

GRADING PLAN NORTHEAST BANK

FWP#21-21 LAKE ELMO PROJECT

C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

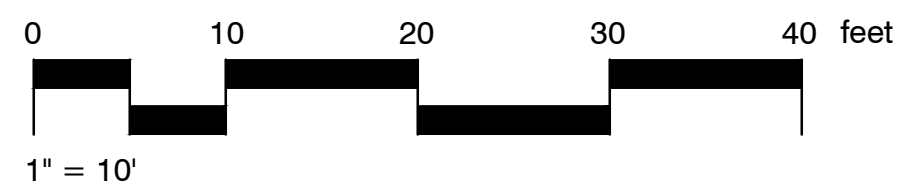
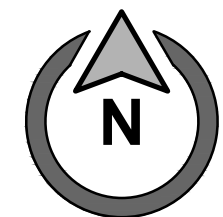
Issue Date:	9/10/2021
Revision	Date
BID DOCUMENTS	
Drawn By:	EM
Checked By:	MV
Job Code:	FWP#21-21

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L3.3

GRADING PLAN
NORTHEAST BANK



ADD ALT A - GRADING PLAN WEST JETTY

FWP#21-21 LAKE ELMO PROJECT

C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

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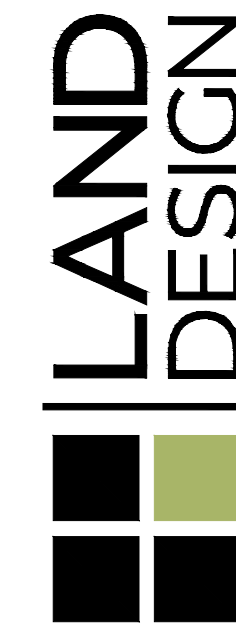
Revision Date

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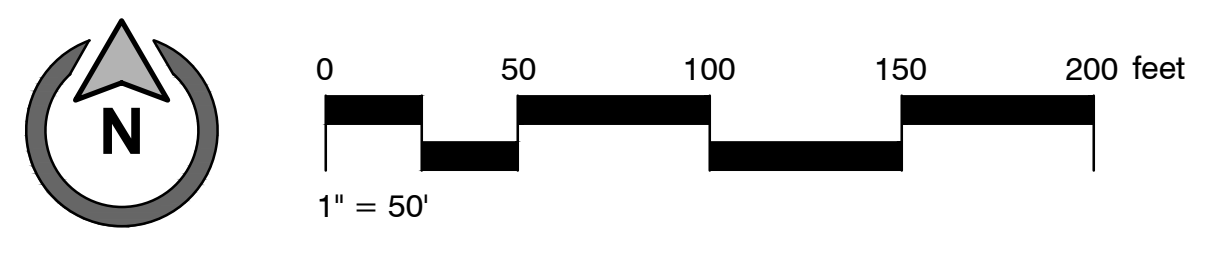
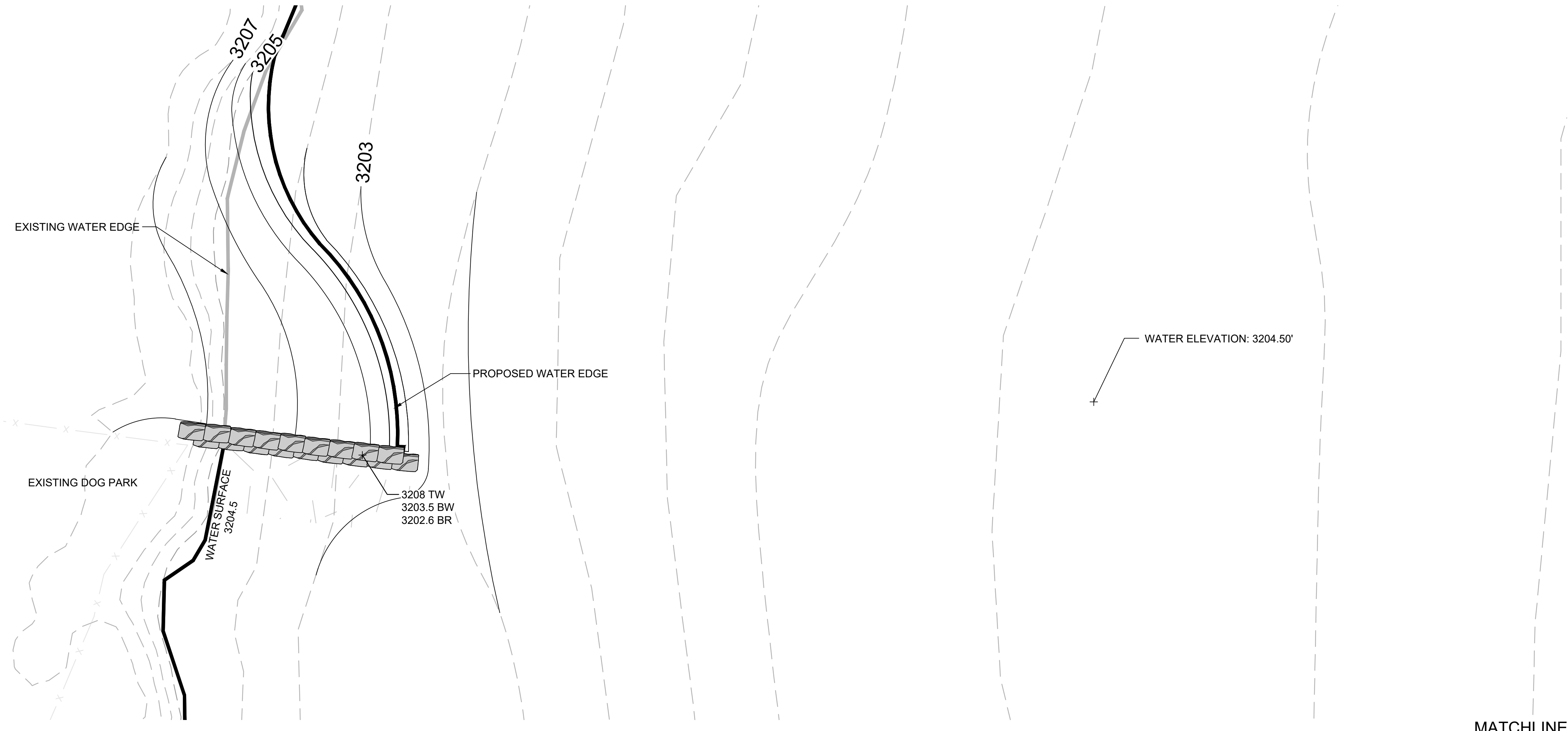
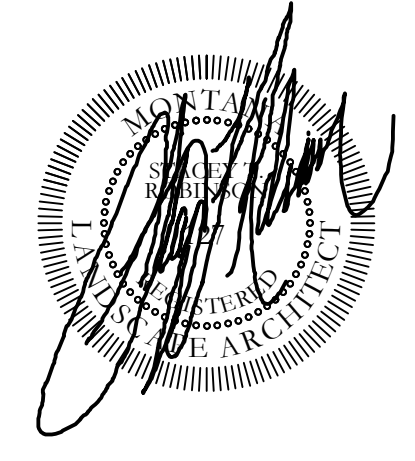
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GRADING PLAN
WEST JETTY



ADD ALT B - GRADING PLAN WEST BANK

FWP#21-21 LAKE ELMO PROJECT

C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

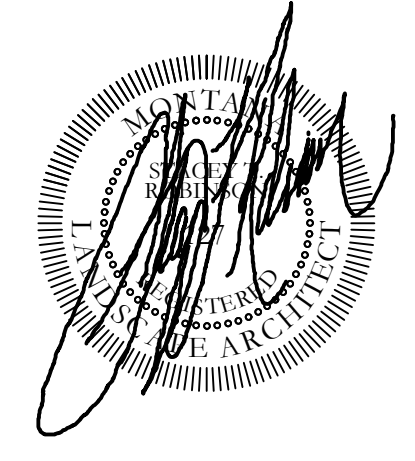
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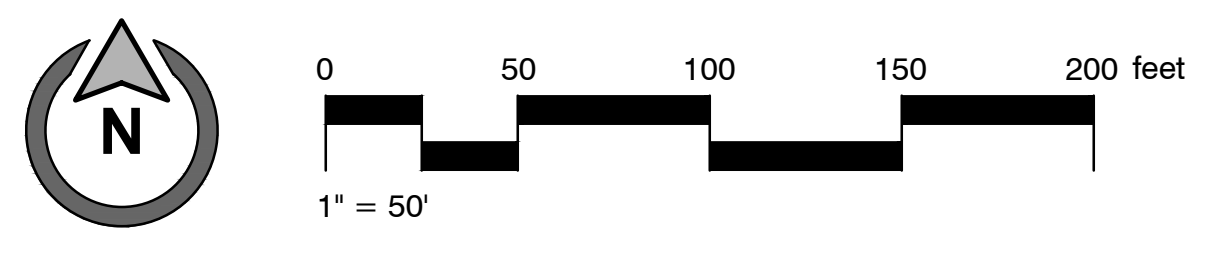
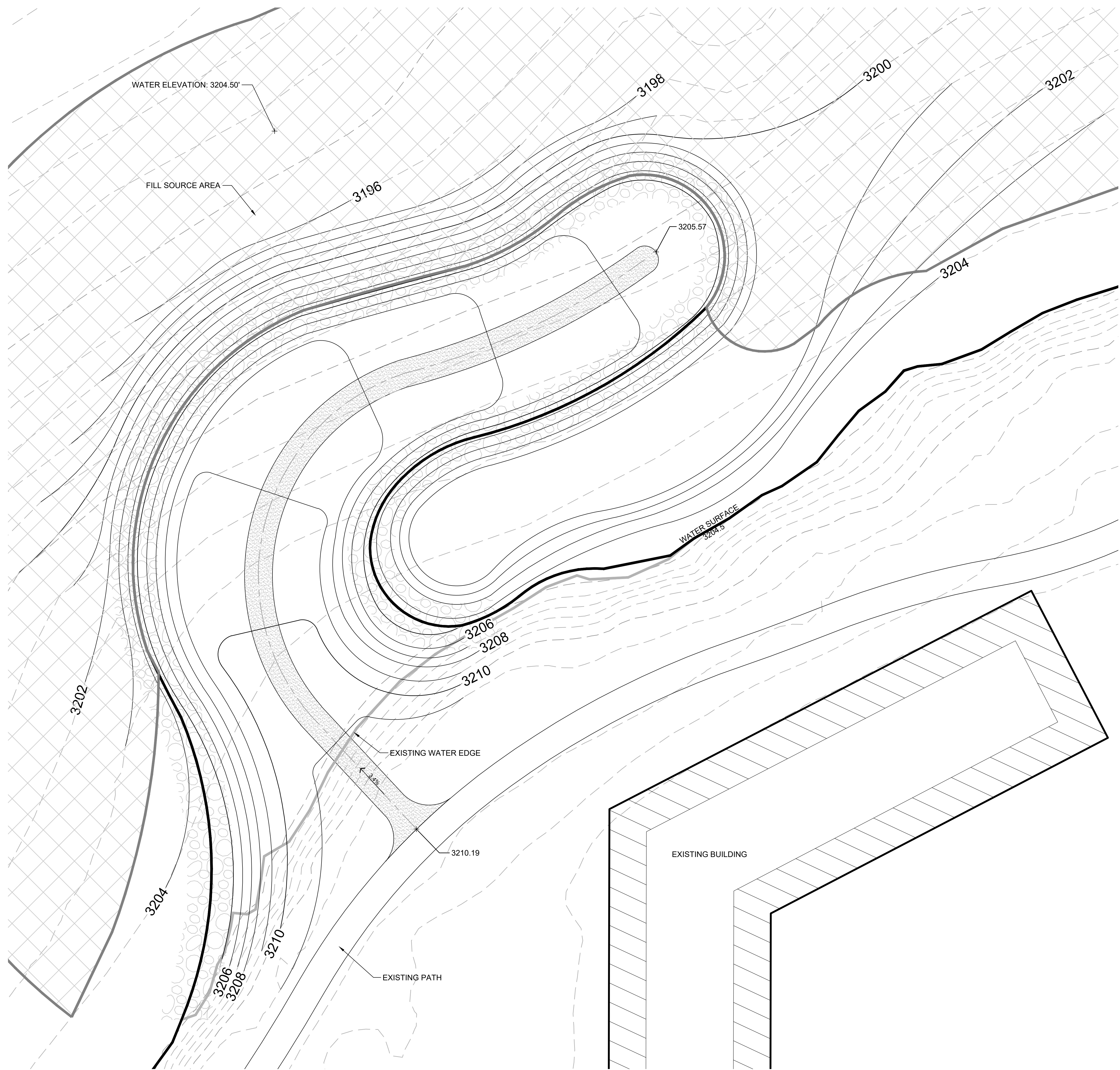


ADD ALT C - GRADING PLAN SOUTH JETTY
FWP#21-21 LAKE ELMO PROJECT
C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

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GRADING PLAN
SOUTH JETTY
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REFERENCE NOTES SCHEDULE

