

How Planned 'Border Patrol Roads' Will Devastate Big Bend National Park

As bulldozers approach Mariscal Mountain, a warning about the incredible dangers ther



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Photo by Natalie Newman

The *Billion Worlds* newsletter was created to help open my eyes and yours to worlds hopeful possibilities we may not have known were there. Sadly, in recent months th Trump Administration's plans to desecrate the sacred land of Texas' Big Bend regic require focus on worlds of heartbreaking possibilities. Reporting on the ugly plans become a necessity, one driven by love of the land and the life it supports.

U.S. Customs and Border Patrol's framing of Big Bend National Park border work makes its decision to forgo a 30-foot steel wall across the park seem noble or magnanimous. It can also make the new "patrol roads" seem minimally invasive if almost benign, which is likely what CBP officials intend. Their framing hides how destructive their construction, presence and ongoing maintenance will be to the pa

I searched for and found [CBP's own V.5 standards \(2020\) for patrol roads](#). They do n ease our dread. The roads across relatively flat, floodplain ground could be 40 to 60 feet wide, 20 feet of driving surface plus two 2-foot shoulders, and often a 10-foot st of dirt on the Mexico side dragged smooth so footprints show. And, unless waived, ditch alongside with a 10-foot minimum bottom. Often, ditches on both sides are required. If the ditches are built, access to the river side of the road will be greatly restricted. The most likely road surface is aggregate of some kind

By my calculation the roads will run almost 77 miles inside the pa wide, that alone strips roughly 400 to 550 acres. It's uncertain that the road and the river will be publicly accessible. CBP says there v but won't be specific. And wherever there are ditches, the river be harder to reach. The roads and shoulders will be cleared and grub pulled out by the roots, living matter not allowed.

CPB doesn't make detailed routes public, although [its so-called o map](#) gives a rough idea. It appears from early bulldozing that they this new road right next to the existing river road in places. No ne of course. And an unnecessary new road next to an existing road s in common with vandalism than border security.

When it comes to washes and arroyos, the standards make unvented fords the first means of directing water across patrol roads. Not culverts. A ford is a dip through t wash with reinforced concrete or concrete mat, with reinforced concrete walls sunk below the stream bed around the entire perimeter to keep floods from undermining Culverts or bridges are used only where the road geometry or the 25-year flood dep1

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limit can't be met.

When the alignment crosses a wash big enough to need a structure, it gets one of the fords. In Big Bend, that's a lot of concrete structures. And the standards require permanent erosion control at both ends of every one. There is no version of this where the wash goes back to being a wash.

If CBP persists with plans to build a road up and over Mariscal Mountain, the road will have to climb 1,546 feet. The standards cap the grade at 20 percent. Anything over 15 percent must be concrete, poured on site. That would mean a batch plant and water hauled into the desert. If the terrain won't allow 20 percent grade, the standards let CBP reclassify the segment as a "maintenance road" with up to a 70 percent grade, roughly the pitch of a standard staircase. Such a maintenance road would be permanently closed to the public.

But the grade isn't the hard part. To build a road across a mountainside you dig into the slope. That leaves a wall of rock standing above the roadway. It has to lean back so it doesn't come down on the road. CBP's standards cap that lean at one foot back for every two feet of height, a fifty percent face. I measured the east flank of Mariscal against USGS elevation data. It reaches sixty percent. When the mountain rises faster than the wall leans back, the wall never reaches the surface. The digging has no end point. It just goes further into the mountain.

To hold any of those grades the road needs switchbacks and, in the standards' own words, "extensive cut-and-fill operations." That means tons after tons after tons of rock removed. On steep ground the cheapest way to move rock is to push it over the downhill edge, and the further the road climbs the cheaper that gets. Below Mariscal rim there is no bench and no catchment. It's straight down to the Rio Grande.

Which leaves two ways to build it. They could line the road with concrete walls on the mountain side, which their own standards call for and which would mean miles of concrete they have never mentioned. Or they could cut the rock nearly vertical where

it rises above the road, which exceeds what the standards allow and requires a filed exception. In that limestone the usual way you do it is with explosives, and CBP say isn't going to blast the mountain.

If that's not frightening enough, the Bureau of Economic Geology mapped Marisca Mountain in detail in 2010, with National Park Service support. In technical terms, map's legend describes fold-hinge faulting, joints, and slip along the mountain's bedding surfaces. In plainer terms, the rock along the crest is already fractured. And the map shows the Cross Canyon Trail running right along that crest. The road would follow the broken part of the mountain, because the broken part is the only part you can walk. (*Miscellaneous Map No. 48, Bureau of Economic Geology, 2010*)

Twelve members of Congress asked ten questions about the Mariscal Mountain segment on August 7 and set a deadline of the fourteenth for an answer from CBP. Nothing came back. The bulldozers are there now.





Photo by Laiken Jordahl, Center for Biological Diversity

The patrol roads require a permanent, industrial operation within the park. This is something Big Bend National Park has never suffered. And it is unnecessary because as the park's rugged country of high canyon walls, dangerous deserts and well-known law enforcement presence have made it the least likely place in the region for suspected border crossings. No, this isn't about border security. It is a U.S. president trying to turn the Rio Grande into another reflecting pool for his ego.

Arroyos are not empty ground. They are the circulatory system of the region. They move sediment, recharge shallow water, and concentrate the vegetation that concentrates everything else. A concrete ford in a stream bed with walls sunk below grade doesn't stop the water, but it stops the stream bed from moving. Sediment moves differently above and below fords like these, and the change is permanent by design. Multiply that by every significant wash along the alignment.

Arroyos are the desert's movement corridors. Animals travel them for shade, water, and cover. [The Forest Service manual that CBP cites](#) for its ford design says a biologist should determine whether wildlife passage is needed at each crossing and notes that even ephemeral streams support aquatic life. It warns that where animals and traffic meet at a ford, "some animal mortality is likely." CBP's standards don't speak to the biology.

There's a pronounced coldness to the language used in the standards, all too typical of official documents describing exploitative intrusions of this sort. In fact, it was hard even to describe the standards without a little matter-of-fact coldness infecting the prose. And there's no comfort in the knowledge that the Department of Homeland Security has also waived all existing protections that could make the park and its life safe.

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These standards are minimum design criteria. The document provides that where a project cannot meet them because of site-specific constraints, an exception may be considered. Standards could be waived or new standards added. In other words, it could get worse. But I don't see how it gets better for the park and the life that calls home. These are the standards CBP adopted, and the agency retains a documented process for departing from them. So we'll see.

Also, the August 2020 Version 5 is the most recent version I could locate. I've linked it above and posted a pdf of it below for downloading. I found it as an attachment to CBP solicitation for tactical infrastructure maintenance covering the Rio Grande Valley, Laredo, and Del Rio/Big Bend South sectors, not for the national park. I couldn't locate that. But this is CBP's standing design standard rather than a project specific document. Its own background section says, "The design standards contained herein were developed for use in the design and repair of Tactical Infrastructure (TI) used by USBP [Border Patrol] in fulfilling their operational requirements."

CBP has refused to make its actual plans and specifications public. But the above gives a picture of what its standards could mean for Big Bend National Park. It's not a pretty picture.



Customs and Border Patrol Tactical Design Standards
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V.5 standards, 2020

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Kris10 Aug 16

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Bob Aug 17

Glenn, as usual, you've cut right to the chase. #keepbigbendwild

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