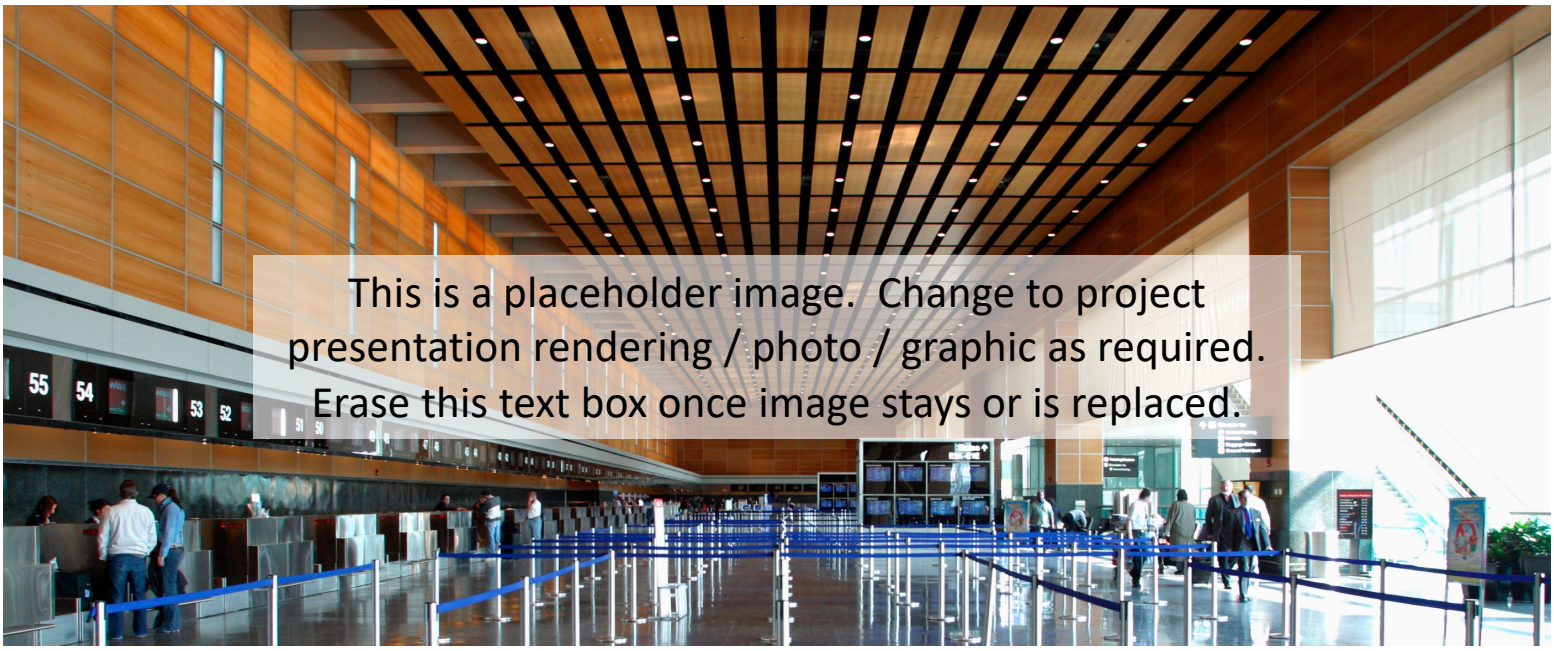
BIM QA/QC Report for INSERT PROJECT NAME



MONTH YYYY

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Abstract

Insert Company Name conducted a QA/QC review on the Project Name in accordance with the Massport Guide for Validating and Checking BIM Submittals, version 1.

The primary purpose of the QA/QC process is to ensure that the BIM record submittal meets the requirements set forth in the Massport BIM Guidelines for Vertical and Horizontal Construction and the project BIM Execution Plan. This will help to enable the Massachusetts Port Authority (MPA) to become a digital, data driven, and lean organization and will ensure that the MPA reaps the value of BIM.

This process included 4 main checks.

