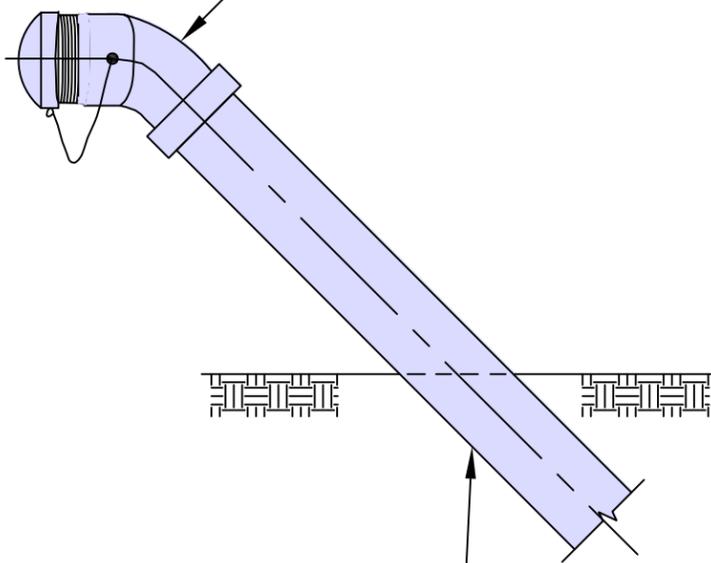
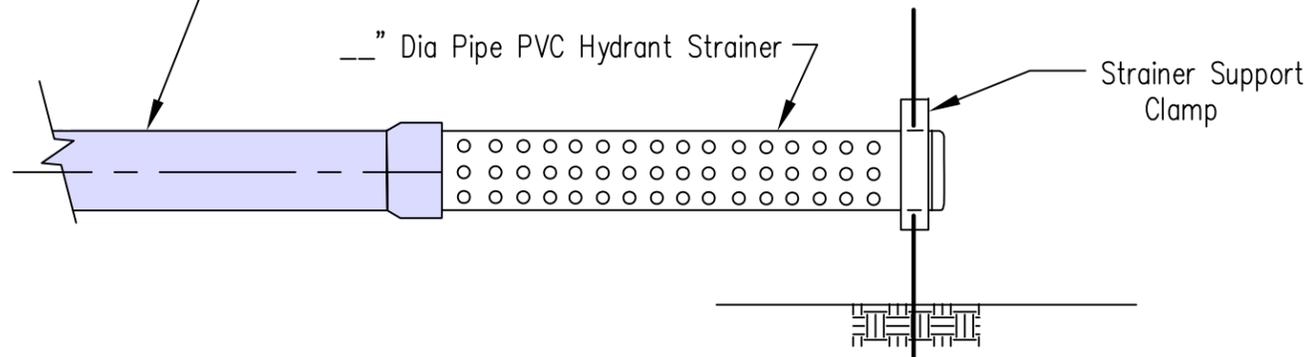


NOTE:  
Check with local Fire Department  
for approved type of connection.

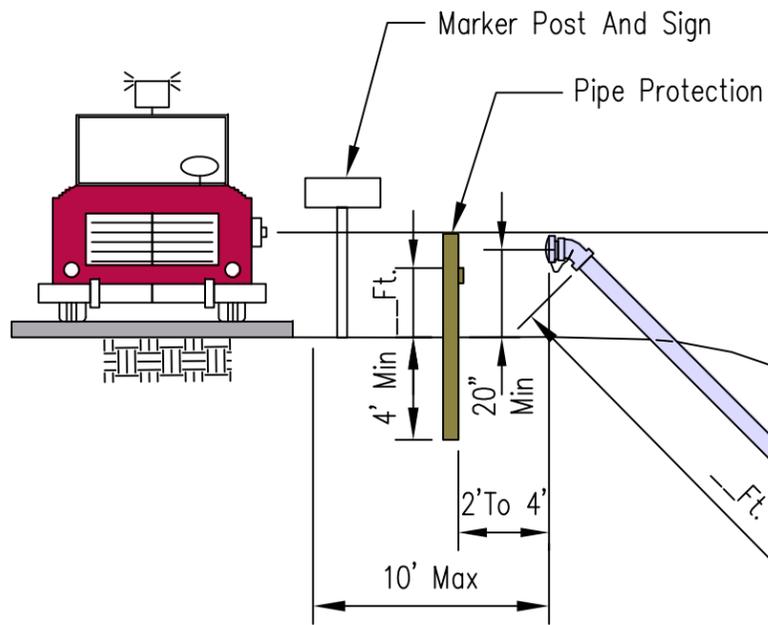
Dry Hydrant Adapter  
Head Kit ASTM 2466  
---" x 45° Elbow



