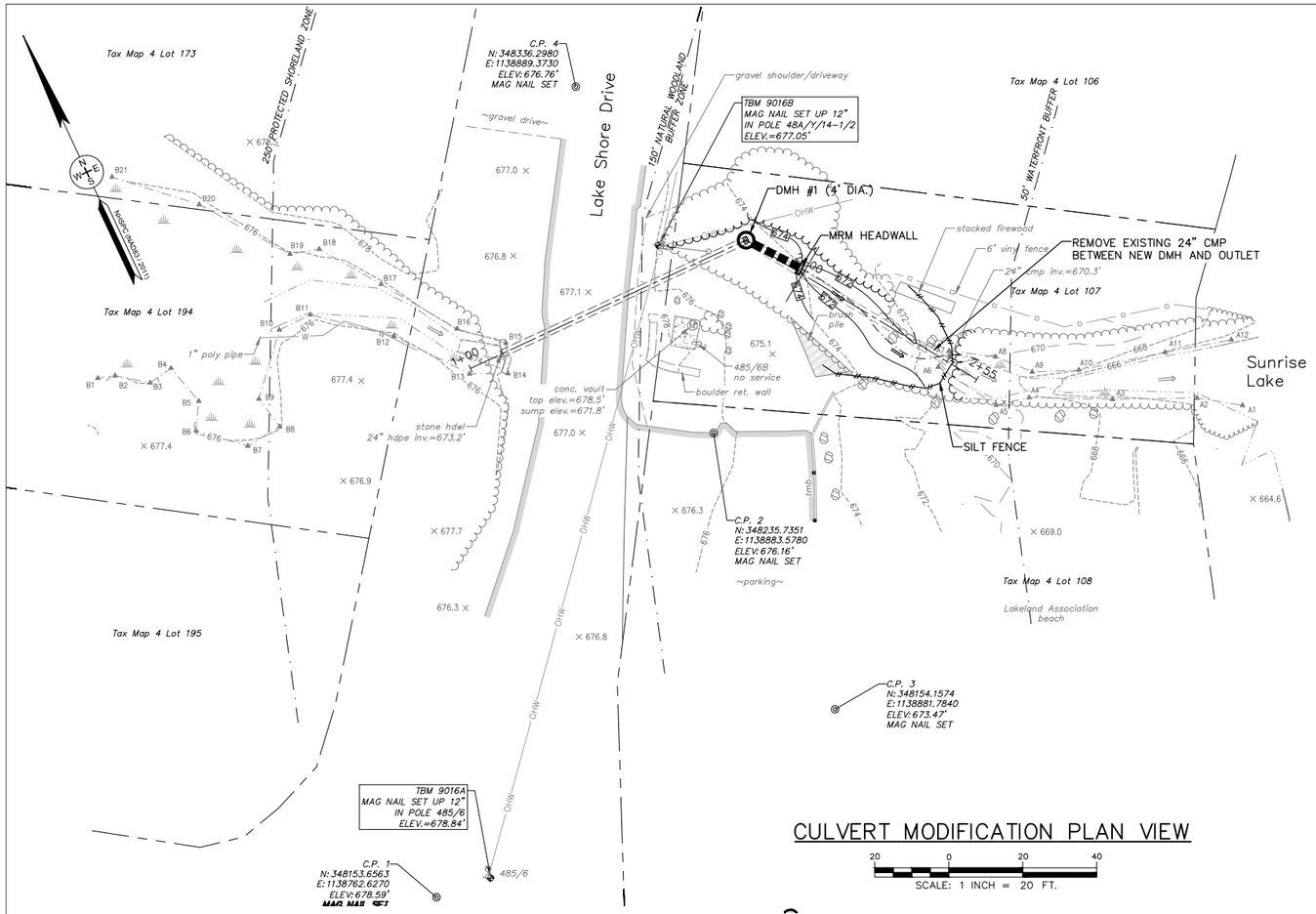
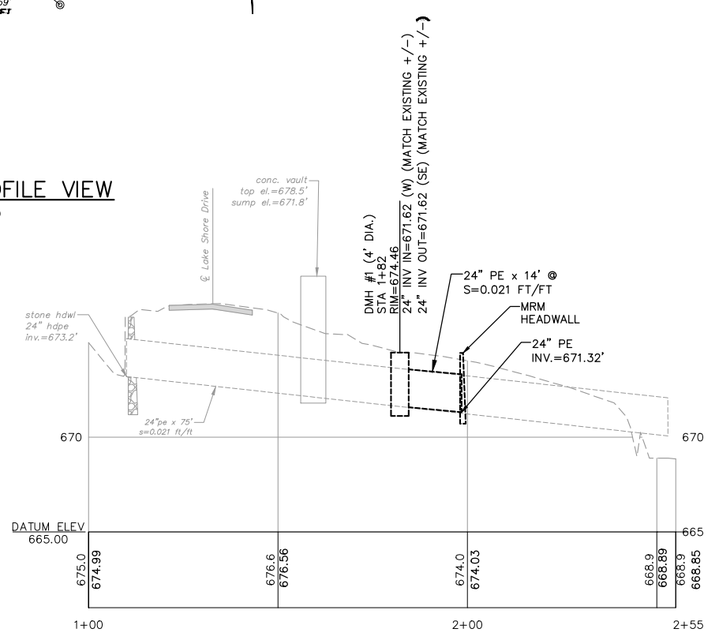


