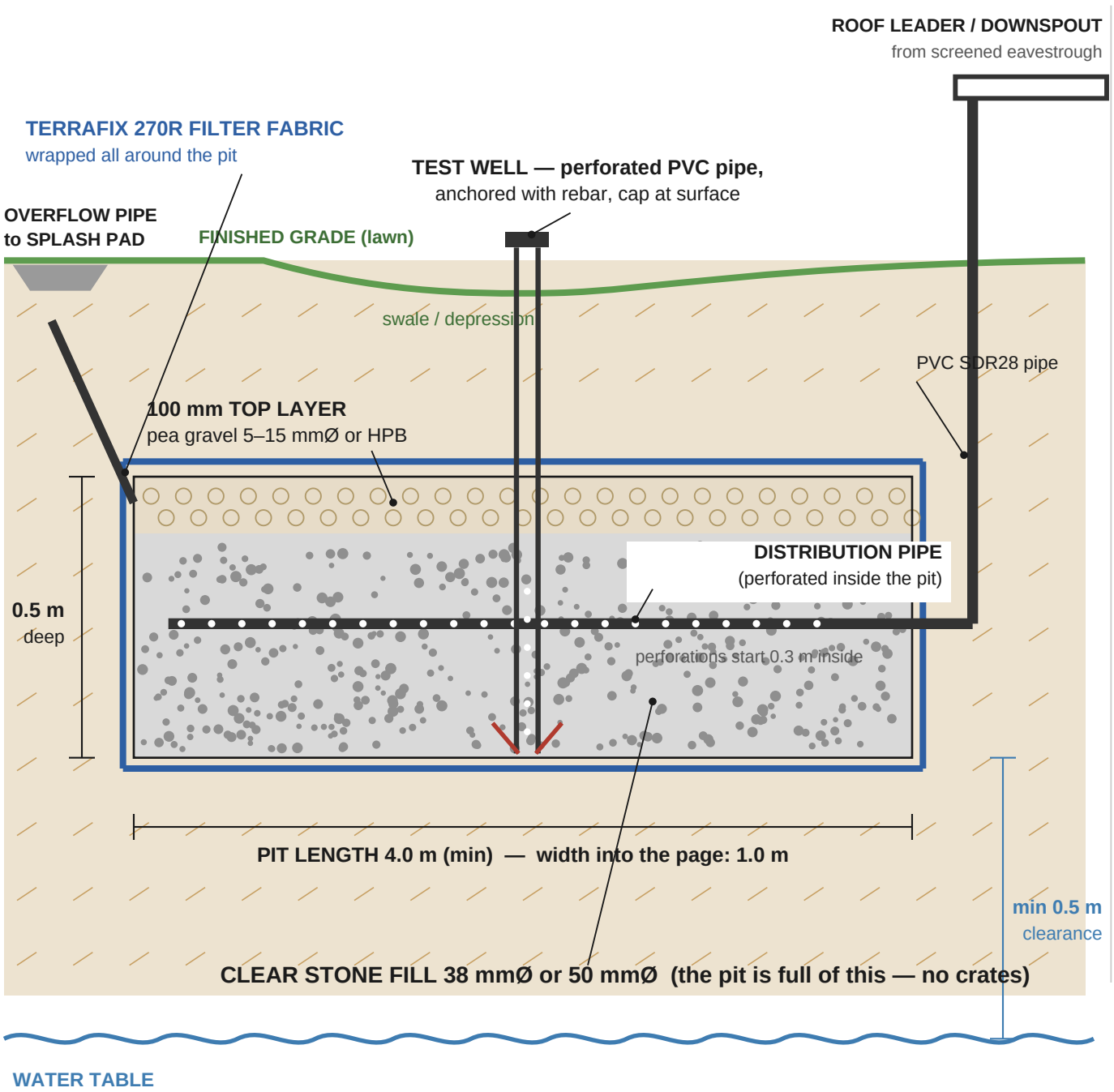
KING HIGH PROJECT — THE SOAKAWAY PIT, AS DRAWN ON THE PLAN (C1 DETAIL)

Cross-section along the pit — exactly the materials the engineer (CAPES) specified. Diagram not to scale.



HOW IT WORKS

Rain comes off the roof (184 m²) down the leader into the pit. The perforated pipe spreads it through the clear stone. The stone is 40% empty space (porosity 0.40), so the pit stores the water, then it soaks slowly into the soil (5B till, 5.3 mm/hr with safety factor). The fabric keeps soil out so the stone never clogs. If a big storm overfills it, the overflow pipe spills onto the splash pad. The test well lets an inspector check the water level inside.

