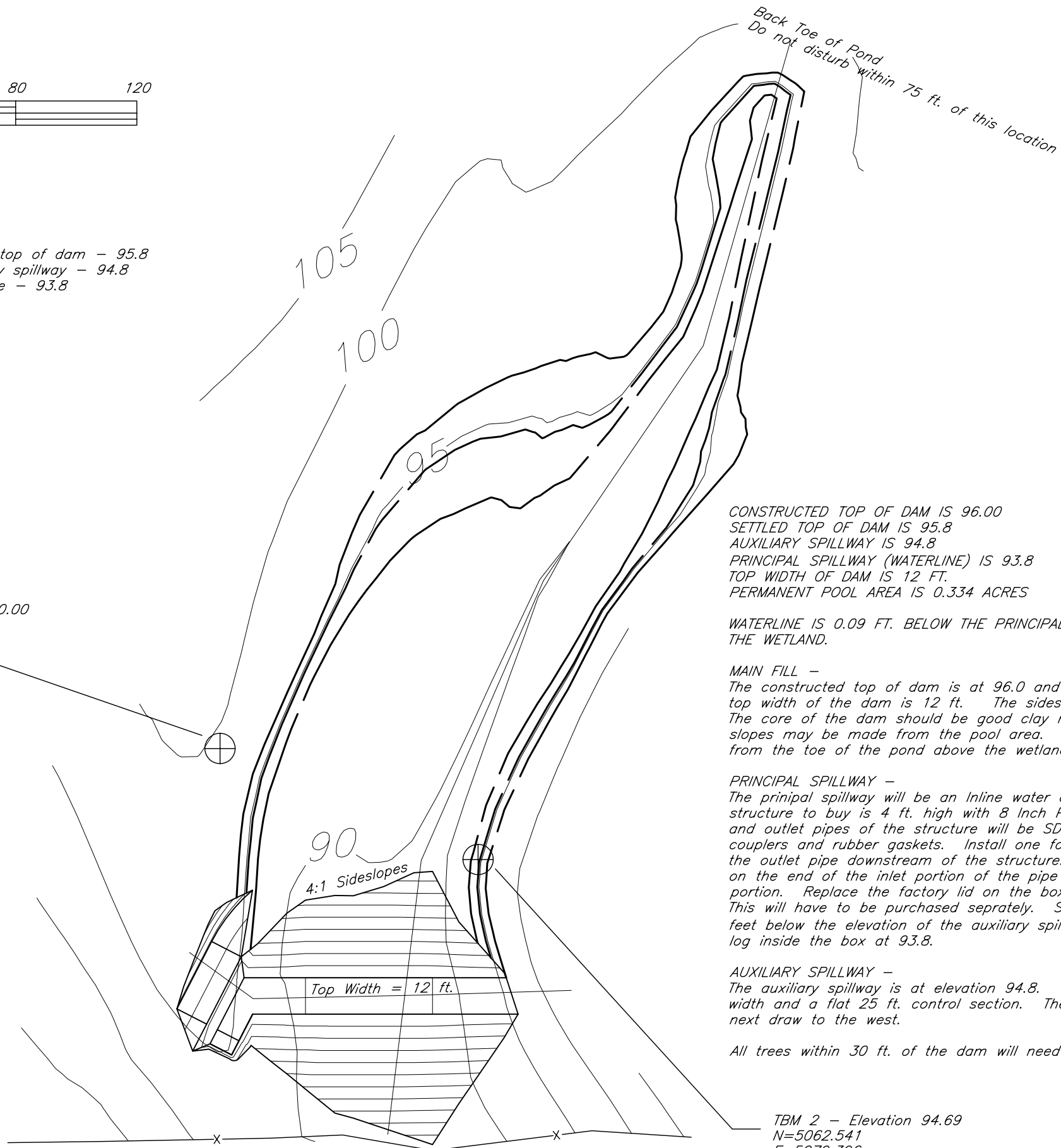


Upper Dashed line is the settled top of dam - 95.8
 Middle Dashed line is the auxiliary spillway - 94.8
 Lower Dashed line is the waterline - 93.8

TBM 1 - # 1000, Elevation 100.00
 N=5099.128
 E=4994.212



CONSTRUCTED TOP OF DAM IS 96.00
 SETTLED TOP OF DAM IS 95.8
 AUXILIARY SPILLWAY IS 94.8
 PRINCIPAL SPILLWAY (WATERLINE) IS 93.8
 TOP WIDTH OF DAM IS 12 FT.
 PERMANENT POOL AREA IS 0.334 ACRES

WATERLINE IS 0.09 FT. BELOW THE PRINCIPAL SPILLWAY OF THE POND ABOVE THE WETLAND.

MAIN FILL -
 The constructed top of dam is at 96.0 and the settled top is at 95.8. The top width of the dam is 12 ft. The sideslopes of the dam are all 4:1. The core of the dam should be good clay materia and the front and back slopes may be made from the pool area. Do not move any fill within 75 ft. from the toe of the pond above the wetland.

PRINCIPAL SPILLWAY -
 The principal spillway will be an Inline water control structure. The size of structure to buy is 4 ft. high with 8 Inch PVC inlet and outlet. The inlet and outlet pipes of the structure will be SDR 32.5 ASTM D 2241 with bell couplers and rubber gaskets. Install one four by four anti-seep collar on the outlet pipe downstream of the structure. Install a bar guard trash rack on the end of the inlet portion of the pipe and a rat guard on the outlet portion. Replace the factory lid on the box with a heavy duty bar guard lid. This will have to be purchased separately. Set the top of the box at the 0.5 feet below the elevation of the auxiliary spillway (94.3) and set the top stop log inside the box at 93.8.

AUXILIARY SPILLWAY -
 The auxiliary spillway is at elevation 94.8. This will have an 11 ft. bottom width and a flat 25 ft. control section. The flow will be diverted to the next draw to the west.

All trees within 30 ft. of the dam will need to be removed.

TBM 2 - Elevation 94.69
 N=5062.541
 E=5079.396

Date
 JOHN J LEIGHTMAN 12-2008
 Designed
 JOHN J LEIGHTMAN 12-2008
 Drawn
 Checked
 Approved

Hale Wildlife Area - Phase 3 - Wetlands
 North 40 Wetland Plan View
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 Jones County, Iowa
 Hale Section 1 and 2



File No.
 North 40
 Wetland.DWG
 Drawing No.

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