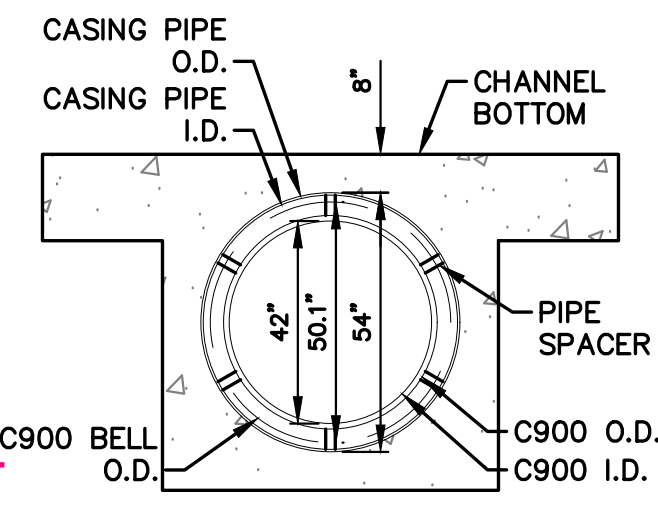
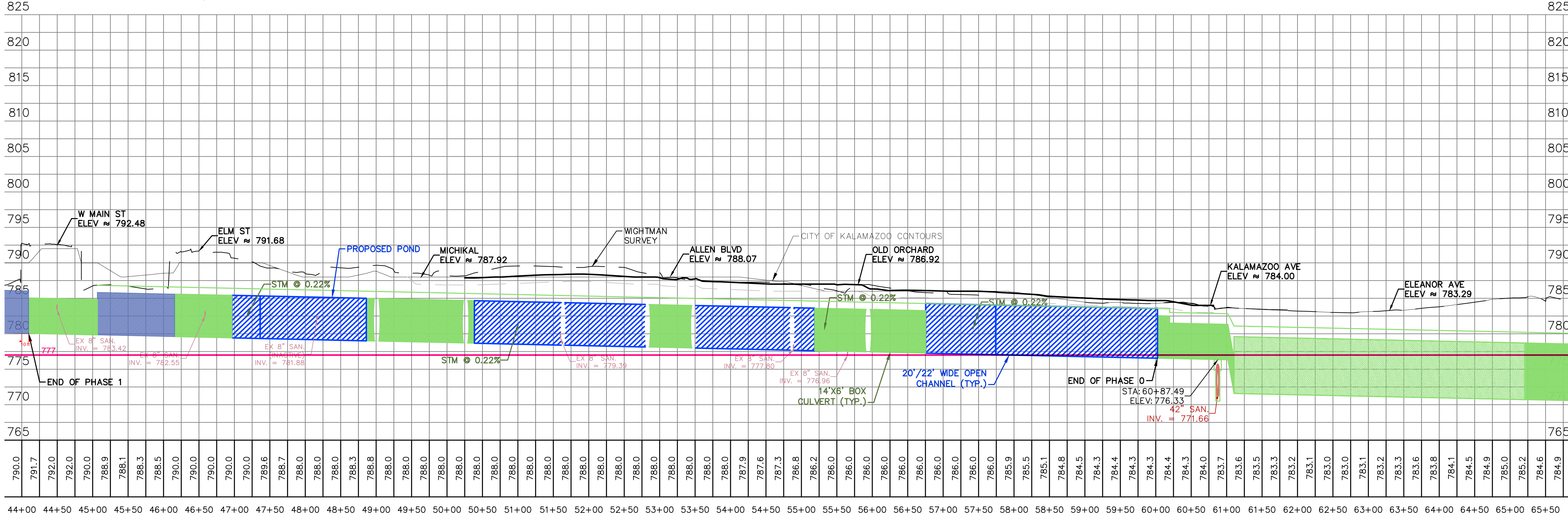
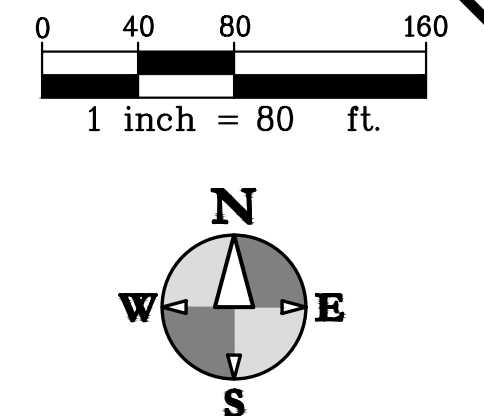
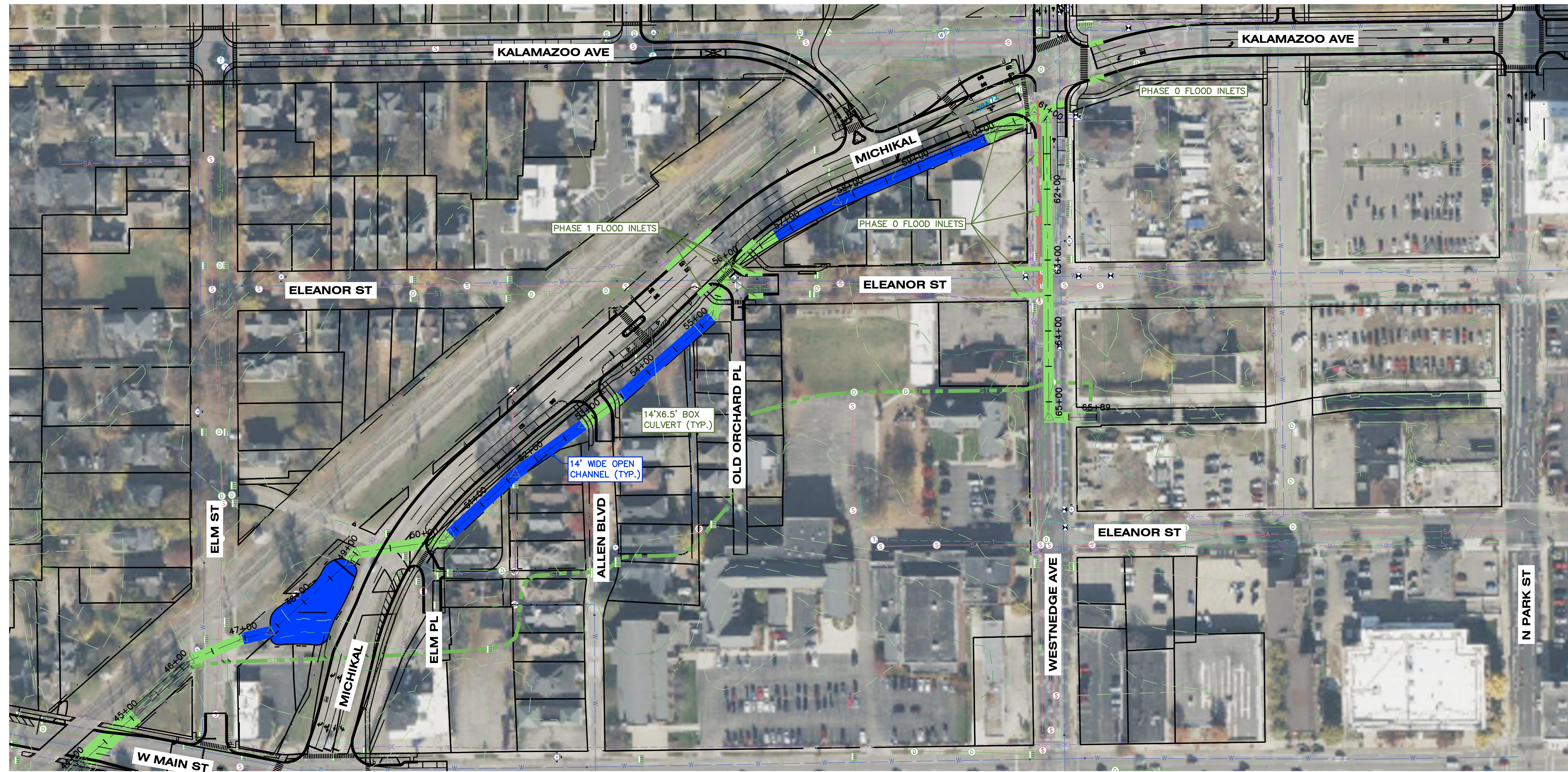


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C900
INSIDE DIAMETER = 42.18"
OUTSIDE DIAMETER = 44.50"
