McElhanney

for / pour

Parks Canada Agency

L'Agence Parcs Canada

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

ISSUED FOR TENDER

PROJECT NO. 2511-01195-00

JANUARY 2021

DRAWING INDEX

SHEET	DRAWING	DRAWING TITLE	
G-000-FRONT END			
1	G-000	COVER	
2	G-001	INDEX	
3	G-002	LEGEND	
4	G-003	LOCATION PLAN	& SURVEY CONTROL POINTS
CIVIL: C-000-SITE PREPARATION			
5	C-000	KEY PLAN	
6	C-001	EAST END	ENTRANCE & EXISTING LOOP A
7	C-002	EAST SIDE	EXISTING LOOPS B - E, G-H
8	C-003	WEST SIDE	EXISTING LOOPS E-F, I-L
9	C-004	WEST END	CANYON YOUTH CAMP & RESERVOIR
CIVIL: C-220-ROAD LAYOUT PLANS			
10	C-221	CRANDELL LAKE TRAILHEAD	PARKING LOT
11	C-222	KIOSK AREA &	FIREWOOD PARKING
12	C-223	TURNAROUND &	CRANDELL LAKE TRAIL PARKING
CIVIL: C-240-ROAD GRADING PLANS			
13	C-241	CRANDELL LAKE TRAILHEAD	PARKING LOT
14	C-242	KIOSK AREA &	FIREWOOD PARKING
15	C-243	TURNAROUND &	CRANDELL LAKE TRAIL PARKING
CIVIL: C-300-TRAIL PLANS & PROFILES			
16	C-300	KEY PLAN	
17	C-301	CRANDELL LAKE TRAIL	STA 200+000 TO STA 200+320
18	C-302	CRANDELL LAKE TRAIL	STA 200+320 TO STA 200+810
19	C-303	CRANDELL LAKE TRAIL	STA 200+810 TO STA 201+100
CIVIL: C-400-TYPICAL SECTIONS & DETAILS			
20	C-401	ROADWAYS & PATHWAYS	
SITE SERVICING: U-150-BUILDING GRADING PLANS			
21	U-150	KEY PLAN	
22	U-151	ENTRANCE KIOSK	
23	U-152	FIREWOOD HUT AND	CONCESSION
24	U-153	LOOP A WASHROOM	AND KITCHEN SHELTER
25	U-154	LOOP B WASHROOM	AND KITCHEN SHELTER
26	U-155	LOOP D WASHROOM	AND KITCHEN SHELTER
27	U-156	AMPHITHEATRE	
28	U-157	LOOP E WASHROOM	AND KITCHEN SHELTER
29	U-158	LOOP E PRIVY	AND KITCHEN SHELTER
SITE SERVICING: U-200-PLANS & PROFILES			
30	U-200	KEY PLAN	
31	U-201	MAIN WATER SUPPLY	STA 400+000 TO STA 400+380
32	U-202	MAIN WATER SUPPLY	STA 400+380 TO STA 400+870
33	U-203	MAIN WATER SUPPLY	STA 400+870 TO STA 401+360
34	U-204	MAIN WATER SUPPLY	STA 400+870 TO STA 401+360
35	U-205	LOOP C WATER MAIN &	EAST / WEST SPIGOT LINES
36	U-206	LOOP E SPIGOT LINES	
37	U-207	LOOP C AND D SPIGOT LINES AND	LOOP A WASHROOM CONNECTION
38	U-208	LOOP A AND B SPIGOT LINES	
39	U-209	RAW WATER & TREATED WATER LINES	
40	U-210	SANITARY FORCEMAINS	
SITE SERVICING: U-300-WASTEWATER SYSTEM			
41	U-301	LAYOUT PLAN	A LOOP SYSTEM
42	U-302	LAYOUT PLAN	B LOOP SYSTEM
43	U-303	LAYOUT PLAN	D-E LOOP SYSTEM
SITE SERVICING: U-400-DETAILS			
44	U-401	SANITARY	SHEET 1 OF 1
45	U-403	WASTEWATER SYSTEMS	TREATMENT FIELDS
46	U-404	WASTEWATER SYSTEMS	TANKAGE
47	U-421	WATER	SHEET 1 OF 6
48	U-422	WATER	SHEET 2 OF 6
49	U-423	WATER	SHEET 3 OF 6
50	U-424	WATER	SHEET 4 OF 6
51	U-425	WATER	SHEET 5 OF 6
52	U-426	WATER	SHEET 6 OF 6
LANDSCAPE: L-200-PLANTING PLANS			
53	L-201	CRANDELL LAKE TRAIL	VIEWPOINTS
54	L-202	RECLAMATION PLAN &	PLANTING SCHEDULES
LANDSCAPE: L-400-DETAILS			
55	L-401	PLANTING DETAILS	
ELECTRICAL			
56	E-101	SEPTIC ALARM SYSTEM	WEST SITE
57	E-102	SEPTIC ALARM SYSTEM	EAST SITE
58	E-201	RESERVOIR CONTROL BUILDING	PLAN
59	E-301	CONTROL PANEL	LAYOUTS
60	E-303	RESERVOIR	CONTROL

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
INDEX

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		2

Drawing Reference No. / No. de réference du dessin
G-001

FILE: G:\PROJECTS\2511\01195\00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\G-01195-001 IND.DWG PLOTTED: 2021\01\27 2:11 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

ABBREVIATIONS

ACP	ASPHALT CONCRETE PAVEMENT
AT	ALBERTA TRANSPORTATION
BH	BOREHOLE
BOC	BACK OF CURB
BOF	BOTTOM OF FILL
BOW	BACK OF WALK
BRK	GRADE BREAK
BVC	BEGINNING OF VERTICAL CURVE
C##	CURVE IDENTIFICATION
CB	CATCH BASIN
CBL	CABLE
CL	CENTRE / CONTROL LINE
CoC	CITY OF CALGARY
CON	CONCRETE
CP	CONTROL POINT
CS	CURVE TO SPIRAL POINT
CSP	CORRUGATED STEEL PIPE
CT	CURVE TO TANGENT POINT
EB	EAST BOUND
EL	ELEVATION
END	END OF ALIGNMENT
EOP	EDGE OF PAVEMENT
EVC	END OF VERTICAL CURVE
EX	EXISTING
FIB	FIBRE OPTIC
FIP	FOUND IRON PIN
FOC	FACE OF CURB
GBC	GRANULAR BASE COURSE
HI	HIGH POINT
HP	HIGH PRESSURE
IB	INBOUND
IGB	INTERMEDIATE GRADED BASE
IP	INTERMEDIATE PRESSURE
L##	LINE IDENTIFICATION
LN	LANE
LO	LOW POINT
LOC	LIMIT OF CONTRACT
LOG	LIP OF GUTTER
LT	LEFT
MED	MEDIAN
MH	MANHOLE
MHI	MINISTRY OF HIGHWAYS & INFRASTRUCTURE
MoTI	MINISTRY OF TRANSPORTATION & INFRASTRUCTURE
MSE	MECHANICALLY STABILIZED EARTH
NB	NORTHBOUND
NIC	NOT IN CONTRACT
OB	OUTBOUND
PC	POINT OF CURVATURE
PCA	PARKS CANADA AGENCY
PCBC	PRE-CAST CONCRETE BOX CULVERT
PCC	POINT OF COMPOUND CURVATURE
PCCP	PORTLAND CEMENT CONCRETE PAVEMENT
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PROP	PROPOSED
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R/W	RIGHT OF WAY
RT	RIGHT
S##	SPIRAL IDENTIFICATION
SAN	SANITARY SEWER
SB	SOUTHBOUND
SBC	SUB BASE COURSE
SC	SPIRAL TO CURVE POINT
SGSB	SELECT GRANULAR SUB BASE
SHLD	SHOULDER
SL	STREETLIGHT
SPCSP	STRUCTURAL PLATE CORRUGATED STEEL PIPE
SS	SPIRAL TO SPIRAL POINT
ST	SPIRAL TO TANGENT POINT
STA	STATION
START	START OF ALIGNMENT
STD	STANDARD
STL	STEEL
STM	STORM SEWER
TC	TANGENT TO CURVE POINT
TEL	TELEPHONE
TBC	TOP OF CURB
TOC	TOP OF CUT
TP	TEST PIT
TS	TANGENT TO SPIRAL POINT
TSL	TRAFFIC SIGNAL
TYP	TYPICAL
WAT	WATER
WB	WESTBOUND
WCR	WHEEL CHAIR RAMP
WGB	WELL GRADED BASE

PLAN LEGEND

EXISTING		PROPOSED
	EDGE OF PAVEMENT	
	EDGE OF GRAVEL	
	CENTRELINE / CONTROL LINE	
	GRAVEL PATHWAY	
	SIGN	
	TOP OF SLOPE	
	TOE OF SLOPE	
	DITCH	
	FENCE (TYPE NOTED)	
	RETAINING WALL (TYPE NOTED)	
	BREAKLINE	
	TREE	
1392	CONTOUR	1392
	BOREHOLE	BH
	TESTPIT	TP
	CULVERT	
	IRON PIN	CPT 106
	GRAVITY SANITARY SEWER	S
	FORCEMAIN SANITARY SEWER	SFM
	WATER LINE	
	SANITARY MANHOLE	
	SANITARY MANHOLE NUMBERING REFERENCE	SA#
	DRAIN MANHOLE/ BLOW OFF ASSEMBLY	
	SPRINKLER STANDPIPE	
	VALVE	
	SPIGOT	

HATCHING LEGEND

EXISTING		PROPOSED
	ASPHALT PAVEMENT	
	GRAVEL SURFACING	
	CONCRETE	
	STRIPPING & GRUBBING	
	FULL DEPTH ASPHALT REMOVAL	
	GRAVEL REMOVAL	
	LARGE SHRUB BEDS	
	DOUGLAS FIR COMMUNITY	

PROFILE LEGEND

EXISTING		PROPOSED
	EXISTING GROUND	
	DESIGN GRADE	
	RIGHT DITCH	
	LEFT DITCH	

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp / Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin
LEGEND

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	

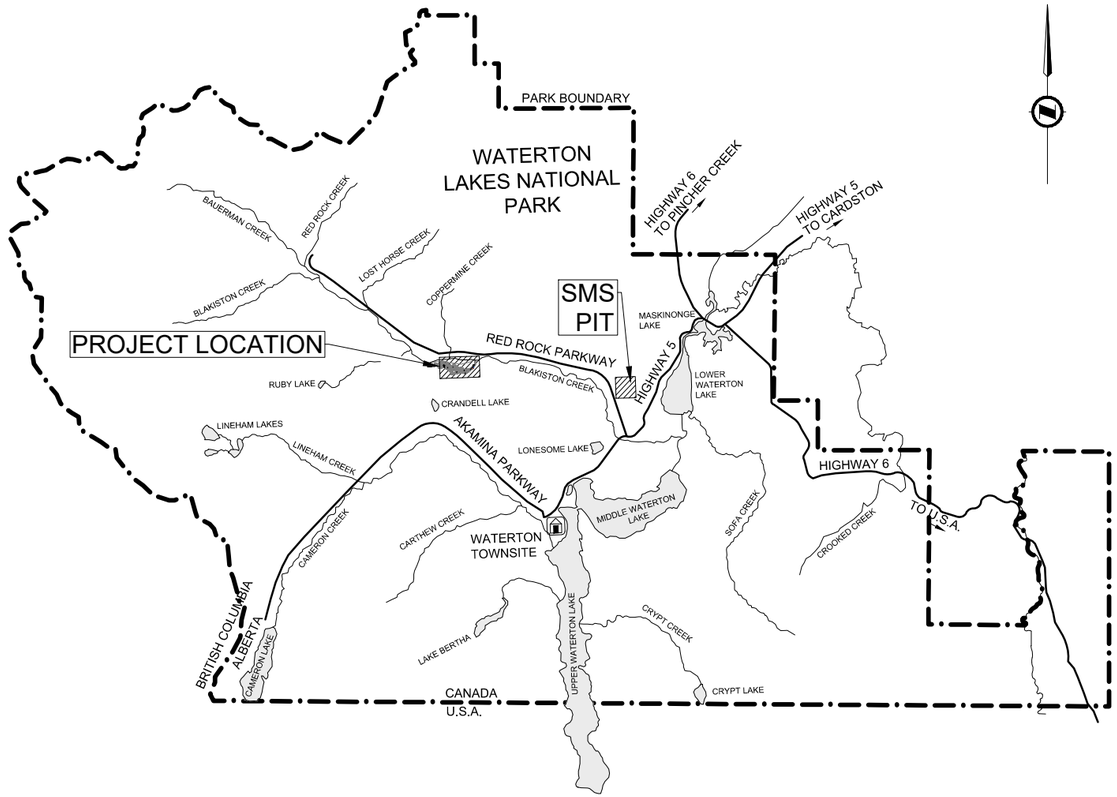
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 3
Drawing Reference No. / No. de réference du dessin: G-002

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\G-01195-002 LEG.DWG PLOTTED: 2021/01/25 1:06 PM

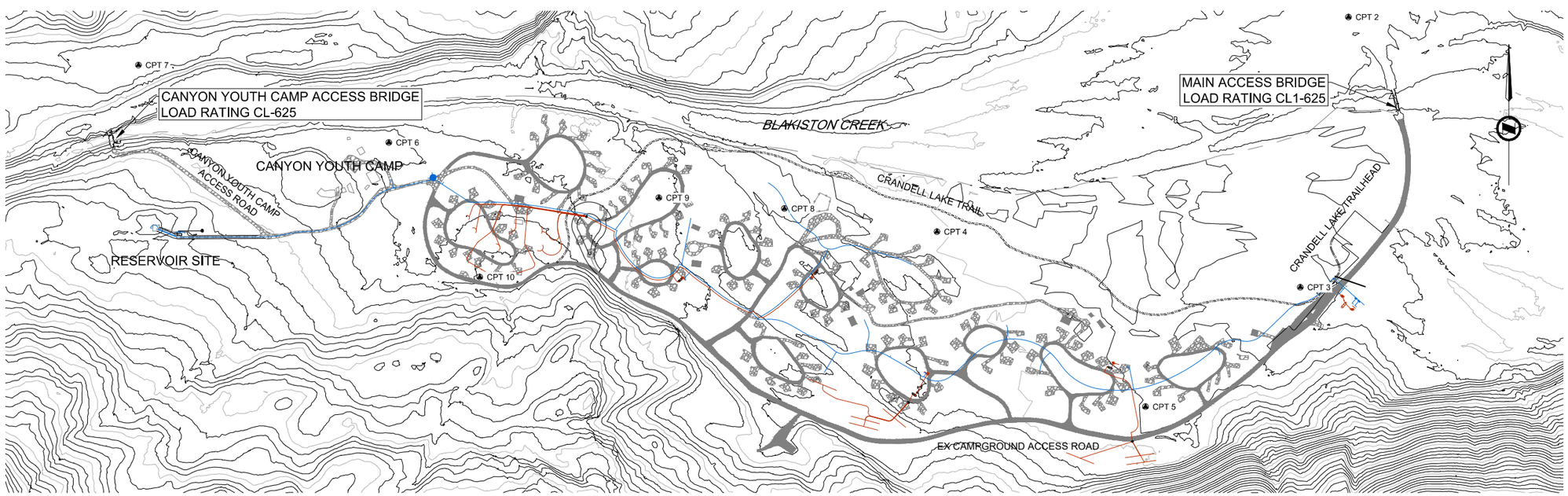
Paper Size: ANSI D (22 x 34")



1 G-003 LOCATION PLAN
SCALE 1:100,000

SURVEY CONTROL POINT TABLE			
POINT #	ELEVATION	NORTHING	EASTING
CPT1	1415.401	5443157.952	284094.220
CPT2	1374.967	5443043.904	285023.034
CPT3	1374.820	5442698.289	284961.256
CPT4	1380.579	5442769.317	284496.148
CPT5	1377.945	5442545.472	284763.255
CPT6	1394.375	5442883.394	283794.532
CPT7	1405.035	5442982.446	283473.923
CPT8	1384.286	5442798.940	284300.834
CPT9	1388.535	5442812.797	284140.283
CPT10	1396.221	5442711.339	283910.931

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12.
ALL ELEVATIONS ARE GEODETIC.



2 G-003 CAMPGROUND SITE PLAN
SCALE 1:3000

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
LOCATION PLAN & SURVEY CONTROL POINTS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

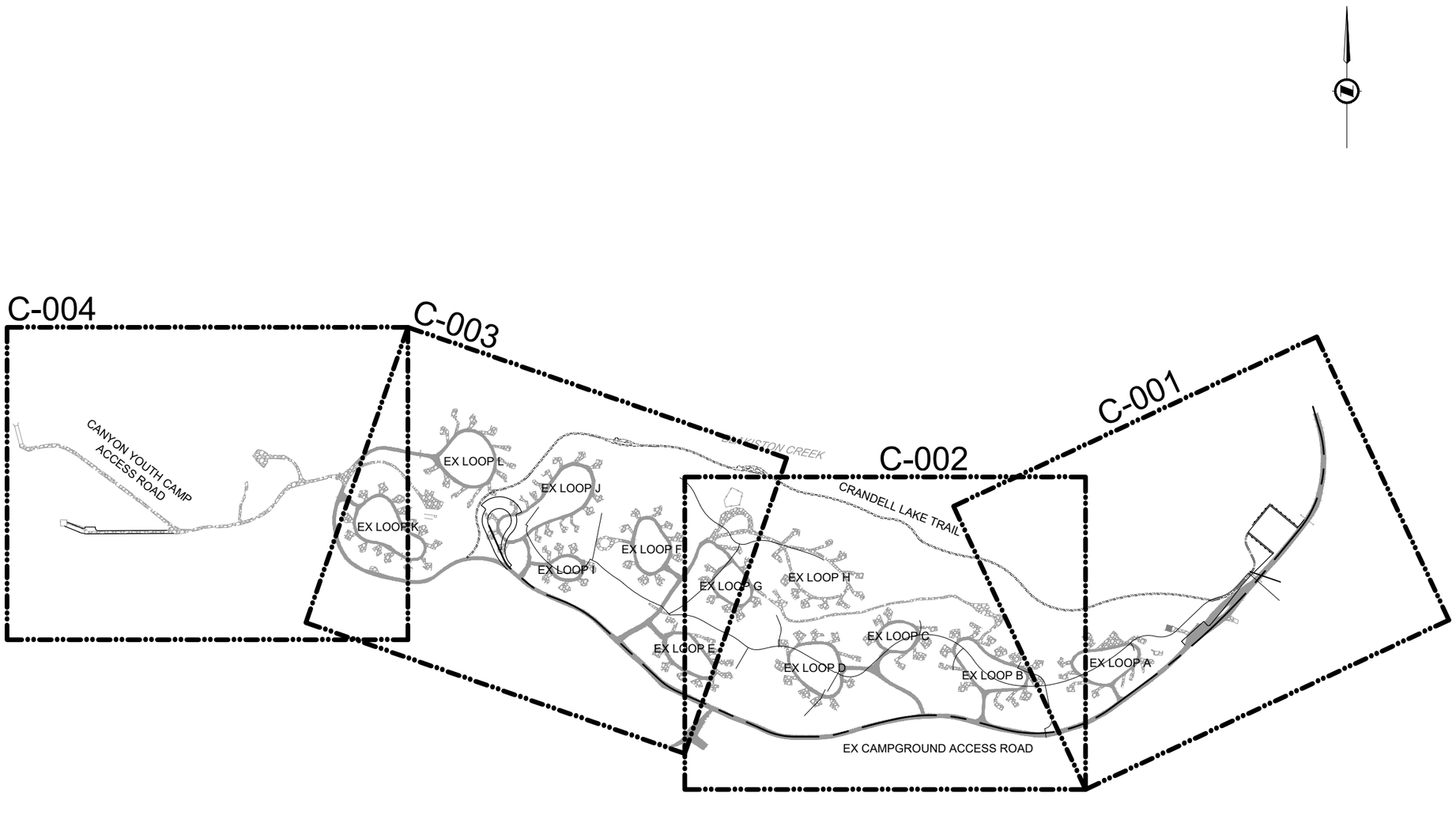
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 4
Drawing Reference No. / No. de réference du dessin: G-003

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\G-01195-003_KEY.DWG PLOTTED: 2021/01/25 1:11 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client

Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE PREPARATION & REMOVALS KEY PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:3000

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

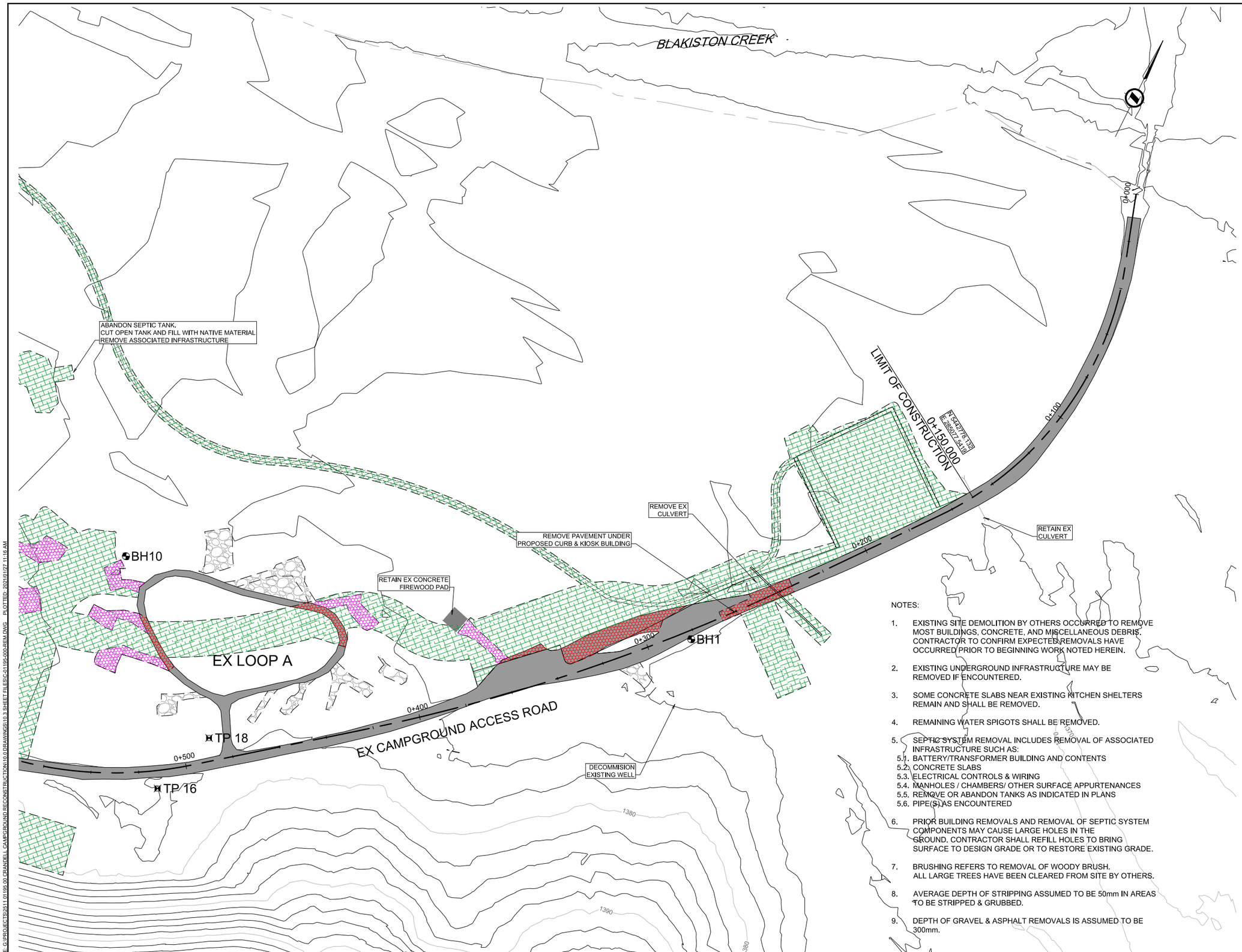
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		5

Drawing Reference No. / No. de réference du dessin
C-000

FILE: G:\PROJECTS\2511\01195.00\CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-000-REM.DWG PLOTTED: 2021\01\27 11:16 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



NOTES:

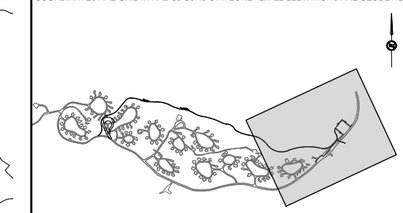
1. EXISTING SITE DEMOLITION BY OTHERS OCCURRED TO REMOVE MOST BUILDINGS, CONCRETE, AND MISCELLANEOUS DEBRIS. CONTRACTOR TO CONFIRM EXPECTED REMOVALS HAVE OCCURRED PRIOR TO BEGINNING WORK NOTED HEREIN.
2. EXISTING UNDERGROUND INFRASTRUCTURE MAY BE REMOVED IF ENCOUNTERED.
3. SOME CONCRETE SLABS NEAR EXISTING KITCHEN SHELTERS REMAIN AND SHALL BE REMOVED.
4. REMAINING WATER SPIGOTS SHALL BE REMOVED.
5. SEPTIC SYSTEM REMOVAL INCLUDES REMOVAL OF ASSOCIATED INFRASTRUCTURE SUCH AS:
   - 5.1. BATTERY/TRANSFORMER BUILDING AND CONTENTS
   - 5.2. CONCRETE SLABS
   - 5.3. ELECTRICAL CONTROLS & WIRING
   - 5.4. MANHOLES / CHAMBERS/ OTHER SURFACE APPURTENANCES
   - 5.5. REMOVE OR ABANDON TANKS AS INDICATED IN PLANS
   - 5.6. PIPE(S) AS ENCOUNTERED
6. PRIOR BUILDING REMOVALS AND REMOVAL OF SEPTIC SYSTEM COMPONENTS MAY CAUSE LARGE HOLES IN THE GROUND. CONTRACTOR SHALL REFILL HOLES TO BRING SURFACE TO DESIGN GRADE OR TO RESTORE EXISTING GRADE.
7. BRUSHING REFERS TO REMOVAL OF WOODY BRUSH. ALL LARGE TREES HAVE BEEN CLEARED FROM SITE BY OTHERS.
8. AVERAGE DEPTH OF STRIPPING ASSUMED TO BE 50mm IN AREAS TO BE STRIPPED & GRUBBED.
9. DEPTH OF GRAVEL & ASPHALT REMOVALS IS ASSUMED TO BE 300mm.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client

Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE PREPARATION & REMOVALS EAST END ENTRANCE & EXISTING LOOP A

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:750

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

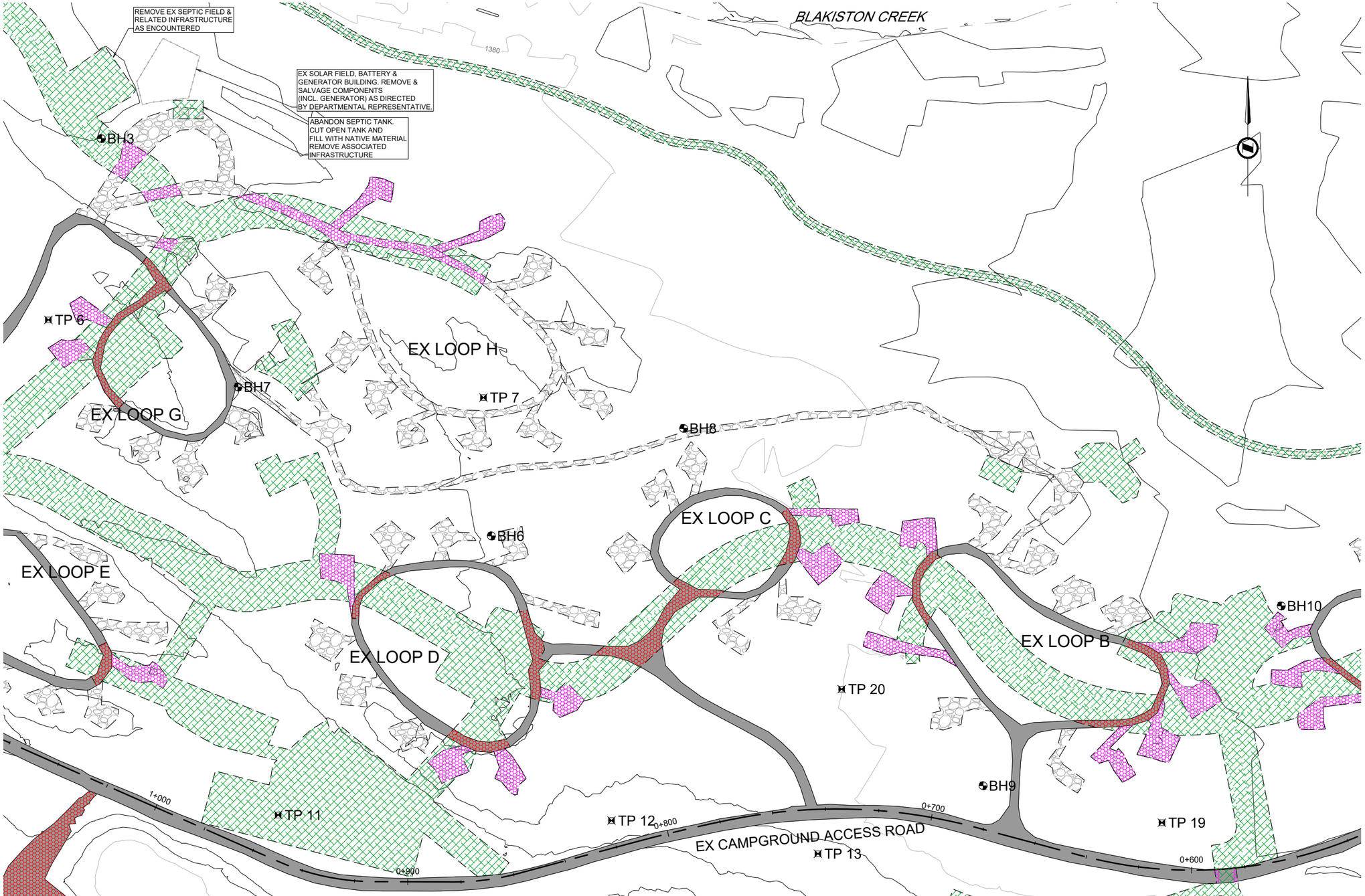
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		6

Drawing Reference No. / No. de réference du dessin: C-001

FILE: C:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-000-REM.DWG PLOTTED: 2021/01/27 11:16 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



NOTES:

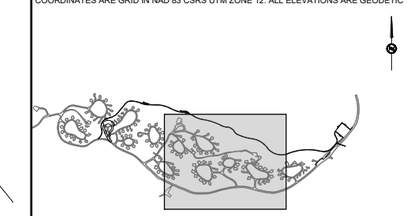
1. EXISTING SITE DEMOLITION BY OTHERS OCCURRED TO REMOVE MOST BUILDINGS, CONCRETE, AND MISCELLANEOUS DEBRIS. CONTRACTOR TO CONFIRM EXPECTED REMOVALS HAVE OCCURRED PRIOR TO BEGINNING WORK NOTED HEREIN.
2. EXISTING UNDERGROUND INFRASTRUCTURE MAY BE REMOVED IF ENCOUNTERED.
3. SOME CONCRETE SLABS NEAR EXISTING KITCHEN SHELTERS REMAIN AND SHALL BE REMOVED.
4. REMAINING WATER SPIGOTS SHALL BE REMOVED.
5. SEPTIC SYSTEM REMOVAL INCLUDES REMOVAL OF ASSOCIATED INFRASTRUCTURE SUCH AS:
   5.1. BATTERY/TRANSFORMER BUILDING AND CONTENTS
   5.2. CONCRETE SLABS
   5.3. ELECTRICAL CONTROLS & WIRING
   5.4. MANHOLES / CHAMBERS/ OTHER SURFACE APPURTENANCES
   5.5. REMOVE OR ABANDON TANKS AS INDICATED IN PLANS
   5.6. PIPE(S) AS ENCOUNTERED
6. PRIOR BUILDING REMOVALS AND REMOVAL OF SEPTIC SYSTEM COMPONENTS MAY CAUSE LARGE HOLES IN THE GROUND. CONTRACTOR SHALL REFILL HOLES TO BRING SURFACE TO DESIGN GRADE OR TO RESTORE EXISTING GRADE.
7. BRUSHING REFERS TO REMOVAL OF WOODY BRUSH. ALL LARGE TREES HAVE BEEN CLEARED FROM SITE BY OTHERS.
8. AVERAGE DEPTH OF STRIPPING ASSUMED TO BE 50mm IN AREAS TO BE STRIPPED & GRUBBED.
9. DEPTH OF GRAVEL & ASPHALT REMOVALS IS ASSUMED TO BE 300mm.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE PREPARATION & REMOVALS EAST SIDE EXISTING LOOPS B - E, G-H

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:750

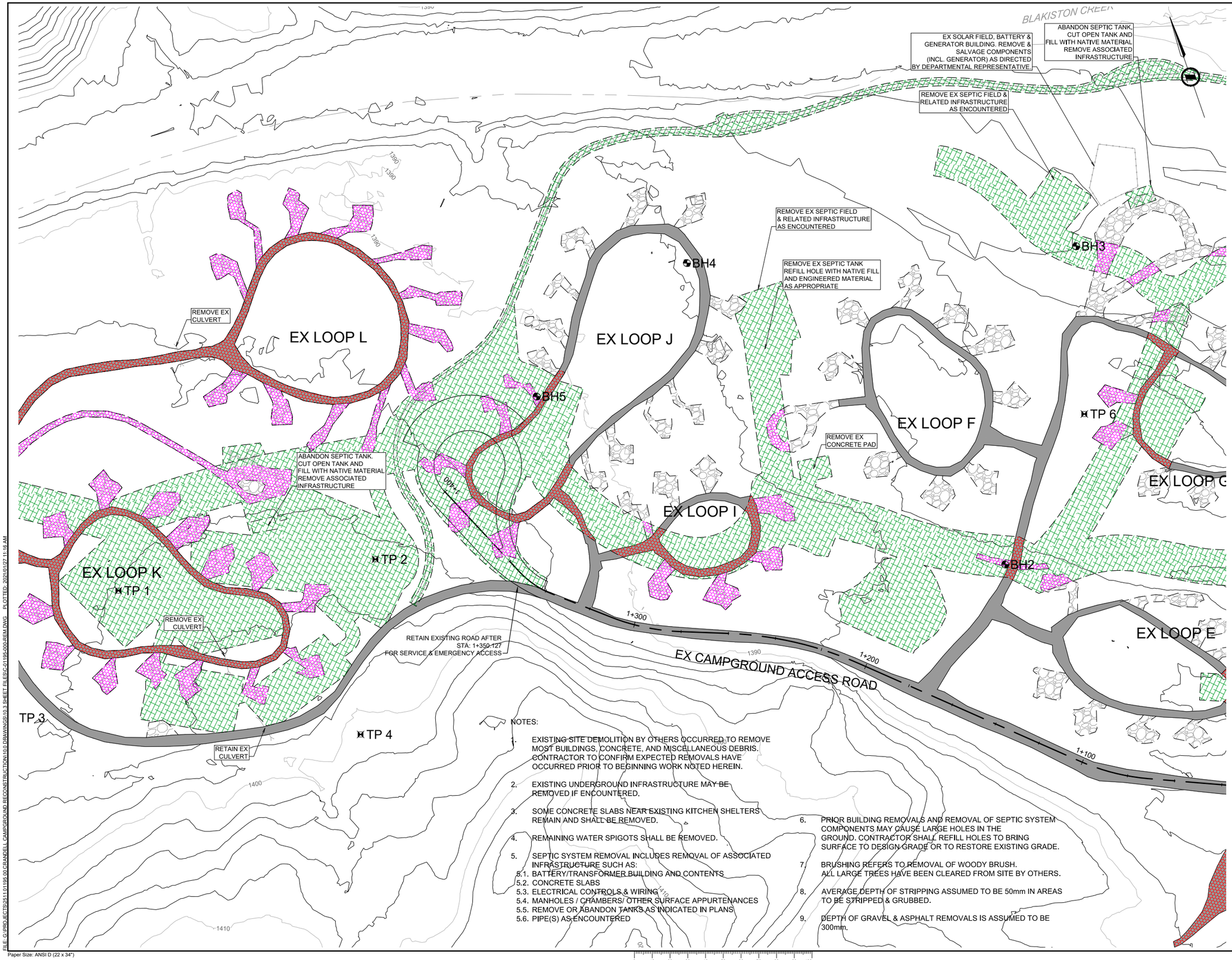
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 7
Drawing Reference No. / No. de référence du dessin: C-002

FILE: G:\PROJECTS\2511\01195\00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-000-REM.DWG PLOTTED: 2021\01\27 11:16 AM

Paper Size: ANSI D (22 x 34")



NOTES:

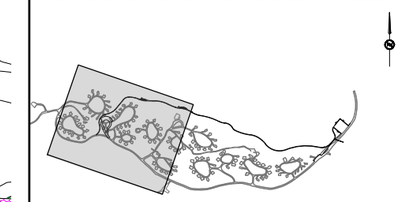
1. EXISTING SITE DEMOLITION BY OTHERS OCCURRED TO REMOVE MOST BUILDINGS, CONCRETE, AND MISCELLANEOUS DEBRIS. CONTRACTOR TO CONFIRM EXPECTED REMOVALS HAVE OCCURRED PRIOR TO BEGINNING WORK NOTED HEREIN.
2. EXISTING UNDERGROUND INFRASTRUCTURE MAY BE REMOVED IF ENCOUNTERED.
3. SOME CONCRETE SLABS NEAR EXISTING KITCHEN SHELTERS REMAIN AND SHALL BE REMOVED.
4. REMAINING WATER SPIGOTS SHALL BE REMOVED.
5. SEPTIC SYSTEM REMOVAL INCLUDES REMOVAL OF ASSOCIATED INFRASTRUCTURE SUCH AS:
   - 5.1. BATTERY/TRANSFORMER BUILDING AND CONTENTS
   - 5.2. CONCRETE SLABS
   - 5.3. ELECTRICAL CONTROLS & WIRING
   - 5.4. MANHOLES / CHAMBERS/ OTHER SURFACE APPURTENANCES
   - 5.5. REMOVE OR ABANDON TANKS AS INDICATED IN PLANS
   - 5.6. PIPE(S) AS ENCOUNTERED
6. PRIOR BUILDING REMOVALS AND REMOVAL OF SEPTIC SYSTEM COMPONENTS MAY CAUSE LARGE HOLES IN THE GROUND. CONTRACTOR SHALL REFILL HOLES TO BRING SURFACE TO DESIGN GRADE OR TO RESTORE EXISTING GRADE.
7. BRUSHING REFERS TO REMOVAL OF WOODY BRUSH. ALL LARGE TREES HAVE BEEN CLEARED FROM SITE BY OTHERS.
8. AVERAGE DEPTH OF STRIPPING ASSUMED TO BE 50mm IN AREAS TO BE STRIPPED & GRUBBED.
9. DEPTH OF GRAVEL & ASPHALT REMOVALS IS ASSUMED TO BE 300mm.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE PREPARATION & REMOVALS WEST SIDE EXISTING LOOPS E-F, I-L

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:750

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

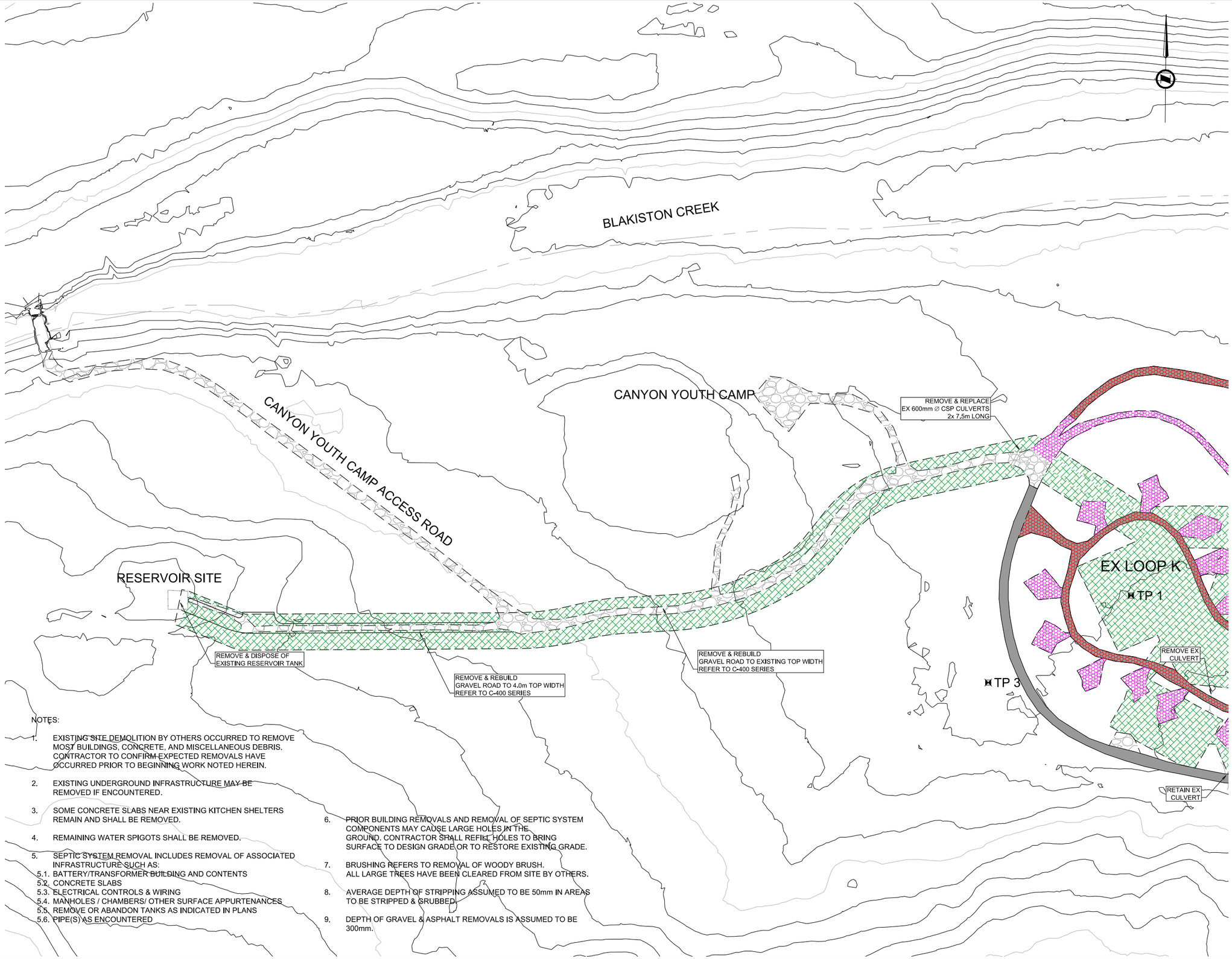
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		8

Drawing Reference No. / No. de réference du dessin: C-003

FILE: C:\PROJECTS\2511\01195.00\CRANDELL CAMPGROUND RECONSTRUCTION\100 DRAWINGS\10.3 SHEET FILES\C-01195-000-REM.DWG PLOTTED: 2021/01/27 11:16 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



NOTES:

1. EXISTING SITE DEMOLITION BY OTHERS OCCURRED TO REMOVE MOST BUILDINGS, CONCRETE, AND MISCELLANEOUS DEBRIS. CONTRACTOR TO CONFIRM EXPECTED REMOVALS HAVE OCCURRED PRIOR TO BEGINNING WORK NOTED HEREIN.
2. EXISTING UNDERGROUND INFRASTRUCTURE MAY BE REMOVED IF ENCOUNTERED.
3. SOME CONCRETE SLABS NEAR EXISTING KITCHEN SHELTERS REMAIN AND SHALL BE REMOVED.
4. REMAINING WATER SPIGOTS SHALL BE REMOVED.
5. SEPTIC SYSTEM REMOVAL INCLUDES REMOVAL OF ASSOCIATED INFRASTRUCTURE SUCH AS:
   - 5.1. BATTERY/TRANSFORMER BUILDING AND CONTENTS
   - 5.2. CONCRETE SLABS
   - 5.3. ELECTRICAL CONTROLS & WIRING
   - 5.4. MANHOLES / CHAMBERS/ OTHER SURFACE APPURTENANCES
   - 5.5. REMOVE OR ABANDON TANKS AS INDICATED IN PLANS
   - 5.6. PIPE(S) AS ENCOUNTERED
6. PRIOR BUILDING REMOVALS AND REMOVAL OF SEPTIC SYSTEM COMPONENTS MAY CAUSE LARGE HOLES IN THE GROUND. CONTRACTOR SHALL REFILL HOLES TO BRING SURFACE TO DESIGN GRADE OR TO RESTORE EXISTING GRADE.
7. BRUSHING REFERS TO REMOVAL OF WOODY BRUSH. ALL LARGE TREES HAVE BEEN CLEARED FROM SITE BY OTHERS.
8. AVERAGE DEPTH OF STRIPPING ASSUMED TO BE 50mm IN AREAS TO BE STRIPPED & GRUBBED.
9. DEPTH OF GRAVEL & ASPHALT REMOVALS IS ASSUMED TO BE 300mm.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp / Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin
SITE PREPARATION & REMOVALS WEST END CANYON YOUTH CAMP & RESERVOIR

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:750

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

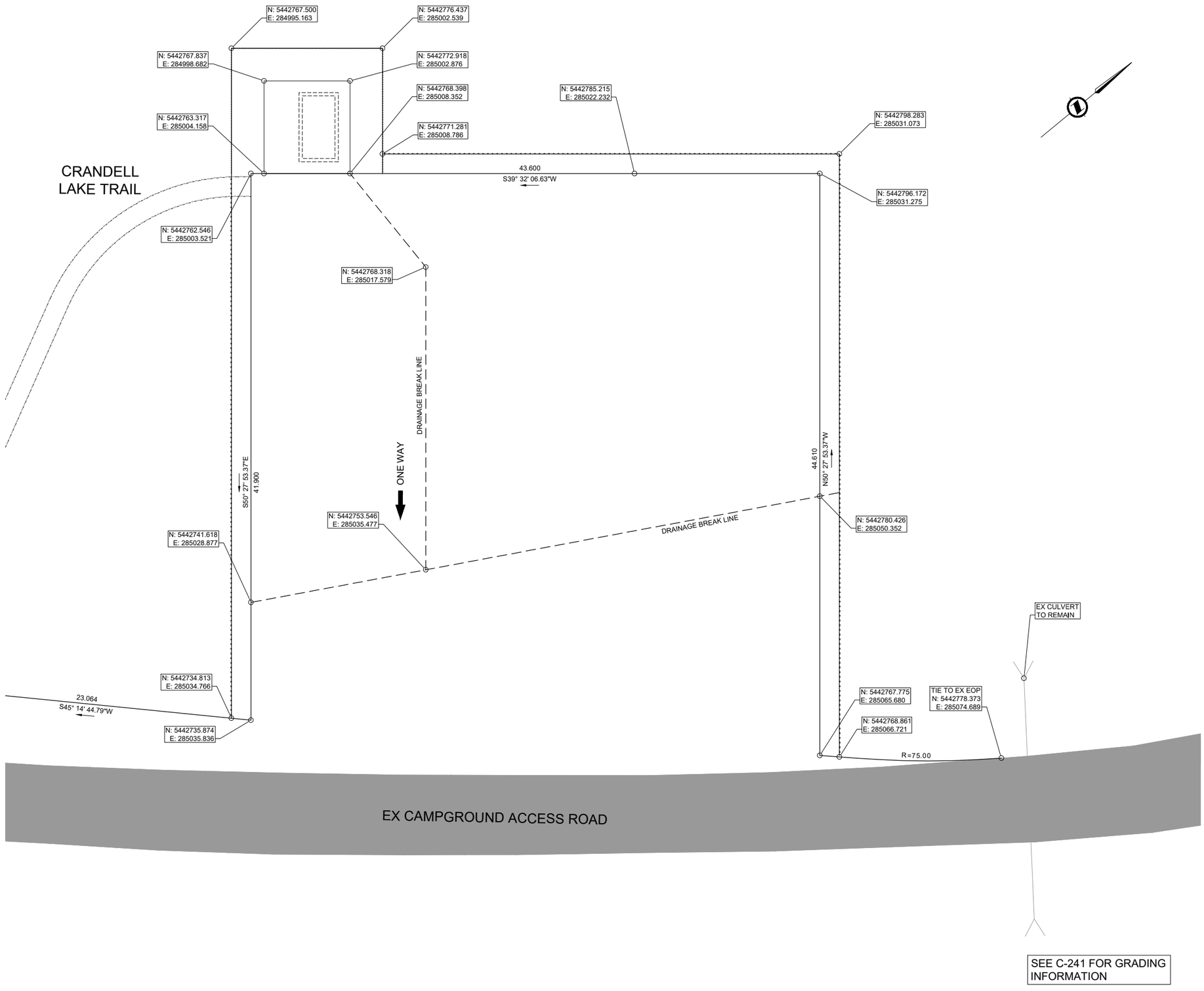
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		9

Drawing Reference No. / No. de réference du dessin: C-004

FILE: C:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-000-REM.DWG PLOTTED: 2021/01/27 11:16 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

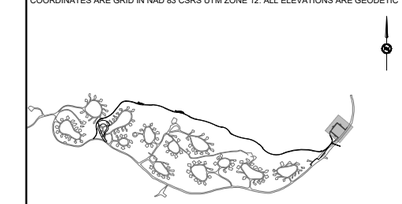


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ANCILLARY ROADWAY LAYOUT PLAN
CRANDELL LAKE TRAILHEAD PARKING LOT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:150

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

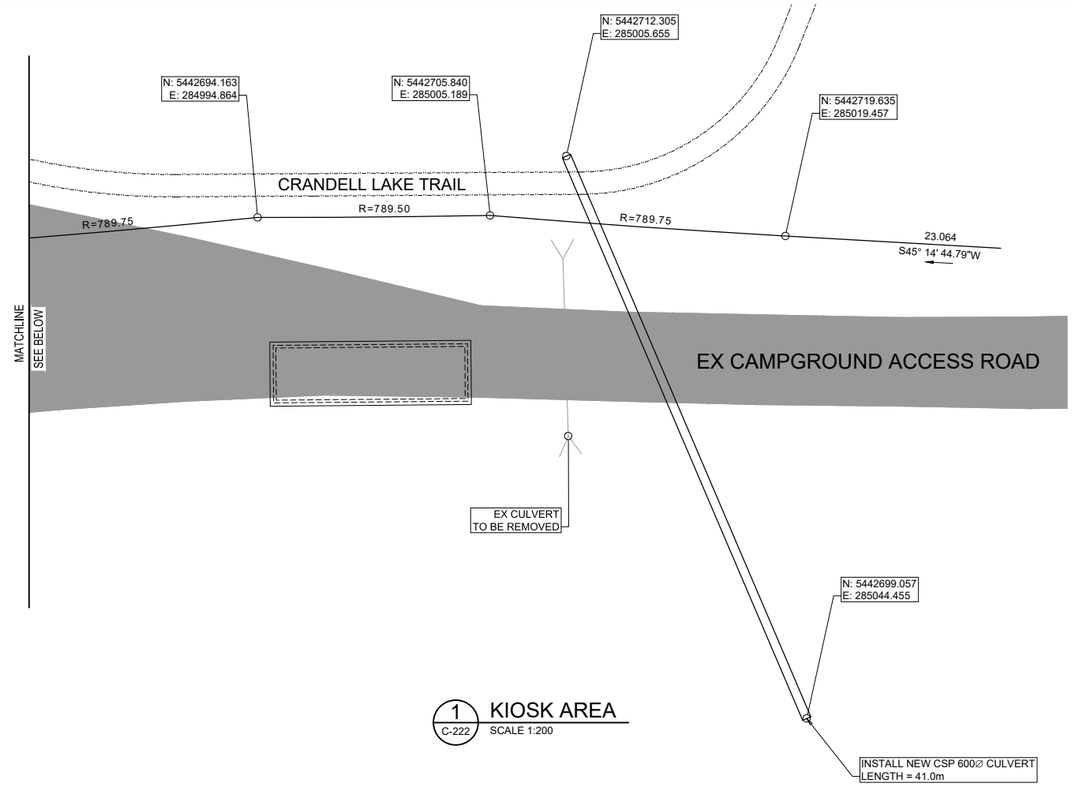
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		10

Drawing Reference No. / No. de réference du dessin
C-221

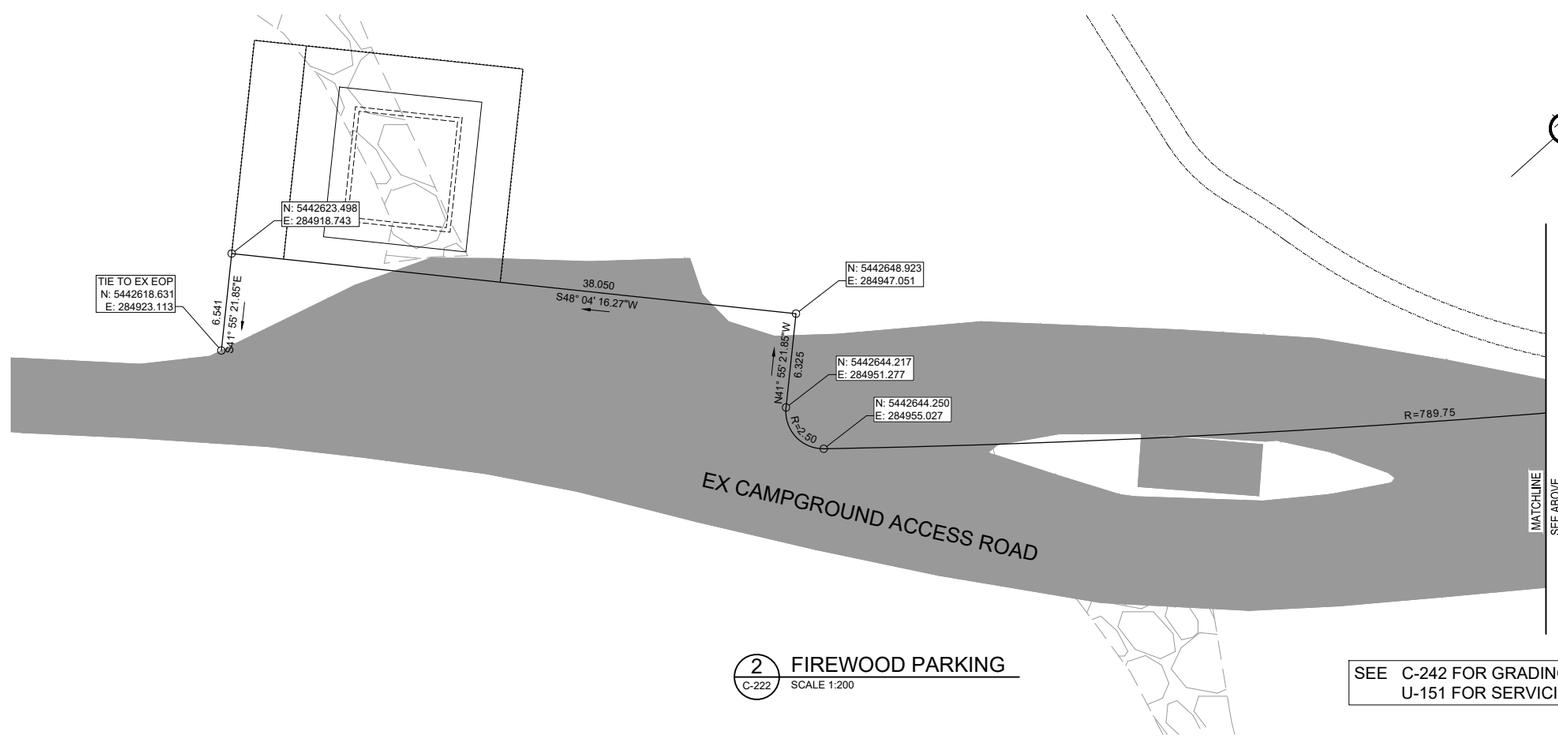
FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-220-RDP.DWG PLOTTED: 2021/01/27 12:11 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 C-222 KIOSK AREA
SCALE 1:200



2 C-222 FIREWOOD PARKING
SCALE 1:200

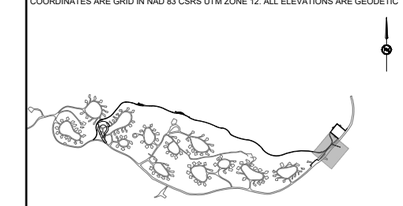
SEE C-242 FOR GRADING INFORMATION
U-151 FOR SERVICING INFORMATION

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ANCILLARY ROADWAY LAYOUT PLAN KIOSK AREA & FIREWOOD PARKING

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:200

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

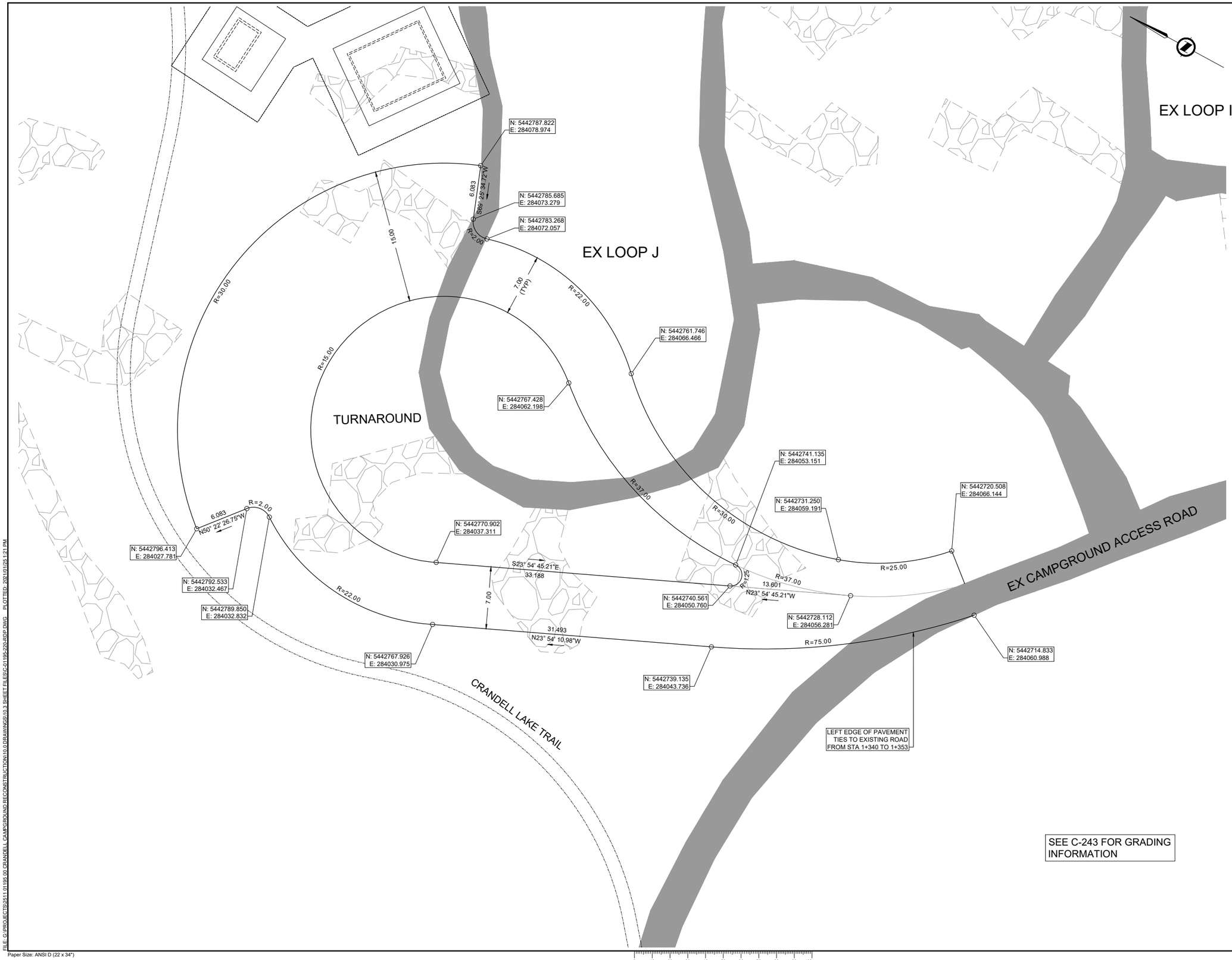
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 11
Drawing Reference No. / No. de réference du dessin: C-222

FILE: G:\PROJECTS\2511\01195.00\CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-220-REP.DWG PLOTTED: 2021/01/25 1:21 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

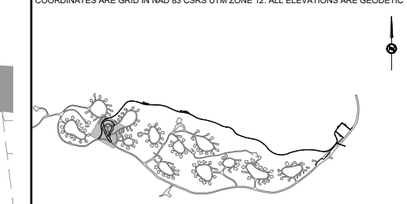


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ANCILLARY ROADWAY LAYOUT PLAN TURNAROUND & CRANDELL LAKE TRAIL PARKING

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
DL	DL	1:200

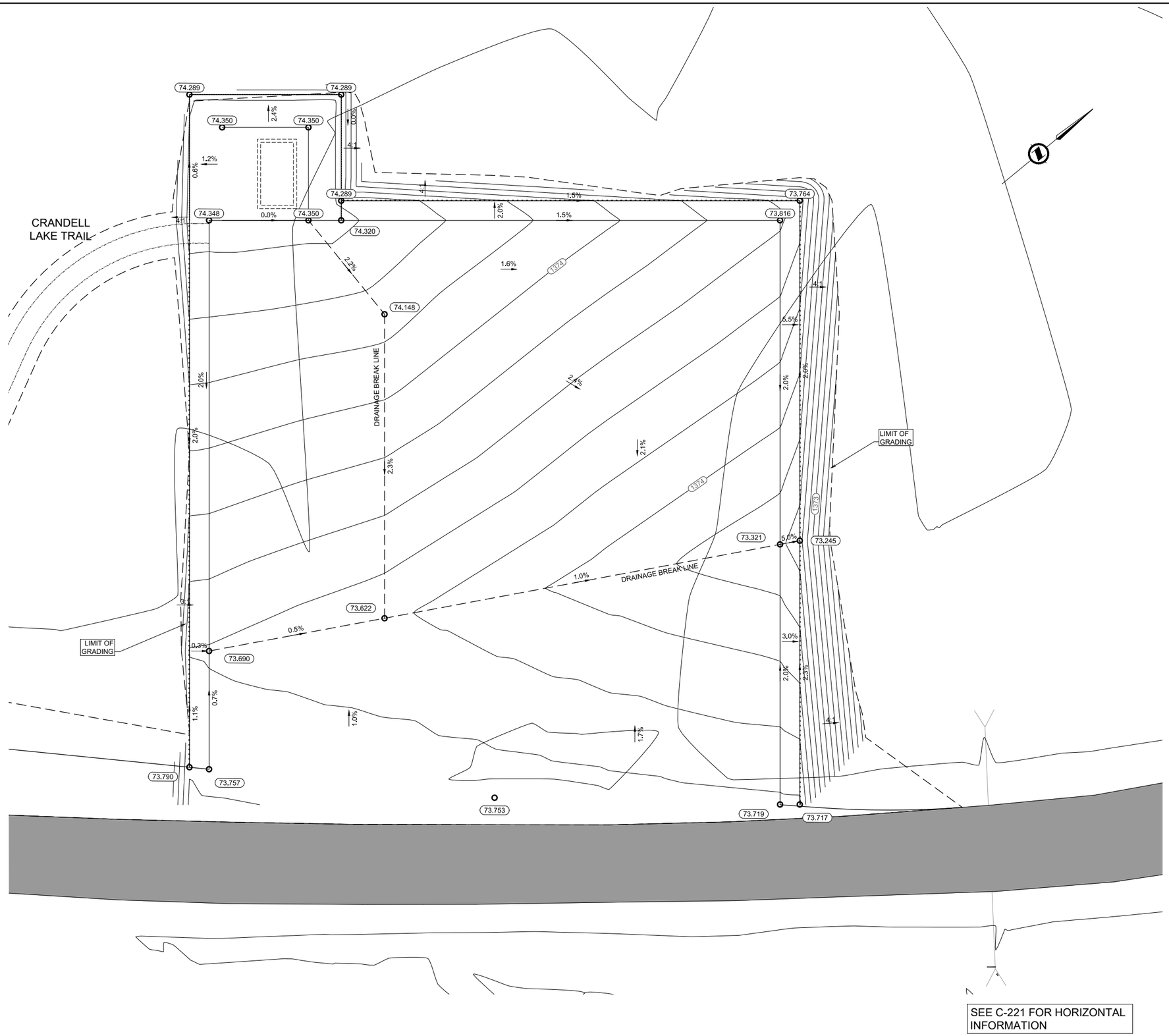
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 12
Drawing Reference No. / No. de réference du dessin: C-223

FILE: G:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-220-ROP.DWG PLOTTED: 2021/01/25 1:21 PM

Paper Size: ANSI D (22 x 34")

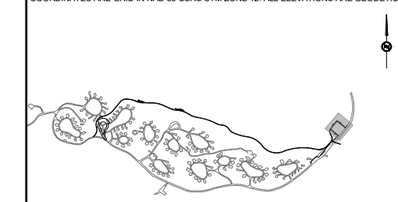


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp / Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin
ANCILLARY ROADWAY GRADING PLAN
CRANDELL LAKE TRAILHEAD PARKING LOT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:150

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

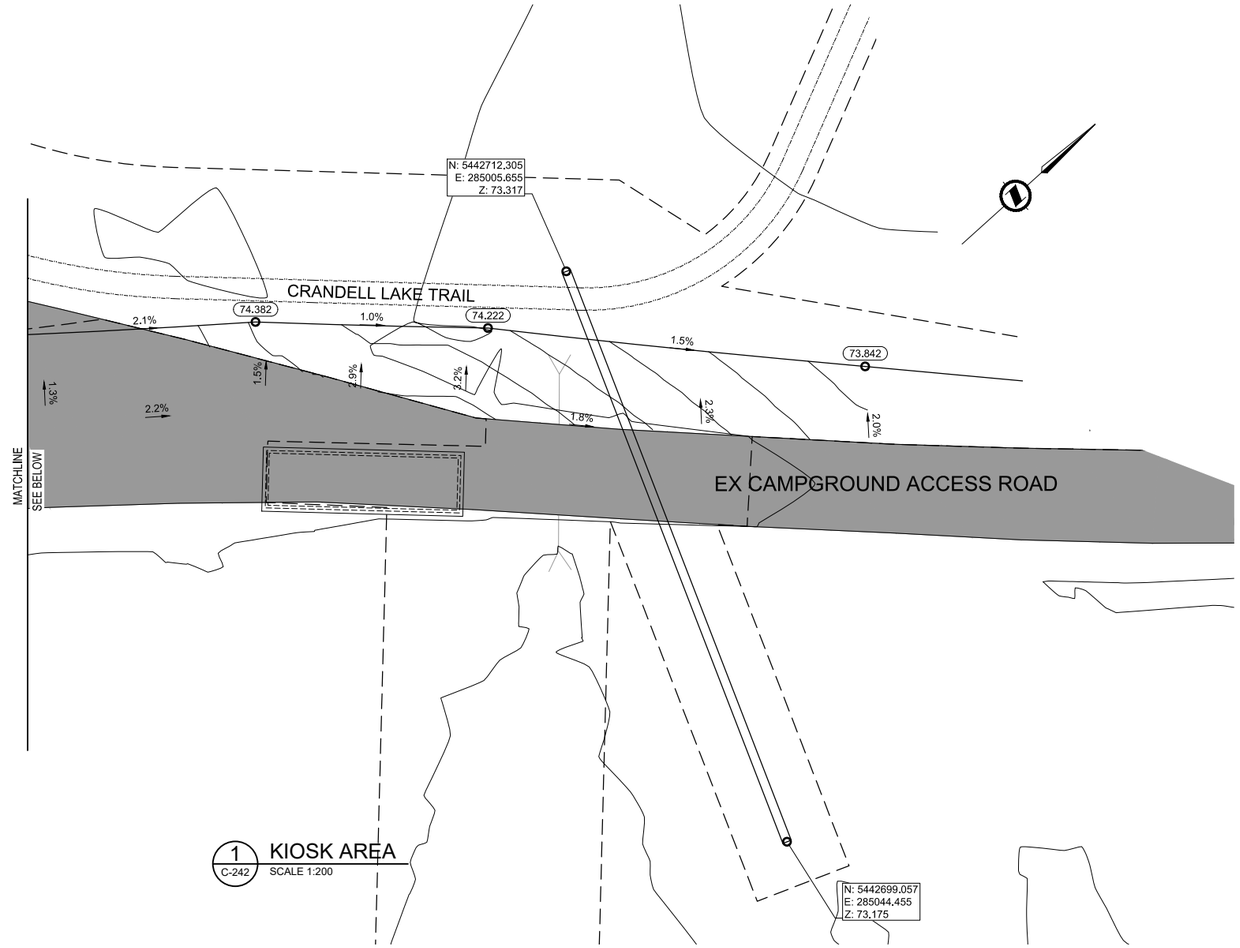
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 13
Drawing Reference No. / No. de référence du dessin: C-241

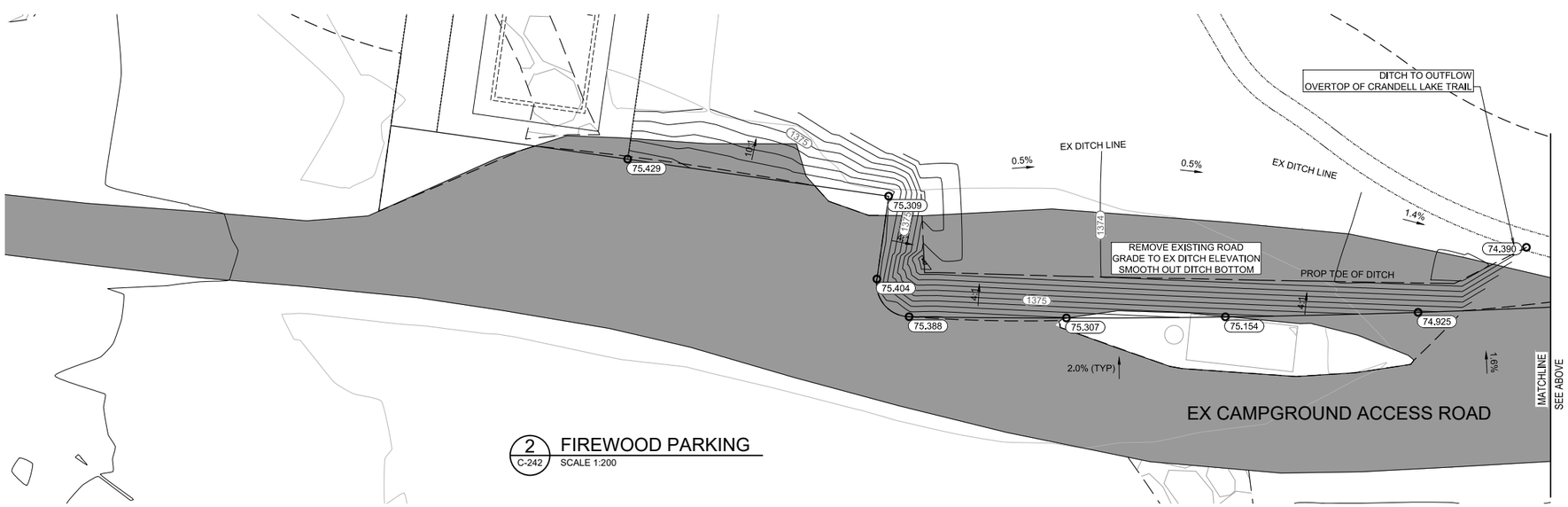
FILE: C:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-240-RDG.DWG PLOTTED: 2021/01/27 11:24 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 C-242 KIOSK AREA
SCALE 1:200



2 C-242 FIREWOOD PARKING
SCALE 1:200

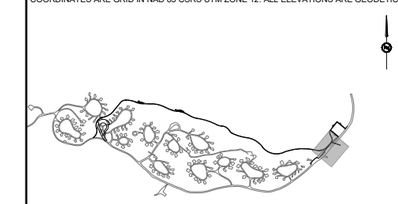
SEE C-222 FOR HORIZONTAL INFORMATION

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ANCILLARY ROADWAY GRADING PLAN KIOSK AREA & FIREWOOD PARKING

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:200

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

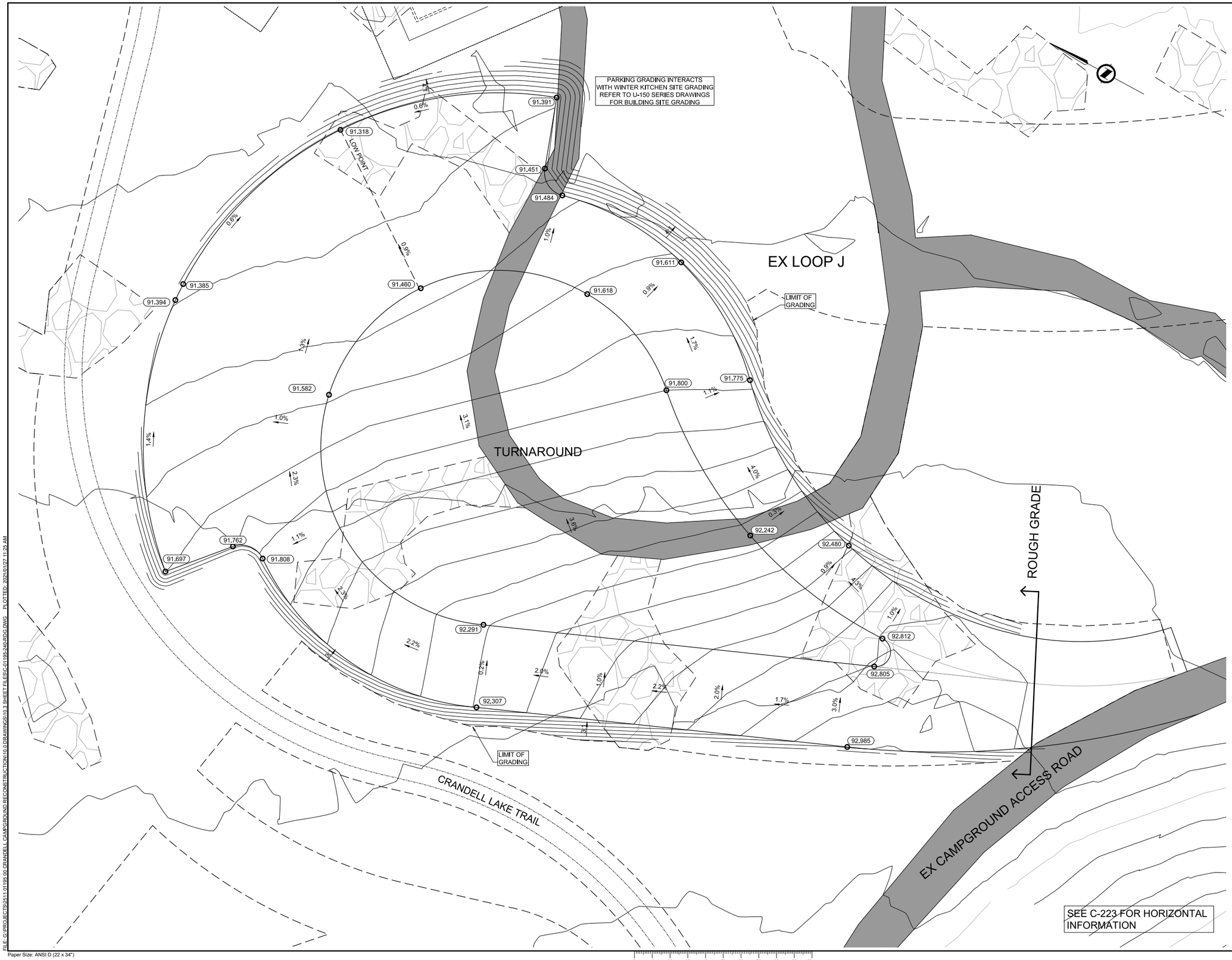
Client Acceptance / Acceptation du client
Approved by / Approuvé par
Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		14

Drawing Reference No. / No. de réference du dessin
C-242

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-240-RDG.DWG PLOTTED: 2021/01/27 11:24 AM

Paper Size: ANSI D (22 x 34")

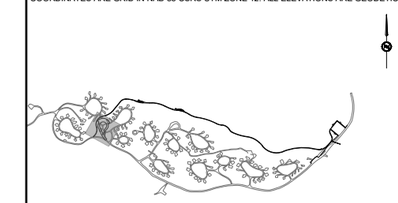


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
DOUG LEONHARDT
2021-01-28

Client
Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ANCILLARY ROADWAY GRADING PLAN TURNAROUND & CRANDELL LAKE TRAIL PARKING

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	1:150

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

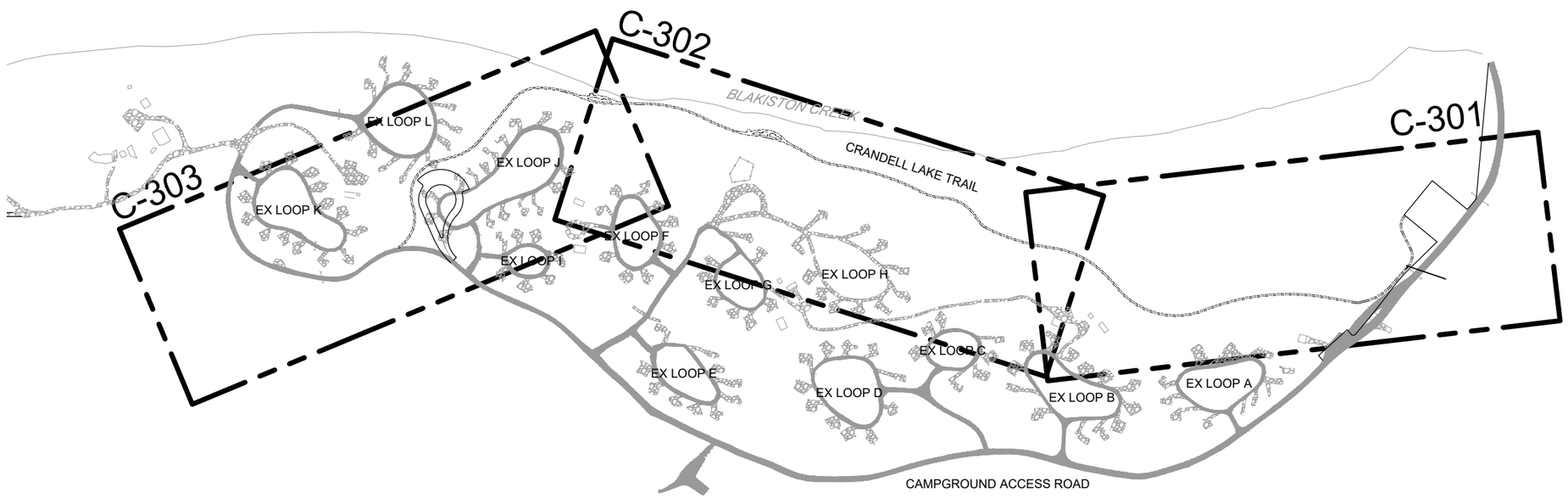
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		15

Drawing Reference No. / No. de réference du dessin: C-243

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-240-RDG.DWG PLOTTED: 2021/01/27 11:25 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A / C — A: detail number, numéro de detail; B: source drawing no., de dessin no.; C: detail on drawing no., detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client

Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

TRAIL PLANS & PROFILES

KEY PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
DL	DL	1:2500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		16

Drawing Reference No. / No. de réference du dessin: C-300

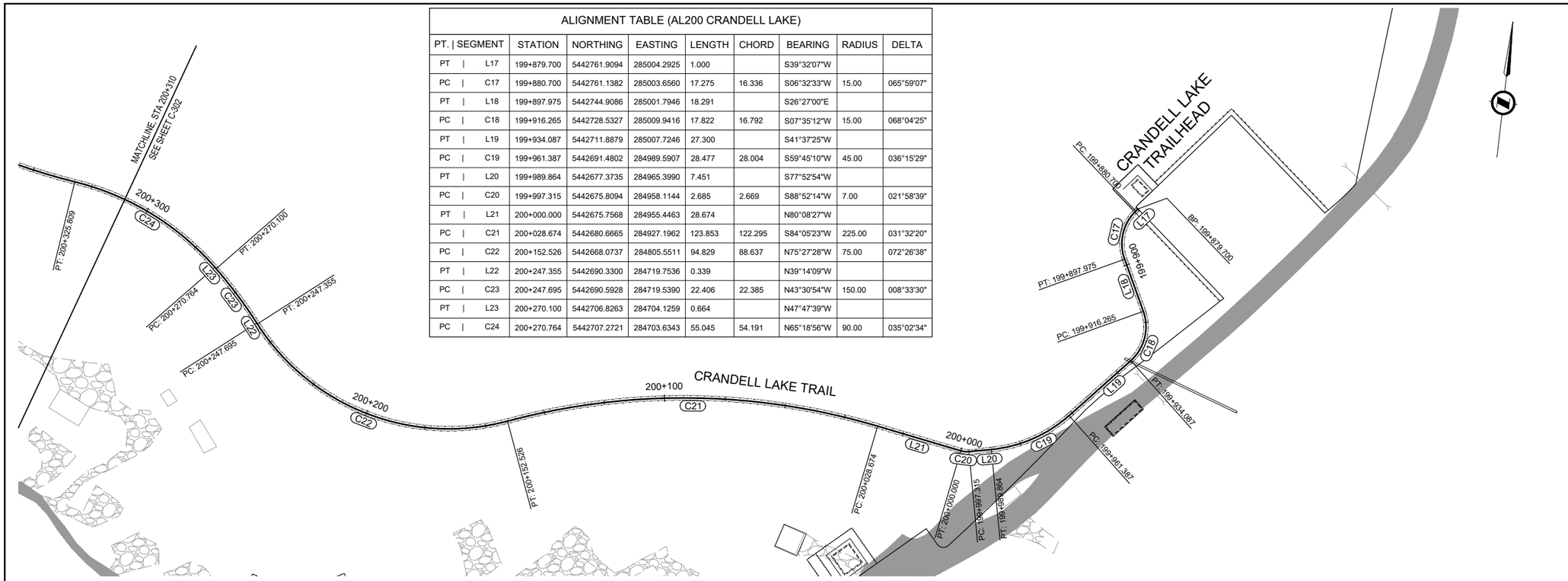
FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-300-TRL.DWG PLOTTED: 2021\01\26 1:28 PM

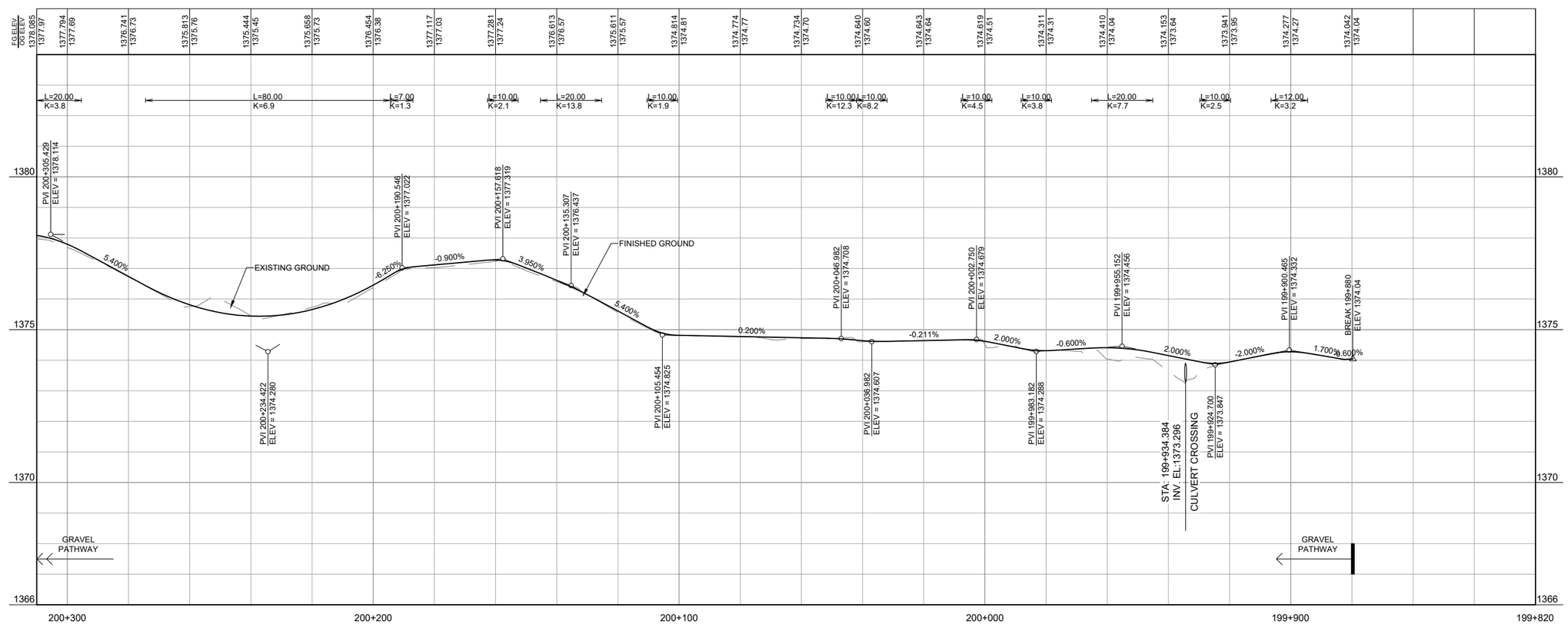
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

ALIGNMENT TABLE (AL200 CRANDELL LAKE)

PT.	SEGMENT	STATION	NORTHING	EASTING	LENGTH	CHORD	BEARING	RADIUS	DELTA
PT	L17	199+879.700	5442761.9094	285004.2925	1.000		S39°32'07"W		
PC	C17	199+880.700	5442761.1382	285003.6560	17.275	16.336	S06°32'33"W	15.00	065°59'07"
PT	L18	199+897.975	5442744.9086	285001.7946	18.291		S26°27'00"E		
PC	C18	199+916.265	5442728.5327	285009.9416	17.822	16.792	S07°35'12"W	15.00	068°04'25"
PT	L19	199+934.087	5442711.8879	285007.7246	27.300		S41°37'25"W		
PC	C19	199+961.387	5442691.4802	284989.5907	28.477	28.004	S59°45'10"W	45.00	036°15'29"
PT	L20	199+989.864	5442677.3735	284965.3990	7.451		S77°52'54"W		
PC	C20	199+997.315	5442675.8094	284958.1144	2.685	2.669	S88°52'14"W	7.00	021°58'39"
PT	L21	200+000.000	5442675.7568	284955.4463	28.674		N80°08'27"W		
PC	C21	200+028.674	5442680.6665	284927.1962	123.853	122.295	S84°05'23"W	225.00	031°32'20"
PC	C22	200+152.526	5442668.0737	284805.5511	94.829	88.637	N75°27'28"W	75.00	072°26'38"
PT	L22	200+247.355	5442690.3300	284719.7536	0.339		N39°14'09"W		
PC	C23	200+247.695	5442690.5928	284719.5390	22.406	22.385	N43°30'54"W	150.00	008°33'30"
PT	L23	200+270.100	5442706.8263	284704.1259	0.664		N47°47'39"W		
PC	C24	200+270.764	5442707.2721	284703.6343	55.045	54.191	N65°18'56"W	90.00	035°02'34"



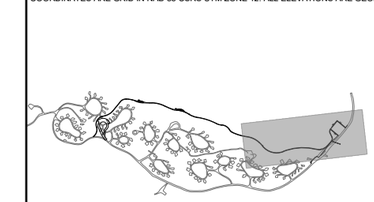


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency
L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
TRAIL PLANS & PROFILES

CRANDELL LAKE TRAIL
STA 200+000 TO STA 200+320

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	H 1:750 / V 1:75

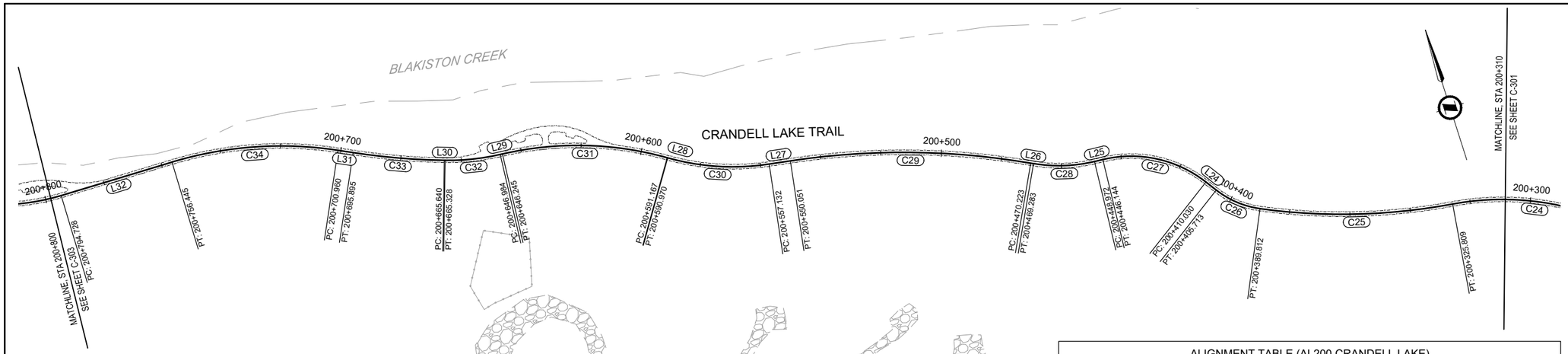
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Approved by / Approuvé par
Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 17
Drawing Reference No. / No. de référence du dessin: C-301

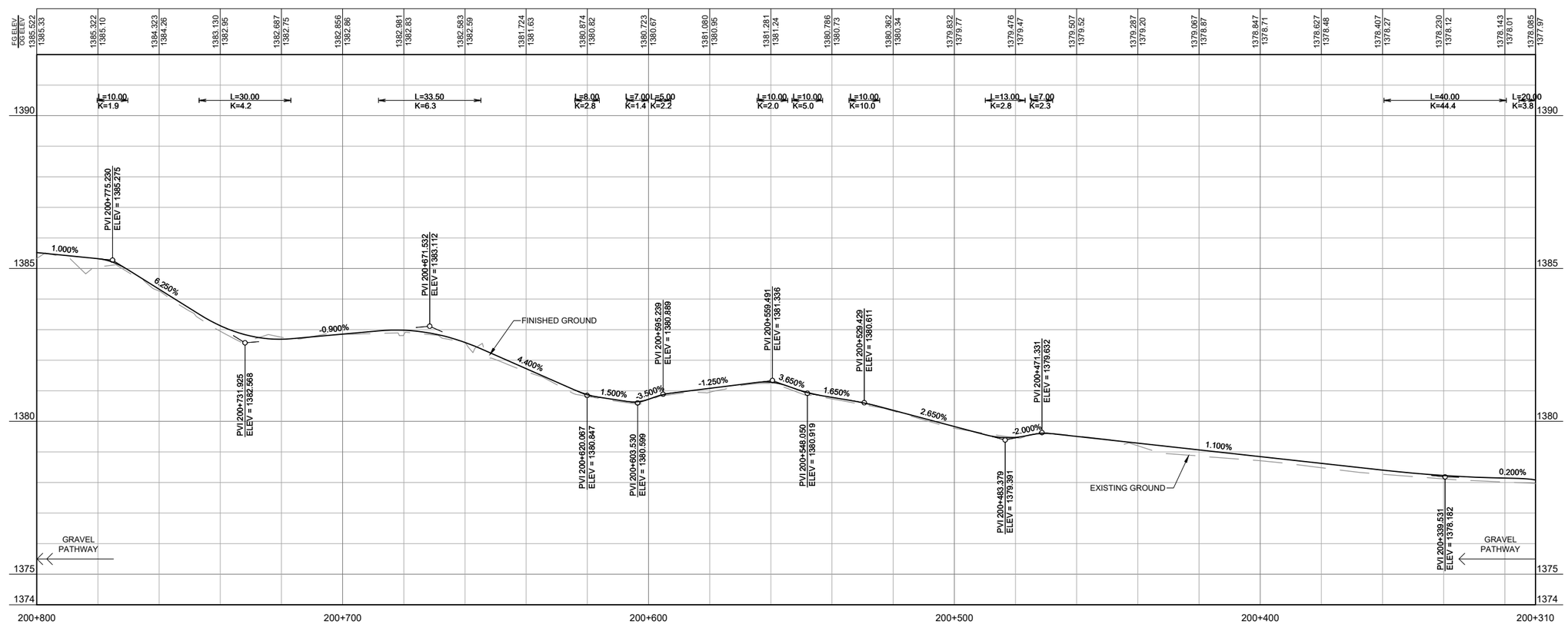
FILE: G:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-300-TRL.DWG PLOTTED: 2021/01/25 1:28 PM

Paper Size: ANSI D (22 x 34")



ALIGNMENT TABLE (AL200 CRANDELL LAKE)									
PT.	SEGMENT	STATION	NORTHING	EASTING	LENGTH	CHORD	BEARING	RADIUS	DELTA
PT	L28	200+590.970	5442823.4111	284411.8231	0.197		N56°38'53"W		
PC	C31	200+591.167	5442823.5193	284411.6588	55.078	54.504	N70°59'32"W	110.00	028°41'19"
PT	L29	200+646.245	5442841.2711	284360.1262	0.739		N85°20'12"W		
PC	C32	200+646.984	5442841.3312	284359.3898	18.344	18.298	N78°19'47"W	75.00	014°00'50"
PT	L30	200+665.328	5442845.0326	284341.4695	0.311		N71°19'22"W		
PC	C33	200+665.640	5442845.1323	284341.1745	30.255	30.232	N67°28'14"W	225.00	007°42'16"
PT	L31	200+695.895	5442856.7161	284313.2494	5.065		N63°37'06"W		
PC	C34	200+700.960	5442858.9667	284308.7121	55.485	55.031	N76°20'05"W	125.00	025°25'57"
PT	L32	200+756.445	5442871.9678	284255.2389	38.283		N89°03'03"W		

ALIGNMENT TABLE (AL200 CRANDELL LAKE)									
PT.	SEGMENT	STATION	NORTHING	EASTING	LENGTH	CHORD	BEARING	RADIUS	DELTA
PC	C25	200+325.809	5442729.9034	284654.3953	64.003	63.731	N73°40'08"W	200.00	018°20'08"
PC	C26	200+389.812	5442747.8236	284593.2360	15.900	15.715	N49°19'03"W	30.00	030°22'03"
PT	L24	200+405.713	5442758.0676	284581.3189	4.318		N34°08'01"W		
PC	C27	200+410.030	5442761.6414	284578.8962	36.114	34.899	N59°59'53"W	40.00	051°43'44"
PT	L25	200+446.144	5442779.0921	284548.6729	2.828		N85°51'45"W		
PC	C28	200+448.972	5442779.2962	284545.8521	20.311	20.171	N74°13'31"W	50.00	023°16'28"
PT	L26	200+469.283	5442784.7798	284526.4404	0.940		N62°35'18"W		
PC	C29	200+470.223	5442785.2128	284525.6057	79.827	79.489	N71°44'09"W	250.00	018°17'42"
PT	L27	200+550.051	5442810.1245	284450.1215	7.081		N80°53'00"W		
PC	C30	200+557.132	5442811.2465	284443.1299	33.839	33.587	N68°45'56"W	80.00	024°14'07"



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number numéro de detail
B source drawing no. de dessin no.
C detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

TRAIL PLANS & PROFILES

CRANDELL LAKE TRAIL
STA 200+320 TO STA 200+810

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	H 1:750 / V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

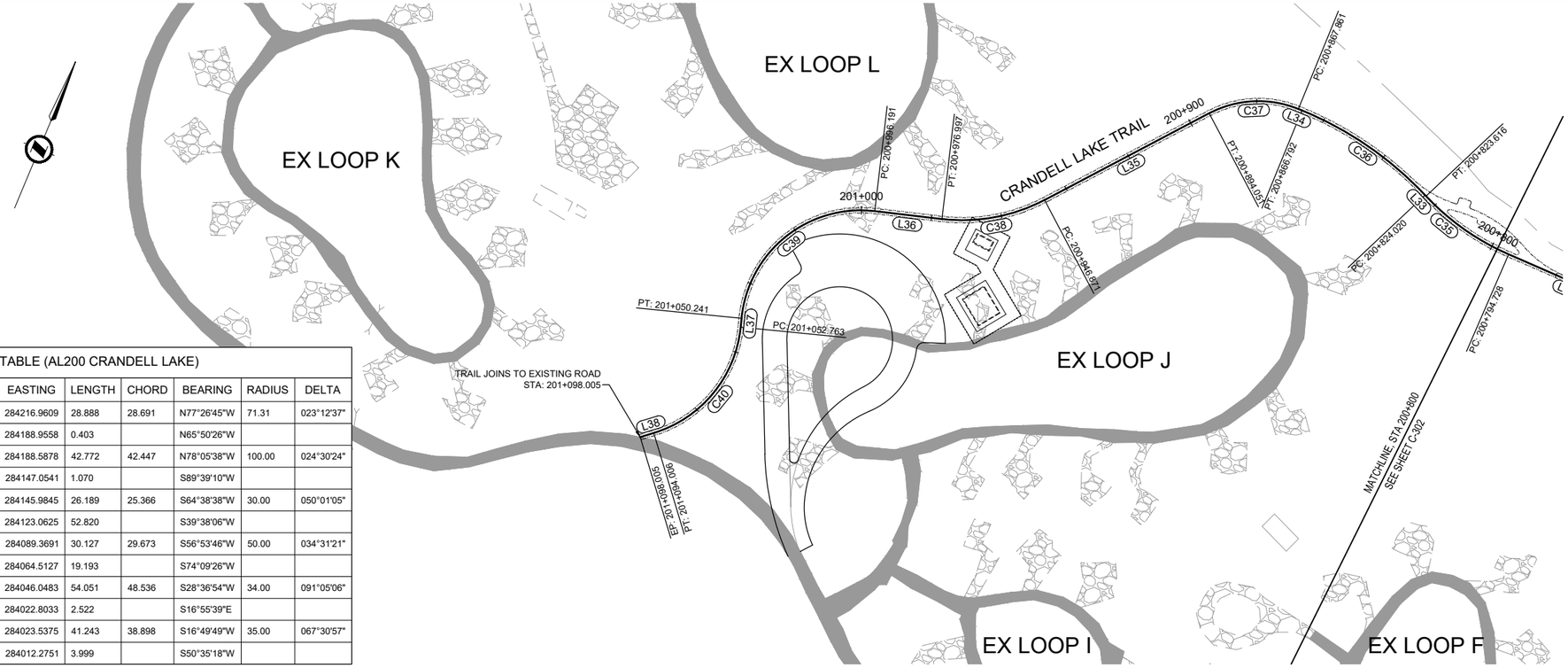
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		18

Drawing Reference No. / No. de réference du dessin
C-302

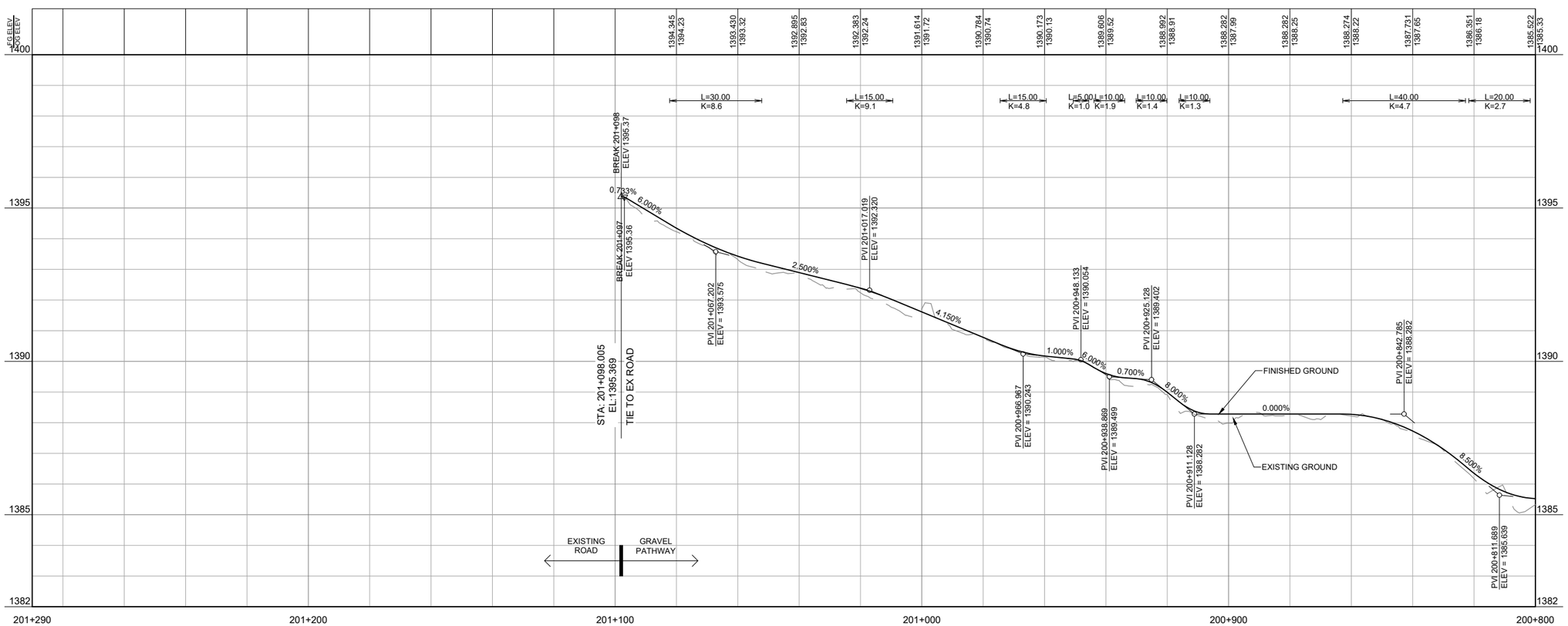
FILE: G:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-300-TRL.DWG PLOTTED: 2021/01/25 1:28 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



ALIGNMENT TABLE (AL200 CRANDELL LAKE)									
PT.	SEGMENT	STATION	NORTHING	EASTING	LENGTH	CHORD	BEARING	RADIUS	DELTA
PC	C35	200+794.728	5442872.6020	284216.9609	28.888	28.691	N77°26'45"W	71.31	023°12'37"
PT	L33	200+823.616	5442878.8384	284188.9558	0.403		N65°50'26"W		
PC	C36	200+824.020	5442879.0035	284188.5878	42.772	42.447	N78°05'38"W	100.00	024°30'24"
PT	L34	200+866.792	5442887.7606	284147.0541	1.070		S89°39'10"W		
PC	C37	200+867.861	5442887.7541	284145.9845	26.189	25.366	S64°38'38"W	30.00	050°01'05"
PT	L35	200+894.051	5442876.8915	284123.0625	52.820		S39°38'06"W		
PC	C38	200+946.871	5442836.2136	284089.3691	30.127	29.673	S56°53'46"W	50.00	034°31'21"
PT	L36	200+976.997	5442820.0076	284064.5127	19.193		S74°09'26"W		
PC	C39	200+996.191	5442814.7678	284046.0483	54.051	48.536	S28°36'54"W	34.00	091°05'06"
PT	L37	201+050.241	5442772.1598	284022.8033	2.522		S16°55'39"E		
PC	C40	201+052.763	5442769.7473	284023.5375	41.243	38.898	S16°49'49"W	35.00	067°30'57"
PT	L38	201+094.006	5442732.5156	284012.2751	3.999		S50°35'18"W		

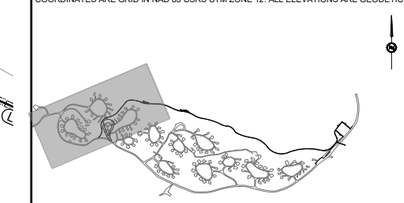


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
DOUG LEONHARDT
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

TRAIL PLANS & PROFILES

CRANDELL LAKE TRAIL
STA 200+810 TO STA 201+100

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	H 1:750 / V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

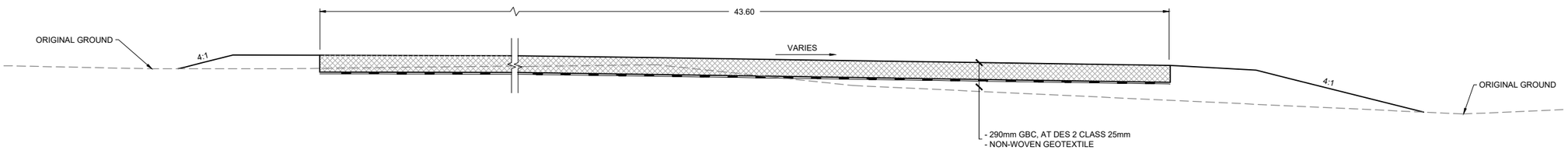
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		19

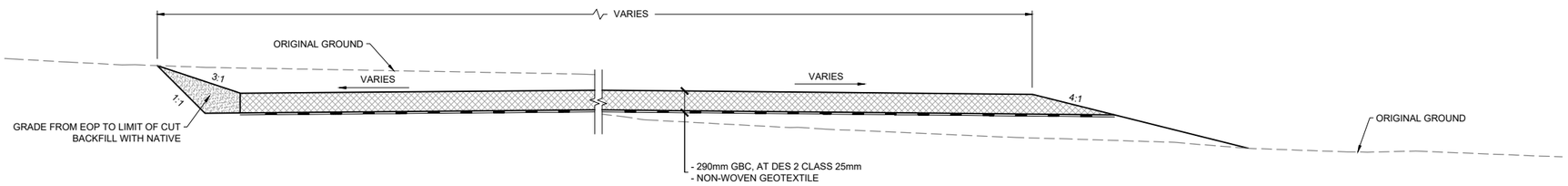
Drawing Reference No. / No. de réference du dessin
C-303

FILE: G:\PROJECTS\2511\01195.00\CRANDELL CAMPGROUND RECONSTRUCTION\10.0\DRAWINGS\10.3 SHEET FILES\C-01195-300-TRL.DWG PLOTTED: 2021/01/25 1:28 PM

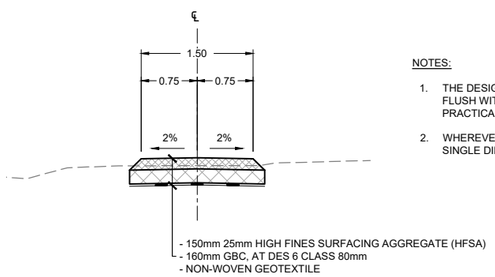
Paper Size: ANSI D (22 x 34")



1 C-401 TYPICAL SECTION - CRANDELL LAKE TRAIL HEAD PARKING LOT
SCALE 1:40



2 C-401 TYPICAL SECTION - TURNAROUND
SCALE 1:40



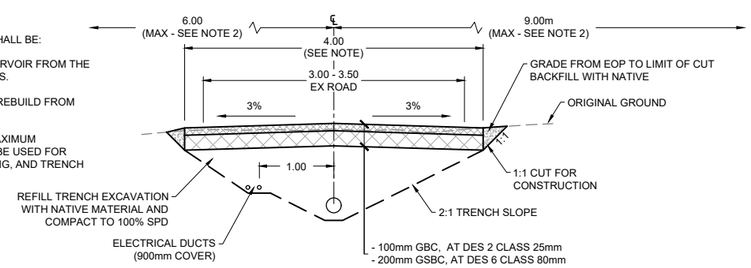
NOTES:

1. THE DESIGN INTENT IS TO HAVE THE PATHWAY SURFACE FLUSH WITH THE SURROUNDING TERRAIN AS MUCH AS PRACTICAL.
2. WHEREVER POSSIBLE PATHWAYS SHOULD SLOPE IN A SINGLE DIRECTION AND NOT BE CROWNED.

