

Montana Department of Fish, Wildlife, and Parks
 Bluewater Springs Hatchery Raceway Cover
 Near Bridger, Montana
 FWP Project No. 7213552

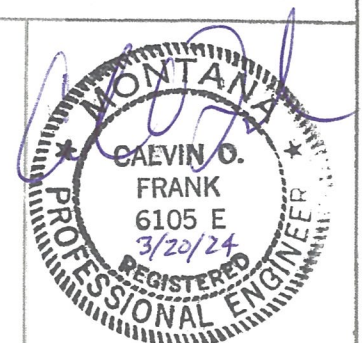


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 Raceway Cover

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 PO Box 118
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NOTES:

- Location: 700 Bluewater Road, Bridger, MT 59014
 Geocode - 45.330916, -108.800517

- Specifications - Montana Public Works Standard Specifications, 2020 Edition, and any amendments thereto, and the Special Provisions govern unless otherwise noted.

Design Criteria

- Concrete Strength - Use $f'_c = 3000$ psi

- Reinforcing Steel - Use new deformed type reinforcing steel, Grade 60.

- Dimensions - All dimensions are in feet and/or inches.

- Risk Category II
- Basic Wind Speed = 108 Vmph
- Seismic Design Category: B
- Ground Snow Load: 49 psf
- Roof Snow Load: 41 psf

Location	Reinforced Concrete (Cubic Yards)		Structural Steel (Lump Sum)	Roll Up Door** (Each)	Relocate Electric Line (LS)	Chain Link Fence** (Sq Ft)	Chain Link Gate** (Each)		
	Concrete (yd3)	Reinforcing Steel (lbs)					12'W x 15'H	3'W x 8'H	10'-6"W x 12'H
South End	0.25	-		1.0		1240.0	2.0	2.0	2.0
North End	0.25	-		1.0	1.0	1115.0	1.0		
East End	11.5	408.5				2305.0			
West End	11.5	408.5				1510.0			
Superstructure			1.0						
TOTAL	23.5	817.0*	1.0	2.0	1.0	6170.0	3.0	2.0	2.0

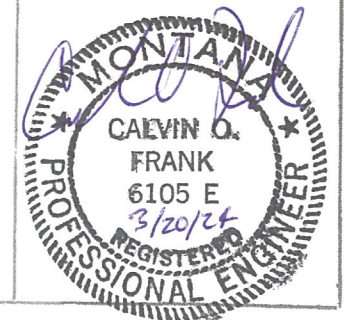
*Note: Information only. Reinforcing Steel to be included with Reinforce Concrete bid item.

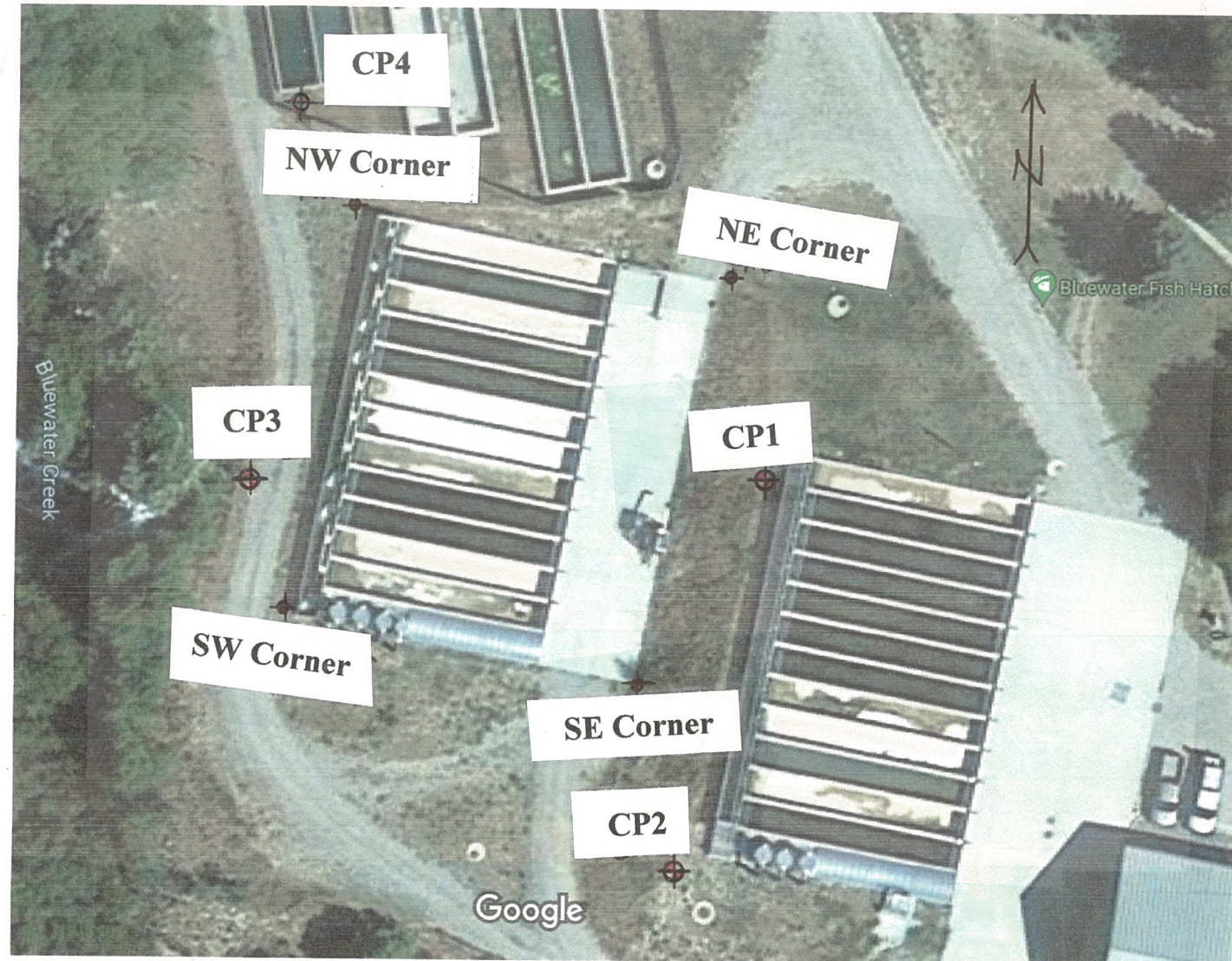
**Note: Chain Link Fence, Chain Link Gates, and Roll Up Doors will be bid as an Additive Alternative. DFWP will have the option of accepting these bid items.

