

City of Redmond
Microsoft Dynamics 365
Contract number: 9513
Addendum to the Statement of Work

D365 BI Reporting Environment

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Table of contents

1. Introduction.....	5
1.1 Overview.....	5
1.2 City of Redmond Vision	5
1.3 HSO and City of Redmond.....	5
1.4 Project objectives.....	5
2. Scope.....	7
2.1 Project phases	7
2.1.1 Phase 1a.....	7
2.1.2 Phase 1b	7
2.1.3 Phase 2.....	7
2.2 Excluded from scope	8
3. Implementation strategy	9
3.1 Implementation strategy for phase 1b	9
3.1.1 Milestones for phase 1b.....	9
3.1.2 Budgeted hours for phase 1b	10
3.2 Implementation strategy for phase 2	11
3.2.1 Milestones for phase 2	11
3.2.2 Budget for phase 2.....	12
4. Project deliverables	13
4.1 Phase 1b deliverables and acceptance criteria	13
4.1.1 Phase 1b deliverables.....	13
4.1.2 Phase 1b acceptance criteria.....	13
4.2 Phase 2 deliverables and acceptance criteria	13
4.2.1 Phase 2 deliverables	13
4.1.1 Phase 2 acceptance criteria.....	14
5. Project cost	15
5.1 Total Project cost	15
5.2 Billing and payment schedule for phase 1b.....	15
5.2.1 Planned sprints for phase 1b	15
5.2.2 Sprint based payment schedule.....	15
5.3 Billing and payment schedule for phase 2	16

6. General project assumptions.....	17
7. Project management	18
7.1 Project roles	18
7.1.1 PMO committee	18
7.1.2 Architect / leads.....	18
7.1.3 Core users	18
7.1.4 Consultant.....	18
7.1.5 Quality assurance.....	18
7.1.6 Tester	19
7.1.7 Competence Center	19
7.2 Collaboration.....	19
7.3 Acceptance and discharge	19
7.3.1 Acceptance events during project	19
7.3.2 Discharge upon completion of project	20
7.4 Risk management	20
7.5 Criteria and principles.....	20
7.6 Change requests	20
8. Acceptance	21
Appendix A Detailed planning phase 1b	22
Appendix B List and overview of data entities	23
Appendix C Project risk	25
Appendix D Procedure scope change	26
Appendix E Solution Design Document.....	27
Appendix F Glossary	28
Appendix G Change and solution adoption	29

1. Introduction

Overview

This Statement of Work is entered into as an addendum to the Master Consulting Service Agreement ("Agreement") between The City of Redmond ("Client" or "The City") and HSO North America, LLC ("HSO") dated 10/20/2020.

This Statement of Work defines the specific work and deliverables being requested by the City as described in the attached documents as approach and activities for Phase 1b and Phase 2 but is otherwise referred to by both parties as the D365 BI Reporting environment project.

1.2 City of Redmond Vision

Provide for custom reporting to be supported across both historical financial data (from AX2012 R3) and current financial operational data (from D365F&O) as identified in the inventory of required reports that will be provided by the City. External data which is not included in AX2012 R3 on Azure SQL or D365F&O (like data from CIP System, or VB6) is out of scope of the HSO project.

City of Redmond's goal is to have a modern data warehouse with Microsoft technology (D365 + Data Warehouse [DWH]) and a modern self-service reporting and dashboarding platform (Power BI).

1.3 HSO and City of Redmond

City of Redmond has engaged HSO to assist in the implementation of Microsoft's Cloud-based Dynamics 365 platform for its ERP solution. In addition to the D365F&O implementation, HSO is pleased to partner with the City to build a combined data warehouse based on operational data from D365F&O and historical data from AX2012 R3 and present the consolidated data outcome via 30 Power BI Reports and/or dashboards.

1.4 Project objectives

The HSO-US team has started migrating basic current and prior year transaction balances into the City's D365F&O system. Detailed historical transactional data needs to be migrated by the HSO-AS team from AX2012 R3 to a modern Data Warehouse (DWH). Once implemented, the DWH solution provides a consolidated view of D365F&O and AX2012 R3 historical transactional data. This enables the City to continue reporting in a consolidated fashion against both historical and current year transactional data as currently supported in the AX2012 R3 environment.