BUILD ORDER

1. Dig the pit (1.0 × 4.0 × 0.5 m)
2. Line it with Terrafix 270R fabric
3. Lay the distribution pipe + test well (rebar anchors)
4. Fill with clear stone 38/50 mm
5. Top 100 mm pea gravel / HPB
6. Fold fabric over, backfill, sod
7. Connect downspout + overflow

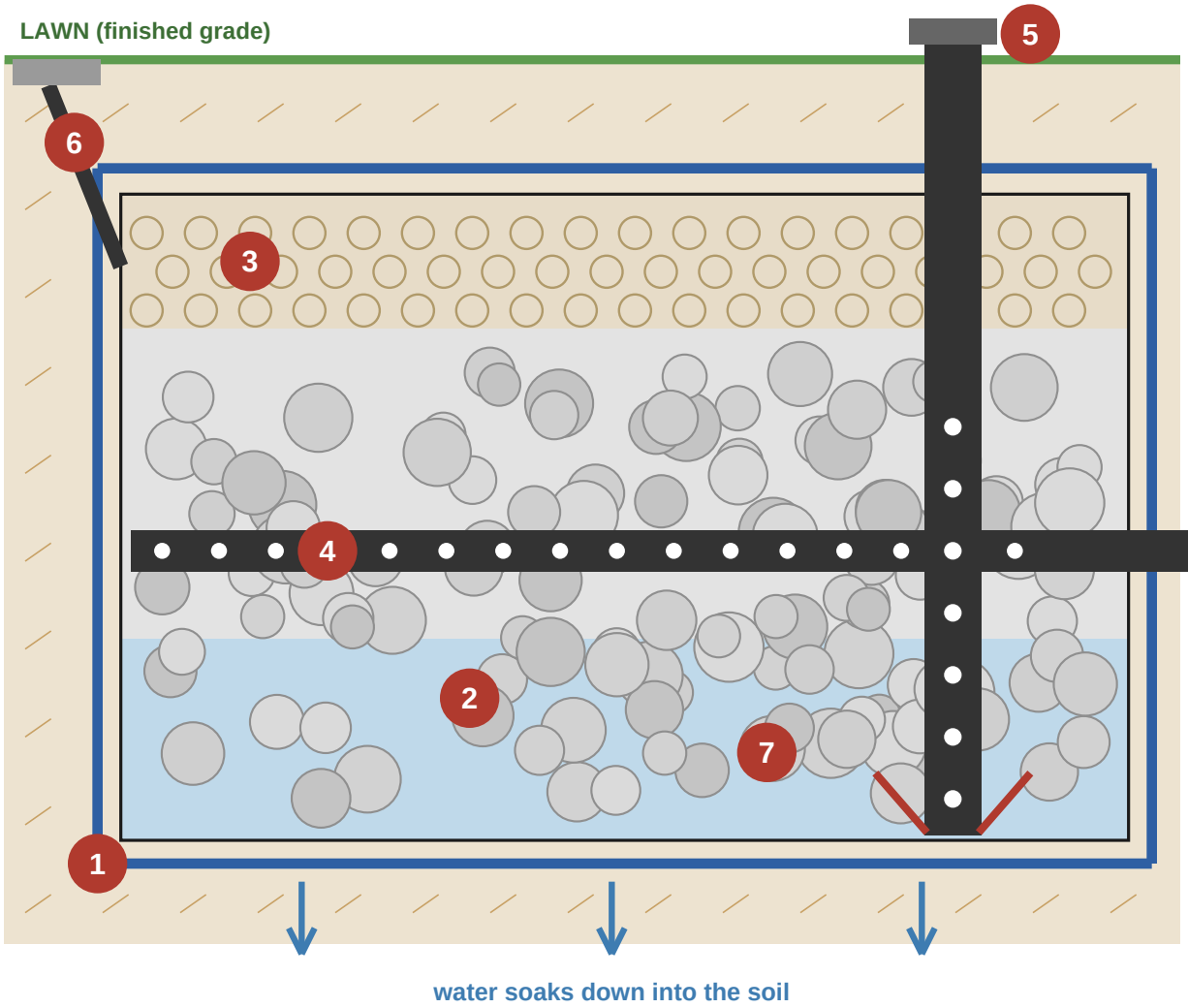
KEY NUMBERS (from C1)

Storage in stone voids ≈ 0.8 m³
Min infiltration area: 45.9 m²
Provided (pit+trench+buffer): 194 m²
Design storm: 25 mm in 48 hrs

Pisces Interlock & Landscaping — visual explainer prepared from the approved C1 Soakaway Pit Detail (CAPES), King High Project. Not a construction drawing.

INSIDE THE PIT — ZOOMED IN: WHAT FILLS IT, AND HOW

داخل چاه دقیقا با چی پر می‌شود و چطور ساخته می‌شود



1. **Filter fabric — Terrafix 270R**
   پارچه فیلتر دور کل چاه
   Wraps the whole pit; keeps soil out.
2. **Clear stone 38 or 50 mm**
   سنگ شسته بدنه اصلی چاه
   Water sits in the gaps — 40% empty.
3. **Pea gravel / HPB — top 100 mm**
   شن نخودی لایه رویی
   A finer cap over the coarse stone.
4. **Distribution pipe (perforated)**
   لوله توزیع سوراخ‌دار
   Spreads roof water through the stone.
5. **Test well + cap (rebar anchor)**
   چاهک تست با درپوش
   Inspector checks the water level.
6. **Overflow pipe → splash pad**
   لوله سرریز به اسپلش‌پد
   Extra water spills at the surface.
7. **Stored water in the stone voids**
   آب ذخیره‌شده بین سنگ‌ها
   ≈0.8 m³ stored, then soaks into soil.