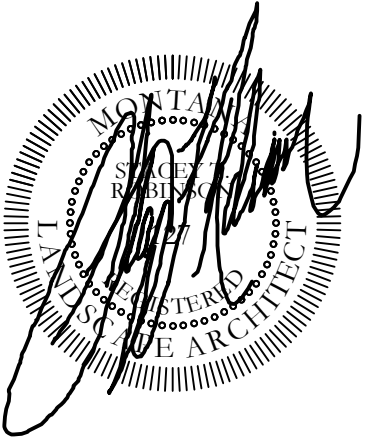
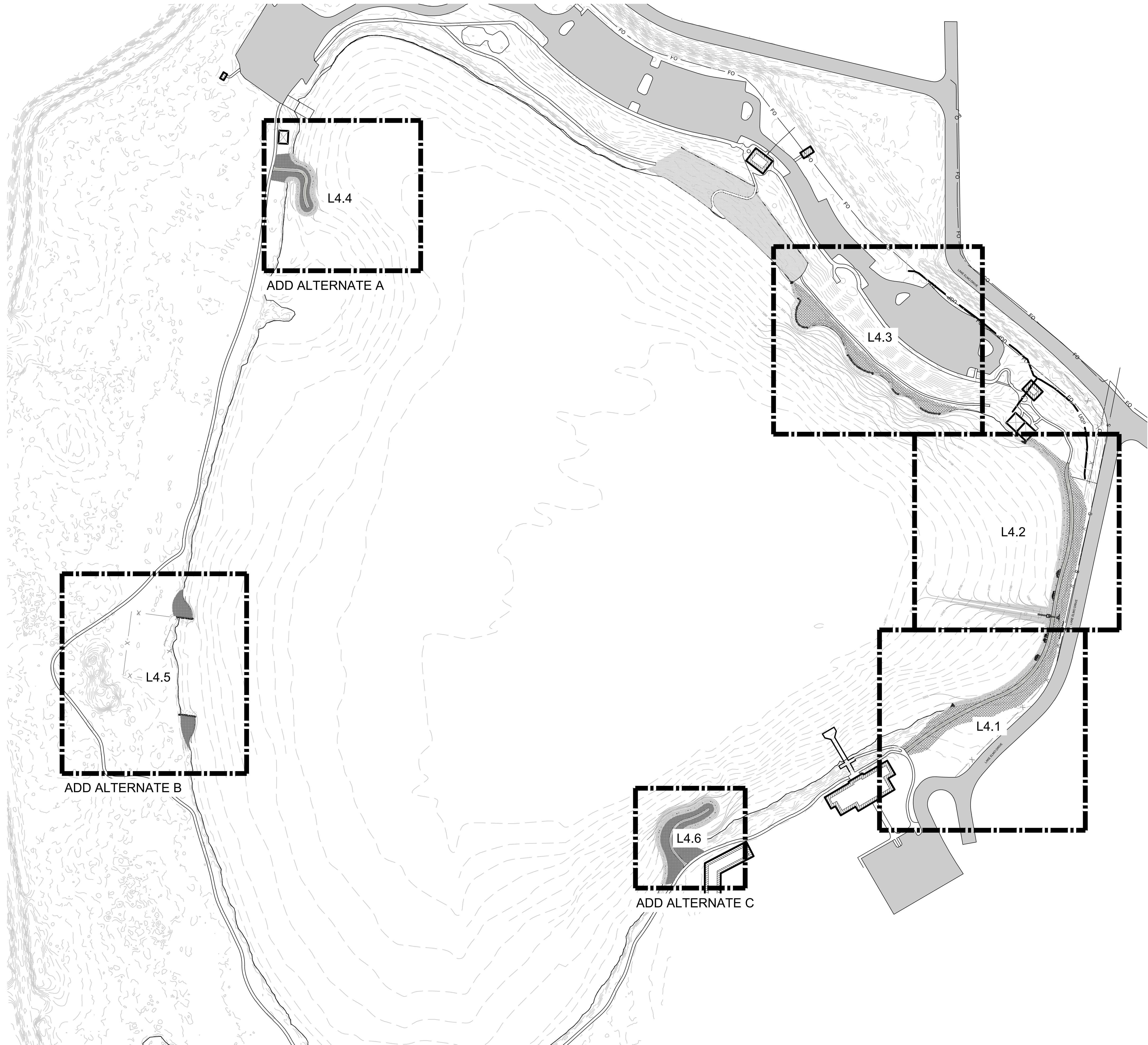
SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	48,667 SF	

SITE NOTES

1. SITE BASE INFORMATION AS PROVIDED BY OTHER, MAY NOT DEPICT ACTUAL SITE CONDITIONS. CONTRACTOR SHALL VERIFY ALL QUANTITIES, MEASUREMENTS, AND ELEVATIONS WITH ON SITE CONDITIONS.
2. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION. CALL FOR UTILITY LOCATES PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.
4. GENERAL CONTRACTOR SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS DONE BY OTHER CONSULTANTS TO ENSURE THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
5. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES, ROADS AND STREETS, AND STRUCTURES, REPAIR BACK TO ORIGINAL CONDITION IF DAMAGE HAS OCCURRED DURING CONSTRUCTION. CONTRACTOR TO PROTECT ALL EXISTING LANDSCAPE AND IRRIGATION ON ADJACENT PROPERTIES.
6. CONTRACTOR SHALL COORDINATE INSTALLATION OF SLEEVING FOR IRRIGATION IMPROVEMENTS PRIOR TO INSTALLATION OF ALL PAVING. REFER TO IRRIGATION PLANS FOR SIZES AND LOCATIONS.
7. LOCATION OF TREES, BOULDERS, AND TRAIL ALIGNMENT TO BE FIELD APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLACEMENT AND INSTALLATION.

DRYLAND SEED MIX

Species	Lbs PLS/Acre
Slender Wheatgrass	2
Western Wheatgrass	3
Thickspike Wheatgrass	2.5
Bluebunch Wheatgrass	2.5
Green Needlegrass	2
Western Yarrow	0.5



PLANTING PLAN OVERALL

FWP#21-21 LAKE ELMO PROJECT

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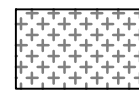


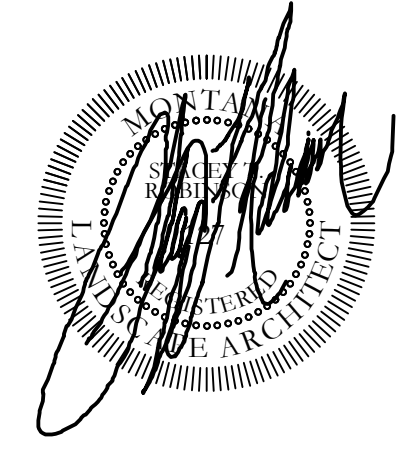
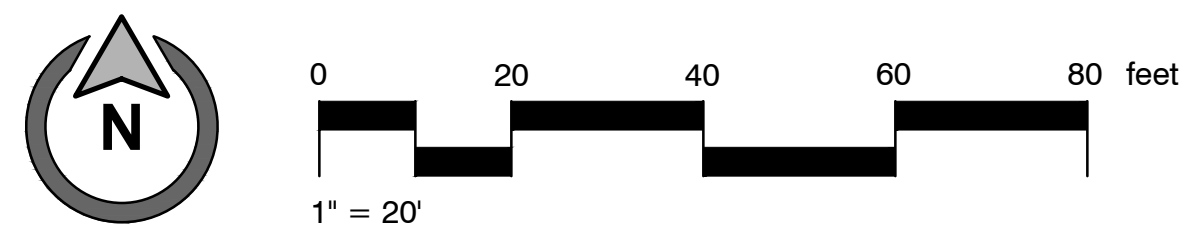
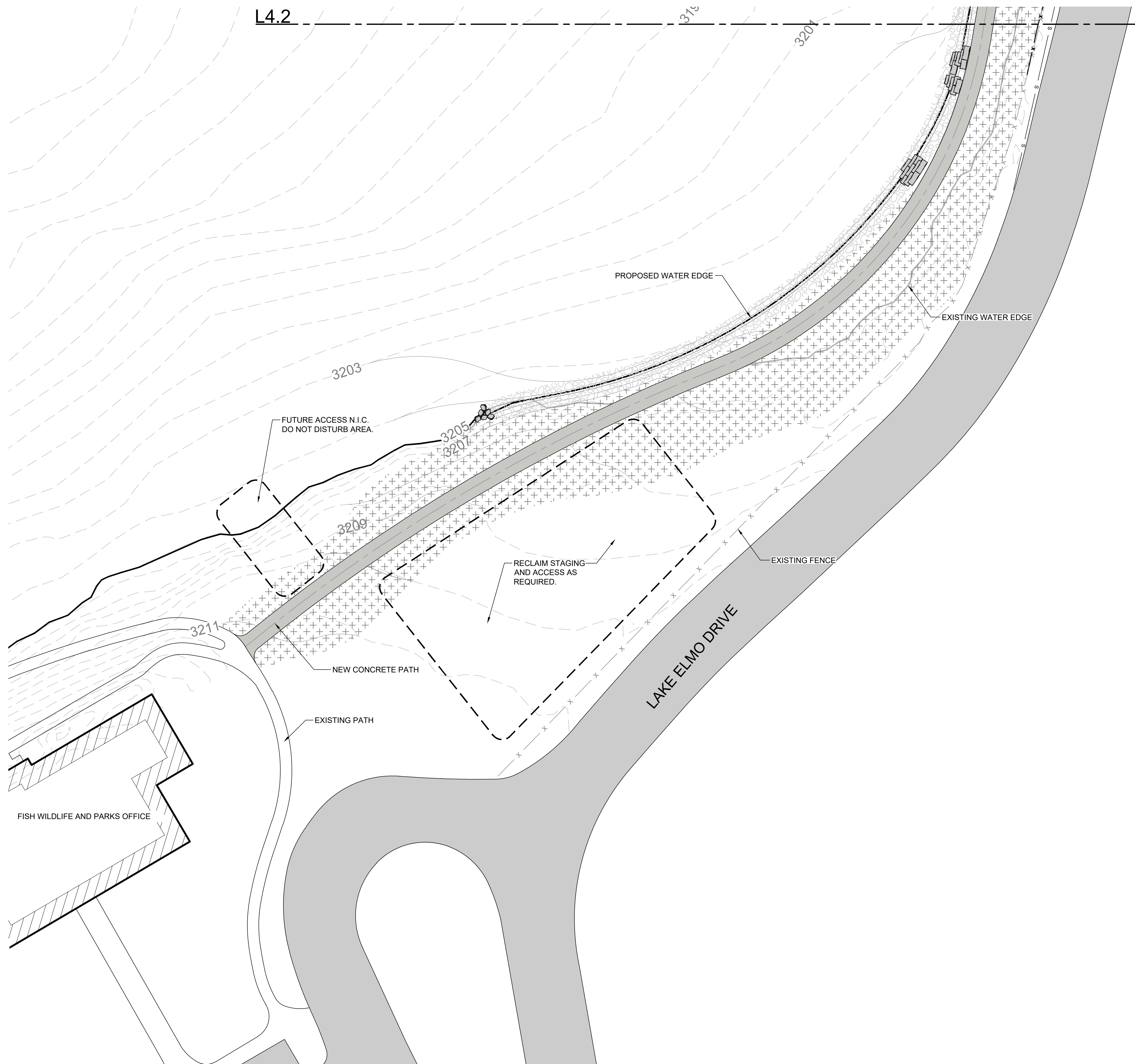
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L4.0

PLANTING PLAN OVERALL

REFERENCE NOTES SCHEDULE EAST BANK

SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	10,949 SF	



PLANTING PLAN SOUTHEAST BANK

FWP#21-21 LAKE ELMO PROJECT

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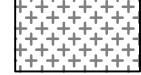
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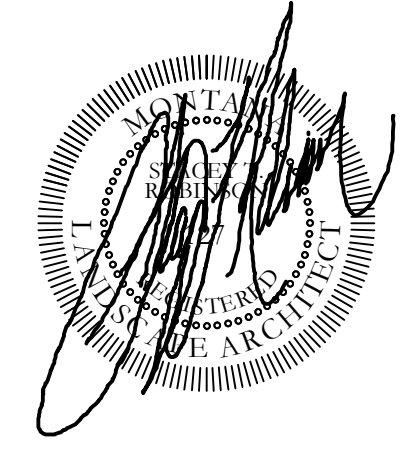
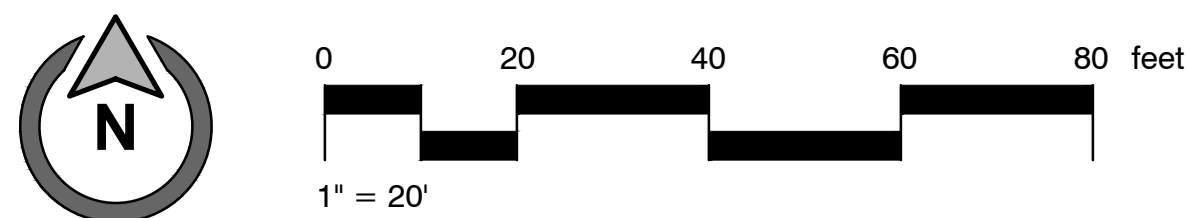
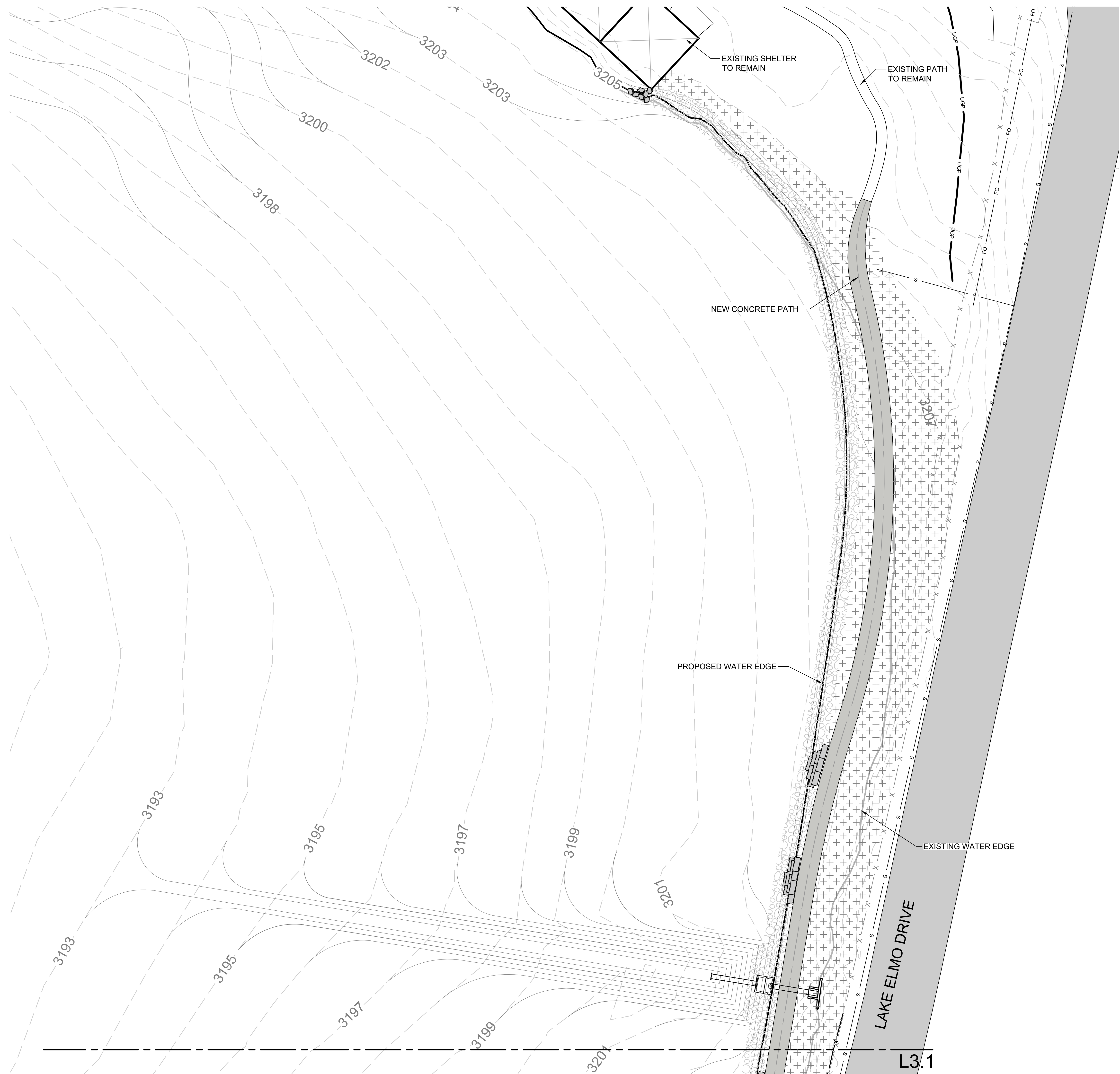
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L4.1