The primary objectives are as follows:

- Deploy the Data Warehouse (DWH) infrastructure as defined in the Solution Design Document (SDD), Appendix E, attached
- Extract all historical AX 2012 R3 data and move to the DWH
- Create a mechanism to extract D365F&O data on a daily basis and upload to the DWH
- Combined DWH for both AX2021 and D365 data in Azure
- Provide references to physical documents files (reference to location only)

- Build out an appropriate Data Model based on Dynamics best practices which supports the City's defined reporting requirements
- Develop 30 Power BI Reports and/or Dashboards which may include links and references to physical documents

2. Scope

2.1 Project phases

The Project is divided into multiple phases. Phases 1a and 1b are technical phases focusing on delivering the data warehouse and Phase 2 focusses on the delivery of 30 Power BI Reports and/or Dashboards and the build out of the associated Data Model in the warehouse that will support the City's reporting needs.

2.1.1 Phase 1a

Phase 1a, in which the HSO-AS team migrated data from AX2012 R3 to an Azure SQL database, leveraging the HSO-AS DnA framework, has been completed. While an initial copy of the AX2012R3 data has been moved to the DWH, it will be replaced with a final copy of the data as it exists upon D365 go-live. This phase is complete and has resulted in the following DWH components.

- 26 dimensions (dimensions provide structured labeling information to otherwise unordered numeric measures. The dimension is a data set composed of individual, non-overlapping data elements). Of which 20 dimensions are currently in use as critical and 6 dimensions are added based on HSO best practices.
- In total 18 fact tables (fact table consists of the measurements, metrics, or facts of a business process) along with 5 pre-fact tables. Of which 10 fact tables are mandatory and other 8 fact tables are based on HSO best practices.
- 12 data warehouse validation measures (YTD, LYR, %) for validation of data warehouse.
- 48 (Power BI data model) measures.
- The quantities listed above are based on analysis to-date, HSO's DNA Framework and best practices. In phase 2, HSO will modify the data model and add measures specific to the City's reporting requirements.

2.1.2 Phase 1b

Phase 1b, in which the HSO-AS team will combine historical transactional data from AX2012R3 with data from D365F&O in the areas of Finance (General ledger transactions) and Projects (Project management and accounting transactions). The final upload of the AX2012R3 data will be completed once the City has completed the rollout of the D365 system and it is successfully supporting City's finance operations. The D365F&O data will be refreshed daily. As the implementation of the D365 Project management and accounting module is still proceeding in D365F&O, transactions and test data for data loads requires further detailed collaboration between the City and the HSO-US D365 team.

2.1.3 Phase 2

Phase 2 will deliver 30 reports based on consolidated data from the data warehouse that has all the historical data and D365 F&O data in place. The expectation is that the City of Redmond will provide requirements for 30 reports, in the form of a report description along with proposed report layout or sample report to HSO by the end of July. HSO will perform an analysis of the reporting requirements and, based on the complexity of the reports identified, propose an adjustment to the scope and cost of report development as necessary. HSO will deliver the Report Development analysis and proposal by the end of August for City's review and approval.

2.2 Excluded from scope

The following topics are outside of the budget and scope of this Statement of Work, although they may be part of project scope for the City:

- Adjusting / cleaning / enriching data in source systems.
- Additional activities outside ETL (Extract, Transform, Load) to be able to retrieve data from other source systems then D365 F&O and DAX12 R3.
- The physical transfer of the DAX2012 attachment document files from an on-premises SharePoint to a Cloud-based storage solution is Out of Scope. The links and connections to the documents is in scope.
- HSO is not responsible for the errors or issues with Microsoft products and/ or services.
- Data extraction from sources like City's CIP system or Energov product are not in scope.

Items not explicitly mentioned as In Scope in this document are also outside of scope.

3. Implementation strategy

HSO will develop the data warehouse. The DWH will be adjusted per iteration (Sprint) on a DEV/Test environment.

