BARRY BRYAN ASSOCIATES

Addendum No. 1

Project No.: 25244

Date: March 24th, 2026

Tender No: **RFT #2026-OPS-01**

Project: **The Corporation of the Town of Deep River**
Deep River Arena Complex Rink Slab Replacement

The following information supplements and/or supersedes the bid documents issued to Tender by the Town of Deep River

This Addendum forms part of the contract documents and is to be read, interpreted, and coordinated with all other parts. The cost of all contained herein is to be included in the contract sum. The following revisions supersede the information contained in the original drawings and specifications issued for the above-named project to the extent referenced and shall become part thereof. Acknowledge receipt of this Addendum by inserting its number and date on the Tender Form. Failure to do so may subject bidder to disqualification.

GENERAL

1 .1 There shall be a cash allowance added to the tender for sound and audio equipment supply and install in the amount of $20,000.00

1 .2 There shall be a cash allowance provided for the supply and installation of the new score board. Demolition of the existing shall be included in the base bid cash allowance. The cash allowance for the supply and install of the new score board shall be $25,000.00

1 .3 The new coiling door specified shall be manual (no power required) and does not need to be insulated.

1 .4 There are no warm circuits included in the project scope of work.

1 .5 New rink will be brine not glycol as outlined in the specifications.

1 .6 The new headers will be exposed in the header trench as detailed. References to valve boxes or buried headers shall be dis-regarded.

1 .7 Refer to Barry Bryan Associates drawings revised for clarification dated April 23rd, 2026 issued for Addendum 1 clarifying the project scope of work.

1 .8 Refer to specification 13 18 00 for revised dasherboard specifications.

PRE BID MEETING MINUTES

1.10 All work for the rink must be completed and ready for operation / occupancy as outlined in the bid documents.

1.11 Alternative or equivalent products must be approved by addendum prior to the tender closing. Product substitutions after the award will only be considered if they demonstrate a benefit to the Municipality in contract price or contract time.

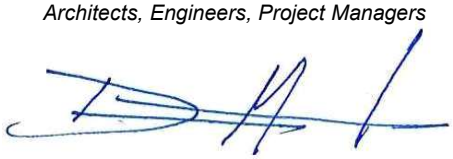
1.13 The contractor is responsible for completing utility locates. Costs for locates shall be included in the base bid and are not included in the cash allowance.

1.14 General demolition extents and elements are shown on the demolition plan. However, the scope of the demolition work is as required to complete the new project scope of work. The general contractor shall include coordination of the demolition works as part of the base bid scope of work to complete and execute the overall project intent. This includes slab removals, contractors must anticipate working around locates in the slab and include for hand removals at live conduit as part of their base bid.

1.15 The Contractor must supply washroom and site trailer. Use of the existing building for these elements of the project delivery is not acceptable.

End of Addendum No. 1

Barry Bryan Associates
Architects, Engineers, Project Managers



Doug McLaughlin, P. Eng.

DM/sm

Attachments:
BBA Drawings Issued for Addendum 1 (12 Pages)
Dasherboard Specification (9 Pages)

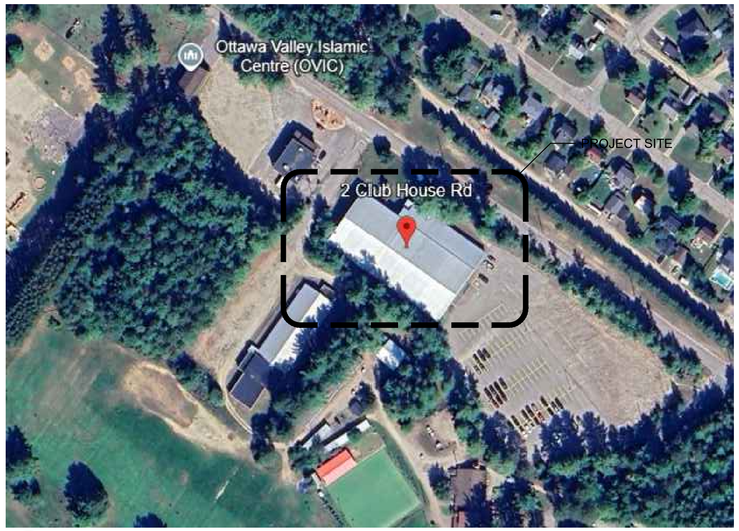
DEEP RIVER ARENA RINK REPLACEMENT

TOWN OF DEEP RIVER

2 CLUB HOUSE RD., DEEP RIVER, ONTARIO, K0J 1P0

LIST OF DRAWINGS

STRUCTURAL



1 S000 LOCATION MAP

NAME OF CONSULTANT : BARRY BRYAN ASSOCIATES
CERTIFICATE OF PRACTICE NUMBER : 5192
250 WATER STREET, SUITE 201
WHITBY, ONTARIO, CANADA. LIN 0G5
TEL : (905) - 666 - 5252
(Toronto) (905) - 427 - 4495
FAX : (905) - 666 - 5256

NAME OF PROJECT :
Deep River Arena Rink Replacement

LOCATION OF PROJECT :
Deep River Arena
2 Club House Rd., Deep River, Ontario, K0J 1P0

DATE :
February 2026

Ontario Building Code Data Matrix
Part 11 - Renovation of Existing Building

			OBC Reference
11.00	Building Code Version:	O. Reg. 332/12 Last Amendment: O. Reg. 79/18	
11.01	Project Type:	☐ Addition ☑ Renovation ☐ Addition and Renovation ☐ Change of use Description ARENA REPLACEMENT	[A] 1.1.2.
11.02	Major Occupancy Classification:	Occupancy: A3 — Use: ASSEMBLY	3.1.2.1.(1)
11.03	Superimposed Major Occupancies:	☐ Yes ☑ No Description -	3.2.2.7
11.04	Building Area (m²)	Description: Existing ±3,537.00 — New — Total ±3,537.00 Total= ±3,537.00 — ±3,537.00	[A] 1.4.1.2.
11.044	Gross Area (m²)	GROUND FLOOR: Existing ±3,042.0 — Total ±3,042.0 SECOND FLOOR: Existing ± 495.00 — Total ± 495.00 Total= ±3,537.00 — ±3,537.00	[A] 1.4.1.2. [A] 1.4.1.2.
11.048	Mezzanine Area (m²)	Description: N/A — Existing — New — Total Total=	
11.05	Building Height	2 Storeys above grade — ±10.3 (m) Above grade Storeys below grade	[A] 1.4.1.2 & 3.2.1.1
11.06	Number of streets/ fire fighter access:	EXISTING street(s)	3.2.2.10 & 3.2.5
11.07	Building Size:	☐ Small ☐ Medium ☑ Large ☐ > Large	T.11.2.1.1.B.-N.
11.08	Existing Building Classification:	Change in Major Occupancy: ☐ Yes ☑ Not Applicable (no change of major occupancy) Construction Index: 6 Hazard Index: 4 Importance Category: ☐ Low ☑ Normal ☐ High ☐ Post-disaster	11.2.1 T11.2.1.1A T11.2.1.1B to N, 4.2.1(3) & 5.2.2.1.(2)
11.09	Renovation Type:	☑ Basic Renovation ☐ Extensive Renovation	11.3.3.1 & 11.3.3.2
11.10	Occupant Load:	Floor Level/ Area: GROUND FLOOR, SECOND FLOOR — Occupancy Type: NO CHANGE, NO CHANGE — Based On: -, - — Occup. Load: -, -	3.1.17
11.11	Plumbing Fixture Requipments:	Ratio: Male/Female = 50:50 Except as noted otherwise Floor level/ Area: GROUND FLOOR, SECOND FLOOR — Occupant Load: NO CHANGE, NO CHANGE — OBC Reference — Fixtures Required: - — Proposed Fixtures	3.7.4
11.12	Barrier-free Design:	☐ Yes ☑ No — NOT APPLICABLE TO SCOPE	11.3.3.2.(2)
11.13	Reduction in Performance Level:	Structural: ☑ No ☐ Yes By Increase in occupant load: ☑ No ☐ Yes By change of major occupancy: ☑ No ☐ Yes Plumbing ☑ No ☐ Yes Sewage - system: ☑ No ☐ Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5
11.14	Compensating Construction:	☐ Yes ☑ No Structural ☑ No ☐ Yes By Increase in occupant load: ☑ No ☐ Yes By change of major occupancy: ☑ No ☐ Yes Plumbing ☑ No ☐ Yes Sewage - system: ☑ No ☐ Yes Extension of Combustible Construction: ☑ No ☐ Yes	11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5 11.4.2.6 11.4.2.7
11.15	Compliance Alternatives Proposed:	☑ No ☐ Yes	11.5.1.
11.16	Notes:	THE PROJECT INVOLVES THE REPLACEMENT OF THE EXISTING REFRIGERATED RINK, SLAB AND SUPPORTING REFRIGERATION EQUIPMENT.	11.5.1

ARCHITECTURAL & STRUCTURAL:

BARRY BRYAN ASSOCIATES
Architects
Engineers
Project Managers

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Whitby Ontario L1N 0G5

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e-mail: bba@bba-arcneng.com

LICENSED PROFESSIONAL ENGINEER
2026-03-17
D. P. MCLAUGHLIN
100161883
PROVINCE OF ONTARIO

NO.	ISSUES	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
3	ISSUED FOR REVIEW	MAR. 17, 2026	BBA
4	ISSUED FOR PERMIT–TENDER	MAR. 17, 2026	BBA
1	ADDENDUM 1	MAR. 23, 2026	BBA

DEEP RIVER ARENA
RINK REPLACEMENT
TOWN OF DEEP RIVER
2 CLUB HOUSE RD., DEEP RIVER, ONTARIO, K0J 1P0

BARRY BRYAN ASSOCIATES

BBA PROJECT NO. 25244

S000

GENERAL

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, LATEST EDITION.
2. CONFORM TO OWNER'S GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
3. SITE VERIFY ALL DIMENSIONS AND LEVELS.
4. KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.
5. THE LATEST EDITION OF ALL CODES AND STANDARDS SHALL BE USED.
6. ALL STRUCTURAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH OTHER CONSULTANTS DRAWINGS.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SECTIONS TO BE G40.21M–300W.
2. DESIGN FORCES INDICATED ON DRAWINGS FOR STRUCTURAL STEEL WORK ARE UN–FACTORED FORCES UNLESS NOTED OTHERWISE.
3. ALL CONNECTIONS TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD SHEAR CONNECTIONS IN COMPLIANCE WITH CISC, UNLESS NOTED OTHERWISE.
4. FABRICATION, ERECTION AND WORKMANSHIP SHALL CONFORM TO CSA S16.1.
5. ALL WELDING SHALL CONFORM TO CSA W59 AND SHALL BE PERFORMED BY A WELDER QUALIFIED UNDER CSA W47.
6. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP APPLIED COAT OF PRIMER. SPOT PRIME ALL WELDED AREAS.
7. REMOVE PAINT FILM FROM ALL STEEL SURFACES TO BE WELDED. SPOT PRIME AS REQUIRED.
8. ALL WELDED CONNECTIONS SHALL BE WITH CSA W48 SERIES ELECTRODES.
9. DO NOT CUT OR CORE ANY OPENINGS IN ANY STRUCTURAL STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
10. WHERE A STRUCTURAL STEEL SHAPE SHOWN ON THE DRAWINGS IS UNAVAILABLE, A SHAPE OF EQUAL OR GREATER SECTION PROPERTIES AND STRUCTURAL CAPACITY SHALL BE SUBSTITUTED, UPON APPROVAL BY OWNER AND CONSULTANT AT NO EXTRA COST.

CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA–A23.1 AND CAN/CSA–A23.3 WITH THE FOLLOWING PROVISION:

LOCATION	DESIGN STRENGTH (28 DAYS)	SLUMP	EXPOSURE CLASS
SLAB ON GRADE	25 MPa	80± 30	N
ALL OTHER INTERIOR CONCRETE	25 MPa	80± 30	N
RINK SLAB	30 MPa	180± 30	N

2. NO ADDITIONAL WATER SHALL BE ADDED AT THE JOB SITE. CONCRETE WHICH HAS BEEN WATERED OR DOES NOT MEET SPECIFICATIONS SHALL BE REJECTED.
3. DURING WINTER WEATHER BELOW 5°C PROVIDE TEMPORARY HEATING OF CONCRETE IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1.
4. WHEN PIPES, CONDUITS, OR SLEEVES ARE REQUIRED TO PENETRATE CONCRETE ASSEMBLIES, THE FOLLOWING SHALL BE OBSERVED:
   - SPACING OF SUCH ITEMS SHALL BE 3 DIAMETERS ON CENTER.
   - CONCRETE SHALL NOT BE PENETRATED WITHIN 600mm OF CONCENTRATED LOADS.
   - ANY PENETRATION SHALL BE A MINIMUM OF 600mm FROM ALL EDGES SUCH AS ENDS AND TOPS OF WALLS.
   - FOR ANY PENETRATIONS GREATER THAN 300mm, CONSULT THE ENGINEER FOR REVIEW AND DETERMINATION OF EXTRA REINFORCEMENT REQUIREMENTS IF APPLICABLE.

CONCRETE REINFORCEMENT

1. THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND SURFACE OF CONCRETE SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.

LOCATION	CLEAR COVER
FOOTINGS	75mm UNDERSIDE 50mm TOP AND ENDS
WALLS	50mm AGAINST EARTH (20M BAR OR GREATER) 40mm AGAINST EARTH (15M BAR) 40mm AGAINST FORM (20M BAR OR GREATER) 25mm AGAINST FORM (15M BAR)
SLABS	25mm TOP BARS 25mm BOTTOM BARS
COLUMNS/PIERS	40mm TO TIES
SURFACE IN CONTACT WITH GROUND	75mm

2. STRUCTURAL GROUT SHALL BE NON–SHRINK, NON METALLIC M–BED STANDARD PREMIX BY SIKA OR APPROVED EQUAL.
3. DETAIL REINFORCING STEEL IN ACCORDANCE WITH "REINFORCING STEEL MANUAL OF STANDARD PRACTICE" LATEST EDITION.
4. REINFORCING BAR SPLICES FOR DEFORMED BARS:
   COLUMNS – COMPRESSION LAP UNLESS NOTED
   WALLS – CLASS 'B' TENSION SPLICE UNLESS NOTED
   ALL OTHERS – CLASS 'B' TENSION LAP UNLESS NOTED
5. ALL REINFORCING STEEL SHALL BE DEFORMED HARD GRADE BILLET STEEL CONFORMING TO CSA G30.18 GRADE 400.
6. WELDED STEEL WIRE FABRIC, PLAIN TYPE CONFORMING TO ASTM A1064/A1064M–17 IN FLAT SHEETS NOT ROLLED.
7. ALL CONCRETE REINFORCEMENT MUST BE PROPERLY CHAIRED WITH APPROVED BAR SUPPORTS.
8. PROVIDE CHAIRS, SPACER BARS, SUPPORT BARS AND OTHER ACCESSORIES TO SUPPORT REINFORCING IN ACCORDANCE WITH THE LATEST EDITIONS OF CSA A23.1 AND CSA A23.3 CHAIRS TO BE PLASTIC, PLASTIC TIPPED OR CONCRETE. ALL TIE WIRE, CHAIRS AND BAR SUPPORTS USED FOR COATED REINFORCING SHALL BE NON–METALLIC OR PROTECTED WITH ACCEPTABLE COATING.
9. CHAIRS SHALL BE SPACED AT 1200mm O.C. MAXIMUM.