3 C-401 TYPICAL SECTION - GRAVEL PATH
SCALE 1:40

NOTES:

1. WIDTH OF ROADWAY AFTER REBUILD SHALL BE:
   - 1.1. 4.0m HEADING TOWARDS THE RESERVOIR FROM THE MAIN CANYON YOUTH CAMP ACCESS.
   - 1.2. 5.0m FOR THE REMAINDER OF THE REBUILD FROM THE RESERVOIR TURN OFF.
2. DIMENSIONS FROM WATER LINE ARE MAXIMUM PERMISSIBLE DISTURBANCE LIMITS TO BE USED FOR MATERIAL LAYDOWN, TOPSOIL STRIPPING, AND TRENCH SPILL PILE.



4 C-401 TYPICAL SECTION - GRAVEL ROAD RECONSTRUCTION
SCALE 1:40

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	FM	DL	DL

A detail number
B numéro de detail / source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
TYPICAL SECTIONS & DETAILS
ROADWAYS & PATHWAYS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	FM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DL	DL	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

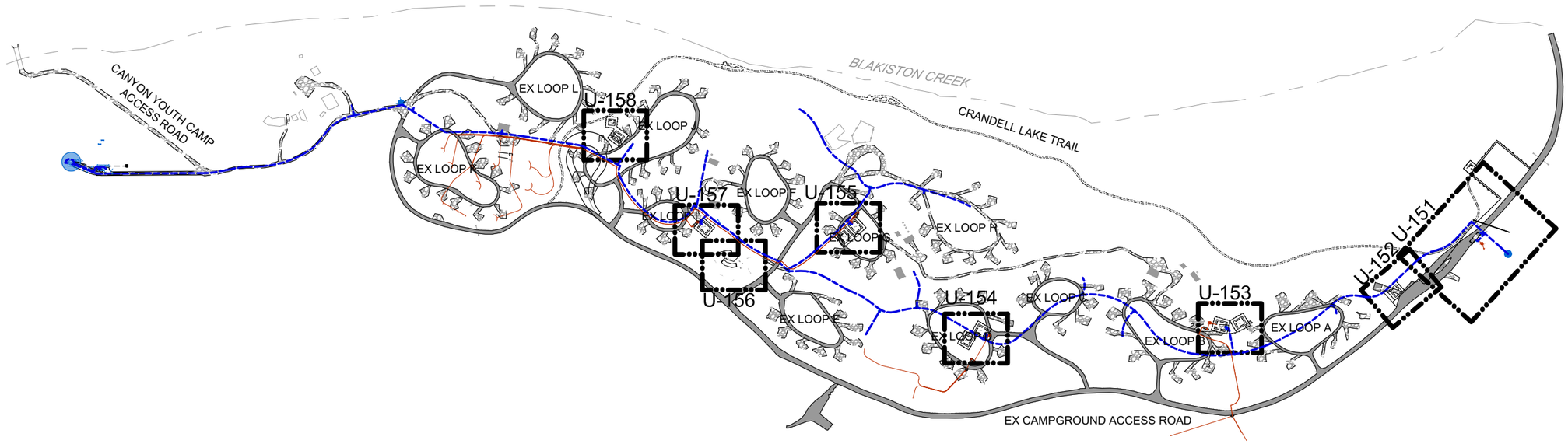
Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		20

Drawing Reference No. / No. de référence du dessin
C-401

FILE: G:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\C-01195-400-TYP.DWG PLOTTED: 2021/01/25 1:33 PM

Paper Size: ANSI D (22 x 34")



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING
GRADING & SERVICE CONNECTIONS
KEY PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:2500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

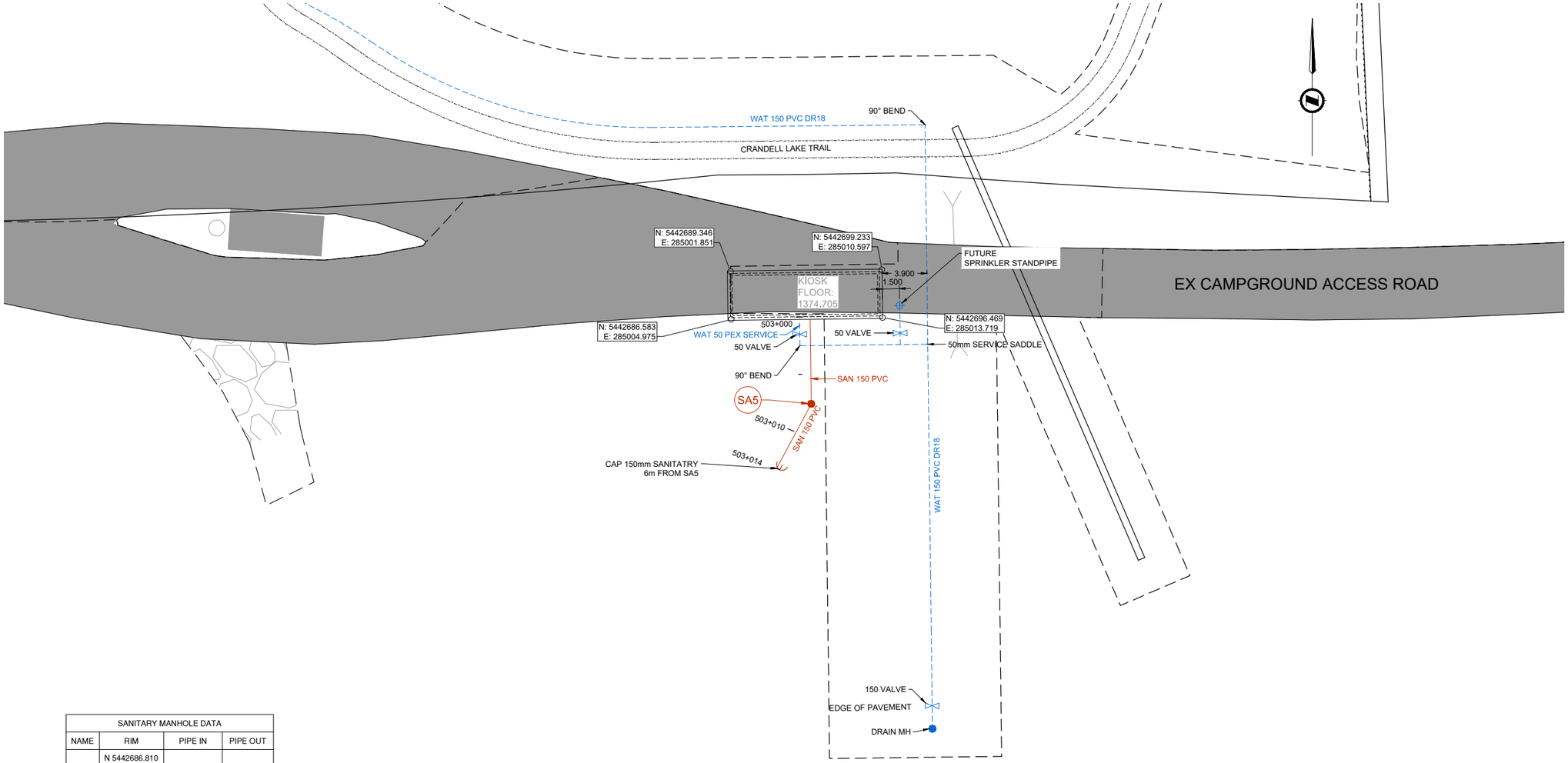
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 21
Drawing Reference No. / No. de réference du dessin: U-150

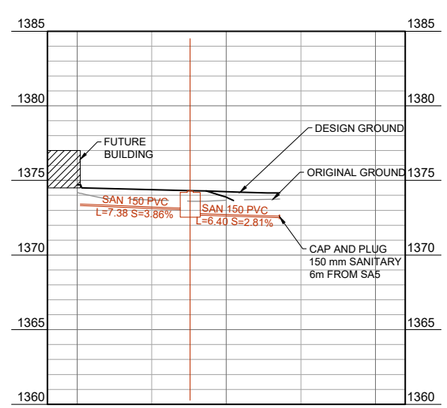
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:38 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



SANITARY MANHOLE DATA			
NAME	RIM	PIPE IN	PIPE OUT
SA5	N 5442686.810 E 285015.110 EL 1374.294	NW 1373.024	S 1372.685



PROFILE ALONG SANITARY GRAVITY LINE

SCALE 1:200

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING
GRADING & SERVICE CONNECTIONS
ENTRANCE KIOSK

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

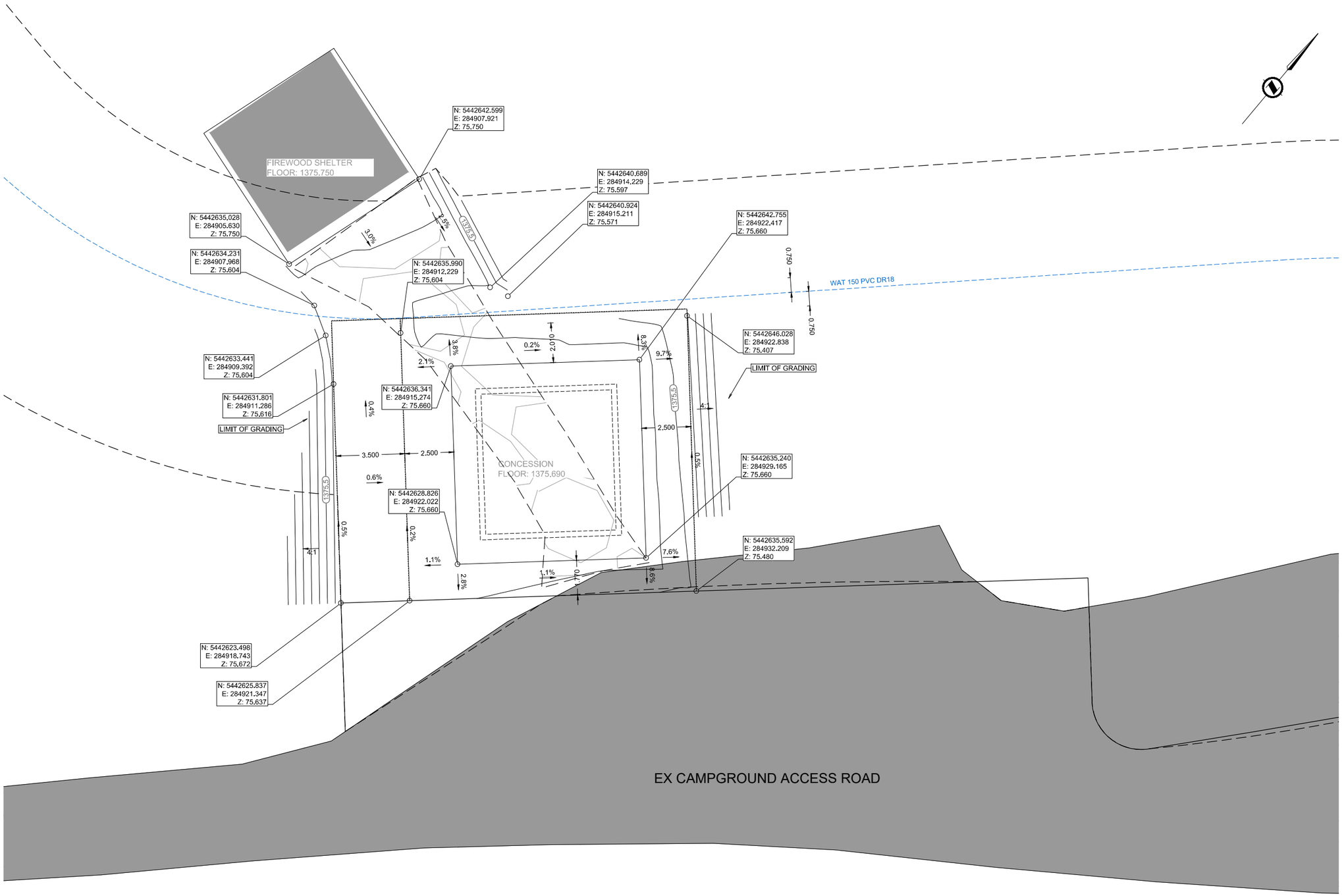
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		22

Drawing Reference No. / No. de référence du dessin
U-151

FILE: G:\PROJECTS\2511-01195-00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:38 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

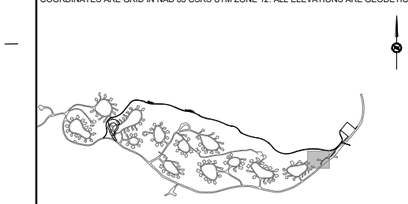


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail / source drawing no. de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING
GRADING & SERVICE CONNECTIONS
FIREWOOD HUT AND CONCESSION

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 23
Drawing Reference No. / No. de réference du dessin: U-152

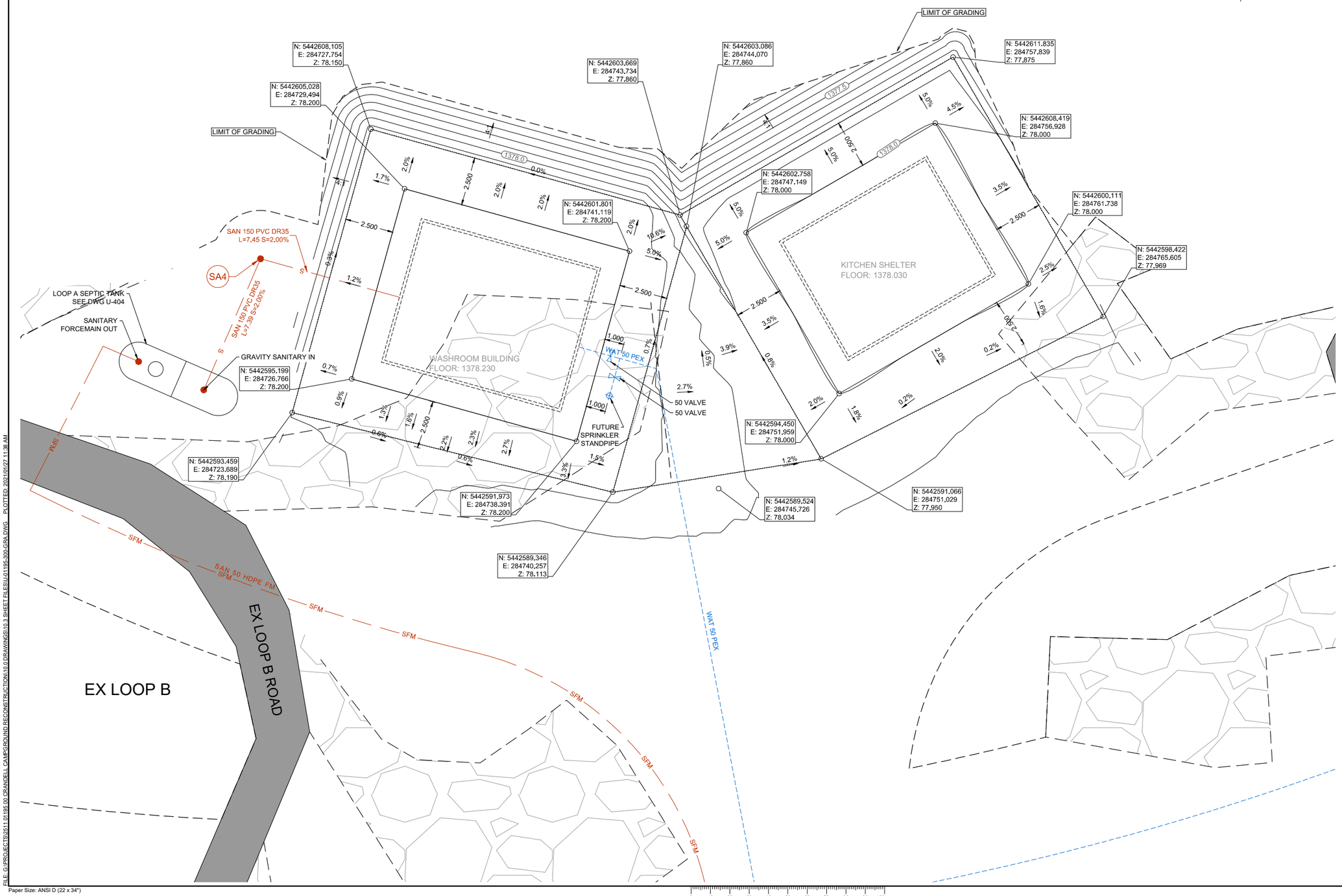
FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:38 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

SANITARY MANHOLE DATA			
NAME	RIM	PIPE IN	PIPE OUT
SA4	N 5442601.412 E 284722.051 EL 1377.924	E 1376.719	SW 1376.659

SEPTIC TANK DATA			
NAME	RIM	PIPE IN	PIPE OUT
TANK	N 5442594.632 E 284719.115 EL 1378.200	NE 1376.512	



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FUNK

PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING
GRADING & SERVICE CONNECTIONS
LOOP A WASHROOM
AND KITCHEN SHELTER

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

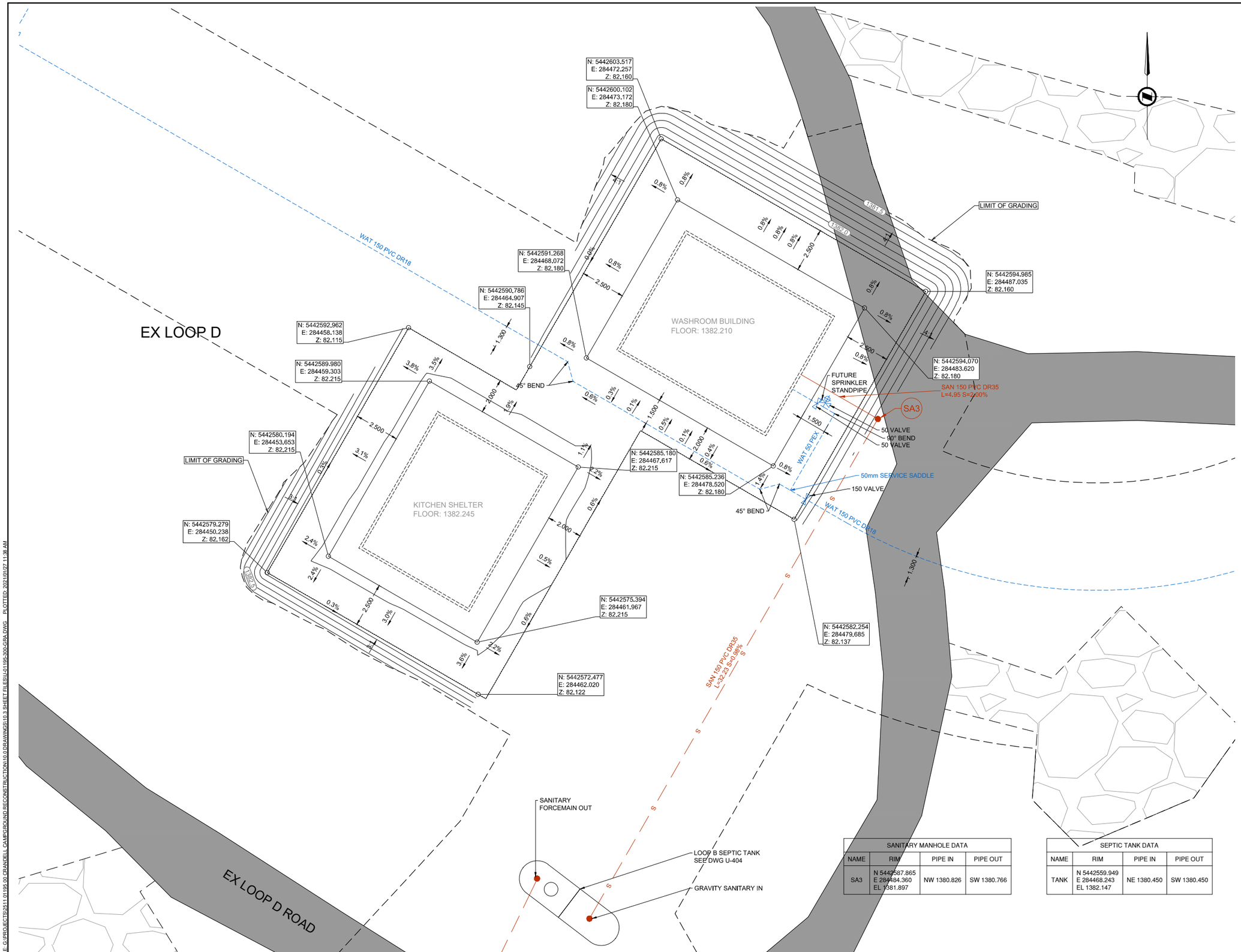
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 24
Drawing Reference No. / No. de réference du dessin: U-153

FILE: C:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:38 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



SANITARY MANHOLE DATA			
NAME	RIM	PIPE IN	PIPE OUT
SA3	N 5442587.865 E 284484.360 EL 1381.897	NW 1380.826	SW 1380.766

SEPTIC TANK DATA			
NAME	RIM	PIPE IN	PIPE OUT
TANK	N 5442559.949 E 284468.243 EL 1382.147	NE 1380.450	SW 1380.450

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

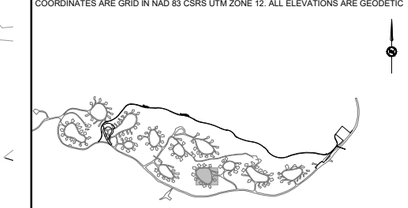
FILE: G:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:38 AM

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A / C — detail number / numéro de detail
B / C — source drawing no. / de dessin no.
A / B C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING
GRADING & SERVICE CONNECTIONS
LOOP B WASHROOM
AND KITCHEN SHELTER

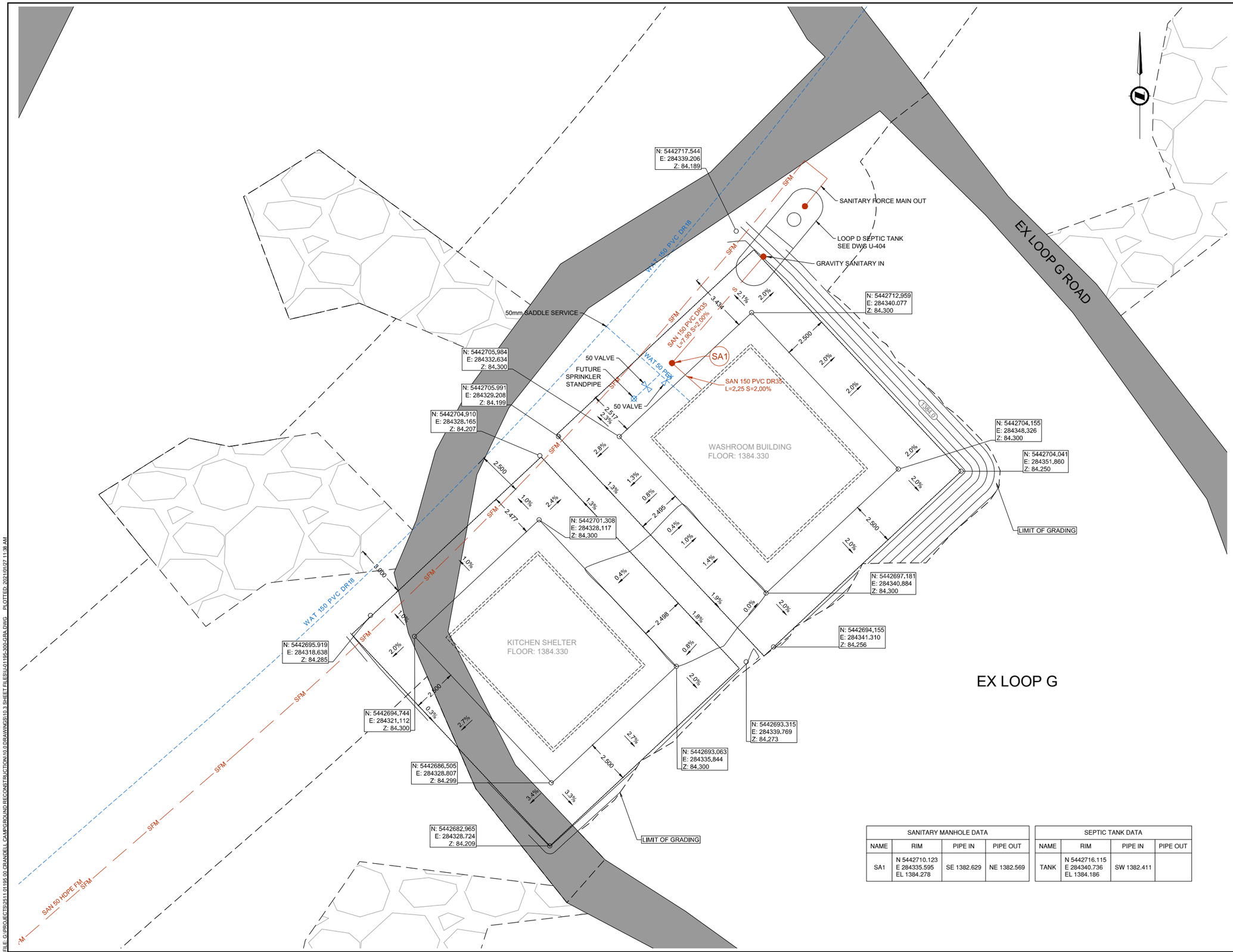
Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 25
Drawing Reference No. / No. de réference du dessin: U-154



SANITARY MANHOLE DATA			
NAME	RIM	PIPE IN	PIPE OUT
SA1	N 5442710.123 E 284335.595 EL 1384.278	SE 1382.629	NE 1382.569

SEPTIC TANK DATA			
NAME	RIM	PIPE IN	PIPE OUT
TANK	N 5442716.115 E 284340.736 EL 1384.186	SW 1382.411	

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING
GRADING & SERVICE CONNECTIONS
LOOP D WASHROOM
AND KITCHEN SHELTER

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

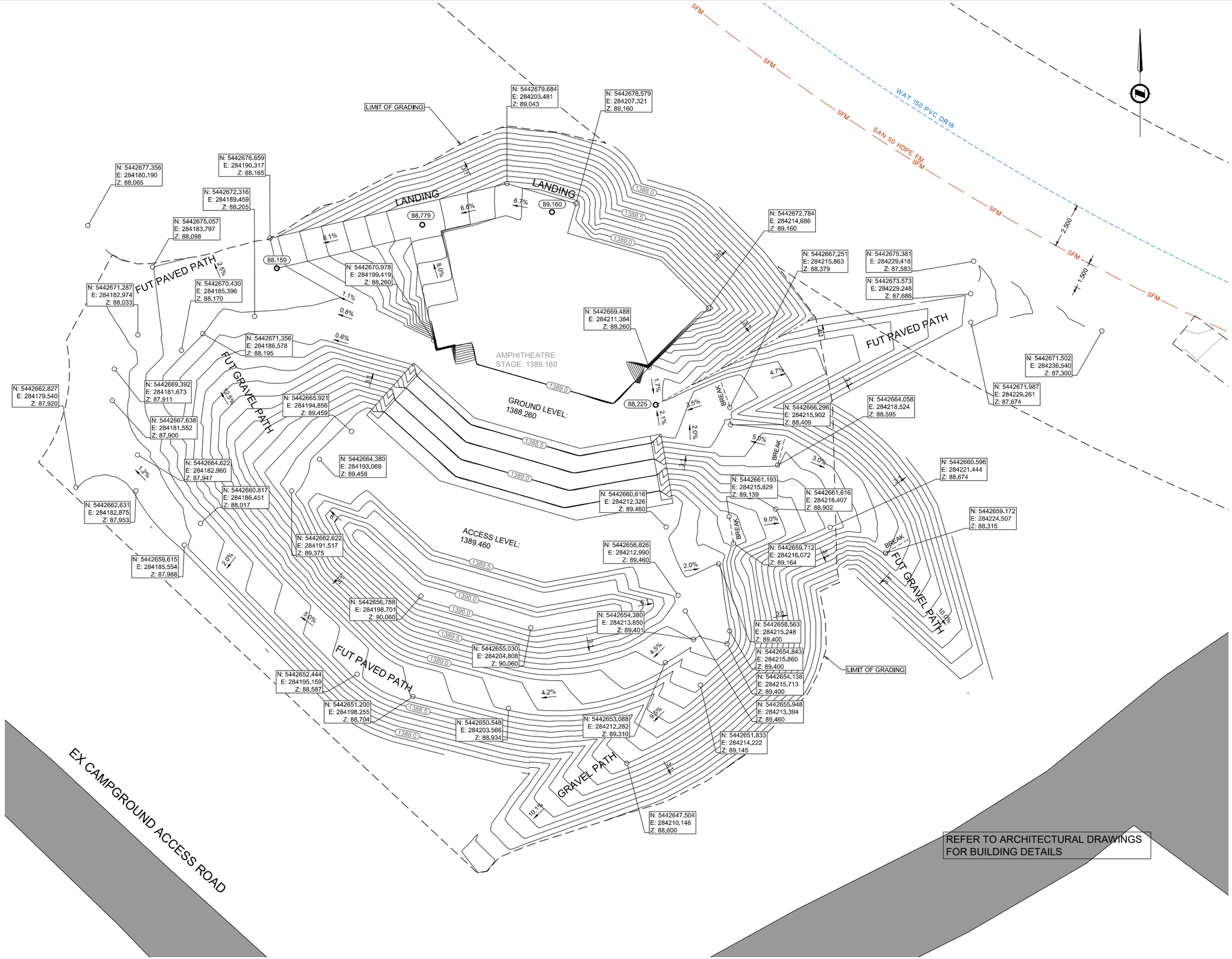
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 26
Drawing Reference No. / No. de réference du dessin: U-155

FILE: G:\PROJECTS\2511\01195\00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:38 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

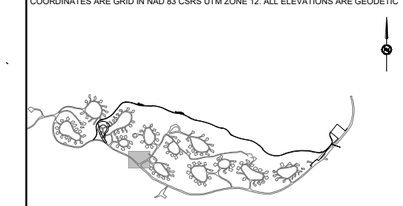


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER
PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING
GRADING & SERVICE CONNECTIONS
AMPHITHEATRE

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Approved by / Approuvé par
Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		27

Drawing Reference No. / No. de réference du dessin
U-156

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/22 11:38 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

SANITARY MANHOLE DATA			
NAME	RIM	PIPE IN	PIPE OUT
SA2	N 5442710.254 E 284170.434 EL 1388.457	SE 1387.317	SW 1387.257

SEPTIC TANK DATA			
NAME	RIM	PIPE IN	PIPE OUT
TANK	N 5442708.120 E 284168.324 EL 1388.460	NE 1387.197	

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING GRADING & SERVICE CONNECTIONS LOOP E WASHROOM AND KITCHEN SHELTER

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

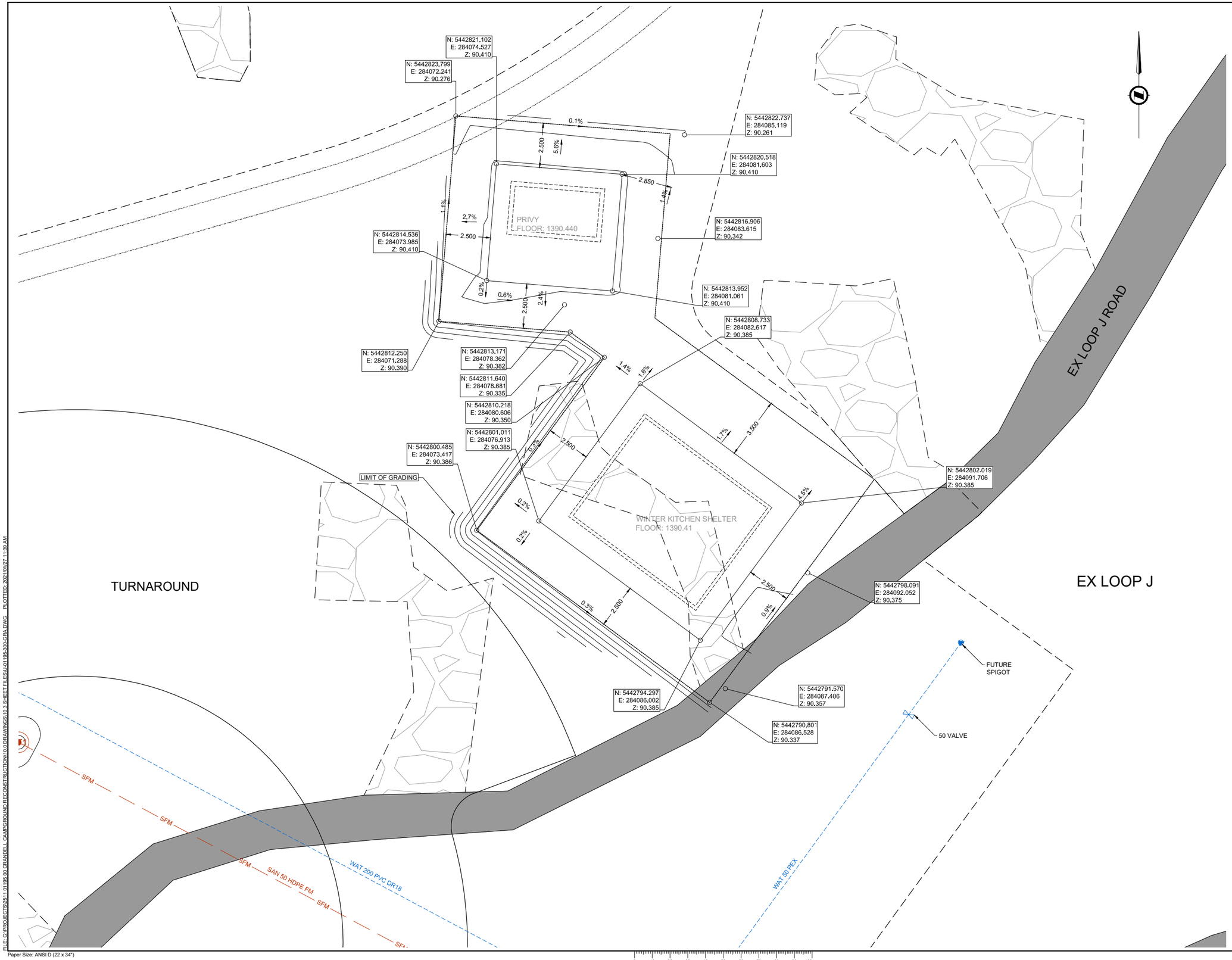
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		28

Drawing Reference No. / No. de réference du dessin
U-157

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:39 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

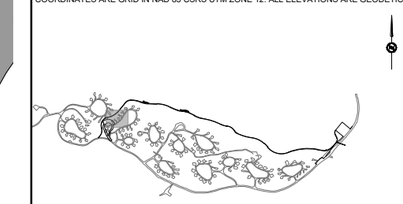


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING
GRADING & SERVICE CONNECTIONS
LOOP E PRIVY
AND KITCHEN SHELTER

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

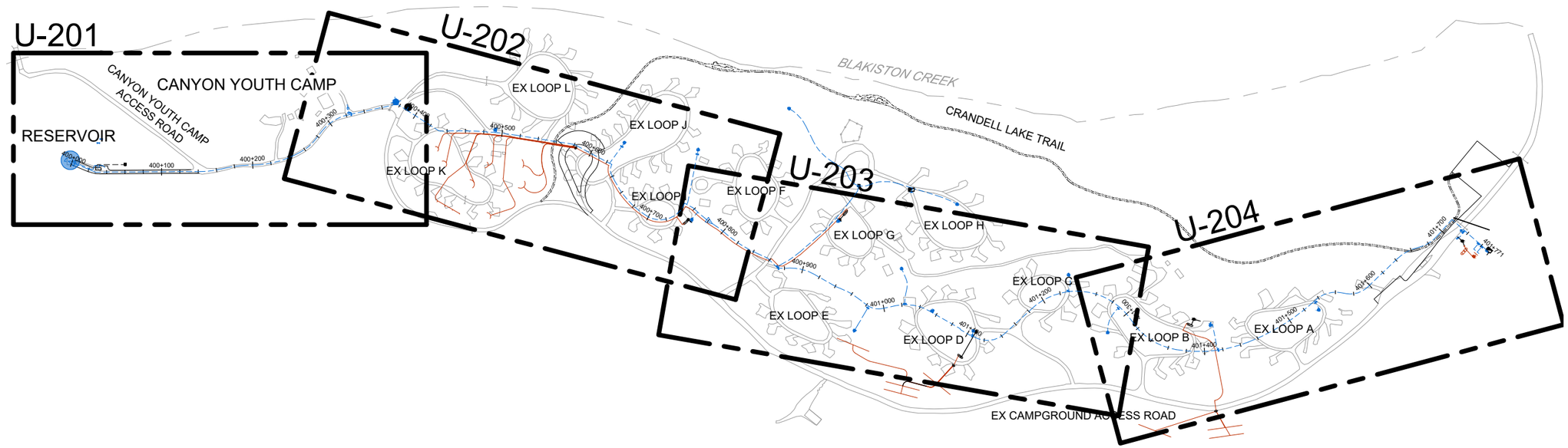
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		29

Drawing Reference No. / No. de réference du dessin
U-158

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-300-GRA.DWG PLOTTED: 2021/01/27 11:39 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING

KEY PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	1:2500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

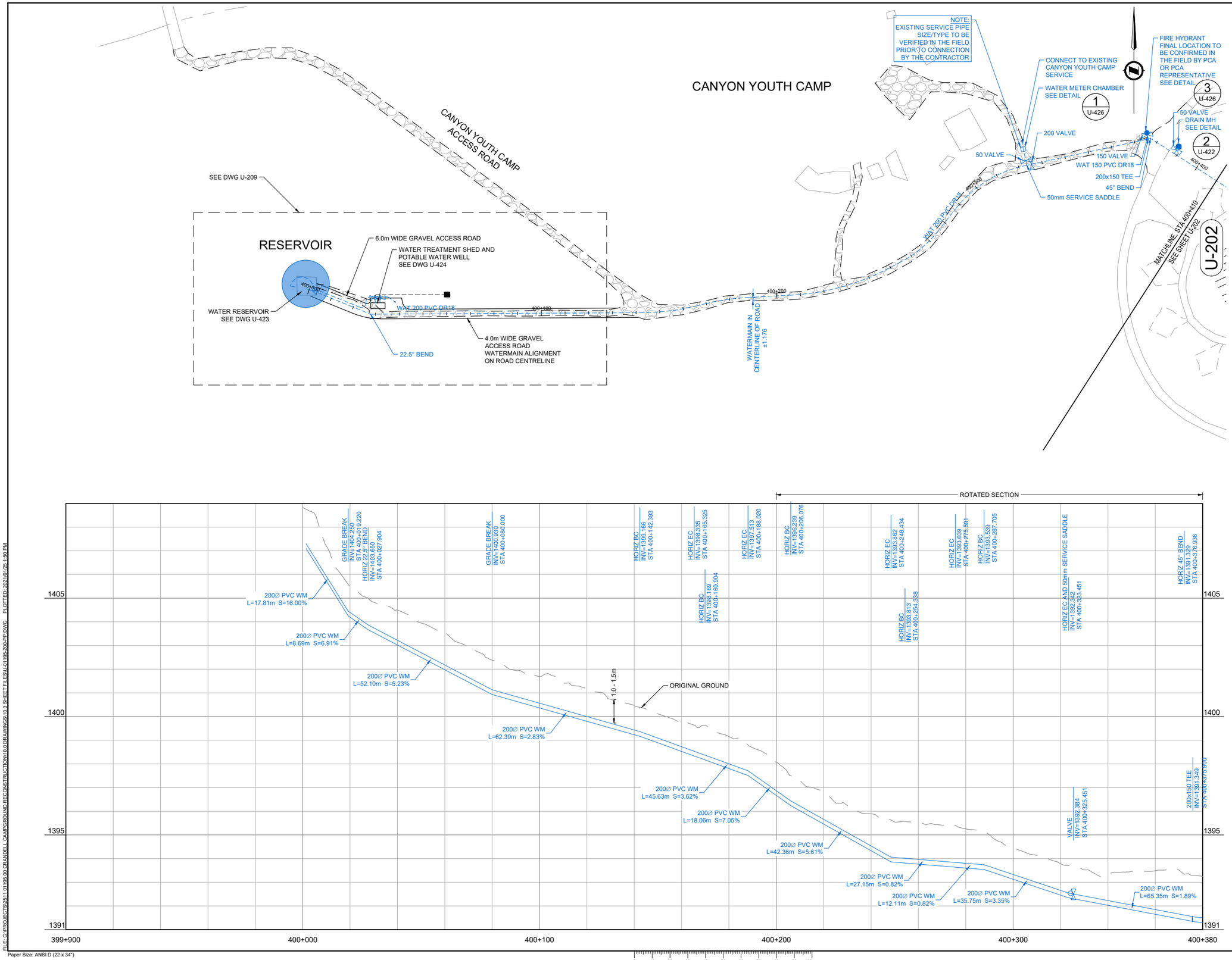
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		30

Drawing Reference No. / No. de réference du dessin
U-200

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-KEY.DWG PLOTTED: 2021/01/25 1:39 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER
PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING PLANS & PROFILES MAIN WATER SUPPLY STA 400+000 TO STA 400+380

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

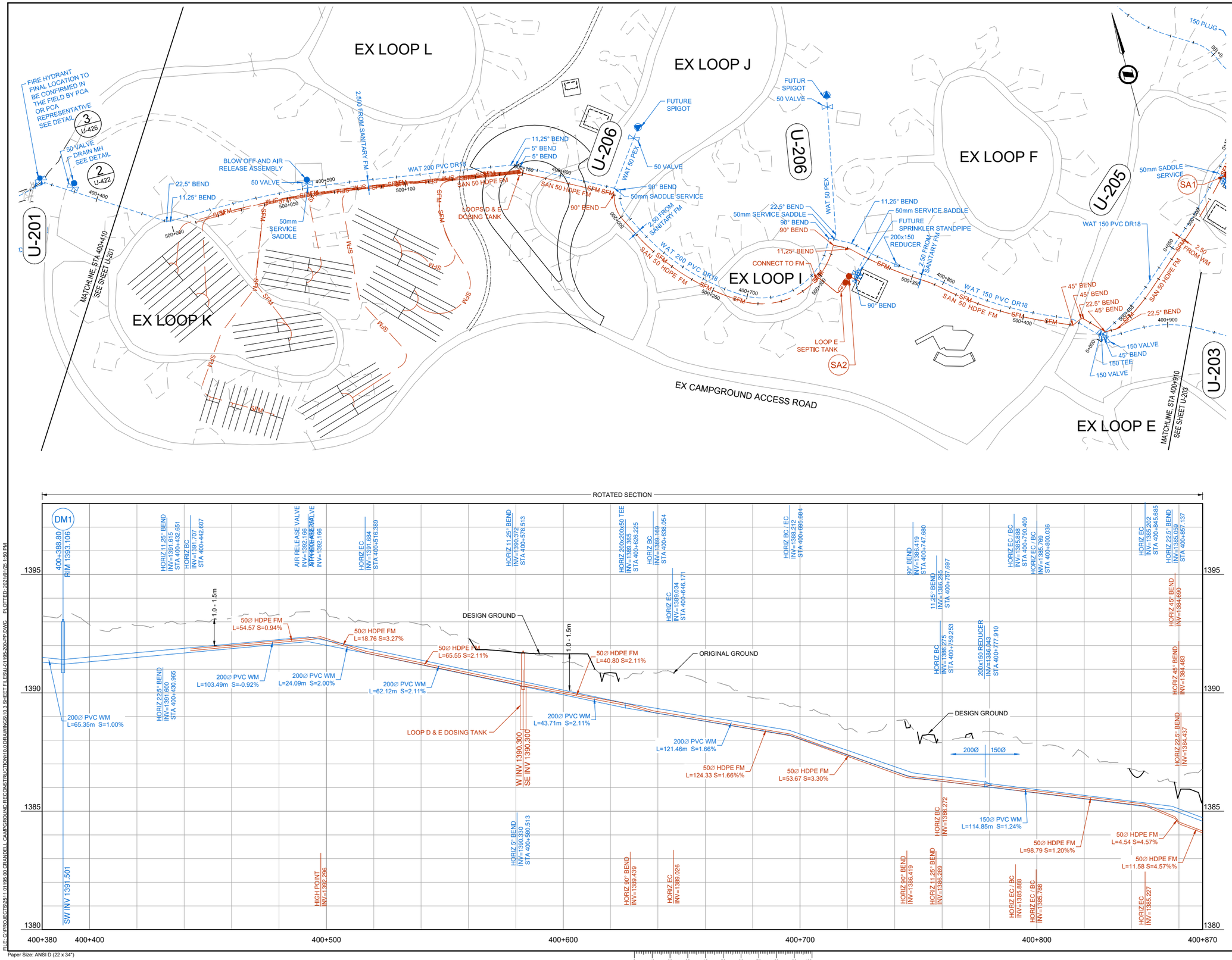
Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 31
Drawing Reference No. / No. de référence du dessin: U-201

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:50 PM

Paper Size: ANSI D (22 x 34")

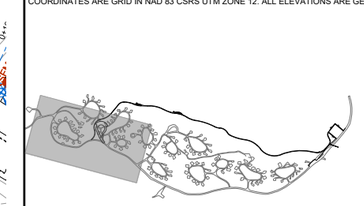


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number numéro de detail
B source drawing no. de dessin no.
C detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FUNKS

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING PLANS & PROFILES MAIN WATER SUPPLY STA 400+380 TO STA 400+870

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

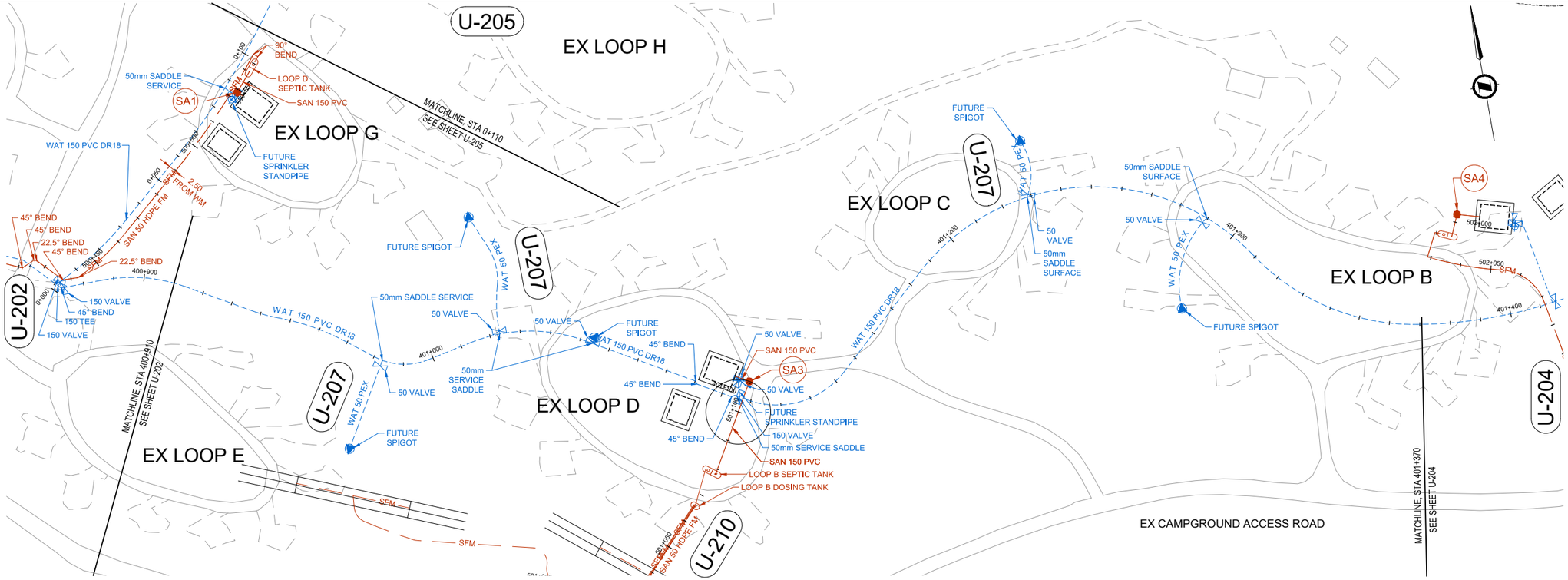
Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

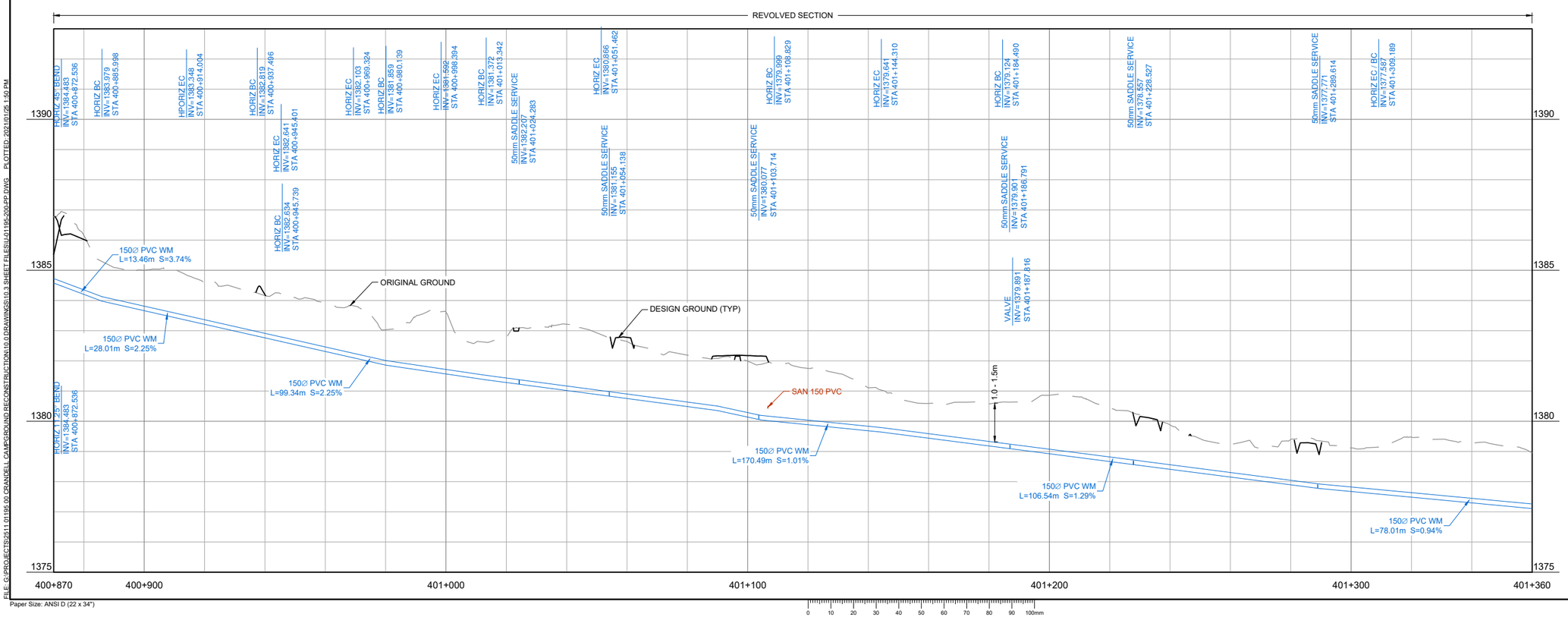
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 32
Drawing Reference No. / No. de réference du dessin: U-202

Paper Size: ANSI D (22 x 34")

FILE: G:\PROJECTS\2511\01195.00\CRANDELL CAMPGROUND RECONSTRUCTION\10.0\DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:50 PM



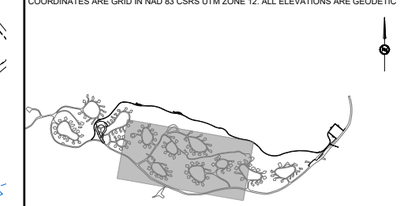


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number numéro de detail
B source drawing no. de dessin no.
C detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING PLANS & PROFILES MAIN WATER SUPPLY STA 400+870 TO STA 401+360

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

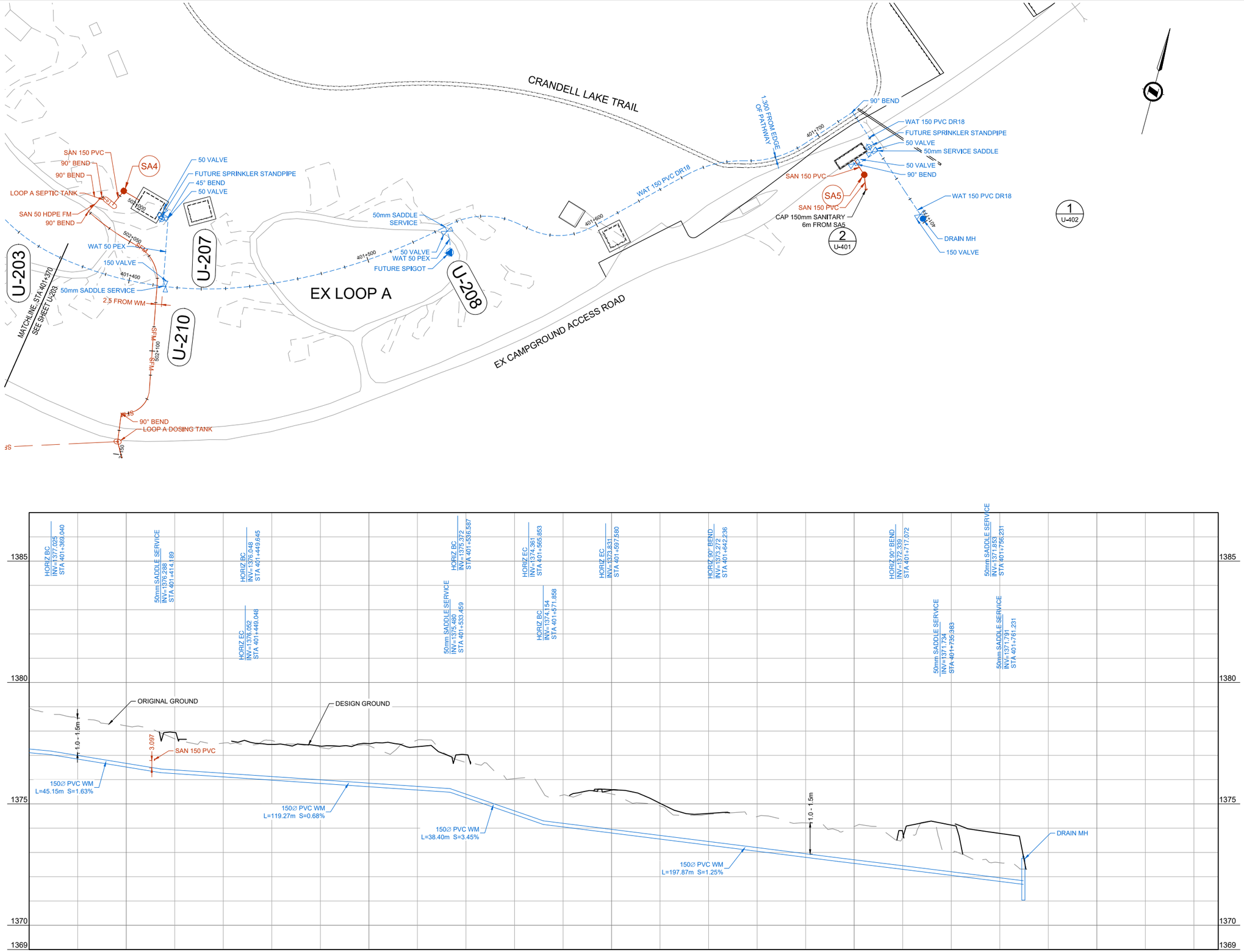
Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 33
Drawing Reference No. / No. de réference du dessin: U-203

Paper Size: ANSI D (22 x 34")

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:50 PM

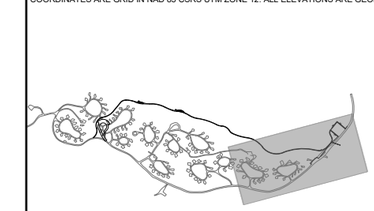


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail / source drawing no. de dessin no.
C detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING PLANS & PROFILES MAIN WATER SUPPLY STA 400+870 TO STA 401+360

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

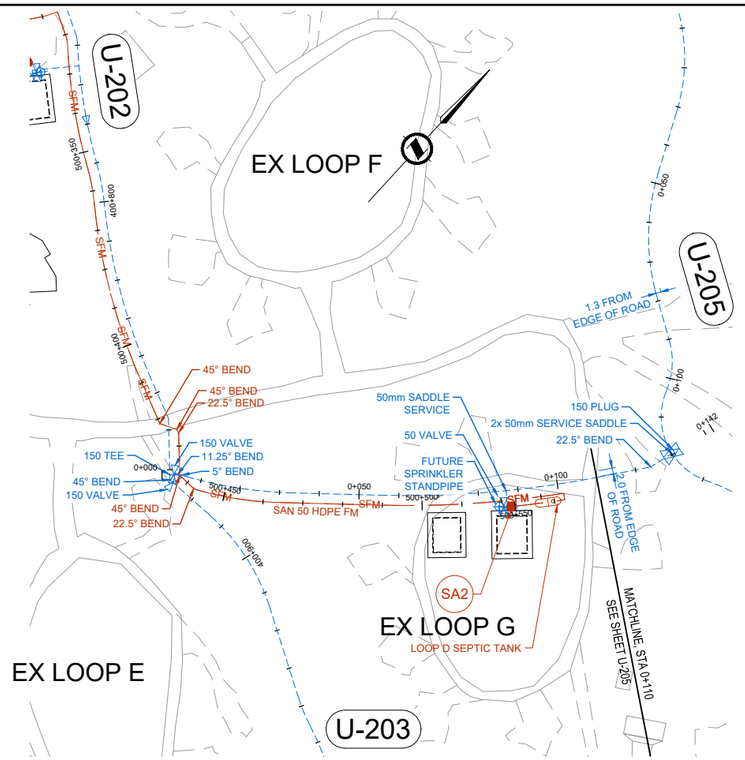
Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

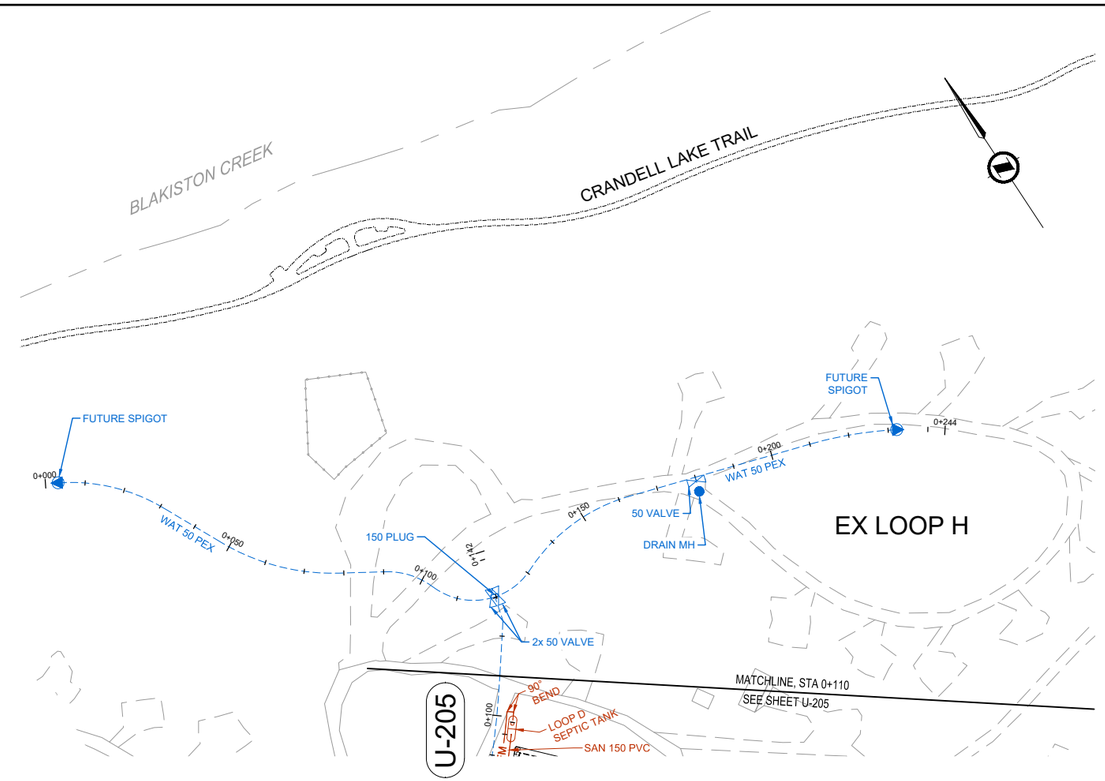
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

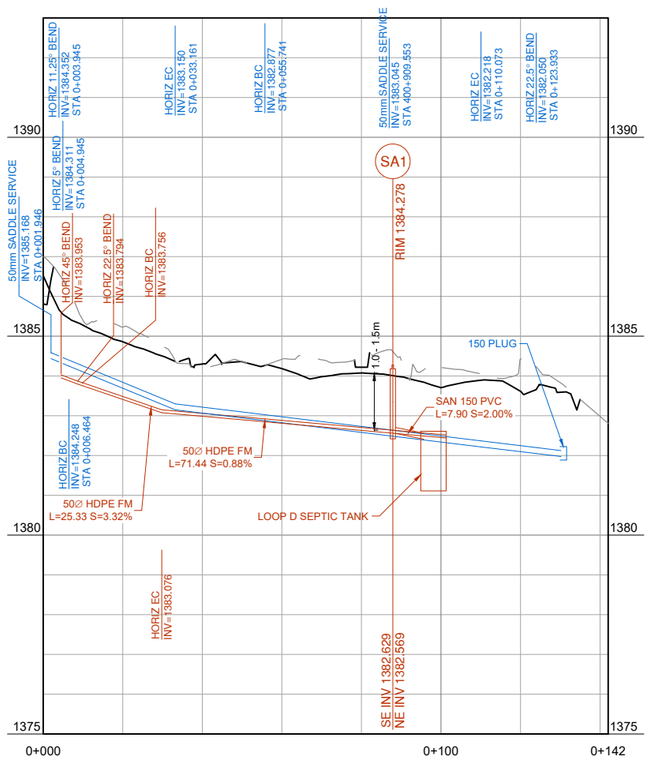
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 34
Drawing Reference No. / No. de réference du dessin: U-204

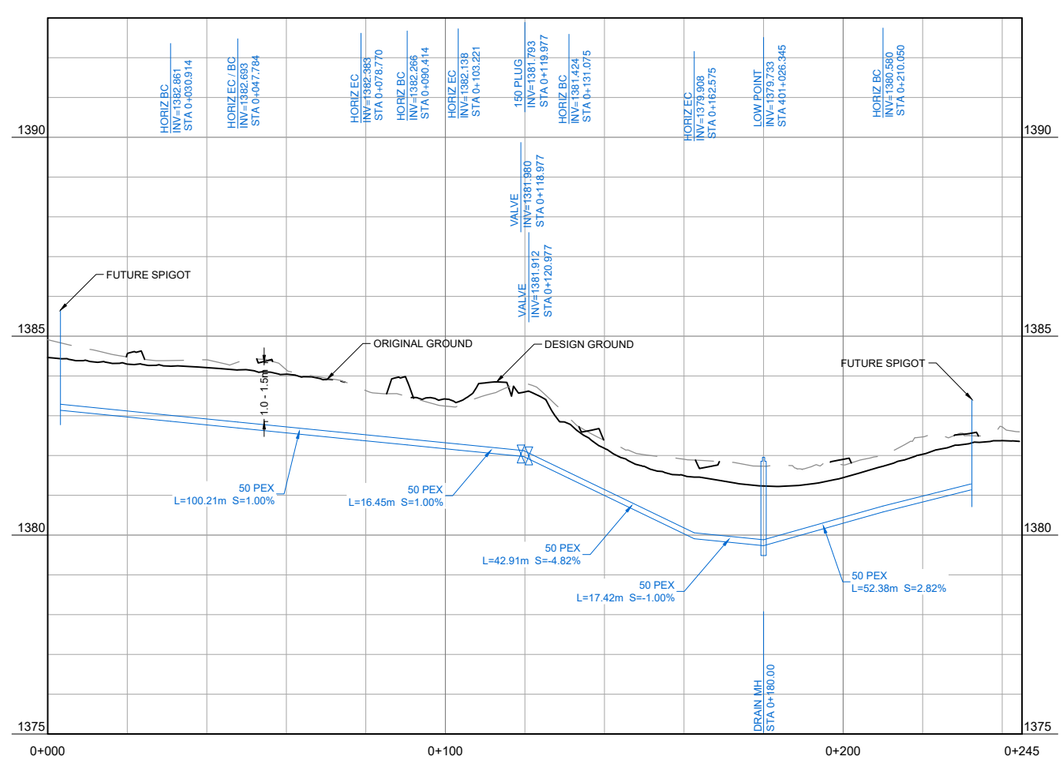
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:51 PM

Paper Size: ANSI D (22 x 34")









THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail / source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING PLANS & PROFILES LOOP C WATER MAIN & EAST / WEST SPIGOT LINES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

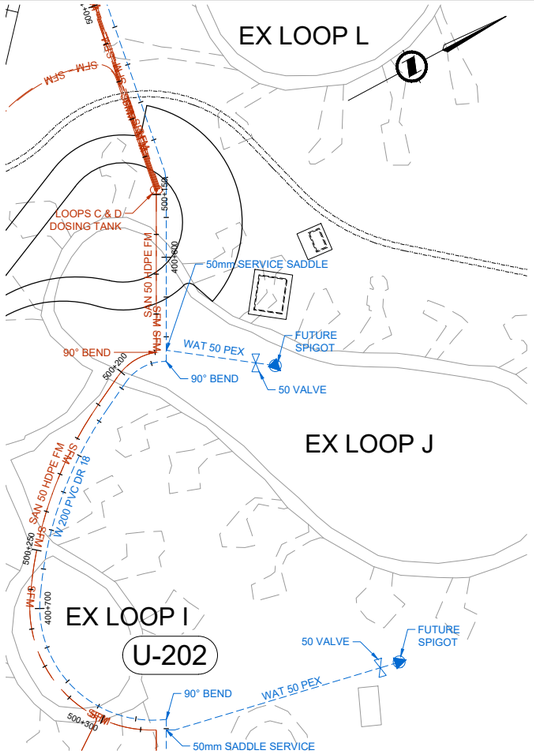
Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

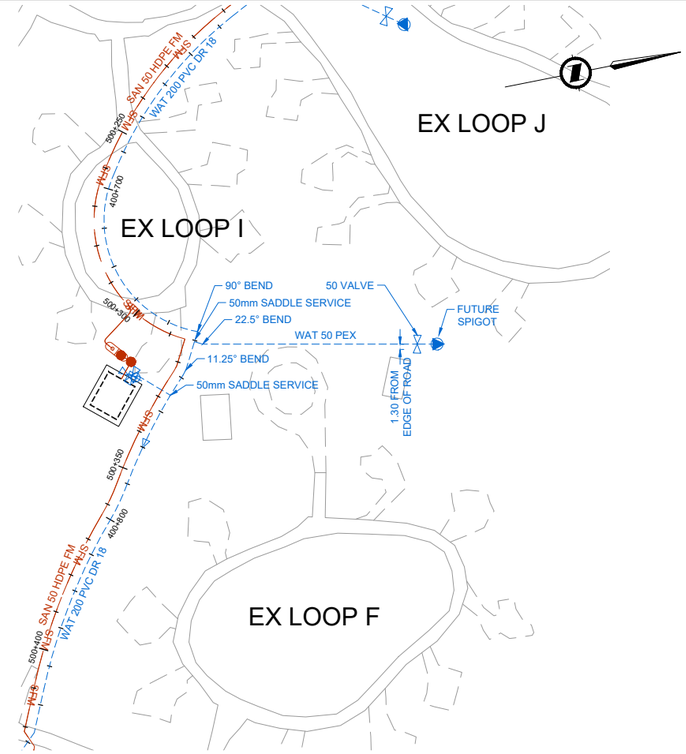
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

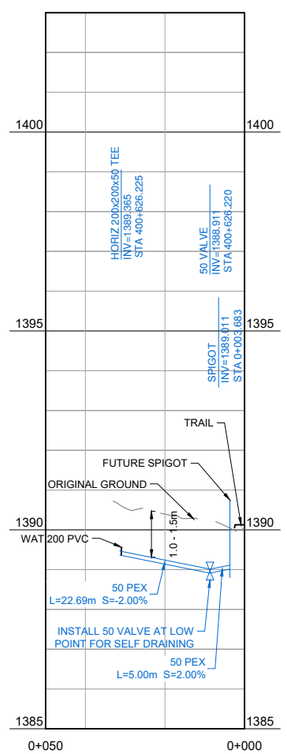
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 35
Drawing Reference No. / No. de réference du dessin: U-205

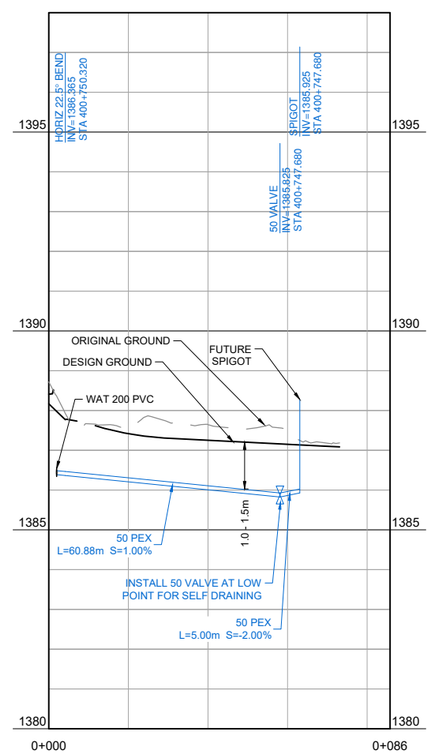
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:51 PM

Paper Size: ANSI D (22 x 34")









THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER
PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING PLANS & PROFILES LOOP E SPIGOT LINES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

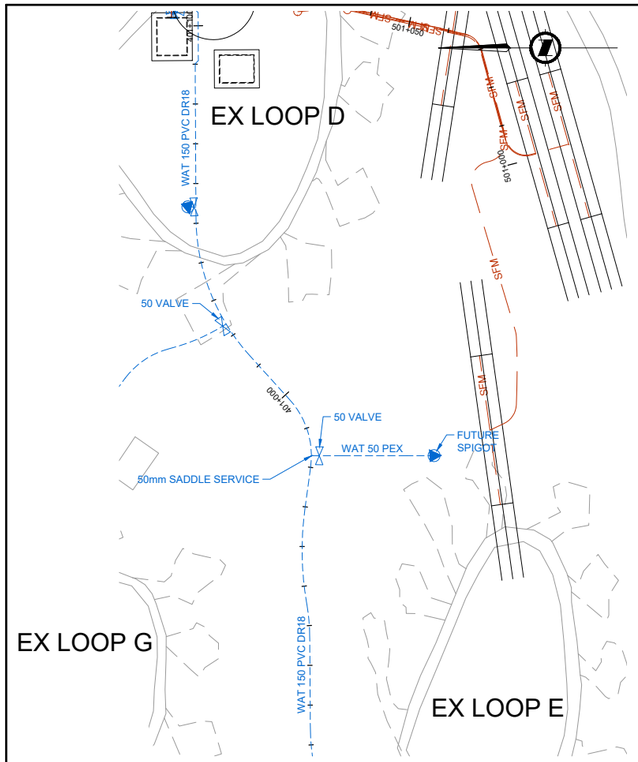
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

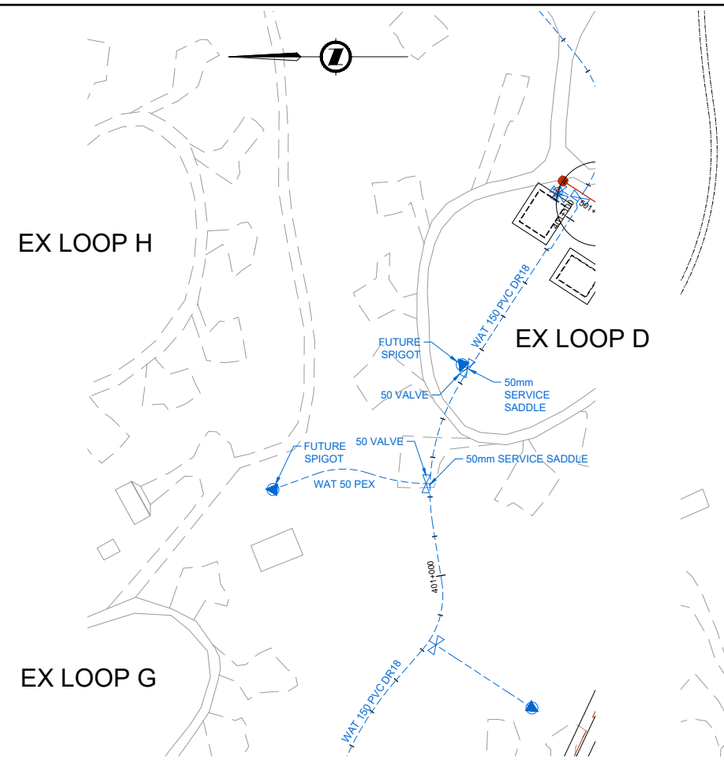
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 36
Drawing Reference No. / No. de réference du dessin: U-206

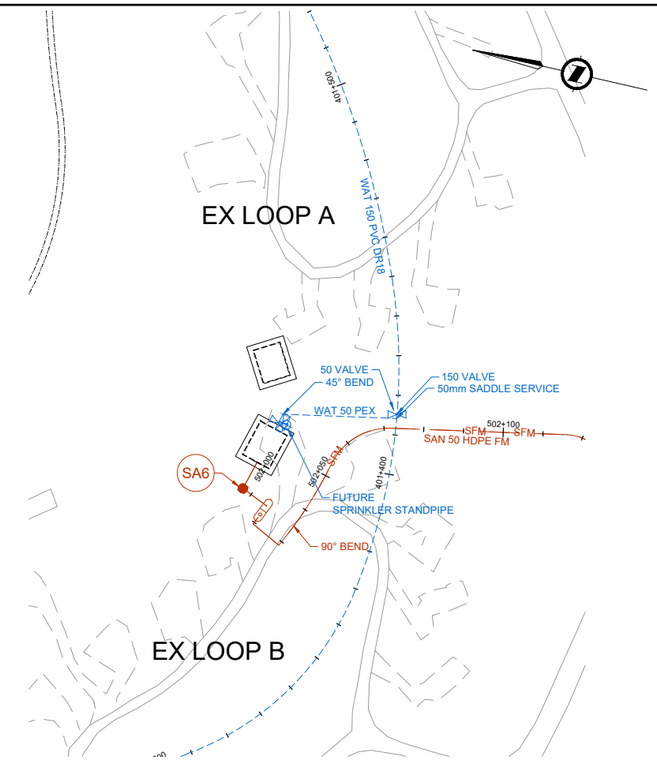
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:51 PM

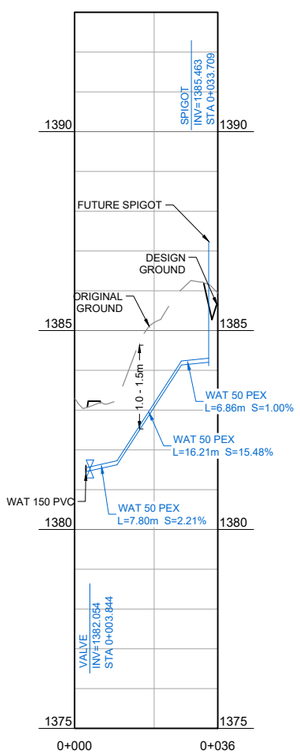
Paper Size: ANSI D (22 x 34")

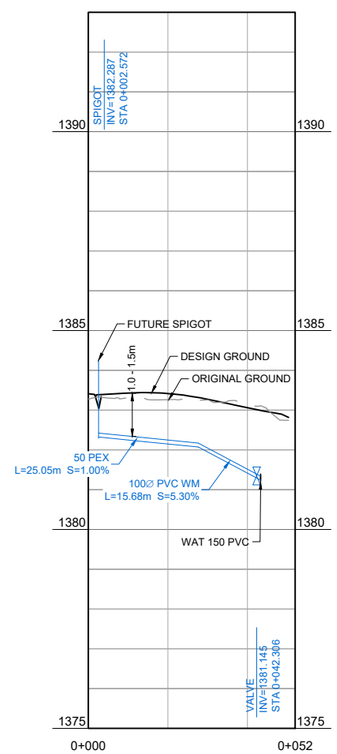
0 10 20 30 40 50 60 70 80 90 100mm

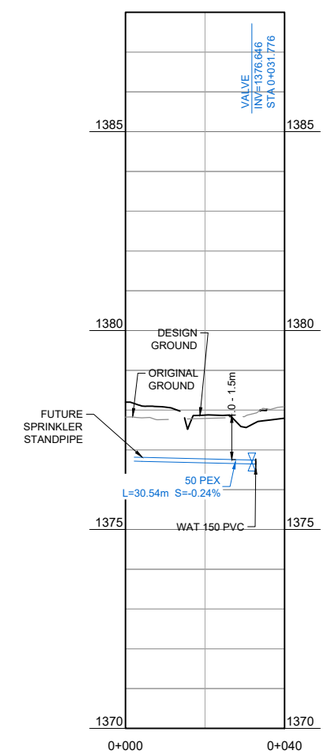










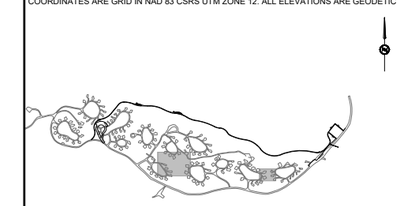


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING PLANS & PROFILES LOOP C AND D SPIGOT LINES AND LOOP A WASHROOM CONNECTION

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

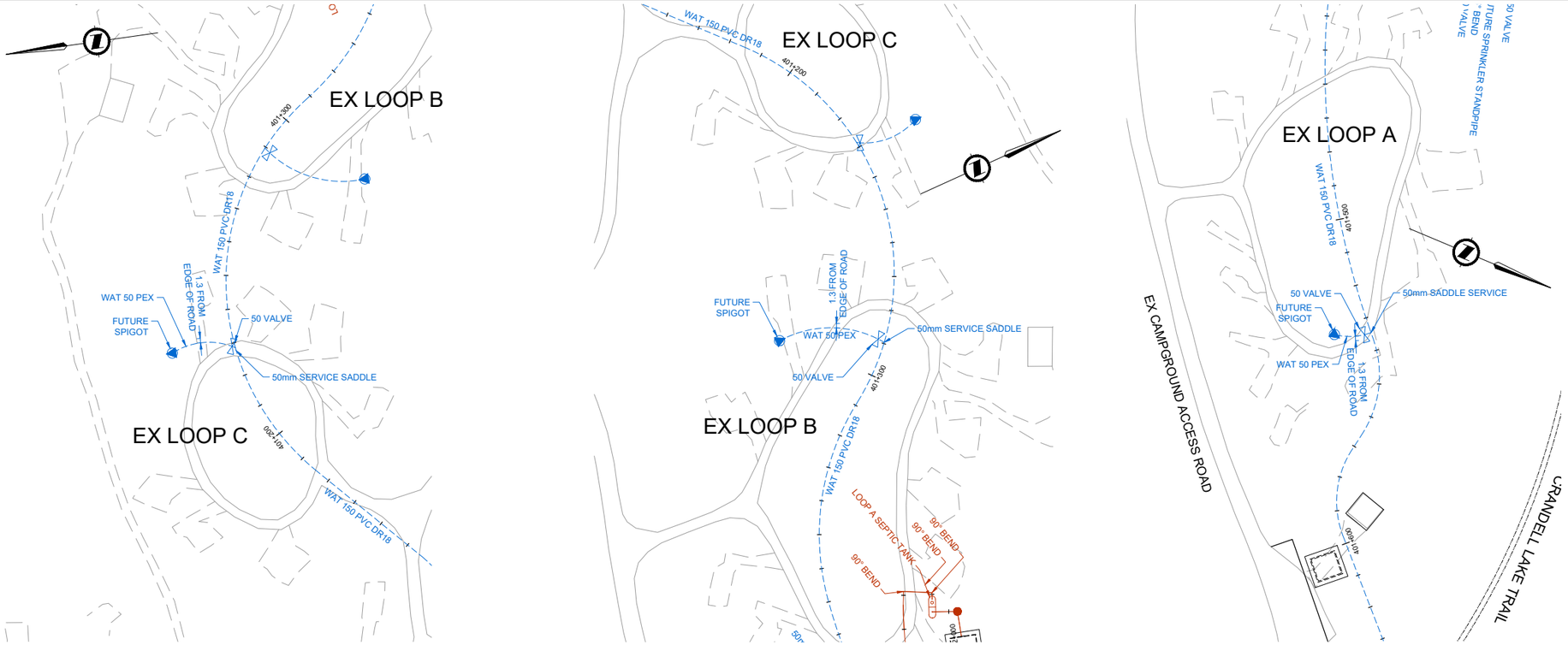
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

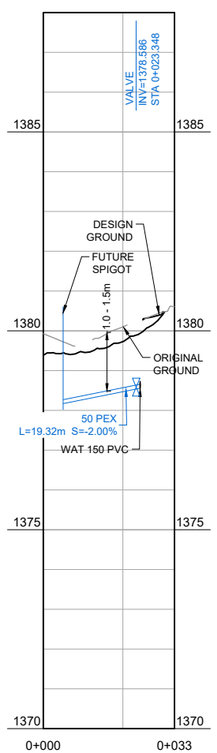
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 37
Drawing Reference No. / No. de réference du dessin: U-207

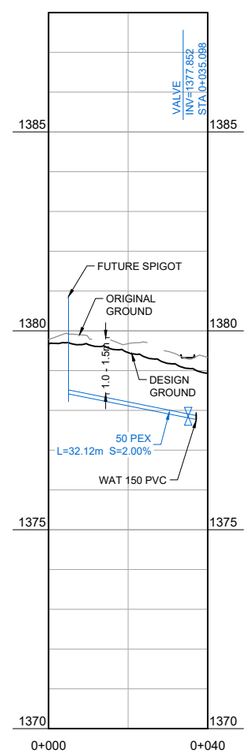
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:52 PM

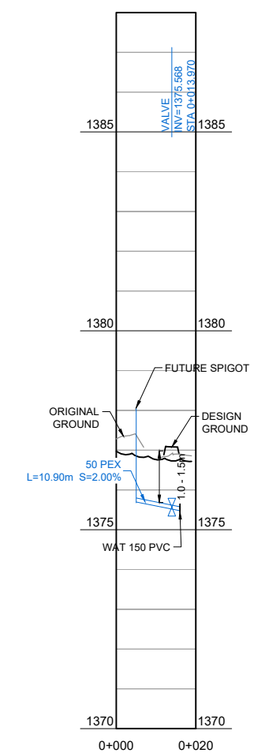
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm









THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER
PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING PLANS & PROFILES LOOP A AND B SPIGOT LINES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

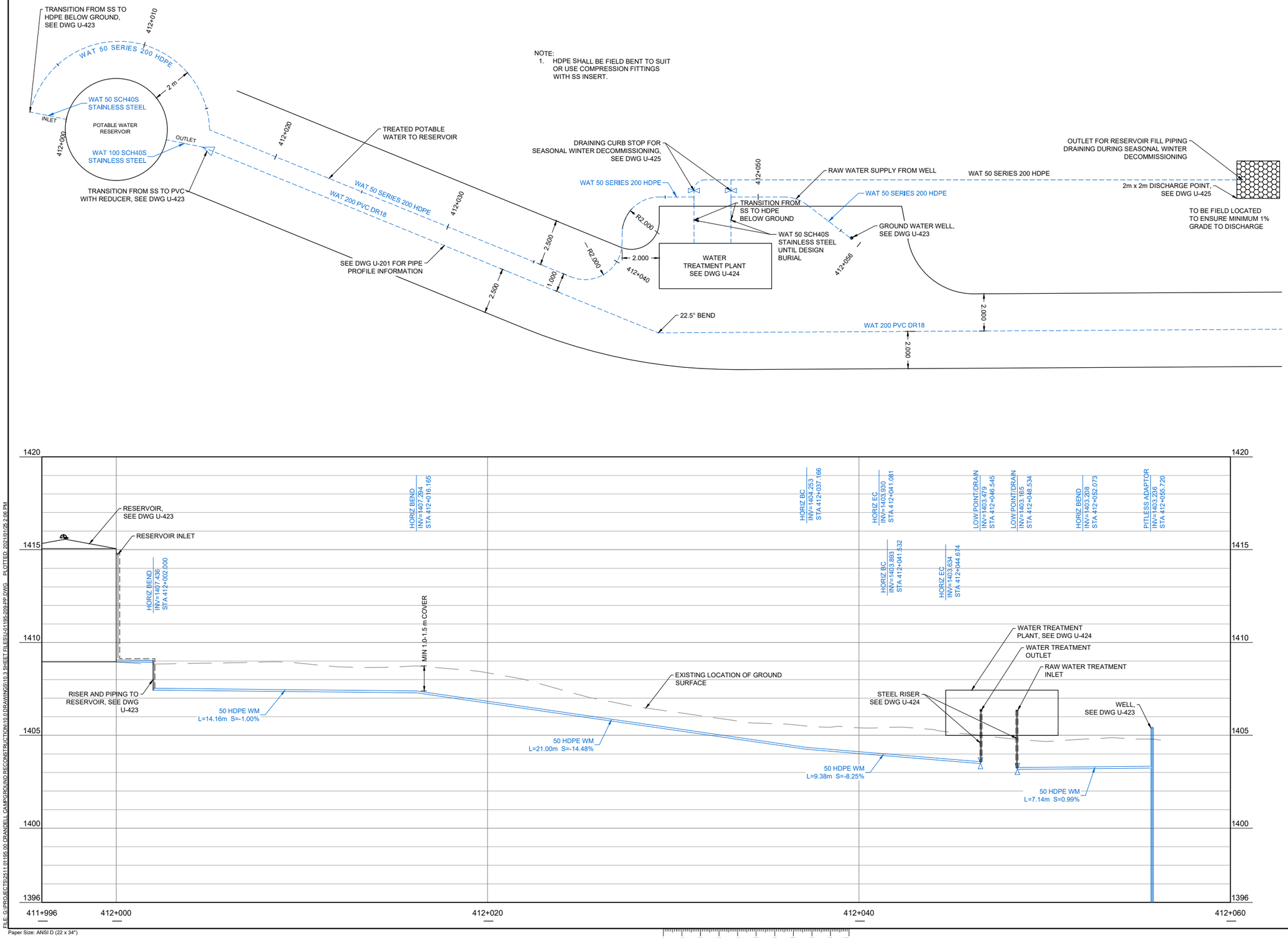
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 38
Drawing Reference No. / No. de réference du dessin: U-208

