

Parks Canada Agency

Northern Ontario Field Unit

Agence Parcs Canada

Unité de Gestion de Nord de l'Ontario

TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

PROJECT # 1433
PUKASKWA NATIONAL PARK

MARCH 2017

Canada

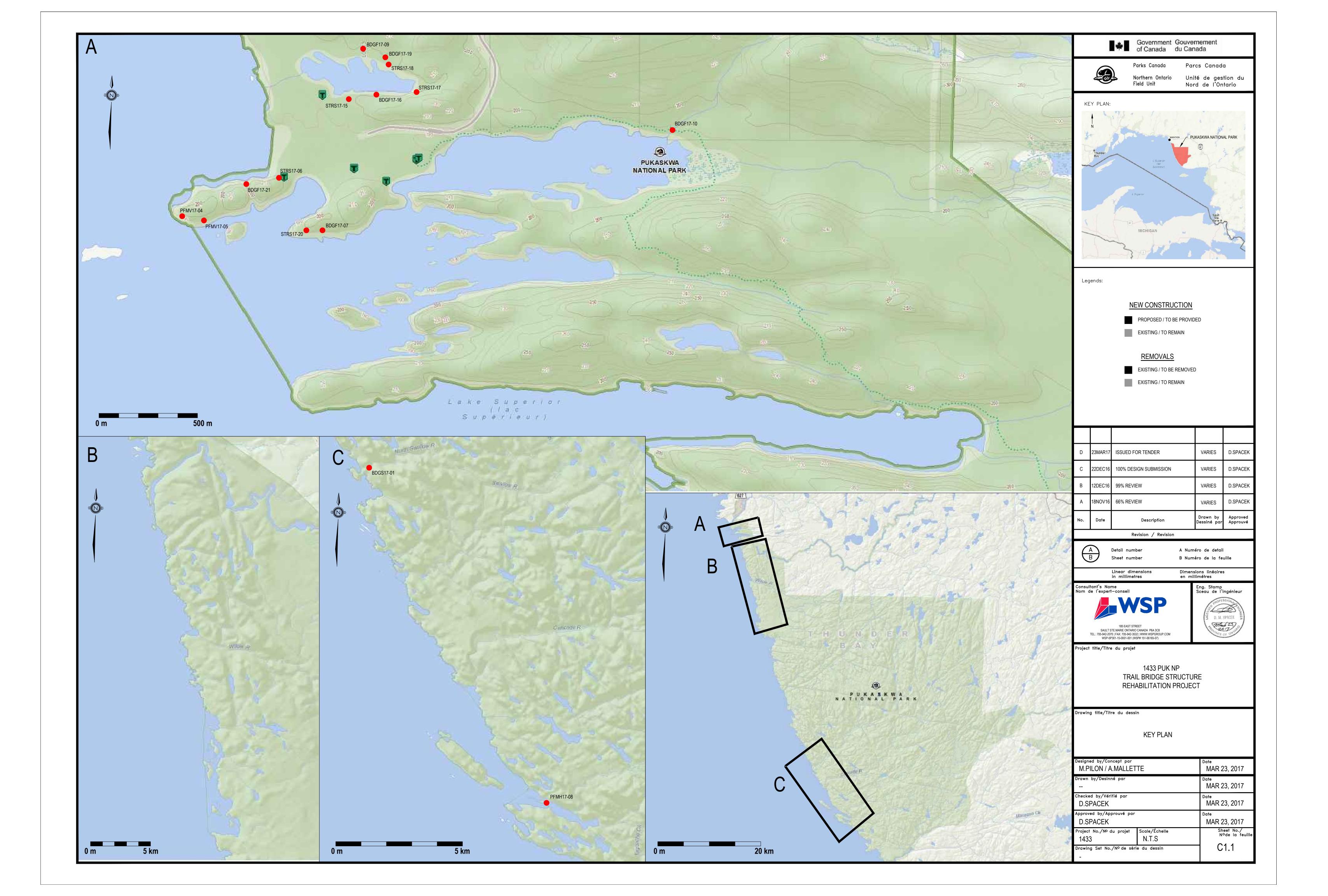
LIST OF DRAWINGS

C1.0	TITLE SHEET AND INDEX
C1.1	KEY PLAN
C1.2	GENERAL NOTES
C1.3	DETAILS SHEET 1 OF 2
C1.4	DETAILS SHEET 2 OF 2
C1.5	STRUCTURE 17-01
C1.8	STRUCTURE 17-04
C1.9	STRUCTURE 17-05
C1.10	STRUCTURE 17-06
C1.11	STRUCTURE 17-07
C1.12	STRUCTURE 17-08
C1.13	STRUCTURE 17-09
C1.14	STRUCTURE 17-10 SHEET 1 OF 2 (REMOVALS)
C1.15	STRUCTURE 17-10 SHEET 2 OF 2 (NEW CONSTRUCTION)
C1.18	STRUCTURE 17-15
C1.19	STRUCTURE 17-16
C1.20	STRUCTURE 17-17
C1.21	STRUCTURE 17-18
C1.22	STRUCTURE 17-19
C1.23	STRUCTURE 17-20 SHEET 1 OF 2 (REMOVALS)
C1.24	STRUCTURE 17-20 SHEET 2 OF 2 (NEW CONSTRUCTION)
C1.25	STRUCTURE 17-21 SHEET 1 OF 3 (REMOVALS)
C1.26	STRUCTURE 17-21 SHEET 2 OF 3 (NEW CONSTRUCTION)
C1.27	STRUCTURE 17-21 SHEET 3 OF 3 (NEW CONSTRUCTION)



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WSP PROJECT # (151-06165-07)



GENERAL

- 1. DRAWINGS TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS.
- 2. THE SCOPE OF WORK INDICATED ON THE DRAWINGS IS TO SERVE AS A GUIDE ONLY. ALL WORK INDICATED ON THE DRAWINGS SHALL BE COMPLETED REGARDLESS OF INCLUSION IN THE GENERAL SCOPE OF WORK.
- NOTIFY DEPARTMENTAL REPRESENTATIVE IF ANY DISCREPANCIES ARE FOUND BETWEEN THESE NOTES AND THE SPECIFICATIONS.
- 4. IN CASE OF CONFLICTING INFORMATION BETWEEN CONTRACT DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT SHALL GOVERN OR CONTRACTOR MUST SEEK CLARIFICATION IN WRITING FROM DEPARTMENTAL REPRESENTATIVE.
- ALL WORK IS TO CONFORM TO LATEST EDITION OF THE NATIONAL BUILDING CODE OF CANADA AND WITH ALL APPLICABLE CODES AND BYLAWS.
- BEFORE PROCEEDING WITH WORK, VERIFY DIMENSIONS SHOWN ON THE DRAWINGS AND REPORT DISCREPANCIES TO THE DEPARTMENTAL REPRESENTATIVE. REFER TO OTHER DRAWINGS FOR LOCATIONS AND DIMENSIONING OF APPURTENANCES NOT SHOWN ON THE STRUCTURE DRAWINGS. OBTAIN THE DEPARTMENTAL REPRESENTATIVES' APPROVAL BEFORE MODIFYING WORK TO SUIT EXISTING CONDITIONS WHICH ARE NOT SHOWN ON THE DRAWINGS.
- ALL DIMENSIONS GIVEN ON STRUCTURAL DRAWINGS ARE IN METRIC SYSTEM UNLESS OTHERWISE NOTED. DO NOT SCALE DRAWINGS.
- 8. WHERE EXISTING STAIR HANDRAILS ARE TO REMAIN, THE CONTRACTOR SHALL CONFIRM THE HEIGHT OF THE RAILING IS BETWEEN 865 MM AND 965 MM PRIOR TO INSTALLING GUARDS. NOTIFY THE DEPARTMENTAL REPRESENTATIVE OR DELEGATE IF THE HEIGHTS ARE OUTSIDE
- THE CONTRACTOR SHALL FACILITATE ALL MATERIAL TESTING REQUIRED BY THE DEPARTMENTAL REPRESENTATIVE. CONTRACTOR TO ORGANIZE AND COORDINATE AS REQUESTED.
- 10. THE PROJECT IS LOCATED IN A HISTORIC NATIONAL PARK OF CANADA, THEREFORE STANDARDS FOR ENVIRONMENTAL PROTECTION AND FOR VISUAL AESTHETICS OF FINAL PRODUCT SHALL BE OF THE HIGHEST QUALITY STANDARD. CONTRACT LIMITS SHALL BE STRICTLY ADHERED TO AND CONTRACTOR IS TO TAKE SPECIAL CARE TO MINIMIZE DAMAGE, DISRUPTION, AND PROTECT EXISTING FEATURES OF THE NATIONAL PARK ECOSYSTEM. THE DEPARTMENTAL REPRESENTATIVE OR DELEGATE IS TO BE NOTIFIED IMMEDIATELY IF ANY NATURAL OR CULTURAL RESOURCES OF INTEREST ARE LOCATED DURING CONSTRUCTION.
- 11. ALL WORK IS TO BE CONDUCTED IN ACCORDANCE WITH THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT.
- 12. THE CONTRACTOR SHALL FOLLOW THE RISK MANAGEMENT PLAN (RMP) PUT IN-PLACE BY THE DEPARTMENTAL REPRESENTATIVE. THIS IS AN ACTIVE PLAN AND MAY CHANGE DURING CONSTRUCTION BASED ON THE INCLUSION/EXCLUSION OF RISKS.
- 13. ALL STRUCTURES SHALL BE IN CONFORMANCE WITH THE FOLLOWING DESIGN STANDARDS:
- ONTARIO BUILDING CODE 2012 (OBC)
- NATIONAL BUILDING CODE OF CANADA 2010 (NBCC)
- CANADIAN HIGHWAY BRIDGE DESIGN CODE 2014 (CHBDC)
- CAN/CSA 086-14 ENGINEERING DESIGN IN WOOD
- CAN/CSA A23.3-14 DESIGN OF CONCRETE STRUCTURES
- 13. ALL CONTRACTOR SUBMITTALS SHALL BE DONE IN S.I. UNITS (METRIC) AND REFERENCE THE NOMINAL IMPERIAL MEASUREMENTS (I.E. 2X4).
- 14. THE CONTRACTOR SHALL SUBMIT A PROJECT SPECIFIC HEALTH AND SAFETY PLAN FOR REVIEW PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL ONLY PROCEED WITH CONSTRUCTION UPON ACCEPTANCE OF THE PROJECT SPECIFIC HEALTH AND SAFETY PLAN BY THE DEPARTMENTAL REPRESENTATIVE/DELEGATE.
- 15. THE CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN FOR STRUCTURES 17-01 AND 17-10 FOR REVIEW BY THE DEPARTMENTAL REPRESENTATIVE PRIOR TO DEMOLITION. THE CONTRACTOR SHALL ONLY PROCEED WITH CONSTRUCTION UPON ACCEPTANCE OF THE DEMOLITION PLAN BY THE DEPARTMENTAL REPRESENTATIVE/DELEGATE.
- 16. THE CONTRACTOR SHALL SUBMIT A TEMPORARY CROSSING PLAN FOR REVIEW PRIOR TO COMMENCING CONSTRUCTION FOR ALL STRUCTURES WHERE PUBLIC ACCESS WILL BE IMPACTED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PEDESTRIAN
- TRAFFIC SAFE MEANS OF CROSSING DURING CONSTRUCTION AS THE TRAILS WILL BE OPEN TO THE PUBLIC. TEMPORARY CROSSING FOR PARK USERS MUST BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE. 17. DESIGN OF ANY TEMPORARY CROSSINGS OR WORKS MUST BE CARRIED OUT BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO. THE ENGINEER SHALL BE RETAINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 18. THE CONTRACTOR SHALL SUBMIT A FIELD CUTTINGS MITIGATION PLAN TO THE DEPARTMENTAL REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION. THIS PLAN SHALL TAKE THE NECESSARY MEASURES TO ENSURE THAT NO DUST FROM THE CUTTING OF PRESSURE
- TREATED WOOD ENTERS THE ENVIRONMENT. THIS ALSO APPLIES FOR THE END TREATMENT OF WOOD MEMBERS.
- 19. THE CONTRACTOR SHALL MAINTAIN THE WORKSITE IN A TIDY CONDITION AND FREE FROM THE ACCUMULATION OF WASTE PRODUCTS AND DEBRIS. 20. USE DRAWINGS THAT ARE "ISSUED FOR CONSTRUCTION" AND WHICH ARE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. REFER TO THE DEPARTMENTAL REPRESENTATIVE TO ENSURE THE MOST CURRENT REVISIONS ARE USED.
- 21. ALL SECTIONS, DETAILS AND STATEMENTS NOTED AS "TYPICAL" APPLY TO LIKE/SIMILAR CONDITIONS IN THE STRUCTURE.
- 22. DRAWINGS SHOW THE COMPLETED STRUCTURE ONLY AND DO NOT SHOW TEMPORARY WORKS (IF REQUIRED).
- 23. THE CONSULTANT AND THE DEPARTMENTAL REPRESENTATIVE, AT TIMES, WILL CONDUCT INSPECTIONS OF THE WORK TO ENSURE GENERAL CONFORMANCE WITH THE DESIGN DRAWINGS. THIS DOES NOT REPLACE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND MAINTAIN A QUALITY CONTROL PROGRAM.
- 24. THE CONTRACTOR SHALL PROVIDE FOUR (4) COMPLETE SETS OF AS-CONSTRUCTED RECORD DRAWINGS. ALL CHANGES ARE TO BE SHOWN IN RED AND MUST BE CLEAN AND LEGIBLE.
- 25. NO BURNING IS PERMITTED.
- 26. THE CONTRACTOR SHALL ERECT SILT FENCING ALONG ALL WATER COURSES DURING CONSTRUCTION. WHERE DISTURBANCE IS CAUSED ON SLOPES (I.E. ABUTMENTS, ETC.) THE CONTRACTOR SHALL LEAVE THE SILT FENCING IN-PLACE ONCE THE WORK HAS BEEN COMPLETED TO ALLOW FOR THE REHABILITATION OF VEGETATION.
- 27. THE CONTRACTOR SHALL SUBMIT A SEDIMENT AND EROSION CONTROL PLAN PRIOR TO CONSTRUCTION.
- 28. THE CONTRACTOR SHALL PROVIDE ALL SHOP DRAWINGS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
- 29. THE CONTRACTOR SHALL REFER TO AND ADHERE BY THE PARKS CANADA (PCA) GUIDELINES FOR THE USE, HANDLING AND DISPOSAL OF TREATED WOOD 30. THE CONTRACTOR SHALL REFER TO AND ADHERE BY THE PARKS CANADA (PCA) BEST MANAGEMENT PRACTICES FOR TRAIL MAINTENANCE AND MODIFICATION.
- 31. ALL WORK WITHIN A 30 METER DISTANCE OF A WATER WAY SHALL ADHERE TO THE FISHERIES ACT. THE CONTRACTOR SHALL SUBMIT A WORK PLAN FOR ALL WORK WITHIN A 30 METER DISTANCE TO A WATERWAY
- 32. THE USE OF SEED IS PROHIBITED.
- 33. ALL WORK SHALL CONFORM TO THE ENVIRONMENTAL BASIC IMPACT ANALYSIS (BIA). REFER TO THE CONTRACT SPECIFICATIONS.