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General Notes & Summary Sheet
 Page No. 2

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**Coordinate Control Table
Montana State Plane (NADA83) (feet)**

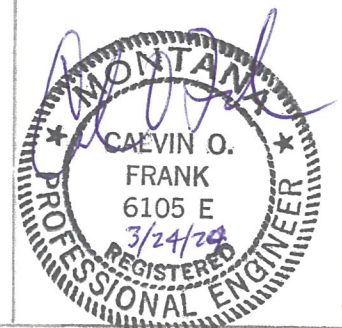
Point ID	Northing	Easting	Elevation
CP1	394933.4967	2148445.6662	3972.1288
CP2	394826.5228	2148421.1977	3971.8238
CP3	394922.9410	2148309.3790	3961.1154
CP4	395022.0119	2148330.7581	3960.3842
NE Corner	394978.0879	2148432.5295	3965.40
NW Corner	394995.3279	2148339.0826	3961.30
SE Corner	3948348.8348	2148412.8724	3963.40
SW Corner	394889.1512	2148319.4244	3961.30

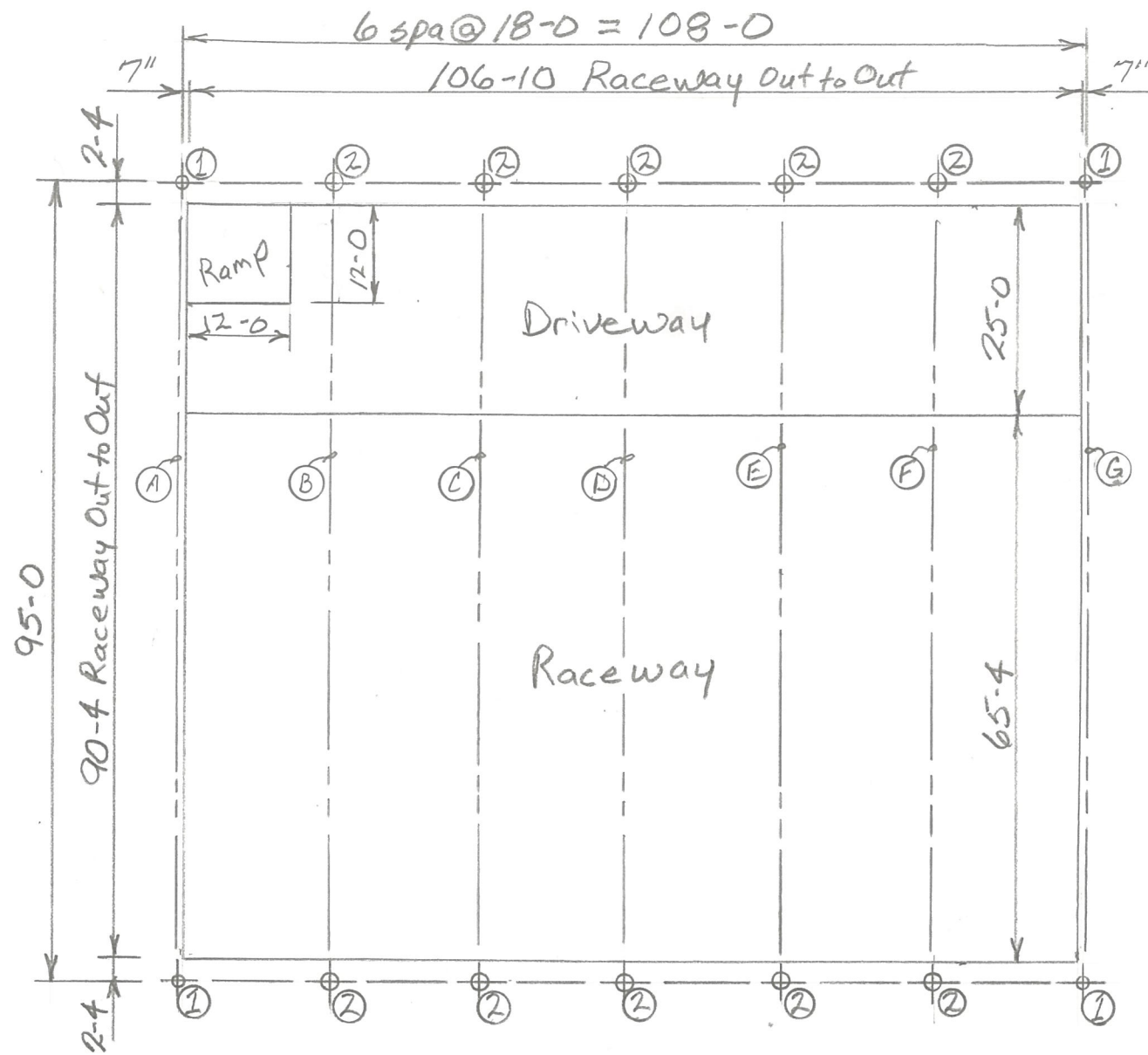
Note: Corner coordinates denote corner of structure at centerline footing at centerline of outside rigid frame.