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:52 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MM	DK	DK

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
DEREK KROMENBROEK
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING PLANS & PROFILES RAW WATER & TREATED WATER LINES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DK	DK	H 1:100 \ V 1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

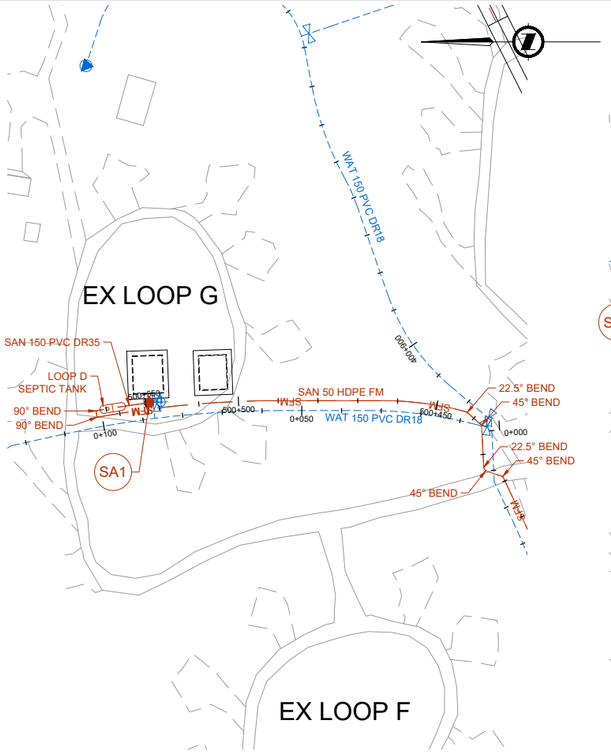
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		39

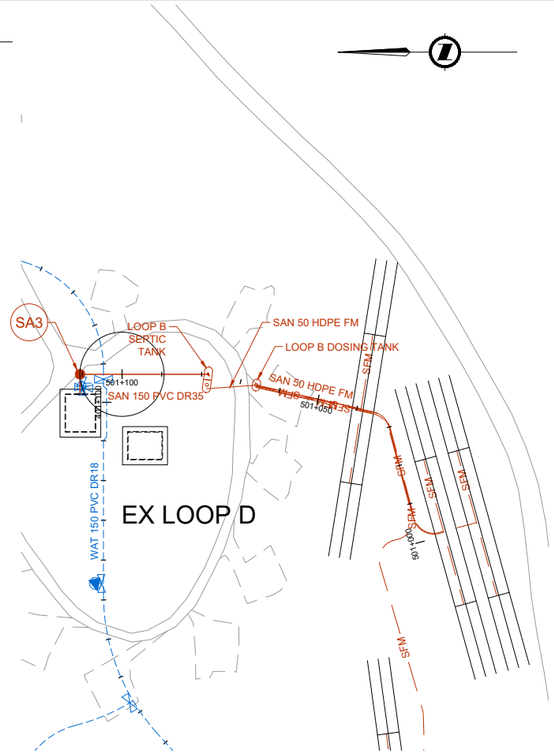
Drawing Reference No. / No. de réference du dessin
U-209

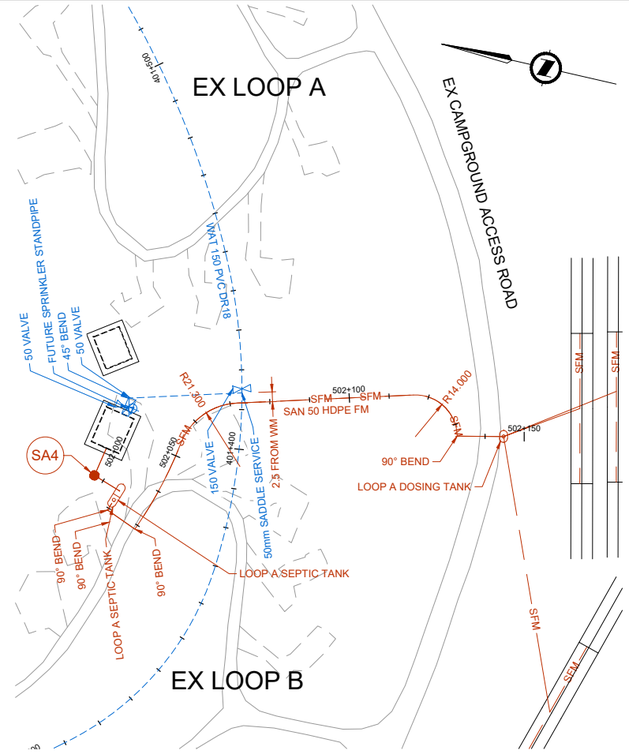
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-209-PP.DWG PLOTTED: 2021/01/25 2:06 PM

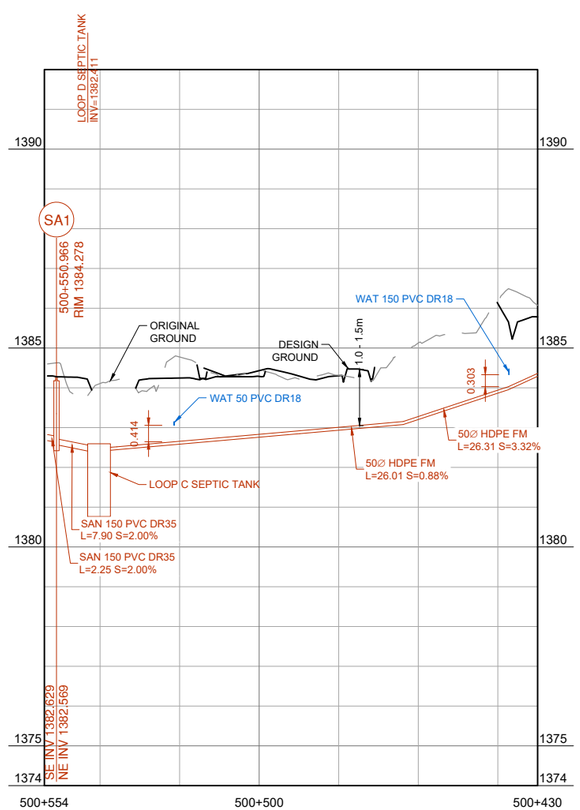
Paper Size: ANSI D (22 x 34")

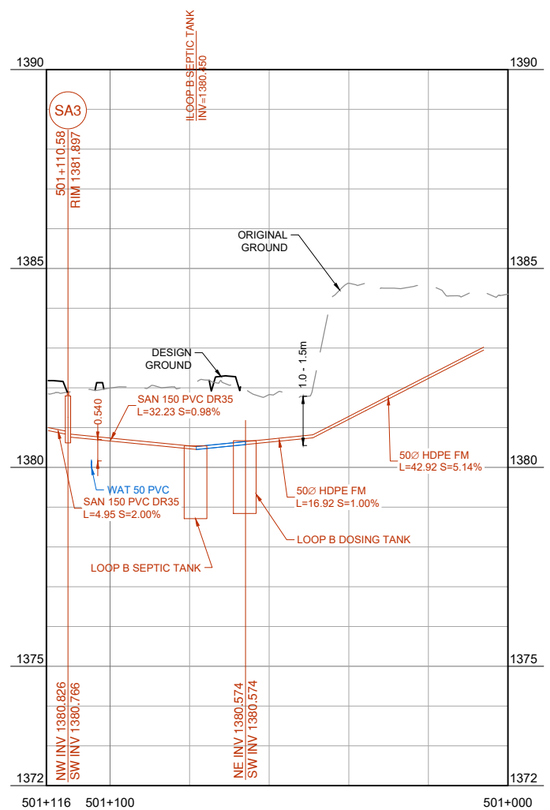
0 10 20 30 40 50 60 70 80 90 100mm

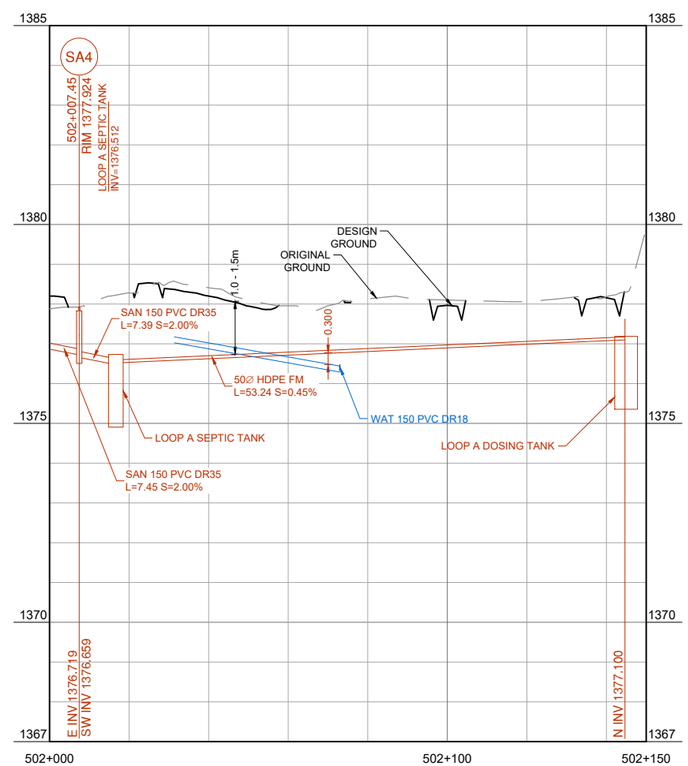










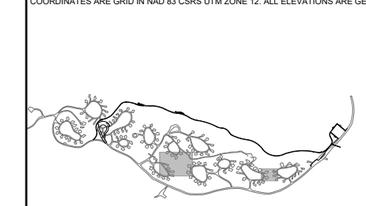


THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER

PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING PLANS & PROFILES SANITARY FORCEMAINS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	DH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	H 1:750 \ V 1:75

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

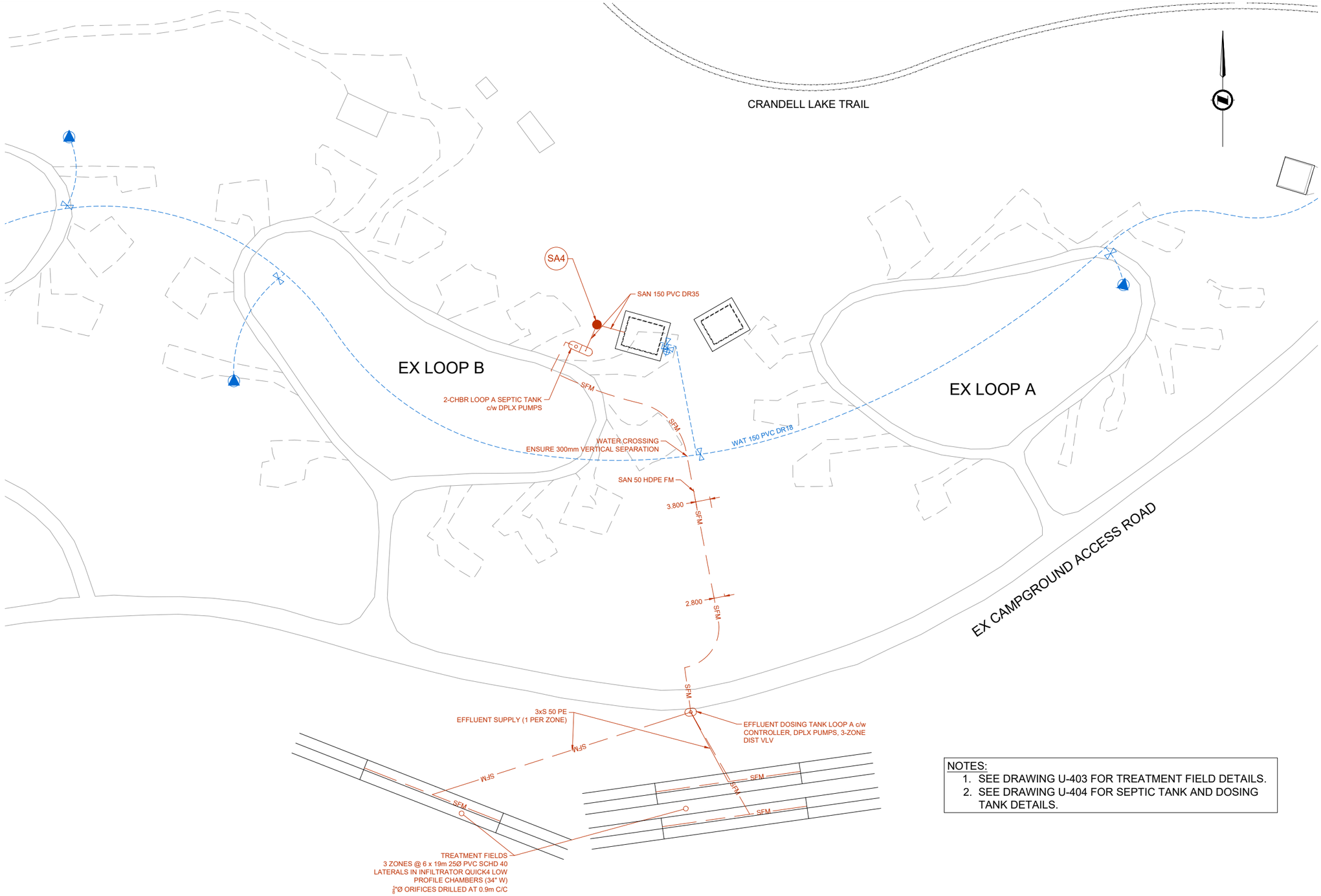
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		40

Drawing Reference No. / No. de réference du dessin: U-210

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-200-PP.DWG PLOTTED: 2021/01/25 1:53 PM

Paper Size: ANSI D (22 x 34")



NOTES:
1. SEE DRAWING U-403 FOR TREATMENT FIELD DETAILS.
2. SEE DRAWING U-404 FOR SEPTIC TANK AND DOSING TANK DETAILS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MAK	MAK	DF

A detail number
B numéro de detail
C source drawing no. de dessin no. / detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER MICHEL A. KISSAN
2021-01-29

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney
Osprey Engineering Inc.

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

WASTEWATER SYSTEM

LAYOUT PLAN
A LOOP SYSTEM

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MAK	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
MAK	DF	1:500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

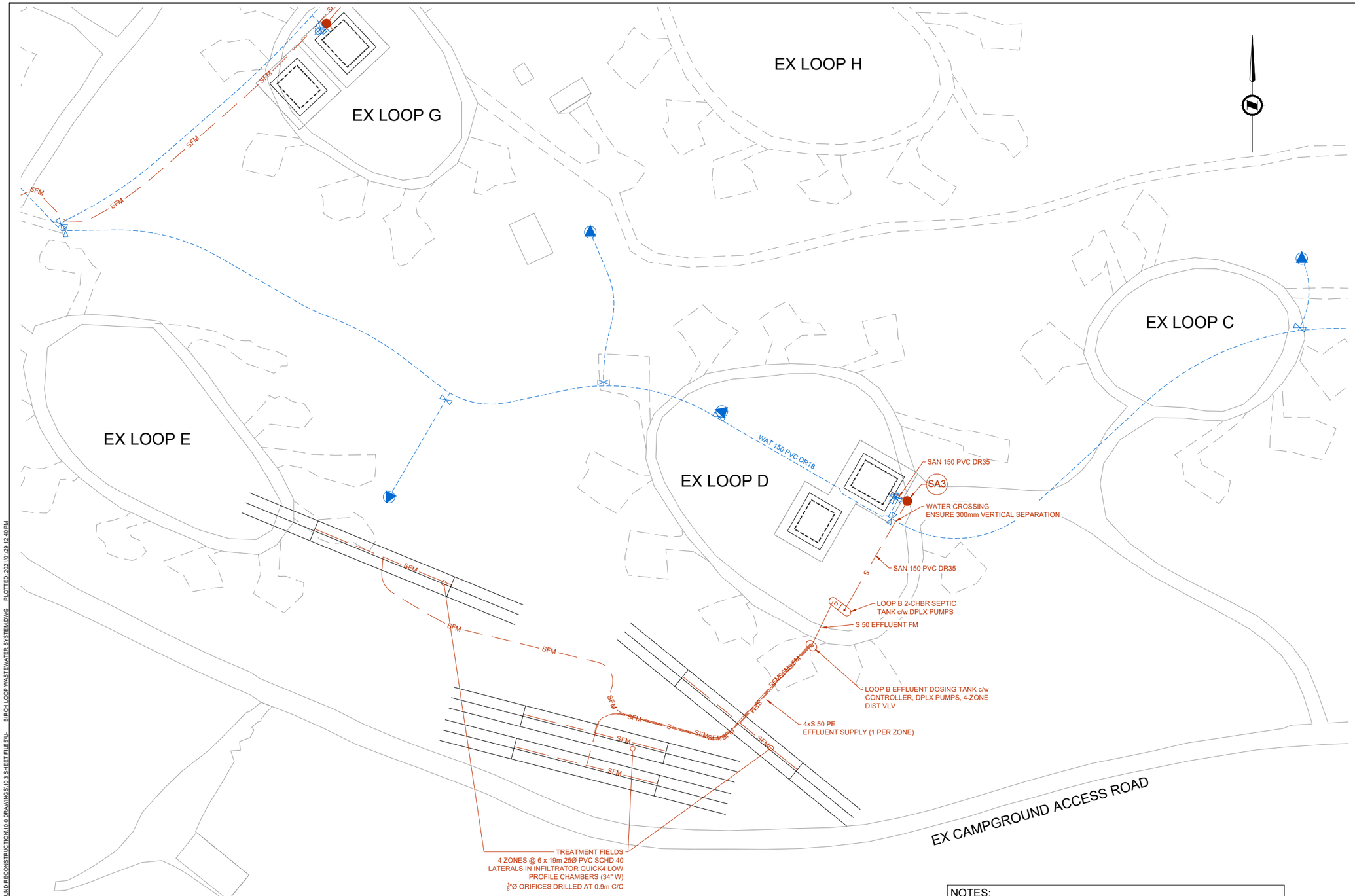
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		41

Drawing Reference No. / No. de réference du dessin
U-301

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-ASPEN LOOP WASTEWATER SYSTEM.DWG PLOTTED: 2021/01/29 12:36 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



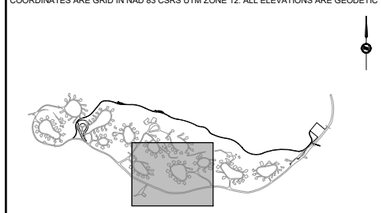
NOTES:
1. SEE DRAWING U-403 FOR TREATMENT FIELD DETAILS.
2. SEE DRAWING U-404 FOR SEPTIC TANK AND DOSING TANK DETAILS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MAK	MAK	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER MICHEL A. KIDDIER
2021-01-29

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney
Osprey Engineering Inc.

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

WASTEWATER SYSTEM

LAYOUT PLAN
B LOOP SYSTEM

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MAK	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
MAK	DF	1:500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

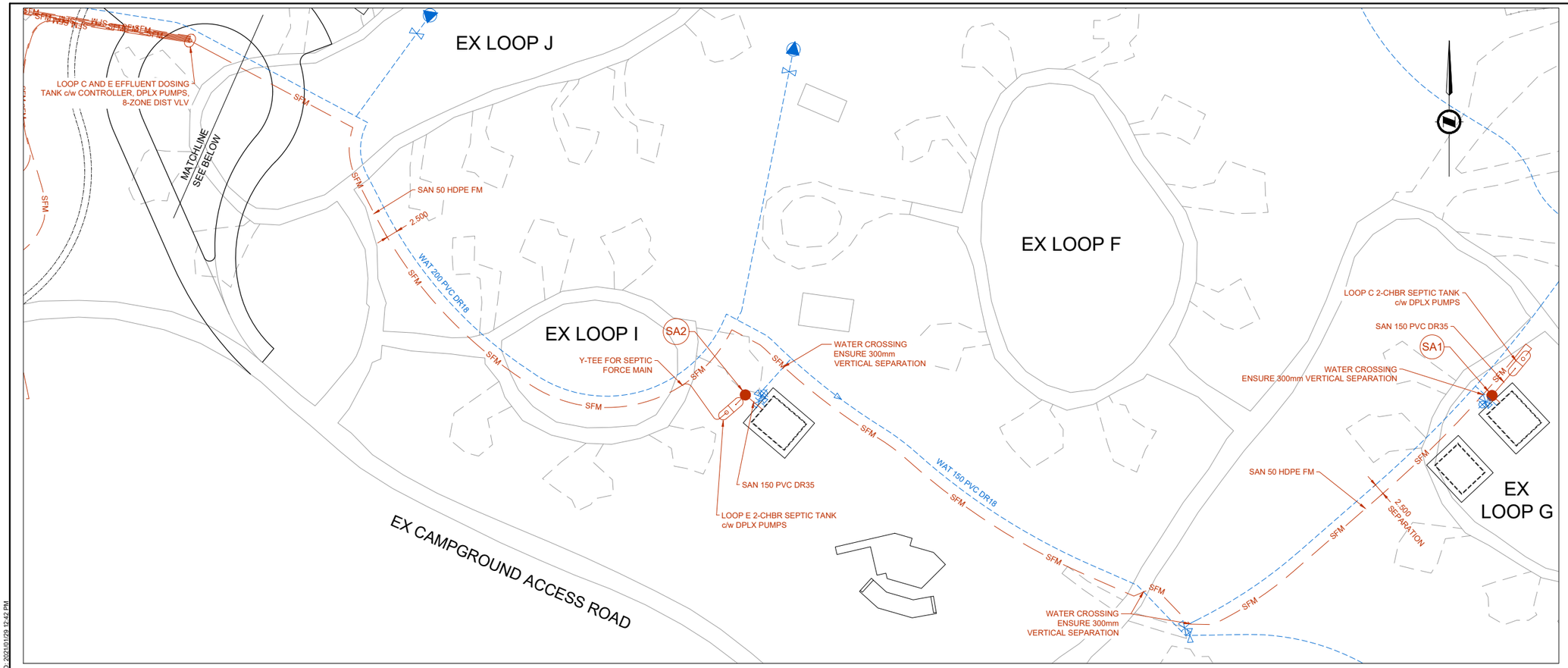
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		42

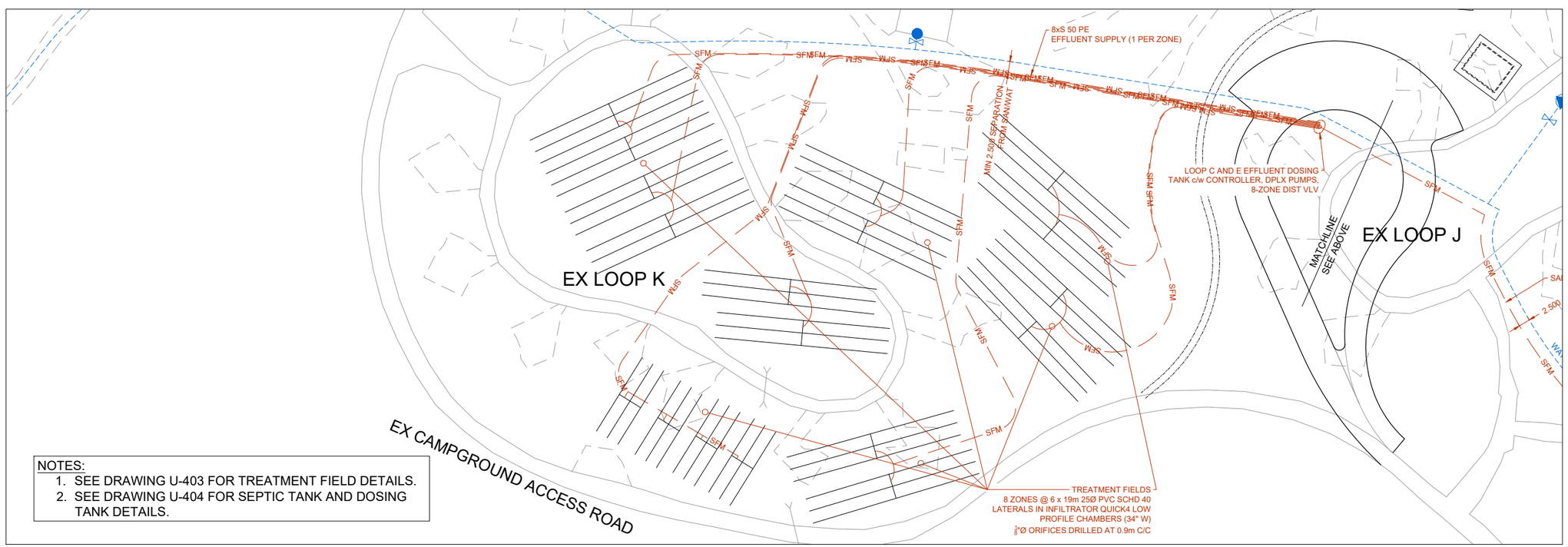
Drawing Reference No. / No. de réference du dessin
U-302

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILE\SUL- BIRCH LOOP WASTEWATER SYSTEM.DWG PLOTTED: 2021/01/29 12:40 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm





NOTES:
1. SEE DRAWING U-403 FOR TREATMENT FIELD DETAILS.
2. SEE DRAWING U-404 FOR SEPTIC TANK AND DOSING TANK DETAILS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MAK	MAK	DF

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

PROFESSIONAL ENGINEER — MICHEL A. KIRKHAM — 2021-01-29

Client

Parks Canada Agency / L'Agence Parcs Canada
Western and Northern Region / Ouest et Nord du Canada

Consultant's Name / Nom de l'expert-conseil

McElhanney — Osprey Engineering Inc.

Project Title / Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin

WASTEWATER SYSTEM

LAYOUT PLAN
D-E LOOP SYSTEM

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MAK	2021.01.29
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
MAK	DF	1:500

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: 43

Drawing Reference No. / No. de référence du dessin: U-303

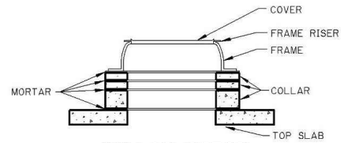
Paper Size: ANSI D (22 x 34")

FILE: C:\PROJECTS\2511 01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U- C-D-E LOOPS WASTEWATER SYSTEM.DWG PLOTTED: 2021/01/29 12:42 PM

MANHOLE COVER 1
- USE STANDARD MANHOLE COVER AS PER DWG SHEET #1 (452.1001.012).
- USE GRATED MANHOLE COVER AS PER DWG SHEET #2 (452.1001.011) ONLY IF CONSTRUCTION DRAWINGS INDICATE.

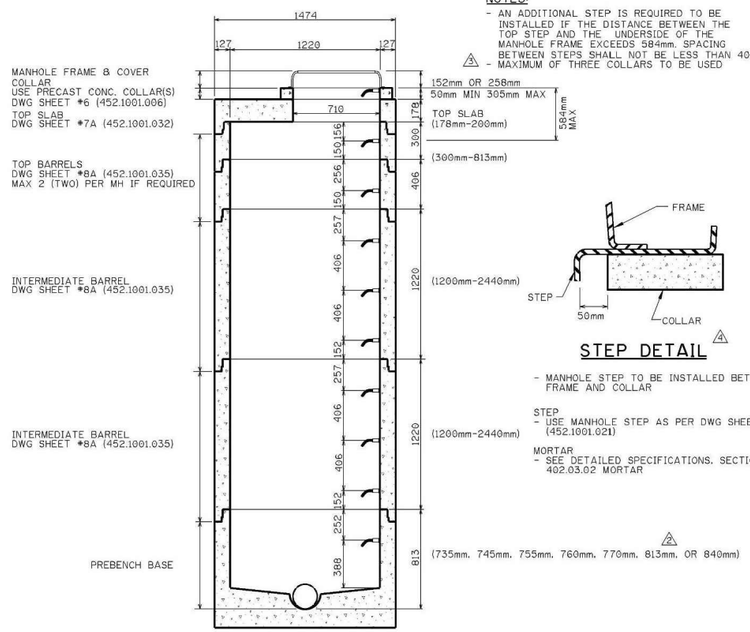
MANHOLE FRAME RISER
- USE MANHOLE FRAME RISER AS PER DWG SHEET #3 (452.1001.007).
- USE ONLY FOR FINAL ADJUSTMENTS TO GRADE.

MANHOLE FRAME
- USE STANDARD OR SHALLOW MANHOLE FRAME AS PER DWG SHEET #4 (452.1001.013), #4A (452.1001.031) & #5 (452.1001.014). 3



COLLAR DETAIL

NOTES:
- AN ADDITIONAL STEP IS REQUIRED TO BE INSTALLED IF THE DISTANCE BETWEEN THE TOP STEP AND THE UNDERSIDE OF THE MANHOLE FRAME EXCEEDS 584mm. SPACING BETWEEN STEPS SHALL NOT BE LESS THAN 400mm.
- 3 MAXIMUM OF THREE COLLARS TO BE USED



STEP DETAIL 4

- MANHOLE STEP TO BE INSTALLED BETWEEN FRAME AND COLLAR

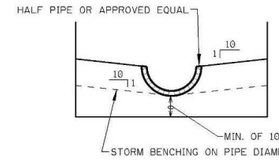
STEP
- USE MANHOLE STEP AS PER DWG SHEET #9 (452.1001.021)

MORTAR
- SEE DETAILED SPECIFICATIONS. SECTION 402.03.02 MORTAR

MATERIAL SPECIFICATIONS
1. HS 50 CEMENT (TYPE 50). 1
2. DESIGN AND REINFORCING AS PER ASTM 478M & CSA A257.4.

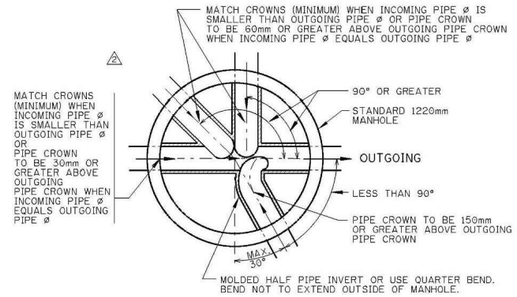
1.

BENCHING IN MANHOLES



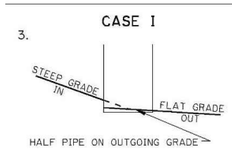
1
- STANDARD SIDE SLOPE OF BENCHING 10:1 FROM HALF WAY UP PIPE IN ALL CASES.
- ALL CONCRETE SHALL BE 30MPa IN 28 DAYS.
- SANITARY - HALF PIPE OR APPROVED EQUAL SHALL FORM THE INVERT.
- STORM - SAME BENCHING AS SANITARY FOR PIPE DIAMETER LESS THAN OR EQUAL TO 600mm
- ALL CHANNELS ARE TO BE SIZE ON SIZE, CHANNELS ONE PIPE SIZE LARGER WILL BE ACCEPTED.
3
- ALL UNUSED CHANNELS ON PRE-BENCHED MANHOLES THAT ARE NOT INTENDED FOR FUTURE EXPANSIONS ARE TO BE FILLED WITH CONCRETE AS DESCRIBED IN 403.09.04 BENCHING.
4

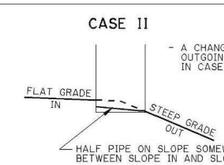
2.



- LOWEST OR OUTGOING PIPE TO GO STRAIGHTTHROUGH MANHOLE WITH HALF PIPE TO OPPOSITE WALL IN ALL CASES INCLUDINGDEAD END MANHOLE
- WHERE THE ANGLE BETWEEN THE DIRECTION OF FLOW IN THE INCOMING AND OUTGOING PIPES IS 90° OR GREATER, THEN THE INCOMING PIPE MUST COME STRAIGHT TO INTERSECT WITH THE OUTGOING PIPE WITH A HALF PIPE SET IN MAIN BENCHING; WHERE THIS ANGLE IS LESS THAN 90°, THEN A MINIMUM OF 150mm DROP IS REQURED BETWEEN INCOMING AND OUTGOING INVERTS.

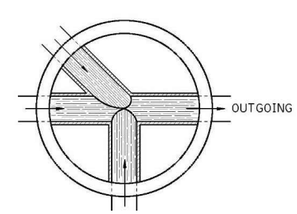
3.





- A CHANGE IN GRADE BETWEEN INCOMING AND OUTGOING PIPES MAY BE ACCOMPLISHED AS SHOWN IN CASE I AND II.

4.



SANITARY SEWERS:
- USE SANITARY DROP MANHOLE WHEN INCOMING PIPE INVERT IS 760mm OR GREATER ABOVE OUTGOING PIPE CENTERLINE. FOR DETAIL OF MANHOLE, SEE DWG. # 14 & #15.
- HAVE INLET FLOW DROP INTO HALF PIPE SET IN MAIN BENCHING AND RUNNING STRAIGHT TO INTERSECTION WITH OUTGOING PIPE.
- HALF PIPE STRAIGHT THROUGH ON OUTGOING SLOPE.

1 DETAIL - 5A MANHOLE ASSEMBLY
SCALE NTS

NOTE:
SEE 1 U-422 FOR PIPE BEDDING DETAIL

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER
PERMIT NUMBER: P243
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING DETAILS SANITARY SHEET 1 OF 1

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

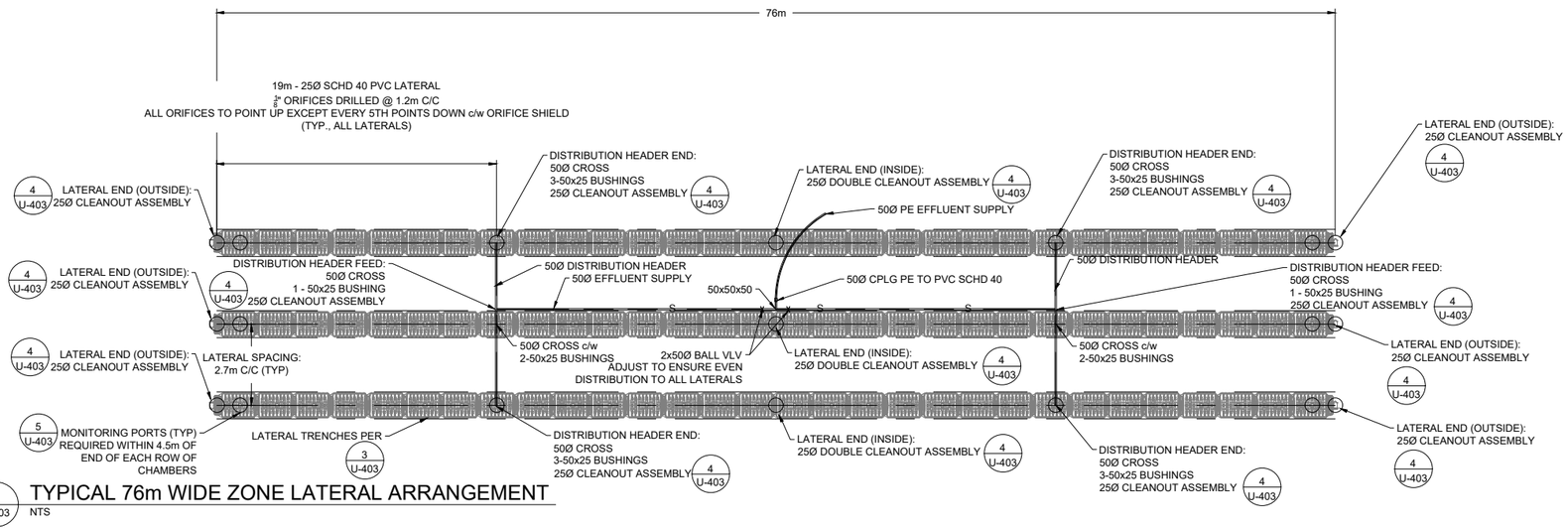
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		44

Drawing Reference No. / No. de réference du dessin
U-401

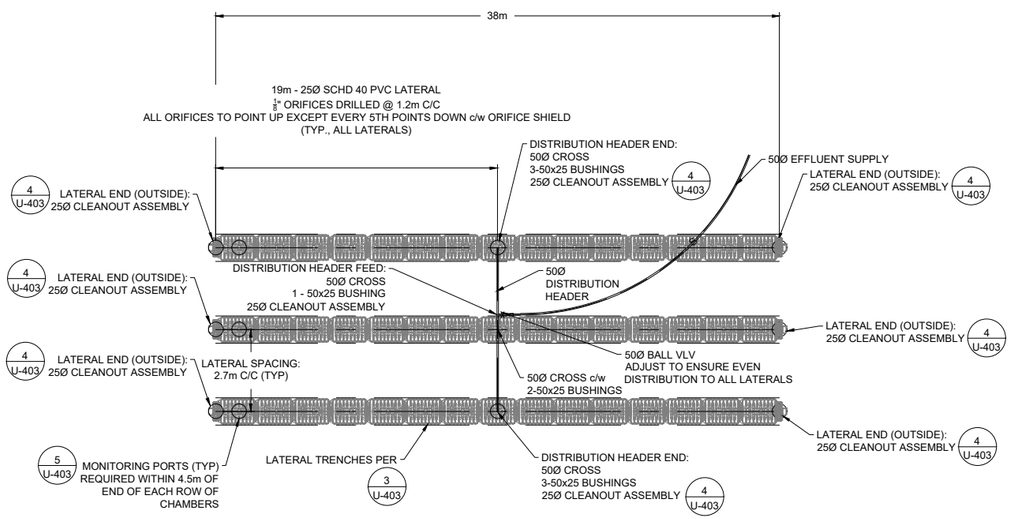
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-400-DET.DWG PLOTTED: 2021\01\25 2:33 PM

Paper Size: ANSI D (22 x 34")

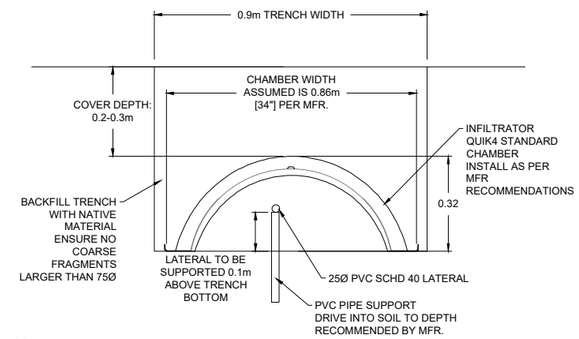
0 10 20 30 40 50 60 70 80 90 100mm



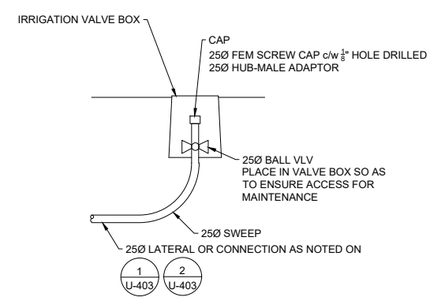
1 U-403 TYPICAL 76m WIDE ZONE LATERAL ARRANGEMENT
NTS



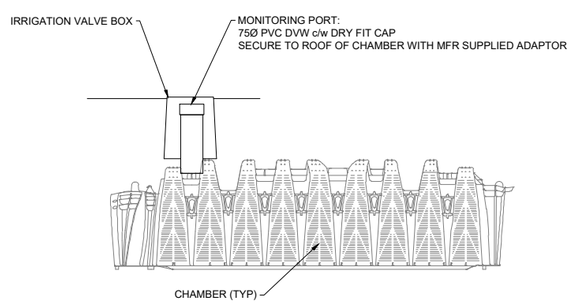
2 U-403 VARIANT 38m WIDE LATERAL ARRANGEMENT
NTS



3 U-403 TRENCH WITH CHAMBER - TYP SEC
NTS



4 U-403 TYPICAL CLEANOUT
NTS



5 U-403 TYPICAL MONITORING PORT
NTS

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MAK	MAK	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur
PROFESSIONAL ENGINEER MICHAEL A. KIRKLAND
2021-01-29

Client
Parks Canada Agency, Western and Northern Region
L'Agence Parcs Canada, Ouest et Nord du Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney
Osprey Engineering Inc.

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin
SITE SERVICING DETAILS WASTEWATER SYSTEMS TREATMENT FIELDS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MAK	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
MAK	DF	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

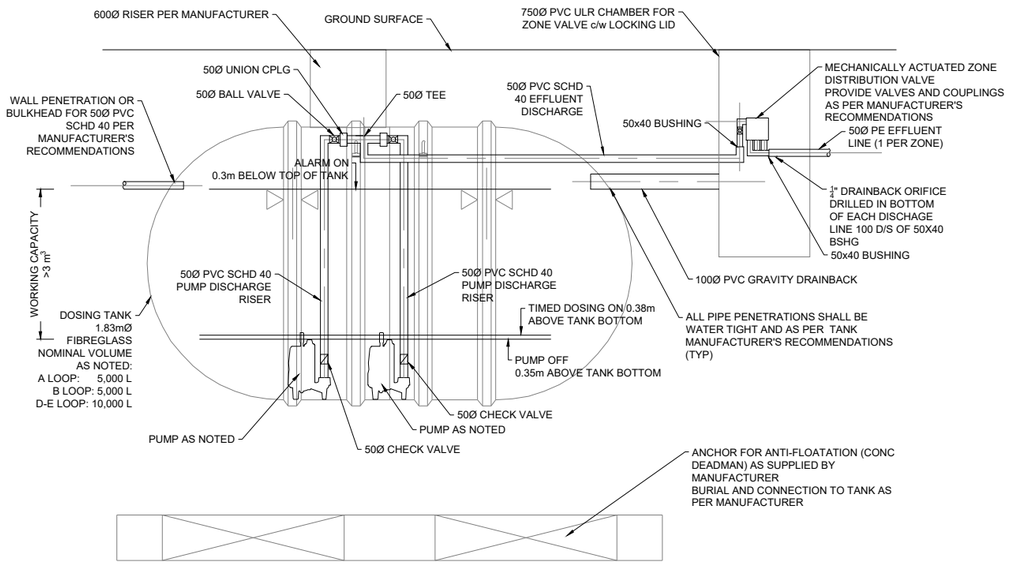
Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 45
Drawing Reference No. / No. de réference du dessin: U-403

FILE: D:\PROJECTS\195529 - MCELHANNEY CRANDELL MTN WATERTON PSD\04 DESIGN\01. MODEL\92 U-403.DWG PLOTTED: 2020/11/27 9:30 AM

Paper Size: ANSI D (22 x 34")



NOTE: FOR D&E LOOP DOSING, EACH PUMP IS TO BE ROUTED TO 2 INDIVIDUAL ZONE VALVES, EACH WITH 4 OUTLETS TO FEED 8 TOTAL ZONES.

1 / U-404 DOSING TANK DETAILS

NTS

TANKAGE NOTES:

1. ALL TANKS TO BE FIBREGLASS WASTEWATER AS SUPPLIED BY ZCL COMPOSITES OF EDMONTON, AB
2. TANKS TO BE SUITABLE FOR LOADING TO HS-20.
3. TANKS TO BE OF DIAMETERS AND NOMINAL SIZES SPECIFIED.
4. SEPTIC TANKS SHALL HAVE 2 CHAMBERS SEPARATED BY A MANUFACTURER INSTALLED $\frac{7}{8}$ DEPTH BAFFLE WALL c/w CROSSOVER BAFFLE INSTALLED WITH INVERT AT MAXIMUM LIQUID LEVEL
5. DOSING TANKS SHALL BE SINGLE CHAMBER.
6. ALL PIPE PENETRATIONS SHALL BE WATERTIGHT AND INSTALLED BY THE MANUFACTURER OR SHALL BE FIELD INSTALLED USING WATERTIGHT METHODS AND FITTINGS AS DIRECTED BY THE MANFACTURER.
7. ALL WASTEWATER LIDS MUST BE LOCKING OR OTHERWISE SECURED FROM ACCESS BY THE PUBLIC OR OTHER UNAUTHORIZED PERSONS AND WILDLIFE.
8. ZONE DISTRIBUTION VALVES SHALL BE LOCATED IN SEPARATE 750Ø PVC ULR RISER PIT c/w LOCKING LID IMMEDIATELY ADJACENT TO DOSING TANK. RISER PIT SHALL HAVE 100Ø PVC DRAINBACK PIPE TO DOSING TANK.

Summary of pumping requirements

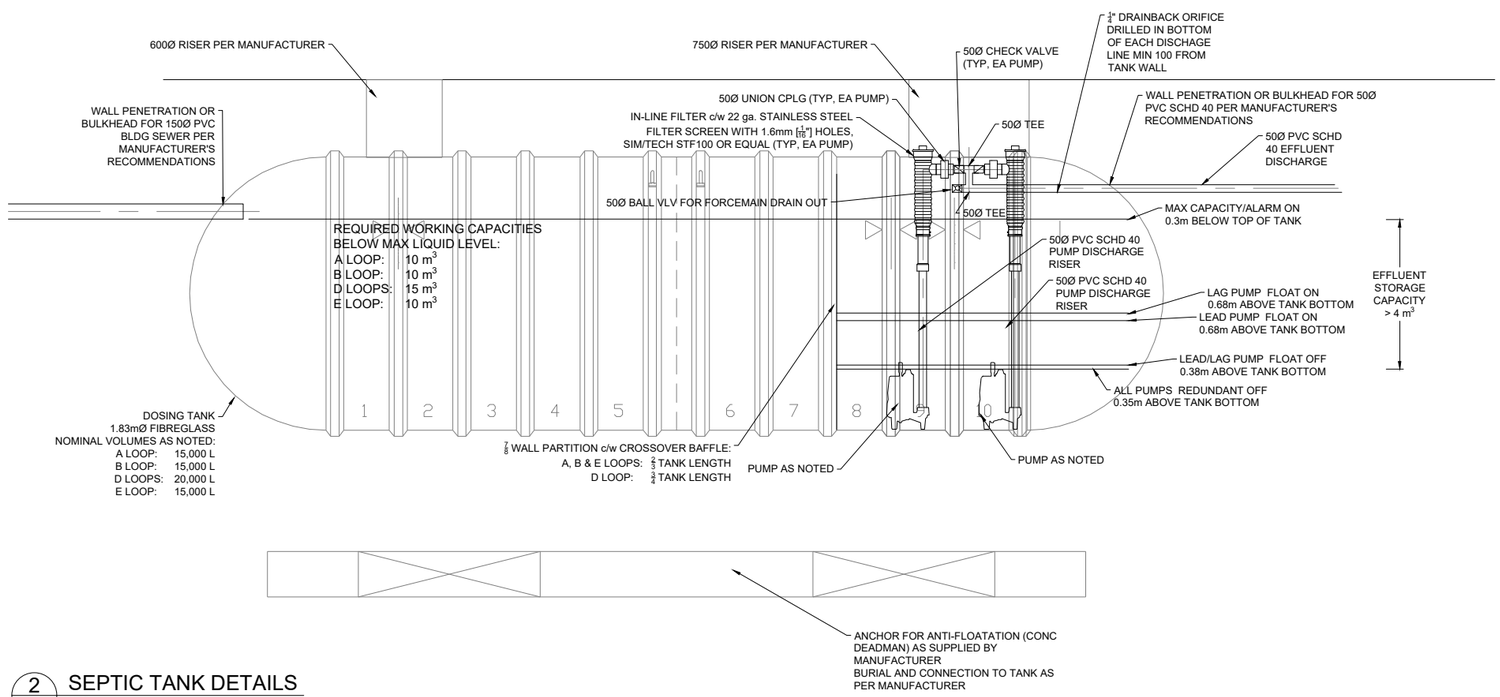
		A Loop		B Loop		D-E Loop			
		Effluent FM	Field Dosing	Effluent FM	Field Dosing	D Effluent FM	E Effluent FM	Field Dosing	
Q	USgpm		36.0		31.7	31.7		31.7	
	L/s	0.0	2.3	0.0	2.0	2.0	0.0	2.0	
NPH	ft		33.6		42.6	47.2		51.5	
	m	0.0	10.3	0.0	13.0	14.4	0.0	15.7	
Power	hp	0.5	0.5	0.5	1.0	1.0	1.0	1.0	
	kW	0.37	0.37	0.37	0.75	0.75	0.75	0.75	
	Pump Model	WS50H	WS50H	WS50H	WS100H	WS100H	WS100H	WS100H	

PUMP NOTES:

1. ALL PUMPS SHALL BE LITTLE GIANT(R) WS-SERIES EFFLUENT PUMPS AS MANUFACTURED BY FRANKLIN ELECTRIC CO. OF FORT WAYNE, IN, USA.
2. ALL PUMPS SHALL BE SINGLE PHASE, 120 OR 240 VAC OF SIZE NOTED FOR EACH INSTALLATION
3. ALL PUMPS SHALL BE PROVIDED WITH A LIFTING ROPE OR CHAIN ATTACHED TO THE TANK MANWAY SUCH THAT IT IS EASILY AND SAFELY ACCESSIBLE FOR PUMP REMOVAL WHEN REQUIRED. ROPE OR CHAIN SHALL BE OF A MATERIAL APPROPRIATE FOR USE IN AND EXPOSURE TO WASTEWATER AND RESISTANT TO OXIDATION AND ATTACK BY ORGANISMS AND CHEMICALS NORMALLY PRESENT IN DOMESTIC WASTEWATER. ROPE OR CHAIN SHALL BE CAPABLE OF SAFELY CARRYING THE WEIGHT OF THE PUMPS AND THEIR DISCHARGE PIPING.
4. TO FACILITATE REMOVAL AND REPLACEMENT OF PUMPS, BOTH PUMPS SHALL BE EQUIPPED WITH UNION COUPLINGS AND BALL VALVES PLACED SUCH THAT EACH IS EASILY AND SAFELY ACCESSIBLE AND OPERABLE.
5. PUMP DISCHARGE PIPING AND FITTINGS SHALL BE PVC SCHEDULE 40 AS NOTED.
6. PUMP WIRING SHALL BE ROUTED FROM THE TANK MANWAY THROUGH AN APPROPRIATE CONDUIT TO THE CONTROL PANEL. CONNECTION TO THE TANK MUST BE MADE VAPOUR-TIGHT TO ENSURE NO MIGRATION OF GASES/VAPOUR FROM THE TANKS TO THE PANELS. IN NO CIRCUMSTANCES SHALL WIRES BE ROUTED OVER THE MANWAY RIM OR THROUGH THE LID.
7. ALL PUMPS FROM SEPTIC TANKS SHALL HAVE IN-LINE FILTER WITH SCREEN TO REMOVE PARTICLES OF SIZE GREATER THAN 1.6mm [$\frac{1}{16}$"]

CONTROL NOTES:

1. FOR SEPTIC TANK EFFLUENT DISCHARGE PUMPS, CONTROL PANEL SHALL BE DUPLEX (LEAD/LAG) DEMAND DOSE PANEL. PANEL SPECIFIED IS SJE/RHOMBUS MODEL 122 SINGLE PHASE PANEL BY SJE/RHOMBUS OF DETROIT LAKES, MN, USA.
2. FOR TREATMENT FIELD DOSING, CONTROL PANEL SHALL BE SJE/RHOMBUS IFS MODEL IFI-3-1-W-2-4-4-H. PUMPS SHALL ALTERNATE FUNCTION BETWEEN DOSES.
3. FOR TREATMENT FIELD DOSING, PUMP RUNTIMES SHALL BE SET TO DELIVER THE FOLLOWING INDIVIDUAL DOSE VOLUMES:
   - 3.1. A LOOP: 1.26 m^3 [332 USgal]
   - 3.2. B LOOP: 1.43 m^3 [373 USgal]
   - 3.3. D-E LOOP: 1.60 m^3 [421 USgal]
4. ALL PANELS SHALL HAVE REDUNDANT OFF AND HIGH LEVEL ALARMS.
5. ALL FLOATS MUST BE ATTACHED TO A SEPARATE PVC SCHEDULE 40 MAST OR SUSPENDED FROM THE MANWAY. IN NO CIRCUMSTANCES SHALL FLOATS BE ATTACHED TO PUMP DISCHARGE PIPING.
6. FLOAT WIRING SHALL BE INSTALLED IN A WATER AND AIRTIGHT MANNER, SIMILAR TO PUMP POWER (SEE PUMP NOTE 6.)
7. FLOAT LEVELS, ALARM LEVELS AND TIMED DOSING SETTINGS SHALL BE CONFIRMED DURING COMMISSIONING OF TREATMENT FIELD.
8. MECHANICALLY ACTUATED ZONE DISTRIBUTION VALVE SHALL BE AS MANUFACTURED BY ORENCO SYSTEMS INC. OF SUMMERLIN, OR, USA, MODELS AS NOTED:
   - 8.1. A LOOP: V6403A x1
   - 8.2. B LOOP: V6404A x1
   - 8.3. D-E LOOP: V6404A x2 (1 FED FROM EACH PUMP)



2 / U-404 SEPTIC TANK DETAILS

NTS

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MAK	MAK	DF

A detail number numéro de detail
B source drawing no. de dessin no.
C detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

2021-01-29

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney
Osprey Engineering Inc.

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING DETAILS
WASTEWATER SYSTEMS TANKAGE

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MAK	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
MAK	DF	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: 46

Drawing Reference No. / No. de réference du dessin: U-404

FILE: D:\PROJECTS\190529 - MCELHANNEY CRANDELL MTN WATERTON PSD\04 DESIGN\01 MODEL\931-U-404.DWG PLOTTED: 2020/11/27 9:30 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

SERVICE VALVE RODS

TYPE A
FOR 20 & 25mm VALVES
(ROD OD. 12.7mm)

TYPE B
FOR 40 & 50mm VALVES
(ROD OD. 15.9mm)

MATERIAL SPECIFICATIONS

ROD
304 STAINLESS STEEL
ASTM A276-94b / A479-94a
COLD FINISHED. TENSILE 90,000 psi MIN..

CLEVIS CASTING
MANGANESE BRONZE
CDA C86500
S.A.E. STANDARD #43
TENSILE: 65,000 psi MIN.
OR:
STAINLESS STEEL
ASTM A743 / A743M-94a
GRADE CF8(304)
TENSILE: 70,000 psi MIN.

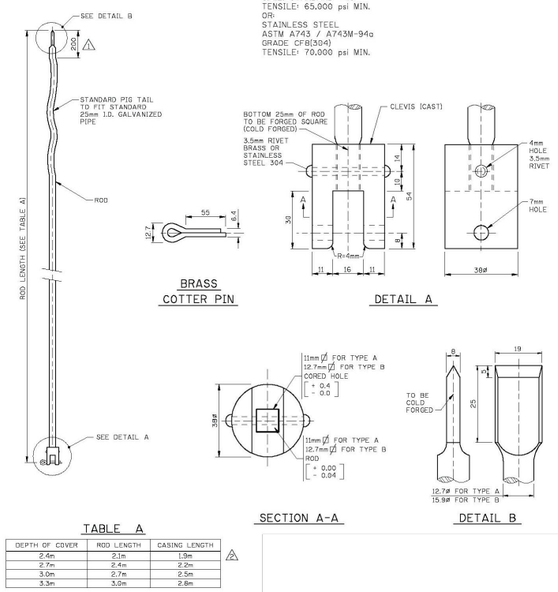
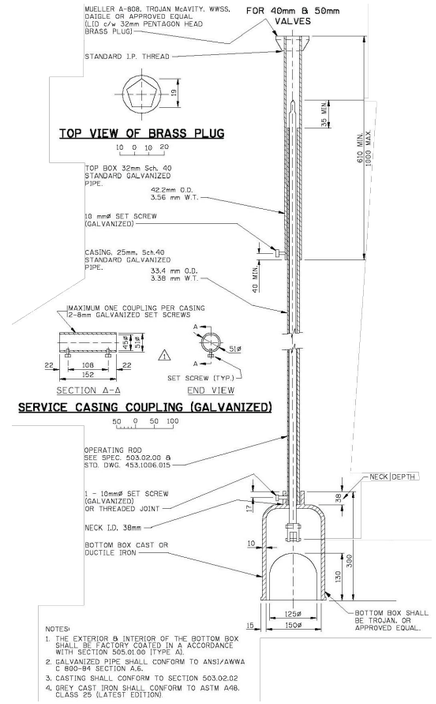


TABLE A

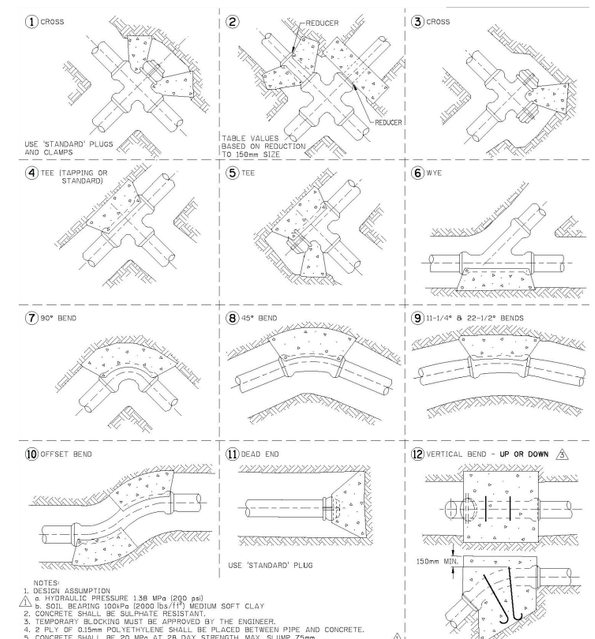
DEPTH OF COVER	ROD LENGTH	CASING LENGTH
2.4m	2.1m	1.9m
2.7m	2.4m	2.2m
3.0m	2.7m	2.5m
3.3m	3.0m	2.8m

1 DETAIL - SERVICE VALVE ROD
SCALE NTS



NOTES:
1. THE EXTERIOR & INTERIOR OF THE BOTTOM BOX SHALL BE FACTORY COATED IN A ACCORDANCE WITH SECTION 505.01.00 (TYPE A).
2. GALVANIZED PIPE SHALL CONFORM TO ANSI/AWWA C 800-94 SECTION A.6.
3. CASTING SHALL CONFORM TO SECTION 503.02.02
4. GREY CAST IRON SHALL CONFORM TO ASTM A48, CLASS 25 (LATEST EDITION)

2 DETAIL - SERVICE VALVE ASSEMBLY
SCALE NTS



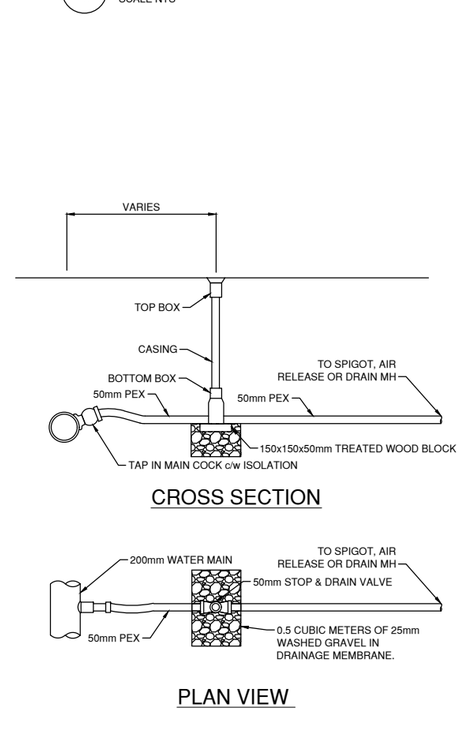
NOTES:
1. DESIGN ASSUMPTION
a. HYDRAULIC PRESSURE 1.38 MPa (200 psi)
b. SOIL BEARING 100kPa (2000 lbs/ft²) MEDIUM SOFT CLAY
2. CONCRETE SHALL BE SULPHATE RESISTANT.
3. TEMPORARY BLOCKING MUST BE APPROVED BY THE ENGINEER.
4. 2 PLY OF 0.15mm POLYETHYLENE SHALL BE PLACED BETWEEN PIPE AND CONCRETE.
5. CONCRETE SHALL BE 20 MPa AT 28 DAY STRENGTH. MAX. SLUMP 75mm.
6. THRUST BLOCKS AS PER STD. SPEC. 504.05.03.
* IN DISTURBED GROUND (COMPACTED BACK FILL) INCREASE BEARING AREA BY 50%

BEARING AREA OF BLOCKS

FITTING TYPE	CONCRETE AREAS IN SQUARE METRES						
	PIPE SIZE	100	150	200	250	300	400
90 BEND	3.4-1	0.2	0.4	0.7	1.0	1.4	1.9
	3.5-7	0.3	0.5	0.9	1.4	2.0	2.7
	8				0.5	0.7	1.6
	6,8,12	0.2	0.3	0.5	0.6	1.1	1.4
	9	0.1	0.2	0.3	0.4	0.6	0.7
	10	0.3	0.6	1.0	1.2	2.2	2.9

FOR WEIGHT REQUIREMENTS SEE SEC. 504.05.03 OF THESE SPECIFICATIONS.

3 DETAIL - THRUST BLOCKS
SCALE NTS



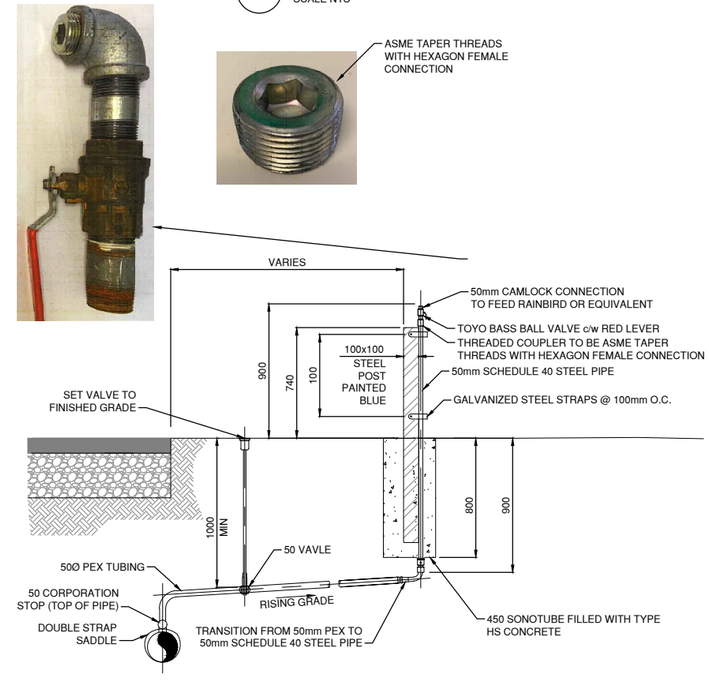
NOTES:
1. ALL MATERIAL CAST IRON EXCEPT WHERE NOTED.
2. TOLERANCE ALLOWED ON TOP BOX & LID MEASUREMENTS.
LID DIAMETER +0 -3
BOX DIAMETER +3 -0
3. BOTTOM BOX DIMENSIONS FOR VALVES LARGER THAN 200mm SHALL CONFORM TO STD. DWG. 453.1006.009
4. THE EXTERIOR OF THE TOP BOX, STEEL CASING AND THE EXTERIOR AND INTERIOR OF THE BOTTOM BOX SHALL BE FACTORY COATED IN ACCORDANCE WITH SECTION 505.01.00 TYPE A OF THE STANDARD SPECIFICATIONS.
5. THE OPERATING ROD SHALL BE AN INTERGAL PART. JOINTS PRODUCED BY WELDING OR OTHER METHODS, ARE NOT ACCEPTABLE.
6. THE CASTING SHALL CONFORM TO SECTION 503.02.02.
7. GREY CAST IRON SHALL CONFORM TO ASTM A48, CLASS 25 (LATEST EDITION).

4 DETAIL - VALVE TOP & BOTTOM CASING
SCALE NTS

CROSS SECTION

PLAN VIEW

5 DETAIL - 50mm WATER SERVICE CURB STOP VALVE
SCALE NTS



6 DETAIL - WATER BLOW OFF AND AIR RELEASE ASSEMBLY
SCALE 1:20

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING PRIOR TO CONSTRUCTION. CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number
B numéro de detail / source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA DANIEL F. FOWLER
PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency
L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING DETAILS WATER SHEET 1 OF 6

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	AS SHOWN

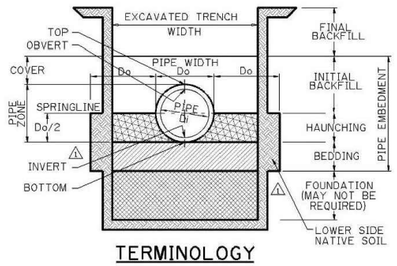
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

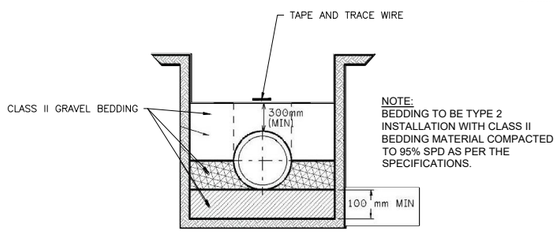
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 47
Drawing Reference No. / No. de réference du dessin: U-421

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-421195-420-DET.DWG PLOTTED: 2021/01/25 2:41 PM

Paper Size: ANSI D (22 x 34")

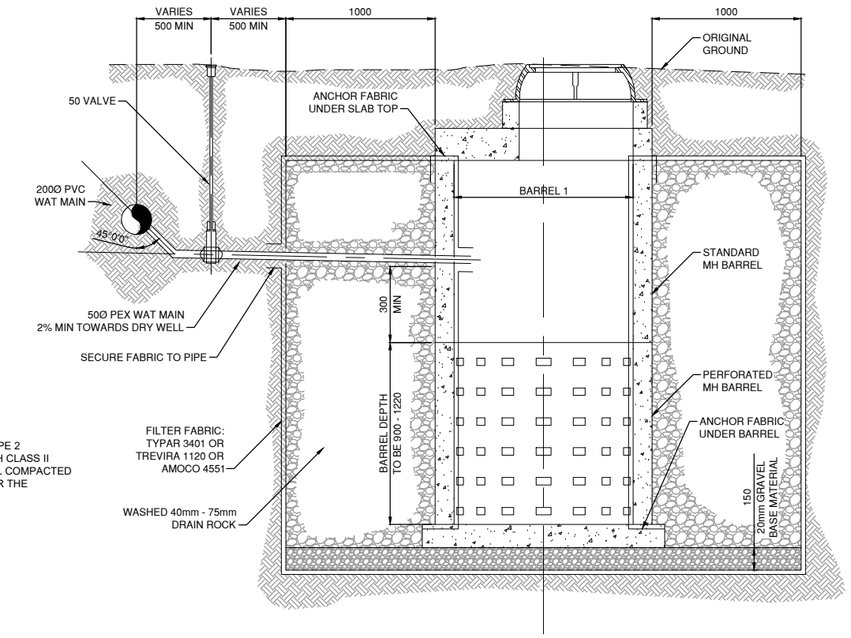


TERMINOLOGY

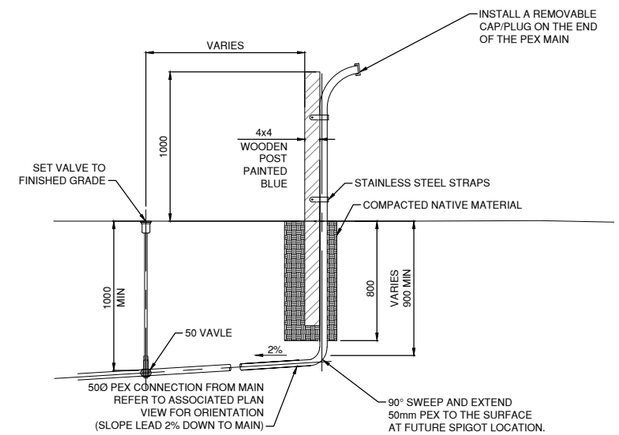


NOTE:
BEDDING TO BE TYPE 2 INSTALLATION WITH CLASS II BEDDING MATERIAL COMPACTED TO 95% SPD AS PER THE SPECIFICATIONS.

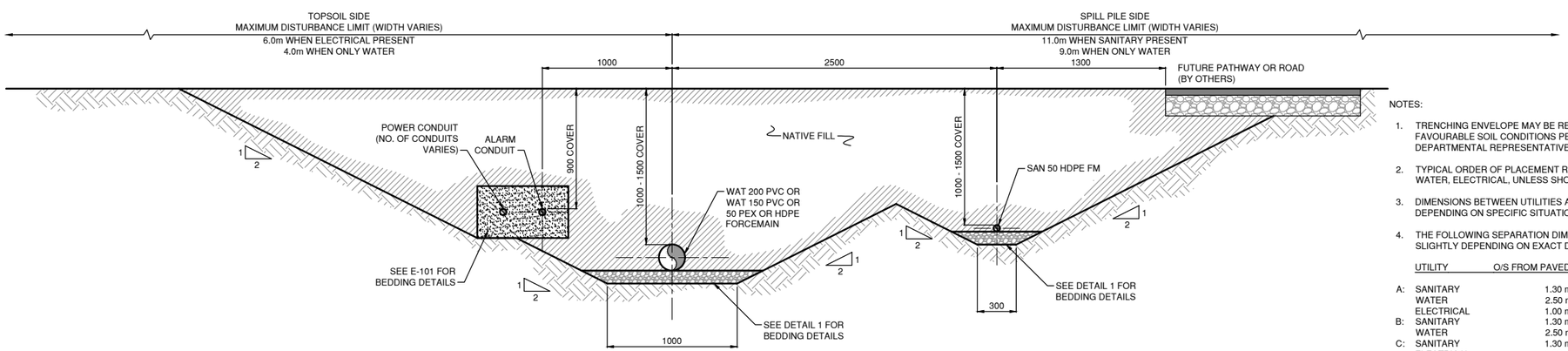
1 --- DETAIL - PIPE BEDDING
SCALE NTS



2 --- DETAIL - WATER DRAIN MANHOLE
SCALE 1:20



3 --- DETAIL - FUTURE WATER SPIGOT AND DRY WELL
SCALE 1:20



4 --- DETAIL - UTILITY TRENCH
SCALE 1:20

NOTES:

1. TRENCHING ENVELOPE MAY BE REDUCED BY STEEPENING SLOPES IF FAVOURABLE SOIL CONDITIONS PERMIT AND ARE APPROVED BY DEPARTMENTAL REPRESENTATIVE.
2. TYPICAL ORDER OF PLACEMENT RELATIVE FROM PATHWAY IS SANITARY, WATER, ELECTRICAL, UNLESS SHOWN OTHERWISE ON PLAN.
3. DIMENSIONS BETWEEN UTILITIES AND OFFSETS FROM PATH VARY DEPENDING ON SPECIFIC SITUATION.
4. THE FOLLOWING SEPARATION DIMENSIONS ARE TYPICAL AND VARY SLIGHTLY DEPENDING ON EXACT DEPTH OF UTILITIES:

	UTILITY	O/S FROM PAVED EDGE (OR ADJACENT UTILITY)	
A:	SANITARY	1.30 m	(SCENARIO A IS ILLUSTRATED HERE)
	WATER	2.50 m	
	ELECTRICAL	1.00 m	
B:	SANITARY	1.30 m	
	WATER	2.50 m	
C:	SANITARY	1.30 m	
	ELECTRICAL	1.00 m	
D:	SANITARY ONLY	1.30 m	
E:	WATER	1.30 m	
	ELECTRICAL	1.00 m	
F:	WATER ONLY	1.30 m	
G:	ELECTRICAL ONLY	0.60 m	

4. WHERE UTILITIES CROSS, ELECTRICAL CONDUIT SHALL PASS OVERTOP OF OTHER LINES. IF MINIMUM COVER CANNOT BE ACHIEVED, ELECTRICAL CONDUIT(S) SHALL BE PROTECTED WITH CONCRETE INSULATION.
5. AREA WITHIN MAXIMUM DISTURBANCE LIMITS SHALL BE STRIPPED.
6. CONTRACTOR MAY USE THE AREA OF MAXIMUM DISTURBANCE FOR WINDROWED STRIPPED TOPSOIL, MATERIAL LAYDOWN, SPILL PILE, AND VEHICLE ACCESS.
7. TOPSOIL SHALL BE WINDROWED ON THE LEFT SIDE OF THE TRENCH AND SPILL PILE SHALL BE ON THE RIGHT SIDE OF THE TRENCH UNLESS OTHERWISE DIRECTED BY THE DEPARTMENTAL REPRESENTATIVE.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number numéro de detail
B source drawing no. de dessin no.
C detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA DANIEL F. FUNK
PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
SITE SERVICING DETAILS WATER SHEET 2 OF 6

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

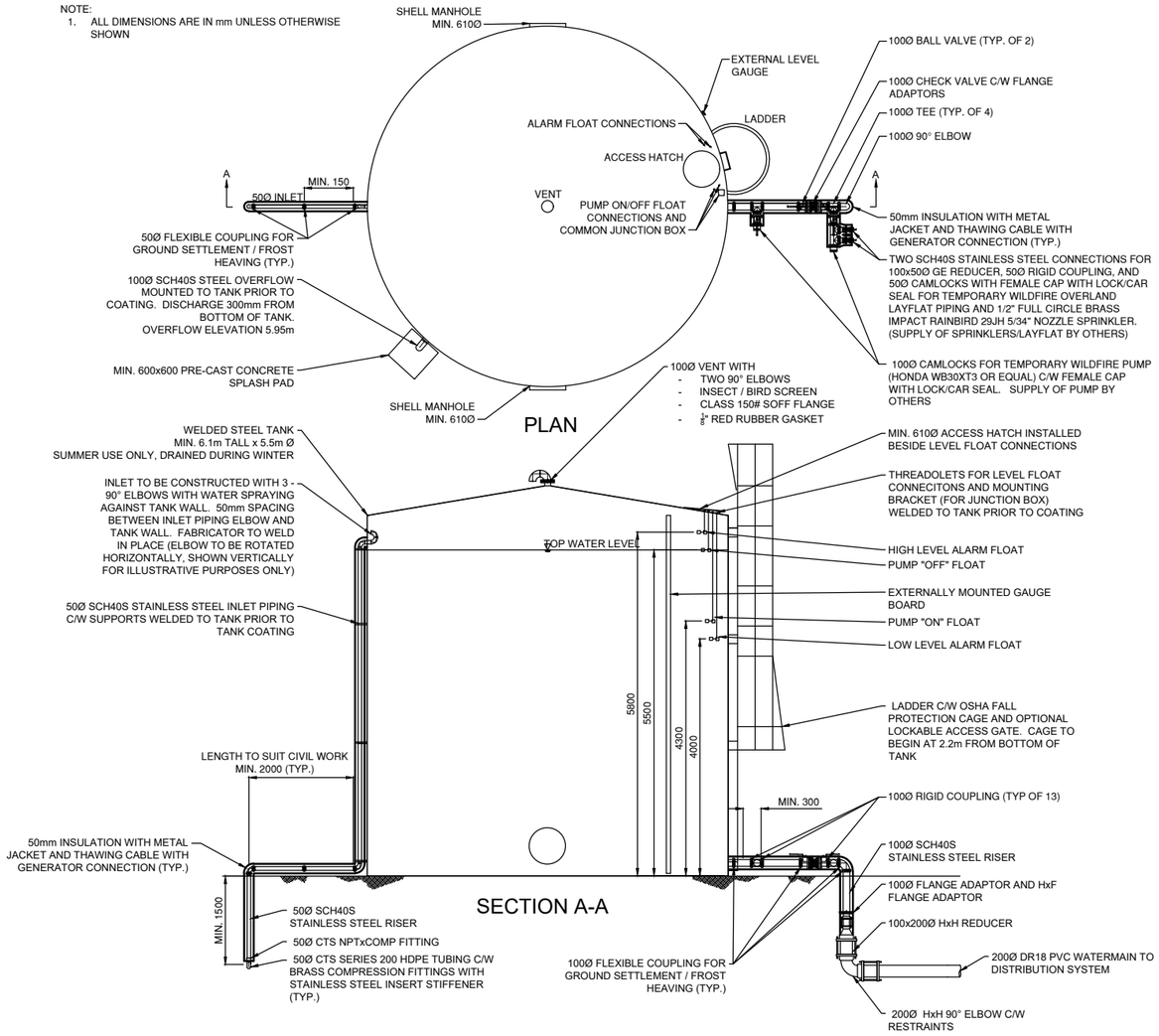
Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 48
Drawing Reference No. / No. de référence du dessin: U-422

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-420-DET.DWG PLOTTED: 2021/01/27 2:19 PM

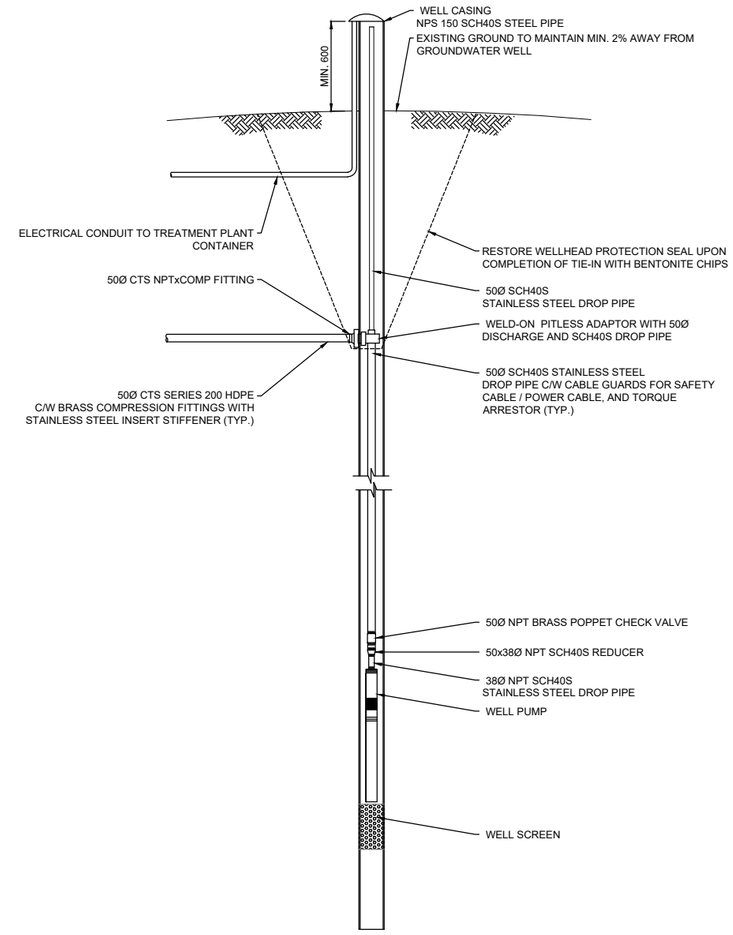
Paper Size: ANSI D (22 x 34")

NOTE:
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN



1 --- DETAIL - POTABLE WATER RESERVOIR
SCALE 1:50

NOTE:
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN



2 --- DETAIL - WATER SUPPLY WELL
SCALE 1:20

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MM	DK	DK

A — detail number
B — numéro de detail / source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
DEREK KROMENBROEK
2021-01-28

Client

Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING DETAILS WATER
SHEET 3 OF 6

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DK	DK	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

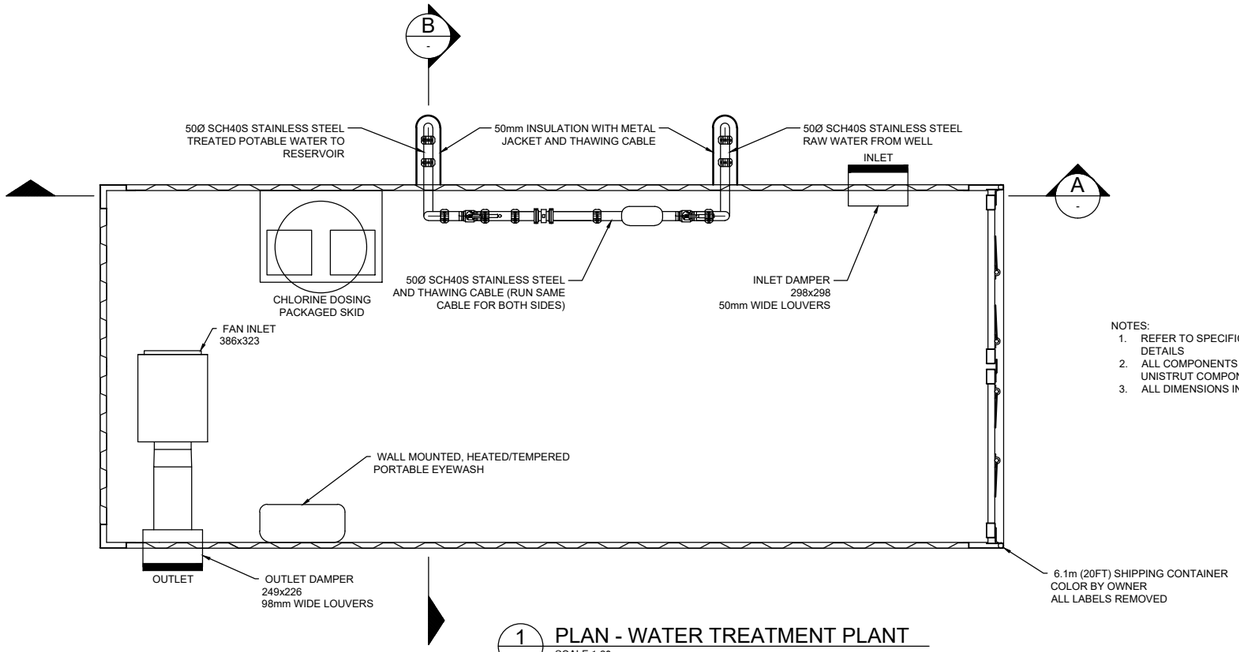
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		49

Drawing Reference No. / No. de réference du dessin
U-423

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-420-DET.DWG PLOTTED: 2021/01/25 2:42 PM

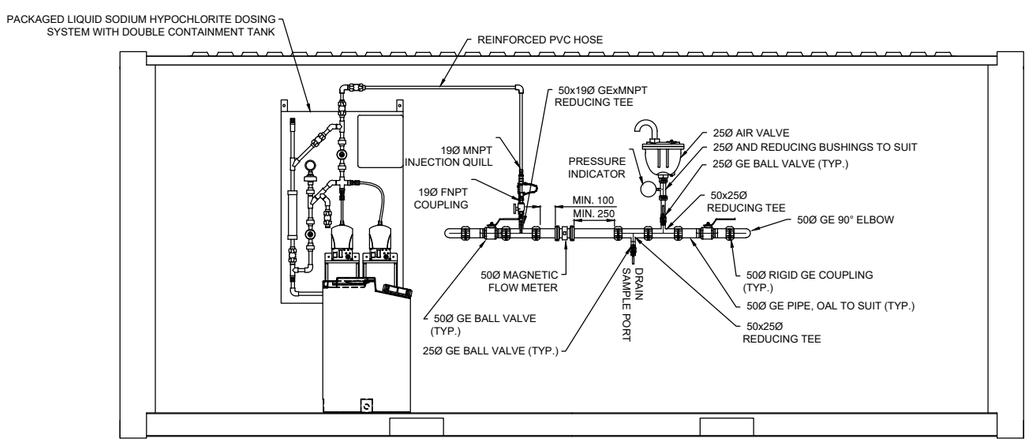
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



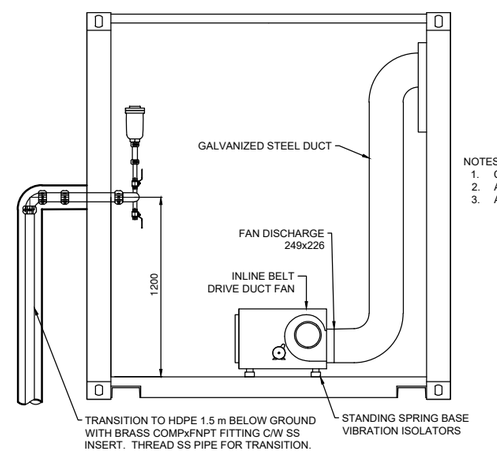
NOTES:
1. REFER TO SPECIFICATIONS FOR EQUIPMENT DETAILS
2. ALL COMPONENTS SHALL BE WALL MOUNTED USING UNISTRUT COMPONENTS OR EQUAL
3. ALL DIMENSIONS IN mm UNLESS OTHERWISE SHOWN

1 --- PLAN - WATER TREATMENT PLANT
SCALE 1:20



NOTES:
1. ALL INTERIOR COUPLINGS TO BE RIGID TYPE EXCEPT FOR LAST COUPLINGS (FLEXIBLE TYPE) EXITING CONTAINER WALL
2. ALL DIMENSIONS IN mm UNLESS OTHERWISE SHOWN

A - SECTION
SCALE 1:20



NOTES:
1. CHLORINE DOSING SKID REMOVED FOR CLARITY
2. ALL EXTERIOR COUPLINGS TO BE FLEXIBLE TYPE
3. ALL DIMENSIONS IN mm UNLESS OTHERWISE SHOWN

B - SECTION
SCALE 1:20

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MM	DK	DK

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
DEREK KROMENBROEK
2021-01-29

Client

Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1

WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING DETAILS WATER SHEET 4 OF 6

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DK	DK	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00

Asset No. / No. du-bien:

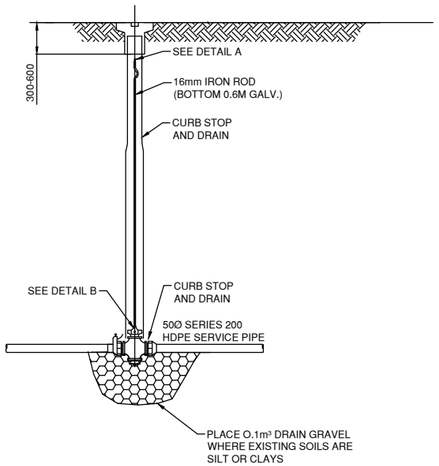
Sheet No. / No. de la feuille: 50

Drawing Reference No. / No. de réference du dessin: U-424

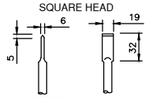
FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-420-DET.DWG PLOTTED: 2021/01/25 2:43 PM

Paper Size: ANSI D (22 x 34")

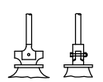
0 10 20 30 40 50 60 70 80 90 100mm



NOTE : ALSO AVAILABLE WITH SQUARE HEAD



DETAIL A



DETAIL B

HOLES TO MATCH FOR
FITTING 6 mm BOLT (GALV.)

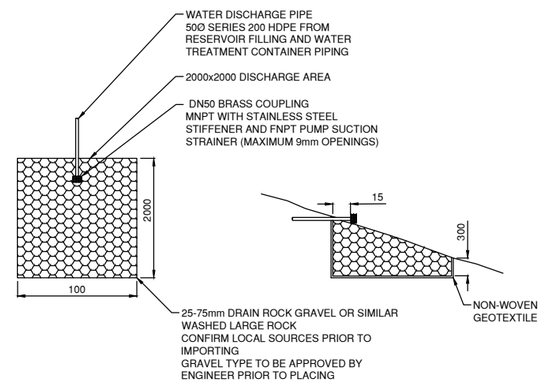
GROUND TO FIT VALVE TEE

NOTES:

1. THIS DETAIL FOR CURB STOPS ONLY
2. WHEN CURB STOP INSTALLED IN DRIVEWAY PLACE COVER IN NELSON TYPE VALVE BOX MARKED "WATER"
3. REFER TO SPECIFICATIONS
4. ALL DIMENSIONS IN mm UNLESS OTHERWISE SHOWN

1 DETAIL - WATER SUPPLY CURB STOP

NTS



NOTE:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SHOWN

2 DETAIL - WATER SUPPLY DISCHARGE AREA

SCALE: 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	MM	DK	DK

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
DEREK KROMENBROEK
2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

SITE SERVICING DETAILS WATER
SHEET 5 OF 6

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	MM	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DK	DK	AS SHOWN

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

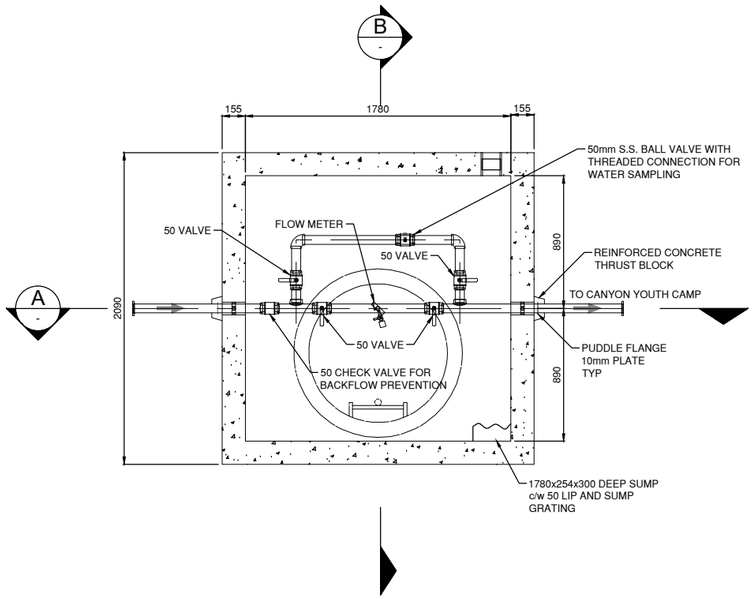
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		51

Drawing Reference No. / No. de réference du dessin
U-425

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-420-DET.DWG PLOTTED: 2021/01/28 2:43 PM

Paper Size: ANSI D (22 x 34")

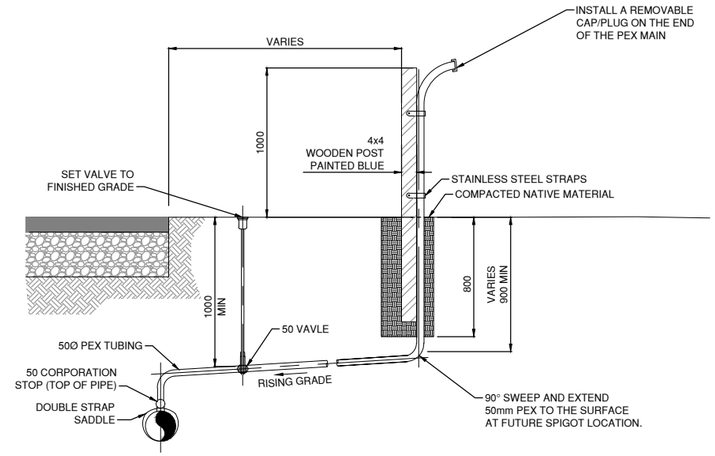
0 10 20 30 40 50 60 70 80 90 100mm



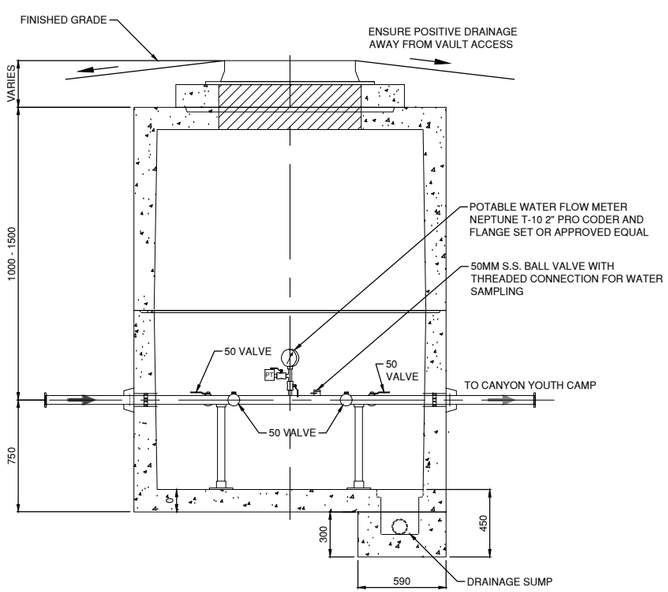
1 U-201 DETAIL - WATER METER CHAMBER
SCALE 1:20

GENERAL NOTES:

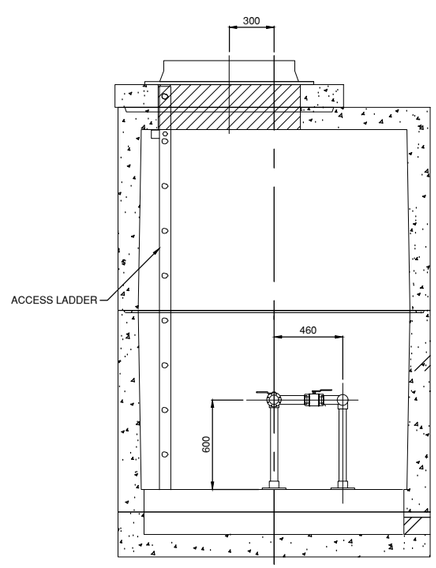
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO PROVIDE THE FOLLOWING:
   2.1. SHOP DRAWINGS AND SPECIFICATIONS OF ALL RELATED EQUIPMENT AND MATERIALS FOR APPROVAL PRIOR TO FABRICATION.
   2.2. OPERATING AND MAINTENANCE MANUALS FOR ALL RELATED EQUIPMENT.
3. EQUIPMENT TO BE COMPLETE WITH ALL NECESSARY PIPE SUPPORTS, VALVES AND HARDWARE TO ENSURE PROPER OPERATION.
4. STEEL PIPES AND FITTINGS:
   4.1. PIPE/FITTINGS TO 304L S.S. 40S.
   4.2. ALL ANSI 125#/150# FLANGES.
   4.3. ALL BURIED PIPES, FITTINGS AND JOINTS EXTERNAL TO THE CHAMBER TO BE EPOXY COATED OUTSIDE TO AWWA C210 AND NSF 61 STANDARDS AND WRAPPED WITH PVC TAPE TO SEAL AND PROTECT PIPE FROM CORROSION AND ABRASION.
5. ALL SMALL DIAMETER PIPES, FITTINGS, VALVES AND NIPPLES TO BE STAINLESS STEEL WITH STAINLESS STEEL BALL VALVES.
6. EXTERIOR CONCRETE WALL SURFACES SHALL BE WATERPROOFED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE SECTION 9.13 OR AN APPROVED APPLICATION OF "XYPEX" WATERPROOFING.
7. CHAMBER CEILING AND WALLS TO BE PAINTED INTERNALLY WITH MINIMUM ONE COAT LATER PRIMER-SEALER AND TWO COATS ALKYD FLAT WHITE FINISH.
8. VALVES AND FITTINGS TO BE FINISHED WITH GENERAL PAINT OXFORD BLUE.



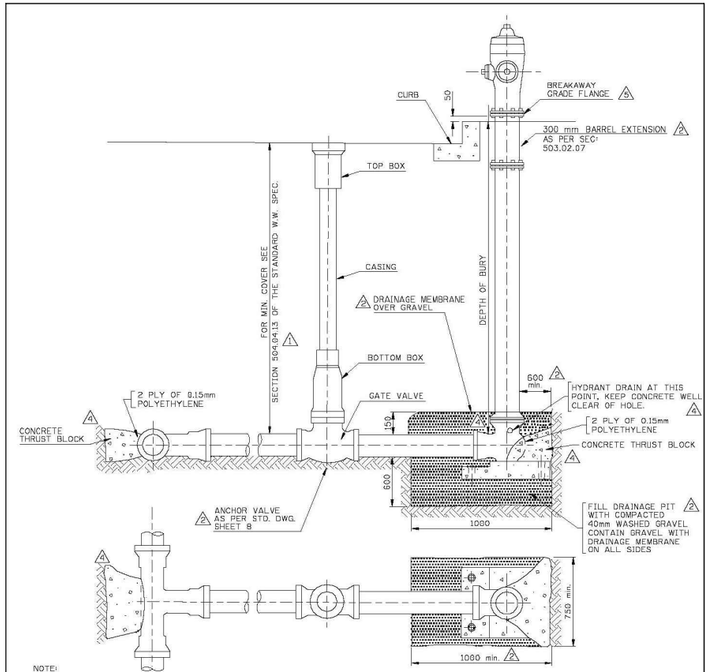
2 --- DETAIL - FUTURE SPRINKLER STANDPIPE ASSEMBLY
SCALE 1:20



A --- SECTION
SCALE 1:20



B --- SECTION
SCALE 1:20



NOTE:

1. THE EXTERIOR OF THE HYDRANT SHALL BE COATED AS SPECIFIED IN SECTION 503.02.00
2. HYDRANTS IN HIGH WATER TABLE MAY BE REQUIRED TO HAVE DRAINS PLUGGED. BE PAINTED RED AND MARKED. 'FOR FIRE USE ONLY"
3. THE HYDRANT SHALL BE PLACED ON A CONCRETE PAD AS SHOWN IN DRAWING 453.1002.002.
4. DRAINAGE MEMBRANE SHALL BE PLACED OVER THE TOP OF THE STONES TO PREVENT THE SPACES BETWEEN THE STONES FROM BEING FILLED WITH CLAY.
5. INSTALLATION, SEE 504.05.00.
6. PLACE 2 PLY OF 0.15mm POLYETHYLENE BETWEEN PIPE AND POURED CONCRETE.
7. CONCRETE SHALL BE SULFATE RESISTANT, 20 MPa @ 28 DAYS.
8. (1) DRAINAGE MEMBRANE, SEE SEC. 319.00.00 ,STD. SPEC. ROADS CONSTRUCTION.
9. (2) FOR CATHODIC PROTECTION REQUIREMENTS SEE SECTION 504.07.00

No.	Date	Revision	Appr'd
5	09/04/24	REVISED NOTE	B.N.
4	07/12/20	REVISED DRAWING & NOTE	B.N.
3	06/02/09	ADDED NOTE	B.N.
2	05/02/07	DELETED NOTE No. 4. REVISED & ADDED NOTES	B.N.
1	01/02/12	REVISED MIN. COVER NOTE	E.P.

