

INDEX OF DRAWINGS

- Dwg. No. AI 1 OVERALL SYSTEM LAYOUT AND GENERAL NOTES
- Dwg. No. AI 2 SYSTEM SCHEMATIC
- Dwg. No. AI 3 GRADING PLAN & SAMPLE DETAILS
- Dwg. No. AI 4 VAULT STRUCTURAL DETAILS

GENERAL NOTES

1. See Roadway and Bridge plans for elevations and geometry.
2. Exact placement of conduit, valve control boxes and nozzles on the bridge and approach slabs shall be coordinated with the Anti-Icing system supplier prior to construction.
3. Pavement sensors shall be installed per Manufacturer's recommendations.
4. All concrete shall be Class D.
5. Grade 60 reinforcing steel is required.
6. Steps shall be in accordance with AASHTO M199.
7. All construction joints shall be thoroughly cleaned before fresh concrete is poured.
8. Do not backfill until top slab has reached design strength, f'c.
9. The Contractor is responsible for the stability of the structure during construction.
10. Equipment layout in the vault shall be approved by the Engineer prior to construction.
11. Damp-proofing/waterproofing shall be applied to the exterior of vault below grade.
12. Approximate distance to telephone and power tie-ins is ___ft. The Contractor shall determine locations of all utility tie-ins and verify distances. The cost for utility lines and tie-ins shall not be paid for separately but shall be included in the cost of the work.
13. Contractor shall verify dimensional compatibility of vault with Manufacturer and Anti-Icing equipment selected. Dimensions shown are minimums.

DESIGN DATA

AASHTO, Sixth Edition LRFD

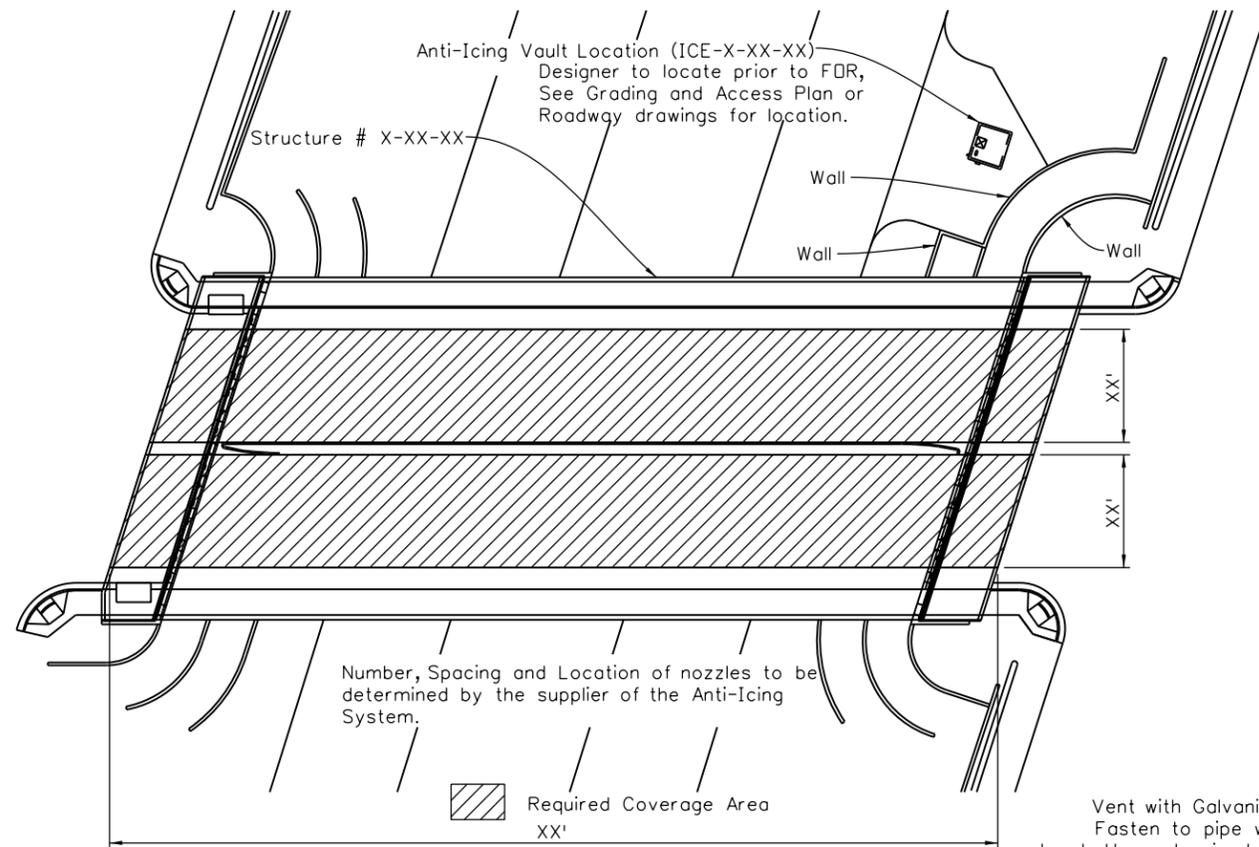
Design Method: Load and Resistance Factor Design

