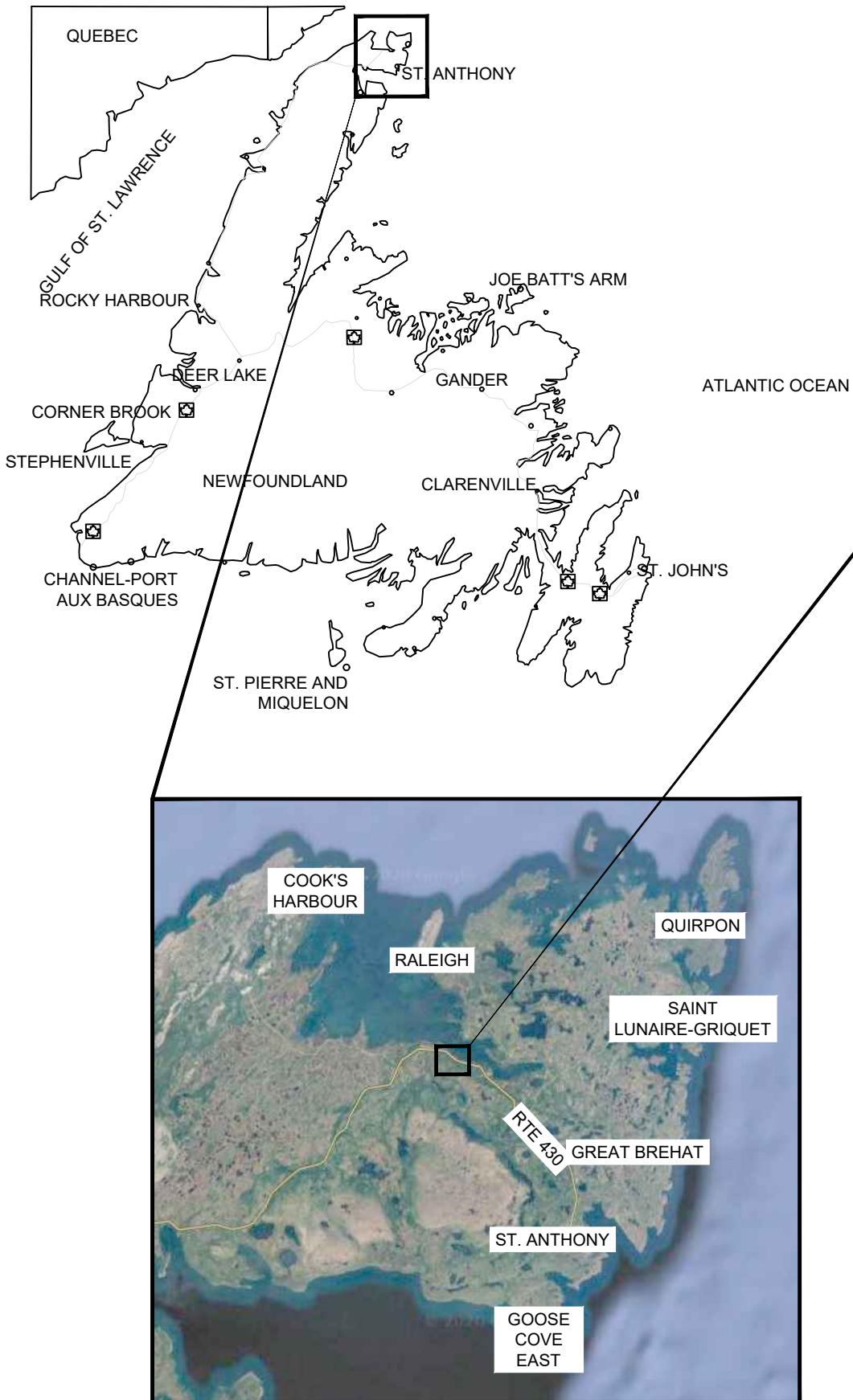


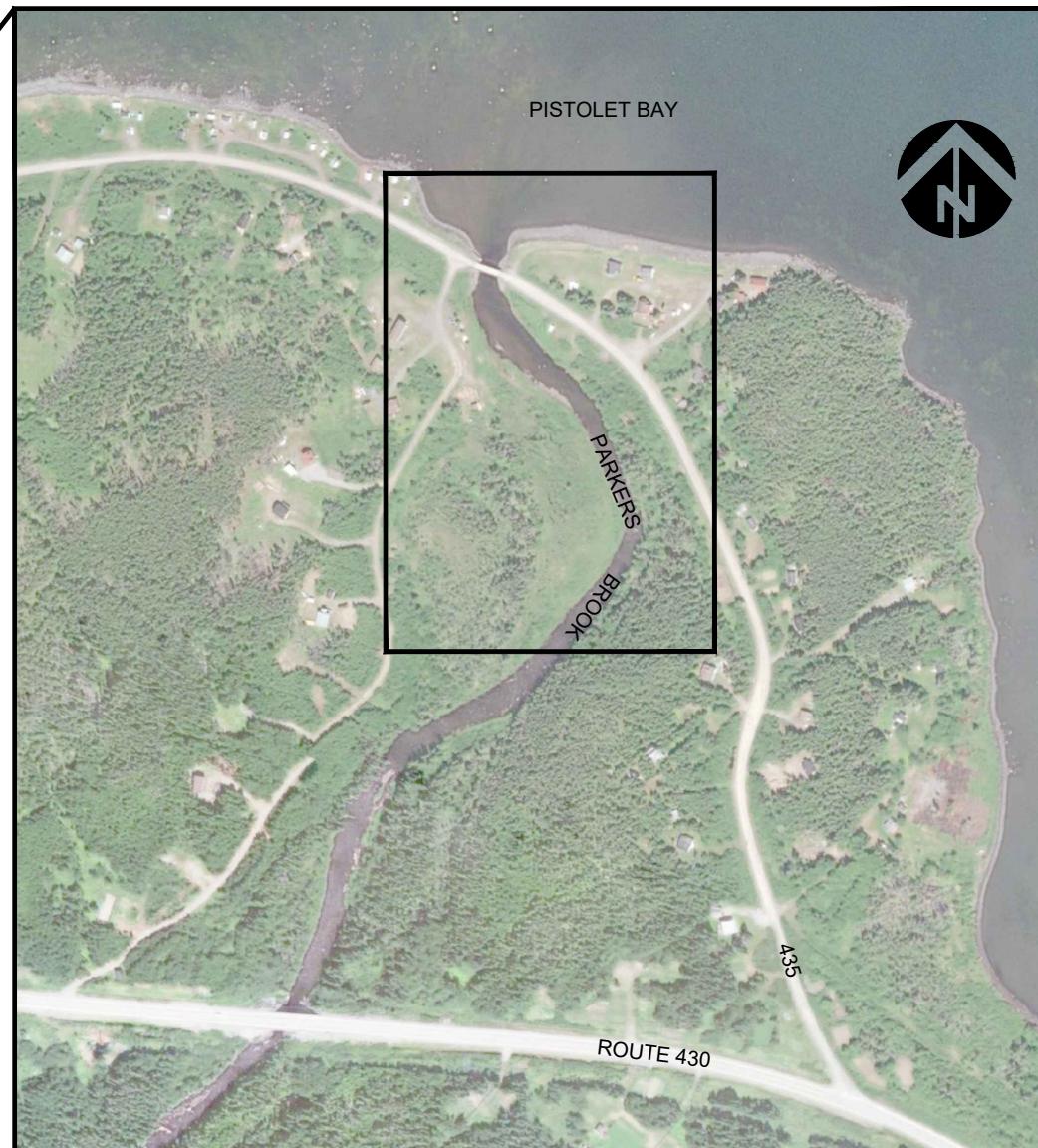
PARKERS BROOK

FISH ENHANCEMENT PROJECT

Preliminary Design



VICINITY MAP



PARKERS BROOK SITE

SHEET LIST TABLE

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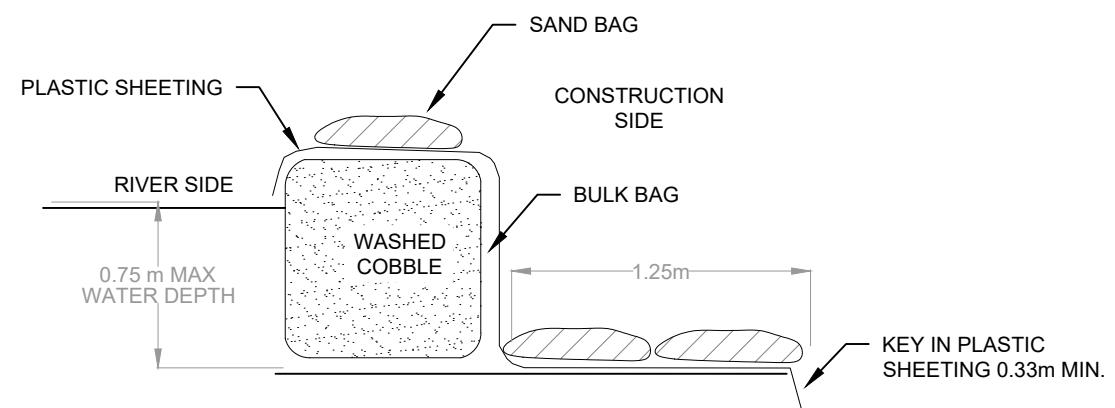
