Aggregates obtained from natural rocks have been used as one of the base materials for road pavements. Obtaining the aggregates is very costly and extraction is difficult. Therefore, the reuse of existing roads as base materials is becoming meaningful and the use of reclaimed asphalt pavement (RAP) materials reduces the need for virgin aggregates. The scope of the study, presented in this paper, is to be able to design sustainable highway pavements with reclamation of waste products while restoring highways. The most effective method for reclamation when assessing the waste products economically, technically and environmentally, is cold in place and full depth reclamation with foamed asphalt (CI&FDRwFA). The major advantage of reclamation with foamed asphalt stabilized material (FASM) is that it provides lower cost relative to hot mix asphalt. Besides, this method is cost effective and eco-friendly because of the use of existing roads as a source of new material, saving virgin aggregate and removing the damage caused by gases that emerge when constructing the hot mix asphalt.