TEMPORARY WORKS

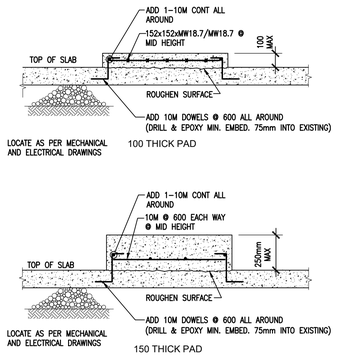
1. THE CONTRACTOR SHALL DESIGN, PROVIDE, ERECT, MAINTAIN REMOVE AND ASSUME FULL AND SOLE RESPONSIBILITY FOR ALL TEMPORARY WORKS REQUIRED FOR THE SAFE AND COMPLETE EXECUTION OF THE WORKS.
2. IN THE EXECUTION OF THE TEMPORARY WORKS AND FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR ALL LIKELY CONSTRUCTION LOADING AND PROVIDE SUFFICIENT BRACING AND PROPS TO KEEP THE WORKS IN PLUMB AND ALIGNMENT AND FREE FROM EXCESSIVE DEFLECTION.
3. ACCESS OF HEAVY CONSTRUCTION EQUIPMENT AND ACCUMULATION OF CONSTRUCTION MATERIALS ON THE FLOORS ARE NOT PERMITTED, UNLESS SUCH HAVE BEEN CATERED FOR IN THE CONTRACTOR'S TEMPORARY WORK DESIGN TO THE SATISFACTION OF THE ARCHITECT.
4. SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY WORKS FOR REVIEW BEFORE FABRICATION COMMENCES. SHOP DRAWINGS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.

SLAB ON GRADE

1. CAST SLAB ON GRADE ON 200mm (8")MIN GRANULAR 'A' AND COMPACTED SUB–GRADE UNLESS NOTED OTHERWISE.
2. SAWCUT WITHIN 6 TO 18 HOURS. REFER TO THE DRAWINGS FOR SAWCUT REQUIREMENTS.
3. DO NOT CAST SLAB MORE THAN 30 METERS IN LENGTH IN EITHER DIRECTION. PLACE SLAB IN STRIP PATTERN. KEY CONSTRUCTION JOINTS AS DETAILED.
4. MAINTAIN MINIMUM SPECIFIED THICKNESS AT ALL DEPRESSIONS AND CHANGES IN ELEVATIONS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT AND LOCATION OF ALL FINISHES, DEPRESSIONS AND SLOPES.
6. WELDED WIRE MESH REINFORCING IN SLABS ON GRADE MUST BE PROPERLY CHAIRED. LIFTING OF THE WIRE MESH DURING POURS WILL NOT BE ACCEPTED.

DEMOLITION NOTES

1. PROVIDE PROTECTION AS REQUIRED TO PREVENT DAMAGE TO THE EXISTING STRUCTURE AND/OR ADJACENT EQUIPMENT. PROTECT ALL EXISTING FINISHES, FRAMES AND PROPERTY.
2. SAW CUT, REMOVE AND DISPOSE OF EXISTING DEMOLISHED MATERIALS OFF–SITE, AS REQUIRED TO COMPLETE THE WORK.
3. KEEP THE WORK AND STAGING AREAS CLEAN AND ORDERLY AT ALL TIMES AND FREE FROM RUBBLE AND DEBRIS.
4. NOTIFY CONSULTANT OF ANY LOAD BEARING MEMBERS OR ASSEMBLIES DISCOVERED OR IDENTIFIED DURING WORK WITH EXCESSIVE DETERIORATION BEYOND WHAT IS NOT INDICATED ON THE DRAWINGS. DO NOT PROCEED WITH REMOVAL WITHOUT PRIOR REVIEW BY THE CONSULTING STRUCTURAL ENGINEER.
5. ALL BUILDING MATERIALS TO BE REMOVED FROM THE BUILDING SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFIED OTHERWISE AND SHALL BE REMOVED FROM THE SITE.
6. COVER ALL LOADED TRUCKS LEAVING THE DEMOLITION SITE.
7. CARRY OUT SAFETY MEASURES AS PER THE CONSTRUCTION SAFETY ASSOCIATION OF ONTARIO ACT AND REGULATIONS FOR DEMOLITION.
8. THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY MANUAL APPLIES TO THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE TO PERFORM ALL WORK IN ACCORDANCE WITH O.H.S.A..
9. CONTRACTOR SHALL KEEP CLEAR AND NOT INHIBIT THE USE OF BUILDING FIRE ROUTE AND ALL HYDRANTS DURING THE ENTIRE DEMOLITION WORK.
10. REPORT ANY DOUBTFUL UNFORESEEN AND/OR UNEXPECTED SITE CONDITIONS TO THE ENGINEER PRIOR TO PROCEEDING.

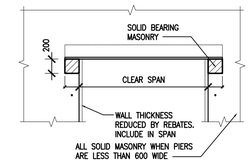


2 S101 HOUSE KEEPING PADS AND SLAB THICKENING
N.T.S.

STEEL LINTELS FOR MASONRY WALLS

WALL THICKNESS	CLEAR SPAN					DETAIL
	UP TO 1200	1200 TO 1800	1800 TO 2400	2400 TO 3000	3000 TO 4500	
90 VENEER	1–L89x89x6.4	1–L127x89x6.4 (LLV)	1–L127x89x7.9 (LLV)	1–L152x89x9.5 (LLV)	SEE NOTE #4	L
140	2–L64x64x6.4	2–L89x64x6.4	2–L89x64x7.9	2–L89x64x9.5	W200x27	64 LEGS HORIZ
190	2–L89x75x6	2–L89x89x6	2–L102x89x8	1–L125x89x8	W200x36+180x12 CONT TOP PLATE	89 LEGS HORIZ
240	1–L102x76x6.4+ 1–L127x76x6.4	1–L102x102x6+ 1–L127x75x6	1–L102x102x8+ 1–L127x89x8	1–L102x150x8+ 1–L127x125x8	W200x46+230x12 CONT TOP PLATE	102 & 127 LEGS HORIZ
290	3–L89x76x6.4 (LLH)	3–L89x89x6.4	3–L102x89x7.9 (LLV)	3–L127x89x7.9 (LLV)	W200x52+280x12 CONT TOP PLATE	L

NOTES
1. CONNECT ANGLES AT 600 C/C BY WELDING OR BOLTING FOR ANGLES WITH A TOTAL LENGTH OF 1800 OR MORE. USE 16# BOLTS OR 6x50 LONG WELDS.
2. USE SCHEDULES FOR LINTELS OVER MECH OPENINGS IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE ON PLAN. REFER TO MECH DWGS FOR LOCATIONS.
3. OPENINGS TO BE LOCATED MIN 3 COURSES BELOW UNDERSIDE OF SLAB UNLESS APPROVED BY STRUCTURAL ENGINEER.
4. FOR DOUBLE WYTHE WALLS PROVIDE 10mm GUSSETS @ 800 C/C STEEL LINTEL SUPPORT BLOCK ABOVE PLUS CONT. 320x10mm BOT PLATE.



* BEARING LENGTH
200 (8") MINIMUM EACH END (STEEL ANGLE LINTEL)

1 S101 TYPICAL LINTEL SCHEDULE
N.T.S.

deep river

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
3	ISSUED FOR REVIEW	MAR. 17, 2026	BBA
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1	ADDENDUM 1	MAR. 23, 2026	BBA

BBA
BARRY BRYAN ASSOCIATES

PROJECT:
RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

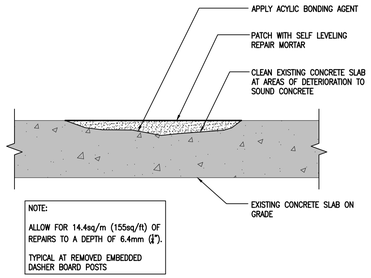
TOWN OF DEEP RIVER

DRAWING:
GENERAL NOTES &
TYPICAL DETAILS

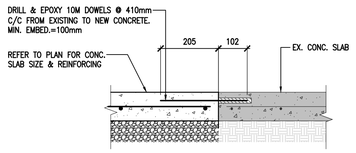
DESIGN BY: DM
DRAWN BY: JMM
CHECKED BY: DM
DATE: FEBRUARY 2026
SCALE: AS NOTED

SEAL:
LICENSED PROFESSIONAL ENGINEER
2026–03–17
D. P. MCLAUGHLIN
100181883
PROVINCE OF ONTARIO

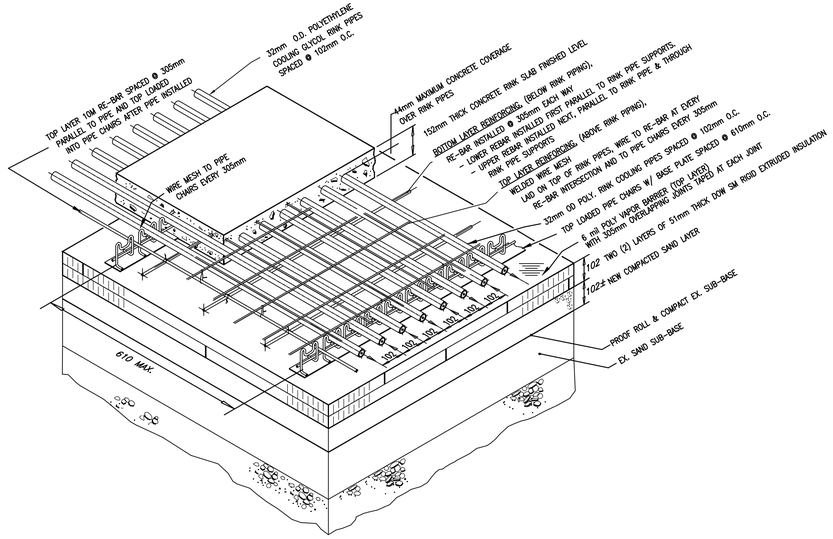
PROJECT NO: **25244**
DRAWING NO: **S101**



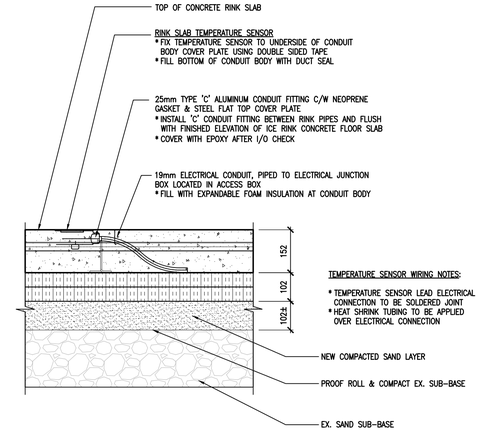
6 S102 TYPICAL THIN SET SURFACE REPAIR & APRON EDGE
1:10



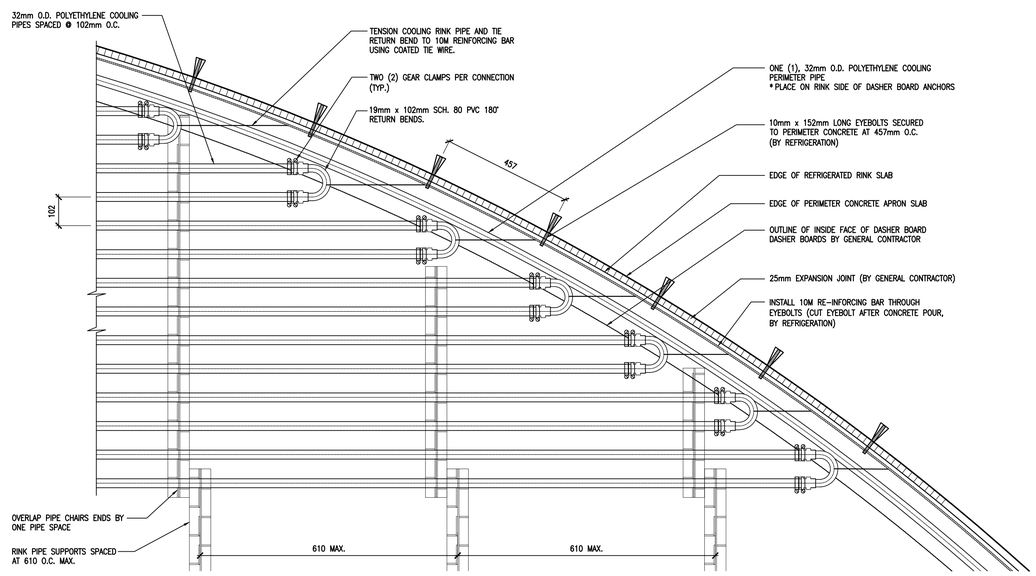
5 S102 TYPICAL DOWEL NEW TO EXISTING
1:10



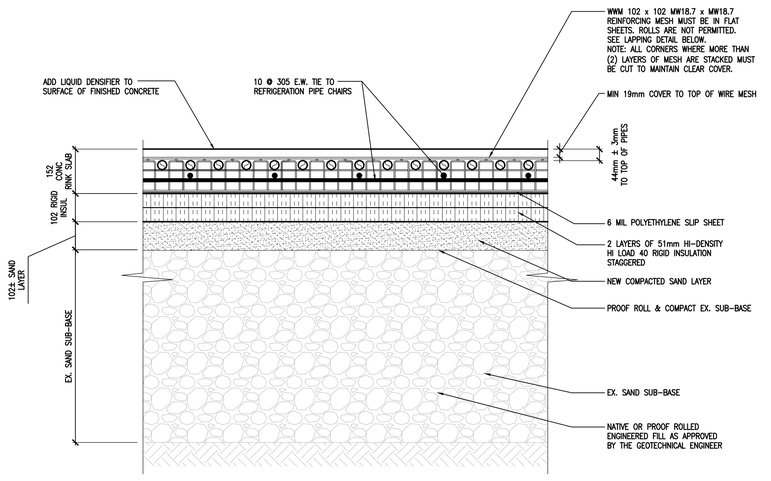
4 S102 RINK FLOOR ISOMETRIC DETAIL
N.T.S.



2 S102 RINK FLOOR SENSOR DETAIL
1:10



3 S102 RINK PIPE RETURN BEND FASTENING
N.T.S.



NOTES:

PROVIDE ADEQUATE CHAIRS TO SUPPORT REINFORCING AT NO LESS THAN 610mm CENTRES.

DO NOT SUPPORT REINFORCING STEEL ON REFRIGERANT PIPING.

NO CONCRETING APPARATUS IS TO BE SUPPORTED OFF OF THE REFRIGERANT PIPING SUPPORTS.

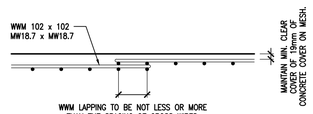
REFER TO SPECIFICATIONS FOR TOLERANCE REQUIREMENTS FOR SAND BED, INSULATION LAYER AND TOP OF RINK SLAB FLATNESS.

A SURVEY ESTABLISHING THE ELEVATIONS OF THE TOP OF THE RIGID INSULATION LAYER SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF ANY REINFORCING CHAIRS, PIPING, REINFORCING ETC. SURVEY SHALL SHOW THAT TOLERANCES AS SPECIFIED ARE BEING MET.

PROVIDE SURVEYS TO VERIFY TOLERANCES AND SUBMIT FINAL SURVEY OF RINK SLAB SURFACE TO CONSULTANT.

COORDINATE INSTALLATION OF RINK BOARD INSERTS WITH DASHERBOARD SUPPLIER.