- Check for model geometry integrity
- Check for BIM geographical alignment
- Check for clashes present in the BIM
- Point cloud review

Future QA/QC will be conducted to check the following:

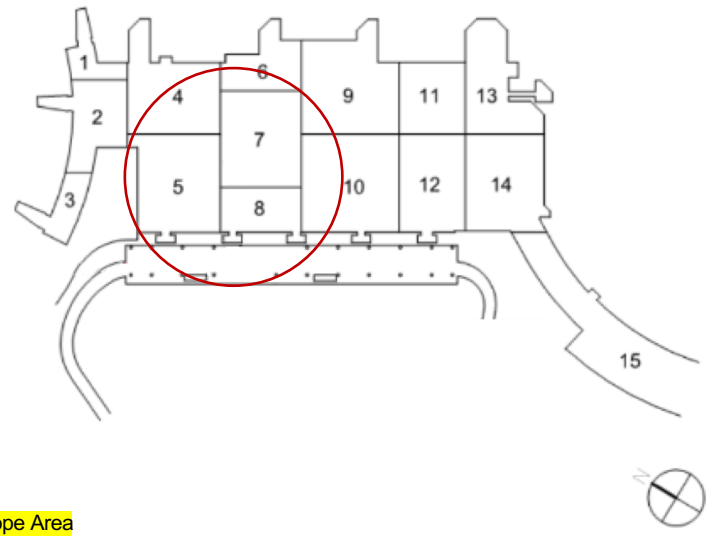
- Check for MPA mandated data parameters (Future: these mandated data parameters are currently in development by MPA)

The results of the QA/QC can be summarized as follows:

Insert Executive Summary from Executive Summary tab of Model Evaluation Excel Template

Introduction

Insert Report Introduction Here



Insert Key Plan Image Here and Circle Scope Area

Scope

Insert Project Scope Here. Scope should include key elements of the construction project and overall project schedule.

Importance of the Review

Performing a thorough review of Insert Project Name Here
was essential for three key reasons. These include:

- ensuring MPA has received a deliverable that meets their BIM standards,
- ensuring the model is geometrically accurate and can be used for facility planning and maintenance, and
- finding weaknesses in models for design & construction partners to improve on future MPA projects.

The Process

The review process involved validating deliverables while keeping a close eye on model geometry integrity and geographical alignment via a set of key software tools for evaluating Insert Project Name Here. Revit and Navisworks were used to check model LOD and alignment in a digital 3D environment. The Excel MPA Evaluation Template 1.0 was used by the reviewer in comparing the BIMForum Uniformat LOD Definition against the modeled component under review. In addition, the Excel template assisted in consolidating information like BIMxP LOD, Reviewed LOD, Pass/Fail, Comments, and a column to link screenshots for use in reporting.

With tools and models open, the reviewer then used the step-by-step How-To Guide to follow instructions for each review category necessary to satisfy a thorough review of the model alignment, clash detection, point cloud validation, and the LOD specified in the BIMxP.

Exclusions

Insert Report Exclusions Here. Include aspects of a QA/QC that was not performed and the reason for any exclusions.

Key Findings

The reviewer identified the following results:

- Insert Key Findings Here

Details on files received can be found in Appendix A

LOD Geometry Results by Group

Insert LOD Summary Here

Site & Infrastructure Model

File Reviewed: Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

Image X. Insert Site & Infra Image Description Here

Image X. Insert Site & Infra Image Description Here

Image X. Insert Site & Image Description Here

Image X. Insert Site & Image Description Here

Image X. Insert Site & Image Description Here

Image X. Insert Site & Image Description Here

Architectural Model

Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

FAIL

Uniformat Code	Definition	BIMxP LOD	Comments

Paste Excel Data in Here

Image X. Insert Arch Image Description Here

Image X. Insert Arch Image Description Here

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Structural Model

Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

Image X. Insert Struct Image Description Here

Image X. Insert Struct Image Description Here

Image X. Insert Struct Image Description Here

Image X. Insert Struct Image Description Here

Image X. Insert Struct Image Description Here

Image X. Insert Struct Image Description Here

HVAC Model

Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

Image X. Insert HVAC Image Description Here

Image X. Insert HVAC Image Description Here

Image X. Insert HVAC Image Description Here

Image X. Insert HVAC Image Description Here

Image X. Insert HVAC Image Description Here

Image X. Insert HVAC Image Description Here

Plumbing and Fire Protection Model

Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

Image X. Insert Plumb & FP Image Description Here

Image X. Insert Plumb & FP Image Description Here

Image X. Insert Plumb & FP Image Description Here

Image X. Insert Plumb & FP Image Description Here

Image X. Insert Plumb & FP Image Description Here

Image X. Insert Plumb & FP Image Description Here

Electrical Model

Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

Image X. Insert Elec Image Description Here

Image X. Insert Elec Image Description Here

Image X. Insert Elec Image Description Here

Image X. Insert Elec Image Description Here

Image X. Insert Elec Image Description Here

Image X. Insert Elec Image Description Here

Mechanical Spaces Model

Insert FILE NAME here.

