planeground airport consulting GmbH & Co KG Von-Werth-Str. 9-13 D-50670, Cologne, Germany

DnelDate: 27 12.2019

Naše značka/Our Ref. 3500/1QILP INV

Vyřlizuje!Responsible:

## **Prague Airport Passenger Terminal - Design Study**

Variation Notice 04: Acceptance of he Consultant's Proposal for Variation 2.1 dated 23 December 2019, Agreement on Variation Value and Impact, Confirmation of Client's Instruction to Consultant to Commence Work on Variation 2.1

Dear Mr. Beck,

With reference to Clause 5 of he agreement entered into between Letiště Praha, a.s., as Client, and planeground airport consulting GmbH & Co KG, as Consultant, in regard to "Prague Airport Passenger Terminal - Design Study", dated 4 February 2019, Client's contract No. 0224003616, and with furthner reference to he Consultant's Proposal for Variation 2.1 dated 23 December 2019 including all its annexes (a copy thereof enclosed).

the Client hereby (i) accepts he Consultant's Proposal for Variation 2.1 dated 23 December 2019, (ii) specifically confirms caching agreement on Variations' goals & boundaries, scope, value and ether impacts (additional time, works resp. costs, impact on Time for Completion and/or Milestones etc.) with respect to Variations 2.1, as described in he Proposal for Variation 2.1 dated 23 December 2019, and (iii) specifically confirms Client's instruction to Consultant to commence work on Variation 2.1, as described in the Proposal for Variation 2.1 dated 23 December 2019. The Consultant Will submit he scope of Variation 2.1 as spon as possible for Clientls approval.

With kind regards,

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(Enclosure: Copy of Consultant's Proposal for Variation 2.1 dated 23 December 2019, including all its annexes)





# **PROPOSAL FOR VARIATION**

<u>v2.1</u>

**PRG** 

Prague Airport Passenger Terminal Design Study

Impact Notice Proposal:

v2.1: PRG New Phase 1 Concept

Cologne / Amsterdam, 23.12.2019

to:

Letiště Praha, a.s.

K letišti 1019/6, Ruzyně 161 00 PRAHA 6 (CZ)

#### from

planeground airport consulting GmbH & Co KG Von-Werth-Str. 9-13 D-50670 Köln / Germany

Email: <a href="mailto:info@planeground.de">info@planeground.de</a>

www.planeground.de



#### **Dear Sirs**

Reference is made to the PRG steering meeting of 31<sup>st</sup> July; on this date it was disclosed, that the board chose for accelerating the developments by means of introducing a first incremental step to be built as soon as possible (i.e. as soon as the building permission process allows). This new development step is a minimal first expansion, without major impact in the exisiting operational regime. This development step -so called: Phase 1- has to be designed and elaborated to the same level of pre-design stage as specified for the Terrminal Design Study.

This proposal comprises of the additional works and efforts to be taken into account and the impact to the original project induced by the following Variation of Services v2.1

→ New PRG Phase 1 Concept planning to determine a simple and prompt solution for the most urgent capacity needs at the level of 21 MAP (→ Variation of Services v2.1)

On the occasion of two follow-up PM meetings on August 12<sup>th</sup> and 13<sup>th</sup>, PRG project management instructed the Design Team to immediately resume the original project works (DP/B) with "The View" Concept although this may constitute a risk in case PRG will finally decide for ADPi/TDS" concept after further insights of Variation v2.0. At this stage it was agreed to shift the elaboration of Variation v2.1 to the end of the design study (Email 14.08). However, after PRG's comments from Sept. 26<sup>th</sup> and the discussion per Skype as of Oct. 7<sup>th</sup> it was deemed that it is necessary to have determined the ultimate design stage (2045) of the terminal first in order to be able to crystallize a coherent first development step out of it, without risking too much sunk investments. So the elaboration period for Variation v2.1 (Phase 1) was again moved forward while the submission of final set of deliverables was agreed to postpone to mid-december (see Email of Oct 15<sup>th</sup>).