PLANTING PLAN
SOUTHEAST BANK

REFERENCE NOTES SCHEDULE EAST BANK

SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	23,875 SF	



PLANTING PLAN EAST BANK

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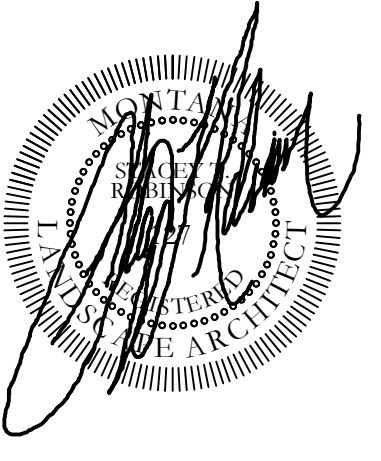
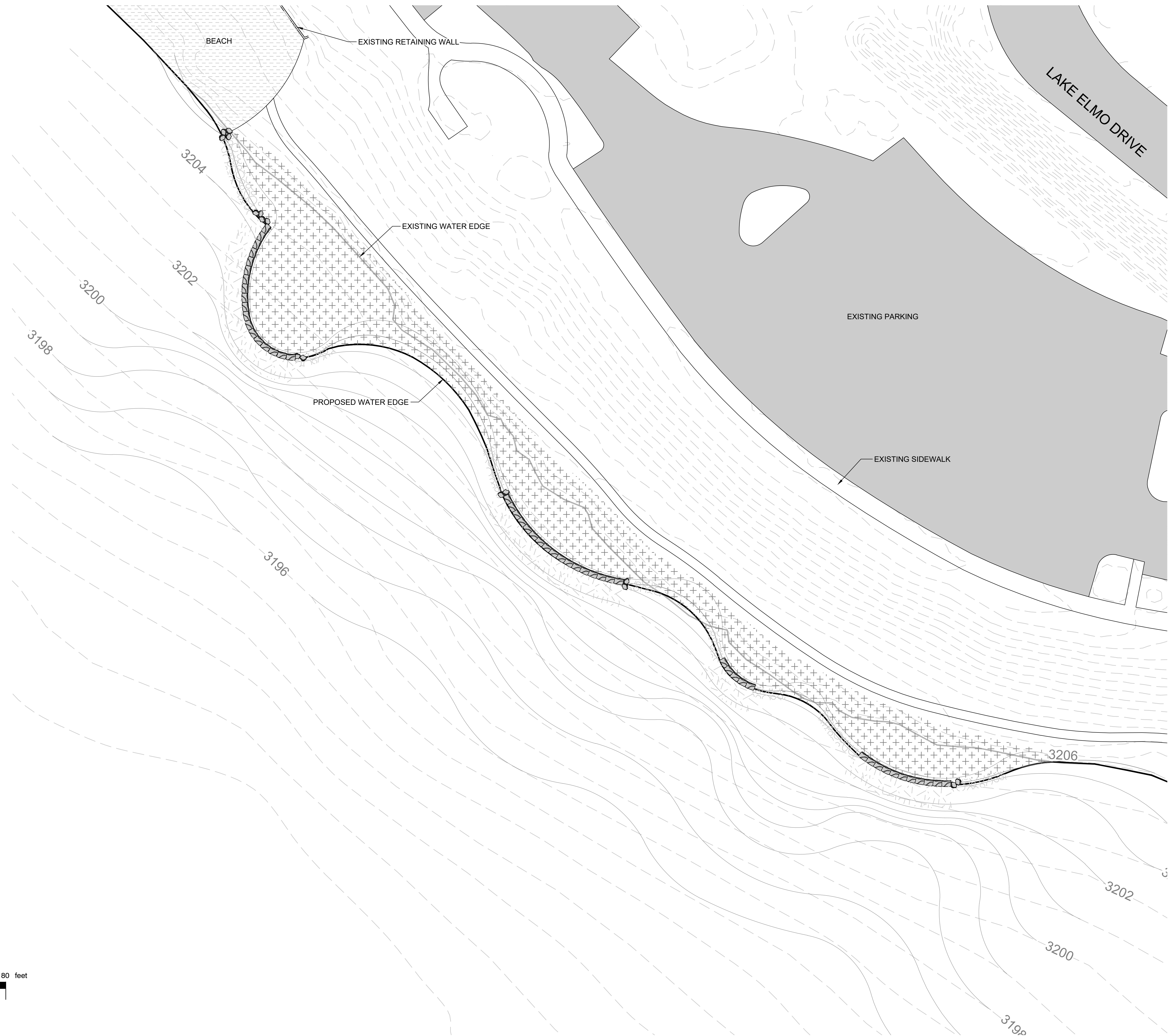
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PLANTING PLAN
EAST BANK

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REFERENCE NOTES SCHEDULE NORTHEAST BANK

SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	10,949 SF	



PLANTING PLAN NORTHEAST BANK

FWP#21-21 LAKE ELMO PROJECT

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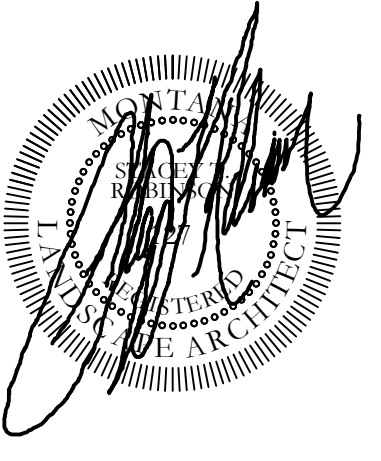
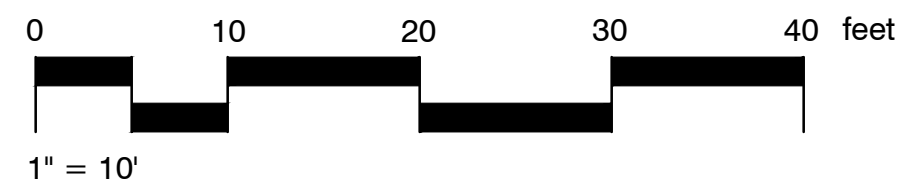
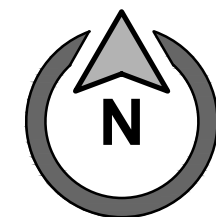
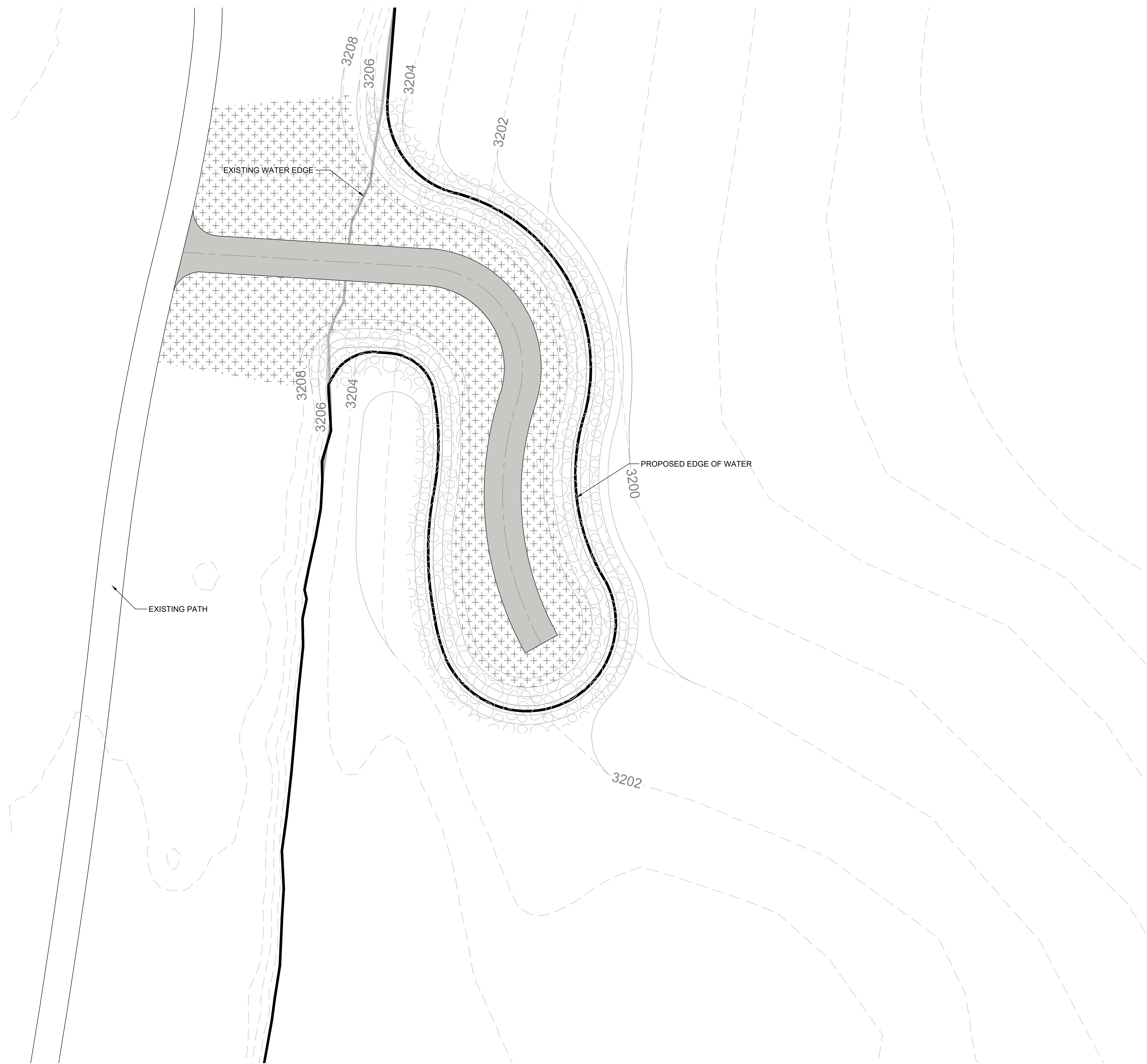
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L4.3

PLANTING PLAN
NORTHEAST BANK

REFERENCE NOTES SCHEDULE WEST JETTY

SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	3,719 SF	



ADD ALT A - PLANTING PLAN WEST JETTY

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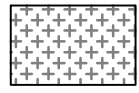


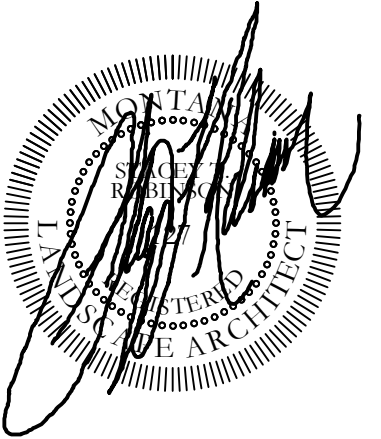
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L4.4