3.1 Implementation strategy for phase 1b

3.1.1 Milestones for phase 1b

Set up consolidated data warehouse	HSO, supported by City of Redmond
ETL scripts defined	HSO, supported by City of Redmond
Data warehouse globally tested before Acceptance takes place and software issues solved from the test	HSO, supported by City of Redmond
Acceptance test held based on test plan and test scripts	City of Redmond, supported by HSO
Solved software related issues	HSO, supported by customer
Technical Acceptance form for Data warehouse delivery signed	City of Redmond
Performance test held or risk accepted by City of Redmond	City of Redmond, supported by HSO
Acceptance of the data warehouse solution	City of Redmond, supported by HSO
Internal support procedures have been set up	City of Redmond, supported by HSO
Technical Go live script executed	HSO, supported by City of Redmond
Access to HSO support desk arranged	HSO, supported by City of Redmond
Production environment readiness has been determined	City of Redmond, supported by HSO
SLA for support signed	City of Redmond, supported by HSO
Technical Go live script prepared	HSO, supported by City of Redmond
Transfer of knowledge to HSO support has taken place	HSO
Issue list completely updated	City of Redmond supported by HSO
Software issues resolved or are part of the handover to support	HSO
Discharge document signed	City of Redmond
HSO support has formally taken over the support from the project	HSO

3.1.2 Budgeted hours for phase 1b

Hours have been budgeted in phase 1b for the following work:

Steps	Activities	Remarks	HSO Work Effort (Days)
Business understanding	Define approach	Defining Sprints and Sprint backlog	2 days
	Determine technical need	3 workshops	3 days
	Analyze source systems	2 sources (Ax2012 R3 and D365)	3 days
	Preparations	Prepare all activities	5 days
	Enhance Deliverables	SDD, Project plan, planning	5 days
	Subtotal		18 days
Data engineering	Technology set-up	Set-up and enhance Cloud artifacts (Azure Synapse, Modern data estate)	5 days
	Staging environment	2 Consolidate AX 2012 & D365UO, including all the historical transaction data of the AX system	12 days
	Dimensions	26 dimensions	22 days
	Facts	18 fact tables	34 days
	Measures	12 data warehouse validation measures (YTD, LYR, %)	10 days
	Security roles	Set-up the security and design	5 days
	Subtotal		88 days
Deployment	Test	Testing during development	5 days
	Rework	Adjustments/ enhancements	8 days
	Deployment	Set-up and Deploy to UAT & PROD	9 days
	Subtotal		22 days
Transition	Transition to support	Transfer knowledge to different teams (IO, IT, EDM)	4 days
	Documentation	Finalize all document and handover documentation	8 days
	Subtotal		12 days
Other	Project Management	Coordination and managing the project	23 days
	Q&A	Quality assurance	12 days
	Contingency	Additional enhancements, explanation waiting time	15 days
	Training	Training regarding best practices and set-up data warehouse data model and processes	5 days
	Subtotal		55 days
Grand total			195 days

3.2 Implementation strategy for phase 2

3.2.1 Milestones for phase 2

Build the reports and / or dashboards	HSO, supported by City of Redmond
Updated SDD document	HSO
Data model changes	HSO, supported by City of Redmond
Reports and dashboards tested	City of Redmond, supported by HSO
Software Issues resolved	HSO
Reports and dashboards accepted by City of Redmond by signing the report / dashboard acceptance form	City of Redmond
List of wishes for the future defined	City of Redmond, supported by HSO
Communication plan established	City of Redmond, supported by HSO
Training planned	City of Redmond, supported by HSO
Manuals and Procedures	City of Redmond, supported by HSO
Acceptance of the entire solution	City of Redmond, supported by HSO
Discharge document signed	City of Redmond
GO Live of the Power BI reports	HSO, supported by City of Redmond

3.2.2 Budget for phase 2

The budget for Phase 2 consists of the following necessary activities to deliver the 30 Power BI reports and/or Dashboards as defined by the City's report requirements. Once the reporting requirements are provided to HSO, an impact analysis to further determine the scope and complexity of the work effort required by HSO, will be delivered to the City by Mid-August of 2021 and the budget and or scope of Phase 2 will be adjusted as agreed to by both parties.

