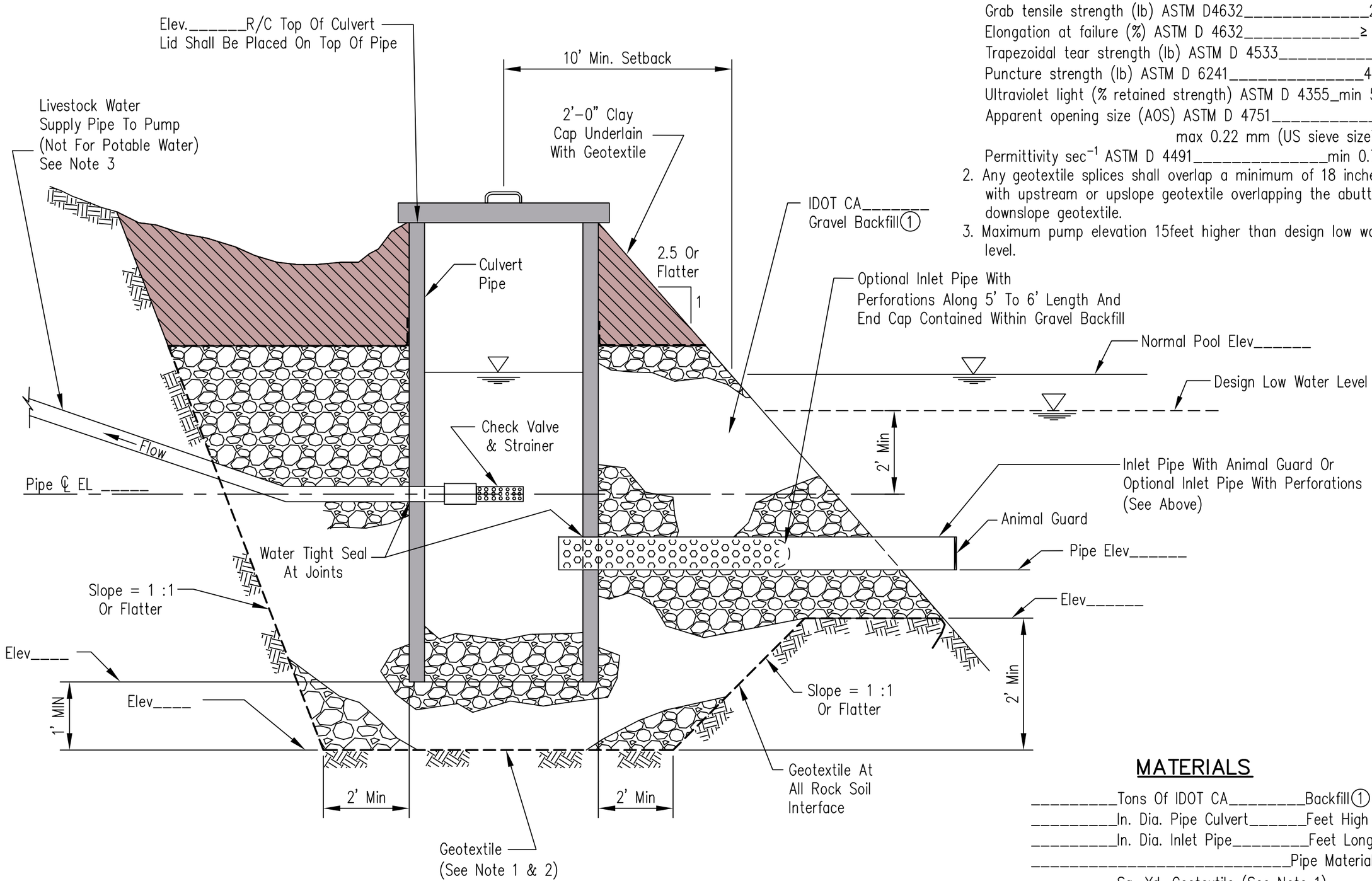
NOTE:

1. Geotextile (non-woven, needle punched) Minimum criteria:
   - Grab tensile strength (lb) ASTM D4632_____202
   - Elongation at failure (%) ASTM D 4632_____≥ 50
   - Trapezoidal tear strength (lb) ASTM D 4533_____79
   - Puncture strength (lb) ASTM D 6241_____433
   - Ultraviolet light (% retained strength) ASTM D 4355_min 50
   - Apparent opening size (AOS) ASTM D 4751_____ max 0.22 mm (US sieve size70)
   - Permittivity sec^{-1} ASTM D 4491_____min 0.70
2. Any geotextile splices shall overlap a minimum of 18 inches, with upstream or upslope geotextile overlapping the abutting downslope geotextile.
3. Maximum pump elevation 15feet higher than design low water level.



MATERIALS

_____Tons Of IDOT CA_____Backfill (1)
_____In. Dia. Pipe Culvert_____Feet High
_____In. Dia. Inlet Pipe_____Feet Long
_____Pipe Material
_____Sq. Yd. Geotextile (See Note 1)

(1) Use Gradation CA 2, 3, 5, 7, or 8

Date
Designed
Drawn M Quinones 4/1/14
Checked
Approved

LIVESTOCK WATERING FACILITY POND SUMP

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File No. IL-ENG-880
Drawing No.
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