PLANTING PLAN
 WEST JETTY

REFERENCE NOTES SCHEDULE WEST BANK

SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	3,043 SF	



ADD ALT B - PLANTING PLAN WEST BANK

FWP#21-21 LAKE ELMO PROJECT

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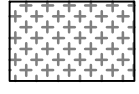
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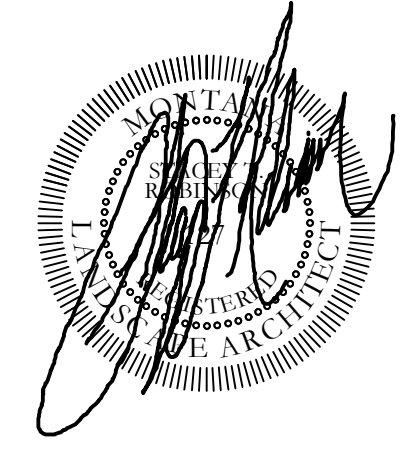
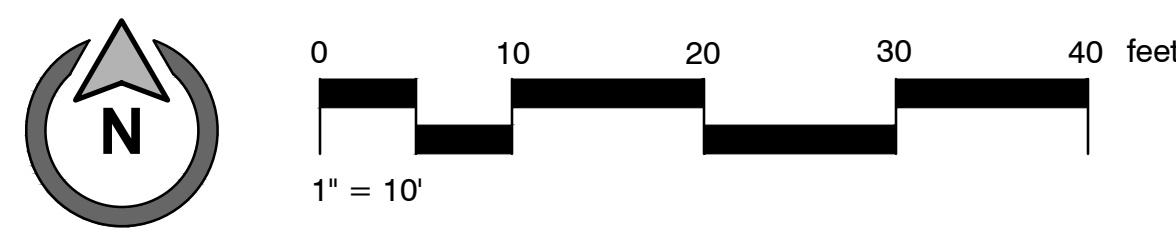
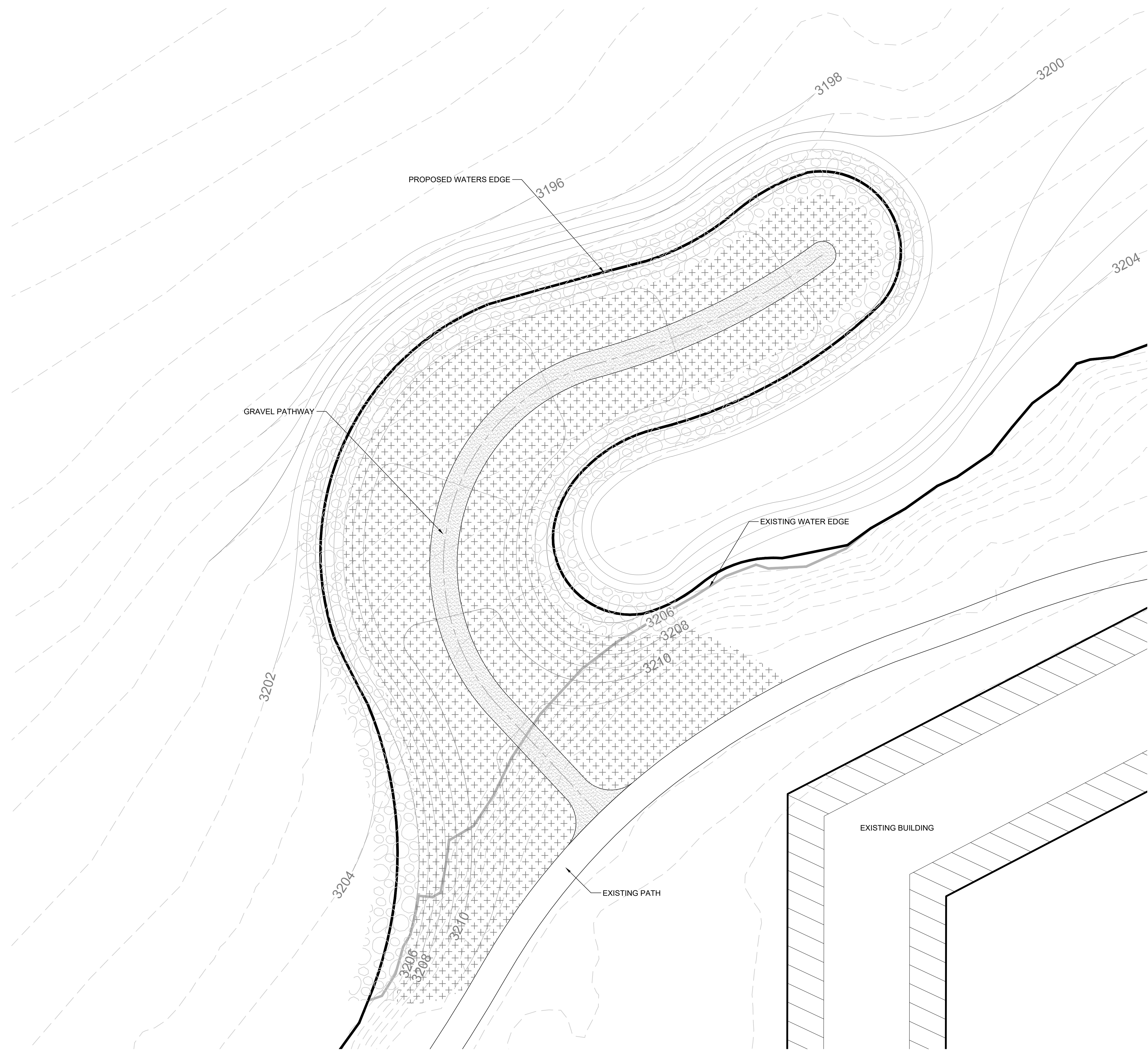
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PLANTING PLAN
WEST BANK

REFERENCE NOTES SCHEDULE SOUTH JETTY

SYMBOL	LANDSCAPING DESCRIPTION	QTY	DETAIL
	DRYLAND SEED MIX	7,081 SF	



ADD ALT C - PLANTING PLAN SOUTH JETTY

FWP#21-21 LAKE ELMO PROJECT

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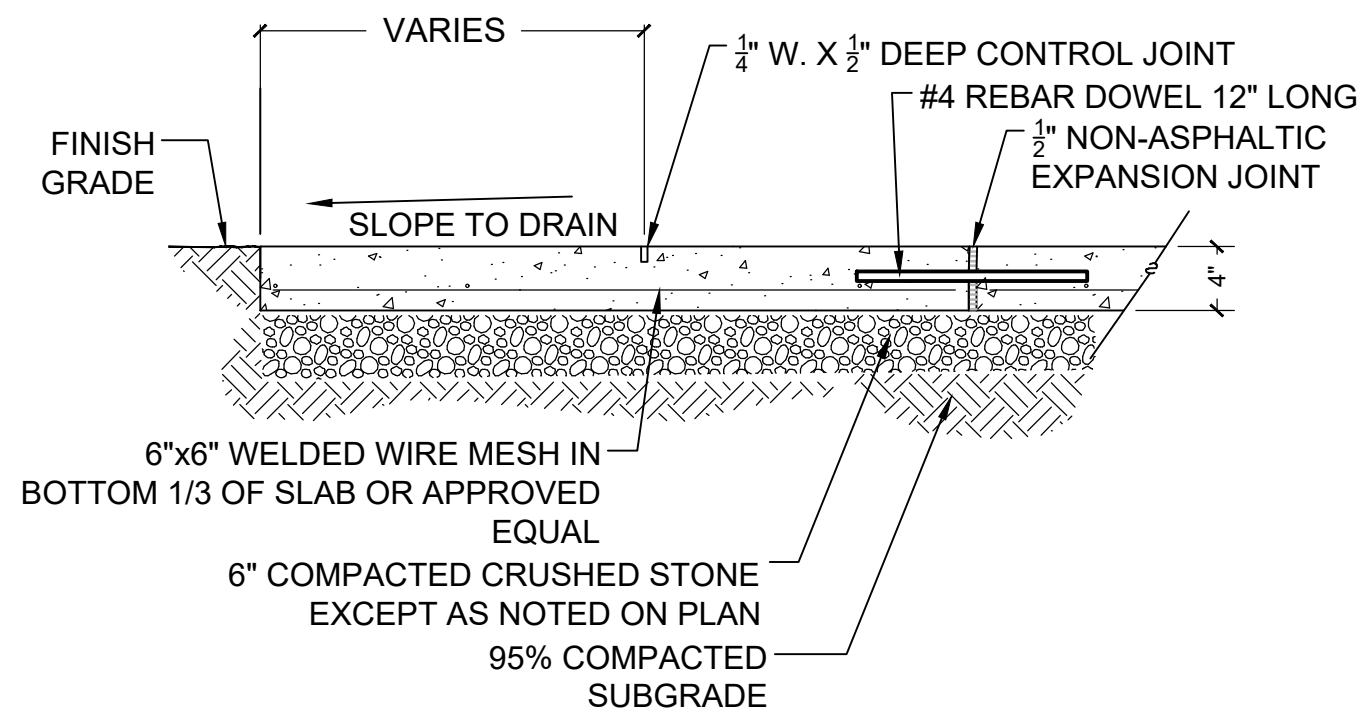
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PLANTING PLAN
SOUTH JETTY

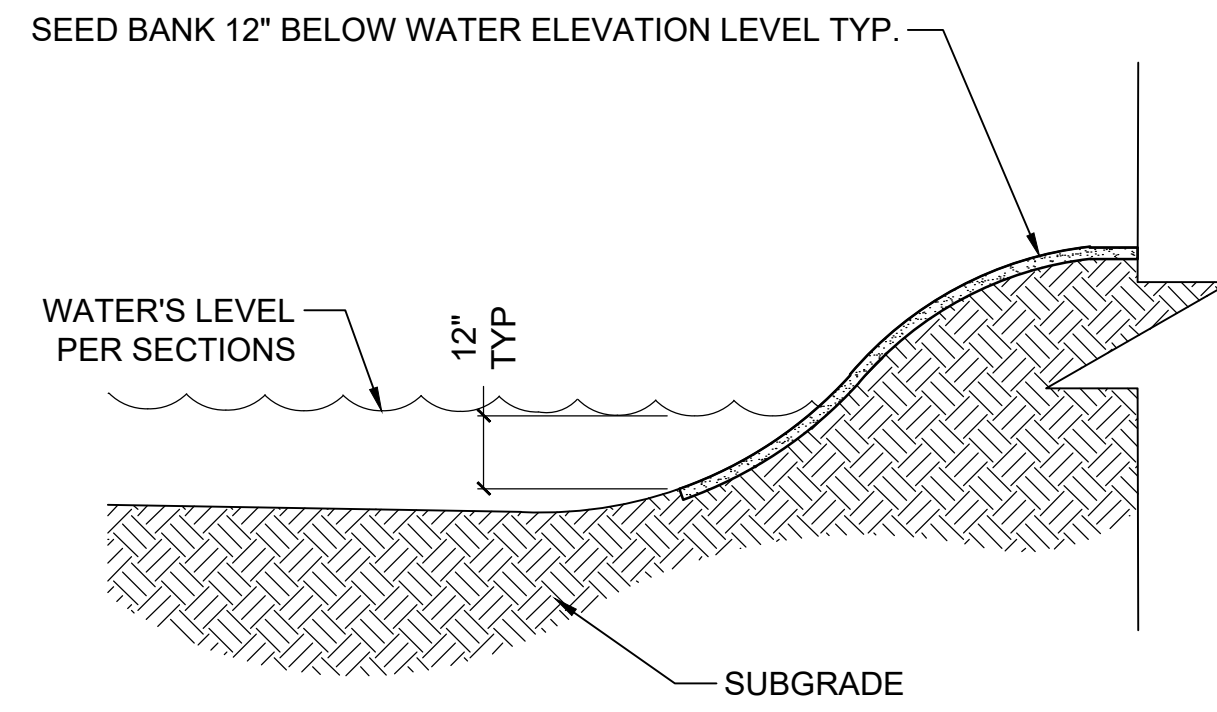


CONCRETE NOTES:

1. CONCRETE SURFACES SHALL HAVE HEAVY BROOM FINISH.
2. SCARIFY AND COMPACT 12" MIN. DEPTH SUB-GRADE TO 95%.
3. ALL SURFACES SHALL BE FLUSH AND MEET SMOOTHLY AND EVENLY PROVIDE POSITIVE DRAINAGE OFF WALK, ALL LOCATIONS. ADJUST ADJACENT GRADES AS REQUIRED TO PROPERLY DRAIN.
4. SCORING SHALL BE EQUALLY SPACED ON ALL CONCRETE WALKS WITH EXPANSION JOINTS AS NEEDED.
5. INSTALL PER MPW SPECIFICATIONS.
6. FIBER REINFORCED MESH: MONOFILAMENT OR FIBRILLATED POLYPROPYLENE FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE PAVING, COMPLYING WITH ASTM C116/C 116M, TYPE III, 1/2 TO 1-1/2 INCHES (13 TO 38 MM) LONG. REQUIRED IN ALL EXTERIOR CONCRETE SIDEWALKS. UNIFORMLY DISPERSE IN CONCRETE MIXTURE AT MANUFACTURER'S RECOMMENDED RATE, BUT NOT LESS THAN 1.0 LB/CU. YD. (0.60 KG/CU. M).