NOTE DO NOT PERMIT CONCENTRATED LOADS DURING CONSTRUCTION, ON FINISHED RINK SLAB.



WWM LAPPING DETAIL

NOTES

1. BOTTOM LONGITUDINAL BAR TO BEAR ON THE CHAIR DIRECTLY.
2. CHAIRS MUST BE TIED TO WIRE MESH.
3. MINIMUM CLEAR COVER OF 19mm (3/4") SHALL BE MAINTAINED AT ALL TIMES.

1 S102 RINK SLAB DETAILS
1:10

deep river

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2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
3	ISSUED FOR REVIEW	MAR. 17, 2026	BBA
4	ISSUED FOR PERMIT–TENDER	MAR. 17, 2026	BBA
1	ADDENDUM 1	MAR. 23, 2026	BBA

BBA
BARRY BRYAN ASSOCIATES

PROJECT:
RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

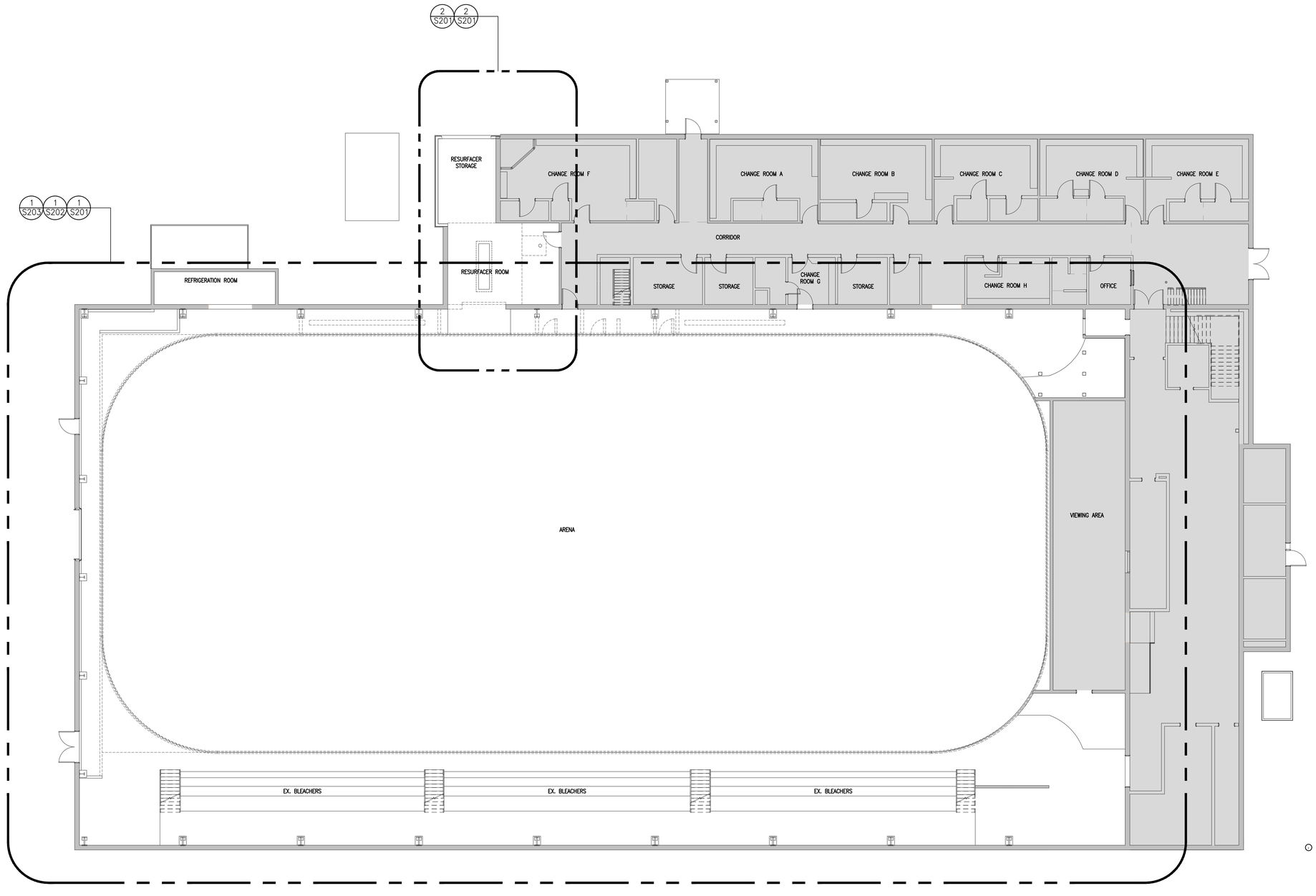
TOWN OF DEEP RIVER

DRAWING:
TYPICAL DETAILS

DESIGN BY:	DM
DRAWN BY:	JMM
CHECKED BY:	DM
DATE:	FEBRUARY 2026
SCALE:	AS NOTED

SEAL:
LICENSED PROFESSIONAL ENGINEER
2026-03-17
D.P.MCLAUGHLIN
100181883
PROVINCE OF ONTARIO

PROJECT NO: **25244**
DRAWING NO: **S102**



1 S200 OVERALL GROUND FLOOR PLAN

1:125

deep river

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
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1	ADDENDUM 1	MAR. 23, 2026	BBA

BBA
BARRY BRYAN ASSOCIATES

PROJECT:

RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

DRAWING:

OVERALL SITE PLAN

DESIGN BY: DM	SEAL: LICENSED PROFESSIONAL ENGINEER 2026-03-17 D. P. MCLAUGHLIN 100181883 PROVINCE OF ONTARIO
DRAWN BY: JMM	
CHECKED BY: DM	
DATE: FEBRUARY 2026	
SCALE: AS NOTED	
PROJECT NO: **25244**	DRAWING NO: **S200**

DEMOLITION LEGEND

- EXISTING WALL, PARTITION OR COLUMN
- DENOTES DEMOLITION OF BUILDING ELEMENT
- EXISTING DOOR, FRAME AND TRIM TO REMAIN
- DENOTES EXISTING RECEPTACLE ON DASHER BOARD

DEMOLITION FLOOR LEGEND

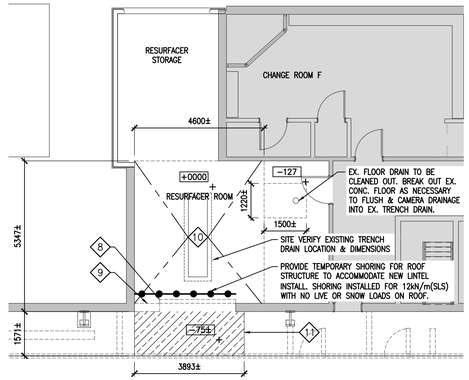
- HATCH DENOTES EXTENTS OF EXISTING RINK SLAB AND CONCRETE OVERPOUR TO BE REMOVED & DISPOSED OF.
- HATCH DENOTES EXTENTS OF EXISTING APRON SLAB TO BE SAW CUT, REMOVED & DISPOSED OF INCLUDING APRON TOE AT RESURFACER APPROACH.
- HATCH EXTENT OF EXISTING WOOD AND STEEL HEADER COVERS AND WALLS TO BE REMOVED AND REPLACED.
- HATCH EXTENT OF EXISTING RUBBER FLOORING AND PLAYERS BENCHES/ PENALTY BOXES/ TIME KEEPER BOOTH/ BLEACHERS AND STAIRS TO BE REMOVED.
- SHADED AREA DENOTES EXISTING TO REMAIN
- HATCH EXTENT OF EXISTING RUBBER FLOORING TO BE REMOVED AND DISPOSED OF TO ACCOMMODATE NEW FLOORING
- HATCH DENOTES EXTENTS OF EXISTING APRON SLAB SURFACE TO BE ROUGHEN FOR NEW CONCRETE STEP.
- HATCH DENOTES EXTENTS OF EXISTING APRON SLAB TO BE RECESSED DOWN 51mm(2") FOR NEW SLOPED CONCRETE

DEMOLITION NOTES

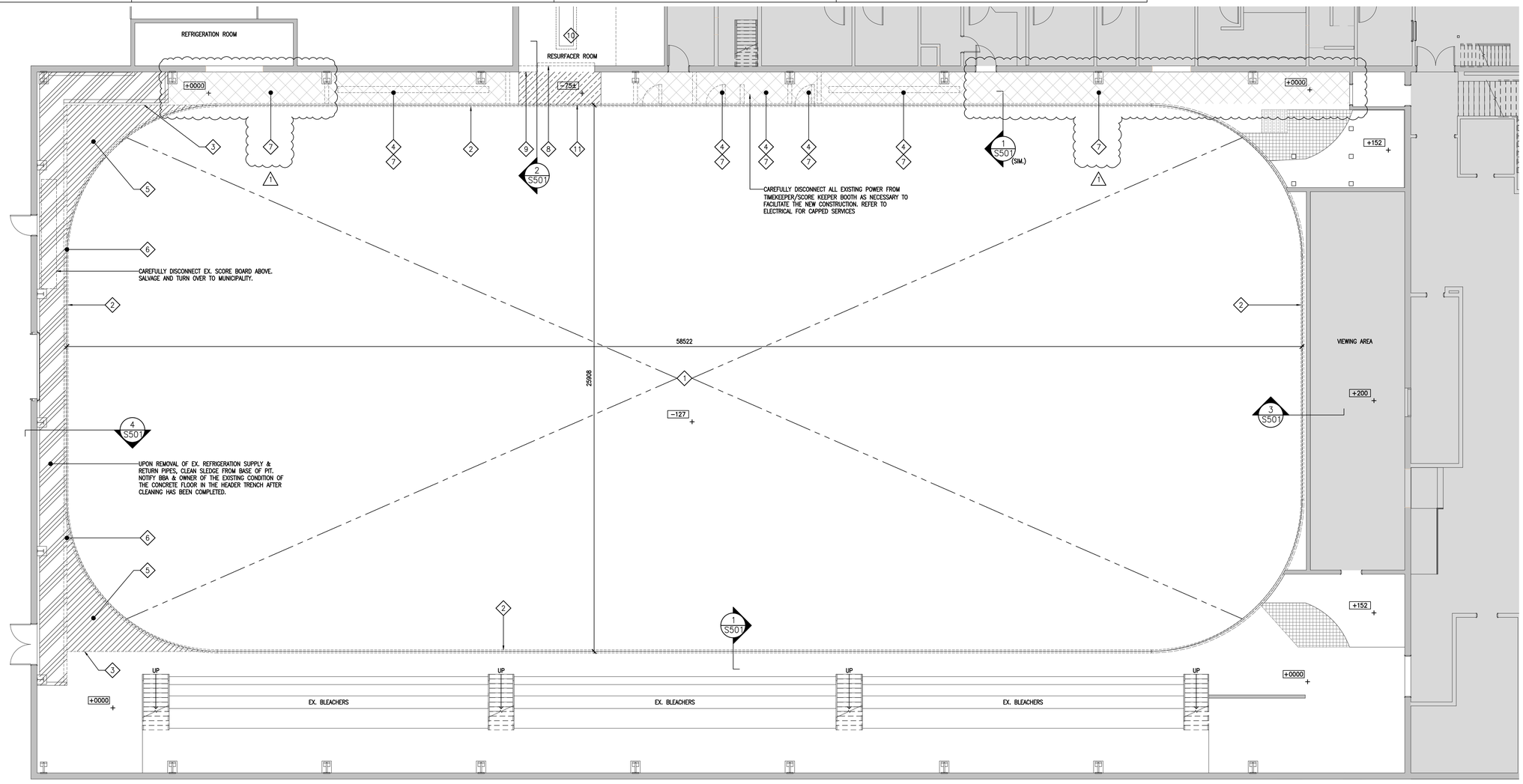
1. REMOVE EXISTING REFRIGERATED RINK SLABS IN ITS ENTIRETY AS INDICATED INCLUDING ALL ASSOCIATED PIPING REINFORCING, INSULATION, ETC. REMOVE EXISTING FILL MATERIAL DOWN TO LEVEL SHOWN ON SECTIONS. DO NOT DISTURB EXISTING SUBDRAINAGE SYSTEMS. PROOF ROLL EXISTING SUBGRADE. SEE DEMOLITION SECTIONS FOR PROFILE.
2. REMOVE EXISTING DASHER BOARDS, SALVAGE & TURN OVER DASHER BOARDS POST TO MUNICIPALITY IN ITS ENTIRETY C/W HSS SUPPORTS, ANCHOR BOLTS & STEEL EMBEDDED PLATES.
3. SAWCUT CLEAN JOINT ALONG THE RINK EXPANSION JOINT AS NECESSARY FOR THE REFRIGERATED SLAB REMOVAL.
4. REMOVE EXISTING PLAYERS BENCHES, PENALTY BOXES, TIME KEEPER BOOTH INCLUDING BENCHES, BRACKETS AND FLOORING. SALVAGE & TURN OVER TO MUNICIPALITY IN ITS ENTIRETY. (1)
5. REMOVE RINK SLAB AND CONCRETE OVERPOUR.
6. BREAK OUT EXISTING HEADER TRENCH WALLS ALL ACCOMMODATE NEW HEADER.
7. REMOVE EXISTING RUBBER FLOORING. SALVAGE & TURN OVER TO MUNICIPALITY IN ITS ENTIRETY. (1)
8. REMOVE EXISTING OVERHEAD COILING DOOR.
9. REMOVE AND DISPOSE OF EXISTING WALL.
10. BREAK OUT EXTENTS SHOWN OF EXISTING CONCRETE SLAB AND TOPPING IN RESURFACER ROOM. ASSUME EXISTING SLAB TO BE 250mm THICK AND REINFORCED TO BE REMOVED. SALVAGE ICE MELT PIT TRENCH.
11. SAW CUT, REMOVE AND DISPOSE OF EXSTING APRON SLAB

TYPICAL DEMOLITION NOTES

1. SITE VERIFY ALL DIMENSIONS AND CONDITIONS.
2. ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS.
3. PROVIDE PROTECTION IN LOCATIONS APPROVED BY THE OWNER AND CONSULTANT SO AS NOT TO DAMAGE EXISTING STRUCTURE OR PART THEREOF.
4. COMPLETE ALL DEMOLITION WORK NECESSARY TO COMPLETE THE RENOVATIONS AS SHOWN AND AS REQUIRED. DEMOLITION OF BUILDING ELEMENTS INCLUDES COMPLETE REMOVAL OF ALL ASSOCIATED FIXTURES, FITTINGS, HARDWARE, FASTENERS, EQUIPMENT AND ACCESSORIES UNLESS NOTED OTHERWISE.
5. MAINTAIN WORK AREAS AND STORAGE AREAS.
6. REMOVAL OF EXISTING FLOOR FINISHES IS TO INCLUDE COMPLETE REMOVAL OF BASE AND ALL ADHESIVES INCLUDING PREPARATION OF EXISTING SUBSTRATES TO RECEIVE NEW FLOORING, SATISFACTORY TO THE MANUFACTURER OF NEW FLOOR FINISHES. ALLOW FOR EXCESSIVE LEVELING OF SLABS.
7. MAINTAIN EXISTING FIRE HOSE CABINETS AND FIRE RATINGS.
8. REMOVE ALL PROTRUSIONS OUT OFF FLOOR SLAB AND GRIND DOWN TO FLOOR LEVEL.
9. DISPOSE OF ALL MATERIALS OFF SITE.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES SHOWN TO REMAIN AND REPAIR / REPLACE SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT.
11. THE EXISTING FACILITY WILL REMAIN OPERATIONAL FOR THE DURATION OF CONSTRUCTION. THE GENERAL CONTRACTOR MUST ISOLATE THE CONSTRUCTION AREA FROM THE SURROUNDING FACILITY OPERATION WITH DUST TIGHT TARPS. THE EXISTING MECHANICAL VENTILATION SYSTEMS WITH THE CONSTRUCTION AREA MUST BE COVERED TO ELIMINATE DUST CIRCULATION THROUGH THE FACILITY.
12. THE GENERAL CONTRACTOR MUST WORK WITH THE TOWN TO PROVIDE TEMPORARY SIGNAGE DURING CONSTRUCTION AROUND THE WORK AREA FOR WAY FINDING. THE GENERAL CONTRACTOR WILL PROVIDE, INSTALL AND REMOVE ALL TEMPORARY SIGNAGE.
13. ALLOW FOR DISCONNECTION TEMPORARILY AND PROTECTION OF CO2 SENSORS AND CARBON MONOXIDE THROUGHOUT CONSTRUCTION.



