CWS Architects

Architecture • Planning • Construction Services

434 Cumberland Avenue Portland, Maine 04101
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Phone: (207) 774-4441
Fax: (207) 774-4016

Addendum 01

Date: September 23, 2011

To: Wright Ryan Construction (Construction Manager)

From: Ben Walter, CWS Architects

Regarding: **Elm Terrace** – Portland, Maine

Subject: **Addendum 01**

Modify the previously issued documents dated September 8, 2011 and any previously issued addenda, if applicable, as follows:

1. Attached are meeting minutes and an attendance sheet provided by CWS Architects from the Pre-Bid Meeting held on site on 9/16/2011.
2. Attached are meeting minutes and an attendance sheet provided by Wright-Ryan Construction from the Pre-Bid Meeting held on site on 9/16/2011.
3. Attached are meeting minutes and an attendance sheet provided by Summit Environmental Consultants, Inc. from the Pre-Bid Meeting held on site on 9/16/2011 regarding the Environmental Remediation scope being bid under separate contract by the Owner.
4. Add 00 31 00 Available Project Information, item 1.3.N WRIGHT RYAN TEMPORARY SHORING PLAN to DOCUMENT 00 01 10 TABLE OF CONTENTS.
5. Add 062010 FIBERGLASS CAST COLUMNS to DOCUMENT 00 01 10 TABLE OF CONTENTS.
6. Add 08 41 13 ALUMINUM-FRAMED STOREFRONT WINDOW SYSTEM to DOCUMENT 00 01 10 TABLE OF CONTENTS.
7. Add 14 42 50 VERTICAL WHEELCHAIR LIFTS to DOCUMENT 00 01 10 TABLE OF CONTENTS.
8. Add 32 31 10 CHAIN LINK FENCE to DOCUMENT 00 01 10 TABLE OF CONTENTS.

Book 1 -Bidding and Contract Documents Manual:

9. Modify item 1.3.I NFPA and IBC Code Review as published in 00 31 00 Available Project Information as follows:
    a. Change Type of Constriction, Number of Levels for Residential R-2 to read “3”.
    b. Change Section 504.4.1 Area determination, item B. Number of Applicable Levels for Residential R-2 to read “3”.
10. Add the following to specification Section 00 31 00 Available Project Information:
    1.3.N WRIGHT RYAN TEMPORARY SHORING PLAN
    a. Wright Ryan Construction – Instructions to Shoring Contractors, dated 9-23-2011.
    b. WRC – SH – 1.0 Site & Building Shoring Extent Plan - Elm Terrace, dated 9-21-2011.
    c. SH1.0 Shoring Details, prepared for Wright Ryan Construction by Becker Structural Engineers, dated 9-23-2011.

Book 2 -Specifications Manual:

11. Delete the following words form item 1.7.G in specification Section 08 14 00 WOOD DOORS: “City of Bangor and”.

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12. Delete item 2.4.C.2 from specification Section 08 80 00 Glass and Glazing.
13. Add specification Section 06 20 10 FIBERGLASS CAST COLUMNS, attached.
14. Add specification Section 08 41 13 ALUMINUM-FRAMED STOREFRONT WINDOW SYSTEM, attached.
15. Replace specification Section 08 54 13 FIBERGLASS WINDOWS, with the attached specification of the same name Revised: Addendum 01, 9-23-2011.
16. Add specification Section 14 42 50 VERTICAL WHEELCHAIR LIFTS, attached.
17. Add specification Section 32 31 10 CHAIN LINK FENCE, attached. This specification is in reference to the interior storage compartment separations in storage areas.

Drawings:

Title Page
N/A

Civil and Site:
N/A

Structural:
18. RFI #4: **Question from Contractor:** Sheet S3.4, the Shearwall Schedule list holdown type HDU80SDS2.5 at locations to receive hold0downs – the schedule does not provide for smaller devices at the upper floors. Detail C of sheet S3.4 showsHDU40SDS2.5 at 2nd floor and HDU20SDS2.5 at 3rd floor. Which is correct? **Answer from Structural Engineer:** The schedule refers to the holdowns at the base of the wall. All holdowns at 1st floor shall be Simpson HDU8s. Holdowns at2nd and 3rd floors shall be Simpson HDU4 and HDU2, respectively. **Directive:** Make changes to Shearwall Schedule and Detail C of Sheet S3.4 as indicated in Answer from Structural Engineer.

