Drainage

The Central 70 Project includes a robust drainage system designed to handle a 100-year storm event. The drainage plan addresses water from two sources:

1. Water that falls directly into the lowered highway (known as the onsite system)
2. Runoff from surface streets, which currently drain north under the existing viaduct (the offsite system)

The drainage system for I-70 is made up of a combination of underground pipes and detention ponds.

How does the drainage work?

The Central 70 drainage system is a series of pipes and detention ponds. The pipes, which are approximately 6 feet tall (large enough for an average adult to walk through), divert water to detention ponds and ultimately to the South Platte River. This system includes eight detention ponds, the largest of which can hold 8.5 million gallons of water, which is equal to 26 football fields with one foot of standing water on each. The smallest can hold 320,000 gallons, equivalent to 6,400 bathtubs with 50 gallons of water each.
About the pump station
The pump station can hold up to 2.4 million gallons of water, is 50 feet in diameter and 50 feet deep and sits at the lowest section of the project, just north of I-70 and west of York Street. Water from the lowered section of the highway is drained into the pump station through pipes underground, pumped to a water quality pond and discharged into the South Platte River.

Has CDOT built this kind of system before?
Yes. The T-REX project on south I-25 included a comparable lowered section of the interstate between Broadway and University Street between two Denver neighborhoods, Washington Park and Platt Park. Prior to T-REX, this area had significant historical flooding issues. The T-REX project drainage system was comprised of pipes and an outfall to the South Platte River capable of handling a 100-year storm event. Since it was completed in 2006, there have been no significant flooding events on the interstate.

Drainage pipes on south I-25. While the Central 70 system won’t be exactly the same, it is being built to handle a 100-year storm event.