MATERIALS

- 1. ALL PROPOSED UPGRADES SHALL BE CONSTRUCTED WITH NEW MATERIAL ONLY. EXISTING WOODEN COMPONENTS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN STRICT ACCORDANCE WITH APPLICABLE STANDARDS.
- 2. MATERIAL USED FOR CONSTRUCTION SHALL BE FREE OF ANY DEFECTS.
- THE CONTRACTOR SHALL REPLACE AT THEIR COST ANY DAMAGED WOOD AS A RESULT OF CONSTRUCTION THAT IS NOT SPECIFIED FOR REMOVAL. 4. LUMBER TO CSA 141-05 & NLGA-2004 STANDARD GRADING RULES FOR CANADIAN LUMBER. ALL WOOD SHALL BEAR A CERTIFICATION/GRADE STAMP.
- PRESERVED WOOD TO CSA -080 SERIES-15.
- 6. PRESERVED WOOD SHALL BE TREATED WITH AMMONIACAL COPPER QUATERNARY (ACQ). ANY OTHER PROPOSED TREATMENTS ARE SUBJECT TO APPROVAL BY THE DEPARTMENTAL REPRESENTATIVE OR DELEGATE.
- ALL PRESERVATIVE TREATED WOOD SPF NO.2 OR BETTER UNLESS OTHERWISE NOTED.
- 8. ALL PRESERVATIVE TREATED WOOD SHALL BE SHOP CUT AS MUCH AS POSSIBLE. WHERE FIELD CUTS ARE REQUIRED, TOUCH UP WITH CLEAR-COLOURED SURFACE WOOD PRESERVATIVE TO ALL CUTS. THE CONTRACTOR SHALL TAKE THE NECESSARY MEASURES TO ENSURE THAT
- NO DUST FROM THE CUTTING OF WOODEN COMPONENTS, OR CHEMICALS FROM END-TREATMENT ENTERS THE ENVIRONMENT. 9. NO OVERCUTTING OF WOOD COMPONENTS ARE PERMITTED.
- 10. FOR ALL BURIED, PERMANENT GROUND CONTACT, OR CONTINUALLY WET WOOD COMPONENTS, USE HEMLOCK (NON-PRESSURE TREATED) BLOCKING UNDER PRESSURE TREATED COMPONENTS.
- 11. ADHESIVES USE LOCTITE PL PREMIUM CONSTRUCTION ADHESIVE OR APPROVED ALTERNATE TO CSA 0122-16
- 12. ALL HARDWARE TO BE GALVANIZED (600G/M2) UNLESS OTHERWISE NOTED.
- 13. ALL HARDWARE AND FASTENERS SHALL BE AMMONIACAL COPPER QUATERNARY (ACQ) COMPATIBLE.
- 14. ALL LAG BOLTS SHALL BE PROPERLY PRE-DRILLED.
- 15. HOT-DIP GALVANIZING TO CSA G164-92.
- 16. USE ONLY HOT DIPPED GALVANIZED NAILS AND SCREWS.
- 17. NAILS AND SPIKES TO BE COMMON ROUND STEEL WIRE NAILS TO CSA B111-74 UNLESS NOTED OTHERWISE.
- 18. ALL NAILS ARE TO BE HAND DRIVEN. REQUESTS FOR POWER DRIVEN NAILS MUST BE REVIEWED BY THE CONSULTANT PRIOR TO USE.
- 19. ALL WOOD MEMBERS TO BE CONTINUOUS (NO SPLICING) UNLESS OTHERWISE NOTED.
- 20. ALTERNATIVES MAY BE CONSIDERED. SUBMIT PROPOSAL IN WRITING FOR ALTERNATIVE PRODUCTS AND ALLOW FOR RESPONSE TIME OF 7 CALENDAR DAYS.
- 21. THE CONTRACTOR SHALL ADJUST THE LOCATIONS OF THE HANDRAIL POSTS IN THE FIELD TO ALLOW FOR INSTALLATION OF SIMPSON DPT 77 HANDRAIL POST FASTENER. ENSURE A MAXIMUM POST SPACING (CENTRE TO CENTRE) OF 1.2 METERS IS MAINTAINED. 22. SIMPSON DRT 77 SHALL BE INSTALLED ON ALL NEW AND EXISTING POSTS ACTING WITHIN A HANDRAIL SYSTEM. THIS IS REQUIRED ON ALL STRUCTURES.

REMOVALS

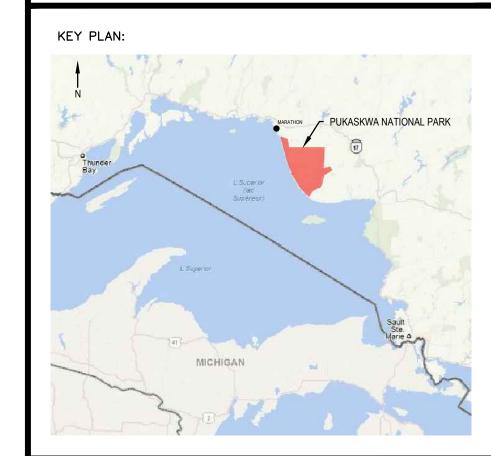
- ALL REMOVALS ARE TO BE CARRIED OUT WITH PRECAUTIONS FOR THE SAFETY OF THE WORKERS AND THE PARK USERS.
- DEMOLITION WORK SHALL BE CARRIED OUT WITHOUT CAUSING OVERSTRESS OR EXCESSIVE DEFLECTION TO ANY PART OF THE EXISTING WORK WHICH IS TO REMAIN. THE CONTRACTOR IS RESPONSIBLE TO MAKE GOOD ANY DAMAGE CAUSED DURING DEMOLITION.
- CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION SITE DAILY.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR ALL DISPOSAL/TIPPING FEES.
- THE CONTRACTOR SHALL DISPOSE OF CONSTRUCTION DEBRIS AT LEGALLY DESIGNATED SITES IN ACCORDANCE WITH APPLICABLE LAWS.
- 6. THE REMOVAL OF STRUCTURE 17-01 AND 17-10 SHALL BE CONDUCTED WITH RESPECT TO THE SURROUNDING ENVIRONMENT. THE CONTRACTOR SHALL MAKE PROVISIONS SUCH THAT NO DEBRIS IS ALLOWED TO ENTER INTO THE WATERWAY DURING THE REMOVAL OF THESE STRUCTURES.

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<u>N</u>	IEW CONSTRUCTION
	PROPOSED / TO BE PROVID
	EXISTING / TO REMAIN

REMOVALS

EXISTING / TO BE REMOVED
EXISTING / TO REMAIN

No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
А	18NOV16	66% REVIEW	VARIES	D.SPACEK
В	12DEC16	99% REVIEW	VARIES	D.SPACEK
С	22DEC16	100% DESIGN SUBMISSION	VARIES	D.SPACEK
D	23MAR17	ISSUED FOR TENDER	VARIES	D.SPACEK

Revision / Revision



Legends:

Detail number Sheet number

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A Numéro de detail B Numéro de la feuille

Linear dimensions Dimensions linéaires in millimetres en millimétres

Consultant's Name Nom de l'expert—consei



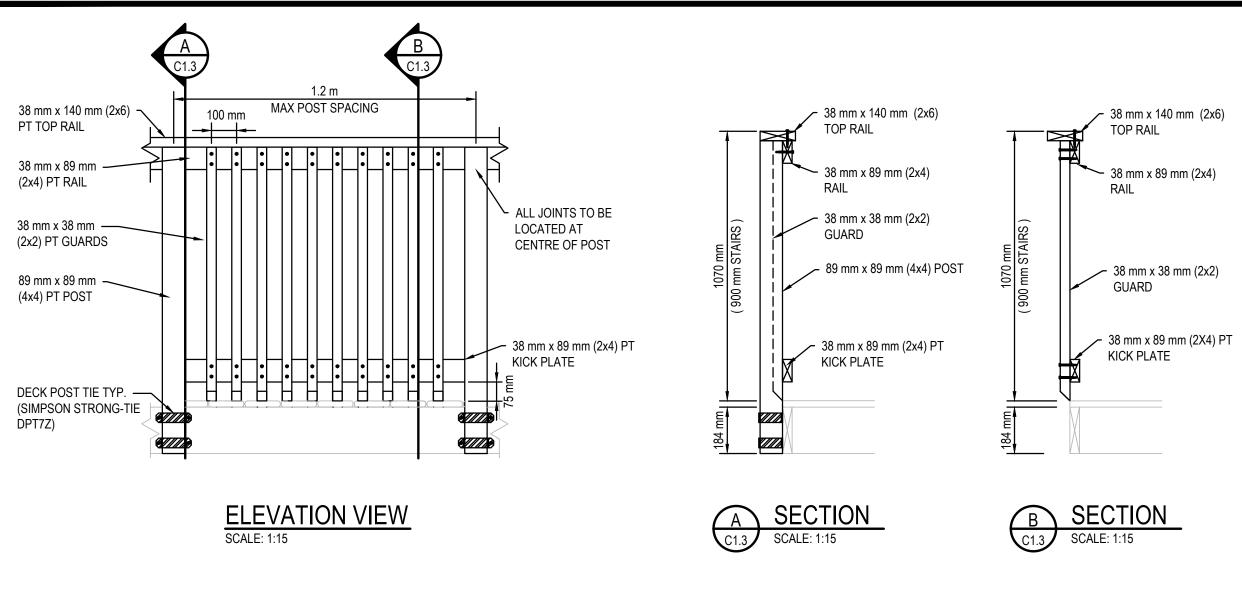
Project title/Titre du projet

1433 PUK NP TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

Drawing title/Titre du dessin

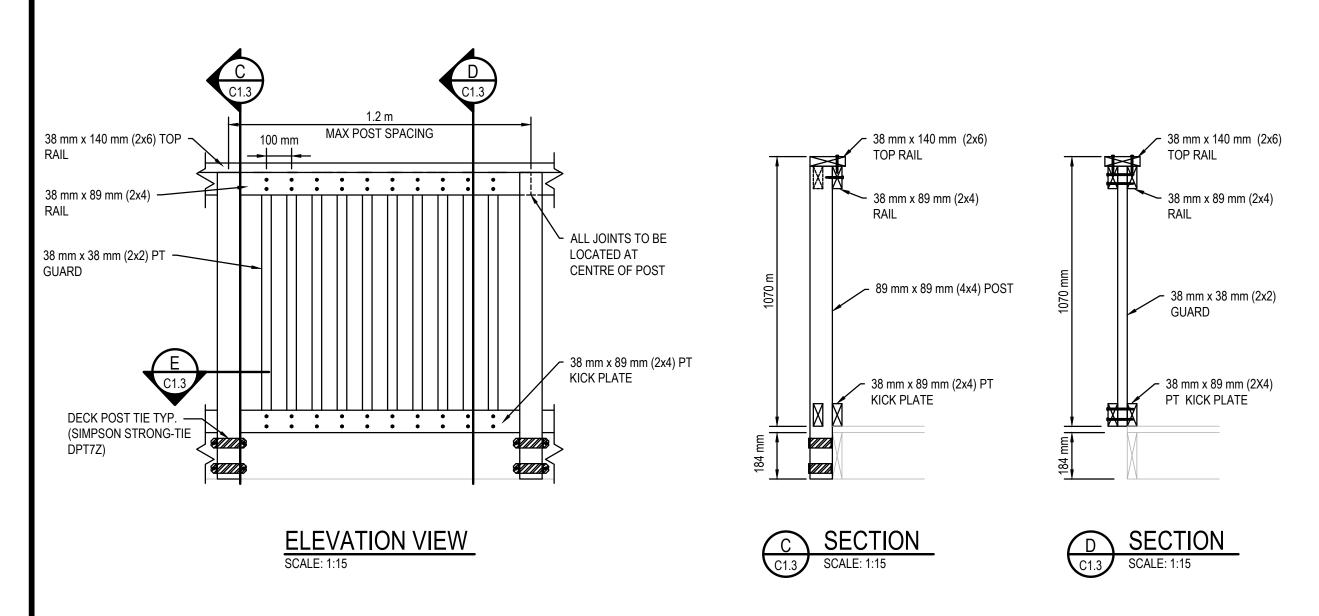
GENERAL NOTES

M.PILON / A.MALLET	TE	MAR 23, 2017
Drawn by/Desinné par 		MAR 23, 2017
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017
Approved by/Approuvé par D.SPACEK		Date MAR 23, 2017
Project No./No du projet	Scale/Échelle AS NOTED	Sheet No./ Nºde la feuille
Drawing Set No./Nº de séri	C1.2	

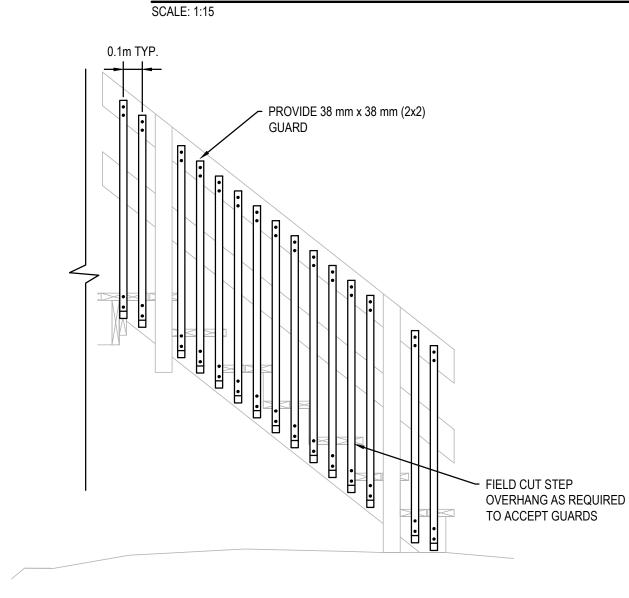


NOTE: ALL FASTENERS TO BE #8 SCREWS (63 mm) - REFER TO SPECIFICATIONS

DETAIL 1 - TYPICAL STRUCTURE POST, RAILING, AND GUARD SYSTEM

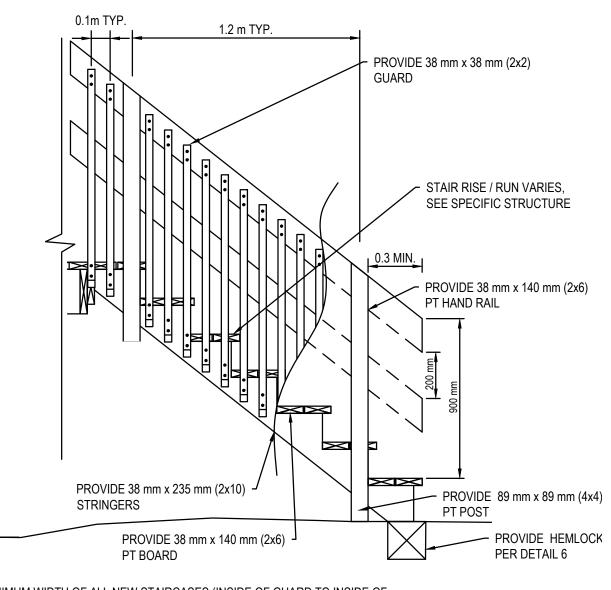


NOTE: ALL FASTENERS TO BE #8 SCREWS (63 mm) - REFER TO SPECIFICATIONS DETAIL 2 - TYPICAL VIEWING PLATFORM POST, RAILING, AND GUARD SYSTEM SCALE: 1:15



NOTE: ALTHOUGH NOT SHOWN FOR CLARITY, INSTALL SIMPSON POST SUPPORT BRACKETS ON ALL EXISTING AND PROPOSED RAILING POSTS.

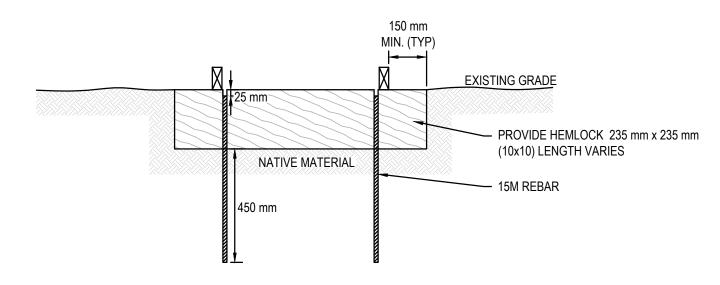
DETAIL 3 - STAIRCASE GUARD DETAIL EXISTING STAIRS



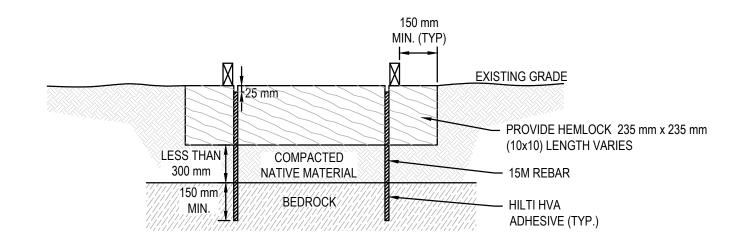
NOTE: MINIMUM WIDTH OF ALL NEW STAIRCASES (INSIDE OF GUARD TO INSIDE OF GUARD) SHALL BE 900 mm UNLESS OTHERWISE NOTED NOTE: ALTHOUGH NOT SHOWN FOR CLARITY, INSTALL SIMPSON POST SUPPORT BRACKETS ON ALL EXISTING AND PROPOSED RAILING POSTS.