Drawn: J.C. Date: 94.12.16 Checked: S.G.
Scale: N.T.S.
Approved by: 15
For City Engineer

THE CITY OF CALGARY WATER SERVICES

HYDRANT DETAILS

DIMENSIONS ARE MILLIMETRES UNLESS OTHERWISE NOTED METRIC

Sheet 1
File Number 453.1002.001

3 --- DETAIL - FIRE HYDRANT DETAIL
SCALE 1:20

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	NH	DF	DF

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp / Sceau de l'ingénieur
PROFESSIONAL ENGINEER DANIEL F. FUNKS ALBERTA
PERMIT NUMBER: P243
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin
SITE SERVICING DETAILS WATER
SHEET 6 OF 6

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	NH	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DF	DF	AS SHOWN

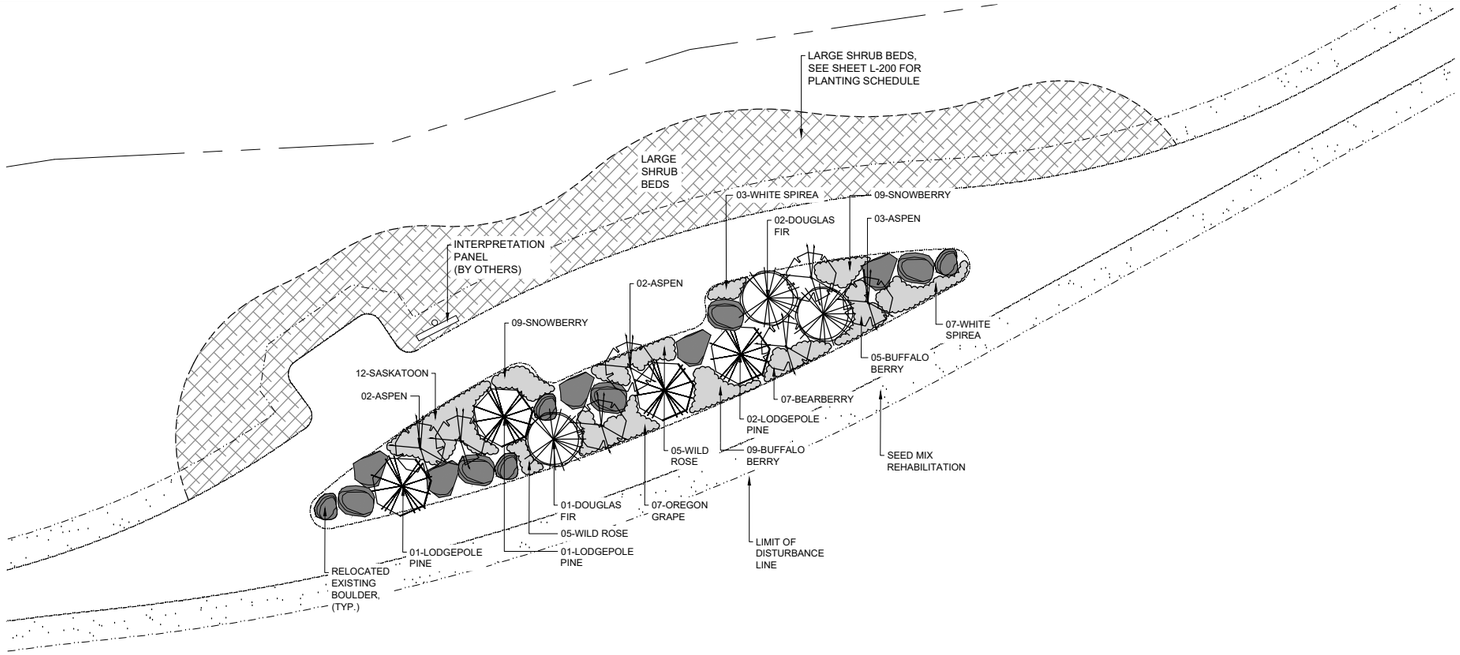
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 52
Drawing Reference No. / No. de réference du dessin: U-426

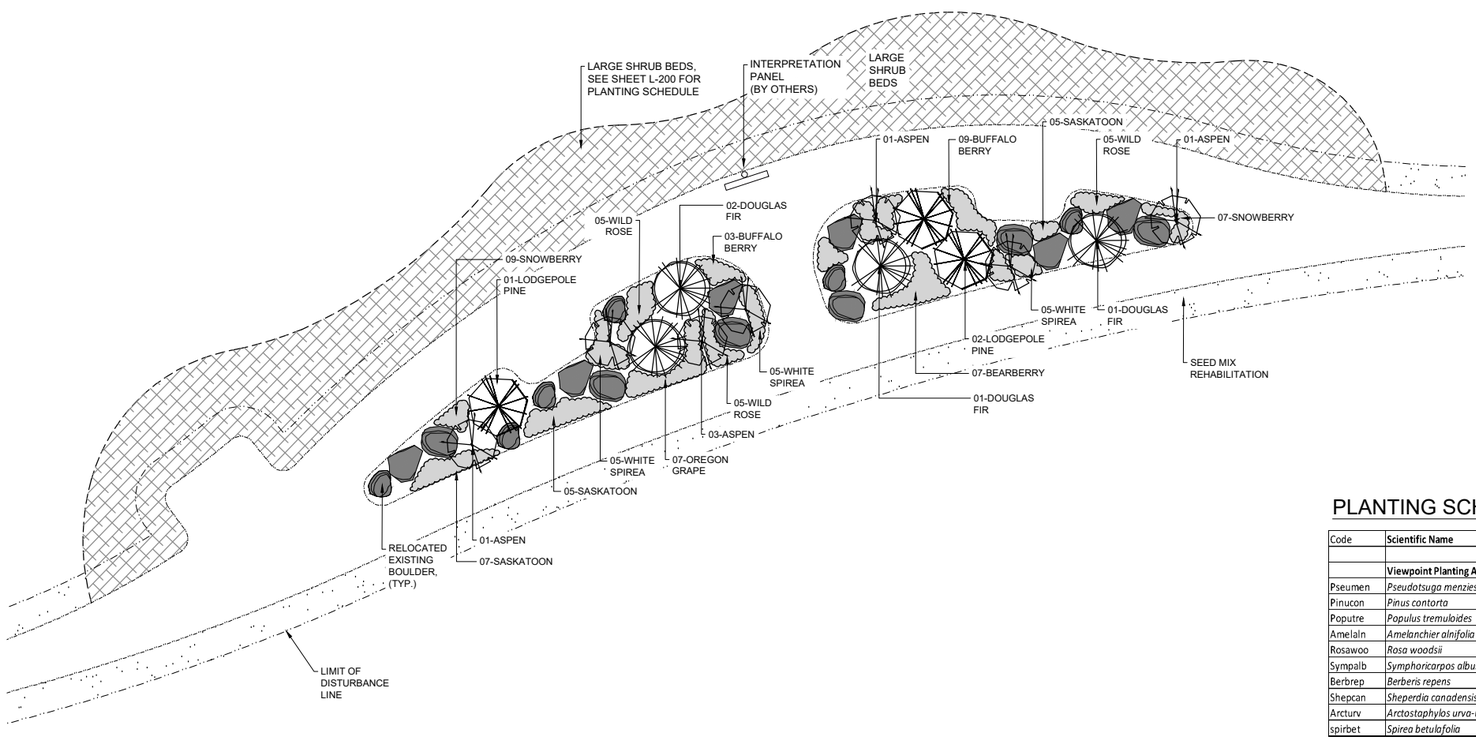
FILE: G:\PROJECTS\2511.01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\U-01195-420-DET.DWG PLOTTED: 2021/01/25 2:44 PM

Paper Size: ANSI D (22 x 34")



1 L201 VIEWPOINT #1 LAYOUT PLAN

SCALE 1:100



1 L201 VIEWPOINT #2 LAYOUT PLAN

SCALE 1:100

PLANTING SCHEDULE - VIEWPOINT AREAS

Code	Scientific Name	Common Name	Meas.	Pot Size	QUANTITY	Supplied and Installed
	Viewpoint Planting AREA					
Pseumen	*Pseudotsuga menziesii*	Douglas fir	each	#25	7	By Contractor
Pinucon	*Pinus contorta*	Lodgepole Pine	each	#25	7	By Contractor
Poputre	*Populus tremuloides*	Aspen	each	#25	14	By Contractor
Amelaln	*Amelanchier alnifolia*	Saskatoon	each	#5	22	By Contractor
Rosawoo	*Rosa woodsii*	Wild rose	each	#5	25	By Contractor
Sympalb	*Symphoricarpos albus*	Snowberry	each	#5	34	By Contractor
Berbrep	*Berberis repens*	Oregon Grape	each	#5	14	Supplied By Owner, Installed By Contractor
Shepcan	*Sheperdia canadensis*	buffalo berry	each	#5	26	By Contractor
Arcturv	*Arctostaphylos urva-ursi*	bearberry	each	#5	14	By Contractor
spirbet	*Spirea betulafolia*	white spirea	each	#5	25	By Contractor

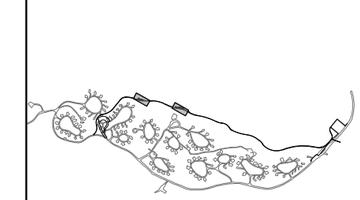
NOTE: CONTRACTOR TO MAKE PROVISION FOR PLANTS SUPPLIED AND INSTALLED BY OTHERS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	LJ	DH	SS

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp / Sceau de l'ingénieur
The Alberta Association of Landscape Architects
Rasool Ghodoosi Dehnavi
2021-01-28

Client
Parks Canada Agency / L'Agence Parcs Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title / Titre du dessin
LANDSCAPE PLANTING PLANS CRANDELL LAKE TRAIL VIEWPOINTS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	LJ	2021.01.29
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
DH	SS	1:100

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

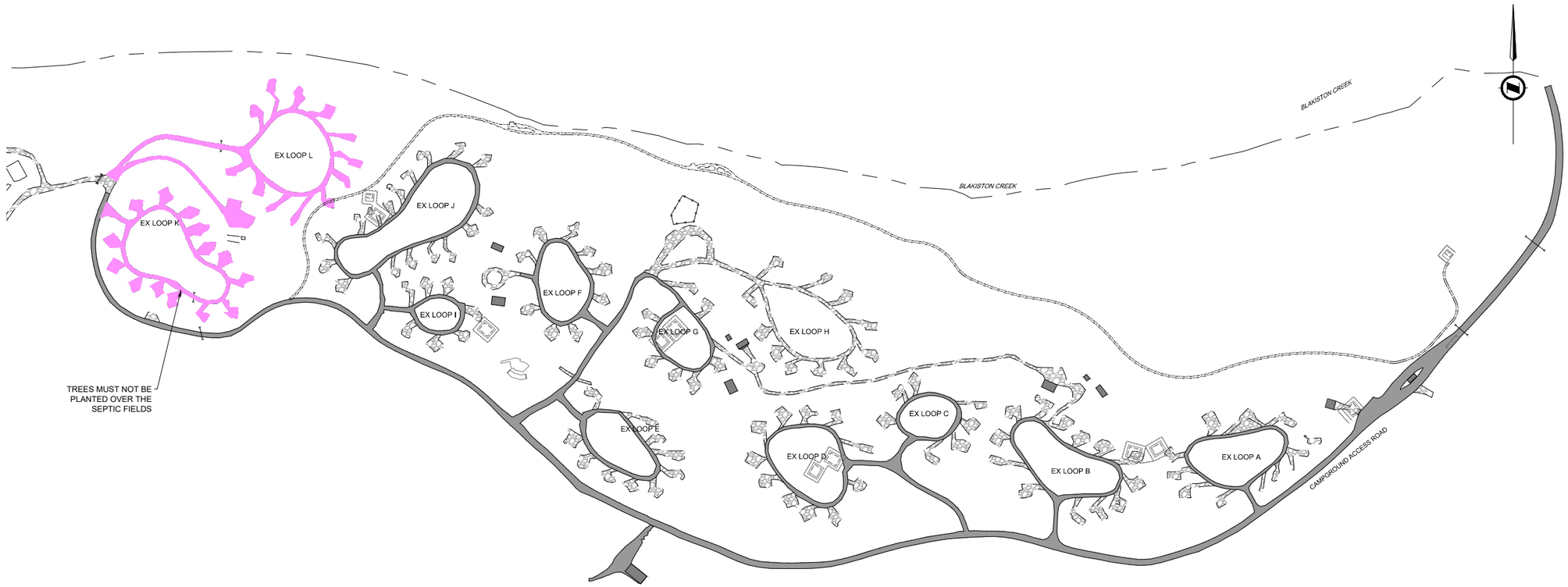
Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 53
Drawing Reference No. / No. de réference du dessin: L-201

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\L-01195-200-PLN.DWG PLOTTED: 2021\01\25-2:33 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



LEGEND

DOUGLAS FIR COMMUNITY, SEE THIS SHEET FOR PLANTING SCHEDULE

PLANTING SCHEDULE - DOUGLAS FIR COMMUNITY

Code	Scientific Name	Common Name	Pot Size	Spacing	Plants	Supplied and Installed
				plants/m^2	Required	
	Douglas Fir Community			0.871	5800	
Pseumen	Pseudotsuga menziesii	Douglas fir	#2	0.1	666	By Contractor
Sympalb	Symphoricarpos albus	Snowberry	#1	0.02	133	By Contractor
Berbrep	Berberis repens	Oregon Grape	#1	0.15	1469	Supplied by Owner, Installed by Contractor
spirbet	Spirea betulafolia	white spirea	#1	0.15	999	By Contractor
Arcturv	Arctostaphylos urva-ursi	bearberry	#1	0.1	666	By Contractor
Alligey	Allium geyeri var. geyeri	Geyer's Onion	4"	0.15	1442	Supplied by Owner, Installed by Contractor
Osmoocc	Osmorhiza occidentalis	Sweetroot	4"	0.001	13	Supplied by Owner, Installed by Contractor
Caloapi	Calochortus apiculatus	Mariposa Lily	4"	0.1	565	Supplied by Owner, Installed by Contractor
Phachas	Phacelia hastata	Silverleaf scorpion weed	4"	0.1	919	Supplied by Owner, Installed by Contractor

NOTE: CONTRACTOR TO MAKE PROVISION FOR PLANTS SUPPLIED BY OWNER AND INSTALLED BY OTHERS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	LJ	DH	SS

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
The Alberta Association of Landscape Architects
Rasool Ghodoosi Dehnavi
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
LANDSCAPE

RECLAMATION PLAN & PLANTING SCHEDULES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	LJ	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DH	SS	1:2000

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

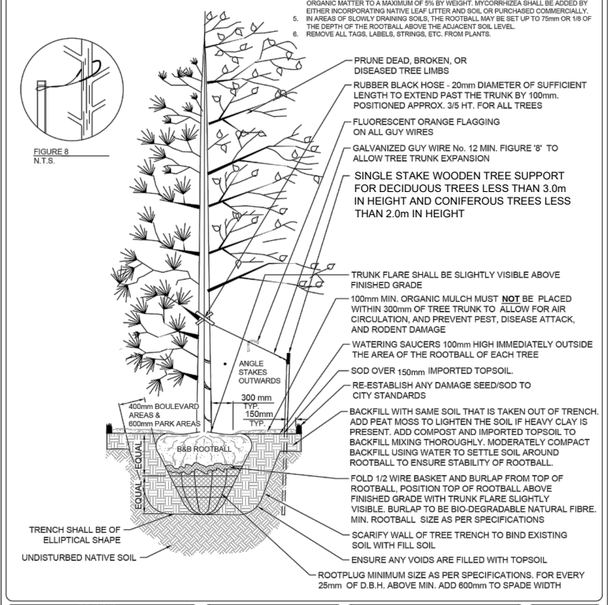
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 54
Drawing Reference No. / No. de réference du dessin: L-202

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\L-01195-200-PLN.DWG PLOTTED: 2021/01/27 2:37 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

NOTES:
1. IF MINIMUM UTILITY SETBACKS PERMIT POSITION TREE STAKES INTO DIRECTION OF PREVAILING WINDS.
2. ALL TREE STAKES TO MAINTAIN MINIMUM 1.0m CLEARANCE FROM ALL U/G POWER, TELEPHONE AND GAS ALIGNMENTS.
3. DIG ALL ROOT HOLES BY HAND WHEN CLOSER THAN 1.0m TO U/G POWER, TELEPHONE AND GAS ALIGNMENTS.
4. WIDTH OF TREE TRENCH SHALL BE 25mm DEEPER THAN THE ROOTBALL. REPLACE WITH IMPORTED TOPSOIL FLAT TAMPED WITH FOOT PRESSURE TO PREVENT ROOTBALL FROM SHIFTING OR LEANING, AND A MINIMUM BETWEEN 1.8m-2.0m LONG. THE BOTTOM AND SIDES OF THE TREE TRENCH MUST BE ROUGHENED BO EXISTING AND FILLED SOIL WILL BIND TOGETHER. SOIL FILLING THE TRENCH SHALL BE AMENDED WITH COMPOST OR OTHER ORGANIC MATTER TO A MAXIMUM OF 5% BY WEIGHT. MYCORRHIZEA SHALL BE ADDED BY EITHER INCORPORATING NATIVE LEAF LITTER AND SOIL OR PURCHASED COMMERCIALLY.
5. IN AREAS OF SLOWLY DRAINING SOILS, THE ROOTBALL MAY BE SET UP TO 75mm OR 1/8 OF THE DEPTH OF THE ROOTBALL ABOVE THE ADJACENT SOIL LEVEL.
6. REMOVE ALL TAGS, LABELS, STRINGS, ETC. FROM PLANTS.



REVISIONS		
Date	Details	
YY/MM/DD		
YY/MM/DD		
YY/MM/DD	Landscape Municipal Standards	

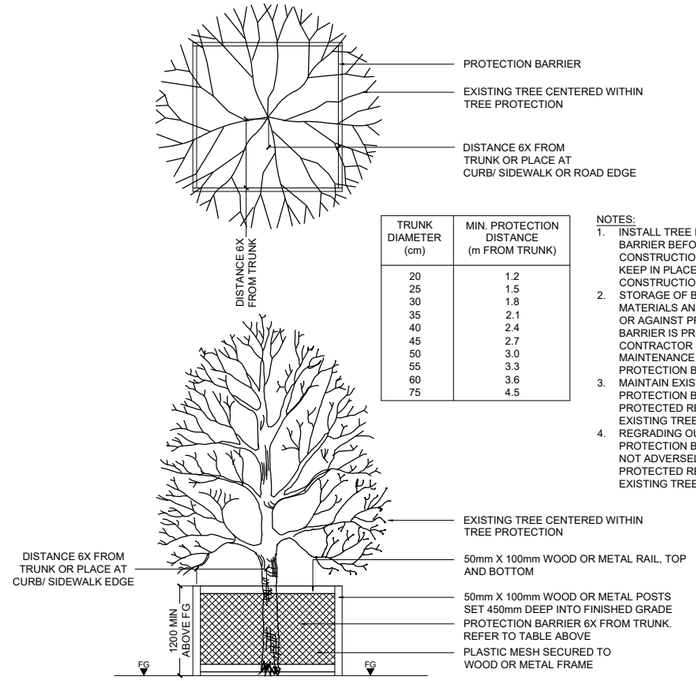
5 ST. ANNE STREET, ST. ALBERT
Alberta, T8N 3Z9, CANADA

Typical Tree Planting Detail

Planning & Engineering Department
Date: 01/04/13 Scale: N.T.S.

Drawing Number: No. 11.1

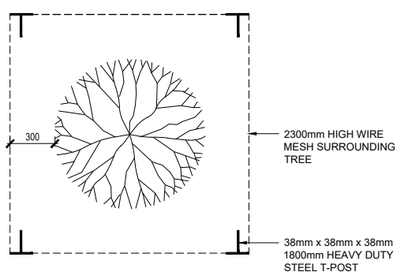
1 L404 TYPICAL TREE PLANTING DETAIL
SCALE N.T.S.



TRUNK DIAMETER (cm)	MIN. PROTECTION DISTANCE (m FROM TRUNK)
20	1.2
25	1.5
30	1.8
35	2.1
40	2.4
45	2.7
50	3.0
55	3.3
60	3.6
75	4.5

NOTES:
1. INSTALL TREE PROTECTION BARRIER BEFORE CONSTRUCTION BEGINS AND KEEP IN PLACE UNTIL CONSTRUCTION COMPLETION.
2. STORAGE OF BUILDING MATERIALS AND LITTER WITHIN OR AGAINST PROTECTION BARRIER IS PROHIBITED. CONTRACTOR RESPONSIBLE FOR MAINTENANCE WITHIN TREE PROTECTION BARRIER.
3. MAINTAIN EXISTING GRADES AT PROTECTION BARRIER FOR ALL PROTECTED RETAINED AND EXISTING TREES
4. REGRADING OUTSIDE OF PROTECTION BARRIER SHALL NOT ADVERSELY COMPROMISE PROTECTED RETAINED AND EXISTING TREES

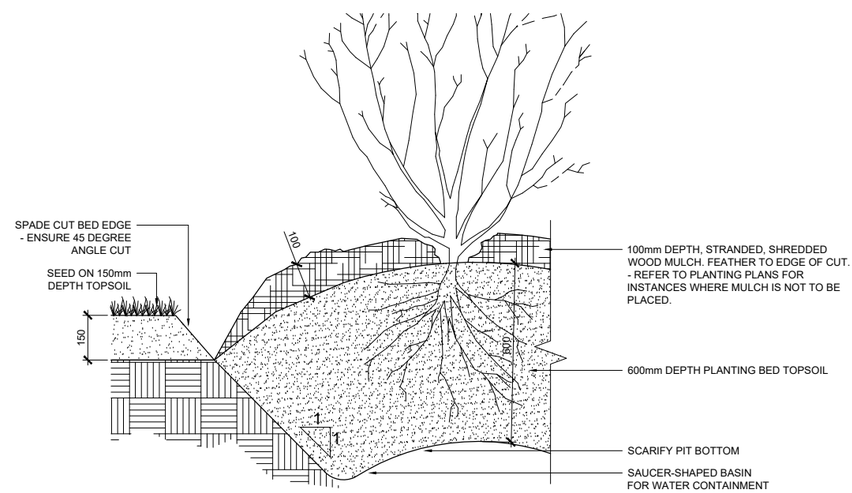
2 L404 TREE PROTECTION FENCING - EXISTING TREES
SCALE 1:40



NOTE:
ALL SOFTWOOD TREES SHALL HAVE TREE PROTECTION FENCING

NOTE: 4 T-POSTS REQUIRED
1. ENSURE POSTS ARE DRIVEN 300mm INTO THE GROUND.
2. ENSURE WIRE MESH IS A MINIMUM OF 300mm PAST THE TRIP LINE OF THE TREE
3. ENSURE MESH SURROUNDS TREE COMPLETELY AND IS SECURELY ATTACHED TO T-POSTS.

3 L404 TREE PROTECTION FENCING - PROPOSED TREES
SCALE 1:20



NOTES:
1. THE FOLLOWING SHRUB PLANTING DETAIL WILL BE USED FOR ALL POTTED DECIDUOUS OR CONIFEROUS SHRUBS
2. PRUNE DEAD AND BROKEN BRANCHES WHILE RETAINING NORMAL PLANT SHAPE
3. CONTRACTOR TO PROVIDE LABELLED STAKES FOR PLANT LAYOUT

4 L404 V-TRENCH
SCALE 1:10

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	LJ	DH	SS

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
The Alberta Association of Landscape Architects
Rasool Ghodoosi Dehnavi
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
LANDSCAPE DETAILS PLANTING DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	LJ	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
DH	SS	AS SHOWN

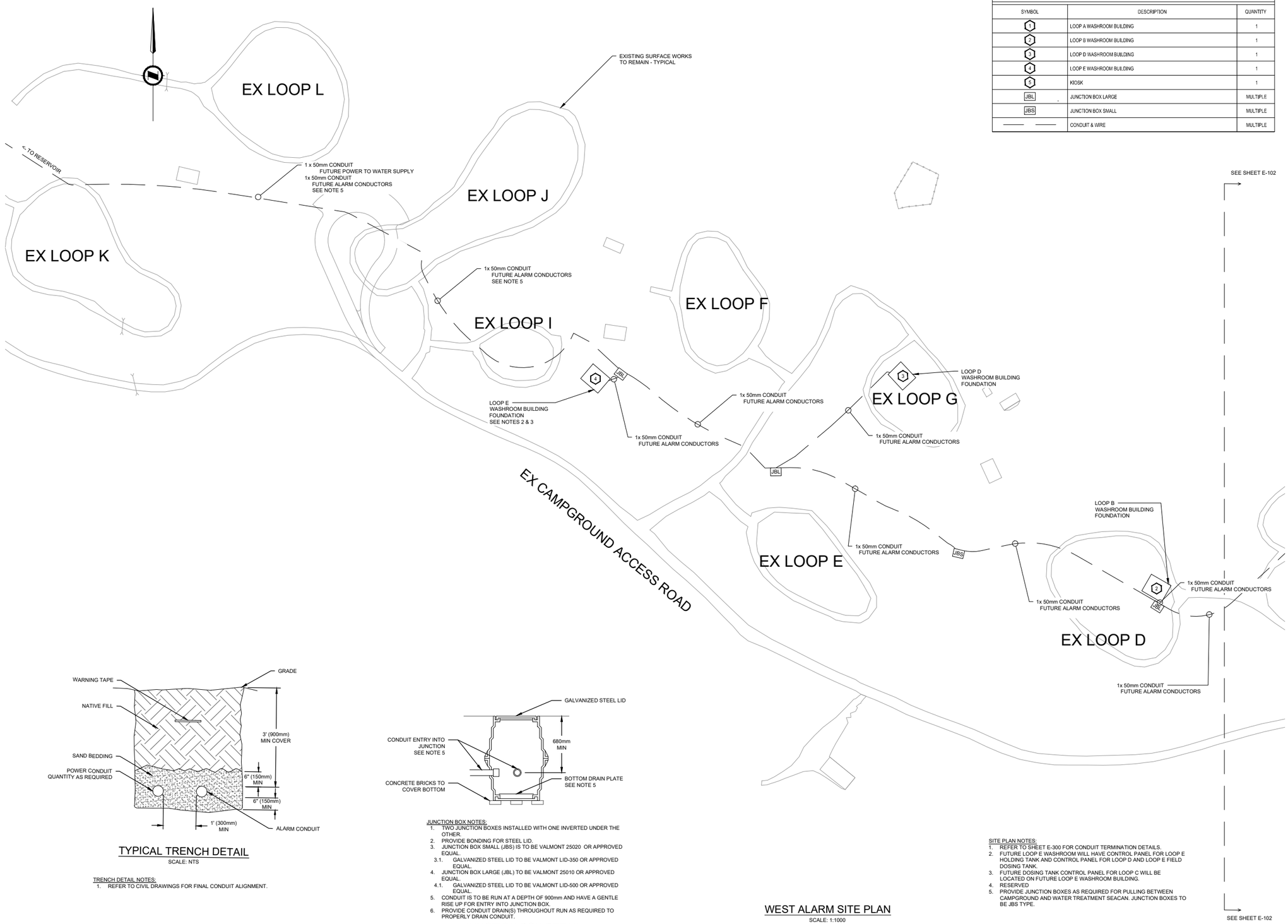
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 55
Drawing Reference No. / No. de réference du dessin: L-401

FILE: G:\PROJECTS\2511 01195 00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.3 SHEET FILES\L-01195-400-DET.DWG PLOTTED: 2021/01/25 2:54 PM

Paper Size: ANSI D (22 x 34")



SCOPE OF WORK SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	QUANTITY
1	LOOP A WASHROOM BUILDING	1
2	LOOP B WASHROOM BUILDING	1
3	LOOP D WASHROOM BUILDING	1
4	LOOP E WASHROOM BUILDING	1
5	KIOSK	1
JBL	JUNCTION BOX LARGE	MULTIPLE
JBS	JUNCTION BOX SMALL	MULTIPLE
——— ———	CONDUIT & WIRE	MULTIPLE

TYPICAL TRENCH DETAIL

SCALE: NTS

TRENCH DETAIL NOTES:
1. REFER TO CIVIL DRAWINGS FOR FINAL CONDUIT ALIGNMENT.

JUNCTION BOX NOTES:
1. TWO JUNCTION BOXES INSTALLED WITH ONE INVERTED UNDER THE OTHER.
2. PROVIDE BONDING FOR STEEL LID.
3. JUNCTION BOX SMALL (JBS) IS TO BE VALMONT 25020 OR APPROVED EQUAL.
   3.1. GALVANIZED STEEL LID TO BE VALMONT LID-350 OR APPROVED EQUAL.
4. JUNCTION BOX LARGE (JBL) TO BE VALMONT 25010 OR APPROVED EQUAL.
   4.1. GALVANIZED STEEL LID TO BE VALMONT LID-500 OR APPROVED EQUAL.
5. CONDUIT IS TO BE RUN AT A DEPTH OF 900mm AND HAVE A GENTLE RISE UP FOR ENTRY INTO JUNCTION BOX.
6. PROVIDE CONDUIT DRAIN(S) THROUGHOUT RUN AS REQUIRED TO PROPERLY DRAIN CONDUIT.

JUNCTION BOX DETAIL

SCALE: NTS

WEST ALARM SITE PLAN

SCALE: 1:1000

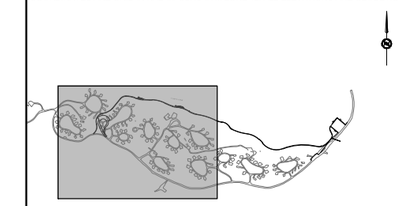
SITE PLAN NOTES:
1. REFER TO SHEET E-300 FOR CONDUIT TERMINATION DETAILS.
2. FUTURE LOOP E WASHROOM WILL HAVE CONTROL PANEL FOR LOOP E HOLDING TANK AND CONTROL PANEL FOR LOOP D AND LOOP E FIELD DOSING TANK.
3. FUTURE DOSING TANK CONTROL PANEL FOR LOOP C WILL BE LOCATED ON FUTURE LOOP E WASHROOM BUILDING.
4. RESERVED
5. PROVIDE JUNCTION BOXES AS REQUIRED FOR PULLING BETWEEN CAMPGROUND AND WATER TREATMENT SEACAN. JUNCTION BOXES TO BE JBS TYPE.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	RG	EH	EL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA ERIC L
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ELECTRICAL
SEPTIC ALARM SYSTEM
WEST SITE

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	RG	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
EH	EL	1:1000

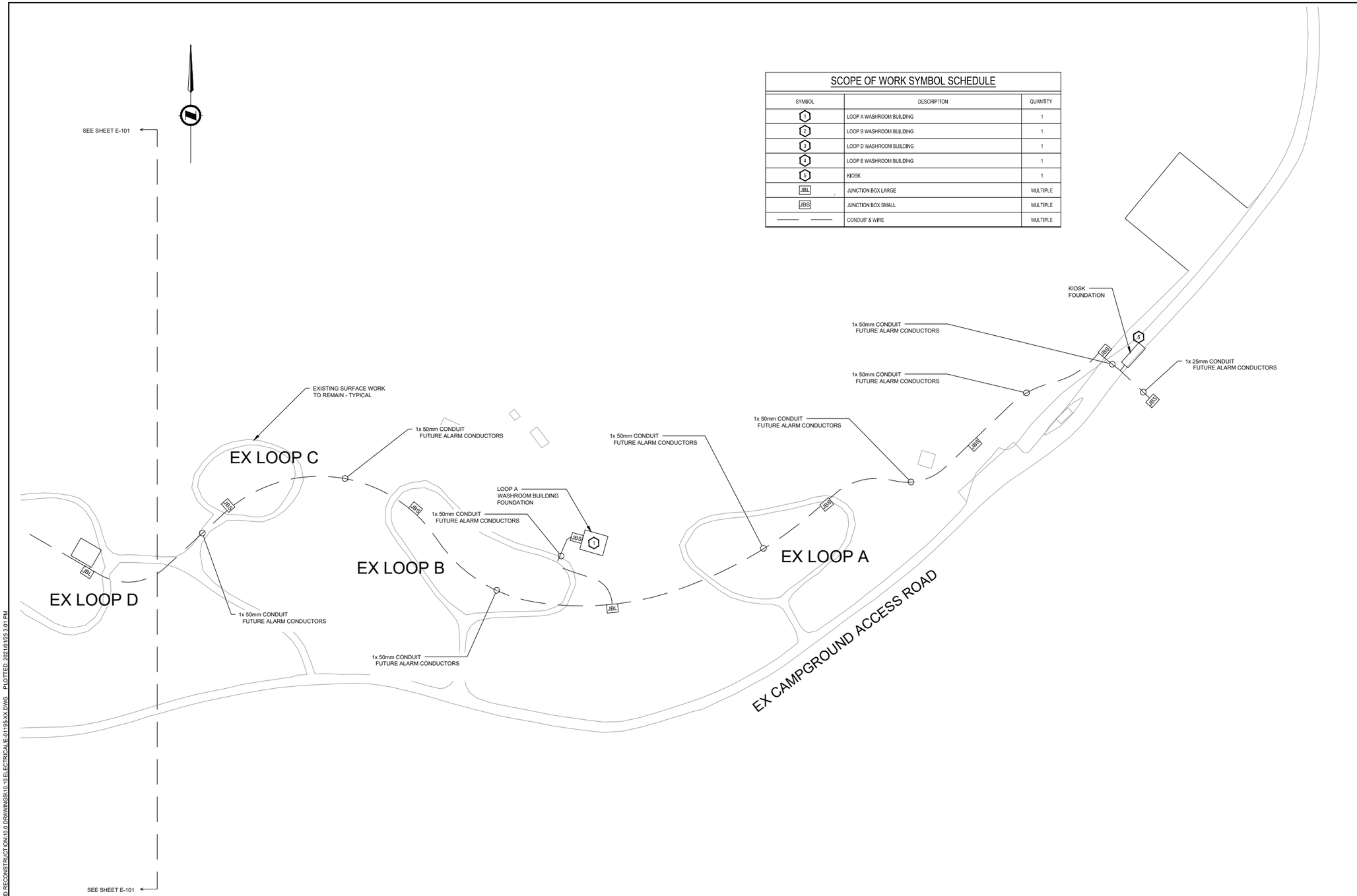
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien:
Sheet No. / No. de la feuille: 56
Drawing Reference No. / No. de réference du dessin: E-101

FILE: G:\PROJECTS\2511\01195\00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.10 ELECTRICAL\E-01195-XX.DWG PLOTTED: 2021/01/27 12:38 PM

Paper Size: ANSI D (22 x 34")



SCOPE OF WORK SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	QUANTITY
1	LOOP A WASHROOM BUILDING	1
2	LOOP B WASHROOM BUILDING	1
3	LOOP D WASHROOM BUILDING	1
4	LOOP E WASHROOM BUILDING	1
5	KIOSK	1
JBL	JUNCTION BOX LARGE	MULTIPLE
JBS	JUNCTION BOX SMALL	MULTIPLE
——— ———	CONDUIT & WIRE	MULTIPLE

EAST ALARM SITE PLAN

SCALE: 1:1000

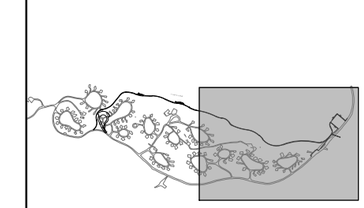
SITE PLAN NOTES:
1. REFER TO SHEET E-300 FOR CONDUIT TERMINATION DETAILS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC



Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	RG	EH	EL

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ALBERTA ERIC L.
2021-01-28

Client
Parks Canada Agency — L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ELECTRICAL

SEPTIC ALARM SYSTEM
EAST SITE

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	RG	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
EH	EL	1:1000

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

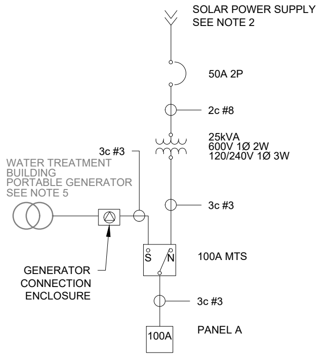
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
2511-01195-00		57

Drawing Reference No. / No. de réference du dessin
E-102

FILE: G:\PROJECTS\2511.01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.10 ELECTRICAL\E-01195-XX.DWG PLOTTED: 2021/01/25 3:01 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



SINGLE LINE

SCALE: NTS

SINGLE LINE NOTES:

1. RESERVED
2. SOLAR POWER SUPPLY TO BE INSTALLED DURING A FUTURE STAGE OF WORK. NO SOLAR EQUIPMENT IS INCLUDED IN THIS STAGE OF WORK. WATER TREATMENT SEACAN POWER SYSTEM SHALL BE READY FOR FUTURE TERMINATION OF SOLAR POWER SUPPLY.
3. PROVIDE GROUNDING ELECTRODE AND GROUND CONDUCTORS AS PER CEC REQUIREMENTS FOR WATER TREATMENT BUILDING. ALL ELECTRICAL EQUIPMENT AND OTHER DEVICES TO BE GROUNDED AS PER CEC.
4. MANUAL TRANSFER SWITCH TO BE EATON 3DT223NF OR ENGINEER APPROVED EQUAL.
5. PROVIDE TEMPORARY PORTABLE GENERATOR FOR TESTING AND COMMISSIONING PURPOSES ONLY. PROVISION OF PERMANENT PORTABLE GENERATOR NOT IN CONTRACT.

MECHANICAL EQUIPMENT SCHEDULE

UNIT No.	UNIT DESCRIPTION	LOCATION	LOAD HP	LOAD kW	LOAD FLA	VOLT	PHASE	MOTOR STARTER	STARTER LOCATION	CONTROL	DISC. SWITCH	CIRCUIT No.	FEEDER	BREAKER	
EF-1	DUCT FAN	SEA-CAN	1/4			120	1	--	--	R. A. STAT	X	A-02	2c #12	15A 1P	--
WP-1	WELL PUMP	FIELD	5			240	1	--	--	LEVEL	X	A-04, 06	2c #8	60A 2P	--
CP-1,2	CHLORINE PUMP	SEA-CAN	FRAC.			120	1	--	--	FLOW	X	A-03, 05	3c #12	20A 2P	SPLIT RECEPTACLE
--	--	--	--			--	--	--	--	--	--	--	--	--	--
--	--	--	--			--	--	--	--	--	--	--	--	--	--

NOTES:

1. CONFIRM FINAL SIZES AND LOCATIONS OF ALL EQUIPMENT PRIOR TO ORDERING ELECTRICAL EQUIPMENT OR ROUGH-IN.
2. ABOVE INFORMATION HAS BEEN PROVIDED FROM THE MECHANICAL DESIGNER AND MAY NOT BE COMPLETE. ELECTRICAL CONTRACTOR SHALL REVIEW THE MECHANICAL, SPECIFICATIONS AND ADDENDA FOR A COMPLETE LIST OF MECHANICAL EQUIPMENT BEFORE SUBMITTING TENDER. PROVIDE ELECTRICAL CONNECTION AND CONTROL AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM AND INCLUDE ALL COSTS IN THE TENDER PRICE. CONTRACTOR TO CONFIRM STARTER AND CONTROL REQUIREMENTS WITH MECHANICAL DIVISION BEFORE SUBMITTING TENDER.
3. ALL FEEDER AND BREAKER SIZES ARE TO BE CONFIRMED WITH MECHANICAL SHOP DRAWINGS PRIOR TO ORDERING EQUIPMENT. POWER REQUIREMENTS FOR SUBMITTED ALTERNATE EQUIPMENT ARE THE RESPONSIBILITY OF THE CONTRACTOR(S) AND ASSOCIATED COSTS ARE THE RESPONSIBILITY OF THE CONTRACTOR(S).

REMARKS:

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	LAMPING	MOUNTING	REMARKS
A	4' LINEAR LED	LED 5,200 lm 4000 K	CEILING	LITE LINE VPS4-LA3-2/40K
	EMERGENCY WALL PACK	-- -- --	WALL	AIMLITE EBN-06-036-4WLR-BLK-ADT-CW

PC - PHOTOCELL

PANEL A

MOUNTING - WALL
LOCATION - RESERVOIR
FEEDER PANEL- TRANSFER SWITCH
FEEDER BKR - 100A 2P

FEEDER SIZE - 3c #3
VOLTAGE - 120/240 1Ø
MAIN BUS - 100A
MAIN BREAKER - 100A 2P

NOTE	DESCRIPTION	BKR	CIRCUIT	CIRCUIT	BKR	DESCRIPTION	NOTE
--	EYEWASH	15	01	02	15	EF-1	--
--	CHLORINE PUMP 1	20	03	04	60	WP-1	--
--	CHLORINE PUMP 2	20	05	06	60		--
--	LIGHTS	15	07	08	15	CONTROL PANEL	--
--	RECEPTACLES	15	09	10	30	SPD-1	--
--	--	--	11	12	30		--
--	--	--	13	14	--	--	--
--	--	--	15	16	--	--	--
--	--	--	17	18	--	--	--
--	--	--	19	20	--	--	--
--	--	--	21	22	--	--	--
--	--	--	23	24	15	EMERGENCY LIGHT	--

LIGHTING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	NOTES
(A)	LUMINAIRE OF TYPE 'A' REFER TO LUMINAIRE SCHEDULE FOR DETAILS	
[A]	LUMINAIRE OF TYPE 'A' REFER TO LUMINAIRE SCHEDULE FOR DETAILS	
	EMERGENCY LIGHTING - BATTERY PACK C/W TWO (2) 3W (300 LUMEN) LED HEADS	
	ALARM BEACON	
$	LIGHTING SWITCH	

LUMINAIRE TAG SCHEME: A-##-a (PANEL - CIRCUIT - SWITCH)

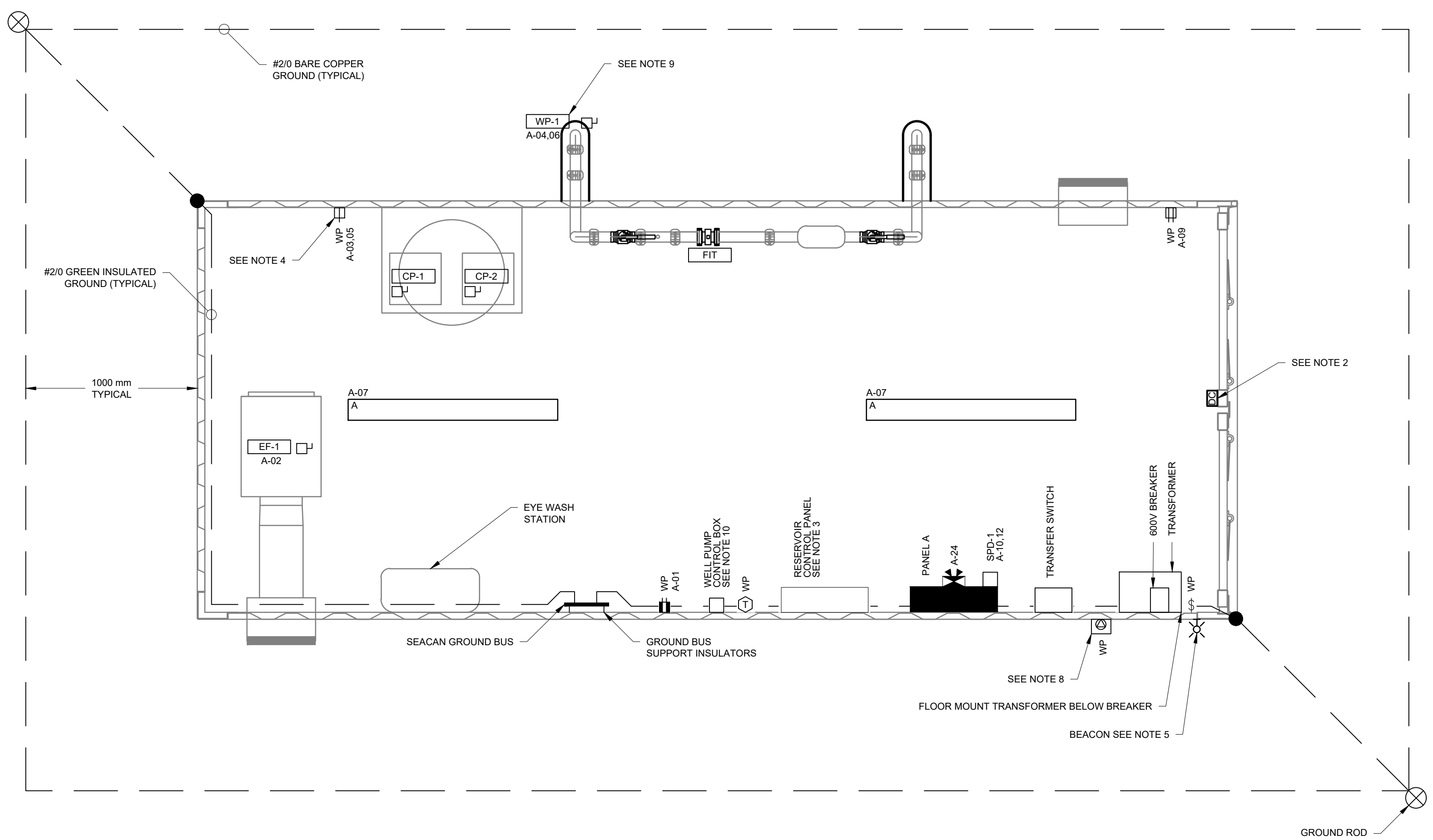
POWER & COMMUNICATION SYMBOL SCHEDULE

SYMBOL (WALL / ABOVE COUNTER / FLOOR / CEILING)	DESCRIPTION	NOTES
	15 AMP, 125V DUPLEX RECEPTACLE	
	15 AMP, 125V DUPLEX GROUND FAULT RECEPTACLE (GFCI)	
	15/20 AMP, 125V DUPLEX RECEPTACLE	
	SPECIAL RECEPTACLE AS NOTED ON PLANS	
	MOTOR DISCONNECT SWITCH	
JBS	JUNCTION BOX	
	PANELBOARD - REFER TO PANEL SCHEDULES FOR DETAILS	
XXX-XX	EQUIPMENT TAG REFER TO MECHANICAL EQUIPMENT SCHEDULE	
	DOOR CONTACT	
T	THERMOSTAT	

WP - WEATHERPROOF ENCLOSURE

SINGLE LINE SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	NOTES
	BREAKER	
	FUSE	
	DISCONNECT SWITCH	
	DISCONNECT SWITCH (FUSED) / FUSED SWITCH	
E N	TRANSFER SWITCH	
MAIN	PANEL - MAIN BREAKER AS INDICATED	
	GENERATOR	
	GROUND	
3c #1/0	CONDUCTOR/FEEDER INFORMATION	



WATER TREATMENT SEACAN LAYOUT

SCALE: 1:50

LAYOUT NOTES:

1. PANEL A, CONTROL PANEL, TRANSFER SWITCH, TRANSFORMER, AND INCOMING BREAKER ENCLOSURES TO BE NEMA 3R RATED.
2. DOOR CONTACT TO TURN ON FAN (EF-1) WHEN DOOR IS OPEN. PROVIDE INTERLOCK CIRCUITING AS REQUIRED.
3. REFER TO SHEET E300 & E-302 FOR RESERVOIR CONTROL PANEL LADDER DIAGRAM.
4. REFER TO SHEET E-302 FOR CONTROL OF RECEPTACLE.
5. ALARM BEACON TO BE ORIENTED TOWARDS ROAD FOR OPTIMAL VISIBILITY.
   5.1. ALARM BEACON TO BE FEDERAL SIGNAL SLM100R WITH SLMBD-120-240G4 BASE OR ENGINEER APPROVED EQUAL.
6. ALL WIRING BOXES IN SEA-CAN TO BE WET LOCATION RATED.
7. SURGE PROTECTION DEVICE TO BE TOTAL SOLUTIONS TK-TT2-065-1S240-FL-M OR ENGINEER APPROVED EQUAL.
8. GENERATOR CONNECTION ENCLOSURE TO BE VALID MANUFACTURING GTE-100-240-3G-L-W OR ENGINEER APPROVED EQUAL.
   8.1. PROVIDE LABEL ON ENCLOSURE " GENERATOR TO BE MINIMUM 18.1kW RATED.
9. PROVIDE DEDICATED 25mm CONDUIT TO WELL PUMP. WELL IS LOCATED NEAR RESERVOIR.
10. REFER TO MECHANICAL DRAWINGS FOR WELL PUMP CONTROL BOX REQUIREMENTS.
11. PROVIDE MINIMUM #6 COPPER GROUND WIRING TO ALL SEACAN RELATED EQUIPMENT.
12. REFER TO CIVIL DRAWING U-201 FOR SEACAN LOCATION LAYOUT INFORMATION.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	RG	EH	EL

A / C — detail number / numéro de detail; B — source drawing no. / de dessin no.; C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp / Sceau de l'ingénieur
PROFESSIONAL ENGINEER ERIC LI ALBERTA
2021-01-28

Client
Parks Canada Agency   L'Agence Parcs Canada

Consultant's Name / Nom de l'expert-conseil
McElhanney

Project Title / Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

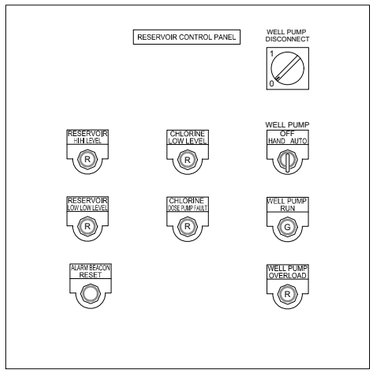
Drawing Title / Titre du dessin
ELECTRICAL
RESERVOIR CONTROL BUILDING PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	RG	2021.01.29
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
EH	EL	AS NOTED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada
Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

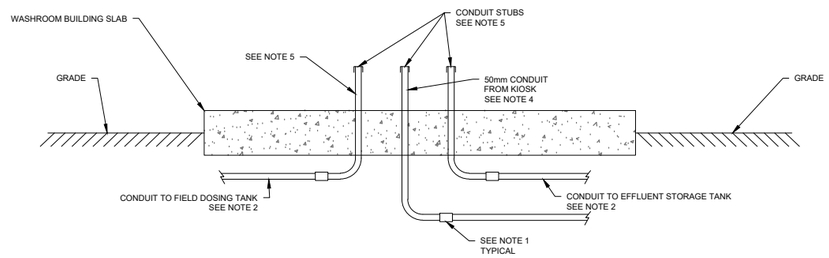
Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 58
Drawing Reference No. / No. de réference du dessin: E-201



RESERVOIR CONTROL PANEL

SCALE: NTS

RESERVOIR CONTROL PANEL NOTES:
1. ALL CONTROL DEVICES TO BE MINIMUM NEMA 3R RATED.
2. ALL PILOT LIGHTS TO BE LED.
3. ENCLOSURES TO BE PAINTED GRAY NEMA 3R MINIMUM RATED. ENCLOSURE DOOR TO BE HINGED.



WASHROOM BUILDING TERMINATION DETAIL

SCALE: NTS

WASHROOM BUILDING TERMINATION DETAIL NOTES:
1. TRANSITION CONDUIT TO SCHEDULE 40 RIGID PVC WITH APPROVED ADAPTER BEFORE CONDUIT RISES ABOVE GRADE.
2. REFER TO BUILDING ELECTRICAL DRAWING FOR FINAL LOCATION AND INSTALLATION DETAILS.
   2.1. LOOP D WASHROOM BUILDING WILL NOT HAVE A FIELD DOSING PUMP CONTROL PANEL. LOOP D FIELD DOSING PUMP WILL BE SHARED WITH LOOP E, AND THE FUTURE CONTROL PANEL WILL BE INSTALLED ON LOOP E WASHROOM BUILDING.
3. RESERVED
4. REFER TO SHEET E-100 AND E-101 FOR DETAILS.
5. CONDUITS SHALL BE LOCATED BESIDE THE FUTURE EXTERIOR WALL. REFER TO BUILDING ELECTRICAL DRAWINGS FOR LOCATION OF WALLS. STUB CONDUITS 150mm ABOVE SLAB AND GLUE ON CONDUIT CAPS.

CONTROL SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	NOTES
	CONTACTOR - NORMALLY OPEN	
	CONTACTOR - NORMALLY CLOSED	
	LIMIT SWITCH - NORMALLY OPEN	
	LIMIT SWITCH - NORMALLY CLOSED	
	TEMPERATURE SWITCH - NORMALLY OPEN	
	TEMPERATURE SWITCH - NORMALLY CLOSED	
	FLOAT SWITCH - NORMALLY OPEN	
	FLOAT SWITCH - NORMALLY CLOSED	
	PRESSURE SWITCH - NORMALLY OPEN	
	PRESSURE SWITCH - NORMALLY CLOSED	
	PUSH BUTTON - 1 POLE - NORMALLY OPEN	
	PUSH BUTTON - 1 POLE - NORMALLY CLOSED	
	ON/OFF SWITCH - 2 POLE - NORMALLY OPEN/NORMALLY CLOSED	
	ON/OFF SWITCH - 2 POLE - NORMALLY CLOSED/NORMALLY OPEN	
	ON/OFF SWITCH - 2 POSITION	
	ON/OFF SWITCH - 3 POSITION	
M	MOTOR SOLENOID	
CR #	RELAY SOLENOID CR - CONTROL RELAY, PR - POWER RELAY, TR - TIMING RELAY	
XX	LIGHT - LETTER INDICATES COLOUR	
	SOLENOID MOTOR	
	CONTROL TRANSFORMER	
	COUNT DOWN NORMALLY OPEN	
	COUNT DOWN NORMALLY CLOSED	
	COUNT UP NORMALLY OPEN	
	COUNT UP NORMALLY CLOSED	
#	TERMINAL	
	DEVICE OUTPUT	
	DEVICE INPUT	
	BREAKER	
	BUZZER	
DIALER	DIALER	
IS	ISOLATION BARRIER	
▲	DEVICE TERMINATION POINT	

GREEN - ON (RUNNING)
RED - OFF (STOPPED) / ALARM
AMBER - TROUBLE

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	RG	EH	EL

A detail number
B numéro de detail
C source drawing no. de dessin no.
detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA ERIC L

2021-01-28

Client

Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil

McElhanney

Project Title
Titre du projet

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin

ELECTRICAL

CONTROL PANEL LAYOUTS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	RG	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
EH	EL	1:1000

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

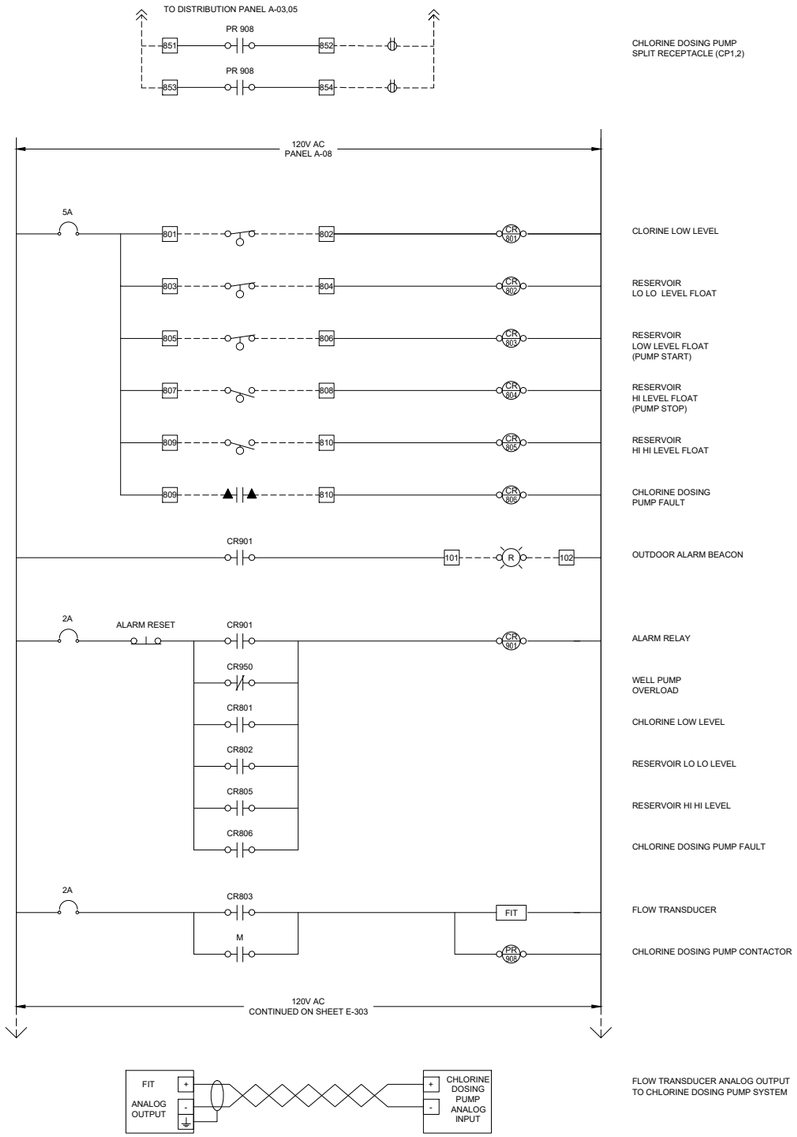
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
2511-01195-00		59

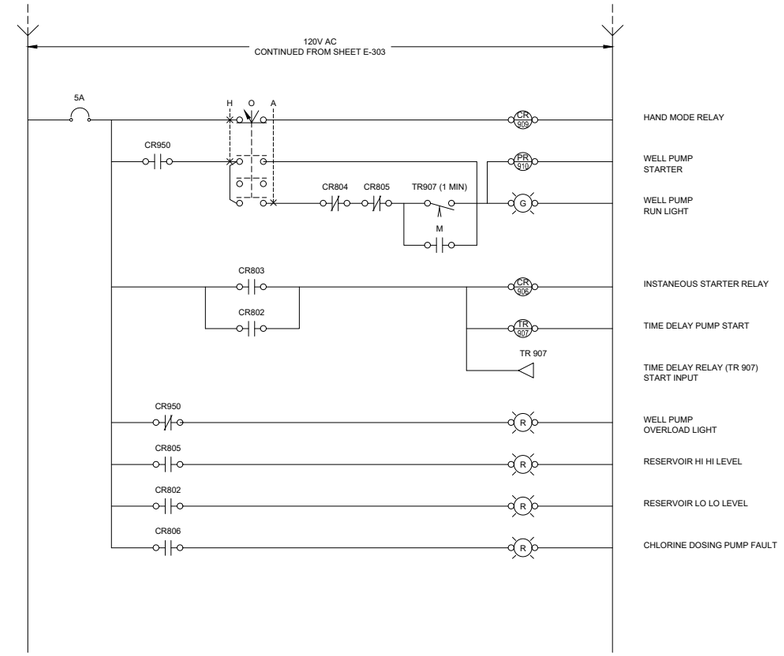
Drawing Reference No. / No. de réference du dessin
E-301

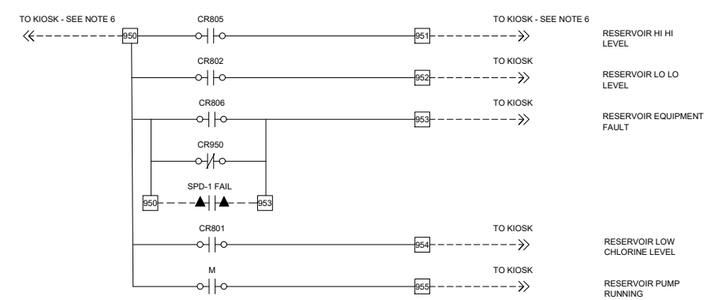
FILE: G:\PROJECTS\2511-01195-00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.10 ELECTRICAL\E-01195-XX.DWG PLOTTED: 2021/01/25 3:02 PM

Paper Size: ANSI D (22 x 34")

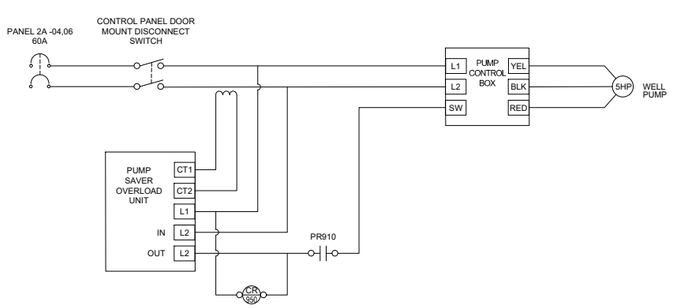
0 10 20 30 40 50 60 70 80 90 100mm







RESERVOIR CONTROL PANEL



WELL PUMP POWER WIRING

SCALE: NTS

RESERVOIR CONTROL PANEL NOTES:

1. TIMING RELAY (TR-911) TO BE OMRON H3CR-A-100-240AC/100-125DC 2 POLE DPDT ON DELAY RELAYS.
2. RESERVED
3. RESERVED
4. WELL PUMP STARTER AND OVERLOAD UNIT TO BE MOUNTED INSIDE CONTROL PANEL.
5. REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR DETAILS ON PUMP SAVER OVERLOAD UNIT AND PUMP CONTROL BOX.
6. FIELD ALARM MONITORING WIRING TO KIOSK TO BE INSTALLED DURING A FUTURE STAGE OF WORK.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T0	2021.01.29	ISSUED FOR TENDER	RG	EH	EL

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

PERMIT TO PRACTICE
McELHANNEY LTD.
Signature
Date 2021-01-28
PERMIT NUMBER: P 6383
The Association of Professional Engineers, Geoscientists of Alberta

Eng. Stamp
Sceau de l'ingénieur
PROFESSIONAL ENGINEER ERIC L. LEWIS ALBERTA
2021-01-28

Client
Parks Canada Agency L'Agence Parcs Canada

Consultant's Name
Nom de l'expert-conseil
McElhanney

Project Title
Titre du projet
CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - STAGE 1
WATERTON
WATERTON LAKES NATIONAL PARK, AB

Drawing Title
Titre du dessin
ELECTRICAL
RESERVOIR CONTROL

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
AECOM	RG	2021.01.29
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
EH	EL	NTS

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: 2511-01195-00
Asset No. / No. du-bien
Sheet No. / No. de la feuille: 60
Drawing Reference No. / No. de réference du dessin: E-303

FILE: G:\PROJECTS\2511\01195.00 CRANDELL CAMPGROUND RECONSTRUCTION\10.0 DRAWINGS\10.10 ELECTRICAL\E-01195-XX.DWG PLOTTED: 2021/01/25 3:03 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION

PARKS CANADA

01-GATE HOUSE
02-CONCESSION BUILDING
03-PRIVY
04-3 SIDED KITCHEN SHELTER
05-WINTER KITCHEN
07-WASHROOMS
08-AMPHITHEATER

ARCHITECTURAL

DRAWING LIST

A00-00-01 PROJECT COVER SHEET
A00-01-01 CONSTRUCTION NOTES AND ASSEMBLIES
A00-02-01 BUILDING CODE REVIEW GATE HOUSE
A00-02-02 BUILDING CODE REVIEW CONCESSION
A00-02-03 BUILDING CODE REVIEW PRIVY
A00-02-04 BUILDING CODE REVIEW KITCHEN SHELTERS
A00-02-06 BUILDING CODE REVIEW WASHROOMS
A00-02-07 BUILDING CODE REVIEW AMPHITHEATRE

A20-01-01 GATE HOUSE FOUNDATION PLAN
A31-01-01 GATE HOUSE BUILDING SECTIONS

A20-02-01 CONCESSION BUILDING FOUNDATION PLAN
A31-02-01 CONCESSION BUILDING SECTIONS

A20-03-01 PRIVY FOUNDATION PLAN
A31-03-01 PRIVY BUILDING SECTIONS

A20-04-01 3 SIDED KITCHEN SHELTER FOUNDATION PLAN
A31-04-01 3 SIDED KITCHEN SHELTER BUILDING SECTIONS

A20-05-01 WINTER KITCHEN FOUNDATION PLAN
A31-05-01 WINTER KITCHEN BUILDING SECTIONS

A20-07-01 WASHROOMS OPTION A FOUNDATION PLAN
A31-07-01 WASHROOMS OPTION A BUILDING SECTIONS

A20-08-01 AMPHITHEATER FOUNDATION PLAN
A20-08-02 AMPHITHEATER STAGE SLAB PLAN
A20-08-03 AMPHITHEATER MAIN FLOOR SLAB PLAN
A31-08-01 AMPHITHEATER BUILDING SECTIONS
A31-08-02 AMPHITHEATER BUILDING SECTIONS
A31-08-03 AMPHITHEATER BUILDING SECTIONS

A42-00-01 STAIRS PLAN AND SECTIONS TYPICAL DETAILS
A42-00-02 SIDE AISLE STAIRS PLAN AND SECTIONS TYPICAL DETAILS
A42-00-03 CENTRAL AISLE STAIRS PLAN AND SECTIONS TYPICAL DETAILS
A42-00-04 STAIRS AND RAMPS PLAN AND SECTIONS TYPICAL DETAILS
A42-00-05 RAMPS PLAN AND SECTIONS TYPICAL DETAILS
A42-00-06 CENTRAL SEATS PLAN AND SECTIONS TYPICAL DETAILS
A42-00-07 SIDE SEATS PLAN AND SECTIONS TYPICAL DETAILS

A50-00-02 TYPICAL SECTION DETAILS

A00-00-00

STRUCTURAL

DRAWING LIST

S01-00-01 GENERAL GENERAL NOTES
S01-00-02 GENERAL NOTES

S02-00-01 TYPICAL DETAILS
S02-00-02 TYPICAL DETAILS
S02-00-03 TYPICAL DETAILS

S20-01-01 GATE HOUSE FOUNDATION
S20-02-01 CONCESSION FOUNDATION PLANS
S20-03-01 PRIVY FOUNDATION PLANS
S20-04-01 3 SIDED KITCHEN FOUNDATION PLANS
S20-05-01 WINTER KITCHEN FOUNDATION PLANS
S20-07-01 WASHROOM FOUNDATION PLANS
S20-08-01 AMPHITHEATER FOUNDATION PLANS

S50-00-01SECTIONS & DETAILS
S50-00-02 SECTIONS & DETAILS

S00-00-00

MECHANICAL

DRAWING LIST

M01-00-00 MECHANICAL SCHEDULE LEGEND AND DETAIL

M20-01-00 GATE HOUSE FOUNDATION MECHANICAL LAYOUT

M20-02-00 CONCESSION FOUNDATION MECHANICAL LAYOUT

M20-03-00 KITCHEN FOUNDATION MECHANICAL LAYOUT

M20-04-00 WASHROOM FOUNDATION MECHANICAL LAYOUT

M00-00-00

ELECTRICAL

DRAWING LIST

E00-00-00 - ELECTRICAL COVER SHEET

E10-00-00 - ELECTRICAL SITE PLAN

E10-00-01 - ELECTRICAL SITE PLAN

E10-01-00 - BUILDING LAYOUTS

E10-01-01 - BUILDING LAYOUTS

E10-01-02 - AMPHITHEATRE

E20-00-00 - SINGLE LINE DIAGRAM & SCHEDULES

E00-00-00

WATERTON LAKES NATIONAL PARK

NORR JOB NO: NCCA19-0068
PARKS CANADA JOB NUMBER: PCA-2032

ISSUED FOR TENDER PHASE 1

(JANUARY 26, 2021)

CIVIL
McELHANNEY
100, 402-11th AVE SE
CALGARY, ALBERTA
PHONE: 403.262.5042

LANDSCAPE
McELHANNEY
100, 402-11th AVE SE
CALGARY, ALBERTA
PHONE: 403.262.5042

ARCHITECTURAL
NORR ARCHITECTS ENGINEERS PLANNERS
SUITE 2300, 411 - 1st STREET S.E.
CALGARY, ALBERTA T2G 4Y5
PHONE: 403.264.4000
FAX: 403.269.7215

STRUCTURAL
NORR ARCHITECTS ENGINEERS PLANNERS
SUITE 2300, 411 - 1st STREET S.E.
CALGARY, ALBERTA T2G 4Y5
PHONE: 403.264.4000
FAX: 403.269.7215

MECHANICAL
NORR ARCHITECTS ENGINEERS PLANNERS
SUITE 2300, 411 - 1st STREET S.E.
CALGARY, ALBERTA T2G 4Y5
PHONE: 403.264.4000
FAX: 403.269.7215

ELECTRICAL
NORR ARCHITECTS ENGINEERS PLANNERS
SUITE 2300, 411 - 1st STREET S.E.
CALGARY, ALBERTA T2G 4Y5
PHONE: 403.264.4000
FAX: 403.269.7215

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95 % REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

COVER SHEET

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A. GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

Sheet No. / No. de la feuille: A00-00-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-00-01 PH1.DWG PLOTTED: 2021/01/25 4:48 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

GENERAL NOTES:

1. ALL DRAWINGS, INCLUDING ENGINEERING DOCUMENTS, SHOULD BE READ IN CONJUNCTION WITH ONE ANOTHER, AS WELL AS THE SPECIFICATIONS AND INSTRUMENTS OF THE CONTRACT DOCUMENT PACKAGE.
2. ALL CONSTRUCTION TO COMPLY WITH NATIONAL AND ALBERTA BUILDING CODE REGULATIONS, RULES AND BY-LAWS SET BY THE AUTHORITY HAVING JURISDICTION.
3. PROVIDE AND MAINTAIN CONTINUOUS AIR/VAPOUR BARRIER SYSTEM. CAULK AROUND OPENINGS AND GAPS WITH SEALANT TO ACHIEVE A CONTINUOUS BARRIER.
4. PROVIDE AND MAINTAIN CONTINUOUS AIR/VAPOUR BARRIER SYSTEM. AVOID SOUND TRANSMISSION THROUGH DIRECT CONTACT AT ACOUSTICALLY TREATED SURFACES. COMPLETELY SEAL ALL PENETRATIONS WITH ACOUSTIC SEALANT, TAPE, AND INSULATION AS REQUIRED TO PREVENT SOUND TRANSFER AND MAINTAIN THE REQUIRED ASTM RATINGS OF THE WALL SYSTEMS. PROVIDE APPROVED ISOLATION METHODS TO ALL NOISE GENERATING AND MOVING EQUIPMENT.
5. VERIFY ALL CONDITIONS AND DIMENSIONS ON SITE PRIOR TO FABRICATION PROMPTLY NOTIFY THE ARCHITECT OF ANY ERRORS OR OMISSIONS.
6. DIMENSIONS ARE TAKEN TO GRID LINES; TO FACE OF STUD AT INTERIOR STUD WALLS; TO OUTSIDE FACE OF SHEATHING AT EXTERIOR WALLS; TO FACE OF CONCRETE AND/OR BLOCK WALLS; AND TO FACE OF CONCRETE SLAB.
7. THE GENERAL CONTRACTOR IS TO ARRANGE FOR AND COORDINATE ALL INCOMING AND OUTGOING MECHANICAL AND ELECTRICAL SERVICES FOR THIS PROJECT.
8. THE GENERAL CONTRACTOR IS TO COORDINATE ALL ACTIVITIES AS REQUIRED TO ENSURE EFFICIENT, CORRECT, AND ORDERLY INSTALLATION OF EACH PART OF THE WORK TO AVOID CONFLICT IN THE TRADE WORK AND SCHEDULE.
9. REFER TO STRUCTURAL DRAWINGS FOR COLUMN SHAPES, SIZES, LOCATIONS, AND REINFORCEMENT.
10. ALL DOOR OPENINGS IN CONCRETE OR CONCRETE BLOCK WALLS TO BE 100mm FROM THE ADJACENT WALL (OR FLUSH WITH FACE OF WALL IN TIGHT CONDITIONS), UNLESS NOTED OTHERWISE.
11. ALL CONSTRUCTION TO COMPLY WITH INDUSTRY TRADE STANDARDS, AS WELL AS MANUFACTURERS' RECOMMENDATIONS, TO THE EXTENT THAT THOSE INSTRUCTIONS AND RECOMMENDATIONS ARE MORE EXPLICIT OR STRINGENT THEN THE REQUIREMENTS CONTAINED IN THESE CONTRACT DOCUMENTS.
12. MECHANICAL LINES ARE NOT TO BE IN CONTACT WITH THE STUD WALLS, CONCRETE WALLS OR FLOOR ASSEMBLIES. ISOLATE ALL PIPES TO AVOID SOUND TRANSMISSION. INSTALL NEOPRENE RUBBER PAD ON TOP AND BOTTOM PLATES BEFORE ALL MECHANICAL CLAMPS ARE TIGHTENED INTO PLACE.
13. CONFIRM ALL ROUGH OPENING SIZES AND CONNECTION REQUIREMENTS FOR MECHANICAL, ELECTRICAL AND OWNER SUPPLIED EQUIPMENT. ADJUST ROUGH OPENING SIZES TO SUIT.

STRUCTURAL:

READ THESE DRAWINGS IN CONJUNCTION WITH STRUCTURAL ENGINEER'S DRAWINGS. WHERE STRUCTURAL DRAWINGS CONFLICT WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, THE STRUCTURAL ENGINEER SHALL BE CONSULTED FOR DIRECTION. NO CHANGE TO THE STRUCTURAL DESIGN SHALL BE IMPLEMENTED WITHOUT WRITTEN INSTRUCTIONS FROM THE STRUCTURAL ENGINEER

MECHANICAL & ELECTRICAL:

READ THESE DRAWINGS IN CONJUNCTION WITH MECHANICAL & ELECTRICAL ENGINEER'S DRAWINGS. WHERE MECHANICAL & ELECTRICAL DRAWINGS CONFLICT WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, THE MECHANICAL & ELECTRICAL ENGINEER SHALL BE CONSULTED FOR DIRECTION. NO CHANGE TO THE MECHANICAL & ELECTRICAL DESIGN SHALL BE IMPLEMENTED WITHOUT WRITTEN INSTRUCTIONS FROM THE MECHANICAL & ELECTRICAL ENGINEER

ARCHITECTURAL ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
BLDG	BUILDING
CPT	CARPET
CJ	CONTROL JOINT
℄	CENTERLINE
CL	CLOSET
CLG	CEILING
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
COORD	COORDINATE
CORR	CORRIDOR
C/W	COMPLETE WITH
D	DEPTH/DEEP
DN	DOWN
D/W	DISHWASHER
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
F	FRIDGE
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FG	FIBREGLASS
FLR	FLOOR
F.R.R.	FIRE RESISTANCE RATING
GALV	GALVANIZED
GL	GLASS
GWB	GYPSUM WALL BOARD
HT	HEIGHT
INSUL	INSULATION
L	LONG
MAX	MAXIMUM
MC	MEDICINE CABINET
MECH	MECHANICAL
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MTD	MOUNTED
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHEAD
PL	PROPERTY LINE
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
R	RADIUS OR REVERSE
R/H	RANGE AND HOOD FAN
RD	ROOF DRAIN
REQD	REQUIRED
REV	REVISION
RO	ROUGH OPENING
S	SINK
SIM	SIMILAR
SPEC	SPECIFICATION
ST	STEEL
STD	STANDARD
STRUCT	STRUCTURAL
T/O	TOP OF
T/G	TONGUE & GROOVE
TYP	TYPICAL
U/S	UNDERSIDE
VB	VAPOUR BARRIER
VEST	VESTIBULE
W	WIDTH
WIC	WALK IN CLOSET
W/ OR /W	WITH
W/D	WASHER AND DRYER
W/O	WALL OVEN

SYMBOL LEGEND:

F##	DENOTES CONSTRUCTION TYPE (SEE CONSTRUCTION ASSEMBLIES LIST)
(hatch)	CONCRETE
(hatch)	RIGID INSULATION
(hatch)	OSB/PLYWOOD BOARD

EXTERIOR & FOUNDATION WALL ASSEMBLIES:

NO.	ILLUSTRATION	ASSEMBLY
W2	EXTERIOR / INTERIOR	CONCRETE UPSTAND WITH FURRING • 250mm CONCRETE FOUNDATION WALL (REFER TO STRUCTURAL)
W4	EXTERIOR / INTERIOR EXTERIOR / INTERIOR	2 HOUR F.R.R. PROVIDED, 45MIN REQUIRED N.B.C. 2015 APPENDIX D, TABLE D-2.1.1. FOUNDATION WALL • PARGING FINISH DOWN TO 100 mm BELOW GARDE • 100mm RIGID INSULATION R20 DOWN 1220mm BELOW GRADE • DAMPROOF MEMBRANE BELOW GRADE (TO BE CONFIRMED WITH GEO) • CONCRETE FOUNDATION WALL (REFER TO STRUCTURAL) BELOW FINISH GRADE • 100 mm RIGID INSULATION R20 DOWN 1220 mm BELOW GRADE • DAMPROOF MEMBRANE BELOW GRADE (TO BE CONFIRMED WITH GEO) • CONCRETE FOUNDATION WALL (REFER TO STRUCTURAL)
W6		UPSTAND WALL/CURB • CONCRETE FOUNDATION WALL/CURB (REFER TO STRUCTURAL) NOTE: EXPOSED FACE - BROOM FINISH

FLOOR ASSEMBLIES:

FOR FLOOR FINISH WITH FINE BROOM FINISH
REFER TO ROOM FINISH SCHEDULE

ALL SUB-GRADE MATERIAL UNDER CONCRETE FLAT WORK SHALL BE COMPACTED TO AS RECOMMENDED IN THE GEOTECHNICAL REPORT AND TESTED FOR VERIFICATION OF ACHIEVING THOSE COMPACTION REQUIREMENTS.

ALL SUSPENDED SLABS TO RECEIVE TRAFFIC COATING.

NO.	ILLUSTRATION	ASSEMBLY
F1		SLAB ON GRADE — U VALUE: 0.4751 -REINFORCED CONCRETE SLAB (REFER TO STRUCTURAL) -10 MIL POLY VAPOUR RETARDER, ALL SEAMS SEALED -100 mm RIGID INSULATION -300mm COMPACTED GRANULAR BASE AND SUB BASE (REFER TO GEOTECHNICAL REPORT & STRUCT.)
F2		SUSPENDED CONCRETE FLOOR SLAB -FLOOR FINISH -REINFORCED STRUCTURAL CONCRETE SLAB (REFER TO STRUCT.) MIN. CONC. COVER PER APPENDIX D IN NBC
F3		SLAB ON GRADE - SUBFLOOR DEPRESSURIZATION SYSTEM — U VALUE: 0.4751 -REINFORCED CONCRETE SLAB (REFER TO STRUCTURAL) -10MIL VAPOUR RETARDER, ALL SEAMS SEALED -100 mm RIGID INSULATION -MIN. 300 mm COURSE CLEAN GRANULAR MATERIAL PER NBC 2019 9.14.1.1 (3b) PER GEOTECHNICAL
F4		SLAB ON GRADE - PERIMETER WALKWAY -REINFORCED CONCRETE SLAB (REFER TO STRUCTURAL) -10 MIL VAPOUR RETARDER, ALL SEAMS SEALED -300mm COMPACTED GRANULAR BASE (REFER TO GEOTECHNICAL REPORT & STRUCT.)

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

CONSTRUCTION NOTES CONSTRUCTION ASSEMBLIES

Surveyed by / Arpenté par	Drawn by / Dessiné par: M.BRITO/C.MOLNAR	Date: 2020.12.23
Designed by / Conçu par: M.BRITO	Reviewed by / Revisé par: A.GODEK	Scale / Échelle

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032	Asset No. / No. du-bien	Sheet No. / No. de la feuille: A00-01-01
Drawing Reference No. / No. de réference du dessin		

PROJECT NAME: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - GATE HOUSE
PROJECT NO.: NCCA19-0068
PREPARED BY: CARA MOLNAR

PART ONE: NATIONAL BUILDING CODE 2015 REVIEW - *PART 9*

REFERENCE & NOTE	REQUIRED	CODE ARTICLE	COMPLIANCE	Comments
CODE CLAUSE	**BUILDING CODE REVIEW:**		COMPLIANT	
	REVIEW BASED ON 2015 NATIONAL BUILDING CODE - THE FOLLOWING NOTES PROVIDE INFORMATION HIGHLIGHTING BUILDING DESIGN CRITERIA. IT IS NOT INTENDED TO DESCRIBE ALL DESIGN & CONSTRUCTION REQUIREMENT. ALL CONSTRUCTION SHALL CONFIRM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE.			
DIV. A - 1.3.3.3 (1)	- CONSTRUCTED UNDER PART "9" OF BUILDING CODE			
LIMITED TO GROUP C,D, E,F				
	GENERAL INFORMATION			
DIV. A - 1.3.3.3 (1)	BUILDING AREA: *54.178 m^2* *(MAX. INDIVIDUAL BUILDING AREA FOR THE SITE NOT EXCEEDING 600 sq.m.)* BUILDING HEIGHT: 1 STOREY ABOVE GRADE *(MAX. 3 STOREYS ABOVE GRADE)*			
	PROVISIONS FOR FIRE FIGHTING NOT IN SCOPE - REFER TO CIVIL			
9.1.1.	APPLICATION 1) THE APPLICATION OF THIS PART SHALL BE AS DESCRIBED IN SUBSECTION 1.3.3. OPF DIVISION A. (See note A-9.1.1.1.(1) REGARDING APPLICATION TO SEASONALLY AND INTERMITTENLY OCCUPIED BUILDINGS.)		9.1.1. COMPLIANT	
9.5	DESIGN OF AREAS AND SPACES			
9.5.1.2.	COMBINATION ROOMS 1) TWO OR MORE AREAS MAY BE CONSIDERED AS A COMBINATION ROOM IF THE OPENING BETWEEN THE AREAS OCCUPIES THE LARGER OF $3m^2$ OR 40% OR MORE OF THE AREA OF THE WALL MEASURED ON THE SIDEOF THE DEPENDENT AREA.		9.5.1.2. COMPLIANT	
9.5.2.	BARRIER-FREE DESIGN			
9.5.2.1.	GENERAL 1) THE APPLICATION OF THIS PART SHALL BE AS DESCRIBED IN SUBSECTION 1.3.3. OPF DIVISION A. (See note A-9.1.1.1.(1) REGARDING APPLICATION TO SEASONALLY AND INTERMITTENLY OCCUPIED BUILDINGS.)		9.5.2.1. COMPLIANT	
	MINIMUM EGRESS WIDTH - OUTSIDE OF DWELLING UNIT			
9.5.5.1.	DOORWAY 610mm (water-closet room)		9.5.5.1.	
9.9.3.2.	EXIT WIDTH 900mm		9.9.3.2. COMPLIANT	
9.9.3.3.	CORRIDOR 1100mm		9.9.3.3.	
	HEADROOM CLEARANCE			
9.9.3.4	1) EXITS 2100mm		9.9.3.4.COMPLIANT	
9.9.3.4	2) STORAGE GARAGES 2000mm		9.9.3.4 COMPLIANT	
9.9.6.2.	DOORWAYS 2030mm		9.9.6.2.	
9.9.7.	ACCESS TO EXITS			
9.9.7.4 (1)	EXCEPT FOR DWELLING UNITS, AT LEAST 2 EGRESS DOORS SHALL BE PROVIDED WHEN THE AREA OF A ROOM OR SUITE, OR THE DISTANCE MEASURED FROM ANY POINT WITHIN THE ROOM OR SUITE TO THE NEAREST EGRESS DOOR, EXCEEDS THE VALUES IN TABLE 9.9.7.4.		9.9.7.4 (1)	
TABLE 9.9.7.4.	- OCCUPANCY OF FLOOR AREA - GROUP D - MAX. AREA OF FLOOR AREA = 200m2 (ACTUAL AREA = 30.77m2) - MAX. DISTANCE TO EGRESS DOOR = 25m (ACTUAL DISTANCE = 8.89m)		COMPLIANT	
TABLE 9.9.7.4.	- OCCUPANCY OF FLOOR AREA - GROUP F, DIVISION 3 - MAX. AREA OF FLOOR AREA = 200m2 (ACTUAL AREA = 12.19m2) - MAX. DISTANCE TO EGRESS DOOR = 15m (ACTUAL DISTANCE = 5.93m)		COMPLIANT	
9.9.6.5.	EVERY REQUIRED EXIT DOOR IS TO SWING OPEN, ON A VERTICAL AXIS, IN THE DIRECTION OF TRAVEL EXIT.		COMPLIANT	
9.9.11.2.	REQUIRED EXITS ARE TO BE LOCATED SO THEY ARE CLEARLY VISIBLE, OR THEIR LOCATIONS ARE TO BE CLEARLY INDICATED.		COMPLIANT	
9.9.12.3.	UNLESS IT CAN BE SHOWN TO BE UNNECESSARY, EMERGENCY LIGHTING IS TO BE PROVIDED TO ILLUMINATEALL REQUIRED EXITS AND THE PATH OF TRAVEL TO EACH OF THE EXITS.		COMPLIANT	
9.10.2.	MAJOR OCCUPANCY CLASSIFICATION			
9.10.2.1.	GROUP/DIV. D BUSINESS AND PERSONAL SERVICES OCCUPANCIES GROUP/DIV. F/3 LOW-HAZARD INDUSTRIAL OCCUPANCIES		9.10.2.1. COMPLIANT	
TABLE 3.1.17.1	OCCUPANT LOAD GROUP D : BUSINESS AND PERSONAL SERVICE FOR USE PERSONAL SERVICE SHOP : 4.60 m2/PERSON OCCUPANCY LOAD : 6.68 GROUP F, DIVISION 3 STORAGE GARAGES : 46.0 m2/PERSON OCCUPANCY LOAD : 0.3		COMPLIANT	
9.10.9.16	SEPARATION OF STORAGE GARAGES 2) STORAGE GARAGES CONTAINING 5 MOTOR VEHICLES OR FEWER SHALL BE SEPARATED FROM OTHER OCCUPANCIES BY A FIRE SEPARATION OF NOT LESS THAN 1h.		9.10.9.16 COMPLIANT	
9.10.14/9.10.15 ONE CHART PER BLDG.	SPATIAL SEPARATION & EXPOSURE PROTECTION			

BLDG	FACE | OCCUPANCY	LIMIT DISTANCE	AREA (sq.m.)	% OPENING ALLOWED	% OPENING PROVIDED	MIN. WALL F.R.R.(min.)	CONSTRUCTION TYPE	CLADDING TYPE REQUIRED*
	FRONT | D/F3	>8.0m	13.90m^2	--	--	0.0HR	COMB.|NON-COMB.	COMB.|NON-COMB.
	BACK | D/F3	>8.0m	13.90m^2	--	--	0.0HR	COMB.|NON-COMB.	COMB.|NON-COMB.
	SIDE A | D/F3	>8.0m	53.45m^2	--	--	0.0HR	COMB.|NON-COMB.	COMB.|NON-COMB.
	SIDE B | D/F3	>8.0m	38.70m^2	--	--	0.0HR	COMB.|NON-COMB.	COMB.|NON-COMB.

9.13.4.2	PROTECTION FROM SOIL GAS INGRESS 1) ALL WALL, ROOF AND FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND SHALL BE PROTECTED BY AN AIR BARRIER SYSTEM 3) WHERE BUILDINGS ARE USED FOR OCCUPANCIES OTHER THAN THOSE DESCRIBED IN SENTENCE (2), PROTECTION FROM RADON INGRESS AND THE MEANS TO ADDRESS HIGH RADON CONCENTRATIONS IN THE FUTURE SHALL CONFORM TO a) ARTICLE 9.13.4.3; OR b) PARTS 5 AND 6 (SEE ARTICLE 5.4.1.1. AND 6.2.1.1).		9.13.4.2 COMPLIANT
9.36.1.3.(5)	ENERGY EFFICIENCY BUILDING THAT ARE NOT REQUIRED TO BE CONDITIONED SPACES ARE EXEMPTED FROM THE REQUIREMENT PER A-9.36.1.3.(5) FOR SEASONALLY HEATED BUILDINGS.		9.36. COMPLIANT

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 NCCA19-0068 ALBERTA

Eng. Stamp / Sceau de l'ingénieur

Client

Parks Canada Agency / Western and Northern Region

L'Agence Parcs Canada / Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet
CRANDELL CAMPGROUND RECONSTRUCTION GATE HOUSE

Drawing Title / Titre du dessin
BUILDING CODE REVIEW

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par: M.BRITO	Reviewed by / Revisé par: A.GODEK	Scale / Échelle: 1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: A00-02-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VI\NP500\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-02-01.DWG PLOTTED: 2021/01/25,4:49 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

PROJECT NAME: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - CONCESSION
PROJECT NO.: NCCA19-0068
PREPARED BY: CARA MOLNAR

PART ONE: NATIONAL BUILDING CODE 2015 REVIEW - *PART 9*

REFERENCE & NOTE	REQUIRED	CODE ARTICLE	COMPLIANCE
CODE CLAUSE	**BUILDING CODE REVIEW:**		
	REVIEW BASED ON 2015 NATIONAL BUILDING CODE - THE FOLLOWING NOTES PROVIDE INFORMATION HIGHLIGHTING BUILDING DESIGN CRITERIA. IT IS NOT INTENDED TO DESCRIBE ALL DESIGN & CONSTRUCTION REQUIREMENT. ALL CONSTRUCTION SHALL CONFIRM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE.		
DIV. A - 1.3.3.3 (1) LIMITED TO GROUP C,D, E,F	- CONSTRUCTED UNDER PART "9" OF BUILDING CODE		
	GENERAL INFORMATION		
DIV. A - 1.3.3.3 (1)	BUILDING AREA: *55.44 m^2 (MAX. INDIVIDUAL BUILDING AREA FOR THE SITE NOT EXCEEDING 600 sq.m.)* BUILDING HEIGHT: 1 STOREY ABOVE GRADE *(MAX. 3 STOREYS ABOVE GRADE)*		
	PROVISIONS FOR FIRE FIGHTING NOT IN SCOPE - REFER TO CIVIL		
9.1.1.	APPLICATION 1) THE APPLICATION OF THIS PART SHALL BE AS DESCRIBED IN SUBSECTION 1.3.3. OPF DIVISION A. (See note A-9.1.1.1.(1) REGARDING APPLICATION TO SEASONALLY AND INTERMITTENLY OCCUPIED BUILDINGS.)		9.1.1. COMPLIANT
9.5.2. 9.5.2.1.	BARRIER-FREE DESIGN GENERAL 1) THE APPLICATION OF THIS PART SHALL BE AS DESCRIBED IN SUBSECTION 1.3.3. OF DIVISION A. (See note A 9.1.1.1.(1) REGARDING APPLICATION TO SEASONALLY AND INTERMITTENLY OCCUPIED BUILDINGS.)		9.5.2.1. COMPLIANT
9.9. 9.9.1. 9.9.1.3.	MEANS OF EGRESS GENERAL OCCUPANT LOAD 1) EXCEPT FOR DWELLING UNITS, THE OCCUPANT LOAD OF A FLOOR AREA OR PART OF A FLOOR AREA SHALL BE THE NUMBER OF PERSONS FOR WHICH SUCH AREAS ARE DESIGNED, BUT NOT FEWER THAN THAT DETERMINED FROM TABLE 3.1.17.1., UNLESS IT CAN BE SHOWN THAT THE AREA WILL BE OCCUPIED BY FEWER PERSONS.		9.9.1.3. COMPLIANT
9.9.2.2.	PURPOSE OF EXITS 1) AN EXIT SHALL BE DESIGNED FOR NO PURPOSE OTHER THAN FOR EXITING EXCEPT THAT AN EXIT MAY ALSO SERVE AS AN ACCESS TO A FLOOR AREA.		9.9.2.2. COMPLIANT
9.9.3.2.	EXIT WIDTH 1) EXCEPT FOR DOORS AND CORRIDORS, THE WIDTH OF EVERY EXIT FACILITY SHALL BE NOT LESS THAN 900 mm.		9.9.3.2. COMPLIANT
9.9.6. 9.9.6.1.	DOORS IN A MEANS OF EGRESS OBSTRUCTIONS BY DOORS 1) EXCEPT AS PROVIDED IN SENTENCE (4), OBSTRUCTIONS CREATED BY DOORS SHALL BE LIMITED IN ACCORDANCE WITH SENTENCES (2) AND (3) a) AT EXIT DOORS, b) AT DOORS THAT OPEN INTO OR ARE LOCATED WITHIN A PUBLIC CORRIDOR, AND c) AT DOORS THAT OPEN INTO OR ARE LOCATED WITHIN ANOTHER FACILITY THAT PROVIDES ACCESS TO EXIT FROM A SUITE. 2) WHEN FULLY OPEN, DOORS DESCRIBED IN SENTENCE (1) SHALL NOT DECREASE THE REQUIRED EXIT WIDTH BY MORE THAN a) 100 mm IN EXIT CORRIDORS, AND b) 50 mm FOR OTHER EXIT FACILITIES. 3) THE SWING OF DOORS DESCRIBED IN SENTENCE (1) SHALL NOT REDUCE THE WIDTH OF THE PATH OF TRAVEL TO LESS THAN a) THE REQUIRED EXIT WIDTH IN EXIT CORRIDORS AND PASSAGEWAYS, AND b) 750 mm ON EXIT STAIRS OR LANDINGS.		9.9.6.1. COMPLIANT
9.9.6.2.	CLEAR OPENING HEIGHT AT DOORWAYS 1) EXCEPT AS PROVIDED IN SENTENCES (2) AND (3), THE CLEAR OPENING HEIGHT OF DOORWAYS SHALL BE NOT LESS THAN 2 030 mm HIGH AT a) EXIT DOORS, b) DOORS THAT OPEN INTO OR ARE LOCATED WITHIN A PUBLIC CORRIDOR, AND c) DOORS THAT OPEN INTO OR ARE LOCATED WITHIN ANOTHER FACILITY THAT PROVIDES ACCESS TO EXIT FROM A SUITE.		9.9.3.2. COMPLIANT
9.9.6.4.	DOOR ACTION 1) EXCEPT AS PROVIDED IN SENTENCES (4) AND (5), REQUIRED EXIT DOORS AND DOORS IN REQUIRED MEANS OF EGRESS, EXCEPT DOORS IN MEANS OF EGRESS WITHIN DWELLING UNITS, SHALL SWING ON THE VERTICAL AXIS.		9.9.6.4. COMPLIANT
9.9.6.5.	DIRECTION OF DOOR SWING 1) EXCEPT FOR DOORS SERVING A SINGLE DWELLING UNIT OR A HOUSE WITH A SECONDARY SUITE, EXIT DOORS THAT ARE REQUIRED TO SWING SHALL SWING IN THE DIRECTION OF EXIT TRAVEL.		9.9.6.5. COMPLIANT
9.9.8 9.9.8.2	EXITS FROM FLOOR AREAS NUMBER OF REQUIRED EXITS		9.9.8.2

	2) A SINGLE EXCIT IS PERMITTED FROM EACH STOREY BUILDINGS OF 1 AND 2 STOREYS IN BUILDING HEIGHT PROVIDED THE FLOOR AREA AND TRAVEL DISTANCE REQUIREMENTS CONFORM TO THOSE REQUIRED IN ARTICLE 9.9.7.4 AND THE TOTAL OCCUPANT LOAD SERVED BY AN EXIT FACILITY DOES NOT EXCEEED 60 PERSONS.	COMPLIANT
9.9.11. 9.9.11.1.	SIGNS APPLICATION 1) THIS SUBSECTION APPLIES TO ALL EXITS EXCEPT THOSE SERVING NOT MORE THAN ONE DWELLING UNIT OR A HOUSE WITH A SECONDARY SUITE.	9.9.11.1. COMPLIANT
9.9.11.2.	VISIBILITY OF EXITS 1) EXITS SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE OR THEIR LOCATIONS SHALL BE CLEARLY INDICATED. 2) WHERE AN EXIT DOOR LEADING DIRECTLY TO THE OUTSIDE IS SUBJECT TO BEING OBSTRUCTED BY PARKED VEHICLES OR STORAGE BECAUSE OF ITS LOCATION, A VISIBLE SIGN OR A PHYSICAL BARRIER PROHIBITING SUCH OBSTRUCTIONS SHALL BE INSTALLED ON THE EXTERIOR SIDE OF THE DOOR.	9.9.11.2 COMPLIANT
9.9.12.3.	UNLESS IT CAN BE SHOWN TO BE UNNECESSARY, EMERGENCY LIGHTING IS TO BE PROVIDED TO ILLUMINATEALL REQUIRED EXITS AND THE PATH OF TRAVEL TO EACH OF THE EXITS.	COMPLIANT
	MINIMUM EGRESS WIDTH - OUTSIDE OF DWELLING UNIT	
9.9.3.2.	EXIT WIDTH 900mm	9.9.3.2. COMPLIANT
	HEADROOM CLEARANCE	
9.9.3.4	1) EXITS 2100mm	9.9.3.4.COMPLIANT
9.9.6.2.	DOORWAYS 2030mm	9.9.6.2.COMPLIANT
TABLE 9.9.7.4.	- OCCUPANCY OF FLOOR AREA - GROUP E - MAX. AREA OF FLOOR AREA = 150m2 (ACTUAL AREA = 30.77m2) - MAX. DISTANCE TO EGRESS DOOR = 15m (ACTUAL DISTANCE = 8.89m)	COMPLIANT
9.10.2. 9.10.2.1.	MAJOR OCCUPANCY CLASSIFICATION GROUP/DIV. E MERCANTILE OCCUPANCIES	9.10.2.1. COMPLIANT
TABLE 3.1.17.1	OCCUPANT LOAD GROUP E : MERCANTILE OCCUPANCIES OTHER STOREYS : 5.6 m2/PERSON OCCUPANCY LOAD : 10	COMPLIANT
9.10.14/9.10.15 ONE CHART PER BLDG.	SPATIAL SEPARATION & EXPOSURE PROTECTION	COMPLIANT

	FACE | OCCUPANCY	LIMIT DISTANCE	AREA (sq.m.)	% OPENING ALLOWED	% OPENING PROVIDED	MIN. WALL F.R.R.(min.)	CONSTRUCTION TYPE	CLADDING TYPE REQUIRED*
BUILDING	FRONT | E	>8.0m	21.90m^2	100.00%	12.3%(2.71m^2)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	BACK | E	>8.0m	21.90m^2	100.00%	10.3%(2.25m^2)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE A | E	>8.0m	20.29m^2	100.00%	22.2%(4.5m^2)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE B | E	5.6m	20.29m^2	100.00%	--	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.

