Government of Nunavut

NUNAVUT AIRPORTS DIVISION

Department of Economic Development and Transportation

SUBMISSION FOR

AIRPORT CAPITAL ASSISTANCE PROGRAM (ACAP)

CHESTERFIELD INLET AIRPORT

CRUSHING AND REHABILITATION OF AIRSIDE SURFACES

September, 2005

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APPENDIXES

1. PROJECT STATEMENT

The purpose of this proposal is to secure Airport Capital Assistance Program funding to rehabilitate airside surfaces and replace aging and failure prone components of the Field Electrical System at the Chesterfield Inlet Airport.

Following overlay, all airport movement surfaces will be treated with a stabilizing substance to bind the granular fines in place and provide longevity and dust control.

The electrical systems, including Field Electrical Centre; edge lighting circuitry for apron, taxiway and runway; Runway End Identification Lights (REILS); Illuminated Wind Direction Indicators (IWDI); and all associated power and control systems will be replaced and installed according to applicable standards and construction methods proven suitable for the arctic.

Pending timely approval, project implementation for the aerodrome airside surfaces rehabilitation is planned to commence the summer of 2006 with the granular production phase. Overlay and electrical work would commence in the following year.

2. PROFILE OF CHESTERFIELD INLET

a. Overview of the Community

Chesterfield Inlet is located on the northwest coast of Hudson Bay, just north of Rankin Inlet. Its traditional name is Igluligaarjuk, which translates to “place with a few dwellings”. Chesterfield Inlet is the “oldest” community in the Arctic, dating back to the 1920s; however, even before Europeans came to the area, community living had long been established at Igluligaarjuk. Remains of a complex of sod houses are located just outside the community, where it is believed that over 700 people resided before contact with European culture.

Present day population of Chesterfield Inlet is around 370 people. The St. Theresa home providing residential care facilities for Kivalliq children with special needs is located in Chesterfield Inlet, as is the Victor Sammurtok School for grades K-12, a Health Centre, an RCMP station, a Northern Store and a Co-op, and several other businesses.

There is limited equipment in the community capable of granular production, overlay or airfield electrical work. A crushing plant, front-end loaders, large capacity hauling trucks, a backhoe, and at least one grader will have to be brought into the community to accomplish this project. Transportation options for this equipment are very limited, with one “sealift” typically arriving in August, and another in mid to late October.

Early approval of funding for this project will be imperative in order to meet GN tendering/award procedures and allow for mobilization in the fiscal year of approval.

b. Short History of the Airport

Built in 1977, the airport at Chesterfield Inlet runway was originally 914m x 30m.

The facility was expanded in 1993 to its current length of 1,098m by 30 m wide. The taxiway is 70 x 15 m and the apron is 90m x 60 m. All airside surfaces are gravel.

Two air carriers, Calm Air International and Kivalliq Air, offer scheduled air service to Chesterfield Inlet and surrounding communities.

c. Role of the Airport in the Community

As with all communities in Nunavut, the airport at Chesterfield Inlet is the only year-round reliable means of transportation to and from the community. All perishable groceries, medicine, mail, as well as all but the heaviest durable goods are transported by air. All government service workers, the judiciary, medical professionals, and telephone and electrical system technicians depend on air services to deliver essential services to the community. All medical travel in and out of the community is dependant on the serviceability of the airport.

d. Catchment Area and Estimated Population

Most flights to and from Chesterfield Inlet share a routing code with those to Baker Lake. The main destinations for passengers are Rankin Inlet NU, where an Enhanced Medical Facility and most territorial government services are located; Churchill MB, where a Regional Hospital is located; or Winnipeg, MB.

The population of Chesterfield Inlet is approximately 370, based on Nunavut Bureau of Statistics 2000 projections.

3. STATUS INFORMATION

a. Certification Details

Chesterfield Inlet Airport is Certified as a 2C/NI runway with a design PLR of 8. A copy of the Certificate is attached as Appendix B.

b. Proof of Land Ownership

Proof of Land ownership has been provided in the form of an excerpt from the Arctic B&C Airports agreement transferring ownership from the Federal Government to the Territorial Government. This has been attached as Appendix A.

c. Legal Description

A legal Description in the form of photocopies of the Land Titles PLAN AND FIELD NOTES have been attached in Appendix A.

d. Lease Terms

No lease is applicable.

e. Airport Site Plan

An Airport Site Plan has been attached in Appendix E.

4. OWNER IDENTIFICATION

Government of Nunavut
Department of Economic Development and Transportation
Nunavut Airports Division
P.O. Box 560, Rankin Inlet, NU, X0C-0G0

Phone	867 645-8200
Fax	867 645-8246
E-mail	jhawkins@gov.nu.ca

Signator for the contribution agreement :
Alex Campbell
Deputy Minister
Economic Development and Transportation
Government of Nunavut
Box 1000, Iqaluit, NU, X0C-0G0

5. OPERATOR IDENTIFICATION

Hamlet of Chesterfield Inlet

6. SERVICE INFORMATION

a. Scheduled Passenger Statistics

Passenger Statistics excepts have been included in Appendix C. These are not complete or accurate, and a Statutory Declaration that passenger movements have exceeded 1000 in each of the past three years has been included in Appendix C.

b. Scheduled Services

Scheduled Service is provided into Chesterfield Inlet by the following air carriers:

Calm Air International Ltd.
90 Thompson Drive
Thompson, MB
R8N 1Y8

Kivalliq Air Ltd.
15-20 Hanger Line Road

Winnipeg, MB
R3J 3Y8

c. Aircraft Types Providing Scheduled Service

Hawker Siddley 748, Passenger and Freight Combo.
SAAB 340, Passenger Configuration
Pilatus PC 12, Passenger and Freight Configuration.

d. Level of Service

Calm Air flies into Chesterfield 5 days/week, year round. Calm Air's flight schedule is not available except in electronic form as part of its reservation system and has not been included in this submission.

Kivalliq Air flies into Chesterfield Inlet 6 days/week, year round. Kivalliq Air's schedule has been included in Appendix C.

e. Other Aviation Service

Both above companies provide service into the community on a charte basis. Calm Air brings a grocery freighter into the community on approximately a weekly basis with an HS 748 configured for cargo. Kenn Borek Air also offers charter services into the Chesterfield Inlet.

f. Annual Aircraft Movement Statistics

YEAR	DATA SOURCE	ANNUAL AIRCRAFT MOVEMENTS
2000	Transport Canada	723
2001	Transport Canada	895
2002	Transport Canada	1147
2003	Transport Canada	1166
2004	Transport Canada	1440

7. FINANCIAL INFORMATION

a. Financial Statements (3 years to date)

Airports in Nunavut, as the only means of transportation in and out of the communities, are operated as an essential public service. The Chesterfield Inlet airport, like others in Nunavut, is almost entirely subsidized by the Government of Nunavut. No landing fees are charged and recoverable revenues are minimal. Actual expenditures for the fiscal year ending March 31, 2005 were $209,653. Offsetting revenue to these expenses is limited to leases of land and space to Navcanada, offices to the air carriers operating into the community, and a small amount of advertising revenue. No landing fees or terminal fees are charged at

Nunavut Airports outside on Iqaluit. The financial statements for the last three years are included in Appendix D.

b. Other Funding Sources

The Government of Nunavut has both a capital plan and an O&M budget for improvement and operation of airports. A copy of the latest approved 5 year capital plan has been attached as Appendix K.

Cost sharing is not expected to be an issue in a project of this nature, however, one of the lines of the Capital Carryovers attached in Appendix D is identified as **GN Component ACAP Funding.** These funds are carried over year to year to develop ACAP projects, to supplement shortfalls in funding, and to make up GN contributions to ACAP projects.

Granular production fir Chesterfield Inlet Airport has received $1000k in past year's budgets. Because the road accessing the gravel quarry was not complete at the time this budget became available, this funding has been carried forward. A portion of it has been used to develop a geotechnical investigation near the community.

8. PROJECT INFORMATION

a. Project Description

This runway was last overlayed in 1993, at the same time it was extended. The runway surface base course has deteriorated to the point the sub-base course is now acting as the surface. There is no granular stockpile available to effect the necessary repairs.

This problem is due to normal wear, and a difficulty to date of locating suitable granular sources near the community. As part of this proposed project, stabilization measures, in the form of EK 35, will be applied to the resurfaced runway. This product has given extraordinary results in other communities in the arctic, and is expected to extend the life of the surface and the maintenance stockpile by approximately 25%.

The majority of the runway lighting was installed in 1986, including the FEC, the regulators, MGL relays and controls. This system is now beyond its useful expected life cycle. New fixtures were installed in 1993 when the runway was extended. These fixtures may be re-used in this installation.

9. Project Schedule

With a successful granular production season, the necessary surfacing material will be available at the close of the 2006 construction season. The project for overlay is complete. Project design foe electrical work will be undertaken in 2006. Both overlay and electrical work can be tendered over winter 2006-07 as a single project, for completion in 2007 construction season.

In order for this schedule to be attainable, confirmation of submission approval will be required prior to February 15, 2007 i.e.in 2006.

- Contribution Agreement Execution April 2006.

- Issue RFP for Electrical Design May 2006.
    - **Crushing (Non-ACAP contract scheduled to begin July 2006).**
- Completion of Electrical Design August 2006.
    - **Completion of Crushing (Non ACAP contract to be completed October 2006.**
- Tender of Overlay and Electrical Works for 2007 season, November December 2006.
- Contract Award January 2007.
- Mobilization July/ August 2007
- Acceptance September/October.
- Final Invoice December 2007.

10. Project Design Information

a. Civil Design

Complete Tender-ready Civil Design Drawings and Specifications are included as Appendix I.

b. Electrical Design

The electrical Design has not been completed at his time. A Request for Proposal to design this portion of the project will be issued in early 2006. Costing estimates for this portion of the project have been developed from projects of similar size and complexity undertaken recently by the Government of Nunavut.

11. Source of Application

This Application has been prepared by the:
Government of Nunavut,
Department of Economic Development & Transportation,
Nunavut Airports Division
P.O Box 560 Rankin Inlet, NU, X0C-0G0.

12. Source of Design

The Civil Works Design for this project was completed by:
Pryde Schropp McComb, Inc.
311 Goderich Street
Box 1600
Port Elgin, ON N0H 2C0
Tel 519 389-4343
Fax 519 389-4728

13. Project Management

Project Management will be provided by:
Government of Nunavut
Department of Community and Government Services
Kivalliq Regional Projects Division
P.O. Box 490 Rankin Inlet, NU, X0C-0G0

Attention: Joe Hidalgo, Projects Manager

14. Quality Assurance Program

Quality Assurance will be through a combination of residential construction engineering services and regular inspections by CGS Project Officers and Nunavut Airports Division technical staff. Residential Inspection Services will be obtained through a competitive RFP process.

15. Project Need and Justification

Runway 124T/304T is the only runway at Chesterfield Inlet airport and is essential in the provision of scheduled passenger, cargo and emergency medi-vac service to Chesterfield Inlet.

The existing airside surfaces require immediate rehabilitation. There is significant segregation due to the lack of fine material within the surface material mixture, resulting in a surface of very loose material with many areas of exposed sub-base material. As a result, the surface is not able to be compacted to a condition acceptable for its intended use. This surface condition exists on the entire length of the runway, as well on the taxiway and apron areas, and the surfaces no longer meet the Standards of TP 312-E, specifically . **3.1.4.1 Standard.**- *The surface of a runway shall be constructed without irregularities that would result in loss of friction characteristics or otherwise adversely affect the take-off or landing of an aeroplane*.

Existing pre-threshold areas and runway edge graded areas require reconstruction in order to confirm to current requirements and recommendations of TP312.

As detailed in appendix F (Construction History and Condition Reports) the deterioration of the runway, taxiway and apron surfaces presents a danger to aircraft safety.

Proper repairs are not possible, as there is no stockpile or other source of suitable granular material available, either at the airport or within the surrounding area.

Restoration work is needed to retain certification and fulfill obligations identified in our Airport Operations Manual.

In conclusion, restoration of the identified facilities is essential to protect our existing infrastructure and should significantly reduce the potential for damage to aircraft due to loose surface material, uneven surfaces, or irregularly sized stones which can damage aircraft tires. Rehabilitation of the airside surfaces will enhance aircraft and passengers safety at the Chesterfield Inlet airport.

16. Maintenance of Existing Facilities

Our Airport Operations Manual (On file with Transport Canada – Certificate number 5151-C110) describe our O&M procedures for the Chesterfield Inlet airport, and daily maintenance and inspections are carried out by the hamlet of Chesterfield Inlet under a maintenance contract with Nunavut Airports Division, Department of Economic Development and Transportation. This contract is supervised through semi-annual inspections by the Regional Office of the Department of Economic Development and Transportation, in Rankin Inlet.

Maintenance Procedures from the AOM have been included in Appendix E.

17. Project Scope and Summary of Costs

a. Project Scope of Work

- Crush, blend and stockpile approximately 15,000 m^3 of 16 mm minus granular material
- Scarify, re-grade and resurface runway 124T/304T, taxiway and apron
- Treatment of all aircraft movement surfaces with EK 35, a product which acts as a binding material on the aggregate “fines”, thereby maintaining stability of the surface and extending their expected life-cycle.
- Rehabilitation of ditching parallel to the runway and taxiway, and elsewhere as required to ensure proper drainage of surface runoff
- Replace the lighting system in airside surfaces.

b. Summary of Costs (Included in Appendix H)

18. Environmental

The proposed project to produce and stockpile crushed granular material, and for rehabilitation of the airside surfaces, is classified as exempt as described in the Exclusion List Regulations of the Canadian Environment Assessment Act, and therefore an environmental assessment is not required.

All material to be used in this project will be taken from an existing quarry site, for which the appropriate quarry permits and land use permits will be issued.

Appropriate measures will be taken to ensure that any locations which may be affected by this project, such as quarry sites, crushing production sites, haul roads, stockpile site and project marshalling areas, will be mitigated in an acceptable manner to all parties.

APPENDIX A

CONFIRMATION OF OWNERSHIP

ORIGINAL
ORIGINALE

NO. 139159
NO

DEPARTMENT OF TRANSPORT
MINISTÈRE DES TRANSPORTS

AGREEMENT

between

THE GOVERNMENT OF CANADA

- and -

THE GOVERNMENT OF THE NORTHWEST TERRITORIES

Date of Authority: - P.C. 1991-7/296 dated February 14, 1991

Date of Agreement: February 26, 1991

Public Work Concerned: - Transfer of administration and control of lands together with the buildings, facilities and any other structures constructed thereon, the property and funds required for the management, operation and maintenance of the Arctic B&C airports referred to in Schedule "A" to the Government of the Northwest Territories.

139159

DEPARTMENTAL REFERENCE
RÉFÉRENCE DU MINISTÈRE

FILE NO. 1380-122-1 (AJ) & 1225-6 (AKZ)
DOSSIER NO

MEMORANDA
NOTES

NORTHWEST TERRITORIES
ARCTIC B&C AIRPORTS TRANSFER AGREEMENT

This Agreement made this 26 day of February, 1991

BETWEEN

Her Majesty the Queen in right of Canada, as represented by the Minister of Transport (hereinafter referred to as "Transport"), and as represented by the Minister of Indian Affairs and Northern Development, (hereinafter referred to as "DIAND")

AND

The Government of the Northwest Territories, as represented by the Minister of Transportation and the Commissioner of the Northwest Territories (both hereinafter referred to as "the GNWT"),

WHEREAS Transport, DIAND and the GNWT desire that the administration and control of lands, and the assets and funds required for the management, operation and maintenance of the Arctic B&C Airports referred to in Schedule "A" attached hereto, be transferred to the GNWT, consistent with comprehensive land claims agreements in effect or ratified by the GNWT and Canada;

WHEREAS by Order in Council P.C. 1991 - 7/296 dated February 14, 1991, the Minister of Transport and the Minister of Indian Affairs and Northern Development are authorized to enter into this Agreement;

WHEREAS the Territorial Lands Act R.S.C. 1985, c.T-7 as amended from time to time, continues to apply in the Northwest Territories;

WHEREAS by Executive Council Decision Record # FB90-11.2-4(a) dated February 4, 1991, the Minister of Transportation for the GNWT and the Commissioner of the Northwest Territories are authorized to enter into this Agreement and have jurisdiction to enact Acts and Regulations with respect to the establishment, disposal, management, operation and maintenance of Territorial Airports;

.../2

IN WITNESS WHEREOF this Agreement has been executed on behalf of the Government of Canada by the Minister of Transport and the Minister of Indian Affairs and Northern Development, and on behalf of the Government of the Northwest Territories by the Minister of Transportation and by the Commissioner of the Northwest Territories.

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Witness

Minister of Transport

Witness

Minister of Indian Affairs and Northern Development

THE GOVERNMENT OF THE NORTHWEST TERRITORIES:

Witness

Minister of Transportation

Witness

Commissioner of the Northwest Territories

Northwest Territories

AGENCIES HAVING THE MANAGEMENT CHARGE AND DIRECTION OF AIRPORTS AND AERODROMES

Airports		Owned	Operated	Category of Arctic Airport
1.	Aklavik	GNWT	GNWT	C
2.	Arviat	DIAND	GNWT	C
3.	Baker Lake	DIAND	TC	B
4.	Broughton Island	DIAND	GNWT	C
5.	Cape Dorset	DIAND	GNWT	C
6.	Chesterfield Inlet	DIAND	GNWT	C
7.	Clyde River	DIAND	GNWT	C
8.	Coppermine	GNWT	GNWT	B
9.	Coral Harbour	DIAND	TC	B
10.	Fort Liard	DIAND	GNWT	C
11.	Fort McPherson	GNWT	GNWT	C
12.	Fort Norman	DIAND	GNWT	C
13.	Fort Resolution	TC	GNWT	C
14.	Gjoa Haven	DIAND	GNWT	C
15.	Grise Fiord	DIAND	GNWT	C
16.	Hall Beach	TC	TC	B
17.	Holman	GNWT	GNWT	C
18.	Igloolik	DIAND	GNWT	C
19.	Lake Harbour	DIAND	GNWT	C
20.	Nanisivik	DIAND	TC	B
21.	Pangnirtung	DIAND	GNWT	C
22.	Pond Inlet	DIAND	GNWT	C
23.	Rankin Inlet	DIAND/TC	GNWT	B
24.	Repulse Bay	DIAND	GNWT	C
25.	Sachs Harbour	INUIT/TC	GNWT	C
26.	Sanikiluaq	DIAND	GNWT	C
27.	Spence Bay	DIAND	GNWT	C
28.	Tuktoyaktuk	DIAND	TC	B
29.	Whale Cove	DIAND	GNWT	C
30.	Wrigley	GNWT	GNWT	C

NORTHWEST TERRITORIES

	Undeveloped Aerodromes	Owned	Operated	Category of Arctic Airport
1.	* Arctic Red River	DIAND	no airport	no airport
2.	* Fort Franklin	GNWT	GNWT	C
3.	Fort Good Hope	GNWT	GNWT	C
4.	Fort Providence	GNWT	GNWT	C
5.	Lac La Martre	DIAND	GNWT	C
6.	Paulatuk	DIAND/ IRC*	GNWT	C
7.	Pelly Bay	DIAND	GNWT	C
8.	Rae/Edzo	GNWT	no airport	no airport
9.	Rae Lakes	DIAND	GNWT	C
10.	Snowdrift	DIAND	GNWT	C

* IRC - Inuvialuit Regional Corporation

PLAN AND FIELD NOTES

OF SURVEY OF

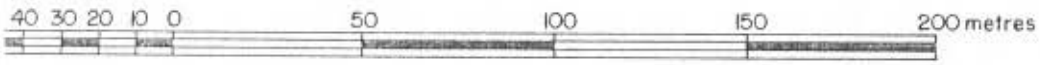
LOT 1000, QUAD 55 O/7

NEAR

CHESTERFIELD INLET

NORTHWEST TERRITORIES

SCALE 1:2000



HIS SURVEY WAS EXECUTED BETWEEN THE DATES
F JULY 22 AND JULY 24, 1982 BY C.B. AIRD, C.L.S.

LEGEND

, derived from the line between the found geodetic monuments "CHESTERFIELD"
:HESTERFIELD SHORAN" (649142), and are referred to the Central Meridian
Transverse Mercator Zone 15 (93° west longitude).

ainea thus

als thereof.

1 6A and 6B placed in this survey are marked with the number

dmonton, Canada Lands Surveyor, make oath and say that I have
ng to law and the instructions of the Surveyor General of Canada
ecuted the survey shown by this plan and field notes; and that the
ct and true to the best of my knowledge and belief.

198 3.

Canada Lands Surveyor

Department of Energy Mines and Resources
Ottawa 20 October 1983
Re. Section 48 Canada Lands Surveys Act
Confirmed
Surveyor General

rthern Development

eys Act

y

PUBLIC WORKS CANADA

REAL ESTATE SERVICES

AIRPORT BOUNDARY

CHESTERFIELD INLET

NORTHWEST TERRITORIES

SEP FILE 5530-C91/10
83-02-10 SCALE 1:2000
REAL ESTATE SERVICES, EDMONTON, ALBERTA

NWT·253

of November 1983
UNDER NO 1/601

73

REGISTRAR

Examined in the office of the Regional Surveyor Yellowknife, N.W.T.
29-9-83

Ex'd DAR 5454-55 0/7
F-82 NWT

APPENDIX B

AERODROME CERTIFICATE

Transport Canada | Transports Canada

AIRPORT OPERATIONS MANUAL

MANUEL D'EXPLOITATION D'AÉROPORT

AIRPORT NAME - NOM DE L'AÉROPORT:

Chesterfield Inlet

OWNER'S NAME - NOM DU PROPRIÉTAIRE:

Govt. of Nunavut

OPERATOR'S NAME - NOM DE L'EXPLOITANT:

Dept. Economic Development & Transportation

AIRPORT MANAGER - DIRECTEUR DE L'AÉROPORT:

Director, Nunavut Airports

LATITUDE:	LONGITUDE:
N 63^0 20' 49"	W 90^0 43' 52"
CERTIFICATE NUMBER - N° DU CERTIFICAT:	**DATE OF ISSUE - DATE D'ÉMISSION:**
5151 - C 110	APRIL 1, 1999

STATEMENT: AIRPORT OPERATOR

I hereby certify that the information in this Airport Operations Manual is correct and no relevant information has been omitted. I accept and will comply with all the specifications contained herein.

June 23, 04
DATE
(Y-A - M - D-J)

R. MacKay
SIGNATURE OF AIRPORT OWNER/OPERATOR
SIGNATURE DE L'EXPLOITANT OU DU PROPRIÉTAIRE

DÉCLARATION: EXPLOITANT DE L'AÉROPORT

Par la présente, j'atteste que les renseignements fournis dans ce manuel d'exploitation d'aéroport sont précis et qu'aucun renseignement pertinent n'a été omis. J'accepte et je me conformerai aux spécifications stipulées dans la présente.

APPROVAL:

This Airport Operations Manual is approved.

2004, July 12
DATE
(Y-A - M - D-J)

J. Furland
for
MINISTER OF TRANSPORT - MINISTRE DES TRANSPORTS

APPROBATION:

Ce manual d'exploitations d'aéroport est approuvé.

Canada

Transport Canada / Transports Canada

CIVIL AERONAUTICS

AERODROME CERTIFICATE

AÉRONAUTIQUE CIVILE

CERTIFICAT D'AÉRODROME

Name of Aerodrome – Nom de l'aérodrome	Certificate Holder – Détenteur du certificat (Name and Address) (Nom et adresse)
Chesterfield Inlet, N.W.T.	Government of the Northwest Territories YELLOWKNIFE, N.W.T. Canada X1A 2L9
Class: Catégorie: [X] Land Terrestre [ ] Water Hydroaérodrome [ ] Heliport Héliport [ ] Ice Sur piste glacée [ ] STOLport ADACport	Certificate No. – N° du certificat: 5151-C110
Latitude: 63° 20' 50"N Longitude: 090° 43' 52"W	

SECTION 1 - CERTIFICATION

This certificate is issued under the authority of the Minister of Transport pursuant to the Aeronautics Act and the Air Regulations, Series III, and certifies that this aerodrome meets the aerodrome standards, except as noted in Section III, subject to any special procedures specified in Section IV, under conditions of:

Ce certificat est émis avec l'autorisation du ministre des Transports conformément à la Loi sur l'aéronautique et au Règlement de l'Air, Série III et atteste que l'aérodrome précité répond aux normes d'aérodrome, sauf les exceptions prévues à l'article III, sous réserve de toute disposition spéciale prescrite à l'article IV et dans les conditions suivantes:

[X] Public Use / Utilisation publique
[ ] Private use / Utilisation privée

[X] Day / Jour
[X] Night / Nuit

[X] VFR
[X] IFR

26-0349 (9-86)

APPENDIX C

PASSENGER MOVEMENTS STATISTICS

Table 4. Domestic Journeys

Detailed Presentation

Place to or from	1998			1999		
	Passengers					
	Outbound	Inbound	Total	Outbound	Inbound	Total
CHATHAM, NB						
CALGARY, ALTA-ALB	250	200	450	280	300	580
MONTREAL, QUE	820	740	1560	1100	1060	2160
OTTAWA, ONT	440	420	860	490	520	1010
TORONTO, ONT	990	920	1910	790	770	1560
OTHER CITIES	590	570	1160	710	650	1360
TOTAL	3090	2850	5940	3370	3300	6670
CHESTERFIELD INLET, NUNAVUT						
OTHER CITIES	330	330	660	220	240	460
TOTAL	330	330	660	220	240	460
CHIBOUGAMAU, QUE						
MONTREAL, QUE	750	930	1680	570	720	1290
OTHER CITIES	480	490	970	410	450	860
TOTAL	1230	1420	2650	980	1170	2150
CHISASIBI, QUE						
OTHER CITIES	200	210	410	160	180	340
TOTAL	200	210	410	160	180	340
CHURCHILL FALLS, NFLD-TN						
ST. JOHNS, NFLD-TN	190	220	410	90	80	170
OTHER CITIES	110	150	260	110	130	240
TOTAL	300	370	670	200	210	410
CHURCHILL, MAN						
ARVIAT, NUNAVUT				490	450	940
BAKER LAKE, NUNAVUT				340	250	590
ESKIMO POINT, NWT-TNO	450	390	840			
RANKIN INLET, NUNAVUT				350	320	670
REPULSE BAY, NWT-TNO	250	200	450			
TORONTO, ONT	400	320	720	340	360	700
WINNIPEG, MAN	2270	2070	4340	1830	1600	3430
OTHER CITIES	1360	1350	2710	1210	980	2190
TOTAL	4730	4330	9060	4560	3960	8520
COLD LAKE, ALTA-ALB						
CALGARY, ALTA-ALB	2400	2340	4740	870	830	1700
EDMONTON, ALTA-ALB	880	790	1670	130	170	300
OTHER CITIES	820	820	1640	270	220	490
TOTAL	4100	3950	8050	1270	1220	2490
COMOX, BC-CB						
CALGARY, ALTA-ALB	1990	1950	3940	1920	1860	3780
EDMONTON, ALTA-ALB	1540	1500	3040	1290	1340	2630
HALIFAX, NS-NE	780	750	1530	550	570	1120
KAMLOOPS, BC-CB	230	280	510	220	230	450
KELOWNA, BC-CB	540	490	1030	470	510	980

Table 15
Tableau 15

Aircraft Movements by Class and Type of Operation
Mouvements d'appareils par classe de vol et type d'exploitation

Annual 2004 Annuel

Airports - Aéroports		Total	Itinerant - Itinérants									Local - Locaux		
			Total	Domestic Intérieurs			International Internationaux			Government Officiels		Civ.	Mil.	Total
				Car-rier Trans-porteur	Other Comm. Autres comm.	Private Privés	Car-rier Trans-porteur	Other Comm. Autres comm.	Private Privés	Civ.	Mil.			
Bonaventure	2003	780	675	492	69	39	-	-	-	75	-	105	-	105
	2002	1,788	1,639	1,084	128	280	-	-	23	124	-	149	-	149
	2001	1,661	1,414	1,043	64	112	-	-	-	153	42	247	-	247
	2000	2,785	2,524	1,500	615	218	1	2	37	146	5	261	-	261
Brantford	2004	1,127	365	63	29	259	-	-	13	1	-	762	-	762
	2002	19,436	8,069	1,792	1,265	4,671	2	-	208	125	6	11,367	-	11,367
	2001	51,385	16,269	4,514	1,837	7,674	98	67	1,457	573	49	35,074	42	35,116
	2000	60,131	14,500	4,146	1,535	7,984	90	30	477	105	133	45,199	432	45,631
Brockville	2004	1,872	1,462	261	175	947	-	-	-	67	12	410	-	410
	2003	4,486	2,021	508	243	1,143	-	-	-	103	24	2,405	60	2,465
	2002	6,904	2,396	264	271	1,707	-	-	-	134	20	4,340	168	4,508
	2001	6,719	2,178	356	412	1,284	-	-	-	108	18	4,383	158	4,541
	2000	9,133	2,599	519	320	1,661	-	-	7	67	25	6,376	158	6,534
Bromont	2004	7,545	6,730	792	1,937	3,661	10	10	157	74	89	815	-	815
	2003	7,917	6,841	744	1,291	4,120	72	53	329	63	169	1,076	-	1,076
	2002	7,894	6,152	714	1,218	3,717	61	29	254	57	102	1,734	8	1,742
	2001	12,634	6,944	1,355	1,148	3,639	40	29	445	76	212	5,342	348	5,690
	2000	12,806	6,844	1,775	999	3,198	92	23	483	87	187	5,490	472	5,962
Buffalo Narrows	2004	5,932	5,800	5,062	82	105	-	-	2	412	137	130	2	132
	2003	5,072	4,889	3,991	152	100	-	-	-	481	165	179	4	183
	2002	6,049	5,811	4,072	238	479	-	-	1	911	110	238	-	238
	2001	5,244	5,149	3,980	59	381	-	-	-	489	240	95	-	95
	2000	6,455	6,307	4,696	916	312	1	-	-	382	-	148	-	148
Burwash	2004	539	539	184	13	306	2	2	26	6	-	-	-	-
	2003	571	571	128	20	367	3	-	51	2	-	-	-	-
	2002	406	404	255	17	117	-	1	12	-	2	2	-	2
	2001	629	629	204	58	313	2	13	33	4	2	-	-	-
	2000	493	493	190	5	261	-	-	35	2	-	-	-	-
Cambridge Bay	2001	703	699	661	1	12	1	-	-	4	20	4	-	4
	2000	5,739	5,533	4,878	270	301	5	-	2	47	30	204	2	206
Cape Dorset	2004	836	836	778	-	1	-	-	-	55	2	-	-	-
	2003	960	960	892	16	-	-	-	-	48	4	-	-	-
	2002	901	901	822	8	34	4	-	-	31	2	-	-	-
	2001	987	987	910	11	5	-	-	-	57	4	-	-	-
	2000	939	935	868	7	13	-	-	-	47	-	4	-	4
Chesterfield Inlet	2004	1,440	1,439	1,226	188	8	-	-	-	17	-	1	-	1
	2003	1,166	1,148	1,077	37	2	-	-	-	32	-	18	-	18
	2002	1,147	1,135	1,006	50	68	-	-	-	11	-	12	-	12
	2001	895	889	844	20	1	-	-	-	16	8	-	6	6
	2000	723	723	689	5	12	-	-	-	16	1	-	-	-
Chevery	2004	3,544	3,544	3,041	476	21	-	-	-	6	-	-	-	-
	2003	3,272	3,272	2,867	291	104	-	-	-	6	4	-	-	-
	2002	4,873	4,873	2,344	1,132	1,375	-	-	-	22	-	-	-	-
	2001	4,999	4,999	3,956	735	234	1	-	-	73	-	-	-	-
	2000	4,435	4,435	4,113	188	90	-	-	-	44	-	-	-	-
Chibougamau/Chapais	2004	4,162	4,161	3,423	219	324	-	-	-	190	5	1	-	1
	2003	4,224	4,220	3,262	229	405	1	-	-	295	28	4	-	4
	2002	4,435	4,384	2,716	942	440	3	2	5	255	21	51	-	51
	2001	3,856	3,810	2,351	601	402	5	-	10	285	156	46	-	46
	2000	4,106	3,788	2,792	473	313	3	-	2	149	56	314	4	318

Making our community st

KIVALLIQ AIR

Flight Schedule

New Flight Schedules & Flight Numbers
Effective: May 1, 2005

Sunday, Tuesday & Thursday

Flight No.	Depart	Time	Arrive	Tim
631	Winnipeg	8:00 a.m.	Churchill	10:25 a
631	Churchill	10:45 a.m.	Rankin Inlet	12:00 p
631	Rankin Inlet	12:20 p.m.	Coral Harbour	1:30 p
632	Coral Harbour	1:55 p.m.	Repulse Bay	2:40 p
632	Repulse Bay	3:00 p.m.	Rankin Inlet	4:10 p
632	Rankin Inlet	4:30 p.m.	Churchill	5:40 p
632	Churchill	6:00 p.m.	Winnipeg	8:20 p

Monday, Wednesday & Friday

Flight No.	Depart	Time	Arrive	Tim
631	Winnipeg	8:00 a.m.	Churchill	10:25 a
631	Churchill	10:45 a.m.	Rankin Inlet	12:00 p
631	Rankin Inlet	12:20 p.m.	Repulse Bay	1:30 p
632	Repulse Bay	1:55 p.m.	Coral Harbour	2:40 p
632	Coral Harbour	3:00 p.m.	Rankin Inlet	4:10 p
632	Rankin Inlet	4:30 p.m.	Churchill	5:40 p
632	Churchill	6:00 p.m.	Winnipeg	8:20 p

Sunday, Tuesday & Thursday

Flight No.	Depart	Time	Arrive	Tim
651	Rankin Inlet	12:20 p.m.	Chesterfield Inlet	12:40 p
652	Chesterfield Inlet	1:00 p.m.	Rankin Inlet	1:20 p
652	Rankin Inlet	1:40 p.m.	Whale Cove	2:00 p
652	Whale Cove	2:20 p.m.	Arviat	2:50 p
652	Arviat	3:10 p.m.	Rankin Inlet	3:40 p

Monday & Wednesday

Flight No.	Depart	Time	Arrive	Tim
651	Rankin Inlet	9:00 a.m.	Baker Lake	9:40 a
651	Baker Lake	10:00 a.m.	Rankin Inlet	10:40 a
651	Rankin Inlet	12:20 p.m.	Chesterfield Inlet	12:40 p
652	Chesterfield Inlet	1:00 p.m.	Rankin Inlet	1:20 p
652	Rankin Inlet	1:40 p.m.	Whale Cove	2:00 p
652	Whale Cove	2:20 p.m.	Arviat	2:50 p
652	Arviat	3:10 p.m.	Rankin Inlet	3:40 p

Friday

Flight No.	Depart	Time	Arrive	Tim
651	Rankin Inlet	12:20 p.m.	Chesterfield Inlet	12:40 p
652	Chesterfield Inlet	1:00 p.m.	Rankin Inlet	1:20 p
652	Rankin Inlet	1:40 p.m.	Whale Cove	2:00 p
652	Whale Cove	2:20 p.m.	Arviat	2:50 p
652	Arviat	3:10 p.m.	Rankin Inlet	3:40 p
652	Rankin Inlet	6:00 p.m.	Baker Lake	6:40 p
652	Baker Lake	7:00 p.m.	Rankin Inlet	7:40 p

KEY POINTS:

- All of our flights will allow for easy connections via Rankin Inlet to Churchill and Winnipeg.
- Our passengers will also be able to conveniently connect via Rankin Inlet to Iqaluit and Yellowknif same day travel on Canadian North Airlines.
- We continue to be available and are very price competitive with air charter quotes.
- For reservations and air cargo information, call us toll-free at **1-877-855-1500**.
- For air charter pricing call us toll-free at **1-866-645-4699**

For passenger reservations, information on airfares, and cargo inquires call our toll free number at **1-877 1500** or book your reservation with your local travel agent.