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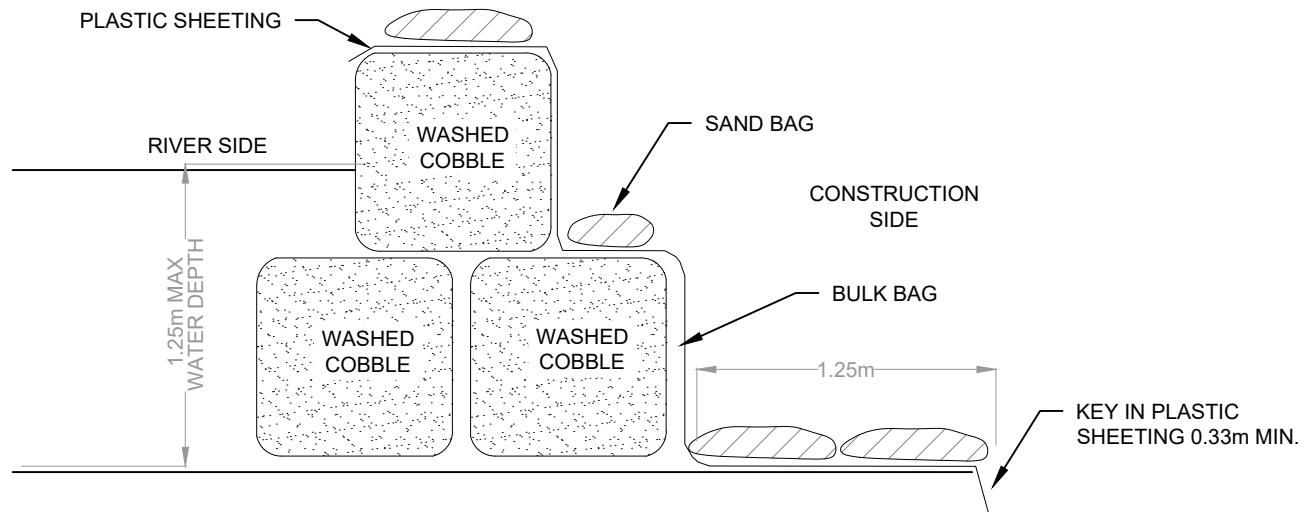
TITLE SHEET, LOCATION MAPS

SHEET
1 OF 12



TEMPORARY COFFER DAM

NOT TO SCALE



COFFER DAM SECTION IN WATER

DEPTHS GREATER THAN 0.75m

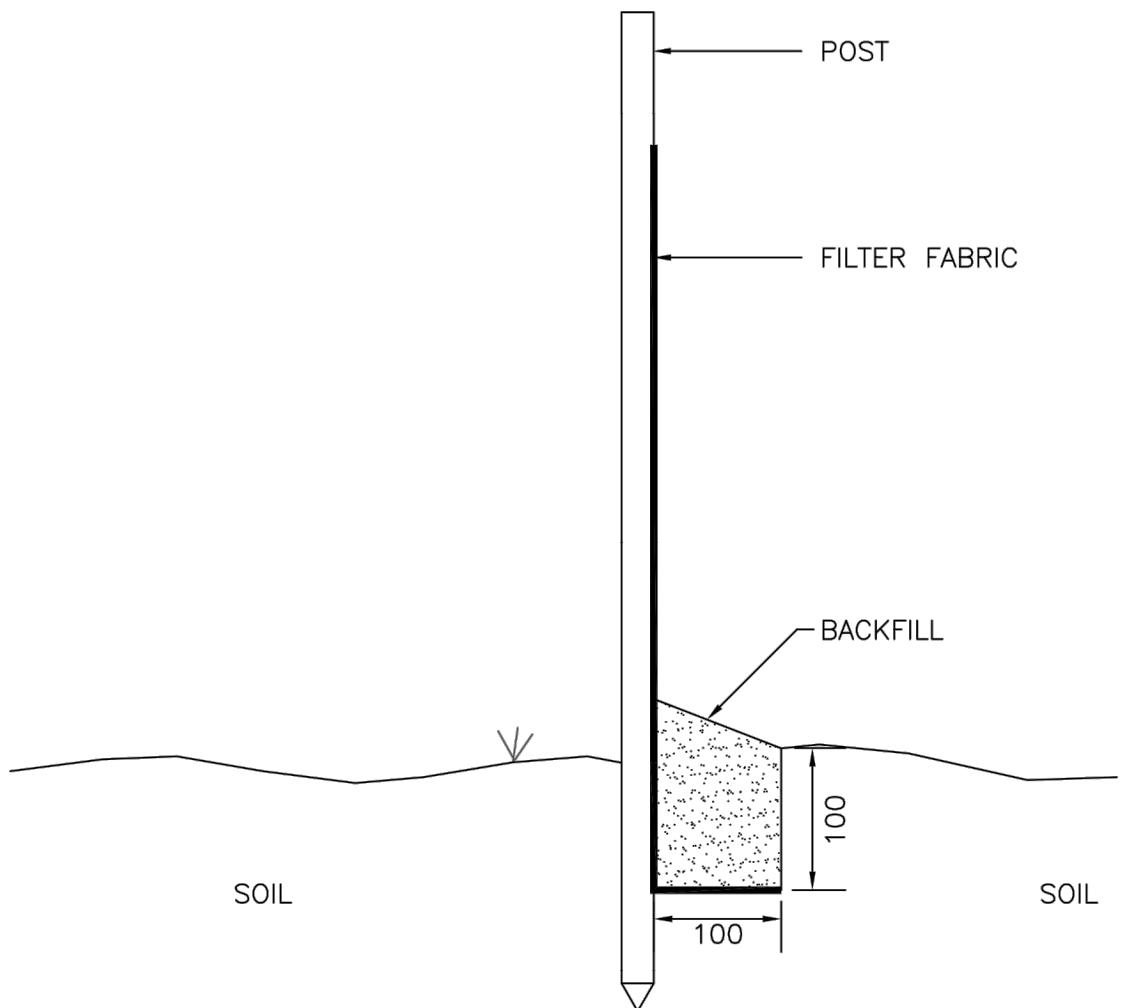
NOT TO SCALE

BULK BAG NOTES:

1. BULK BAG COFFERDAM SHALL BE CONSTRUCTED OF SEVERAL UNITS OF BULK BAGS FILLED WITH WDFW APPROVED 7.62 CENTIMETER WASHED COBBLE, AND ABUTTED SIDE BY SIDE TO CREATE A ROW THAT ISOLATES THE CONSTRUCTION SITE.
2. IF WATER DEPTH EXCEEDS 85% OF THE BULK BAG HEIGHT, AN ADDITIONAL TOP ROW OF BULK BAGS SHALL BE INSTALLED, SUPPORTED BY TWO BOTTOM ROWS OF BULK BAGS. BULK BAG COFFERDAM SHALL BE SEALED BY COVERING THE COFFERDAM WITH PLASTIC SHEETING HELD IN PLACE BY STANDARD SANDBAGS PLACED IN ROWS ON TOP OF COFFERDAM, AND AT TOE OF COFFERDAM.
3. THE PLASTIC SHEETING SHALL BE DRAPED ALONG THE CHANNEL BOTTOM ON THE WORK AREA SIDE OF THE COFFERDAM WITH OUTWARD EDGE OF SHEETING MINIMUM 1.25 METERS FROM TOE OF COFFERDAM. THE DRAPED PORTION OF PLASTIC SHEETING SHALL BE PINNED TO THE CHANNEL BED BY MINIMUM TWO ROWS OF STANDARD SANDBAGS.
4. THE OUTWARD EDGE OF PLASTIC SHEETING SHALL BE TOED INTO THE CHANNEL BED MINIMUM 0.3 METERS. TOEING IN THE OUTWARD EDGE OF PLASTIC SHEETING SHALL OCCUR AFTER THE COFFERDAM IS CLOSED TO PREVENT TURBIDITY RELEASE TO THE WATERWAY.
5. THE TERMINAL ENDS OF BULK BAG COFFERDAM, WHERE IT CONNECTS TO CHANNEL BANK OR HIGH GROUND, SHALL BE SEALED WITH PLASTIC SHEETING AND STANDARD SANDBAGS.
6. BULK BAGS SHALL BE WATERPROOF CUBE-SHAPED POLYPROPYLENE WOVEN FABRIC BAGS WITH FULLY OPEN TOP, FLAT BOTTOM, FOUR LOOPS, MINIMUM 1800 KILOGRAM WEIGHT CAPACITY, MINIMUM 5:1 SAFETY FACTOR.
7. PLASTIC SHEETING SHALL BE MINIMUM 6-MIL THICKNESS. ROLL LENGTH SHALL COVER THE ENTIRE LENGTH OF COFFERDAM WITHOUT SEAMS. MINIMUM 3.6 METER WIDE ROLL SHALL BE USED FOR SINGLE LAYER BULK BAG COFFERDAM. MINIMUM 5 METER ROLL SHALL BE USED FOR 2-LAYER STACKED BULK BAG COFFERDAM.
8. BULK BAG COFFERDAM SHALL BE COMPLETELY REMOVED AFTER CONSTRUCTION IS COMPLETED AND TURBIDITY HAS BEEN REMOVED.
9. MEASUREMENT AND PAYMENT FOR BULK BAG COFFERDAM SHALL BE PER LINEAL FEET OF INSTALLED COFFERDAM. WHERE MORE THAN ONE LAYER OF BULK BAGS ARE REQUIRED, PAYMENT SHALL BE PER LINEAL FEET OF EACH ROW OF BULK BAGS. SANBAGS AND PLASTIC SHEETING SHALL BE INCIDENTAL TO COFFERDAM.
10. ALTERNATE COFFERDAM MATERIALS AND CONFIGURATIONS MAY BE ALLOWED BUT SHALL NOT BE IMPLEMENTED WITHOUT REVIEW AND APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND/OR VENDOR CUT SHEETS FOR SUBSTITUTIONS.

EROSION CONTROL:

1. PUBLIC RIGHTS OF WAY ARE TO BE KEPT IN A CLEAN AND SERVICEABLE CONDITION AT ALL TIMES. IN THE EVENT MATERIALS ARE INADVERTENTLY DEPOSITED ON ROADWAYS IT SHALL BE REMOVED PROMPTLY. MATERIALS SHALL BE SWEPT AND REMOVED PRIOR TO ANY STREET FLUSHING. PUBLIC AND PRIVATE DRAINAGE AND WATER WAYS ARE TO BE PROTECTED FROM POLLUTION.
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING EROSION, SEDIMENT, AND POLLUTION CONTROL MEASURES TO COMPLY WITH ALL APPLICABLE REGULATIONS. NOTICE TO PROCEED WILL NOT BE ISSUED UNTIL THE CONTRACTOR OBTAINS AN APPROVED ESC PLAN.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL NECESSARY EROSION CONTROL FACILITIES TO COMPLY WITH APPLICABLE EROSION CONTROL REGULATIONS.
4. THE IMPLEMENTATION OF EROSION, SEDIMENT, AND POLLUTION CONTROL MEASURES AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED, AND VEGETATION IS ESTABLISHED.
5. THE CONTRACTOR SHALL ENSURE THAT MATERIALS FOR EMERGENCY EROSION CONTROL ARE ONSITE, INCLUDING BUT NOT LIMITED TO: SEDIMENT CONTROL MATERIALS (I.E. SILT FENCE, STRAW BALES, STRAW WATTLES, DIRT BAGS); AN OIL-ABSORBING, FLOATING BOOM WHENEVER FLOWING SURFACE WATER IS PRESENT.
6. THE CONTRACTOR SHALL SUBMIT NAME, ADDRESS AND 24-HOUR PHONE NUMBER OF PERSON RESPONSIBLE FOR EROSION PREVENTION AND SEDIMENT CONTROL MEASURES, AND SPILL CONTAINMENT.
7. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN WILL BE FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION BY THE OWNER'S REPRESENTATIVE. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
8. EROSION, SEDIMENT, AND POLLUTION CONTROL MEASURES MUST BE IMPLEMENTED PRIOR TO ANY GROUND DISTURBING ACTIVITY ON THE PROJECT SITE, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE PROJECT SITE, ENTER THE DRAINAGE SYSTEM OR ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
9. DURING THE CONSTRUCTION PERIOD, EROSION, SEDIMENT, AND POLLUTION CONTROL MEASURES SHALL BE UPGRADED AS NEEDED FOR STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL MONITOR INSTREAM TURBIDITY AND INSPECT ALL EROSION CONTROLS DAILY, OR MORE OFTEN AS NECESSARY, TO ENSURE THE EROSION CONTROLS ARE WORKING ADEQUATELY. IF MONITORING OR INSPECTION SHOWS THAT THE EROSION CONTROLS ARE INEFFECTIVE, MOBILIZE WORK CREWS IMMEDIATELY TO MAKE REPAIRS, INSTALL REPLACEMENTS, OR INSTALL ADDITIONAL CONTROLS AS NECESSARY. THE CONTRACTOR SHALL REMOVE SEDIMENT FROM EROSION CONTROLS ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE CONTROL.



