The first video illustrates the pterygopalatine fossa (PPF) as an inverted cone. The PPF fossa communicates with the orbit, cranial, nasal, and oral cavities. The various openings that lead into the PPF are depicted on the borders of the cone, as well as the nerves that are transmitted through these openings; the walls of the cone are color-coded to the bones (located in the structure adjacent to the cone) that form the respective borders of the PPF, including the maxilla (purple), sphenoid bone (green), and palatine bones (pink). The video begins with a lateral view into the PPF through the tear-drop shaped opening of the pterygomaxillary fissure and proceeds to highlight the various foramina/canals that open in the PPF anteriorly, medially, and posteriorly. The specific branches of V2 nerves are depicted as yellow cylinders and are labeled accordingly; posteriorly, the deep petrosal nerve (carrying post-ganglionic sympathetics) and the greater petrosal nerve (carrying pre-ganglionic parasympathetics from CN VII) form the nerve of the pterygoid canal that leads into the pterygopalatine ganglion. The pre-ganglionic parasympathetic fibers synapse in this ganglion and then ultimately travel to the lacrimal gland and to various mucosal glands in the nasal and oral cavities.

The second video demonstrates the arrangement of nerves in context with the bones of the skull. Basic geometric shapes were created and compiled to resemble the bony boundaries of the PPF, including the maxilla (purple), sphenoid bone (green), and palatine (pink) bones. The avatar moves around the anterior aspect of the display to view the branches of V2 that course through the maxilla and maxillary sinus, including the anterior, middle, and posterior superior alveolar nerves and the termination of the infraorbital nerve through the infraorbital foramen. Next, the avatar moves toward a lateral view of the PPF to observe the location of the pterygopalatine ganglion and the nerves that located inferiorly (greater and lesser palatine nerves) and medially (nasopalatine nerves) from this ganglion. Due to the transparency of the sphenoid bone, the nerve of the pterygoid canal can be viewed as it enters the PPF posteriorly through the pterygoid canal. The maxillary nerve can also be seen superior to the nerve of the pterygoid canal, traveling through foramen rotundum. Lastly, the avatar moves posteriorly to view the nasal cavity and the entrance of the nasopalatine nerve through the sphenopalatine foramen. The greater and lesser palatine nerves can be viewed in their respective canals branching into the oral cavity via the greater and lesser palatine foramina.