2 / S201 GROUND FLOOR DEMOLITION PLAN
1:100



1 / S201 GROUND FLOOR DEMOLITION PLAN
1:100

deep river

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4	ISSUED FOR PERMIT-TENDER	MAR. 17, 2026	BBA
1	ADDENDUM 1	MAR. 23, 2026	BBA

BBA
BARRY BRYAN ASSOCIATES

PROJECT:
RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

DRAWING:
GROUND FLOOR
DEMOLITION PLAN

DESIGN BY: DM
DRAWN BY: JMM
CHECKED BY: DM
DATE: FEBRUARY 2026
SCALE: AS NOTED

SEAL: LICENSED PROFESSIONAL ENGINEER 2026-03-17 D. P. MCLAUGHLIN 100181883 PROVINCE OF ONTARIO

PROJECT NO: **25244**
DRAWING NO: **S201**

GENERAL NOTES

1. GLASS PANELS IN DOORS TO COMPLY WITH BARRIER FREE VISIBILITY REQUIREMENTS.
2. PREPARE DOORS AND FRAMES FOR ELECTRONIC HARDWARE WHERE INDICATED AND WHERE REQUIRED. CONDUITS SHALL BE CONCEALED IN FRAMES.
3. ALL DOORS IN FIRE SEPARATION LOCATIONS SHALL HAVE CLOSER & LATCHING DEVICE.
4. PUSH BUTTONS TO CONFORM TO BARRIER FREE STANDARDS.

HATCH LEGEND

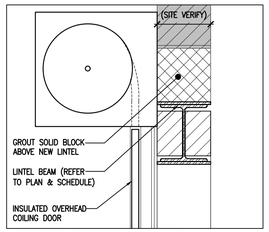
- HATCH DENOTES NEW 152 REFRIGERATED CONCRETE RINK SLAB.
- HATCH DENOTES EXTENT OF NEW 205 REINFORCED CONCRETE C/W 15M @ 400 C/C E.W. AND TOE THICKENING
- HATCH EXTENT OF NEW WOOD HEADER COVERS +19mm(¾") RUBBER SKATE TILE. PLUS L51x51x4.8 ANGLE STIFFENERS @ 610mm C/C.
- HATCH EXTENT OF NEW 13mm SMOOTH PLATE WITH 2 LAYERS OF 19mm RUBBER MATTING. PLUS L51x51x4.8 ANGLE STIFFENERS @ 610mm C/C
- HATCH DENOTES EXTENT OF NEW 152mm CONC. STEP
- SHADED AREA DENOTES EXISTING TO REMAIN

LINTEL SCHEDULE

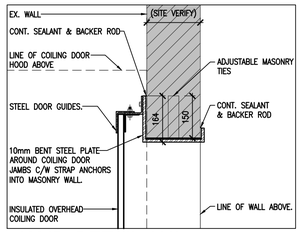
MARK	SIZE	DETAIL	REMARKS
L1	W200x36+190x10 PL (TOP & BOT.)	I	PROVIDE BASE PLATE AT END OF LINTEL AS INDICATED ON PLAN. DRY PACK BELOW EX. CONCRETE BLOCK @ TOP PLATE TO FACILITATE FULL BEARING

BEARING PLATE SCHEDULE

MARK	SIZE	ANCHORAGE	REMARKS
BP1	190x190x13	(2)12.7mm# HOOKED DOWELS	GROUT SOLID COURSES BELOW BEARING PLATE



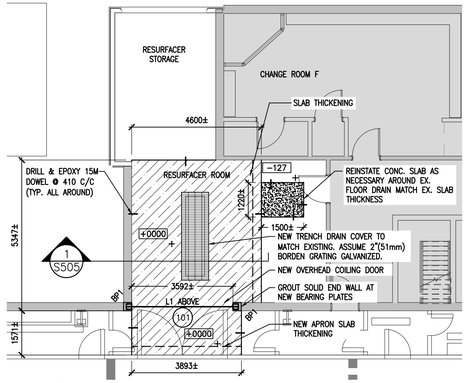
HEAD DETAIL 'H1'



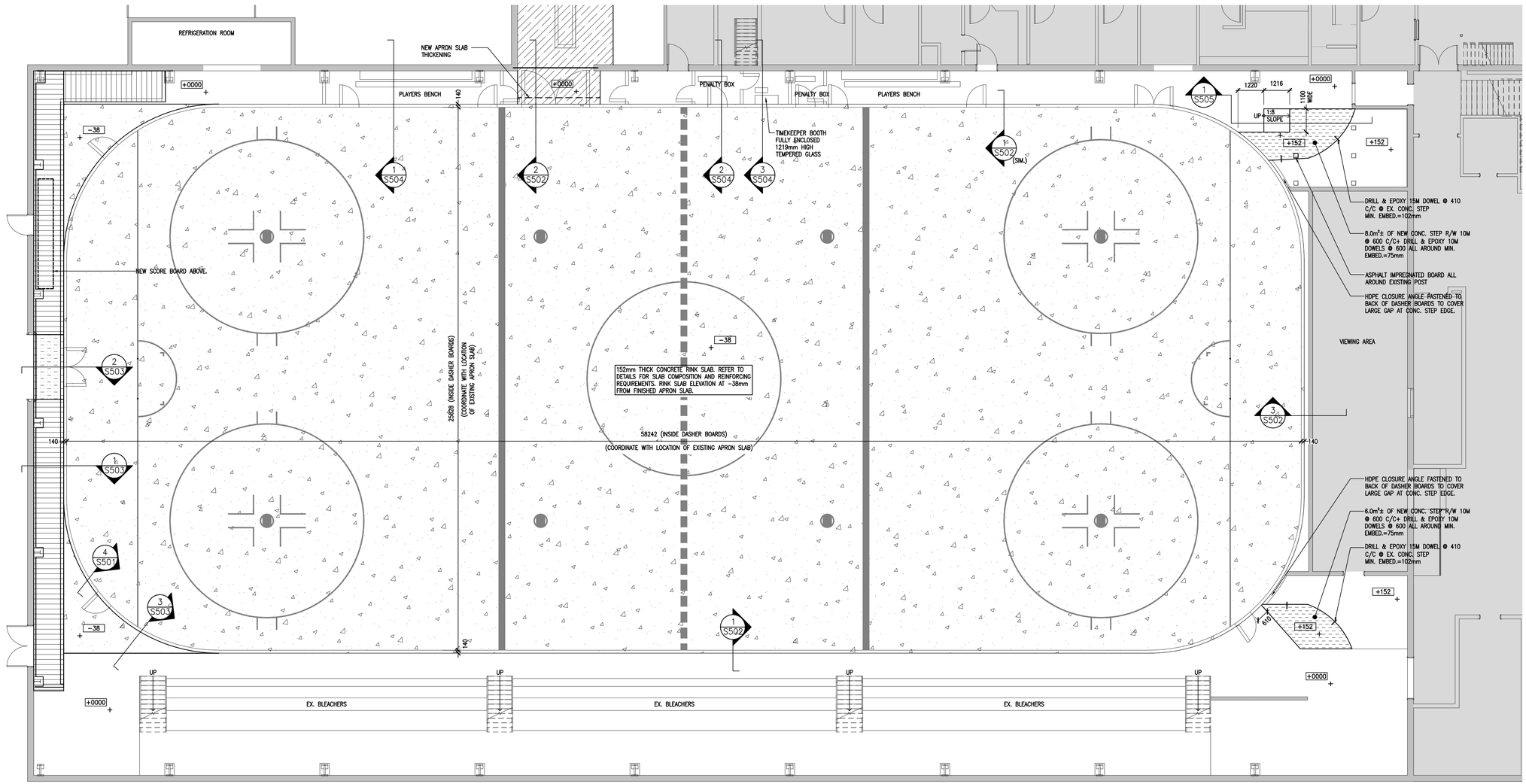
JAMB DETAIL 'J1'

DOOR AND FRAME SCHEDULE

DOOR						FRAME						
NO.	SIZE AND THICKNESS	TYPE	MATERIAL	FINISH	GLASS	TYPE	DETAIL HEAD	DETAIL JAMB	MATERIAL	FINISH	FIRE RATING	REMARKS
101	3952(W)x SITE VERITY(H)	OCD	STL	PREFIN.	–	–	H1	J1	STL	PREFIN.	90 MIN.	SITE VERIFY DOOR OPENING DIMENSIONS



2 / S202 GROUND FLOOR PLAN
1:100



1 / S202 GROUND FLOOR PLAN
1:100

deep river

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
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4	ISSUED FOR PERMIT-TENDER	MAR. 17, 2026	BBA
1 ADDENDUM	ADDENDUM 1	MAR. 23, 2026	BBA

BARRY BRYAN ASSOCIATES

PROJECT:
RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

DRAWING:
GROUND FLOOR PLAN

DESIGN BY: DM	SEAL: LICENSED PROFESSIONAL ENGINEER 2026-03-17 D. P. MCLAUGHLIN 100181883 PROVINCE OF ONTARIO
DRAWN BY: JMM	
CHECKED BY: DM	
DATE: FEBRUARY 2026	
SCALE: AS NOTED	
PROJECT NO: 25244	DRAWING NO: S202

HATCH LEGEND

HATCH DENOTES EXTENT OF NEW 6mm(¼") RUBBER SKATE TILE. PROVIDE TRANSITION STRIPS AT ALL DOORS AND TERMINATION POINT FOR FLOORING.

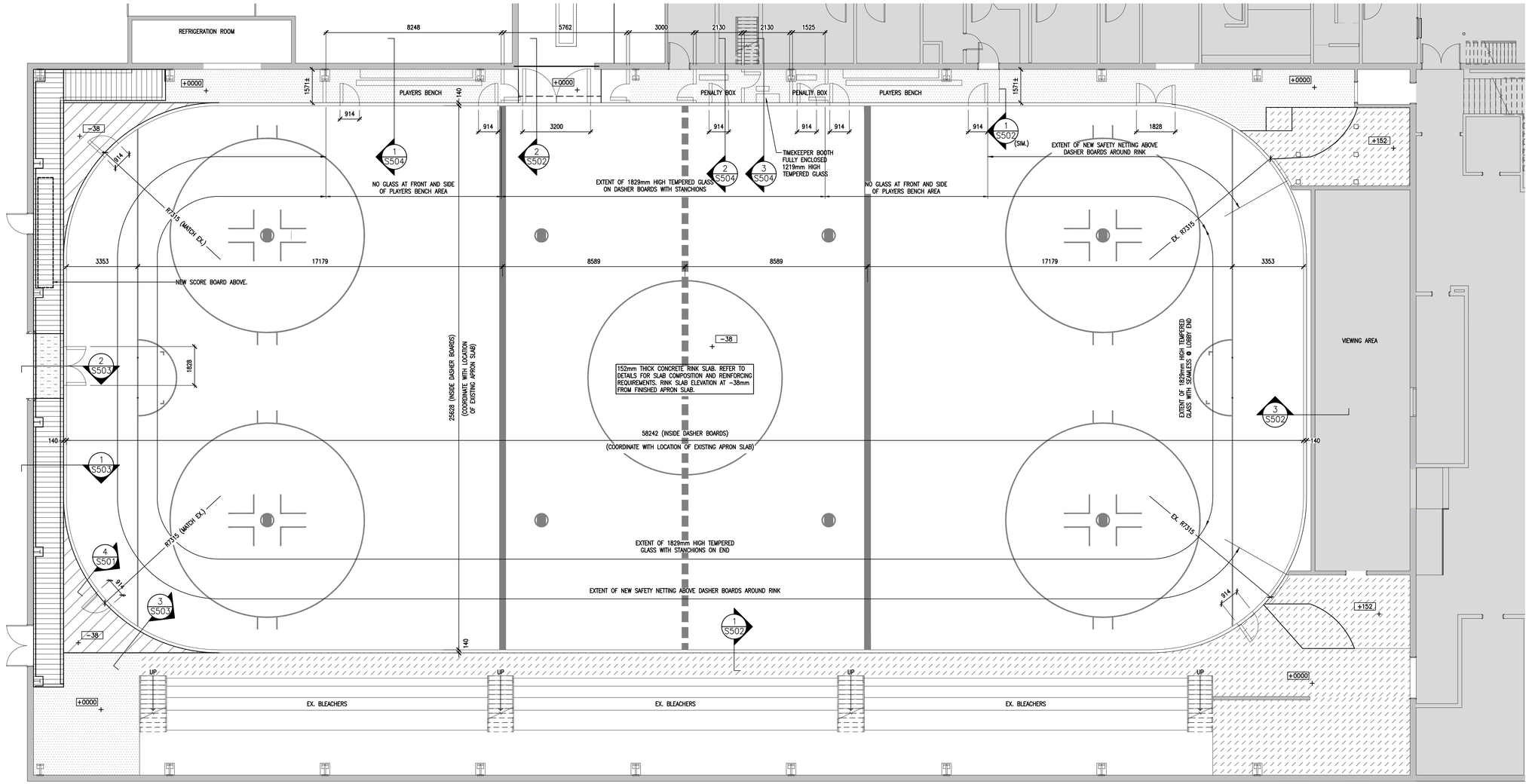
HATCH DENOTES EXTENT OF NEW 19mm(¾") RUBBER SKATE TILE. PROVIDE TRANSITION STRIPS AT ALL DOORS AND TERMINATION POINT FOR FLOORING.

HATCH DENOTES EXTENT OF NEW 25 RIGID INSULATION+19mm RUBBER MATTING

HATCH EXTENT OF NEW WOOD HEADER COVERS +19mm(¾") RUBBER SKATE TILE. PLUS L51x51x4.8 ANGLE STIFFENERS @ 610mm C/C.

HATCH EXTENT OF NEW 13mm SMOOTH PLATE WITH 2 LAYERS OF 19mm RUBBER MATTING. PLUS L51x51x4.8 ANGLE STIFFENERS @ 610mm C/C

SHADED AREA DENOTES EXISTING TO REMAIN



1 S203 RINK FLOORING PLAN
1:100

DO NOT SCALE THE DRAWINGS.
CHECK AND VERIFY ALL DIMENSIONS AT THE SITE.

DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL SIGNED AND SEALED BY THE CONSULTANT.

deep river

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1	ADDENDUM 1	MAR. 23, 2026	BBA

BARRY BRYAN ASSOCIATES

PROJECT:

RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

DRAWING:

RINK FLOORING PLAN

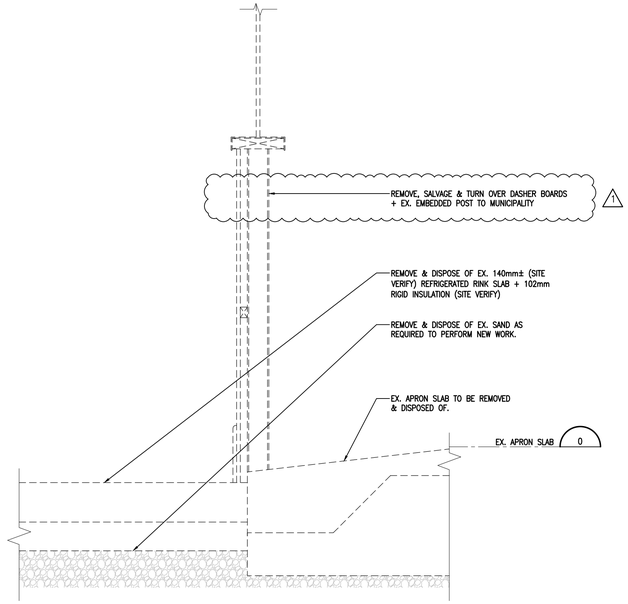
DESIGN BY:	DM
DRAWN BY:	JMM
CHECKED BY:	DM
DATE:	FEBRUARY 2026
SCALE:	AS NOTED

SEAL:

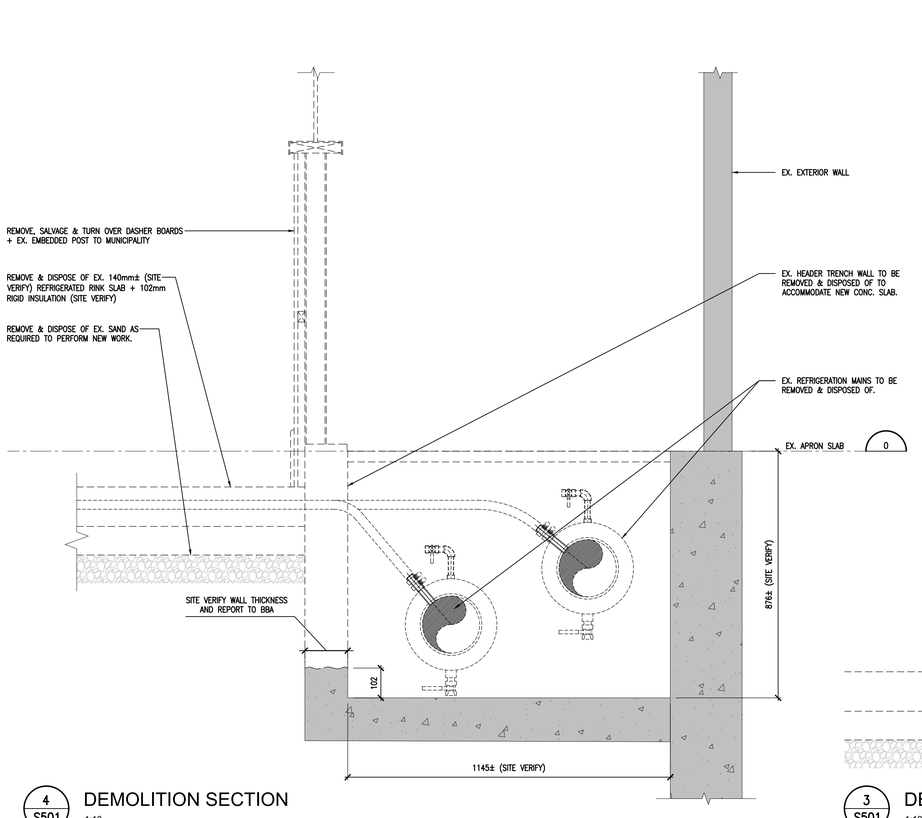
LICENSED PROFESSIONAL ENGINEER
2026-03-17
D. P. MCLAUGHLIN
100161883
PROVINCE OF ONTARIO

PROJECT NO: **25244**

DRAWING NO: **S203**



2 S501 DEMOLITION SECTION
1:10



4 S501 DEMOLITION SECTION
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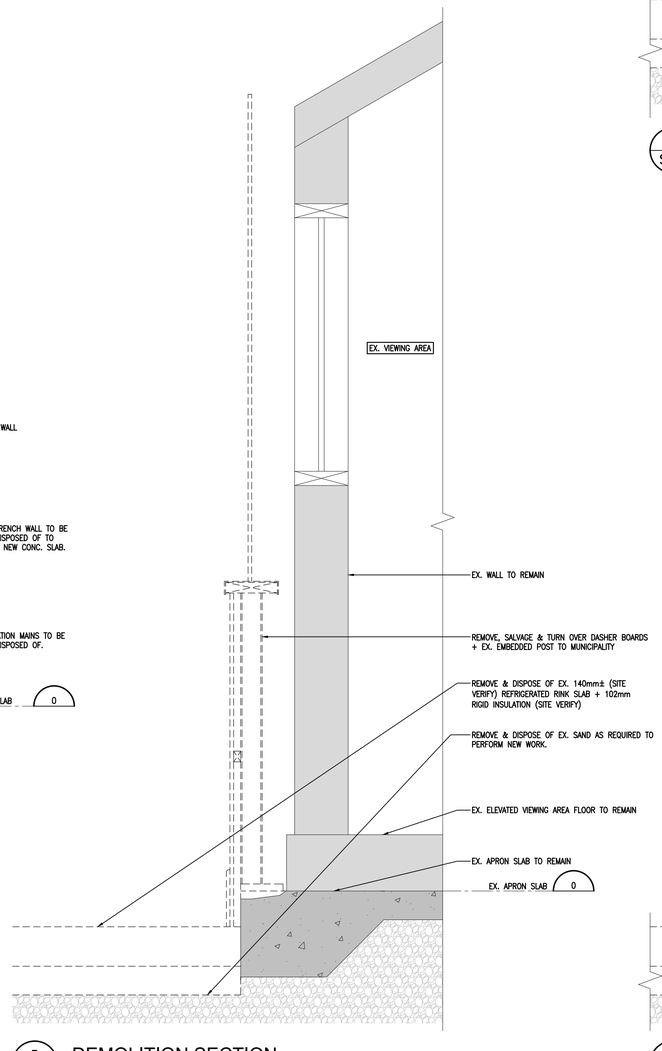
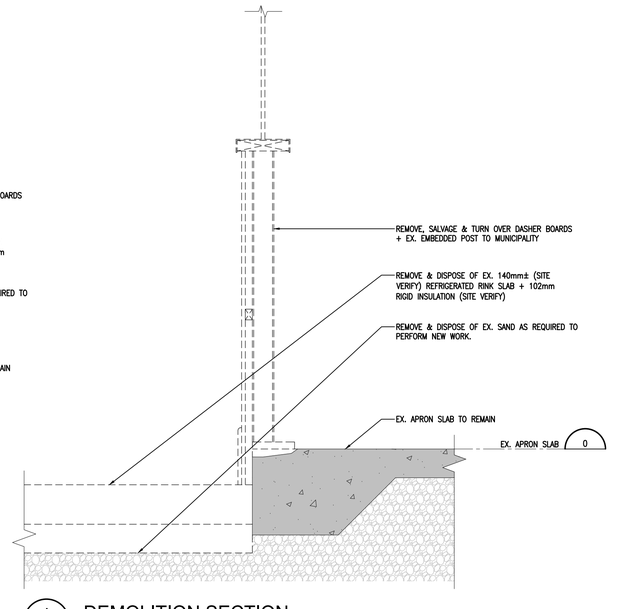


3 S501 DEMOLITION SECTION
1:10



1 S501 DEMOLITION SECTION
1:10

deep river

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
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BARRY BRYAN ASSOCIATES

PROJECT:

RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

DRAWING:

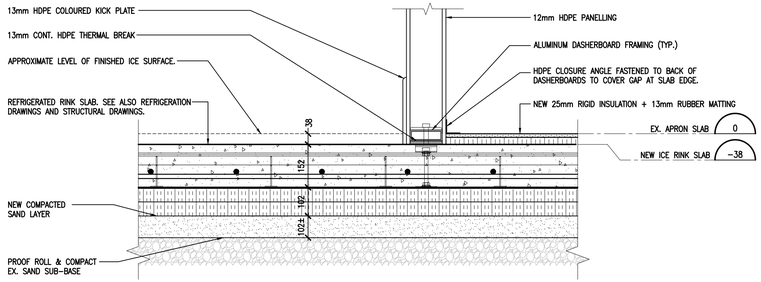
SECTIONS & DETAILS

DESIGN BY:	DM
DRAWN BY:	JMM
CHECKED BY:	DM
DATE:	FEBRUARY 2026
SCALE:	AS NOTED

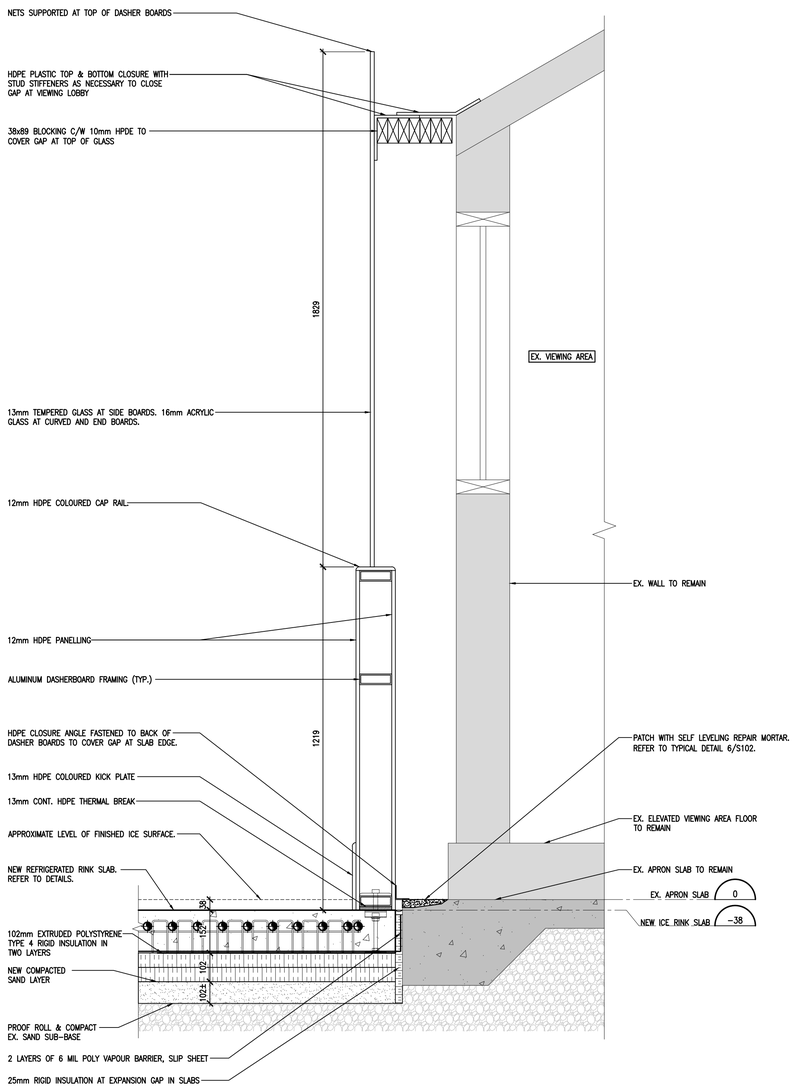
SEAL:

LICENSED PROFESSIONAL ENGINEER
2026-03-17
D. P. MCLAUGHLIN
100161883
PROVINCE OF ONTARIO

PROJECT NO:	DRAWING NO:
25244	S501



4/S502 SECTION AT RINK RADIUS
1:10



3/S502 SECTION
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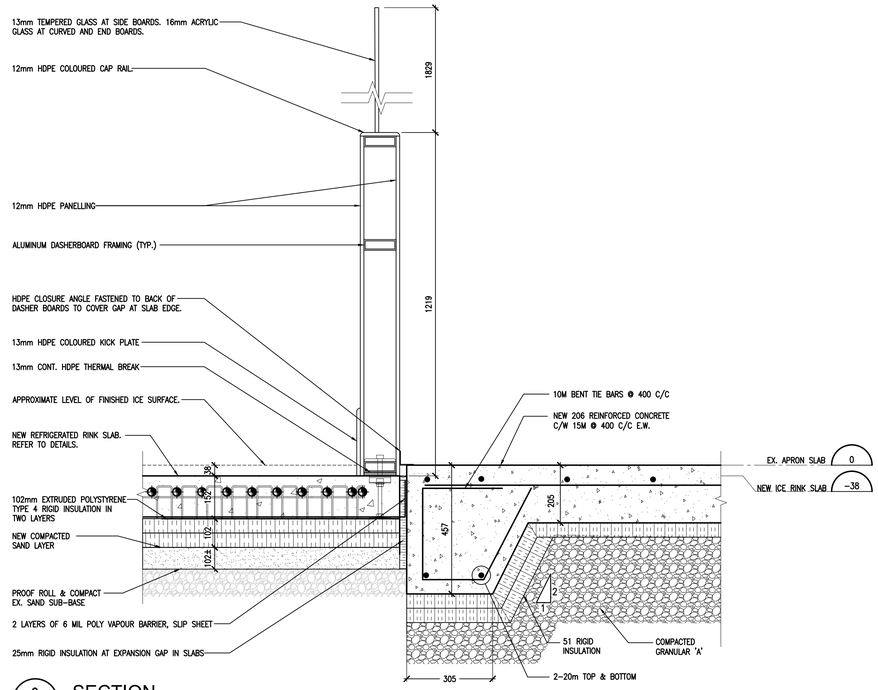

2/S502 SECTION
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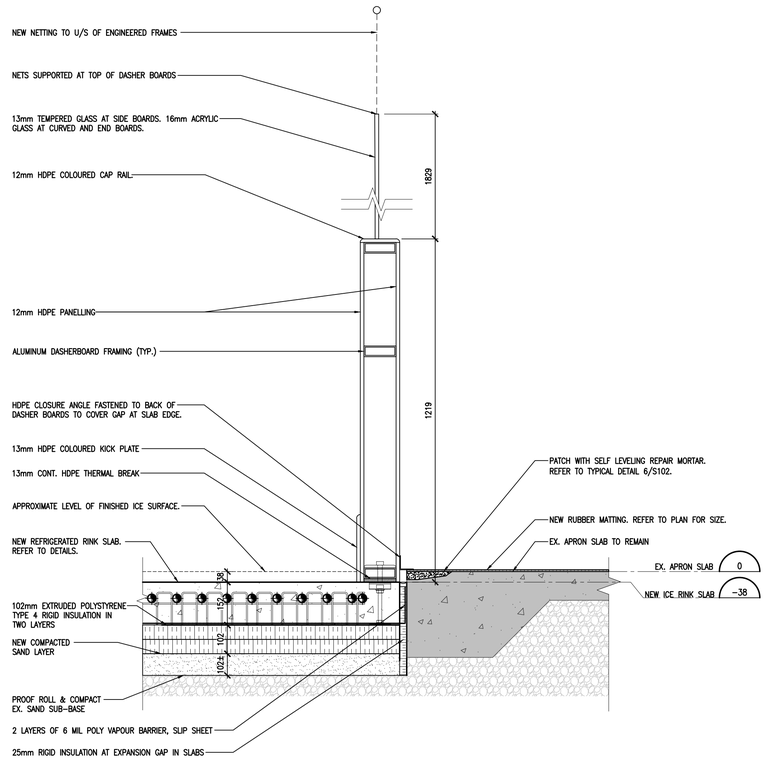