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Site Plan
Page No. 3

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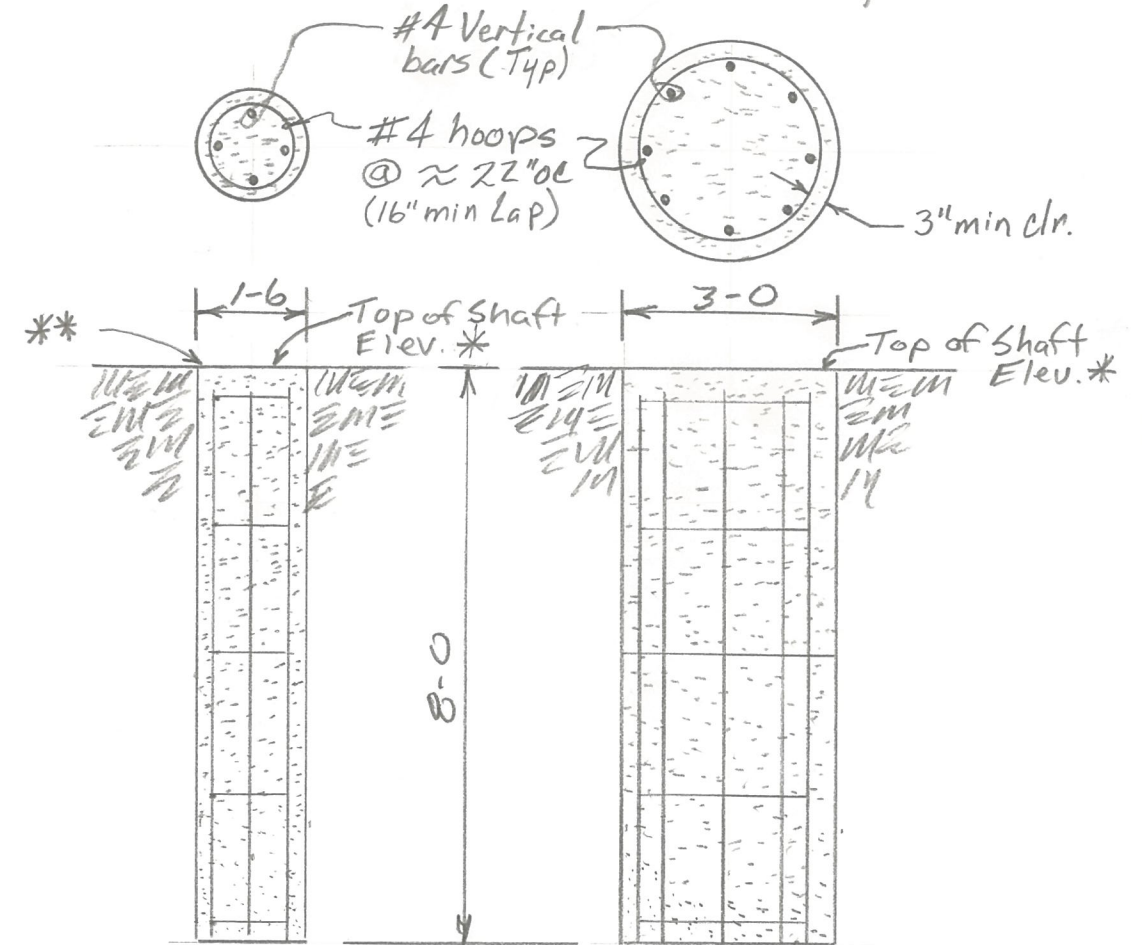
Foundation Plan
Scale: 1"=20'-0"



**Note: Anchor Bolt & Plate Attachment details to be provided with structural steel plans.

Note: Use 3000 psi min strength concrete.
*Note: See Page Nos. 5+6 for top of Shaft Elevations

Note: Use $F_y = 60$ ksi reinforcing steel.
Note: Concrete must be 3000 psi strength prior to installing steel columns.



① Drilled Shaft

② Drilled Shaft

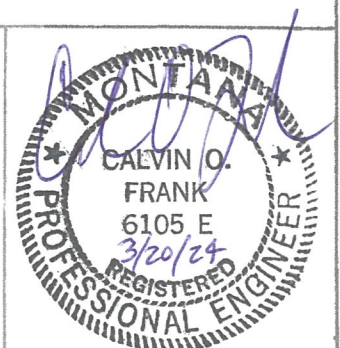
Scale: 3/8"=1'-0"

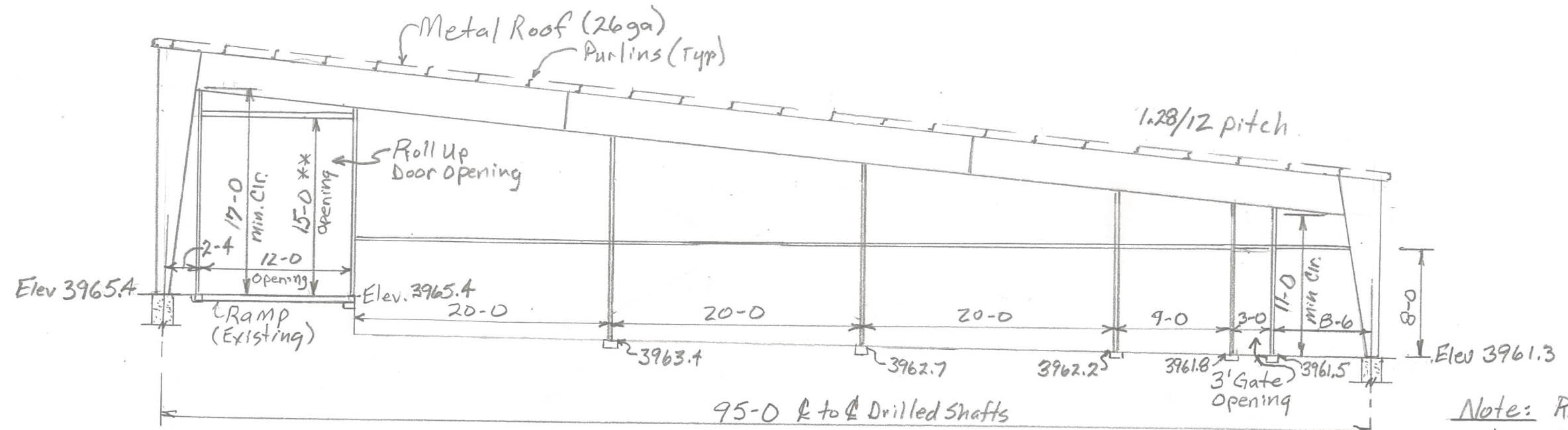
Note: See Special Provisions for the Soil Boring Logs.