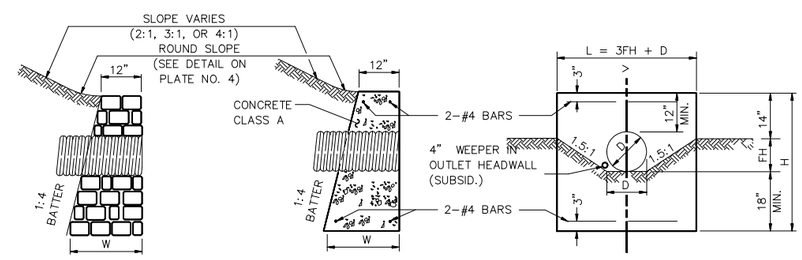
CULVERT MODIFICATION PLAN VIEW

20 0 20 40
SCALE: 1 INCH = 20 FT.

CULVERT MODIFICATION PROFILE VIEW

20 0 20 40
HORIZ: 1 INCH = 20 FT.
VERT: 1 INCH = 4 FT.





DIAMETER D INCHES	MASONRY PER FOOT OF WALL CU. YD	MASONRY PER STANDARD HEADER CU. YD.	STEEL PER STANDARD HEADER LB.	LENGTH OF BARS	EXC. FOR 1' DEPTH CU. YD.	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	"L" HEADWALL	
										MASONRY IN CORNER FRUSTUM CU. YD.	EXC. FOR 1' DEPTH CU. YD.
12	0.186	0.61	9	3'-2"	0.789	3'-6"	3'-6"	0'-10"	0'-10 1/2"	0.28	1.057
15	0.202	0.85	11	3'-10"	0.947	4-6	3-9	1-1	1-11 1/4	0.31	1.232
18	0.222	1.13	14	5-2	1.111	5-6	4-0	1-4	2-0	0.35	1.406
24	0.260	1.78	20	7-2	1.451	7-6	4-6	1-10	2-1 1/2	0.42	1.776
30	0.301	2.58	25	9-2	1.810	9-6	5-0	2-4	2-3	0.51	2.164
36	0.344	3.53	31	11-2	2.187	11-6	5-6	2-10	2-4 1/2	0.61	2.572
42	0.389	4.65	36	13-2	2.581	13-6	6-0	3-4	2-6	0.72	3.000
48	0.436	5.95	42	15-2	3.000	15-6	6-6	3-10	2-7 1/2	0.84	3.447

NOTES:

1. STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.
2. DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.
3. THE CONTRACTOR MAY CONSTRUCT A PRE-CAST CONCRETE HEADWALL IN LIEU OF MORTAR RUBBLE MASONRY. IN EITHER CASE, PAYMENT WILL BE ON A PER CY INSTALLED BASIS UNDER ITEM 570.4.
4. COMMON STRUCTURE EXCAVATION FOR HEADWALLS WILL BE PAID UNDER ITEM 206.1 IN ACCORDANCE WITH THE QUANTITIES SHOWN IN THE SCHEDULE ABOVE.

HEADWALL DETAIL

NOT TO SCALE

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NO.	REVISIONS	APP'D
△	ISSUE FOR APPROVAL Date – By –	
△	CONSTRUCTION Date – By –	
△	RECORD DRAWING Date By	

Drawn/Chk. BMG
Designed KAV
Checked –
Approved –
Date 8/13/2025
Book No. –
Project No. 3136
Dwg. ID 3136_Page
Scale AS SHOWN

DRAFT
AUGUST 2025
NOT FOR CONSTRUCTION

Underwood Engineers
25 Vaughan Mall, Portsmouth, N.H. 03801
Tel. 603-436-6192 Fax. 603-431-4733

CULVERT MODIFICATIONS
PLAN & PROFILE

SUNRISE LAKE STORMWATER
CONTROL MEASURES

STRAFFORD REGIONAL PLANNING COMMISION
MIDDLETON, NEW HAMPSHIRE

DWG NO C1
SHEET X OF X