Live Load:
 Traffic surcharge on exterior walls = 2'
 Load on manhole = 85 lbs/sf
 Load on top slab = 85 lbs/sf
 Ko=0.44

Reinforced concrete:
 Class D Concrete: f'c = 4,500 psi
 Reinforcing Steel: fy = 60,000 psi

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	X-XX-X	TOTAL
614	Anti-Icing System	EA	1	1

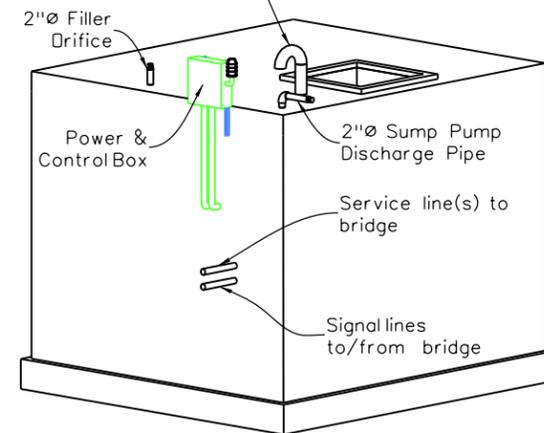
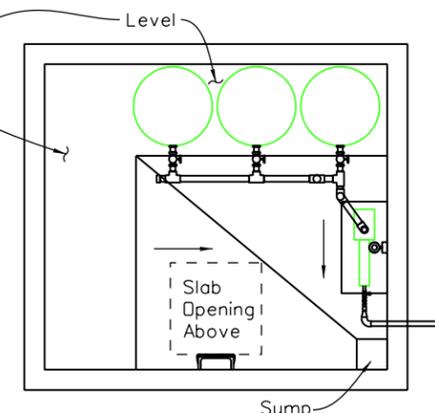
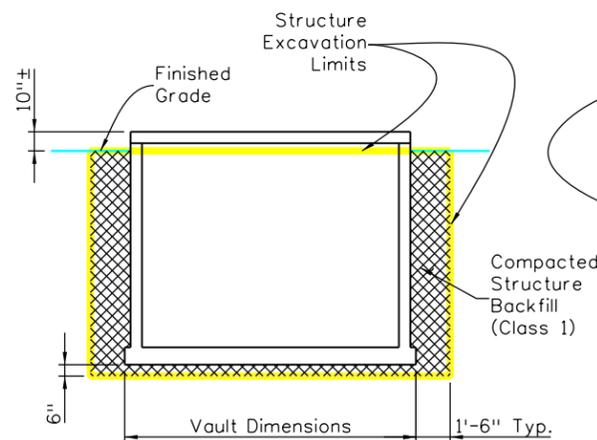


DESIGNER/DETAILER:

1. Check with Maintenance for preferred locations of vault.
2. Provide minimum 20'x20' "level" area around the anti-icing vault for refilling activities.
3. For bad drainage areas provide french drain system around vault and drain piping to low area. Quantities will need to be calculated and supplied in Roadway Quantities.
4. Have Geotech do a preliminary drilling if bedrock may be a concern.
5. Tanks that fit through 3' roof opening have a 220 gallon capacity. Max capacity for current layout is 1320 gallons (6 tanks). Revise Project Special Provision and Drawings for capacity required.
6. Provide plan of required coverage area similar to one shown.
7. Turn on Reference File for Vault Layout Desired.
8. Venting Requirements for the vault need to be determined by qualified HVAC Engineer registered in the State of Colorado.

Vent with Galvanized Rodent Screen. Fasten to pipe with steel fastening band. Use galvanized square wire mesh, 8 mesh count, 25 ga. min.

OVERALL SYSTEM LAYOUT AND REQUIREMENTS



Note: See Vault Layout for orientation

ISOMETRIC VIEW

The following approximate structure quantities are for information only and are required for each Anti-Icing Vault:

- 206 Structure Excavation - 85 CY
- 206 Structure Backfill (Class 1) - 35 CY
- 518 Waterstop - 45 LF
- 601 Concrete Class D - 17.5 CY
- 601 Reinforcing Steel - 2200 LB

Revision Dates (Preliminary Stage Only)			
5/01	4/02	2/06	10/13

Design				Quantities			
DATE	INITIAL	DATE	INITIAL	DATE	INITIAL	DATE	INITIAL
MM/YY	XXX	MM/YY	XXX	MM/YY	XXX	MM/YY	XXX
MM/YY	XXX	MM/YY	XXX	MM/YY	XXX	MM/YY	XXX

Print Date: \$DATE\$
File Name: Sheet_B-614-1.dgn
Horiz. Scale: NTS Vert. Scale: As Noted
Staff Bridge Branch - Unit 022X Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

ANTI-ICING SYSTEM OVERALL SYSTEM LAYOUT AND GENERAL NOTES			
Designer:	XXXXXXXX	Structure Numbers	X-XX-XX
Detailer:	XXXXXXXX	Structure Numbers	X-XX-XX
Sheet Subset:	BRIDGE	Subset Sheets:	ICE 1 of 4

Project No./Code
Project Number
Code
Sheet Number