1 CONCRETE WALK

NTS



2 SOFT SURFACE EDGE - SEEDED

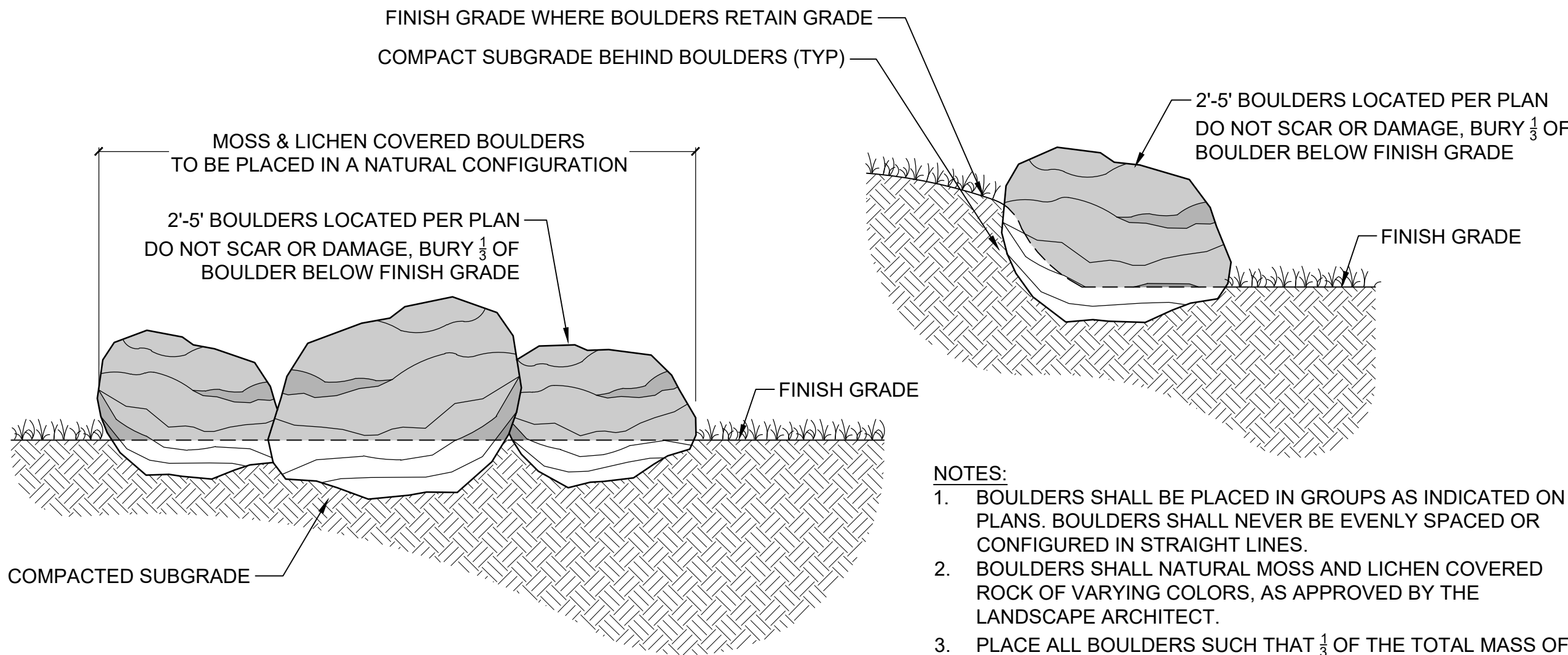
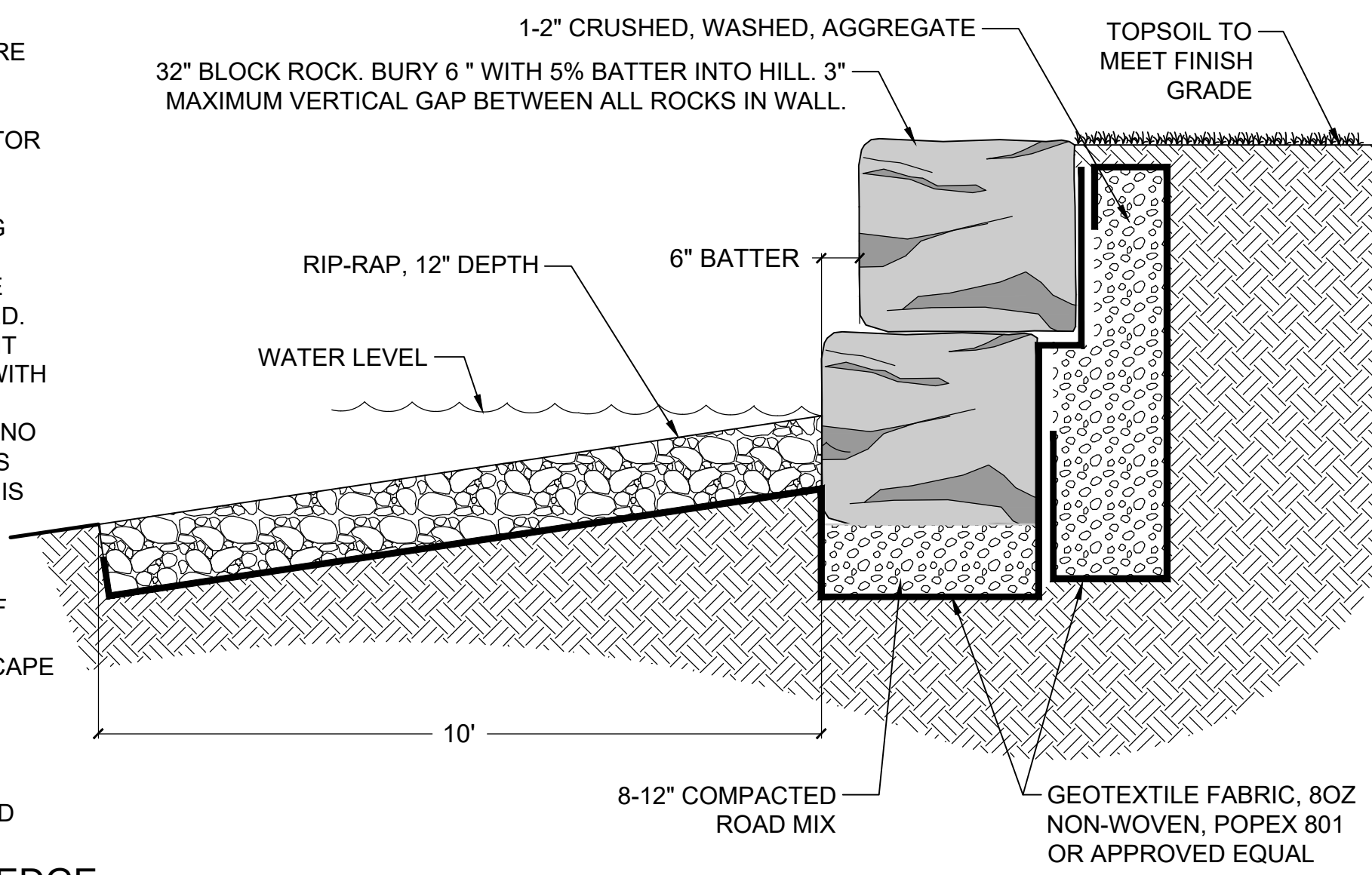
NTS

NOTES:

1. SEE PLANS AND SECTIONS FOR DOUBLE OR SINGLE STACK WALL
2. BLOCK WALL EXPOSED FACES SHALL BE A SMOOTH CONTINUOUS PLANE. NO IRREGULAR BUMP OUTS ARE ALLOWED
3. ALL ROCK TO HAVE APPROVAL OF LANDSCAPE ARCHITECT PRIOR TO DELIVERY TO SITE. CONTRACTOR SHALL SUPPLY SAMPLES OF MATERIALS PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL SUPPLY BLOCK ROCK TESTING DATA PER SPECS.
5. ALL HORIZONTAL SURFACES OF BLOCK ROCK TO BE LEVEL. SLOPING ROCK WITH GRADE IS NOT ALLOWED.
6. ALL BLOCK ROCK WALLS SHALL HAVE NO MOVEMENT PRIOR TO BACKFILL. CONTRACTOR TO SHIM ROCK WITH STONE SHARDS AS NECESSARY.
7. VERTICAL GAPS BETWEEN BLOCK ROCK ARE TO BE NO GREATER THAN 3". CONTRACTOR TO BACKFILL GAPS WITH BLOCK ROCK SHARDS TO ENSURE NO FABRIC IS VISIBLE.
8. MINIMUM BLOCK ROCK SIZES SHALL NOT BE USED CONSECUTIVELY.
9. ALL ROCK INSTALLATION SUBJECT TO APPROVAL OF LANDSCAPE ARCHITECT.
10. ALL GRADING IS SUBJECT TO APPROVAL OF LANDSCAPE ARCHITECT.
11. CONTRACTOR SHALL COMPACT SUBGRADE AS NECESSARY TO ENSURE SETTLEMENT DOES NOT OCCUR.
12. 32" BLOCK ROCK SHALL BE 36" TO 60" IN LENGTH AND HAVE A WIDTH NO LESS THAN 27".

3 BLOCK ROCK WALL - WATER'S EDGE

NTS

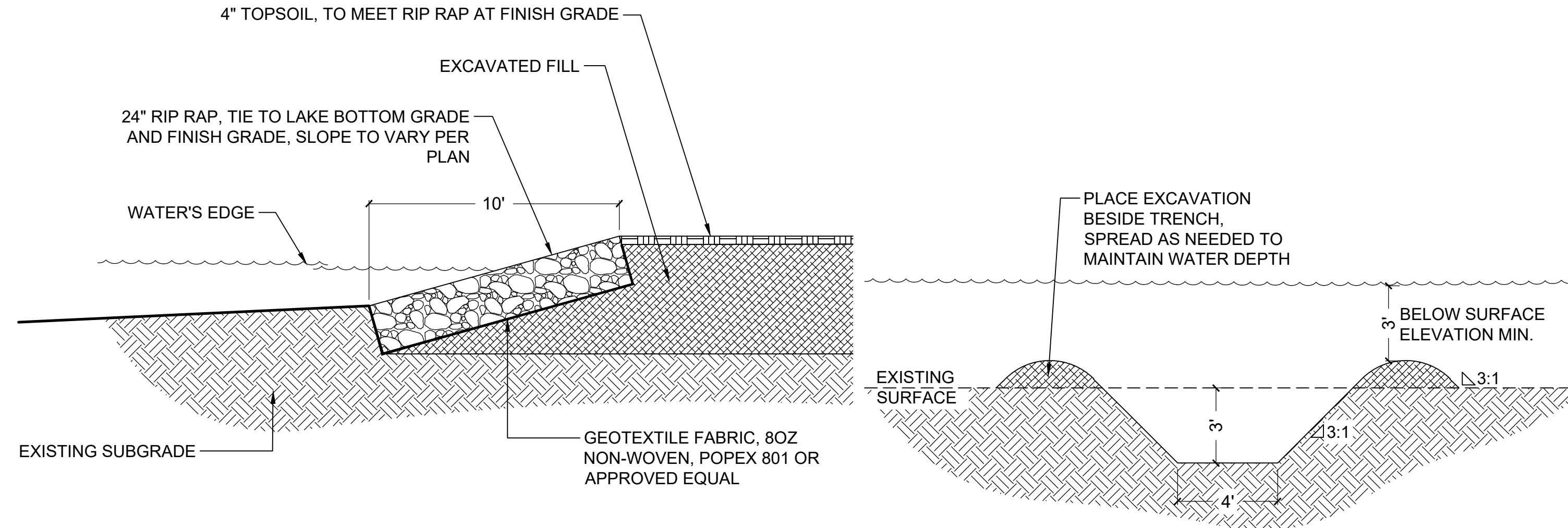


NOTES:

1. BOULDERS SHALL BE PLACED IN GROUPS AS INDICATED ON PLANS. BOULDERS SHALL NEVER BE EVENLY SPACED OR CONFIGURED IN STRAIGHT LINES.
2. BOULDERS SHALL NATURAL MOSS AND LICHEN COVERED ROCK OF VARYING COLORS, AS APPROVED BY THE LANDSCAPE ARCHITECT.
3. PLACE ALL BOULDERS SUCH THAT 1/3 OF THE TOTAL MASS OF EACH BOULDER IS BELOW FINISH GRADE.
4. BOULDERS SHALL BE 2.5' TO 6' DIAMETER.
5. BOULDERS SHALL NOT BE SCRATCHED OR BROKEN, INCLUDING MARKS OR SCRATCHES DURING PLACEMENT.