FULL FARE - ONE WAY

	YEK	YBK	YCS	YYQ	YZS	YRT	YUT	YXN	YWG	
	Arviat	Baker Lake	Chesterfield Inlet	Churchill	Coral Harbour	Rankin Inlet	Repulse Bay	Whale Cove	Winnipeg	
Arviat		490.00	508.00	428.00	764.00	380.00	764.00	380.00	993.00	
Baker Lake	524.30		395.00	705.00	635.00	360.00	635.00	500.00	1,175.00	
Chesterfield Inlet	543.56	422.65		731.00	732.00	212.00	731.00	331.00	1,219.00	
Churchill	457.96	754.35	782.17		817.00	625.00	817.00	625.00	673.00	Ne ar Cl
Coral Harbour	817.48	679.45	783.24	874.19		517.00	418.00	694.00	1,187.00	
Rankin Inlet	406.60	385.20	226.84	668.75	553.19		517.00	198.00	1,099.00	
Repulse Bay	817.48	679.45	782.17	874.19	447.26	553.19		694.00	1,187.00	
Whale Cove	406.60	535.00	354.17	668.75	742.58	211.86	742.58		1,120.00	
Winnipeg	1,062.51	1,257.25	1,304.33	720.11	1,270.09	1,175.93	1,270.09	1,187.70		

INCLUDES ALL SURCHARGES & TAXES

RETURN EXCURSION

	YEK	YBK	YCS	YYQ	YZS	YRT	YUT	YXN	YWG	
	Arviat	Baker Lake	Chesterfield Inlet	Churchill	Coral Harbour	Rankin Inlet	Repulse Bay	Whale Cove	Winnipeg	
Arviat		578.00	602.00	512.00	884.00	462.00	884.00	462.00	1,136.00	
Baker Lake	618.46		466.00	832.00	750.00	425.00	750.00	590.00	1,387.00	
Chesterfield Inlet	644.14	498.62		848.00	848.00	260.00	848.00	408.00	1,384.00	
Churchill	547.84	890.24	907.36		942.00	730.00	942.00	730.00	784.00	Ne ar Cl
Coral Harbour	945.88	802.50	907.36	1,007.94		612.00	504.00	806.00	1,348.00	
Rankin Inlet	494.34	454.75	278.20	781.10	654.84		612.00	248.00	1,252.00	
Repulse Bay	945.88	802.50	907.36	1,007.94	539.28	654.84		806.00	1,348.00	
Whale Cove	494.34	631.30	436.56	781.10	862.42	265.36	862.42		1,276.00	
Winnipeg	1,215.52	1484.09	1,480.88	838.88	1,442.36	1,339.64	1,442.36	1,365.32		

INCLUDES ALL SURCHARGES & TAXES

ONE WAY STAND-BY FARES

	YEK	YBK	YCS	YYQ	YZS	YRT	YUT	YXN	YWG	
	Arviat	Baker Lake	Chesterfield Inlet	Churchill	Coral Harbour	Rankin Inlet	Repulse Bay	Whale Cove	Winnipeg	
Arviat		205.61	140.19	205.61	205.61	121.50	205.61	84.11	467.29	
Baker Lake	220.00		186.92	397.20	233.64	168.22	233.64	205.61	607.48	
Chesterfield Inlet	150.00	200.00		345.79	186.92	74.77	186.92	140.19	570.09	
Churchill	220.00	425.00	370.00		420.56	299.07	420.56	299.07	317.16	Ne ar Cl
Coral Harbour	220.00	250.00	200.00	450.00		186.92	140.19	186.92	607.48	
Rankin Inlet	130.00	180.00	80.00	320.00	200.00		186.92	74.77	514.02	
Repulse Bay	220.00	250.00	200.00	450.00	150.00	200.00		186.92	598.13	
Whale Cove	90.00	220.00	150.00	320.00	200.00	80.00	200.00		523.36	

APPENDIX D

FINANCIAL STATEMENTS

HAMLET OF CHESTERFIELD INLET

SCHEDULE IX

SCHEDULE OF CONTRACT SERVICES

YEAR ENDED MARCH 31, 2005
(with comparative figures for 2004)

	2005					2004
	Arctic Airports Operations	Arctic Airports Cars	Other Schedule X	Other Schedule XI	Total Contract Services	Total Contract Services
Revenue:						
Contract	$ 209,653	$ 144,749	$ 248,849	$ 115,984	$ 719,235	$ 556,488
Miscellaneous	1,737			290	2,027	8,208
	211,390	144,749	248,849	116,274	721,262	564,696
Capital grants			224,569	12,000	236,569	385,543
Total revenue	211,390	144,749	473,418	128,274	957,831	950,239
Expenditures:						
Operating -						
Sub-contract			64,735	6,763	71,498	44,334
Salaries and benefits	86,997	132,217	88,796	89,315	397,325	336,348
Communications		1,646	2,640		4,286	4,256
Materials and supplies	5,407	35	26,406	11,046	42,894	25,723
Business travel and expenses			4,018		4,018	1,350
Buildings:						
Heating fuel	6,455				6,455	7,050
Electricity	11,345				11,345	8,617
Maintenance						515
Municipal services	2,496				2,496	2,572
Rental	9,000		3,600		12,600	12,600
Equipment:						
Gasoline	9,497				9,497	6,292
Operations and maintenance	8,586				8,586	3,477
Rental	44,100				44,100	44,100
Miscellaneous	434		16,174		16,608	9,415
Administration fees	9,000		24,087	1,771	34,858	13,788
Operating	193,317	133,898	230,456	108,895	666,566	520,437
Capital -						
Capital acquisitions			251,879	76,446	328,325	466,830
Total Expenditures	193,317	133,898	482,335	185,341	994,891	987,267
Excess (deficiency) of revenue over expenditures for the year	$ 18,073	$ 10,851	$ (8,917)	$ (57,067)	$ (37,060)	$ (37,028)

HAMLET OF CHESTERFIELD INLET

SCHEDULE IX

SCHEDULE OF CONTRACT SERVICES

YEAR ENDED MARCH 31, 2004
(with comparative figures for 2003)

	2004					2003
	Arctic Airports Operations	Arctic Airports Cars	Other Schedule X	Other Schedule XI	Total Contract Services	Total Contract Services
Revenue:						
Contract	$ 209,653	$ 144,426	$ 76,375	$ 126,034	$ 556,488	$ 473,230
Miscellaneous	7,497	500		211	8,208	24,977
	217,150	144,926	76,375	126,245	564,696	498,207
Capital grants			334,543	51,000	385,543	156,396
Total revenue	217,150	144,926	410,918	177,245	950,239	654,603
Expenditures:						
Operating -						
Sub-contract			2,700	41,634	44,334	30,226
Salaries and benefits	79,658	130,481	55,189	71,020	336,348	305,880
Communications		2,114	2,142		4,256	3,722
Materials and supplies	7,476	235	4,710	13,302	25,723	21,595
Business travel and expenses			1,350		1,350	9,167
Buildings:						
Heating fuel	7,050				7,050	6,608
Electricity	8,617				8,617	9,579
Maintenance	515				515	
Municipal services	2,572				2,572	3,192
Rental	9,000		3,600		12,600	17,863
Equipment:						
Gasoline	6,292				6,292	5,784
Operations and maintenance	3,477				3,477	2,444
Rental	44,100				44,100	44,100
Professional fees						
Miscellaneous			3,764	5,661	9,415	3,491
Administration fees	9,000		2,593	2,195	13,788	12,520
Operating	177,757	132,830	76,048	133,802	520,437	476,171
Capital -						
Capital acquisitions			332,584	134,246	466,830	203,714
Total Expenditures	177,757	132,830	408,632	268,048	987,267	679,885
Excess (deficiency) of revenue over expenditures for the year	$ 39,393	$ 12,096	$ 2,286	$ (90,803)	$ (37,028)	$ (25,282)

HAMLET OF CHESTERFIELD INLET

SCHEDULE I

SCHEDULE OF CONTRACT SERVICES

YEAR ENDED MARCH 31, 2003
(with comparative figures for 2002)

	2003					2002
	Arctic Airports Operations	Arctic Airports Cars	Hamlet Capital Purchases	Other Schedule X	Total Contract Services	Tota Contra Servic
Revenue:						
Contract	$ 209,653	$ 117,492		$ 146,085	$ 473,230	$ 696,9
Miscellaneous	13,049		$ 11,928		24,977	59,9
	222,702	117,492	11,928	146,085	498,207	756,9
Capital grants				156,396	156,396	
Total revenue	222,702	117,492	11,928	302,481	654,603	756,9
Expenditures:						
Operating -						
Sub-contract	4,287			25,939	30,226	110,89
Salaries and benefits	115,431	97,748		92,701	305,880	366,65
Communications	1,250	2,125		347	3,722	4,83
Materials and supplies	13,294	552		7,749	21,595	70,68
Business travel and expenses				9,167	9,167	11,83
Buildings:						
Heating fuel	4,599			2,009	6,608	5,31
Electricity	9,579				9,579	11,18
Maintenance						
Municipal services	3,192				3,192	1,40
Rental	9,000			8,863	17,863	15,00
Equipment:						
Gasoline	5,784				5,784	6,30
Operations and maintenance	2,444				2,444	42,51
Rental	44,100				44,100	47,38
Professional fees						1,00
Miscellaneous		20		3,471	3,491	1,20
Administration fees	9,000			3,520	12,520	32,61
Operating	221,960	100,445	NIL	153,766	476,171	728,84
Capital -						
Capital acquisitions			41,234	162,480	203,714	3,93
Total Expenditures	221,960	100,445	41,234	316,246	679,885	732,77
Excess (deficiency) of revenue over expenditures for the year	$ 742	$ 17,047	$ (29,306)	$ (13,765)	$ (25,282)	$ 24,15

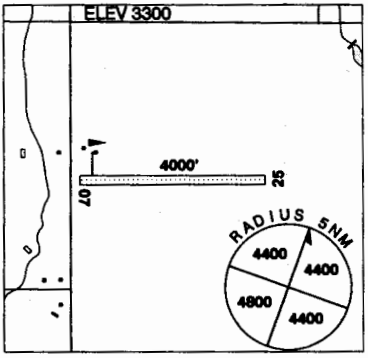
APPENDIX E

AIRPORT FACILITY DATA AND PHOTOGRAPHS

CHEADLE AB

CFQ4

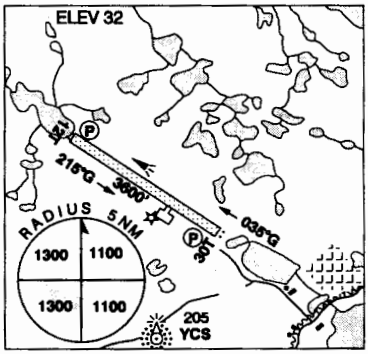
REF	N51 03 27 W113 37 25 4NW 18°E UTC-7(6) Elev 3300′ VTA A5005 E-15 E-16
OPR	G. Jackson 403-936-5616 Reg
FLT PLN	NOTAM FILE CYBW
FIC	Edmonton 866-WXBRIEF
RWY DATA	Rwy 07(072°)/25(252°) 4000x100 turf
COMM	
ATF	tfc 123.2 5NM 4800 ASL



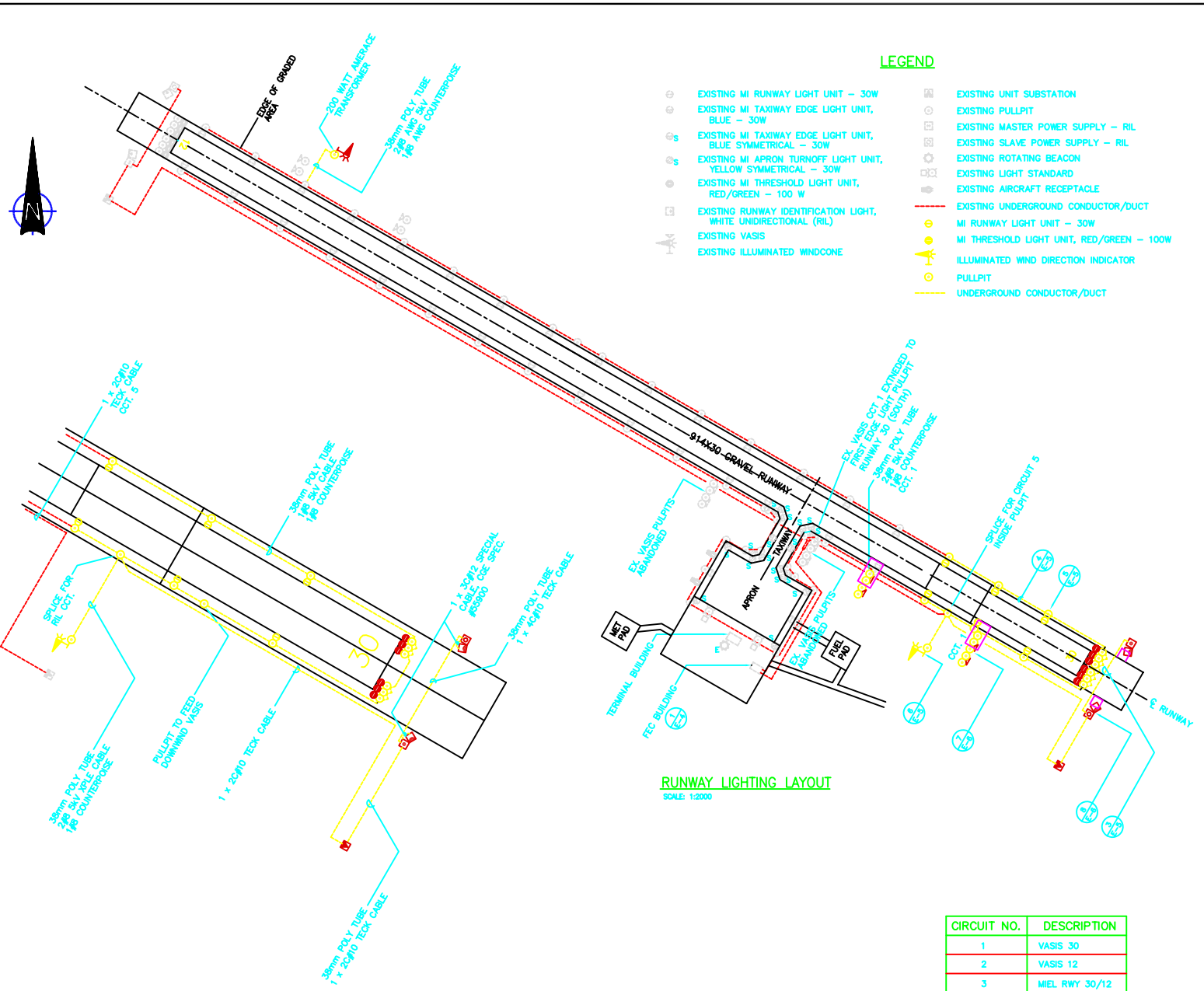
CHESTERFIELD INLET NU

CYCS

REF	N63 20 49 W90 43 52 1NW 11°W GV80°E UTC-6(5) Elev 32′ A5031 D-14 LO5 HI1 HI2
OPR	Govt of Nunavut 867-645-2773/8107 Cert
PF	C-1,2,3,4,5
FLT PLN	NOTAM FILE CYCS
FSS	W1 (F) North Bay IFSS 800-300-8300
ACC	Edmonton IFR 888-358-7526 or 780-890-8304/8305
CARS	867-898-9940 ltd hrs (see COMM), O/T 864-898-9142/9034. Lcl wx only, other wx O/R.
WX	METAR dur CARS hrs (see COMM)



SERVICES	Call out chg may be levied outside oprg hrs.
FUEL	DFA 1430-24Z‡ Mon-Sat exc hols 2 hrs PNR ctc 867-898-9975/9981 or 867-645-8156/8153. Credit cards not accepted. Credit by prior arng only, ctc 867-645-5169, allow 7 working days.
RWY DATA	Rwy 12T(124°T)/30T(304°T) 3600x100 gravel Rwy 12T up 0.5%.
RCR	CARS, A/D maint avbl 14-23Z‡ Mon-Fri exc hol O/T PNR 867-898-9192 or Fax 867-898-1005. Call out chg rqrd. PLR/PCN
LIGHTING	12T-AS(TE ME) AP, 30T-AS(TE ME) AP ARCAL-122.1 opr outside CARS hrs; key mic 3 times in 5 sec for rwy 30T lgts & APAPI; key mic 5 times in 5 sec for rwy 12T lgts & APAPI. RIL not avbl on ARCAL.
COMM	
MF	aprt rdo ltd hrs O/T tfc 122.1 5NM 3000 ASL (CAR 602.98)
APRT RDO	122.1 (V) 1245-2315Z‡ Mon-Fri, 1445-2115Z‡ Sat & Sun, exc hols, O/T 2 hrs PNR, call out chg.
NAV	
NDB	YCS 341 (L) N63 20 18 W90 43 48 357°T 0.6NM to A/D



EXTENSION LIGHTING LAYOUT
SCALE 1:1000

RUNWAY LIGHTING LAYOUT
SCALE: 1:2000

CIRCUIT NO.	DESCRIPTION
1	VASIS 30
2	VASIS 12
3	MIEL RWY 30/12
4	RIL 12
5	RIL 30

Northwest Territories Transportation

Reid Crowther
Reid Crowther & Partners Ltd.
Consulting Engineers

Rev.	Date	Description	Chkd
2	DEC. 1995	AS BUILT DRAWING	RPM
1	JAN. 25 1993	ISSUED FOR TENDER	JAP
0	JULY 1992	ISSUED FOR TENDER	JAB

A. detail number
B. location drawing number
C. drawing number

Project
INSTALLATION OF AERODROME LIGHTING CHESTERFIELD INLET, N.W.T.

Title
RUNWAY LIGHTING LAYOUT

Scale AS SHOWN

Drawn by CLP
Date JULY 1992
Designed by RPM
Checked by JAB
Insignia
Signature
Date
Approved by
Project No. 92-9516
Drawing No. E-3

Filing No.
Title
eet-3 1:2000 PLOTTED: 93 01 25

PART II - AIRPORT SPECIFICATIONS

INTRODUCTION

The services and facilities of the Chesterfield Inlet Airport have been developed in concert with the guidelines as prescribed in TP 312E, Aerodrome Standards and Recommended Practices.

This part is an inventory of the specifications for Chesterfield Inlet Airport. Unless otherwise annotated these specifications are in compliance with the latest Edition of TP 312E.

Units of Measurement

(i)	*Elevation*	given to the nearest foot (above sea level, unless otherwise noted)
(ii)	*Linear Dimensions*	given to the nearest ½ meter, and also in feet if published in the Canada Air Pilot or Canada Flight Supplement
(iii)	*Geographic Co-ordinates*	latitude and longitude given to the nearest second, where available and measured in accordance with NAD 83 reference datum.
(iv)	*Bearings*	given to the nearest degree

2.1 AERODROME DATA

Reference Point:	co-ordinates N63°20'49"W90°43'52" Geographic centre of runway. elevation 32'
Geometric Centre:	co-ordinates N63°20'49"W90°43'52"
Aerodrome Elevation:	location threshold Runway 30T elevation 32'
Aerodrome Magnetic Variation:	10° West
Aerodrome Reference Temperature:	9° C.
Aerodrome Designator:	CYCS

Windsock Locations

See Appendix C for pictorial location

Electronic Navigation Aids

Non Directional Beacon (NDB)	ident:	YCS
	frequency:	341 kHz
	power:	(M) - 50 watt to less than 2000w
	location:	N 63° 20' 18" W 90° 43' 48"
		(357°T - 0.6 nm to aerodrome)

Significant Obstacles in the Vicinity of the Aerodrome

1. NDB Tower (painted and lighted) ½ nm South of apron 205' ASL.

2. Power poles painted with day-glow and day-glow balls on wires located on approach to runway 12.

2.2 AERODROME LIGHTING				
Aerodrome Beacon	Type:	Strobe		
	Location:	On ATB		
Flight Maneuvering Area Hazard Beacons	Type:	n/a		
	Location:	n/a		
Windsocks	Quantity:	2	Lighted: *	yes
Aircraft Radio Control of Aerodrome Lighting (ARCAL)	Frequency:	122.1		
	Type:	K (non-standard)		
	Special Operating Instructions:	*		

REMARKS:

* See CFS for special operating instructions.

2.3 AIRSIDE GUIDANCE SIGNS

Fibreoptic
Runway Designator Sign (To Standard TP312 4th Edition)

2.4 AERODROME MARKINGS

NIL

2.5 RUNWAY DATA

2.5.1 RUNWAY DATA			
RUNWAY		**12T**	**30T**
Lowest Landing Minima		VFR Limits	VFR Limits
Lowest Authorized Take-Off Minima		VFR Limits	VFR Limits
PHYSICAL CHARACTERISTICS			
Reference Code		2C/NI	2C/NI
True / Magnetic Bearings		124°T/135°M	304°T/315°M
Runway Dimensions		1098m x 30m (3600'x100')	
Runway Slope		Runway 12T up 0.5%	
Runway Surface Type		Gravel	
Touchdown Zone Elevation		6.9m (23')	10.76m (35')
Threshold	Coordinates	N63°20'59.59" W90°44'24.84"	N63°20'39.68" W90°43'19.31"
	Elevation	23'	35'
Displaced Threshold	Length	n/a	n/a
	Coordinates	n/a	n/a
	Elevation	n/a	n/a
Runway Strip	Dimensions	1218m x 60m (4000' x 200')	
	Surface Type	Gravel	
	Graded Area Width	46m (150')	
Stopway	Dimensions	n/a	n/a
	Surface Type	n/a	n/a
Clearway	Dimensions	n/a	n/a
	Ground Profile	n/a	n/a
Runway End Safety Area	Dimensions	n/a	n/a
	Surface Type	n/a	n/a
DECLARED DISTANCES	TORA	3600'	3600'
	TODA	n/a	n/a
	ASDA	3600'	3600'
	LDA	3600'	3600'

OBSTACLE LIMITATION SURFACES		12T	30T
Approach Surface	Length of Inner Edge	60m	60m
	Distance from Threshold	60m	60m
	Divergence	10%	10%
	Length	2500m	2500m
	Slope	1:25 (4.0%)	1:25 (4.0%)
Transitional Surface Slope		1:5 (20%)	1:5 (20%)
Outer Surface	Elevation	45m	45m
	Dimensions	4000m radius	4000m radius
LIGHTING *			
Runway Edge Lights		ME**	ME**
Approach Lights		n/a	n/a
Visual Approach Slope Indicator		n/a	n/a
Lead-in Lighting Systems		n/a	n/a
Runway Identification Lights (RILS)		AS	AS
Runway Threshold Lights		n/a	n/a
Displaced Threshold		n/a	n/a
Runway End Lights		TE	TE
Centre Line Lights		n/a	n/a
Touchdown Zone Lights		n/a	n/a
Runway Exit Lights		Yes	Yes
Stopway Lights		n/a	n/a

(continued)

Remarks:

* Refer to Canadian Flight Supplement for lighting Codes.

** Aeronautical Study due to snow conditions authority under 3rd Edition for higher than standard runway lights.

MARKERS and MARKINGS				
Markers	Edge Markers		n/a	n/a
	Threshold Markers		n/a	n/a
Markings	Runway Designation		n/a	n/a
	Threshold		n/a	n/a
	Displaced Threshold	Transverse Stripe	n/a	n/a
		Chevrons / Arrows	n/a	n/a
	Runway Centre Line		n/a	n/a
	Fixed Distance		n/a	n/a
	Aiming Point		n/a	n/a
	Touchdown Zone		n/a	n/a
	Runway Side Stripe		n/a	n/a
	Taxi-Holding Position		n/a	n/a

REMARKS:

2.6	TAXIWAY DATA				
TAXIWAY	A				
PHYSICAL CHARACTERISTICS					
Surface Type	Gravel				
Taxiway Code	C				
Taxiway Width	15m				
Strip Width	57m				
Graded Area Width	25m				
LIGHTING*					
Taxiway Edge	ME				
Taxiway/Runway Intersection	Dbl. Blue				
Taxiway/Taxiway Intersection	n/a				
Taxiway/Apron Intersection	Dbl. Amber				
Taxiway Centre Line	n/a				
Stop Bar	n/a				
Runway Guard Lights	n/a				
MARKERS AND MARKINGS					
Markers	Edge	n/a				
Markings	Taxiway Centre Line	n/a				
	Runway Exit	Yes				
	Taxi-Holding Position	n/a				
	Taxiway Intersection	n/a				

REMARKS:

* Refer to Canadian Flight Supplement for lighting codes.

2.7		APRON DATA			
APRON		1			
PHYSICAL CHARACTERISTICS					
Apron Dimensions		90m x 60m			
Surface Type		Gravel			
Apron Strip		15m			
LIGHTING*					
Apron Edge Lights		ME			
Flood Lights		Yes			
MARKERS AND MARKINGS					
Markers	Edge	n/a			
Markings	Apron Taxiway	n/a			
	Aircraft Stand Taxilane	n/a			
	Aircraft Stand	n/a			
	Apron Safety Lines	n/a			
	Passenger Path Lines	n/a			
	Helicopter T/D Pad(s)	n/a			

REMARKS:

* Refer to Canadian Flight Supplement General Section for explanation of lighting codes.

2.8 STRENGTH OF PAVEMENT

New airfield pavements are designed to accommodate the "critical" aircraft that will be using that pavement. The aircraft load rating (ALR) should be equal to or less than the corresponding pavement load rating (PLR). The International Civil Aviation Organization (ICAO) determines this rating as a pavement classification number (PCN). (See TP 312, Aerodrome Standards and Recommended Practices, section 2.4 or TP 2162, Airfield Pavement Bearing Strengths, for more information).

After PLR's have been assigned to a particular pavement area, the performance of that area is monitored on an annual basis. Comprehensive visual pavement condition surveys are conducted every year and the PLR may be adjusted (usually downward), if the pavement shows signs of deterioration due to overloading or fatigue.

Pavement Classification Numbers (PCN) or Pavement Load Rating (PLR) should be determined, and the chart updated, after the completion of any major construction on an airside Load Bearing Surface and/or at a minimum of once every 5 years.

A PLR of 8 has been determined for Chesterfield Inlet Airport.

2.9 HELICOPTER OPERATIONS

No dedicated helicopter final approach and take-off area or apron parking area.


Granular surface material at threshold 12T


Threshold lighting on PVC extensions.


Near the middle of the runway.
Stones are ~ 50mm.


3000' from Threshold 12T
Stones are ~75mm.