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Footing Plan
Page No. 4
Scale: As Noted

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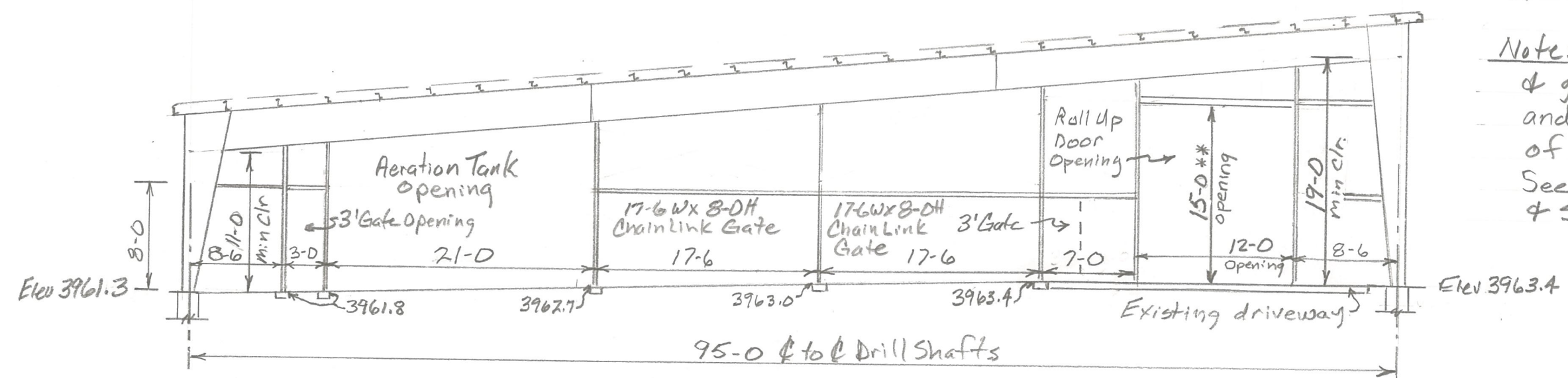




Frame A - North End

Note: Rigid Frame details & plans to be provided by the steel manufacturer.

Note: Intermediate columns & girts are non-bearing and will be used for install of the chain link fence. See Chain Link Fence details & Special Provisions.



Frame G - South End*

Note: See Page 8 for Aeration Tank opening fence Detail.

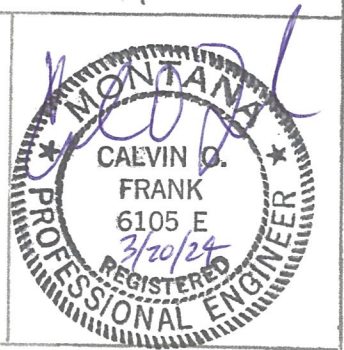
*Note: Frames B-F will match elevations & clearances with Frame G. See page 4 for Frames.

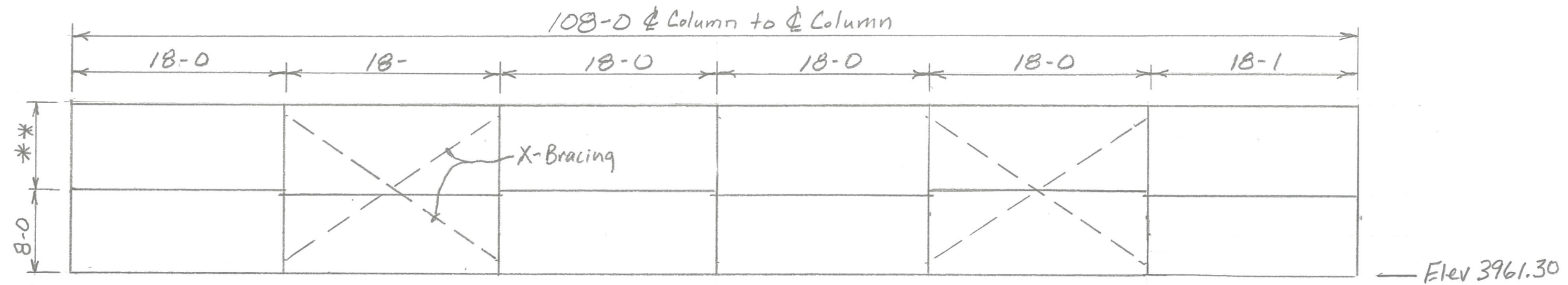
**Note: See Page # 9 Roll Up Door Opening details. Door Opening (12'wx15'H) for Roll Up Door.

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Rigid Frame Elevation Plan
Page No. 5
Scale; 1" = 10'

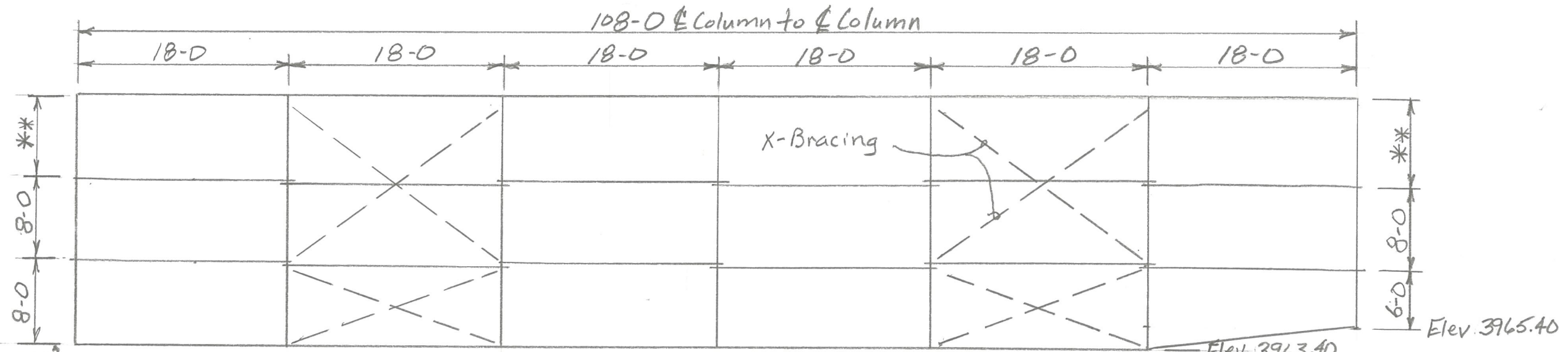
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Low Side (West) Framing Plan

** Note: See Steel Manufacturer Plans for this dimension.



High Side (East) Framing Plan

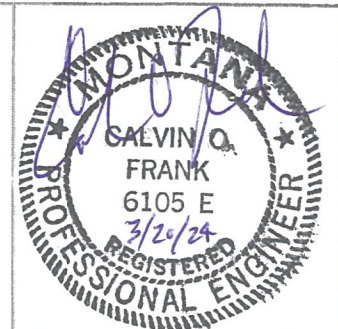
Note: Girts will be used for the installation of Chain Link Fence.