DETAIL 4 - STAIRCASE GUARD DETAIL PROPOSED STAIRS

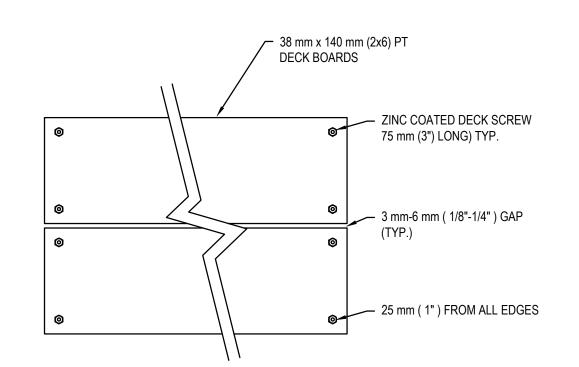
SCALE: N.T.S



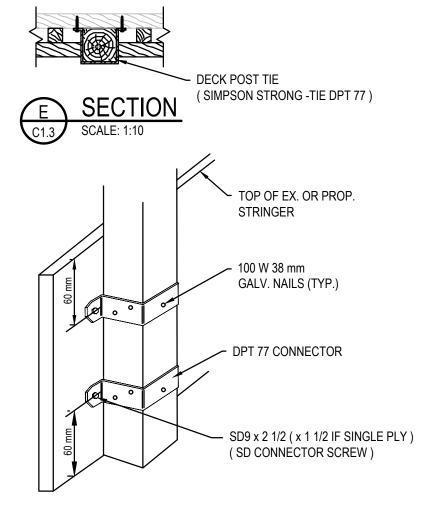
DETAIL 5 - HEMLOCK SLEEPER DETAIL - TYPE A
SCALE: 1:15



DETAIL 6 - HEMLOCK SLEEPER DETAIL - TYPE B



DETAIL 7 - DECK BOARD INSTALLATION
SCALE: NTS



DECK/RAILING POST TIE DETAIL SCALE: N.T.S

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Legends:

NEW CONSTRUCTION

PROPOSED / TO BE PROVIDED

REMOVALS

EXISTING / TO REMAIN

EXISTING / TO BE REMOVED

EXISTING / TO REMAIN

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D	23MAR17	ISSUED FOR TENDER	VARIES	D.SPACEK

Revision / Revision

Detail number

A Numéro de detail B Numéro de la feuille

Dimensions linéaires en millimétres in millimetres



Eng. Stamp Sceau de l'ingénieur D. M. SPACEK Mach 23)

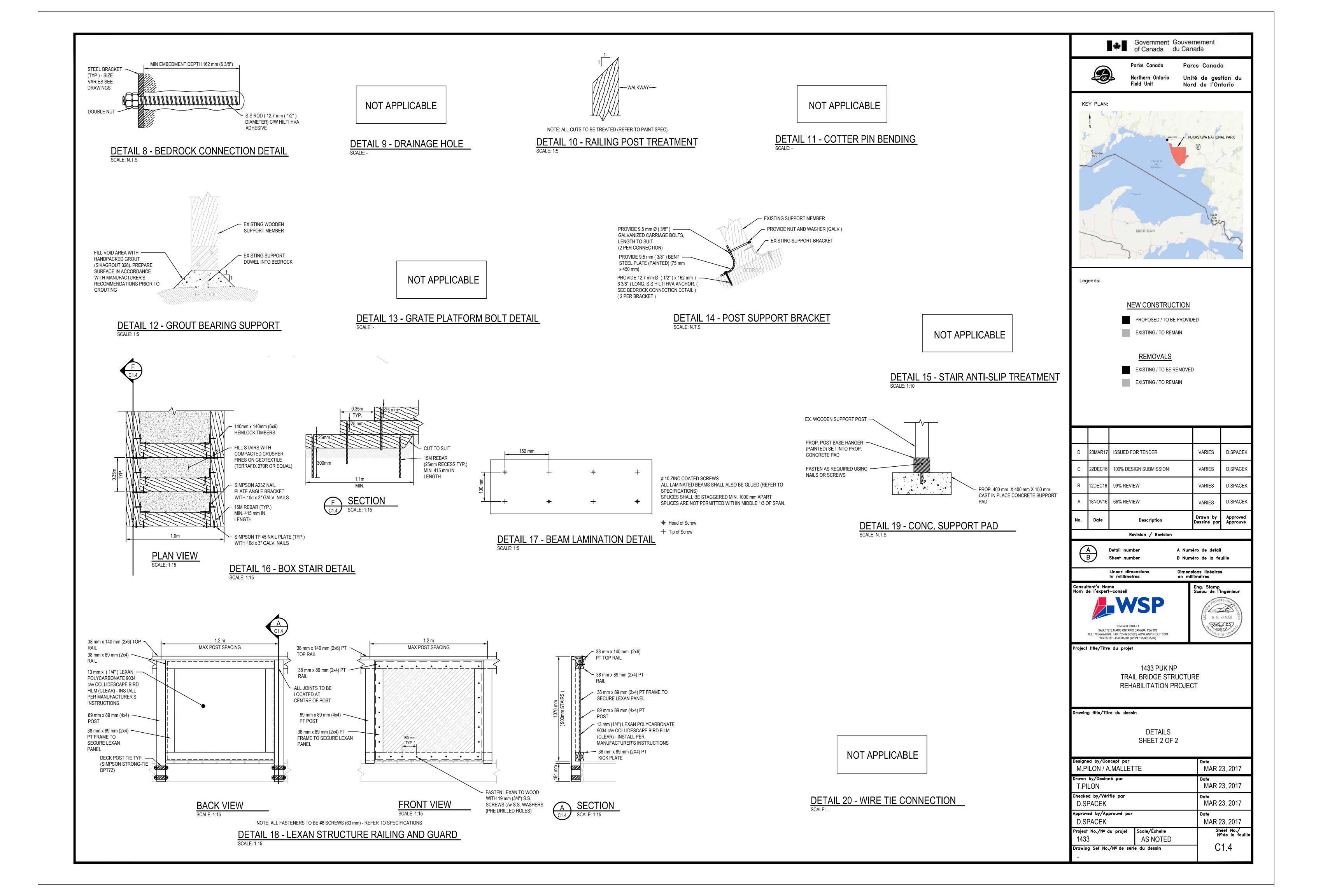
Project title/Titre du projet

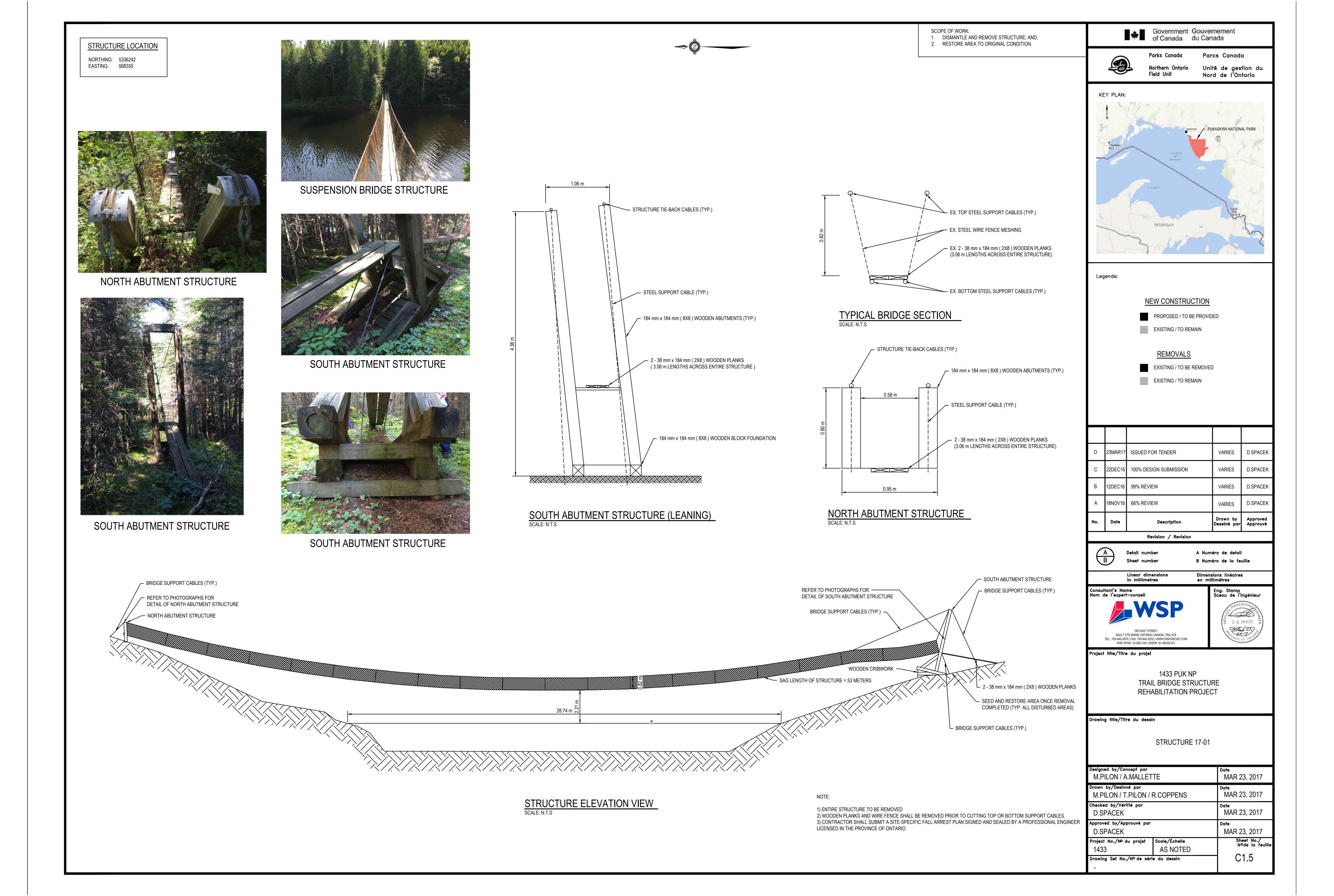
1433 PUK NP TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

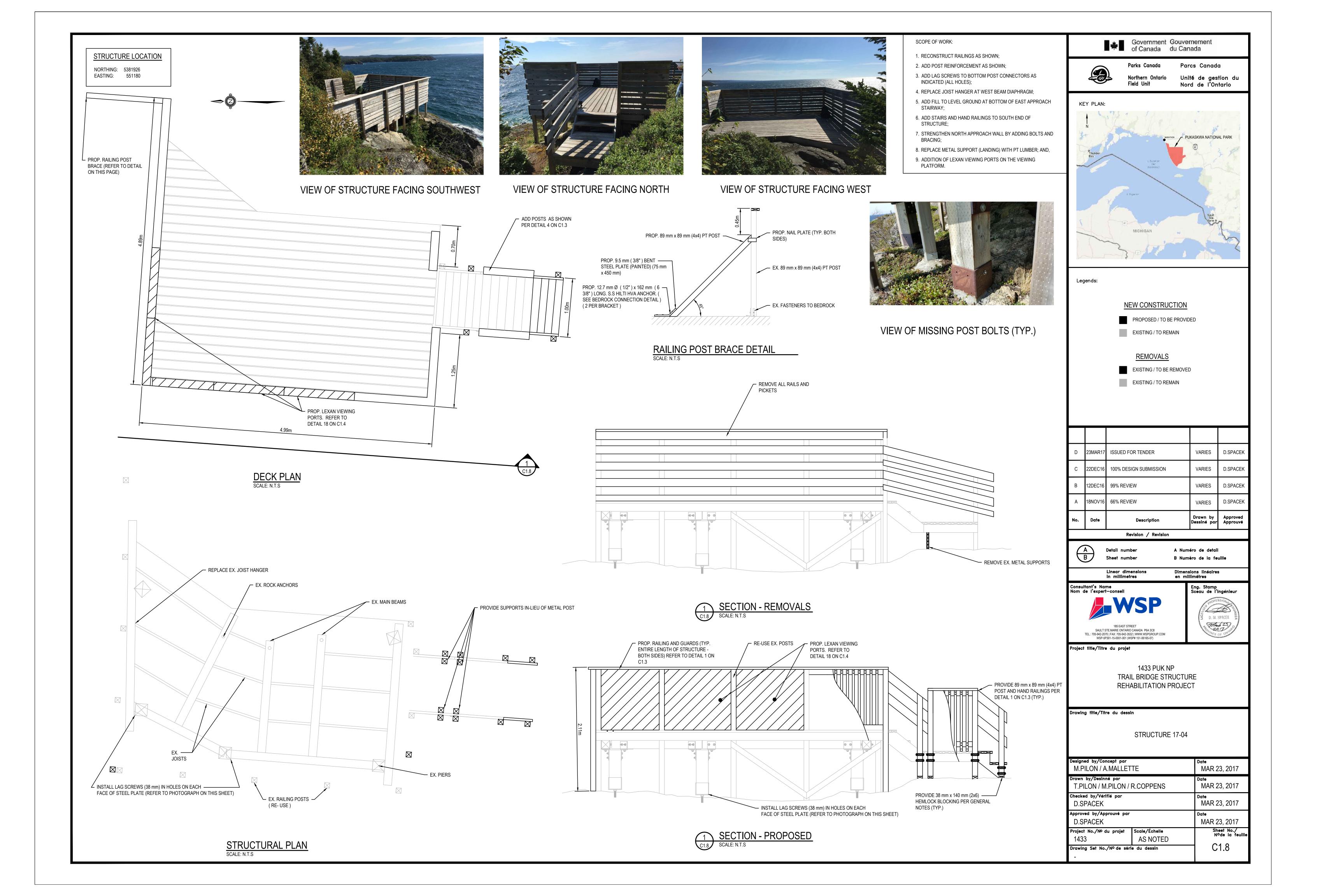
Drawing title/Titre du dessin

DETAILS SHEET 1 OF 2

Project No./No du projet 1433	Scale/Échelle AS NOTED	Sheet No./ N°de la feuille C1.3
Approved by/Approuvé par D.SPACEK		Date MAR 23, 2017
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017
Drawn by/Desinné par T.PILON		Date MAR 23, 2017
Designed by/Concept par M.PILON / A.MALLET	ITE	MAR 23, 2017







STRUCTURE LOCATION NORTHING: 5381930 EASTING: 551272 PROP. 89 mm x 89 mm (4x4) PT POST -PROP. 89 mm x 89 mm (4x4) PT POST — PROP. 9.5 mm (3/8") BENT ——— PROP. 9.5 mm (3/8") BENT ——— - PROP. NAIL PLATE (TYP. BOTH STEEL PLATE (PAINTED) (75 mm STEEL PLATE (PAINTED) (75 mm x 450 mm) x 450 mm) EX. 89 mm x 89 mm (4x4) PT POST PROP. 12.7 mm Ø (1/2") x 162 mm ——— PROP. 12.7 mm Ø (1/2") x 162 mm ——— (6 3/8") LONG. S.S HILTI HVA ANCHOR. (6 3/8") LONG. S.S HILTI HVA ANCHOR. (SEE BEDROCK CONNECTION DETAIL) (SEE BEDROCK CONNECTION DETAIL) - EX. FASTENERS TO BEDROCK (2 PER BRACKET) (2 PER BRACKET) RAILING POST BRACE DETAIL (EX. POST) PROP. RAILING POST ----BRACE (REFER TO DETAIL ON THIS PAGE) REPLACE EX. WINDSCREEN WITH 19 mm x 140 mm (1x6) VERTICAL PT BOARDS c/w 100 mm SPACING PORTS. REFER TO DETAIL 18 ON C1.4