1/S502 SECTION
1:10

deep river

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PROJECT:
RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

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SECTIONS & DETAILS

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CHECKED BY:	DM
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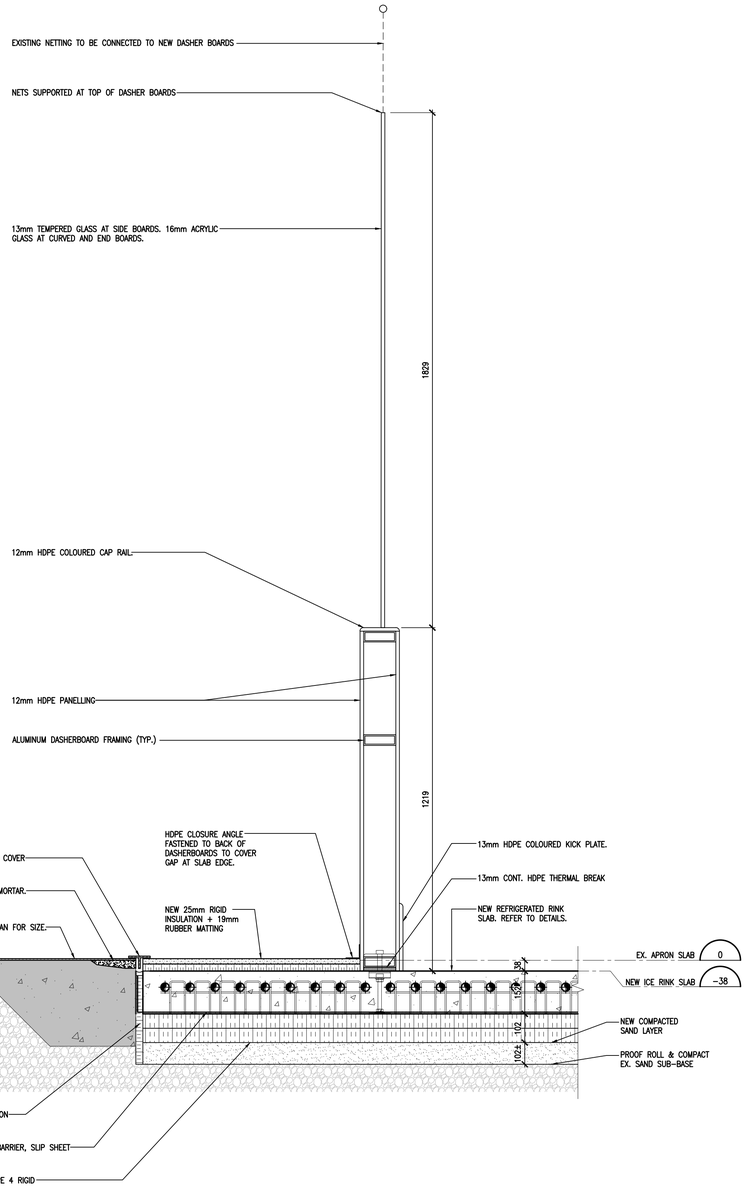
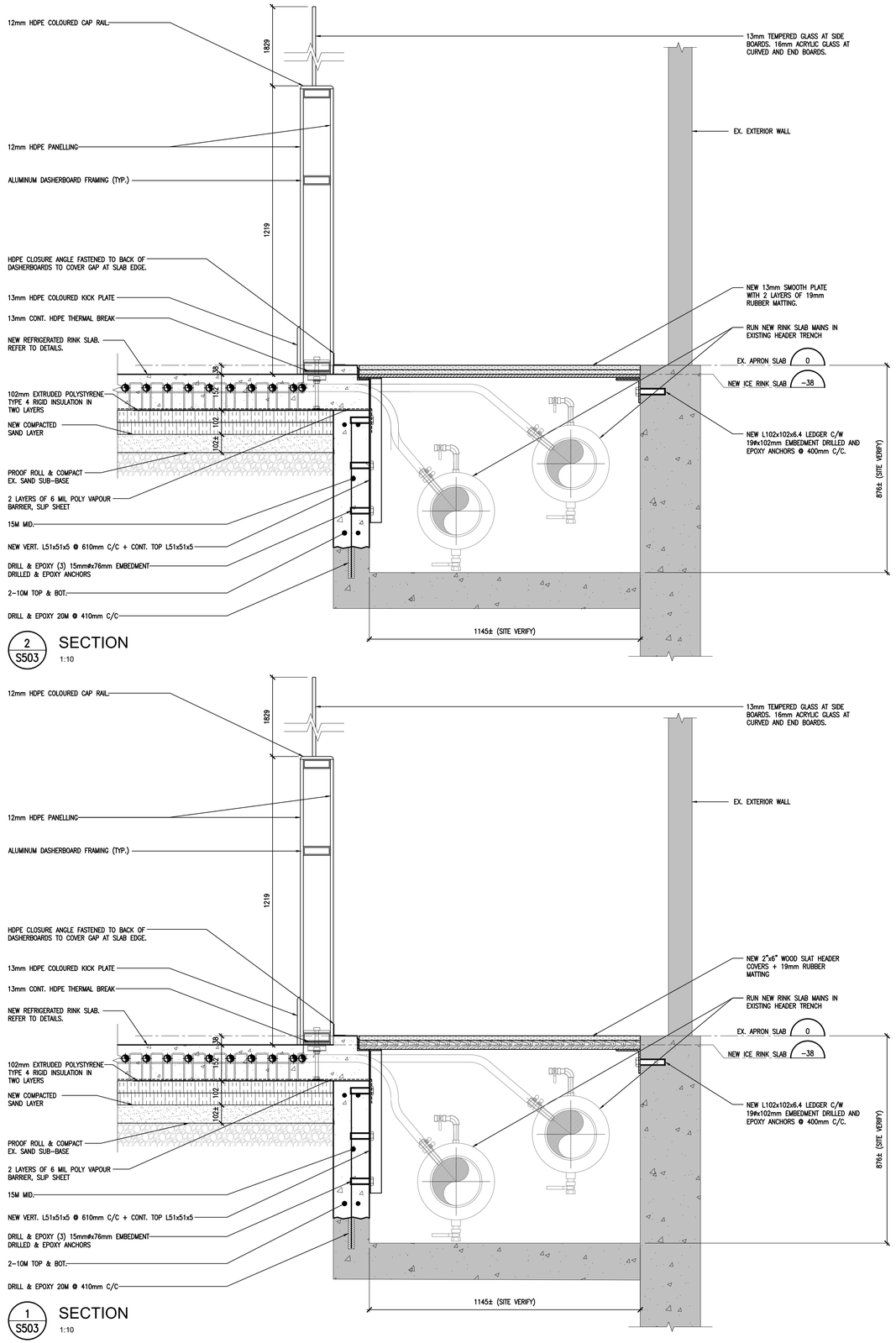
2026-03-17
D. P. MCLAUGHLIN
100161883
PROVINCE OF ONTARIO

PROJECT NO: **25244**

DRAWING NO: **S502**



3 S503 NEW SLAB SECTION @ EXPANSION GAP
1:10



2 S503 SECTION
1:10

1 S503 SECTION
1:10

deep river

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BARRY BRYAN ASSOCIATES

PROJECT:

RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

TOWN OF DEEP RIVER

DRAWING:

SECTIONS & DETAILS

DESIGN BY: DM
DRAWN BY: JMM
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DATE: FEBRUARY 2026
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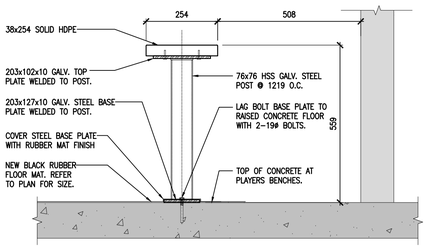
SEAL:

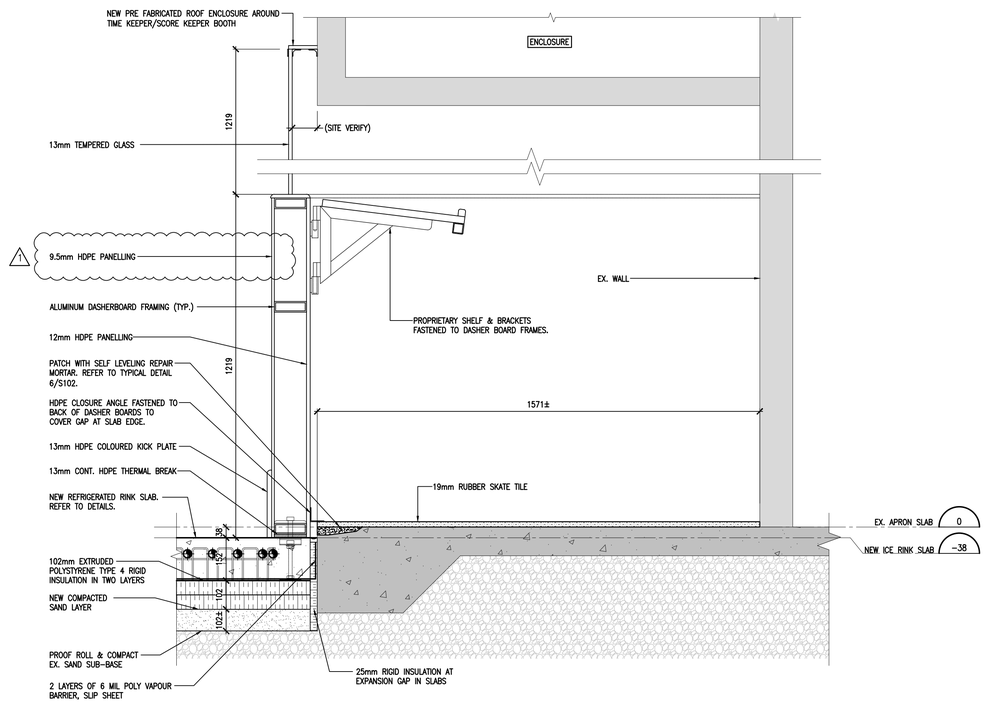
LICENSED PROFESSIONAL ENGINEER
2026-03-17
D. P. MCLAUGHLIN
100181883
PROVINCE OF ONTARIO

PROJECT NO: **25244**

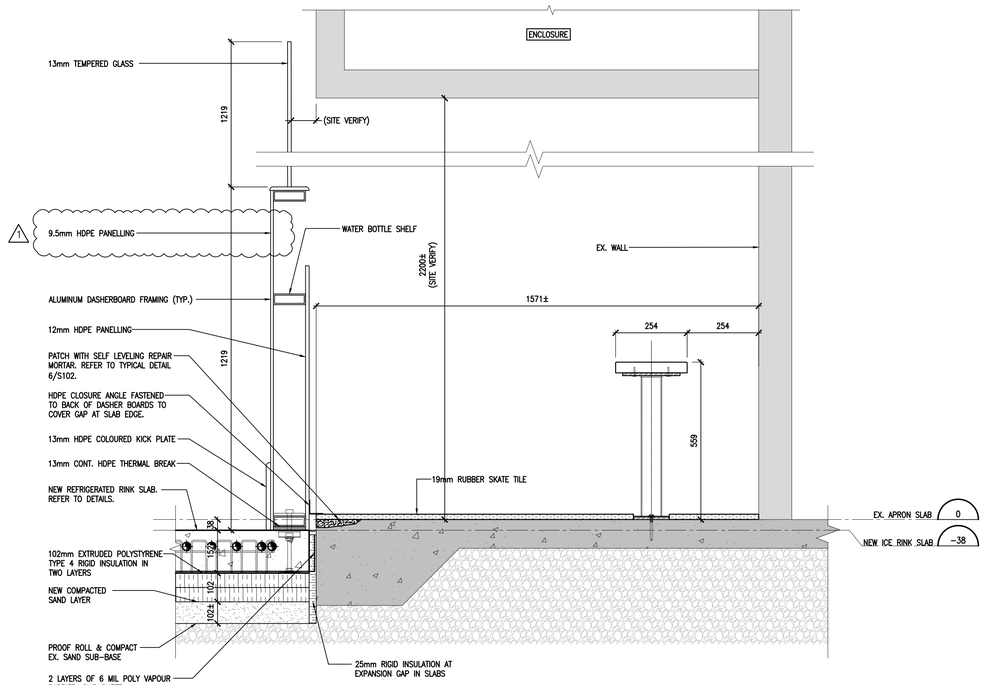
DRAWING NO: **S503**



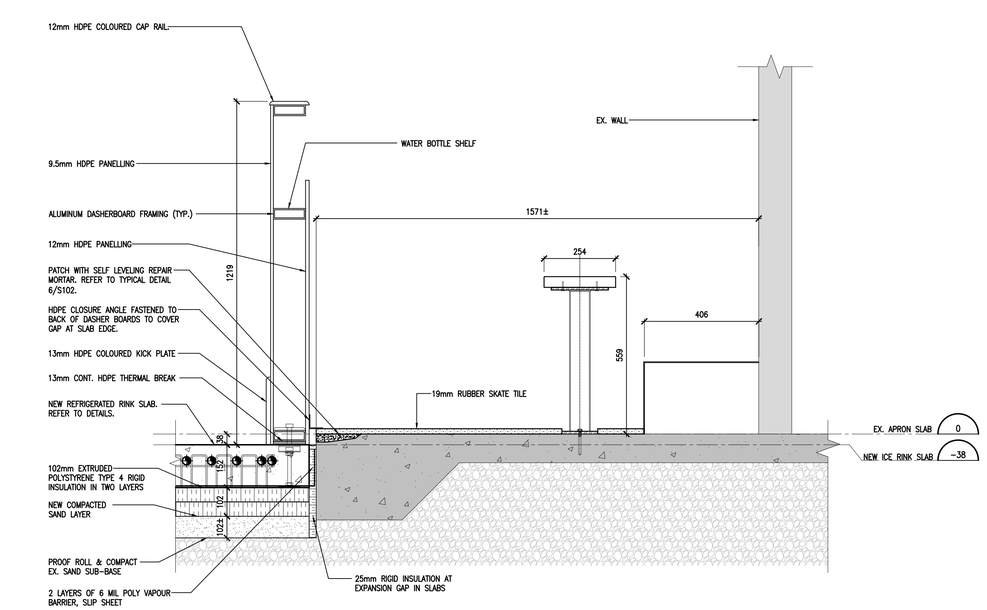
4 S504 TYPICAL PLAYERS BENCH DETAIL
1:10



3 S504 TIME KEEPERS BOX SECTION
1:10



2 S504 PENALTY BOX SECTION
1:10



1 S504 NEW SLAB SECTION @ NEW PLAYERS BENCH
1:10

deep river

NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
3	ISSUED FOR REVIEW	MAR. 17, 2026	BBA
4	ISSUED FOR PERMIT-TENDER	MAR. 17, 2026	BBA
1	ADDENDUM 1	MAR. 23, 2026	BBA