9.10.14.3	LIMITING DISTANCE AND FIRE DEPARTMENT RESPONSE A LIMITED DISTANCE EQUAL TO HALF THE ACTUAL LIMITED DISTANCE SHALL BE USED AS INPUT TO THE REQUIREMENTS OF THIS SUBSECTION, WHERE a) THE TIME FORM RECEIPT OF NOTIFICATION OF A FIRE BY THE FIRE DEPARTMENT UNITL THE FIRST FIRE DEPARTMENT VEHICLE ARRIVES AT THE BUILDING EXCEEDS 10min IN 10% OF MORE OF ALL CALLS TO THE BUILDING; AND b) ANY STOREY IN THE BUILDING IS NOT SPRINKLERED.	9.10.14.3 COMPLIANT
9.13.4.2	PROTECTION FROM SOIL GAS INGRESS 1) ALL WALL, ROOF AND FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND SHALL BE PROTECTED BY AN AIR BARRIER SYSTEM 3) WHERE BUILDINGS ARE USED FOR OCCUPANCIES OTHER THAN THOSE DESCRIBED IN SENTENCE (2), PROTECTION FROM RADON INGRESS AND THE MEANS TO ADDRESS HIGH RADON CONCENTRATIONS IN THE FUTURE SHALL CONFORM TO a) ARTICLE 9.13.4.3; OR b) PARTS 5 AND 6 (SEE ARTICLE 5.4.1.1. AND 6.2.1.1).	9.13.4.2 COMPLIANT
9.36.1.3.(5)	ENERGY EFFICIENCY BUILDING THAT ARE NOT REQUIRED TO BE CONDITIONED SPACES ARE EXEMPTED FROM THE REQUIREMENT PER A-9.36.1.3.(5) FOR SEASONALLY HEATED BUILDINGS.	9.36. COMPLIANT

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil: BRUCE McKENZIE, REGISTERED ARCHITECT, JANUARY 26, 2021, NCCA19-0068, ALBERTA

Eng. Stamp / Sceau de l'ingénieur

Client: Parks Canada Agency, Western and Northern Region / L'Agence Parcs Canada, Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet: CRANDELL CAMPGROUND RECONSTRUCTION CONCESSION

Drawing Title / Titre du dessin: BUILDING CODE REVIEW

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: A00-02-02

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND\M:\MP\500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-02-02.DWG PLOTTED: 2021/01/26 4:49 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

PROJECT NAME: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - PRIVY
PROJECT NO.: NCCA19-0068
PREPARED BY: CARA MOLNAR

PART ONE: NATIONAL BUILDING CODE 2015 REVIEW - *PART 9*

REFERENCE & NOTE	REQUIRED	CODE ARTICLE	COMPLIANCE
CODE CLAUSE	**BUILDING CODE REVIEW:**		
	REVIEW BASED ON 2015 NATIONAL BUILDING CODE - THE FOLLOWING NOTES PROVIDE INFORMATION HIGHLIGHTING BUILDING DESIGN CRITERIA. IT IS NOT INTENDED TO DESCRIBE ALL DESIGN & CONSTRUCTION REQUIREMENT. ALL CONSTRUCTION SHALL CONFIRM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE.		
DIV. A - 1.3.3.3 (1) A-9.1.1.1.(1)	- CONSTRUCTED UNDER PART "9" OF BUILDING CODE - APPLICATION OF PART 9 TO SEASONALLY AND INTERMITTENTLY OCCUPIED BUILDINGS AIR BARRIER AND VAPOUR BARRIERS: REQUIRE THE INSTALLATION OF AIR BARRIER SYSTEMS AND VAPOUR BARRIERS ONLY WHERE INSULATION IS INSTALLED. DWELLINGS WITH NO HEATING SYSTEM WOULD THUS BE EXEMPT FROM THESE REQUIREMENTS.		
DIV. A - 1.3.3.3 (1)	GENERAL INFORMATION BUILDING AREA: *25.85m²* BUILDING HEIGHT: 1 STOREY ABOVE GRADE		
	PROVISIONS FOR FIRE FIGHTING NOT IN SCOPE - REFER TO CIVIL		
9.5.2. 9.5.2.1.	BARRIER-FREE DESIGN GENERAL 1) BUILDING DESIGNED IN CONFORMANCE WITH SECTION 3.8		9.5.2.1. COMPLIANT
9.9.1. 9.9.1.3.	GENERAL OCCUPANT LOAD 1) EXCEPT FOR DWELLING UNITS, THE OCCUPANT LOAD OF A FLOOR AREA OR PART OF A FLOOR AREA SHALL BE THE NUMBER OF PERSONS FOR WHICH SUCH AREAS ARE DESIGNED, BUT NOT FEWER THAN THAT DETERMINED FROM TABLE 3.1.17.1., UNLESS IT CAN BE SHOWN THAT THE AREA WILL BE OCCUPIED BY FEWER PERSONS.		9.9.1.3. COMPLIANT
9.9.3.2.	EXIT WIDTH 1) EXCEPT FOR DOORS AND CORRIDORS, THE WIDTH OF EVERY EXIT FACILITY SHALL BE NOT LESS THAN 900 mm.		9.9.3.2. COMPLIANT
9.9.8 9.9.8.2	EXITS FROM FLOOR AREAS NUMBER OF REQUIRED EXITS 2) A SINGLE EXCIT IS PERMITTED FROM EACH STOREY BUILDINGS OF 1 AND 2 STOREYS IN BUILDING HEIGHT PROVIDED THE FLOOR AREA AND TRAVEL DISTANCE REQUIREMENTS CONFORM TO THOSE REQUIRED IN ARTICLE 9.9.7.4 AND THE TOTAL OCCUPANT LOAD SERVED BY AN EXIT FACILITY DOES NOT EXCEEED 60 PERSONS.		9.9.8.2 COMPLIANT
	MINIMUM EGRESS WIDTH - OUTSIDE OF DWELLING UNIT		
9.5.5.1. 9.9.3.2.	DOORWAY 610mm (WATER-CLOSET ROOM) EXIT WIDTH 900mm		9.5.5.1. 9.9.3.2.
	HEADROOM CLEARANCE		
9.9.3.4 9.9.6.2.	1) EXITS 2100mm DOORWAYS 2030mm		9.9.3.4. COMPLIANT 9.9.6.2. COMPLIANT
9.9.7. TABLE 9.9.7.4.	ACCESS TO EXITS 1 EGRESS DOOR REQUIRED PER TABLE 9.9.7.4 - GROUP D - MAX. AREA OF FLOOR AREA = 200m² (23.0m²) - MAX. DISTANCE TO EGRESS DOOR = 25m (ACTUAL DISTANCE = 5.2m)		
9.10.2. 9.10.2.1.	MAJOR OCCUPANCY CLASSIFICATION GROUP/DIV. D BUSINESS AND PERSONAL SERVICES OCCUPANCIES OCCUPANT LOAD = 12		9.10.2.1. COMPLIANT
9.10.14/9.10.15 ONE CHART PER BLDG.	SPATIAL SEPARATION & EXPOSURE PROTECTION		

	FACE | OCCUPANCY	LIMIT DISTANCE	AREA (sq.m.)	% OPENING ALLOWED	% OPENING PROVIDED	MIN. WALL F.R.R.(min.)	CONSTRUCTION TYPE	CLADDING TYPE REQUIRED*
BUILDING	FRONT | E						COMB./NON-COMB.	COMB./NON-COMB.
	BACK | E	1.2 m	15.30 m²	100.00%	0.7%(0.52m²)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE A | E	1.2 m	8 m²	100.00%	0.2%(0.26m²)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE B | E	1.2 m	8 m²	100.00%	0.2%(0.26m²)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.

9.10.14.3	LIMITING DISTANCE AND FIRE DEPARTMENT RESPONSE A LIMITED DISTANCE EQUAL TO HALF THE ACTUAL LIMITED DISTANCE SHALL BE USED AS INPUT TO THE REQUIREMENTS OF THIS SUBSECTION, WHERE a) THE TIME FORM RECEIPT OF NOTIFICATION OF A FIRE BY THE FIRE DEPARTMENT UNITL THE FIRST FIRE DEPARTMENT VEHICLE ARRIVES AT THE BUILDING EXCEEDS 10min IN 10% OF MORE OF ALL CALLS TO THE BUILDING; AND b) ANY STOREY IN THE BUILDING IS NOT SPRINKLERED.	9.10.14.3 COMPLIANT
9.36.1.3.(5)	ENERGY EFFICIENCY BUILDING THAT ARE NOT REQUIRED TO BE CONDITIONED SPACES ARE EXEMPTED FROM THE REQUIREMENT PER A-9.36.1.3.(5) FOR SEASONALLY HEATED BUILDINGS.	9.36. COMPLIANT

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil: BRUCE McKENZIE, REGISTERED ARCHITECT, JANUARY 26, 2021, NCCA19-0068, ALBERTA

Eng. Stamp / Sceau de l'ingénieur

Client: Parks Canada Agency, Western and Northern Region / L'Agence Parcs Canada, Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet: CRANDELL CAMPGROUND RECONSTRUCTION PRIVY

Drawing Title / Titre du dessin: BUILDING CODE REVIEW

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M. BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: A00-02-03

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-02-03.DWG PLOTTED: 2021\01\26 4:49 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

PROJECT NAME: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - KITCHEN SHELTER
PROJECT NO.: NCCA19-0068
PREPARED BY: CARA MOLNAR

PART ONE: NATIONAL BUILDING CODE 2015 REVIEW - *PART 9*

REFERENCE & NOTE	REQUIRED	CODE ARTICLE	COMPLIANCE
CODE CLAUSE	**BUILDING CODE REVIEW:**		
	REVIEW BASED ON 2015 NATIONAL BUILDING CODE - THE FOLLOWING NOTES PROVIDE INFORMATION HIGHLIGHTING BUILDING DESIGN CRITERIA. IT IS NOT INTENDED TO DESCRIBE ALL DESIGN & CONSTRUCTION REQUIREMENT. ALL CONSTRUCTION SHALL CONFIRM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE.		
DIV. A - 1.3.3.3 (1) A-9.1.1.1.(1)	- CONSTRUCTED UNDER PART "9" OF BUILDING CODE - APPLICATION OF PART 9 TO SEASONALLY AND INTERMITTENTLY OCCUPIED BUILDINGS - THERMAL INSULATION: NO SPACE HEATING APPLIANCES BEING INSTALLED - AIR BARRIER AND VAPOUR BARRIERS: DWELLING WITH NO HEATING SYSTEM EXEMPT FROM REQUIREMENT - PLUMBING AND ELECTRICAL FACILITIES: PLUMBING REQUIRED ONLY WHERE A PIPED WATER SUPPLY IS AVAILABLE, AND ELECTRICAL FACILITIES ONLY WHERE ELECTRICAL SERVICES ARE AVAILABLE.		
	GENERAL INFORMATION		
DIV. A - 1.3.3.3 (1)	BUILDING AREA: *63.27 m^2 (MAX. INDIVIDUAL BUILDING AREA FOR THE SITE NOT EXCEEDING 600 sq.m.)* BUILDING HEIGHT: 1 STOREY ABOVE GRADE *(MAX. 3 STOREYS ABOVE GRADE)*		COMPLIANT
	PROVISIONS FOR FIRE FIGHTING NOT IN SCOPE - REFER TO CIVIL		
9.5.2.	BARRIER-FREE DESIGN		
9.5.2.1.	GENERAL 1) THE APPLICATION OF THIS PART SHALL BE AS DESCRIBED IN SUBSECTION 1.3.3. OF DIVISION A. (See note A 9.1.1.1.(1) REGARDING APPLICATION TO SEASONALLY AND INTERMITTENLY OCCUPIED BUILDINGS.)		9.5.2.1. COMPLIANT
9.9.	MEANS OF EGRESS		
9.9.1.	GENERAL		
9.9.1.3.	OCCUPANT LOAD 1) EXCEPT FOR DWELLING UNITS, THE OCCUPANT LOAD OF A FLOOR AREA OR PART OF A FLOOR AREA SHALL BE THE NUMBER OF PERSONS FOR WHICH SUCH AREAS ARE DESIGNED, BUT NOT FEWER THAN THAT DETERMINED FROM TABLE 3.1.17.1., UNLESS IT CAN BE SHOWN THAT THE AREA WILL BE OCCUPIED BY FEWER PERSONS.		9.9.1.3. COMPLIANT
9.9.3.	DIMENSIONS OF MEANS OF EGRESS		
9.9.3.1.	APPLICATION 1) THIS SUBSECTION APPLIES TO EVERY MEANS OF EGRESS EXCEPT a) EXITS THAT SERVE NOT MORE THAN ONE DWELLING UNIT OR A HOUSE WITH A SECONDARY SUITE INCLUDING THEIR Common SPACES, AND b) ACCESS TO EXITS WITHIN DWELLING UNITS AND WITHIN HOUSES WITH A SECONDARY SUITE INCLUDING THEIR COMMON SPACES.		9.9.3.1. COMPLIANT
9.9.3.2.	EXIT WIDTH 1) EXCEPT FOR DOORS AND CORRIDORS, THE WIDTH OF EVERY EXIT FACILITY SHALL BE NOT LESS THAN 900 mm.		9.9.3.2. COMPLIANT
9.9.8	EXITS FROM FLOOR AREAS		
9.9.8.2	NUMBER OF REQUIRED EXITS 2) A SINGLE EXCIT IS PERMITTED FROM EACH STOREY BUILDINGS OF 1 AND 2 STOREYS IN BUILDING HEIGHT PROVIDED THE FLOOR AREA AND TRAVEL DISTANCE REQUIREMENTS CONFORM TO THOSE REQUIRED IN ARTICLE 9.9.7.4 AND THE TOTAL OCCUPANT LOAD SERVED BY AN EXIT FACILITY DOES NOT EXCEEED 60 PERSONS.		9.9.8.2 COMPLIANT
9.9.11.	SIGNS		
9.9.11.1.	APPLICATION 1) THIS SUBSECTION APPLIES TO ALL EXITS EXCEPT THOSE SERVING NOT MORE THAN ONE DWELLING UNIT OR A HOUSE WITH A SECONDARY SUITE.		9.9.11.1. COMPLIANT
9.9.11.2.	VISIBILITY OF EXITS 1) EXITS SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE OR THEIR LOCATIONS SHALL BE CLEARLY INDICATED. 2) WHERE AN EXIT DOOR LEADING DIRECTLY TO THE OUTSIDE IS SUBJECT TO BEING OBSTRUCTED BY PARKED VEHICLES OR STORAGE BECAUSE OF ITS LOCATION, A VISIBLE SIGN OR A PHYSICAL BARRIER PROHIBITING SUCH OBSTRUCTIONS SHALL BE INSTALLED ON THE EXTERIOR SIDE OF THE DOOR.		9.9.11.2
	MINIMUM EGRESS WIDTH - OUTSIDE OF DWELLING UNIT		
9.5.5.1.	DOORWAY 760mm		9.5.5.1. COMPLIANT
9.9.3.2.	EXIT WIDTH 900mm		9.9.3.2.COMPLIANT
	HEADROOM CLEARANCE		
9.9.3.4	1) EXITS 2100mm		9.9.3.4.COMPLIANT
9.9.6.2.	DOORWAYS 2030mm		9.9.6.2.COMPLIANT
9.9.7.	ACCESS TO EXITS		
TABLE 9.9.7.4.	1 EGRESS DOOR REQUIRED PER TABLE 9.9.7.4 - GROUP D - MAX. AREA OF FLOOR AREA = 200m2 (ACTUAL AREA = 57.77m2) - MAX. DISTANCE TO EGRESS DOOR = 25m (ACTUAL DISTANCE = 8.20m)		COMPLIANT
9.10.2.	MAJOR OCCUPANCY CLASSIFICATION		
9.10.2.1.	GROUP/DIV. D BUSINESS AND PERSONAL SERVICES OCCUPANCIES		9.10.2.1.COMPLIANT
TABLE 3.1.17.1	OCCUPANT LOAD GROUP D : BUSINESS AND PERSONAL SERVICE FOR USE PERSONAL SERVICE SHOP : 4.60 m2/PERSON OCCUPANCY LOAD : 12.5		COMPLIANT
9.10.14/9.10.15 ONE CHART PER BLDG.	SPATIAL SEPARATION & EXPOSURE PROTECTION		COMPLIANT

BUILDING	FACE | OCCUPANCY	LIMIT DISTANCE	AREA (sq.m.)	% OPENING ALLOWED	% OPENING PROVIDED	MIN. WALL F.R.R.(min.)	CONSTRUCTION TYPE	CLADDING TYPE REQUIRED*
	FRONT|E	>6.0	25.33m^2	88.00%	66.7%(16.9m^2)	45min.	COMB./NON-COMB.	COMB./NON-COMB.
	BACK|E	4.0 m	25.33m^2	100.00%	31.6%(4.0m^2)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE A|E	6.0m	20.40m^2	100.00%	19.6%(4.5m^2)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE B|E	>8.0m	20.40m^2	100.00%	19.6%(4.5m^2)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.

9.10.14.3	LIMITING DISTANCE AND FIRE DEPARTMENT RESPONSE A LIMITED DISTANCE EQUAL TO HALF THE ACTUAL LIMITED DISTANCE SHALL BE USED AS INPUT TO THE REQUIREMENTS OF THIS SUBSECTION, WHERE a) THE TIME FORM RECEIPT OF NOTIFICATION OF A FIRE BY THE FIRE DEPARTMENT UNITL THE FIRST FIRE DEPARTMENT VEHICLE ARRIVES AT THE BUILDING EXCEEDS 10min IN 10% OF MORE OF ALL CALLS TO THE BUILDING; AND b) ANY STOREY IN THE BUILDING IS NOT SPRINKLERED.		9.10.14.3 COMPLIANT
9.13.4.2	PROTECTION FROM SOIL GAS INGRESS A-9.13.4.2.(3) - NOT APPLY TO BUILDINGS OR PORTIONS OF BUILDINGS THAT ARE INTENDED TO BE OCCUPIED FOR LESS THAN 4 HOURS A DAY		9.13.4.2 COMPLIANT
9.36.1.3.(5)	ENERGY EFFICIENCY BUILDING THAT ARE NOT REQUIRED TO BE CONDITIONED SPACES ARE EXEMPTED FROM THE REQUIREMENT PER A-9.36.1.3.(5) FOR SEASONALLY HEATED BUILDINGS.		9.36. COMPLIANT

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 NCCA19-0068 ALBERTA

Eng. Stamp / Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION
3 SIDED KITCHEN_WINTER KITCHEN

Drawing Title / Titre du dessin

BUILDING CODE REVIEW

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: A00-02-04

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VM\NP500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-02-04.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

PROJECT NAME: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - WASHROOM
PROJECT NO.: NCCA19-0068
PREPARED BY: CARA MOLNAR

PART ONE: NATIONAL BUILDING CODE 2015 REVIEW - *PART 9*

REFERENCE & NOTE	REQUIRED	CODE ARTICLE	COMPLIANCE
CODE CLAUSE	**BUILDING CODE REVIEW:**		
	REVIEW BASED ON 2015 NATIONAL BUILDING CODE - THE FOLLOWING NOTES PROVIDE INFORMATION HIGHLIGHTING BUILDING DESIGN CRITERIA. IT IS NOT INTENDED TO DESCRIBE ALL DESIGN & CONSTRUCTION REQUIREMENT. ALL CONSTRUCTION SHALL CONFIRM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE.		
DIV. A - 1.3.3.3 (1)	- CONSTRUCTED UNDER PART "9" OF BUILDING CODE		
A-9.1.1.1.(1)	- APPLICATION OF PART 9 TO SEASONALLY AND INTERMITTENTLY OCCUPIED BUILDINGS		
	GENERAL INFORMATION		
DIV. A - 1.3.3.3 (1)	BUILDING AREA: *63.90m²* BUILDING HEIGHT: 1 STOREY ABOVE GRADE		
	PROVISIONS FOR FIRE FIGHTING NOT IN SCOPE - REFER TO CIVIL		
9.5.2.	BARRIER-FREE DESIGN		
9.5.2.1.	GENERAL 1) BUILDING DESIGNED IN CONFORMANCE WITH SECTION 3.8 REFER TO: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - SCHEMATIC DESIGN REPORT ACCESSIBILITY REVIEW - OCTOBER 2019		9.5.2.1. COMPLIANT
9.9.1.	GENERAL		
9.9.1.3.	OCCUPANT LOAD 1) EXCEPT FOR DWELLING UNITS, THE OCCUPANT LOAD OF A FLOOR AREA OR PART OF A FLOOR AREA SHALL BE THE NUMBER OF PERSONS FOR WHICH SUCH AREAS ARE DESIGNED, BUT NOT FEWER THAN THAT DETERMINED FROM TABLE 3.1.17.1., UNLESS IT CAN BE SHOWN THAT THE AREA WILL BE OCCUPIED BY FEWER PERSONS.		9.9.1.3. COMPLIANT
9.9.3.	DIMENSIONS OF MEANS OF EGRESS		
9.9.3.1.	APPLICATION 1) THIS SUBSECTION APPLIES TO EVERY MEANS OF EGRESS EXCEPT a) EXITS THAT SERVE NOT MORE THAN ONE DWELLING UNIT OR A HOUSE WITH A SECONDARY SUITE INCLUDING THEIR Common SPACES, AND b) ACCESS TO EXITS WITHIN DWELLING UNITS AND WITHIN HOUSES WITH A SECONDARY SUITE INCLUDING THEIR COMMON SPACES.		9.9.3.1. COMPLIANT
9.9.3.2.	EXIT WIDTH 1) EXCEPT FOR DOORS AND CORRIDORS, THE WIDTH OF EVERY EXIT FACILITY SHALL BE NOT LESS THAN 900 mm.		9.9.3.2. COMPLIANT
9.9.8	EXITS FROM FLOOR AREAS		
9.9.8.2	NUMBER OF REQUIRED EXITS 2) A SINGLE EXCIT IS PERMITTED FROM EACH STOREY BUILDINGS OF 1 AND 2 STOREYS IN BUILDING HEIGHT PROVIDED THE FLOOR AREA AND TRAVEL DISTANCE REQUIREMENTS CONFORM TO THOSE REQUIRED IN ARTICLE 9.9.7.4 AND THE TOTAL OCCUPANT LOAD SERVED BY AN EXIT FACILITY DOES NOT EXCEEED 60 PERSONS.		9.9.8.2 COMPLIANT
9.9.11.	SIGNS		
9.9.11.1.	APPLICATION 1) THIS SUBSECTION APPLIES TO ALL EXITS EXCEPT THOSE SERVING NOT MORE THAN ONE DWELLING UNIT OR A HOUSE WITH A SECONDARY SUITE.		9.9.11.1. COMPLIANT
9.9.11.2.	VISIBILITY OF EXITS 2) WHERE AN EXIT DOOR LEADING DIRECTLY TO THE OUTSIDE IS SUBJECT TO BEING OBSTRUCTED BY PARKED VEHICLES OR STORAGE BECAUSE OF ITS LOCATION, A VISIBLE SIGN OR A PHYSICAL BARRIER PROHIBITING SUCH OBSTRUCTIONS SHALL BE INSTALLED ON THE EXTERIOR SIDE OF THE DOOR.		9.9.11.2 COMPLIANT
9.9.6.5.	EVERY REQUIRED EXIT DOOR IS TO SWING OPEN, ON A VERTICAL AXIS, IN THE DIRECTION OF TRAVEL EXIT.		COMPLIANT
9.9.11.2.	REQUIRED EXITS ARE TO BE LOCATED SO THEY ARE CLEARLY VISIBLE, OR THEIR LOCATIONS ARE TO BE CLEARLY INDICATED.		COMPLIANT
9.9.12.3.	UNLESS IT CAN BE SHOWN TO BE UNNECESSARY, EMERGENCY LIGHTING IS TO BE PROVIDED TO ILLUMINATEALL REQUIRED EXITS AND THE PATH OF TRAVEL TO EACH OF THE EXITS.		COMPLIANT
	MINIMUM EGRESS WIDTH - OUTSIDE OF DWELLING UNIT		
9.5.5.1.	DOORWAY 610mm (WATER-CLOSET ROOM), 760mm (JANITOR)		9.5.5.1.COMPLIANT
9.9.3.2.	EXIT WIDTH 900mm		9.9.3.2.COMPLIANT
	HEADROOM CLEARANCE		
9.9.3.4	1) EXITS 2100mm		9.9.3.4.COMPLIANT
9.9.6.2.	DOORWAYS 2030mm		9.9.6.2.COMPLIANT
9.9.7.	ACCESS TO EXITS		
TABLE 9.9.7.4.	1 EGRESS DOOR REQUIRED PER TABLE 9.9.7.4 - GROUP D - MAX. AREA OF FLOOR AREA = 200m2 (MECH. SPACE/JANITOR 14m²) - MAX. DISTANCE TO EGRESS DOOR = 25m (ACTUAL DISTANCE = 8.20m)		COMPLIANT
9.10.2.	MAJOR OCCUPANCY CLASSIFICATION		
9.10.2.1.	GROUP/DIV. D BUSINESS AND PERSONAL SERVICES OCCUPANCIES		9.10.2.1.COMPLIANT
TABLE 3.1.17.1	OCCUPANT LOAD GROUP D : BUSINESS AND PERSONAL SERVICE FOR USE PERSONAL SERVICE SHOP : 4.60 m2/PERSON OCCUPANCY LOAD : 13.8		COMPLIANT

9.10.14/9.10.15 SPATIAL SEPARATION & EXPOSURE PROTECTION — COMPLIANT

ONE CHART PER BLDG.

BUILDING	FACE | OCCUPANCY	LIMIT DISTANCE	AREA (sq.m.)	% OPENING ALLOWED	% OPENING PROVIDED	MIN. WALL F.R.R.(min.)	CONSTRUCTION TYPE	CLADDING TYPE REQUIRED*
	FRONT | E	6.0m	23.81m²	100.00%	3.2%(1.35m²)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	BACK | E	>8.0m	23.81m²	100.00%	2.3%(0.54m²)	0.0HR	COMB./NON-COMB.	COMB./NON-COMB.
	SIDE A | E	--	--	--	--	--		
	SIDE B | E	--	--	--	--	--		

REFERENCE & NOTE	REQUIRED	COMPLIANCE
9.10.14.3	LIMITING DISTANCE AND FIRE DEPARTMENT RESPONSE A LIMITED DISTANCE EQUAL TO HALF THE ACTUAL LIMITED DISTANCE SHALL BE USED AS INPUT TO THE REQUIREMENTS OF THIS SUBSECTION, WHERE a) THE TIME FORM RECEIPT OF NOTIFICATION OF A FIRE BY THE FIRE DEPARTMENT UNITL THE FIRST FIRE DEPARTMENT VEHICLE ARRIVES AT THE BUILDING EXCEEDS 10min IN 10% OF MORE OF ALL CALLS TO THE BUILDING; AND b) ANY STOREY IN THE BUILDING IS NOT SPRINKLERED.	9.10.14.3 COMPLIANT
9.13.4.2	PROTECTION FROM SOIL GAS INGRESS A-9.13.4.2.(3) - NOT APPLY TO BUILDINGS OR PORTIONS OF BUILDINGS THAT ARE INTENDED TO BE OCCUPIED FOR LESS THAN 4 HOURS A DAY	9.13.4.2 COMPLIANT
9.36.1.3.(5)	ENERGY EFFICIENCY BUILDING THAT ARE NOT REQUIRED TO BE CONDITIONED SPACES ARE EXEMPTED FROM THE REQUIREMENT PER A-9.36.1.3.(5) FOR SEASONALLY HEATED BUILDINGS.	9.36. COMPLIANT

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil: BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 NCCA19-0068 ALBERTA

Eng. Stamp / Sceau de l'ingénieur

Client: Parks Canada Agency, Western and Northern Region / L'Agence Parcs Canada, Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet: CRANDELL CAMPGROUND RECONSTRUCTION WASHROOMS

Drawing Title / Titre du dessin: BUILDING CODE REVIEW

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: A00-02-06

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-02-06.DWG PLOTTED: 2021\01\26 4:50 PM

Paper Size: ANSI D (22 x 34")

PROJECT NAME: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - AMPHITHEATRE
PROJECT NO.: NCCA19-0068
DATE: 5/29/2020
PREPARED BY: ANASTASIA GODEK

PART ONE: NATIONAL BUILDING CODE 2015 REVIEW - *PART 3*

REFERENCE & NOTE	REQUIRED	CODE ARTICLE	COMPLIANCE
CODE CLAUSE	**BUILDING CODE REVIEW:**		
	REVIEW BASED ON 2015 NATIONAL BUILDING CODE - THE FOLLOWING NOTES PROVIDE INFORMATION HIGHLIGHTING BUILDING DESIGN CRITERIA. IT IS NOT INTENDED TO DESCRIBE ALL DESIGN & CONSTRUCTION REQUIREMENT. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE BUILDING CODE.		
DIV. A - 1.3.3.	- CONSTRUCTED UNDER PART "3" OF BUILDING CODE - APPLICATION OF PART 3 TO ASSEMBLY OCCUPANCY AND OUTDOOR PLACES OF ASSEMBLY		DIV. A - 1.3.3. COMPLIANT
DIV. A - 1.3.3.3 (1)	GENERAL INFORMATION GROUP A, DIVISION 4- AUDITORIUM BUILDING AREA: 64.50 m^2 PODIUM AREA: 35.90m^2 SEATING AREA: 124.9m^2 BUILDING HEIGHT: 1 STOREY ABOVE GRADE		DIV. A - 1.3.3.3 (1) COMPLIANT
3.1.17	OCCUPANT LOAD BUILDING AREA - 67 (64.50sq.m./.95 PER PERSON-SPACES WITH NON FIXED SEATS AND TABLES) OUTDOOR SEATING AREA - 105 FIXED SEATS OUTDOOR PODIUM AREA- 41 (30.4sq.m./ 0.75 PER PERSON) 1)THE OCCUPANT LOAD OF A FLOOR AREA OR PART OF A FLOOR AREA SHALL BE BASED ON a) THE NUMBER OF SEATS IN AN ASSEMBLY OCCUPANCY HAVING FIXED SEATS.		TABLE 3.1.17.1 DIV. A - 1.3.3.3 (1) COMPLIANT
	SIZE AND CONSTRUCTION RELATIVE TO OCCUPANCY GROUP A, DIVISION 4, ONE STOREY 1) THE BUILDING IS PERMITTED BY SENTENCES (2) AND (3) TO BE OF NONCOMBUSTIBLE CONSTRUCTION 2) ROOF ASSEMBLIESAND SUPPORTINGARCHESAND COLUMNSARE PERMITTED TO BE OF HEAVY TIMBER CONSTRUCTION		3.2.2.35. COMPLIANT
	PROVISIONS FOR FIRE FIGHTING NOT IN SCOPE - REFER TO CIVIL		
	SPATIAL SEPARATION & EXPOSURE PROTECTION		TABLE 3.2.3.1.-B TABLE 3.2.3.7.

FACE|OCCUPANCY	LIMIT DISTANCE	AREA (sq.m.)	% OPENING ALLOWED	% OPENING PROVIDED	MIN. WALL F.R.R.(min.)	CONSTRUCTION TYPE	CLADDING TYPE REQUIRED*
FRONT|FA4	>8.0m	36.60m^2	100.00%	0.00%	0min.	COMB./NON-COMB.	COMB./NON-COMB.
BACK|A4	>9.0m	62.00m^2	100.00%	0.00%	0min.	COMB./NON-COMB.	COMB./NON-COMB.
SIDE A|A4	>6.0m	21.00m^2	100.00%	0.00%	0min.	COMB./NON-COMB.	COMB./NON-COMB.
SIDE B|A4	>6.0m	21.00m^2	100.00%	0.00%	0min.	COMB./NON-COMB.	COMB./NON-COMB.

3.3.1.5	EGRESS DOORWAYS 1) MINIMUM 2 EGRESS DOORWAYS GROUP A - NON SPINKLERED THROUGHOUT - MAXIMUM DISTANCE TO EGRESS DOORWAY, 15m	3.3.1.5 TABLE 3.3.1.5.-A
3.3.1.9	CORRIDORS 1) MINIMUM WIDTH PUBLIC CORRIDOR 1100mm	COMPLIANT 3.3.1.9 COMPLIANT
3.4.3.2.	EXIT WIDTH CORRIDOR MIN. 1100mm DOORWAYS MIN. 800mm STAIRS MIN. 900mm RAMPS MIN. 1100mm	TABLE 3.4.3.2.-A COMPLIANT
3.4.3.4.	HEADROOM CLEARANCE EXITS (STAIRS AND LANDING) MIN. 2050mm DOORWAYS MIN. 2030mm	3.4.3.4. COMPLIANT
3.3.2.8	FIXED BENCH TYPES WITH SEATS 1) SEAT AREA PER PERSON 450 mm 2) SPACE BETWEEN ROWS OF BENCH SAET WITH BACK REST : 760 mm 3) CLEAR SPACE BETWEEN BACK OF SEAT AND THE FRONT OF THE SEAT BEHIND IT SHALL BE 300 mm MIN	3.3.2.8 3.3.2.8 3.3.2.8 COMPLIANT

3.3.2.5	AISLE 11)THE RISER OF A STEP IN AN AISLE SHALL BE : a) NOT LESS THAN 110 mm HIGH b) NOT MORE THAN 200 mm HIGH	3.3.2.5 3.3.2.5 3.3.2.5 COMPLIANT
3.3.2.10	HANDRAILS IN AISLES WITH STEPS 1) HANDRAILS SHALL BE PROVIDED IN ASILES WITH STEPS IN CONFORMANCE WITH TABLE 3.3.2.10 AISLE WIDTH LESS THAN 1100mm, AISLE SERVING SEATING ON ONE SIDE - CONTINUOUS HANDRAIL LOCATED ON THE SIDE OF THE AISLE OPPOSITE THE SEATS AISLE WIDTH GREATER THAN 1100mm, AISLE SERVING SEATING ON BOTH SIDES - A CENTRE LINE HANDRAIL THAT CONFORMS TO 3.3.2.10 (2)	TABLE 3.3.2.10 COMPLIANT
3.3.2.11	OUTDOOR PLACES OF ASSEMBLY 3) EXITS FROM OUTDOOR STADIA OR GRANDSTAND SHALL BE LOCATED NOT MORE THAN 25m APART 5) AISLES IN A GROUP A, DIVISION 4, OCCUPANCY SHALL: a) NOT MORE THAN 20 SEATS BETWEEN ANY SEAT AND THE NEAREST AISLE b) BE NOT LESS THAN 1200 WIDE, EXCEPT THAT AN AISLE SERVING LESS THAN 60 PERSONS IS PERMITTED TO BE 750mm WIDE.	COMPLIANT 3.3.2.11 3.3.2.10 3.3.2.10 COMPLIANT
3.3.2.12	BLEACHERS 2) IF THE VERTICAL DISTANCE BETWEEN SEATING PLATFORMS WITH BLEACHERS IS MORE THAN 280mm, AN INTERMEDIATE STEP SHALL BE PROVIDED THE FULL WIDTH OF THE AISLE AND PROPORTIONED TO PROVIDE 2 EQUAL RISERS BETWEEN PLATFORMS.	3.3.2.12 COMPLIANT
3.8.1. 3.8.2.1	BARRIER-FREE DESIGN GENERAL 1) BUILDING DESIGNED IN CONFORMANCE WITH SECTION 3.8 REFER TO: CRANDELL MOUNTAIN CAMPGROUND RECONSTRUCTION - SCHEMATIC DESIGN REPORT ACCESSIBILITY REVIEW - OCTOBER 2019	TABLE 3.8.2.3 COMPLIANT
3.8.2.3	DESIGNATED WHEELCHAIR SPACES NUMBER OF FIXED SEATS 101-200: 3 SPACES REQUIRE FOR WHEELCHAIRS.	COMPLIANT 3.8.2.3 COMPLIANT
3.8.3.5	RAMPS 1)a - CLEAR WIDTH NOT LESS THAN 870mm 1)c - LEVEL AREA NOT LESS THAN 1500mm BY 1500mm AT THE TOP AND BOTTOM AND AT INTERMEDIATE LEVELS OF A RAMP LEADING TO A DOOR 1)e - HANDRAILS CONFORMING TO 3.4.6.5 2) RAMPS AND LANDINGS NOT A GRADE OR ADJACENT TO A WALL SHALL HAVE EDGE PROTECTION CONSISTING OF a) CURB NOT LESS THAN 75mm HIGH, OR b) RAISED BARRIER OR TAIL LOCATED NOT MORE THAN 100mm FROM THE RAMP OR LANDING SURFACE.	3.8.3.5

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 NCCA19-0068 ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

BUILDING CODE REVIEW

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

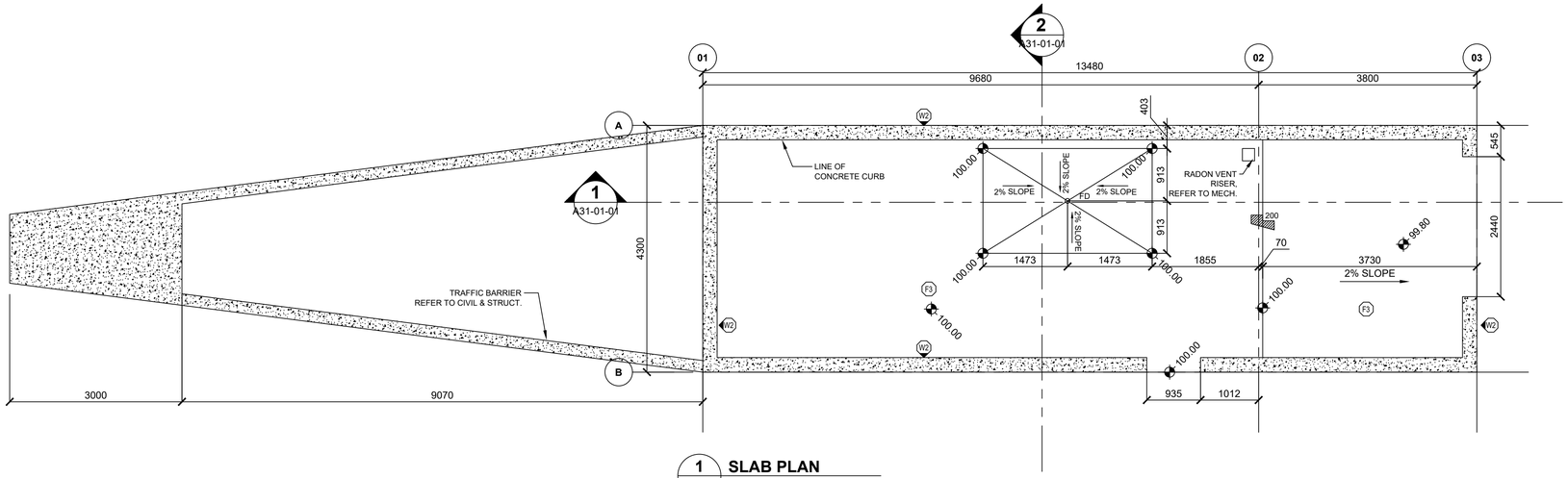
Sheet No. / No. de la feuille: A00-02-07

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\MP500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A00-02-07.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SLAB PLAN

SCALE 1:50

TRUE NORTH

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/AG	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/MC	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A: detail number / numéro de detail; B: source drawing no. / de dessin no.; C: detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PCA19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION GATE HOUSE

Drawing Title
Titre du dessin

SLAB PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

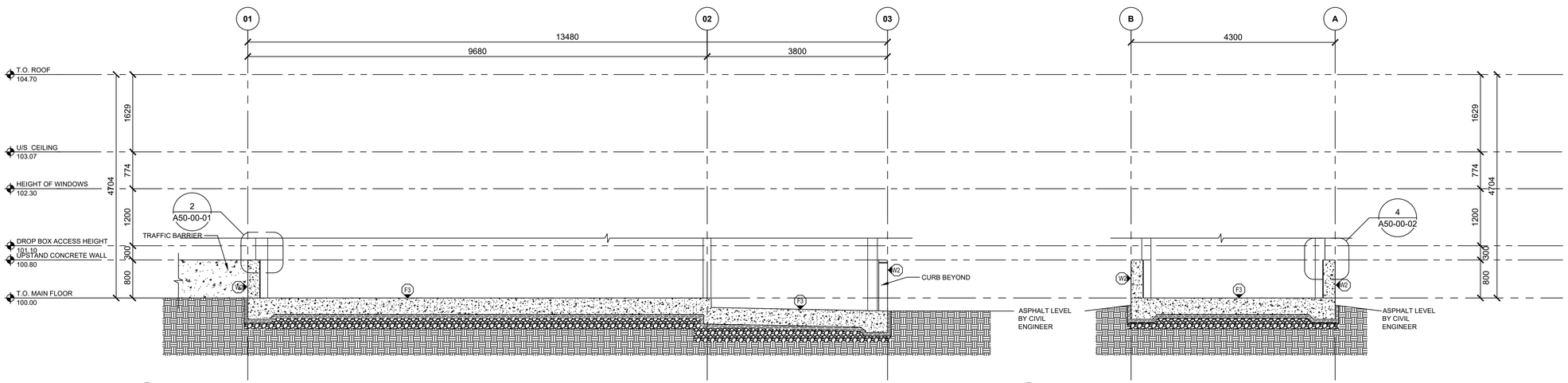
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A20-01-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP500\DELIV\ARCH_PROD\SHEETS\GATE HOUSE\2019-11-15_99% OPTION WOOD\A20\01-01_PH1.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **SECTION A**
SCALE 1:50

2 **SECTION B**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	201911108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.
A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PERMIT-19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION GATE HOUSE

Drawing Title
Titre du dessin

SECTION A
SECTION B

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

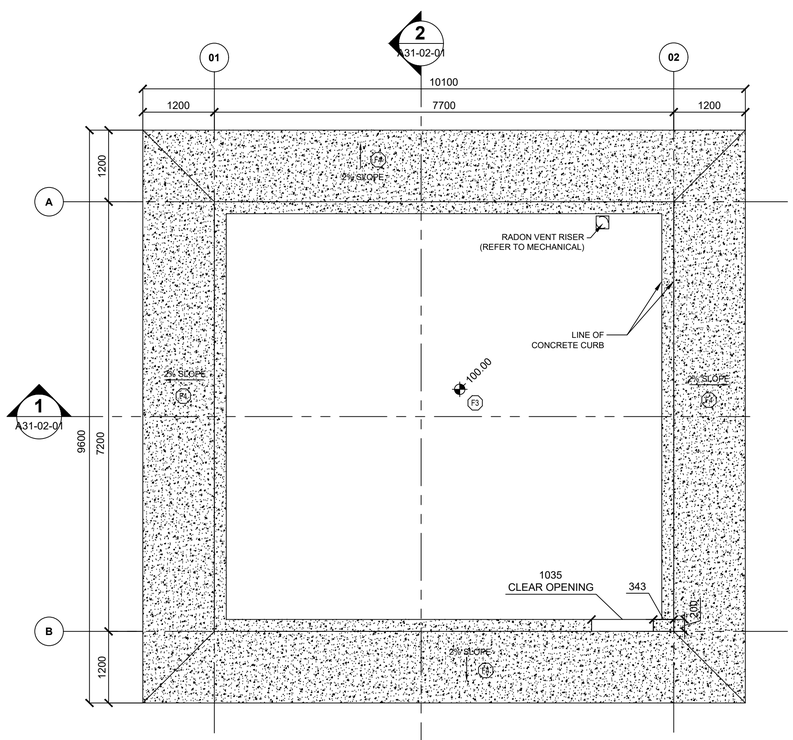
Sheet No. / No. de la feuille: A31-01-01

Drawing Reference No. / No. de réference du dessin

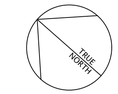
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP500\DELIV\ARCH_PROD\SHEETS\GATE HOUSE\2019-11-15_99% OPTION WOOD\A31-01-01_PH1.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SLAB PLAN
SCALE 1:50



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/AG	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
CONCESSION

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

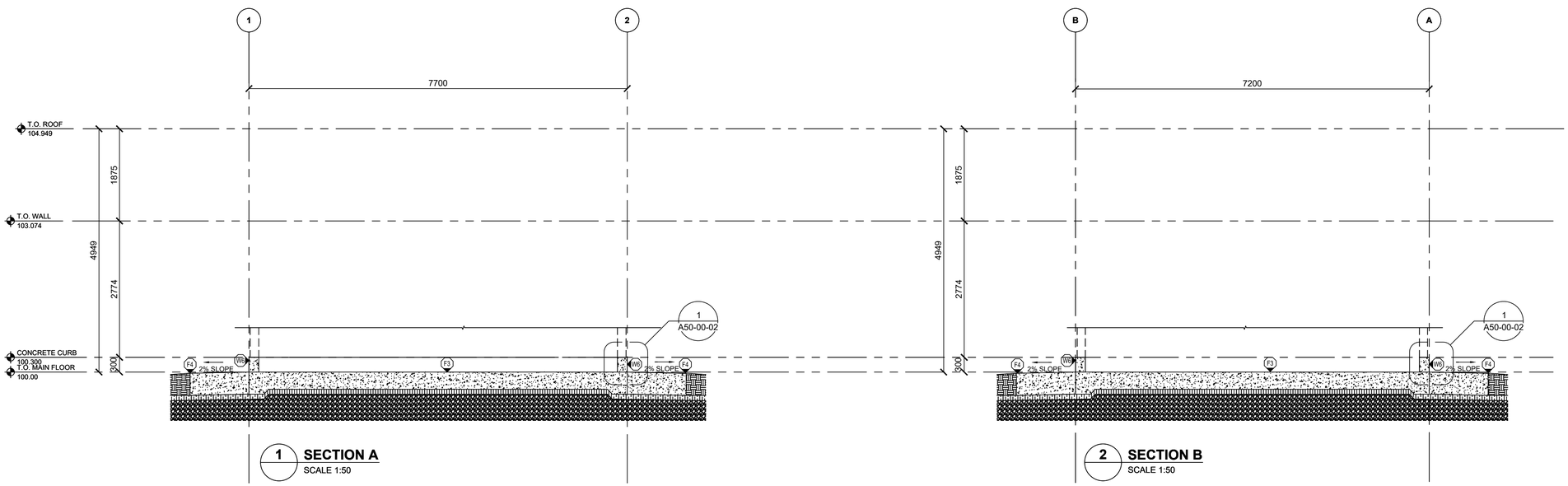
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A20-02-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELV\ARCH_PROD\SHEETS\CONCESSION BUILDING\2019-11-15_98% OPTION WOOD\A20-02-01_PH1.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **SECTION A**
SCALE 1:50

2 **SECTION B**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
CONCESSION

Drawing Title
Titre du dessin

SECTION A
SECTION B

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

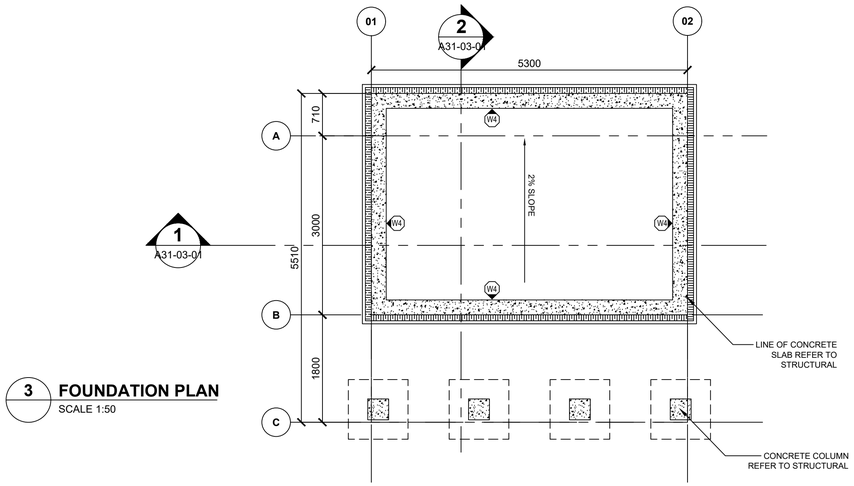
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A31-02-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\ARCH_PROD\SHEETS\CONCESSION BUILDING\2019-11-15_98% OPTION WOOD\A31-02-01_PH1.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



3 **FOUNDATION PLAN**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PCA19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION PRIVY

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

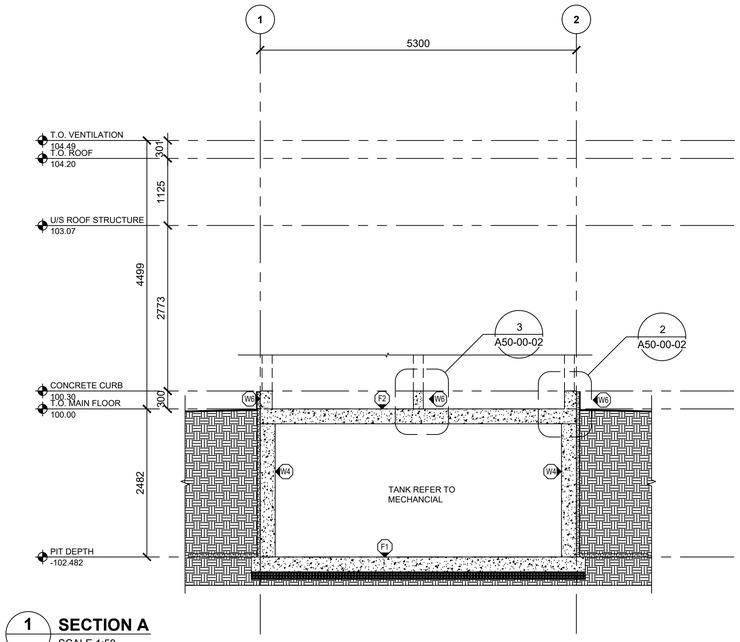
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		A20-03-01

Drawing Reference No. / No. de réference du dessin

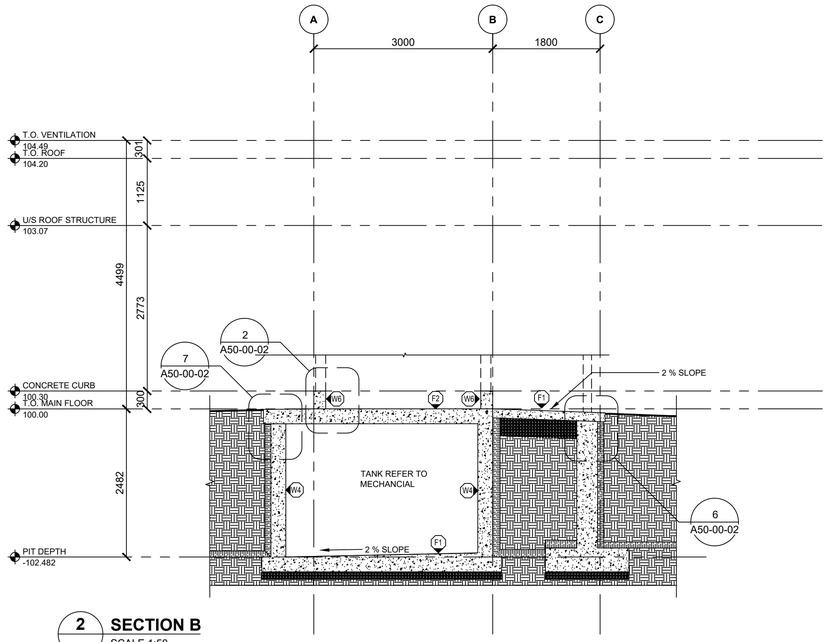
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500-DELIV\ARCH_PROD\SHEETS\PRIVY\2019-11-15_99% OPTION WOOD\A20-03-01_PH1.DWG PLOTTED: 2021/01/25 4:50 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SECTION A
SCALE 1:50



2 SECTION B
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
EGBA19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
PRIVY

Drawing Title
Titre du dessin

SECTION A
SECTION B
INTERIOR ELEVATIONS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

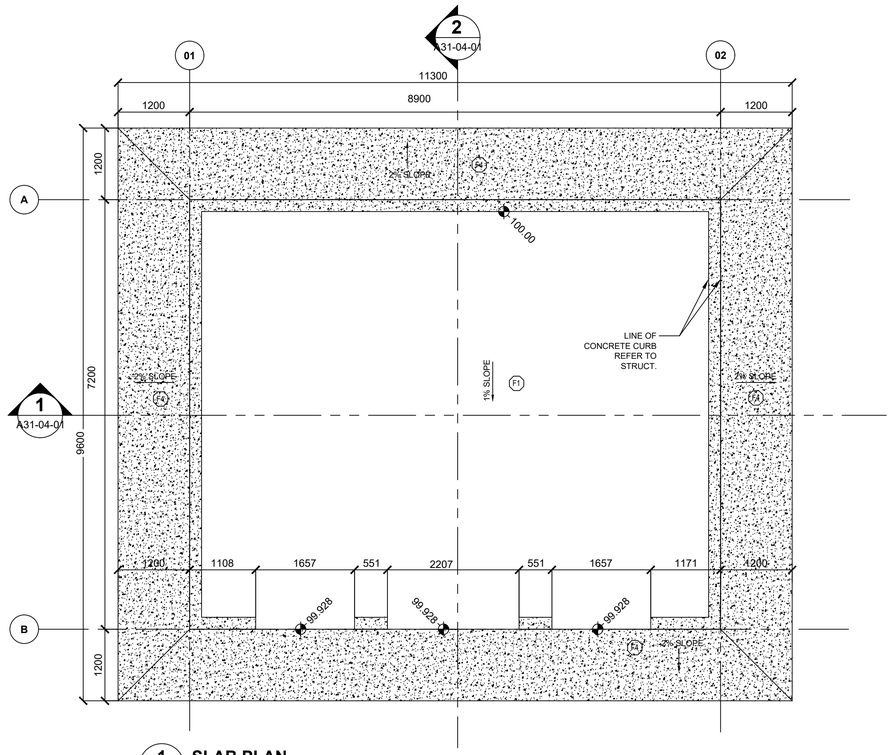
Sheet No. / No. de la feuille: A31-03-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VILNP\500-DELIV\ARCH_PROD\SHEETS\PRIVY\2019-11-15_99% OPTION WOOD\A31-03-01_PH1.DWG PLOTTED: 2021\01\25-4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SLAB PLAN

SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION THREE SIDED KITCHEN SHELTER

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

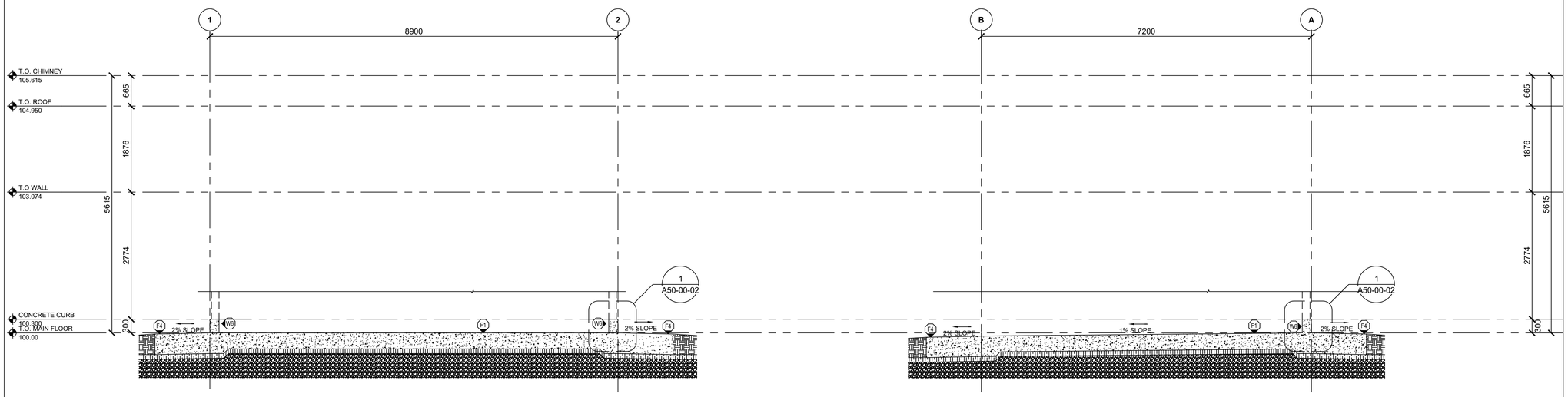
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A20-04-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0088 - PCA CRANDELL CAMPGROUND WLMP\500-DELIV\ARCH PROD\SHEETS\3 SIDED KITCHEN SHELTER\2019-11-15 99% OPTION WOOD\A20-04-01 PH1.DWG PLOTTED: 2021\01\26 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **SECTION A**
SCALE 1:50

2 **SECTION B**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT ALBERTA
JANUARY 26, 2021
Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION THREE SIDED KITCHEN SHELTER

Drawing Title
Titre du dessin

BUILDING SECTIONS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

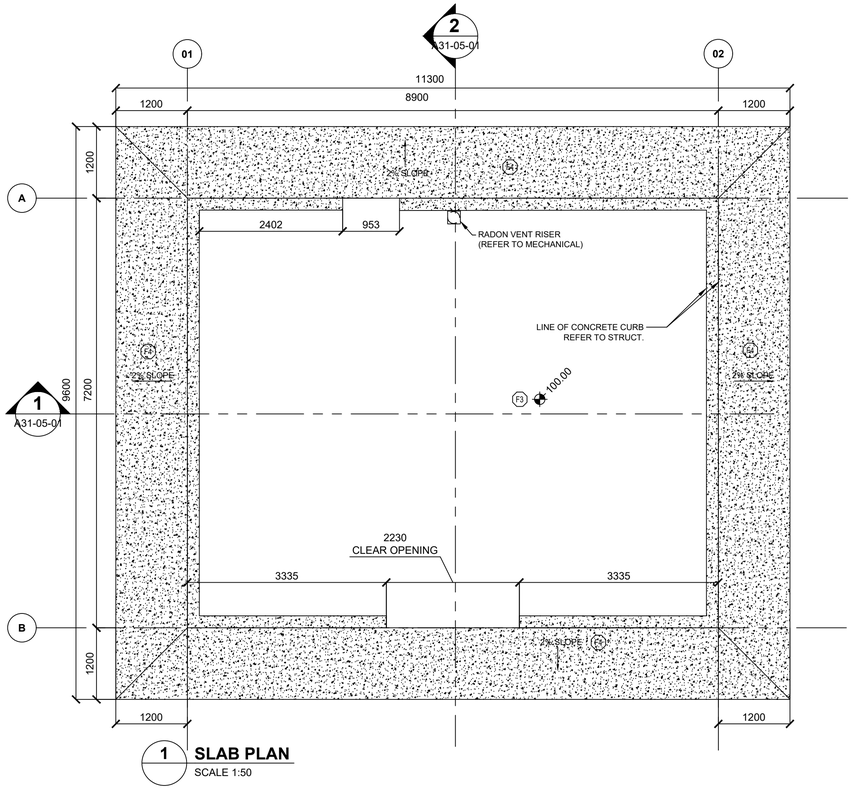
Sheet No.
No. de la feuille: A31-04-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\ARCH_PROD\SHEETS\3 SIDED_KITCHEN SHELTER\2019-11-15_99% OPTION WOOD\A31-04-01_PH1.DWG PLOTTED: 2021\01\25 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **SLAB PLAN**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION WINTER KITCHEN SHELTER

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

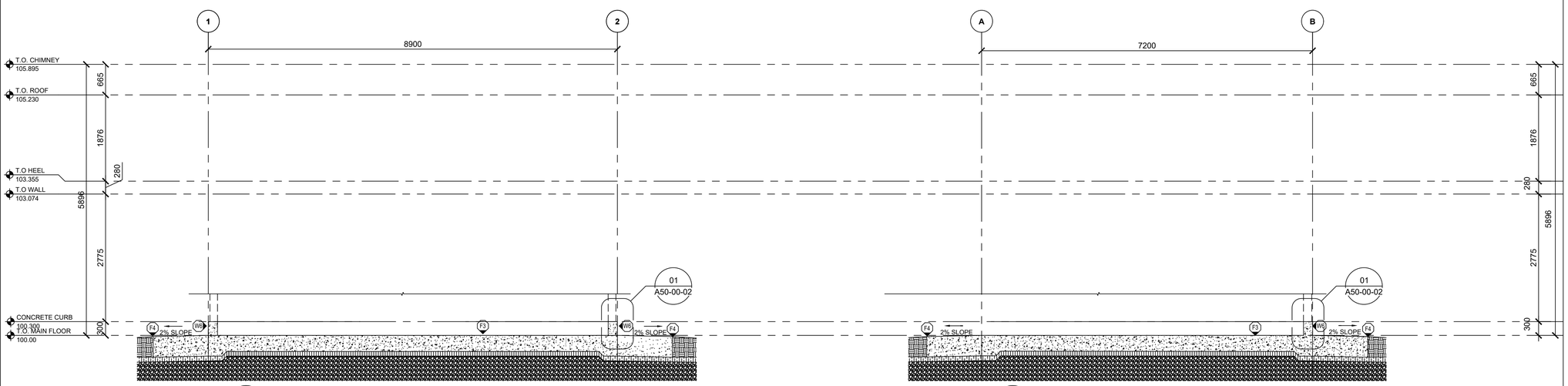
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A20-05-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\ARCH_PROD\SHEETS\WINTER KITCHEN SHELTER\2019-11-15_98% OPTION WOOD\A20-05-01_PH1.DWG PLOTTED: 2021\01\26 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SECTION A
SCALE 1:50

2 SECTION B
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A: detail number / numéro de detail; B: source drawing no. / de dessin no.; C: detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PCA19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION WINTER KITCHEN SHELTER

Drawing Title
Titre du dessin

BUILDING SECTIONS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

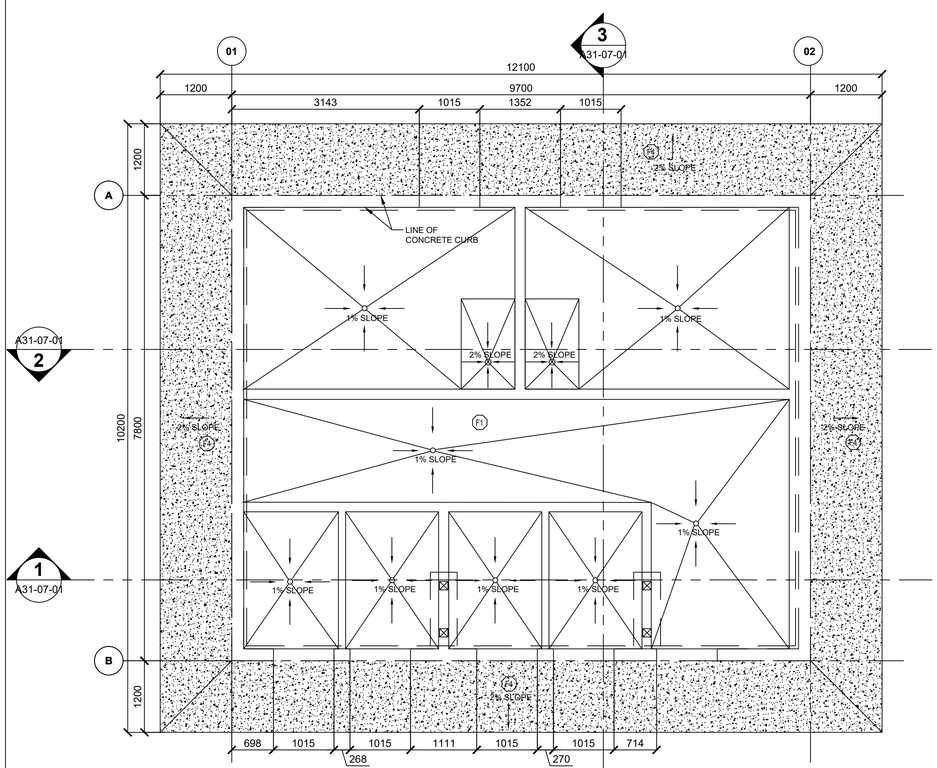
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		A31-05-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLMP\500-DELIV\ARCH_PROD\SHEETS\WINTER KITCHEN SHELTER\2019-11-15_99%_OPTION WOOD\A31-05-01_PH1.DWG PLOTTED: 2021\01\26 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **FOUNDATION PLAN**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95 % REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PCA19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
WASHROOMS

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
no field needed for this one	no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada

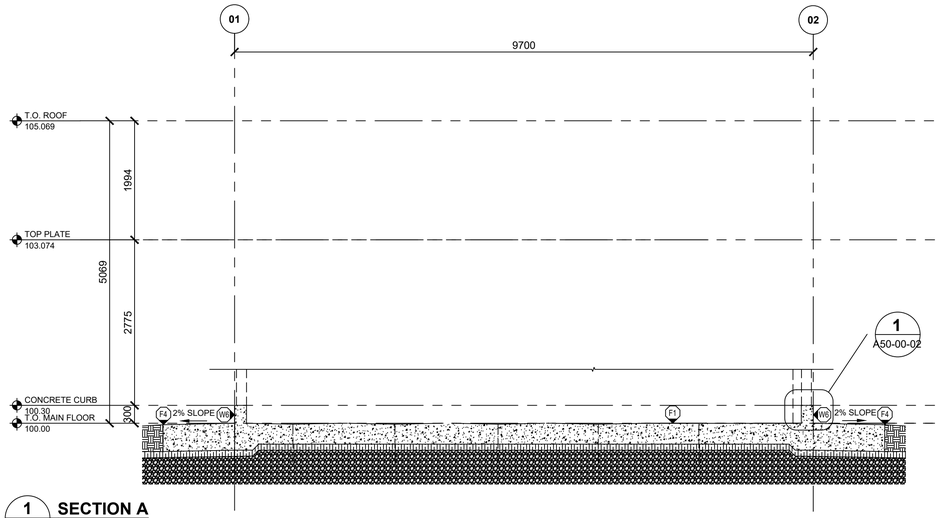
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A20-07-01

Drawing Reference No. / No. de réference du dessin

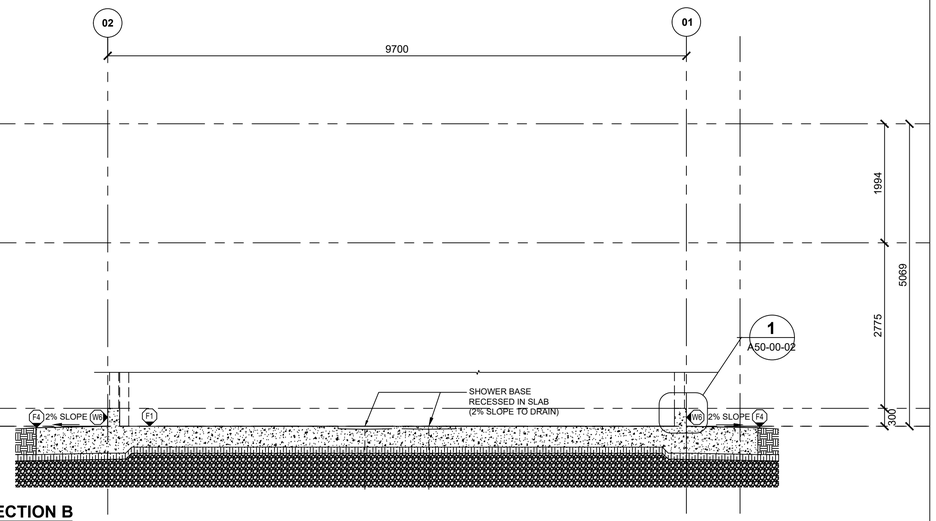
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500-DELIV\ARCH_PROD\SHEETS\WASHROOMS\2019-11-15_90% OPTION WOOD\A20-07-01_PH1.DWG PLOTTED: 2021\01\25 4:51 PM

Paper Size: ANSI D (22 x 34")

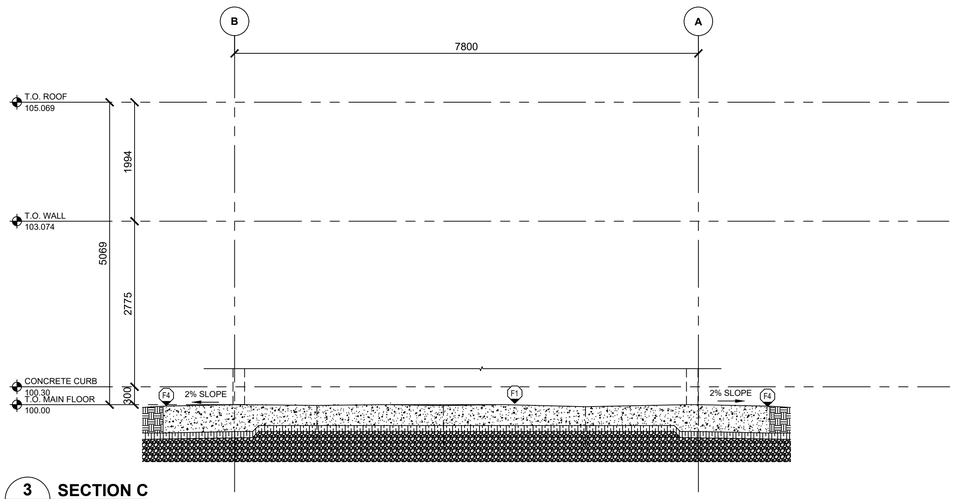
0 10 20 30 40 50 60 70 80 90 100mm



1 SECTION A
SCALE 1:50



2 SECTION B
SCALE 1:50



3 SECTION C
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95 % REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
WASHROOMS

Drawing Title
Titre du dessin

SECTION A
SECTION B
SECTION C

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

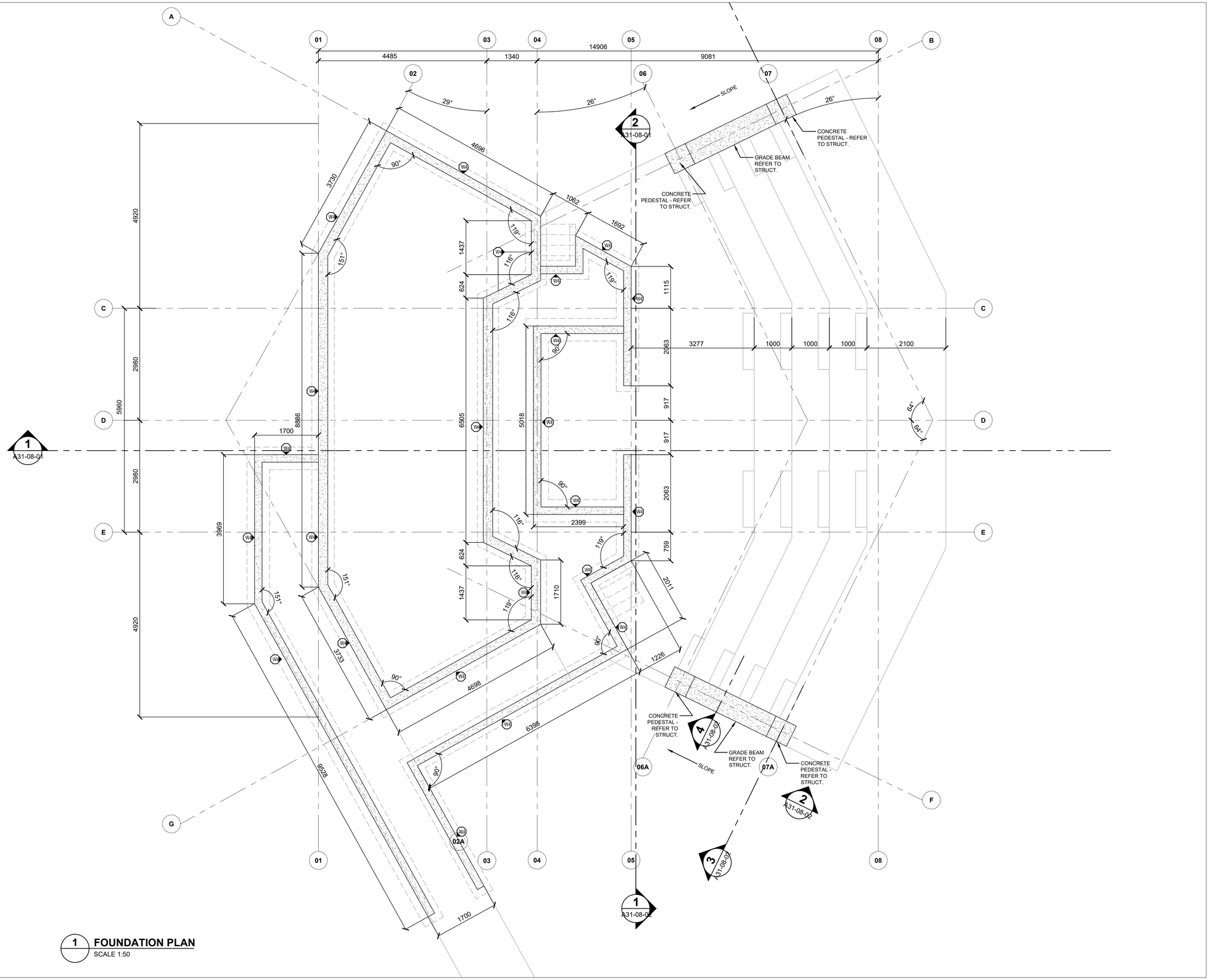
Sheet No. / No. de la feuille: A31-07-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\ARCH_PROD\SHEETS\WASHROOMS\2019-11-15_98% OPTION WOOD\A31-07-01 PH1.DWG PLOTTED: 2021/01/26 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **FOUNDATION PLAN**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT ALBERTA
JANUARY 26, 2021
PCA19-0068

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

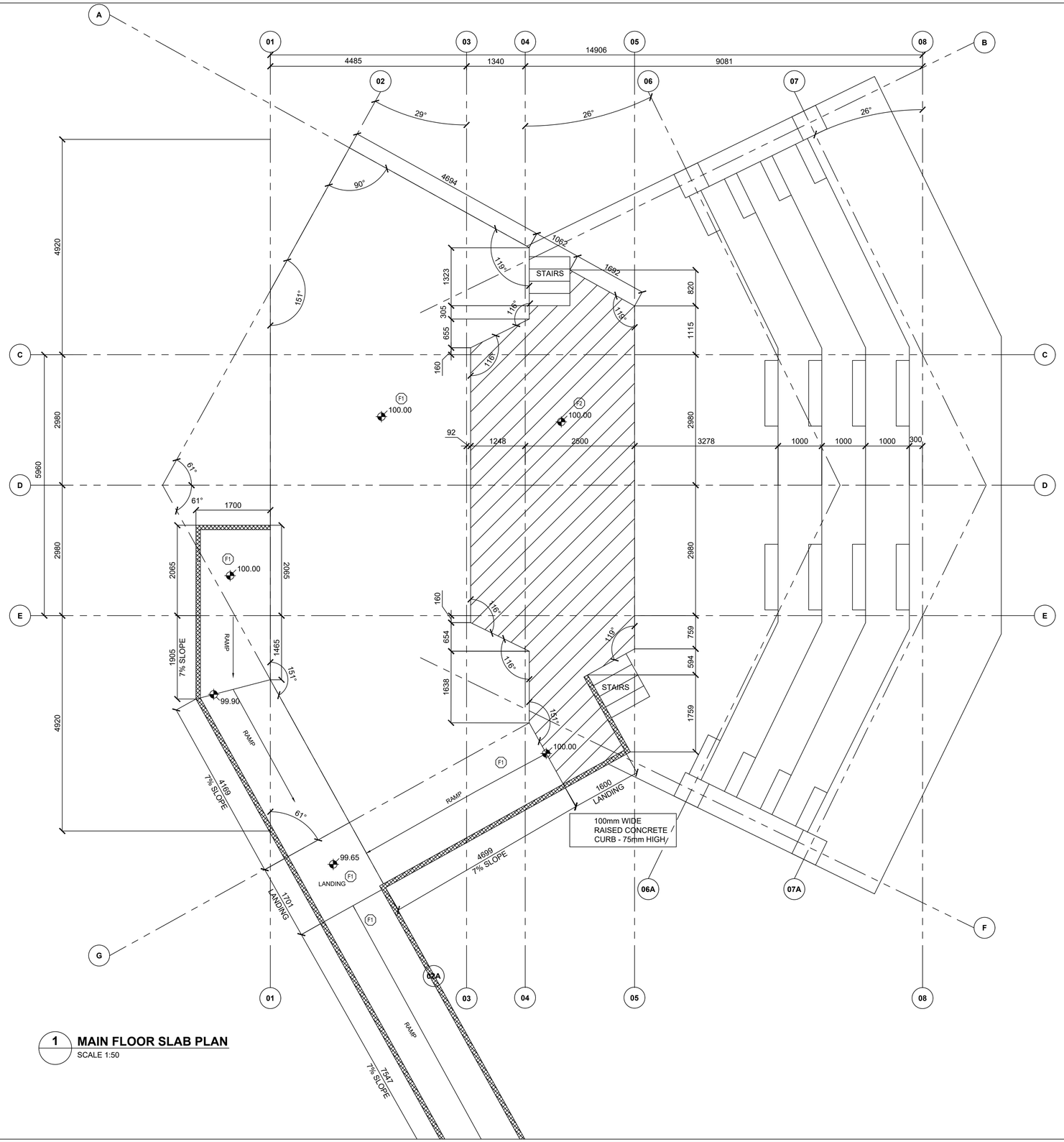
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A20-08-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VI\NP500\DELIV\ARCH_PROD\SHEETS\AMPHITHEATRE\2019-12-09_98% STEEL OPTION\A20-08-01.DWG PLOTTED: 2021/01/26 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 MAIN FLOOR SLAB PLAN
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

MAIN FLOOR SLAB PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

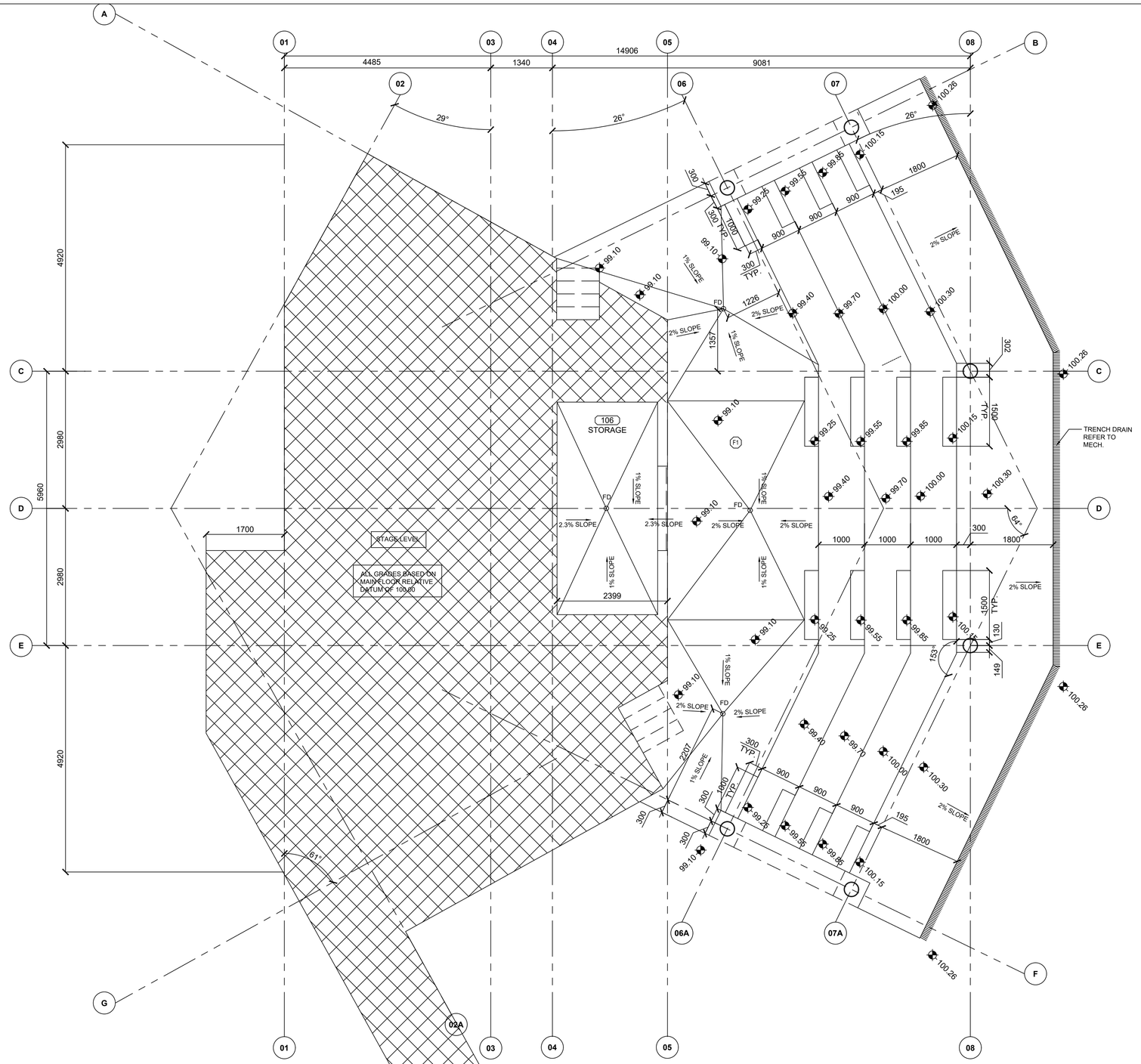
Sheet No. / No. de la feuille: A20-08-02

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\50-DELIV\ARCH_PROD\SHEETS\AMPHITHEATRE\2019-12-09_99%_STEEL_OPTION\A20-08-02.DWG PLOTTED: 2021/01/26 4:51 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 GRADE SLAB PLAN

SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PERMIT-19-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

GRADE SLAB PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

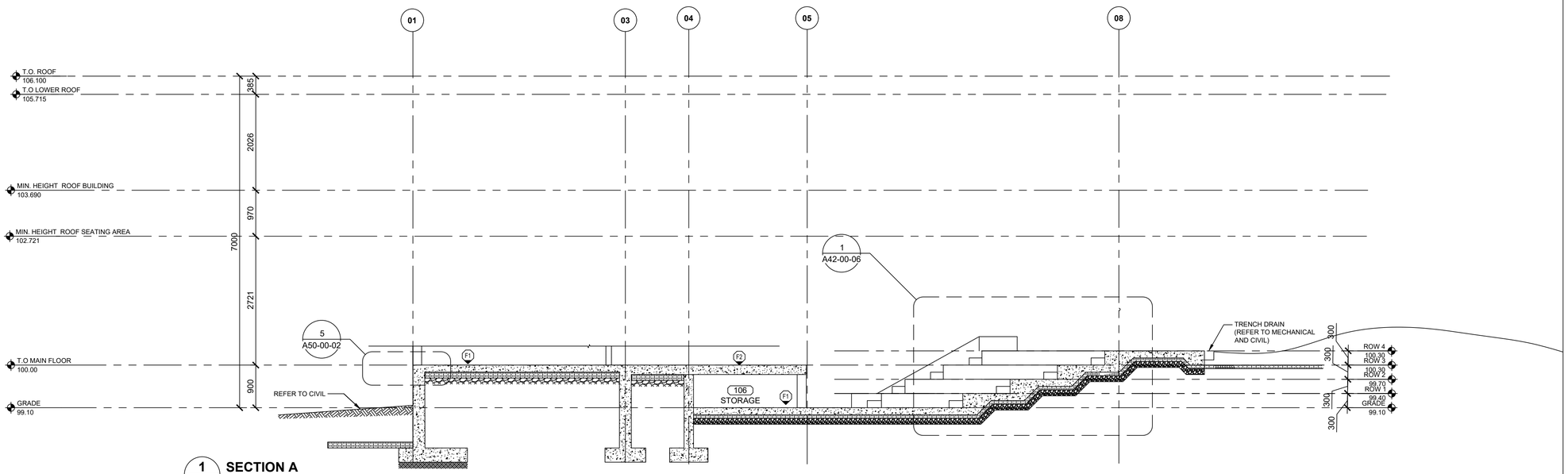
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		A20-08-03

Drawing Reference No. / No. de réference du dessin

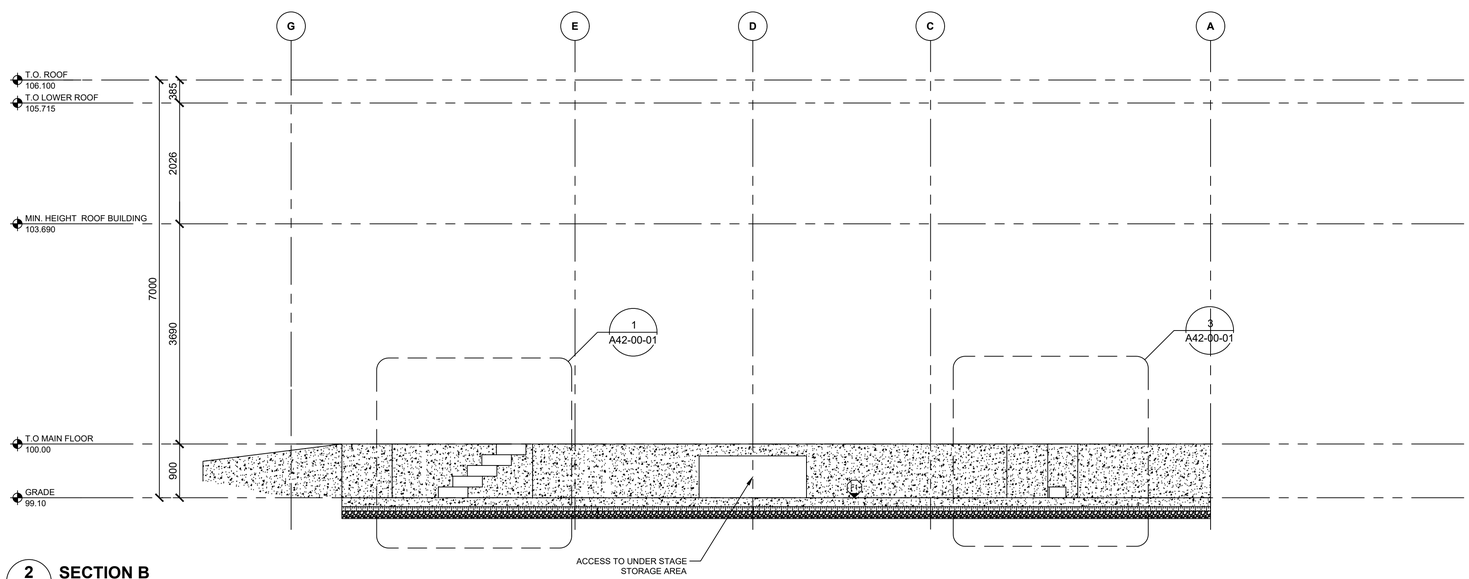
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP500\DELIV\ARCH_PROD\SHEETS\AMPHITHEATRE\2019-12-09_98% STEEL OPTION\A20-08-03.DWG PLOTTED: 2021/01/25 4:52 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SECTION A
SCALE 1:50



2 SECTION B
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
AMPHITHEATRE

Drawing Title
Titre du dessin

SECTIONS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

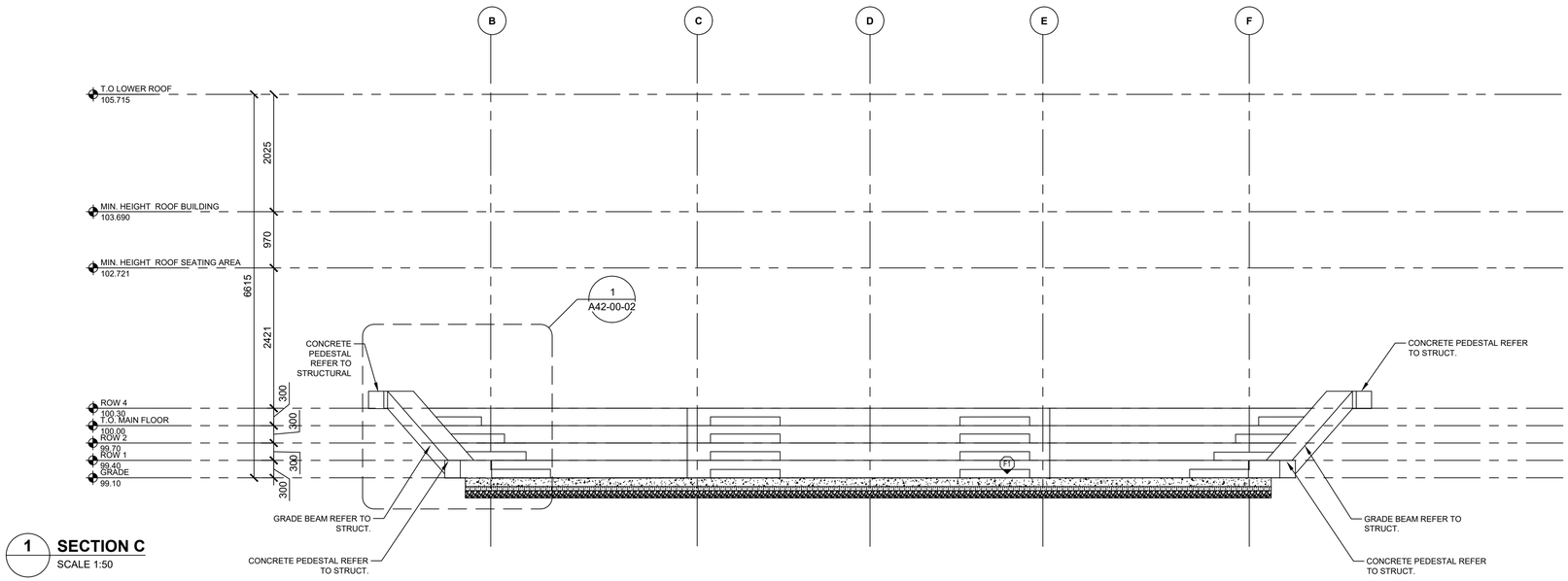
Sheet No. / No. de la feuille: A31-08-01

Drawing Reference No. / No. de réference du dessin

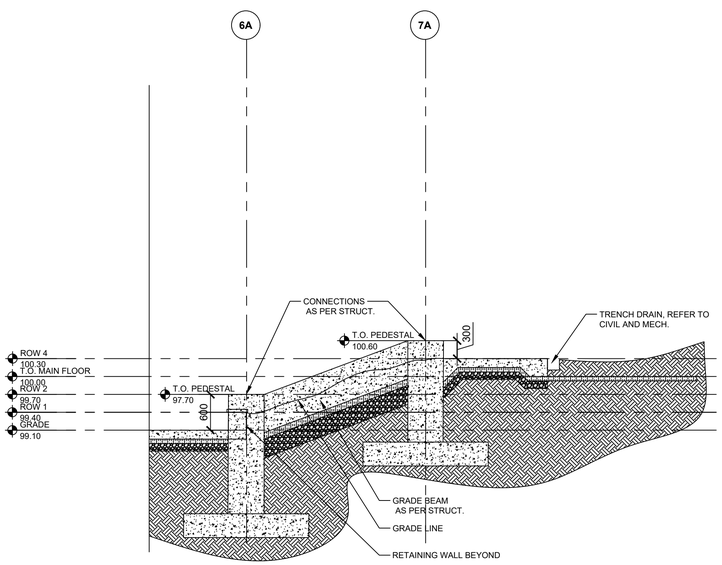
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP\600-DELIV\ARCH_PROD\SHEETS\AMPHITHEATRE\2019-12-09_98% STEEL OPTION\A31-08-01_PH1.DWG PLOTTED: 2021/01/26 4:52 PM

Paper Size: ANSI D (22 x 34")

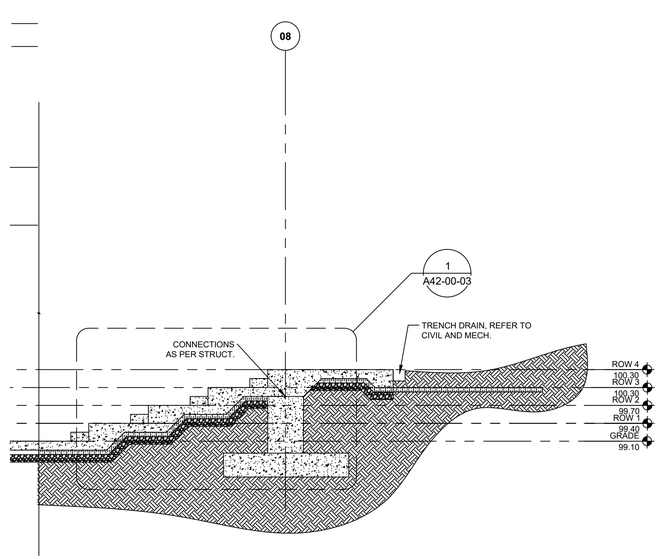
0 10 20 30 40 50 60 70 80 90 100mm



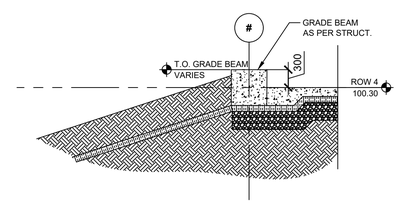
1 SECTION C
SCALE 1:50



2 SECTION
SCALE 1:50



3 SECTION
SCALE 1:50



4 SECTION
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

SECTIONS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

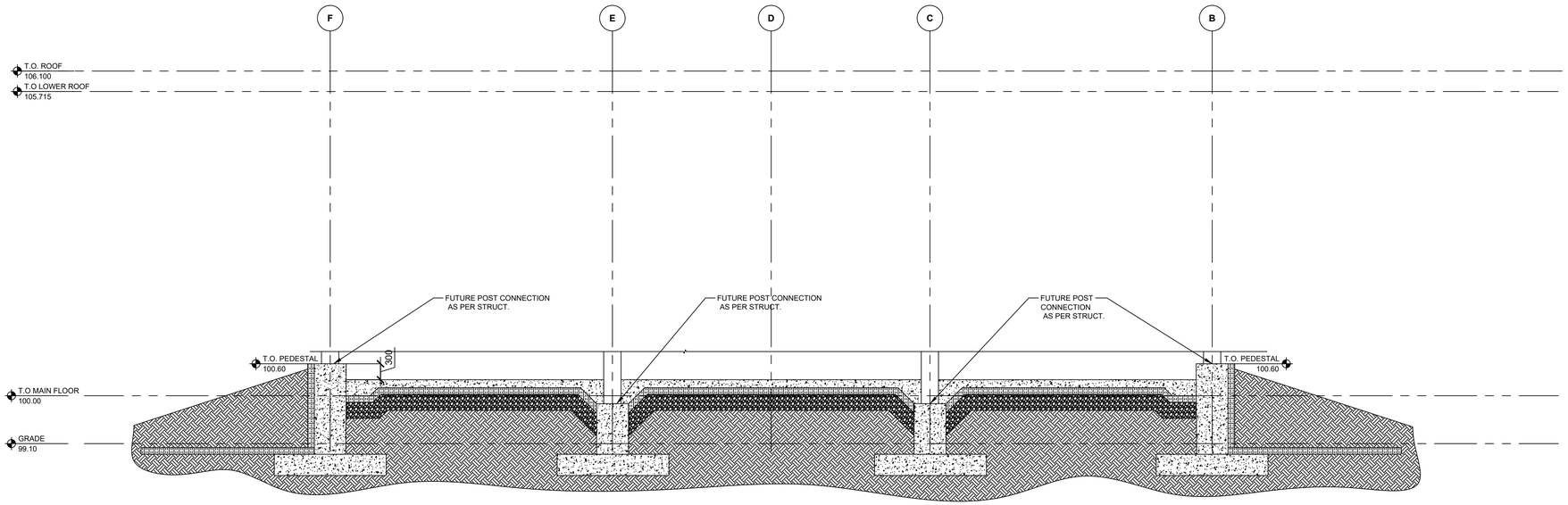
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A31-08-02