DECK PLAN SCALE: N.T.S EX. ROCK ANCHORS -EX. MAIN BEAMS EX. JOISTS -PIERS **RAILING** POSTS

STRUCTURAL PLAN SCALE: N.T.S

INSTALL LAG SCREWS (38 mm) IN HOLES ON EACH

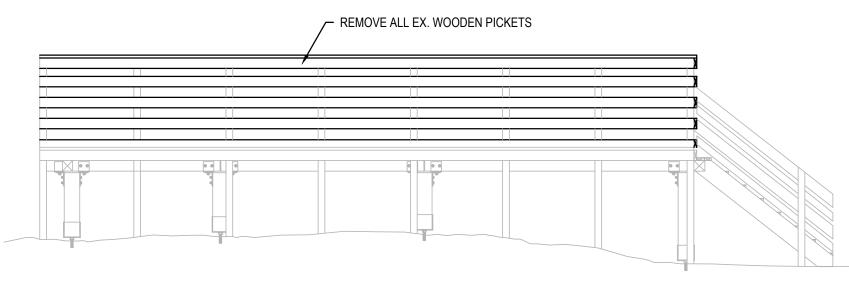
FACE OF STEEL PLATE (REFER TO PHOTOGRAPH ON THIS SHEET)

INSTALL WOODEN SHIMS IN ALL LOCATIONS

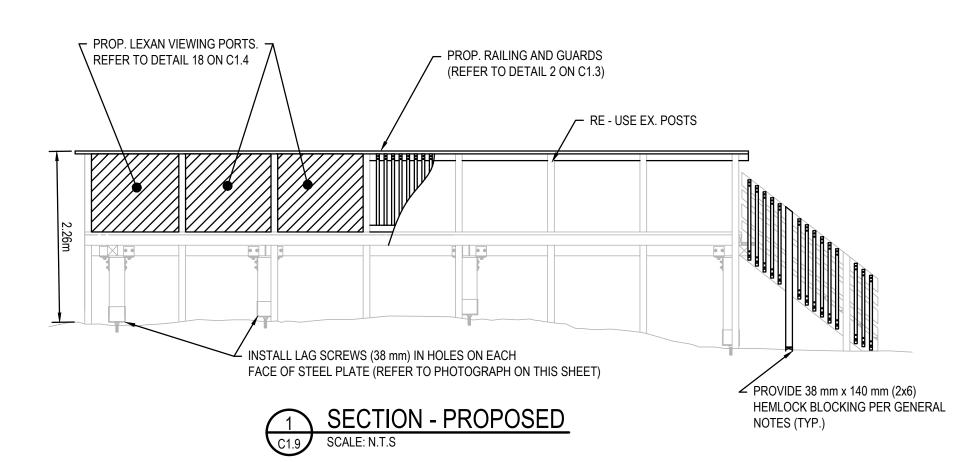
WHERE THE EX. DECKING DOES NOT SIT ON THE SUPPORT POSTS

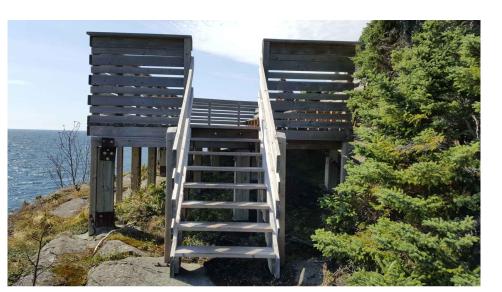
SCOPE OF WORK:

- 1. RECONSTRUCT RAILINGS WITH GUARDS AS SHOWN;
- 2. ADD RAILING POST REINFORCEMENT AS SHOWN;
- 3. ADD LAG SCREWS TO BOTTOM POST CONNECTORS AS INDICATED (ALL HOLES);
- 4. DECK JOISTS NOT BEARING ON SOUTH BEAM AT SOME LOCATIONS. ADD SHIMS TO PROVIDE BEARING ON BEAM;
- 5. SUPPORT ON WALL EXTENSION NOT PROPERLY FASTENED, ADD
- BRACE FOR ENHANCED SUPPORT: 6. SHIMS SHOULD BE ADDED BENEATH THE STRUCTURE FOR
- ADEQUATE LOAD TRANSFER; 7. EX. WINDSCREEN - REPLACE HORIZONTAL PICKETS WITH VERTICAL PICKETS SPACED AT 100 MM; AND,
- 8. ADDITION OF LEXAN VIEWING PORTS ON THE VIEWING PLATFORM.









- PROP. NAIL PLATE (TYP. BOTH

EX. 89 mm x 89 mm (4x4) PT POST

RAILING POST BRACE DETAIL (PROP. POST)
SCALE: N.T.S

PROP. RAILING AND GUARDS (PER

DETAIL 2 ON C1.3)

VIEW OF STRUCTURE FACING NORTH



VIEW OF STRUCTURE FACING NORTHEAST



VIEW OF STRUCTURE FACING SOUTHWEST



VIEW OF MISSING SUPPORT BOLTING ADD LAG SCREWS

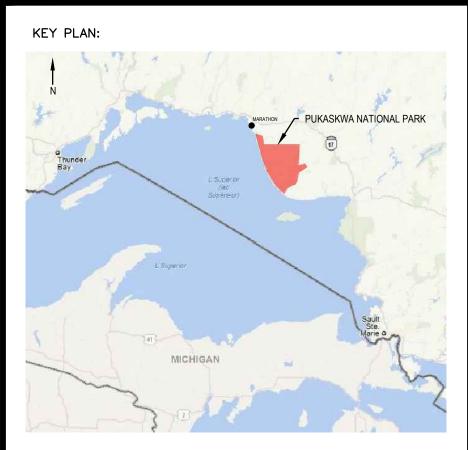


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NEW CONSTRUCTION

PROPOSED / TO BE PROVIDED EXISTING / TO REMAIN

<u>REMOVALS</u>

EXISTING / TO BE REMOVED EXISTING / TO REMAIN

No	Date	Description	Drawn by	Approved
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Revision / Revision

A Numéro de detail B Numéro de la feuille

Dimensions linéaires en millimétres Linear dimensions in millimetres



SAULT STE.MARIE ONTARIO CANADA P6A 3C8
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WSP-5P301-15-0001-001 (WSP# 151-06165-07)



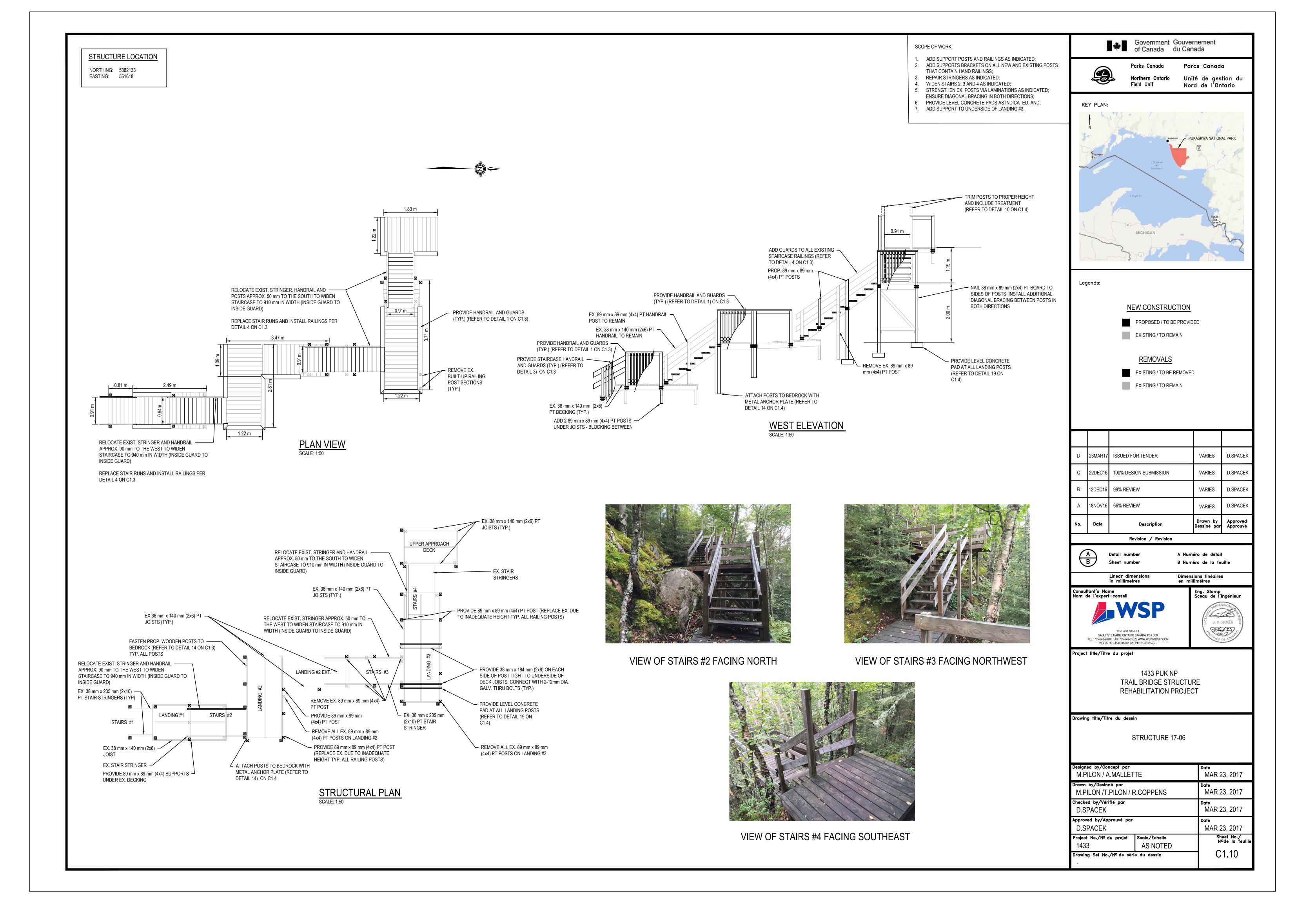
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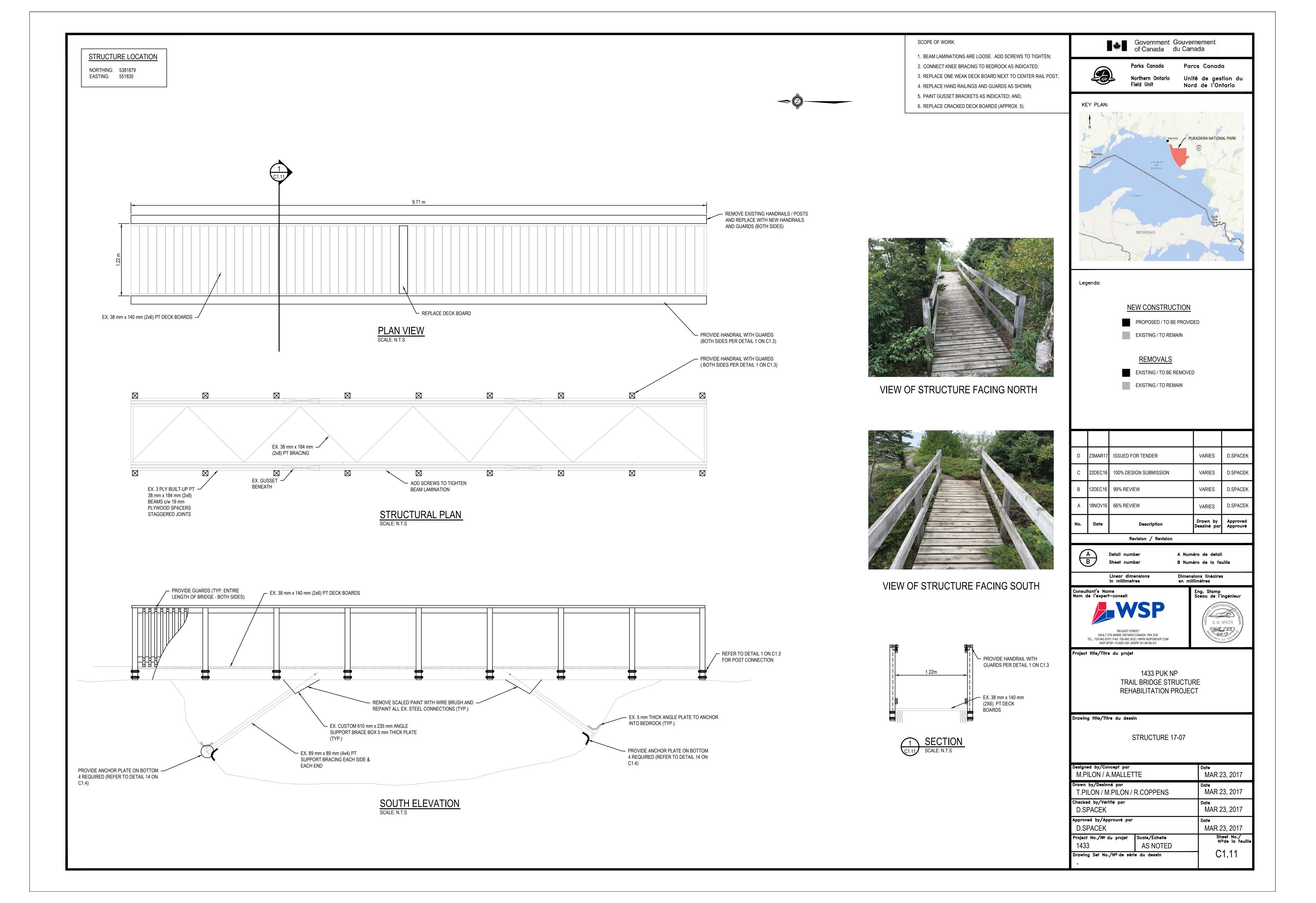
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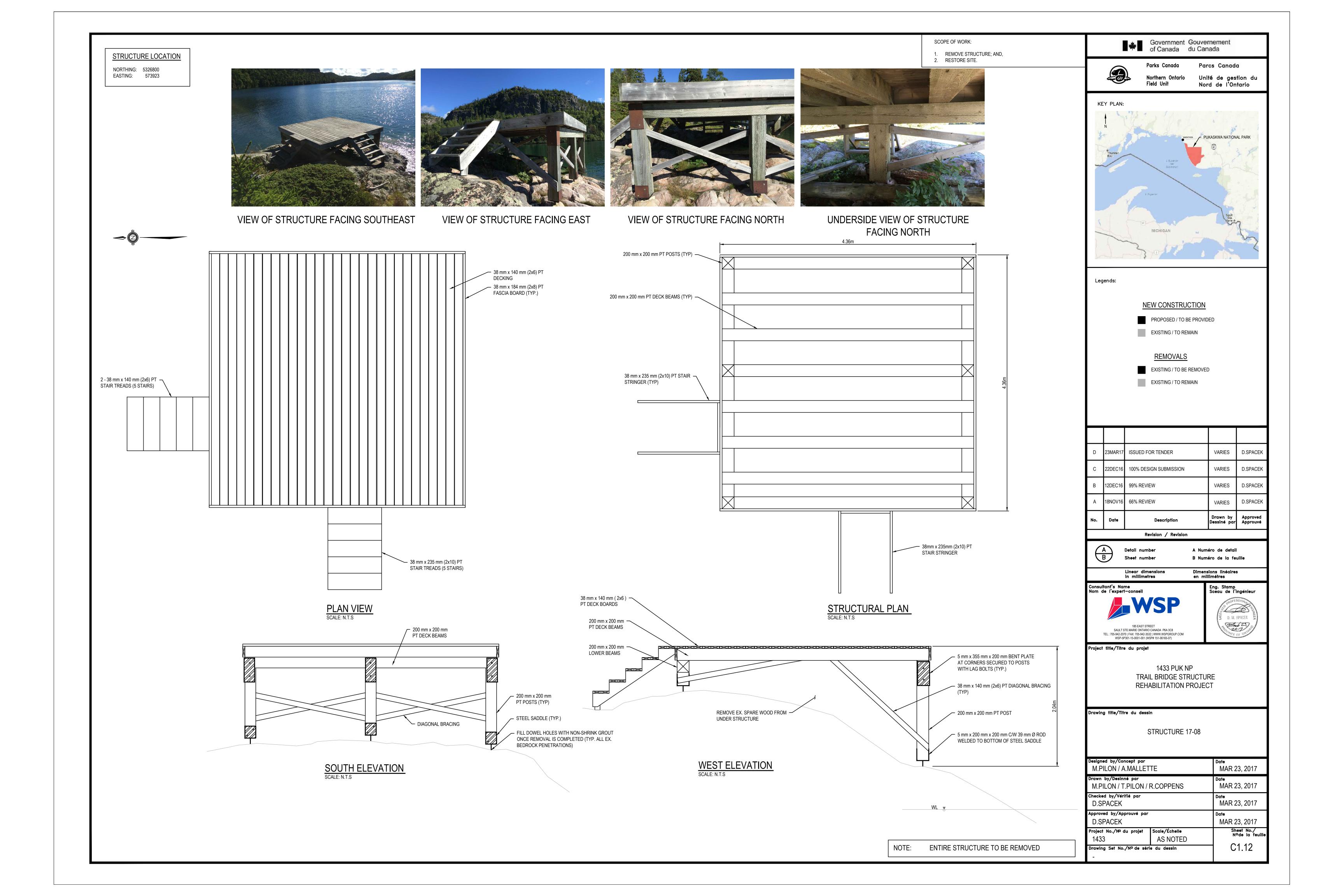
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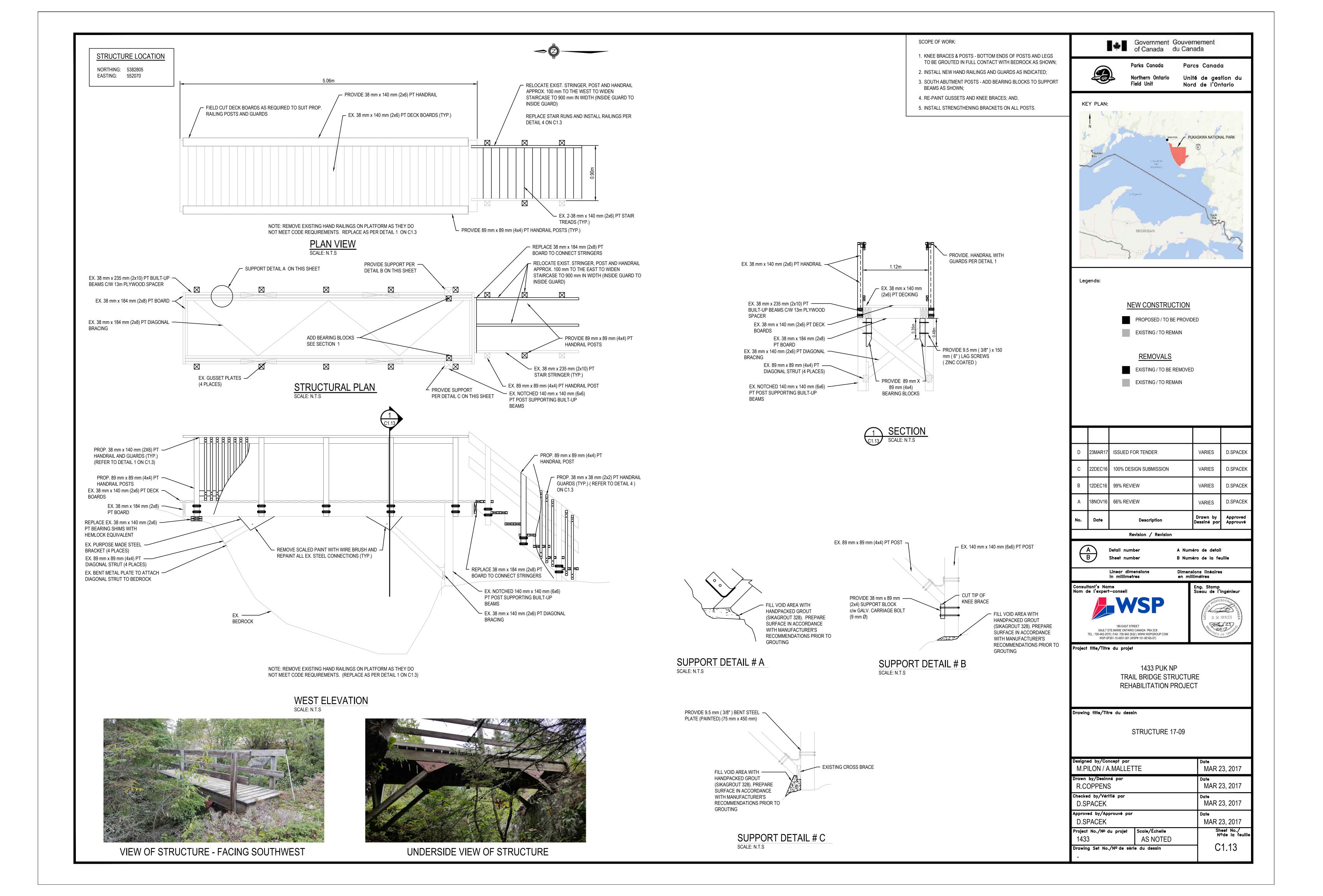
STRUCTURE 17-05