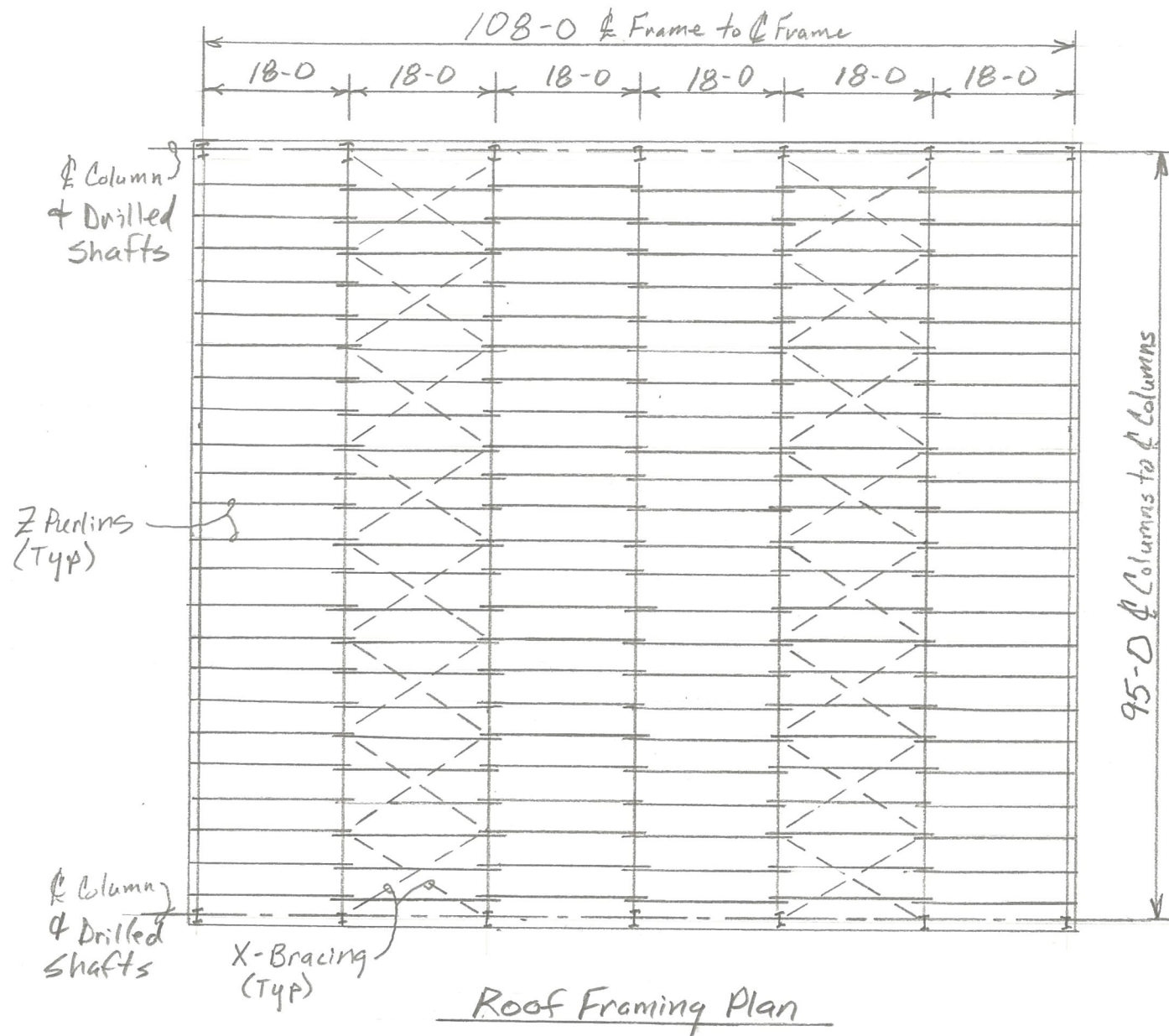
Note: Girt Spacing may change per steel plan.
 Note: X-Bracing to be determined by the steel manufacturer's designer.

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End Framing Elevation Plan
 Page No. 6
 Scale: 1" = 10'

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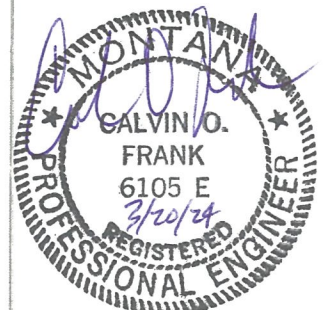
Note: Z purlins & X-Bracing to be determined by steel manufacturer.

