French drain in the yard

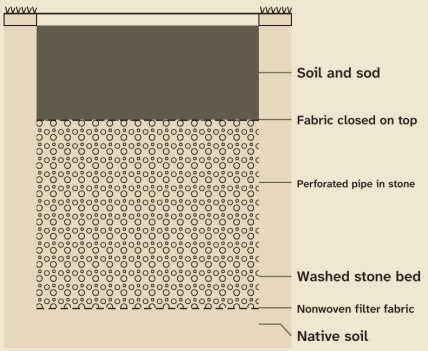
Continuous fall, real outlet, closed fabric.

DRAFT V0.2, PENDING INSTALLER REVIEW

VIDEO QR

3 RULES

1 Continuous fall to a real outlet



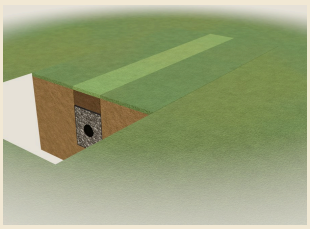
2 Fabric closed like a burrito

3 Washed stone only

KEY NUMBERS

1%	NDS: minimum fall to the outlet
4"	rigid perforated pipe diameter
¾"	US Fabrics: washed stone size
10"	US Fabrics: minimum trench width
6"	US Fabrics: soil over the fabric

No real outlet, a belly, or open fabric, and the yard floods again. You dig it up unpaid and lose the referral.



FINISHED LOOK

20' run, fall 2½" (6' shown)

4 in perforated drain pipe	20 linear ft
¾ in washed drain rock	0.75 yd³
Non-woven geotextile fabric	88 ft²
Garden soil mix	0.5 yd³

Approximate colour: Black HDPE, Washed river, Charcoal. Check against the real pallet.

STOP AND CHECK

If you see this, don't go on.

- No real outlet: don't dig yet
- Belly in the bottom: fix it first
- Water headed to a neighbor or street
- Pipe that crushes: replace it

STEPS

1 Step 1: Outlet and fall

- Real outlet: the one on your sheet
- String line, falling to the outlet
- NDS: 1% minimum fall

Check: The string drops the whole way

2 Step 2: Trench and fabric

- US Fabrics: 10" minimum width
- No bellies or high spots
- Fabric on bottom and walls, extra

Check: Level on the bottom: falls evenly

3 Step 3: Bed and pipe

- 4" bed, ¾" washed stone
- 4" pipe, perforations facing down
- Solid pipe to the outlet

Check: The bed keeps the fall

4 Step 4: Stone and closing

- Washed stone to 6" below lawn
- Fabric folded over, overlapping
- Open fabric lets silt in

Check: Fabric closed along the whole run

5 Step 5: Backfill and test

- 6" of good soil, lightly compacted
- Sod or seed on top
- Hose at the high end

Check: Water in up top, out at the outlet

THE 3 COSTLIEST MISTAKES

✕ Pipe that ends in the lawn	✕ Perforations up: water sits below	✕ Cheap pipe that crushes
✓ Solid pipe to a real outlet	✓ Perforations facing down	✓ Rigid 4" perforated pipe

Local rules: Each city or county decides where drain water may go: the street, a neighbor's lot, a dry well or the storm drain. Some also need a permit. Your job sheet shows the local rule.

SAFETY BEST PRACTICES

Educational content from the Manos de Oro program. Each Maestro is an independent contractor and manages the risks of their own work.

- Best practice: call 811 before you dig, it's free. Your sheet shows the local wait.
- Trench 4' or deeper: a ladder within reach. 5' or deeper: sloping, shoring or a shield. In many states the law calls for it; your job sheet shows your state's rule.
- Glasses, gloves and hearing protection when trenching and cutting pipe.

Sources: US Fabrics, Geotextile French Drain Installation Guide. NDS, French Drain Installation Guide. Trench safety rules. The sources disagree: US Fabrics gives ½% minimum fall and NDS gives 1% (2% for corrugated pipe). This sheet uses NDS's 1%, the stricter number, until Green Maestro sets its spec. On trench width, US Fabrics gives 10" minimum and NDS 5"–6" for small problems. This sheet uses 10".