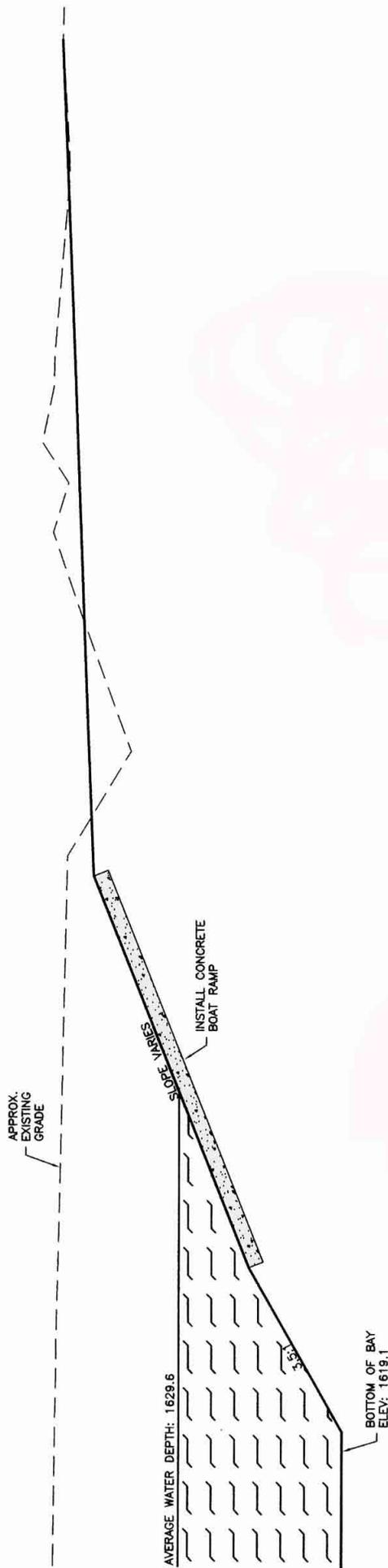


E1/2, SW1/4
SEC 11

Lazy S Ranch (Misty Waters)
Application No. 200360272
Attachment 6 of 11

Lazy S Ranch (Misty Waters)
 Application No. 200360272
 Attachment 7 of 11



**MISTY WATERS ESTATES
 TYPICAL BOAT RAMP SECTION**

OWNERS: LAZY S RANCH
 NO SCALE



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 TomanEngineering@attocpa.net

Exhibit -A-

Misty Waters Estates (Draft 2-14-2003) Missouri River Water Surface Design Elevations

Low Flow Conditions

Missouri River Flow \leq 10,000 cfs)	Elevation @ 1625.1 (Min Water Elev.)
Approximate Bottom of Marina	Elevation @ 1619.1
Operational Depth	6 feet
Navigation width @ low water	50 feet to 75 feet
Maximum Dock Encroachment	20 feet each side
Total Width @ Low Water	$50 + (2 \times 20) = 90$ feet (min)
Total Width @ Average Water	125 to 150 feet

Average Flow Conditions

(i.e., \approx 21,000 to 24,000 cfs)	Elevation @ 1628.6-1629.6
Depth of Water = 8.7 feet	

High Flow Conditions

Estimated Ordinary High Water Mark - Sovereign Lands Demarcation Line	Elevation @ 1630.6 - 1630.8
(i.e., \approx 31,000 to 33,000 cfs)	
Corps of Engineers - Construction Reference Plane (38,000 cfs)	Elevation @ 1632.0

Winter Ice-In Conditions

Current Master Manual Management Plan = 13-foot Stage at Bismarck Gage	Elevation @ 1635.1
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Base Flood Elevations @ Missouri River Mile 1319.9

Existing 100-Year Floodplain (FIRM)	Elevation @ 1638.8
Revised 100-Year Floodplain (FIRM)	Elevation @ 1639.5
100-Year Event = 94,000 cfs	Increase is 0.7 feet

Anticipated Bank Slope

Bottom of Marina to Minimum Water	3.5:1 (21 feet), [19.1 to 25.1]
Minimum Water to Average Water	5:1 (22.5 feet), [25.1 to 29.6]
Average Water to BFE	6:1 (65.4 feet), [29.6 to 40.5]
Distance to Residence from BFE	40 feet (minimum rear yard)
Distance from Residence to Min. Water	$22.5 + 65.4 + 40 = 127.9$ feet

National Flood Insurance Program

By County Zoning Ordinance	
First Floor Elevation (1 foot above BFE)	Elevation @ 1640.5
(This BFE is based on the preliminary FIRM dated March 29, 2000)	
No basements or crawl spaces allowed below the BFE	

Note: All elevations provided are based on the projected backwater elevations from the south end of the project, with the exception of the Base Flood Elevation, which must be based on the northern end of the subdivision development.