INSTALLATION OF GEOTEXTILE SILT FENCE

1. EXCAVATE A 100mm X 100mm TRENCH IN A CRESCENT SHAPE ACROSS THE FLOW PATH WITH ENDS POINTING UPSLOPE.
2. DRIVE STURDY STAKES, SPACED 3000mm APART, INTO THE GROUND ALONG THE DOWNSLOPE SIDE OF THE TRENCH.
3. INSTALL THE FILTER FABRIC FROM A CONTINUOUS ROLL AND CUT TO REQUIRED LENGTH. THE FILTER FABRIC SHOULD BE STAPLED TO THE UPSTREAM SIDE OF THE STAKES, EXTENDING THE BOTTOM 200mm INTO THE TRENCH.
4. BACK FILL AND COMPACT THE SOIL IN THE TRENCH OVER THE FILTER FABRIC.
5. CONTRACTOR TO MAINTAIN FENCE FOR THE DURATION OF THE PROJECT AND REMOVE AT THE COMPLETION OF THE PROJECT.

MUNICIPAL MASTER SPECIFICATIONS

TYPICAL SILT FENCE
INSTALLATION DETAILS

DRAWING #	SPEC. REFERENCE	DATE:
1260	01560	APRIL 2004

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NO.	BY	DATE	REVISION DESCRIPTION

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EROSION CONTROL DETAILS



LEGEND

- TEMPORARY ACCESS
- SILT FENCE
- LIMITS OF DISTURBANCE

AERIAL PHOTO: GOOGLE EARTH, OCTOBER, 2012



0 10 20 30m

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GS MM APPROVED	NN, MM, MB June 1, 2021 DATE	NN CHECKED PROJECT

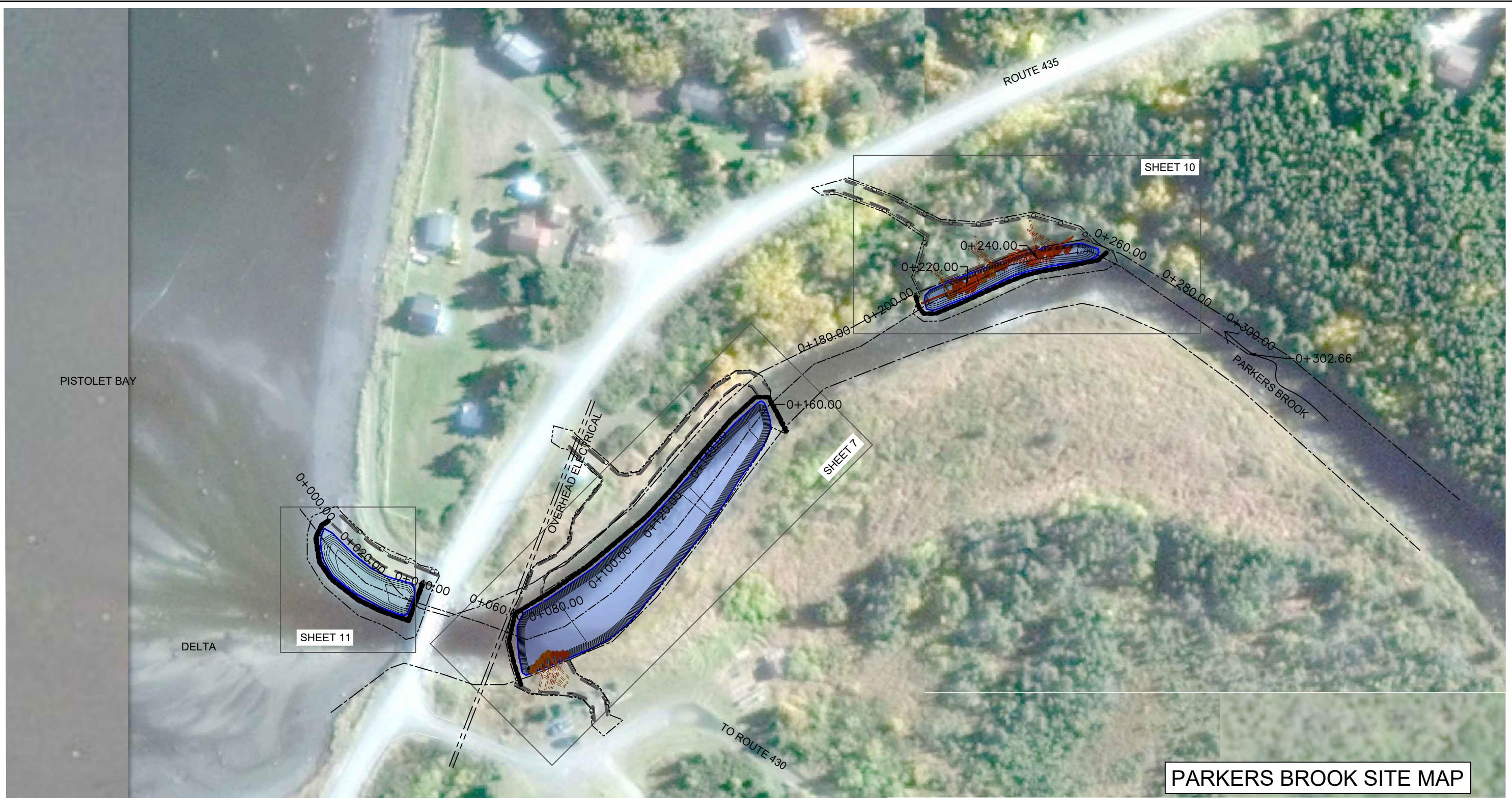
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EXISTING CONDITIONS

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LEGEND

- TEMPORARY ACCESS
- COFFERDAM
- POOL EXCAVATION
- LARGE WOOD PLACEMENT
- FLOODPLAIN BENCH CREATION
- PROPOSED 0.25m CONTOUR
- PROPOSED ALIGNMENT
- SILT FENCE
- LIMITS OF DISTURBANCE