Phase 2: Develop BI content	Activities	Remarks	HSO Work Effort (Days)
Impact analysis	Analyses overview of reports	30 report requirements	3 days
	Enhance Deliverables	SDD, Project plan, planning, impact analysis	2 days
	Subtotal		5 days
Report development	Data model	Create Power BI data models (three data models)	4 days
	Security roles	15 (5 per data model)	5 days
	Measures	48 measures (YTD, LYR, %)	8 days
	Report pages	30 reports	30 days
	Subtotal		47 days
Deployment	Test	Testing during development	2 days
	Rework	Adjustments/ enhancements	3 days
	Deployment	Set-up and Deploy to UAT & PROD	1 day
	Subtotal		6 days
Transition	Transition to support	Transfer knowledge to different teams (IO, IT, EDM)	2 days
	Documentation	Finalize all document and handover documentation	3 days
	Subtotal		5 days
Other	Project Management	Coordination and managing the project	8 days
	Q&A	Quality assurance	3 days
	Power BI Training	1 training for developers (max 4) 1 training for key users (max 10) 1 training for business users (max 70)	9 days
	Subtotal		20 days
Grand total			83 days

4. Project deliverables

4.1 Phase 1b deliverables and acceptance criteria

4.1.1 Phase 1b deliverables

- Data Warehouse
- HSO DNA Framework Default Data Model
- AX2012 R3 Historical transactional data captured on day 1 D365 go-live and loaded into the DWH
- An integration component which updates the DWH daily with D365 data necessary for reporting purposes
- Combination of AX2012R3 and D365 data extracts in the DWH
- Updated SDD
- Training for City I/O, BSOL, and EDM resources

4.1.2 Phase 1b acceptance criteria

- The Warehouse will not have overlapping or duplicate attributes
- The data model contains no referential integrity errors or null keys
- Missing dimensional records are mapped to a "missing data" record.
- All date keys are in the form YYYYMMDD.
- Fields without meaningful data will be hidden from view but not deleted from the final data model so that they may be used in the future
- All measures have been documented in the SDD
- City has received an updated SDD
- City has received an updated Architectural diagram of the Warehouse infrastructure
- City has received all documentation on the DWH
- City resource has received training on the design of and to access the DWH

4.2 Phase 2 deliverables and acceptance criteria

4.2.1 Phase 2 deliverables

- Analysis of City's Functional requirements for 30 BI reports and/or dashboards
- Updated SOW for the development of reports and/or dashboards
- Reports and/or dashboards agreed to in the updated SOW based on the HSO analysis of reporting requirements completed in August 2021
- Updated SDD
- Training of Power BI developers, key users, and business users

4.1.1 Phase 2 acceptance criteria

- Acceptance criteria to Phase 1b still apply
- The SDD has been further updated and reflects the DWH upon delivery
- Documentation is provided which instructs City how to build in any missing data attributes
- Concatenated business keys are filtered out in the Power BI Data Model
- City has received documentation of Reports and or Dashboard deliverables
- City reporting requirements agreed to in the HSO requirements analysis have been tested successfully
- BI Training has been delivered
- Core reports will be refreshed and available from 7am to 6pm PST subject to change by City leadership.

5. Project Cost

5.1 Total Project cost

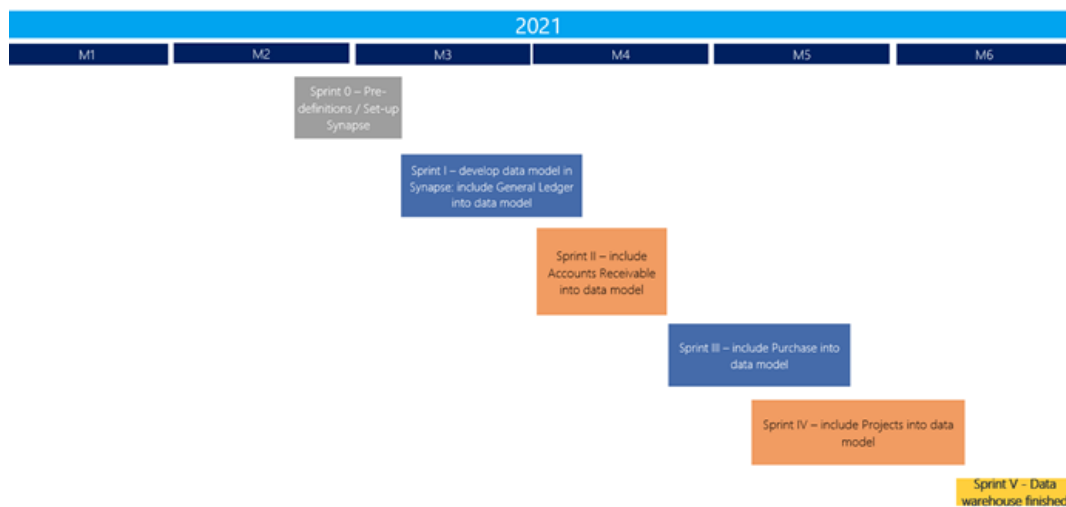
Initial proposal on Total Project Cost for the BI Project on time and materials basis \$385,000