OUTSIDE BELL DIAMETER = 50.108"

CASING PIPE
OUTSIDE DIAMETER = 54.0"
INSIDE DIAMETER = 53.0"
PIPE SPACER LENGTH = 4.25"

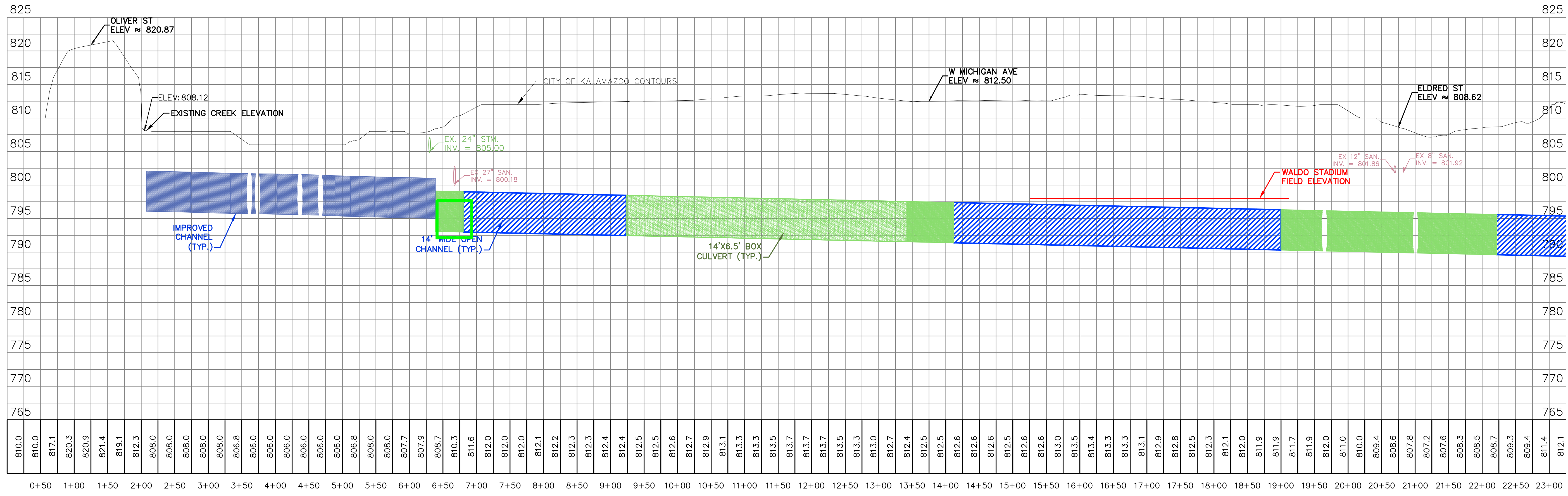
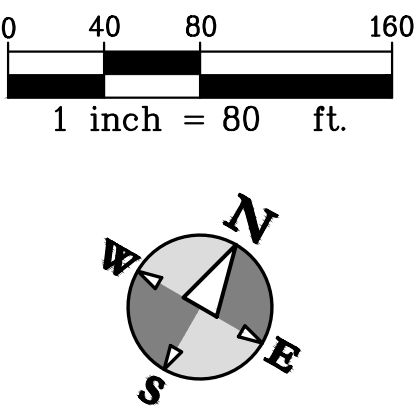
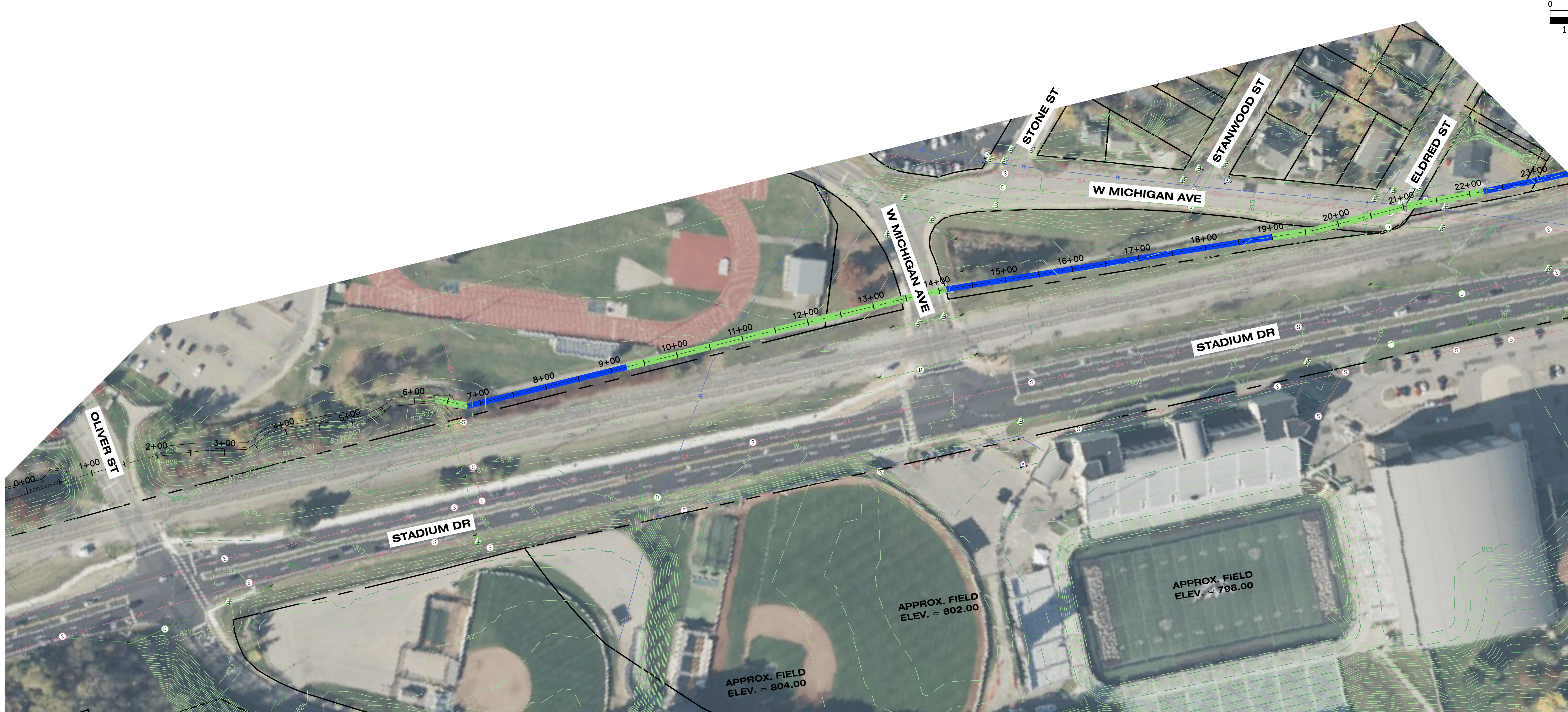
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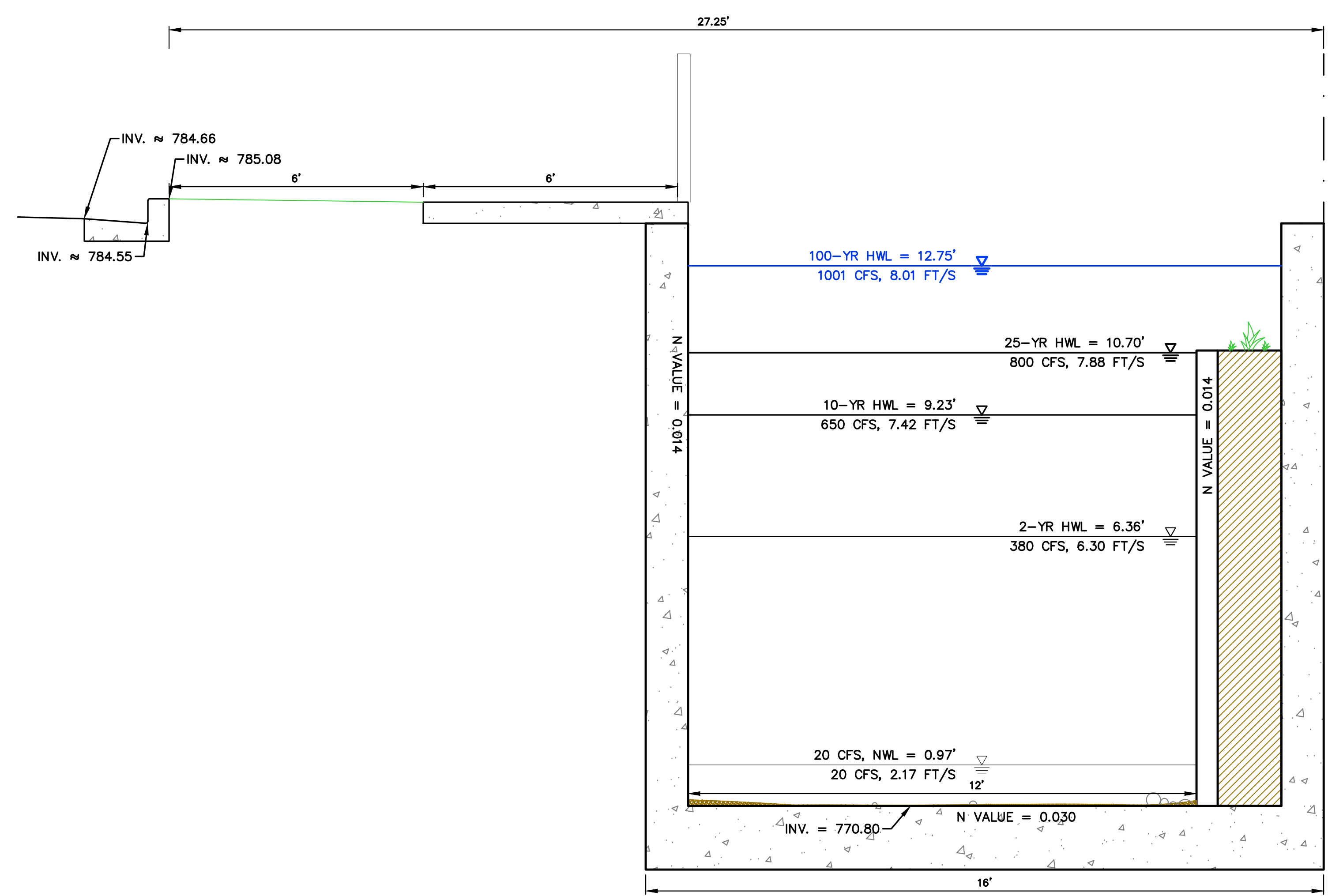
