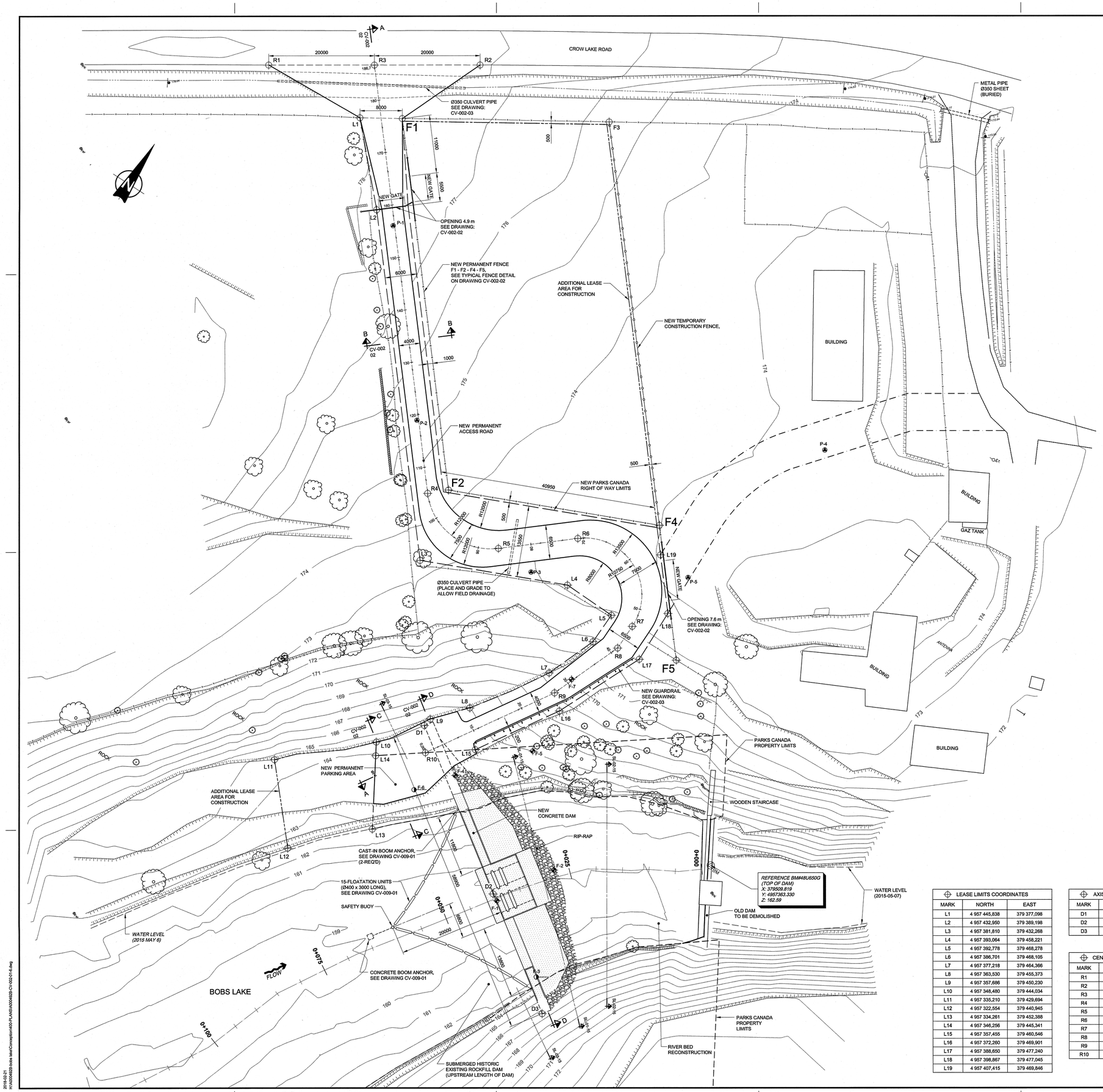

1) GENERAL NOTES

1.1 ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, SPECIFICATIONS AND DRAWINGS.