- Phase 1a \$75,000 (completed and invoiced)
- Phase 1b and 2 \$310,000
 - Phase 1b Data Warehouse and Architecture \$218,790
 - Phase 2 BI training and reports development \$91,210

5.2 Billing and payment schedule for phase 1b

The Project cost for phase 1b is \$218,790 broken down into 5 sprints as shown in the Sprint Gantt below. At the completion of each sprint 90% of the amount will be invoiced and 10% will be held back and invoiced upon final acceptance of all Phase 1b deliverables.

5.2.1 Planned sprints for phase 1b



5.2.2 Sprint based payment schedule

- | | | | |
|---|---|--------------------------------|--------------|
| - | Sprint 0: | 26 th of March 2021 | \$ 26,254.80 |
| - | Sprint 1: | 9 th of April 2021 | \$ 39,382.20 |
| - | Sprint 2: | 30 th of April 2021 | \$ 26,254.80 |
| - | Sprint 3: | 14 th of May 2021 | \$ 26,254.80 |
| - | Sprint 4: | 11 th of June 2021 | \$ 39,382.20 |
| - | Sprint 5: | 30 th of June 2021 | \$ 39,382.20 |
| - | Milestone phase 1b delivered and signed off by City: 16th of July 2021 \$ 21,879 | | |

5.3 Billing and payment schedule for phase 2

The billing and payment schedule for Phase 2 will be determined as the scope of the report's development is confirmed based on the City's delivery of reporting requirements in July 2021.

6. General project assumptions

- Activities described under the Phase 1b and Phase 2 are part of this Statement of Work. Other activities, scope, and requests are out of scope.
- Additional data entities that need to be created will require a separate Change Request. A list of the data entities that are standard (in scope) is defined in Appendix B List and overview of the data entities.
- New or additional requests will be reported. Requests for changes to the projects Scope, Schedule, or Budget will be escalated to the City Steering Committee Project Sponsors to determine if the request/change is accepted, and budget allocated.
- There is currently no plan or expectation for any activities to be performed on-site during the timeframe covered by this Statement of Work. This may change if travel restrictions related to COVID-19 are lifted, and both City and HSO Leadership and impacted personnel agree.
- SDD defines the scope; deviations are scope changes to the Project
- This plan assumes that the process owner or core user independently draws up manuals and procedures, this also applies to ICT manuals and procedures. HSO can help with examples.
- After acceptance, the solution will be “frozen” until go-live. HSO advises the City not to add new requirements within the first two months of the reports that are going live, but to use this time to gain experience with the solution and gather any new requirements initially.
- Disabling current reporting options is the responsibility of City of Redmond, as is the use of the newly available solution
- Change management and user acceptance during the functional rollout is the responsibility of the City
- The aftercare & hand-over to support phase (Transition) starts as soon as the first user uses the delivered software
- The aftercare & hand-over to support phase (Transition) has a fixed lead time of five weeks.
- The aftercare & hand-over to support phase (Transition) is based on thorough acceptance tests. Post go-live issues that were not identified in the user acceptance testing will require additional HSO hours and potentially an increase in costs.
- Transfer of knowledge to support only takes place when the SLA has been signed. This also applies to being able to log issues at the support desk. The Service Level Agreement also includes transition costs to transfer the knowledge to the support department. These are therefore not included in this Statement of Work. Details of the Service Level Agreement will be provided as part of the start-up of Phase 1b.

7. Project management

HSO uses a management and project methodology, focusing on a pragmatic approach. The project management supports the Sprints in that respect. The planning of phase 1b is in line with the D365 F&O project planning. Together with the HSO D365 F&O project team both solutions (D365 F&O and data warehouse) will go live at the same time.

7.1 Project roles

We distinguish between different roles within a project:

7.1.1 PMO committee

The PMO committee has responsibility for the project. The PMO committee monitors the business case and project management.