Drawing Reference No. / No. de référence du dessin

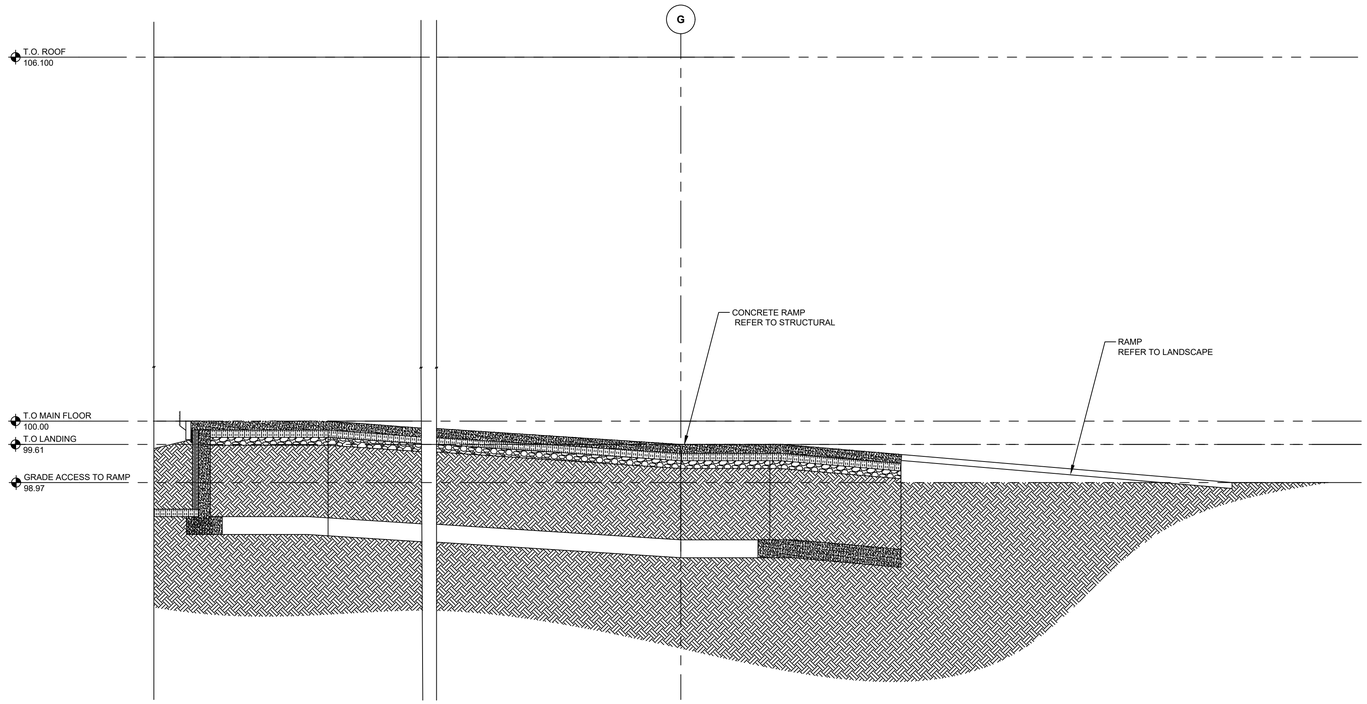
FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND WLNP\600-DELIV\ARCH_PROD\SHEETS\AMPHITHEATRE\2019-12-09_98% STEEL OPTION\A31-08-02_PH1.DWG PLOTTED: 2021\01\25 4:52 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 **SECTION**
SCALE 1:50



2 **SECTION**
SCALE 1:50

3 **SECTION**
SCALE 1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	MB/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60% REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
AMPHITHEATRE

Drawing Title
Titre du dessin

SECTIONS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

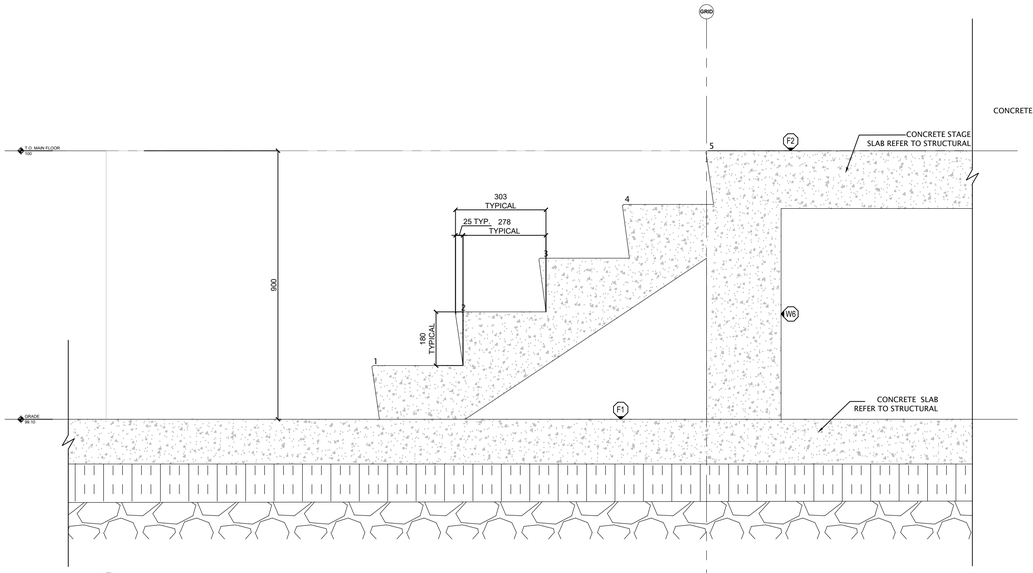
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A31-08-03

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND VIL\NP\00-DELIV\ARCH_PROD\SHEETS\AMPHITHEATRE\2019-12-09_99% STEEL OPTION\A31-08-03_PH1.DWG PLOTTED: 2021/01/25 4:52 PM

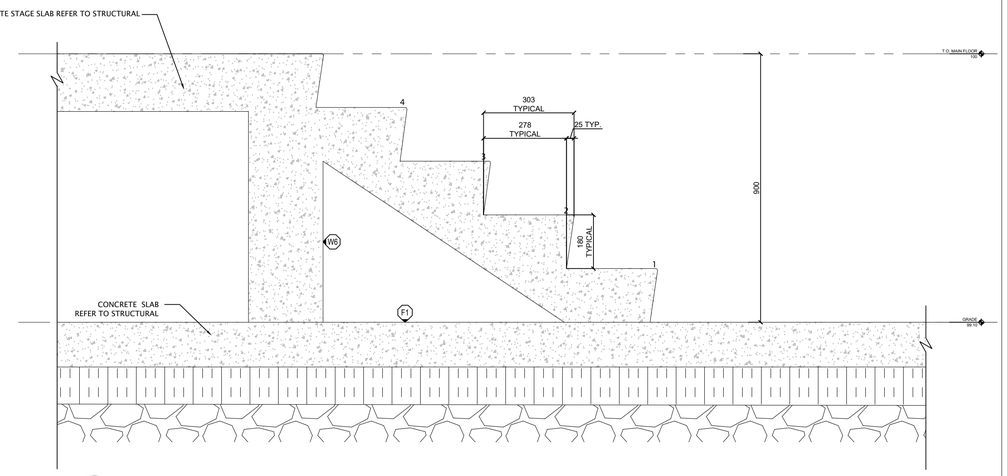
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



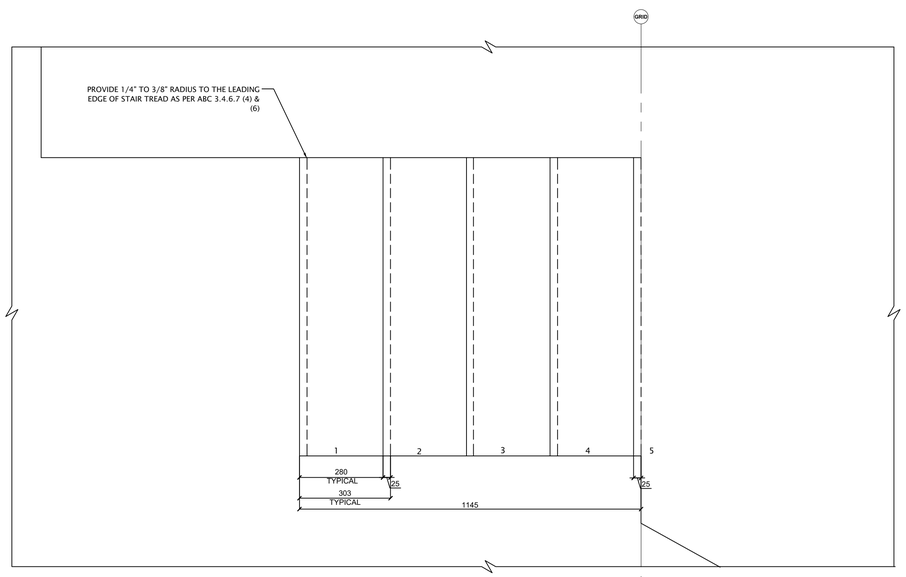
1 STAGE STAIR 1 SECTION DETAIL TYP. BLDG.8

1:10



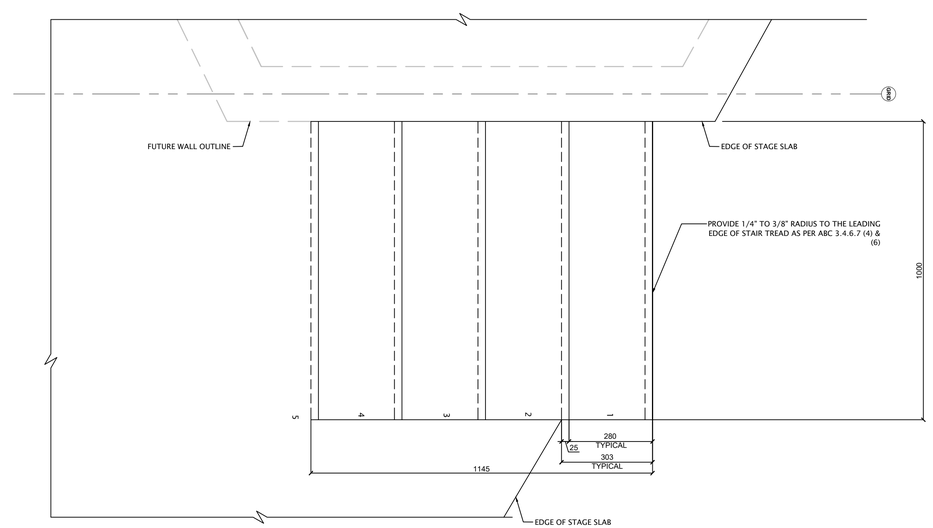
3 STAGE STAIR 2 SECTION DETAIL TYP. BLDG.8

1:10



2 STAGE STAIR 1 PLAN DETAIL TYP. BLDG.8

1:10



4 STAGE STAIR 2 PLAN DETAIL TYP. BLDG.8

1:10

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A: detail number / numéro de detail; B: source drawing no. / de dessin no.; C: detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
PCA-2019-0068
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL PLAN DETAILS TYPICAL SECTIONS DETAILS STAIRS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

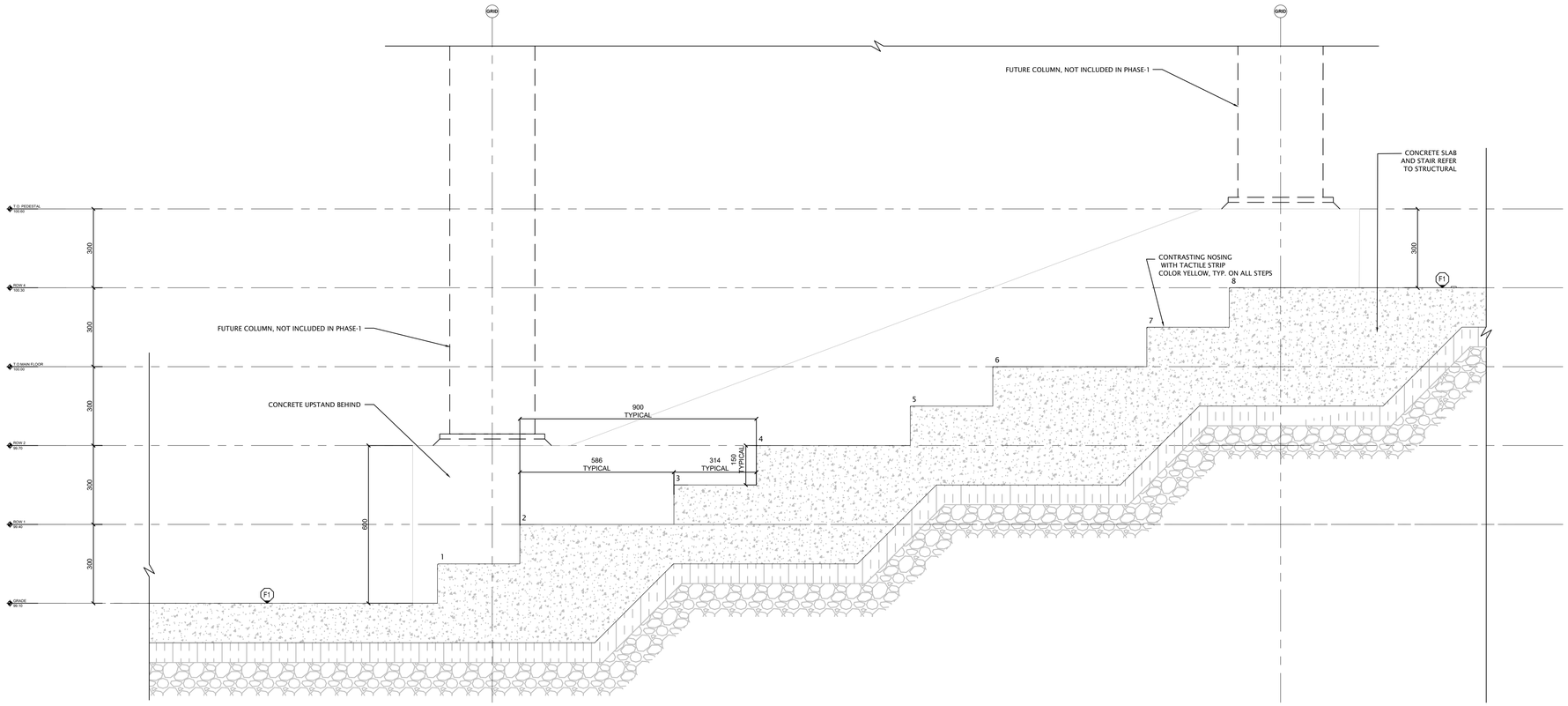
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A42-00-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-01_PH1.DWG PLOTTED: 2021/01/25 4:52 PM

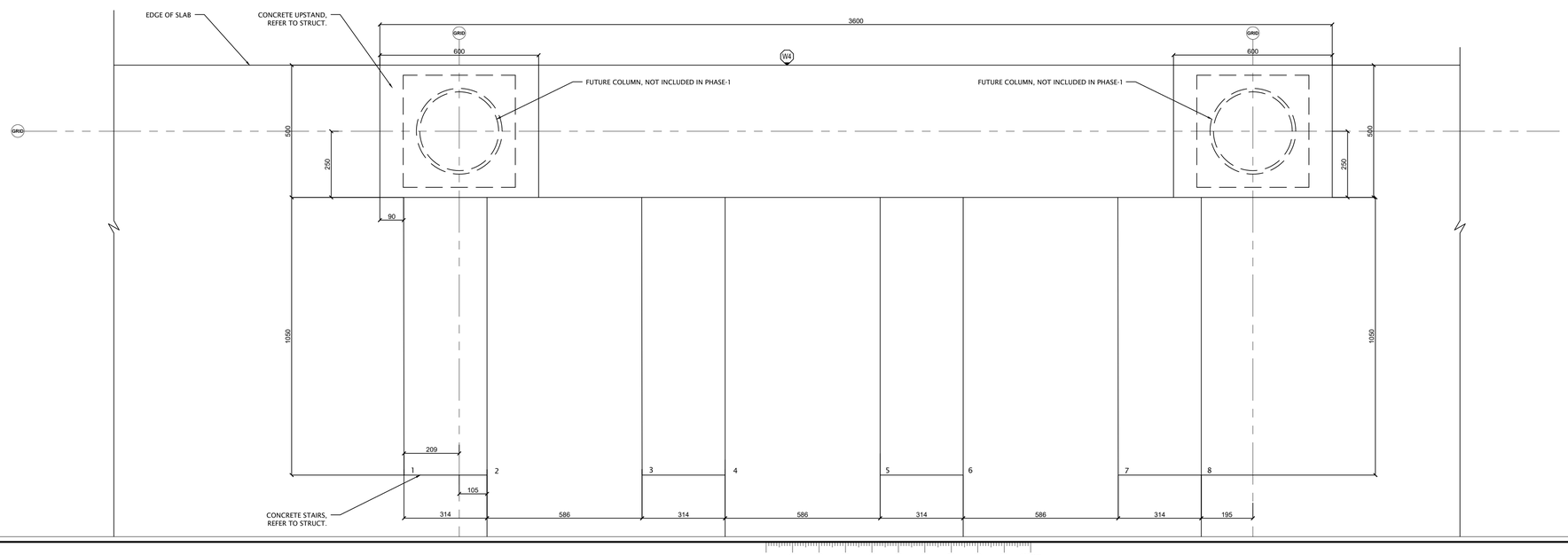
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SIDE AISLE GUARDRAIL/STAIRS SECTION DETAIL TYP. BLDG.8

1:10



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.08.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL PLAN DETAILS
TYPICAL SECTIONS DETAILS
SIDE AISLE STAIRS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

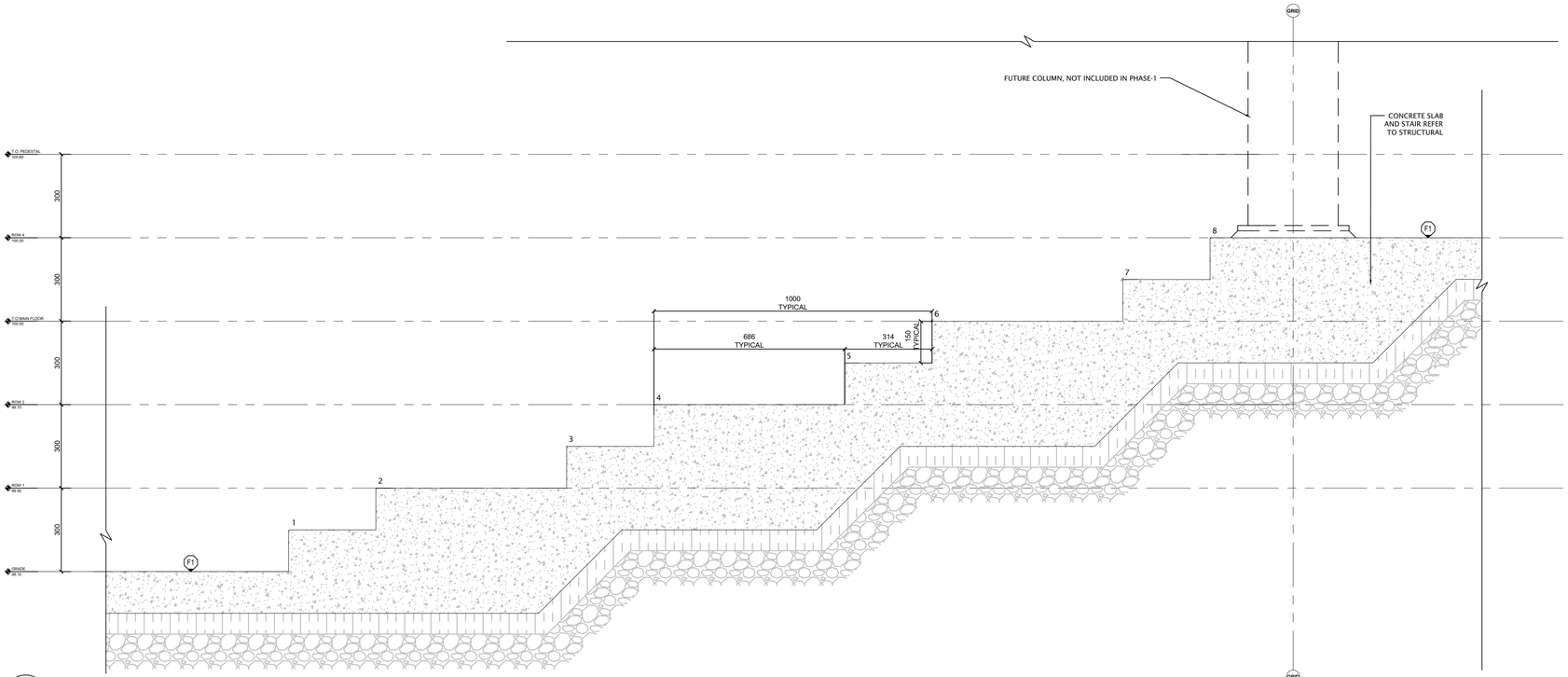
Drawing Reference No. / No. de réference du dessin

Sheet No. / No. de la feuille: A42-00-02

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-02_PH1.DWG PLOTTED: 2021/01/25 4:52 PM

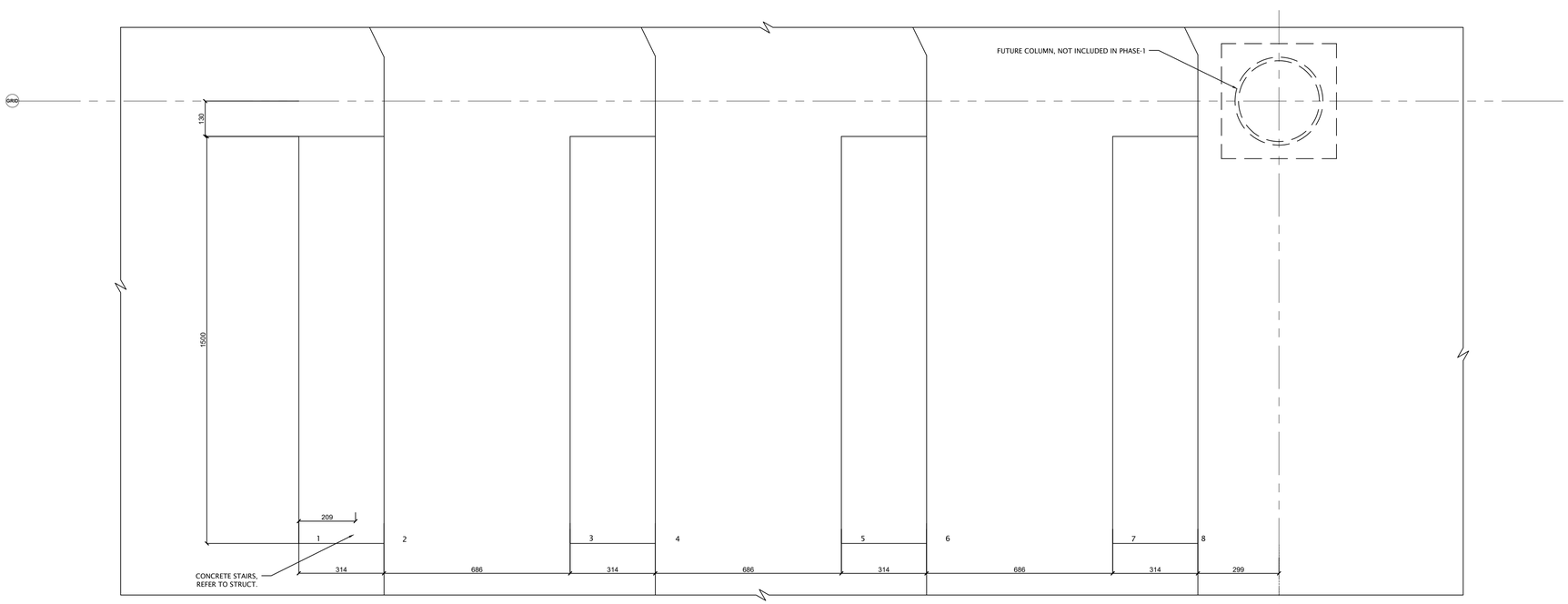
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 CENTRAL AISLE GUARDRAIL/STAIRS SECTION DETAIL TYP. BLDG.8

1:10



2 CENTRAL AISLE GUARDRAIL/STAIRS PLAN DETAIL TYP. BLDG.8

1:10

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT ALBERTA
JANUARY 26, 2021
PCA19-0068

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL PLAN DETAILS TYPICAL SECTIONS DETAILS CENTRAL AISLE STAIRS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

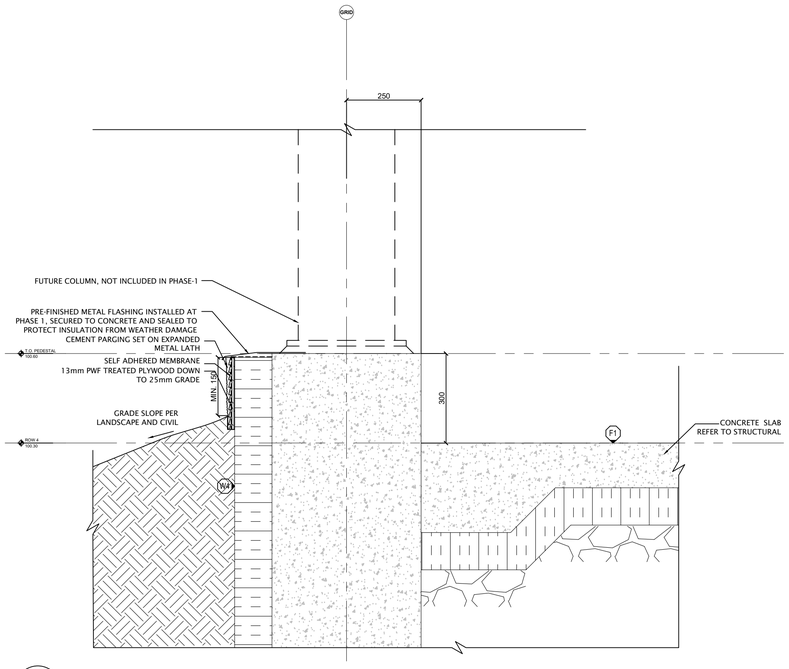
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A42-00-03

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\50\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-03_PH1.DWG PLOTTED: 2021/01/25 4:52 PM

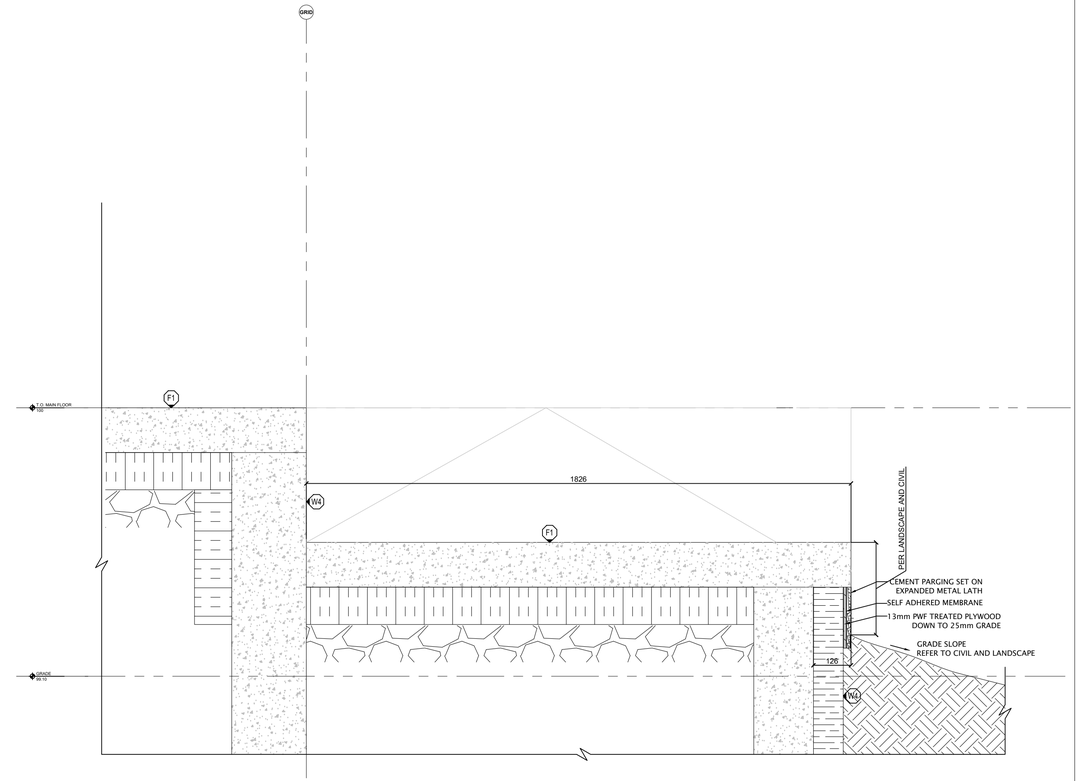
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SIDE AISLE GUARDRAIL SECTION DETAIL TYP. BLDG.8

1:10



3 STAGE RAMP/HANDRAIL SECTION DETAIL TYP. BLDG.8

1:10

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.08.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 PCA-019-0068 ALBERTA

Eng. Stamp / Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

TYPICAL PLAN DETAILS
TYPICAL SECTIONS DETAILS
STAIRS AND RAMPS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

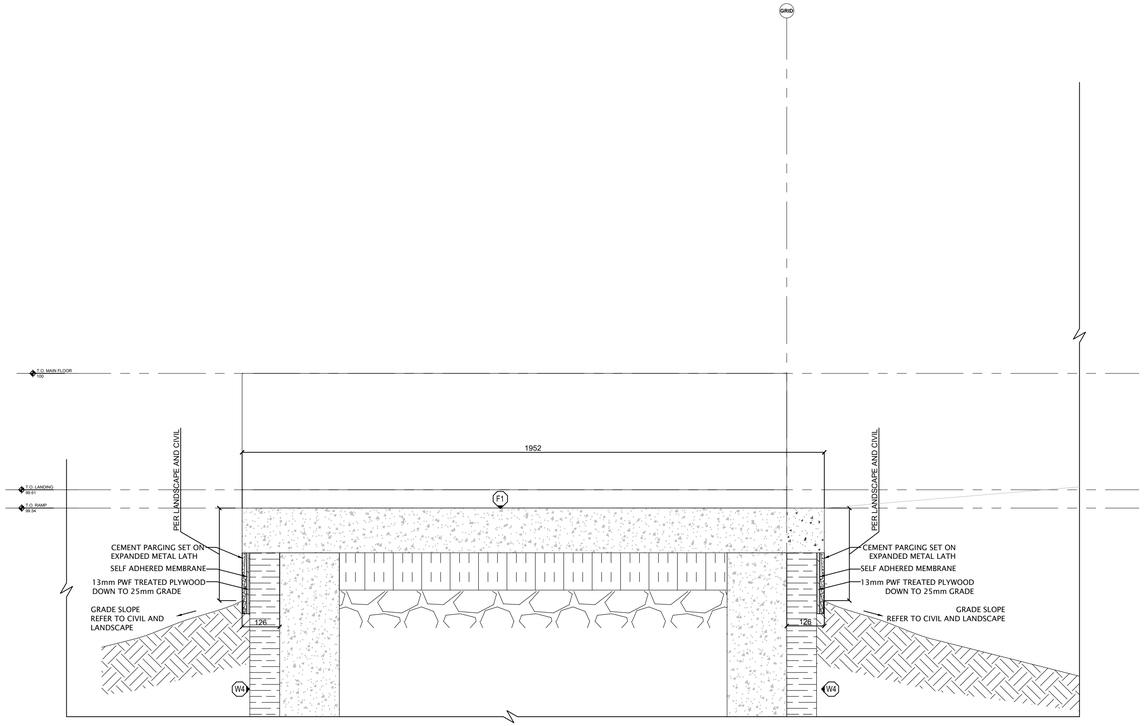
Sheet No. / No. de la feuille: A42-00-04

Drawing Reference No. / No. de réference du dessin:

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND\MP500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-04_PH1.DWG PLOTTED: 2021/01/25 4:52 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 STAGE/LOADING RAMP AND HANDRAIL SECTION DETAIL TYP. BLDG.8

1:10

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE
REGISTERED
ARCHITECT
JANUARY 26, 2021
ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL PLAN DETAILS
TYPICAL SECTIONS DETAILS
RAMP

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

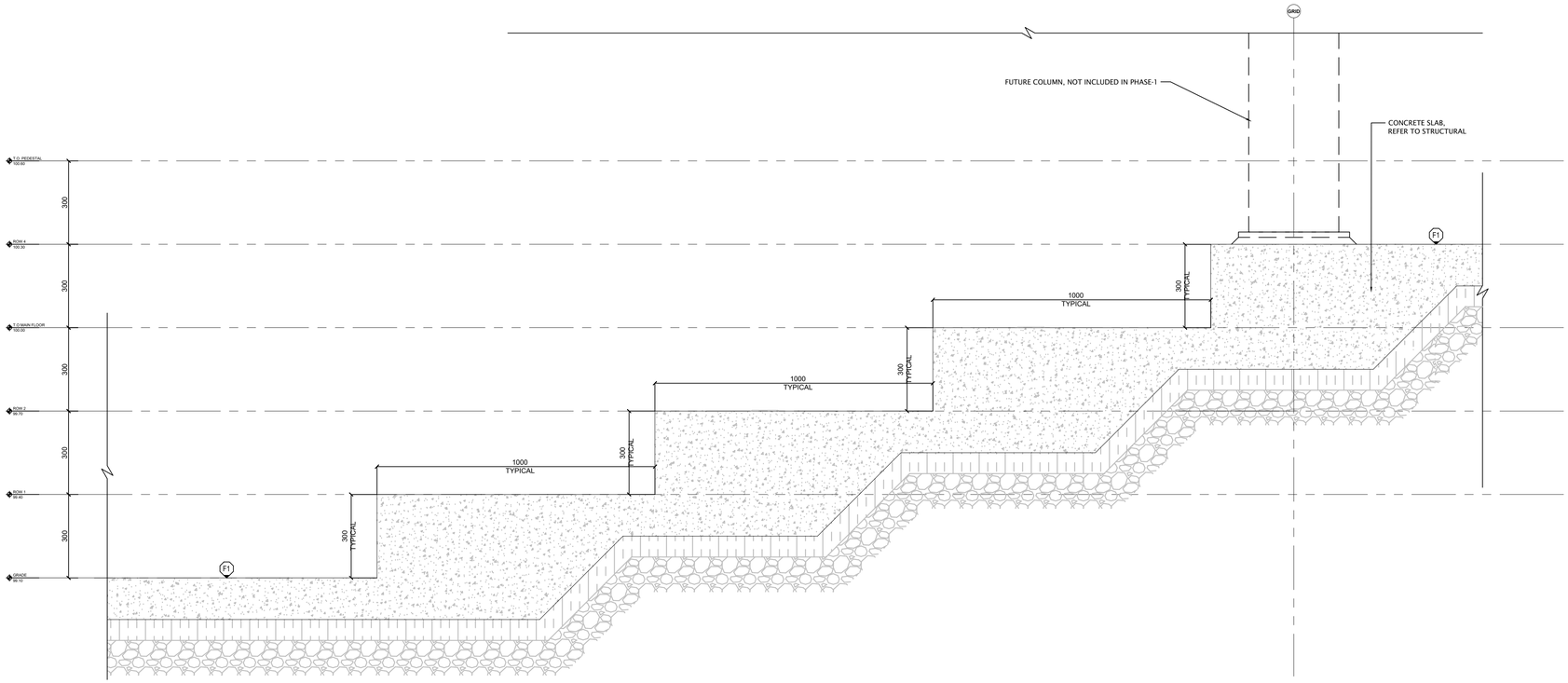
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		A42-00-05

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND \M\NP\500-DEL\\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-05_PH1.DWG PLOTTED: 2021\01\26 4:53 PM

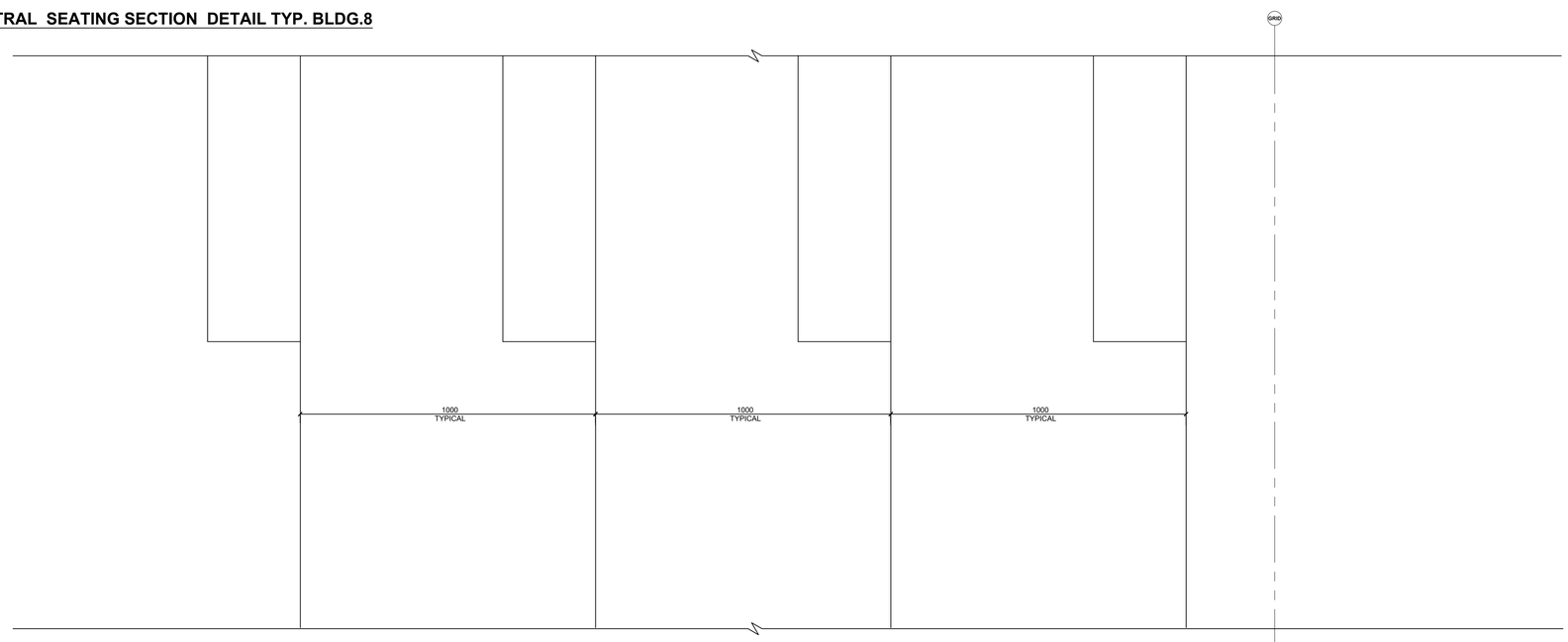
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 CENTRAL SEATING SECTION DETAIL TYP. BLDG.8

1:10



2 CENTRAL SEATING PLAN DETAIL TYP. BLDG.8

1:10

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 PCA19-0068 ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL PLAN DETAILS
TYPICAL SECTIONS DETAILS
AMPHITHEATER SEATING

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

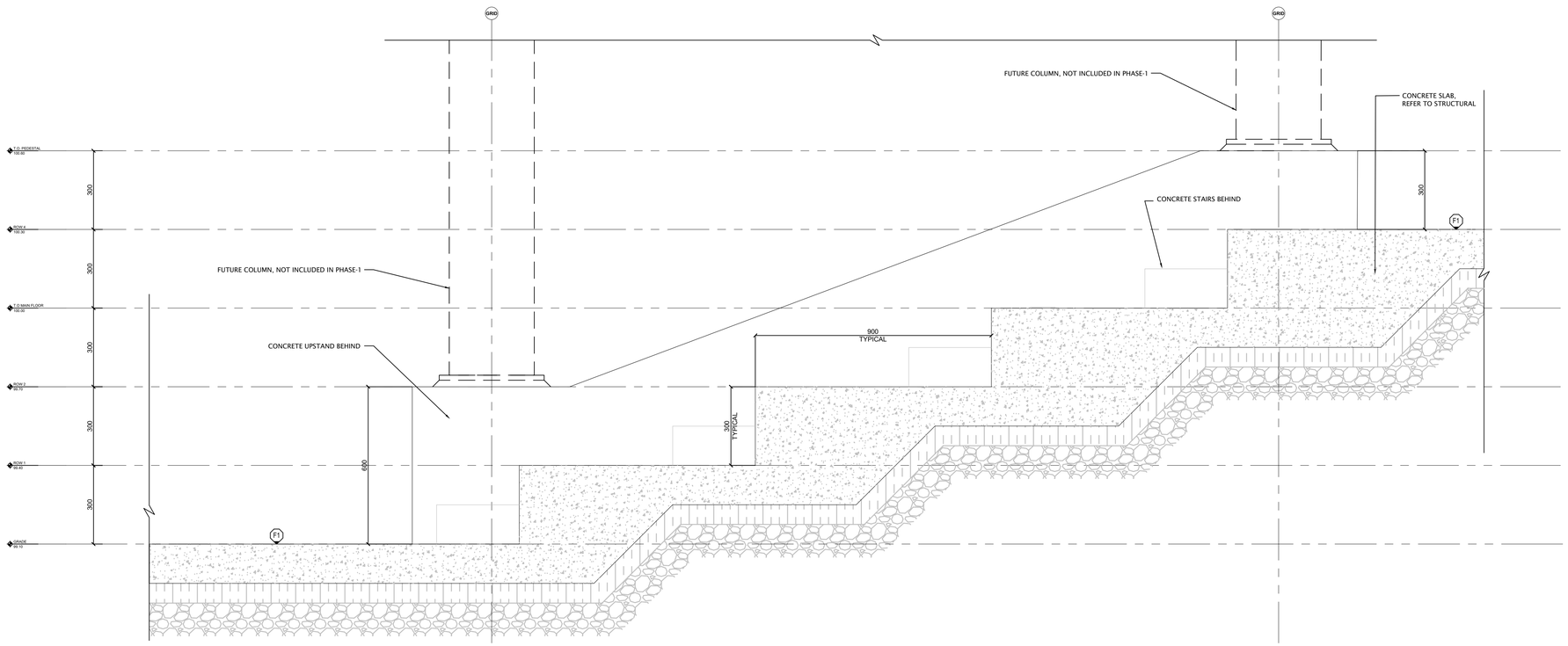
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		A42-00-06

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND VII\NP500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-06_PH1.DWG PLOTTED: 2021/01/26 4:53 PM

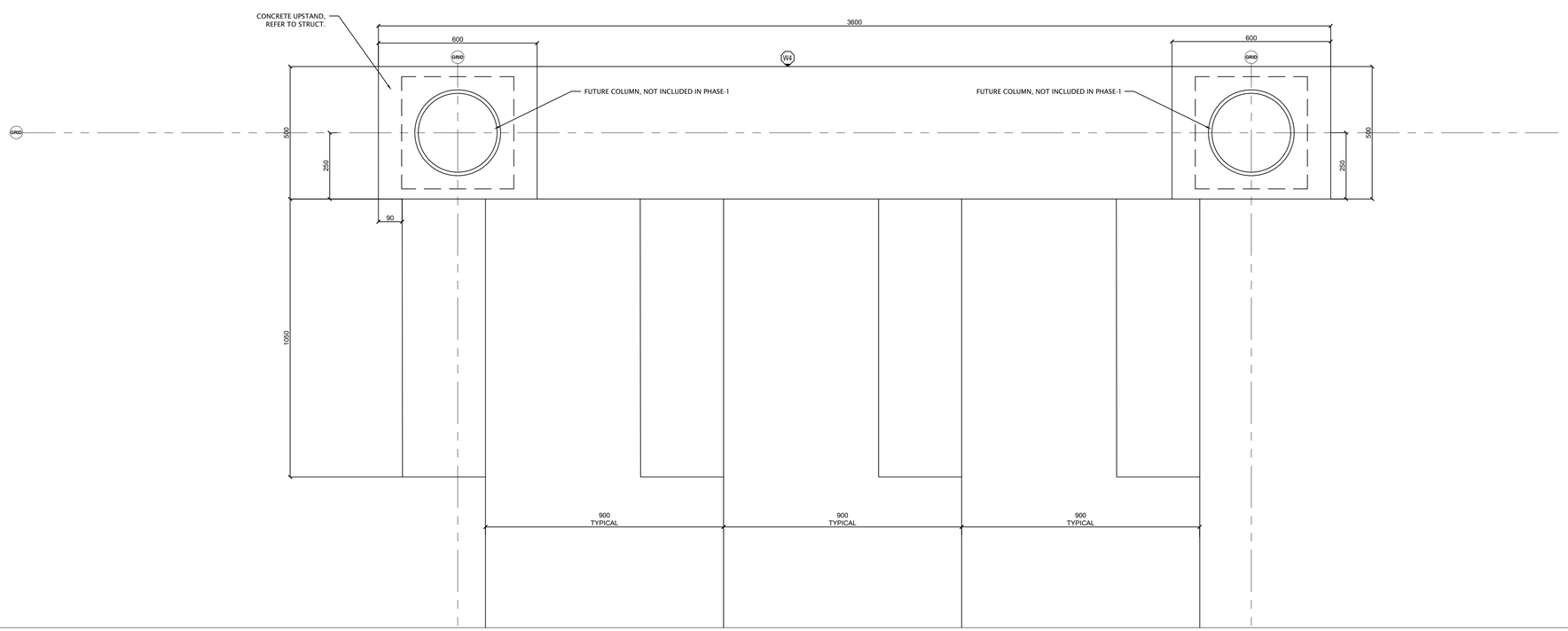
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



1 SIDE SEATING SECTION DETAIL TYP. BLDG.8

1:10



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	AG/MB	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT ALBERTA JANUARY 26, 2021 PA-19-0068

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL PLAN DETAILS TYPICAL SECTIONS DETAILS AMPHITHEATER SEATING

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/A.GODEK	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

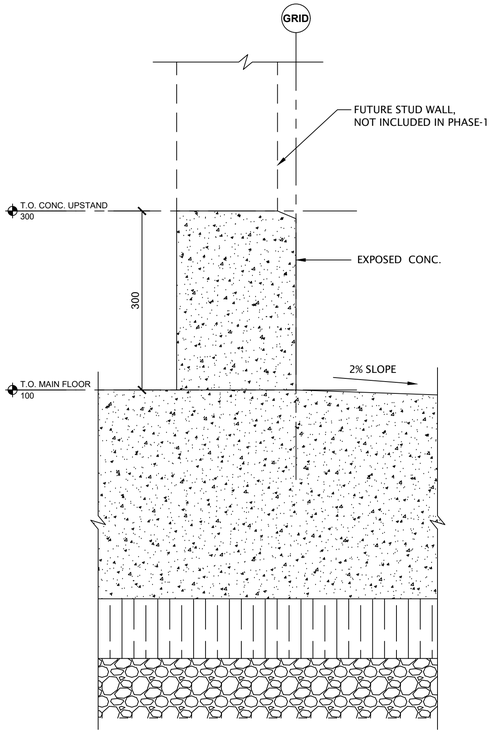
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A42-00-07

Drawing Reference No. / No. de réference du dessin

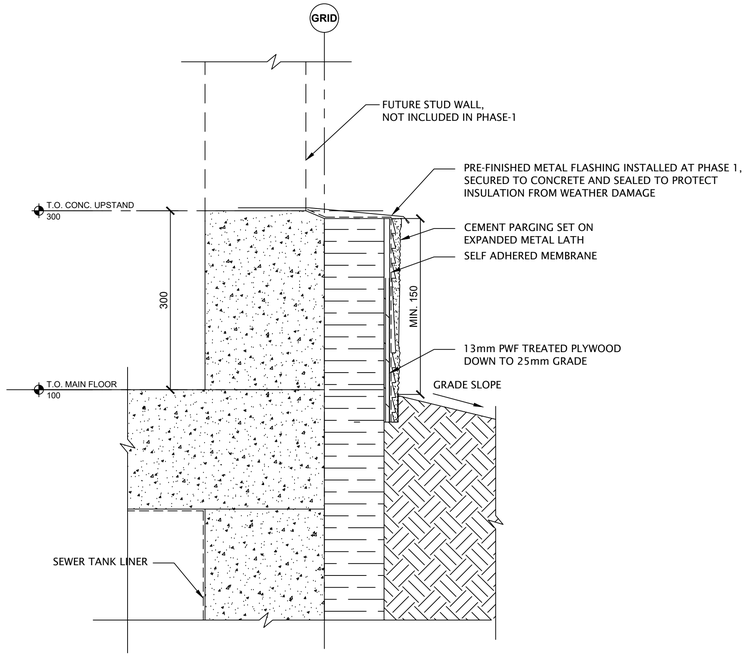
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VI\NP500\DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A42-00-07_PH1.DWG PLOTTED: 2021/01/25 4:53 PM

Paper Size: ANSI D (22 x 34")

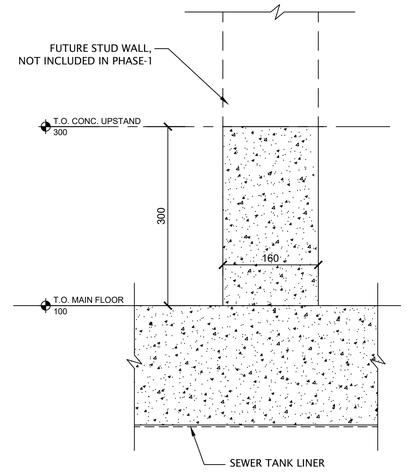
0 10 20 30 40 50 60 70 80 90 100mm



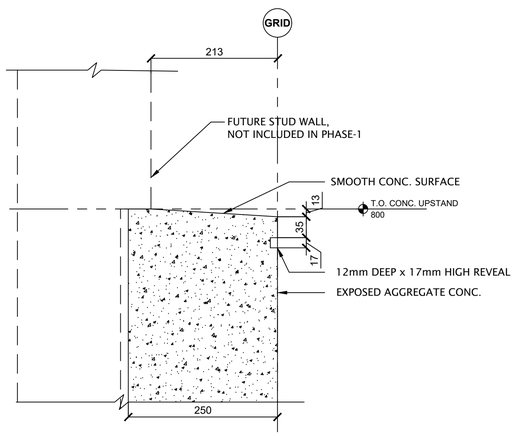
1 WALL UPSTAND AT BLDG. 2,4,5,7
1:5



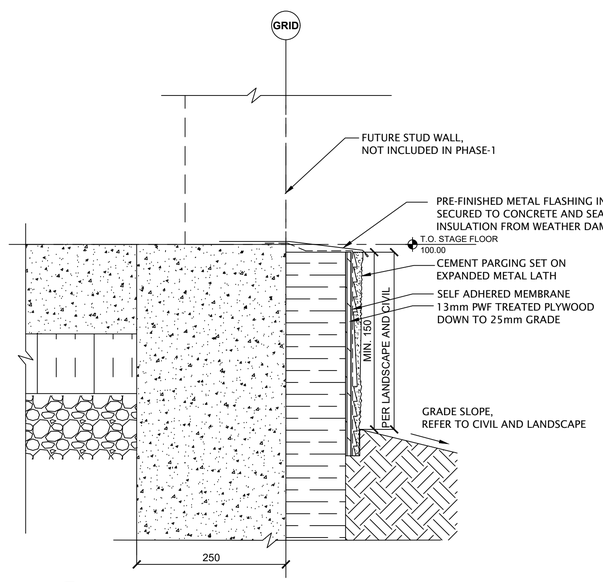
2 WALL UPSTAND AT PRIVY, BLDG.3
1:5



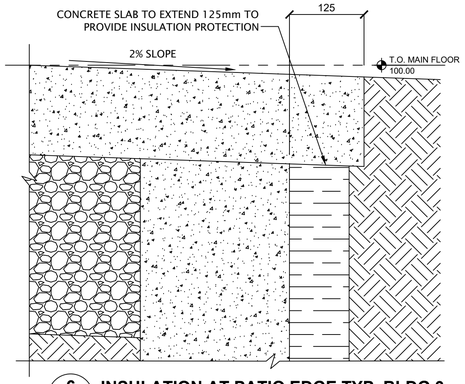
3 INTERIOR WALL UPSTAND AT PRIVY
1:5



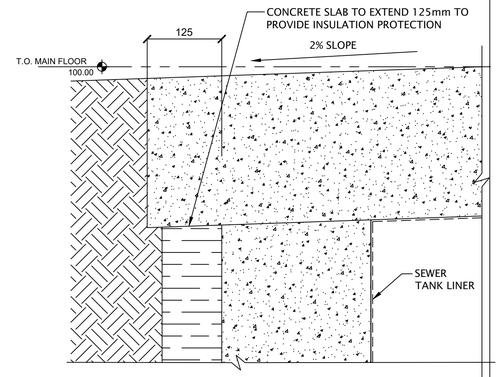
4 WALL AT UPSTAND, BLDG.1
1:5



5 WALL AT UPSTAND, TYP. BLDG.8
1:5



6 INSULATION AT PATIO EDGE TYP. BLDG.3
1:5



7 INSULATION AT EXPOSED SUSPENDED SLAB EDGE TYP. BLDG.3
1:5

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	MB/AG	MB	TW
TO	2020.06.30	ISSUED FOR TENDER	MB/AG	MB	TW
00	20200228	ISSUED FOR TENDER	MB/AG	MB	TW
D	20200220	ISSUED FOR REVISED 95% REVIEW	AG/CM	MB	TW
C	20200115	ISSUED FOR 95% REVIEW	MB/CM	MB	TW
B	20191108	ISSUED FOR 60 % REVIEW	MB/CM	MB	TW
A	20190919	ISSUED FOR SCHEMATIC DESIGN REVIEW	MB/CM	MB	TW

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

BRUCE McKENZIE REGISTERED ARCHITECT JANUARY 26, 2021 ALBERTA

Eng. Stamp
Sceau de l'ingénieur

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

TYPICAL SECTION DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	M.BRITO/C.MOLNAR	2020.12.23
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
M.BRITO	A.GODEK	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		A50-00-02

Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500-DELIV\ARCH_PROD\SHEETS\GENERAL SHEETS\A50-00-02_PH1.DWG PLOTTED: 2021/01/25 4:53 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

1. GENERAL NOTES

1. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH SEPARATELY BOUND SPECIFICATIONS, TYPICAL DETAILS AND ALL OTHER CONTRACT DOCUMENTS. DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY DOCUMENTS.
2. WHERE DOCUMENTS ARE REFERENCED IN THE GENERAL AND DESIGN NOTES, THEY SHALL BE THE LATEST EDITIONS, UNLESS OTHERWISE NOTED OR SHOWN.
3. BEFORE PROCEEDING WITH WORK, CHECK ALL THE DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND EXISTING SITE CONDITIONS. REPORT INCONSISTENCIES TO CONSULTANT BEFORE PROCEEDING WITH THE WORK.
4. CHECK AND VERIFY IN THE FIELD ALL SIZES AND DIMENSIONS INVOLVING THE EXISTING STRUCTURE AND COORDINATE WITH NEW CONSTRUCTION.
5. DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
6. SCALES NOTED ON DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DO NOT SCALE DRAWINGS.
7. TYPICAL STRUCTURAL DETAILS SHOWN IN DRAWING SERIES S02 SHALL GOVERN THE WORK. IF DETAILS DIFFER ON OTHER DRAWINGS, THE MOST STRINGENT GOVERNS.
8. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
   a. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS SLOPES, INSERTS, ETC. EXCEPT AS SHOWN.
   b. TRENCHES, PITS, AND SUMPS.
   c. WATERPROOFING AND DAMP PROOFING.
   d. ELEVATIONS AND DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS. NOTE THAT STRUCTURAL DRAWINGS DO NOT INTEND TO DUPLICATE DIMENSIONS SHOWN ON OTHER CONTRACT DOCUMENTS.
10. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
   a. PIPE AND DUCT RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS ETC. EXCEPT AS SHOWN OR NOTED.
   b. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
   c. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
   d. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS, EXCEPT AS SHOWN OR NOTED.
11. ALL ARCHITECTURAL, ELECTRICAL OR MECHANICAL LOADS IMPOSED ON THE STRUCTURE THAT EXCEED 30kg SHALL BE SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION UNLESS SPECIFICALLY DETAILED OR NOTED ON THE STRUCTURAL DRAWINGS.
12. DRAWINGS AND DETAILS ARE INTENDED TO SHOW THE END RESULT OF DESIGN. MODIFICATIONS TO THE DESIGN NECESSARY TO SUIT MEANS AND METHODS OF CONSTRUCTION, SITE DIMENSIONS OR CONDITIONS SHALL BE SUBMITTED TO CONSULTANT FOR APPROVAL BEFORE PROCEEDING.
13. IN THE CASE OF DISCREPANCIES BETWEEN THE GENERAL NOTES, SPECIFICATIONS, PLANS/DETAILS OR REFERENCE STANDARDS THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

2. CONSTRUCTION

1. THE CONTRACTOR SHALL PROPOSE A FULL METHODOLOGY FOR EXECUTING THE WORK DETAILED IN THE CONTRACT DOCUMENTS.
2. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISIONS HAVE BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION.
   a. THE CONTRACTOR SHALL DEMONSTRATE THE STABILITY AND SAFETY OF ALL ELEMENTS OF THE BUILDING DURING EVERY STAGE OF CONSTRUCTION.
   b. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING AND SHORING REQUIRED FOR ALL STRESSES AND INSTABILITY OCCURRING DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR ALL SUCH MEASURES.
   c. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING, SHORING, SHEET PILING OR OTHER TEMPORARY SUPPORTS TO SAFEGUARD ALL EXISTING OR ADJACENCY AFFECTED BY THIS WORK.
3. THE CONTRACTOR SHALL LIAISE WITH OWNER AND ASSOCIATED UTILITIES AUTHORITIES REGARDING THE REMOVAL AND DISCONNECTION OF EXISTING UTILITIES IN THE BUILDING. NO UTILITIES SHALL BE REMOVED OR DISCONNECTED WITHOUT THE APPROVAL OF OWNER AND ASSOCIATED UTILITIES AUTHORITIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE CONSULTANT HAS NO OVERALL SUPERVISION AUTHORITY AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM ACTIONS OF ANY TRADE CONTRACTOR. THE CONSULTANT HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS ON THE PROJECT SITE.
5. THE CONTRACTOR SHALL DETERMINE THE LOCATIONS OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO EARTHWORK, FOUNDATIONS SHORING AND EXCAVATION. ANY UTILITY INFORMATION SHOWN ON THE DRAWINGS AND DETAILS IS APPROXIMATE AND NOT NECESSARILY COMPLETE.
6. THE PROPOSED SCHEDULE OF WORK IS TO BE COORDINATED WITH ALL SUB-TRADES, THE CONSULTANT AND OWNER.

3. SHOP DRAWINGS

1. FOR ALL STRUCTURAL COMPONENTS SHOWN ON THE STRUCTURAL DRAWINGS, SUBMIT COPIES OF SHOP DRAWINGS AS DIRECTED, FOR REVIEW BY THE CONSULTANT.
2. SHOP DRAWINGS SHALL SHOW COMPLETE INFORMATION FOR THE FABRICATION AND ERECTION OF THE STRUCTURAL COMPONENTS.
3. CONCRETE REINFORCEMENT SHOP DRAWINGS SHALL CLEARLY SHOW BAR LENGTHS, BENDS, LOCATIONS OF BARS, METHOD OF SUPPORT, DETAILS OF PLACEMENT, COORDINATION WITH FORMWORK, EMBEDMENT, AND CONCRETE VIBRATION. PROVIDE AT MINIMUM, WALL AND COLUMN ELEVATIONS, WALL AND BEAM SECTIONS, MATERIAL SCHEDULES, BAR LAP SCHEDULES AND LOCATIONS.
4. REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL CONSULTANT IS ON A SAMPLING BASIS AND SOLELY TO ASSESS THAT THE SUBMITTED SHOP DRAWINGS REFLECT THE INTENT OF THE STRUCTURAL DESIGN. INTENDED OR PROPOSED DEVIATIONS FROM THE DESIGN INTENT MUST NOT BE SUBMITTED ON SHOP DRAWINGS.
5. REVIEW BY THE CONSULTANT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ENSURING THAT THE WORK IS COMPLETE, ACCURATE AND IN CONFORMITY WITH ALL CONTRACT DOCUMENTS.
6. SHOP DRAWINGS FOR STRUCTURAL COMPONENTS DESIGNED BY THE FABRICATOR/CONTRACTOR'S ENGINEER MUST BE SEALED, SIGNED AND DATED BY AN EXPERIENCED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA.

4. CAST IN PLACE CONCRETE

1. CONCRETE: CONFORM WITH CAN-CSA A23.1 REQUIREMENTS AND THOSE SHOWN IN THE CONCRETE MIX SCHEDULE BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

CONCRETE MIX SCHEDULE

LOCATION			MIN. COMPRESSIVE STRENGTH AT 28 DAYS (MPa)	EXPOSURE CLASS	CONCRETE TYPE	AIR CONTENT (%)
CONCRETE EXPOSED TO DEICING CHEMICALS WITH OR WITHOUT FREEZING AND THAWING	FOOTINGS	FOUNDATION WALL FOOTINGS	35	C1	GU	5-8
	WALLS	FOUNDATION WALLS	35	C1	GU	5-8
	COLUMNS	COLUMNS	35	C1	GU	5-8
	SLABS AND BEAMS	STRUCTURAL SLAB ON GRADE	35	C1	GU	5-8
		SLAB ON GRADE (NOT EXPOSED TO FREEZING AND THAWING)	32	C2	GU	5-8
		SLAB ON GRADE (EXPOSED TO FREEZING AND THAWING)	32	C2	GU	5-8
	OTHER ELEMENTS	SIDEWALKS, CURBS, PAVING SLABS	32	C2	GU	5-8
		NON-STRUCTURAL TOPPINGS (NOT EXPOSED TO FREEZING AND THAWING)	32	C2	GU	5-8
		NON-STRUCTURAL TOPPINGS (EXPOSED TO FREEZING AND THAWING)	32	C2	GU	5-8
CONCRETE NOT EXPOSED TO DEICING CHEMICALS BUT EXPOSED TO FREEZING AND THAWING		FOUNDATION WALLS	35	F-2	GU	4-7

2. DESIGN CONCRETE MIXES TO SUIT REINFORCEMENT DETAILS SHOWN ON THE PLACEMENT DRAWINGS. PROVIDE SMALLER AGGREGATES OR SELF CONSOLIDATING CONCRETE IN AREAS OF HIGHER REINFORCEMENT DENSITY.
3. SUBMIT MIX DESIGNS FOR EACH CLASS OF CONCRETE TO BE USED ON THE PROJECT.
4. ALL CONCRETE SHALL BE NORMAL DENSITY, UNLESS NOTED OTHERWISE.
5. ADMIXTURES THAT CONTAIN CHLORIDES SHALL NOT BE USED.
6. EXTERIOR CONCRETE AND INTERIOR CONCRETE SUBJECT TO FREEZE/THAW CYCLES, SALT, ETC, INCLUDING WALLS SHALL BE AIR ENTRAINED.
7. REFER TO CAN CSA A23.1&2 AND CONCRETE SPECIFICATIONS SECTION 03.30.00 FOR THE HOT AND COLD WEATHER CONCRETE PLACEMENT PROCEDURES.
8. REFER TO THE CONCRETE TYPICAL DETAILS FOR THE FOLLOWING INFORMATION:
   a. CONCRETE COVER TO REINFORCING.
   b. CONCRETE COVER FOR FIRE RATINGS.
   c. TENSION DEVELOPMENT LENGTH AND LAP SPLICES.
   d. COMPRESSION DEVELOPMENT LENGTH AND LAP SPLICES.
9. FOR ALL STRUCTURAL MEMBERS PROVIDE COVER FOR A MINIMUM 2 HOUR FIRE RATING UNLESS NOTED OTHERWISE IN ARCHITECTURAL DRAWINGS.
10. REINFORCED CONCRETE WALLS EXPOSED TO FIRE ON BOTH SIDES SIMULTANEOUSLY SHALL HAVE THE MINIMUM COVER REQUIREMENTS FOR COLUMNS.
11. DOWELS TO EXISTING CONCRETE SHALL USE THE HILTI HIT-RE500 DOWELING SYSTEM, UNLESS OTHERWISE APPROVED BY THE CONSULTANT. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. OBTAIN CONSULTANT'S APPROVAL PRIOR TO DRILLING/DOWELING ANY REINFORCEMENT.
12. THE CONTRACTOR SHALL MODIFY THE LAYOUT OF NEW THROUGH BOLTS, EXPANSION ANCHORS AND OTHER ANCHORING DEVICES TO AVOID EXISTING CONCRETE REINFORCEMENT.
13. DOWELS FROM WALLS TO SLABS SHALL HAVE A MINIMUM EMBEDMENT OF 600 mm INTO WALLS AND SLABS UNLESS OTHERWISE NOTED OR SHOWN.
14. PROVIDE DOWELS TO WALLS AND COLUMNS SIMILAR IN NUMBER, SIZE AND SPACING TO THE VERTICAL STEEL IN THE WALL OR COLUMN ABOVE UNLESS OTHERWISE NOTED OR SHOWN.
15. PROVIDE MINIMUM SLAB BEARING OF 150 mm FOR SLABS LESS THAN 150 mm THICK AND 200 mm FOR THICKER SLABS, UNLESS NOTED OTHERWISE.
16. CONSTRUCTION JOINTS SHALL BE DOWELED, KEYED AND THOROUGHLY CLEANED. ALL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL CONSTRUCTION JOINT DETAILS AND ANY CORRESPONDING NOTES BELOW:
   a. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE MADE IN BEAMS UNLESS SHOWN OR REVIEWED AND APPROVED BY THE CONSULTANT.
   b. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE MADE IN WALLS OR COLUMNS WITHOUT PRIOR APPROVAL FROM THE CONSULTANT.
   c. VERTICAL CONSTRUCTION JOINTS MAY BE MADE ONLY AT MIDSPAN OF BEAMS OR SLABS UNLESS OTHERWISE NOTED OR SHOWN OR DIRECTED, AND THEIR LOCATION SHALL BE REVIEWED AND APPROVED BY THE CONSULTANT.
   d. WHERE THE SIZE OF KEY IS NOT SHOWN ON THE DRAWINGS, THE KEY SHALL BE 25% OF THE CROSS SECTION DIMENSION AND A MINIMUM OF 38 mm INTO THE FIRST POUR OF CONCRETE.
   e. REFER TO SPECIFICATIONS FOR POUR LENGTH LIMITATIONS.
17. CONTRACTOR TO SUBMIT PROPOSED LOCATIONS OF CONSTRUCTION JOINTS FOR APPROVAL PRIOR TO START OF WORK.
18. PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS IN ELEMENTS RETAINING EARTH OR EXPOSED TO WEATHER.
19. OPENINGS, SLEEVES, EMBEDDED DUCTS:
   a. COORDINATE AND INSTALL ALL REQUIRED EMBEDDED ITEMS, INSETS SLEEVES, POCKETS, ETC. AS REQUIRED PRIOR TO PLACEMENT OF CONCRETE.
   b. NO SLEEVES SHALL BE PLACED VERTICALLY OR HORIZONTALLY THROUGH BEAMS UNLESS REVIEWED AND APPROVED BY THE CONSULTANT.
   c. ELECTRICAL CONDUITS SHALL NOT PASS THROUGH A COLUMN OR IN THE VICINITY OF A COLUMN AS SHOWN ON THE TYPICAL DETAILS.
   d. PIPE OR DUCT PENETRATIONS EXCEEDING ONE QUARTER OF THE SLAB OR WALL THICKNESS ARE NOT PERMITTED UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
   e. NO OPENINGS SHALL BE MADE IN FLAT PLATE OR FLAT SLAB COLUMN STRIPS EXCEPT AS SHOWN ON PLANS OR UNLESS REVIEWED AND APPROVED BY THE CONSULTANT.
   f. NO ALUMINUM CONDUIT OR OTHER SUCH PRODUCTS WITH MATERIAL DETRIMENTAL TO THE LONGEVITY OF THE CONCRETE SHALL BE EMBEDDED IN THE STRUCTURE.
   g. PROVIDE ADDITIONAL REINFORCING AT OPENINGS AS DETAILED IN THE TYPICAL DETAILS.
   h. OBTAIN CONSULTANT'S APPROVAL FOR ANY OPENINGS REQUIRED BUT NOT SHOWN ON STRUCTURAL DRAWINGS.
20. PROVIDE INSERTS AND ANCHOR BOLTS IN ELEVATOR PITS AND SHAFTS AS REQUIRED.
21. CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED CAST IS COMPLETED.
22. PROVIDE 19 mm x 19 mm CHAMFER STRIP AT ALL EXPOSED CORNERS OF CONCRETE WALLS, INCLUDING EXPOSED CORNERS OF CONCRETE PIERS UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.
23. IN CASES WHERE CONCRETE FINISHES ARE GROUND OR POLISHED ENSURE THAT ADEQUATE COVER IS ACHIEVED IN THE FINAL CONDITION.
24. THE CONCRETE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POUR SEQUENCES AND CONSTRUCTION PROCEDURES FOR ALL CONCRETE WORK TO ACCOUNT FOR TEMPERATURE DIFFERENTIALS AND SHRINKAGE OCCURRING DURING THE CONSTRUCTION PHASE UNTIL THE BUILDING IS PERMANENTLY IN A MECHANICALLY CONTROLLED ENVIRONMENT.
25. PROVIDE POCKETS OR RECESSES IN CONCRETE WORK FOR STEEL COLUMNS AND BEAMS AS REQUIRED AND/OR AS CALLED FOR IN THE SPECIFICATIONS EVEN IF NOT SHOWN ON THE DRAWINGS. PROVIDE CONCRETE FILL AFTER STEEL ERECTION TO SEAL OPENINGS.
26. CONCRETE CONTRACTOR SHALL INCLUDE IN HIS ESTIMATE ADDITIONAL CONCRETE QUANTITY AS REQUIRED TO COMPENSATE FOR DEFLECTIONS OF METAL DECK AND UN-SHORED COMPOSITE BEAMS AND TO PROVIDE A LEVEL CONCRETE SURFACE. REFER TO COMPOSITE STEEL BEAM (UNDER STRUCTURAL STEEL) AND METAL DECK NOTES FOR ADDITIONAL CONSIDERATIONS.
27. THE USE OF CHLORIDES SUCH AS DEICING SALTS IS PROHIBITED FOR MELTING ICE PRIOR TO PLACEMENT OF CONCRETE.
28. MINIMUM ELAPSED TIME BETWEEN ADJACENT CONCRETE PLACEMENTS SHALL BE 48 HOURS.
29. JOINTS BETWEEN THE STRUCTURAL (AND ARCHITECTURAL) MEMBERS SHALL BE PROPERLY PREPARED AND FILLED WITH JOINT SEALANT UNLESS NOTED OTHERWISE. ALL JOINT EDGES, INCLUDING TOP AND BOTTOM SURFACES AND VERTICAL AND HORIZONTAL SURFACES SHALL BE FORMED OR TOOLED AS REQUIRED. JOINT SEALANT SHALL BE APPLIED ONLY TO THE TOP, VERTICAL, AND HORIZONTAL SURFACES UNLESS NOTED OTHERWISE ON THE DRAWINGS.
30. JOINTS TO BE PREPARED AND FILLED WITH JOINT SEALANT SHALL INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION JOINTS, CONTROL JOINTS, ISOLATION JOINTS, AND ALL INTERFACE JOINTS BETWEEN SIMILAR AND DISSIMILAR MEMBERS. SPECIFIC LOCATIONS MAY BE INDICATED ON THE DRAWINGS, OR MAY BE REQUIRED BY APPROVED SHOP DRAWINGS, OR MAY OCCUR DUE TO THE CONSTRUCTION SEQUENCE SELECTED BY THE CONTRACTOR.
31. PRIOR TO PLACING CONCRETE ADJACENT TO EXISTING CONCRETE WITHOUT A CONSTRUCTION JOINT, THOROUGHLY CLEAN, DE-GREASE AND MECHANICALLY ROUGHEN EXISTING CONCRETE SURFACES. APPLY EPOXY BONDING AGENT PRIOR TO PLACING FRESH CONCRETE. FOLLOW ALL MANUFACTURER'S INSTRUCTIONS FOR SURFACE PREPARATION, MIXING AND APPLICATION.
32. TOOL SLAB JOINTS AT THE TIME OF FINISHING. SAW CUTTING IS NOT ALLOWED UNLESS APPROVED BY THE ENGINEER.
33. WHERE NEW CONCRETE ELEMENTS ARE CAST AGAINST EXISTING CONCRETE ELEMENTS OR STRUCTURES, PROVIDE NECESSARY TEMPORARY SHORING TO RESIST FULL HYDROSTATIC PRESSURE OR OTHERWISE EMPLOY NECESSARY MEANS AND METHODS TO AVOID EXERTING ANY PRESSURE OR LOADING ON THE EXISTING STRUCTURE.

5. SOILS, BACKFILLING, AND COMPACTION

1. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE CONDITION AND ASSURE THE ADEQUACY OF ALL EXCAVATIONS, SUB-GRADES, FILLS, AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS AND WALLS.
2. BACKFILL MATERIAL SHALL CONSIST OF CLEAN, WELL GRADED GRANULAR SOILS FREE OF ORGANIC MATERIAL, SILT AND CLAY AS SPECIFIED IN THE EARTH WORKS SPECIFICATION SECTION.
3. BACKFILLING SHALL BE CARRIED OUT IN MAXIMUM LIFTS OF 300 mm OF LOOSE FILL, EACH COMPACTED THE STANDARD PROCTOR MAXIMUM DRY DENSITY INDICATED IN THE SPECIFICATIONS.
4. DO NOT PLACE BACKFILL AGAINST WALLS RETAINING EARTH (OTHER THAN CANTILEVER WALLS) UNTIL THE WALLS AND THE FLOOR CONSTRUCTIONS AT TOP AND BOTTOM OF THE WALLS HAVE BEEN CAST AND ATTAINED THEIR DESIGN STRENGTH.
5. WHERE BACKFILL IS PLACED ON EACH SIDE OF FOUNDATION WALLS, DO NOT EXCEED A GRADE DIFFERENCE OF 600 mm.
6. USE LIGHT, HAND-OPERATED COMPACTING EQUIPMENT TO COMPACT BACKFILL ADJACENT TO FOUNDATION WALLS OR RETAINING WALLS.
7. EXCAVATED MATERIAL SHALL BE LEGALLY DISPOSED OF, STORED AT THE SITE, OR USED FOR BACKFILLING OPERATIONS AS REQUIRED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERS RECOMMENDATIONS AND PROJECT SPECIFICATIONS.
8. GROUNDWATER LEVEL IS ASSUMED TO BE AT 2.80 m BELOW GRADE FOR PURPOSES OF DESIGN AND CONSTRUCTION. ACTUAL GROUNDWATER LEVELS ENCOUNTERED DURING CONSTRUCTION MAY FLUCTUATE DUE TO SEASONAL AND ENVIRONMENTAL VARIATIONS. WATER PUMPING WOULD BE REQUIRED DURING CONSTRUCTION. REFER TO THE GEOTECHNICAL INVESTIGATION REPORT FOR SPECIFIC RECOMMENDATIONS.
9. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE GEOTECHNICAL INFORMATION AND TO OBTAIN HIS OWN DATA AND TO POINT OUT DISCREPANCIES TO THE CONSULTANT WHERE THEY OCCUR.

6. FOUNDATIONS

1. REFER TO ALL NOTES UNDER FOUNDATION PLANS.
2. FOUND ALL FOOTINGS IN NATURALLY CONSOLIDATED UNDISTURBED SOIL OR COMPACTED ENGINEERED FILL CAPABLE OF SAFELY SUSTAINING A FACTORED ULTIMATE LIMITS STATE BEARING PRESSURE OF 85 kPa. IF THESE CONDITIONS DO NOT PREVAIL AT THE ELEVATIONS SHOWN, EXCAVATE DOWN TO THE UNDISTURBED SOIL AND REPLACE WITH ENGINEERED FILL (REFER TO TYPICAL DETAILS).
3. WHERE STRUCTURAL ELEMENTS, FOOTINGS, TUNNELS, PITS, PIERS, ETC. BEAR ON SHALE, PROTECT THE BEARING SURFACE WITH A 65 mm MUD SLAB. OBTAIN GEOTECHNICAL CONSULTANT'S APPROVAL PRIOR TO MUD SLAB PLACEMENT.
4. CONTRACTOR SHALL CARRY OUT EXCAVATION, DEWATERING, BACKFILLING AND FOUNDATION CONSTRUCTION IN ACCORDANCE WITH RECOMMENDATIONS OF GEOTECHNICAL REPORT.
5. SIDES OF FOUNDATIONS SHALL BE FORMED UNLESS CONDITIONS PERMIT EARTH FORMING. FOUNDATIONS POURED AGAINST EARTH REQUIRE THE FOLLOWING PRECAUTIONS BE ADHERED TO:
   a. PROVIDE APPROPRIATE CONCRETE COVER.
   b. SLOPE SIDES OF EXCAVATIONS AS APPROVED BY GEOTECHNICAL ENGINEER.
   c. CLEAN UP SLOUGHING BEFORE AND DURING CONCRETE PLACEMENT.
6. CARRY EXTERIOR FOOTINGS DOWN 2800 mm MINIMUM BELOW FINISHED GRADE OR FOUND THEM ON SOUND UN-WEATHERED BEDROCK. PROTECT FOOTINGS EXPOSED TO FROST DURING CONSTRUCTION WITH 2800 mm OF EARTH OR ITS EQUIVALENT TO PREVENT FREEZING OF SOIL UNDER FOOTINGS.
7. WHERE FOOTING STEPS ARE NECESSARY, THEY SHALL BE NO STEEPER THAN ONE VERTICAL TO TWO HORIZONTAL UNLESS NOTED OTHERWISE.
8. FOOTING SHALL BE CENTERED UNDER COLUMNS AND WALLS UNLESS SPECIFICALLY DETAILED OTHERWISE ON THE DRAWINGS.
9. DOWELS SHALL BE PLACED BEFORE CONCRETE IS CAST. "WET-STICKING" DOWELS IS NOT PERMITTED UNLESS APPROVED BY THE ENGINEER. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS.
10. NO FOOTINGS OR SLABS SHALL BE PLACED ON OR AGAINST SUB-GRADE CONTAINING FREE WATER, FROST OR ICE. SHOULD WATER OR FROST, HOWEVER SLIGHT ENTER A FOOTING EXCAVATION AFTER SUB-GRADE APPROVAL, THE SUB-GRADE SHALL BE RE-INSPECTED BY THE GEOTECHNICAL ENGINEER AFTER REMOVAL OF THE WATER OR FROST.
11. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT FROST OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUB-GRADE BEFORE AND AFTER CASTING CONCRETE UNTIL THE FULL BUILDING ENCLOSURE IS COMPLETED AND HEATED.
12. FOUNDATION INSULATION SHALL CONSIST OF EXTRUDED POLYSTYRENE WITH A MINIMUM COMPRESSIVE STRENGTH OF 0.275 MPa UNLESS OTHERWISE NOTED.
13. DO NOT EXCEED A RISE OF 1 IN A RUN OF 2 IN THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS. MAXIMUM STEP 600 mm APPROXIMATELY UNLESS NOTED OTHERWISE.
14. INSULATION IS SHOWN WHERE REQUIRED FOR PROTECTION OF THE FOUNDATIONS FROM DAMAGE DUE TO FROST ACTION ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR FOUNDATION INSULATION NOT SHOWN ON THE STRUCTURAL DRAWINGS.
15. FOUNDING ELEVATIONS/HEIGHT OF RETAINING WALLS SHOWN ON STRUCTURAL DRAWINGS ARE BASED ON SURVEY INFORMATION PROVIDED BY A THIRD PARTY SURVEYOR. THOROUGHLY REVIEW THE SITE AND CONFIRM ALL GRADES PRIOR TO EXECUTING THE WORK. REPORT ANY INCONSISTENCIES TO THE CONSULTANT.

7. SLAB ON GRADE

1. UNDER SLAB FILL SHALL CONSIST OF A MINIMUM OF 300 mm OF COMPACTED GRANULAR MATERIAL AS STATED IN THE SPECIFICATIONS.
2. PLACE SLABS-ON-GRADE ON MATERIAL CAPABLE OF SUSTAINING 25 kPa SURCHARGE WITHOUT SETTLEMENT RELATIVE TO THE BUILDING FOUNDATIONS.

8. STRUCTURAL SLAB ON GRADE

1. FOUND STRUCTURAL SLAB ON GRADE ON 300mm COMPACTED GRAVEL.
2. CLEAN ANY LOOSE SOIL UNDER SLAB ON GRADE.
3. PLACE SLABS-ON-GRADE ON MATERIAL CAPABLE OF SUSTAINING 25 kPa SURCHARGE WITHOUT SETTLEMENT RELATIVE TO THE BUILDING FOUNDATIONS.
4. KEEP UNDERSIDE OF SLAB BELOW GRADE (MIN) 300mm.

9. REINFORCING STEEL

1. REINFORCING STEEL SHALL BE DEFORMED BAR CONFORMING TO CSA STANDARD G30.18-09 (R2014), GRADE 400R, UNLESS OTHERWISE NOTED. REINFORCING STAINLESS STEEL BARS SHALL BE GRADE 420. BAR MARKS WITH PREFIX 'S' DENOTE STAINLESS STEEL BARS. BAR MARKS WITH PREFIX 'C' DENOTED EPOXY-COATED STEEL BARS.
2. REFER TO TYPICAL DETAILS FOR MINIMUM COVER TO REINFORCEMENT.

DRAWING LIST

SHEET NUMBER	DRAWING NAME	SHEET NUMBER	DRAWING NAME
S01-00-01	GENERAL NOTES	S20-03-01	PRIVY - FOUNDATION PLAN
S01-00-02	GENERAL NOTES	S20-04-01	3 SIDED KITCHEN - FOUNDATION PLAN
S02-00-01	TYPICAL DETAILS	S20-05-01	WINTER KITCHEN - FOUNDATION PLAN
S02-00-02	TYPICAL DETAILS	S20-07-01	WASHROOM - FOUNDATION PLAN
S02-00-03	TYPICAL DETAILS	S20-08-01	AMPHITHEATRE - FOUNDATION
S20-01-01	GATE HOUSE - FOUNDATION PLAN	S50-00-01	SECTIONS & DETAILS
S20-02-01	CONCESSION - FOUNDATION PLAN	S50-00-02	SECTIONS & DETAILS

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A / C — A / B | C

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

PROFESSIONAL ENGINEER AHMED ABBASS ELSHAFEY ALBERTA

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency Western and Northern Region

L'Agence Parcs Canada Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

GENERAL NOTES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
R.WONG	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: S01-00-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\STRU\SHEETS\FOUNDATION SET\S01-00-01.DWG PLOTTED: 2021/01/25 12:36 PM

0 10 20 30 40 50 60 70 80 90 100mm

3. REINFORCING BAR AREAS ARE 100, 200, 300, 500, 700, 1000, 1500 AND 2500 mm² FOR BAR DESIGNATIONS 10, 15, 20, 25, 30, 35, 45 AND 55, RESPECTIVELY.

4. WELDED WIRE FABRIC SHALL HAVE A MINIMUM YIELD STRENGTH OF 450 MPa AND SHALL CONFORM TO CSA STANDARD G30.5. SUPPLY IN FLAT SHEET ONLY.

5. PRE-STRESSING STRANDS SHALL CONFORM TO CSA STANDARD G279.

6. REINFORCING STEEL IS TO BE DETAILED, BENT AND PLACED IN ACCORDANCE WITH R.S.I.C. REINFORCING STEEL MANUAL OF STANDARD PRACTICE. SUBMIT SHOP DRAWINGS INDICATING ALL DETAILS OF REINFORCING STEEL PLACEMENT.

7. ALL REINFORCEMENT SHALL BE SECURELY HELD IN PROPER POSITION WHILE POURING CONCRETE. CONTRACTOR SHALL PROVIDE CHAIRS, SPACER BARS, SUPPORT BARS AND OTHER ACCESSORIES TO SUPPORT REINFORCING. ALL THE WIRE, CHAIRS AND BAR SUPPORTS FOR FOUNDATIONS AND FOR EXPOSED CONCRETE SHALL BE NON-METALLIC OR COATED.

8. CONTRACTOR AND REBAR DETAILER SHALL NOT USE ANY OF THE STRUCTURAL REINFORCEMENT SHOWN ON PLANS AS ACCESSORY/SUPPORT BARS. SUPPORT BARS MUST BE PROVIDED TO MAINTAIN LOCATION OF STRUCTURAL REINFORCEMENT AS INDICATED ON PLANS.

9. TACK WELDING OF REINFORCEMENT IS NOT PERMITTED. WELDED SPLICES IN REINFORCING BARS WILL ONLY BE PERMITTED IF EXPLICITLY SHOWN ON THE STRUCTURAL DRAWINGS OR IF WRITTEN APPROVAL IS GIVEN BY THE CONSULTANT.

10. PROVIDE CLASS 'B' TENSION LAP SPLICES U.N.O. ALL SPLICE LOCATIONS SHALL BE TO THE APPROVAL OF THE CONSULTANT.

11. APPROVED REBAR COUPLERS MAY BE USED AT THE CONTRACTOR'S OPTION TO AID PLACEMENT OF DOWELS THROUGH FORMS. MECHANICAL SPLICES SHALL DEVELOP 125% OF THE TENSILE STRENGTH OF THE REBAR.

12. LAP SPLICES IN WELDED WIRE MESH SHALL NOT BE LESS THAN 200 mm, AS MEASURED BETWEEN THE OUTERMOST CROSS-WIRES OF EACH FABRIC SHEET.

10. STRUCTURAL STEEL

1. REFER TO ALL GENERAL NOTES, SPECIFICATIONS, TYPICAL DETAILS, AND NOTES UNDER PLANS.

2. STRUCTURAL STEEL SHALL CONFORM TO THE MATERIAL GRADE SHOWN BELOW:

STRUCTURAL STEEL GRADES	
MEMBER	MATERIAL GRADE
ANCHOR RODS	300W
STRUCTURAL STEEL EXPOSED TO WEATHER	350WT CATEGORY 4 STEEL CHARPY IMPACT 27 JOULES AT -45°C

3. ALL EXPOSED STEEL ANCHOR BOLTS TO BE HOT DIP GALVANIZED TO PREVENT RUST.

10. TESTING AND INSPECTION

THE CONTRACTOR SHALL ARRANGE FOR THE FOLLOWING ITEMS TO BE INSPECTED OR TESTED BY AN INDEPENDENT THIRD-PARTY INSPECTION/TESTING AGENCY ACCEPTABLE TO THE OWNER AND THE CONSULTANT. THE ITEMS TO BE TESTED SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING.

0. GEOTECHNICAL:
PERFORM ALL TESTING AND INSPECTION (COMPACTION, BEARING CAPACITY, SUB GRADE PREPARATION ETC.) AS PER THE REQUIREMENTS OF THE DRAWINGS AND THE SOILS REPORT.

1. CONCRETE:
CONCRETE TO BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1 AND A23.2, INCLUDING THE REQUIREMENTS FOR AIR, SLUMP AND AGE PRIOR TO BEING USED. CONTRACTOR TO MAINTAIN RECORDS OF POUR DATES, TESTING PERFORMED, CLASS OF CONCRETE USED AND TEST RESULTS FOR ALL ITEMS POURED. RESULTS OF CYLINDER STRENGTH TESTING TO BE SENT TO OWNER AND CONSULTANT. ALL MIX DESIGNS TO BE REVIEWED AND CERTIFIED BY TESTING AGENCY.

2. MASONRY:
SAMPLE AND TEST JOB-MIXED GROUT IN ACCORDANCE WITH CSA A179 AND CSA S304.1. TEST FREQUENCY TO BE IN ACCORDANCE WITH S304.1, BUT NOT LESS THAN ONE TEST FOR EACH DAY OF WORK. CONTRACTOR TO SUBMIT LABORATORY TEST REPORTS OF MANUFACTURER FOR CONCRETE MASONRY UNITS.

3. REINFORCING STEEL AND MASONRY:
CONTRACTOR SHALL ADVISE CONSULTANT OF PLACEMENT OF ALL REINFORCING STEEL FOR REINFORCED MASONRY OR REINFORCED CONCRETE, AT LEAST 24 HOURS PRIOR TO PLANNED TIME OF GROUT OR CONCRETE PLACEMENT.

DESIGN NOTES

1. DESIGN

1. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE:
   a. NATIONAL BUILDING CODE OF CANADA (2015)
   b. CSA - A438-00 "CONCRETE CONSTRUCTION FOR HOUSING AND SMALL BUILDINGS"

2. ALL REINFORCED CONCRETE ELEMENTS HAVE BEEN DESIGNED AND OR SHALL BE CONSTRUCTED IN ACCORDANCE WITH:
   a. CSA - A23.3 "DESIGN OF CONCRETE STRUCTURES"
   b. CSA - A23.1 "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION"
   c. CSA - A23.2 "TEST METHODS AND STANDARD PRACTICES FOR CONCRETE"

3. ALL CONCRETE FORMWORK AND OR FALSEWORK SHALL CONFORM WITH:
   a. CSA - 269.1 "FALSEWORK FOR CONSTRUCTION PURPOSES"
   b. CSA - S269.2-M "ACCESS SCAFFOLDING FOR CONSTRUCTION PURPOSES"
   c. CSA - S269.3-M "CONCRETE FORMWORK"

4. ALL STRUCTURAL STEEL ELEMENTS HAVE BEEN DESIGNED AND OR SHALL BE CONSTRUCTED IN ACCORDANCE WITH:
   a. CSA - S16 "DESIGN OF STEEL STRUCTURES"
   b. ASTM A653 / A653M "STANDARD SPECIFICATION FOR STEEL SHEET, ZINC COATED (GALVANIZED) OR ZINC-IRON ALLOY-COATED (GALVANNEALED) BY THE HOT-DIP PROCESS
   c. ASTM A307 "SPECIFICATION FOR CARBON STEEL BOLTS AND STUDS".

5. ALL WELDS SHALL BE DESIGNED AND OR COMPLETED IN ACCORDANCE WITH:
   a. CSA - W59 "WELDED STEEL CONSTRUCTION (METAL ARC WELDING)"
   b. CSA - W47.1 " CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL"

6. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF REQUIRED FIRE RESISTANCE AND RATINGS.

7. UNIT FLOOR AND ROOF LOADINGS, SOIL BEARING PRESSURES AND FOUNDATION LOADS GIVEN ON DRAWINGS ARE UNFACTORED. MEMBER FORCES GIVEN ON DRAWINGS ARE FACTORED.

2. LATERAL LOADS ON STRUCTURAL FRAME

THE STRUCTURE HAS BEEN DESIGNED TO RESIST THE LEAST FAVORABLE EFFECTS OF THE WIND AND EARTHQUAKE LOADS. THE DESIGN PARAMETERS FOR THESE LOADS ARE AS NOTED BELOW:

- LOCATION: CRANDELL CAMPGROUND, WATERTON, ALBERTA
- DESIGN LIFESPAN: 50 YEARS

1. WIND LOADS:

WIND LOAD
Q = Iw [q (Ce x Cp x Cg)]

	C_pC_g	ULS Q (kPa)	SLS Q (kPa)
1	1.03	0.89	0.67
1E	1.37	1.18	0.89
4	-0.73	-0.63	-0.48
4E	-1.0	-0.87	-0.65

FACTORS
Iw = 1.0 ULS, 0.75 SLS
q = 0.96 kPa
Ce = VARIES

2. EARTHQUAKE LOADS:

- DESIGN GROUND MOTION VALUES:
  Sa (0.2) = 0.284 Sa (1.0) = 0.119 Sa (5.0) = 0.0190 PGA = 0.132
  Sa (0.5) = 0.202 Sa (2.0) = 0.0560 Sa (10.0) = 0.0066 PGV = 0.115
- SITE CLASSIFICATION FOR SEISMIC SITE RESPONSE:
  CLASS = E
- ACCELERATION AND VELOCITY SITE COEFFICIENTS:
  Fa = 1.19 Fv = 1.50
- TYPES OF SEISMIC FORCE RESISTING SYSTEM:
  Rd = 3.0 Ro = 1.3 (FOR STEEL)
  Rd = 3.0 Ro = 1.7 (FOR WOOD)
- BASE SHEAR:
  $V = \frac{S \times Ta \times Mu \times Ie \times W}{Rd \times Ro}$

3. THE LATERAL FORCES DUE TO WIND OR EARTHQUAKE ARE RESISTED BY EITHER WOOD SHEAR WALLS OR STEEL BRACING & MOMENT CONNECTION FRAMING.

4. THE STRUCTURAL STEEL FRAMING HAS BEEN DESIGNED BASED ON 'SIMPLE' CONSTRUCTION.

3. DEAD LOADS (SERVICE)

1. DEAD LOADS ARE LOADS GENERATED BY THE SELF-WEIGHT OF THE STRUCTURE.

2. SUPERIMPOSED DEAD LOADS ARE LOADS GENERATED BY THE WEIGHT OF MECHANICAL SYSTEMS, ELECTRICAL SYSTEMS, TOPPINGS, PARTITIONS, AND MISCELLANEOUS LOADINGS.

3. REFER TO NOTES ON PLANS FOR ALL LOADS APPLIED TO THE STRUCTURE.

4. ROOF LIVE LOADS

1. THE ROOF AREAS HAVE BEEN DESIGNED TO RESIST THE LEAST FAVOURABLE EFFECTS OF THE SNOW, RAIN, AND WIND LOADINGS. THE DESIGN PARAMETERS FOR THESE LOADS ARE NOTED BELOW.

2. SNOW LOAD:
   f. THE FOLLOWING SNOW LOAD HAS BEEN CONSIDERED IN THE DESIGN OF THE ROOF AREAS.

SNOW LOAD
S = Is [Ss (Cb x Cw x Cs x Ca) + Sr]

S = 1.9 kPa (SLS)

S = 2.2 kPa (ULS)

FACTORS
Is = 1.0 ULS, 0.9 SLS
Ss = 2.5 kPa
Sr = 0.1 kPa
Cb = 0.8
Cw = 1.0
Cs = 1.0
Ca = 1.0

   g. ADDITIONAL SNOW ACCUMULATION ADJACENT TO HIGHER WALLS, ROOFS, AND MECHANICAL UNITS IS INDICATED ON PLANS.

   h. ALL ROOFS HAVE BEEN DESIGNED ASSUMING THAT SNOW STOPS OR FENCES WILL BE INSTALLED TO PREVENT SLIDING OF SNOW FROM HIGHER BACK SLOPING OR CURVED ROOFS ONTO LOWER ROOFS.

3. RAIN LOAD:
   a. THE DESIGN OF THE ROOF STRUCTURE IS BASED ON THE ASSUMPTION THAT THE FLOW CONTROL ROOF DRAINS SATISFY ALL REQUIREMENTS OF THE NATIONAL PLUMBING CODE OF CANADA, 2015 EDITION.

   b. THE TOTAL RAIN LOAD APPLIED OVER THE HORIZONTAL PROJECTION OF THE SURFACE SHALL BE THE LESSER OF EITHER THE ONE-DAY RAINFALL OR A DEPTH OF RAINWATER EQUAL TO 30 mm ABOVE THE LEVEL OF THE SCUPPERS

   ONE-DAY RAINFALL = 103 mm (1/50 yr)
   DESIGN RAIN LOAD = 103 mm

   c. THE ACTUAL DISTRIBUTION OF THIS LOAD HAS BEEN ADJUSTED TO ACCOUNT FOR THE ACTUAL ROOF SLOPES AND PROFILE.

4. WIND UPLIFT ON ROOFS:

   a. ROOF ELEMENTS (TRUSSES, JOISTS, STEEL DECK, BEAMS, ETC) AND THEIR CONNECTIONS TO THE STRUCTURE ARE TO BE DESIGNED FOR THE UPWARD SUCTION DUE TO WIND. THE UNFACTORED NET UPWARD DESIGN PRESSURES ARE SHOWN ON DETAIL XXX.

5. LIVE AND OTHER LOADS:

   a. SEE NOTES ON FLOOR PLANS. ALL VALUES GIVEN ARE UNFACTORED LOADS UNLESS OTHERWISE SHOWN ON PLAN.

   b. LIVE LOADS ON ALL STRUCTURAL ELEMENTS HAVE BEEN REDUCED AS PERMITTED BY CODE.