# of items that passed:	# of items that failed:
X	X

	Uniformat Code	Definition	BIMxP LOD	Comments
PASS				
FAIL				

Paste Excel Data in Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Clash Detection

- Insert Clash Detection Summary Here

Clash Detection

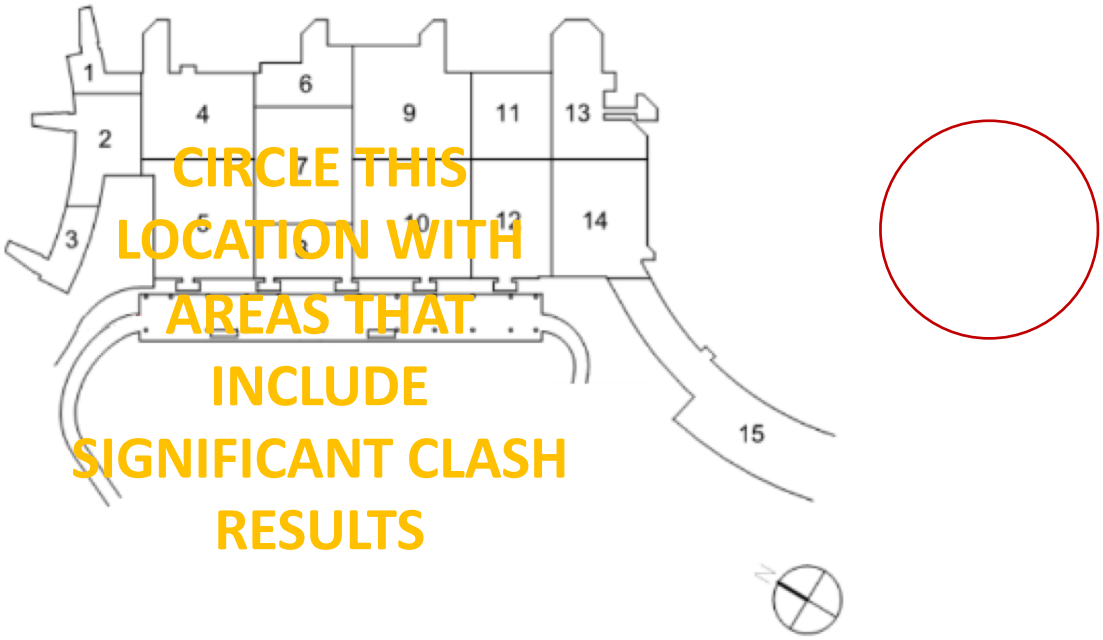


Image X. Key Plan

Clash Detection

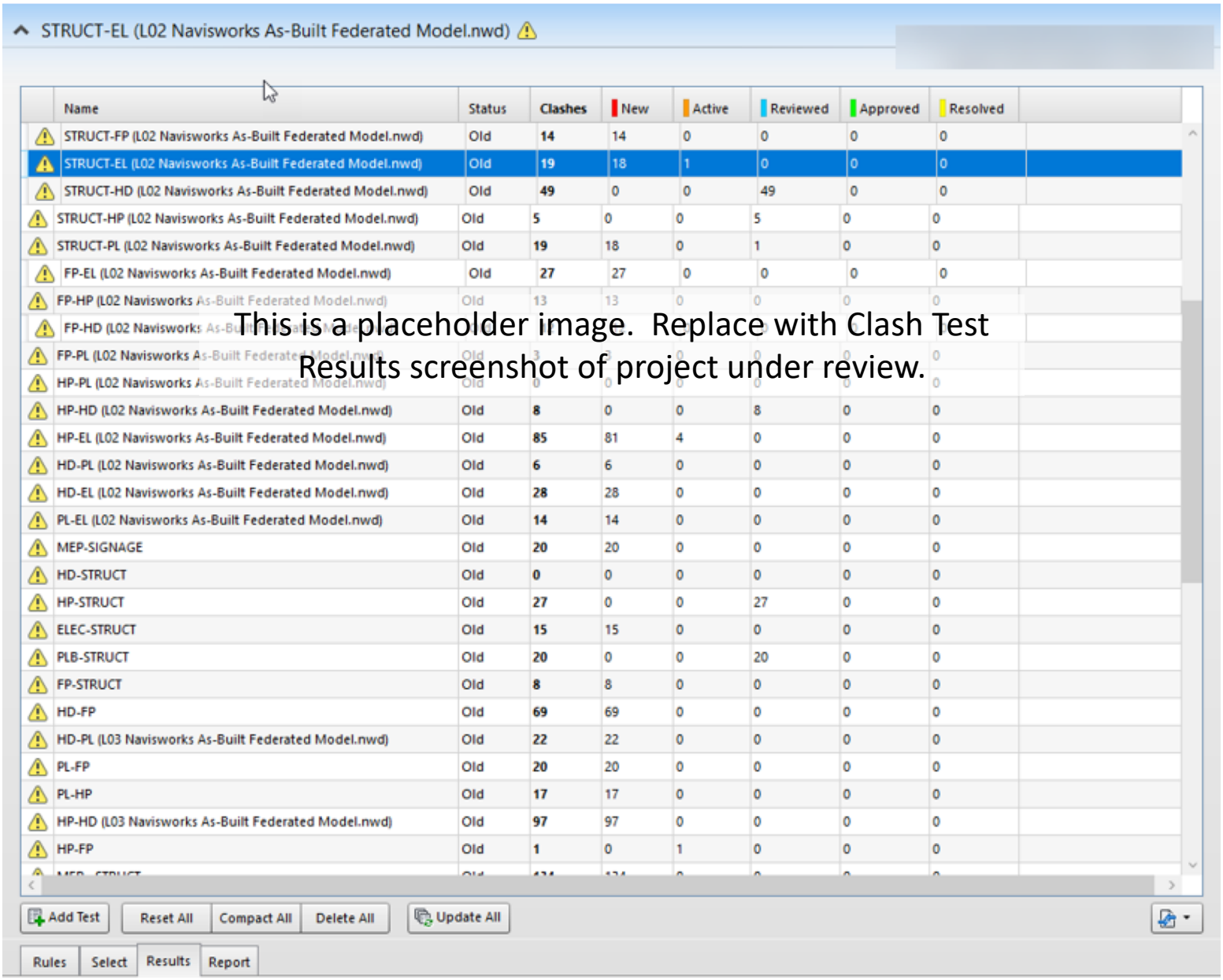
Image X. Insert Clash Detection Image Description Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Image X. Insert Mech Spaces Image Description Here