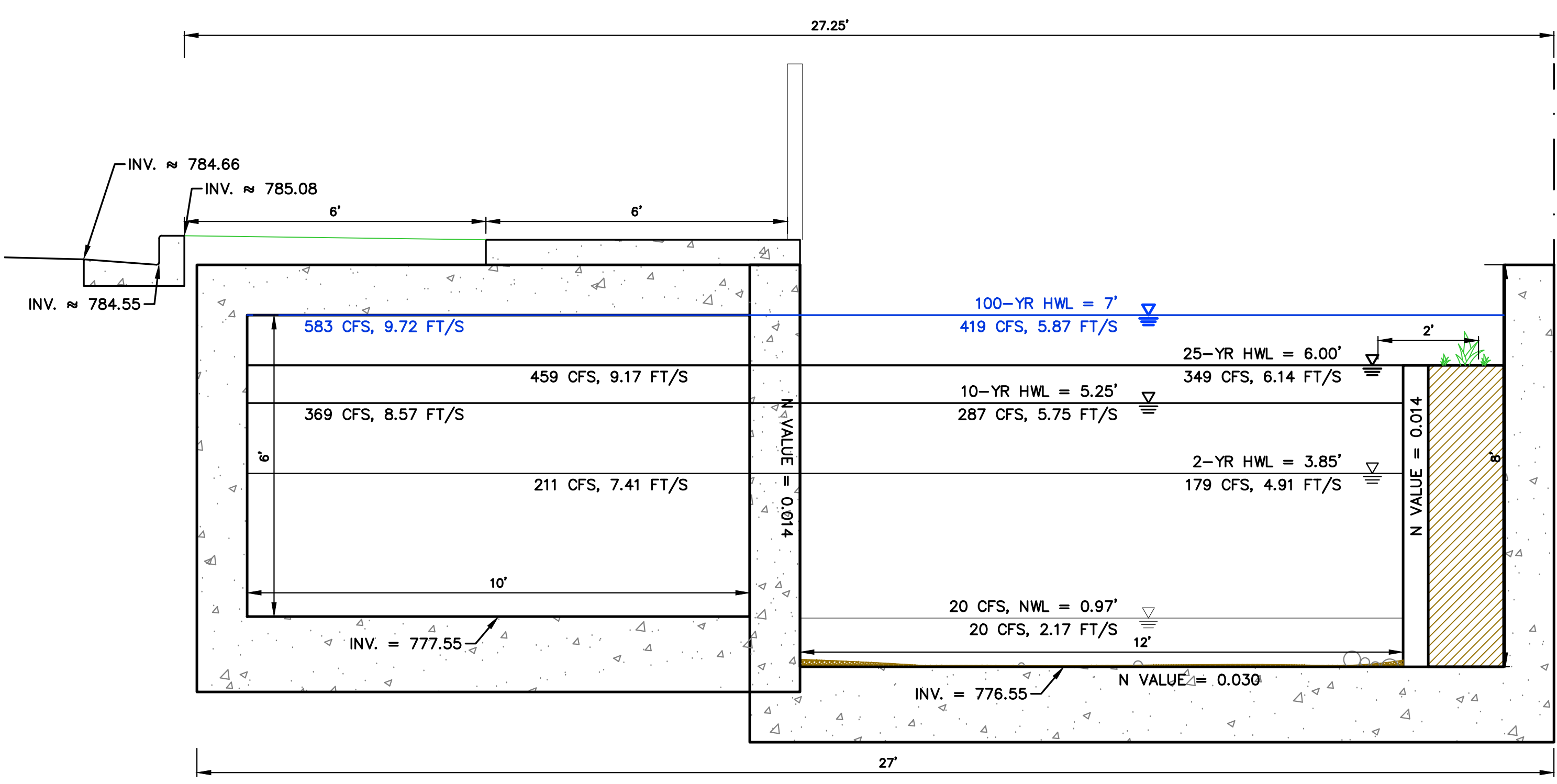
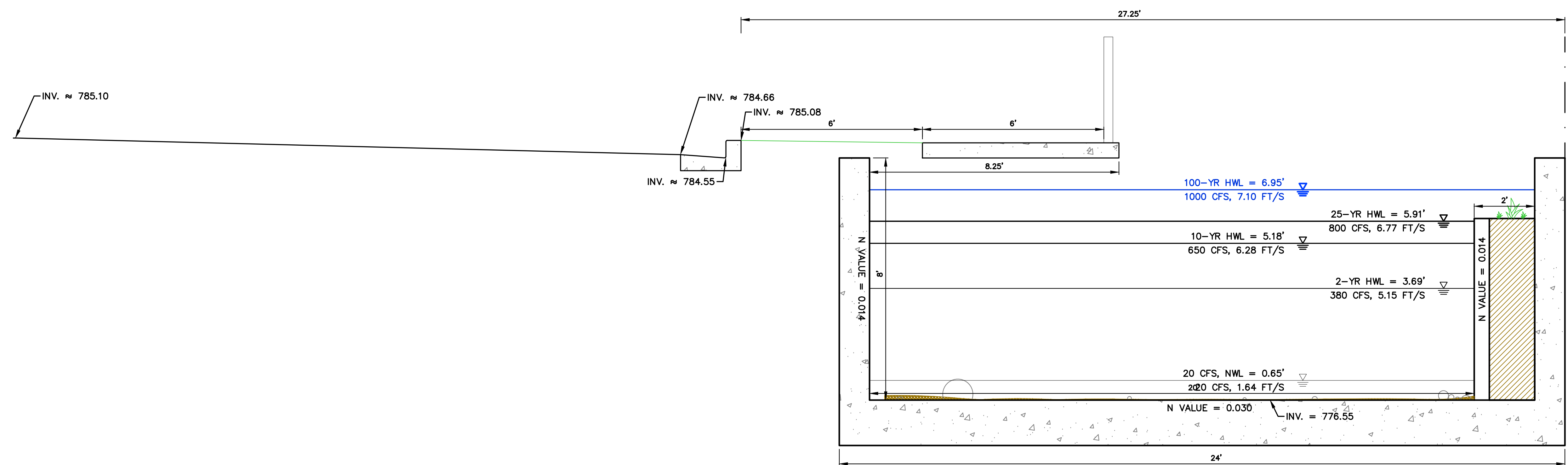
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ALTERNATIVES

- N = 0.030
LOWER CHANNEL WIDTH = 20'
UPPER CHANNEL WIDTH = 22'
- N = 0.040
LOWER CHANNEL WIDTH = 24'