BBA
BARRY BRYAN ASSOCIATES

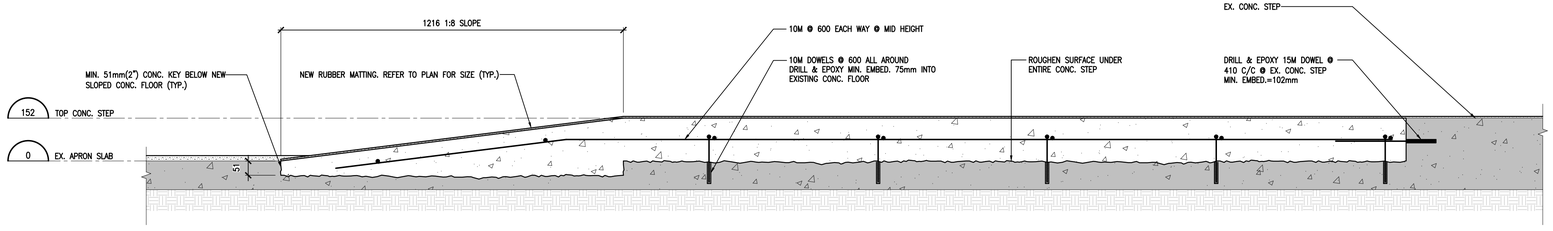
PROJECT:
RINK SLAB REPLACEMENT
DEEP RIVER ARENA

2 CLUB HOUSE RD, DEEP RIVER, ON, K0J 1P0

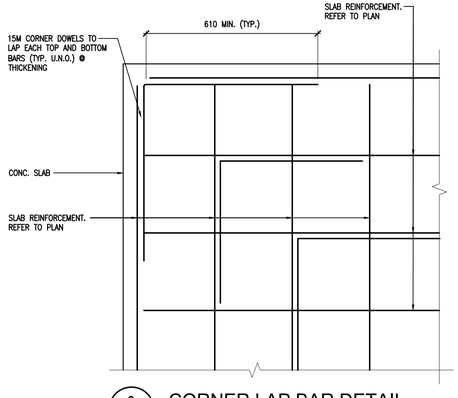
TOWN OF DEEP RIVER

DRAWING:
SECTIONS & DETAILS

DESIGN BY: DM	SEAL: LICENSED PROFESSIONAL ENGINEER 2026-03-17 D. P. MCLAUGHLIN 100161883 PROVINCE OF ONTARIO
DRAWN BY: JMM	
CHECKED BY: DM	
DATE: FEBRUARY 2026	
SCALE: AS NOTED	
PROJECT NO: **25244**	DRAWING NO: **S504**



3 S505 SECTION
1:10



2 S505 CORNER LAP BAR DETAIL
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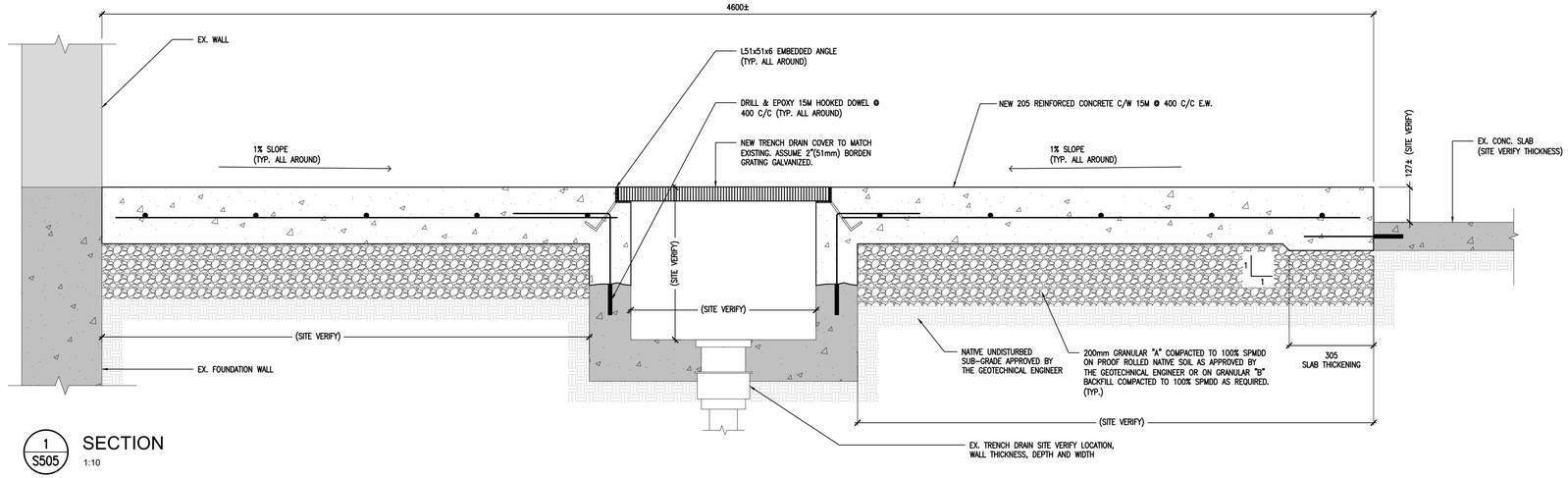

1 S505 SECTION
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NO.	ISSUES/ REVISIONS	DATE	BY
1	ISSUED FOR REVIEW	FEB. 23, 2026	BBA
2	ISSUED FOR REVIEW	MAR. 03, 2026	BBA
3	ISSUED FOR REVIEW	MAR. 17, 2026	BBA
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PART 1 GENERAL

1.1 General

.1 Conform to the requirements of Division 1.

1.2 Related Sections

.1 Section 03 10 00 Concrete Forming and Accessories
.2 Section 03 20 00 Concrete Reinforcing
.3 Section 03 30 00 Cast-in-Place Concrete

1.3 References

.1 The Ontario Building Code
.2 ASTM International (ASTM)
  .1 ASTM B221-14 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
  .2 ASTM B429/B429M-10e1 Standard Specification for Aluminum-Alloy Extruded Structural Pipe and Tube
  .3 ASTM C920-14a Standard Specification for Elastomeric Joint Sealants
.3 Canadian Standards Association (CSA)
  .1 CSA S157-05/S157.1-05 (R2015) Strength Design in Aluminum / Commentary on CSA S157-05, Strength Design in Aluminum
  .2 CSA G40.20-13/G40.21-13 General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel, Includes Update No. 1 (2014)
  .3 CSA S136S1-04 North American Specification for the Design of Cold Formed Steel Structural Members
  .4 CAN/CSA G164-M92 (R2003), Hot Dip Galvanizing of Irregularly Shaped Articles
  .5 CSA O121, Douglas Fir Plywood
  .6 CSA W59.2-M1991 (R2013) Welded Aluminum Construction
.4 Canadian General Services Board (CGSB)
  .1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass
.5 Aluminum Association (AA), Designation System for Aluminum Finishes (2000)

1.4 Submittals

.1 Make submittals in accordance with Section 01 33 00 – Submittal Procedures.

.2 Submit complete set of manufacturer's standard specifications, installation instructions and details for dasherboard systems including promotional literature. Include list of similar projects utilizing similar board systems and completed within last ten years including current references.

.3 Submit complete list of materials and products to be used in the construction of dasher board systems and indicate clearly, any deviation from the specified requirements.

.4 Shop drawings shall bear the seal of a professional engineer licensed to design structures in the Province of Ontario.

.5 Submit layout of the ice surface showing dasherboards, size and location of doors and gates, players and penalty boxes, removable panels and glass shields.

.6 Show and describe in detail all components of the work of this Section including large scale

details of members and materials, of connection and jointing details and of anchorage devices.

.7 Submit a dimensioned layout drawing showing location of floor inserts, anchors and base plates to be set into concrete slabs by this Section.

.8 Indicate layout of advertising panels as part of the shop drawing procedure with the owner for placement.

.9 Submit calculations certified by the professional engineer affixing seal to the shop drawings substantiating sizes for members and connections based on the design loads, before commencing fabrication

.10 Submit duplicate 12” x 12” samples of each colour of plastic surfacing materials.

.11 Submit duplicate 12” long samples of protective padding.

.12 Submit a copy of the pre-installation survey for the rink surface.

.13 Operating and Maintenance Data: Submit operating instructions and maintenance manuals for installed system outlining all required maintenance and cleaning procedures in accordance with the requirements of Section 01 78 00.

1.5 System Description

.1 Dasherboard system shall be Pro XL Series Dasherboards by Sports Systems Unlimited DBA Athletica Sports Systems or approved equivalent.

.2 Complete panelized arena board system of prefabricated lightweight removable modular panel sections having structural aluminum framing of welded or screwed construction, and high density polyethylene facing. Panelized sections shall be 42” high and not more than 8’-0” long with caprail, kickplate, ice dams and thresholds.

.3 Spectator Shielding:
.1 Stanchion supported tempered glass at rink end and curved sections.
.2 Stanchion supported tempered glass at rink sides.
.3 Seamless glass at lobby where indicated on drawings.

.4 Player, penalty and timekeepers boxes with glass surrounds, overhead roof systems, benches, shelves and raised floors.

.5 3/4” Rubber mat flooring in players, penalty and timekeepers benches.

.6 Hardware and accessories including anchor brackets.

.7 Gates and hardware.

.8 Advertising panels.

.9 Anchor bolt system for securing to existing and new concrete rink slab.

.10 Ice rink inserts for goal frames (Hockey). Provide shop drawings for goal post inserts for owner approval. Coordinate placement and leveliness of goal post inserts during slab pour with all effected sub-trades.

.11 Safety features as specified.

1.6 Design and Performance Requirements

.1 Arena board systems shall be manufacturer's premium quality system.

.2 Arena board systems shall be to sizes as indicated on the drawings.

.3 The work of this Section shall be designed by a professional engineer licensed in the Province of Ontario.

.4 There shall be no gaps in the dasherboard system sufficiently excessive to act as "stick traps" or "finger traps". The maximum gaps exposed to the playing side of the dasherboard system shall be no greater than 1/8".

.5 Design aluminum members in accordance with CAN3–S157.

.6 Design loadings (Specified):
- .1 Concentrated load P= 2.7 kN applied at mid span of top rail (i.e. top of arena board assembly).
- .2 Uniformly distributed load of P= 2.7 kN applied along top rail.
- .3 Uniformly distributed load of 4.8 kPa applied across the entire face of the arena board.

.7 Member Resistances (Factored):
- .1 Axial Resistance:
  - .1 Tension: Tr = An.Fy; Tr = 85 An.Fu
  - .2 Compression: Cr = A.Fc
- .2 Shear Resistance:
  - .1 Vr = 0.60 Aw.Fc; 0.60 Aw.Fy; hNWR
- .3 Moment Resistance:
  - .1 Mr = S.Fy (Class 2 Sections).

1.7 Quality Assurance

.1 System manufacturer shall have a minimum 5 years of experience in the manufacture, design and installation of aluminum dasherboard systems.

.2 Installation of complete dasherboard system shall be by manufacturer's own forces.

.3 A copy of the manufacturers printed installation instructions shall be kept on site for the duration of the work of this Section.

.4 Pre-Installation Conference: Arrange for a pre-installation conference, including Contractor, Consultant, Owner, concrete finisher, and the dasher board system manufacturer and installer to coordinate the design and installation of the dasher board system.

.5 Welding shall be performed by trades persons certified by the Canadian Welding Bureau under CSA Standard W47.1.

.6 The dasher board manufacturer shall have representative on site during the pouring of the refrigerated slab to ensure anchors are not damaged or moved during pouring and finishing of the refrigerated slab.

1.8 Shipping, Handling and Storage

.1 Refer to Section 01 16 00 – Common Product Requirements.

.2 Deliver, handle and store materials in accordance with manufacturer's printed instructions.

.3 Deliver materials to site in crates, with all seals and labels intact. Identify all materials with regards to locations and orientation.

.4 Store materials, under cover, in designated area on site. Materials may not be stored in concentrated loads on the newly poured rink slab.

.5 Store tempered glass arena shields vertically, on wood sleepers. Protect glass from work of other trades.

1.9 Site Conditions

.1 All overhead work is to be complete prior to the work of this Section commencing.

.2 Perimeter apron slabs and ice surface slabs are to be in place prior to the work of this Section commencing. Verify tolerance requirements of systems manufacturer have been met and report any discrepancies to the Consultant.

.3 Environmental Requirements: Ensure that installation takes place only when temperatures and other conditions are suitable for a safe and proper installation.

.4 Field Measurements: Site verify dimensions of rink surface. Verify location and layout of arena gates, to align with aisles where required. Final arena board anchor insert locations shall be coordinated between Contractor, manufacturer, and ice floor installer.

.5 Pre-Installation Survey: During and upon completion of apron slab construction, and prior to installation of the rink board anchor bolts, retain the services of a registered Ontario Land Surveyor to verify all dimensions and radii of refrigerated ice slab surface and apron slab. Make adjustments as necessary to eliminate or conceal gaps and similar defects. Provide remedial details for review and acceptance when requested by the Consultant. Refer to Section 01 45 00.

1.10 Shipping, Handling and Storage

.1 Refer to Section 01 16 00 – Common Product Requirements.

.2 Deliver, handle and store materials in accordance with manufacturer's printed instructions.

1.11 Mock Up

.1 Supply and install a mock-up of the arena board system consisting of one flat section, 8'-0" long minimum, complete with glass shield supports, glass and coloured trim.

.2 Accepted mock up shall represent the standard of quality for the remainder of the arena board system work.

1.12 Maintenance Materials

.1 Supply, in addition to the quantities required for the Work, extra materials and products for the Owner's future use as follows:
.1 1 Glass storage Dolly.
.2 2 Typical glazing panels ½" thick, side board section
.3 2 Typical glazing panel 5/8" thick, end board section.
.4 2 Typical glazing panel 5/8" thick, curved end board section.
.5 2 Typical HDPE Panel, side board section.
.6 2 Typical HDPE Panel, end board section
.7 2 Typical HDPE Panel, curved end board section.
.8 Two Hundred (200) additional painted screws of each colour required for fastening of HDPE facing materials
.9 5m^2 additional rubber floor matting.

.2 Deliver extra stock to Owner in cartons clearly labelled to identify contents as soon as permanent locking storage facilities are available. Place extra stock in designated storage areas.

1.13 Waste Management and Disposal

.1 Refer to Section 01 74 10 – Cleaning.

1.14 Warranty

.1 Guarantee that the entire work of this Section shall remain free from defects in materials and workmanship including warping, twisting, de-lamination, cracking, sagging of gates and other defects for a period of two (2) years from the date of Substantial Performance. Glass breakage is excluded.

.2 The manufacturer's representative shall attend a walk-through of the dasherboard system at least one month prior to the end of the warranty period.

PART 2 PRODUCTS

2.1 Manufacturers

.1 The following manufacturers of aluminum dasher board systems are acceptable subject to approval of complete product specifications and details for manufacturer's premium system and on receipt of project references satisfactory to the Owner and Consultant:
.1 Sports Systems Unlimited Corp. DBA Athletica Sports Systems
.2 Riley Manufacturing.
.3 Welmar Recreational Products
.4 Sound Barriers.
.5 Other manufacturers, meeting the requirements of this specification and complying with all provisions of the contract, approved by the Consultant prior to close of tenders.

.2 Use of specific requirements set forth in the specification does not preclude the use of equivalent products by approved manufacturers, but are given for the purpose of establishing a standard of design, quality of materials, product content, construction and workmanship.

2.2 Materials

.1 Aluminum Extrusions: CSA CAN3-S157 or ASTM B221, 6065-T5 or 6005A-T6 alloy and temper.

.2 High Density Polyethylene (HDPE): High impact, integrally coloured, high density polyethylene, bright white and other colours as specified.