AERIAL PHOTO: GOOGLE EARTH, OCTOBER, 2012



0 10 20 30m

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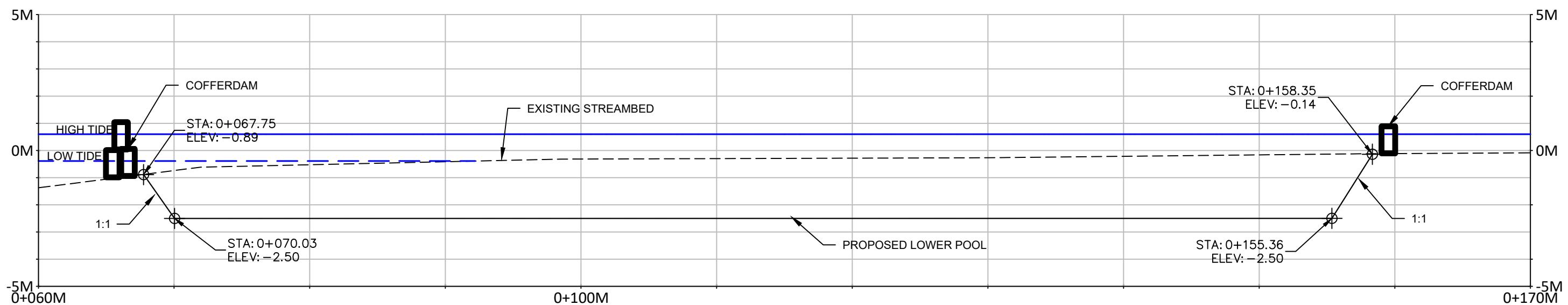
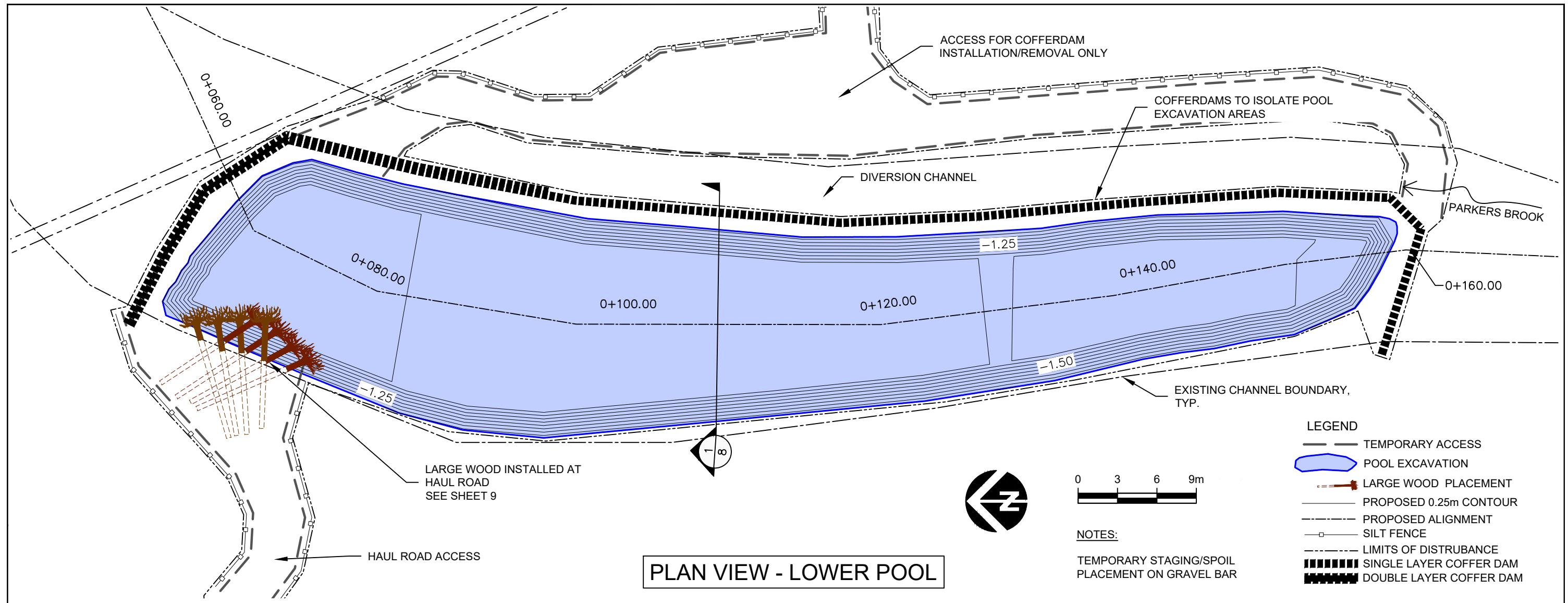
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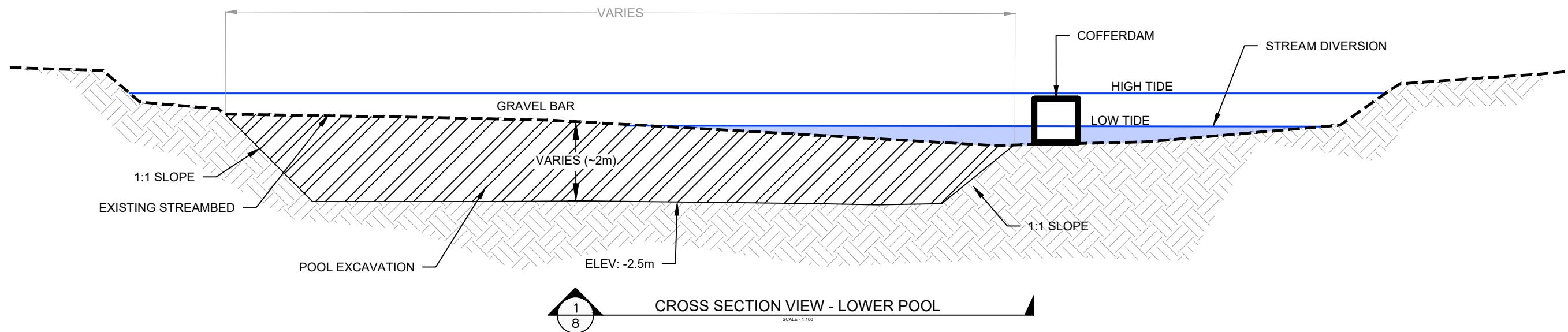
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OVERVIEW

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NO.	BY	DATE	REVISION DESCRIPTION						