4 BOULDER PLACEMENT

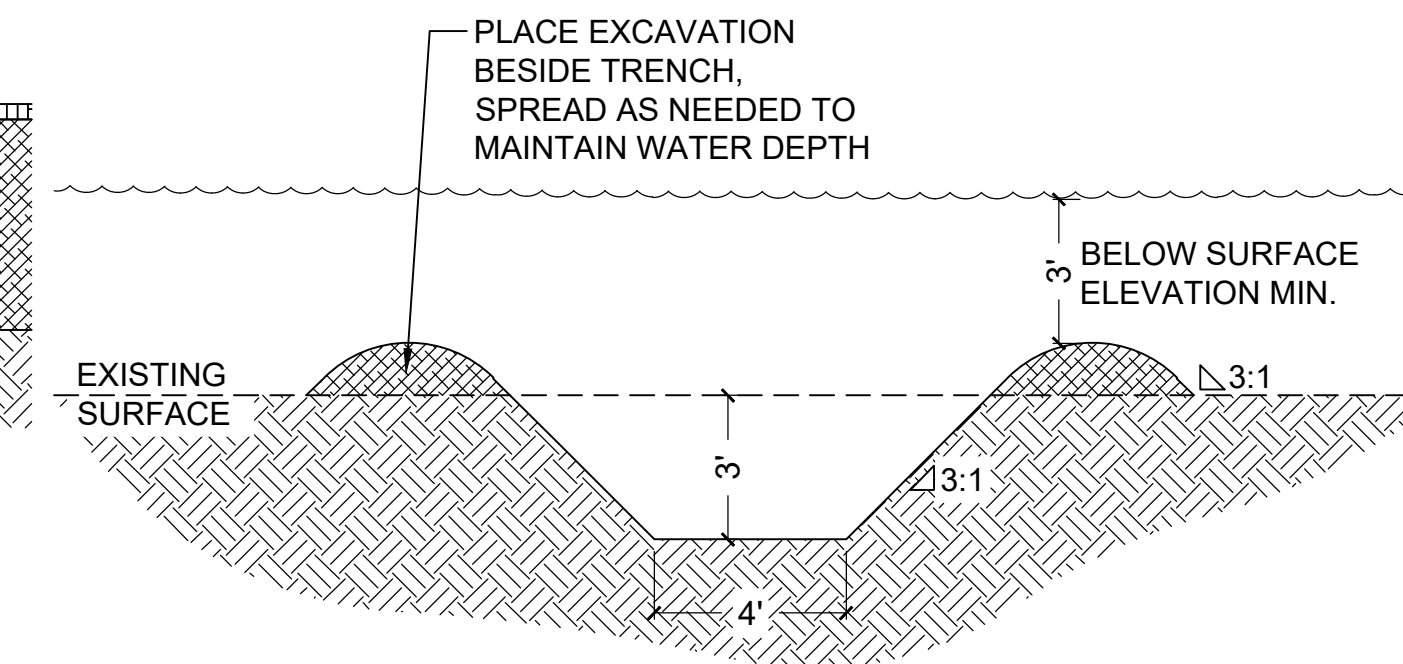
NTS



NOTE: 10' RIP RAP AT 24" DEPTH TYP.. SLOPE PER PLAN. WATER LEVEL TO OCCUR AT MIDPOINT OF RIP RAP EMBANKMENT

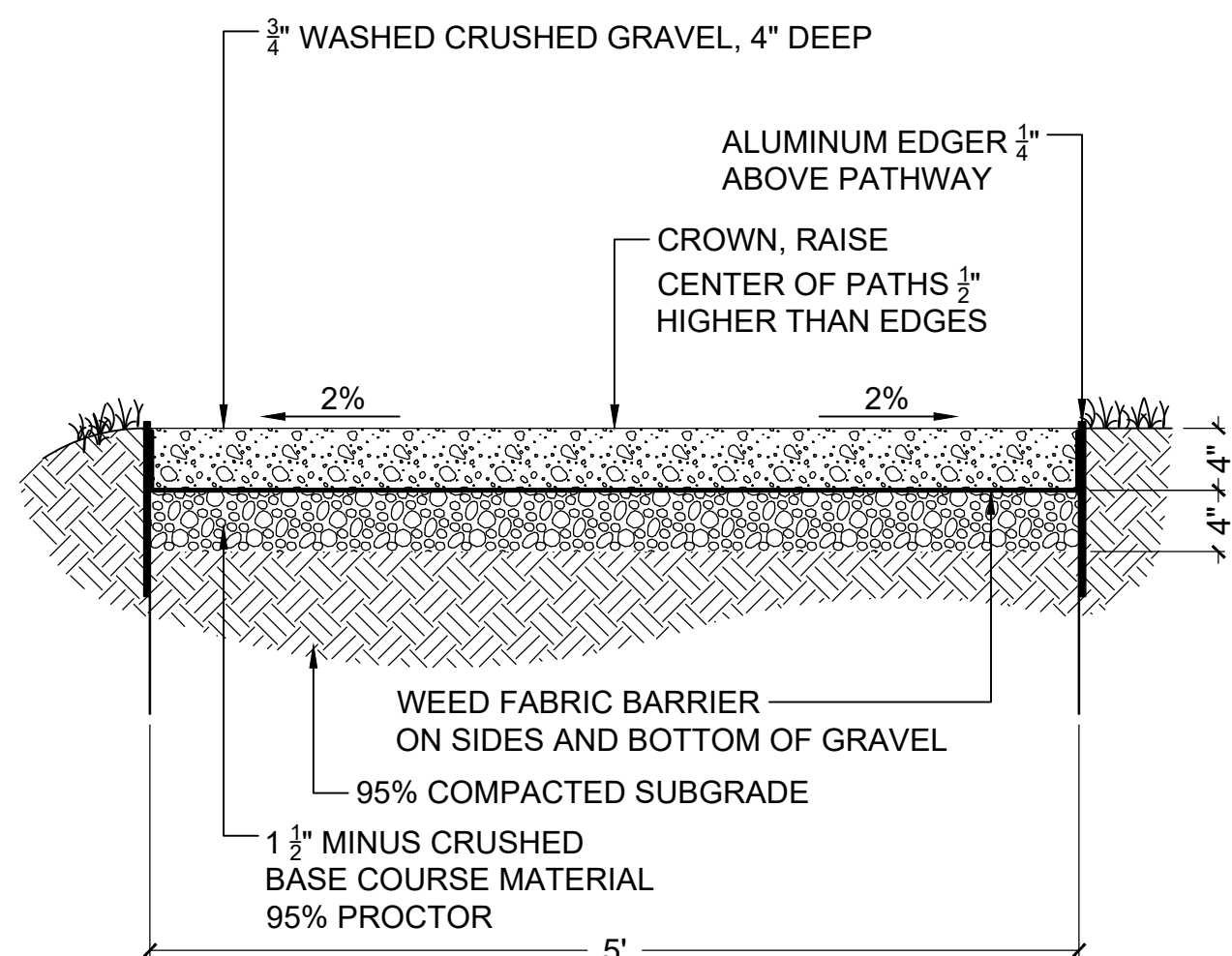
5 RIP RAP PLACEMENT

NTS



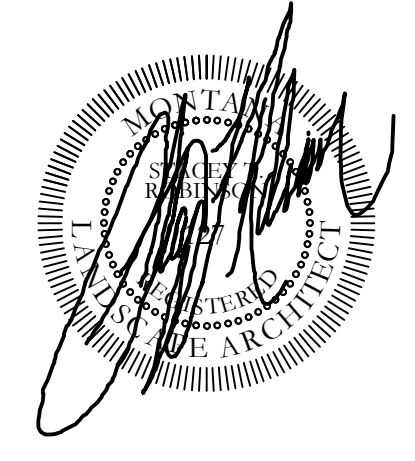
6 BASIN SWALE

NTS



7 SOFT SURFACE TRAIL - ADD ALT. C

NTS



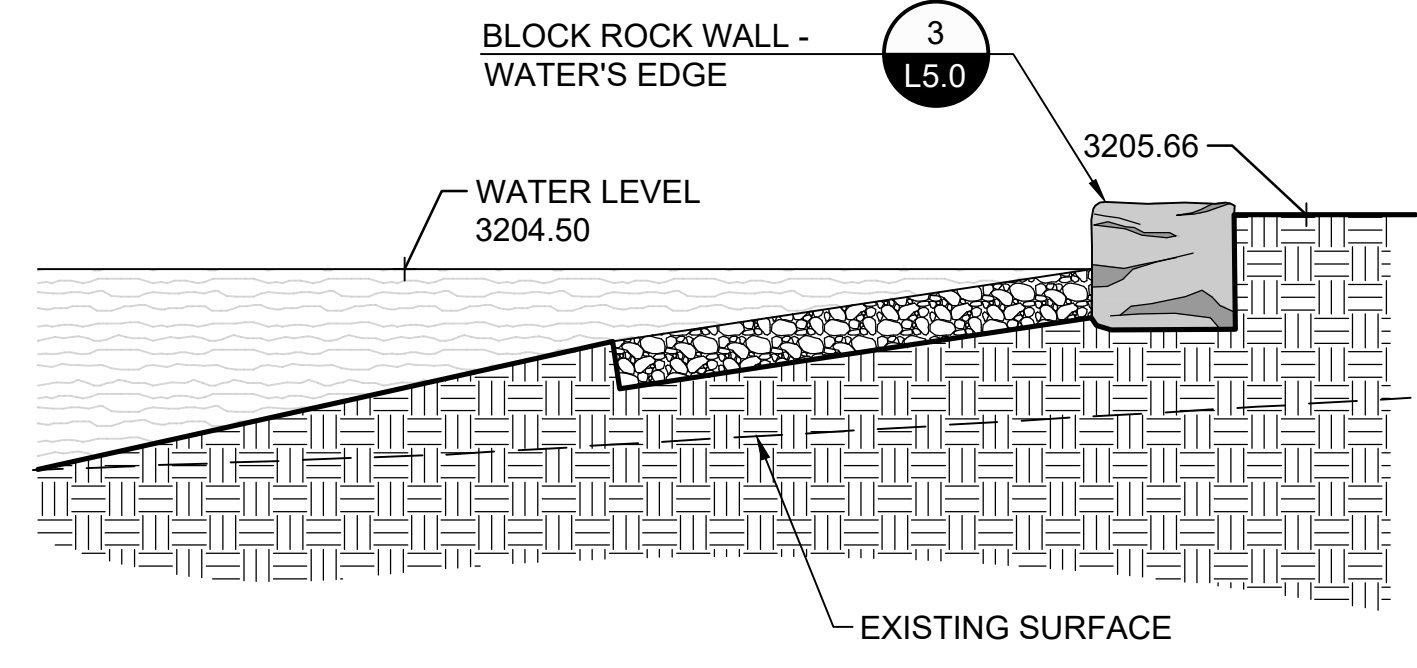
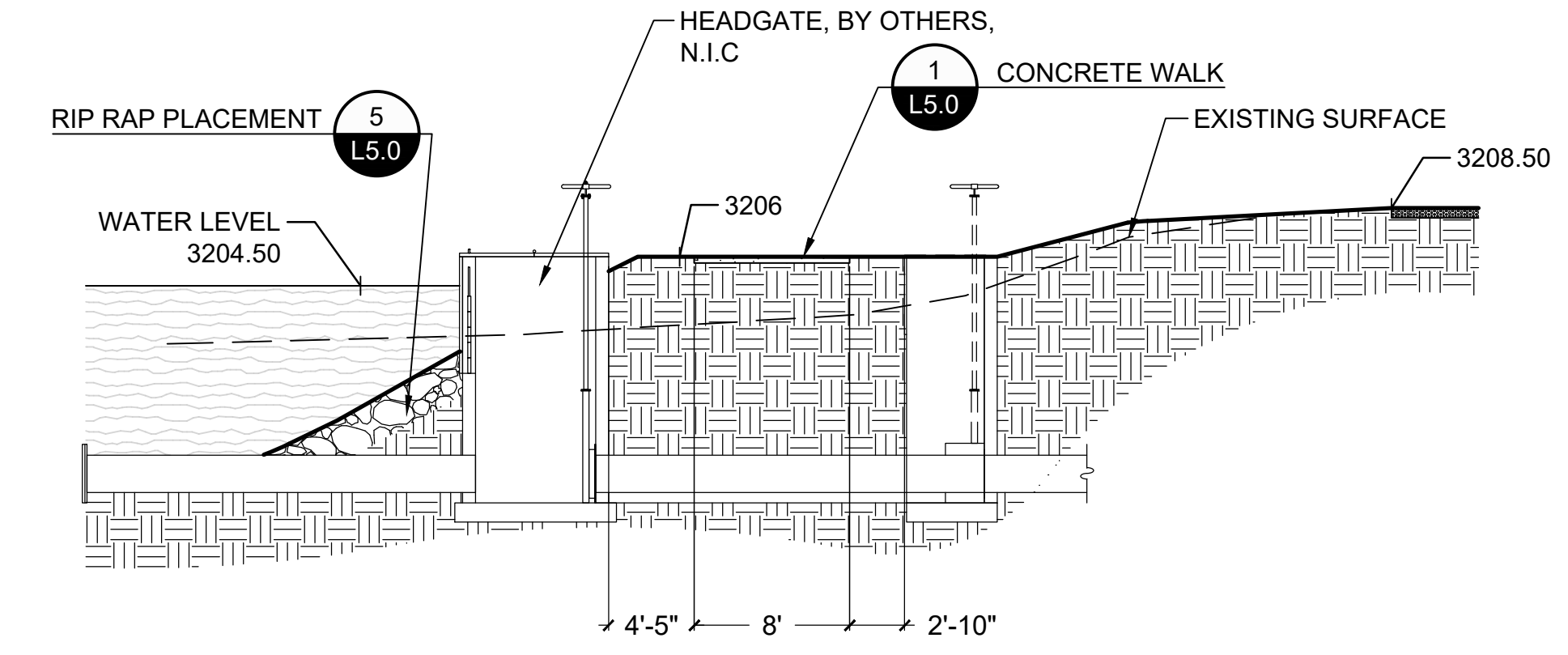
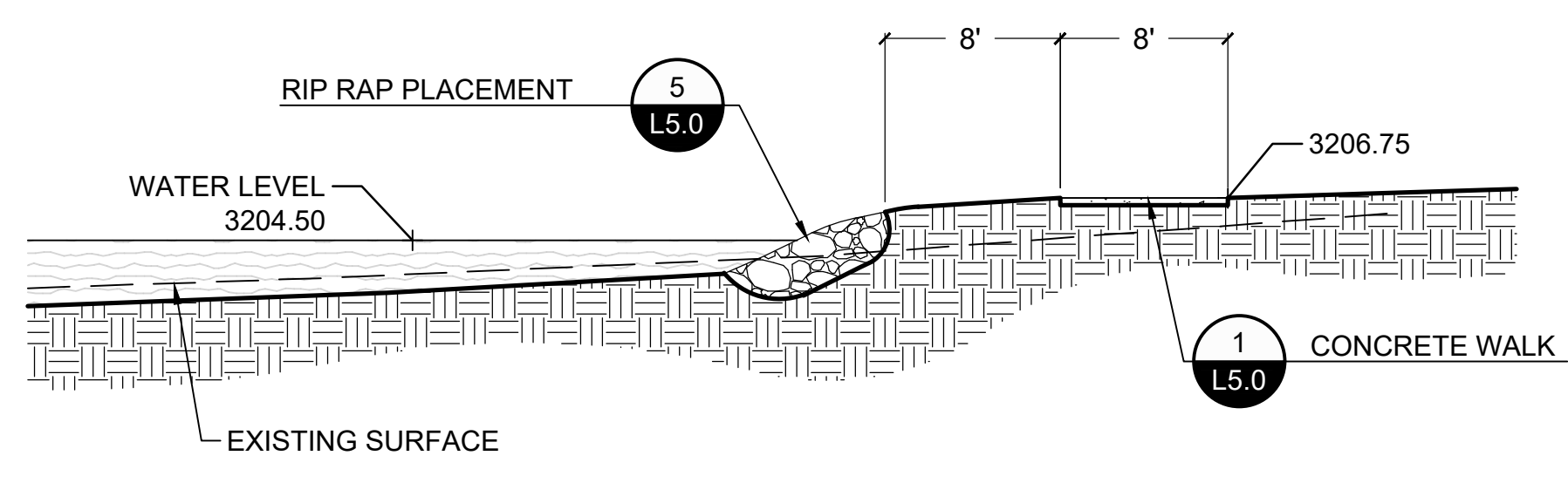
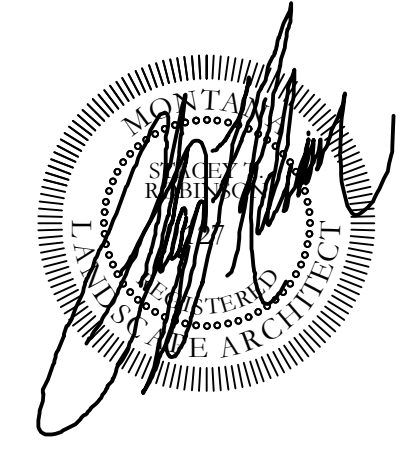
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DETAILS