.3 Tempered Safety Glass: CAN/CGSB-12.1-M90 or ASTM C1048, Type 2, clear, colourless, fully toughened, heat tempered safety glass. Tempered glass material shall come from same tempering furnace and shall be tempered to minimize distortion. Roll wave distortion shall not exceed 0.005" from peak to valley.

.1 Each piece of tempered glass shall bear the stamp of approval from a certified testing facility, proving the glass meets specified standard. The stamp shall be in a location that will be visible and legible after boards and shielding are installed.

.4 Hardware: Stainless or galvanized mild steel.

.5 Fasteners: Zinc plated steel unless indicated otherwise.

.6 Anchors: Zinc plated steel.

.7 Gap Closures: Provide 2-piece HDPE angle between the boards and all raised areas behind the boards and / or as shown on drawings.

.8 Plywood: To CSA O121, Douglas Fir plywood, thickness as indicated or as required by manufacturer.

.9 Sealants: to ASTM C920 sealing compound, low VOC type, one component, elastomeric chemical curing.

2.3 Fabrication

.1 As far as practical, execute fitting and assembly in the shop with the various parts or assemblies ready for erection at the project site.

.2 Accurately fit together all joints, corners and intersections. Match components carefully to produce continuity of line and design.

.3 Provide devices for anchoring the assemblies to the substrate with adjustment to permit correct and accurate alignment.

.4 Fabricate anchoring devices required to secure the work of this Section. Supply anchors and layout drawings where required to be built into work of other Sections.

.5 System components shall be numbered for ease of installation, disassembly and reinstallation.

2.4 Arena Panels

.1 Arena panels shall be factory prefabricated in demountable sections. The design of all panels whether straight, curved or in which a gate is located shall be similar. Each panel shall be made of extruded or rolled aluminum sections assembled into frames using high strength fasteners or welded joints. Frames shall allow for fastening of the HDPE facing and anchoring at base. Ensure flush mating of the HDPE facing at arena panel joints.

.2 Typical sections shall consist of two vertical posts and minimum of three horizontal stringers. Frames shall be connected end to end with heavy duty bolts and shall be connected to rink slab concrete structure at the posts with aluminum anchor brackets.

.3 Aluminum sections shall be isolated from the concrete slab with a HDPE facing material, full width of dasher board.

.4 Standard size of straight arena panels shall be 8'-0" long, 42" high.

.5 The ice rink side of the arena panel shall be faced with ½" thick, high impact, integrally coloured white high density polyethylene (HDPE) facing. Both sides of the arena facing shall have smooth surfaces. Colour of arena facing shall be identical on both sides.

.6 The spectator side of the arena panel, where indicated, shall be faced with 3/8" thick, high impact, integrally coloured white high density polyethylene (HDPE) facing.

.7 The player side of the arena panel, where indicated, shall be faced with ½" thick, high impact, integrally coloured white high density polyethylene (HDPE) facing in penalty and player benches.

.8 HDPE facing shall be attached to the arena board framing with ¼" diameter screws. Heads of screws shall be painted to colour match arena facing, kickplate or caprail sill as appropriate. Spacing of the screws shall not exceed 8" on centre.

.9 Colour extensions of red and blue lines shall be coloured HDPE strips inlaid flush to the HDPE facing and inlaid flush to the HDPE kickplate in conformance with Owner's layout requirements.

.10 Provide a ½" thick colour impregnated HDPE caprail fastened to top horizontal framing member. Both edges of caprail shall have a smooth and radiused edge.

.11 Colour of caprail shall be selected from manufacturer's standard colour range

2.5 Player's Penalty and Timekeeper Boxes and Benches

.1 Boxes shall consist of arena board enclosures similar to rink arena boards.

.2 Interior finish of boxes shall be of similar construction as ice-side of arena boards, utilizing 1/2" thick white HDPE. Framing shall be similar construction as arena boards. Install 1/2" thick white HDPE flush to top of mid stringer height to act as a water bottle shelf.

.3 Player' boxes, penalty boxes and access gates shall be as indicated.

.4 Official's box and access gates shall be as indicated.

.5 Scorer's table shall be 1'-8" deep for the full width of the box and constructed of minimum 1 ¼" thick solid or laminated HDPE surfacing material. Wood tables are not permitted. Provide lockable storage in the Timekeepers Table. (For storing electrical components)

.6 Benches shall be as detailed. Removable bench supports shall be of a ¼" steel base plate with minimum 2 2/7" diameter steel post at a maximum of 48" o.c. All steel components shall be hot dip galvanized. Benches shall be fabricated from 1 ½" x 10" solid or laminated white HDPE surfacing material. Wood benches are not permitted. Bench base plates and bolts are to be protected to prevent skate blade contact.

2.6 Gates

.1 All gate sizes and direction of swing shall be as indicated on drawings.

.2 Gate latches shall be a single latch type with rink and spectator or bench side access. A flush mounted push-button latch shall be incorporated in the caprail on the ice entrance gates to the penalty boxes and ice access gates where shields would otherwise prevent latch operation. The button shall be approximately 3" in diameter. The push-button shall be designed to be simple to operate yet prevent accidental opening. Gates where indicated on plan shall be complete with a drop bolt to secure the base of the gates for rigidity.

.3 Hinge assemblies shall be constructed of ¼" stainless steel. The hinge pins shall be minimum 5/8" diameter. Hinges on penalty and players benches shall have a self closing feature.

.4 Equipment gates shall be double gates with a minimum 10'-0" overall opening width. The threshold top to be 1" stress relieved white Polypropylene and the bottom 1 ½" to be galvanized steel tubing.

.5 Each equipment gate unit shall be equipped with one locking clamp or sliding bar and two retractable flush bolts into the threshold or floor.

.6 Each equipment gate and all gates over 36" width shall be equipped with adjustable heavy duty spring loaded casters, with the direction of travel fixed to the arc of the door.

.7 Provide gate levelling screws at all gate locations to allow gates to be realigned with the ice in place.

.8 All gate hardware shall be stainless steel.

2.7 Spectator Shielding Supports

.1 Spectator shielding system shall be Pro Series Dasherboards by Sports Systems Unlimited DBA Athletica Sports Systems or approved equivalent.

.2 Provision for attachment of shielding glazing to the vertical supports shall be by means of an extruded, mill finish aluminum shield support. This aluminum support shall run continuously to within 12" of the top of the glazing; an extruded face plate will slot into aluminum support with no screws. Plastic "U" shaped gaskets protect the glass edges. At the gates only, the support is a two piece with a screw -applied face plate. The shield support system must facilitate the replacement of shields from the ice side without requiring additional support or securing of the adjacent shields.

.3 Shielding and supports shall be designed for easy removal without tools for events when arena boards will remain in place but shielding and shielding supports are to be removed, including the gates.

2.8 Spectator Shielding Glazing

.1 Tempered Safety Glass: ½" thick at glass areas to 48" height above the top of the boards, and 5/8" thick at glass areas to 72" height above the top of the boards.

.2 Boards shall include seamless Acrylic Glass at rink end at lobby.

.3 Boards shall be supported tempered glass at two (2) sides and back end of the rink.

.4 Three edges of the tempered glass shall be seamed edges channel sides and flat ground on the top side, and the two top corners shall have a ½" radius.

.5 Glazing shall be mounted in the middle of the caprail.

.6 At any interruption of the protective shielding, at glazing terminations and corners, there shall be protective non-branded high quality, vinyl covered urethane foam padding to prevent the injury of the players.

.7 Shielding shall be 1800 mm high at sides and ends as indicated on drawings.

.8 Shielding shall be 1800 mm high between benches and public aisle ways as indicated on drawings.

.9 Shielding between timekeepers benches and penalty benches shall be 1000 mm high unless otherwise indicated.

.10 Between players boxes, install aluminum termination posts that are attached only to the shielding that runs perpendicular to the perimeter boards. Posts to be set back from the perimeter boards not less than 18". Posts to be covered on 3 sides by vinyl covered urethane foam padding.

2.9 Kickplates

.1 Kickplates shall be fabricated of 1/2" thick HDPE colour impregnated sheets in 8" x 8'-0" segments.

.2 Colour of kickplate shall be selected from manufacturer's standard range of colours.

.3 The kickplate shall be fastened to the bottom of the arena panel using colour matched screws.

2.10 Thresholds

.1 Player gates and access gate thresholds shall have a 1" thick white HDPE covering that can be removed and replaced when wearing occurs.

.2 Thresholds of equipment and access gates shall be 1 ½" above rink level.

.3 Thresholds of public skating gates and players gates shall be 2 ½" above rink level.

2.11 Board Anchors

.1 The dasher board manufacturer shall be responsible for supply, locating and installation of anchors.

.2 All arena boards shall be tightly fastened to the refrigerated slab by means of zinc plated bolts.

.3 Provide removable board sections as indicated with concealed or removable anchor bolts to allow access. Provide snap-in covers with flush tops to fill the anchors when the boards are removed.

.4 Anchors shall be embedded in the apron slab

2.12 Advertising Panels

.1 Advertising panels shall be 39” x 94” at straight board sections and 39” x 86” at curved sections.

.2 Advertising panels shall consist of removable 1/8” clear polycarbonate sheets fastened to the ice side of the HDPE facing material and matching the HDPE in size. Panels shall be held in place with colour matched fasteners. Fasteners are to be a minimum of 12” O.C. about the perimeter and 24” O.C. elsewhere.

.3 Provide advertising panels as follows:
.1 Eight (8) straight board panels (39”x94”).
.2 four (8) curved board panels (39”x86”).
.3 Location and orientation of ad panels will be completed with the owner through the shop drawing submittal based on the quantity and sizing above.

2.13 Accessories

.1 Shield Removal Devices: Supply three (3) suction cup type glass lifting tools to facilitate removal and installation of shield glazing units.

2.14 Rubber Mat Flooring

.1 Rubber mat flooring in players, penalty and timekeepers bench shall be ¾” thick recycled rubber matting, colour black with longitudinal grooves at ¾” centres on the underside for air circulation and as manufactured by Royal Mat Inc. or approved equivalent.

2.15 Finishes

.1 All aluminum sections shall have a manufacturer’s standard anodized or mill finish.

.2 Anodizing shall be clear anodized finish equivalent to Aluminum Association designation AA M12C22A31 with 0.0002 inch minimum coating thickness.

.3 Plating: All precision ferrous hardware such as hinge pins, latches, casters, and miscellaneous nuts, bolts and fasteners shall be clear zinc electroplated or cadmium plated to allow for smooth operation.

PART 3 EXECUTION

3.1 Inspection

.1 Before commencing erection and installation, examine the work of other Sections to which the work of this Section will be attached.

.2 Examine apron slab.

.3 Report immediately in writing to the Consultant, all discrepancies in accuracy and suitability, conditions that will adversely affect the installation and permanency of the work of this Section.

.4 Ensure that openings and recesses to receive the work of this Section are within acceptable tolerances. Remove dust and other loose material from openings.

3.2 Preparation

.1 Supply all anchors and similar items, required to be installed in the work of other Sections. Provide instruction for proper installation and arrangement.

.2 Setting of base plates shall be done under the direct supervision of a representative of the dasherboard manufacturer. Supply all necessary templates and instructions to ensure a satisfactory installation. The dasherboard manufacturer shall be responsible for verifying the base plate layout on the concrete forms prior to pouring concrete.

.3 Space anchors at centres specified on the manufacturer's shop drawings.

.4 Fabricate panelized dasher board sections off site.

3.3 Installation

.1 The finished rink shall have dimensions as indicated. Site verify all dimensions including corner radii prior to preparation of shop and erection drawings.

.2 All dimensions shall be site verified prior to preparation of shop drawings.

.3 Install the arena board system in accordance with drawings and specifications.

.4 Ensure a complete arena system with all arenas and spectator shielding straight and true to line and properly braced. Set work level, plumb, square and true with uniform joints.

.5 Fasten the work securely as erection progresses. Provide all units with suitable temporary braces, shores, and stays to hold them in position until permanently secured.

.6 The flat top surface of the sill and 2" down the face of the dasherboards on the spectator side shall be encased in 0.22" thick plastic material secured with colour matched fastenings. Colour of sill to Owner's selection.

.7 Install surfacing material to inside surfaces of players, penalty and timekeepers boxes, including gates.

.8 Install surfacing material on spectator side of arena boards, at all raised floors, bleachers, aisles and stairs and wherever else indicated.

.9 All exposed edges of board surfacing materials shall be chamfered, rounded, ground or otherwise machined for safety.

.10 Adjust as necessary to ensure no openings or gaps in surfacing materials exceed 1/8" in width.

.11 Install advertising panels where indicated on reviewed shop drawings.

.12 Coordinate installation of wiring, conduit and devices for timekeeper's areas and general service electrical outlets at rink perimeter.

3.4 Player's, Penalty and Timekeeper Boxes and Benches

.1 Provide team boxes, penalty boxes and timekeeper's area and benches as specified and indicated on drawings.

.2 Install rubber mat flooring in players, penalty and timekeeper's benches in accordance with manufacturer's instructions. Install rubber matting to fit over base plates and anchor bolts at player's benches and penalty boxes.

3.5 Gates

.1 Provide access gates as indicated on the drawings.

.2 Access gates shall be to sizes indicated. Fabricate gates with aluminum tubular framing similar to board sections.

.3 Bevel edge of gate and jamb at latch side of gate. Allow minimum 3/8" clearance.

.4 Install and adjust hardware.

3.6 Spectator Shielding

.1 Lay out glass shields to minimize number of sizes required.

.2 Install support framing in accordance with the manufacturer's instructions.

.3 Spectator shielding glazing shall not be installed in front of team boxes. At shielding external corners on ice side, an easily replaceable protective corner bumper pad shall be provided for full mullion height.

.4 Between players boxes, install aluminum termination posts that are attached only to the shielding that runs perpendicular to the perimeter boards. Posts to be set back from the perimeter boards not less than 18". Posts to be covered on 3 sides by foam padding covered by a vinyl outer layer that has been tested and certified by engineers.

.5 Install tempered glass shields into support system. Provide EPDM gaskets at all supports.

.6 At timekeeper's benches, provide glass shields with 3 ¼" diameter "speak holes", located 66" above refrigerated slab surface on front panel and 51" above floor slab on side panels (penalty boxes)..

3.7 Protective Netting

.1 Existing protective netting is to be removed and replaced with new as indicated for the extents on the drawings. Note: new netting extents exceed the existing facility netting extents.

.2 Suspend netting from aircraft cable attached securely to a continuous 25 mm diameter galvanized steel conduit suspended and braced rigidly from the building structure. Alternative methods of suspension are not acceptable. Netting shall be minimum 3050 mm above top of

glass. Provide all necessary aircraft cable complete with turnbuckles to secure top rail. Secure bottom edge of netting to arena shields using manufacturer's standard clip assembly.

3.8 Sealants

.1 Upon completion of the dasherboard installation, and prior to placement of ice surfaces, seal entire perimeter of dasherboards at base to prevent leakage.

3.9 Adjusting

.1 Upon completion of the work of this Section, inspect, test and adjust installation.

.2 Test all operable elements and ensure easy and smooth operation

3.10 Cleaning

.1 Proceed in accordance with Section 01 74 10 – Cleaning.

.2 Upon completion of the work of this Section, remove all scrap materials from the site and leave premises in a neat and tidy condition.

.3 Prior to Substantial Performance, wipe down plastic surfacing materials and clean all marks in accordance with the manufacturer's directions.

.4 Clean glass in accordance with manufacturer's directions.

End of Section