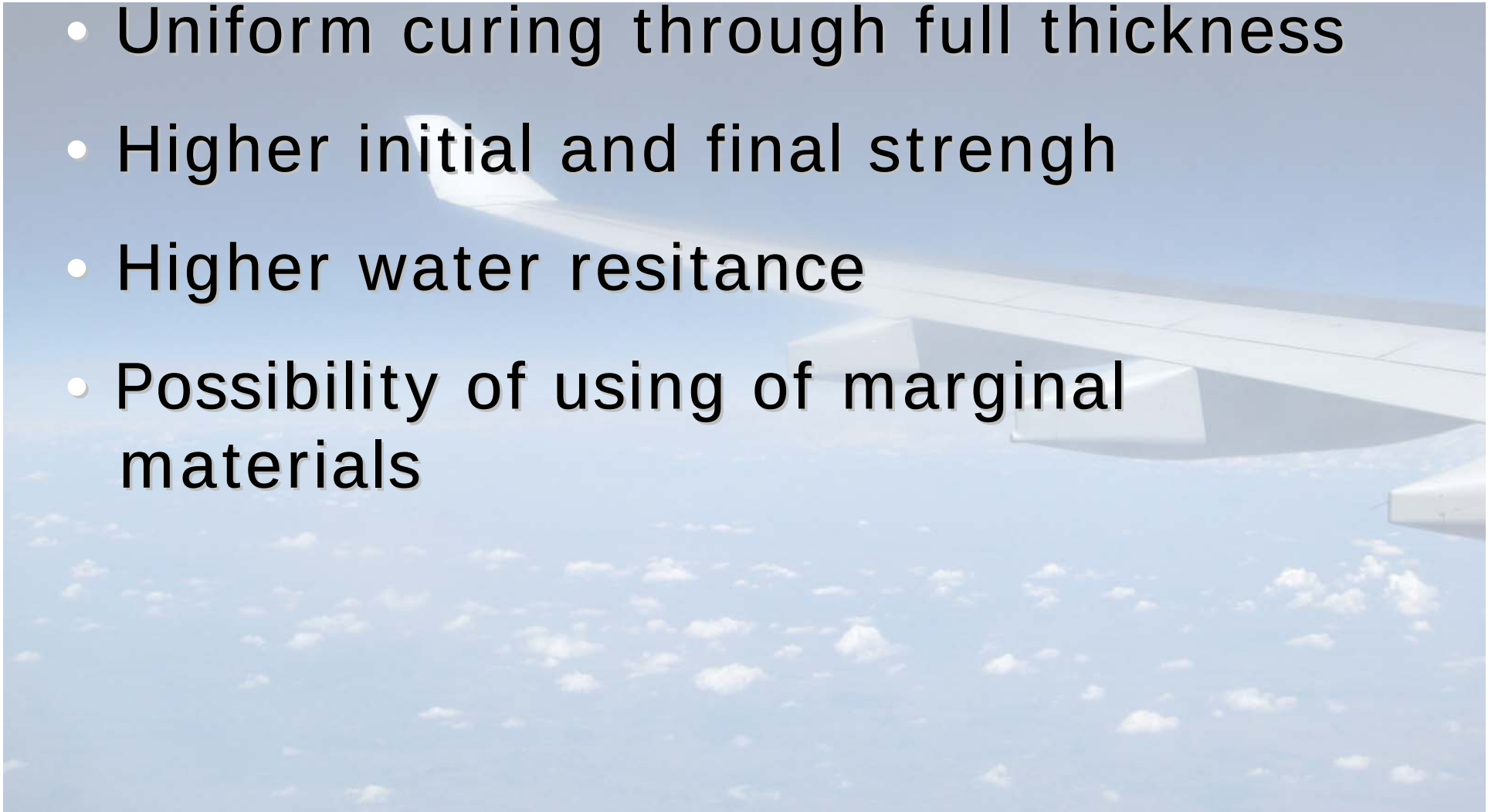


Final retreated surface



Composite binder (cement addition + bitumen)

- Uniform curing through full thickness
- Higher initial and final strength
- Higher water resistance
- Possibility of using of marginal materials