5. GEOTECHNICAL INFORMATION

1. THE FOLLOWING GEOTECHNICAL INVESTIGATION REPORT(S) HAS(VE) BEEN USED BY THE ENGINEER IN DESIGN AND PREPARATION OF THE DRAWINGS: FILE NO. 2511-01195-00 AS PREPARED BY MCEIHANNEY DATED DECEMBER 12, 2019. REFER TO THE REPORT FOR ANY PARTICULARS AS TO SOIL CONDITIONS AND FOUNDATION RECOMMENDATIONS.

2. REFER TO FOUNDATION GENERAL NOTES FOR SOIL BEARING CAPACITY.

6. LATERAL LOADS ON FOUNDATION WALLS

1. WALLS RETAINING EARTH ARE DESIGNED TO WITHSTAND A HORIZONTAL PRESSURE 'P' [kPa] AT ANY DEPTH 'h' [m] GIVEN BY THE EQUATION:
   P = K (g x h + q)

   WHERE THE: SOIL PRESSURE COEFFICIENT K = 0.55
   UNIT WEIGHT OF SOIL g = 20.0 kN/m²
   SURCHARGE q = 12.0 kPa

2. THE WALLS HAVE BEEN DESIGNED ASSUMING FREE DRAINING BACKFILL WHICH DOES NOT PERMIT THE BUILD-UP OF HYDROSTATIC PRESSURE. REFER ALSO TO TYPICAL DETAILS.

7. SERVICEABILITY CRITERIA

1. TYPICAL HORIZONTAL ELEMENTS NOT SUPPORTING CLADDING HAVE BEEN DESIGNED SO THAT THE THEORETICAL DEFLECTIONS WILL NOT EXCEED THE FOLLOWING VALUES:

DEFLECTION LIMITS		
TYPE OF MEMBER	DEFLECTION TO BE CONSIDERED	DEFLECTION LIMIT
REINFORCED CONCRETE MEMBERS		
ROOF OR FLOOR CONSTRUCTION SUPPORTING NON-STRUCTURAL ELEMENTS NOT LIKELY TO BE DAMAGED BY LARGE DEFLECTION	SUM OF THE LONG-TERM DEFLECTION DUE TO ALL SUSTAINED LOADS AND THE IMMEDIATE DEFLECTION DUE TO ANY ADDITIONAL LIVE LOAD	SPAN/240
FLOOR NOT SUPPORTING NON-STRUCTURAL ELEMENTS LIKELY TO BE DAMAGED BY LARGE DEFLECTION	IMMEDIATE DEFLECTION DUE TO SPECIFIED LIVE LOAD	SPAN/360
ROOF OR FLOOR CONSTRUCTION SUPPORTING NON-STRUCTURAL ELEMENTS LIKELY TO BE DAMAGED BY LARGE DEFLECTION	THAT PART OF THE TOTAL DEFLECTION OCCURRING AFTER ATTACHMENT OF NON-STRUCTURAL ELEMENTS	SPAN/480

8. PROVISIONS FOR FUTURE EXTENSIONS

1. THE STRUCTURE HAS NOT BEEN DESIGNED FOR ANY FUTURE EXTENSIONS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur
APEGA PP#11944
Jan. 26/ 2021

Client
Parks Canada Agency Western and Northern Region
L'Agence Parcs Canada Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney
Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet
CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin
GENERAL NOTES

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
R.WONG	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		S01-00-02

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\STRU\SHEETS\FOUNDATION SET\S01-00-02.DWG PLOTTED: 2021/01/26 12:37 PM

Paper Size: ANSI D (22 x 34")

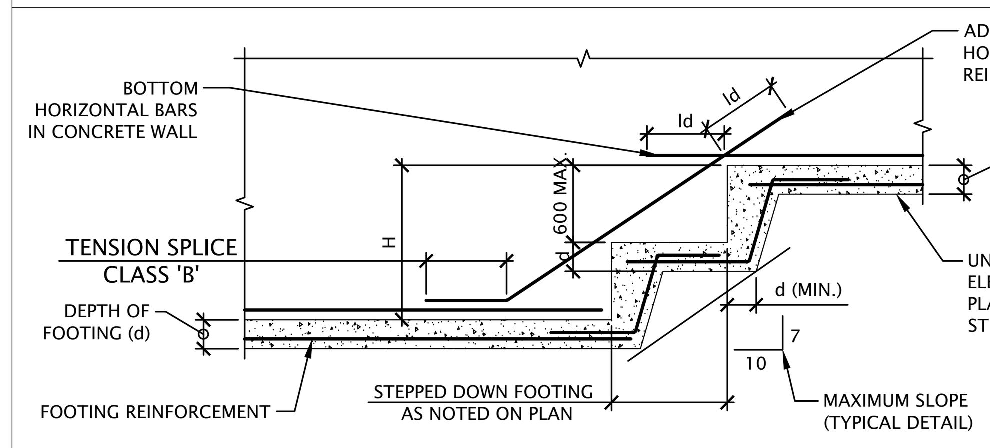
0 10 20 30 40 50 60 70 80 90 100mm

STRUCTURAL ABBREVIATIONS TD-1

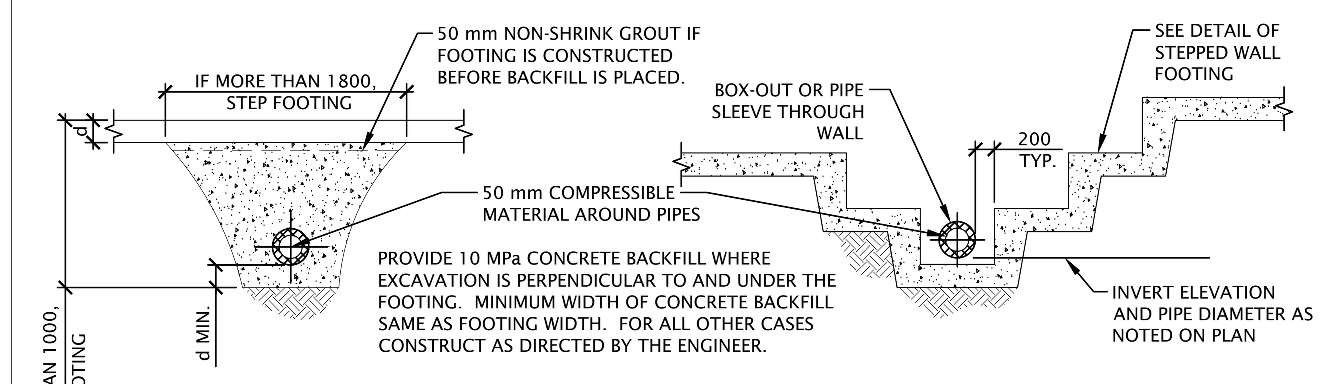
AB	ANCHOR BOLT
ABC	ALBERTA BUILDING CODE
ADJ	ADJUSTABLE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
ALT	ALTERNATE
ARCH	ARCHITECTURAL
AIFB	ASPHALT IMPREGNATED FIBREBOARD
B, BOT	BOTTOM
BC	ELEV. BOT. OF CAISSON
BET	BETWEEN
BEW	BOTTOM EACH WAY
BLDG	BUILDING
BLL	BOTTOM LOWER LAYER
BM	BEAM
BM	BENDING MOMENT BAR
BPL	BEARING/BASE PLATE
BRG	BEARING
BSMT	BASEMENT
BUL	BOTTOM UPPER LAYER
C	CHANNEL
c/c	CENTRE TO CENTRE
c/w	COMPLETE/CONNECT WITH
CA	COLUMN ABOVE
CB	COLUMN BELOW
CANT	CANTILEVER
CF	CONCRETE FIREPROOFED
CJ	CONTROL JOINT
CL	CLEAR
℄	CENTRE LINE
COMP	COMPOSITE
COL	COLUMN
CONC	CONCRETE
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
DET	DETAIL
D.FIR	DOUGLAS FIR
DIA, Ø	DIAMETER
DIM	DIMENSION
DIAG	DIAGONAL
DL	DEAD LOAD
DO, "	DITTO
DP	DEEP
DWG	DRAWING
DWL	DOWEL
DN	DOWN
DS	DOUBLE STIRRUPS
EA	EACH
EC	EPOXY COATED
EE	EACH END
EF	EACH FACE
EJ, EXP JT	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC, ELECT	ELECTRICAL
EMBED	EMBEDMENT
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EX, EXIST	EXISTING
EXT	EXTERIOR
FIN	FINISHED
FL	FLOOR
FTG	FOOTING
FMC	FULL MOMENT CONNECTION
fy	YIELD STRENGTH
f'c	COMPRESSIVE STRENGTH OF CONC
FF	FAR FACE
GALV	GALVANIZED
GA	GAUGE
GL	GRIDLINE
HE	HOOK EACH END
HH	HOOK - HOOK (HOOK EACH END)
HIF	HORIZONTAL INSIDE FACE
HOF	HORIZONTAL OUTSIDE FACE
HOR. HORIZ	HORIZONTAL
HEF	HORIZONTAL EACH FACE
HSS	HOLLOW STRUCTURAL SECTION
HP	HIGH POINT
INT	INTERIOR
ID	INSIDE DIAMETER
k	KILO
kN	KILONEWTON
kPa	KILOPASCAL
Ld	DEVELOPMENT LENGTH
LE	LEFT END
LG	LONG/LENGTH
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
L	SINGLE ANGLE
LL	DOUBLE ANGLE
LP	LOW POINT

MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MEW	MIDDLE EACH WAY
MEZZ	MEZZANINE
MID	MIDDLE
MISC	MISCELLANEOUS
MIN	MINIMUM
ML	MIDDLE LAYER
m	METRE
mm	MILLIMETRE
mm^2	SQUARE MILLIMETRE
MPa	MEGAPASCAL
NBC	NATIONAL BUILDING CODE OF CANADA
NCB	NO COLUMN BELOW
NF	NEAR FACE
NIC	NOT IN CONTACT
NTS	NOT TO SCALE
o/c	ON CENTRE
o/o	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OWSJ	OPEN WEB STEEL JOIST
PC	PRECAST
Pf, Cf, Tf, Mf, Vf	FACTORED LOADS
P, C, T, M, V	UNFACTORED LOADS
PL	PLATE
PROJ	PROJECTION
P/T	POST TENSIONED, PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
R	REACTION, RADIUS
REF	REFERENCE
REM	REMAINDER
REQ'D	REQUIRED
REV	REVISION
RE	RIGHT END
REINF	REINFORCEMENT
R/W	REINFORCE WITH
S	STANDARD BEAM
SS	SINGLE STIRRUP
SDF	STEP DOWN FOOTING
SECT	SECTION
SF	SPRAY FIREPROOFED
SIM	SIMILAR
SLA	SNOW LOAD ACCUMULATION
SL	SNOW LOAD
SLS	SERVICEABILITY LIMIT STATE
SOG	SLAB ON GRADE
SP	SPADREL, SPRUCE
SPEC	SPECIFICATION
SPF	SPRUCE-PINE-FIR
STD	STANDARD
STRUCT	STRUCTURAL
STIFF	STIFFENER
SQ	SQUARE
ST	STRAIGHT
STIR	STIRRUP
t, THK	THICKNESS
T	TOP
T&B	TOP AND BOTTOM
TC	ELEV TOP OF CAISSON
TEMP	TEMPERATURE
TEW	TOP EACH WAY
TJ	TIE JOIST
TLE	TOP LEFT END
TLL	TOP LOWER LAYER
TRE	TOP RIGHT END
TUL	TOP UPPER LAYER
TYP	TYPICAL
T/O	TOP OF
TOS	TOP OF SLAB
TSB	TENSION SPLICE CLASS 'B'
USF	UNDERSIDE OF FOOTING
U/S	UNDERSIDE
U/N	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
UL	UPPER LAYER
ULS	ULTIMATE LIMIT STATE
UPT	UPTURNED
VBF	VERTICAL BRACED FRAME
VEF	VERTICAL EACH FACE
VERT	VERTICAL
VOF	VERTICAL OUTSIDE FACE
VIF	VERTICAL INSIDE FACE
VSC	VERTICALLY SLOTTED CONNECTION
W	WIDE FLANGE BEAM
WP	WALL PLATE, WORKING POINT
WT	STRUCTURAL TEE
WWF	WELDED WIRE FABRIC
WWF	WELDED WIDE FLANGE

STEPPED WALL FOOTING AND EXCAVATION SLOPES TDF-1

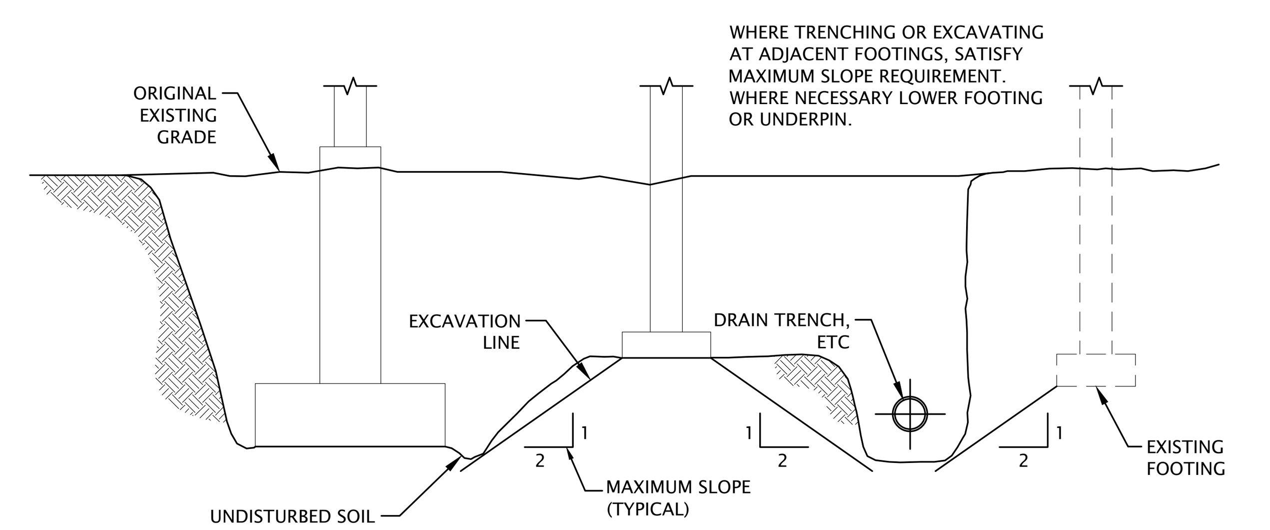


STEPPED WALL FOOTING



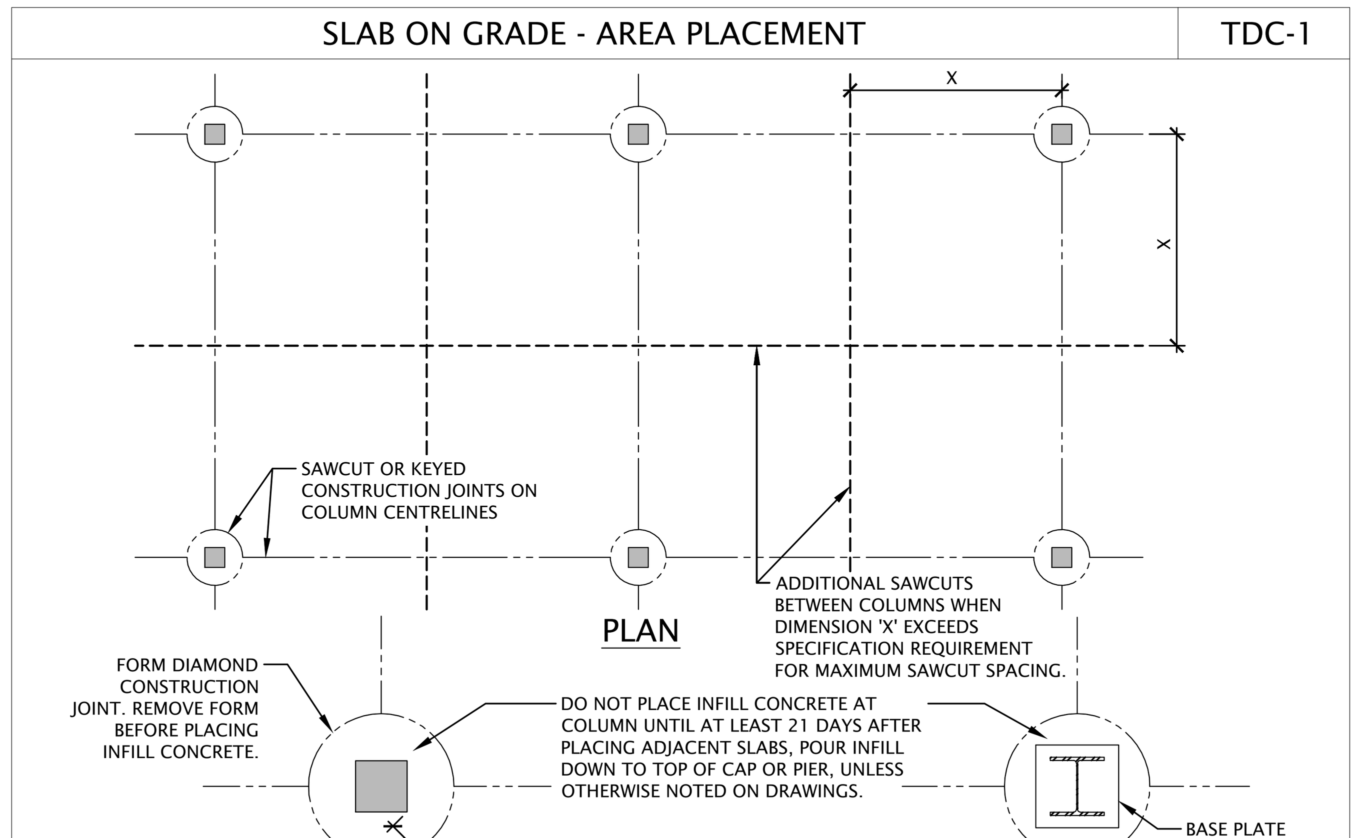
PIPES UNDER CONTINUOUS WALL FOOTINGS

PIPES REQUIRING STEPPED FOOTINGS



MAXIMUM SLOPE AT EXCAVATIONS

SLAB ON GRADE - AREA PLACEMENT TDC-1



SQUARE COLUMN

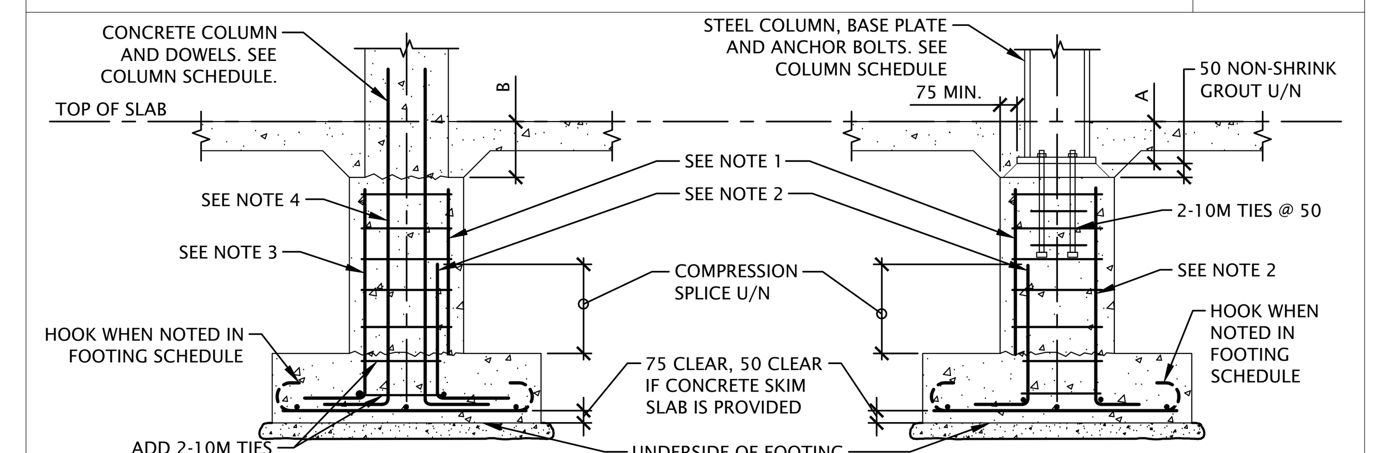
JOINTS AT COLUMNS

'H' SHAPED COLUMN

NOTES:

1. FORM AROUND COLUMNS. {NOT REQUIRED AT CIRCULAR COLUMNS}
2. "X" ≤ 30 TIMES SLAB THICKNESS, EXCEPT WHERE CONCRETE IS PROPORTIONED FOR MAXIMUM BULK DENSITY IN ACCORDANCE WITH SPECIFICATION "X" ≤ 40 TIMES SLAB THICKNESS UNLESS NOTED OTHERWISE.
3. PLACE SLAB AREA NO LARGER THAN WHAT CAN BE FINISHED IN ONE DAY.
4. SAWCUT CONTROL JOINTS IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS.
5. LIMIT RATIO OF LENGTH TO WIDTH OF ANY SAWCUT PANEL TO 1.5 MAXIMUM.
6. REFER TO TYPICAL SLAB ON GRADE JOINT DETAIL FOR REQUIRED DEPTH OF SLAB SAWCUT.
7. FILL SAWCUT JOINTS IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS.

COLUMN AND WALL FOOTING DETAILS TDF-2

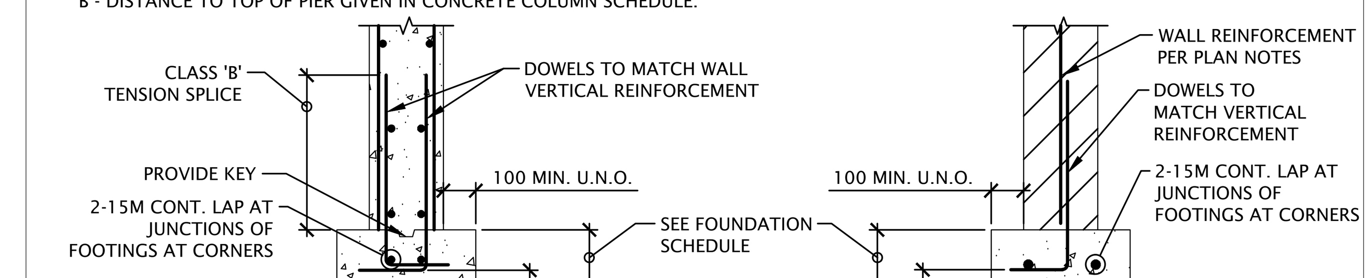


PIER UNDER CONCRETE COLUMN

PIER UNDER STEEL COLUMN

NOTES:

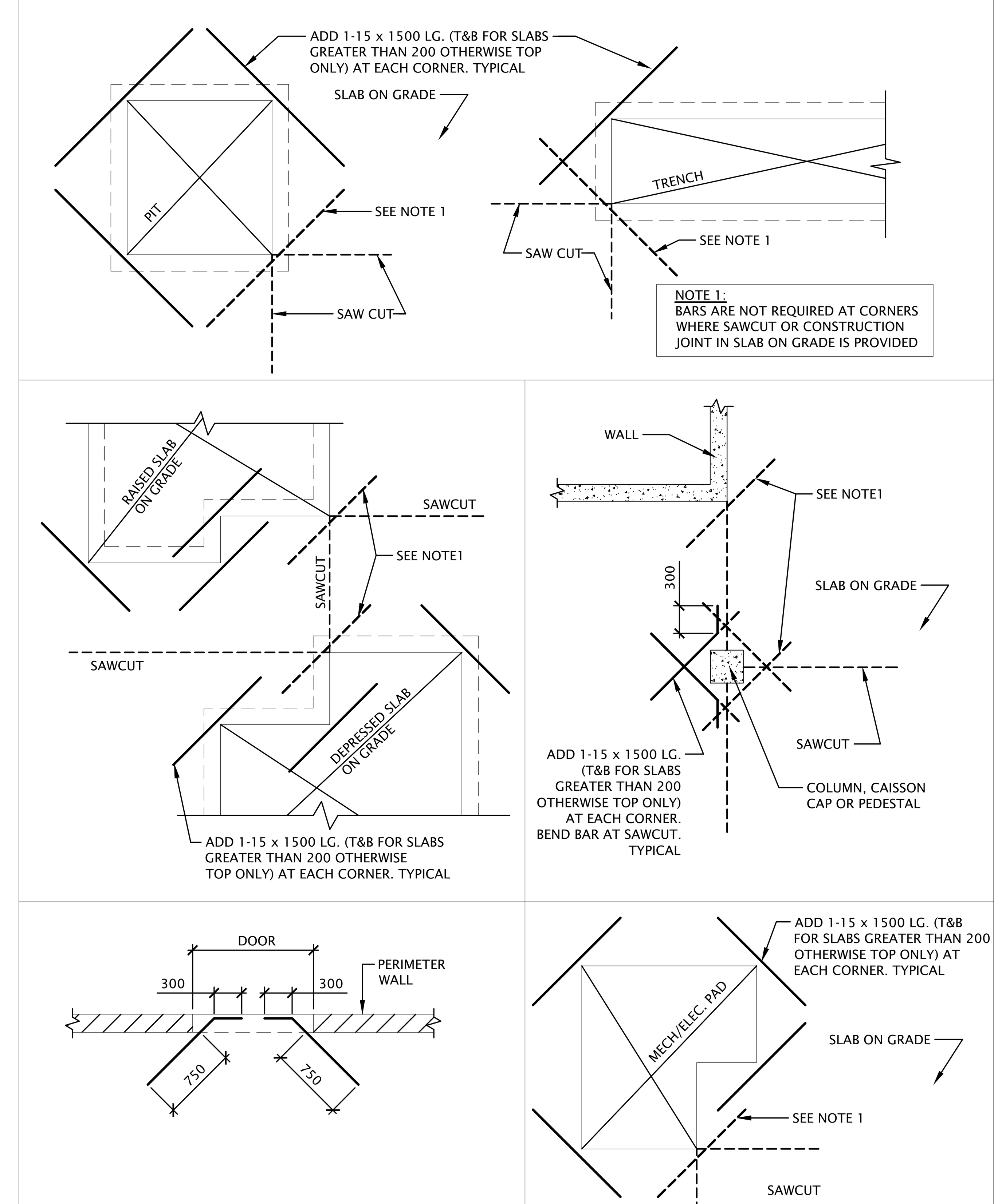
1. SIZE AND REINFORCEMENT FOR PIERS AND FOOTINGS GIVEN IN SCHEDULE OR ON PLAN.
2. FOR PIERS 1800 HIGH OR MORE, PROVIDE DOWELS FROM FOOTING TO PIER, TO MATCH PIER REINFORCEMENT. EXTEND DOWELS TO BOTTOM OF FOOTING AND HOOK.
3. FOR PIERS LESS THAN 1800 HIGH, EXTEND PIER REINFORCEMENT TO THE BOTTOM OF FOOTING AND HOOK.
4. WHERE THERE IS NO PIER, CONSIDER THE CONCRETE COLUMN AS A PIER GREATER THAN 1800 HIGH. REFER TO NOTE 2.
5. WHERE COLUMN BAR SPLICE LENGTH IS GREATER THAN PIER HEIGHT, EXTEND COLUMN DOWELS TO BOTTOM OF FOOTING AND HOOK.
6. FOR SPLICE LENGTHS, SEE CONCRETE COLUMN TYPICAL DETAILS.
7. WHERE NO PIER REINFORCING IS NOTED, PROVIDE VERTICAL STEEL OF 0.5% OR 4-15 DOWELS (WHICHEVER IS GREATER) FROM FOOTING INTO PIER.
8. A - DISTANCE TO UNDERSIDE OF BASE PLATE GIVEN IN COLUMN SCHEDULE OR ON PLAN.
   B - DISTANCE TO TOP OF PIER GIVEN IN CONCRETE COLUMN SCHEDULE.



FOOTING UNDER REINFORCED CONCRETE WALL

FOOTING UNDER MASONRY WALL

CRACK CONTROL REINFORCEMENT IN SLAB ON GRADE TDC-4



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A detail number / numéro de détail
B source drawing no. / de dessin no.
C detail on drawing no. / détail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil

McElhanney

Consultant's Name / Nom de l'expert-conseil

NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

TYPICAL DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par: J. XIAO/D. KUANG	Date: 20200228
Designed by / Conçu par: R.WONG	Reviewed by / Revisé par: A. ELSHAFEY	Scale / Échelle: AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

Sheet No. / No. de la feuille: S02-00-01

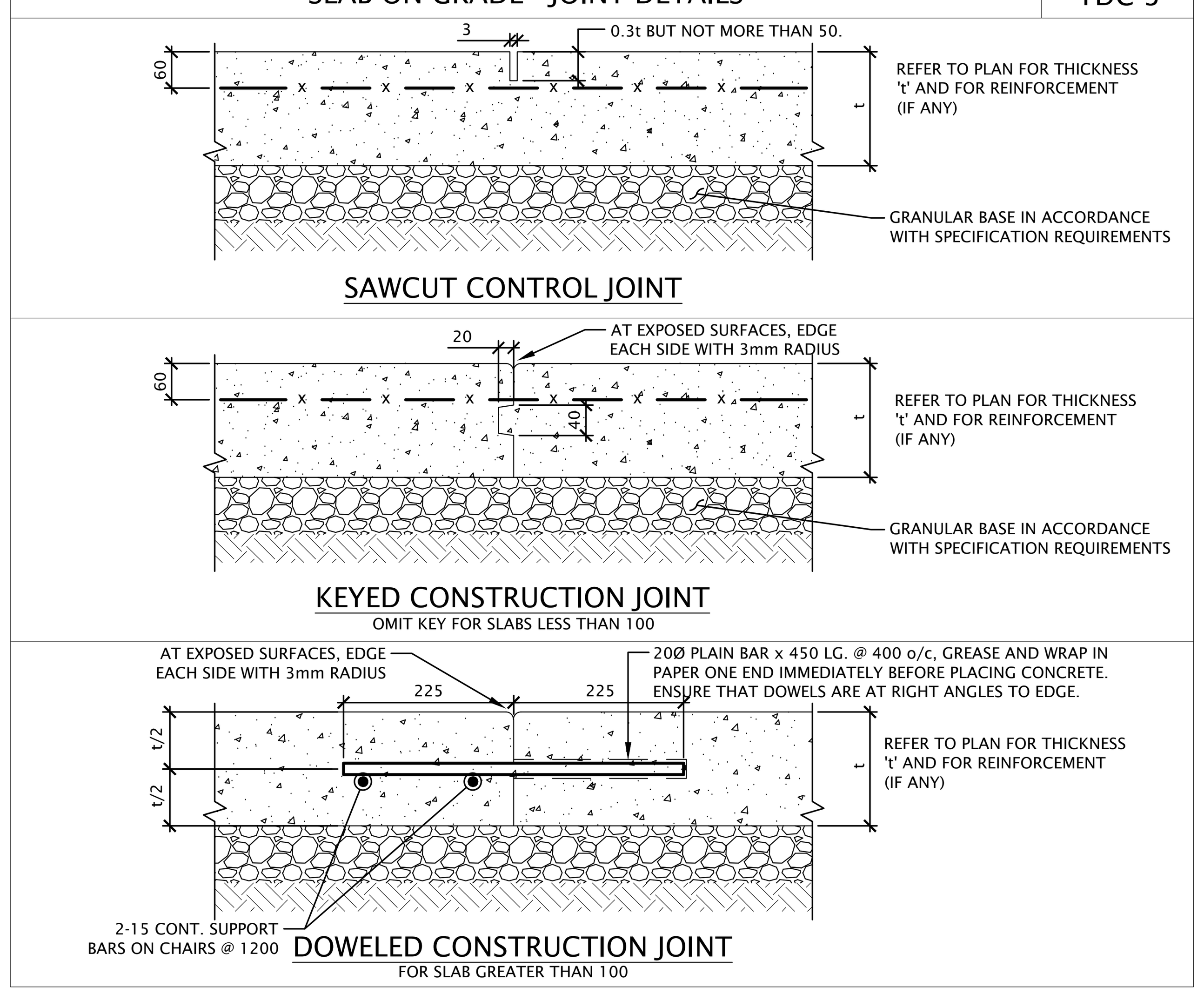
Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\STRU\SHEETS\FOUNDATION SET\S02-00-01.DWG PLOTTED: 2021/01/26 12:37 PM

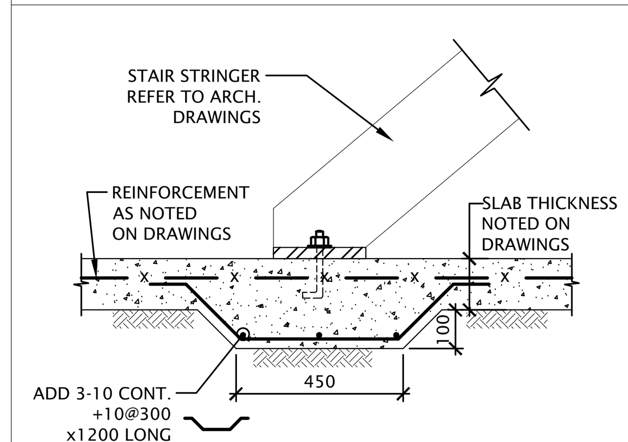
Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

SLAB ON GRADE - JOINT DETAILS — TDC-3

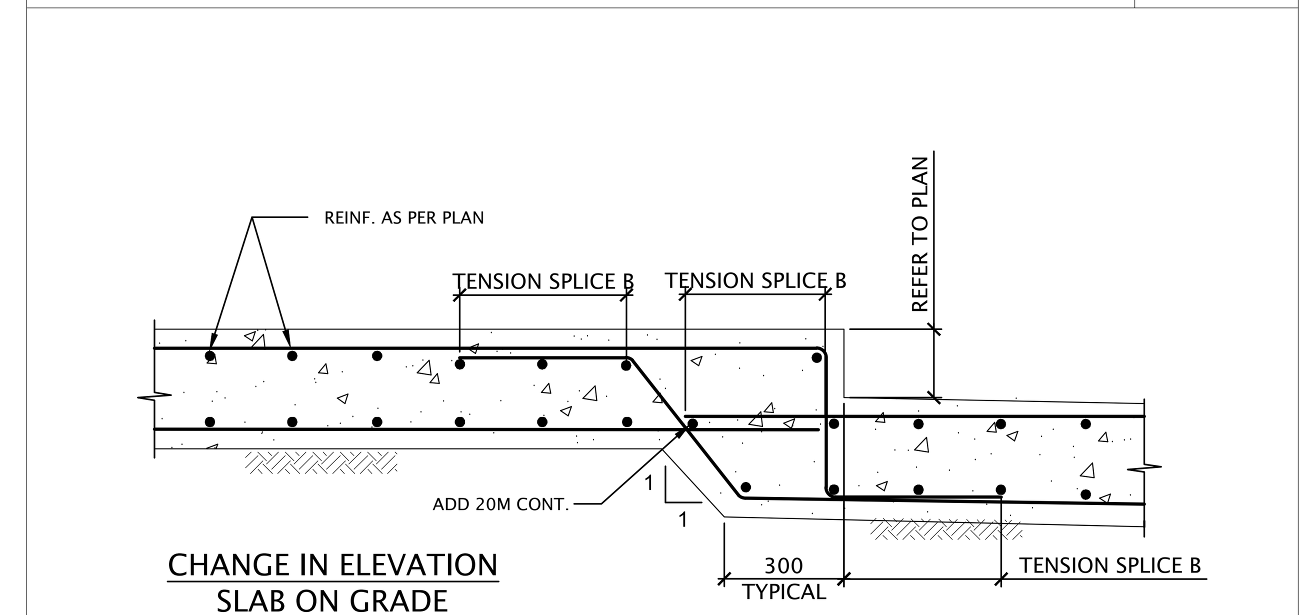


SLAB ON GRADE DETAILS - ADDITIONAL REINFORCEMENT — TDC-5R



TYPICAL THICKENING UNDER STEEL STAIRS

CHANGE IN ELEVATION OF S.O.G. — TDC-6A



CHANGE IN ELEVATION SLAB ON GRADE

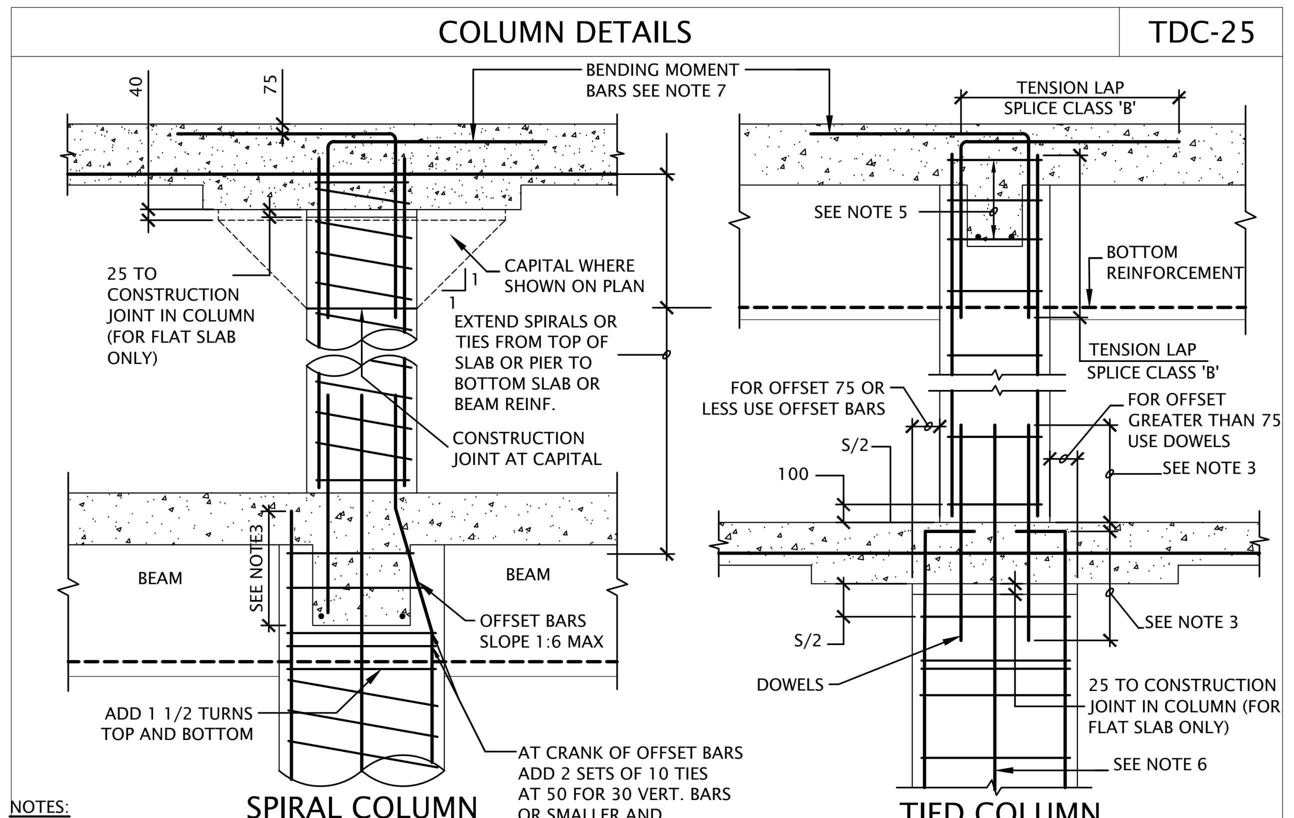
TEMPERATURE REINFORCEMENT FOR CONCRETE SLABS, COVER SLABS, AND TOPPINGS — TDC-14

	CONCRETE THICKNESS (mm)	REINFORCEMENT
TOPPINGS & COVER SLAB	50	152 x 152 - MW13.3 x MW13.3
	65	152 x 152 - MW18.7 x MW18.7
	75	152 x 152 - MW25.8 x MW25.8
	90	152 x 152 - MW25.8 x MW25.8
	100	102 x 102 - MW13.3 x MW13.3
SLABS	100	10@500
	110	10@450
	120	10@400
	130	10@350
	140	10@350
	150	10@300
	160	10@300
	170	10@250
	180	10@250
	190	10@250
	200	10@250
	210	10@200
	220	10@200
	230	10@200
	240	10@200
	250	10@200
	260	15@350
	270	15@350
	280	15@350
	290	15@300
	300	15@300

NOTES:

1. UNLESS OTHERWISE NOTED PROVIDE TEMPERATURE REINFORCEMENT IN CONCRETE SLABS, COVER SLABS AND TOPPINGS AS SHOWN IN THIS TABLE.
2. UNLESS OTHERWISE NOTED, PLACE TEMPERATURE REINFORCEMENT PERPENDICULAR TO MAIN REINFORCEMENT IN ONE WAY SLABS, WHERE MAIN REINFORCEMENT CONSISTS OF TOP AND BOTTOM BARS, PLACE TEMPERATURE REINFORCEMENT ALTERNATELY AT TOP AND BOTTOM.
3. UNLESS OTHERWISE NOTED, PROVIDE WELDED WIRE FABRIC IN FLAT SHEETS.
4. PROVIDE REINFORCEMENT FOR CONCRETE TOPPING WHICH IS PLACED OVER A SLIP SHEET OR MEMBRANE. TEMPERATURE REINFORCEMENT IS NOT REQUIRED WHERE CONCRETE TOPPINGS ARE PLACED AND BONDED DIRECTLY ON CONCRETE SLABS.
5. UNLESS OTHERWISE NOTED, PLACE WELDED WIRE FABRIC WITH 25 mm TOP COVER. LAP REBARS WITH CLASS 'B' LAP SPLICE. LAP END OF WELDED WIRE FABRIC SUCH THAT THE OVERLAP MEASURED BETWEEN THE OUTERMOST CORSS-WIRES OF EACH FABRIC SHEET SHALL NOT BE LESS THAN ONE SPACING OF CROSS-WIRE PLUS 50 mm.
6. UNLESS OTHERWISE NOTED, PROVIDE EDGE OF ALL SLABS WITH 2-15 CONTINUOUS.
7. IN UNHEATED AREAS, INCREASE REINFORCEMENT BY 25%.

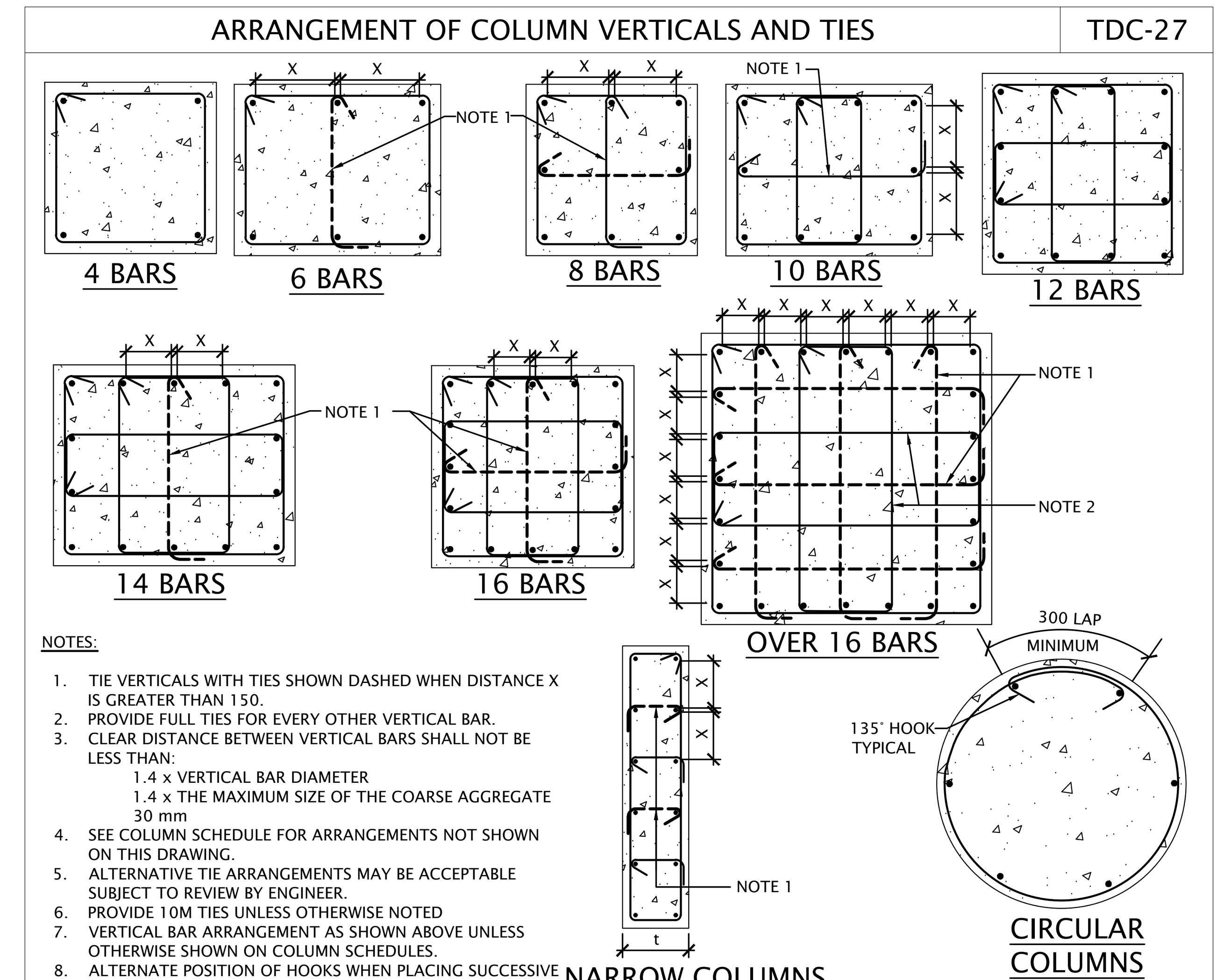
COLUMN DETAILS — TDC-25



NOTES:

1. FOR SPLICE LENGTHS REFER TO TABLE.
2. S = TIE SPACING. SEE COLUMN SCHEDULE.
3. WHERE BARS ARE DISCONTINUED PROVIDE A COMPRESSION DEVELOPMENT LENGTH ABOVE FLOOR UNLESS OTHERWISE NOTED.
4. PROVIDE ADDITIONAL VERTICAL SPACER BAR FOR SPIRALS AS PER RSIC'S(REINFORCEMENT STEEL INSTITUTE OF CANADA) STANDARD PRACTICE OF DETAILING WHERE NECESSARY, SPACER BARS MAY BE CUT FOR INSERTION OF BEAM BARS.
5. ADD 10 TIES AT 150 IN COLUMN JOINT AS SHOWN WHERE:
   a) BEAMS ARE NOT LOCATED ON FOUR SIDES OF THE COLUMN JOINT, OR
   b) EXPOSED FACE OF COLUMN FROM FACE OF BEAM IS MORE THAN 150 OR 1/4 OF COLUMN WIDTH
6. WHERE BARS ARE NOT REQUIRED FOR SPLICING WITH UPPER COLUMN VERTICALS, EXTEND WITH A COMPRESSION LAP SPLICE LENGTH ABOVE FLOOR.
7. BENDING MOMENT BARS SHALL BE SAME SIZE AND NUMBER AS COLUMN VERTICALS WITH HORIZONTAL LEGS PLACE BELOW TOP BARS OF BEAM AND SLAB AND AT LEAST 4 CORNER BENDING MOMENT BARS SHALL BE BENT TOWARDS THE OPPOSITE FACE OF COLUMN WHERE POSSIBLE.
8. POUR BEAMS, DROPS AND CAPITALS (IF ANY) MONOLITHICALLY WITH SLAB.

ARRANGEMENT OF COLUMN VERTICALS AND TIES — TDC-27



NARROW COLUMNS

t IS EQUAL TO OR LESS THAN 250 mm

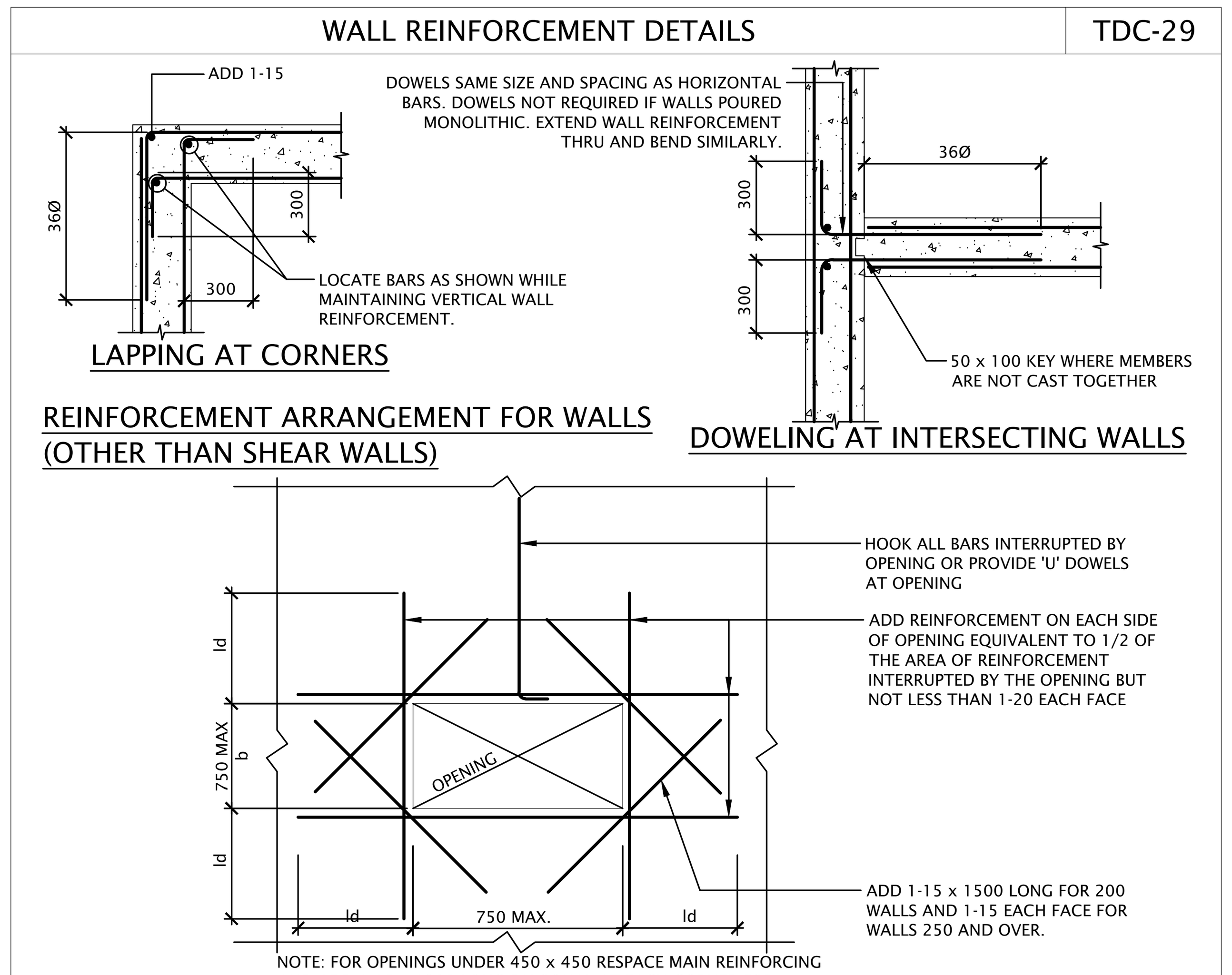
CIRCULAR COLUMNS

ALTERNATE LAP LOCATIONS 180 DEGREES

NOTES:

1. TIE VERTICALS WITH TIES SHOWN DASHED WHEN DISTANCE X IS GREATER THAN 150.
2. PROVIDE FULL TIES FOR EVERY OTHER VERTICAL BAR.
3. CLEAR DISTANCE BETWEEN VERTICAL BARS SHALL NOT BE LESS THAN:
   1.4 x VERTICAL BAR DIAMETER
   1.4 x THE MAXIMUM SIZE OF THE COARSE AGGREGATE
   30 mm
4. SEE COLUMN SCHEDULE FOR ARRANGEMENTS NOT SHOWN ON THIS DRAWING.
5. ALTERNATIVE TIE ARRANGEMENTS MAY BE ACCEPTABLE SUBJECT TO REVIEW BY ENGINEER.
6. PROVIDE 10M TIES UNLESS OTHERWISE NOTED
7. VERTICAL BAR ARRANGEMENT AS SHOWN ABOVE UNLESS OTHERWISE SHOWN ON COLUMN SCHEDULES.
8. ALTERNATE POSITION OF HOOKS WHEN PLACING SUCCESSIVE SETS OF TIES.

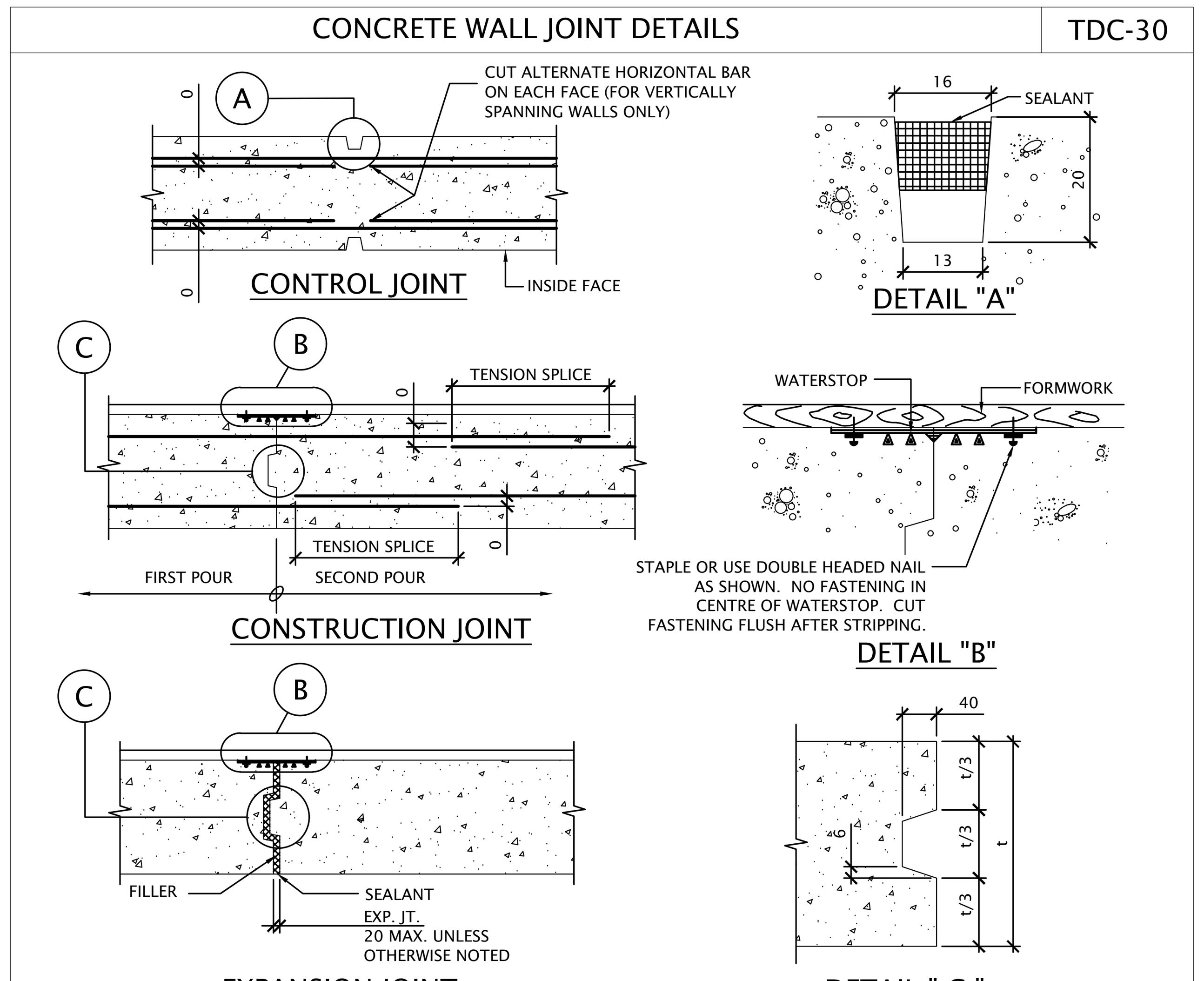
WALL REINFORCEMENT DETAILS — TDC-29



NOTE: FOR OPENINGS UNDER 450 x 450 RESPACE MAIN REINFORCING AND ADD 1-15 x 1200 LONG DIAGONAL AT EACH CORNER FOR EVERY 200 OF WALL THICKNESS OR PORTION THEREOF.

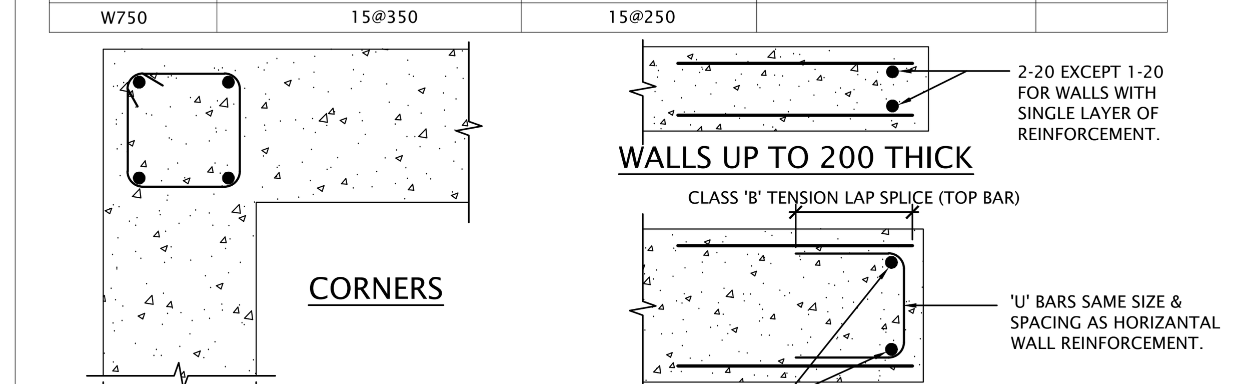
OPENING IN WALL

CONCRETE WALL JOINT DETAILS — TDC-30



MINIMUM CONCRETE WALL REINFORCEMENT U/N — TDC-33

MARK	VERT BARS EA FACE As=.0015Ag	HORZ EA FACE HEATED AREAS As=.002Ag	HORZ EA FACE UNHEATED AREAS As=.003Ag	REMARK
W150A	10@450	10@325		1 LAYER
W200A	10@325	10@500		1 LAYER
W200	10@500	10@500	10@325	
W250	10@500	10@400	15@500	
W300	10@450	10@325	15@450	
W350	10@375	10@275	15@375	
W400	10@325	15@500	15@325	
W450	10@300	15@450	15@300	
W500	10@250	15@400		
W550	10@250	15@350		
W600	15@450	15@325		
W650	15@400	15@300		
W700	15@375	15@275		
W750	15@350	15@250		



NOTES:

1. IN ALL WALLS PROVIDE AT LEAST THE REINFORCEMENT SHOWN IN THE SCHEDULE ABOVE TOGETHER WITH REINFORCEMENT NOTED TO BE ADDED.
2. WALL MARKS DENOTE THICKNESS OF WALLS AND CORRESPONDING REINFORCEMENT.
3. SEE ALSO RELATED DETAILS AND NOTES ON DRAWINGS.
4. AT ENDS OF WALLS CONFORM TO DETAILS SHOWN ABOVE UNLESS OTHERWISE NOTED ON DRAWINGS.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency Western and Northern Region

L'Agence Parcs Canada Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil

McElhanney

Consultant's Name / Nom de l'expert-conseil

NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

TYPICAL DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
R.WONG	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

Sheet No. / No. de la feuille: S02-00-02

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND W\NP500-DELIV\STRUSHEETS\FOUNDATION SETS\S02-00-02.DWG PLOTTED: 2021/01/25 12:37 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

CONCRETE COVER TO REINFORCING STEEL — TDC-34

	MINIMUM COVER CSA-A23.1	MINIMUM COVER CSA-S413 (SEE NOTE #4)	MINIMUM COVER FOR FIRE-RESISTANCE RATING			
			1.5 h	2 h	3 h	4 h
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	75		75	75	75	75
CONCRETE CAST AGAINST FORMS, BUT EXPOSED TO EARTH OR WEATHER: 15 BARS, 16Ø WIRE, AND SMALLER, STIRRUPS, TIES, AND SPIRAL..........................	40		40	40	40	40
COLUMN PRINCIPAL REINFORCEMENT......	50		50	50	65	75
20 TO 55 BARS, AND ALL OTHER BARS......................	50		50	50	50	50
CONCRETE NOT EXPOSED TO WEATHER, OR NOT IN CONTACT WITH GROUND: 35 BARS AND SMALLER FOR SLABS AND WALLS SEE NOTE #3	20	TOP 40 BOT. 30	20	25	35	40
FOR JOISTS	20		25	25	40	50
BEAM PRINCIPAL REINFORCEMENT	40		40	40	40	50
COLUMN PRINCIPAL REINFORCEMENT......	40		50	50	65	75
STIRRUPS, TIES, SPIRALS, AND ALL OTHER BARS	40		40	40	40	40

NOTES:

1. FOR CAST-IN-PLACE (NON-PRESTRESSED) CONCRETE, PROVIDE MINIMUM CONCRETE COVER TO REINFORCEMENT ACCORDING TO CSA-A23.1 UNLESS OTHERWISE NOTED ON DRAWINGS.
2. WHERE THE FIRE-RESISTANCE RATING OF A COLUMN EXCEEDS 2 HOURS, ADD WELDED WIRE MESH, MINIMUM 102 x 102 - MW3.2 x MW3.2, MIDWAY IN CONCRETE COVER.
3. FOR SHORT WALLS WHERE INDICATED ON THE DRAWING, PROVIDE COVER SAME AS FOR COLUMNS.
4. FOR PARKING STRUCTURES PROVIDE MINIMUM CONCRETE COVER TO REINFORCEMENT ACCORDING TO CSA-S413. COVER TO BOTTOM REINFORCEMENT IN THE MAIN FLOOR SLAB EXPOSED TO DEICING MUST MEET REQUIREMENTS OF CSA-S413.

MINIMUM DEVELOPMENT AND LAP SPLICE LENGTHS IN COMPRESSION — TDC-35

BAR SIZE	Fy MPa	DEVELOPMENT LENGTHS (ℓdc)			LAP SPLICE
		f'c = 20 MPa	f'c = 25 MPa	f'c = 30 MPa	f'c = 30 MPa
10	400	240	220	200	300
10	500	300	270	250	430
15	400	340	310	280	440
15	500	430	380	350	640
20	400	420	370	340	590
20	500	520	470	430	850
25	400	540	480	440	730
25	500	680	600	550	1070
30	400	640	570	530	880
30	500	800	720	660	1280
35	400	770	690	630	1030
35	500	960	860	790	1490
45	400	940	840	770	
45	500	1170	1050	960	
55	400	1210	1080	990	
55	500	1510	1350	1240	

NOTES:

1. VALUES GIVEN ARE FOR NORMAL WEIGHT CONCRETE AND DEFORMED BARS ONLY AND ARE TO BE MODIFIED ACCORDING TO THE FOLLOWING APPLICABLE FACTORS.
2. LAP SPLICES ARE NOT PERMITTED FOR BAR SIZES 45 AND 55.
3. 'ℓdc' DENOTES MINIMUM DEVELOPMENT LENGTH FOR EMBEDMENT OF DOWELS IN COMPRESSION.
4. INCREASE LAP SPLICE LENGTHS FOR f'c LESS THAN 20 MPa BY A FACTOR OF 1.33.
5. MINIMUM LAP SPLICE AND DEVELOPMENT LENGTHS MAY BE REDUCED UNDER THE FOLLOWING SPECIAL CONDITIONS BY THE FACTORS SHOWN:
   a) EXCESS AREA OF STEEL ....(AS REQUIRED/AS PROVIDED) USE 1.0 UNLESS NOTED OTHERWISE.
   b) BARS ENCLOSED WITH A SPIRAL WHICH HAS A MINIMUM WIRE DIA. OF 6 AND 100 MAXIMUM PITCH 0.75
6. AFTER APPLYING ALL APPLICABLE FACTORS OF NOTES 4 AND 5, THE LAP SPLICE LENGTHS SHALL NOT BE MADE LESS THAN 300 AND THE DEVELOPMENT LENGTHS SHALL NOT BE MADE LESS THAN 200.

TENSION DEVELOPMENT LENGTH AND TENSION LAP SPLICES (Fy = 400 MPa) — TDC-36

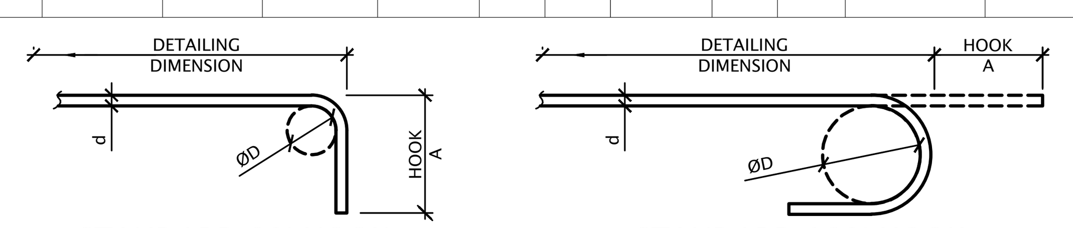
CONCRETE	25 MPa		30 MPa		35 MPa		40 MPa		45 MPa		50 MPa		CONCRETE
SPLICE / BAR	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	SPLICE / BAR
	TABLE 1: UNCOATED, OTHER THAN TOP BARS												
10	300	380	300	350	300	320	300	300	300	280	300	300	10
15	440	570	400	520	370	480	350	450	330	420	310	400	15
20	580	750	530	690	490	640	460	600	430	560	410	530	20
25	900	1170	830	1070	760	990	720	930	670	880	640	830	25
30	1080	1410	990	1290	920	1190	860	1110	810	1050	770	1000	30
35	1260	1640	1150	1500	1070	1390	1000	1300	940	1220	890	1160	35
	TABLE 2: UNCOATED, TOP BARS												
10	380	490	350	450	320	420	300	390	280	370	300	350	10
15	570	730	520	670	480	620	450	580	420	550	400	520	15
20	750	980	690	890	640	830	600	770	560	730	530	690	20
25	1170	1530	1070	1390	990	1290	930	1210	880	1140	830	1080	25
30	1410	1830	1290	1670	1190	1550	1110	1450	1050	1360	1000	1290	30
35	1640	2130	1500	1950	1390	1800	1300	1690	1220	1590	1160	1510	35
	TABLE 3: EPOXY-COATED BARS, OTHER THAN TOP BARS												
10	440	570	400	520	370	480	350	450	330	420	310	400	10
15	650	850	600	770	550	720	520	670	490	630	460	600	15
20	870	1130	790	1030	730	950	690	890	650	840	610	800	20
25	1350	1760	1240	1610	1140	1490	1070	1390	1010	1310	960	1240	25
30	1620	2110	1480	1930	1370	1780	1280	1670	1210	1570	1150	1490	30
35	1890	2460	1730	2250	1600	2080	1500	1950	1410	1840	1340	1740	35
	TABLE 4: EPOXY-COATED TOP BARS												
10	490	640	450	590	420	540	390	510	370	480	350	450	10
15	740	960	670	880	620	810	580	760	550	720	520	680	15
20	980	1280	900	1170	830	1080	780	1010	730	950	700	900	20
25	1530	1990	1400	1820	1300	1690	1210	1580	1140	1490	1090	1410	25
30	1840	2390	1680	2180	1560	2020	1460	1890	1370	1780	1300	1690	30
35	2150	2790	1960	2550	1810	2360	1700	2210	1600	2080	1520	1970	35

NOTES:

1. USE FOLLOWING TENSION LAP SPLICE LENGTHS UNLESS NOTED OTHERWISE ON DRAWINGS.
2. TENSION DEVELOPMENT LENGTHS, Ld, DENOTED AS TENSION LAP SPLICE CLASS A.
3. FOR COLUMNS, USE COLUMN TENSION SPLICE TYPICAL DETAIL.
4. TOP BARS ARE BARS WITH MORE THAN 300 OF CONCRETE CAST BELOW SPLICE.
5. CLEAR COVER NOT LESS THAN d_b, CLEAR SPACING NOT LESS THAN $2d_b$.
6. FOR STRUCTURAL LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 30%.
7. FOR STRUCTURAL SEMI-LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 20%.

REINFORCING STEEL BAR AND STANDARD HOOK DIMENSIONS FOR DEFORMED BARS (Fy = 460 MPa) — TDC-39R

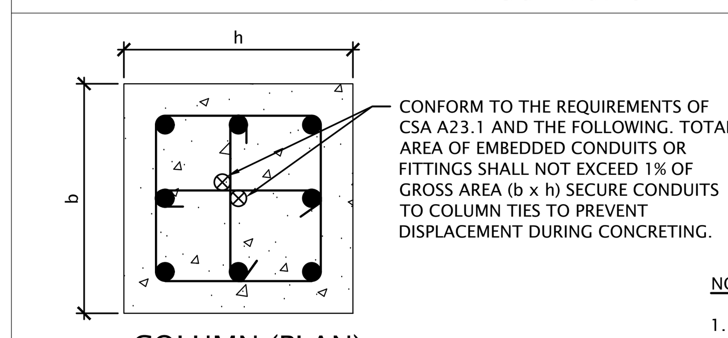
BAR SIZE	MASS kg/m	DIA. d	AREA mm2	400R OR 500R BEND D	400R OR 500R A 90˚	400R OR 500R A 180˚	400W OR 500W BEND D	400W OR 500W A 90˚	400W OR 500W A 180˚	STIRRUP AND TIE HOOKS (135˚) D	STIRRUP AND TIE HOOKS (135˚) A
10M	0.785	11.3	100	70	175	280	60	170	250	30	85
15M	1.570	16.0	200	100	245	380	90	240	350	40	90
20M	2.355	19.5	300	120	295	455	100	285	395	50	110
25M	3.925	25.2	500	150	380	575	150	380	575	65	145
30M	5.495	29.9	700	250	485	905	200	460	750		
35M	7.850	35.7	1000	300	580	1090	250	555	930		
45M	11.775	43.7	1500	450	750	1590	400	725	1435		
55M	19.625	56.4	2500	600	980	2115	550	955	1955		



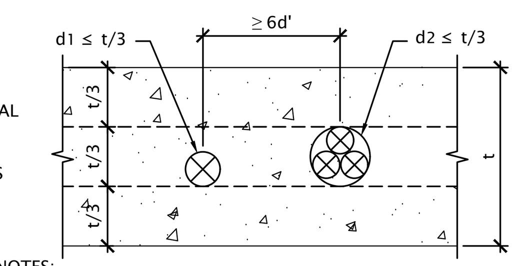
STANDARD 90˚ HOOK

STANDARD 180˚ HOOK

EMBEDDED CONDUITS AND PIPES — TDC-45



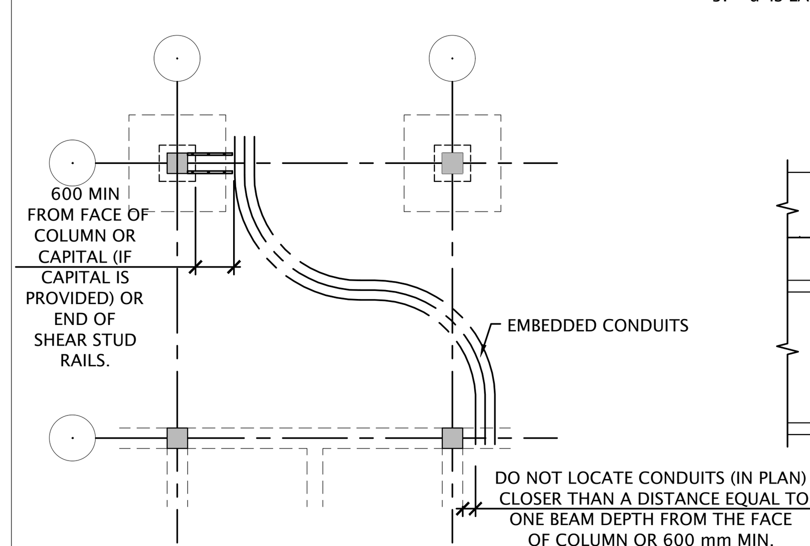
COLUMN (PLAN)



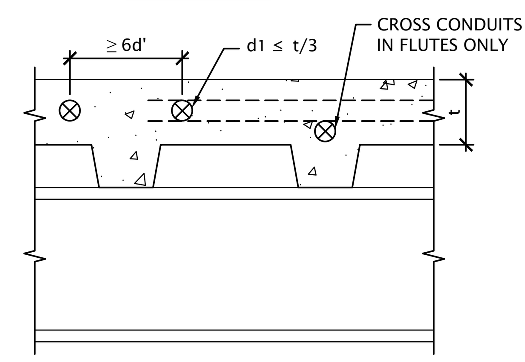
NOTES:

1. OUTSIDE DIAMETER OF CONDUIT (d1) OR BUNDLE OF CONDUITS SHALL NOT EXCEED 1/3 SLAB THICKNESS.
2. CONDUITS SHALL BE PLACED IN MIDDLE THIRD OF SLAB DEPTH.
3. d' IS LARGER OF d1 AND d2.

SLAB OR WALL (SECTION)



PART PLAN

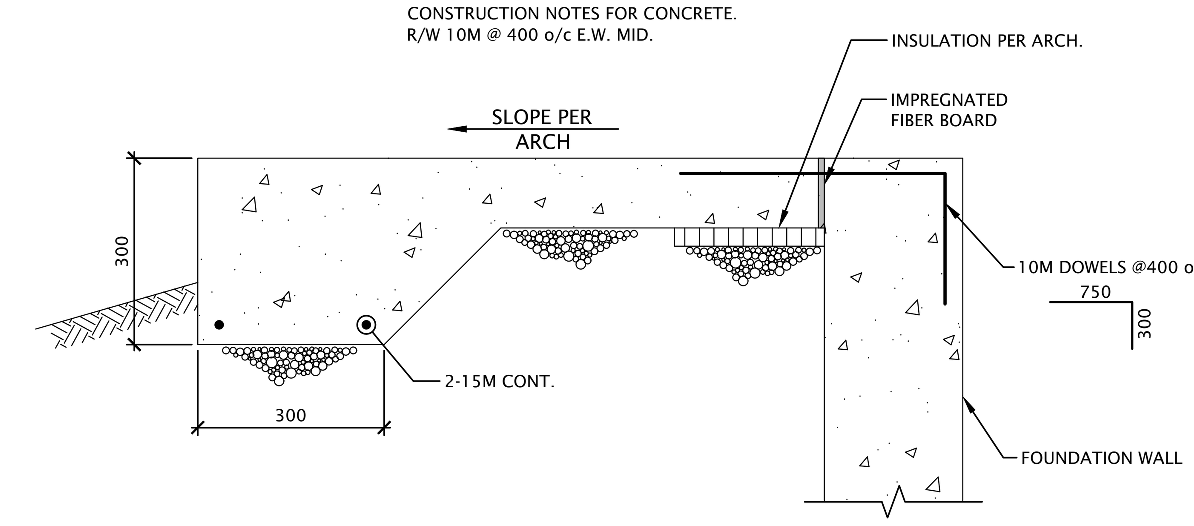


SLAB ON STEEL DECK (SECTION)

DO NOT BUNDLE CONDUITS IN CONCRETE SLAB ON STEEL DECK

TYPICAL SIDEWALK — TDC-50

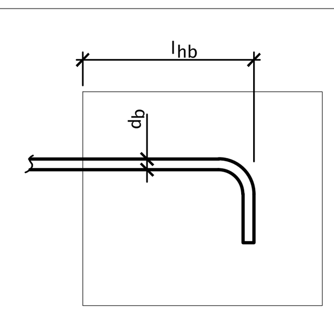
NOTE:
100 CONCRETE SLAB ON GRADE OMIT POLY V.B & PROVIDE DOWELS & THICKENING AT EDGES AS SHOWN. REFER TO CONSTRUCTION NOTES FOR CONCRETE. R/W 10M @ 400 o/c E.W. MID.



SIDEWALK DETAIL

(REFER TO ARCH FOR EXACT SIZE AND LOCATION)

HOOK DEVELOPMENT LENGTH — TDC-58

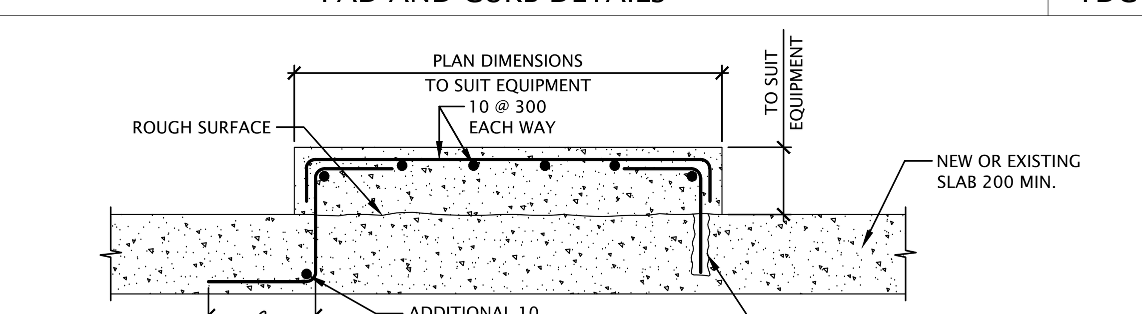


VALUES OF HOOK BASIC DEVELOPMENT LENGTH FOR GRADE 400 BARS

BAR NO.	x* (mm)	l_{hb} (mm) f'c (MPa) 20	25	30	35	40
10M	45	253	226	206	191	179
15M	65	358	320	292	270	253
20M	80	436	390	356	330	308
25M	100	563	504	460	426	398
30M	155	669	598	546	505	473
35M	185	798	714	652	603	565
45M	270	977	874	798	739	691
55M	355	1261	1128	1030	953	892

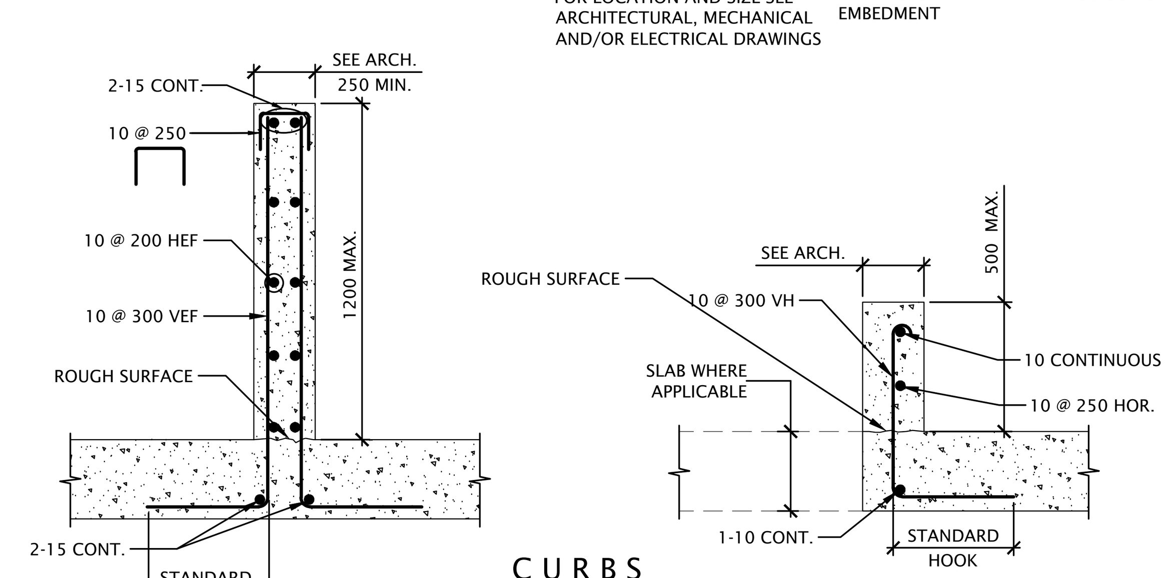
* X = BEND RADIUS + d_b , (VALUES GIVEN ARE FOR BEND RADII FOR GRADE 400 R STEEL)

PAD AND CURB DETAILS — TDC-18



PADS

FOR LOCATION AND SIZE SEE ARCHITECTURAL, MECHANICAL AND/OR ELECTRICAL DRAWINGS

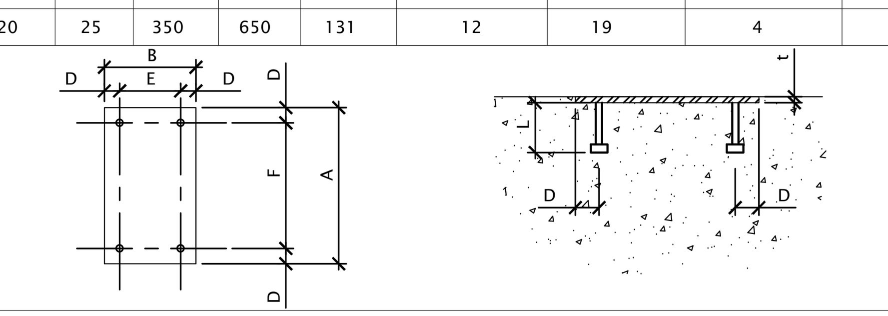


CURBS

FOR LOCATION AND SIZE SEE ARCHITECTURAL, MECHANICAL AND/OR ELECTRICAL DRAWINGS

CAST-IN-PLATE SCHEDULE — TDS-20

PLATE TYPE	(AxBxt) mm	D mm	E mm	F mm	L mm	# STUD	STUD Ø mm	# ROWS ALONG B	# COLS ALONG A
1	150x100x8	25	50	100	104	2	12	2	1
2	200x150x8	25	100	150	104	2	12	2	1
3	200x200x8	25	150	150	167	4	16	2	2
4	250x200x10	25	150	200	167	4	16	2	2
5	250x250x10	25	200	200	167	4	16	2	2
6	300x300x10	25	250	250	183	4	19	2	2
7	400x250x12	25	200	350	183	6	19	3	2
8	400x300x12	25	250	350	183	9	19	3	3
9	400x400x12	25	350	350	183	9	19	3	3
10	600x300x12	25	250	550	183	8	19	4	2
11	600x300x16	25	250	550	183	10	19	5	2
12	400x400x20	25	350	350	208	9	22	3	3
13	600x400x20	25	350	550	183	12	19	4	3
14	600x450x20	25	400	550	208	12	22	4	3
15	450x450x20	25	400	400	208	9	22	3	3
16	600x400x16	25	350	350	131	9	19	3	3
17	300x200x16	25	150	250	104	6	12	3	2
18	350x200x16	25	150	300	134	8	12	4	2
19	700x400x20	25	350	650	131	12	19	4	3



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

TYPICAL DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
R.WONG	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

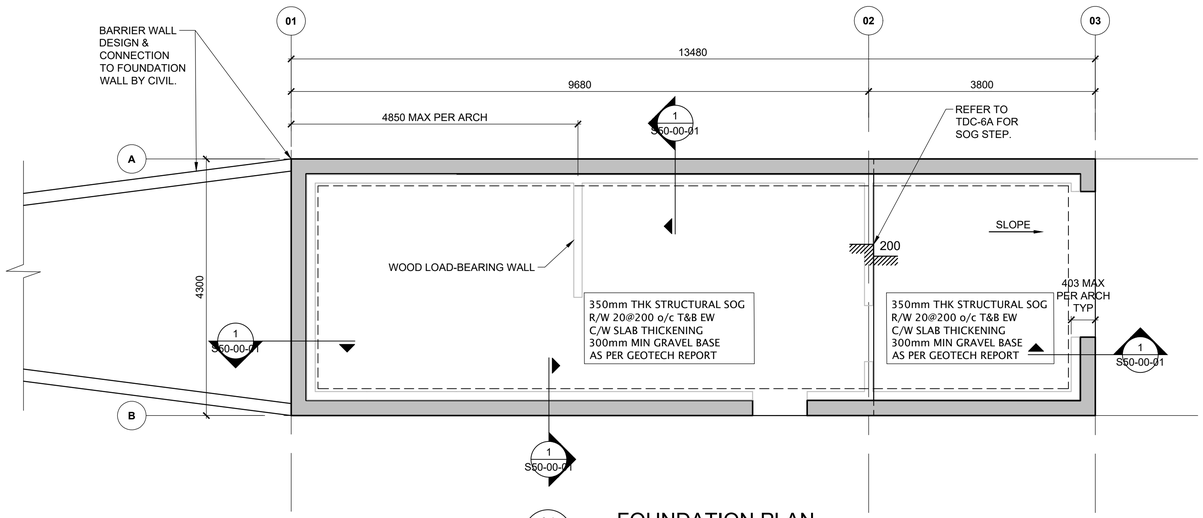
Sheet No. / No. de la feuille: S02-00-03

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND W\NP500-DEL\VSTRU\SHEETS\FOUNDATION SET\S02-00-03.DWG PLOTTED: 2021/01/26 12:37 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01 S20-01-01 FOUNDATION PLAN

1:50

PLAN NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. NORTH ARROW PER SITE PLAN & ARCH DRAWINGS.
3. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
4. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
5. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.

TRUE NORTH

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION GATE HOUSE

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

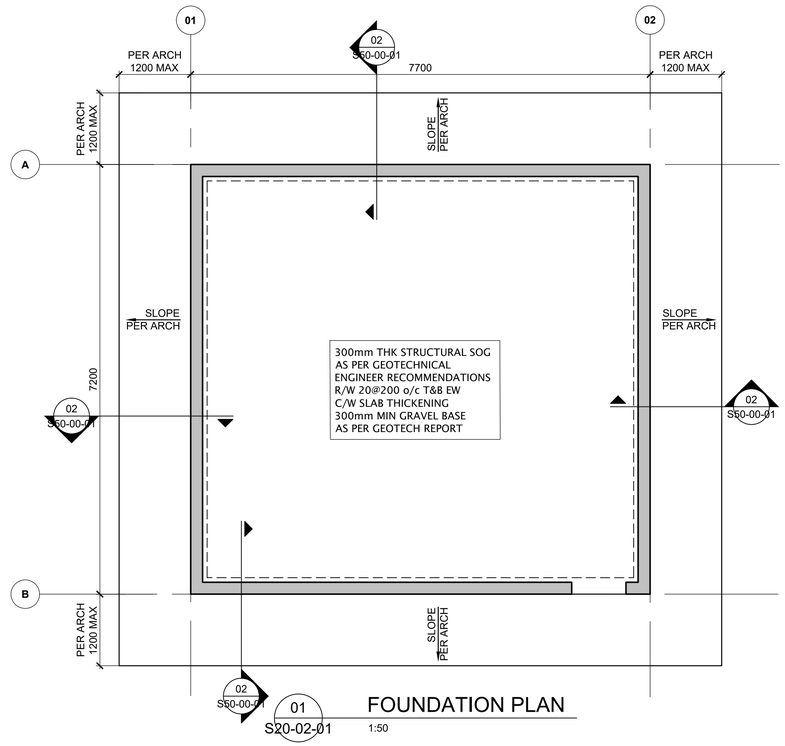
Sheet No. / No. de la feuille: S20-01-01

Drawing Reference No. / No. de réference du dessin

FILE P:\NCCA19-0008 - PCA CRANDELL CAMPGROUND VIL\NP\500-DELIV\STRU\SHEETS\FOUNDATION SET\S20-01-01.DWG PLOTTED: 2021/01/25 12:38 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01
S20-02-01

FOUNDATION PLAN

1:50

ROOF DESIGN LOADS:

DL = 1.0 kPa (INCLUDING SOLAR PANELS)
SL = 2.2 kPa

PLAN NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. NORTH ARROW PER SITE PLAN & ARCH DRAWINGS.
3. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
4. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
5. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
ARMANDO ABBASS ELSHAFEY

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
CONCESSION

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200208
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

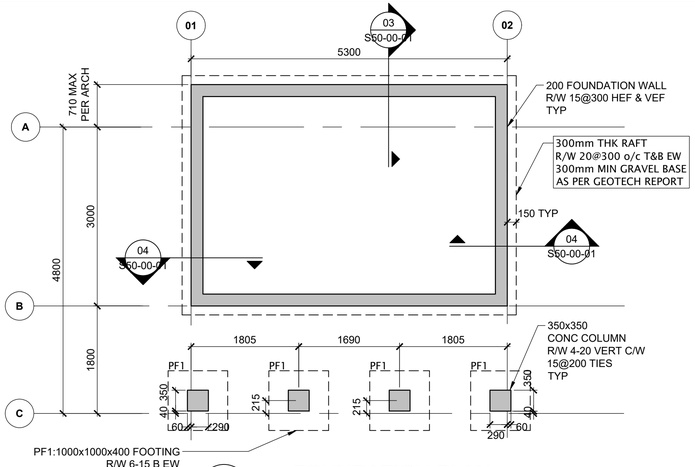
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		S20-02-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND\WLNP\50-DELIV\STRU\SHEETS\FOUNDATION SET\S20-02-01.DWG PLOTTED: 2021/01/25 12:38 PM

Paper Size: ANSI D (22 x 34")

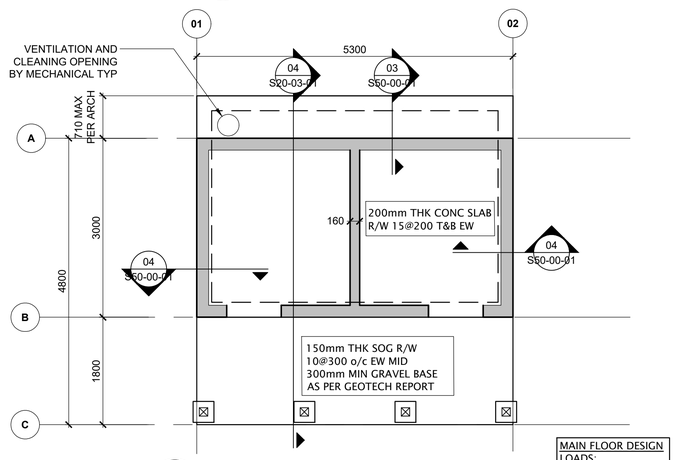
0 10 20 30 40 50 60 70 80 90 100mm



01
S20-03-01

FOUNDATION PLAN

1:50



MAIN FLOOR DESIGN LOADS:
DL = SELF WEIGHT
LL = 4.8 kPa

02
S20-03-01

MAIN FLOOR FRAMING PLAN

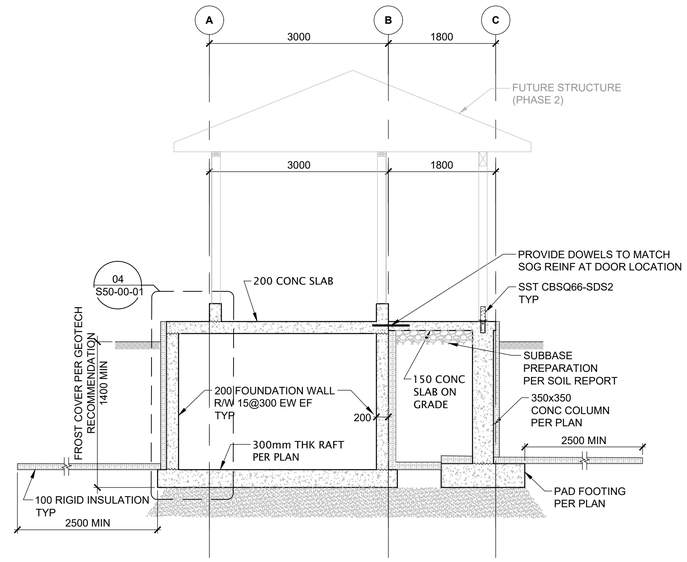
1:50

ROOF DESIGN LOADS:

DL = 1.0 kPa (INCLUDING SOLAR PANELS)
SL = 2.2 kPa

PLAN NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. NORTH ARROW PER SITE PLAN & ARCH DRAWINGS.
3. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
4. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
5. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.