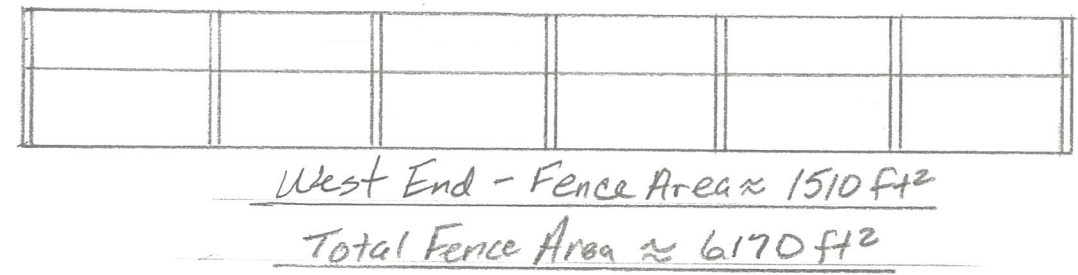
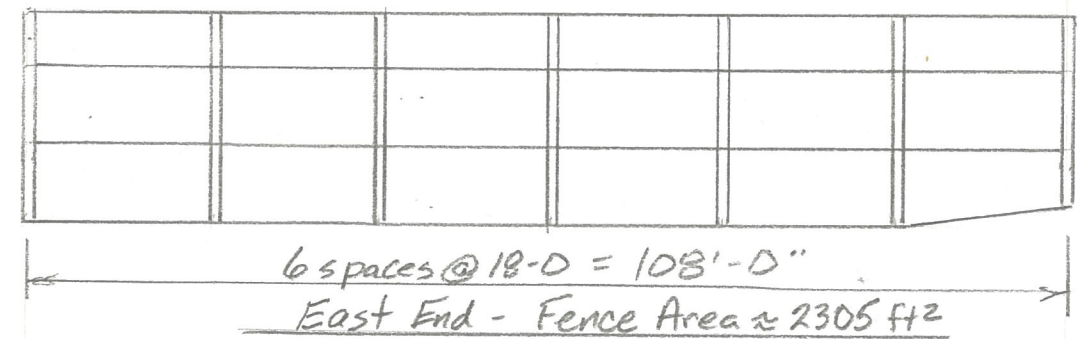
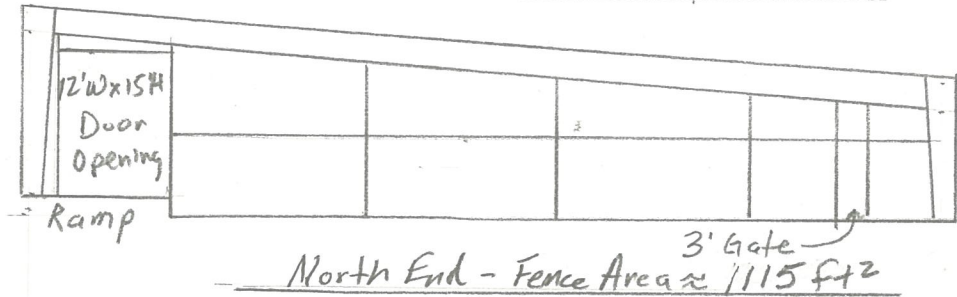
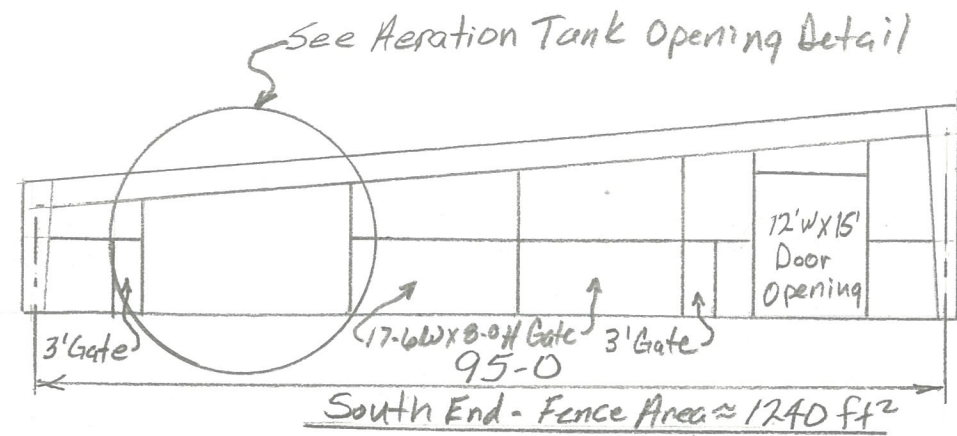
Note: Metal Roofing to be 26 ga., off-white in color. Utilize fastening system that enables movement for expansion & contraction of roofing to prevent leaks.

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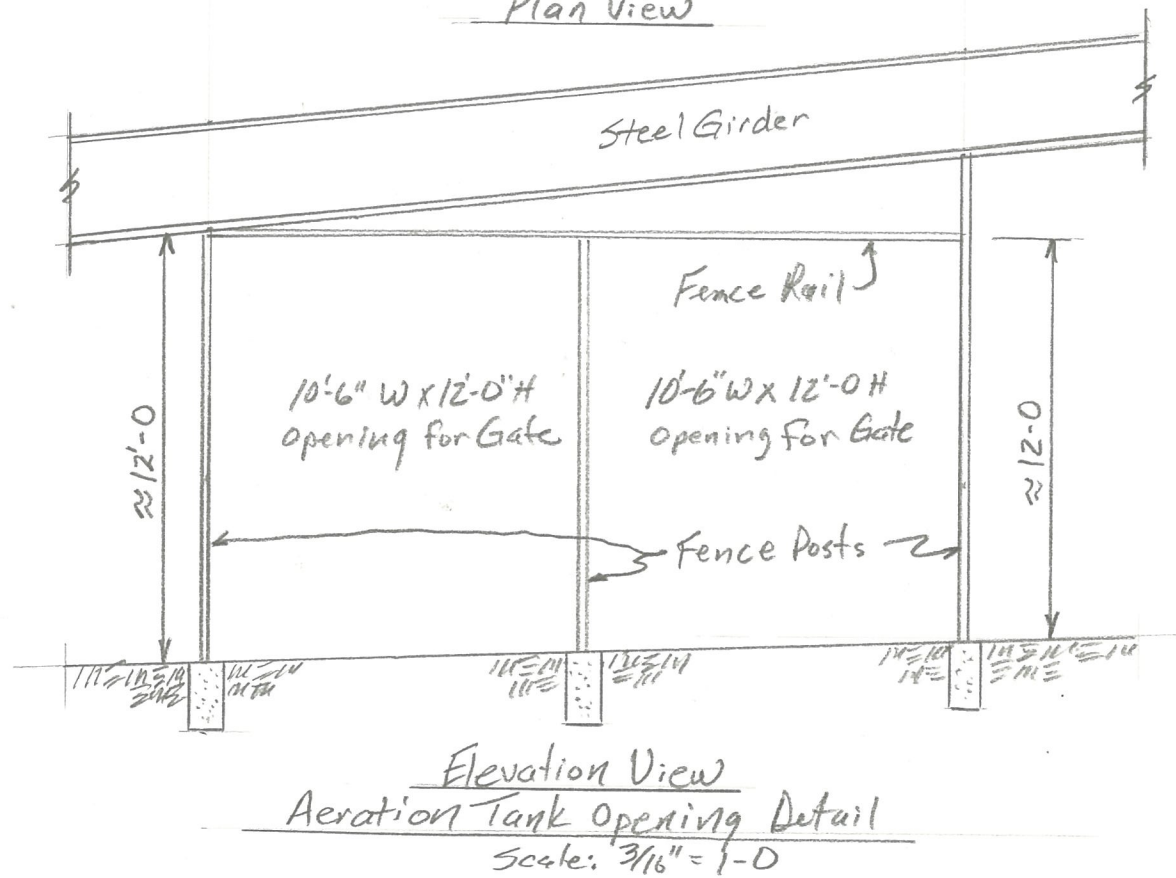
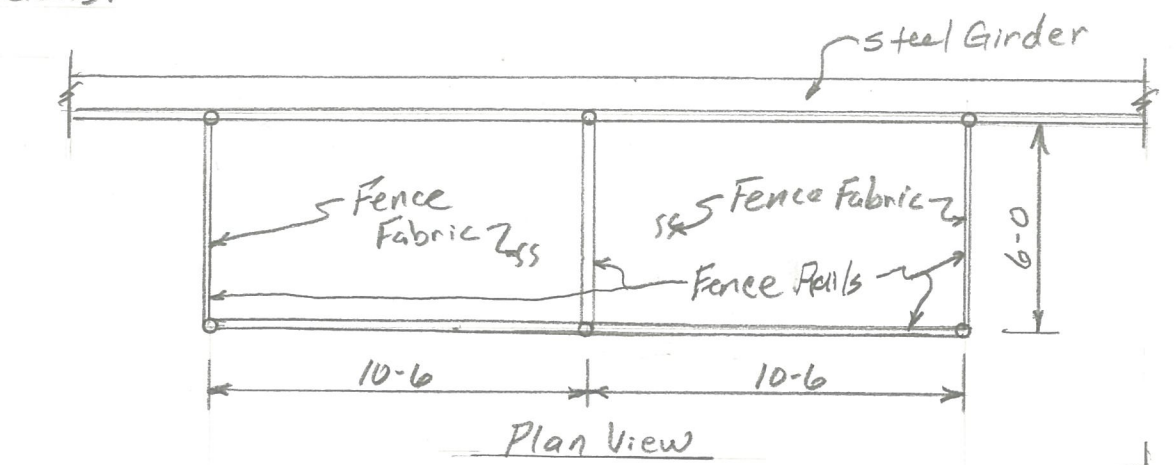
Roof Framing Plan
 Page No. 7
 Scale: 1" = 20'