HOW IT IS BUILT

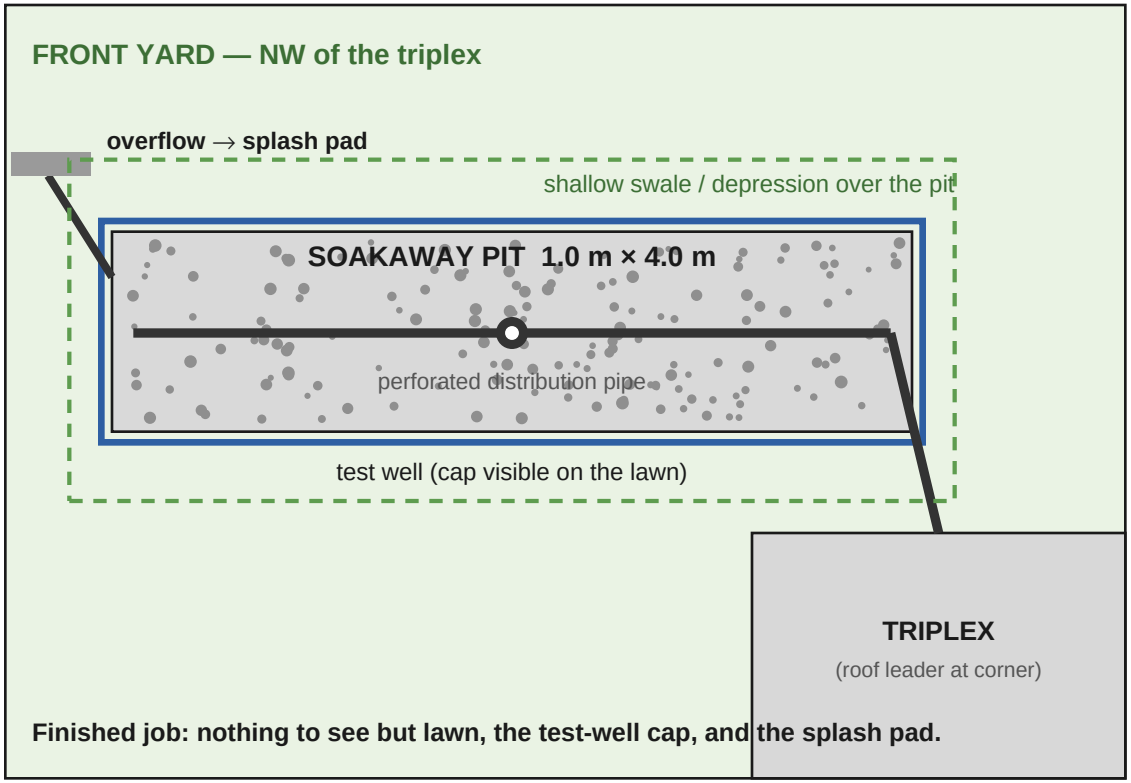
Dig the hole → line it with fabric → set the two pipes → dump the clear stone in and level it → pea gravel on top → fold the fabric over → topsoil and sod. No concrete, no crates.

NO CRATES INSIDE THIS PIT — the fill is clear stone, exactly as the engineer drew it.

داخل این چاه هیچ جعبه‌ای نیست پرکننده‌اش سنگ شسته است، دقیقا همان که مهندس کشیده

Zoomed view of the C1 Soakaway Pit Detail, King High Project (CAPES). Vertical scale exaggerated so the layers read clearly.

FROM ABOVE (PLAN VIEW) + WHAT IT LOOKS LIKE ON A REAL JOB



ON A REAL JOB — the fabric lining goes in first:

[photo unavailable: ■fileName='/tmp/wsu-trench.jpg' identity=[ImageRe

An excavated infiltration trench lined with filter fabric, ready for the clear-stone fill — the same build as your pit, just longer. Photo: Washington State University, Rural Stormwater Solutions (wsu.edu).

Once the stone is in and the fabric is folded over, the pit disappears under topsoil and sod.

MATERIALS IN THE PIT (your buy list)

• Clear stone 38 mmØ or 50 mmØ	pit body — about 2 m³
• Terrafix 270R filter fabric (or approved equal)	full wrap — about 10 m²
• Pea gravel 5–15 mmØ or HPB	top 100 mm — about 0.4–0.5 m³
• Perforated pipe (PVC SDR28 + prefab fittings)	distribution run inside the pit
• Perforated PVC pipe + cap + rebar	test well
• Overflow pipe + precast splash pad	spillway at the surface

NO crates in this design: the engineer's math is built on clear stone at 40% voids. Crates (~95% voids) are a different system — swapping them in is a design change that needs CAPES to approve it first.

Source detail: C1 Soakaway Pit Detail, King High Project (CAPES). Photo credit: WSU Rural Stormwater Solutions.