Clash Detection

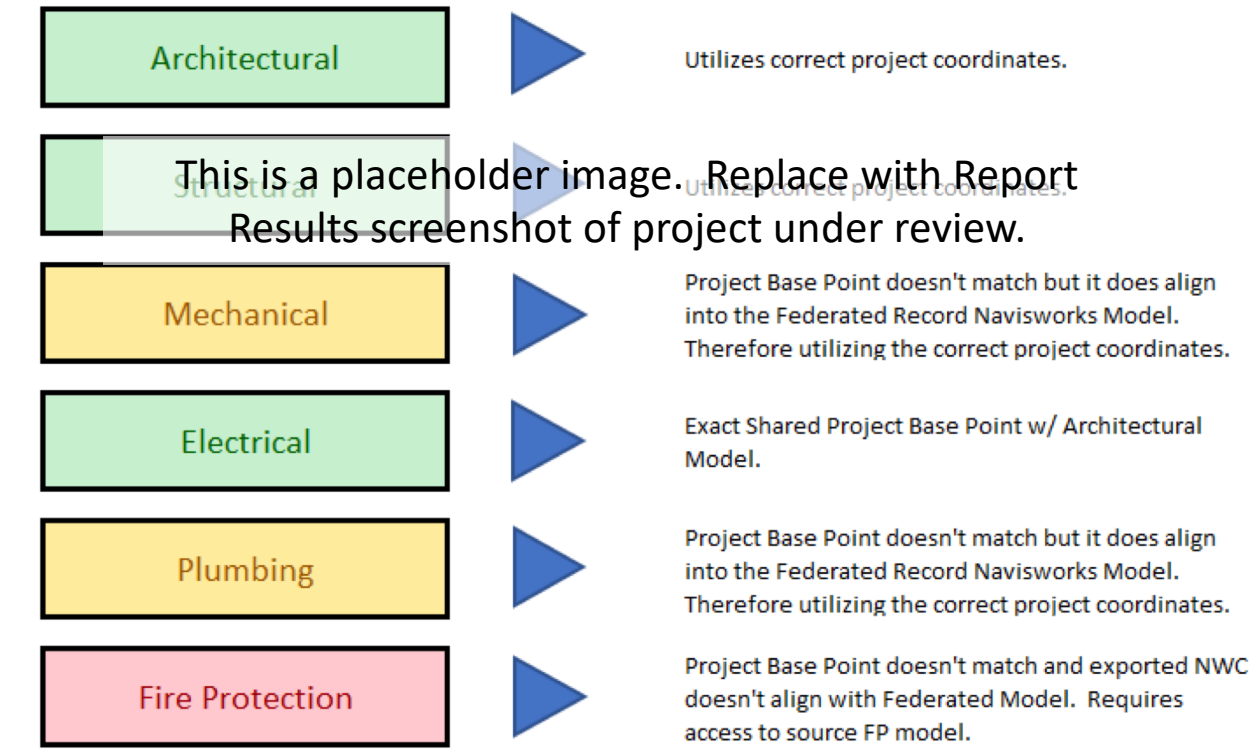


Name	Status	Clashes	New	Active	Reviewed	Approved	Resolved
STRUCT-FP (L02 Navisworks As-Built Federated Model.nwd)	Old	14	14	0	0	0	0
STRUCT-EL (L02 Navisworks As-Built Federated Model.nwd)	Old	19	18	1	0	0	0
STRUCT-HD (L02 Navisworks As-Built Federated Model.nwd)	Old	49	0	0	49	0	0
STRUCT-HP (L02 Navisworks As-Built Federated Model.nwd)	Old	5	0	0	5	0	0
STRUCT-PL (L02 Navisworks As-Built Federated Model.nwd)	Old	19	18	0	1	0	0
FP-EL (L02 Navisworks As-Built Federated Model.nwd)	Old	27	27	0	0	0	0
FP-HP (L02 Navisworks As-Built Federated Model.nwd)	Old	13	13	0	0	0	0
FP-HD (L02 Navisworks As-Built Federated Model.nwd)	Old	3	3	0	0	0	0
FP-PL (L02 Navisworks As-Built Federated Model.nwd)	Old	3	3	0	0	0	0
HP-PL (L02 Navisworks As-Built Federated Model.nwd)	Old	0	0	0	0	0	0
HP-HD (L02 Navisworks As-Built Federated Model.nwd)	Old	8	0	0	8	0	0
HP-EL (L02 Navisworks As-Built Federated Model.nwd)	Old	85	81	4	0	0	0
HD-PL (L02 Navisworks As-Built Federated Model.nwd)	Old	6	6	0	0	0	0
HD-EL (L02 Navisworks As-Built Federated Model.nwd)	Old	28	28	0	0	0	0
PL-EL (L02 Navisworks As-Built Federated Model.nwd)	Old	14	14	0	0	0	0
MEP-SIGNAGE	Old	20	20	0	0	0	0
HD-STRUCT	Old	0	0	0	0	0	0
HP-STRUCT	Old	27	0	0	27	0	0
ELEC-STRUCT	Old	15	15	0	0	0	0
PLB-STRUCT	Old	20	0	0	20	0	0
FP-STRUCT	Old	8	8	0	0	0	0
HD-FP	Old	69	69	0	0	0	0
HD-PL (L03 Navisworks As-Built Federated Model.nwd)	Old	22	22	0	0	0	0
PL-FP	Old	20	20	0	0	0	0
PL-HP	Old	17	17	0	0	0	0
HP-HD (L03 Navisworks As-Built Federated Model.nwd)	Old	97	97	0	0	0	0
HP-FP	Old	1	0	1	0	0	0

Image X. Clash Results

Coordinate Check

Coordinates for various models were reviewed. Our main objective here was to verify if the models aligned to the project's main architectural and structural model alignment.