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L5.0



1 EAST BANK - SECTION 1
1/8" = 1'-0"

2 EAST BANK - SECTION 2
1/8" = 1'-0"

3 NORTHEAST BANK - TYPICAL SECTION
1/4" = 1'-0"

SECTIONS

FWP#21-21 LAKE ELMO PROJECT

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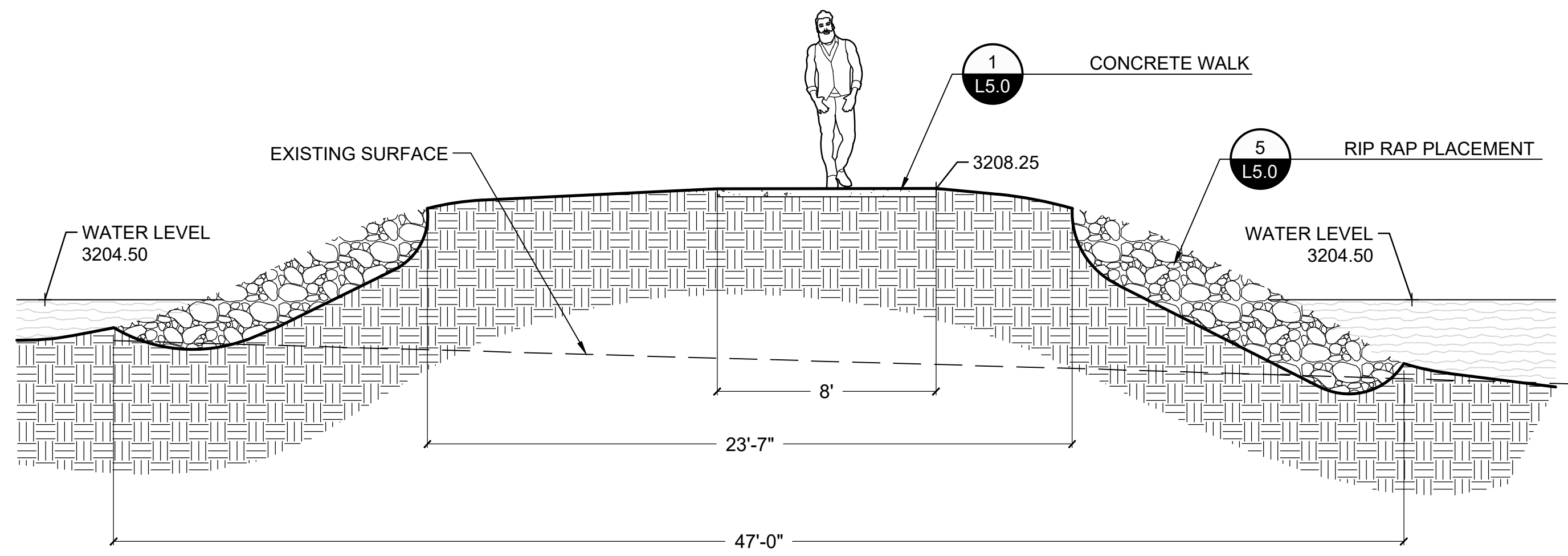
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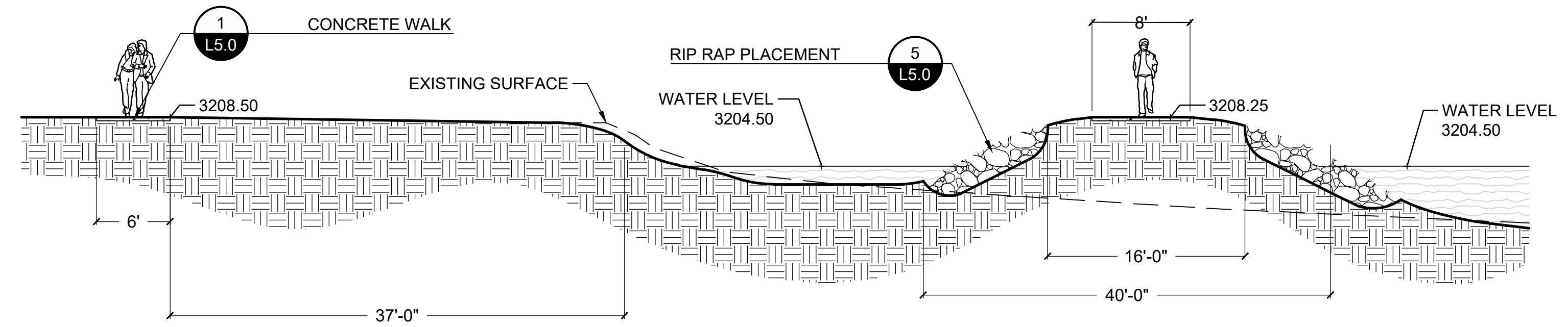
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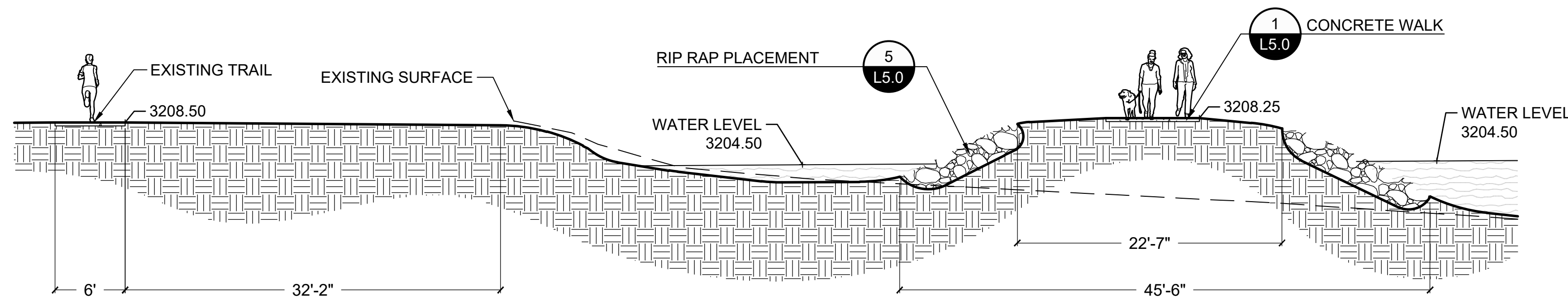
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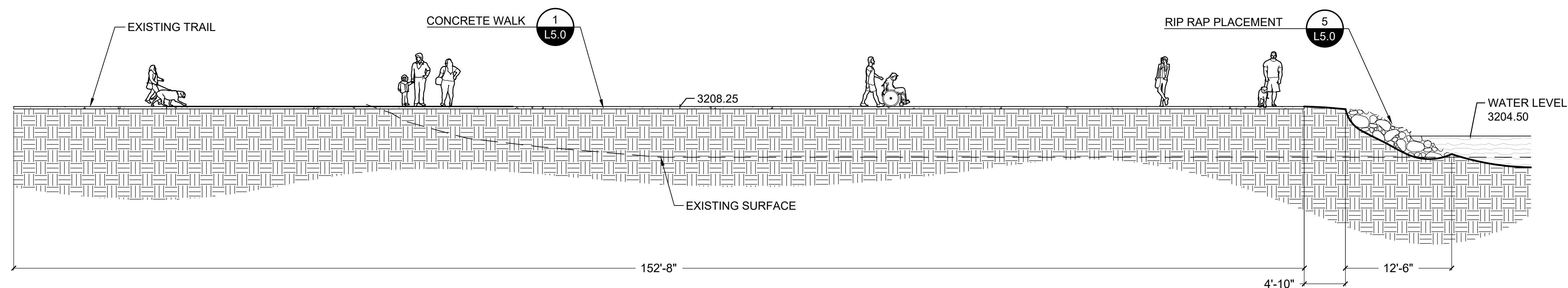
1 WEST JETTY - SECTION 1 - ADD ALT. A
1/4" = 1'-0"



2 WEST JETTY - SECTION 2
1 1/2" = 1'-0"



3 WEST JETTY - SECTION 3 - ADD ALT. A
1 1/2" = 1'-0"



4 WEST JETTY LONGITUDINAL - SECTION 4 - ADD ALT. A
1 1/2" = 1'-0"

SECTIONS

FWP#21-21 LAKE ELMO PROJECT

C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

Issue Date: 9/10/2021

Revision	Date
BID DOCUMENTS	-
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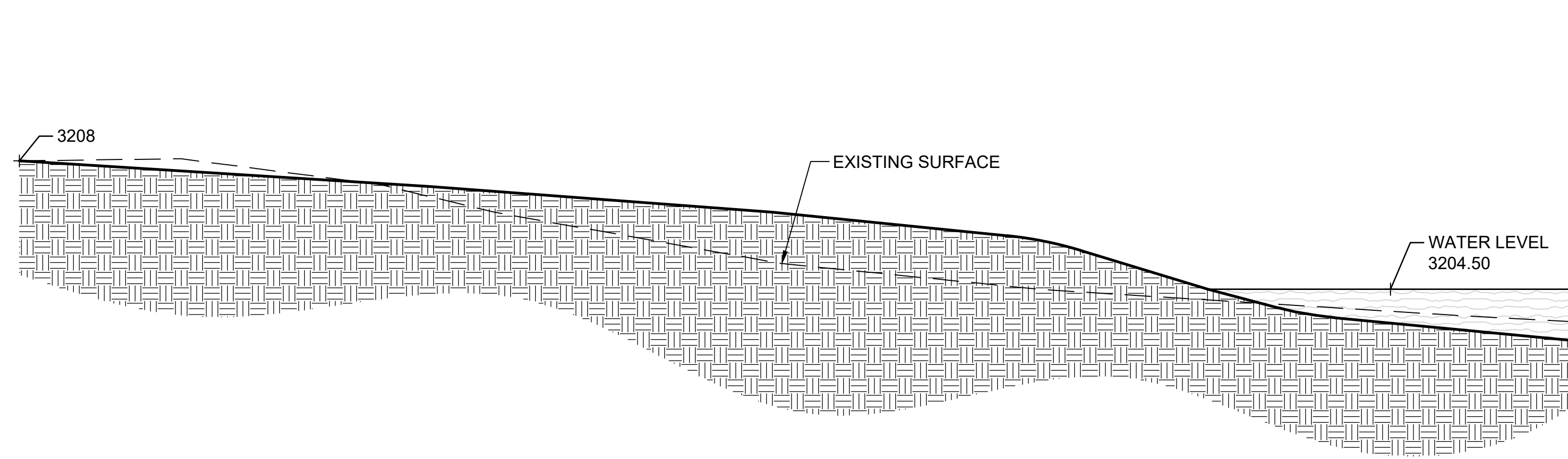
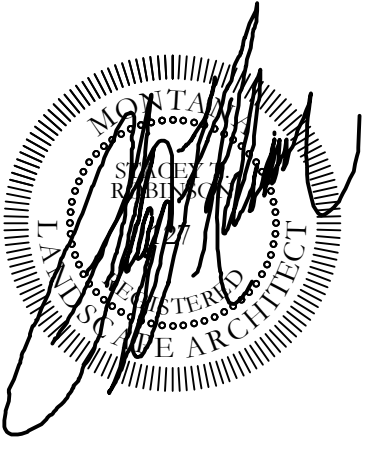
Drawn By: EM
Checked By: MV
Job Code: FWP#21-21

LAND DESIGN

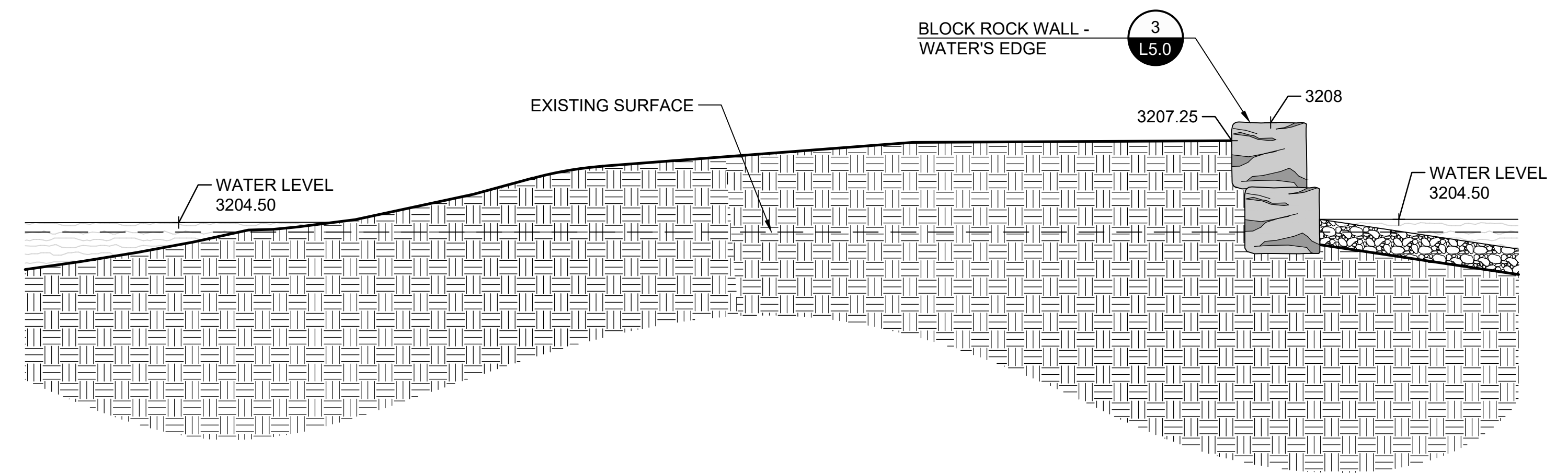
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L6.1