Threshold 30T

APPENDIX F

CONSTRUCTION HISTORY AND CONDITION REPORTS

APPENDIX G

AERODROME SAFETY INSPECTION REPORTS

APPENDIX H

STATEMENT OF PROJECT REQUIREMENTS

APPENDIX I

DESIGN DRAWINGS AND SPECIFICATIONS

ORIGINAL

CHESTERFIELD INLET AIRPORT

GOVERNMENT OF NUNAVUT

NUNAVUT AIRPORTS DIVISION
DEPARTMENT OF COMMUNITY GOVERNMENT AND TRANSPORTATION

RUNWAY, TAXIWAY AND APRON REHABILITATION

PROJECT NO. 04-11271-01

PRYDE SCHROPP McCOMBIN
AVIATION GROUP
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EDMONTON AB T5S 1T1
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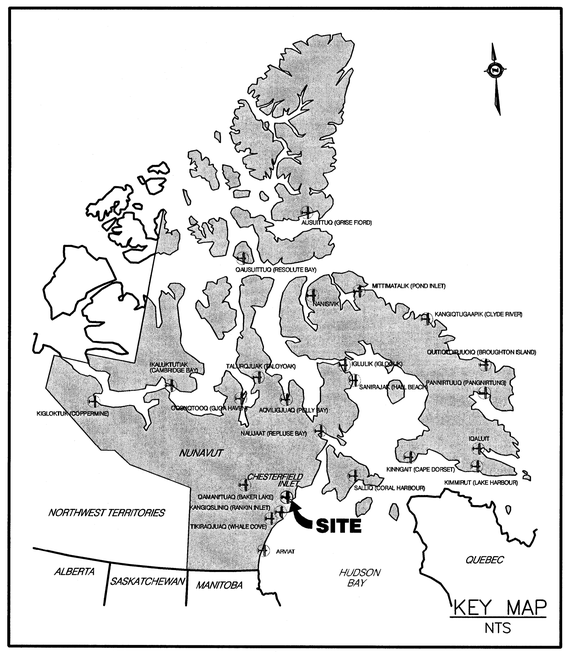
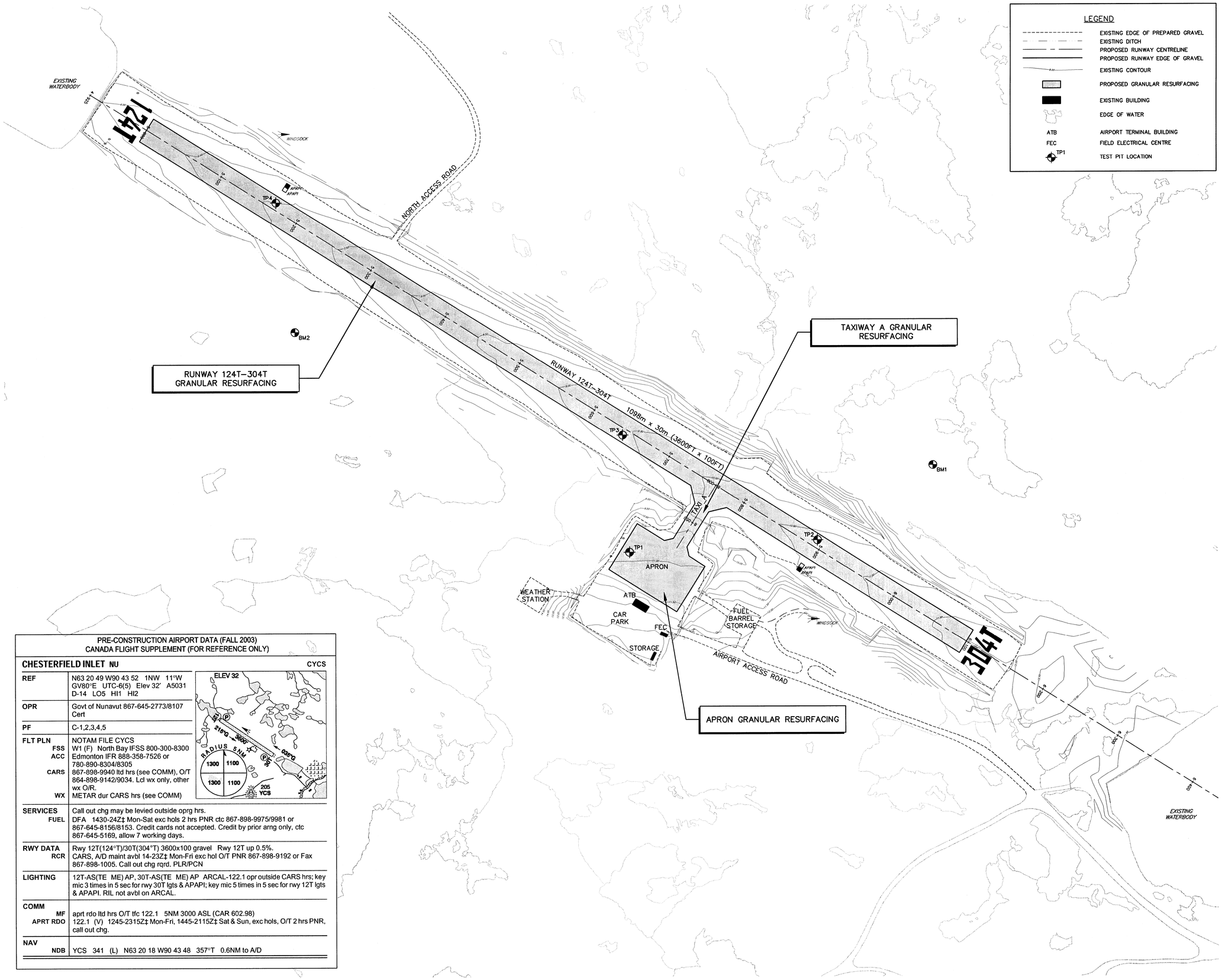
220 LAURIER AVE WEST, SUITE 500-A,
OTTAWA ON K1P 5Z9
www.psmi.ca



index

FINAL DESIGN SUBMISSION
MAY 12, 2004
PSMI No. 11271

ORIGINAL



LEGEND

- EXISTING EDGE OF PREPARED GRAVEL
- EXISTING DITCH
- PROPOSED RUNWAY CENTRELINE
- PROPOSED RUNWAY EDGE OF GravEL
- EXISTING CONTOUR
- PROPOSED GRANULAR RESURFACING
- EXISTING BUILDING
- EDGE OF WATER
- ATB — AIRPORT TERMINAL BUILDING
- FEC — FIELD ELECTRICAL CENTRE
- TP1 — TEST PIT LOCATION

PRE-CONSTRUCTION AIRPORT DATA (FALL 2003)
CANADA FLIGHT SUPPLEMENT (FOR REFERENCE ONLY)

CHESTERFIELD INLET NU — CYCS

REF	N63 20 49 W90 43 52 1NW 11°W GV80°E UTC-6(5) Elev 32' A5031 D-14 LO5 HI1 HI2
OPR	Govt of Nunavut 867-645-2773/8107 Cert
PF	C-1,2,3,4,5
FLT PLN FSS ACC CARS WX	NOTAM FILE CYCS W1 (F) North Bay IFSS 800-300-8300 Edmonton IFR 888-358-7526 or 780-890-8304/8305 867-898-9940 ltd hrs (see COMM), O/T 864-898-9142/9034. Lcl wx only, other wx O/R. METAR dur CARS hrs (see COMM)
SERVICES FUEL	Call out chg may be levied outside oprg hrs. DFA 1430-24Z‡ Mon-Sat exc hols 2 hrs PNR ctc 867-898-9975/9981 or 867-645-8156/8153. Credit cards not accepted. Credit by prior arng only, ctc 867-645-5169, allow 7 working days.
RWY DATA RCR	Rwy 12T(124°T)/30T(304°T) 3600x100 gravel Rwy 12T up 0.5%. CARS, A/D maint avbl 14-23Z‡ Mon-Fri exc hol O/T PNR 867-898-9192 or Fax 867-898-1005. Call out chg rqrd. PLR/PCN
LIGHTING	12T-AS(TE ME) AP, 30T-AS(TE ME) AP ARCAL-122.1 opr outside CARS hrs; key mic 3 times in 5 sec for rwy 30T lgts & APAPI; key mic 5 times in 5 sec for rwy 12T lgts & APAPI. RIL not avbl on ARCAL.
COMM MF APRT RDO	 aprt rdo ltd hrs O/T tfc 122.1 5NM 3000 ASL (CAR 602.98) 122.1 (V) 1245-2315Z‡ Mon-Fri, 1445-2115Z‡ Sat & Sun, exc hols, O/T 2 hrs PNR, call out chg.
NAV NDB	 YCS 341 (L) N63 20 18 W90 43 48 357°T 0.6NM to A/D

Notes

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9. DISTANCES SHOWN HEREON ARE GRID DISTANCES BASED ON 6° UTM COORDINATES (NAD 83) AND MAY BE CONVERTED TO GROUND DISTANCES BY DIVIDING BY A COMBINED SCALED FACTOR OF 0.99976.
10. CONSTRUCTION SHALL FOLLOW THE APPROVED PLAN OF CONSTRUCTION.

Benchmark Information

BM1 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE NORTH SIDE OF RUNWAY 30 END.
ELEVATION 17.47m

BM2 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE SOUTH SIDE OF RUNWAY 12 END.
ELEVATION 11.57m

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12.

Seals

ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF THE NWT/NU

PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date May 27/04
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

PRYDE SCHROPP McCOMB IN
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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION
Chesterfield Inlet, Nunavut

Title

SITE PLAN

Project No.	Scale	Dwn by.
11271	1:2000	GJC

Drawing No. SP1 — Revision 2

ORIGINAL SHEET – A1
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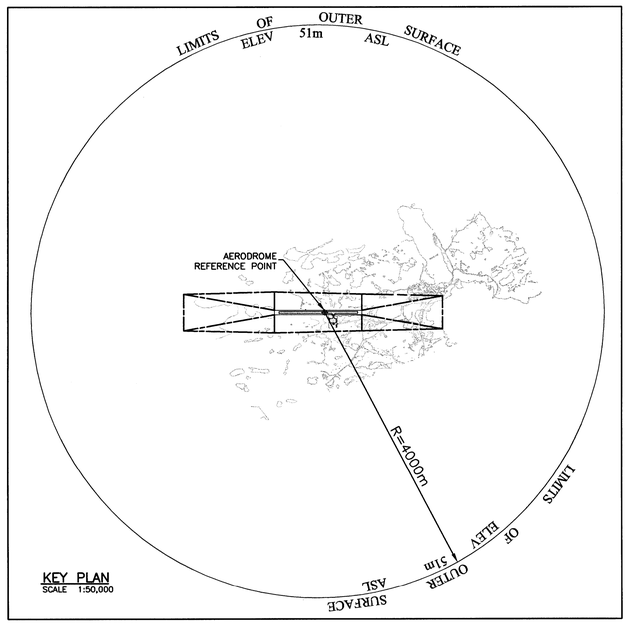
2004 May 11, 9:41 a.m.

ORIGINAL



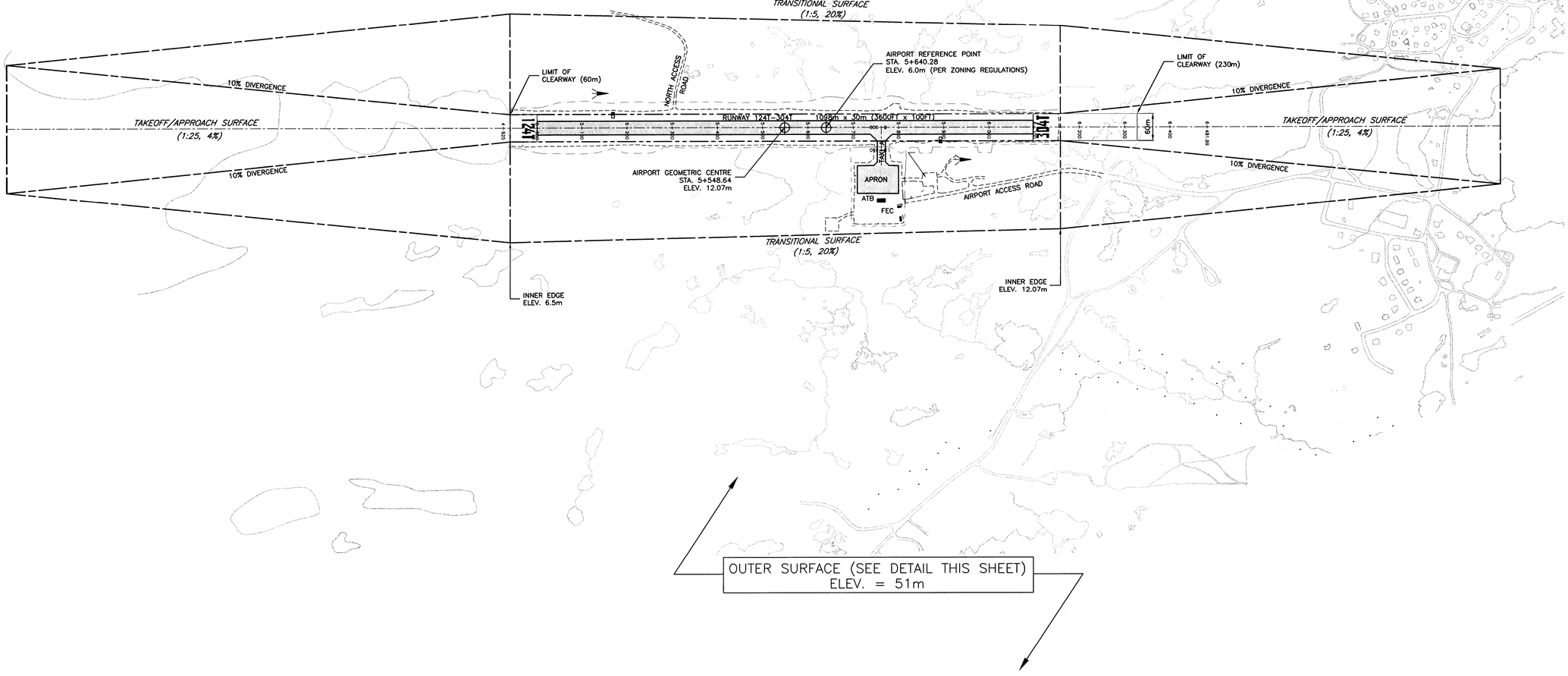
KEY PLAN
SCALE 1:50,000

INFORMATION SHOWN HERE REFERS TO ACTUAL AIRPORT OPERATIONAL CONDITIONS. THESE MAY DIFFER FROM THE AIRPORT ZONING REGULATIONS, SOR/91-171, 28-FEB-91.

OUTER SURFACE (SEE DETAIL THIS SHEET)
ELEV. = 51m

LEGEND

- EXISTING EDGE OF GRAVEL
- EXISTING DITCH
- PROPOSED RUNWAY CENTRELINE
- PROPOSED RUNWAY EDGE OF GRAVEL
- RUNWAY STRIP
- PROPOSED GRANULAR RESURFACING
- EXISTING BUILDING
- EDGE OF WATER
- ATB — AIRPORT TERMINAL BUILDING
- FEC — FIELD ELECTRICAL CENTRE



OUTER SURFACE (SEE DETAIL THIS SHEET)
ELEV. = 51m

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10. CONSTRUCTION SHALL FOLLOW THE APPROVED PLAN OF CONSTRUCTION.

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

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PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date May 2004
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

OBSTACLE LIMITATION SURFACES (OPERATIONAL ZONING)

Project No.	Scale	Dwn by.
11271	1:5000	GJC

Drawing No.	Revision
SP2	2

ORIGINAL SHEET - A1
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2004 May 11, 9:39 a.m.

ORIGINAL

TP312 DEVELOPMENT REQUIREMENTS AND CONSIDERATIONS (OPERATIONAL ZONING)

CRITICAL AIRCRAFT	HS748
a) Tail Height	7.56m
b) Wing Span	30m
c) Wheel Base	6.32m
d) Min. Clearance for 180° Turn	
–Wing Tip	50m
–Surface Width	30m
e) Max. Landing Weight	19,156kg
f) Max. Take-off Weight	21,136kg

RUNWAY (124T – 304T)	
a) Code	2C/NI
b) Dimensions	1098m x 30m
c) Width of Graded Area	46m (TOTAL)
d) Width of Runway strip	60m (TOTAL)
e) Length of Runway Strip @ Each End	60m
f) Total Length of Runway Strip	1218m

TRANSITIONAL SURFACE	
a) Slope	20% (1:5)

TAKE–OFF/APPROACH SURFACE	
a) Slope	4% (1:25)
b) Divergence	10% (1:10)
c) Inner Edge	60m
d) Length (MIN.)	2500m

OUTER SURFACE	
a) Height above A/P Ref. Point	45m
b) Radius	4000m

TAXIWAY	
a) Width	18m
b) Graded Area	25m (TOTAL)
c) Width of Taxi Way Strip	52m (TOTAL)

APRON	
a) Dimensions	91m x 61m
b) Distance From Runway Centerline	83.8m
c) Zoning Consideration	HS748 Zones on All Portions of Apron (Tail cannot be past North Apron edge)
d) Slope	Minimum 0.5% Maximum 1.0%

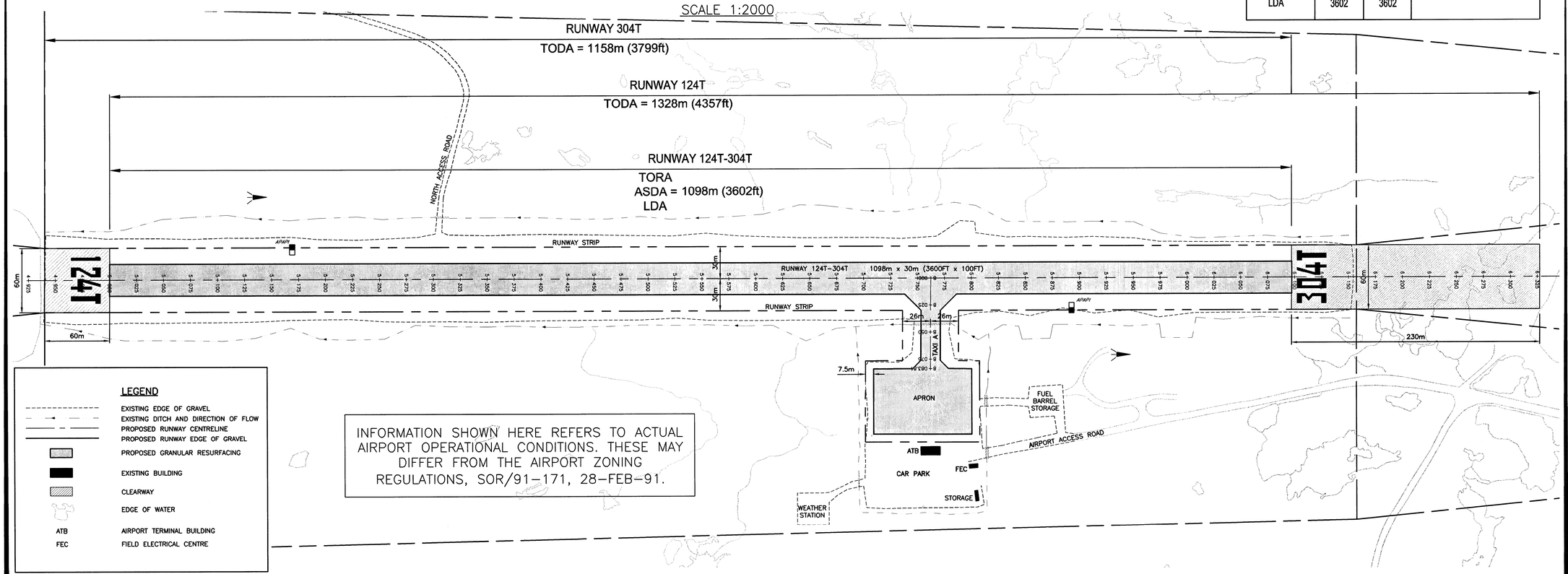
DECLARED DISTANCES	RUNWAY 124T	RUNWAY 304T
TORA	3602	3602
TODA	4357	3799
ASDA	3602	3602
LDA	3602	3602

VALID AT FALL 2003

(TO BE RE-VALIDATED AT TIME OF PUBLICATION)

(DISTANCES IN FEET)

SCALE 1:2000



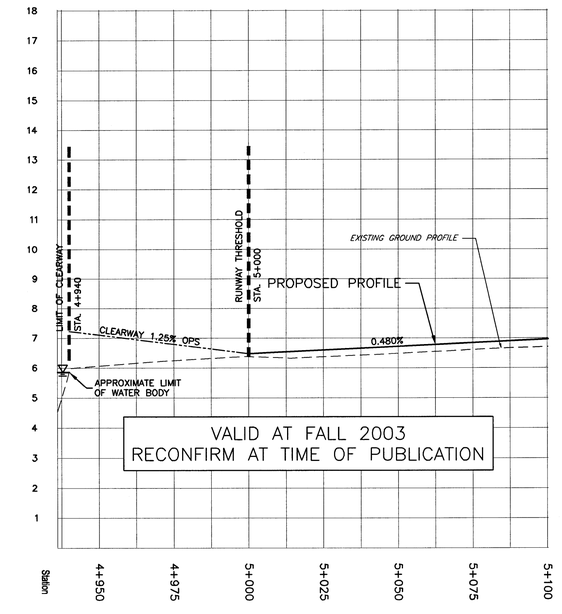
LEGEND

- EXISTING EDGE OF GRAVEL
- EXISTING DITCH AND DIRECTION OF FLOW
- PROPOSED RUNWAY CENTRELINE
- PROPOSED RUNWAY EDGE OF GRAVEL
- PROPOSED GRANULAR RESURFACING
- EXISTING BUILDING
- CLEARWAY
- EDGE OF WATER
- ATB — AIRPORT TERMINAL BUILDING
- FEC — FIELD ELECTRICAL CENTRE

INFORMATION SHOWN HERE REFERS TO ACTUAL AIRPORT OPERATIONAL CONDITIONS. THESE MAY DIFFER FROM THE AIRPORT ZONING REGULATIONS, SOR/91–171, 28–FEB–91.

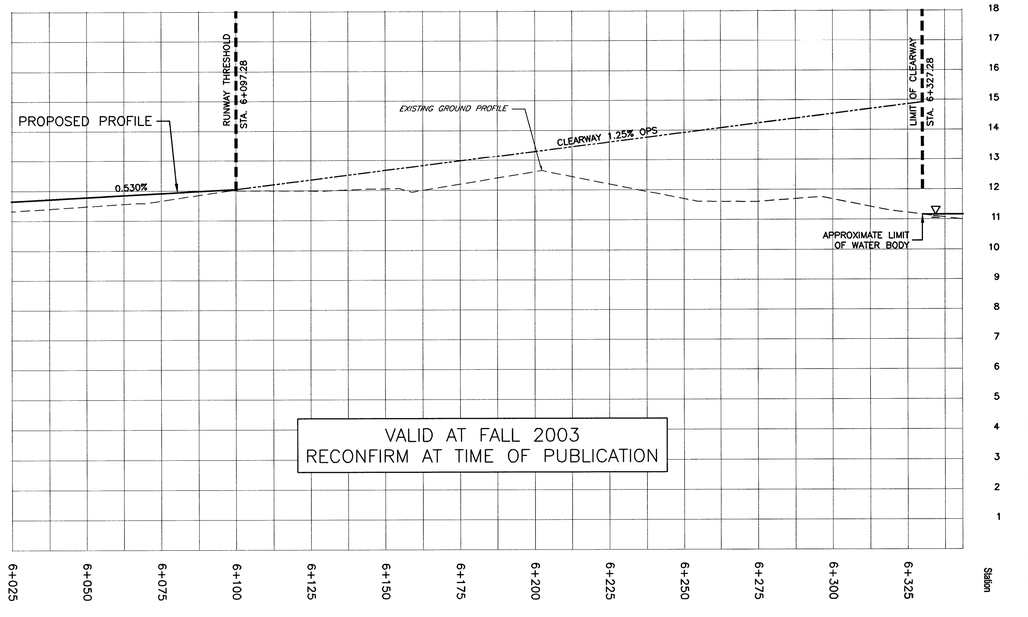
124T END CLEARWAY OBSTACLE PROTECTION

Station	4+950	4+975	5+000	5+025	5+050	5+075	5+100
Runway Centreline Elevation	6.065	6.249	6.376	6.374	6.485	6.610	6.705
Proposed Runway Centreline Elevation			6.500	6.621	6.741	6.862	6.983



304T END CLEARWAY OBSTACLE PROTECTION

Station	6+025	6+050	6+075	6+100	6+125	6+150	6+175	6+200	6+225	6+250	6+275	6+300	6+325
Runway Centreline Elevation	11.322	11.474	11.662	12.000	11.987	12.052	12.203	12.611	12.196	11.701	11.596	11.633	11.225
Proposed Runway Centreline Elevation	11.684	11.818	11.951	12.07									



SCALE H 1:1000 / V 1:100

Notes

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Revision

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1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

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PRYDE SCHROPP McCOMB INC.
Signature
Date May 20/04
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

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TEL: (613) 233–1566 FAX: (613) 233–2364
220 LAURIER AVE WEST, SUITE 500–A,
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www.psmi.ca

Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

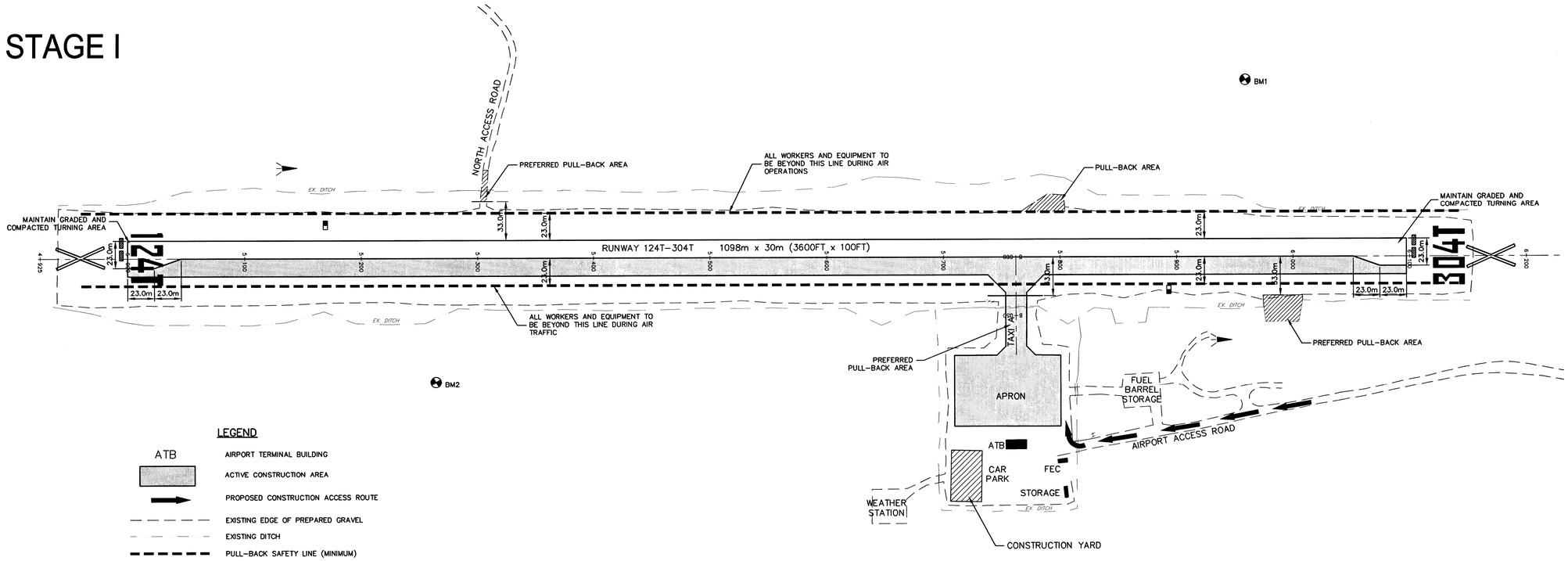
DECLARED DISTANCES AND OPERATIONAL ZONING

Project No.	Scale	Dwn by.
11271	AS NOTED	GJC

Drawing No. SP3 — Revision 2

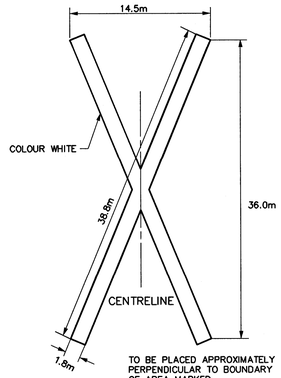
ORIGINAL SHEET – A1
T:\Projects\Chesterfield–Nu–CYCS\11271–Chesterfield Inlet Resurfacing\Dwg\11271 SP3.dwg
2004 May 11, 9:33 am.

STAGE I



LEGEND

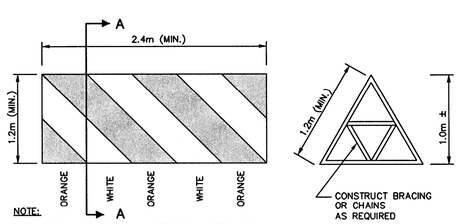
- ATB — AIRPORT TERMINAL BUILDING
- ACTIVE CONSTRUCTION AREA
- PROPOSED CONSTRUCTION ACCESS ROUTE
- EXISTING EDGE OF PREPARED GRAVEL
- EXISTING DITCH
- PULL-BACK SAFETY LINE (MINIMUM)



NOTE:

1. THESE MARKINGS NOT TO PAINTED ON PAVEMENT SURFACE. THEY ARE TO BE CONSTRUCTED TO ALLOW FOR MOVING AND RELOCATING OF MARKINGS. (WHITE POLYETHYLENE IS AN ACCEPTABLE MATERIAL WITH WHITE SAND BAGS OR 50mm X 50mm WOODEN STAKES TO BE USED FOR ANCHORING.)

RUNWAY CLOSURE MARKING
NTS

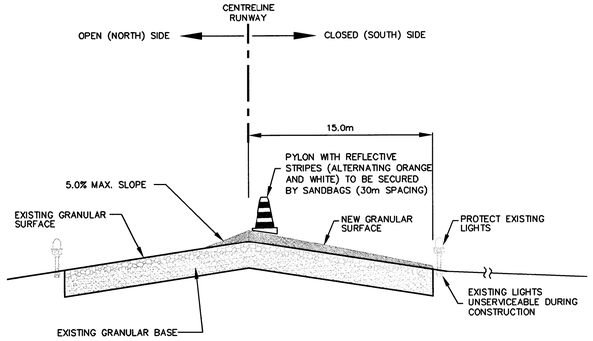


SECTION A–A

NOTE:

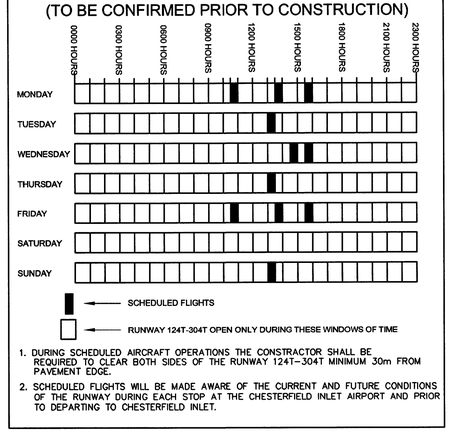
1. ALTERNATING DIAGONAL STRIPES. INTERNATIONAL ORANGE AND WHITE @ 0.5m WIDTH.
2. MINIMUM SIZE TO BE 2.4m X 1.2m.
3. MARKERS TO BE SECURELY ANCHORED.