Architectural:
19. In addition to providing spray foam insulation beneath the plumbing waste traps as indicated in Floor/Ceiling Assembly C2 on Drawing A0.03, provide 1" Spray Foam under plumbing waste laterals that are installed less than 5" above subfloor slab.
20. Replace Drawing A8.26 with Drawing A8.26, revised per Addendum 01 dated 9-23-2011. This change replaces the new construction window Details 8 – Fiberglass Window Assembly @ Masonry Wall Condition to reflect a change from the Marvin Integrity window system to the Marvin Infinity window system.

Mechanical:
21. Replace Drawing M3.0 with Drawing M3.0 Revised, Addendum 01, 9-23-2011

Electrical:
22. Modify Drawing E1.0 as follows:
    a) Clarification: 4"C – Tel, 4"C –CATV, 4"C spare – Underground conduits from utility pole shall terminate in the Telco/Data Closet 010 telephone backboard. See drawing E3.0.
    b) Exterior Lighting Fixture Schedule: Change the following lighting fixture types to those listed:
    c) Change Type AA fixture to read: Kim LLF-50/PMH/70PMH120/BL
    d) Change Type Q fixture to read: Prescolite#RHD60250EB-120-

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23. Modify Drawing E3.0 – Basement Power Plan as follows:
    a) ADD: Fire Alarm horn/strobe in stair 020

24. Modify Drawing E3.1 – First Floor Power Plan as follows:
    a) ADD: Fire Alarm horn/strobe in Stair 2 121

25. Modify Drawing E3.2 – Second Floor Power Plan as follows:
    a) ADD: Fire Alarm horn/strobe in Stair 2 221

26. Modify Drawing E3.3 – Third Floor Power Plan as follows:
    a) ADD: Fire Alarm horn/strobe in Stair 2 321

27. Drawing E4.0 – Schedules, One line and Symbols - CHANGE Lighting Fixture Schedule
    Lighting Fixture Schedule: Change the following lighting fixture types to those listed:
    a) Change Type C to read: Seagull #79661BLE-782 with lamps
    b) Change Type F to read: Seagull #79435BLE-782 with lamps
    c) Change Type G to read: Seagull #44062-782 with lamps
    d) Change Type J to read: Seagull #69459BLE-782 with lamps

28. Review and incorporate the following RFI responses into the Scope of Work as indicated:
    a) QUESTION: Please verify I-Line breaker size that feeds panel HP in existing panel XP on drawing E4.0. One note shows 225A and another note shows 135A? ANSWERE: **Clarification: Need to install qty (2) breakers: (1) 135A, 3P breaker as noted for DTT1 which feeds panel HP and (1) 225A, 3P to feed panel HP2.**
    b) QUESTION: Specification 26000 2.16 B shows a new 4"pvc from the roof to telephone backboard. Please verify if this is needed as we have a new 4" pvc conduit underground shown on the site plan E1.0 for Phone. ANSWERE: **Delete 26000 2.16.B.**
    c) QUESTION: Please verify individual homeruns from each telephone jack in the apartments back to TBB? ANSWERE: **Yes.** QUESTION: Are there any interface boxes at each apartment as none are shown? ANSWERE: **No.**
    d) QUESTION: Specification 26000 2.17 B shows a new 2"pvc from the roof to telephone backboard. Please verify if this is needed as we have a new 4"pvc conduit underground se shown on the site plan E1.0 for CATV. ANSWERE: **Delete 2.17.B.**
    e) QUESTION: Please verify individual homeruns from each television jack in the apartments back to TBB? ANSWERE: **Yes.** QUESTION: Are there any interface boxes at each apartment as none are shown? ANSWERE: **No.**
    f) QUESTION: Please verify that all smoke and carbon monoxide detectors in the apartments are 120v single station and NOT system connected. Specification 26000-1.1 B 10 says provide system connected Co2 detection in all apartments near sleeping areas. ANSWERE: **Yes smokes and CO detectors in the units shall be Singel Station as requested by PFD.**

End of Addendum 01

Attachments: (See attached specifications, sketches, drawings and attachments listed above, if applicable)

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Elm Terrace
Portland, Maine

Pre-Bid Meeting, on site 9/16/2011

Note: These meeting notes are distributed as written on the date indicated, should not be considered to change the scope of work in any way, and are distributed solely as a record of the discussions only. The items below may have been changes in subsequently issued addenda.