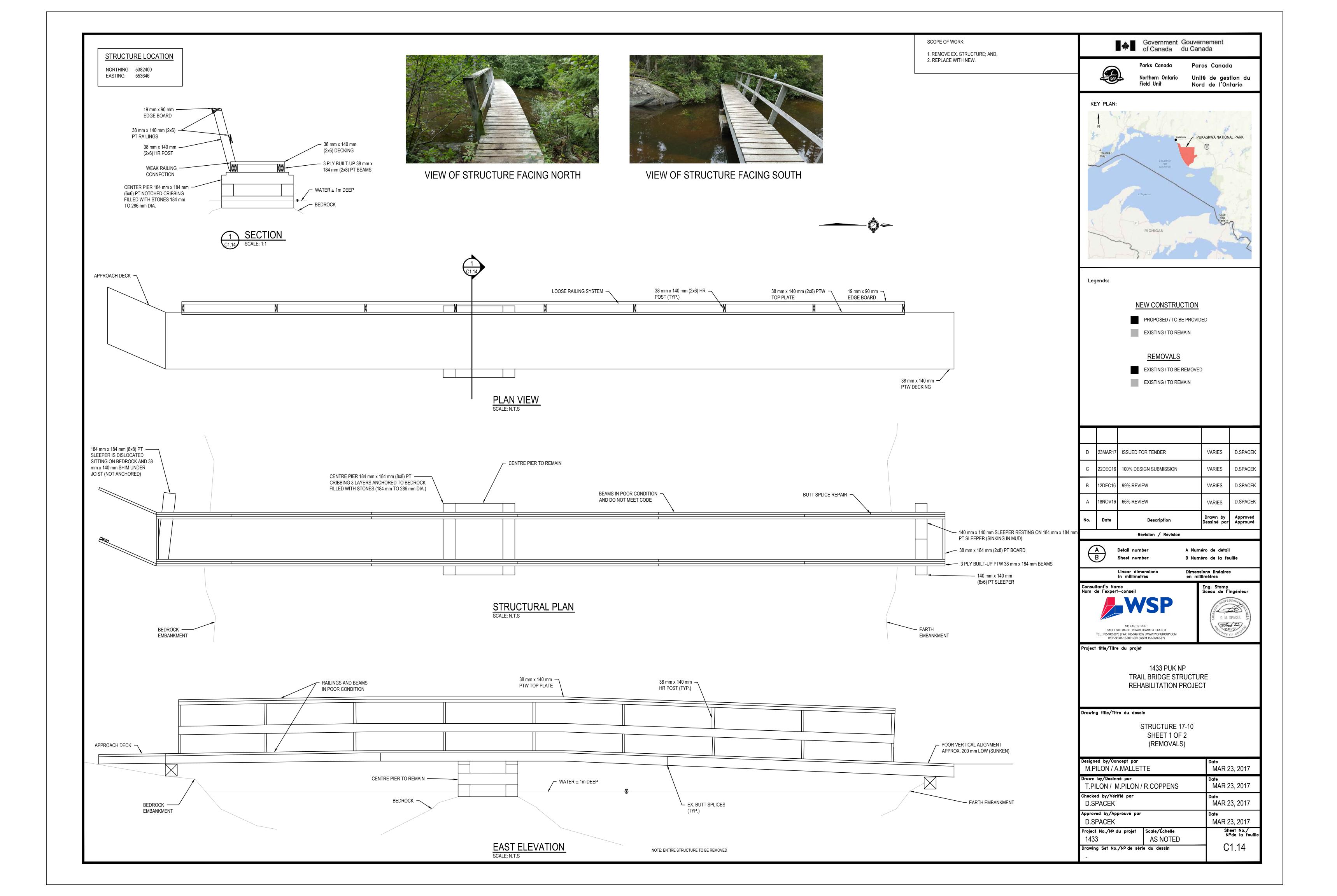
Designed by/Concept par M.PILON / A.MALLET	TE	Date MAR 23, 2017
Drawn by/Desinné par T.PILON / M.PILON /	R.COPPENS	Date MAR 23, 2017
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017
Approved by/Approuvé par D.SPACEK		Date MAR 23, 2017
Project No./No du projet	Scale/Échelle AS NOTED	Sheet No./ N°de la feuille
Drawing Set No./Nº de série du dessin		C1.9