TEMPORARY DAYTIME RUNWAY END MARKERS
NTS



TYPICAL RUNWAY 124T–304T CROSS SECTION
NTS

SCHEDULED AIR TRAFFIC (FALL 2003)
(TO BE CONFIRMED PRIOR TO CONSTRUCTION)



1. DURING SCHEDULED AIRCRAFT OPERATIONS THE CONSTRACTOR SHALL BE REQUIRED TO CLEAR BOTH SIDES OF THE RUNWAY 124T–304T MINIMUM 30m FROM PAVEMENT EDGE.
2. SCHEDULED FLIGHTS WILL BE MADE AWARE OF THE CURRENT AND FUTURE CONDITIONS OF THE RUNWAY DURING EACH STOP AT THE CHESTERFIELD INLET AIRPORT AND PRIOR TO DEPARTING TO CHESTERFIELD INLET.

STAGE I

1. Taxiway and Apron CLOSED.
2. South side of Runway 124T-304T CLOSED.
3. North side of Runway 124T-304T OPEN to Scheduled Service.

Construction

1. Construction is confined to the areas shown.
2. Construction Access is restricted to the access route shown.
3. Construction will take place during day-time construction hours, between the hours of 6:00 a.m. and 10:00 p.m. during the construction period.
4. Air Traffic schedule to be confirmed prior to construction.
5. All persons and equipment are to be kept a minimum of 23m from the edge of the open runway during landings and takeoffs. Various Pull-Back locations are provided on this project as shown.
6. The grading and compaction of the new granular base material is to be completed on the south side of Runway 124T-304T, Taxiway Alpha and the Apron under this stage.
7. Runway 124T-304T is reduced to 15m (50 feet) effective width. The granular taper along the centreline of the runway from the top of the new granular material down to the existing granular surface shall have a maximum slope of 5.0%.
8. Graded and compacted granular turning buttons shall be provided and maintained at each end of the runway during all stages of construction. The turning buttons shall be a minimum of 23m (75 feet) wide by 46m (150 feet) long as shown.
9. At the end of each working day and upon notification of an incoming aircraft, the Contractor shall grade and compact the Taxiway and Apron in such a manner that an aircraft can travel on those surfaces, as indicated by the Engineer. During these times the Taxiway and Apron shall not have any significant highs or lows or granular wind-rows in excess of 75mm and the interface between the travelled portion of the Runway and the Taxiway shall have a longitudinal slope of less than 5% to facilitate the movement of aircraft to the Apron to load/unload passengers/cargo.
9. At the end of each construction shift, all construction along Runway 124T-304T shall not have any significant highs or lows or granular wind-rows in excess of 75mm. To ensure the safe operation of aircraft during the construction period, the construction area must be able to support an aircraft or not to cause loss of directional control in the event that an aircraft veers off the runway into this area. Provide appropriate fine grading and compaction at the end of each shift.
10. Temporary closure markers, marker boards and runway edge pylons shall be the responsibility of the Contractor.
11. At the end of each day, all construction equipment shall be parked in the designated Construction Yard located in the existing Car Park.

Schedule (Stage I)

1. 15 working days in total

Aircraft Operations/Facilities (Transport Canada/Nav Canada)

1. Provisions must be made during this stage of construction for Scheduled/Medevac flights to access Taxiway Alpha and the Apron to load/unload passengers and cargo. The observer/communicator or designate will flag the aircraft past construction equipment and personnel.
2. Runway 124T-304T is reduced to 15 m (50 feet) effective width.
3. The open (North) side of Runway 124T-304T is open to Scheduled air traffic and Medevac flights only.
4. Medevac flights are to provide two (2) hours notice before landing.
5. The open side of Runway 124T-304T shall be marked with runway marker boards (4 boards at each end).
6. The closed runway shall be marked with runway closure markers at each end as shown.
7. The relocated edge of the open half of Runway 124T-304T shall be marked with pylons at 30m spacing and secured with sandbags.

Transport Canada

1. The airport will advise the Regional Aerodrome Safety Office of the current stage of construction and any operational impacts or advisories.
2. All set-backs for construction zones are in accordance with TP 312E (4th Edition).
3. All construction activity shall be confined to restricted areas and qualified escorts (AVOP and Radio License) will provide radio escort and monitoring services.

Notes

1. TOPOGRAPHICAL INFORMATION OBTAINED FROM SURVEY COMPLETED BY PSMI SEPT 2003.
2. THIS DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS NOTED/REVISED "ISSUED FOR CONSTRUCTION."
3. BASE DRAWINGS DERIVED FROM INFORMATION OBTAINED FROM GOVERNMENT OF NUNAVUT AND CONVERTED TO AUTOCAD FORMAT. ADDITIONAL TOPOGRAPHICAL INFORMATION DERIVED FROM EXISTING BACKGROUND MAPPING.
4. ALL UNITS IN METRES UNLESS OTHERWISE NOTED.
5. PROPERTY BOUNDARY IS APPROXIMATE ONLY.
6. ALL EXISTING STRUCTURES AND SUBSURFACE UTILITIES WITHIN CONSTRUCTION LIMITS TO BE PROTECTED DURING CONSTRUCTION.
7. CONTRACTOR TO PROVIDE APPROPRIATE TRAFFIC WARNING SIGNAGE AT ACCESS POINTS.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL UNDERGROUND UTILITY LOCATES HAVE BEEN COMPLETED PRIOR TO COMMENCING ANY UNDERGROUND WORKS WITHIN THE CONSTRUCTION LIMITS.
9. DISTANCES SHOWN HEREON ARE GRID DISTANCES BASED ON 6° UTM COORDINATES (NAD 83) AND MAY BE CONVERTED TO GROUND DISTANCES BY DIVIDING BY A COMBINED SCALED FACTOR OF 0.99976.
10. CONSTRUCTION SHALL FOLLOW THE APPROVED PLAN OF CONSTRUCTION.

Benchmark Information

BM1 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE NORTH SIDE OF RUNWAY 30 END.
ELEVATION 17.47m

BM2 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE SOUTH SIDE OF RUNWAY 12 END.
ELEVATION 11.57m

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

REGISTERED PROFESSIONAL ENGINEER — B.A. PRICE — LICENSEE — NWT/NU

PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date 27 May 2004
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

PRYDE SCHROPP McCOMB IN
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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

PLAN OF CONSTRUCTION OPERATIONS I

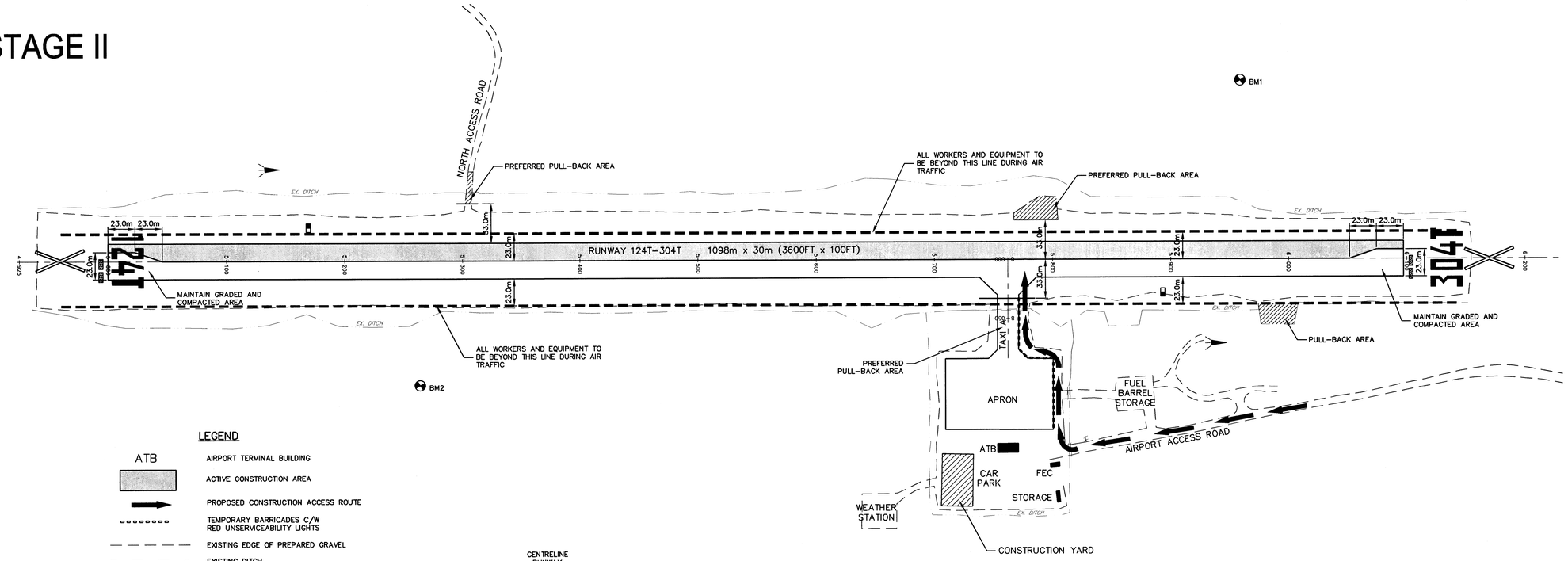
Project No.	Scale	Dwn by.
11271	1:2000	GJC

Drawing No. PCO1 — Revision 2

ORIGINAL SHEET – A1
T:\Airports\Chesterfield-NU-CYCS\11271-Chesterfield Inlet Resurfacing\dwg\11271 PCO1-2.dwg
2004 May 11, 9:27 a.m.

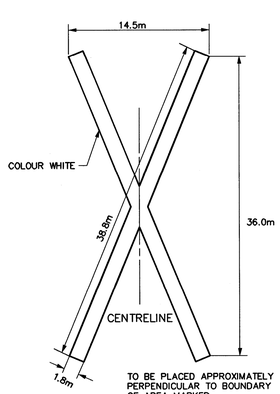
ORIGINAL

STAGE II



LEGEND

ATB	AIRPORT TERMINAL BUILDING
	ACTIVE CONSTRUCTION AREA
	PROPOSED CONSTRUCTION ACCESS ROUTE
	TEMPORARY BARRICADES C/W RED UNSERVICEABILITY LIGHTS
	EXISTING EDGE OF PREPARED GRAVEL
	EXISTING DITCH
	PULL-BACK SAFETY LINE (MINIMUM)



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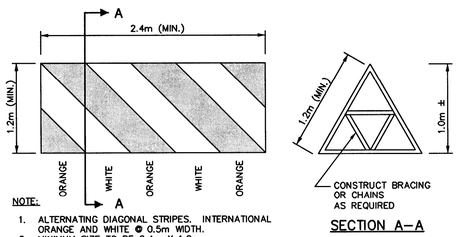
RUNWAY CLOSURE MARKING

NTS



NOTE:

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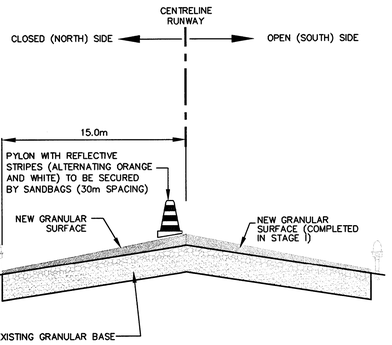
2. MINIMUM SIZE TO BE 2.4m X 1.2m.
3. MARKERS TO BE SECURELY ANCHORED.

SECTION A-A

TEMPORARY DAYTIME RUNWAY END MARKERS

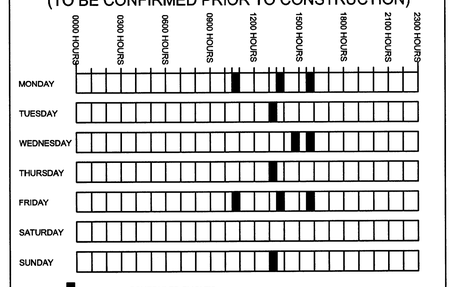
NTS



TYPICAL RUNWAY 124T-304T CROSS SECTION

NTS

SCHEDULED AIR TRAFFIC (FALL 2003)
(TO BE CONFIRMED PRIOR TO CONSTRUCTION)



1. DURING SCHEDULED AIRCRAFT OPERATIONS THE CONSTRACTOR SHALL BE REQUIRED TO CLEAR BOTH SIDES OF THE RUNWAY 124T-304T MINIMUM 30m FROM PAVEMENT EDGE.
2. SCHEDULED FLIGHTS WILL BE MADE AWARE OF THE CURRENT AND FUTURE CONDITIONS OF THE RUNWAY DURING EACH STOP AT THE CHESTERFIELD INLET AIRPORT AND PRIOR TO DEPARTING TO CHESTERFIELD INLET.

STAGE II

1. North side of Runway 124T-304T CLOSED.
2. South side of Runway 124T-304T, Taxiway and Apron OPEN to Scheduled Service and Medevac flights only.

Construction

1. Construction is confined to the area shown.
2. Construction Access is restricted to the access route shown.
3. Construction will take place during day-time construction hours, between the hours of 6:00 a.m. and 10:00 p.m. during the construction period.
4. Air Traffic schedule to be confirmed prior to construction.
5. All persons and equipment are to be kept a minimum of 23m from the edge of the open runway during landings and takeoffs. Various Pull-Back locations are provided on this project as shown.
6. The grading and compaction of the new granular base material is to be completed on the North side of Runway 124T-304T.
7. Runway 124T-304T is reduced to 15m (50 feet) effective width. The granular taper along the centreline of the runway from the top of the new granular material down to the existing granular surface shall have a maximum slope of 5.0%.
8. Graded and compacted granular turning buttons shall be provided and maintained at each end of the runway during all stages of construction. The turning buttons shall be a minimum of 23m (75 feet) wide by 46m (150 feet) long as shown.
9. At the end of each construction shift, all construction along Runway 124T-304T shall not have any significant highs or lows or granular wind-rows in excess of 75mm. To ensure the safe operation of aircraft during the construction period, the construction area must be able to support an aircraft or not to cause loss of directional control in the event that an aircraft veers off the runway into this area. Provide appropriate fine grading and compaction at the end of each shift.
10. Temporary closure markers, marker boards and runway edge pylons shall be the responsibility of the Contractor.
11. At the end of each day, all construction equipment shall be parked in the designated Construction Yard located in the existing Car Park.

Schedule (Stage II)

1. 10 working days in total

Aircraft Operations/Facilities (Transport Canada/Nav Canada)

1. Taxiway Alpha and the Apron open.
2. Runway 124T-304T is reduced to 15 m (50 feet) effective width.
3. The open (South) side of Runway 124T-304T is open to Scheduled air traffic and Medevac flights only.
4. Medevac flights are to provide two (2) hours notice before landing.
5. The open side of Runway 124T-304T shall be marked with runway marker boards (4 boards at each end).
6. The closed runway shall be marked with runway closure markers at each end as shown.
7. The relocated edge of the open half of Runway 124T-304T shall be marked with pylons at 30m spacing and secured with sandbags.

Transport Canada

1. All construction zones will be clearly delineated using construction barricades and lighted with red unserviceability lights during nighttime periods.
2. The airport will advise the Regional Aerodrome Safety Office of the current stage of construction and any operational impacts or advisories.
3. All set-backs for construction zones are in accordance with TP 312E (4th Edition).
4. All construction activity shall be confined to restricted areas and qualified escorts (AVOP and Radio License) will provide radio escort and monitoring services.

Notes

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8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL UNDERGROUND UTILITY LOCATES HAVE BEEN COMPLETED PRIOR TO COMMENCING ANY UNDERGROUND WORKS WITHIN THE CONSTRUCTION LIMITS.
9. DISTANCES SHOWN HEREON ARE GRID DISTANCES BASED ON 6° UTM COORDINATES (NAD 83) AND MAY BE CONVERTED TO GROUND DISTANCES BY DIVIDING BY A COMBINED SCALED FACTOR OF 0.99976.
10. CONSTRUCTION SHALL FOLLOW THE APPROVED PLAN OF CONSTRUCTION.

Benchmark Information

BM1 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE NORTH SIDE OF RUNWAY 30 END.
ELEVATION 17.47m

BM2 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE SOUTH SIDE OF RUNWAY 12 END.
ELEVATION 11.57m

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

REGISTERED PROFESSIONAL ENGINEER — BY PRYDE — LICENSEE 2004 — NWT/NU

PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date May 28/04
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

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AVIATION GROUP
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OTTAWA ON K1P 5Z9
www.psmi.ca

Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

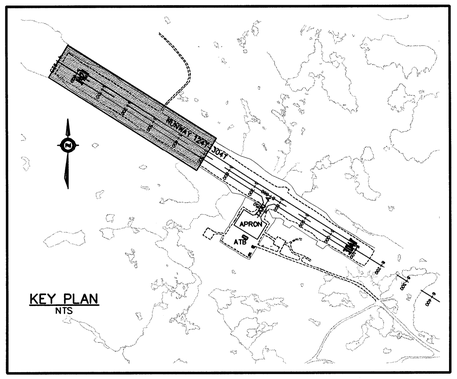
Title

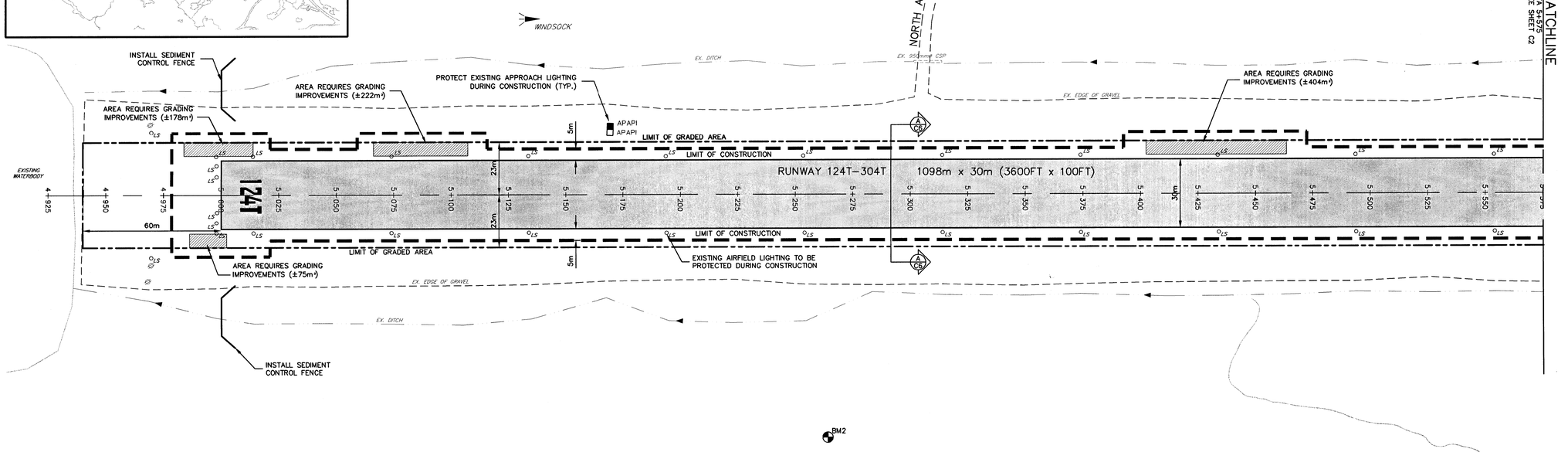
PLAN OF CONSTRUCTION OPERATIONS II

Project No.	Scale	Dwn by.
11271	1:2000	GJC

Drawing No. PCO2 — Revision 2

ORIGINAL





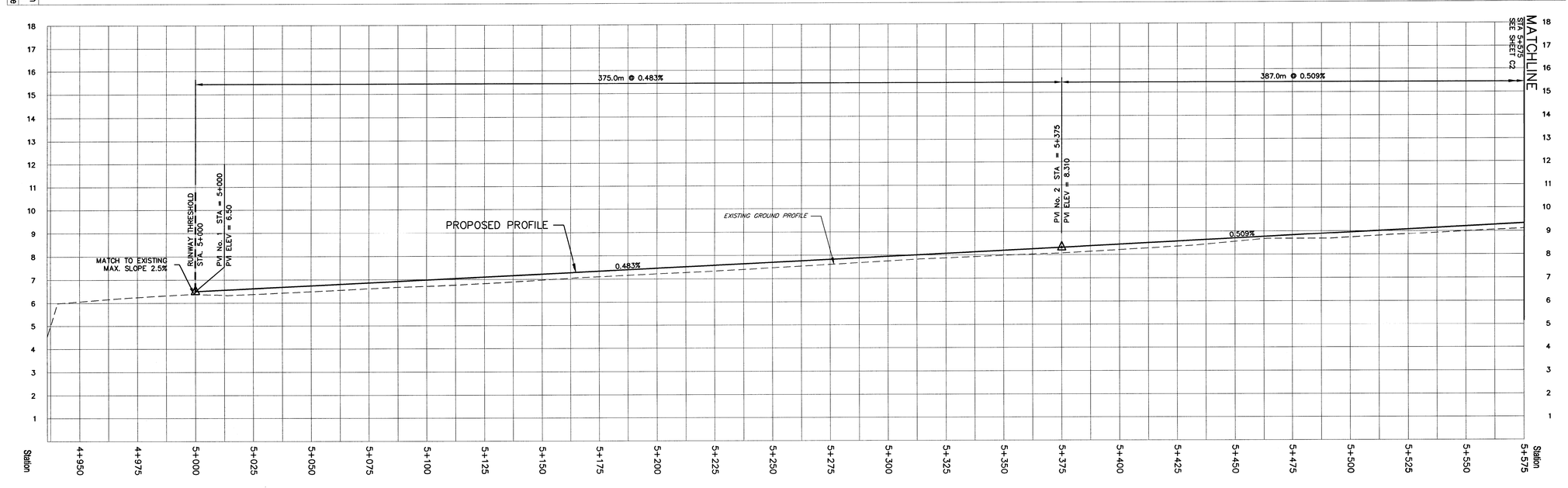
LEGEND

- EXISTING EDGE OF PREPARED GRAVEL
- EXISTING DITCH AND DIRECTION OF FLOW
- PROPOSED RUNWAY CENTRELINE
- PROPOSED RUNWAY EDGE OF GRAVEL
- LIMIT OF CONSTRUCTION
- LIMIT OF GRADED AREA
- EDGE OF WATER
- EXISTING EDGELIGHT
- PROPOSED GRANULAR RESURFACING
- PROPOSED GRADED AREA IMPROVEMENTS:
  - MAX 2.5% SLOPE
  - MATCH TO EXISTING AT PERIMETER. MAX TIE IN SLOPE OF 4:1
  - COMPACT TO 100% MPmdd.

NOTE:
THESE ARE AREAS OF GRADING IRREGULARITIES REQUIRING RESHAPING TO CONFORM TO TP312.

BM2

Runway Centreline Proposed Elevation	Runway Centreline Existing Elevation	Station
9.328	9.108	5+575
9.201	8.992	5+550
9.074	8.859	5+525
8.946	8.722	5+500
8.819	8.667	5+475
8.692	8.546	5+450
8.565	8.345	5+425
8.437	8.205	5+400
8.310	8.071	5+375
8.189	7.977	5+350
8.065	7.873	5+325
7.948	7.749	5+300
7.827	7.609	5+275
7.707	7.469	5+250
7.586	7.330	5+225
7.465	7.219	5+200
7.345	7.103	5+175
7.224	6.964	5+150
7.103	6.818	5+125
6.983	6.705	5+100
6.862	6.610	5+075
6.741	6.485	5+050
6.621	6.374	5+025
6.500	6.378	5+000
	6.249	4+975
	6.085	4+950



Notes

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7. CONTRACTOR TO PROVIDE APPROPRIATE TRAFFIC WARNING SIGNAGE AT ACCESS POINTS.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL UNDERGROUND UTILITY LOCATES HAVE BEEN COMPLETED PRIOR TO COMMENCING ANY UNDERGROUND WORKS WITHIN THE CONSTRUCTION LIMITS.
9. DISTANCES SHOWN HEREON ARE GRID DISTANCES BASED ON 6° UTM COORDINATES (NAD 83) AND MAY BE CONVERTED TO GROUND DISTANCES BY DIVIDING BY A COMBINED SCALED FACTOR OF 0.99976.
10. CONSTRUCTION SHALL FOLLOW THE APPROVED PLAN OF CONSTRUCTION.

Benchmark Information

BM1 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE NORTH SIDE OF RUNWAY 30 END.
ELEVATION 17.47m

BM2 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE SOUTH SIDE OF RUNWAY 12 END.
ELEVATION 11.57m

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

B.A. PRYDE LICENSEE 25/2/05 NWT/NU

PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date May 20/04
PERMIT NUMBER: P 460
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

RUNWAY 124T-304T
STA. 5+000 TO 5+575
PLAN AND PROFILE

Project No.	Scale	Dwn by.
11271	1:1000	GJC

Drawing No. C1 | Revision 2

ORIGINAL SHEET – A1
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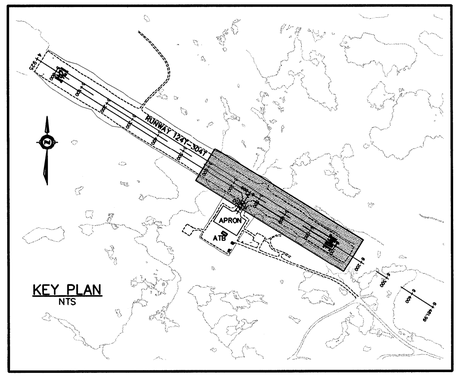

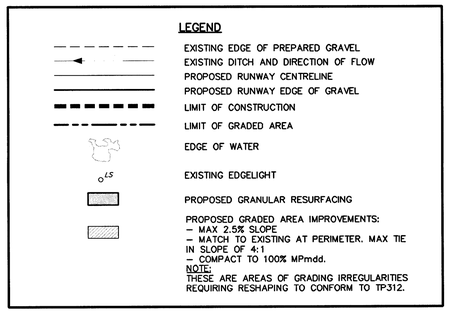

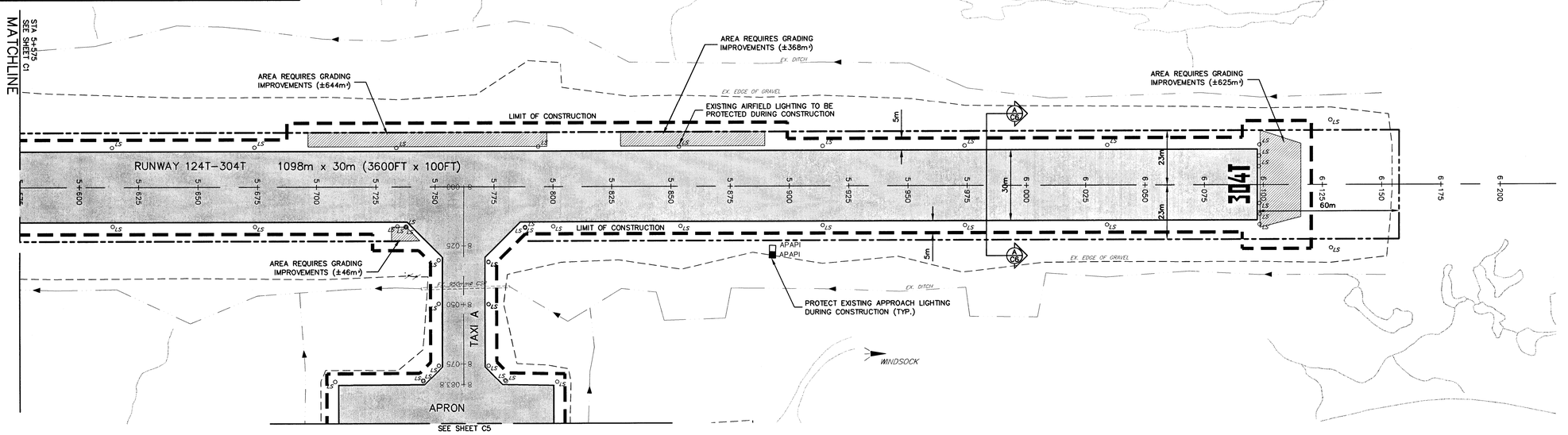

Runway Centreline Elevation	Proposed Existing Elevation	Elevation Proposed Runway Centreline	Elevation Existing
9.328	9.108	9.455	9.229
9.583	9.357	9.710	9.485
9.837	9.633	9.964	9.780
10.092	9.905	10.219	10.028
10.349	10.132	10.483	10.236
10.616	10.395	10.750	10.508
10.883	10.575	11.017	10.692
11.150	10.816	11.284	10.957
11.417	11.069	11.551	11.187
11.684	11.322	11.818	11.474
11.951	11.662	12.07	12.000
12.007	11.987	12.052	12.203
12.611			

Notes

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10. CONSTRUCTION SHALL FOLLOW THE APPROVED PLAN OF CONSTRUCTION.