MEETING NOTES AS RECORDED BY WRIGHT-RYAN CONSTRUCTION

1. Currently Building Bid due date 9/29/11, Remediation bid due date 9/29/11.
2. Subcontractors are being asked to hold their bids for 90 days after the date the bids are due.
3. Anticipated stat date mid-November, with a 366 day duration.
4. Wright-Ryan has issued a preliminary construction schedule. This preliminary schedule shows both the Remediation/Abatement and the Building scopes of work.
5. Abatement/Remediation will be directly contracted to Children's Hospital Housing Partners, LP c/o Community Housing of Maine. Building subcontractors will be contracted to Wright-Ryan Construction, Inc.
6. The project is funded through MaineHousing and State and Federal Historic Preservation tax Credits. Neither Davis Bacon or State of Maine wage rate apply. Due to the different agencies involved in the project there are very specific requirements for sub proposals, submittals, etc. Please review the Project Manual carefully. These requirements will not be waived.
7. All Questions from Building subs should go to:
   Mike Barton
   Wright-Ryan Construction, Inc.
   10 Danforth Street
   Portland, Maine 04101
   T 207 773 3625
   F 207 773 5173
   mbarton@wright-ryan.com
8. All questions regarding Abatement/Remediation should be addressed to :
   Dennis B. Kingman, Jr. CHMM
   Manager, Environmental Services
   Summit Environmental Consultants, Inc.
   8 Harlow Street, Suite 4A
   Bangor, Maine 04401
   (207) 262-9040 (telephone)
   (207) 262-9080 (fax)
   dkingman@summitenv.com

End of Meeting Minutes

September 16, 2011

Elm Terrace Subcontractor Walk- Through Summary

- Sign-In sheet distributed
- General Remarks and Project Overview Communicated
    - 35 units of housing being created. 15 will be in the new addition. 20 will be in the existing structure
    - Project is targeting LEED for Homes Mid-Rise, Platinum Certification
    - Project is Maine Housing Project
    - Project is partially funded through State & Federal Historic Tax Credits. Will need to satisfy requirements of the Secretary of the Interior's Standards for Rehabilitation.
    - Subcontractors are to hold proposals for 90 Days from bid due date
    - Davis Bacon and State of Maine Prevailing wage rates do not apply to this project.
    - Subcontractors were advised to review spec section 012000 Price & Payment Procedures for information regarding Allowances, Alternates, and Unit Prices
    - Subcontractors were advised to review BOTH book 1 and book 2 of the specifications
- Coordination of Environmental Remediation and demolition
    - Dennis Kingman of Summit Environmental Consultants reviewed the coordination of hazardous removals. He will issue an addendum and meeting minutes specific to these items.
    - A smaller breakout group of the subs interested in this work walked the building following adjournment of the general meeting
    - Reminder that environmental remediation proposals will be sent to the owner directly and that general demolition proposals will be sent to Wright-Ryan Construction.
    - Questions about environmental remediation will be sent to Dennis Kingman at Summit Environmental Consultants, and questions about general demolition will be sent to Mike Barton at Wright-Ryan Construction
- Masonry Restoration
    - Scott Whittaker with Building Envelope Consultants reviewed the masonry restoration scope of work and the documents his firm generated.
    - A smaller breakout group of the subs interested in this work walked the building following adjournment of the general meeting
- Upcoming additional information to bidders
    - Addendum 1 will be issued during the week of 9/19/2011 and will likely include the following:
        - Summary of responses issued to date
        - Building shoring and retaining wall shoring designs
        - Spec and drawing clarifications
- Subcontractors were advised to submit all questions in writing to Mike Barton at mbarton@wright-ryan.com
- Additional access to the building during the bid period should be coordinated with Mike Barton at Wright-Ryan Construction.
- Bids are due on 9/29/2011 at 1:00 PM