Point Cloud Review

Insert Point Cloud Summary Here

Image X. Insert Image Description Here

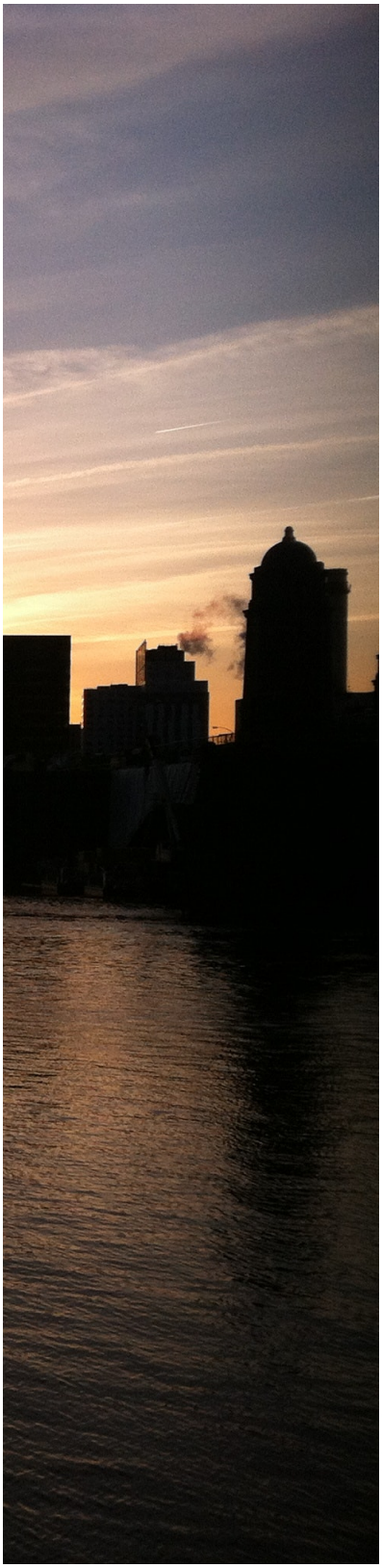
Image X. Insert Image Description Here

Image X. Insert Image Description Here

Image X. Insert Image Description Here

Conclusion

Insert Conclusion Narrative Here



Appendix A
Files Provided for Evaluation

The deliverables shared with evaluation team, includes: list file types here.

BIM Execution Plan	› Insert FILE NAME here.
Construction Documents	› Insert FILE NAME here.
Record Revit Models	› Insert FILE NAME here.
As-Designed Revit Models	› Insert FILE NAME here.
CAD/ Civil3D	› Insert FILE NAME here.
Scanned Point Clouds	› Insert FILE NAME here.

Files Provided for Evaluation (continued…)

Crescent As-Built Models	Insert FILE NAME here.
East End As-Built Models	Insert FILE NAME here.
Site As-Built	Insert FILE NAME here.
As-Built Federated	Insert FILE NAME here.
Missing	Insert FILE NAME here.

Appendix B

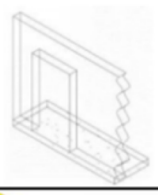
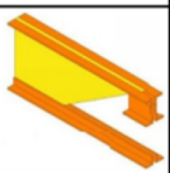
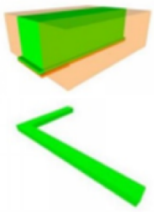
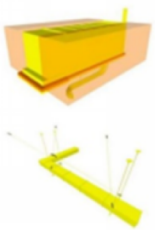
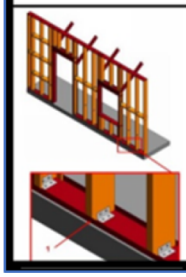
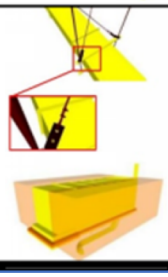
BIMxP for Insert Project Name Here

Insert file name for Project BIMxP has been inserted after this page.

Appendix C

BIMForum LOD Standard, Version 2018, LOD Definitions

MPA Guide to BIM VDC on TAA Projects references the below LOD Definitions. Original source: BIMForum LOD Standard, Version 2018. Always refer to the latest BIMForum LOD Standard version. A copy of the latest BIMForum LOD Specification is available on the BIMForum website: http://bimform.org/lod/.

Architectural	Structural	MEP/FP	
		No Model	**LOD 100** The Model Element may be graphically represented in the Model with a symbol or other generic representation, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square foot, tonnage of HVAC, etc.) can be derived from other Model Elements.
			**LOD 200** The Model Element is graphically represented within the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.
			**LOD 300** The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of quantity, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.
			**LOD 350** The Model Element is graphically represented within the Model as a specific system, object, or assembly in terms of quantity, size, shape, location, orientation, and interfaces with other building systems. Non-graphic information may also be attached to the Model Element.
			**LOD 400** The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of size, shape, location, quantity, and orientation with detailing, fabrication, assembly, and installation information. Non-graphic information may also be attached to the Model Element.