On 19<sup>th</sup> November, the DT indicated during a meeting in PRG, that the proceedings of works for Phase 1 did not follow the proposed time frame as anticipated 4 weeks ago / on Oct 15<sup>th</sup> (earlier proposal), which is the reason why a new proposal was prepared based on actual accrued hours (submitted in draft on Dec 3<sup>rd</sup> and in final on Dec 17<sup>th</sup>), which led to a dispute on the eligibility of the extra incurred costs. After amicable settlement of this dispute on Dec 19<sup>th</sup> / 20<sup>th</sup> (Email with we herewith submit the latest version of the respective Variation of Services v2.1.

Thus, the present proposal for Variation of Services v2.1 annuls the earlier prepared proposal as of August 6<sup>th</sup>; August 19<sup>th</sup>, September 17<sup>th</sup>, October 15<sup>th</sup> as well as Dec 3<sup>rd</sup> resp. 17<sup>th</sup>).

#### APPRECIATION AND SCOPE OF PROJECT VARIATIONS v2.1 – PRG NEW PHASE 1 CONCEPT

The New Phase 1 is to be designed as an integral part of the long-term terminal development and was originally intended to consist of the following characteristics and features (determined by PRG). But after due consideration of this Phase 1 development idea, also other options came into play that seem viable and favorable. So, the very first task of Variation v2.1 is to determine the functional concept of Phase 1 developments in the context of the total PRG Terminal usage. Still, the predominant aim is to increase the capacity of WB-stand demand as soon as possible and to meet the respective capacity demand of 21.2 MAP (given by EIA limits).



#### Various options for PRG Terminal Concept at New Phase 1

#### a) OPS-Solution:

- New Pier D (segment) serving predominantly for Non-Schengen WB demand but also as relief facility for overload situations in T1.
- Terminal 1 used for Non-Schengen NB traffic, with separate landside access (Check-In, Baggage reclaim, Border Control, Security Concept etc. remains as is today)
- Terminal 2 continues to serve for 100% of Schengen Traffic (Airside functionality remains as is)
- Terminal 2 landside will serve 100% Schengen plus parts of Non-Schengen traffic (especially long-haul traffic)

### b) SWOP-Solution:

- → New Pier D (segment) plus Terminal 2 positions serving Non-Schengen demand.
- → Pier A and B of Terminal 1 used for Schengen traffic
- Pier C will be developed as Swing-Pier for SCH + Non-SCH usage.
- Clear segregation of PAX-Flows from landside: 100% Non-Schengen PAX use T2 (for Check-In; Bag-drop; Security; Border Control); 100% Schengen PAX use T1 (for Check-In; Bag-drop; Security). → SWOP of Schengen / Non-Schengen Terminal Functionality.

#### c) <u>SWOP-Solution + Central Security T2:</u>

- → Airside / Pier configuration identical to SWOP solution
- Introduction of central security in Terminal 2 (level 2) for 100% PAX with split PAX-flows on airside to T1 (Schengen) and T2 (Non-Schengen).
- > T1 landside to be abandoned

#### Functionality of New Phase 1 Design (applicable to all options)

The New Phase 1 shall comprise of

- → East part of Pier D, capable to cater for MARS-Stands / Non-Schengen; partly with swing functionality if possible.
- → Extension of Terminal 2 core building (exact footprint to be determined)
- → Additional Check-in facilities according to demand (if need be)
- → Additional Security facilities according to demand
- Additional baggage reclaim capacity according to demand (and if need be)
- Additional departure busgate capacity according to demand and Non-Schengen arrival injection point.
- Additional Retail / F+B zone (as much as practical / economically viable)

#### Design features and characteristics of New Phase 1 (applicable to all options)

- Maximize processor capacity within given footprint (but not more than needed)
- Minimize impact on existing terminal structure and airfield (also during construction)
- → Lose as few as possible existing aircraft contact stands.
- Minimize sunk investments during subsequent developments (Phase 2, 3 etc)
- Provision of any reasonable functionality needed at this design phase.

### Works to be performed:

See Annex: Scope of additional Works Variation v2.1



The services demand for frequent discussions and coordination meetings with the respective stake-holders, so that regular on-site presence in PRG will be obligatory.