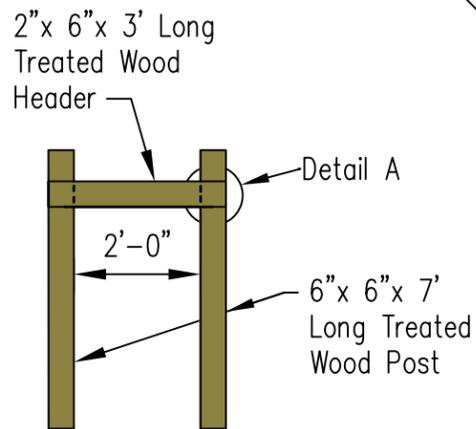
---" Dia. Intake Plastic Pipe  
(Min. Schedule 40)



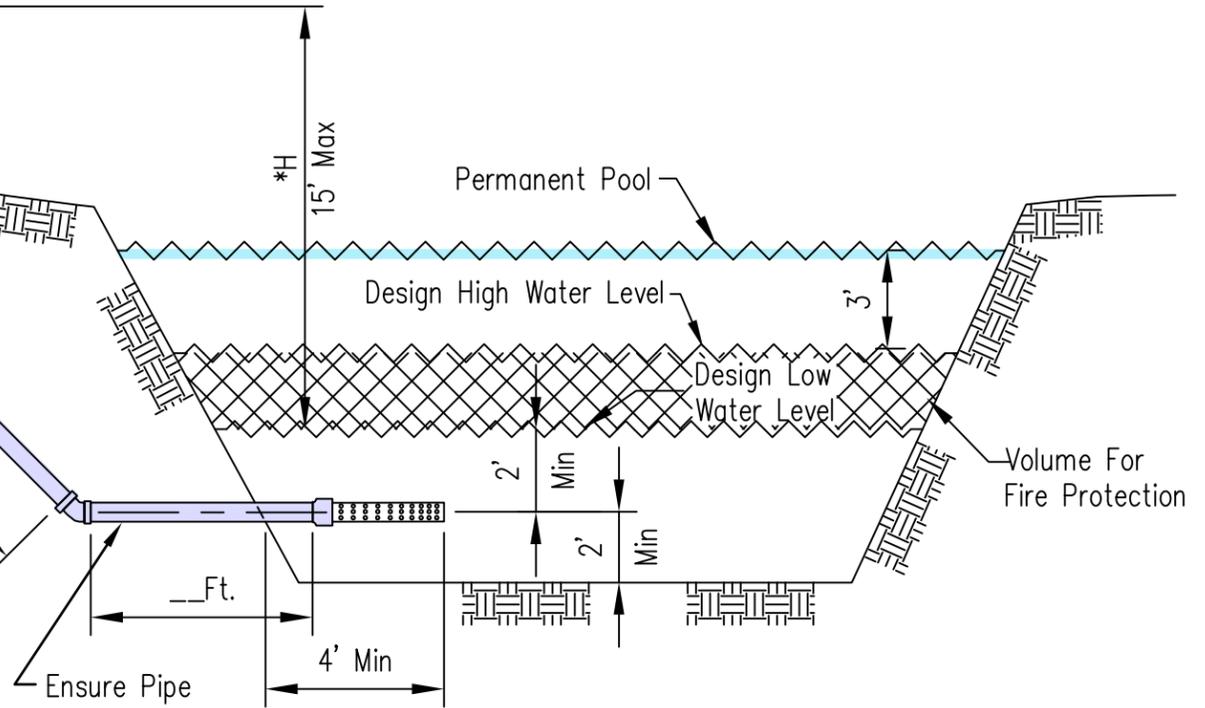
HYDRANT DETAILS



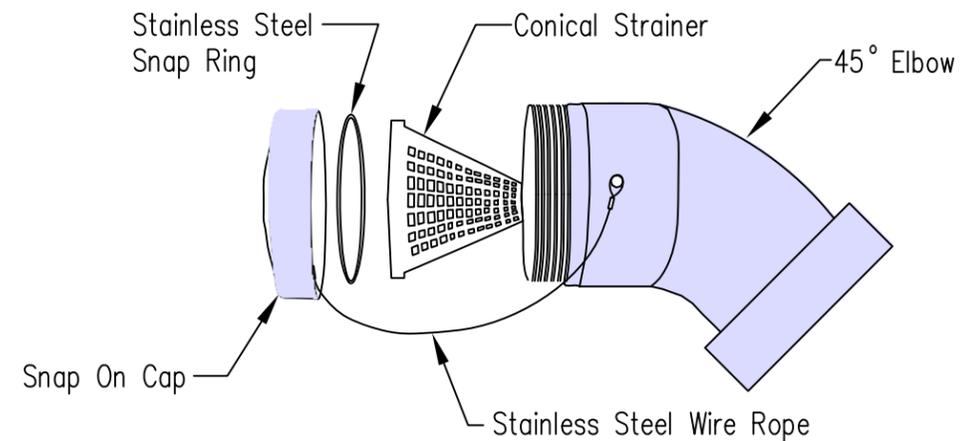
PIPE PROTECTION



NOTE:  
\*If pump elevation is higher than  
steamer fitting (truck pump inlet),  
measure H from pump level.



PROFILE OF INSTALLATION



DRY HYDRANT HEAD

Date	---
Designed	M. QUINONES
Drawn	8/13
Checked	---
Approved	---