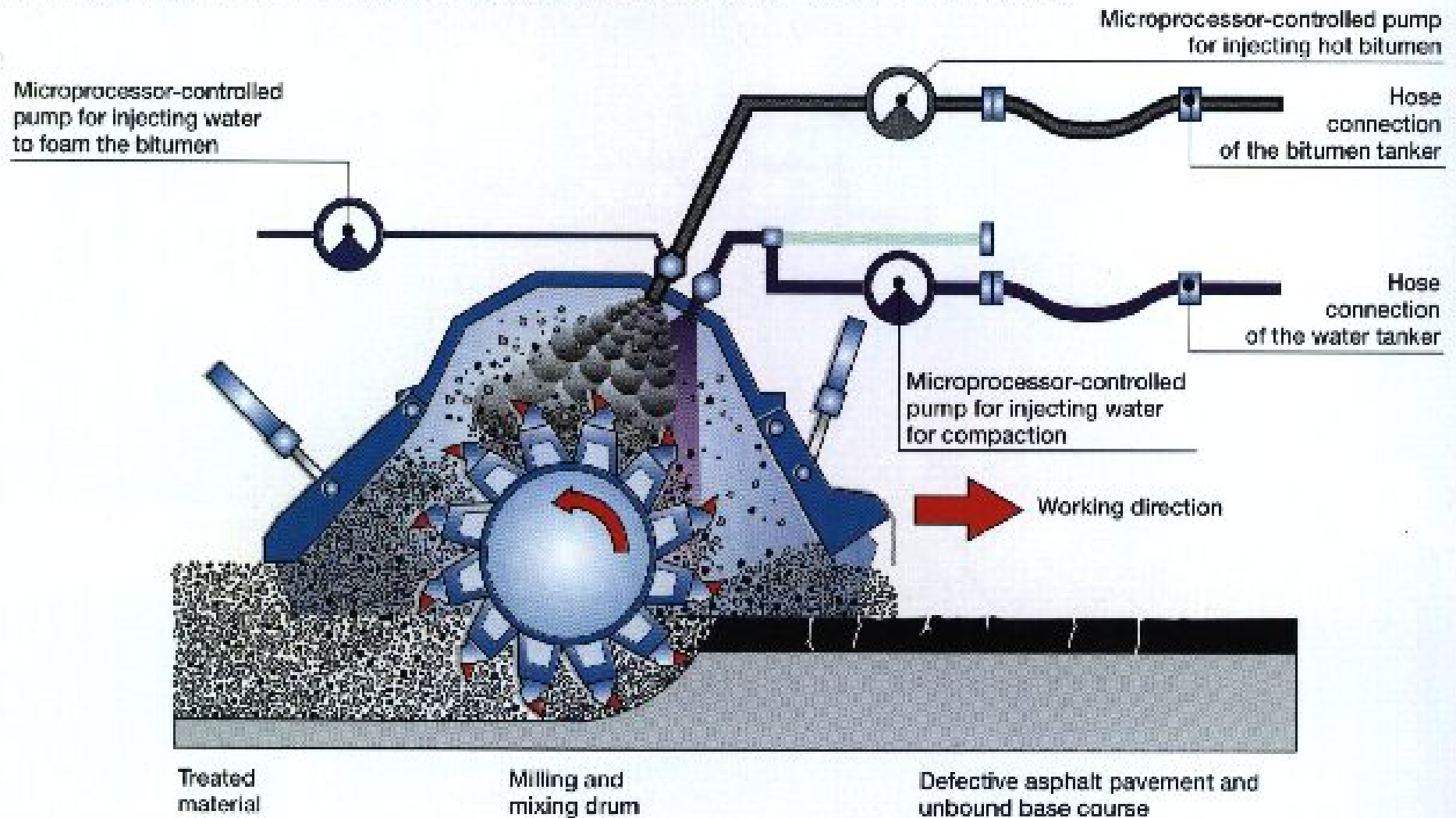


Cement application

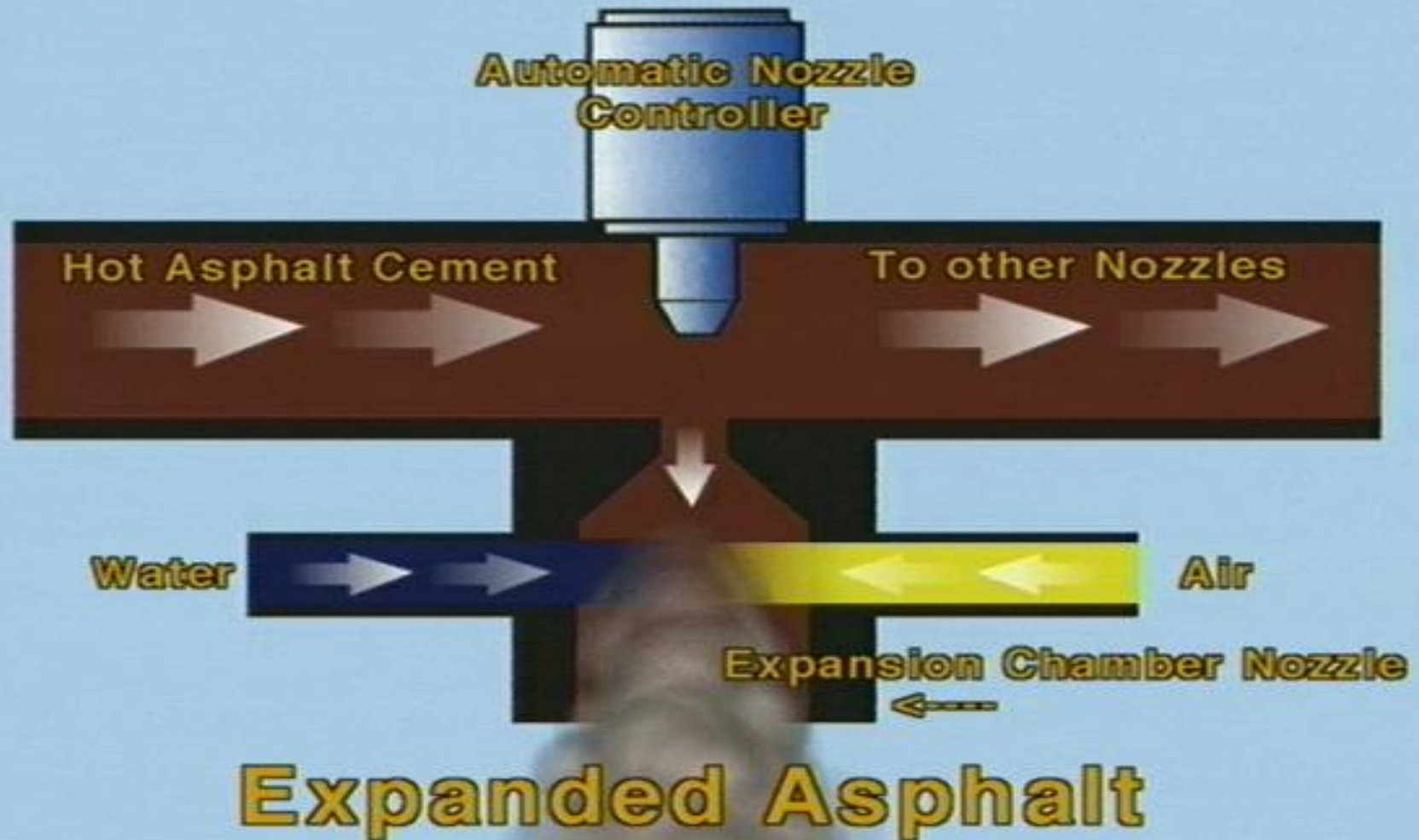