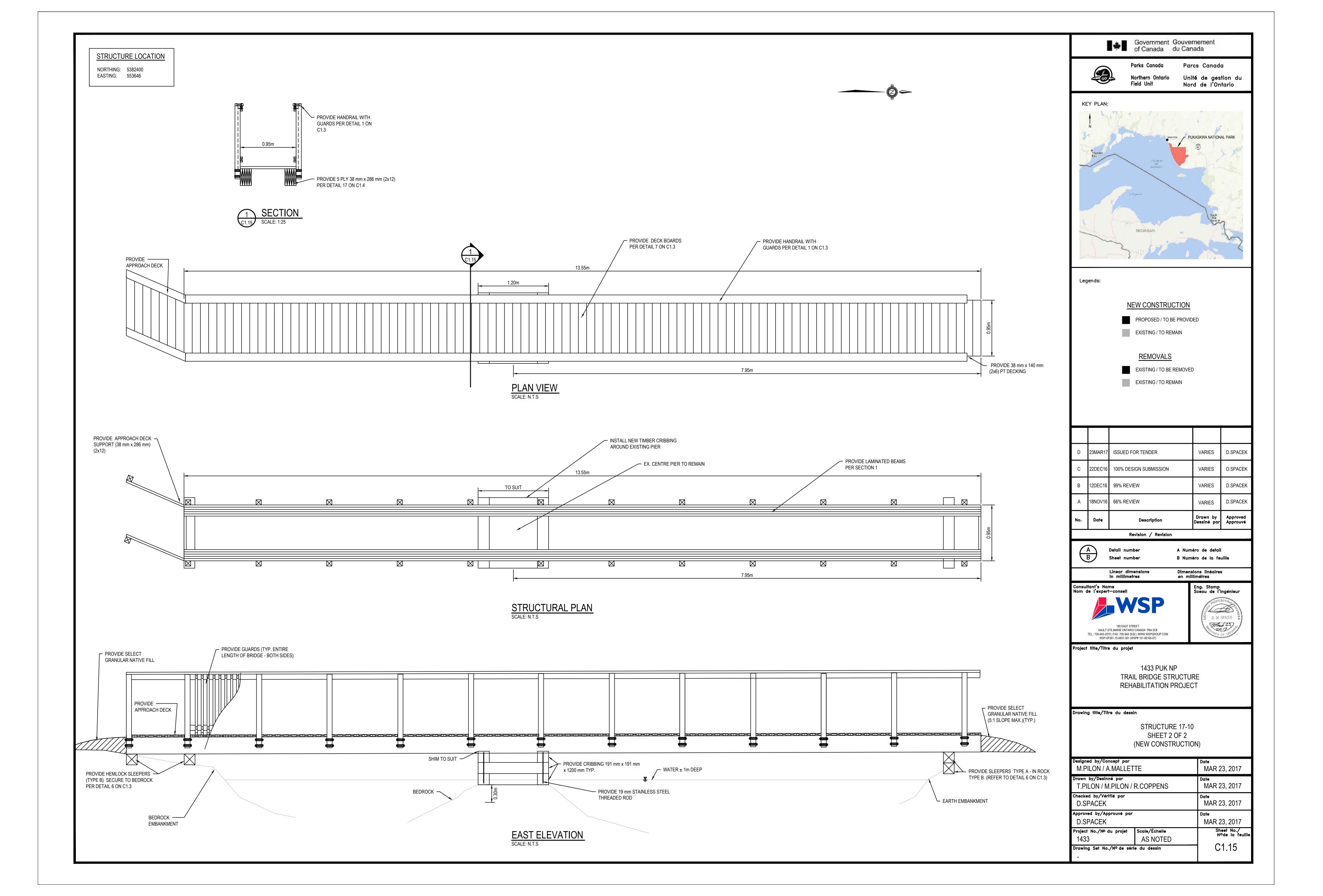


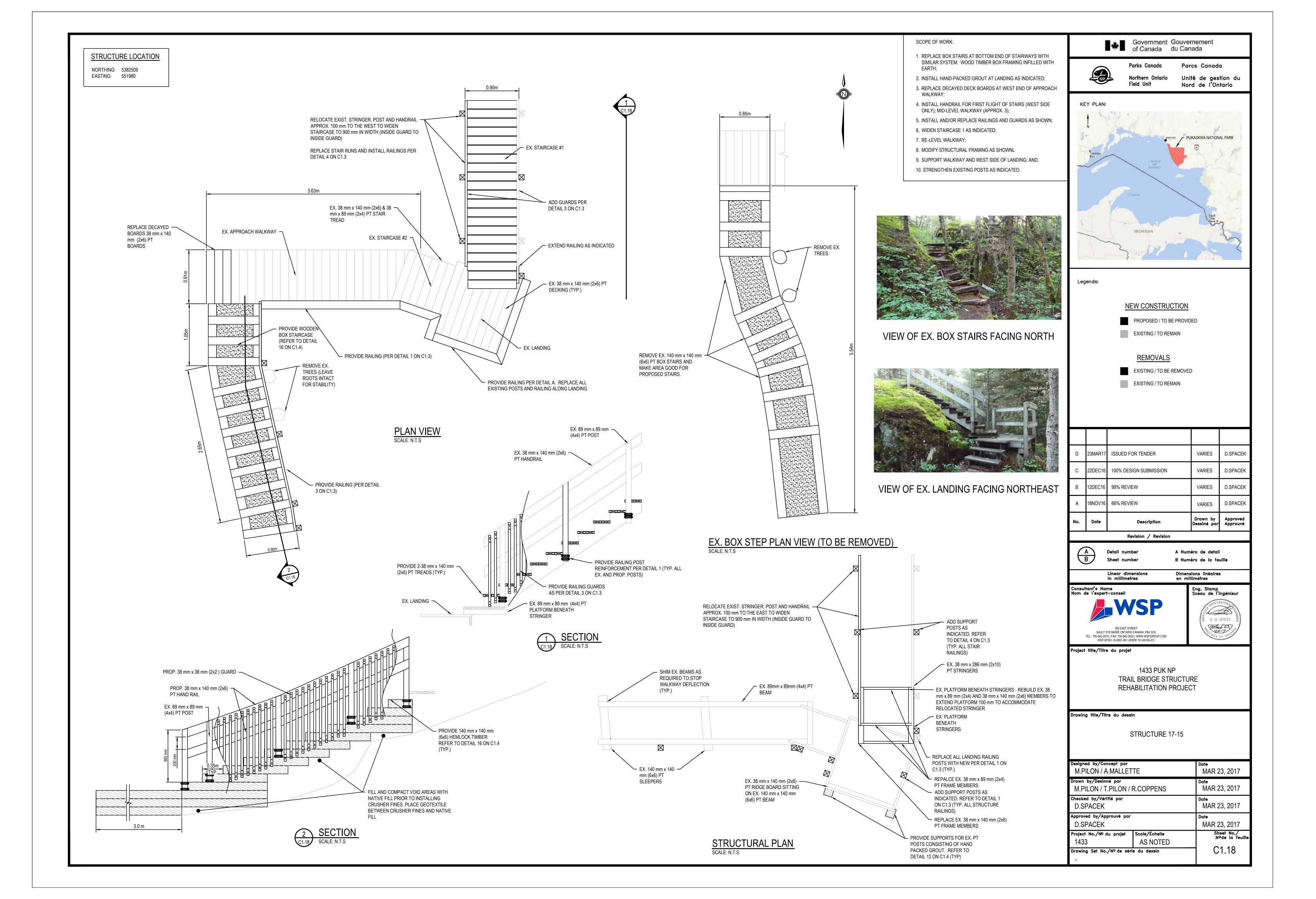


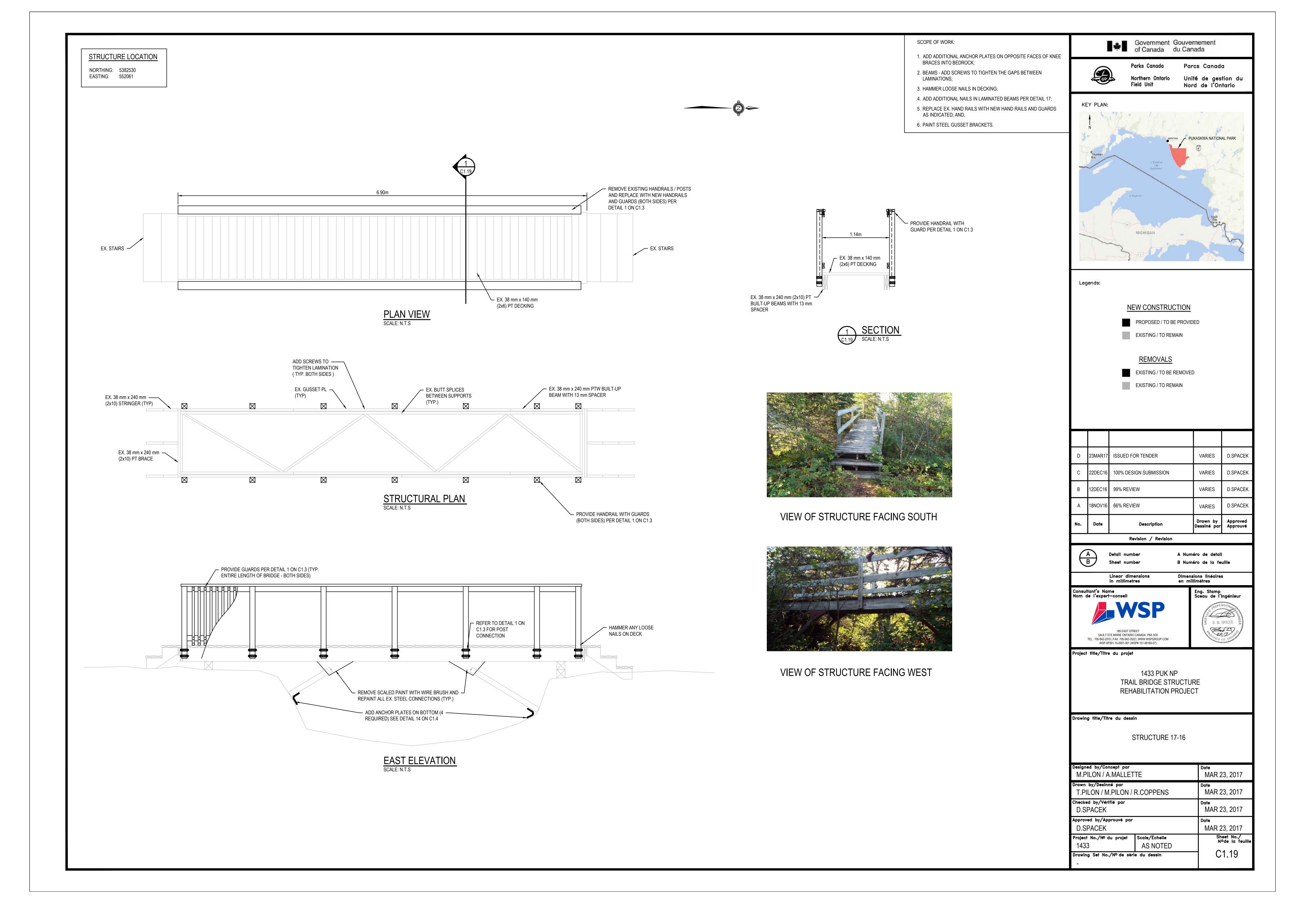


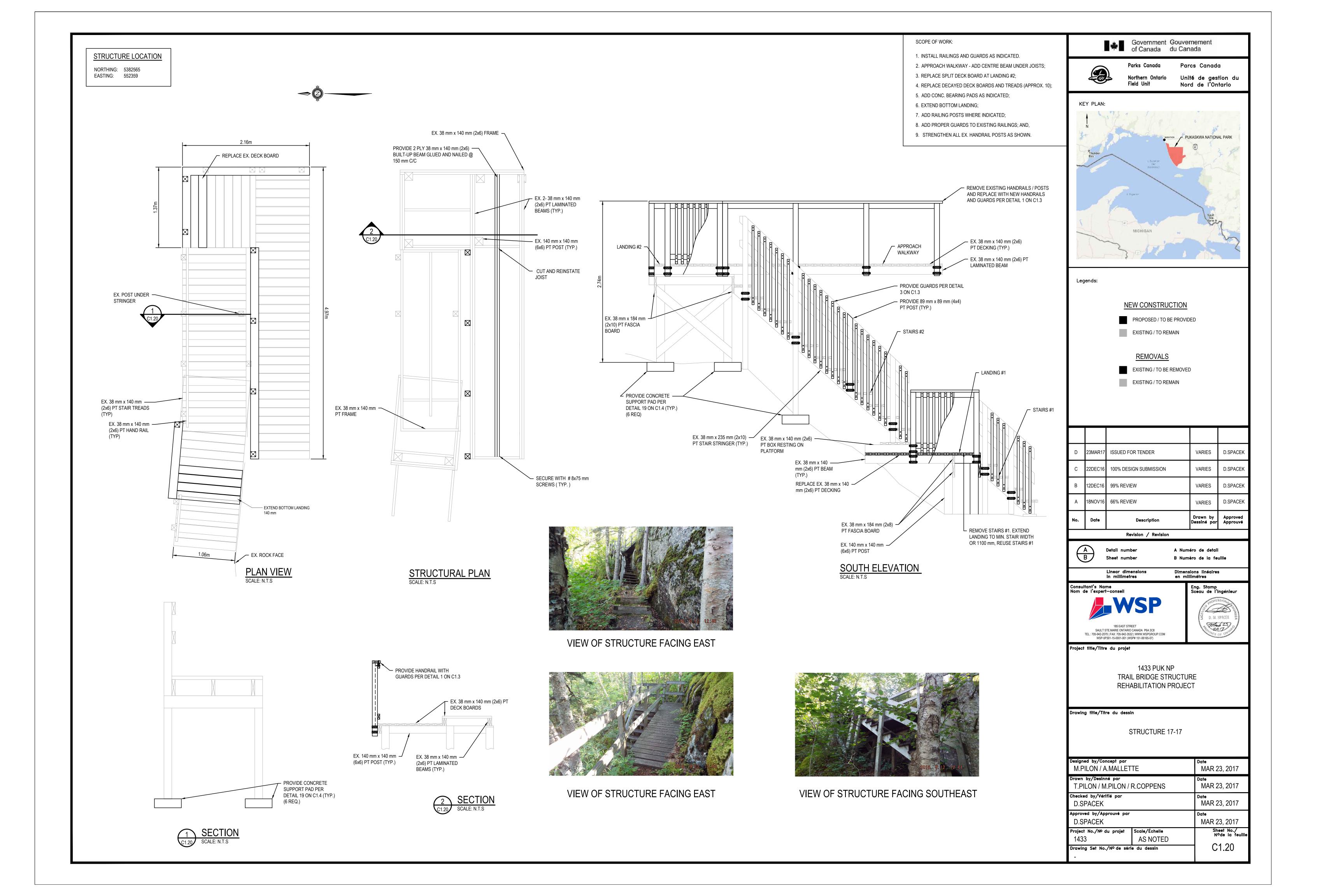


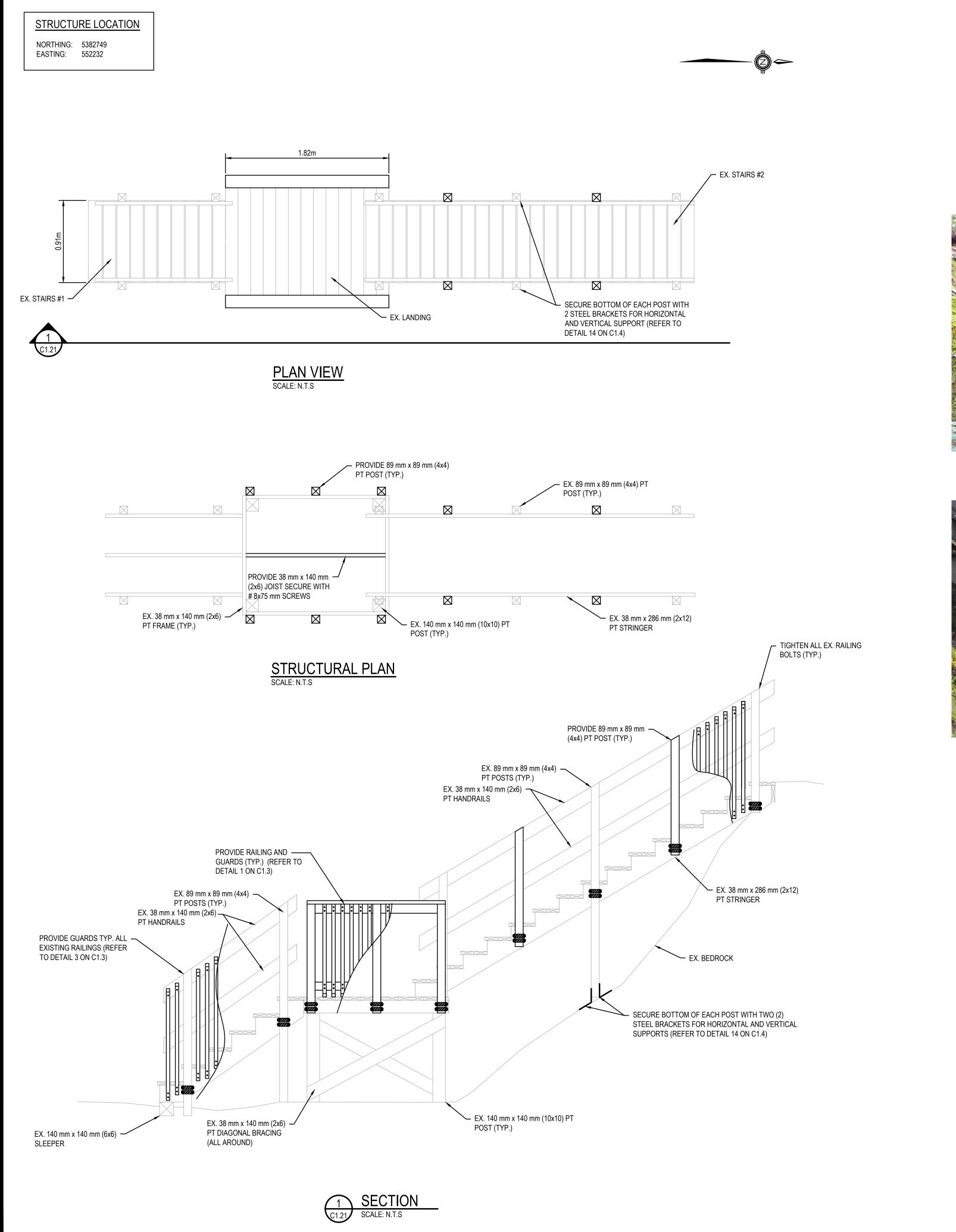












SCOPE OF WORK:

- 1. SECURE POSTS TO BEDROCK USING STEEL BRACKETS AS
- 2. SECURE DECK AND TREAD BOARDS WITH SCREWS WHERE NAILS ARE POPPING OUT;
- 3. LANDING ADD CENTRE JOIST TO SUPPORT DECK BOARDS;
- 4. TIGHTEN ALL BOLTS TO RAILINGS;
- 5. ADD GUARDS TO EX. STAIR RAILINGS;
- 6. ADD ADDITIONAL HANDRAIL POSTS AS INDICATED; 7. ADD RAILINGS AND GUARDS TO MID-PLATFORM; AND,
- 8. STRENGTHEN EXISTING RAILINGS.



VIEW OF STRUCTURE FACING NORTHEAST



VIEW OF STRUCTURE FACING EAST



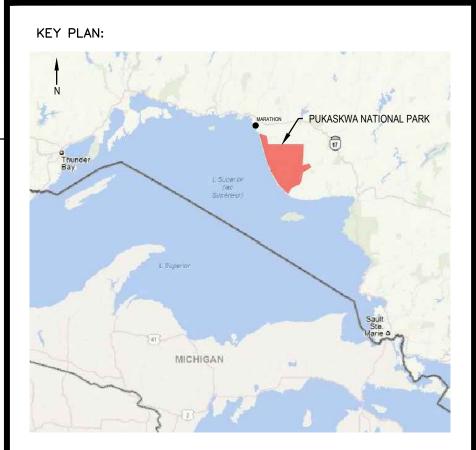
VIEW OF STRUCTURE FACING NORTH

Government Gouvernement of Canada du Canada



Parks Canada Field Unit

Parcs Canada Unité de gestion du Nord de l'Ontario



Legends:	
Logonas.	

NEW CONSTRUCTION

PROPOSED / TO BE PROVIDED

EXISTING / TO REMAIN

<u>REMOVALS</u>

EXISTING / TO BE REMOVED

EXISTING / TO REMAIN

А	18NOV16	66% REVIEW	VARIES	D.SPACEK
В	12DEC16	99% REVIEW	VARIES	D.SPACEK
С	22DEC16	100% DESIGN SUBMISSION	VARIES	D.SPACEK
D	23MAR17	ISSUED FOR TENDER	VARIES	D.SPACEK

Revision / Revision

A Numéro de detail B Numéro de la feuille

Dimensions linéaires en millimétres Linear dimensions in millimetres





Project title/Titre du projet

1433 PUK NP TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

Drawing title/Titre du dessin

STRUCTURE 17-18

Designed by/Concept par M.PILON / A.MALLET	Date MAR 23, 2017	
Drawn by/Desinné par M.PILON / T.PILON /	R.COPPENS	Date MAR 23, 2017
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017
Approved by/Approuvé par D.SPACEK		Date MAR 23, 2017
Project No./No du projet	Scale/Échelle AS NOTED	Sheet No./ N°de la feuille
Drawing Set No./N ^o de sér	ie du dessin	C1.21

STRUCTURE LOCATION

NORTHING: 5382820 EASTING: 552210

> ADD SCREWS TO — TIGHTEN LAMINATIONS

SCOPE OF WORK:

- 1. ADD ADDITIONAL ANCHOR PLATES ON OPPOSITE FACES OF KNEE BRACES INTO BEDROCK;
- 2. BEAM ADD SCREWS TO TIGHTEN THE GAPS BETWEEN LAMINATIONS PER DETAIL 17;
- 3. REPLACE HANDRAILS WITH NEW HANDRAILS, POSTS AND GUARDS.