Benchmark Information

BM1 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE NORTH SIDE OF RUNWAY 30 END.
ELEVATION 17.47m

BM2 GEODETIC SURVEY OF CANADA TABLET LOCATED IN THE CONCRETE MONUMENT NEAR THE SOUTH SIDE OF RUNWAY 12 END.
ELEVATION 11.57m

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

REGISTERED PROFESSIONAL ENGINEER B.A. PRYDE LICENSEE 07240 NWT/NU

PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date May 7/04
PERMIT NUMBER: P 460
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

PRYDE SCHROPP McCOMB IN
AVIATION GROUP
TEL: (519) 389-4343 FAX: (519) 389-4728 | TEL: (780) 444-1133 FAX: (780) 484-0877
311 GODERICH STREET, P.O. BOX 1600, PORT ELGIN ON N0H 2C0 | 17707 – 105th AVENUE, SUITE 204, EDMONTON AB T5S 1T1
TEL: (613) 233-1566 FAX: (613) 233-2364
220 LAURIER AVE WEST, SUITE 500-A, OTTAWA ON K1P 5Z9
www.psmi.ca

Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

RUNWAY 124T-304T
STA. 5+575 TO 6+100
PLAN AND PROFILE

Project No.	Scale	Dwn by.
11271	1:1000	GJC

Drawing No. C2 Revision 2

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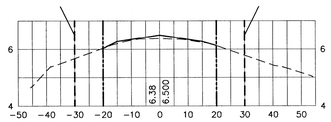

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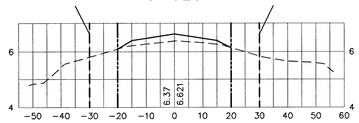

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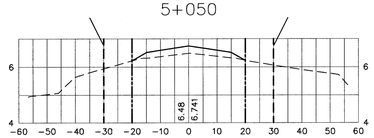

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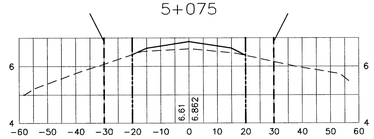

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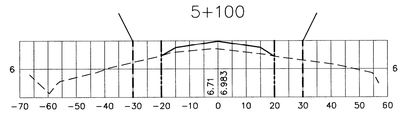

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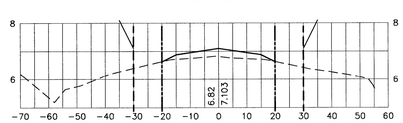

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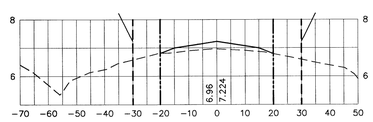

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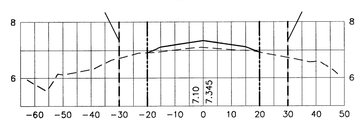

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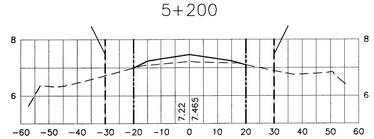

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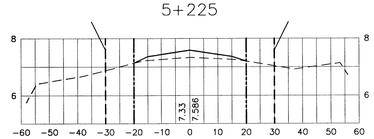

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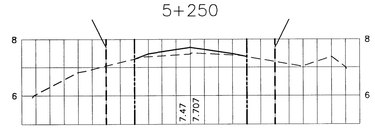

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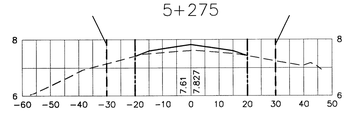

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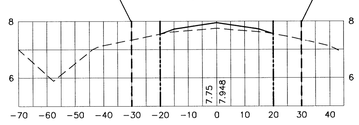

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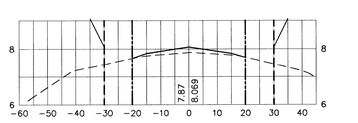

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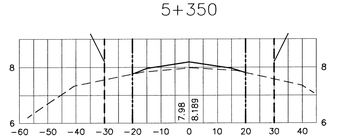

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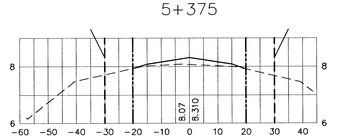

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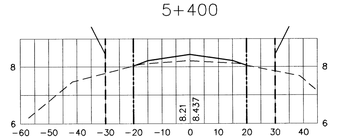

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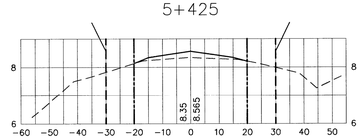

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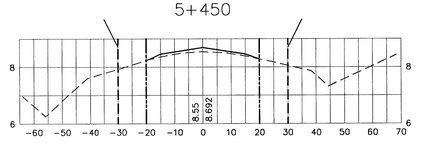

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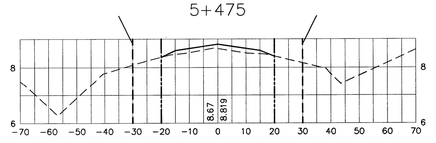

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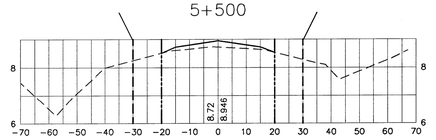

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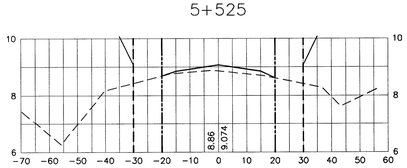

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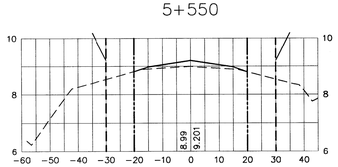

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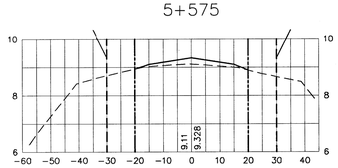

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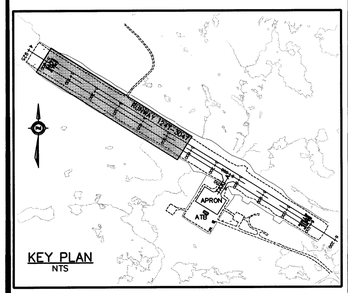

LEGEND

- EXISTING GROUND
- PROPOSED GROUND
- LIMIT OF CONSTRUCTION (5m SHOULDER)
- LIMIT OF RUNWAY STRIP
- 5:1 TRANSITIONAL SURFACE

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals

ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF THE NWT/NU — B.A. PRYDE — LICENSEE — P.480 — NWT/NU

PERMIT TO PRACTICE
PRYDE SCHROPP McCOMB INC.
Signature
Date May 20/04
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

PRYDE SCHROPP McCOMB IN
AVIATION GROUP
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PORT ELGIN ON N0H 2C0
TEL: (613) 233-1566 FAX: (613) 233-2364
220 LAURIER AVE WEST, SUITE 500-A,
OTTAWA ON K1P 5Z9
www.psmi.ca
TEL: (780) 444-1133 FAX: (780) 484-0877
12707 – 105th AVENUE, SUITE 204,
EDMONTON AB T5S 1T1

Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

RUNWAY 124T-304T CROSS SECTIONS STA. 5+000 TO STA. 5+575

Project No.	Scale	Dwn by.
11271	H 1:1000 / V 1:100	GJC

Drawing No. C3 — Revision 2

ORIGINAL SHEET – A1
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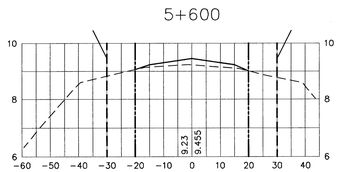
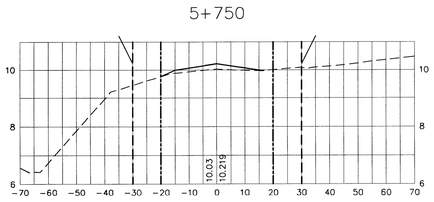
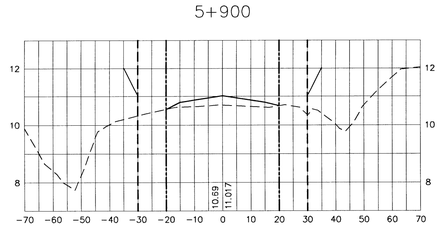
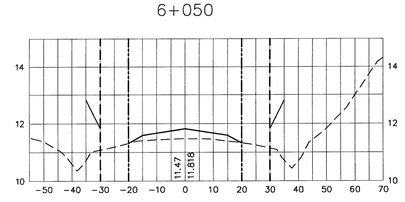
2004 May 11, 8:54 a.m.

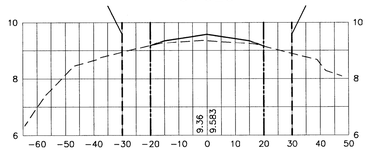
ORIGINAL

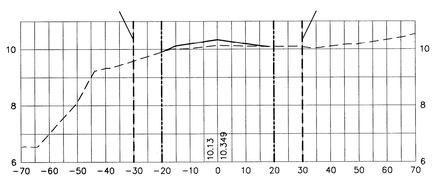


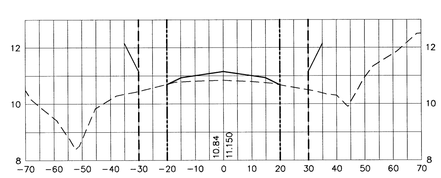


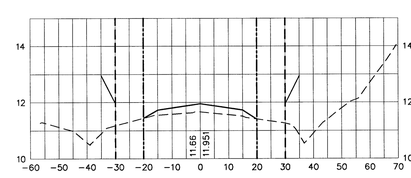


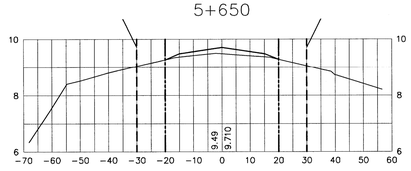


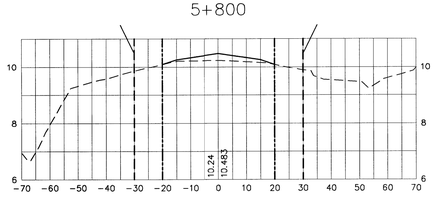


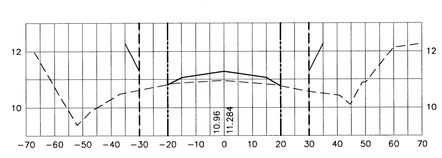


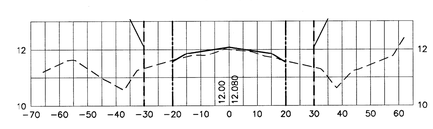


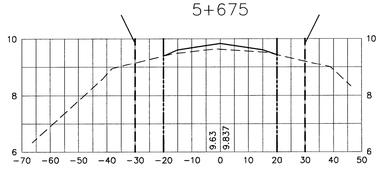


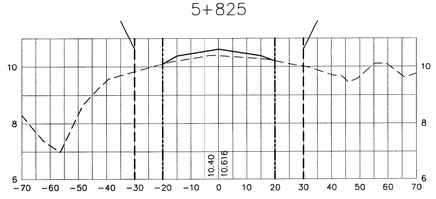


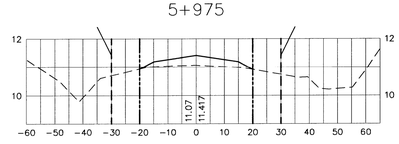


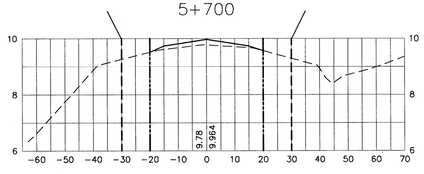


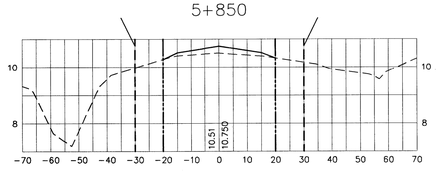


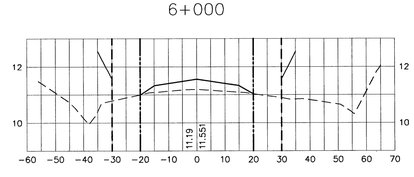


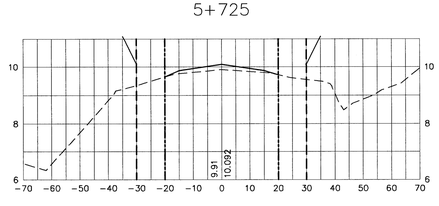


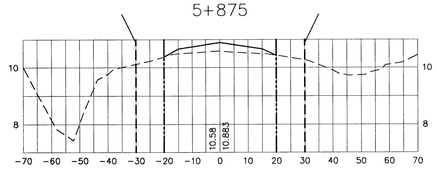


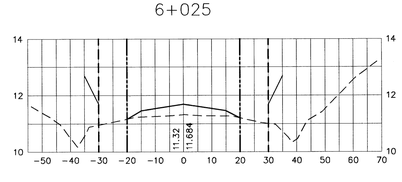












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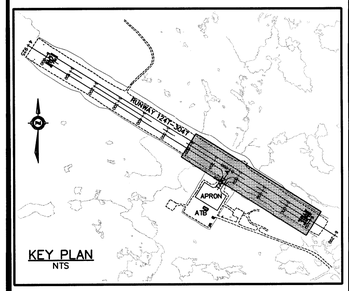


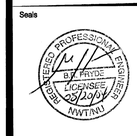
LEGEND

- EXISTING GROUND
- PROPOSED GROUND
- LIMIT OF CONSTRUCTION (5m SHOULDER)
- LIMIT OF RUNWAY STRIP
- 5:1 TRANSITIONAL SURFACE

Revision

No.	Description	By	Appd.	Date
0	PRELIMINARY DESIGN	BGS	BGS	2003.11.19
1	90% DESIGN SUBMISSION	BGS	BGS	2004.02.20
2	FINAL DESIGN SUBMISSION	BGS	BGS	2004.05.12

Seals



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PRYDE SCHROPP McCOMB INC.
Signature
Date May 26/04
PERMIT NUMBER: P 480
The Association of Professional Engineers, Geologists and Geophysicists of the NWT / NU

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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

RUNWAY 124T-304T CROSS SECTIONS
STA. 5+600 TO 6+100

Project No.	Scale	Dwn by.
11271	H 1:1000 / V 1:100	GJC

Drawing No. C4

Revision 2

ORIGINAL SHEET – A1
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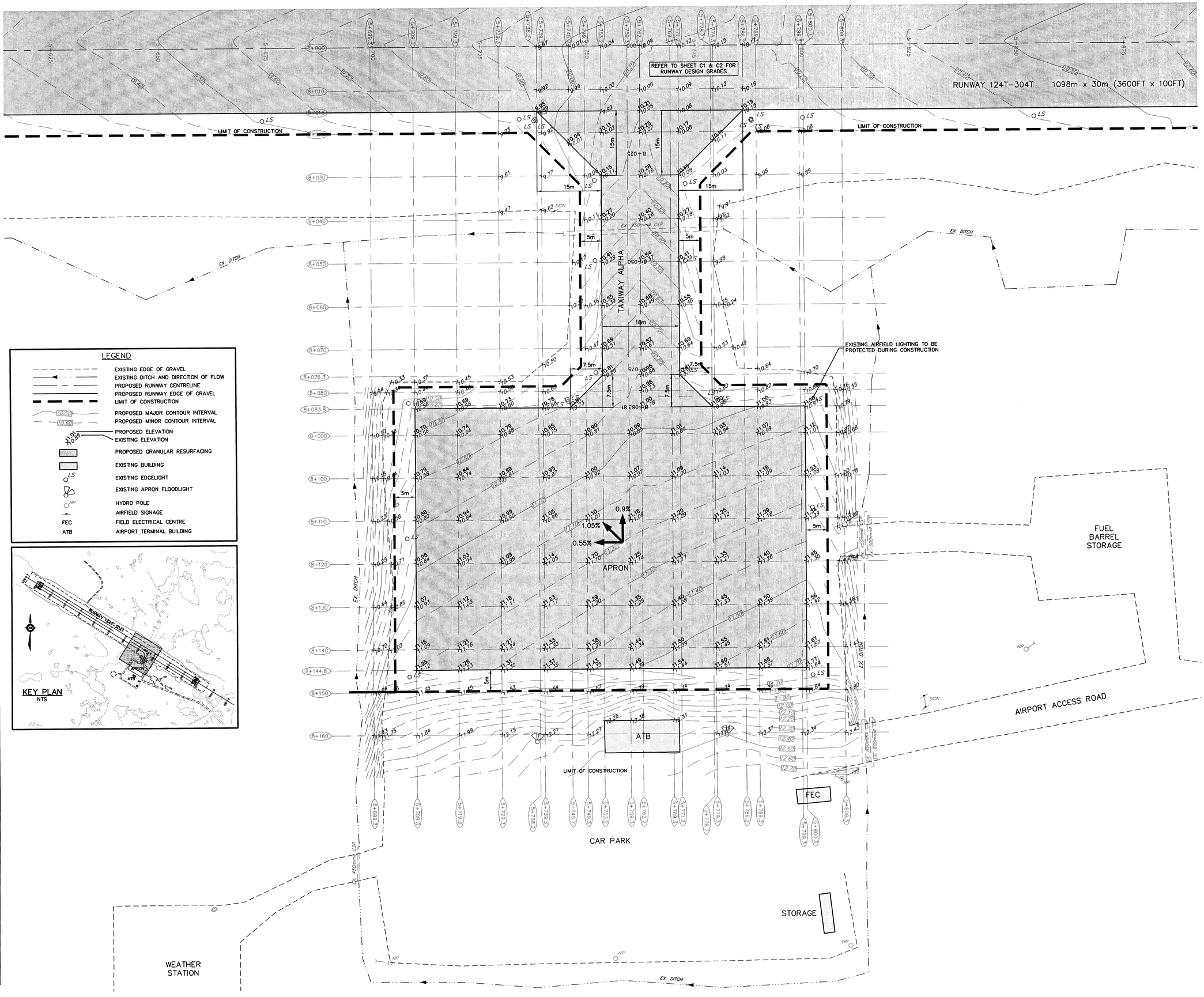
2004 May 11, 8:54 a.m.

ORIGINAL



LEGEND

- EXISTING EDGE OF GRAVEL
- EXISTING DITCH AND DIRECTION OF FLOW
- PROPOSED RUNWAY CENTRELINE
- PROPOSED RUNWAY EDGE OF GRAVEL
- LIMIT OF CONSTRUCTION
- 10.50 PROPOSED MAJOR CONTOUR INTERVAL
- 10.60 PROPOSED MINOR CONTOUR INTERVAL
- 1.01 / 0.89 PROPOSED ELEVATION / EXISTING ELEVATION
- PROPOSED GRANULAR RESURFACING
- EXISTING BUILDING
- LS EXISTING EDGELIGHT
- EXISTING APRON FLOODLIGHT
- HP HYDRO POLE
- AIRFIELD SIGNAGE
- FEC FIELD ELECTRICAL CENTRE
- ATB AIRPORT TERMINAL BUILDING

KEY PLAN
NTS

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Seals

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PRYDE SCHROPP McCOMB INC.
Signature
Date
PERMIT NUMBER: P 485
The Association of Professional Engineers, Geologists and Geophysicists of the NWT/NU

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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

APRON AND TAXIWAY ALPHA GRADING PLAN

Project No.	Scale	Dwn by.
11271	1:400	GJC

Drawing No. C5

Revision 2

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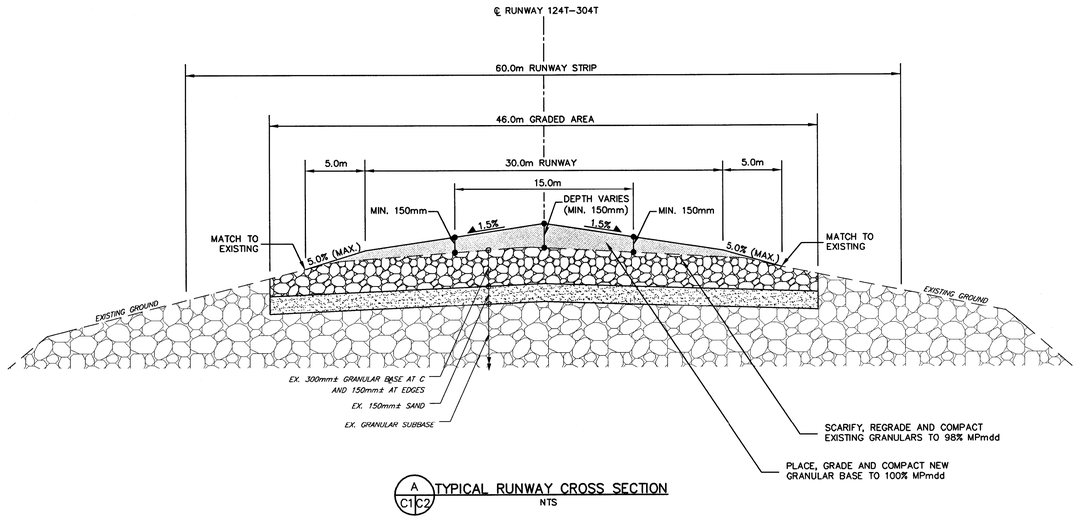
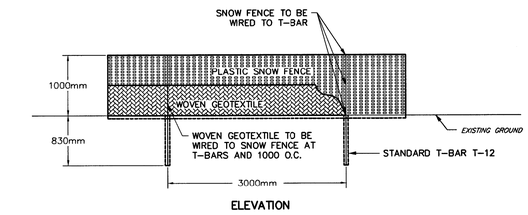
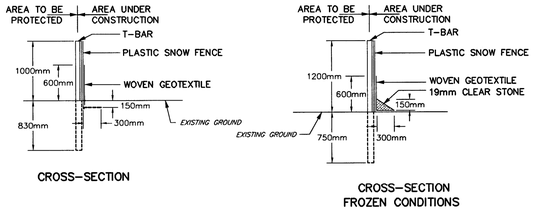


A C1 C2 TYPICAL RUNWAY CROSS SECTION

NTS



ELEVATION



CROSS-SECTION

CROSS-SECTION FROZEN CONDITIONS

SEDIMENT CONTROL FENCE

NTS

NOTES:

1. GEOTEXTILE TO BE WOVEN WITH A MINIMUM EQUIVALENT OPENING SIZE OF 0.15mm AND A MAXIMUM EQUIVALENT OPENING SIZE OF 0.25mm.
2. WOVEN GEOTEXTILE TO HAVE A HORIZONTAL OVERLAP OF 1m AT JOINTS.
3. SNOW FENCE TO BE UV STABILIZED HIGH DENSITY POLYETHYLENE OR APPROVED EQUIVALENT.

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PRYDE SCHROPP McCOMB INC.
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Client/Project

CHESTERFIELD INLET AIRPORT
GOVERNMENT OF NUNAVUT

RUNWAY, TAXIWAY AND APRON REHABILITATION

Chesterfield Inlet, Nunavut

Title

MISCELLANEOUS DETAILS

Project No.	Scale	Dwn by.
11271	NTS	GJC

Drawing No. C6

Revision 2

1.0 WORK UNDER THIS CONTRACT

1.1 THE WORK under this CONTRACT consists of:

The project is located at Chesterfield Inlet Airport, Nunavut. Work generally consists of, but is not limited to the following:

- Scarification, re-grading and re-compaction of the existing airside surfaces (runway, taxiway and apron)
- Placement and compaction of new granular base material. (Material to be supplied by Owner.)
- Localized Graded Area improvements
- Adjustment of the existing edgelighting according to the depth of new granular material added to the runway, taxiway and apron

This project has been designed to permit the airport to operate during the daytime with construction taking place in such a manner as to permit use of one half of the the runway during the construction period. Refer to Appendix M for a detailed overview of the Plan of Construction Operations (PCO) for this project. The PCO sets out the schedule, time of day and other responsibilities of the Contractor and others that will be involved with the project. The Contractor must be fully aware of this plan, how it will impact their construction operations and what their responsibilities will be.

To be constructed for the Government of Nunavut (GN), hereinafter called the OWNER.

2.0 WORK INCLUDED

2.1 THE WORK included is described in general in Section 1.0.

2.2 THE WORK, unless specifically stated otherwise, shall include the furnishing of all MATERIAL, PRODUCT, PLANT, labour and transportation necessary to complete THE WORK. The intent is that the CONTRACTOR provides a complete job.

2.3 THE WORK shall not be deemed complete until all components are placed in operation by the CONTRACTOR, and are operating satisfactorily.

2.4 Any minor item of THE WORK not called for in the specifications or shown on the drawings but clearly required to meet the intent of design and normally provided for the proper operation of THE WORK shall be provided as if specifically called for in the CONTRACT DOCUMENTS.

3.0 DOCUMENTS REQUIRED

3.1 Maintain at the job site at least one copy of each of the following:

- Contract Drawings
- Specifications
- Addenda
- Change Orders, Field Orders, Notices
- Reviewed Shop Drawings
- Modifications to the Contract
- Field Test Reports
- Construction Schedule
- Manufacturer's Installation and Application Instructions
- Occupational Health and Safety Regulations and Workers' Compensation Board Regulations;

and have readily available any referenced or specified Standards.

4.0 SPECIFICATIONS

4.1 Sentence structure in parts of the specifications is abbreviated, and phrases such as "shall be," and "the Contractor shall" are deliberately omitted. Such sentences shall be read as though they are complete.

4.2 The use of the word "PROVIDE" means "supply and install"; or "supply labour and materials for the installation of". It does not mean supply only.

4.3 The word "concealed" in connection with piping, electrical work, controls and wherever used in other sections shall mean "hidden from sight" as in ceiling spaces or furred out spaces, and not normally visible to persons in the construction area.

4.4 The word "exposed" in connection with piping, electrical work, controls and whenever used in other sections shall mean visible to persons within a building, in normal working areas.

5.0 STANDARDS

5.1 Wherever standards (e.g., CSA, ASTM and others), are referred to in these CONTRACT DOCUMENTS the current edition at the date of closing of TENDERS shall apply.

5.2 Where there is a clear conflict between the referenced Standard and the CONTRACT DOCUMENTS, the CONTRACT DOCUMENTS shall apply.

5.3 Where there is an ambiguity between a Standard and any term of these CONTRACT DOCUMENTS, the ENGINEER shall, in the first instance, give an interpretation of the intent of the CONTRACT.

---------- END OF SECTION 01010----------

1.0 THE WORKSITE

1.1 The OWNER will provide the lands as delimited on the Drawings upon which THE WORK is to be constructed.

2.0 CONTRACTOR'S USE OF THE WORKSITE

2.1 The CONTRACTOR shall have exclusive use and control of the WORKSITE, provided that the CONTRACTOR shall permit access to the OWNER, the ENGINEER and OTHER CONTRACTORS on the WORKSITE for purposes of inspections, reviews, tests and carrying out work related to THE WORK.

2.2 CONTRACTOR'S use of the WORKSITE for storage is limited to the following areas, as delimited on the Drawing.

2.3 The OWNER shall have unfettered use of thoroughfares, streets, lanes and other areas within the WORKSITE until the CONTRACTOR requires those areas for execution of THE WORK, and after the CONTRACTOR has finished the portions of THE WORK in those areas.

2.4 Unless otherwise agreed with the OWNER, the CONTRACTOR shall give 48 hours notice to the OWNER before entering a particular Area of the WORKSITE to execute THE WORK.

2.5 Up to the end of the period of Notice and after the CONTRACTOR has fully completed its operations in a particular Area, the OWNER shall have use of the Area and shall be responsible for Health and Safety Requirements and security in that Area.

During the CONTRACTOR'S use of a particular Area of the WORKSITE to execute THE WORK, the CONTRACTOR shall be responsible primarily for security and for ensuring compliance with Health and Safety Regulations.

2.6 The CONTRACTOR shall be responsible for access to the WORKSITE by means of temporary roads, tote roads, or agreements with the appropriate authorities to use existing means of access.

---------- END OF SECTION 01015----------

1.0 GENERAL

1.1 The Laws and Regulations of the Government of Nunavut shall govern.

1.2 In the event of a dispute resolution by arbitration, the arbitration shall be governed by the Nunavut Arbitration Act.

1.3 The CONTRACTOR shall ensure compliance on his part and on the part of all of his SUBCONTRACTORS with the Workers Compensation Act and the Safety Act and Regulations thereunder.

1.4 All other Nunavut Acts and Regulations thereof shall apply and the CONTRACTOR shall comply with the requirements thereof as though they had been specifically named in these specifications.

2.0 REGULATIONS, STANDARDS AND CODES

2.1 The CONTRACTOR shall at all times, observe and comply with all Federal and Territorial Laws, all local Bylaws, acts and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work.

2.2 Special attention is called to the following:

2.2.1 Before any camp, material deposit, borrow pit, storage or detour bypass site is opened or operated on Government property, permission shall be obtained from the Government Department or Agency having jurisdiction

2.2.2 The provisions of the Territorial Lands Act

2.2.3 The provisions of the Northern Inland Waterways Act

2.2.4 The provisions of the Public Highways Act

2.2.5 The provisions of the Vehicles Act

2.2.6 The provisions of the Safety Act

2.2.7 The provisions of the Workers Compensation Act

2.2.8 The provisions of the Public Service Vehicles Act

2.2.9 The provisions of the Nunavut Arbitration Act

---------- END OF SECTION 01060----------

1.0 ABBREVIATIONS, SPECIFICATIONS, METHODS, STANDARDS

1.1 General

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ARCA	Alberta Roofing Contractors Association
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Associations
AWS	American Welding Society
BCLMA	B.C. Lumber Manufacturer's Association
CAN	National Standard of Canada
CCA	Canadian Construction Association
CISC	Canadian Institute of Steel Construction
CITC	Canadian Institute of Timber Construction
CPCI	Canadian Prestressed Concrete Institute
CRCA	Canadian Roofing Contractors Association
CSA	Canadian Standards Association
CWB	Canadian Welding Bureau
ISO	International Organization for Standardization
NBC	National Building Code
PCI	Prestressed Concrete Institute
PMBC	Plywood Manufacturer's Association
SJI	Steel Joist Institute
SSPC	Steel Structures Painting Council
WCB	Worker's Compensation Board

1.2 Utilities

API	American Petroleum Institute
AWWA	American Water Works Association
CGA	Canadian Gas Association
CGSB	Canadian General Standards Board
CSPI	Corrugated Steel Pipe Institute
IAO	Insurer's Advisory Organization
RTAC	Roads and Transportation Association of Canada
ULC	Underwriters Laboratories of Canada
USA	United States of America Standards (ASA)

1.3 Mechanical

AFBMA	Anti Friction Bearing Manufacturer's Association
AGMA	American Gear Manufacturer's Association
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute
ACR	Air Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating Refrigerating and Air Conditioning Engineers
NFPA	National Fire Protection Association
SAE	Society of Automotive Engineers

1.4 Electrical

AIEE	American Institute of Electrical Engineers
CEC	Canadian Electrical Code
EEMAC	Electrical and Electronic Manufacturers Association of Canada
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineers Society
IPCEA	Insulated Power Cable Engineer's Association
LEMA	Lighting Equipment Manufacturer's Association
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code

1.5 Use of Abbreviations

These abbreviations refer to Specifications, Methods and Standards issued by the respective Association, and the abbreviations are used in the specifications.

Alphanumeric designations following the abbreviations denote the specification, method, or standard.

2.0 Abbreviations – Metric

2.1 General

The specifications are metric and metric usage is based upon SI units in accordance with CSA Standard CAN/CSA-Z234.1 Canadian Metric Practice Guide. In this specification SI units are abbreviated in accordance with the Metric Units and Abbreviations below.

2.2 Linear Measure

Metre	m
Millimetre	mm
Kilometre	km
micrometre	micro-m

2.3 Area

Square metre	m^2
Square millimetre	mm^2
Hectare	ha

2.4 Volume

Cubic metre	m^3
Litre	L

2.5 Mass and Density

Kilogram	kg
Gram	g
Tonne	t
Kilogram per metre	kg/m
Gram per metre	g/m
Kilogram per square metre	kg/m^2
Gram per square metre	g/m^2
Kilogram per cubic metre	kg/m^3

2.6 Temperature

Degree Celcius	°C

2.7 Force, Pressure, Stress

Newton	N
Kilonewton	kN
Pascal	Pa
Kilopascal	kPa
Megapascal	MPa

2.8 Velocity, Rate of Flow

Metre per second	m/s
Metre per hour	m/h
Kilometre per hour	km/h
Litre per second	L/s
Cubic metre per second	m^3/s

2.9 Power, Energy, Heat, Work

Watt	W
Kilowatt	kW
Kilowatt hour	kWh
Joule	J

2.10 Electricity

Ampere	A
Volt	V

---------- END OF SECTION 01070----------

1.0 GENERAL

1.1 Payments will be made on the basis of the lump sum prices bid and the unit prices bid in the Tender, and in accordance with the General Conditions.

1.2 The prices bid for various items of work, unless specifically noted otherwise, shall include the supply of all labour, PLANT, MATERIAL and PRODUCT equipment necessary to construct THE WORK in accordance with the specifications.

1.3 The prices bid for supply and installation shall be full compensation for supplying, hauling, installing, cleaning, testing, and placing in service together with all other work subsidiary and incidental thereto for which separate payment is not provided elsewhere.

1.4 The method of measurement of the quantities for payment and the basis for payment will be in accordance with the following items of this section or as detailed in the various specifications contained in this document. All measurement will be done by the ENGINEER using generally accepted field survey methods. Stationing interval for volume calculations shall not exceed 15m.