04
S20-03-01

ELEVATION

1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
FRANCISCO TABASS
APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern
Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
PRIVY

Drawing Title
Titre du dessin

FOUNDATION PLAN
MAIN FLOOR FRAMING PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

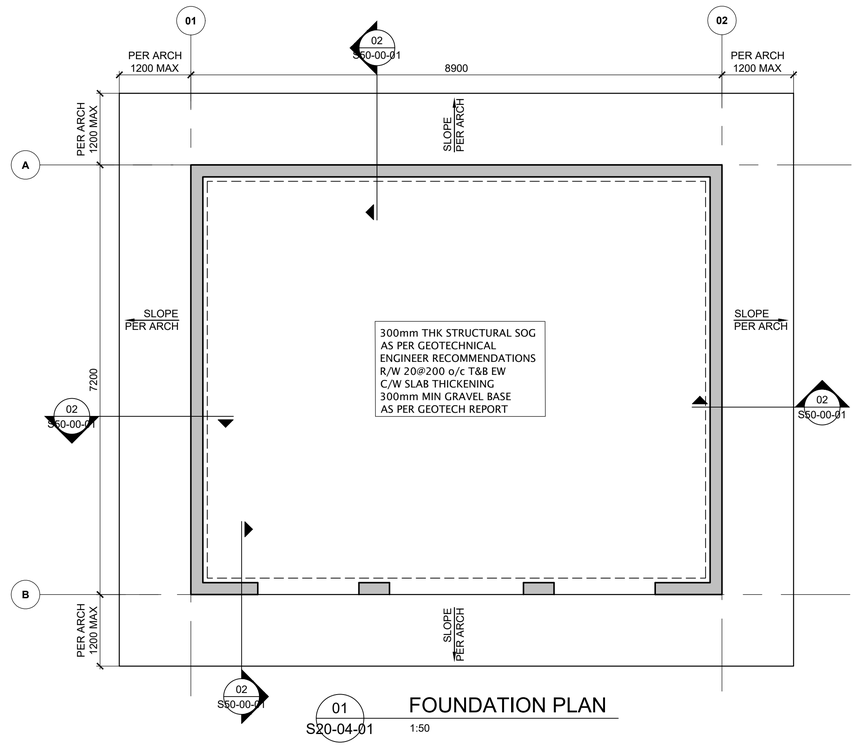
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		S20-03-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VI\NP\50\DELIV\STRUSHEETS\FOUNDATION SETS\S20-03-01.DWG PLOTTED: 2021/01/25 12:38 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



FOUNDATION PLAN

1:50

ROOF DESIGN LOADS:

DL = 1.0 kPa (INCLUDING SOLAR PANELS)
SL = 2.2 kPa

PLAN NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. NORTH ARROW PER SITE PLAN & ARCH DRAWINGS.
3. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
4. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
5. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
3 SIDED KITCHEN

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

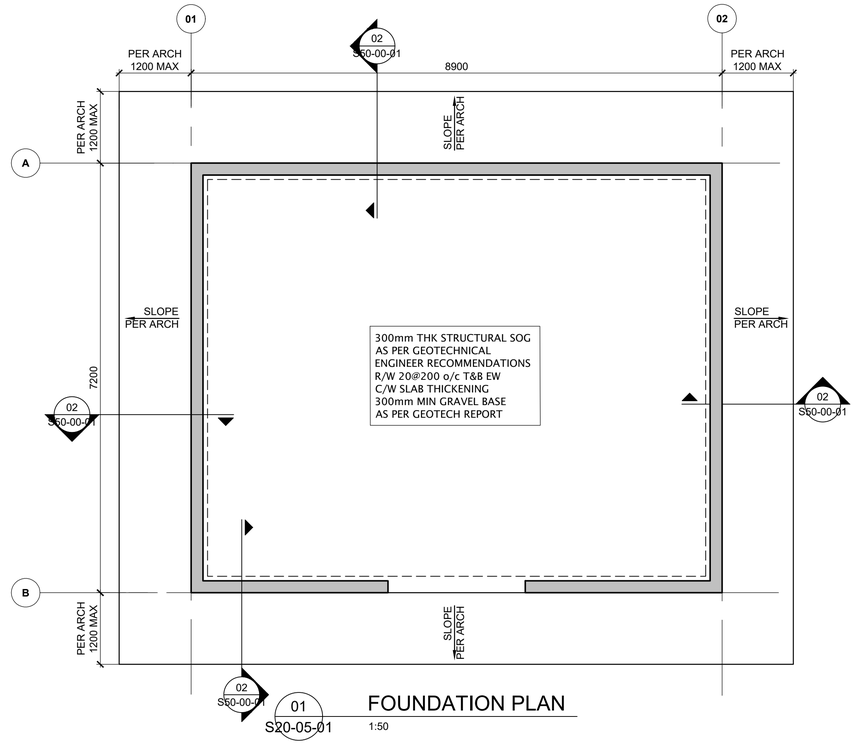
Sheet No. / No. de la feuille: S20-04-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0088 - PCA CRANDELL CAMPGROUND WL\NP\500-DELIV\STRU\SHEETS\FOUNDATION SET\S20-04-01.DWG PLOTTED: 2021/01/25 12:38 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



FOUNDATION PLAN

1:50

ROOF DESIGN LOADS:

DL = 1.0 kPa (INCLUDING SOLAR PANELS)
SL = 2.2 kPa

PLAN NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. NORTH ARROW PER SITE PLAN & ARCH DRAWINGS.
3. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
4. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
5. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER
SAMEED ABBASS ELSHAFEY
APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
WINTER KITCHEN

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

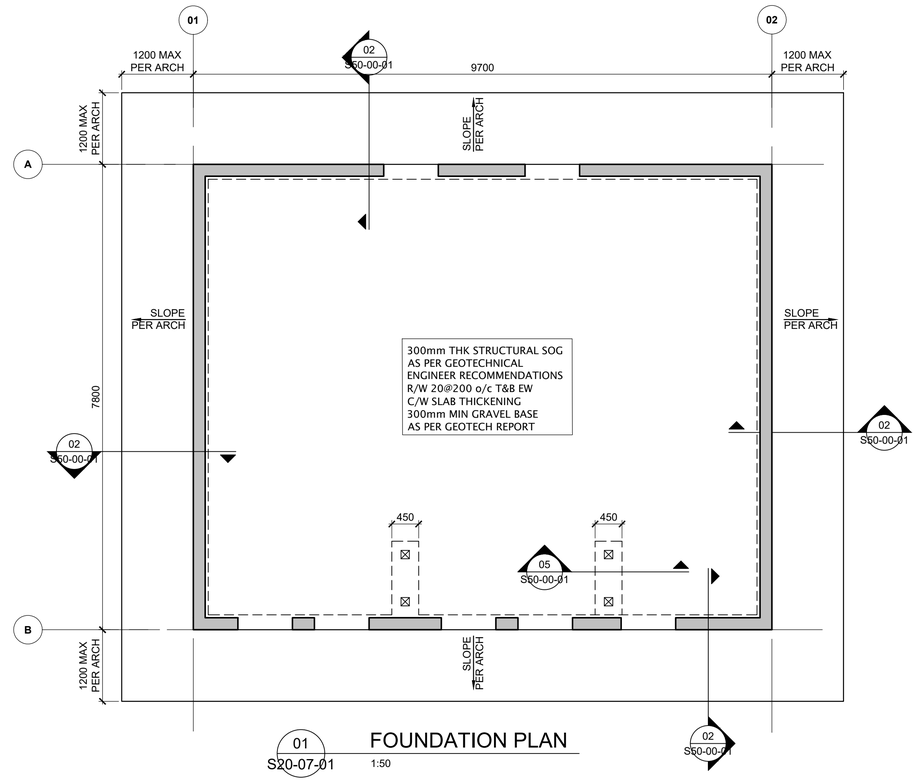
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		S20-05-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\50\DELIV\STRUSHEETS\FOUNDATION SETS\S20-05-01.DWG PLOTTED: 2021/01/26 12:38 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01
S20-07-01

FOUNDATION PLAN

1:50

ROOF DESIGN LOADS:

DL = 1.0 kPa (INCLUDING SOLAR PANELS)
SL = 2.2 kPa

PLAN NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. NORTH ARROW PER SITE PLAN & ARCH DRAWINGS.
3. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
4. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
5. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND
RECONSTRUCTION
WASHROOM

Drawing Title
Titre du dessin

FOUNDATION PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client
no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

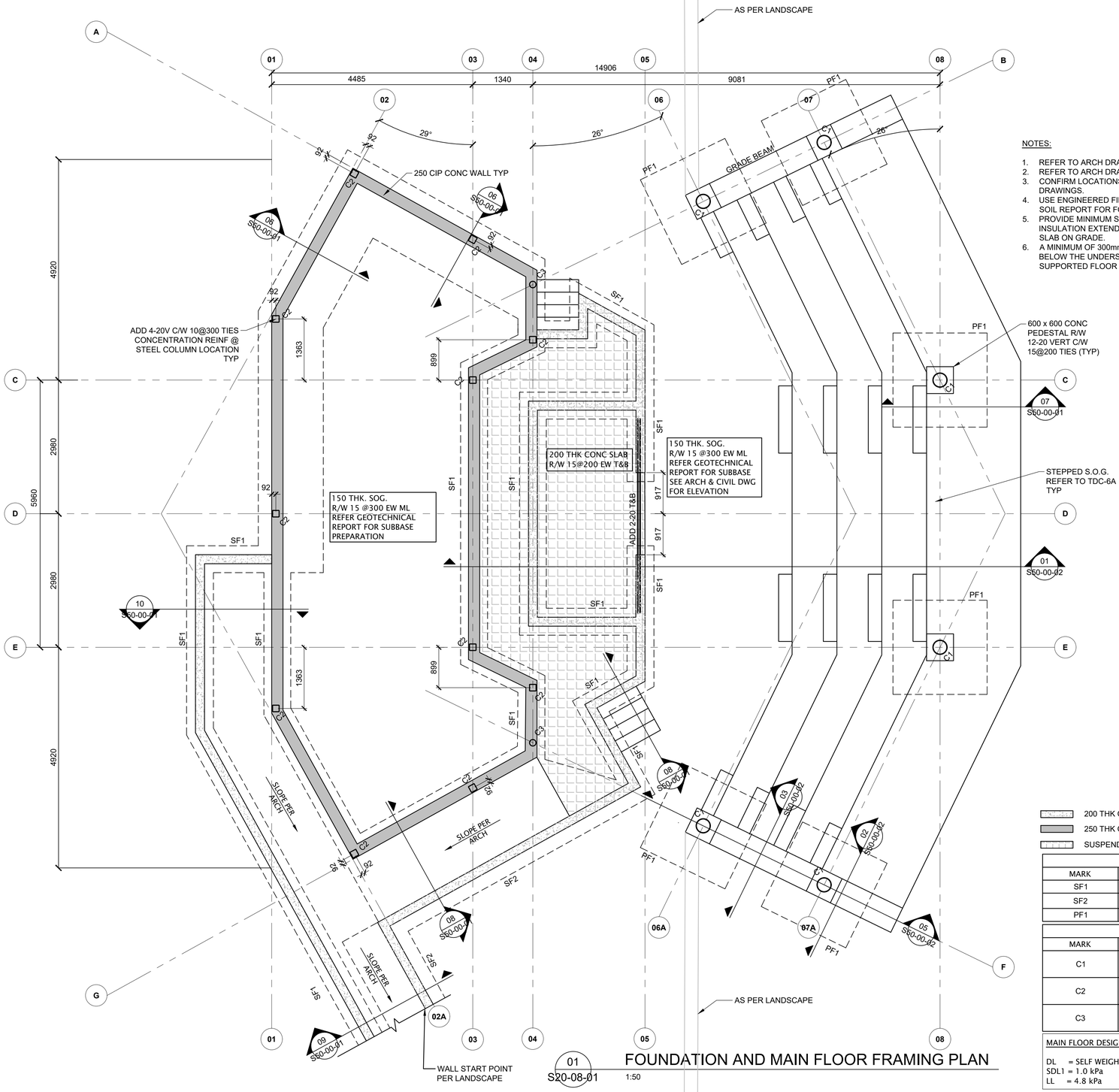
Sheet No. / No. de la feuille: S20-07-01

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VIL\NP500-DELIV\STRUSHEETS\FOUNDATION SET\S20-07-01.DWG PLOTTED: 2021/01/25 12:39 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



NOTES:

1. REFER TO ARCH DRAWINGS FOR EXACT ELEVATIONS AND SLOPE.
2. REFER TO ARCH DRAWINGS FOR CONFIRMATION OF DIMENSIONS.
3. CONFIRM LOCATIONS OF ALL OPENINGS BEFORE PREPARATION OF SHOP DRAWINGS.
4. USE ENGINEERED FILL AS BACKFILL AROUND FOUNDATION WALLS. REFER SOIL REPORT FOR FOUNDATION WALL RECOMMENDATIONS.
5. PROVIDE MINIMUM SOIL COVER OF 300mm TO SECTIONS OF THE INSULATION EXTENDING AWAY FROM EXTERIOR WALLS / STRUCTURAL SLAB ON GRADE.
6. A MINIMUM OF 300mm THICK AT DES 2 CLASS 25 AGGREGATE TO BE PLACED BELOW THE UNDERSIDE OF THE FLOOR SLAB FOR UNHEATED GRADE SUPPORTED FLOOR SLAB.

200 THK CONC WALL
250 THK CONC WALL
SUSPENDED SLAB

STRIP & PAD FOOTING		
MARK	MEMBER SIZE	REINF
SF1	600 x 300 DP	15@300 BEW
SF2	DIMENSION SEE PLAN, 300 DP	SEE SECTIONS
PF1	2100 x 2100 x 400DP	9-20 BEW

COLUMN SCHEDULE			
MARK	MEMBER SIZE	BASE PLATE	ANCHOR BOLT
C1	HSS 324 x 13	400x400x19 BP C/W 4-19Ø A.BOLT x 450LG	450
C2	HSS 152 x 152 x 9.5	250x300x19 BP C/W 4-19Ø A.BOLT x 450LG	
C3	HSS 152 x 9.5	250x250x19 BP C/W 2-19Ø A.BOLT x 450LG	

MAIN FLOOR DESIGN LOADS (STRUCTURAL SLAB):

DL = SELF WEIGHT
SDL1 = 1.0 kPa
LL = 4.8 kPa

01 S20-08-01 FOUNDATION AND MAIN FLOOR FRAMING PLAN
1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER — PRAMOD ABBASS ELSHAFEY — 99990

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

FOUNDATION & MAIN FLOOR FRAMING PLAN & SCHEDULE

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
N. CHALISHAJAR	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

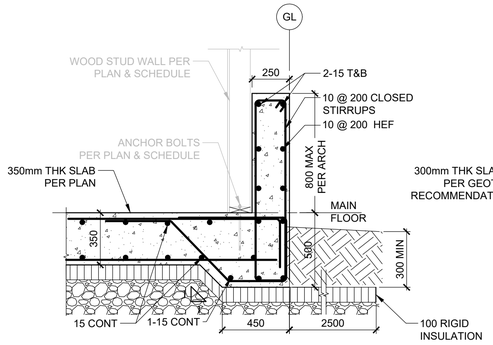
Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		S20-08-01

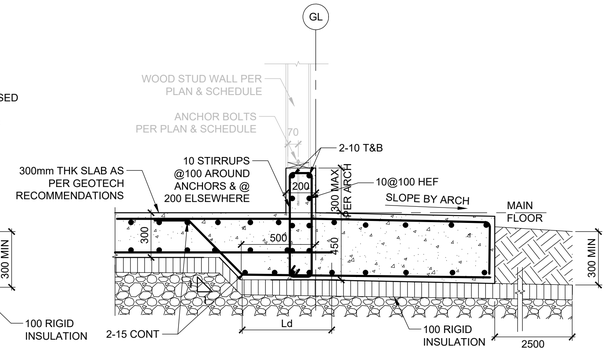
Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND\ML\NP500-DELIV\STRUSHEETS\FOUNDATION SETS\20-08-01.DWG PLOTTED: 2021/01/26 12:39 PM

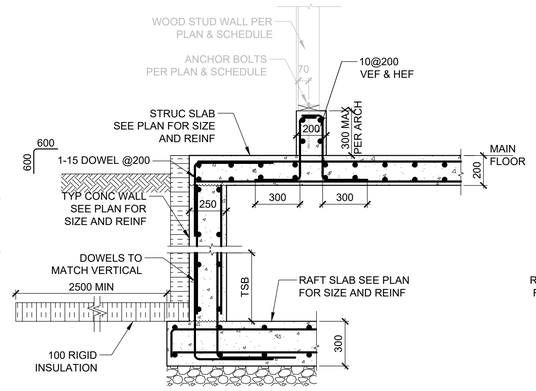
Paper Size: ANSI D (22 x 34")



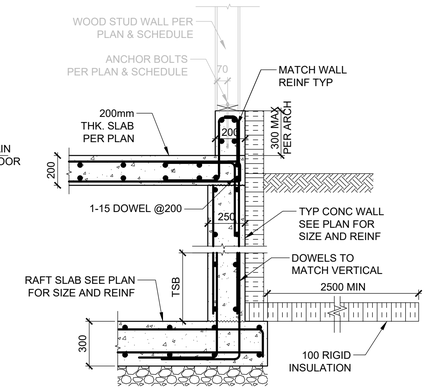
01 S50-00-01 BLDG 1 1:20



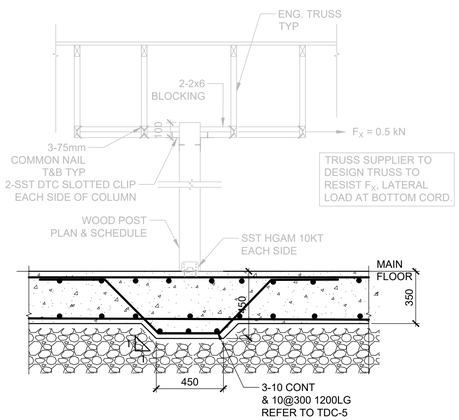
02 S50-00-01 BLDG 2,4,5,7 1:20



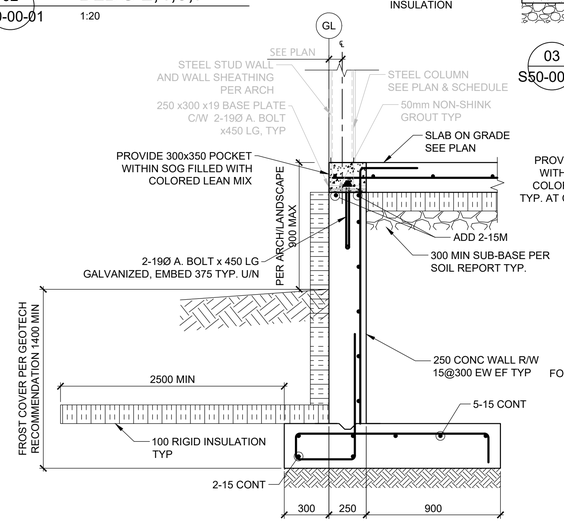
03 S50-00-01 BLDG 3 1:20



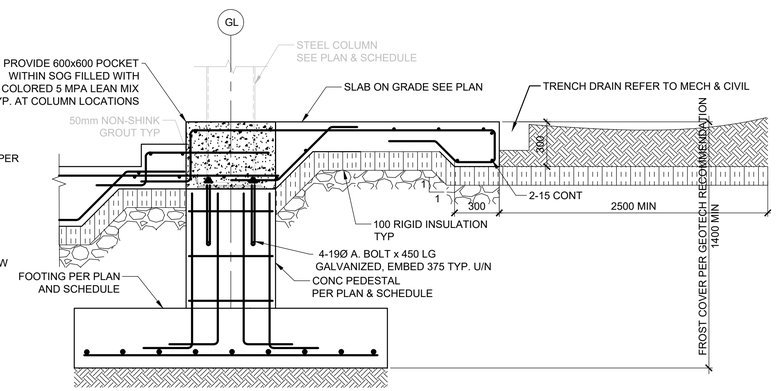
04 S50-00-01 BLDG 3 1:20



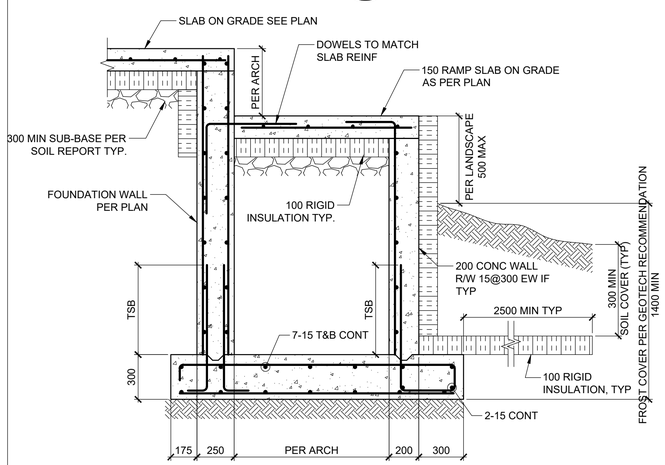
05 S51-00-01 BLDG 7 1:20



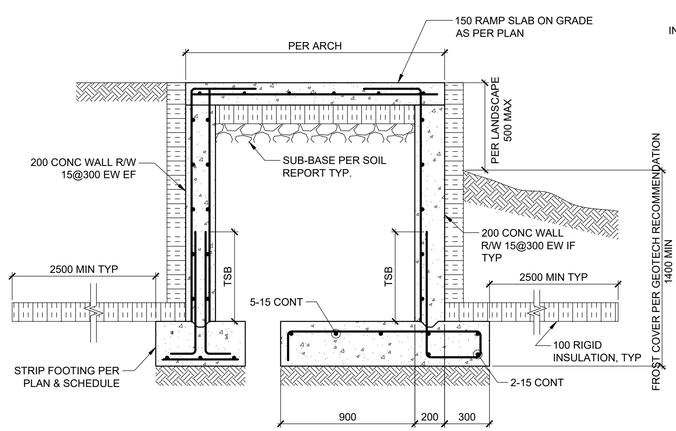
06 S50-00-01 AMPHITHEATRE 1:20



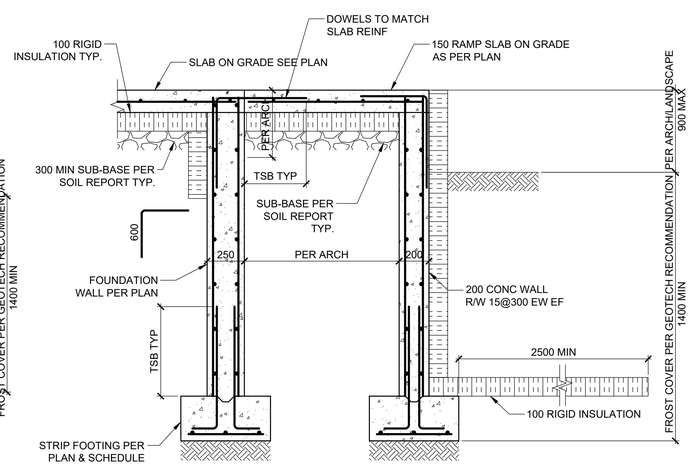
07 S50-00-01 AMPHITHEATRE 1:20



08 S50-00-01 AMPHITHEATRE 1:20



09 S50-00-01 AMPHITHEATRE 1:20



10 S50-00-01 AMPHITHEATRE 1:20

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER — PROVINCE OF ALBERTA — SAMEED ABBASS BAMASOOD

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

SECTIONS & DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
S.BAMASOOD	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien

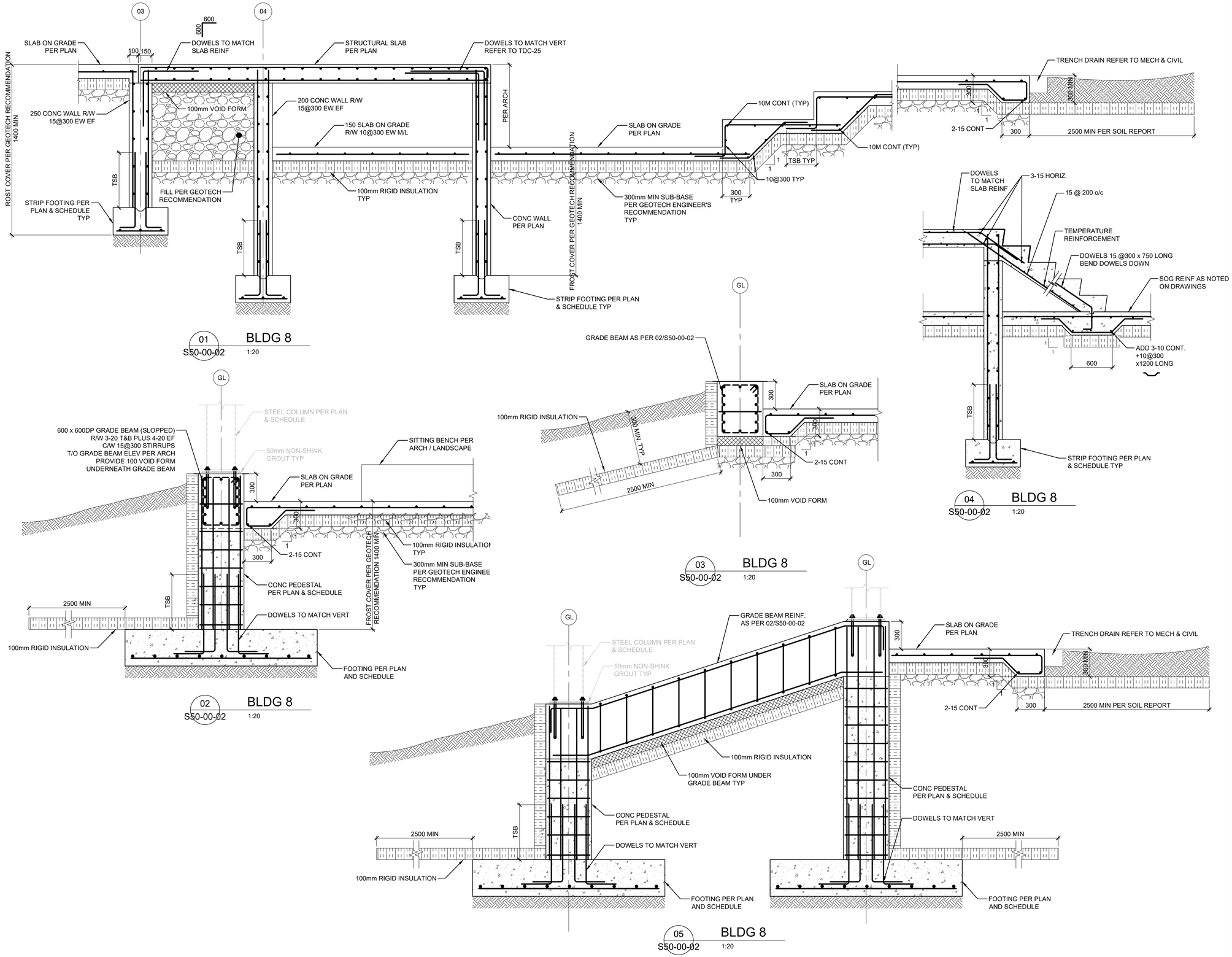
Sheet No. / No. de la feuille: S50-00-01

Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\50-DELIV\STRU\SHEETS\FOUNDATION SETS\S50-00-01.DWG PLOTTED: 2021/01/26 12:39 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1			
TO	20200630	ISSUED FOR TENDER			
0	20200228	ISSUED FOR TENDER			
C	20200220	ISSUED FOR REVISED 95% REVIEW			
B	20200115	ISSUED FOR 95% REVIEW			
A	20191108	ISSUED FOR 60% REVIEW			

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA

APEGA PP#11944
Jan. 26/ 2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

SECTIONS & DETAILS

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	J. XIAO/D. KUANG	20200228
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
N. CHALISHAJAR	A. ELSHAFEY	AS INDICATED

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one (Parks Canada Responsible Officer / Agent Responsable Parcs Canada)

Approved by / Approuvé par: no field needed for this one (Parks Canada Project Manager / Administrateur de Projets Parcs Canada)

Project No. / No. du projet: PCA 2032

Asset No. / No. du-bien:

Sheet No. / No. de la feuille: S50-00-02

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND VI\MP\500-DELIV\STRU\SHEETS\FOUNDATION SETS\S50-00-02.DWG PLOTTED: 2021/01/25 12:39 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

MECHANICAL DRAWING LEGEND

DESIGNATION	SERVICE	DESIGNATION	SERVICE	DESIGNATION	SERVICE
DC	DOMESTIC COLD WATER	CHWS	CHILLED WATER SUPPLY	NFHB	NON FREEZE HOSEBIBB
DH	DOMESTIC HOT WATER	CHWR	CHILLED WATER RETURN	WM GM	WATER METER / GAS METER
DHR	DOMESTIC HOT WATER RETURN	HWS	HOT WATER SUPPLY		PUMP
V	VENT	HWR	HOT WATER RETURN		BACKDRAFT DAMPER
SAN	SANITARY ABOVE GRADE	CD	CONDENSATE		FIRE DAMPER
SAN	SANITARY BELOW GRADE		CLEANOUT ABOVE / BELOW GRADE		BALANCING DAMPER
PSAN	PUMPED SANITARY		BALANCING VALVE	-- Ø --	DIFFUSER/GRILLE TYPE; SIZE (IN.); AIRFLOW (CFM)
ST	STORM ABOVE GRADE		PRESSURE REDUCING VALVE		
ST	STORM BELOW GRADE		CONTROL VALVE	-- -- --	TYPE; CAPACITY (WATTS); LENGTH (mm)
X X X X	INCOMING WATER SERVICE		ISOLATION VALVE		
WT	WEEPING TILE ABOVE GRADE		PLUG VALVE	PR-XX	PLUMBING RISER
WT	WEEPING TILE BELOW GRADE	BFP	BACKFLOW PREVENTER	SR-XX	SANITARY RISER
PWT	PUMPED WEEPING TILE	FD RD	FLOOR / ROOF DRAIN	GR-XX	GAS RISER
MPG	MEDIUM PRESSURE GAS	FE-X FE-X	FIRE EXTINGUISHER / FE WITH CABINET	HR-XX	HEATING RISER
G	NATURAL GAS	T	THERMOSTAT	S/A	SUPPLY AIR
				R/A	RETURN AIR
				E/A	EXHAUST AIR
				T/A	TRANSFER AIR
				GLYS	GLYCOL SUPPLY
				GLYR	GLYCOL RETURN

PLUMBING FIXTURE CONNECTION

FIXTURE	COLD WATER (MM)	HOT WATER (MM)	SANITARY (MM)	VENT (MM)
WATER CLOSET / BARRIER FREE / FLUSH TANK (WC-1)	13Ø	--	80Ø	40Ø
WATER CLOSET / FLUSH VALVE (WC-2)	25Ø	--	80Ø	40Ø
WATER CLOSET / BARRIER FREE / FLUSH VALVE (WC-3)	25Ø	--	80Ø	40Ø
LAVATORY / BARRIER FREE (LAV-1)	13Ø	13Ø	40Ø	30Ø
LAVATORY (LAV-2)	13Ø	13Ø	40Ø	30Ø
LAVATORY / BARRIER FREE (LAV-3)	13Ø	13Ø	40Ø	30Ø
SHOWER (SH-1)	13Ø	13Ø	50Ø	40Ø
SHOWER / BARRIER FREE (SH-2)	13Ø	13Ø	50Ø	40Ø
MOP SINK (MS-1)	13Ø	13Ø	80Ø	40Ø
SINGLE COMPARTMENT SINK (SK-1)	13Ø	13Ø	40Ø	30Ø
WASHING STATION WITH GARBURATOR (SK-2)	2 X 13Ø	2 X 13Ø	40Ø	30Ø

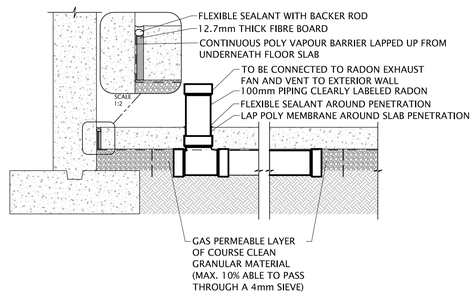
DRAWING LEGEND

DRAWING NUMBER	DRAWING NAME
M01-00-00	MECHANICAL SCHEDULE, LEGEND AND DETAIL
M20-01-00	GATE HOUSE FOUNDATION MECHANICAL LAYOUT
M20-02-00	CONCESSION FOUNDATION MECHANICAL LAYOUT
M20-03-00	KITCHEN FOUNDATION MECHANICAL LAYOUT
M20-04-00	WASHROOM FOUNDATION MECHANICAL LAYOUT

FLOOR DRAIN SCHEDULE

TAG	MANUFACTURER	LOCATION	MODEL NUMBER	REMARKS
FD	WATTS	VARIES	FD-204-NH-A5-1	COMPLETE WITH NICKEL BRONZE STRAINER

RADON MITIGATION ROUGH IN



1
M01-00-00

RADON DEPRESSURIZATION SYSTEM DETAIL

NTS

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	DT/MW	NW	MA
T0	2020.06.30	ISSUED FOR TENDER	DT/MW	NW	MA
00	20200228	ISSUED FOR TENDER	DT/MW	NW	MA
C	20200220	ISSUED FOR REVISED 95% REVIEW	DT/NW	NW	MA
B	20200115	ISSUED FOR 95% REVIEW	DT/NW	NW	MA
A	20191108	ISSUED FOR 60% REVIEW	DT/NW	NW	MA

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
MAHMOUD ABUAL ABBAS
APEGA PERMIT TO PRACTICE NO. 11944
26/01/2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

MECHANICAL SCHEDULE LEGEND AND DETAIL

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	D.TRAN/N.WONG	20201127
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
N.WONG	M.ABUALQUMSSAN	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

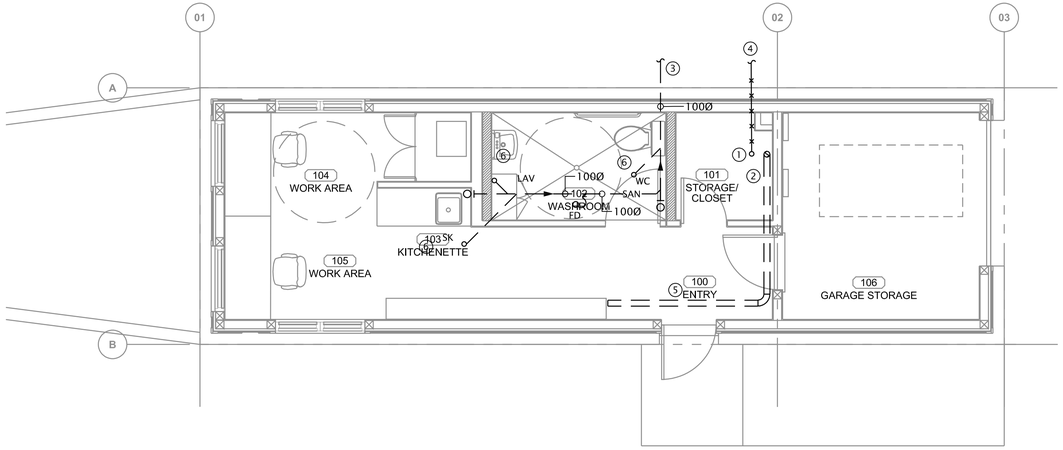
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		M01-00-00

Drawing Reference No. / No. de réference du dessin

FILE:P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND VI\NP\50\DELIV\MECH\SHEETS\CRANDEL FOUNDATION SET\M01-00-00.DWG PLOTTED: 2021/01/26 9:36 AM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01 M20-01-00 GATE HOUSE FOUNDATION PLAN - PLUMBING
1:50

PLUMBING GENERAL NOTES:

A. EXCEPT AS SHOWN ON THE DRAWINGS, ALL ABOVE GROUND MECHANICAL WORK WILL BE COMPLETED IN FUTURE.
B. PROVIDE SLEEVES AS REQUIRED THROUGH FOOTINGS, PADS AND STRUCTURAL SLABS FOR MECHANICAL.
C. COORDINATE AND SLEEVE FOR ALL PLUMBING FIXTURES.
D. PROVIDE PLUMBING VENTING AS REQUIRED AND AS PER CODE.
E. PROVIDE P-TRAPS AND CLEANOUTS AS REQUIRED AND AS PER NATIONAL PLUMBING CODE.
F. ALL SANITARY PIPES THAT ARE 100ø AND LARGER SHALL BE SLOPED @ 1% UNLESS OTHERWISE NOTED ON THE DRAWINGS.
G. SLOPE ALL SANITARY PIPING SMALLER THAN 100ø AT 2% UNLESS OTHERWISE NOTED.

PLUMBING AND FIRE PROTECTION KEYNOTES:

1. INCOMING WATER SERVICE ROUGH IN THROUGH FLOOR SLAB FROM BELOW. PROVIDE ISOLATION VALVE, BACKFLOW PREVENTOR, TO BE CAPPED FOR FUTURE TIE IN.
2. 100Ø RADON TO BE TERMINATED AND CAPPED 300mm ABOVE FINISHED FLOOR.
3. 100Ø SANITARY, REFER TO CIVIL DRAWINGS FOR EXACT LOCATION, INVERT AND CONTINUATION.
4. 50mmØ INCOMING WATER SERVICE, TERMINATE 1000mm OUTSIDE THE EXTERIOR WALL FOR CONNECTION BY CIVIL. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION AND CONTINUATION.
5. 100Ø RADON REFER TO DETAIL 1 OF SHEET M01-00-00.
6. SANITARY ROUGH-IN TO BE CAPPED FOR FUTURE TIE.

TRUE NORTH

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	DT/MW	NW	MA
T0	2020.03.30	ISSUED FOR TENDER	DT/NW	NW	MA
00	20200228	ISSUED FOR TENDER	DT/NW	NW	MA
C	20200220	ISSUED FOR REVISED 95% REVIEW	DT/NW	NW	MA
B	20200115	ISSUED FOR 95% REVIEW	DT/NW	NW	MA
A	20191108	ISSUED FOR 60% REVIEW	DT/NW	NW	MA

A detail number
B numéro de detail
C source drawing no. de dessin no. detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER MATT ABUAL ALBERTA 28 JAN 2021
APEGA PERMIT TO PRACTICE NO. 11944
26/01/2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

GATE HOUSE FOUNDATION MECHANICAL LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	D.TRAN/N.WONG	20201127
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
N.WONG	M.ABUALQUMSSAN	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

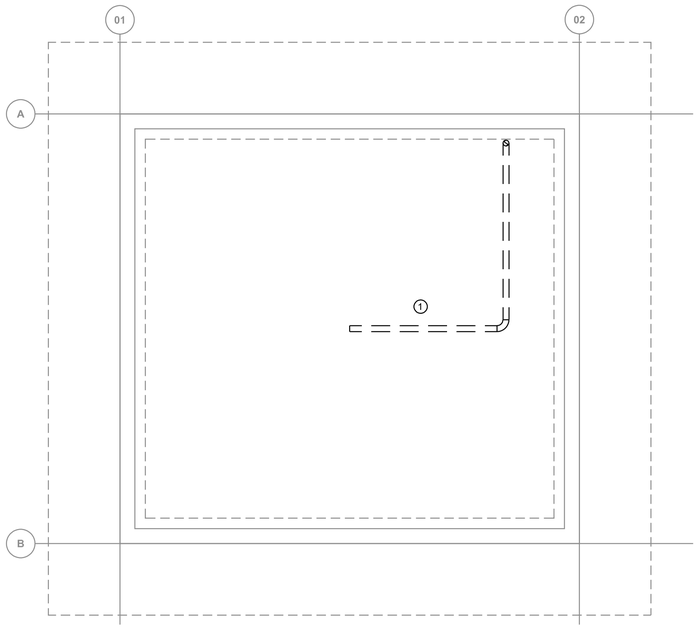
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		M20-01-00

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND VI\NP\500-DELIV\MECH\SHEETS\CRANDELL FOUNDATION.SET\M20-01-00.DWG PLOTTED: 2021/01/26 9:32 PM

Paper Size: ANSI D (22 x 34")

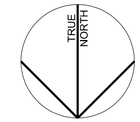
0 10 20 30 40 50 60 70 80 90 100mm



01
M20-02-00

CONCESSION FOUNDATION PLAN - PLUMBING

1:50



PLUMBING GENERAL NOTES:

A. EXCEPT AS SHOWN ON THE DRAWINGS, ALL ABOVE GROUND MECHANICAL WORK WILL BE COMPLETED IN FUTURE.

PLUMBING KEYNOTES:

1. 100Ø RADON TO BE TERMINATED AND CAPPED 300mm ABOVE THE FINISHED FLOOR.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD, (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	DT/MW	NW	MA
T0	2020.06.30	ISSUED FOR TENDER	DT/NW	NW	MA
00	20200228	ISSUED FOR TENDER	DT/NW	NW	MA
C	20200220	ISSUED FOR REVISED 95% REVIEW	DT/NW	NW	MA
B	20200115	ISSUED FOR 95% REVIEW	DT/NW	NW	MA
A	20191108	ISSUED FOR 60% REVIEW	DT/NW	NW	MA

A — detail number / numéro de detail
B — source drawing no. / de dessin no.
C — detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER MAHMOUD ABUALQUMSSAN ALBERTA
APEGA PERMIT TO PRACTICE NO. 11944
26/01/2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

CONCESSION FOUNDATION MECHANICAL LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	D.TRAN/N.WONG	20201127
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
N.WONG	M.ABUALQUMSSAN	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client: no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par: no field needed for this one
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

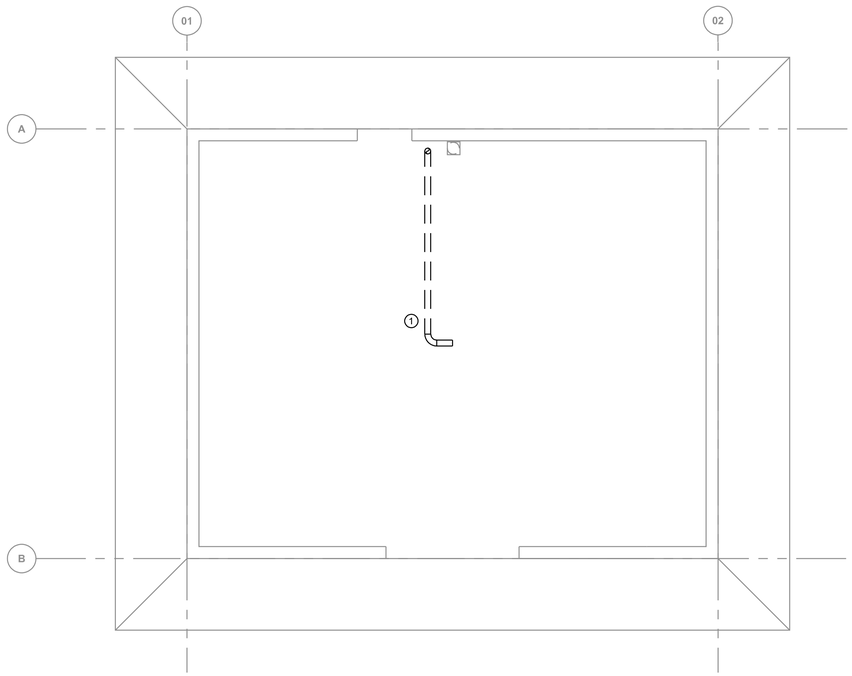
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		M20-02-00

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND \M\NP\500-DELIV\MECH\SHEETS\CRANDELL FOUNDATION SET\M20-02-00.DWG PLOTTED: 2021/01/26 9:33 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01
M20-03-00

KITCHEN FOUNDATION PLAN - PLUMBING

1:50

TRUE NORTH

PLUMBING GENERAL NOTES:

A. EXCEPT AS SHOWN ON THE DRAWINGS, ALL ABOVE GROUND MECHANICAL WORK WILL BE COMPLETED IN FUTURE.

PLUMBING KEYNOTES:

1. 100Ø RADON TO BE TERMINATED AND CAPPED 300mm ABOVE THE FINISHED FLOOR.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	DT/MW	NW	MA
T0	2020.06.30	ISSUED FOR TENDER	DT/NW	NW	MA
00	20200228	ISSUED FOR TENDER	DT/NW	NW	MA
C	20200220	ISSUED FOR REVISED 95% REVIEW	DT/NW	NW	MA
B	20200115	ISSUED FOR 95% REVIEW	DT/NW	NW	MA
A	20191108	ISSUED FOR 60% REVIEW	DT/NW	NW	MA

A detail number
B numéro de detail
C source drawing no. de dessin no. detail on drawing no. detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER MAHY ABUAL ALBERTA 28 JAN 2021
APEGA PERMIT TO PRACTICE NO. 11944
26/01/2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

KITCHEN FOUNDATION MECHANICAL LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	D.TRAN/N.WONG	20201127
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
N.WONG	M.ABUALQUMSSAN	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
no field needed for this one Parks Canada Responsible Officer / Agent Responsable Parcs Canada	no field needed for this one Parks Canada Project Manager / Administrateur de Projets Parcs Canada

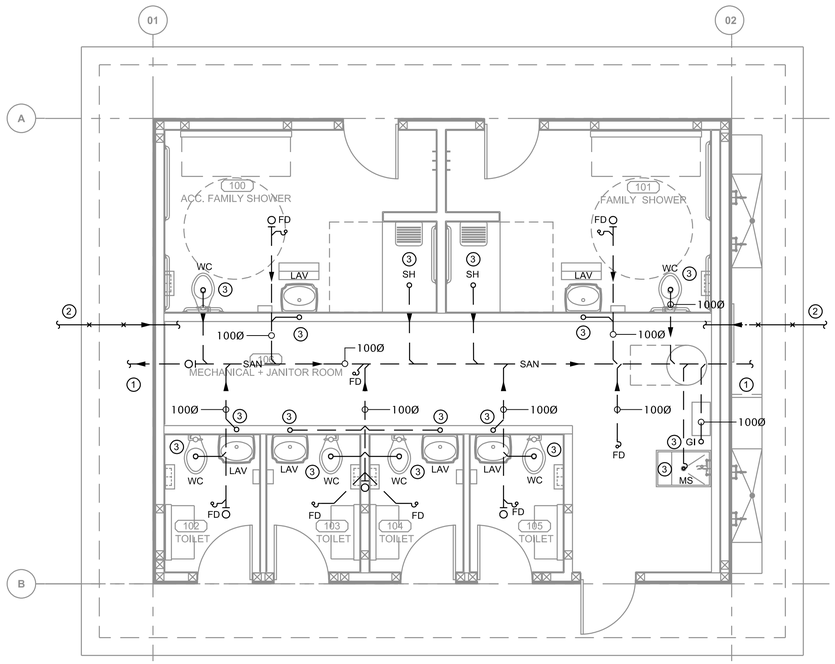
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. No. de la feuille
PCA 2032		M20-03-00

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND WL\NP\500-DELIV\MECH\SHEETS\CRANDELL FOUNDATION SET\M20-03-00.DWG PLOTTED: 2021/01/26 9:37 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01 M20-04-00 **WASHROOM FOUNDATION PLAN - PLUMBING**
1:50

TRUE NORTH

PLUMBING GENERAL NOTES:

A. EXCEPT AS SHOWN ON THE DRAWINGS, ALL ABOVE GROUND MECHANICAL WORK WILL BE COMPLETED IN FUTURE.
B. PROVIDE SLEEVES AS REQUIRED THROUGH FOOTINGS, PADS AND STRUCTURAL SLABS FOR MECHANICAL.
C. COORDINATE AND SLEEVE FOR ALL PLUMBING FIXTURES.
D. PROVIDE PLUMBING VENTING AS REQUIRED AND AS PER CODE.
E. PROVIDE P-TRAPS AND CLEANOUTS AS REQUIRED AND AS PER CODE.
F. ALL SANITARY PIPES THAT ARE 100ø AND LARGER SHALL BE SLOPED AT 1% UNLESS OTHERWISE NOTED ON THE DRAWINGS.
G. SLOPE ALL SANITARY PIPING SMALLER THAN 100ø AT 2%, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

PLUMBING KEYNOTES:

1. 100Ø SANITARY, REFER TO CIVIL DRAWINGS FOR EXACT LOCATION, INVERT AND CONTINUATION. THE LEAVING SANITARY POINT TO BE CONFIRMED ON SITE BASED ON THE WASHROOM LOCATION.
2. 65Ø INCOMING WATER SERVICE, TERMINATE 1000mm OUTSIDE THE EXTERIOR WALL FOR CONNECTION BY CIVIL. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION AND CONTINUATION BASED ON THE WASHROOM'S LOCATION.
3. SANITARY ROUGH-IN TO BE CAPPED FOR FUTURE TIE IN.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY). McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	2021.01.26	ISSUED FOR TENDER PHASE 1	DT/MW	NW	MA
T0	2020.06.30	ISSUED FOR TENDER	DT/MW	NW	MA
00	20200228	ISSUED FOR TENDER	DT/NW	NW	MA
C	20200220	ISSUED FOR REVISED 95% REVIEW	DT/NW	NW	MA
B	20200115	ISSUED FOR 95% REVIEW	DT/NW	NW	MA
A	20191108	ISSUED FOR 60% REVIEW	DT/NW	NW	MA

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER ALBERTA
MARTY ABUAL-AMSSAN
APEGA PERMIT TO PRACTICE NO. 11944
26/01/2021

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

WASHROOM FOUNDATION MECHANICAL LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	D.TRAN/N.WONG	20201127
Designed by / Conçu par	Reviewed by / Revisé par	Scale / Échelle
N.WONG	M.ABUALQUMSSAN	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client	Approved by / Approuvé par
no field needed for this one	no field needed for this one
Parks Canada Responsible Officer / Agent Responsable Parcs Canada	Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		M20-04-00

Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND \M\NP\500-DELIV\MECH\SHEETS\CRANDELL FOUNDATION SET\M20-04-00.DWG PLOTTED: 2021/01/26 9:38 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

LEGEND OF SYMBOLS

LIGHTING

	RECESSED LED / INCANDESCENT / COMPACT FLUORESCENT LUMINAIRE
	SURFACE LED / INCANDESCENT / COMPACT FLUORESCENT LUMINAIRE
	WALL LED / INCANDESCENT / COMPACT FLUORESCENT LUMINAIRE
	LED / INCANDESCENT / COMPACT FLUORESCENT WALL WASHER
	RECESSED LED / INCANDESCENT / COMPACT FLUORESCENT LUMINAIRE ON EMERGENCY POWER
	SURFACE LED / INCANDESCENT / COMPACT FLUORESCENT LUMINAIRE ON EMERGENCY POWER
	WALL LED / INCANDESCENT / COMPACT FLUORESCENT LUMINAIRE ON EMERGENCY POWER
	RECESSED FLUORESCENT LUMINAIRE
	SURFACE FLUORESCENT LUMINAIRE
	WALL FLUORESCENT LUMINAIRE
	WALL FLUORESCENT LUMINAIRE ON EMERGENCY POWER
	FLUORESCENT STRIP LUMINAIRE
	FLUORESCENT STRIP LUMINAIRE
	RECESSED FLUORESCENT LUMINAIRE ON EMERGENCY POWER
	SURFACE FLUORESCENT LUMINAIRE ON EMERGENCY POWER
	TRACK LIGHTING C/W LIGHTING HEADS AS SHOWN
	POLE MOUNTED LUMINAIRE
	LIGHTING BOLLARD
XX	LIGHTING LUMINAIRE TYPE TAG
	EXIT LIGHT - CEILING (C/W ARROWS AS INDICATED)
	EXIT LIGHT - WALL (C/W ARROWS AS INDICATED)
	EMERGENCY POWER BATTERY PACK
	EMERGENCY POWER BATTERY PACK C/W LIGHTING HEADS
	EMERGENCY POWER BATTERY PACK C/W R. HEADS & EXIT LIGHT
	SINGLE REMOTE EMERGENCY LIGHTING HEAD - CEILING MOUNT
	DOUBLE REMOTE EMERGENCY LIGHTING HEAD - CEILING MOUNT
	SINGLE REMOTE EMERGENCY LIGHTING HEAD - WALL MOUNT
	DOUBLE REMOTE EMERGENCY LIGHTING HEAD - WALL MOUNT
	SWITCH - SINGLE, TWO, AND THREE GANG
2	2 POLE SWITCH
3	SWITCH - 3 WAY
	SWITCH - LOW VOLTAGE
K	SWITCH - KEY SWITCH
M	SWITCH - MANUAL STARTER
	SWITCH - DIMMER SWITCH
	SWITCH - OCCUPANCY SENSOR SWITCH
P	SWITCH C/W PILOT LIGHT - SINGLE GANG
T	SWITCH - TIMER SWITCH
P	PHOTO ELECTRIC CELL
OS	OCCUPANCY SENSOR - CEILING MOUNTED
DL	DAYLIGHT HARVESTING LIGHT SENSOR

MECHANICAL

	MOTOR
	MOTOR C/W DISCONNECT SWITCH
	MOTOR C/W MANUAL STARTER
	UNFUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	COMBINATION MAGNETIC STARTER/DISCONNECT SWITCH
	MAGNETIC STARTER
S	FAN SPEED CONTROLLER
T	THERMOSTAT
SE	SENSOR
XXX	MOTOR IDENTIFICATION TAG (REFER TO MECHANICAL SCHEDULE)
	BASEBOARD HEATER
	WIRELESS ACCESS POINT (WAP)

POWER

	SINGLE/SPECIAL PURPOSE RECEPTACLE
	DUPLEX RECEPTACLE
USB	USB CHARGING RECEPTACLE - 4 PORTS
WP	DUAL RECEPTACLE WITH EXTRA DUTY WEATHERPROOF COVER
	GROUND FAULT RECEPTACLE
	SPLIT/SWITCHED CIRCUIT RECEPTACLE
	20A T-SLOT RECEPTACLE
	FOURPLEX RECEPTACLE
	GROUND FAULT FOURPLEX RECEPTACLE
	COMPUTER DUPLEX RECEPTACLE (FED W/ DEDICATED NEUTRAL)
	COMPUTER FOURPLEX RECEPTACLE (FED W/ DEDICATED NEUTRAL)
	FLOOR MOUNTED RECEPTACLE
	FLOOR MOUNTED GROUND FAULT RECEPTACLE
	FLOOR MOUNTED FOURPLEX GROUND FAULT RECEPTACLE
	FLOOR MOUNTED COMPUTER DUPLEX RECEPTACLE W/DEDICATED NEUTRAL
	CEILING MOUNTED SINGLE/SPECIAL PURPOSE RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
J	CEILING MOUNTED JUNCTION/SLAB BOX
J	FLOOR MOUNTED JUNCTION/SLAB BOX
J	WALL MOUNTED JUNCTION BOX
	ELECTRICAL PANELBOARD - SURFACE MOUNTED
	ELECTRICAL PANELBOARD - RECESSED
C	CONTACTOR
	CAR PLUG POST
TC	TIME CLOCK
	SINGLE PHASE DIRECT CONNECTION
	THREE PHASE DIRECT CONNECTION
	DROP CORD

COMMUNICATION SYSTEMS

	VOICE OUTLET
	DATA OUTLET
	COMBINATION VOICE/DATA OUTLET
	TELEVISION OUTLET
	COMBINATION DATA/TELEVISION OUTLET
	FLOOR MOUNTED VOICE OUTLET
	FLOOR MOUNTED DATA OUTLET
	FLOOR MOUNTED COMBINATION VOICE/DATA OUTLET
	FLOOR MOUNTED TELEVISION OUTLET
	CEILING MOUNTED DATA OUTLET
	CEILING MOUNTED TELEVISION OUTLET
M	MICROPHONE OUTLET
S	SPEAKER - MOVABLE
S	SPEAKER - WALL MOUNTED
V	VOLUME CONTROLLER
	CHIME
	CLOCK - CEILING MOUNTED
	CLOCK - WALL MOUNTED
	PAC-POLE
WD	WATER DETECTOR
	GROUND BAR
	FIRE-RESISTANT BACKBOARD

SECURITY SYSTEMS

REX	REQUEST TO EXIT SENSOR
	CARD READER
ES	ELECTRIC STRIKE
DP	DOOR POSITION SWITCH

GENERAL

	CONDUIT CONCEALED IN WALL OR CEILING
	CONDUIT CONCEALED IN SLAB OR RUN UNDERGROUND
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT STUB
	CONDUIT CONTINUATION
WP	DENOTES WEATHERPROOF DEVICE
NL	DENOTES UNSWITCHED LUMINAIRE (NIGHT LIGHT)
R	DENOTES DEVICE TO REMOVE OR RELOCATE
RL	DENOTES RELOCATED DEVICE
	DENOTES FURNITURE MOUNTED DEVICE
E	DENOTES EXISTING TO REMAIN

Sheet List Table

Sheet Number	Sheet Title
E00-00-00	ELECTRICAL COVER SHEET
E10-00-00	ELECTRICAL SITE PLAN
E10-00-01	ELECTRICAL SITE PLAN
E10-01-00	CONCESSION - POWER & LIGHTING LAYOUT
E10-02-00	THREE SIDED KITCHEN SHELTER - POWER LAYOUT
E10-03-00	WINTER KITCHEN SHELTER - POWER LAYOUT
E10-04-00	WASHROOM - POWER & LIGHTING LAYOUT
E10-05-00	AMPHITHEATRE - POWER & LIGHTING LAYOUT
E10-06-00	GATE HOUSE - POWER & LIGHTING PLAN
E20-00-00	SINGLE LINE DIAGRAM & SCHEDULES
E20-00-01	ELECTRICAL SCHEDULES
E30-00-00	TYPICAL DETAIL

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

ALBERTA REGISTERED PROFESSIONAL ENGINEER
NUMBER 71244
2021-01-26

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title / Titre du dessin

ELECTRICAL SYMBOL AND LEGEND

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

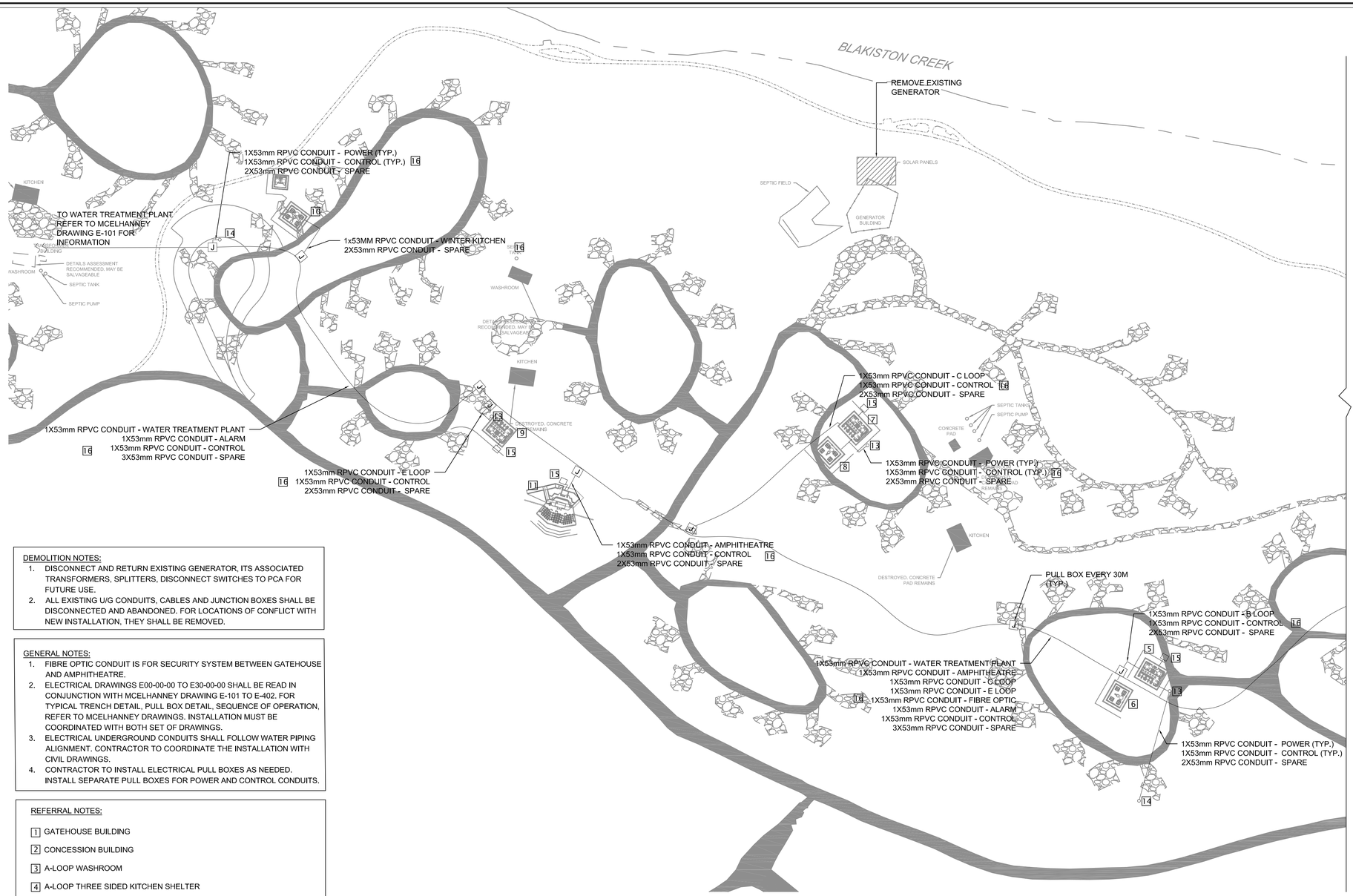
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E00-00-00

Drawing Reference No. / No. de réference du dessin

FILE:P:\NCCA19-0088 - PCA CRANDELL CAMPGROUND \NLNP\500-DELIV\ELEC\SHEETS\PHASE 1\E00-00-00.DWG PLOTTED: 2021/01/28 3:25 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



FOR CONTINUATION, REFER TO DWG. E10-00-01

DEMOLITION NOTES:

1. DISCONNECT AND RETURN EXISTING GENERATOR, ITS ASSOCIATED TRANSFORMERS, SPLITTERS, DISCONNECT SWITCHES TO PCA FOR FUTURE USE.
2. ALL EXISTING U/G CONDUITS, CABLES AND JUNCTION BOXES SHALL BE DISCONNECTED AND ABANDONED. FOR LOCATIONS OF CONFLICT WITH NEW INSTALLATION, THEY SHALL BE REMOVED.

GENERAL NOTES:

1. FIBRE OPTIC CONDUIT IS FOR SECURITY SYSTEM BETWEEN GATEHOUSE AND AMPHITHEATRE.
2. ELECTRICAL DRAWINGS E00-00-00 TO E30-00-00 SHALL BE READ IN CONJUNCTION WITH MCELHANNEY DRAWING E-101 TO E-402. FOR TYPICAL TRENCH DETAIL, PULL BOX DETAIL, SEQUENCE OF OPERATION, REFER TO MCELHANNEY DRAWINGS. INSTALLATION MUST BE COORDINATED WITH BOTH SET OF DRAWINGS.
3. ELECTRICAL UNDERGROUND CONDUITS SHALL FOLLOW WATER PIPING ALIGNMENT. CONTRACTOR TO COORDINATE THE INSTALLATION WITH CIVIL DRAWINGS.
4. CONTRACTOR TO INSTALL ELECTRICAL PULL BOXES AS NEEDED. INSTALL SEPARATE PULL BOXES FOR POWER AND CONTROL CONDUITS.

REFERRAL NOTES:

1 GATEHOUSE BUILDING

2 CONCESSION BUILDING

3 A-LOOP WASHROOM

4 A-LOOP THREE SIDED KITCHEN SHELTER

5 B-LOOP WASHROOM

6 B-LOOP THREE SIDED KITCHEN SHELTER

7 C-LOOP WASHROOM

8 C-LOOP THREE SIDED KITCHEN SHELTER

9 E-LOOP WASHROOM

10 E-LOOP WINTER KITCHEN SHELTER

11 AMPHITHEATRE

12 NEW GENERATOR

13 SEPTIC TANK. REFER TO CIVIL DRAWING FOR EXACT LOCATION.

14 DOSING TANK.REFER TO CIVIL DRAWING FOR EXACT LOCATION.

15 COPPER GROUND PLATE PER CEC REQUIREMENTS. ALL ELECTRICAL EQUIPMENT TO BE GROUNDED TO THE GROUND PLATE.

16 CONDUITS WERE INSTALLED AS PER PHASE 1. CABLES TO BE INSTALLED IN CONDUITS AS PER PHASE 2.

01 / E10-00-00

ELECTRICAL SITE PLAN - NEW CONSTRUCTION

1:1000

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A / C — A detail number / numéro de détail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

ALBERTA PERMIT TO PRACTICE NUMBER—11344

2021-01-26

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION SITE

Drawing Title
Titre du dessin

ELECTRICAL SITE PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	1:1000

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

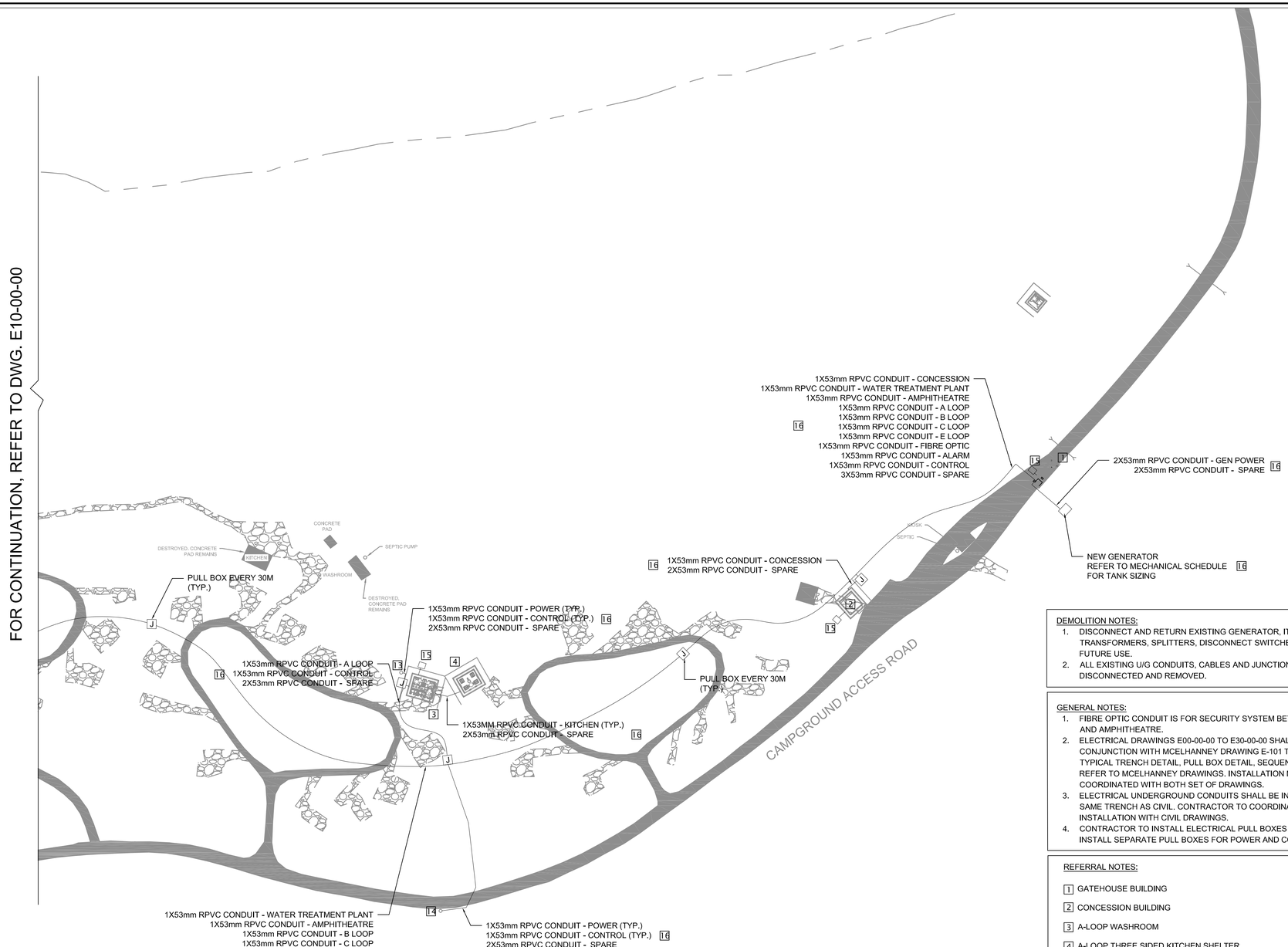
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E10-00-00

Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA19-0088 - PCA CRANDELL CAMPGROUND WLNP\500-DELIV\ELEC\SHEETS\PHASE 1\E10-00-00.DWG PLOTTED: 2021/01/28 3:24 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01 / E10-00-01

ELECTRICAL SITE PLAN - NEW CONSTRUCTION

1:1000

DEMOLITION NOTES:

1. DISCONNECT AND RETURN EXISTING GENERATOR, ITS ASSOCIATED TRANSFORMERS, SPLITTERS, DISCONNECT SWITCHES TO PCA FOR FUTURE USE.
2. ALL EXISTING U/G CONDUITS, CABLES AND JUNCTION BOXES SHALL BE DISCONNECTED AND REMOVED.

GENERAL NOTES:

1. FIBRE OPTIC CONDUIT IS FOR SECURITY SYSTEM BETWEEN GATEHOUSE AND AMPHITHEATRE.
2. ELECTRICAL DRAWINGS E00-00-00 TO E30-00-00 SHALL BE READ IN CONJUNCTION WITH MCELHANNEY DRAWING E-101 TO E-402, FOR TYPICAL TRENCH DETAIL, PULL BOX DETAIL, SEQUENCE OF OPERATION, REFER TO MCELHANNEY DRAWINGS. INSTALLATION MUST BE COORDINATED WITH BOTH SET OF DRAWINGS.
3. ELECTRICAL UNDERGROUND CONDUITS SHALL BE INSTALLED IN THE SAME TRENCH AS CIVIL. CONTRACTOR TO COORDINATE THE INSTALLATION WITH CIVIL DRAWINGS.
4. CONTRACTOR TO INSTALL ELECTRICAL PULL BOXES AS NEEDED. INSTALL SEPARATE PULL BOXES FOR POWER AND CONTROL CONDUITS

REFERRAL NOTES:

1 GATEHOUSE BUILDING

2 CONCESSION BUILDING

3 A-LOOP WASHROOM

4 A-LOOP THREE SIDED KITCHEN SHELTER

5 B-LOOP WASHROOM

6 B-LOOP THREE SIDED KITCHEN SHELTER

7 C-LOOP WASHROOM

8 C-LOOP THREE SIDED KITCHEN SHELTER

9 E-LOOP WASHROOM

10 E-LOOP WINTER KITCHEN SHELTER

11 AMPHITHEATRE

12 NEW GENERATOR

13 SEPTIC TANK. REFER TO CIVIL DRAWING FOR EXACT LOCATION.

14 DOSING TANK.REFER TO CIVIL DRAWING FOR EXACT LOCATION.

15 COPPER GROUND PLATE PER CEC REQUIREMENTS. ALL ELECTRICAL EQUIPMENT TO BE GROUNDED TO THE GROUND PLATE.

16 CONDUITS WERE INSTALLED AS PER PHASE 1. CABLES TO BE INSTALLED IN CONDUITS AS PER PHASE 2.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

Consultant's Stamp / Sceau de l'expert-conseil

Eng. Stamp / Sceau de l'ingénieur

ALBERTA PERMIT TO PRACTICE NUMBER-11244

2021-01-26

Client

Parks Canada Agency / Western and Northern Region

L'Agence Parcs Canada / Ouest et Nord du Canada

Prime Consultant's Name / Nom de l'expert-conseil: McElhanney

Consultant's Name / Nom de l'expert-conseil: NORR

Project Title / Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION SITE

Drawing Title / Titre du dessin

ELECTRICAL SITE PLAN

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	1:1000

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

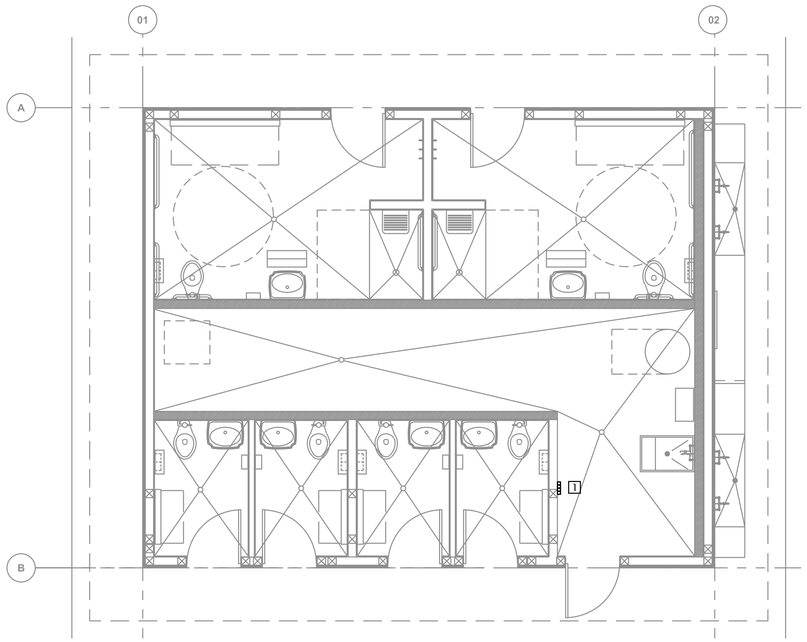
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E10-00-01

Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA\19-0068 - PCA CRANDELL CAMPGROUND \WLNP\500-DELIV\ELEC\SHEETS\PHASE 1\E10-00-01.DWG PLOTTED: 2021/01/28 3:24 PM

Paper Size: ANSI D (22 x 34")

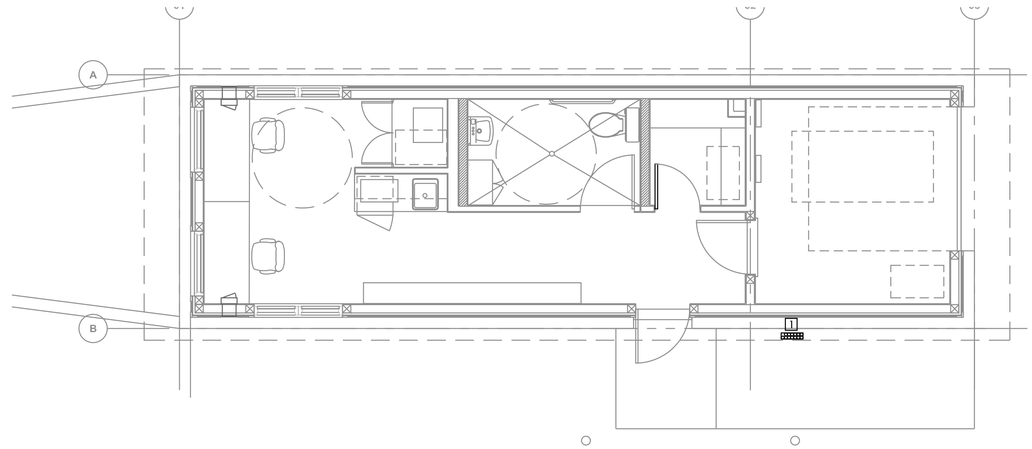
0 10 20 30 40 50 60 70 80 90 100mm



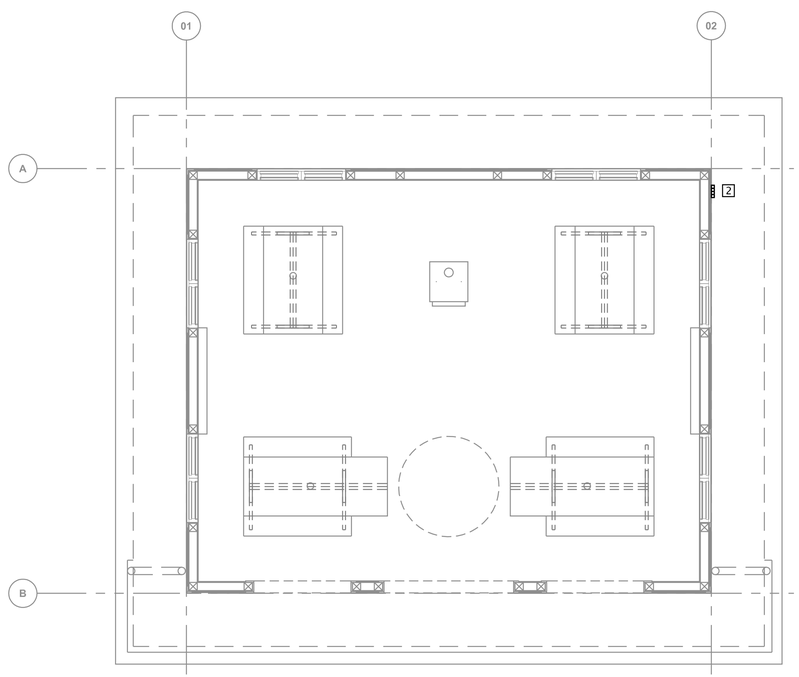
01 E10-01-00 POWER & LIGHTING PLAN - WASHROOM FLOOR PLAN
1:50

REFERRAL NOTES:

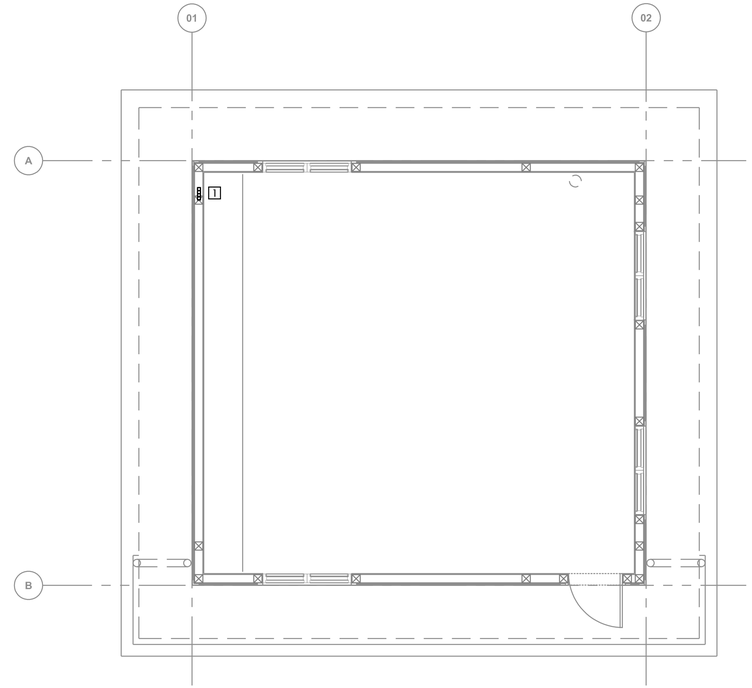
1. CONDUIT STUB OUT. REFER TO SHEETS E10-00-00 AND E10-00-01 FOR CONDUIT QUANTITIES AND SIZES.
2. CONDUIT STUB OUT ADJACENT TO BUILDING. REFER TO SHEETS E10-00-00 AND E10-00-01 FOR CONDUIT QUANTITIES AND SIZES.



02 E10-01-00 POWER & LIGHTING PLAN - GATE HOUSE FLOOR PLAN
1:50



03 E10-01-00 POWER PLAN - THREE SIDED KITCHEN SHELTER FLOOR PLAN
1:50



04 E10-01-00 POWER & LIGHTING PLAN - CONCESSION FLOOR PLAN
1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no.

A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

ALBERTA ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS
ALBERTA
DAVID HIDER
31231
ALBERTA REGISTERED PROFESSIONAL ENGINEER
NUMBER: 111244
2021-01-26

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

ELECTRICAL POWER & LIGHTING LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

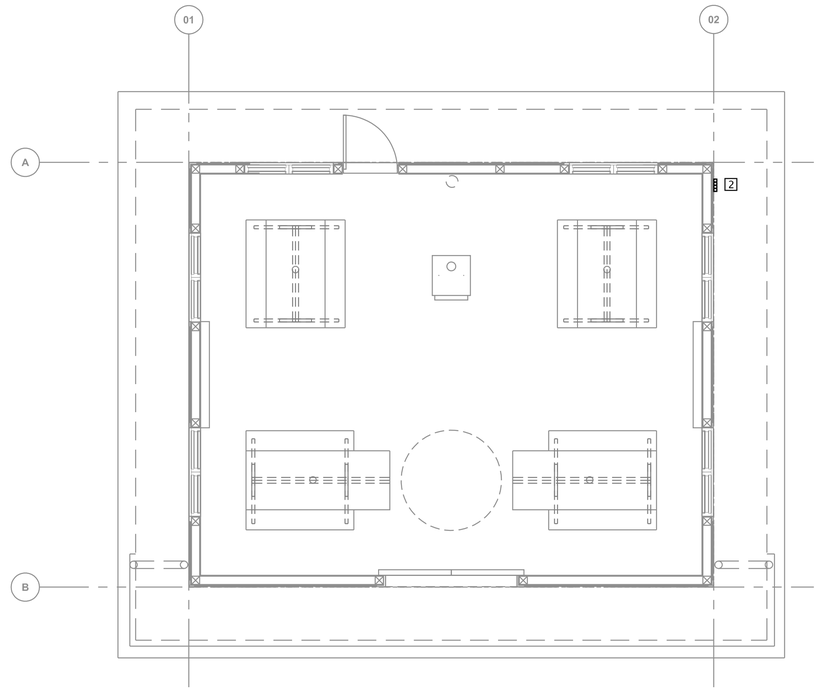
Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E10-01-00

Drawing Reference No. / No. de réference du dessin

FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WL\NP\500-DELIV\ELEC\SHEETS\PHASE 1\E10-01-00.DWG PLOTTED: 2021/01/28 3:29 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm



01
E10-01-00

POWER PLAN - WINTER KITCHEN SHELTER FLOOR PLAN

1:50

REFERRAL NOTES:

1. CONDUIT STUB OUT. REFER TO SHEETS E10-00-00 AND E10-00-01 FOR CONDUIT QUANTITIES AND SIZES.
2. CONDUIT STUB OUT ADJACENT TO BUILDING. REFER TO SHEETS E10-00-00 AND E10-00-01 FOR CONDUIT QUANTITIES AND SIZES.

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

PROFESSIONAL ENGINEER
DAN HIDER
01.03
ALBERTA PERMIT TO PRACTICE
NUMBER—11244
2021-01-26

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

ELECTRICAL
POWER & LIGHTING LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

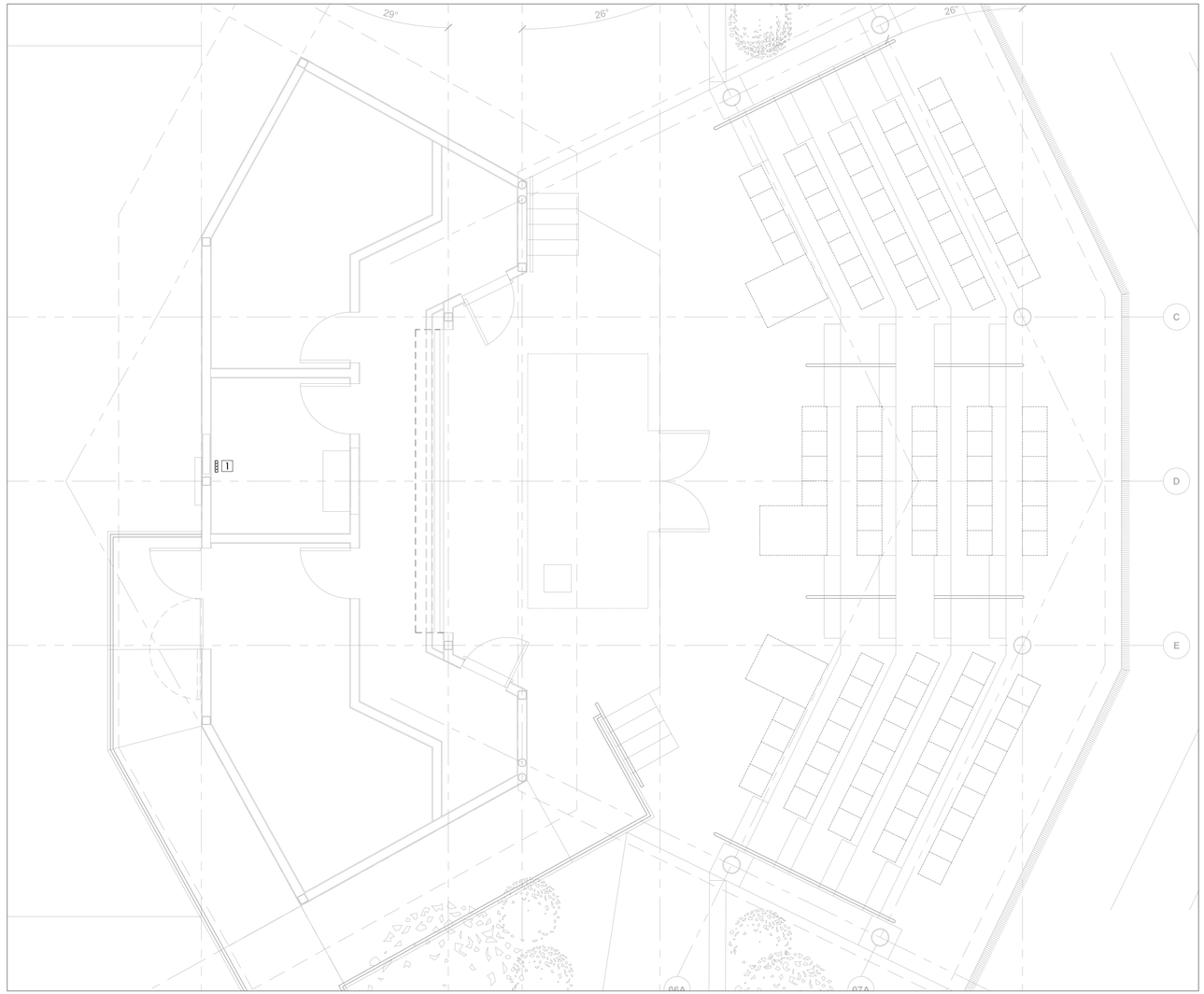
Client Acceptance / Acceptation du client
Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par
Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E10-01-01

Drawing Reference No. / No. de référence du dessin

0 10 20 30 40 50 60 70 80 90 100mm



REFERRAL NOTES:

1. CONDUIT STUB OUT. REFER TO SHEETS E10-00-00 AND E10-00-01 FOR CONDUIT QUANTITIES AND SIZES.
2. CONDUIT STUB OUT ADJACENT TO BUILDING. REFER TO SHEETS E10-00-00 AND E10-00-01 FOR CONDUIT QUANTITIES AND SIZES.

01 / E10-01-02

POWER & LIGHTING PLAN - AMPHITHEATRE FLOOR PLAN

1:50

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T2	20201204	ISSUED FOR TENDER PHASE 2	FH	DH	DH
T1	20201127	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A / C — A detail number / numéro de detail; B source drawing no. / de dessin no.; C detail on drawing no. / detail sur dessin no. — A / B C

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

ALBERTA PERMIT TO PRACTICE NUMBER 11244

2020-12-04

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION AMPHITHEATRE

Drawing Title
Titre du dessin

ELECTRICAL POWER & LIGHTING LAYOUT

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	1:50

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E10-01-02

Drawing Reference No. / No. de référence du dessin

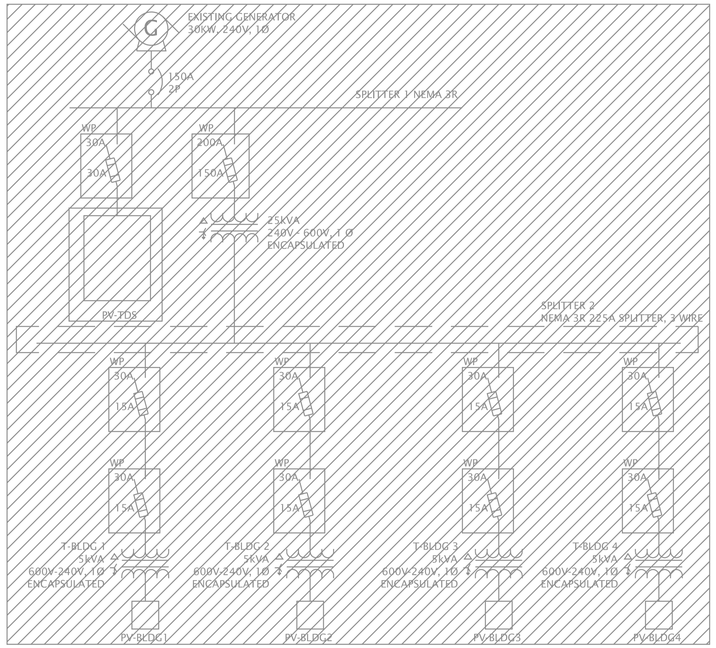
FILE: P:\NCCA19-0068 - PCA CRANDELL CAMPGROUND WLNP\00-DELIV\ELEC\SHEETS\PHASE 1\E10-01-02.DWG PLOTTED: 2021/01/28 3:23 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm

SINGLE LINE - LEGEND OF SYMBOLS

MEDIUM VOLTAGE DRAW OUT VACUUM BREAKER	CT — CURRENT TRANSFORMER
DRAW OUT CELL ONLY FOR FUTURE BREAKER	XXXA IC — CALCULATED SHORT CIRCUIT IC RATING TAG
MEDIUM VOLTAGE LOAD BREAK	POWER
MEDIUM VOLTAGE ISOLATION SWITCH	CONTROL
LOW VOLTAGE DRAW-OUT AIR CIRCUIT BREAKER	CONTACTOR
TRANSFORMER DELTA-WYE (GENERAL PURPOSE)	MOTOR
TRANSFORMER DELTA-WYE (ZIG ZAG)	MOTOR WITH DISCONNECT
FUSE	M — UTILITY METER
K — KIRK KEY	AUTOMATIC TRANSFER SWITCH
G — GENERATOR	EF-1 — MOTOR IDENTIFICATION TAG
LIGHTNING ARRESTOR	TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSION
VOLTAGE TRANSFORMER	GROUND CONNECTION
PT 3E — POTENTIAL TRANSFORMER	MEDIUM VOLTAGE FUSED DISCONNECT NUMBER DENOTES FUSE SIZE
BUSDUCT/BUSWAY	POWER FACTOR CORRECTION CAPACITOR



01 E20-00-00

SINGLE LINE DIAGRAM - DEMOLITION

N.T.S.

DEMOLITION NOTES:

1. REMOVE ASSOCIATED UNDERGROUND CONDUITS, JUNCTION BOXES, CABLES.
2. RETURN THE EXISTING GENERATOR, SPLITTER, TRANSFORMERS AND DISCONNECT SWITCHES TO PCA FOR FUTURE USE.

GENERAL NOTES:

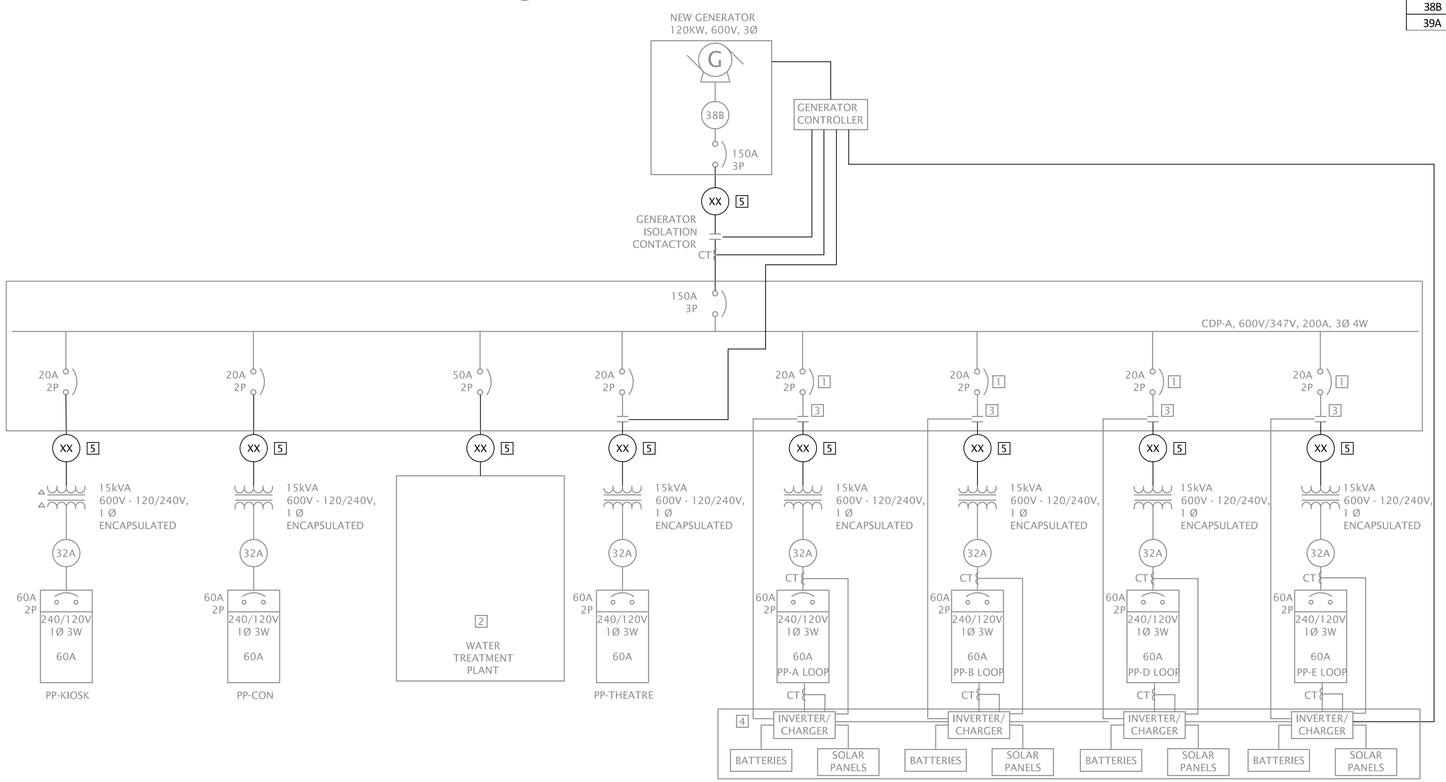
1. ELECTRICAL DRAWINGS E00-00-00 TO E30-00-00 SHALL BE READ IN CONJUNCTION WITH MCELHANNEY DRAWING E-101 TO E-402. FOR GENERATOR START-UP, SEQUENCE OF OPERATION, SOLAR SYSTEM INTERFACE REFER TO MCELHANNEY DRAWING E-402.
2. ELECTRICAL UNDERGROUND CONDUITS SHALL BE INSTALLED IN THE SAME TRENCH AS CIVIL. CONTRACTOR TO COORDINATE THE INSTALLATION WITH CIVIL DRAWINGS.
3. SHORT CIRCUIT LEVELS BELOW 10KAIC SYM. ARE NOT SHOWN.

REFERRAL NOTES:

1. BI-DIRECTIONAL CIRCUIT BREAKER.
2. REFER TO MCELHANNEY DRAWING E-201 FOR DETAILED DESIGN OF THE WATER TREATMENT PLANT.
3. N/A
4. N/A
5. CONDUITS TO BE INSTALLED AS PER PHASE 1. CABLES TO BE INSTALLED IN CONDUITS AS PER PHASE 2.

Feeder Schedule

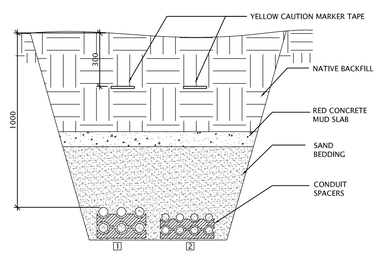
TAG	CABLE DESIGNATION	CONDUIT	AMAPCITY
1A	3#12AWG RW90XLPE CU + 1#12AWG RW90XLPE CU GND	21MM	25
1B	4#12AWG RW90XLPE CU + 1#12AWG RW90XLPE CU GND	21MM	25
1C	3#12AWG RW90XLPE CU + 1#12AWG RW90XLPE CU GND	53MM	25
32A	3#4AWG RW90XLPE AL + 1#6AWG RW90XLPE AL GND	53MM	65
32B	4#4AWG RW90XLPE AL + 1#6AWG RW90XLPE AL GND	53MM	65
33A	3#3AWG RW90XLPE AL + 1#6AWG RW90XLPE AL GND	53MM	75
33B	4#3AWG RW90XLPE AL + 1#6AWG RW90XLPE AL GND	53MM	75
34A	3#2AWG RW90XLPE AL + 1#6AWG RW90XLPE AL GND	53MM	90
34B	4#2AWG RW90XLPE AL + 1#6AWG RW90XLPE AL GND	53MM	90
38A	3#3/0AWG RW90XLPE AL + 1#4AWG RW90XLPE AL GND	53MM	155
38B	4#3/0AWG RW90XLPE AL + 1#4AWG RW90XLPE AL GND	53MM	155
39A	3#4/0AWG RW90XLPE AL + 1#2AWG RW90XLPE AL GND	53MM	180



02 E20-00-00

SINGLE LINE DIAGRAM - NEW

N.T.S.



GENERAL NOTES:

A) THIS DETAIL IS TYPICAL FOR ALL BUILDINGS. COORDINATE ROUTING AND CONDUIT COUNTS WITH SITE PLAN, DETAILS AND SINGLE LINE DIAGRAM.

B) MUD SLAB NOT REQUIRED FOR CONDUITS INSTALLED BELOW BUILDING OR GRASS.

C) POWER CONDUITS ARE TO BE ARRANGED IN TRENCH PER DIAGRAM D11 IN CANADIAN ELECTRICAL CODE.

REFERRAL NOTES:

1. POWER CONDUIT SIZE AND COUNT AS INDICATED ON SINGLE LINE DIAGRAM.
2. CONTROL CONDUITS AS INDICATED ON SITE PLAN.

03 E20-00-00

DUCT BANK DETAIL

N.T.S

THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED, OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY LTD. (McELHANNEY), McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.

THIS DRAWING HAS BEEN PREPARED FOR THE CLIENT IDENTIFIED, TO MEET THE STANDARDS AND REQUIREMENTS OF THE APPLICABLE PUBLIC AGENCIES AT THE TIME OF PREPARATION. McELHANNEY, IT'S EMPLOYEES, SUBCONSULTANTS AND AGENTS WILL NOT BE LIABLE FOR ANY LOSSES OR OTHER CONSEQUENCES RESULTING FROM THE USE OR RELIANCE UPON, OR ANY CHANGES MADE TO THIS DRAWING, BY ANY THIRD PARTY INCLUDING CONTRACTORS, SUPPLIERS, CONSULTANTS, AND STAKEHOLDERS, OR THEIR EMPLOYEES OR AGENTS, WITHOUT McELHANNEY'S PRIOR WRITTEN CONSENT.

INFORMATION ON EXISTING UTILITIES MAY NOT BE COMPLETE OR ACCURATE. McELHANNEY, IT'S EMPLOYEES AND DIRECTORS ARE NOT RESPONSIBLE NOR LIABLE FOR THE LOCATION OF ANY UNDERGROUND CONDUITS, PIPES, CABLES, OR OTHER FACILITIES WHETHER SHOWN OR OMITTED FROM THIS DRAWING. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE LOCATIONS OF ALL EXISTING FACILITIES BY HAND DIGGING OR HYDROVAC AND ADVISE THE ENGINEER OF POTENTIAL CONFLICTS.

COORDINATES ARE GRID IN NAD 83 CSRS UTM ZONE 12. ALL ELEVATIONS ARE GEODETIC

Rev.	Date	Description	Drawn Dessiné	Designed Conçu	Approved Approuvé
T1	20210126	ISSUED FOR TENDER PHASE 1	FH	DH	DH
TO	20200630	ISSUED FOR TENDER	RL	DH	DH
01	20200309	ISSUED FOR ADD01	RL	DH	DH
00	20200306	ISSUED FOR TENDER	RL	DH	DH
C	20200220	REVISED 95% REVIEW	RL	RL	
B	20200115	ISSUED FOR 95% REVIEW	RL	RL	
A	20191108	ISSUED FOR 60% REVIEW	RL	RA	

A detail number / numéro de detail
B source drawing no. / de dessin no.
C detail on drawing no. / detail sur dessin no.

Consultant's Stamp
Sceau de l'expert-conseil

Eng. Stamp
Sceau de l'ingénieur

ALBERTA PERMIT TO PRACTICE NUMBER 01944

2021-01-26

Client

Parks Canada Agency
Western and Northern Region

L'Agence Parcs Canada
Ouest et Nord
du Canada

Prime Consultant's Name
Nom de l'expert-conseil

McElhanney

Consultant's Name
Nom de l'expert-conseil

NORR

Project Title
Titre du projet

CRANDELL CAMPGROUND RECONSTRUCTION

Drawing Title
Titre du dessin

ELECTRICAL SINGLE LINE DIAGRAM

Surveyed by / Arpenté par	Drawn by / Dessiné par	Date
	R.LUO	20200306
Designed by / Conçu par	**Reviewed by / Revisé par**	**Scale / Échelle**
D.HIDER	D.HIDER	N/A

Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Client Acceptance / Acceptation du client — Parks Canada Responsible Officer / Agent Responsable Parcs Canada

Approved by / Approuvé par — Parks Canada Project Manager / Administrateur de Projets Parcs Canada

Project No. / No. du projet	Asset No. / No. du-bien	Sheet No. / No. de la feuille
PCA 2032		E20-00-00

Drawing Reference No. / No. de référence du dessin

FILE: P:\NCCA\18-0068 - PCA CRANDELL CAMPGROUND WLNP\500-DELIVE\ECSHEETS\PHASE 1\E20-00-00.DWG PLOTTED: 2021/01/28 3:22 PM

Paper Size: ANSI D (22 x 34")

0 10 20 30 40 50 60 70 80 90 100mm