UPPER CHANNEL WIDTH = 26'
- N = 0.040
LOWER CHANNEL WIDTH = 30'
UPPER CHANNEL WIDTH = 32'

Surface Material	Manning's Roughness Coefficient - n -
Asbestos cement	0.011
Asphalt	0.016
Brass	0.011
Brick and cement mortar sewers	0.015
Canvas	0.012
Cast or Ductile iron, new	0.012
Clay tile	0.014
Concrete - steel forms	0.011
Concrete (Cement) - finished	0.012
Concrete - wooden forms	0.015
Concrete - centrifugally spun	0.013
Copper	0.011
Corrugated metal	0.022
Earth, smooth	0.018
Earth channel - clean	0.022
Earth channel - gravelly	0.025
Earth channel - weedy	0.030
Earth channel - stony, cobbles	0.035
Floodplains - pasture, farmland	0.035
Floodplains - light brush	0.050
Floodplains - heavy brush	0.075
Floodplains - trees	0.15
Galvanized iron	0.016
Glass	0.010
Gravel, firm	0.023
Lead	0.011
Masonry	0.025
Metal - corrugated	0.022
Natural streams - clean and straight	0.030
Natural streams - major rivers	0.035
Natural streams - sluggish with deep pools	0.040
Natural channels, very poor condition	0.060



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**CREEK CROSS SECTION
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