1.5 Where the Tender shows separate items for supply and installation, the unit prices or lump sum prices bid for supply shall include supplying, delivering, loading, unloading and all allowances for handling, storage, breakage and waste. Payment will be made only for MATERIAL actually installed in THE WORK.

1.6 Progress Payment for supply-only items shall be made only for MATERIAL and PRODUCT on the WORKSITE and in the CONTRACTOR'S care, and shall then become the Property of the OWNER.

1.7 Other materials on site, whether existing structures, vegetation, topsoil, gravel, sand or other excavated or piled materials, are the property of the OWNER or of the owner of the land on which THE WORK is located. Only those materials specifically noted in the specification or on drawings as belonging to the CONTRACTOR shall become the CONTRACTOR'S property. For the purpose of this contract, any materials called for OFF-SITE disposal belong to the Contractor. On-site disposal shall imply the materials belong to the OWNER and that disposal shall be in designated areas on the airport property.

1.8 Where there are excess excavated materials, unsuitable materials excavated or materials of any kind that are excavated but not used in THE WORK, such materials are not the property of the CONTRACTOR unless authorized in writing by the ENGINEER or specified to be disposed of by the CONTRACTOR.

2.0 LUMP SUM CONTRACTS

2.1 Payments will be made on the basis of the following:

2.1.1 Lump Sum items in the Schedule of Breakdown Prices in the Supplementary Tender Forms.

2.1.2 Unit prices bid in the Schedule of Unit Prices for Provisional Work Items in the Supplementary Tender Forms.

2.1.3 Changes in THE WORK for items not covered by unit prices, in accordance with GC 29 - CHANGES IN THE WORK of the General Conditions.

2.2 For each Lump Sum item in the Schedule of Breakdown Prices, the ENGINEER will, in cooperation with the CONTRACTOR, estimate the percentage of the item completed at the end of the payment period.

3.0 UNIT PRICE CONTRACTS SPECIAL PROVISIONS AND BASIS OF MEASUREMENT AND PAYMENT

The following sections are intended to provide supplemental detail to the contract items listed in Appendix D, the associated specifications detailed in Divisions 01, 02 and16 and the Contract Drawings. All of the information presented should be considered as a whole. The Contractor is advised that not all items within the Form of Tender may have an associated Special Provision.

ITEM 1.1 – MOBILIZATION AND DEMOBILIZATION

1. Mobilization and demobilization shall include the CONTRACTOR'S costs of mobilization at the beginning of the project; and the costs of demobilization at the end of the project.

2. Included in mobilization are such items as bonding, insurance, permits, moving personnel, materials and equipment to the site, setting up temporary facilities and all preparation for performing THE WORK. This includes the setup and take down of the Contractor's Yard/Staging area and any other temporary construction facilities including temporary asphalt plants.

3. Included in demobilization are the removal of personnel, materials and equipment; and cleanup of the site and THE WORK.

4. The Contractor shall include in this item an allowance to maintain, prepare and repair any haul routes/roads to their original condition within the project limits. The Contractor is advised to make their own determination of the quality of the public roadways for this project. No separate payment will be made restoring these roadways/haul routes. At the end of the project, all disturbed areas shall be left in neat condition. All gravel routes are to be fine graded at the end of the project and re-compacted.

5. Access roads noted on the Contract Drawings are to be left in place following construction by neatly graded to shed water. These costs are part of this item.

6. The lump sum price bid for this work shall be relative to the costs involved but shall not exceed twenty percent of the Tender Price.

7. The Contractor under this item shall also supply three Motorola style radios for use by the Engineer and the Airport Security Escort. The Construction Foreman shall have a similar radio on the same frequency to facilitate communication between all parties in accordance with the Plan of Construction Operations PCO attached as Appendix M.

8. This item shall include the supply and installation of a Project Information Sign as per Appendix N of the Tender Document by the Contractor.

9. This item shall also include all costs associated with providing Contractor Quality Control and Assurance in accordance with Section 1400.

10. Payment will be made as follows, as approved by the Consultant:

    60% of the lump sum bid will be included in the first progress payment certificate;

    40% of the lump sum bid will be included in the final progress payment certificate.

11. The Consultant may at his discretion recommend partial payment if mobilization or demobilization are not complete.

ITEM 1.2 - MANAGING CONSTRUCTION SEQUENCING/SAFETY

1. The work under this item shall include without limitation, the supply and maintenance of all runway closure markers, temporary daytime runway end markers and orange/white pylons and any other items required to meet the requirements of the Construction Sequencing Plans contained within the bid documents.

2. The purposes of this item, "maintenance" shall be deemed the periodic review and condition assessment of the placed markers/lights etc. to ensure they are secure and to the proper configuration and dimensions.

3. Runway Closure markers shall be white and shall be in the form of a cross having dimensions as shown on the Contract Drawings. The crosses should be constructed of white polypropylene plastic and secured with white sand bags. The Contractor shall take adequate precaution to ensure the markers are protected from wind forces. IT IS IMPERATIVE THAT THESE MARKERS ARE SECURELY ANCHORED.

4. Daytime Runway End Markers shall be placed at each end of the open side of the runway as shown on the Contract Drawings. The final configuration of the marker boards shall be provided by the Consultant during the pre-construction meeting and set-up of each stage. Essentially four marker boards will be located on the open side of the runway. Runway end markers shall be constructed to the dimensions shown on the Contract Drawings and shall have alternating orange and white diagonal markings as shown. The Contractor shall take adequate precaution to ensure markers are protected from wind forces. IT IS IMPERATIVE THAT THESE MARKERS ARE SECURELY ANCHORED

5. Traffic pylons complete with reflective stripes are to be placed along the runway centreline interface as shown on the Contract Drawings. Spacing between the pylons shall not exceed 30 metres. Pylons are to be fluorescent orange with white reflective stripes. The Contractor shall take adequate precaution to ensure pylons are protected from wind forces. Pylons are to be secured with sand bags. IT IS IMPERATIVE THAT THESE MARKERS ARE SECURELY ANCHORED.

6. All construction equipment shall be parked in the Contractor’s yard located in the existing Car Park at the end of each working day. The Owner is in no way responsible for any theft or damage to the Contactor’s equipment.

7. This item shall also cover all temporary granular tapers required at the runway centreline interface as well as the provision of graded turn-around areas at each end of the runway to meet the requirements of the Plan of Construction Operations attached as Appendix M.

8. The Contractor is advised to review Appendix M and be completely familiar with the requirements of the PCO and its impact on this cost item and construction logistics.

ITEM 1.3 – EXISTING CABLES AND UTILITIES

1. The work under this item shall include without limitation, the labour, equipment and materials required to accurately locate, mark on site and record the locations of all existing buried cables and utilities which could be disturbed during construction.

2. All existing buried cables/utilities which could be damaged by any construction operation (i.e., grading, scarification) must be accurately located and marked on site prior to construction. Ensure markers placed do not damage cables. Replace any markers that become lost or obscured during and throughout construction. Record all cable/utility locations complete with dimensions to permanent physical site conditions on a set of project record drawings.

3. Payment for this item shall be on a lump sum basis

ITEM 1.4 – SEDIMENT CONTROL FENCE

1. The installation of the sediment control devices shall be completed before any on-site scarification or grading work begins.

2. The Contractor shall be responsible for the installation and on-going maintenance of the devices throughout the duration of construction.

3. The Contractor shall remove the devices at the end of the maintenance period and restore the area to original condition.

4. Payment for this item shall be per linear metre of sediment control fence installed.

ITEMS 2.1, 3.1, 4.1 – SCARIFY, REGRADE AND COMPACT EXISTING GRANULARS

1. The work under this item shall include without limitation, the labour, equipment and materials required for the scarification and re-compaction of the existing granular surfaces of the runway, taxiway and apron.

2. The existing granular surface is to be scarified to a depth of 75mm to 100mm, rough graded and compacted to 98% Modified Proctor maximum dry density prior to placement of the new granular base material.

3. Payment for this item shall be per square metre of surface scarified.

ITEMS 2.2, 3.2, 4.2 – LOAD, HAUL, PLACE AND COMPACT GRANULAR BASE TO 100% MPmdd

1. The work under this item shall include without limitation, the hauling to site, placement, grading and compaction to 100% Modified Proctor maximum dry density of the granular base on all prepared project areas to the lines and levels indicated on the Contract Drawings or as indicated by the Contract Administrator.

2. The material is to be supplied by the Government of Nunavut. Hauling of the material to the site includes the loading of the material at the stockpile location as well as transporting the material to the site.

3. Material shall be to Section 02721

4. The Contractor shall make use of the granular material provided by the Owner for the requirements of this project. Material is to be loaded at the Owner's source and hauled to the site by the Contractor.

5. The granular base shall be maintained to the tolerances in grade and cross section and to the specified density until the surface is accepted by the Contract Administrator.

6. Immediately after the final spreading and smoothing of each layer, all materials shall be compacted to the specified density before the next layer is placed. The Contractor shall provide and use mechanical hand compaction equipment when it is impracticable to obtain the desired degree of compaction with larger type equipment.

7. The Contractor shall supply and apply all water required to aid in compaction.

8. All grading to be completed using laser controlled grader blades where reasonably possible.

9. Measurement for payment of Granular Base shall be per cubic metre of material placed, as evidence by survey of the runway, taxiway and apron both before and after the placement of the Granular Base material. This item is intended to cover costs of the granular base above the existing granular surfaces including the runway shouldering as detailed on the Contract Drawings.

ITEM 2.3 – LOCALIZED GRADED AREA IMPROVEMENT

1. The work under this item shall include without limitation, the hauling to site, placement, grading and compaction to 100% Modified Proctor maximum dry density of the granular base on areas designated for graded area improvement on the Contract Drawings or as indicated by the Contract Administrator.

2. Materials and methods shall be as per Item 2.2 above and Section 02721.

3. Payment for this item shall be on a lump sum basis.

ITEMS 2.4, 3.3 ,4.3 – PROTECT EXISTING EDGELIGHTING

1. The work under this item shall include without limitation, the labour, materials and materials required to protect the existing edgelighting fixtures.

2. The Contractor shall provide on each edgelight fluorescent flagging or other approved equivalent, highly visible material in order to minimize damage to the existing edgelighting.

3. Payment for this item shall be per edgelight.

ITEMS 2.5, 3.4, 4.4 – EDGELIGHT ADJUSTMENTS

1. The work under this item shall include without limitation, the labour, equipment and materials required to adjust the existing edgelight fixtures as required using airfield lighting coupling extensions. Shop drawings are required for approval.

2. The work under this item shall be completed by an airport electrical contractor with experience working on airfield lighting systems. Work is to comply with all requirements of the Canadian Electrical Code (CEC), latest edition, and all safety bulletins in force at the time of tender submission. Comply with all requirements of Transport Canada - TP312E, Aerodrome Standards and Recommended Practices. Prior to working on electrical system, ensure that the system is de-energized, electrically locked out, and that all required safety precautions have been taken.

3. As required, install coupling extensions for edgelighting affected under this project. Light unit coupling extensions, size and threading as required to suit existing system conditions. Approved manufacturers: Siemens, Crouse-hinds. Installation of coupling extensions to include the aiming and leveling of fixtures.

4. As required, install new secondary cabling extensions. Extensions to be factory assembled two conductor, #12 AWG, type SOW cable and shall be used to extend the transformer secondary lead from the transformer to the light unit. Use either 1.2m or 3.0m long factory assembled units, with male connector on one end, and female connector on other end. Connectors to be Amerace, Series 91, or approved equivalent. Remove existing obsolete secondary extensions, and dispose of off-site.

5. Test circuits to ensure that all light units are operating as intended. Megger circuits to be modified under this project prior to start of work, and again at the completion of work. Megger readings at the completion of work to be at least the value at start of work. Provide megger test results to airport and engineer.

6. The exact amount of adjustment of each edgelight shall be determined in the field according to the new elevation of the granular surface adjacent to each edgelight.

7. Payment for this item shall be per edgelight adjusted.

---------- END OF SECTION 01155----------

1.0 PRECONSTRUCTION MEETING

1.1 Preconstruction meetings will be arranged by the ENGINEER after the Acceptance of the TENDER.

1.2 Meetings will be held at the ENGINEER'S office or at an alternate location at or near the site.

1.3 The agenda for the Preconstruction Meeting shall include, but is not limited to, the following:

1.3.1 Confirm the SUPERINTENDENT, CONTRACTOR'S PROJECT MANAGER, and the ENGINEER'S Resident personnel on the WORKSITE.

1.3.2 Establish WORKSITE protocols for communication, reporting, inspection, etc.

1.3.3 Clear up any ambiguities or questions of interpretation known at that time.

1.3.4 CONTRACTOR shall present its detailed WORK SCHEDULE.

1.3.5 Occupational Health and Safety relationships and responsibilities.

1.3.6 Discuss other responsibilities of the OWNER, the CONTRACTOR, and the ENGINEER. Review General Conditions GC 5 to GC 11, inclusive.

2.0 PROGRESS MEETINGS

2.1 Progress meetings will be held on a regular monthly basis or more frequently if requested by the ENGINEER.

2.2 Accommodation for progress meetings shall be provided by the CONTRACTOR at or near the site.

2.3 The ENGINEER will give to all parties advance notice of meeting dates, times and locations.

2.4 The CONTRACTOR shall have in attendance the SUPERINTENDENT, the CONTRACTOR'S Project Manager and representatives of the SUBCONTRACTORS if requested by the ENGINEER.

2.5 The ENGINEER will have the ENGINEER'S Project Manager or the Resident Engineer, or both, in attendance.

2.6 The OWNER may have a representative in attendance.

2.7 Occupational Health and Safety incidents, records and procedures shall be part of the agenda for every progress meeting.

2.8 Minutes will be taken by the ENGINEER and copies will be distributed to all attendees.

---------- END OF SECTION 01200----------

1.0 CONSTRUCTION SCHEDULE

1.1 Upon award of the CONTRACT and prior to commencement of THE WORK, the CONTRACTOR shall submit for approval to the ENGINEER a construction schedule in critical path method format showing all the principal phases of the work. No Progress Payment Claim shall be certified until an acceptable Construction Schedule has been received by the ENGINEER.

1.2 The Construction Schedule shall be updated monthly against actual progress of THE WORK by the CONTRACTOR. A copy of the updated monthly schedule is to be provided to the Consultant with each Progress Claim. Failure to comply will result in the Progress Claim being deemed incomplete until the updated monthly schedule is provided.

1.3 If, in the opinion of the ENGINEER, any Construction Schedule is inadequate as a control tool or if it does not show THE WORK being fully completed by the CONTRACT Completion Date, the ENGINEER may reject it and the CONTRACTOR shall provide a Construction Schedule and work program that is acceptable to the ENGINEER.

---------- END OF SECTION 01310----------

1.0 REQUIREMENTS FOR SHOP DRAWINGS AND PRODUCT DATA

1.1 The CONTRACTOR shall arrange for the preparation of clearly identified shop drawings and submit shop drawings in one of the following forms:

1.1.1 One copy of a reproducible transparency to be returned to the CONTRACTOR plus two prints to be retained by the ENGINEER, or

1.1.2 Two prints to be retained by the ENGINEER plus the number of copies required by the CONTRACTOR.

The Contractor shall provide clearly identified Product Data and submit two prints to be retained by the Engineer plus the number of copies required by the Contractor.

Product Data shall include but not be limited to:

1.0 Product assembly drawings

2.0 Materials list

3.0 Principal dimensions

4.0 Parts and components details

5.0 Letters of compliance with recognized standards where required

6.0 Operation data

7.0 Operation curves

8.0 Operation manuals where specified

9.0 Product Name and Model Number

1.2 Shop drawings shall be accurately drawn to a scale sufficiently large to show all pertinent features of the item, and its method of connection to THE WORK and shall have sufficient space for the CONTRACTOR'S stamp and the ENGINEER'S stamp.

1.3 Shop drawings shall be in accordance with the International System of Units (S.I.) metric units.

1.4 Prior to submission to the ENGINEER the CONTRACTOR shall review all shop drawings. By this review, the CONTRACTOR represents that he has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so, and that he has checked and coordinated each shop drawing with the requirements of THE WORK and of the CONTRACT DOCUMENTS. The CONTRACTOR'S review of each shop drawing shall be indicated by stamp, with the date and signature of a responsible person.

1.5 The CONTRACTOR shall submit shop drawings to the ENGINEER for his review with reasonable promptness and in orderly sequence so as to cause no delay in THE WORK or in the work of OTHER CONTRACTORS. If either the CONTRACTOR or the ENGINEER so requests they shall jointly prepare a schedule fixing the dates for submission and return of shop drawings.

1.6 At the time of submission the CONTRACTOR shall notify the ENGINEER in writing of any deviations in the shop drawings from the requirements of the CONTRACT DOCUMENTS.

1.7 The ENGINEER will review and return shop drawings in accordance with a schedule agreed upon, or otherwise with reasonable promptness. The ENGINEER'S review shall be for conformity to the design concept and for general arrangement only and such review shall not relieve the CONTRACTOR of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the CONTRACT DOCUMENTS. A specific deviation on the shop drawings from the design concept requested by the CONTRACTOR may be approved or rejected in writing by the ENGINEER.

1.8 The CONTRACTOR shall make any changes in shop drawings which the ENGINEER may require consistent with the CONTRACT DOCUMENTS and resubmit unless otherwise directed by the ENGINEER. When resubmitting, the CONTRACTOR shall notify the ENGINEER in writing of any revisions made by the CONTRACTOR other than those requested by the ENGINEER, in his previous review.

1.9 Each reviewed shop drawing will be stamped by the ENGINEER with the following form of stamp:

REVIEWED	( )
REVIEWED AS MODIFIED	( )
REVISE AND RESUBMIT	( )
NOT REVIEWED	( )

This review by the ENGINEER is for the sole purpose of ascertaining conformance with the general design concept. This review shall not constitute approval of the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same. Review by the ENGINEER shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction, for installation, and for co-ordination of the work of all sub-trades.

ENGINEER
By:
Date:

2.0 DESIGN BY THE CONTRACTOR

2.1 When the CONTRACTOR is responsible for engineering design of portions of THE WORK, this shall be clearly and specifically indicated in the drawings or in the specifications of the CONTRACT DOCUMENTS.

2.2 Where the CONTRACTOR is required, either by law or regulation or by the CONTRACT to provide engineering design, he shall use the services of a Professional Engineer registered in the area in which THE WORK is to be performed, and he shall submit Shop Drawings bearing the Seal and Signature of that Registered Professional Engineer.

---------- END OF SECTION 01340----------

1.0 SAMPLES

1.1 The CONTRACTOR shall submit for the ENGINEER'S approval such Manufacturers' and Suppliers' samples as the ENGINEER may reasonably require. Samples shall be labelled as to origin and intended use in THE WORK and shall conform to the requirements of the CONTRACT DOCUMENTS.

1.2 Samples and sample mock ups prepared by the CONTRACTOR for the ENGINEER'S approval shall be retained on the site of THE WORK for comparison with the actual installation of the portions of THE WORK that the samples are intended to represent.

1.3 Upon conclusion of THE WORK, the samples and mock ups may be returned to the CONTRACTOR or to the Supplier or Manufacturer who provided them, and shall then be removed from the WORKSITE.

---------- END OF SECTION 01350----------

1.0 RECORDS DURING CONSTRUCTION

1.1 The CONTRACTOR shall keep one complete set of all construction drawings on the WORKSITE.

1.2 On the WORKSITE set of CONTRACT Drawings, the CONTRACTOR shall record any changes that are made during the actual construction of THE WORK. The purpose of recording these changes is to provide drawings of record at the end of THE WORK. The CONTRACTOR shall be responsible for the adequacy and the reliability of the information recorded on the drawings of record.

1.3 A copy of the current record drawings are to be provided to the ENGINEER with each Progress Claim, to verify the record information is being recorded in accordance with the contract. Failure to comply will result in the Progress Claim being deemed incomplete until the record drawings are provided.

1.4 At the completion of the construction period, the CONTRACTOR shall turn over the set of construction drawings which have been marked up with changes during the course of THE WORK to the ENGINEER to permit the ENGINEER to prepare Drawings of Record for THE WORK.

---------- END OF SECTION 01390----------

1.0 General

1.1 The CONTRACTOR is totally responsible for the quality of MATERIAL and PRODUCT which he provides and for THE WORK.

1.2 The CONTRACTOR is responsible for quality control and shall perform such inspections and tests as are necessary to ensure that THE WORK conforms to the requirements of the CONTRACT DOCUMENTS.

1.3 During the progress of THE WORK, a sufficient number of tests shall be performed by the CONTRACTOR to determine that MATERIAL, PRODUCT and installation meet the specified requirements.

1.4 Minimum requirements regarding quality control are specified in various sections of the specifications, however, the CONTRACTOR shall perform as many inspections and tests as are necessary to ensure that THE WORK conforms to the requirements of the CONTRACT DOCUMENTS.

1.5 Testing shall be in accordance with pertinent codes and regulations, and with selected standards of the American Society for Testing and Materials (ASTM) and Canadian Standards Association (CSA).

1.6 Product testing, mill tests and laboratory reports to demonstrate that PRODUCT and MATERIAL supplied by the CONTRACTOR meet the specifications are specified under various sections of the CONTRACT DOCUMENTS.

2.0 Quality Control Testing by the Contractor

2.1 The CONTRACTOR shall retain the services of an independent testing agency under supervision of a registered professional engineer, and pay the cost of testing services for quality control including, but not limited to, the following:

- Sieve analysis of sands and aggregates to be supplied to THE WORK.
- Aggregates and mix designs for soil cement base course.
- Aggregates and mix designs for asphaltic concrete.
- Aggregates and mix design for Portland Cement concrete.
- Standard Proctor Density curves for backfill materials.
- Standard Proctor Density curves for approved borrow materials.
- Compaction control tests for backfill and embankment material.
- Any product testing that is required and is specified under various sections of the specifications.

2.2 The CONTRACTOR shall promptly process and distribute all required copies of test reports and test information and related instructions to all of his SUBCONTRACTORS and Suppliers to ensure that all necessary retesting and replacement of construction can proceed without delay.

2.3 The CONTRACTOR shall promptly provide the ENGINEER with copies of all test results.

2.4 In addition to providing proof of material conformance with the requirements for products itemized in their respective specification sections, the CONTRACTOR'S quality control program shall meet or exceed the following minimum testing requirements:

MINIMUM QUALITY CONTROL TESTING REQUIREMENTS		
Work Phase	**Type of Testing**	**Minimum Testing Frequency (No. of Tests per Unit)**
Common Fill	Moisture-Density Relationship	2 per material type
Subgrade Compaction	Moisture-Density Relationship	2 per material type
Sub-Base Placing	Moisture-Density Relationship	2 per material type
	Gradation	1 per day
	Atterberg Limits	1 per week
Granular Base:		
Stockpiling	Gradation and Crushed Count	2 per day
	Atterberg Limits	1 per week
Placing	Moisture-Density Relationship	2 per material type
	Gradation and Crushed Count	2 per day
Asphalt Concrete:		
Aggregate Stockpiling	Gradation and Crushed Count	2 per day per aggregate type
Mix Production	Marshall Plant Test	2 per day per mix (1)
Placing	Straight Edge	1 test/100m^2
	Surface Defects	Continuous
Portland Cement Concrete		
Mix Production	Slump and Air Content	1 test per truck or batch until uniformity is achieved, then minimum 1 test per 100m^3 thereafter.
	Strength Test	1 test per 100m^3 of concrete (for each class of concrete) with a minimum of 3 tests per day.
Placing	Straight Edge	1 per 100m^2
Compaction		
Common Fill, Subgrade, Sub-base and Base		1 per 3000 m2/lift (2)
Asphalt Concrete		1 per 1000 m2/lift (2)
Bedding or Backfill		1 per 20m/lift (3)

(1) Each plant Marshall test to include a minimum of 3 briquettes tested for: bulk density, stability, flow, air voids and VMA and one mix sample tested for: extraction bitumen content, aggregate gradation and crushed content.

(2) When using a nuclear gauge, increase frequency of testing to 1/500m^2/lift

(3) When using a nuclear gauge, use special precautions to correct for “trench wall effects’ as per nuclear gauge manufacturers instructions.

3.0 Quality Assurance Testing by the Owner

3.1 The OWNER will retain and pay for the services of an independent testing agency for testing for quality assurance, for the OWNER'S purposes.

3.2 The OWNER'S testing agency and the ENGINEER may inspect and test MATERIAL, PRODUCT and THE WORK for conformance with the requirements of the CONTRACT DOCUMENTS; however, they do not undertake to check the quality of THE WORK on behalf of the CONTRACTOR nor to provide quality control.

3.3 Inspections and tests by the OWNER'S testing agency and by the ENGINEER do not relieve the CONTRACTOR of his responsibility to supply MATERIAL and PRODUCT and to perform THE WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

3.4 The ENGINEER, at his discretion, may order or perform any additional inspections and tests for purposes of his own or for purposes of the OWNER.

3.5 The CONTRACTOR shall coordinate with the ENGINEER the scheduling of testing and inspection by the OWNER'S testing agencies or by the ENGINEER, to enable testing to be done as necessary, without delay, and the CONTRACTOR shall notify the ENGINEER sufficiently in advance of operations to allow for such inspection and tests by the ENGINEER'S or the OWNER'S testing agency.

4.0 Code Compliance Testing

4.1 Inspections and tests required by codes or ordinances, or by a plan approval authority, shall be the responsibility of and shall be paid for by the CONTRACTOR.

4.2 Copies of reports resulting from such inspections shall be submitted in a timely manner by the CONTRACTOR to the OWNER.

5.0 Retesting

5.1 When tests on PRODUCT, MATERIAL or completed portions of THE WORK carried out by the CONTRACTOR or the CONTRACTOR'S testing agency or by the OWNER'S testing agency yield results not meeting the requirements of the CONTRACT DOCUMENTS, the CONTRACTOR, in addition to carrying out remedial work or replacement of the PRODUCT or MATERIAL shall provide for retesting of the remedied work and the replacement PRODUCT and MATERIAL. Retesting, including retesting by the OWNER'S testing agency, shall be at the CONTRACTOR'S expense.

5.2 In every case where the CONTRACTOR has submitted test results which fail to meet the requirements of the CONTRACT DOCUMENTS, the CONTRACTOR shall submit within a practical and reasonable time results of a retest showing that the results are in accordance with the requirements of the CONTRACT DOCUMENTS.

5.3 If the CONTRACTOR fails or refuses to do remedial work or replace unacceptable MATERIAL or PRODUCT, the ENGINEER may refuse to certify payment and the OWNER may refuse to make payment, in addition to any other remedies the OWNER may have.

---------- END OF SECTION 01400----------

1.0 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

1.1 Particular requirements for inspection and testing to be carried out by testing laboratory designated by Consultant are specified under various sections.

2.0 APPOINTMENT AND PAYMENT

2.1 Consultant will appoint and pay for services of testing laboratory except for the following:

2.1.1 Inspection and testing required by laws, ordinances, rules, regulations or orders of public authorities.

2.1.2 Inspection and testing performed exclusively for Contractor's convenience.

2.1.3 Testing, adjustment and balancing of conveying systems, mechanical and electrical equipment and systems.

2.1.4 Mill tests and certificates of compliance.

2.1.5 Tests specified to be carried out by Contractor under the supervision of Consultant as specified under Section 1400.

2.1.6 Additional tests specified in paragraph 2.2.

2.2 Where tests or inspections by designated testing laboratory reveal work not in accordance with contract requirements, Contractor shall pay costs for additional tests or inspections as Consultant may require to verify acceptability of corrected work.

3.0 CONTRACTOR'S RESPONSIBILITIES

3.1 Furnish labour and facilities to:

3.1.1 Provide access to work to be inspected and tested.

3.1.2 Facilitate inspections and tests.

3.1.3 Make good work disturbed by inspection and test.

3.1.4 Provide storage on site for laboratory's exclusive use to store equipment and cure test samples.

3.2 Notify Consultant sufficiently in advance of operations to allow for assignment of laboratory personnel and scheduling of test.

3.3 Where materials are specified to be tested, deliver representative samples in required quantity to testing laboratory.

3.4 Pay costs for uncovering and making good work that is covered before required inspection or testing is completed and approved by Consultant.

---------- END OF SECTION 01410----------

1.0 TEMPORARY UTILITIES

1.1 Natural Gas, Gasoline and Other Fuels

1.1.1 Provide and pay all costs for natural gas, gasoline and other fuels required for the performance of THE WORK, in accordance with governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.1.2 Furnish and install all necessary temporary piping and upon completion of THE WORK remove all such temporary piping.

1.2 Water

1.2.1 Provide and pay all costs for all water required for the performance of THE WORK, in accordance with governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.2.2 Furnish and install all necessary temporary piping and upon completion of THE WORK remove all such temporary piping.

1.3 Electricity And Lighting

1.3.1 Provide and pay all costs for electricity and artificial lighting required for the performance of THE WORK, in accordance with governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.3.2 Furnish and install all necessary temporary wiring, distribution boxes, panels, etc., and upon completion of THE WORK, remove all such temporary installations.

1.4 Telephone and Fax

1.4.1 Provide, maintain and pay all costs for a telephone for the CONTRACTOR'S use.

1.4.2 A fax machine and adequate supply of paper shall be installed and operational for use by the ENGINEER during construction.

1.5 Heating And Ventilating

1.5.1 Provide and pay all costs for heating and ventilating, coverings and enclosures as necessary to protect and perform THE WORK.

1.5.2 Furnish and install all necessary temporary equipment, piping, wiring, ducting, and other materials to perform THE WORK and upon completion of THE WORK, remove all such temporary equipment.

1.5.3 Temporary heating and ventilating shall be in accordance with all governing regulations and ordinances, and the CONTRACT DOCUMENTS.

1.5.4 Temporary heating and ventilating shall be provided to:

1.5.4.1 facilitate progress of THE WORK

1.5.4.2 protect THE WORK and PRODUCT and MATERIAL against dampness and cold

1.5.4.3 prevent moisture condensation on surfaces

1.5.4.4 provide an atmosphere for curing MATERIAL as required

1.5.4.5 provide adequate ventilation to meet safety regulations

1.5.4.6 prevent hazardous accumulation of dust, fumes, mists, vapours or gases in areas occupied during construction

1.5.4.7 ventilate storage spaces containing hazardous or volatile materials

1.6 Sanitary Facilities

1.6.1 Furnish and install all required temporary toilet buildings with sanitary toilets for use of all workmen; comply with all minimum requirements of the Health Department or other public agency having jurisdiction; maintain in a sanitary condition at all times.

1.7 Fire Protection

1.7.1 Provide and pay all costs for adequate fire protection of THE WORK and adjacent property.

1.7.2 Furnish and install temporary extinguishers, hydrants and other equipment, and upon completion of THE WORK remove all such temporary equipment.

1.8 Survey Equipment

1.8.1 Contractor to provide for the use by the ENGINEER a laser level and traditional level including legs and rods.

1.8.2 The equipment will be returned to the Contractor after project completion.

2.0 CONSTRUCTION AIDS

2.1 Temporary Plant

2.1.1 Provide, arrange for, maintain and pay for all temporary items such as, but not limited to, stairs, ladders, scaffolding, ramps, transportation of labour and MATERIAL, runways, chutes, hoists, elevators, tools, templates, as required for the completion of THE WORK.

2.1.2 The location of such items shall be such as to prevent interference with, marking of, or damage to any portion of THE WORK.