As indicated above, the initially prospected amount of works for the Variation of Services v2.1 as estimated / calculated in previous proposal (of Oct. 15<sup>th</sup>) were exceeded due to,

- a) Delay in decision making on Phase 1 Concept by PRG, (pending until Nov 18th) that led to
  - Parallel CAD planning of functional layouts of options in order to be able to accelerate / limit delays of subsequent tasks, once decision of Phase 1 concept is made.
  - Project prolongation (see new Schedule v8.6).
- b) additional works that have been performed during the more extensive decision making period comprising of:
  - Detailed elaboration on T1 and Pier C (Swing Pier) in variatns
  - Airside Concept Planning incl. aviplan simulations in variants
  - Total gate allocation study (T1 and T2 / in variants)

With regards to these additional work and in line with the amicable settlement of the respective dispute, we are happy to take the associated extra costs on the account of goodwill and return to the earlier (Oct 15<sup>th</sup>) stated amount of costs.

#### 2. DURATION AND COSTS (v2.1)

Due to the extensive procedure to reach an agreement for this Variation of Services, the submission date of the final set of deliverables for Phase 1 is delayed. All final deliverables will be compiled for submission as soon as possible after reception of the respective notice for Variation. The date of submission of final deliverables of the Variation of Services is depending on a due assignment (respective notice for variation) and the due processing within PRG organization pertaining to the associated and agreed general conditions. The schedule as attached (v8.6) therefore is indicative and subject to PRG's accelerated procedures.

For the Variation v2.1 Services, we refer to the respective staff and cost calculation in the Annex. They amount to a total of

Cost of Variation v2.1 - PRG Phase 1 Design → € 77.915,--

The respective amounts of costs stipulated in the annexed summary include following costs.

- Staff honorarium
- Office and coordination cost (Cologne&Amsterdam / Prague)
- → Travel and accommodation costs as stipulated in the respective schedule.

All amounts are net values and do not comprise statutory VAT amounts.

### 3. GENERAL CONDITIONS

In addition to the agreements in the respective clauses of the main contract, the following conditions shall apply:

- Submission of invoice of Variation v2.1 is due after delivery of the respective deliverable
- A written notice of Variation v2.1 is obligatory and conditional to the delivery of the respective working results.



The mutual assertions of the amicable settlement pertaining to the dispute to Variation of Services v2.1 (Email with Mr Komsa as of Dec 19<sup>th</sup> / 20<sup>th</sup>) are prerequisite to the present proposal and proposed project schedule (v8.6).

We are looking forward to finalize our work with regards to the New Phase 1 Development Concept according to present proposal.

With kind regards Yours faithfully

Cologne / Amsterdam, December 23<sup>rd</sup>, 2019

#### **ANNEX**

- Break down of Cost for v2.1
- Project Schedule v8.6. indicative
- Scope of Additional Works Variations v2.1 (same as of 15. Oct)



Calculation Variation of Works v2.1									
Project Prague Airport Passenger Terinal Design Study planeground / Techniserv / C+K									
pranting Found 7 Footing State Control									
I. PROFESSIONAL FEE									
A) planegroud airport consulting	Rate	Time	Total						
	(Euro/day)	days (8hr)	(Euro)						
Sr. Airport Master Planner	1.160,00 €	8,0	9.280,00€						
Sr. Terminal Architect	1.160,00 €	9,0	10.440,00€						
Terminal Architect	760,00 €	20,0	15.200,00€						
Sr. Airport Planner	1.160,00 €	5,0	5.800,00€						
Simulation Analyst	960,00€	0,0	- €						
Subtotal planeground	in Staff days	42,0	40.720,00 € 52,26%						
<u> </u>	staff months 1,9								
B) Techniserv	Rate	Time	Total						
Land Davingt Manager / Franciscon / IN/AC Dav Core County MOF	(Euro/day)	days (8hr)	(Euro)						
Local Project Manager / Engineers (HVAC, Bag-Sys, Constr., M&E	640,00 €	12,0	7.680,00€						
Local Consultant / Engineer	640,00 €	3,0	1.920,00€						
Subtotal Techniserv	in Staff days staff months	15,0 0.7	9.600,00 € 12,32%						
		-,-	<u> </u>						
C) Chybik & Kristof Architects	<b>Rate</b> (Euro/day)	<b>Time</b> days (8hr)	<b>Total</b> (Euro)						
Chief Architect	1.060,00 €	3,0	3.180.00€						
Lead Architect	435,00 €	24,0	10.440,00 €						
Architect	325,00 €	13,0	4.225,00 €						
Support	90,00€	19,0	1.710,00€						
Subtotal Chybik + Kristof	in Staff days	59,0	19.555,00 €						
Subtotal Silysik - Mister	25,10%								
II) ADDITIONAL COST		,							
Office Cost (ca.)		5%	2.040,00€						
Travel Expenses *)	320,00€	9	2.880,00€						
Hotel / night *)	120,00€	16	1.920,00€						
Allowance / day *)	50,00€	24	1.200,00€						
Subtotal II) Additional Cost (Variation v2.1)	8.040,00€								
*) Basis: only applicable for non-resident (i.e. non-Czech) parties									
TOTAL SUM (excl. VAT) / VARIATIONS 2.1	77.915,00€								