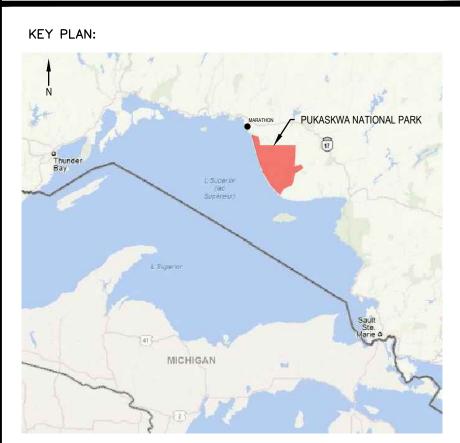


Government Gouvernement of Canada du Canada



Parks Canada Field Unit

Parcs Canada Unité de gestion du Nord de l'Ontario





EXISTING / TO REMAIN

PROPOSED / TO BE PROVIDED

<u>REMOVALS</u> EXISTING / TO BE REMOVED EXISTING / TO REMAIN

No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
Α	18NOV16	66% REVIEW	VARIES	D.SPACEK
В	12DEC16	99% REVIEW	VARIES	D.SPACEK
С	22DEC16	100% DESIGN SUBMISSION	VARIES	D.SPACEK
D	23MAR17	ISSUED FOR TENDER	VARIES	D.SPACEK

Revision / Revision

A Numéro de detail B Numéro de la feuille

Linear dimensions in millimetres Dimensions linéaires en millimétres



Eng. Stamp Sceau de l'ingénieur S. Consumer of the Consumer of D. M. SPACEK Mach 23)

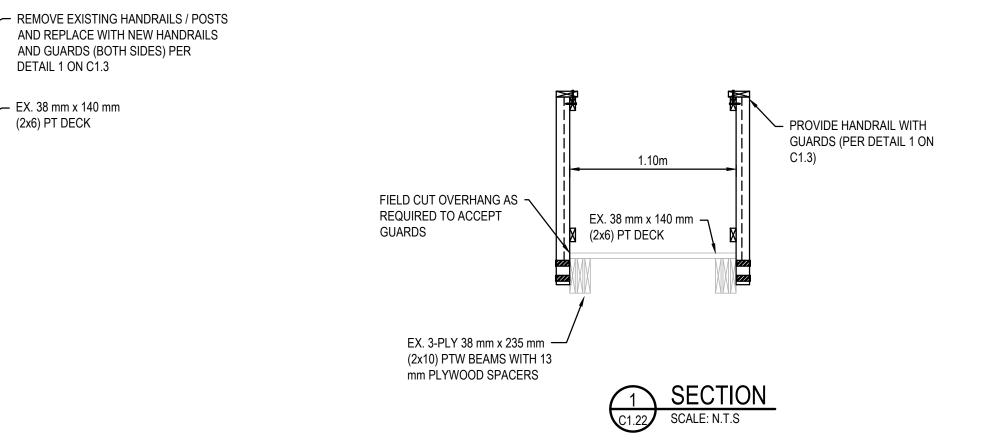
Project title/Titre du projet

1433 PUK NP TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

Drawing title/Titre du dessin

STRUCTURE 17-19

Designed by/Concept par M.PILON / A.MALLETTE		Date MAR 23, 2017	
rawn by/Desinné par T.PILON / M.PILON / R.COPPENS		Date MAR 23, 2017	
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017	
Approved by/Approuvé par D.SPACEK		Date MAR 23, 2017	
Project No./Nº du projet 1433	Scale/Échelle AS NOTED	Sheet No./ N°de la feuill	
Drawing Set No./N ^o de séri	Set No./Nº de série du dessin C1.22		





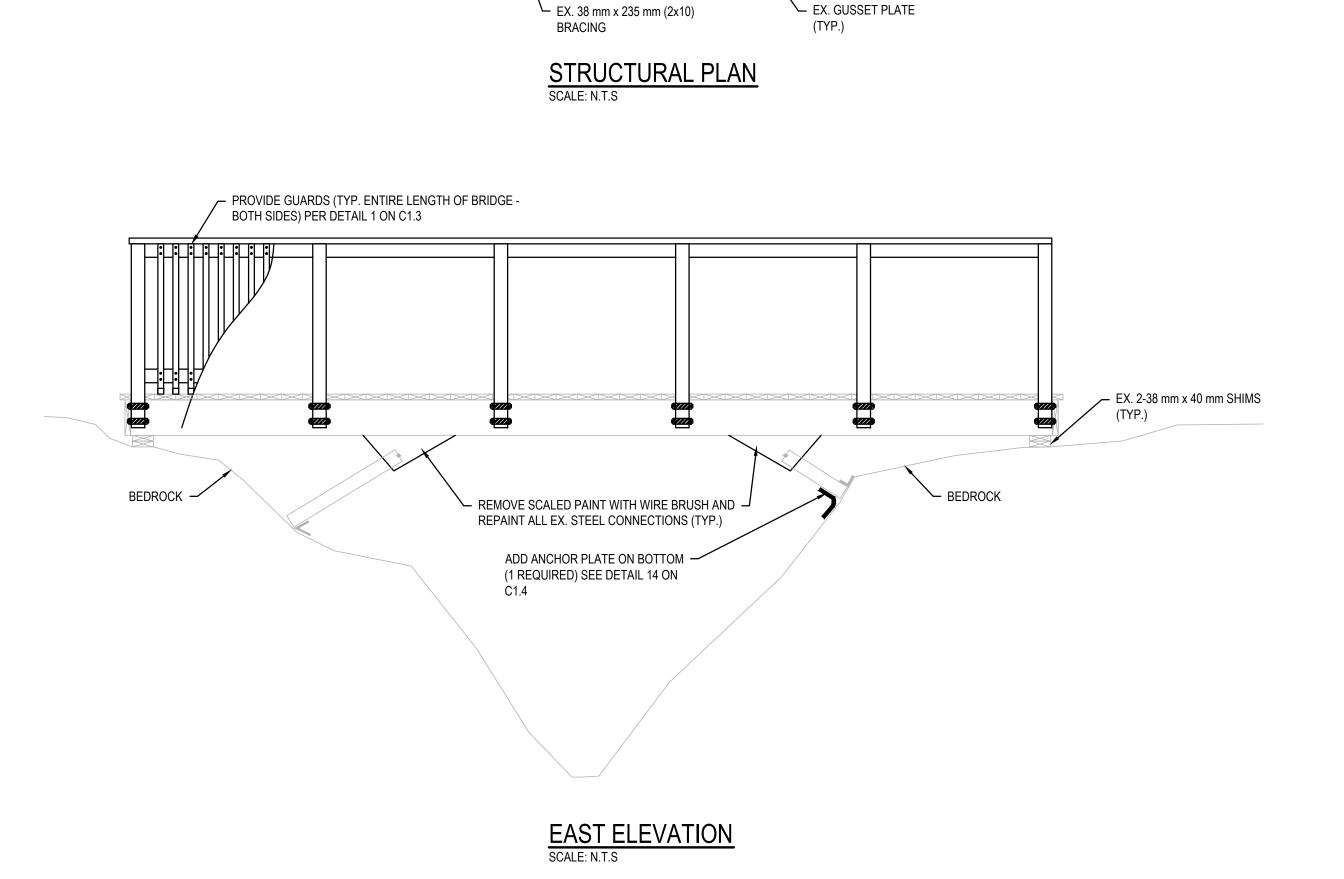
VIEW OF STRUCTURE FACING NORTHEAST







VIEW OF STRUCTURAL KNEE BRACING



6.24m

PLAN VIEW
SCALE: N.T.S

 \boxtimes

- ADD SCREWS TO TIGHTEN LAMINATION (TYP. BOTH SIDES)

EX. BUTT SPLICES
BETWEEN SUPPORTS (TYP.)

EX. GUSSET PLATE

← EX. 38 mm x 235 mm (2x10)

EX. 3-PLY 38 mm x 235 mm (2x10)

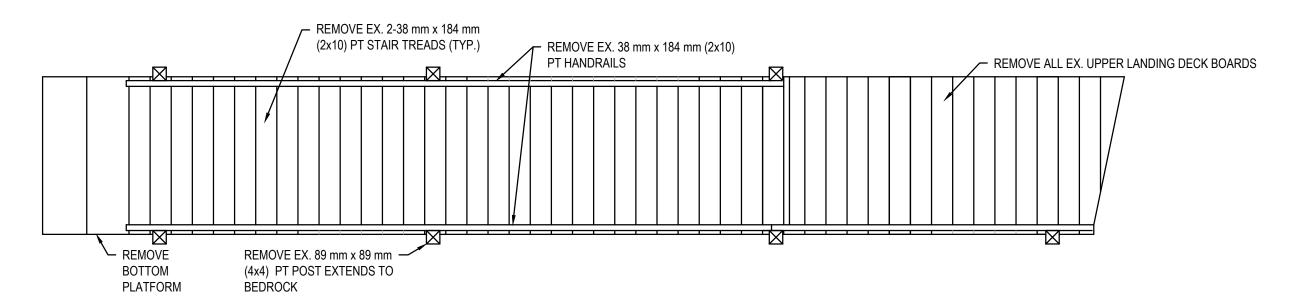
PT BEAMS WITH 13 mm PLYWOOD SPACERS

NORTHING: 5381864 EASTING: 551789

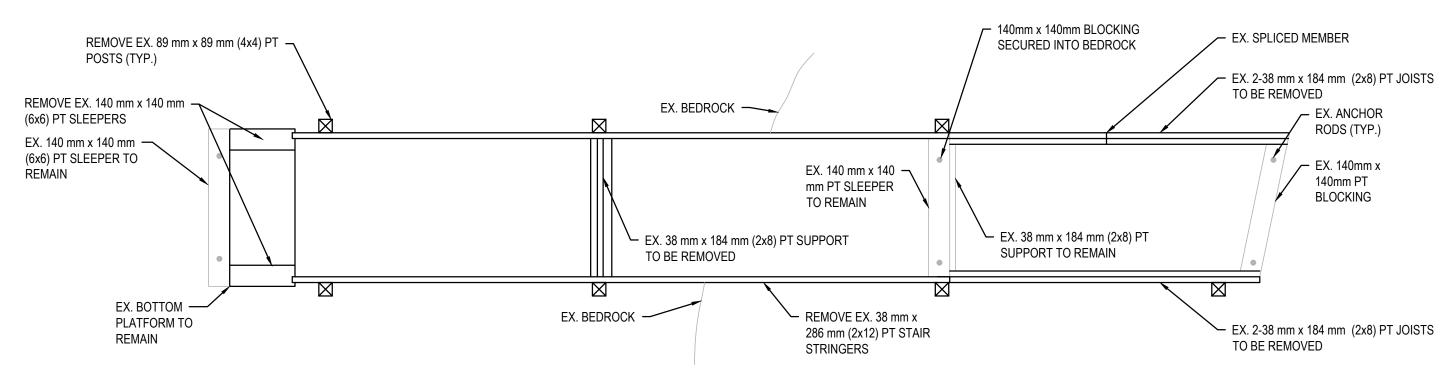
SCOPE OF WORK:

1. CONDUCT REMOVALS AS INDICATED

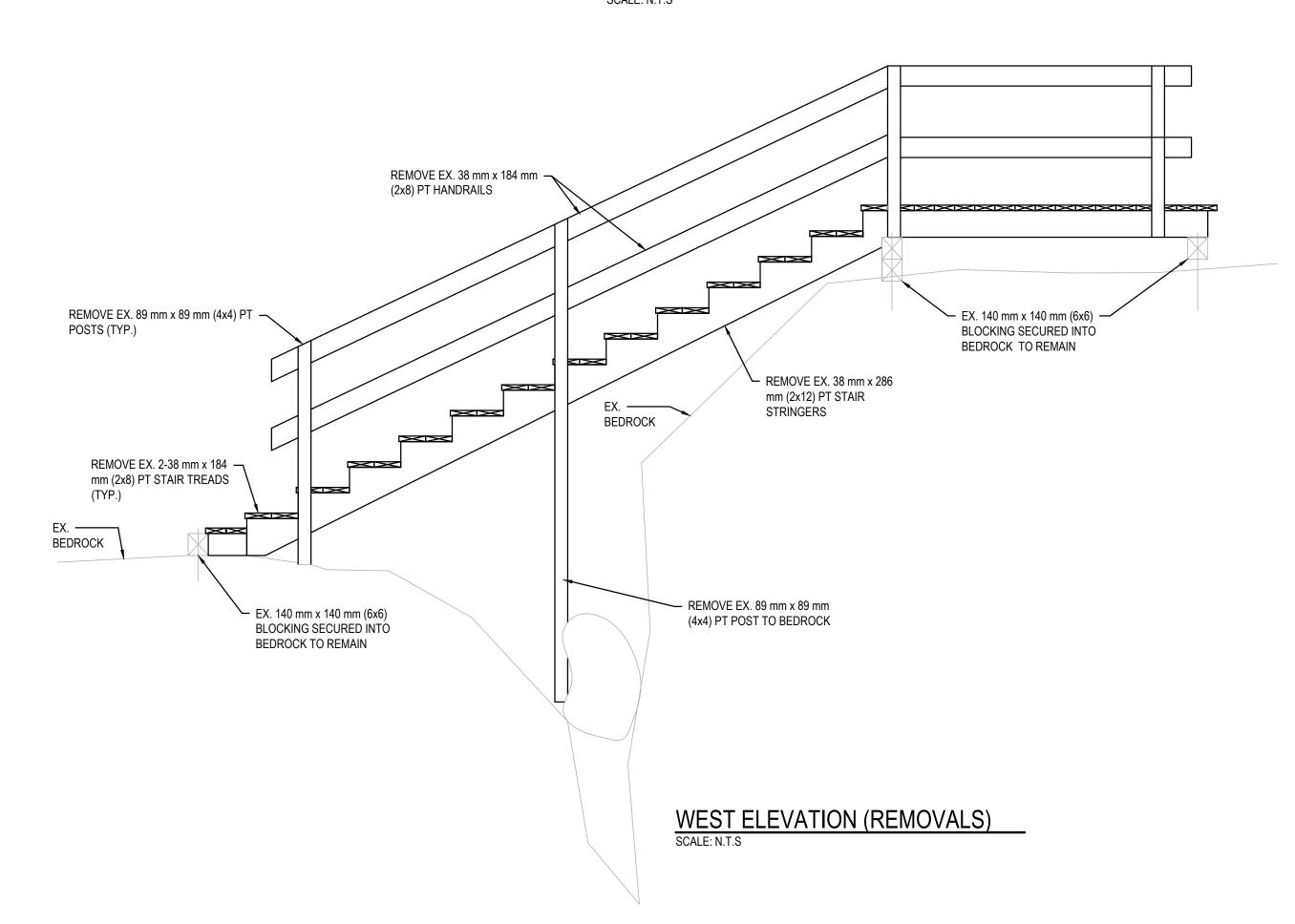


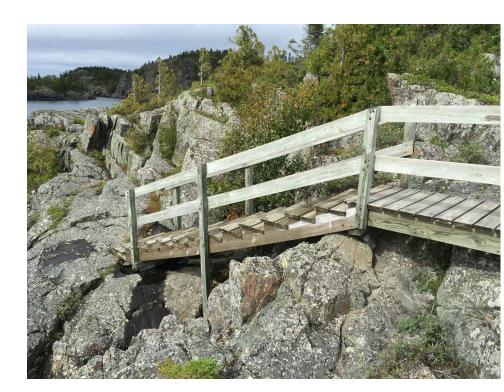


PLAN VIEW (REMOVALS) SCALE: N.T.S



STRUCTURAL PLAN (REMOVALS) SCALE: N.T.S





VIEW OF STRUCTURE FACING NORTHEAST



VIEW OF STRUCTURE FACING SOUTHEAST



VIEW OF STRUCTURE FACING EAST



Government Gouvernement of Canada du Canada



Parks Canada Field Unit

Parcs Canada Unité de gestion du Nord de l'Ontario



Legends:	
Logonac.	