NO.	BY	DATE	REVISION DESCRIPTION

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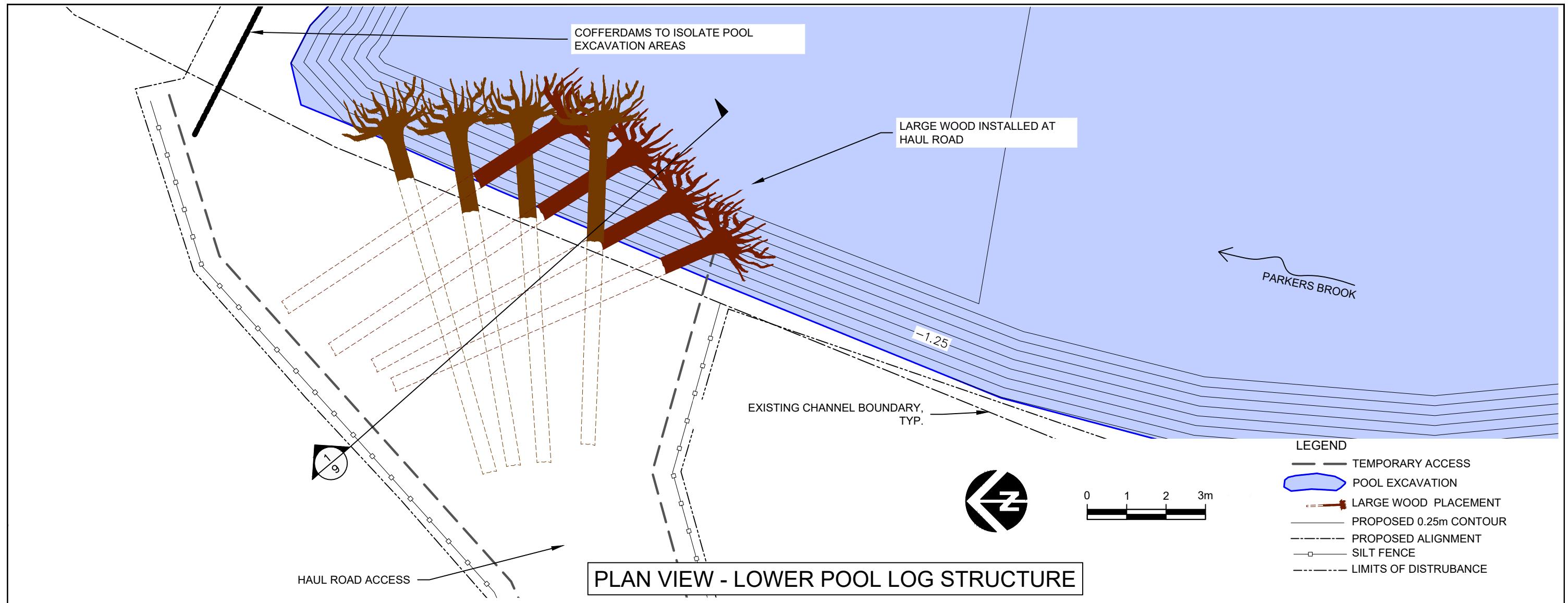
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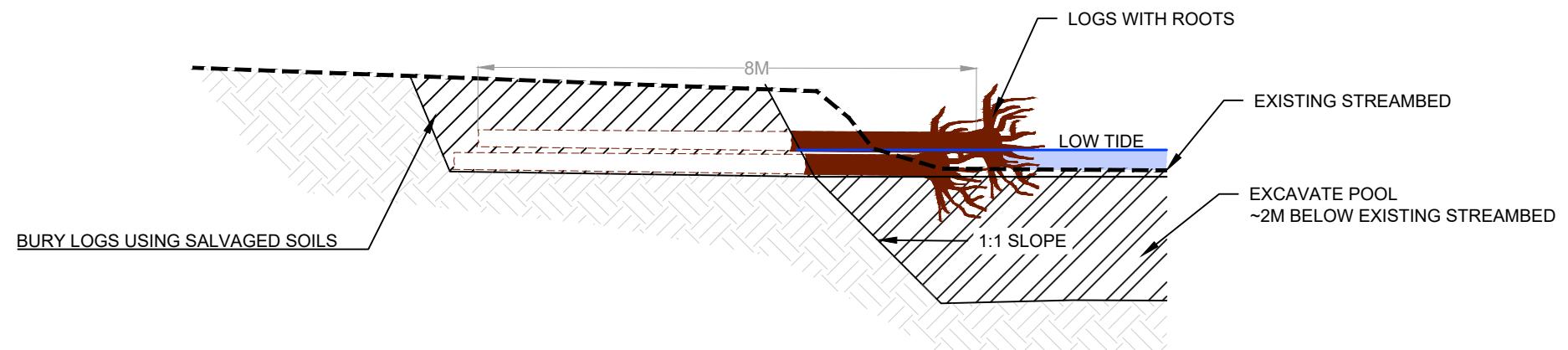
LOWER POOL TYPICAL SECTION

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NOTES:

1. MINIMUM OF 1m OF SALVAGED SOIL PLACED ON TOP OF LARGE WOOD.
2. 75% OF LOG LENGTH SHALL BE BURIED IN THE CHANNEL BANK.
3. SEE SPECIFICATIONS FOR LARGE WOOD DIMENSIONS.



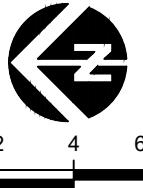
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CROSS SECTION VIEW - LOWER POOL/HAUL ROAD WOOD PLACEMENTS

SCALE - 1:100

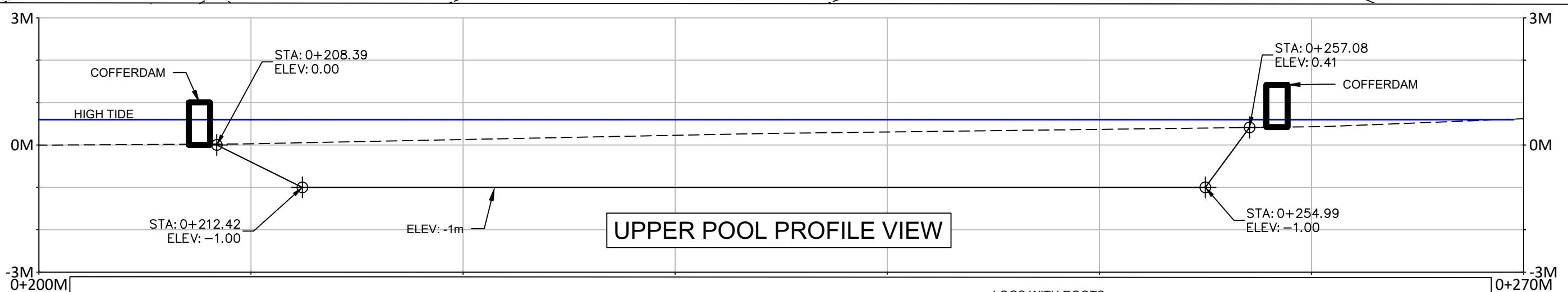
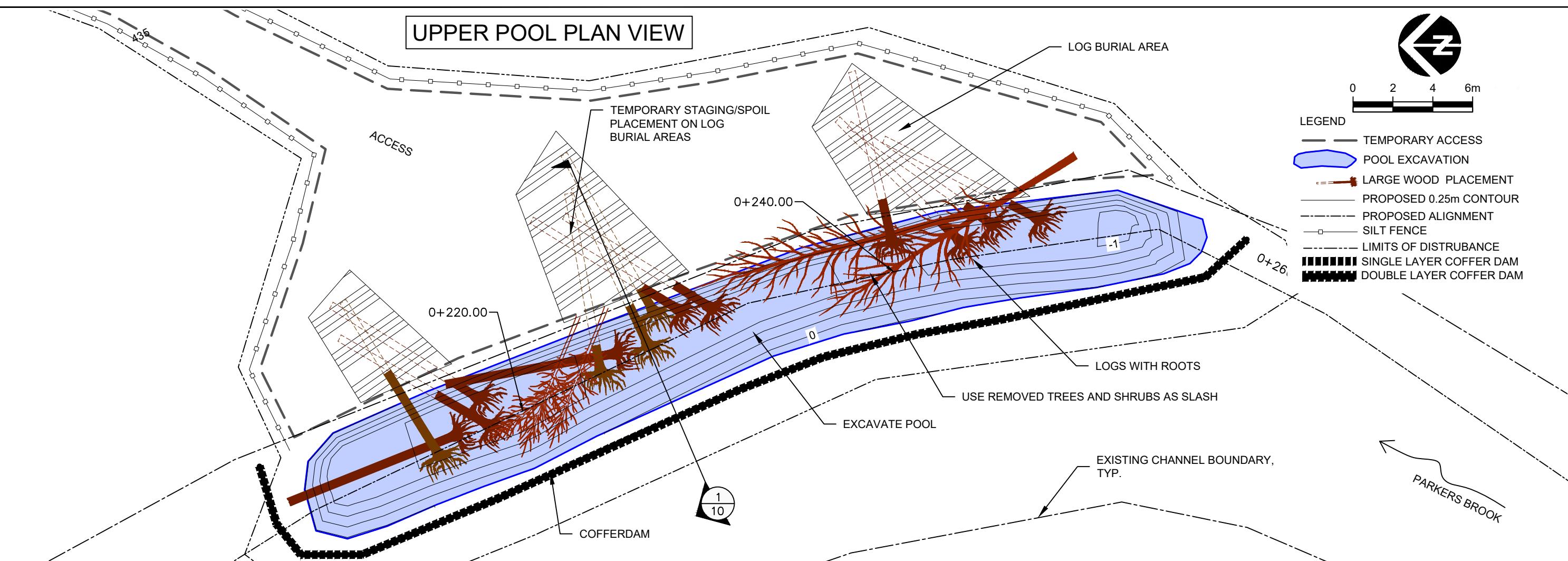
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UPPER POOL PLAN VIEW