2.1.3 All such items shall conform to all applicable national and local ordinances

regulating safety, and to the National Building Code of Canada, and to the requirements of the CONTRACT DOCUMENTS.

2.2 Temporary Enclosures

2.2.1 Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of THE WORK in compliance with all pertinent safety and other regulations.

2.3 Falsework And Temporary Construction Supports

2.3.1 The CONTRACTOR shall be responsible for means and methods used for the falsework and temporary construction supports.

2.3.2 f required by the CONTRACT, employ a qualified Registered Professional Engineer for the design of temporary works, and design in accordance with CSA S269.1.

2.3.3 Record design calculations and drawings to show that temporary works are adequate. Provide design loads, material details, and dimensions. Sign and seal design calculations and drawings, and revisions thereto.

2.3.4 The ENGINEER'S approval to proceed with falsework and temporary construction supports shall not relieve the CONTRACTOR of his responsibility under the CONTRACT. The ENGINEER’S review shall be for general conformance to the intent of design and for permanent effects on the WORKSITE, or areas adjacent to the WORKSITE.

2.4 Temporary Excavation

2.4.1 The CONTRACTOR is responsible for the means and methods of making temporary excavations in order to install components of THE WORK.

2.5 Winter Construction

2.5.1 Special construction methods required to perform THE WORK in severe weather shall be the responsibility of the CONTRACTOR.

2.5.2 Where the specifications call for work to be performed within a given temperature range or above a minimum temperature, it shall be the CONTRACTOR'S responsibility to provide all temporary enclosures and heat necessary to provide the conditions specified.

2.5.3 Where compaction of backfill is specified, the CONTRACTOR shall perform THE WORK in a manner such that compaction can be achieved.

2.5.4 Where weather conditions are such that compaction of backfill consisting of excavated materials is not possible, the CONTRACTOR shall provide unfrozen granular material for backfill, at the CONTRACTOR'S expense.

2.6 Access Roads

2.6.1 Construct temporary access roads as necessary to perform THE WORK, and maintain temporary access roads until construction is over or until permanent access is established.

2.6.2 Locations and drainage facilities for temporary access roads are subject to the approval of the ENGINEER.

2.6.3 No direct payment will be made to the CONTRACTOR for construction of temporary access roads.

2.7 Protection

2.7.1 Remove trees, fences and other structures from the site of THE WORK, as necessary to perform THE WORK.

2.7.2 Remove only those items that must be removed, or are clearly shown on the drawings to be removed.

2.7.3 Protect all remaining trees, plants, fences and other items from damage during construction.

2.8 Existing Utilities and Structures

2.8.1 Existing utilities and structures include pipes, culverts, ditches or other items which are a part of an existing sewerage, drainage or water system; or which are a part of a gas, electrical, telephone, television, telecommunications or other utility system. Also included are sidewalks, curbs, gutters, swales, poles, fences or any other structures encountered during construction.

2.8.2 The CONTRACTOR shall be responsible for location, protection, removal or replacement of existing utilities and structures, or for repair of any damage which may occur during construction.

2.8.3 Existing utilities and structures may be shown on the drawings, or described in the specifications. Such information is shown for design purposes and the existence, location and detail given is information that is obtained during the design period and is not necessarily complete, correct or current.

2.8.4 The CONTRACTOR shall pay all costs and be responsible for establishing locations and state of use of all existing utilities that may affect THE WORK. The CONTRACTOR shall make satisfactory arrangements with the utilities companies involved for the location, protection and inspection of existing utilities.

2.8.5 Notice in writing shall be given by the CONTRACTOR to the utilities companies at least 48 hours before work commences in the vicinity of existing utilities.

2.8.6 The CONTRACTOR shall pay all the costs involved in protection of utilities, inspection of utilities, and all costs due to delays because of existing utilities and

structures.

2.8.7 The CONTRACTOR shall provide for the uninterrupted flow of all water courses, sewers and drains encountered during THE WORK.

2.8.8 Access shall be maintained to all existing structures such as valves, hydrants, meter chambers and control structures at all times during construction.

2.8.9 If interruption of service provided by an existing utility is necessary, the planned shut down shall be approved by the owners of the utilities. Requests for shut down shall be made by the CONTRACTOR in writing at least 48 hours in advance.

2.8.10 The CONTRACTOR shall notify all customers or make arrangements with the utility company to notify all customers 24 hours in advance of a shut down.

2.8.11 Unless otherwise specified the CONTRACTOR shall make arrangements for relocation of existing utilities that the ENGINEER requests to be relocated; and the actual relocation shall be constructed by the OWNER of the utility. The CONTRACTOR will be reimbursed the invoiced cost of the relocation. No extra payment is permitted for delays, or standby time.

3.0 TEMPORARY CONTROLS

3.1 Noise Controls

3.1.1 Perform THE WORK in conformity with all municipal by laws with respect to noise, hours of work, night work and holiday work. Night work or holiday work requires the written permission of the ENGINEER.

3.2 Dust Control

3.2.1 Perform THE WORK in a manner that will not produce an objectionable amount of dust. Dust control measures shall be paid for by the CONTRACTOR.

3.3 Pollution Control

3.3.1 Perform THE WORK in conformance with the applicable sections of the Provincial Regulations with respect to air and water pollution control requirements.

3.4 Disposal Of Wastes

3.4.1 Burying of rubbish and waste on site is not permitted.

3.4.2 Disposal of waste or volatile materials into waterways, storm or sanitary sewers is not permitted.

3.4.3 Pumping or draining water containing silt in suspension into waterways, sewers or drainage systems is prohibited.

3.4.4 Abide by requirements of Statute, Bylaw and Regulations respecting disposal of

wastes.

3.4.5 Obtain required Permits for waste disposal.

4.0 WORK ADJACENT TO WATERWAYS

4.1 Do not operate construction equipment in waterways, nor remove borrow material nor dump fill material into waterways, except as approved and permitted by the appropriate authorities. Obtain any required Permits.

5.0 TRAFFIC CONTROL

5.1 The CONTRACTOR shall be responsible for the regulation of traffic during construction, and shall perform THE WORK in a manner that will cause the least disruption of traffic.

5.2 The CONTRACTOR shall co ordinate THE WORK with the ENGINEER, and the OWNER to reduce traffic problems.

5.3 Provision of flagmen, traffic signs, and other traffic controls shall be the CONTRACTOR'S responsibility and shall be in accordance with the TAC Manual of Uniform Traffic Control Devices.

5.4 The CONTRACTOR shall supply all barriers, barricades, warning signs, detours, fences, flagmen and all other devices to protect the public. All applicable safety standards shall be followed.

5.5 The CONTRACTOR shall obtain approval to block traffic temporarily if it is necessary to do so to perform THE WORK. Obtain the written approval of applicable municipal departments, the OWNER and the ENGINEER. At least 48 hours prior to actually blocking traffic notify the following:

5.5.1 Roadway Authority

5.5.2 Public Works Departments

5.5.3 Utilities Companies

5.5.4 Fire Department

5.5.5 Police Department

5.6 Adequate construction parking, meeting local regulations, shall be provided by the CONTRACTOR.

5.7 Haul routes shall be maintained by the CONTRACTOR. They shall be kept open to traffic and shall be clean at all times.

5.8 Obtain permits as required to use public roads or streets for haul routes.

6.0 PROJECT IDENTIFICATION

6.1 Install Project Information Sign as shown on Contract Drawings.

7.0 CONTRACTOR'S FIELD OFFICE

7.1 Furnish and install a field office building adequate in size and accommodation for all CONTRACTOR'S offices, superintendent's office, supply and tool room throughout the entire construction period.

8.0 ENGINEER'S FIELD OFFICE

8.1 The existing trailer on site shall be made available for the use of the ENGINEER.

8.2 Furnishings and utilities for the existing field office are to be furnished by the CONTRACTOR

8.3 Submit details of the office, its contents and its proposed location to the ENGINEER and obtain the ENGINEER'S approval.

8.4 The ENGINEER'S field office shall be separate from the CONTRACTOR'S office or any other structure.

8.5 Provide all weather vehicle access and parking space for two vehicles for ENGINEER'S use.

8.6 Provide power and heating fuel for ENGINEER'S office for the duration of THE WORK.

8.7 The ENGINEER'S field office shall be in accordance with the following:

- windproofed, weatherproofed and insulated
- minimum floor area 13.8 m2
- minimum ceiling height 2.4 m
- thermostatically controlled heat to maintain 22C° inside at -20C° outside
- lighting system - min 750 lx using surface mounted shielded commercial fixtures
- telephone and facsimile - Engineers will pay for long distance calls
- maintain in clean conditions.

8.8 The ENGINEER'S office shall contain:

- one table min. 1000 x 2000
- four chairs
- shelving 6000 m minimum 300 wide
- filing cabinet - one
- one plan rack
- one coat rack and shelf.

9.0 TEMPORARY USE OF OWNER'S FACILITIES AND THE WORK

9.1 If the OWNER permits the CONTRACTOR to make temporary use of the OWNER'S facilities, the CONTRACTOR shall use the facilities with care, providing all maintenance and repair, and shall leave the facilities in good working order when he is finished.

9.2 If the OWNER permits the CONTRACTOR to use facilities incorporated into THE WORK, the CONTRACTOR shall use them with care and be responsible for all maintenance and repair and for leaving the facilities in good order.

9.3 Permanent systems shall not be used by the CONTRACTOR without the written permission of the ENGINEER.

9.4 Permanent heating systems shall not be used for temporary heating without the written permission of the ENGINEER.

9.5 If the CONTRACTOR obtains written permission to use existing heating systems or other systems temporarily, before completion, the CONTRACTOR shall change lubricants, filters and other accessory items completely upon completion of THE WORK. Warranties shall be extended by the CONTRACTOR to ensure that the OWNER receives the full warranty, as specified.

9.6 Temporary or trial usage by the OWNER of any mechanical machinery, apparatus, equipment or any other work or materials supplied under the contract before final acceptance by the ENGINEER is not to be construed as evidence of acceptance. The OWNER shall have the privilege of such temporary and trial usage as soon as the CONTRACTOR shall claim that said work is completed.

---------- END OF SECTION 01500----------

1.0 CONTRACTOR SECURITY PROVISIONS

1.1 General

1.1.1 "Restricted Area" means an area at an aerodrome identified by a sign as an area to which access is restricted to authorized persons.

1.1.2 "Restricted Area Pass" means a document or other piece of identification approved or issued by or under the authority of an aerodrome operator authorizing the holder to have access to a restricted area.

1.1.3 It is compulsory to display the Restricted Area Pass in a clearly visible fashion at all times within a Restricted Area.

1.1.4 The decision as to who may be authorized access to a Restricted Area shall be determined on a need and right of entry basis. No person shall be issued an Airport Restricted Pass unless need and right of entry has been established and/or substantiated as determined by the Aerodrome Operator

1.2 Contractor's Responsibility

1.2.1 The Contractor shall be responsible for compliance with all aspects of security requirements for his personnel. This includes obtaining security clearances, and complying with escort services to be provided by the Airport.

1.2.2 Be responsible for construction personnel and vehicles, employees on project and requiring access to restricted areas.

1.2.3 Ensure the Superintendents, Foreman, Flagmen and key personnel of the subcontractor attend a briefing, at site, to be scheduled before the start of the project, regarding safety and security.

1.2.4 Designate a person who will be responsible to ensure all aspects of security and operational safety requirements are adhered to and have authority to take immediate action to rectify the situation. Such person should be available at all times during construction

1.3 Security Barrier/Gates

1.3.1 Security barriers such as fences, gates, locks, etc. are used to prevent or deter access by unauthorized persons to airport restricted areas. In the event it is necessary to remove such barriers, they must be replaced, where practical, at the end of each work day. If it is necessary to remove such barriers for an extended period of time, unprotected restricted areas shall be enclosed with temporary boarding and/or fencing. The Consultant must be immediately informed of any possibilities that a restricted area may be left unprotected at the end of a work day.

1.3.2 Failure to restore such security barriers when required will result in their restoration being recovered from the Contractor.

1.3.3 The Consultant must be given prior notification when it is necessary to remove security barriers to permit access to construction areas. Security barriers will not be removed without the prior approval of the Consultant.

1.4 Daily Security

1.4.1 When work is to be carried out within restricted areas outside of normal working hours, the Consultant must be notified and approve of area and time frame.

1.5 Security Escort

1.5.1 Chesterfield Inlet Airport will provide or appoint personnel in possession of permanent restricted area passes to perform escort duties within airport restricted areas.

1.5.2 The Contractor will be required to cooperate with the security plan as part of the overall project schedule and PCO as attached as Appendix M. The security plan and review of responsibilities is to be presented at the Pre-Construction Meeting.

1.5.3 There will be no measurement or payment for this item.

---------- END OF SECTION 01540----------

1.0 REFERENCES

1.1 CSA S269.1 1975 Falsework for Construction Purposes.

1.2 CAN/CSA S269.2 M87 Access Scaffolding for Construction Purposes.

1.3 FCC No. 301 1982 Standard for Construction Operations

2.0 CONSTRUCTION SAFETY MEASURES

2.1 Observe construction safety measures of National Building Code 1995, Part 8, Provincial Government, Workers'/Workmen's Compensation Board and municipal authority provided that in any case of conflict or discrepancy more stringent requirements shall apply.

3.0 OVERLOADING

3.1 Ensure no part of Work is subjected to loading that will endanger its safety or will cause permanent deformation.

4.0 WHMIS

4.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to Labour Canada and Health and Welfare Canada.

4.2 Deliver copies of WHMIS data sheets to Consultant on delivery of materials.

---------- END OF SECTION 01545----------

1.0 ENVIRONMENTAL MEASURES

1.1 Meet or exceed the requirements of all environmental legislation and regulations, including all amendments up to project date provided that in any case of conflict or discrepancy, the more stringent requirements will apply.

2.0 FIRES

2.1 Fires and burning of rubbish on site not permitted.

3.0 DISPOSAL OF WASTES

3.1 Do not bury rubbish and waste materials on site unless approved by the Consultant.

3.2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

3.3 On-site excavated material disposal areas have been made available.

3.4 Disposal of all electrical equipment abandoned as part of the construction shall be disposed of in appropriate environmental manner and regulation.

4.0 DRAINAGE

4.1 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.

4.2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.

4.3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

5.0 SITE CLEARING AND PLANT PROTECTION

5.1 Protect trees and plants on site and adjacent properties where indicated.

5.2 Wrap in burlap, trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 m.

5.3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.

5.4 Minimize stripping of topsoil and vegetation.

5.5 Restrict tree removal to areas indicated or designated by the Consultant.

6.0 WORK ADJACENT TO WATERWAYS

6.1 Do not operate construction equipment in waterways.

6.2 Do not use waterway beds for borrow material without the Consultant's approval.

6.3 Do not dump excavated fill, waste material or debris in waterways.

6.4 Design and construct temporary crossings to minimize erosion to waterways.

6.5 Do not skid logs or construction materials across waterways.

6.6 Avoid indicated spawning beds when constructing temporary crossings of waterways.

6.7 Do not blast under water or within 100 m of indicated spawning beds.

7.0 POLLUTION CONTROL

7.1 Maintain temporary erosion and pollution control features installed under this contract.

7.2 Control emissions from equipment and plant to local authorities emission requirements.

7.3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.

7.4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

8.0 STRAW BALE FLOW CHECKS AND BARRIERS

8.1 Install straw bales upstream of pumping unit in order to filter the solids and sediments of the water prior to pumping or discharging into existing drainage system.

9.0 CONSTRUCTION WASTES

9.1 Provide sufficient suitable refuse containers throughout the site to receive and control construction wastes. Keep containers closed to prevent contents from blowing around site.

10.0 EQUIPMENT MAINTENANCE AREAS

10.1 Prepare and submit for approval, a drawing showing a proposed equipment maintenance area. This area must be located a minimum of 30 m from a watercourse.

11.0 NON-MAINTENANCE RELATED SPILLS

11.1 Non-maintenance related spills are spills that occur due to mishandling of fuels during the fuelling process, failure of hoses or other components on equipment, etc.

11.2 Submit a contingency plan for dealing with such occurrences to the Consultant for approval. The plan must describe in detail the action to be taken and the persons and the

agencies to be notified in the event of such a spill.

12.0 DUST CONTROL

12.1 Excessive dust from construction activities creates a serious hazard for operational airports and must be controlled at all times.

12.2 Maintain sufficient watering equipment on site at all times to control construction dust.

12.3 Should the contractor fail to control dust emissions, the Consultant reserves the right to order the Contractor to cease all operations until adequate measures have been taken. No claims for delay of contract can be made by the Contractor on this item. Any costs incurred by the Consultant or the Authority for this work shall be deducted from future progress payment certificates due to the Contractor

13.0 ENFORCEMENT

13.1 Protection of the environment is considered to be of prime importance during any works on territorial properties.

13.2 Progress payments will not be made to the Contractor while any requirements for Environmental Protection are outstanding.

13.3 Directions given by the Consultant with respect to action to be taken to correct environmental deficiencies must be acted upon immediately.

13.4 In the event that deficiencies in work are not corrected, then the Consultant will take the necessary action for correction purposes and will deduct the cost thereof from any monies due to the Contractor.

---------- END OF SECTION 01561----------

1.0 GENERAL

1.1 Use new material and equipment unless otherwise specified.

1.2 Within 7 days of written request by the Consultant, submit following information for materials and equipment proposed for supply:

1.2.1 name and address of manufacturer,

1.2.2 trade name, model and catalogue number,

1.2.3 performance, descriptive and test data,

1.2.4 manufacturer's installation or application instructions,

1.2.5 evidence of arrangements to procure.

1.3 Use products of one manufacturer for material and equipment of same type or classification unless otherwise specified.

2.0 MANUFACTURERS INSTRUCTION

2.1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.

2.2 Notify the Consultant in writing of any conflict between these specifications and manufacturers instructions. The Consultant will designate which document is to be followed.

3.0 FASTENINGS - GENERAL

3.1 Provide metal fastenings and accessories in same texture, colour and finish as base metal in which they occur. Prevent electrolytic action between dissimilar metals. Use non corrosive fasteners, anchors and spacers for securing exterior work.

3.2 Space anchors within limits of load bearing or shear capacity and ensure that they provide positive permanent anchorage. Wood plugs not acceptable.

3.3 Conceal fasteners where indicated. Space evenly and lay out neatly.

3.4 Fastenings which cause spalling or cracking are not acceptable.

3.5 Obtain the Consultant's approval before using explosive actuated fastening devices. If approval is obtained comply with CSA Z166 1975.

4.0 FASTENINGS - EQUIPMENT

4.1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.

4.2 Use heavy hexagon heads, semi finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.

4.3 Bolts may not project more than one diameter beyond nuts.

4.4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

5.0 DELIVERY AND STORAGE

5.1 Deliver, store and maintain packaged material and equipment with manufacturer's seals and labels intact.

5.2 Prevent damage, adulteration and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from site.

5.3 Store material and equipment in accordance with suppliers' instructions.

5.4 Touch up damaged factory finished surfaces to the Consultant's satisfaction. Use primer or enamel to match original. Do not paint over name plates.

6.0 CONFORMANCE

6.1 Materials specified by referenced standard, select any material that meets or exceeds the specified standard.

6.2 Where materials are required to be listed on the "Canadian General Standards Board, Qualified Products List" select any manufacturer so listed.

6.3 Materials specified by "Prescriptive" or "Performance" specification, select any material meeting or exceeding specification.

6.4 Materials specified by naming one or more materials, select any material named. For the purpose of these specifications, the term "Acceptable Material" is deemed to be a complete and working commodity as described by a manufacturer's name, catalogue number, trade name or any combination thereof.

6.5 When materials are specified by a Standard, Prescriptive or Performance specifications, upon request of the Consultant, obtain from manufacturer an independent testing laboratory reporting, showing that the material or equipment meets or exceeds the specified requirements.

7.0 CONSTRUCTION EQUIPMENT AND PLANT

7.1 On request, prove to the satisfaction of the Consultant that the construction equipment and plant are adequate to manufacture, transport, place and finish work to quality and production rates specified. If inadequate, replace or provide additional equipment or plant as directed.

7.2 Maintain construction equipment and plant in good operating order.

8.0 METRIC SIZED MATERIALS

8.1 SI metric units of measurement are used exclusively on the drawings and in the specifications for this project.

8.2 The Contractor is required to provide metric products in the sizes called for in the Contract Documents except where a valid claim can be made that a particular product is not available on the Canadian market.

8.3 Claims for exemptions from use of metric sized products shall be in writing and fully substantiated with supportive documentation. Promptly submit application to Consultant for consideration and ruling. Non-metric sized products may not be used unless Contractor's application has been approved in writing by the Consultant.

8.4 Difficulties caused by the Contractor's lack of planning and effort to obtain modular metric sized products which are available on the Canadian market will not be considered sufficient reasons for claiming that they cannot be provided.

8.5 Claims for additional costs due to provision of specified modular metric sized products will not be considered.

9.0 SUBSTITUTION

9.1 No substitutions will be permitted without prior written approval of the Consultant.

9.2 Proposals for substitution may only be submitted after award of contract. Such request must include statements of respective costs of items originally specified and the proposed substitution.

9.3 Proposals will be considered by Consultant if:

9.3.1 materials specified are not available.

9.3.2 delivery date of materials specified would unduly delay completion of contract, or

9.3.3 substitute material which are brought to the attention of and considered by Consultant as equivalent to the material specified and will result in a credit to the Contract amount.

9.4 Should proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on project. Pay for design or drawing changes required as result of substitution.

9.5 Amounts of all credits arising from approval of substitutions will be determined by Consultant and contract Price will be reduced accordingly.

---------- END OF SECTION 01600----------

1.0 CLEANUP

1.1 Maintain the working area in a clean and orderly manner as THE WORK progresses, and upon completion of construction, remove all waste materials, and all temporary facilities from the site.

1.2 Haul surplus or salvage materials that are the property of the OWNER to the OWNER'S storage site.

1.3 Remove surplus or salvaged materials belonging to the CONTRACTOR from the site.

1.4 Clean haul routes.

1.5 Vacuum clean interior building areas when ready for painting, and continue vacuuming as needed.

1.6 Remove grease, dust, dirt, stains, labels, finger prints and other foreign materials from sight on exposed interior and exterior finished surfaces, including glass and other polished surfaces.

1.7 Clean lighting reflectors, lenses and other lighting surfaces.

1.8 Broom clean paved surfaces, rake clean other surfaces of ground.

1.9 Remove debris and surplus materials from roof areas and accessible concealed spaces.

1.10 Remove snow and ice from access to the building.

2.0 RECORD DOCUMENTS

2.1 As specified in other sections of the specifications, the CONTRACTOR may be required to prepare and record drawings, to provide survey notes, to supply test results or other documents. Such information shall be turned over to the ENGINEER; as soon as start up is complete, and before the Construction Completion Certificate is issued.

2.2 Record documents shall be neat, legible and accurate.

3.0 OPERATION MANUALS

3.1 Prepare operation and maintenance manuals and submit four copies to the ENGINEER before the Completion Date.

3.2 Operation and maintenance manuals are specified in general in this section, with regard to numbers of binders, preparation, marking, general arrangement, format and general contents. Requirements for mechanical, process equipment, electrical work and other items may be specified in other sections of the specifications, however the general format shall be in accordance with this section.

3.3 Provide the services of qualified and experienced personnel to prepare manuals.

3.4 Prepare sets of manuals for various divisions using identical bindings, and the same indexing system and format for all manuals.

3.5 Provide 215 x 280 mm extension type catalogue binders bound with heavy weight bright red fabric, hot stamped in silver lettering front and spine. Acropress, Cerlox or similar light weight or special hole binders are not acceptable.

3.6 Letter each binder as follows:

3.6.1 Front Face

3.6.1.1 Full identification of title of project

3.6.1.2 Prime consultant full identification title

3.6.1.3 Sub consultant full identification title

3.6.1.4 CONTRACTOR full identification title

3.6.1.5 Sub contractors full identification title

3.6.2 Spine

3.6.2.1 full identification of title of project

3.6.2.2 copy number

3.7 Arrange each individual binder as follows, using coloured divider tabs which shall be laminated mylar plastic and which shall be coloured according to section of the manual.

3.7.1 Each division of the manual i.e. mechanical, electrical, process equipment etc. shall be a complete manual and shall in general be in the following format with the divider tabs as noted:

3.7.2 Tab 1.0 Title Page

3.7.2.1 job name & OWNER'S name

3.7.2.2 address, telephone number and complete name of:

3.7.2.3 Prime Consultant

3.7.2.4 Subconsultant

3.7.2.5 General CONTRACTOR

3.7.2.6 SUBCONTRACTOR

3.7.2.7 index of all divider tabs

3.7.3 Tab 1.1 List of drawings

3.7.4 Tab 1.2 Description of Systems

3.7.5 Tab 1.3 Operation of Systems

3.7.6 Tab 1.4 Maintenance & Lubrication

3.7.7 Tab 1.5 List of suppliers and addresses of same

3.7.8 Tab 2.0, 2.1 etc. Certifications

3.7.9 Tab 3.0, 3.1 etc. Manufacturers data, Shop drawings, Bulletins

3.8 Provide preventive maintenance program if specified in applicable sections.

3.9 Provide, in addition to mechanical, electrical equipment details:

3.9.1 maintenance data for finished surfaces

3.9.2 copies of hardware schedules

3.9.3 guarantees, warranties and bonds showing names and addresses of manufacturer and guarantee commencement and expiry date

3.9.4 valve lists giving numbers, types, service and location.

3.9.5 certificates and inspection reports by the manufacturers and their representatives.

4.0 PRE AND POST CONSTRUCTION TOPOGRAPHICAL SURVEY

4.1 Sections at 15m intervals of the runway, taxiway and apron before construction

4.2 Sections of the same after construction has been completed

4.3 Provide a digital version of the topographical survey to verify final design grades and authorize final payment.

---------- END OF SECTION 01700----------

1.0 GENERAL

1.1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.

1.2 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

1.3 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.

1.4 Prevent accumulation of waste which creates hazardous conditions.

2.0 MATERIALS

2.1 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.

3.0 CLEANING DURING CONSTRUCTION

3.1 Provide on site containers for collection of waste materials, and debris.

3.2 Dispose of waste materials, and debris off site.

3.3 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

3.4 Dust control is a critical factor of this contract. Dust can create hazardous conditions at the airport such as reduced visibility for control tower and aircraft, dust accumulation on aircraft movement areas, etc. The Contractor shall ensure that adequate dust control is provided at all times during the contract to avoid any hazardous situations and shall immediately implement any measures as directed by the Engineer to control dust problems. Any damages or costs incurred as a result of excessive dust shall be paid for by the contractor.

3.5 Check continuously that no piece of concrete, gravel or any object has been dropped on a runway or taxiway by equipment during travelling to and from the site or during construction activities.

3.6 In the event of an open section of a runway, taxiway or apron fouled by truck spillage or debris, Contractor must

3.6.1 Immediately notify the Consultant that area is temporarily unserviceable.

3.6.2 Without delay arrange for clean-up by Contractor’s own personnel.

3.6.3 Notify Consultant when area is clear.

3.6.4 In the event that due action is not carried out to ensure that area is made serviceable, then this will subject the Contractor to liquidated damages of $500 for every hour the runway or taxiway is unserviceable.

3.6.5 Clean lighting reflectors, lenses and other lighting surfaces, as directed by the engineer at no cost to Owner.

4.0 FINAL CLEANING

4.1 Clean lighting reflectors, lenses, and other lighting surfaces to the satisfaction of the Consultant.

4.2 Broom clean paved surfaces; rake clean other surfaces of grounds.

---------- END OF SECTION 01710----------

1.0 RECORD DRAWINGS

1.1 Consultant will provide two sets of white prints for record drawing purposes.

1.2 Maintain project record drawings and record accurately deviations from Contract documents.

1.3 Record changes in red. Mark on one set of prints and at completion of project and prior to final inspection, neatly transfer notations to second set and submit both sets to the Consultant.

1.4 Record following information:

1.4.1 Field changes of dimension, detail and elevation.

1.4.2 Changes made by Change Order or Field Order.

1.4.3 Cables that are removed or abandoned.

1.4.4 Other significant deviations which are concealed in construction and cannot be identified by visual inspection.

1.5 At completion of project and prior to final inspection, neatly transfer “as-built” records to second set of white prints using fine, red marker. Neatly print lettering and numbers in size to match original. Lines may be drawn free-hand but shall be neat and accurate. Add at each drawing title block note: “AS BUILT RECORD”. Also, circle on List of Drawings each title and number of drawing marked with “as-built” records.

1.6 Submit this set of “as-built” record drawings to Consultant.

1.7 If project is completed without significant deviations from contract drawings, declare this in writing and submit to Consultant in lieu of record drawings.

1.8 The Consultant will review the progress of the record drawings as part of the each payment certificate authorization. Should the drawings not be properly updated, an amount of $2500 will be withheld each payment certificate until the work is completed to the satisfaction of the Consultant.

---------- END OF SECTION 01720----------

1.0 GENERAL

1.1 Specific requirements for maintenance materials, tools and spare parts are specified in Section 01155.

1.2 Deliver maintenance materials, special tools and spare parts to Engineer and store in designated area as directed by Engineer.

1.3 Prepare lists of maintenance materials special tools and spare parts for inclusion in Manual specified in Section 01730.

2.0 MAINTENANCE MATERIALS

2.1 Deliver specified items packaged to prevent damage.

2.2 Identify, on carton or package, colour, room No., system or area as applicable where item is used.

3.0 SPECIAL TOOLS

3.1 Assemble special tools as specified.

3.2 Include following:

3.2.1 Identification tag reference.

3.2.2 Identification of equipment or system for which tools are applicable.

3.2.3 Instruction on intended use of tool.

3.3 Identify special tools to indicate equipment or system for which tools are intended.

4.0 SPARE PARTS

4.1 Assemble spare parts as specified.

4.2 Include the following:

4.2.1 Part number.

4.2.2 Identification of equipment or system for which parts are applicable.

4.2.3 Installation instructions as applicable.

4.2.4 Name and address of nearest supplier.

4.3 Identify spare parts to indicate equipment or system for which parts are applicable.

---------- END OF SECTION 01731----------

1.0 GENERAL PROTECTION

1.1 Do not disrupt airport business except as permitted by the Consultant.

1.2 Provide temporary protection for safe handling of public, personnel, pedestrians and vehicular traffic.

1.3 Provide barricades and lights where directed for the protection of the Contractor's workforce only.

1.4 Refer to Appendix M – Plan of Construction Operations for additional details related to how construction will take place at the airport.

2.0 MOVEMENT OF EQUIPMENT AND PERSONNEL

2.1 In areas of airport not closed to aircraft traffic:

2.1.1 Obtain the Consultant's approval on scheduling of work. the Consultant reserves the right to revise the work schedule as required by Airport Operations. Allow 24 hours notice to get approval to work in these areas.

2.1.2 Control movements of equipment and personnel as directed by the Consultant and Airside Security Escorts.

2.1.3 Signals from the Consultant and Airside Security Escorts to be obeyed instantly.

3.0 OPERATIONAL RESTRICTIONS AND CONSTRAINTS

3.1 Comply with Operational, Safety and Security and other applicable requirements in the execution of the work and working in close proximity of live runways and taxiways, including but not limited to the following:

3.1.1 The integrity of all electronic and visual navigational aids associated with live aviation activities on airside must be maintained for aircraft operations, which take precedence over construction operations.