NEW CONSTRUCTION

PROPOSED / TO BE PROVIDED

EXISTING / TO REMAIN

<u>REMOVALS</u>

EXISTING / TO BE REMOVED

EXISTING / TO REMAIN

No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
Α	18NOV16	66% REVIEW	VARIES	D.SPACEK
В	12DEC16	99% REVIEW	VARIES	D.SPACEK
С	22DEC16	100% DESIGN SUBMISSION	VARIES	D.SPACEK
D	23MAR17	ISSUED FOR TENDER	VARIES	D.SPACEK

Revision / Revision

Detail number

A Numéro de detail B Numéro de la feuille

Dimensions linéaires en millimétres Linear dimensions in millimetres



Eng. Stamp Sceau de l'ingénieur D. M. SPACEK Mach 23)

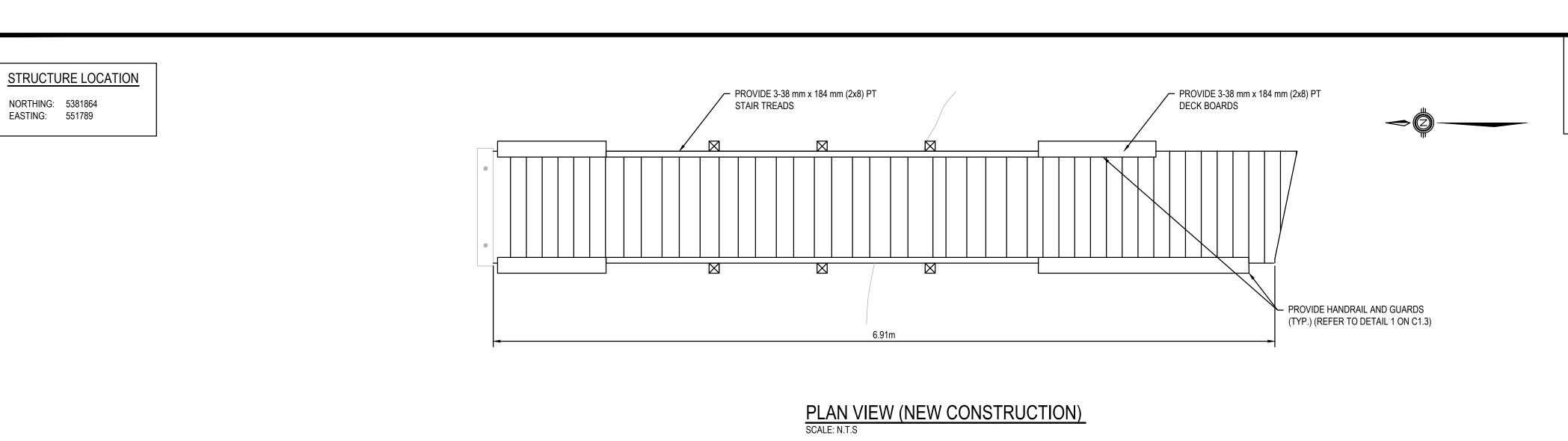
Project title/Titre du projet

1433 PUK NP TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

Drawing title/Titre du dessin

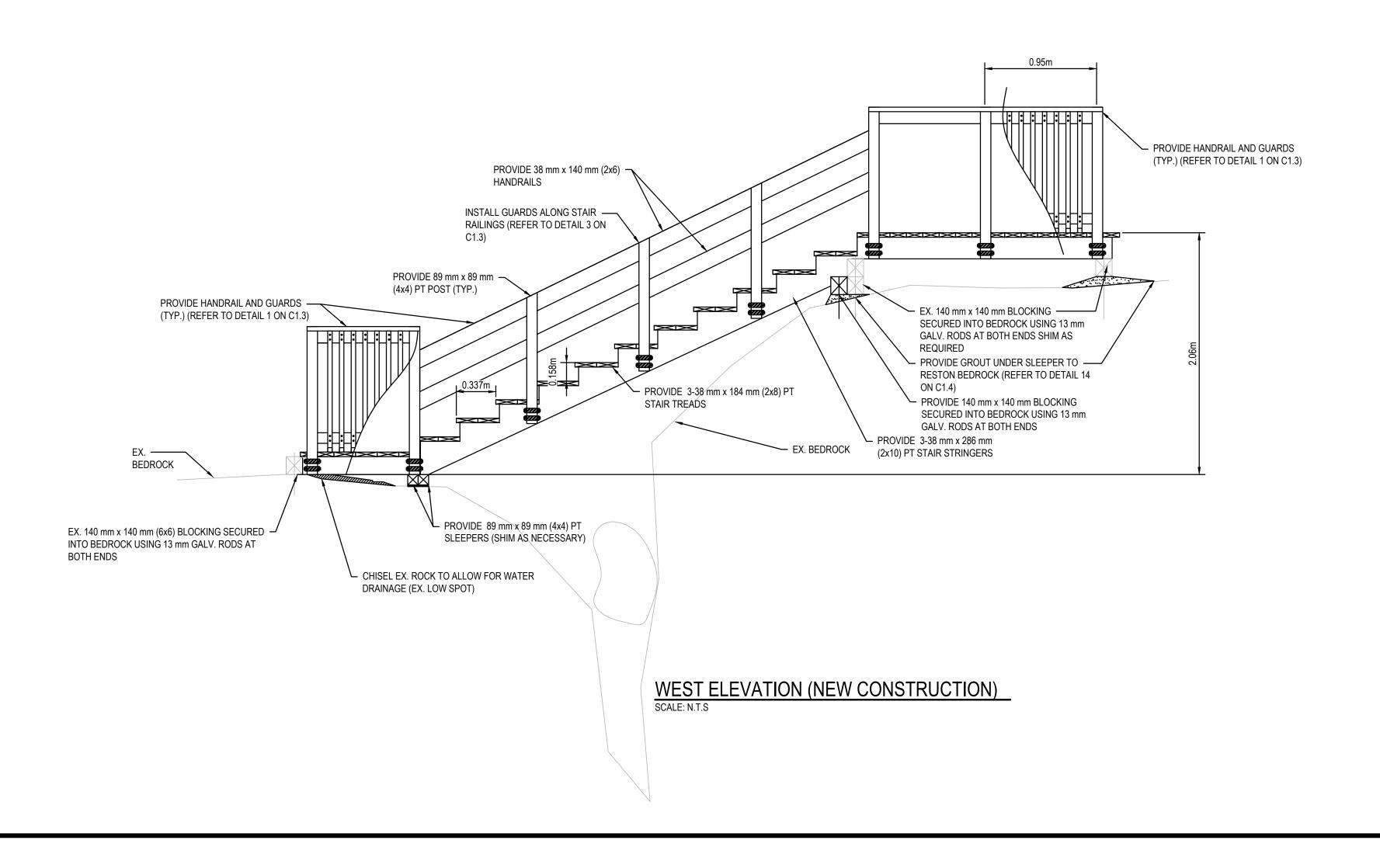
STRUCTURE 17-20 SHEET 1 OF 2 (REMOVALS)

M.PILON / A.MALLET	TE	MAR 23, 2017
Drawn by/Desinné par M.PILON / T.PILON / R.COPPENS		Date MAR 23, 2017
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017
Approved by/Approuvé par		Date MAR 23, 2017
D.SPACEK		WAN 23, 2017
D.SPACEK Project No./No du projet 1433	Scale/Échelle AS NOTED	Sheet No./ Node la fe



1.00m 3.72m 2.39m PROVIDE 2-38 mm x 184 mm EX. 140 mm x 140 mm (6x6) PT SLEEPER (2x8) PT JOISTS EX. BEDROCK — EX. ANCHOR RODS (TYP.) EX. 140 mm x 140 mm (6x6) PT — EX. 140mm x 140mm (6x6) SLEEPER TO REMAIN PT BLOCKING PROVIDE 140 mm x 140 mm BLOCKING — EX. 38 mm x 184 mm (2x8) PT SECURED INTO BEDROCK USING 13 mm GALV. RODS AT BOTH ENDS SUPPORT EX. 38 mm x 286 mm PROVIDE 2-38 mm x 184 mm EX. BEDROCK — PROVIDE NEW LANDING WITH -(2x12) PT STAIR (2x8) PT JOISTS - EX. 38 mm x 184 mm (2x8) PT SUPPORT 38 mm x 140 mm (2x6) PT STRIŃGERS PROVIDE 89 mm x 89 mm (4x4) PT SLEEPER (SHIM AS NECESSARY) FRAME c/w DECK BOARDS PER DETAIL 7 ON C1.3

STRUCTURAL PLAN (NEW CONSTRUCTION) SCALE: N.T.S



SCOPE OF WORK:

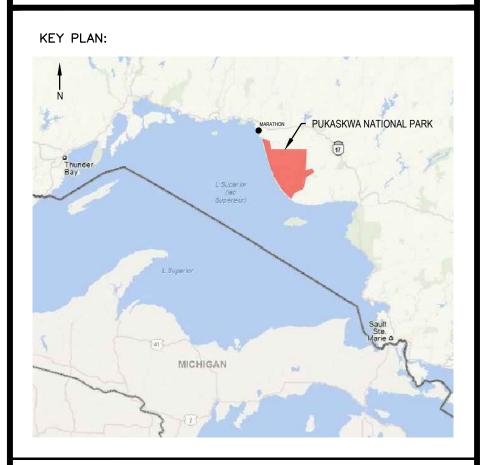
- 1. CHISEL ROCK SUCH THAT WATER DRAINS SOUTH;
- 2. GROUT DOWELED BEARING SUPPORTS (TYP);3. RECONSTRUCT STRUCTURE AS INDICATED



Government Gouvernement of Canada du Canada



Parks Canada Northern Ontario Field Unit Parcs Canada Unité de gestion du Nord de l'Ontario



Legends:

NEW CONSTRUCTION

PROPOSED / TO BE PROVIDED

EXISTING / TO REMAIN

REMOVALS

EXISTING / TO BE REMOVED

EXISTING / TO REMAIN

No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
А	18NOV16	66% REVIEW	VARIES	D.SPACEK
В	12DEC16	99% REVIEW	VARIES	D.SPACEK
С	22DEC16	100% DESIGN SUBMISSION	VARIES	D.SPACEK
D	23MAR17	ISSUED FOR TENDER	VARIES	D.SPACEK

Revision / Revision

AB

Detail number Sheet number A Numéro de detail B Numéro de la feuille

Linear dimensions Dimensions linéaires en millimétres

Consultant's Name Nom de l'expert—conseil

185 EAST STREET
SAULT STE.MARIE ONTARIO CANADA P6A 3C8
TEL.: 705-942-2070 | FAX: 705-942-3532 | WWW.WSPGROUP.COM
WSP-5P301-15-0001-001 (WSP# 151-06165-07)



Project title/Titre du projet

1433 PUK NP TRAIL BRIDGE STRUCTURE REHABILITATION PROJECT

Drawing title/Titre du dessin

STRUCTURE 17-20 SHEET 2 OF 2 (NEW CONSTRUCTION)

M.PILON / A.MALLET	TE	MAR 23, 2017
Drawn by/Desinné par M.PILON / T.PILON / F	R.COPPENS	Date MAR 23, 2017
Checked by/Vérifié par D.SPACEK		Date MAR 23, 2017
Approved by/Approuvé par D.SPACEK		Date MAR 23, 2017
	The state of the s	
Project No./Nº du projet	Scale/Échelle AS NOTED	Sheet No./ N°de la feuille C1.24

Government Gouvernement of Canada du Canada SCOPE OF WORK: 1. CONDUCT REMOVALS AS INDICATED STRUCTURE LOCATION Parks Canada Parcs Canada NORTHING: 5382565 EASTING: 552359 Unité de gestion du Field Unit Nord de l'Ontario KEY PLAN: REMOVE APPROX. 250 mm OF — - REMOVE APPLICABLE FASTENERS EXISTING LANDING STRUCTURE TO PREPARE FOR SHIFT OF EX. STAIRCASE TO ACCEPT SHIFTED STAIRCASE Legends: NEW CONSTRUCTION PROPOSED / TO BE PROVIDED EXISTING / TO REMAIN CUT EX. 89 mm x 89 mm (4x4) PT POSTS —— (TYP.) TO TOP OF DECK - TREAT CUT PER WOOD TREATMENT SPECIFICATIONS <u>REMOVALS</u> (TYP. ALL EX RAILING POSTS NOT ON SPANNING BOARDWALK STRUCTURE) EXISTING / TO BE REMOVED - REMOVE EX. PLANKS (NOT PART OF STRUCTURE) REMOVE EX. 38 mm x 140 mm (2x6) -EXISTING / TO REMAIN PT BRACE BEDROCK EX. SPANNING BOARDWALK ----STRUCTURE DETAILED ON C1.27 23MAR17 ISSUED FOR TENDER C 22DEC16 100% DESIGN SUBMISSION 12DEC16 99% REVIEW DECK REMOVE EX. 38 mm x 140 mm (2x6) PT BRACE UNDER DECK WITH - REMOVE EX. 89 mm x 89 RAVINE EX. 38 mm x 140 mm 140 mm x 140 mm (2x6) PT DIAGONAL mm (4x4) PT POSTS (TYP.) (2x6) PT DECK 18NOV16 66% REVIEW STRUT BETWEEN. BOARDS (TYP.) REMOVE EX. 38 mm x 140 mm (2x6) — PT BRACE UNDER DECK WITH Date Description REMOVE EX. 38 mm x 140 mm (2x6) PT
 HANDRAIL C/W 38 mm x 140 mm (2x6) 38 mm x 140 mm (2x6) DIAGONAL - REMOVE ALL DECK BOARDS ALONG SECTION PT CAP (TYP.) Revision / Revision TO BE WIDENED - REMOVE EX. 140 mm x 140 mm (6x6) PT HANDRAIL Detail number A Numéro de detail POST (TYP. ALL POSTS ON EXISTING SPANNING Sheet number B Numéro de la feuille BOARDWALK) ALL OTHER HANDRAIL POSTS TO BE CUT AT DECK LEVEL Linear dimensions in millimetres Dimensions linéaires en millimétres Ø 0.83m Ø Consultant's Name Nom de l'expert—conseil VIEW OF RAVINE CROSSING FACING SOUTHWEST STRUCTURE PLAN VIEW
SCALE: N.T.S SAULT STE.MARIE ONTARIO CANADA P6A 3C8
TEL.: 705-942-2070 | FAX: 705-942-3532 | WWW.WSPGROUP.COM
WSP-5P301-15-0001-001 (WSP# 151-06165-07) Project title/Titre du projet 1433 PUK NP - CUT EX. 89 mm x 89 mm (4x4) PT POSTS (TYP.) TO TOP OF DECK - TREAT CUT PER TRAIL BRIDGE STRUCTURE WOOD TREATMENT SPECIFICATIONS REHABILITATION PROJECT (TYP. ALL EX RAILING POSTS NOT ON SPANNING BOARDWALK STRUCTURE) Drawing title/Titre du dessin STRUCTURE 17-21 SHEET 1 OF 3 (REMOVALS) Designed by/Concept par M.PILON / A.MALLETTE Drawn by/Desinné par M.PILON / T.PILON / R.COPPENS Checked by/Vérifié par D.SPACEK Approved by/Approuvé par D.SPACEK Project No./Nº du projet Scale/Échelle VIEW OF RAVINE CROSSING FACING WEST VIEW OF WEST STAIRS FACING NORTHWEST AS NOTED Drawing Set No./N^o de série du dessin

VARIES

VARIES

VARIES

Drawn by

Dessiné par

Eng. Stamp Sceau de l'ingénieur

D. M. SPACEK Mach 25,

MAR 23, 2017

MAR 23, 2017

MAR 23, 2017

MAR 23, 2017

C1.25

Sheet No./ N^ode la feuille

D.SPACEK

D.SPACEK

D.SPACEK

Approved Approuvé

VARIES D.SPACEK