Project schedule (v8.6 - incl. Variation of Service v1.0/v1.1 /v1.2 and v2.0/v2.1) Month 2018 2019 Week Project Week PRAGUE AIRPORT PASSENGER TERMINAL - DESIGN STUDY Key Dates \*) yellow = project milestones / red = payment milesto lead support Part I - ANALYTICAL PART 1. Inception / Compilation and Sighting of Project Information 2. Review/Analysis on ADPi Study Conclusions (2nd opinion) planeground 3. Evaluation of conditions & capabilities incl. capacity / demand analysis (existing Terminal) Draft analytical report date: 15.03.201 4. Critical Impact Analysis of ADPi study pertaining to exisiting Terminal Infrastructure Technisen 5. Report of Analysis Part planeground Submission final analytical report date: 15.04.201 Approval period of final Analytical Report PRG AIRPORT 1 week Part II - DESIGN PART A) Conceptual elaboration (sketch design level - in variants) 1. Design Proposals: Layout arrangements (i.e. Floor Plans) planeground / C+K 2. Design Proposals: Functional schemes (i.e. Flows & Processes) planeground / C+K 3. Design Proposals: Exterior / Interior Design (i.e. Studies on building appearance) C+K Approval period of Basis for Design PRG AIRPORT 4. Workshop and Evaluation of options / Selection of preferred options \*) planeground Decision period of Preferred Concept PRG AIRPORT 1 week A+) Decision Support Works 1. Stakeholder Workshops for concept alteration / fine-tuning (creating consensus) 2. Additional Analysis e.g. Rough cost estimates, phasing of concepts 3. Definition of scope for subsequent elaboration phase (DP/B) → Decision on pref. concept ("How to proceed") PRG AIRPORT date:17.06.2019 v1.2 <u>VARIATION</u> - Continued Decision Support Services Commencement with elaborating concept - uncritical to decision (e.g. Pier, Level -1) NOT INCURRED TO VARIATION COSTS! Additional works and studies pertaining to decision support (e.g. stratigic phasing etc) Commercial Concept Studies for TDS and PRG board v2.0 VARIATION - Commercial Concept Optimization Adaptation of Comments and Improvement of Commercial Concept according to TDS Providing Comments to TDS/pragma V6.0 / Preparation of Workshop Meeting New Cost Calculations "The View" and "ADPi/TDS" B) Further elaboration of selected proposal 1. Elaboration on terminal functionality (calculations, plans, schemes) C+K - Calculation of functional area dimensions & processor quantities (indicative PoR) - Functional Schemes (CAD-planning / diagrammes) C+K planeground - Review of ADPi Apron Concept (related to T2 development) C+K planeground - Construction Phasing Concept planeground C+K date: 09.09.20 Draft Design Study 2. Architectural Design Concept (CAD & 3D Models) planeground - Elaboration of floor plans, sections and elevations C+K planeground - Exterior design / Facade concept (material, finishes etc) C+K planeground - Interior Design Concept C+K planeground - Preparation of Cost Estimation С+К planeground - Preparation of 3D render models C+K planeground 3. Technical operability studies ('feasibility' level) Technisery - Structural principles (feasibility level) Technisery - HVAC principles (feasibility level) - Mechanical & Electrical principles (feasibility level) Techniserv - Fire-protection principles (feasibility level) Technisery - Baggage System concept (feasibility-level) **.** Submission of Final Design Study 5. Preparation of photo-realisitic 3D-renders (high-res) C) Verification of structure capabilities 1. Dynamic PAX-Flow Simulations - Definition of basic assumptions & input parameters planeground - Simulation of 7 terminal processes (Check-in; Security, Passport, Bag reclaim etc.) planeground 2. Report of Design Part --> Submission of Final Set of Deliverables (Basic Project Phase 2-3) date: 20.12.201 v.2.1 VARIATION - PRG New Phase 1 Concept Preparation of design basis (facility demand and requirements) Functional planning incl. Capacity and Compatibility checks Preparation of set of functional floor-plan drawings --> Submission of Final Deliverables Phase 1 date: 24.01.201 Part III - ADVISORY & SUPERVISION SERVICES 