Wright-Ryan

Elm Terrace

Pre-bid Meeting/Site Visit Sign-in Sheet
September 16, 2011 at 9:00 AM

Company Name	Contact Name	Email Address or phone #
NORTH & SOUTH	ED CONLEY	ed@northsouthcm.com 6035671784
Jacobs Glass	Bob Jacobs	bob.jacobs@jacobsglass.net
otis Elevator	Todd Petterson	Todd.Petterson@otis.com 856-6136
BAGALA WINDOWWORKS	MARC BAGALA	Marc@BAGALAWINDOWWORKS.com
Hamilton Builders	Todd Hamilton	Tdd5ca@FairPoint.Net
MAINE HERITAGE IRONWORKS	JORDAN FIELDS	maineheritageiron@hotmail.com (207)291-235
Electrical Systems of ME	David Tassinari	David@electricalSystemsofMaine.com
L+B ELECTRIC	RENE PLOURDE	rplourde@lbelectric.net
Atlantic Construction Serv.	Frank Perry	fperry@ACSME.Net
J.D. HESELTINE CONST	JEFF HESELTINE	jeff_jdhce@yahoo.com
Northeast Painting & Coatings	John Pleau	NEPC@nepainting.Net
BIOSAFE ENV.	MARK GRIFFITH	mark@BIOSENV.com/854-5762
ENVIROVANTAGE	VINCE MARCISSO JR	info@ENVIROVANTAGE.com 207-749-9393
SO. MAINE PLBG & HTG	LEN DRAKEU	SOMEPLBG@AOL.COM
Summit Env.	Sue Chase	jchase@summitenv.com
BAY ELECTRIC	GARY STOCKTON	BayElec@MAINE.COM 799-0350
Abatement Professional	Kyle Rickett	Krickett@abatementpros.com
Abatement Pros	Bob Rickett	RRickett@Abatementpros.com
Wright-Ryan	Cordelia Pitman	cpitman@wright-ryan.com
Wright-Ryan	Mike Barton	Mbarton@wright-ryan.com
Children's Hospital Housing Partners	Erin Cooperrider	erine@chomehousing.org
Summit Env. Consult	DENNIS KINGMAN	DKINGMAN@SummitENV.com
CWS Architects.	DAVE DOUGLASS AIA	ddouglass@cwsarch.com
Building Env. Con.	Scott R. Whitaker	SWhitaker@BECSOLUTIONS.NET
Brew Winter ⇔ CWS Architects		BWinter@CWSARCH.com
~~Tim Rich~~ Knowles	TIM RICH	TRICH@KNOWLESINDUSTRIAL.com
Porter Drywall	Jim Roy	jim@porterdrywall.com
Stone Age Masonry	Hollis Curtis	Stoneagemasonry@roadrunner.com
Gnome Landscape + Masonry	TODD MARLO	todd@gnomelandscapes.com

Wright-Ryan

Elm Terrace

Pre-bid Meeting/Site Visit Sign-in Sheet
September 16, 2011 at 9:00 AM

Company Name	Contact Name	Email Address or phone #
Auburn Concrete	Waring Cutler	Waring@AuburnConcrete.com
PEP Plumbing Heating	JEFF YANKOWSKY	jyankowsky@pepplumbingheating.com
Tito Masonry + Const.	April McDonagh	titomasonry@yahoo.com
Jacobs Glass	Brad Marin	bradley.marin@jacobsglass.net
B.H. MILLIKEN	WESLEY MILLIKEN	WM@BHMILLIKEN.com
HIGH TECH FIRE	BRYAN ST. HILAIRE	BSTHILAIRE@FAIRPOINT.NET
AMERICAN DREAM BUILDERS	ERIC MCGLASHAN	AMERICANDREAMBUILD@COMCAST.NET
Bob Hannigan		
Johnson / Tarda	Bob Hannigan	bhannigan@johnsonandtarda.
AIRTEMP	DEAN GRANT	dgrant@COMFORTSYSTEMSUSA.COM
BOURNE LANDSCAPE	MATT BOURNE	bournelandscape@hotmail.com
M.C. Hall	Mark Hall	mchallrepairs@yahoo.com
Hascall + Hall	Glen O'Donnell	glen@hascallhall.com / 415-1484