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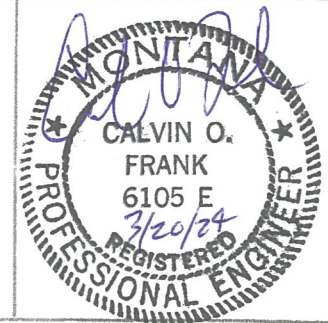
Note: See Pages 5+6 and Structural Steel Frame plans for Post + Girts Details.

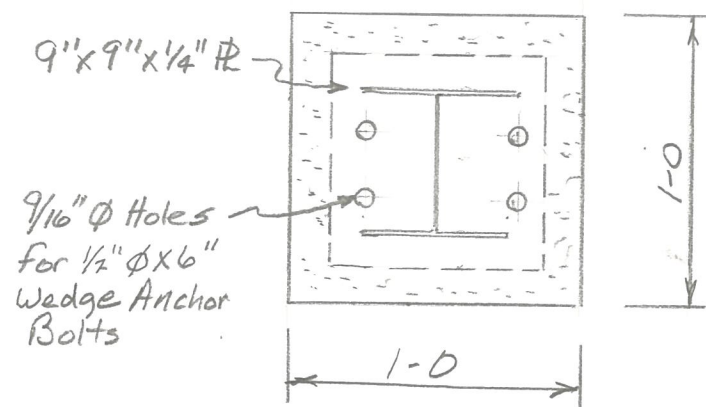


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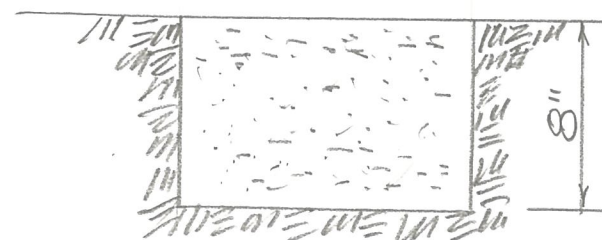
Chain Link Fence Details
 Page No. 8
 Scale: As Noted

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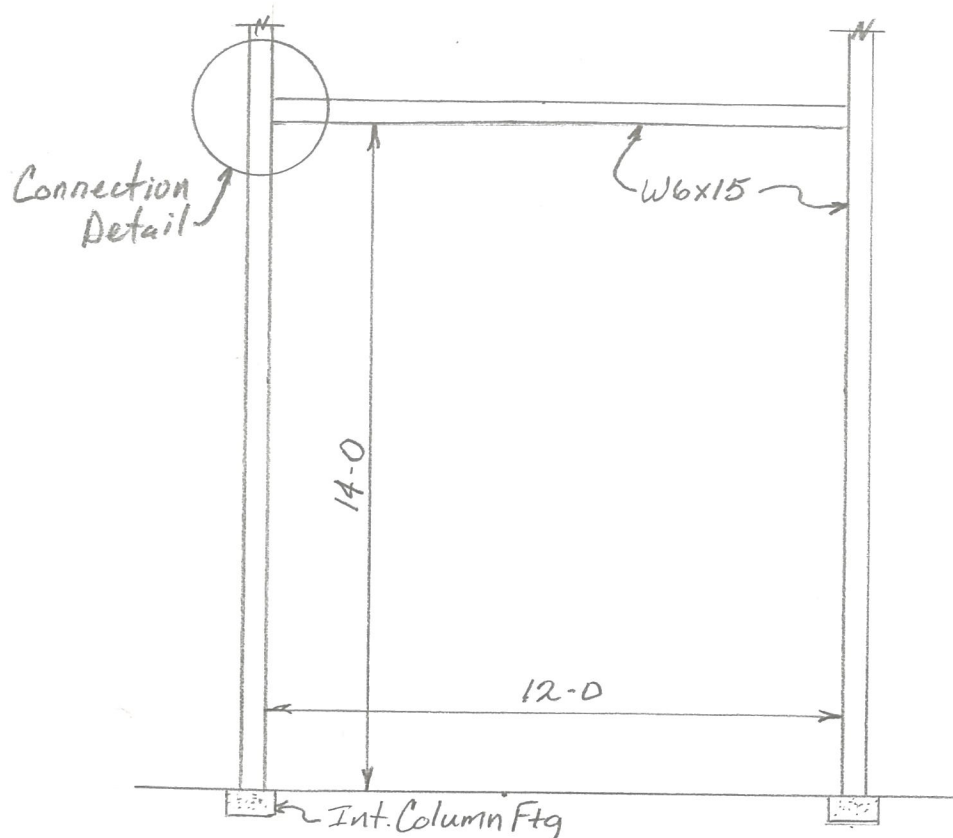