1.2 DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

1.3 FOR FOUNDATION ON ROCK, THE BEDROCK SURFACE SHALL BE COMPLETELY CLEARED OF LOOSE ROCK, INCLUDING BLAST ROCK, AND THE SURFACE INSPECTED PRIOR TO PLACEMENT OF CONCRETE FOUNDATIONS.

1.4 THE CONSULTANT SHALL VERIFY THAT THE ACTUAL SITE CONDITIONS DO NOT SUBSTANTIALLY VARY FROM THE GEOTECHNICAL REPORT.

1.5 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION AND NEW CONSTRUCTION BEGINS.

1.6 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY WHEN EXCAVATING TO PROVIDE PROPER SHORING AS REQUIRED.

1.7 RESTORE ALL LEASED AND PARKS CANADA STAGING AND WORK AREAS TO ORIGINAL CONDITIONS AFTER COMPLETION OF CONSTRUCTION.

2) SOIL AND ROCK INVESTIGATIONS

THE RESULTS OF 2015 INVESTIGATIONS ARE PRESENTED IN THE FOLLOWING REPORTS:

2.1 GEOPHYSIC GPR INTERNATIONAL INC., "SEISMIC REFRACTION SURVEYS AT BOB'S LAKE DAM SITE - BOLINGBROKE ONTARIO)", AUGUST 2015.

2.2 GHD LIMITED, "GEOTECHNICAL INVESTIGATION - RELOCATION/RECONSTRUCTION BOLINGBROKE DAM - MABERLY (ONTARIO)", FEBRUARY 2016.

3) CONCRETE GENERAL NOTES

3.1 CONCRETE AND RELATED WORK SHALL BE MIXED, PLACED, AND CURED IN ACCORDANCE WITH CAN/CSA A23.1, "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION AND CAN/CSA A23.2 TEST METHODS AND STANDARD PRACTICES FOR CONCRETE," LATEST EDITION.

3.2 CONTRACTOR SHALL BE RESPONSIBLE FOR THE MIX DESIGN IN ACCORDANCE WITH CAN/CSA A23.1.

3.3 CONCRETE SHALL BE CSA A23.1 EXPOSURE CLASS C-1:

a) WITH MAXIMUM AGGREGATE SIZE OF 20 mm:
28 DAY COMPRESSIVE STRENGTH OF 35 MPa, 5-8% ENTRAINED AIR, SLUMP 75 mm ±25, WATER/CEMENT RATIO = 0.40.

b) WHITH AGGREGAT SIZE 20-40 mm:
28 DAY COMPRESSIVE STRENGTH OF 35 MPa,
4-7% ENTRAINED AIR, SLUMP 75 mm ±25,
WATER/CEMENT RATIO = 0.40.

3.4 REINFORCING BARS SHALL CONFORM TO CAN/CSA G30.18, GRADE 400R.

3.5 UNLESS OTHERWISE NOTED ON THE DRAWINGS, CONCRETE COVER FOR REINFORCING BARS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF CAN/CSA A23.3.

3.6 FABRICATION OF REINFORCING STEEL SHALL BE IN ACCCORDANCE WITH THE "REINFORCING STEEL MANUAL OF STANDARD PRACTICE", BY THE REINFORCING STEEL INSTITUTE OF CANADA, AND CAN/CSA A23.1.

3.7 UNLESS OTHERWISE NOTED, LAP SPLICES SHALL BE CLASS B ACCORDING TO CAN/CSA A23.3 FOR THE RESPECTIVE STEEL GRADE AND CONCRETE ULTIMATE STRENGTH.

3.8 REINFORCING SHOP AND PLACEMENT DRAWINGS SHALL BE FURNISHED TO THE ENGINEER FOR APPROVAL OF DESIGN COMPLIANCE.

3.9 FORMED CONCRETE SURFACES SHALL HAVE SMOOTH FINISH FREE FROM HONEY COMBING OR CRACKS.

WORK COVERED BY CONTRACT DOCUMENTS:

1- WORK OF THIS CONTRACT COMPRISES FULL DEMOLITION AND RECONSTRUCTION OF BOBS LAKE DAM OF RIDEAU CANAL, LOCATED NEAR THE HAMLET OF BOLINGBROKE, APPROXIMATELY 30 km WEST OF THE TOWN OF PERTH; AND FURTHER IDENTIFIED AS PCA PROJECT No. 30025767.