The PMO meeting consists of:

- PMO Manager / CoR (Dawn M. Johnson)
- Project Manager / CoR (Kristy Hardy)
- Sponsors HSO (Fouad Allabari, Rohit Gupta)
- Project Management HSO (Kevin Goode, Silke Freitag)

7.1.2 Architect / leads

To maintain the correct focus on integrated work, so that the interpretation of the sub-processes fits into the integrated picture, an Architect or lead is appointed by both HSO and City of Redmond. Both parties are jointly responsible for the integrated and delivered solution.

7.1.3 Core users

The core users are responsible for the proper and timely definition and interpretation of the functional domain of the core user.

When working groups are formed with members, the core users are, together with the working group chairperson responsible for the assignment, direction, commitment, and involvement of the other staff.

7.1.4 Consultant

Consultants from HSO advise and guide the core users in terms of content and results according to the agreed planning within their area of responsibility.

7.1.5 Quality assurance

To guarantee quality and outcome, HSO Q&A will do random checks / reviews on the project to monitor quality. This will always be in consultation between City of Redmond and HSO.

7.1.6 Tester

The tester is responsible for drawing up the test cases and test scenarios based on the available documentation / information (test basis) for the different test types (such as unit and functional tests, user acceptance, etc.). This happens in consultation with the involved stakeholders. The tester will also perform or support these tests. Testers record the findings and take care of the necessary re-testing. We observe that in many cases the tester is a process owner or key user.

7.1.7 Competence Center

The Competence Center (IO, BSOL and EDM) plays an important role during and after the project. During the Business Understanding phase, the Competence Centre will be set up with roles that are active within and after the project, to support several activities. In addition, the Competence Centre will independently roll out the following entities after the first go live of a business release. Regarding the organization at the start of this project, the Competence Centre will consist of the following components:

- Timely ordering and having environments available (Dev/Test and Acceptance/ Production)
- Transferring accomplished work to different environments
- Making report designs
- Helping development Power BI reports and / or dashboards
- The development of instructional videos and other material to support the training of employees
- Further rollout after the first business release has gone live, in the case that it is not used at once
- Guaranteeing the knowledge level of employees during rollout and primary contact
- Coordination of training courses, also for new employees.
- Setting up authorizations
- Management of third parties
- Setting up the functional management organization.
- Checks / Approves converted data
- Setting up a change management procedure for future wishes, after the project has been completed

Collaboration

The HSO approach is supported by a central project workstation in Azure DevOps. The collaboration site is based on the management of deliverables that must be completed during the project.

One of the great advantages of using a collaboration site, in addition to central storage of project documentation, is the follow-up via workflow / mail so that project members are proactively informed when there is an action assigned to them. In addition, the project method is supported by the design of the tool used. For the project participants this always means access, a version of the truth.

Acceptance and discharge

7.2.1 Acceptance events during project

Acceptance is also part of a controlled approach. HSO uses three events within iterations in the project:

- Phase 1a: Technical Acceptance of the lift and shift of the historical data from AX 2012 R3
- Phase 1b: Technical Acceptance of the Data Warehouse

- Phase 2: Functional acceptance of the 30 Power BI Reports and necessary data model(s)

7.2.2 Discharge upon completion of project

During the aftercare and Handover to support phase (Transition), the City is formally asked for discharge by means of a discharge document. It may be that there are still outstanding issues, these will then be passed on to support under the project conditions as part of the discharge. The project is formally closed by signing the discharge form.

Risk management

Within this project, risk management is aimed at identifying risks at all levels of the project organization and taking measures against them. Risk management is the responsibility of the steering committee. The project managers of HSO and City of Redmond will periodically assess the list of risks and, where necessary, supplement it with risks for the project.

Criteria and principles

The Plan is based on certain criteria and principles. The criteria are inseparably linked to the time and budget required for the project. If during the project deviations from these criteria, this must be discussed in the steering committee.

- City of Redmond provides access to the workplace and ICT infrastructure before the start of work
- The implementation methodology Excelerate is used for the implementation of the project
- Key users are sufficiently available (see detailed planning for specific availability)

Change requests

The project scope is known in detail. From start of phase 1b, project management will use the change request procedure, as described in the appendix D.

