

Section 17 and Lowell Observatory

William Lowell Putnam, IV, Sole Trustee

In 1894, when Percival Lowell was looking to site his observatory in Arizona, a group of prominent Flagstaff citizens offered to supply 5 acres of land and build a wagon road to the site from downtown. The current FUTS trail, starting in Thorpe Park, uses portions of that roadbed to make its way up onto Observatory Mesa (aka Mars Hill) on the north side of the Observatory campus.

In the 1890s, there were no residences up on Mars Hill. Percival and the other astronomers soon grew tired of hiking back down that road at the end of a long night of observing to their rooms at the Monte Vista Hotel. So, Percival arranged to buy some additional land on what was becoming known as “Mars Hill” and built houses, a barn, and a workshop. He also built a “new” road that had more direct access to downtown Flagstaff. This road and its gate pillars are still visible at the base of the hairpin turn as you come up the current Mars Hill Road.

In the early 1900’s, the Observatory was home to several telescopes, including the famous Clark telescope. With that much invested in the site, Percival became concerned that Flagstaff’s growth to the west could impact the observatory’s nighttime viewing. Being on top of the Mesa meant the telescopes were above the town to the East and South, and the land to the North was “downhill” and heavily forested, but the flat land to the West offered little protection if developed. That land was Section 17.

As a part of the Arizona Territory, Section 17 was originally awarded to the Atlantic and Pacific Railroad (now BNSF) for completion of a given amount of operational track. By the early 1900’s the only portion of the section in use was a narrow piece on the southwest corner below the mesa that the railroad needed for right of way. Percival negotiated with the Railroad to purchase the remainder of the section and had even agreed on a price. Then, the railroad’s lawyers determined that they had to turn the land back to the government. So, Percival went to Washington and asked the government for the land. The result was the Act of Congress of 1910, in which the section (except for the 5 acres used by the, then, Santa Fe Railroad) was granted to “Percival Lowell, his heirs and assigns”.

There were restrictions on the land. In the event “of the removal or abandonment of said observatory or the use of said land by the grantee for other than observatory purposes the said land shall revert to the United States”. There was an additional restriction, in that the government retained the right to the “merchandisable timber on the land” and the right to cut and remove that timber in order to “preserve the herbage and undergrowth in their natural condition”. As a result, the US Forest Service has been required to help protect the section from fire and to oversee its use ever since.

The timber provision did receive further clarification from the US Attorney General, George W. Wickersham, in 1912, when he determined that Percival was free to cut small trees for his use and that the Forest Service could only remove timber in a way that did not interfere with the Observatory’s ownership of the land. There was no merchandisable timber on the site in the early 1900’s, according to correspondence between Percival and the railroad in Lowell Observatory’s archives. There is no merchandisable timber there today, according to the USFS and other land use experts. It is not clear

why this provision was included, but the government must continue to expend resources to look after this non-existent right.

The “observatory purposes” phrase was never defined and remains a source of confusion. Over the years no objections have been raised to use of the land for a radio relay tower or squirrel habitat studies, neither of which relate to an astronomical observatory. In recent years, the Trustee allowed the City to extend the FUTS across the northern part of the section and agreed to the building of the Arizona Snowbowl pipeline across the section. There was no payment for the latter, but Arizona Snowbowl was required to put fire hydrants out on the section to help with any forest fires threatening Lowell Observatory or the urban-wildland interface at the base of the mesa. Portions of the section are now used for observatory domes, astronomers’ housing, and a water tank, along with paved access roads to those facilities. The proposed new visitor center and parking lot will sit partially on Section 17.

There have been a lot of changes in this area since 1910. Section 17 is no longer adjacent to the Coconino National Forest as it was in 1910; it is an “orphaned” section from the perspective of the USFS. Flagstaff’s city limits have expanded to surround the entire section. While Flagstaff has done an outstanding job of preserving dark skies, the sensitivity of modern instruments means the skies above Mars Hill are no longer dark enough for most astronomical research. They are, however, wonderfully clear and dark enough for the general public to come up and observe stars through the observatory's telescopes. The success of our public program resulted in over 100,000 visitors to Mars Hill in 2019, and we have been told that number should increase to 150,000 or potentially more on an annual basis. In addition, Lowell Observatory has added many scientists and their supporting technical staff throughout the past 110 years. Including grounds staff, administration and our public program personnel, the Observatory now has over 130 employees, and we expect that number to increase as the number of visitors goes up.

This growth in both staff and visitors has created safety concerns about the single, two lane road that comes up to Mars Hill. While still able to handle the traffic volume, it is a bottleneck for emergency services vehicles or mass evacuation in case of fire. Another all-season road coming up onto Mars Hill would make it safer, but given the geography and existing development around the Observatory, we do not know if or how that would be done, and no plans, let alone decisions, have been made. It is a matter of real concern to us on Mars Hill and a conversation with which we ask the community to engage.

Since its beginnings, Lowell Observatory and the Flagstaff community have benefited from each other’s success. As the Observatory looks to future growth, we are committed to doing this with our friends and neighbors. Given the effort and potential disruption involved in brick-and-mortar or roadway projects, the Observatory pledges to engage deeply with the both the community as well as the City of Flagstaff in all deliberations.