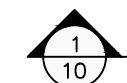
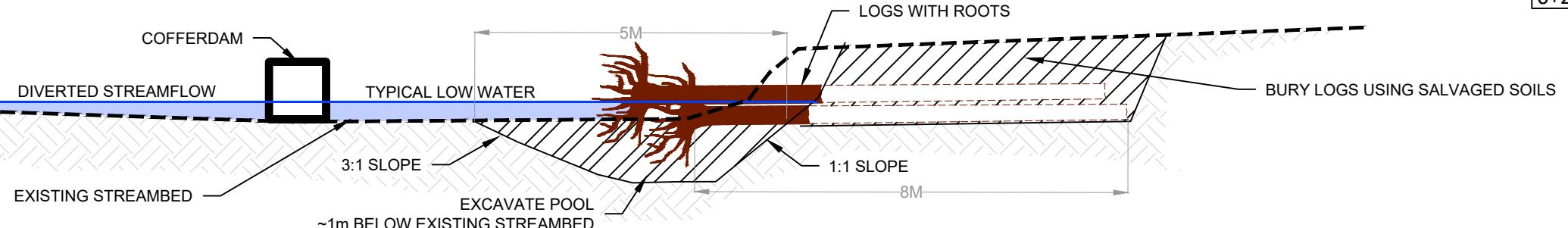
LEGEND

- TEMPORARY ACCESS
- POOL EXCAVATION
- LARGE WOOD PLACEMENT
- PROPOSED 0.25m CONTOUR
- PROPOSED ALIGNMENT
- SILT FENCE
- LIMITS OF DISTURBANCE
- SINGLE LAYER COFFER DAM
- DOUBLE LAYER COFFER DAM



NOTES:

1. MINIMUM OF 1m OF SALVAGED SOIL PLACED ON TOP OF LARGE WOOD.
2. 75% OF LOG LENGTH SHALL BE BURIED IN THE CHANNEL BANK.
3. SEE SPECIFICATIONS FOR LARGE WOOD DIMENSIONS.