9' x 9' x 1/4" R
 7/16" ϕ Holes
 for 1/2" ϕ x 6"
 Wedge Anchor
 Bolts



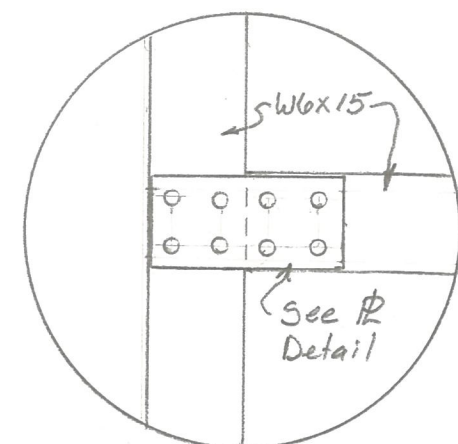
Intermediate Column Footing
 Scale: 1/2" = 1-0



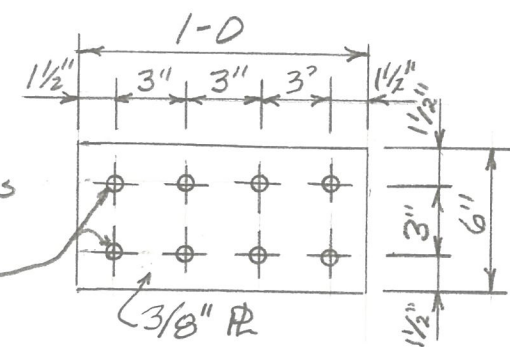
Connection
 Detail

W6x15

Roll Up Door Opening
 Scale: 1/4" = 1-0



Connection Detail
 Scale: 1" = 1-0



7/16" ϕ Holes
 for 3/8" ϕ
 Bolts

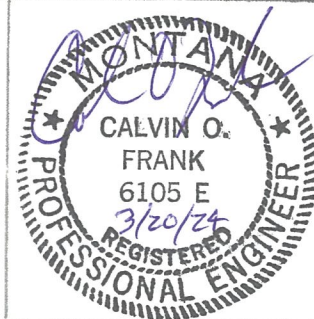
Plate Detail
 Scale: 1/2" = 1-0
 (Both Flanges)

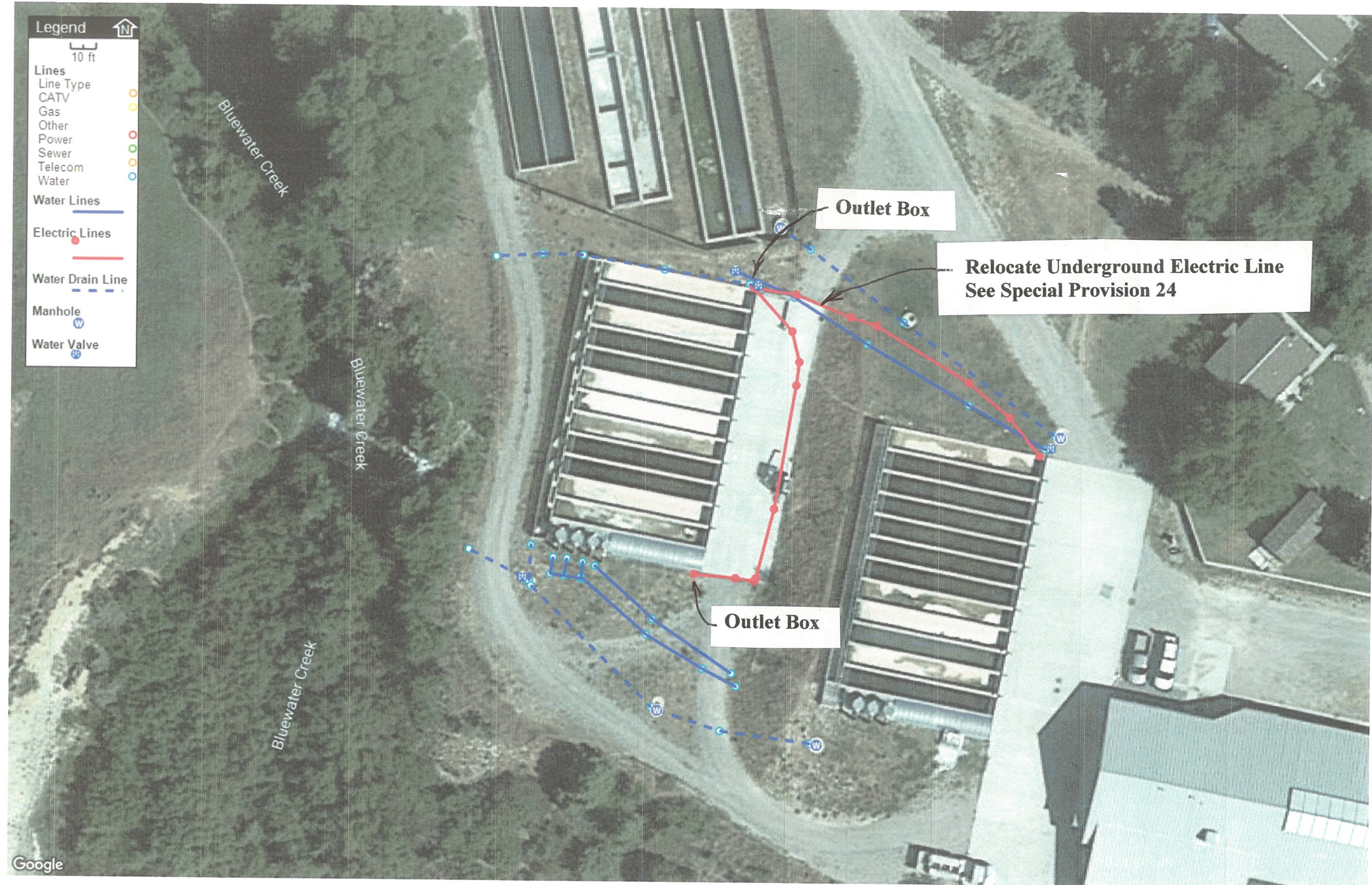
Note: Use A36 Steel for beams shown.
 Note: Use A325 bolts for connection
 shown on this sheets.

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Miscellaneous Details
 Page No. 9
 Scale: As Noted

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For Information purposes only

Hatchery Utility Locate