### PRAGUE AIRPORT PASSENGER TERMINAL - DESIGN STUDY

SCOPE OF SERVICES (Addendum pertaining to Variations of Services)

<u>No.:</u>		<u>Tasks*</u>	<u>lead party</u>	<u>support</u>	duration *)	<u>workdays</u>
PART	2 - [	DESIGN PART * / VARIATION**				
		N OF SERVICES v2.1: PRG NEW PHASE 1 CONCEPT				
0.4	_	Description of Desir for Desire for New Phase 4 (04 0MAD)				
V2.1	1.	Preparation of Basis for Design for New Phase 1 (21,2MAP)	planeground	-	6wks (total)	
		- Critically reviewing peak-hours given by OPS Dept	•			
		- Calculation of facility demand (processor and area demand)				
	- Preparatory works (sketches / drawings / analysis) for decision making of Phase 1					
	- Preparatory works (sketches / drawings / analysis) for decision making of Phase 1					
	- Assumptions on Terminal Usage (Schengen / Non-Schengen; Centrized / Decentralized etc)					
	2.	Functional Concept Planning (for Phase 1 Expansion)	C+K	all	6wks (total)	
		- Functional Area Concept in line with the demand (Phase 1)				
		- Flow planning and capacity check				
		- Retail concept (provision of respective functional area and flow scheme for further elaboration by TDS)				
		- Compatibility check with later stage terminal developments (phasability) on functional floor plan level				
		- Functionality and Flow check during building execution				
		- Cost Estimations				
	3.	Technical Operability Studies	Techniserv	all	6wks (total)	
		- Elaboration of Structural Principles (Phase 1)				
		- Elaboration of HVAC principles (Phase 1)				
		- Elaboration of M+Eprinciples (Phase 1)				
- Deliverables (Finalization of works for Variation v2.1)						
- Summary Report on PRG Phase 1 Concept (final design*); incl. construction / technical installation principles						
		- Drawings (A0):				
		Functional Floor Plans Phase 1 Expansion (all levels)				
		Typical Sections Phase 1 Expansion> 2 dwg				
		- Flow Concept Drawings (2D)				
1						
Additi	onal	Deliverables (Finalization of Design Study) - 20.12.	all	-		
		Incorporation of Phase 1 in Final Report as integral part of Terminal Developments				
		- Additional Drawings (A0):				
		Typical Elevation (Phase 1) - 2 dwg				
	- Flow Concept Drawings (3D Model)					
- A0 Panel comprising of phasing concept (Phase 1- 3)						
- 1 x Exterior Rendering (Phase1)						

<sup>\*)</sup> the offered design works comprise of studies on a "pre-design" level, which is not comparable -neither in extent nor in detailing- with the traditional architectural services of "a schematic design" (or "preliminary design"). The building design works ranging from "schematic (resp. preliminary) design" to "final design" and "detailed design / execution drawings" are assumed to constitute a separate project subsequent to this study.

<sup>\*\*)</sup> The deliverables will be incorporated partly in the final deliverables of the basic project and prtly as a separate package of final deliverables of Variation of Services v2.1