CROSS SECTION VIEW - UPPER POOL WITH LARGE WOOD

SCALE - 1:100

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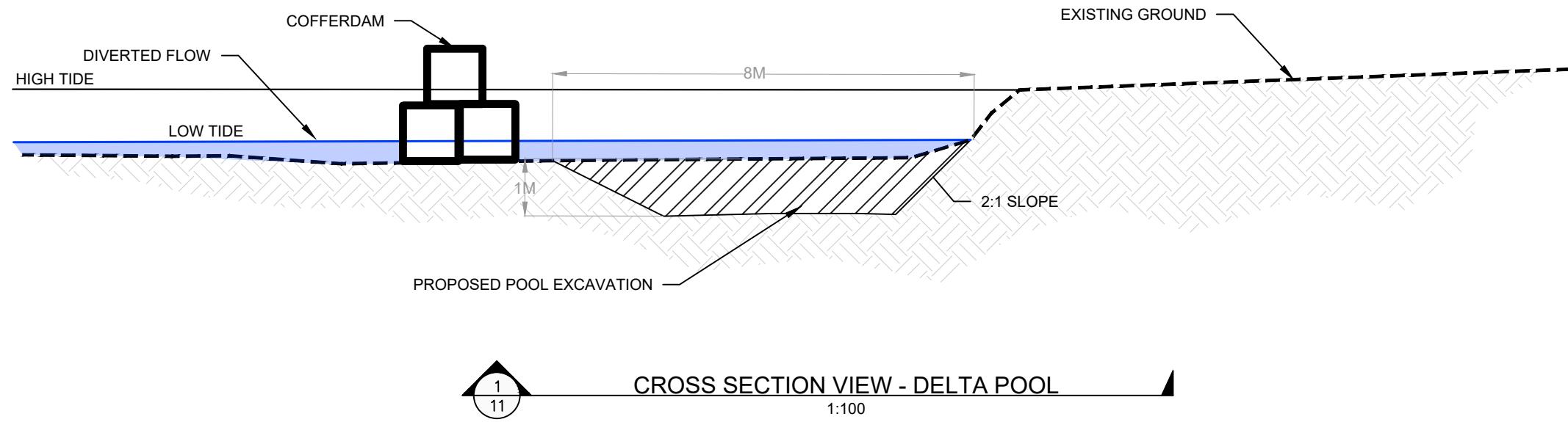
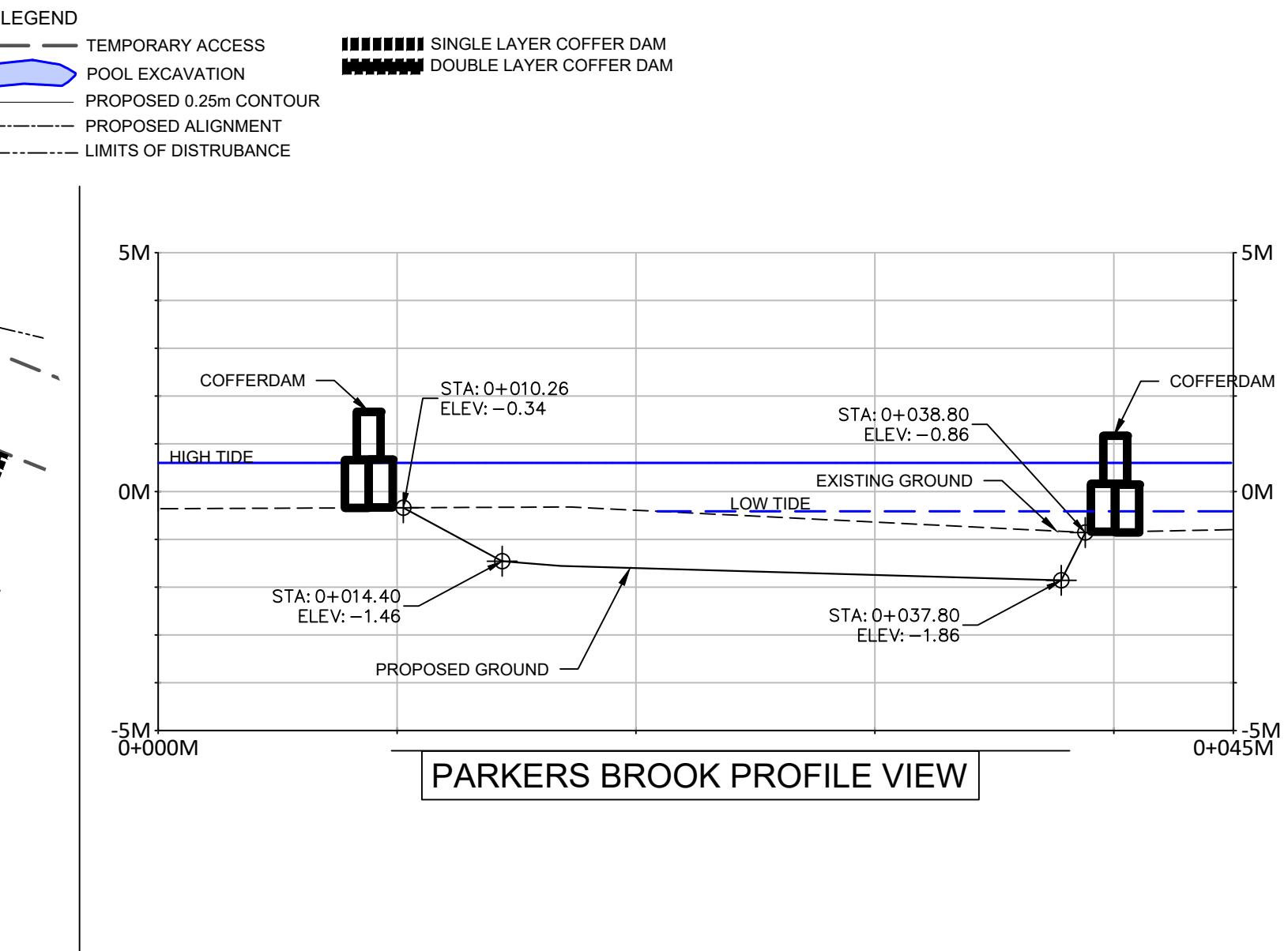
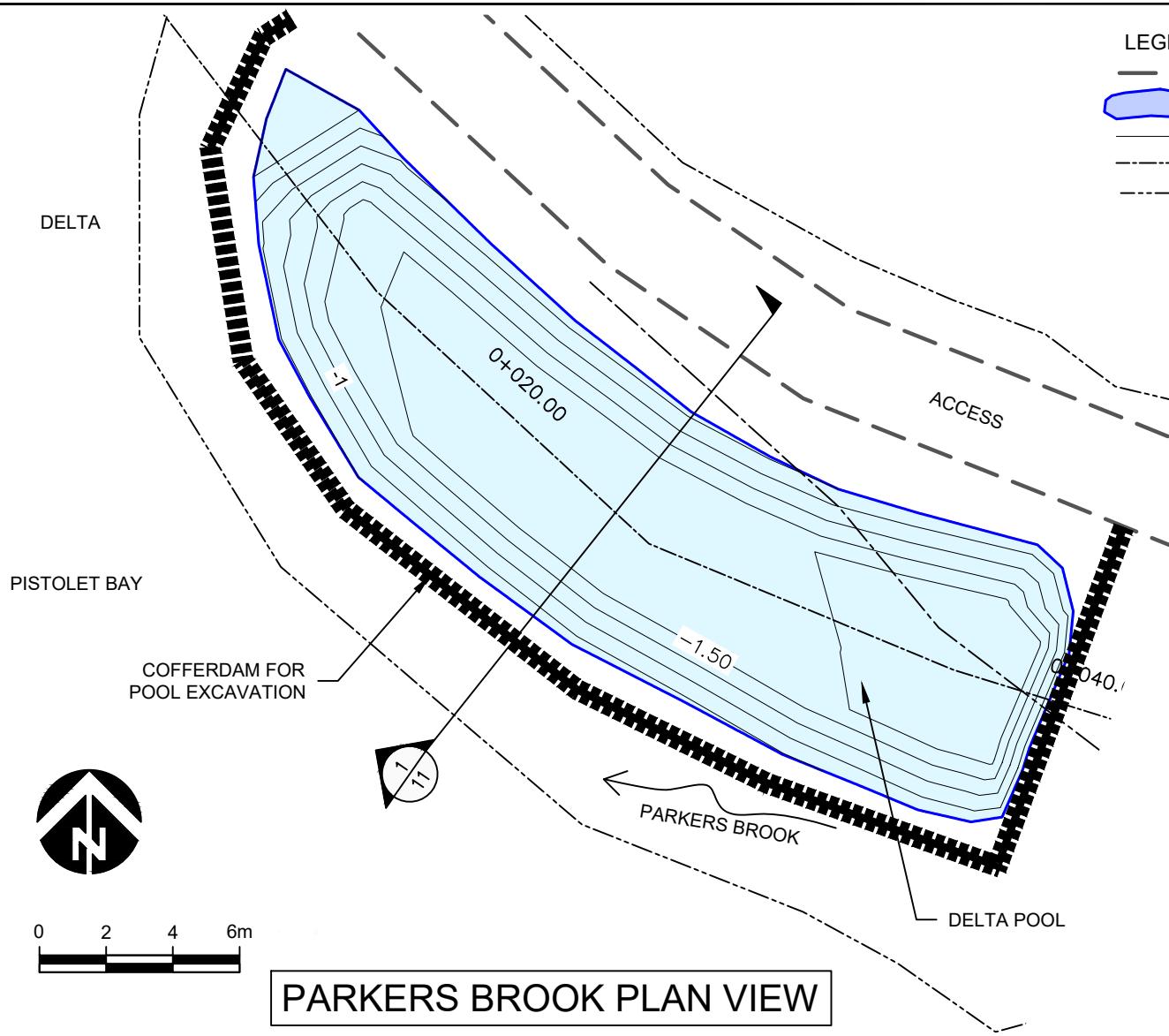
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UPPER POOL PLAN & PROFILE

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DELTA POOL PLAN & PROFILE

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LEGEND

----- TEMPORARY ACCESS

•••• RIPARIAN PLANTING MIX

■■■■ UPLAND PLANTING MIX



0 10 20 30m

RIPARIAN PLANTING MIX

SHRUBS	RED OSIER DOGWOOD	CORNUS STOLONIFERA
	GRAY DOGWOOD	CORNUS RACEMOSA
	SPECKLED ALDER	ALNUS INCANA
SEED	SALTMARSH SEDGE	CAREX SALINA
	SEASIDE ARROW GRASS	TRIGLOCHIN MARITIMA
	CHAFFY SEDGE	CAREX PALEACEA
	SEA MILKWORT	GLAUX MARITIMA
	NORTHERN BLUE FLAG	IRIS VERSICOLOR

UPLAND PLANTING MIX

TREES	BLACK SPRUCE	PICEA MARIANA
	BALSAM FIR	ABIES BALSAMEA
SHRUBS	LABRADOR TEA	LEDUM GROENLANDICUM
	BLUEBERRY	VACCINIUM ANGSTIFOLIUM

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REVEGETATION PLAN

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