C6.2.9 ADR

Form PC-relative address adds an immediate value to the PC value to form a PC-relative address, and writes the result to the destination register.

31 30 29 28 27 26 25 24 23				5	4	0
0 immlo 1 0 0 0 0	immhi			Rd		
ор						

Literal variant

ADR <Xd>, <1abe1>

Decode for this encoding

integer d = UInt(Rd); bits(64) imm;

imm = SignExtend(immhi:immlo, 64);

Assembler symbols

- <Xd> Is the 64-bit name of the general-purpose destination register, encoded in the "Rd" field.
- label> Is the program label whose address is to be calculated. Its offset from the address of this instruction, in the range +/-1MB, is encoded in "immhi:immlo".

Operation

bits(64) base = PC[];

X[d] = base + imm;