45 DEGREE DRY FIRE HYDRANT  
DETAILS & DESIGN SHEET



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Landowner	---	Location	---
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Not To Scale

Calculating Required Lift

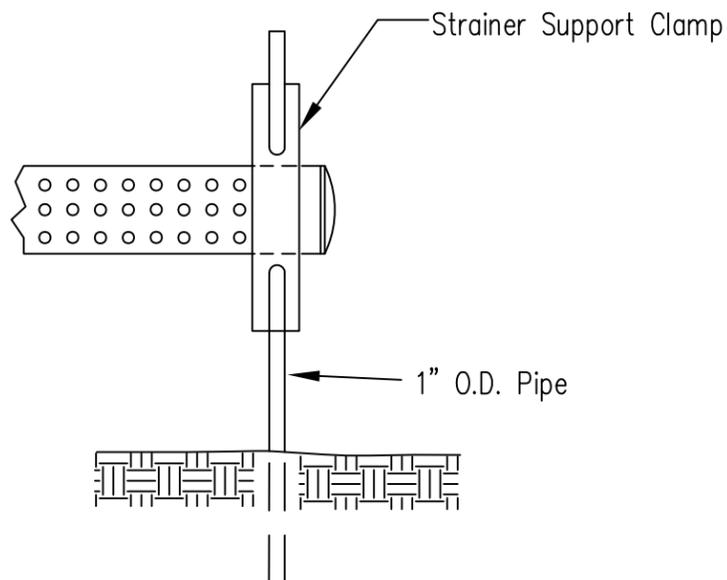
$$\text{Total Required Lift} = \text{Head Loss in Hydrant Fittings And Guard} + \text{Head Loss In Intake Pipe (HL)} + \text{Static Lift (H)}$$

Using 500 Gallons/Min.

