WHAT IS CLAIMED IS:

1. A method of video decoding at a video decoder, comprising:

receiving a first syntax element from a bitstream of a coded video, the first syntax element specifying a minimum luma coding block size;

verifying whether the minimum luma coding block size is within a range of allowable minimum luma coding block sizes having an upper limit smaller than a maximum allowable coding tree unit (CTU) size; and

in response to the minimum luma coding block size being within the range of allowable minimum luma coding block sizes, decoding a coded picture in the coded video based on the minimum luma coding block size,

wherein the first syntax element indicates a binary logarithm value of the minimum luma coding block size minus 2, and

the verifying includes verifying whether the binary logarithm value of the minimum luma coding block size minus 2 is in a range of 0 to Min(N, log2_ctu_size_minus5 + 3), inclusive, where N is 4, and log2_ctu_size_minus5 + 5 represents a binary logarithm value of a CTU size of the coded video.

2. The method of claim 1, further comprising:

receiving a second syntax element from the bitstream of the coded video, the second syntax element specifying the CTU size.

3. An apparatus of video decoding, comprising circuitry configured to:

receive a first syntax element from a bitstream of a coded video, the first syntax element specifying a minimum luma coding block size;

verify whether the minimum luma coding block size is within a range of allowable minimum luma coding block sizes having an upper limit smaller than a maximum allowable coding tree unit (CTU) size; and

in response to the minimum luma coding block size being within the range of allowable minimum luma coding block sizes, decode a coded picture in the coded video based on the minimum luma coding block size,

wherein the first syntax element indicates a binary logarithm value of the minimum luma coding block size minus 2, and

the verifying includes verifying whether the binary logarithm value of the minimum luma coding block size minus 2 is in a range of 0 to Min(N, log2_ctu_size_minus5 + 3), inclusive, where N is 4, and log2_ctu_size_minus5 + 5 represents a binary logarithm value of a CTU size of the coded video.

4. The apparatus of claim 3, wherein the circuitry is further configured to:

receive a second syntax element from the bitstream of the coded video, the second syntax element specifying the CTU size.

5. A non-transitory computer-readable medium storing instructions that, when executed by a processor, cause the processor to perform a method of video decoding, the method comprising:

receiving a first syntax element from a bitstream of a coded video, the first syntax element specifying a minimum luma coding block size;

verifying whether the minimum luma coding block size is within a range of allowable minimum luma coding block sizes having an upper limit smaller than a maximum allowable coding tree unit (CTU) size; and

in response to the minimum luma coding block size being within the range of allowable minimum luma coding block sizes, decoding a coded picture in the coded video based on the minimum luma coding block size,

wherein the first syntax element indicates a binary logarithm value of the minimum luma coding block size minus 2, and

the verifying includes verifying whether the binary logarithm value of the minimum luma coding block size minus 2 is in a range of 0 to Min(N, log2_ctu_size_minus5 + 3), inclusive, where N is 4, and log2_ctu_size_minus5 + 5 represents a binary logarithm value of a CTU size of the coded video.