3.1.2 Buried power, communication and control cables and other underground structures and services in the vicinity of the construction areas are to be identified and protected.

3.1.3 Emergency Rescue Services mobility must be preserved at all times. Operating routes must be reviewed by Consultant on a bi-weekly basis to ensure that access is maintained at all times. Alternative and approved routes are to be established if new construction is anticipated to interfere with such access

4.0 UNSERVICEABLE AREAS

4.1.1 In accordance with the details of the Plan of Construction Operations contained in Appendix M, the Contractor will be responsible for the supply, installation and maintainance of all runway closure markers, temporary daytime marker boards and

any barricades.

4.2 Parking of equipment and stockpiling shall only be permitted within the Contractor's yard.

4.3 Equipment are to be stored in designated equipment storage areas or as directed by Consultant or indicated on the Contract Drawings or described in the PCO – Appendix M.

4.4 Contractor is advised due to possibility of prop blast or any turbulence from aircraft, all markers must be rigidly fixed and tied and delineators must be adequately weighed down with sand bags or bolted to pavement.

5.0 TRENCHING

5.1 On or adjacent to pavements open to aircraft traffic, obtain Consultant's written permission to undertake trenching which cannot be completed, backfilled and sealed within one working day.

6.0 AIRPORT FACILITIES

6.1 The Consultant will coordinate with security and the airport to allow the contractor to stake or inform the location of underground facilities such as cables, pipes and ducts. Notify the Consultant of work areas sufficiently in advance of operations so that co-ordination can take place with security and the airport so underground facilities can be located by the contractor.

7.0 GENERAL PROVISIONS FOR AIRPORT ACTIVITIES

7.1 Refer to Appendix M and the Contract Drawings for details related to construction at the airport.

7.2 Access to the site by the Contractor's vehicles and equipment shall be restricted to the secured entrances which will be detailed on the construction drawings. These access points will require security personnel at all times during active periods, which will be provided by the CONTRACTOR.

7.3 No construction related vehicles or traffic shall travel on paved surfaces which are not part of the project limits without authorized security escort services.

7.4 Construction equipment and stockpiled materials shall be restricted to construction areas or areas indicated by the Consultant.

7.5 The Contractor shall designate one (1) person who will be responsible to ensure all aspects of security and operational safety requirements are adhered to and have authority to rectify the situation. Such a person shall be available at all times during construction and referred to as the "Contractor Safety Superintendent". The Consultant shall be advised of this person at the Pre Construction Meeting. The "Contractor Safety Superintendent" shall be accompanied by an airport security escort at all times to provide radio contact with Air Traffic Control (ATC) and provide necessary escort services adjacent to and on active airside areas.

The CONTRACTOR shall be able to communicate via hand held radios to all persons on-site to facilitate efficient and fast response times should direction be received to mobilize from the construction areas. This contact shall be full-time during construction periods.

7.6 Construction Mobilization shall be closely co-ordinated with the Consultant to ensure all airport safety precautions are implemented properly. Direction will be provided at the Pre Construction Meeting.

7.7 All airside areas, i.e. Runways, taxiways, aprons, etc., are considered NO SMOKING zones. The Contractor Safety Superintendent shall ensure all construction personnel are briefed and adhere to these restrictions.

8.0 DUST CONTROL, PAVEMENT CONDITIONS FOREIGN OBJECT DAMAGE (FOD) CONTROL

8.1 Dust control shall be achieved through the application of water within the project limits during periods of construction or as indicated by the Consultant. There will be no separate payment for this item and cost of same being deemed to be included in the unit prices for the Contract. CALCIUM CHLORIDE SHALL NOT BE USED ANYWHERE WITHIN THE PROJECT LIMITS.

8.2 The Contractor shall supply appropriate labour and equipment to ensure pavement surfaces abutting the project limits are kept clean and free of loose debris at all times. This work shall be completed as indicated by the Consultant.

8.3 For reference, the following outlines the current "FOD" Foreign Object Damage Prevention Program in place at Chesterfield Inlet Airport:

Applications: All construction sites.

Guidelines:

1. The general contractor is responsible to ensure that each contractor on site is responsible for all debris caused by their forces, and must clean up the job site on a continuous basis and must maintain the site in good order.

2. Any materials likely to be wind swept must be tied down or made secure.

3. All food stuff waste must not be scattered about the site, and must be placed in a closed container if outside the site trailers. (This will not only limit wind swept debris but will also provide some wildlife (bird) control Measures.)

4. All materials stored on site must be kept in an orderly fashion while not in use.

5. The general contractor must take immediate action if materials are wind swept from the site location to prevent possible aircraft accident or damage.

6. All the above precautions must be followed to minimize the possibility of aircraft accident or damage. Failure to follow the above precautions may result in closing of work site until FOD materials are cleaned up. If the contractor does not remedy the problem immediately, other forces may be retained to remedy the problem at the contractor's expense.

7. These guidelines are established with reference to Section 49 of the Airport Traffic Regulations, Department of Transport Act.

8. Should the Contractor fail to control dust and debris (FOD), the Consultant reserves the right to order the Contractor to cease all operations until adequate measures have been taken. No claims for delay of contract can be made by the Contractor on this item

9.0 USE OF CRANES

9.1 Use of cranes must have prior approval of the Consultant. Contractor is to submit requests to the Consultant allowing a minimum of 10 days for crane use approval.

9.2 Top of crane boom to be marked with operational red obstruction light.

---------- END OF SECTION 01800----------

PART 1 - GENERAL

1.1 Related Sections

.1 Section 02701 - Aggregates: General

1.2 Measurement Procedures

.1 Measurement for payment of Granular base shall be per cubic metre, as measured by survey immediately before and immediately following placement of the granular base surface material. Payment at the tendered unit price shall be compensation in full for all related work.

1.3 References

.1 ASTM C 117-95, Test Method for Material Finer Than 0.075 mm Sieve in Mineral Aggregates by Washing.

.2 ASTM C 131-96, Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

.3 ASTM C 136-96a, Method for Sieve Analysis of Fine and Coarse Aggregates.

.4 ASTM D 698-91(98), Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft) (600 KN-m/m).

.5 ASTM D 1557-91(98), Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft) (2,700 KN-m/m).

.6 ASTM D 1883-94, Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils.

.7 ASTM D 4318-98, Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

.8 CAN/CGSB-8.1-88, Sieves Testing, Woven Wire, Inch Series.

.9 CAN/CGSB-8.2-M88, Sieves Testing, Woven Wire, Metric.

1.4 Delivery, Storage, and Handling

.1 Deliver and stockpile aggregates in accordance with Section 02701 - Aggregates General.

PART 2 - PRODUCTS

2.1 Materials

.1 Granular base: material to Section 02701 - Aggregates: General and following requirements:

.1 Crushed stone or gravel.

.2 Gradations to be within limits specified when tested to ASTM C 136 and ASTM C 117. Sieve sizes to CAN/CGSB-8.1.

.1 Gradation to:

Sieve Designation	% Passing
16.00mm	100
9.5mm	50-85
4.75mm	35-65
2.00mm	25-50
0.425mm	15-30
0.075mm	5-10

.3 Liquid limit: to ASTM D 4318, maximum 25

.4 Plasticity index: to ASTM D 4318, maximum 6

.5 Los Angeles degradation: to ASTM C 131. Max. % loss by weight: 45

6 Crushed particles: at least 60% of particles by mass retained on the 4.75 mm sieve and the coarse aggregate shall have at least 2 freshly fractured faces.

PART 3 - EXECUTION

3.1 Sequence of Operation

.1 Place granular base after scarified subgrade is inspected by Consultant.

.2 Placing

.1 Construct granular base to depth and grade in areas indicated.

.2 Ensure no frozen material is placed.

.3 Place material only on clean unfrozen surface, free from snow and ice.

.4 Place material to full width in uniform layers not exceeding 150 mm compacted thickness. Consultant may authorize thicker lifts (layers) if specified compaction can be achieved.

.5 Shape each layer to smooth contour and compact to specified density before succeeding layer is placed.

.6 Remove and replace that portion of layer in which material becomes segregated during spreading.

.3 Compaction Equipment

.1 Compaction equipment to be capable of obtaining required material densities.

.4 Compacting

.1 Compact to density not less than 100% MPmdd

.2 Shape and roll alternately to obtain smooth, even and uniformly compacted base.

.3 Apply water as necessary during compacting to obtain specified density.

.4 In areas not accessible to rolling equipment, compact to specified density with mechanical tampers approved by Consultant.

.5 Correct surface irregularities by loosening and adding or removing material until surface is within specified tolerance.

3.2 Site Tolerances

.1 Finished base surface to be within plus or minus 10 mm of established grade and cross section but not uniformly high or low.

3.3 Protection

.1 Maintain finished base in condition conforming to this section until succeeding material is applied or until acceptance by Consultant.

---------- END OF SECTION 02721 ----------

PART 1 - GENERAL

1.1 Related Sections — None

1.2 Measurement Procedures

.1 Airfield Grading:

.1 Measurement for payment for scarification of existing granular surface shall be per square metre, as evidence by measurement in the field of the area scarified. Payment at the tendered unit price shall be compensation in full for all related work.

.2 Measure for payment of granular base shall be per cubic metre as measured by survey immediately before and immediately after the placement of new granular base. Payment at the tendered unit price shall be compensation in full for all related work.

.3 Compaction will be considered incidental to work.

1.3 References

.1 CAN/CGSB-8.2- M88 , Sieves, Testing, Woven Wire, Metric.

.2 ASTM C117- 95 , Test Method for Material Finer Than 0.075mm (No.200) Sieve in Mineral Aggregates by Washing.

.3 ASTMC 136- 95a , Test Method for Sieve Analysis of Fine and Coarse Aggregates.

.4 ASTMD 422- 63(1990) , Method for Particle-Size Analysis of Soils.

.5 ASTMD 4318- 95 , Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

1.4 Definitions

.1 Pavement structure: combination of layers of unbound or stabilized granular sub-base, base, and granular base surfacing.

.2 Subgrade elevation: elevation immediately below pavement structure.

.3 Unsuitable materials:

.1 Weak and compressible materials under pavement areas.

.2 Frost susceptible materials under pavement areas.

.3 Frost susceptible materials:

.1 Fine grained soils with plasticity index less than 10 when tested to ASTM D 4318, and gradation within limits specified when tested to ASTM D 422 and ASTM C 136 : Sieve sizes to CAN/CGSB-8.1.

Sieve Designation	% Passing
2.00 mm	100
0.10 mm	45-100
0.02 mm	10-80
0.005 mm	0-45

.2 Coarse grained soils containing more than 20 % by mass passing 0.075mm sieve.

1.5 Protection of Existing Features

.1 Existing buried utilities and structures:

.1 Size, depth, and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.

.2 Prior to commencing work, notify applicable owner or authorities having jurisdiction, establish location and state of use of buried utilities and structures. Owners or authorities having jurisdiction to clearly mark such locations to prevent disturbance during work, at Contractor's cost.

.3 Confirm location of buried utilities by careful test excavations.

.4 Maintain and protect from damage, water, sewer, gas, electric, telephone, and other utilities and structures encountered as indicated.

.5 Where utility lines or structures exist in area of excavation, obtain direction of Engineer before removing or re-routing.

.6 Record location of maintained, re-routed, and abandoned underground lines.

.2 Existing surface features:

.1 Protect existing buildings and surface features from damage while work is in progress. In the event of damage, immediately make repair to approval of the Engineer.

PART 2 - PRODUCTS

2.1 Materials

.1 Granular Base material properties to Section 02721

PART 3 - EXECUTION

3.1 Subgrade Compaction in Pavement Areas

.1 In fill area, do not place stones and boulders exceeding 150 mm maximum dimension within 0.5 m of subgrade elevation.

.2 After grading has been completed, scarify and mix pavement subgrade surface to required depth of subgrade compaction.

.3 Compact top 150 mm of cohesive subgrade soils to at least 98 % MPmdd.

.4 Compact top 300 mm of cohesionless subgrade soils to at least 98 % MPmdd.

.5 Break soil down to sizes suitable for compaction and mix for uniform moisture and soil conditions to full depth of layer.

.6 Bring moisture content of soil to level required to achieve specified compaction. Add water or aerate as required.

.7 Shape subgrade to required cross section and grade.

.8 If subgrade preparation and compaction can not be achieved to requirement in single layer, temporarily remove upper portion to depth necessary to achieve requirement. Remove, replace and compact such materials at no extra cost to Owner. Excess material is to be disposed of on-site at a location approved by the Owner.

3.2 Finishing and Tolerances

.1 Blade finished surfaces in cut and fill areas free from ruts, depressions, rocks in excess of 75 mm and debris.

.2 Roll finished surfaces to a tight dense condition.

.3 Finished granular base grade to be within 10 mm of design elevations, but not uniformly high or low.

.4 Finished graded area to be within 30 mm of design elevations, but not uniformly high or low.

.5 Surfaces to be free from depressions exceeding 30mm in 5m.

3.3 Maintenance

.1 Maintain finished surfaces in a condition in accordance with this Section until succeeding material is applied or until acceptance by Engineer.

---------- END OF SECTION 02312 ----------

PART 1 - GENERAL

1.1 Measurement for Payment

.1 Supply and application of water for dust control will be considered incidental to any works performed and will not be paid separately.

PART 2 - PRODUCTS

2.1 Materials

.1 Water: to Consultant's approval.

PART 3 - EXECUTION

3.1 Application

.1 Apply water with equipment approved by Consultant.

.2 Apply water with distributors equipped with spray system to ensure uniform application and with means of shut-off.

---------- END OF SECTION 02362 ----------

PART 1 - GENERAL

1.1 Related Sections

.1 Section 02721 - Granular Base

1.2 References

.1 ASTM D4791-89, Test Method for Flat or Elongated Particles in Coarse Aggregate.

1.3 Samples

.1 Submit samples in accordance with Section 01340 - Shop Drawings, Product Data, Samples and Mock-ups.

.2 Allow continual sampling by Contractor's QC/QA Consultant if requested during production.

.3 Provide Consultant with access to source and processed material for sampling.

.4 Install sampling facilities at discharge end of production conveyor, to allow Consultant to obtain representative samples of items being produced. Stop conveyor belt when requested by Consultant to permit full cross section sampling.

.5 Pay cost of sampling and testing of aggregates which fail to meet specified requirements.

.6 Permit Contractor's QC/QA Consultant to obtain samples to ensure compliance with Contract Specifications.

1.4 Measurement Procedures

.1 No measurement for payment will be made under this section.

PART 2 - PRODUCTS

2.1 Materials

.1 Aggregate quality: sound, hard, durable material free from soft, thin, elongated or laminated particles, organic material, clay lumps or minerals, or other substances that would act in deleterious manner for use intended.

.2 Flat and elongated particles of coarse aggregate: to ASTM D4791.

.1 Greatest dimension to exceed five times least dimension.

.3 Fine aggregates satisfying requirements of applicable section to be one, or blend of following:
.1 Natural sand.
.2 Manufactured sand.
.3 Screenings produced in crushing of quarried rock, boulders, gravel or slag.

.4 Coarse aggregates satisfying requirements of applicable section and the following:
.1 Crushed rock, or
.2 Crushed gravel composed of naturally formed particles of stone.

.5 Use of recycled materials on this project is not permitted.

2.2 Source Quality Control

.1 Shall be the responsibility of the Contractor.

.2 If, in opinion of Consultant , materials from proposed source do not meet, or cannot reasonably be processed to meet, specified requirements, locate an alternative source or demonstrate that material from source in question can be processed to meet specified requirements.

.3 Advise Consultant 4 weeks in advance of proposed change of material source.

.4 Acceptance of material at source does not preclude future rejection if it fails to conform to requirements specified, lacks uniformity, or if its field performance is found to be unsatisfactory.

PART 3 - EXECUTION

3.1 Preparation

NOT APPLICABLE AS THE MATERIAL IS TO BE SUPPLIED BY OWNER

3.2 Cleaning

NOT APPLICABLE AS THE MATERIAL IS TO BE SUPPLIED BY OWNER

---------- END OF SECTION 02701 ----------

APPENDIX J

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

ACAP INITIAL ENVIRONMENTAL INFORMATION FORM

The following form must be completed by the NWPA Permit applicant as a requirement of Transport Canada's 'Environmental Assessment Process For NWPA Permit Applicants'. Please use additional pages when extra space is needed, noting the appropriate headings and subheadings.

Project Title: *

Other Permits & Approvals Required (i.e. building, municipal, provincial): Yes ☑ No ☐
Specify: QUARRY PERMITS FROM MUNICIPALITY & GN. *

Drawings Available: Yes ☑ No ☐
Specify: ATTACHED

Project Documentation and Existing Environmental Reports: Yes ☐ No ☑
Specify:

General Project Description - Include need or justification for the project:
- OVERLAY OF RUNWAY
- CRUSHING & BLASTING OF GRANULAR MATERIAL FROM CURRENT QUARRY SITE.
- TREATMENT OF OVERLAYED SURFACES WITH DUST SUPPRESSANT.
- REPLACEMENT OF FIELD LIGHTING SYSTEMS WITH NEW.

PROJECT AREA PHYSICAL & ECOLOGICAL DESCRIPTION
(Check box where applicable)

Project Location: LOT 1000 QUAD 55/07 NEAR CHESTERFIELD INLET.
(Legal description, GPS, Nearest Community, etc.)

Approximate Size of Project Area: 12 HECTARES
(Square Meters, Hectares etc.)

General Environmental Setting – Provide a description of surrounding terrain, topography, ecoregion, ecozone, management area, etc.:
AIRPORT LANDS: GRANULAR PAVED SURFACES & ASSOCIATED DRAINAGE DITCHING.

Soil Type:

Topsoil ☐ Gravel ☑ Sand ☑ Clay ☐ Silt ☐ Sediment ☐

Other ☐ Specify:

Depth to Bedrock (in meters if known) >1 METER EXCEPT IN ISOLATED LOCATION WHERE ~.5 METER

Vegetation Type:

Trees ☐ Grass ☑ Shrubs ☐ Submerged/Emergent ☐

No Vegetation ☑ Other ☑ Specify: NO VEGETATION ON SURFACES. SMALL AMOUNTS OF GRASS & TUNDRA MOSS IN DITCHES.

Terrestrial Wildlife – Include those observed or known to occur in the area:

- MIGRATORY ~~GAME~~ WATERFOWL, CARIBOU.
- BECAUSE THIS IS AN AIRPORT, THE PRESENCE OF WILDLIFE IS DISCOURAGED.

Aquatic Species – Include those surveyed or known to occur:

NONE

Species at Risk – Include those surveyed or known to occur:

NONE

Surface Water (on-site or nearby):

River	☐	Storm Water Drainage System (existing & proposed)	☑
Lake/ pong	☐	Stream	☐
Marine	☐	Wetland Area (swamp, marsh etc.)	☐
Other	☐		

Specify: NO CHANGE PROPOSED TO EXISTING.

Surface Water Description - Include Watershed, drainage area, width, depth, flows, velocities, seasonal fluctuations etc.:

- HEAVY RUNOFF AT SPRING MELT. VERY LITTLE FLOW OTHERWISE.

Current Water Use:

Undeveloped/Natural Area	☑	Specify:
Recreational	☐	Specify:
Industrial	☐	Specify:

Adjacent Land Use:

Undeveloped/Natural Area	☑	Specify:
Agricultural Land	☐	Specify:
Residential	☐	Specify:
Recreational	☐	Specify:
Industrial	☐	Specify:
Airport Use	☑	Specify: WORK WILL TAKE PLACE ON AIRPORT, ADJACENT LAND UNUSED/UNDEVELOPED.

HAZARDOUS PRODUCT - MATERIALS STORAGE LIST

Indicate any of the following materials that will be stored or used by this operation:

Fuel (gasoline, jet fuel, heating fuels etc.)	☐
Propane	☐
Oils (engine oils, transmission oil, waste oil etc.)	☐
Metal Plating Materials	☐
Maintenance Fluids (antifreeze, hydraulic fluids, brake fluids, etc.)	☐
Degreasers, Solvents, Cleaners, Paint Removers, Strippers	☐
Pesticides	☐
Sanitary Cleaning Products	☐
Other	☐

Specify: NO STORAGE ON SITE EXPECTED. FUEL WILL BE DELIVERED BY LICENSED FUEL DELIVERY CONTRACTOR.

ASSOCIATED ACTIVITIES

Indicate the activities which will be associated with this project:

Site Preparation Phase Activities:

Access Road Construction	☐	Drainage or Stream Alteration	☐
Site Clearing	☐	Vegetation Control	☐
Burning	☐	Excavation	☑

Other ☐ Land Filling ☐
Specify: EXCAVATION FROM DEFINED & PREVIOUSLY UTILIZED QUARRY SITE.

Construction Phase Activities:

Temporary Roads	☐	Ditching	☑
Topsoil Stripping	☐	Landscaping	☐
Compacting	☑	Stumping & Grubbing	☐
Blasting/Drilling	☑	Gravel Crushing/Washing	☑
Earth Disposal	☐	Grading (cut/filling)	☐
Stream Crossing	☐	Solid Waste Disposal	☐
Dewatering	☐	Fencing	☐
Stream Channeling	☐	Painting/Paint Removal	☐
Installation of Petroleum Storage Tanks (ASTs/USTs)	☐	Culvert Installation	☑
Erosion Control	☐	Utilities	☐
Asphalting/Concreting	☐	Sewage/Disposal Treatment	☐
Equipment Use	☐	Electrical Equipment Disposal	☑
Other	☐	Industrial Wastewater Disposal	☐

Specify: BLAST/CRUSH IN QUARRY; COMPACTING OF RUNWAY SURFACE; DISPOSAL OF NON-HAZARDOUS (DRY TRANSFORMER) ELECTRICAL EQUIPMENT; CULVERT REPLACEMENT.

Operational and Maintenance Phase Activities:

Storage of Hazardous Goods	☐	Sewage Disposal/Treatment	☐
Pedestrian Movement	☐	Equipment Maintenance	☐
Snow Removal/Disposal	☐	Fuel Storage	☐
Other	☐		

Specify: _____

Decommissioning and Abandonment Phase Activities:

Temporary Roads	☐	Landscaping	☐
Topsoil Stripping	☐	Stumping & Grubbing	☐
Compacting	☐	Gravel Crushing/Washing	☐
Blasting/Drilling	☐	Grading (cut/filling)	☐
Earth Disposal	☐	Solid Waste Disposal	☐
Stream Crossing	☐	Fencing	☐
Dewatering	☐	Painting/Paint Removal	☐
Stream Channeling	☐	Culvert Installation	☐
Erosion Control	☑	Utilities	☐
Equipment Use	☐	Sewage/Disposal Treatment	☐
Ditching	☐	Electrical Equipment Disposal	☐
Other	☐	Industrial Wastewater Disposal	☐

Specify: QUARRY SITE WILL BE TRIMMED TO PREVENT EROSION.

ENVIRONMENTAL CONTROL FACILITIES TO BE INSTALLED

Environmental Management Plans	☐	Noise Attenuation	☐
Emission Controls	☐	Environmental Emergency Contingency Plan	☐
Other	☐		

Specify: _____

MITIGATIONS

Identify the activity under the appropriate phase (site preparation, construction, operation and maintenance, decommissioning) and describe proposed mitigations to be implemented as a part of this project:

Additional comment or remarks:

Completed By/
Proposal Contact: JOHN HAWKINS **Signature:** [signature] **Date:** 2005/09/21

mm/dd/yy

P.O. BOX 560, RANKIN INLET, NU, X0C-0G0
NUNAVUT AIRPORTS DIVISION, EDMT, GN.
Mailing Address

867 645-8200.
Telephone Number

APPENDIX K

FIVE YEAR CAPITAL PLAN

Schedule 5: Summary Sheet for 2006-07 Capital Estimate Targets and GN 5-Year Capital Plan, 2007-11 ($000)

Community	Region	Dept. No.	Dept.	Project Number	Project	Percent of Total for 2006/07	Target Prior Years Cumulative	2006/07	2007/08	2008/09	2009/10	2010/11	Total for Plan period	Future Years	Project Total
Bathurst Inlet	Kitikmeot	15	EDT	507510	Bathurst Inlet Road and Port Project		1,604	100	75				175		1,779
Various	Various	15	EDT	500246	Nunavut Art Service/Bank		375	10	10				20		395
Grise Fiord	Qikiqtaaluk	15	EDT	515002	Rehab. Runway/Apron		125	400	400				800		925
Nanisivik	Qikiqtaaluk	15	EDT	500059	Highway Upgrades (Access Road)		1,100	100	100	70	83		353	500	1,953
Various	Various	15	EDT	507732	Access Roads		300	150	150	150	150	150	750	4,250	5,300
Various	Various	15	EDT	511014	Visitor Centres		425	50	50	25	25	25	175	250	850
Various	Various	15	EDT	511013	Tourism Exhibition/Booth Replacement		25	25	25	25	25	25	125		150
Kimmirut	Qikiqtaaluk	15	EDT		Rehab. Runway/Apron			125	650	300			1,075		1,075
Rankin Inlet	Kivalliq	15	EDT		AME Plow Truck			235					235		235
Taloyoak	Kitikmeot	15	EDT		Rehab. Runway/Apron			450	600	950			2,000		2,000
Iqaluit	Qikiqtaaluk	15	EDT		Plow Truck			240					240		240
Whale Cove	Kivalliq	15	EDT		Wheel Loader			320					320		320
Kimmirut	Qikiqtaaluk	15	EDT		AME Packer			20					20		20
Repulse Bay	Kivalliq	15	EDT		AME Packer			20					20		20
Resolute Bay	Qikiqtaaluk	15	EDT		Wheel Loader			316					316		316
Pangnirtung	Qikiqtaaluk	15	EDT		EDT Department Vehicle			40					40		40
Taloyoak	Kitikmeot	15	EDT		Replace Airfield Lighting					71	400	231	702		702
Iqaluit	Qikiqtaaluk	15	EDT		Plow Truck					235			235		235
Iqaluit	Qikiqtaaluk	15	EDT		Snowblower						250		250		250
Clyde River	Qikiqtaaluk	15	EDT		Rehabilitation Runway Surfaces				134	250	250		634		634
Resolute Bay	Qikiqtaaluk	15	EDT		AME Snowblower						250		250		250
Baker Lake	Kivalliq	15	EDT		Airfield Lighting						400	400	800		800
Chesterfield Inlet	Kivalliq	15	EDT		Replace Airfield Lighting				125	200			325		325
Pond Inlet	Qikiqtaaluk	15	EDT		Plow Truck						240		240		240
Pangnirtung	Qikiqtaaluk	15	EDT		Pick-Up Truck						40		40		40
Baker Lake	Kivalliq	15	EDT		Wheel Loader							320	320		320
Rankin Inlet	Kivalliq	15	EDT		Wheel Loader							320	320		320
Rankin Inlet	Kivalliq	15	EDT		Rehab. Runway/Apron							480	480	320	800
Baker Lake	Kivalliq	15	EDT		Pick-Up Truck				40				40		40
Cape Dorset	Qikiqtaaluk	15	EDT		Pick-Up Truck				40				40		40
Chesterfield Inlet	Kivalliq	15	EDT		Pick-Up Truck				40				40		40
						0.0%	**3954**	**2601**	**2439**	**2276**	**2113**	**1951**	**11380**	**5320**	**20654**

Recommended by: _____
Deputy Minister

Date: _____

Approved by: _____
Minister

Date: _____

Nunavut

BUDGET VOUCHER

Date: July 8, 2005

Department: Economic Development & Transportation

Region: Headquarters / Regions

Settlement: All

No	Date (Y/M)	Section (5)	Fund (2)	Region (1)	Cost Center 2 (6)	Vote (2)	Standard Object (3)	Dollars Increase	Dollars Decrease
1	05/07	15710	01	2	500059	02	380	179,000	YSR HWY Upgrade
2	05/07	15770	01	2	500190	02	380	146,000	Qikiq Replace Airfield Lgt
3	05/07	15400	01	1	500246	02	380	25,000	Nunavut Art Service
4	05/07	15770	01	1	500303	02	380	294,000	ACAP - GN Component
5	05/07	15770	01	2	507063	02	380	90,000	Qikiq Maint Garage
6	05/07	15770	01	2	507078	02	380	15,000	YFB Airport Infrustr
7	05/07	15770	01	3	507345	02	380	998,000	Chesterfield Gran Stock
8	05/07	15710	01	3	507359	02	380	18,000	Baker Lake Prince River
9	05/07	15710	01	4	507510	02	380	274,000	Bathurst Road & Port
10	05/07	15770	01	2	507705	02	380	272,000	SHIP - YIO ATB
11	05/07	15710	01	1	507710	02	380	48,000	SHIP - Checkers Lake
12	05/07	15770	01	3	507711	02	380	27,000	SHIP - Coral ATB
Substantiation:							**TOTAL PG 1**	$2,386,000.00	

To establish Capital Carryovers. See appendix 1

For Departmental use:

Prepared by: Lazarus Akeeagok	YY / MM / DD	Spending Authority:	YY / MM / DD

For Department of Finance & Administration use only

Verified By:	YY / MM / DD	Entered by:	YY / MM / DD
Approved By:	YY / MM / DD		

Nunavut

BUDGET VOUCHER

Date: July 8, 2005

Department: Economic Development & Transportation

Region: Headquarters / Regions

Settlement: All

No	Date (Y/M)	Section (5)	Fund (2)	Region (1)	Cost Center 2 (6)	Vote (2)	Standard Object (3)	Dollars Increase	Dollars Decrease
1	05/07	15770	01	4	507717	02	380	208,000	SHIP - Gjoa ATB
2	05/07	15770	01	1	507718	02	380	148,000	SHIP - Feasibility Studies
3									
4									
5									
6									
7									
8									
9									
10									
11							Total Pg 2	356,000	
12							Total Pg 1	2,386,000	
Substantiation:							**TOTAL**	$2,742,000.00	

To establish Capital Carryovers. See appendix 1

For Departmental use:

Prepared by: Lazarus Akeeagok	YY / MM / DD	Spending Authority:	YY / MM / DD

For Department of Finance & Administration use only

Verified By:	YY / MM / DD	Entered by:	YY / MM / DD
Approved By:	YY / MM / DD		

APPENDIX L

COMMUNITY PROFILE

Kivalliq Inuit Association

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Chesterfield Inlet, Nunavut

Chesterfield Inlet is a closely knit community of approximately 300. Families are so intertwined that just about everyone is related. There¹s a strong community spirit , and a comfortable blend of traditional and modern lifestyles.

From the mid 1800¹s to the beginning of this century, whalers visited the area regularly and often overwintered here. They counted on local Inuit to hunt for them and to man their whale boats. At Chesterfield Inlet Inuit often gathered to seek employment or to trade goods. Until the 1950¹s the community was a major centre North of Churchill, MB. It was the Hudson Bay Companies main supply centre for other posts in the area. It was also the site of the largest RCMP barracks and the largest Roman Catholic mission in the eastern arctic, as well as medical and education centre.

Community Index

- Population 337
- breakdown
  - 95% Inuit
  - 5% Non-Inuit

Arviat | Baker Lake | Chesterfield Inlet | Coral Harbour | Rankin Inlet | Repulse Bay | Whale Cove

Population statistics from the 1996 Census of Canada. Population breakdowns by ethnic groups are not yet available. Percentages here are based on the 1991 Census of Canada.