Foamed bitumen

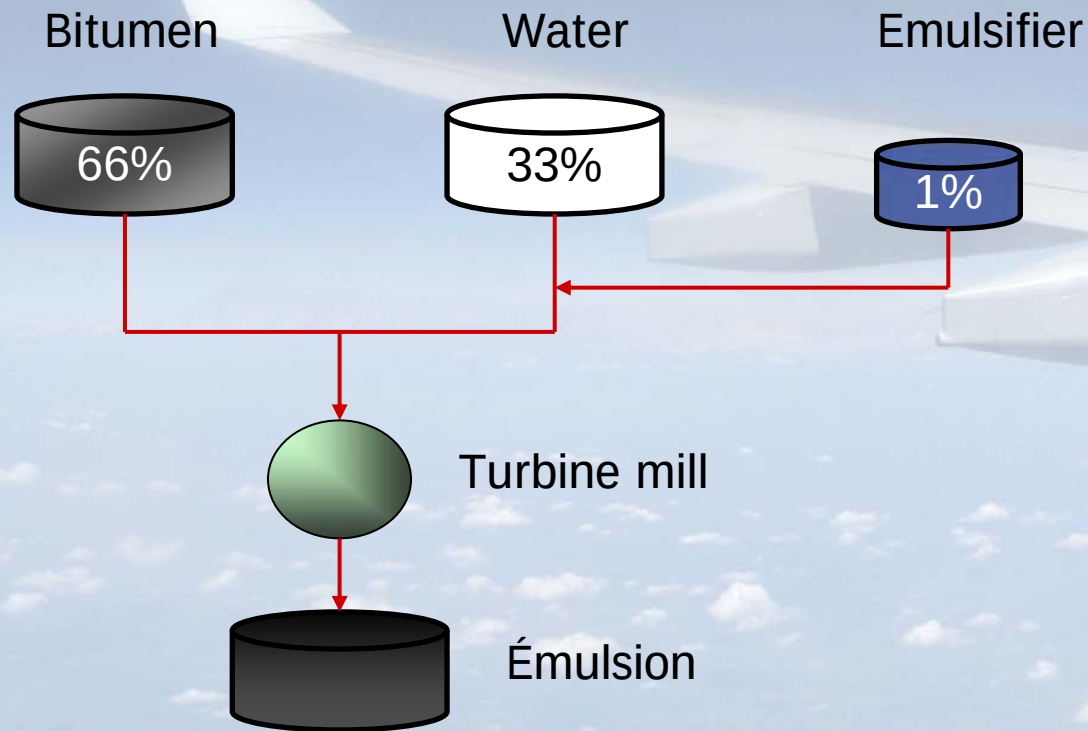
Metered injection of foamed bitumen and water via the WR 2500