8. Acceptance

IN WITNESS WHEREOF, the parties have entered this Statement of Work of the last date set forth below, with effect as of the Effective Date.

Hso North America, LLC.

Client

Signature

Signature

Name

Name

Title

Title

Date

Date

Appendix A Detailed planning phase 1b



Microsoft Excel
97-2003 Worksheet

The figure displays a 4x4 grid of 16 small plots, each showing a time series of data points (green dots) and a fitted model (blue line). The plots are labeled with 'a' through 'p' and 'q' in the top left corner. The data points are scattered across the plots, with some showing a clear upward trend and others showing a more random distribution. The fitted models are shown as solid blue lines, with some plots showing a clear upward trend and others showing a more random distribution. The plots are arranged in a grid with blue borders separating them.

Appendix B List and overview of data entities

This is an overview of entities from D365 F&O. All data from DAX12 R3 is in scope and will be available via the data warehouse and datamodels.

Area	Data(tables) entities
Finance GL	dbo.GENERALJOURNALACCOUNTENTRY
	dbo.GENERALJOURNALENTY
	dbo.LEDGER
	dbo.LEDGERENTRYJOURNAL
	dbo.MAINACCOUNT
	dbo.LEDGERCHARTOFACCOUNTS
	dbo.VENDTRANS
	dbo.VENDTABLE
	dbo.FinancialDimensions as built by:
	DIMENSIONATTRIBUTE DIMENSIONATTRIBUTELEVELVALUEVIEW DIMENSIONATTRIBUTEVALUE DIMENSIONATTRIBUTEVALUECOMBINATION DIMENSIONATTRIBUTEVALUESSETITEM DIMENSIONFINANCIALTAG
Budget	dbo.BUDGETTRANSACTIONLINE
	dbo.BUDGETTRANSACTIONHEADER
	dbo.DIMENSIONATTRIBUTEVALUECOMBINATION
	dbo.MAINACCOUNT
	dbo.LEDGER
	dbo.BUDGETTRANSACTIONCODE
	dbo.FinancialDimensions
Vendor	dbo.VENDTABLE
	dbo.DIRPARTYTABLE
	dbo.VENDGROUP
	dbo.DIRPARTYPOSTALADDRESSVIEW
	dbo.DIRPARTYLOCATION
	dbo.LOGISTICSPOSTALADDRESS
	dbo.LOGISTICSADDRESSCOUNTRYREGIONTRANSLATION
	dbo.PAYMTERM
	dbo.HCMWORKER
	dbo.HCMWORKER
	dbo.BPFBUSINESSRULETABLE

Area	Data(tables) entities
	dbo.BPFINVENTBLOCKINGREASONTABLE
	dbo.FinancialDimensions
GL Account	dbo.MAINACCOUNT
	dbo.MAINACCOUNTCATEGORY
	dbo.LEDGERCHARTOFACCOUNTS
	dbo.LEDGER
Company	dbo.DIRPARTYTABLE
	dbo.DIRPARTYPOSTALADDRESSVIEW
	dbo.LEDGER
	dbo.DIRPARTYTABLE
Currency	dbo.CURRENCY
Fund	Dbo].[LEDGERFUND]
	[Dbo].[LEDGERFUNDTYPE]

Appendix C Project risk

No.	Description	Consequence	Risk	Indication of effect in days	Mitigation to prevent risks
1	City involves a 3 rd party interest in the BI project	Divergent planning resulting in inefficient hours that are not foreseen	m	5-50	Involvement in the BI Project is limited to existing HSO and City team members
2	Insufficient Buy In by key users due to lack of involvement of the right staff in the report definition, development, or testing	Solution is not properly tested or fully implemented/used	l	5-15	Double check if key users are representative of the organization and do use/create required report
3	City IT resources do not (fully) have the capacity to complete the work assigned to them.	Work must be carried out by consultants and result in increased costs	l	5-25	City IT resources are involved in 6-8 week Sprint planning session
4	Implementation strategy differs from the project plan	More (or less) Iterations needed and possibly other (temporary) solutions or adjustments	m	5-50	Define the scope as detailed as possible per Sprint and by defining the 20 business questions which need to be answered by the DWH before phase 1b starts, frequent updates of Sprint planning
5	During the project, organizational changes occur that affect the project	Solution design is no longer correct, business case can no longer be achieved, solution requires redesign based on input from new team players	h	50-100	Put major changes on hold to after the project is finalized
6	Not enough consultants available with the right skillset	Overrun on schedule and budget	l	5-25	Over plan current BI Team – reserve 5-10% more hours than budgeted
7	Need more time to build DWH	Overrun on schedule and budget	l	5-15	Prioritize, reduce scope, or simplify data warehouse

Appendix D Procedure scope change

The following procedure applies if one of the parties wishes to make a change in the scope of this Plan of Action.