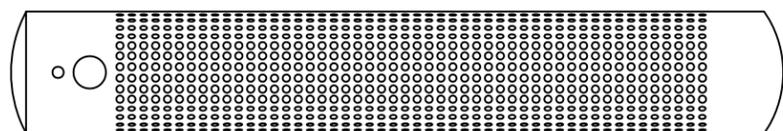
$$\text{Total Required Lift} = 7.6' + L \times \frac{\text{HL}}{100} + H = 7.6' + \text{---} + \text{---} = \text{---}$$

Using 250 Gallons/Min

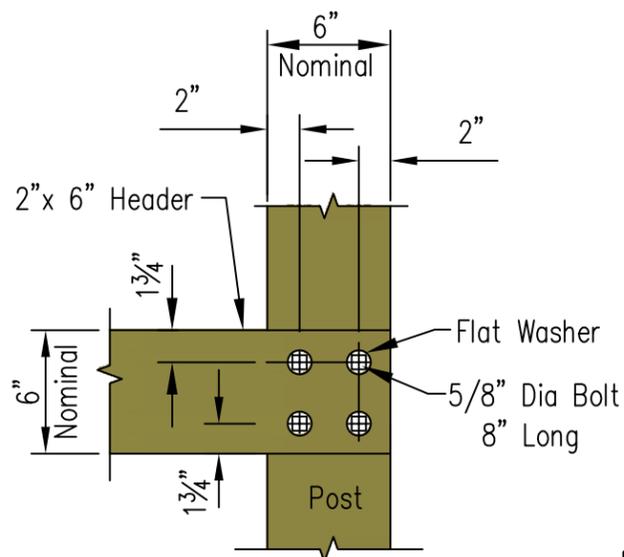
$$\text{Total Required Lift} = 1.9' + L \times \frac{\text{HL}}{100} + H = 1.9' + \text{---} + \text{---} = \text{---}$$



STRAINER SUPPORT CLAMP



PVC DRY HYDRANT STRAINER



DETAIL A

BILL OF MATERIAL

Material	Qty
Dry Hydrant Head Kit 45° Elbow	1 Each
___ Inch PVC Strainer Kit	1 Each
Strainer Support And Clamp	1 Each
___ Inch Dia PVC Schedule 40 Pipe	Feet
___ Inch Dia PVC 45° Elbow	1 Each
Reflective Sign And Steel Post	1 Each
Pipe Protection	
Treated Wood Post 6"x 6" x 7' Long	2 Each
Treated Wood Header 2"x 6" x 7' Long	1 Each
5/8" Bolt 8" Lg/W Nuts & Washers	8 Each

HEAD LOSS IN FEET (HL)

Gallons Per Minute	Plastic Pipe	Smooth Steel Pipe
500	2.3	5.3
250	0.6	1.3

NOTES:

- Total required lift value not to exceed 20 feet.
- Static lift (H) from design low water level to top of fire truck pumping connection or centerline of pump (which ever is higher) not to exceed 15 feet.
- L = total length of PVC pipe
- Minimum water volume of 4,000 cubic feet represents a flow of 250 gallons per minute for 2 hours. This volume should be available after 50-year frequency, 12-month duration drought. Assumptions for Volume computation:
  - Runoff during drought: None.
  - Pond Surface Evaporation During Drought: 3 feet.
  - Top Water Surface Elevation For Volume Computation: 3 feet below the permanent pool elevation (generally the crest of the principal spillway) due to evaporation during the drought.
  - Bottom Water Surface Elevation For Volume Computation: 2 feet above the dry hydrant inlet centerline in the pond to prevent vortex during pumping.

Disclaimer:

This drawing documents volume of water available. It assumes 4,000 cubic feet of water is adequate to provide fire protection for one event. The Natural Resources Conservation Service does not warrant the conditions which represent a 50-year frequency drought nor any local capabilities to deliver water to fire scene.

Total Volume (3 feet below permanent pool)	_____ft <sup>3</sup>
- Total Volume (2 feet above dry hydrant inlet centerline)	_____ft <sup>3</sup>
= Volume (fire protection)	= _____ft <sup>3</sup>
Minimum Volume (fire protection) 4,000 ft <sup>3</sup>	

Date	
Designed	
Drawn	M. QUINONES
Checked	
Approved	

**45 DEGREE DRY FIRE HYDRANT  
DETAILS & DESIGN SHEET**



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Landowner		Location	
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Not To Scale