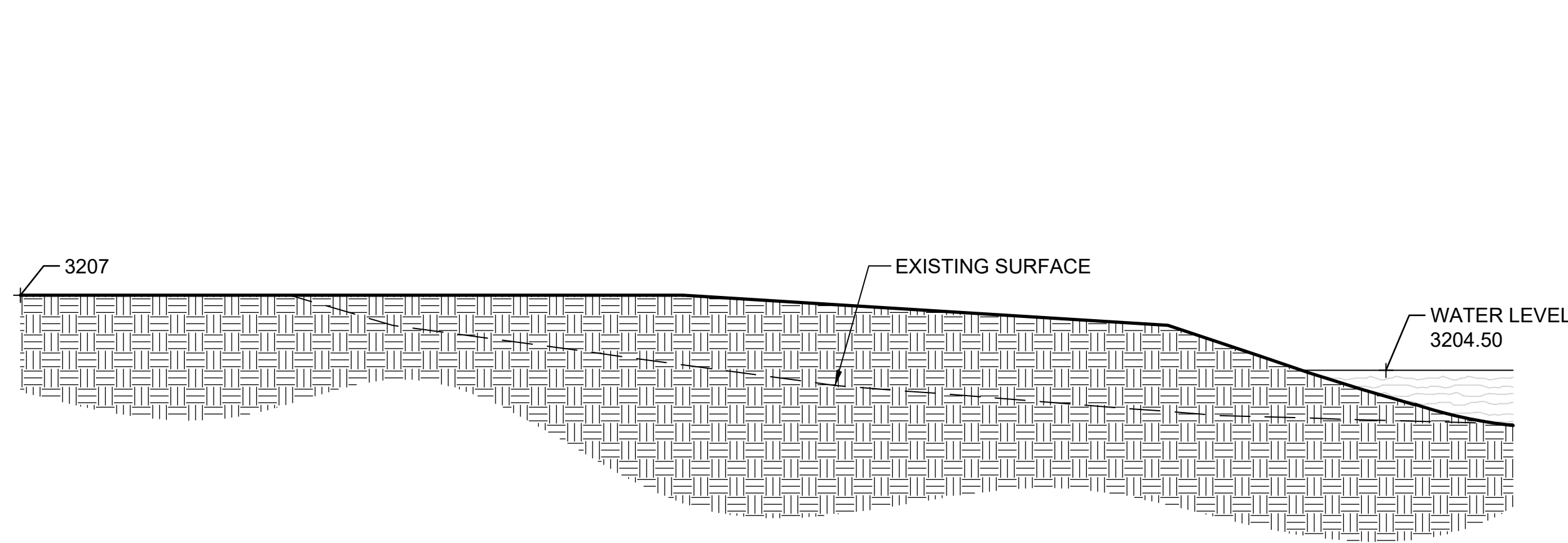
SECTIONS



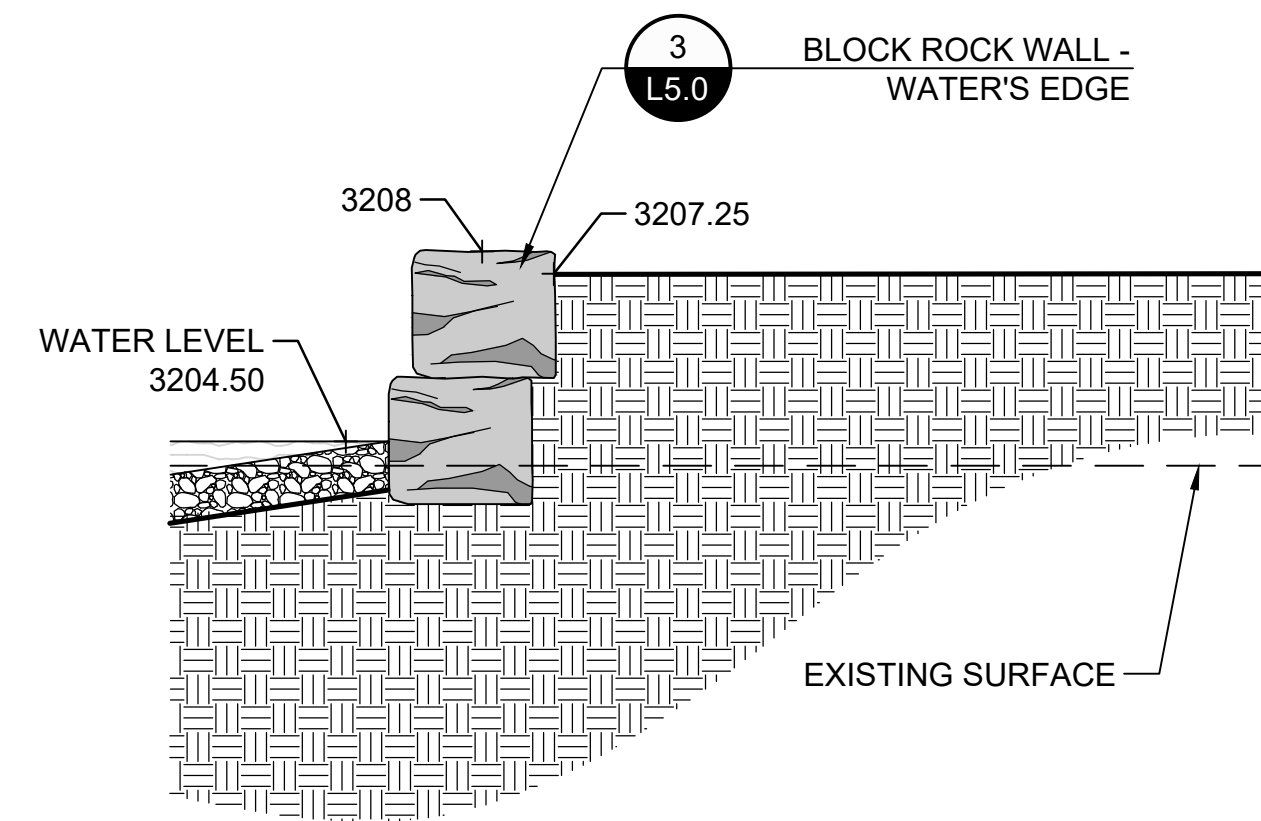
1 DOG PARK EXPANSION - SECTION 1 - ADD ALT. B
1/4" = 1'-0"



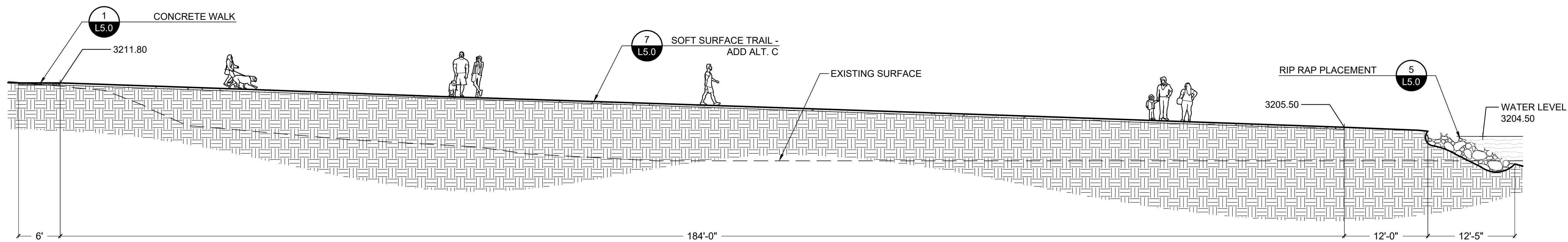
2 DOG PARK EXPANSION - SECTION 2 - ADD ALT. B
1/4" = 1'-0"



3 DOG PARK EXPANSION - SECTION 3 - ADD ALT. B
1/4" = 1'-0"



4 DOG PARK EXPANSION - SECTION 4 - ADD ALT. B
1/4" = 1'-0"



5 SOUTH JETTY - SECTION 4 - ADD ALT. C
1/8" = 1'-0"

SECTIONS

FWP#21-21 LAKE ELMO PROJECT

C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

Issue Date: 9/10/2021

Revision	Date
BID DOCUMENTS	-
	-
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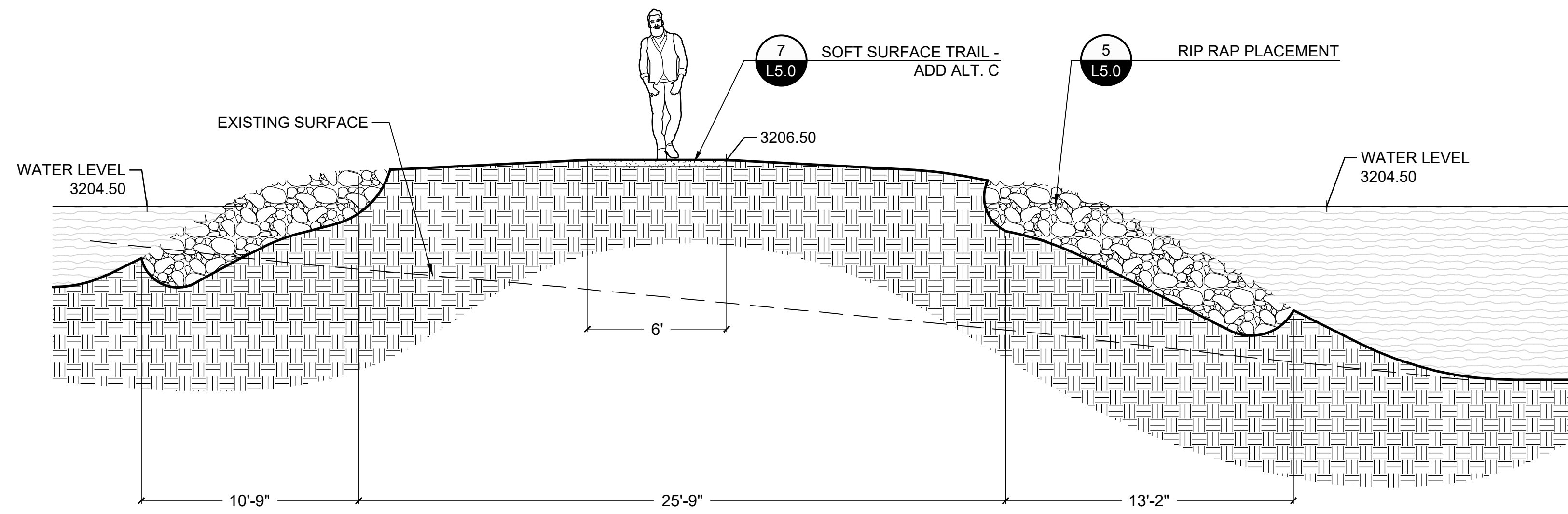
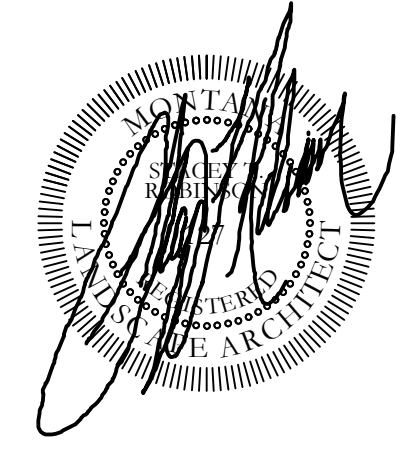
Drawn By: EM
Checked By: MV
Job Code: FWP#21-21

LAND DESIGN

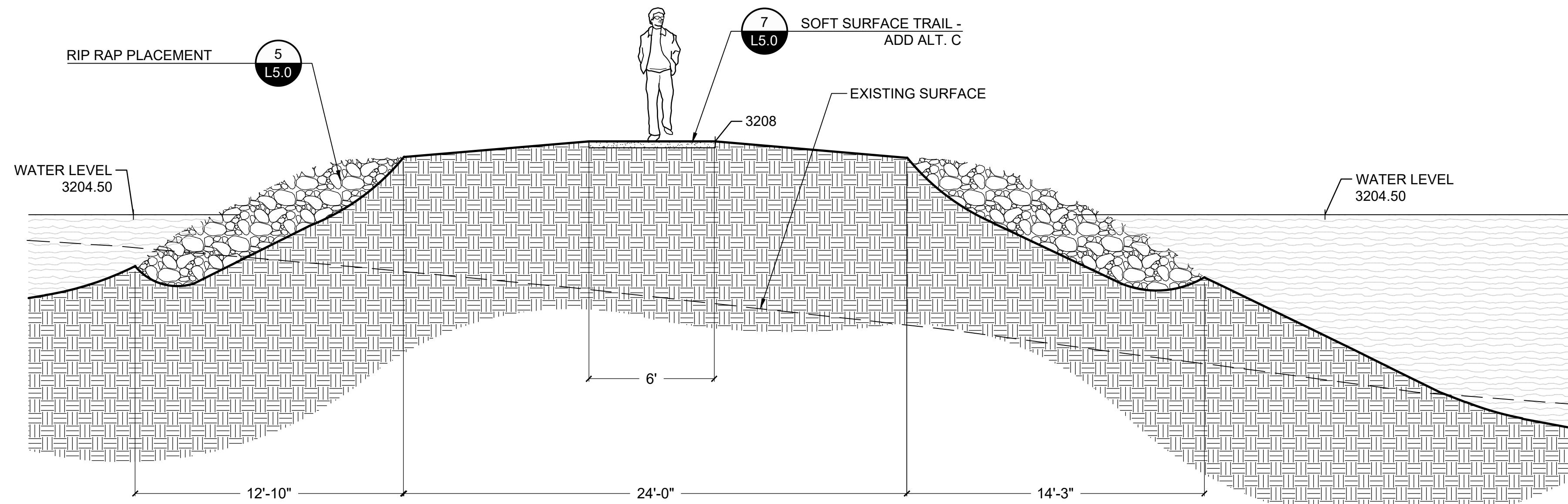
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L6.2

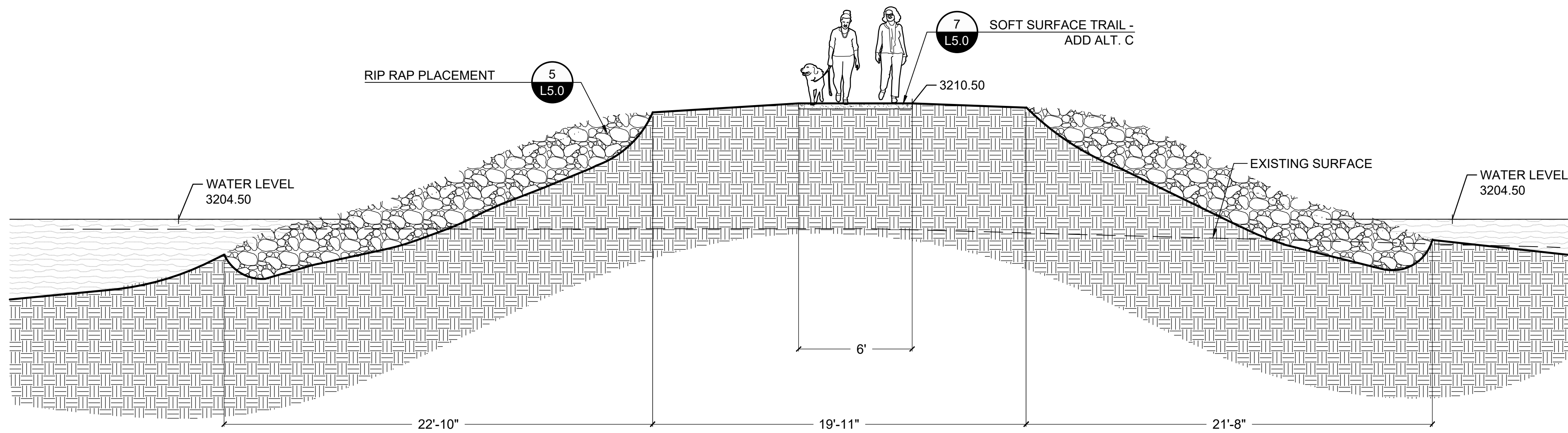
SECTIONS



1 SOUTH JETTY - SECTION 1 - ADD ALT. C
1/4" = 1'-0"



2 SOUTH JETTY - SECTION 2 - ADD ALT. C
1/4" = 1'-0"



3 SOUTH JETTY - SECTION 3 - ADD ALT. C
1/4" = 1'-0"

SECTIONS

FWP#21-21 LAKE ELMO PROJECT

C. FLUMINEA ERADICATION, FISHERIES & PARKS - BILLINGS, MT

Revision	Date
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L6.3

SECTIONS