Foamed bitumen



Bitumen emulsion



Step #4 Surface pavement

- Recycled base need to be overlay with asphalt course in surface
- Wearing course is design accordingly to aircraft load and structural requirement
- Type of asphalt mixes and appropriate thickness must be design for life expectancy

Optional pavement Combined cold processes

- Single surface treatment
- Covered by a microsurfacing



Surface treatment



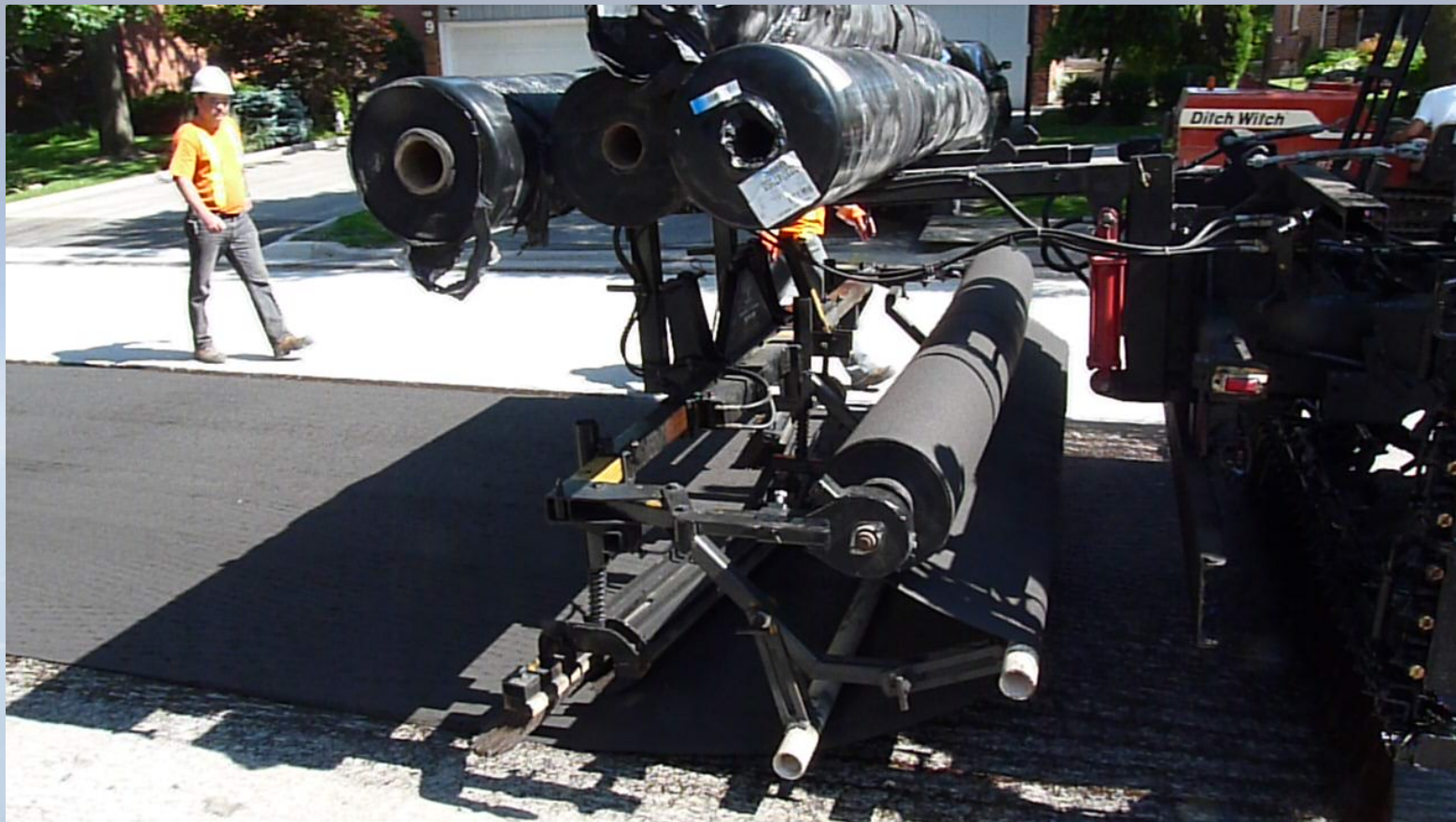
Microsurfacing







Optionnal Geotextile membrane



Conclusion

Each rehab project is a typical case and need a specific investigation

DCIPR is dollar saving and support sustained development

Visit our web site to video clips and general information on recycling and conservation processes

www.talonsebeq.com