The party requiring making a change ("Initiator") sends the other party ("Recipient") a change proposal with the following content:

- Project identification
- Name of party and person
- Date of change proposal
- Description of the change
- Reason for the change

HSO will estimate how much impact each change will have on the cost, lead times, services and other relevant obligations agreed within the contract ("Impact study").

HSO will inform City of Redmond if there are costs associated with carrying out the Impact study if City of Redmond is the initiator of a change proposal. If City of Redmond approves the implementation of the Impact Study with any associated costs, HSO will carry out the Impact Study, resulting in the changes to cost, lead times, services, and other relevant obligations.

HSO will implement a relevant change proposal now that City of Redmond accepts the outcome of the Impact Study for this change proposal. In this case, the Impact Study will become part of the contract.

Appendix E Solution Design Document



Microsoft Word
Document



Appendix F Glossary

- Solution Design Document (SDD): The solution design document describes 'how' we are going to implement the solution including a technical design of the architecture.
- Information Matrix: Information matrix is an Excel matrix describing 'what' we are going to implement. With what we mean the amount of KPI's, reports and the definitions of these KPI's.
- ETL – Data migration activities: Extract, Transform, Load data
- Data warehouse (DWH): A Data warehouse consists of several Cloud-based components (different layers and environments like DEVT/TEST, UAT, PROD) which are used to extract data from defined source systems, consolidate and harmonize the data and to create a structured model based on the reporting requirements of the customer (here: Tabular Model).
- Power BI (PBI): application used to create (Power BI Desktop) and distribute (Power BI Service) reports within the client's domain
- Facts: transactional data per area of business; fact table consists of the measurements, metrics, or facts of a business process
- Dimensions: master data per area of business; dimensions provide structured labelling information to otherwise unordered numeric measures. The dimension is a data set composed of individual, non-overlapping data elements.
- Measures: KPI's per area of business
- Data model: structured model (here: Tabular Model) based on the reporting requirements of the customer (includes facts, dimensions, measures).
- EDM: The CoR Enterprise Data Management Team
- BSOL: The CoR Business Solutions Support Team

Appendix G Change and solution adoption

HSO is not tasked in putting change and adoption management as part of this amendment, however it is HSO's responsibility to mention that HSO has the capabilities and best practices regarding change and adoption management. This is a topic that during phase 2, building the power bi reports, could be of interest to help City to increase the adoption and usage of the Power BI Reports by the business. For now, it is out of scope however HSO wants to mention this as a possible topic to address during phase 2.



Not only the system changes; processes and the way of working are also changing. Adoption & Change focuses on creating conditions to achieve the desired business outcomes of the project. This is only possible if the new system is used *effectively and efficiently* and if the new processes are adopted by the employees. This status is referred to as "Ultimate Usage"

That is why a structured change & adoption process is designed which functions in combination with the project management process and active leadership (decisions for project management and actions for change management).

Structure of the Adoption & Change project

The structure is based on the Prosci phase model that is also used by Microsoft.

The main features of the adoption & change approach:

The senior executive / sponsor has a key role in the project and in particular for:

Direct communication to employees about the reasons for the change.

Building coalitions between managers to guarantee a supported and uniform approach to employees.

Organizations do not change their behavior, but people

in those organizations do. That is why we use a bottom-up approach in which it is determined per employee where they stand in the change. As a result, no "one size fits all" interventions will happen, but rather highly targeted actions based on usefulness and necessity, without wasting energy and goodwill.

The use of the ADKAR model that determines per employee what barriers to change: **A**wareness, **D**esire, **K**nowledge, **A**bility, **R**einforcement.

Based on a continuous processing of best practices that are made available to the practitioners of Prosci / Microsoft adoption & change management.

An abundance of ready to use tools such as templates for presentations, surveys and cockpits (both offline and online)