2- THE CONSTRUCTION WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

1. DEVELOPING WORK / STAGING AREAS;
2. PUBLIC/RECREATIONAL TRAFFIC CONTROL / DETOUR (PORTAGING ACCESS ROUTE);
3. DESIGNING AND CONSTRUCTING TEMPORARY AND PERMANENT ACCESS ROADS;
4. SEDIMENT AND EROSION CONTROL, AND OTHER ENVIRONMENTAL PROTECTION. ENVIRONMENTAL MITIGATIONS AND MEASURES INCLUDING THE ENVIRONMENTAL PROTECTION PLAN TO BE DEVELOPED AND CERTIFIED BY CONTRACTOR PROFESSIONAL ENGINEER EXPERIENCED IN SEDIMENT AND TURBIDITY CONTROL;
5. OBTAINING REGULATORY PERMITS CERTIFICATES OF AUTHORIZATION AND APPROVALS;
6. COFFERDAMS DESIGN, SUPPLY AND INSTALLATION AND DEWATERING OF WORK AREA, INCLUDING MAINTENANCE OF THE DEWATERING SYSTEM;
7. DESIGNING AND CONSTRUCTING WATER DIVERSION WORK, INCLUDING MAINTENANCE AND OPERATION OF DIVERSION SYSTEM THROUGH CONSTRUCTION PROJECT AND COFFERDAMS;
8. PROTECTION OF EXISTING ADJACENT STRUCTURES / PROPERTIES AND OTHER WORKS INCLUDING EMBANKMENTS, DURING CONSTRUCTION. PROTECTION OF HISTORIC ROCK CRIB DAM. SITE COFFERDAM UPSTREAM OF HISTORIC DAM;
9. PREPARATION AND IMPLEMENTATION OF A EMERGENCY RESPONSE PLAN (ERP), OPERATION/MONITORING/SURVEILLANCE PLAN (OMS) FOR CONTRACTOR'S TEMPORARY WORKS;
10. DEMOLITION OF THE EXISTING CONCRETE GRAVITY DAM STRUCTURE, AFTER CONSTRUCTION OF THE NEW DAM;
11. SALVAGING OF THE EXISTING WINCHES AND OTHER IDENTIFIED EQUIPMENT;
12. CONSTRUCTION OF THE NEW CONCRETE DAM STRUCTURE AND RELATED WORK;
13. STREAM BED ENVIRONMENTAL REHABILITATION BETWEEN NEW AND OLD DAM INCLUDING BY-PASS OF MINIMAL ENVIRONMENTAL FLOW THROUGH WORK AREA;
14. REMOVAL OF WATER DIVERSION SYSTEM, TEMPORARY CONSTRUCTION ACCESS ROADS AND OTHER TEMPORARY WORKS;
15. SUPPLY AND INSTALLATION OF THE NEW SAFETY BOOM SYSTEM;
16. DAM COMMISSIONING AND DIVERSION DURING STREAM CHANNEL DEVELOPMENT AND DEMOLITION OF THE OLD DAM;
17. SITE REINSTATEMENT AND RESTORATION;
18. IN ADDITION, THE WORK UNDER THIS CONTRACT, THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR:
   - DESIGN, APPROVALS AND MONITORING WORK ASSOCIATED WITH THE TEMPORARY WORKS (CONSTRUCTION ACCESS ROADS, WATER DIVERSION SYSTEM, DEWATERING, SEDIMENT CONTROL, ETC.).

3- THE CONTRACTOR SHALL SUPPLY ALL LABOUR, EQUIPMENT, AND MATERIAL TO PERFORM THE WORK AS DESCRIBED IN THE CONTRACT PLANS AND SPECIFICATIONS, AND WILL RETAIN QUALIFIED PERSONNEL TO PERFORM THE WORK.

LEASE LIMITS COORDINATES

MARK	NORTH	EAST
L1	4 957 445,838	379 377,098
L2	4 957 432,950	379 389,198
L3	4 957 381,810	379 432,268
L4	4 957 393,064	379 458,221
L5	4 957 392,778	379 468,278
L6	4 957 386,701	379 468,105
L7	4 957 377,218	379 464,366
L8	4 957 363,530	379 455,373
L9	4 957 357,686	379 450,230
L10	4 957 348,480	379 444,034
L11	4 957 335,210	379 429,694
L12	4 957 322,554	379 440,945
L13	4 957 334,261	379 452,388
L14	4 957 346,256	379 445,341
L15	4 957 357,455	379 460,546
L16	4 957 372,260	379 469,901
L17	4 957 388,650	379 477,240
L18	4 957 398,867	379 477,045
L19	4 957 407,415	379 469,846

AXIS OF DAM COORDINATES

MARK	NORTH	EAST
D1	4 957 356,047	379 449,958
D2	4 957 336,416	379 478,267
D3	4 957 322,483	379 498,359

CENTER OF ROAD COORDINATES

MARK	NORTH	EAST
R1	4 957 444,824	379 357,176
R2	4 957 466,586	379 390,738
R3	4 957 455,700	379 373,961
R4	4 957 393,232	379 426,570
R5	4 957 391,784	379 443,478
R6	4 957 401,538	379 455,060
R7	4 957 393,159	379 472,734
R8	4 957 388,214	379 472,662
R9	4 957 374,640	379 467,269
R10	4 957 351,855	379 452,943

NEW FENCES COORDINATES

MARK	NORTH	EAST
F1	4 957 450,056	379 383,895
F2	4 957 395,916	379 429,540
F3	4 957 470,822	379 417,099
F4	4 957 412,002	379 466,637
F5	4 957 392,322	379 483,211

0 10 m
SCALE 1:250

No.	NOTES
1	COORDINATE SYSTEM: UTM NAD 83, ZONE 18, NORTH.
	ORTHOMETRIC HEIGHT: CGVD28.

LEGEND :

- PROPERTY LIMITS
- KNOWN ELEMENT
- ASSUMED ELEMENT
- ROCK
- NEW CONCRETE
- EXISTING CONCRETE
- SLOPE 2% — SLOPE (IN %)

ABBREVIATIONS:

CL	CENTER LINE
EL.	ELEVATION
VAR.	VARIABLE
MIN.	MINIMUM
MAX.	MAXIMUM
TYP.	TYPICAL
C.J.	CONSTRUCTION JOINT
E.J.	EXPANSION JOINT
C/C	CENTER TO CENTER

2015 BOREHOLES BY GHD:

SEE GEOTECHNICAL INVESTIGATION REPORT FOR GEODESIC COORDINATES OF THE BOREHOLES

- F-X — VERTICAL BOREHOLES
- F-X — BOREHOLES DRILLED AT 45° ANGLE
- ROCK PROBES

no	date	issues and/or modifications	by
6	2018-02-22	ISSUED FOR TENDER	J.K.
5	2017-03-21	ISSUED FOR REVIEW	J.K.
4	2017-02-23	ISSUED FOR REVIEW	J.K.
3	2017-02-10	ISSUED FOR REVIEW	J.K.
2	2016-11-04	ISSUED FOR REVIEW	J.K.
1	2016-08-02	PRELIMINARY DESIGN - 66% STAGE	J.K.
0	2016-06-02	PRELIMINARY	J.K.

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seals

LICENSED PROFESSIONAL ENGINEER
J. KONCZYNSKI
100113465
PROVINCE OF ONTARIO
2018-02-22

project
BOBS LAKE DAM REPLACEMENT
BOLINGBROKE - ONTARIO

title
GENERAL ARRANGEMENT PLAN
AND ACCESS ROAD

drawn	H. OTMANI	scale	1:250
checked	J. CARON	date	2015-07-28
designed	Y. BERTON	reference	
approved	J. KONCZYNSKI		

client	project	drawing no	revision
A0138	A000492B	CV 002 01	6

2018-02-21
H:\A000492B-bobs lake\Conception\400-PLANS\A000492B-CV-002-014.dwg

(11-04) A0 1189 x 841 mm