Building Maine's Great Spaces

Wright-Ryan Construction, Inc. ▪ 10 Danforth Street ▪ Portland, Maine 04101
Phone (207)773-3625 ▪ Fax (207)773-5173 ▪ www.wright-ryan.com

MEETING MINUTES MEMORANDUM

To: Attendees **File**: 11-3043

Date: September 19, 2011

From: Dennis B. Kingman, Jr. CHMM
Summit Environmental Consultants, Inc

RE: Elm Terrace Environmental Remediation Project
Pre-Bid Meeting Minutes

The Pre-Bid meeting for Environmental Remediation at Elm Terrace located at 68 High Street in Portland, Maine, was conducted on Friday, September 16, 2011 at 9:00 A.M. Attendees included representatives from the Children's Hospital Housing Partner's LP (Owner), Summit Environmental Consultants, Inc. (Summit), Wright-Ryan (WR), CWS Architects (CWS) and prospective remediation contractors. A list of remediation contractors attending tis meeting is included (Attachment A).

Meeting minutes are provided below:

A. Project Components

1. *Project Manual for Environmental Remediation Elm Terrace Portland, Maine* - was made available to prospective bidders electronically on Summit's web site prior to the scheduled Pre-Bid meeting. A room reference guide was distributed by Summit during the meeting (Attachment B).
2. The Project Manual is presented to solicit bids and provide overall project guidance.
3. Prospective bidders may access the General Contractor project manual and specifications and these bid documents through the WR FTP site using the following username and password:

   ftp://ftp.wright-ryan.com

   username: chomhighst

   password: wrcbid1

4. The project objective is:

    - The removal and proper disposal of Asbestos-Containing Materials (ACM) present at the building;
    - The removal and proper disposal of Universal Wastes and Hazardous Materials present at the building;
    - The remediation of Lead-Based Paint (LBP) present at the building.

B. Project Schedule

1. Bids are due to the Owner on September 29, 2011 at 2:00 P.M.
2. Tentative project schedule: November 9, 2011 through January 27, 2012. Work is anticipated to commence in the Basement and proceed to successive upper floors. Commencement of exterior LBP remediation work is anticipated for April of 2012; however, the actual date for this work is to be determined.
3. The Environmental Remediation Contractor (ERC) will coordinate all work activities with the WR and the Owner.

C. Construction Comments/Site Issues

1. Designated building areas will be unoccupied during the course of the specified work. Other project related work will be occurring concurrently on other floors and on the exterior of the building.
2. Approximate locations of ACM and LBP to be abated are included in the Work Plan. The ERC is responsible for confirming all locations and quantities.
3. The ERC is responsible for the security of their designated work area(s). Water, electricity and sanitary facilities will be available for use by the ERC for the duration of this project, but use must be coordinated with WR.
4. The ERC will be responsible for removal and disposal of the existing boilers, breeching, water tank and piping associated with the heating system, throughout the basement.
5. The boiler pedestals shall be removed to floor level.
6. Piping associated with the heating system present on the Floors 1 through 3 shall remain in place after ACM removal.
7. Non-ACM materials attached to ACM, or impacted by ACM removal, shall be removed by the ERC.
8. Wood trim and millwork attached to ACM plaster walls and ceilings and designated for salvage and re-use will be identified and marked by WR prior to commencement of remediation work. The ERC will be responsible for removal and cleaning of these items. WR will provide a designated storage area for these items. For the purposes of bidding, the ERC shall assume trim and millwork identified in the WR project documents as

scheduled for salvage and restoration will be removed by the ERC.

9. Remediation of exterior wall paint is not included as part of the ERC work. Exterior painted trim, as identified in the Project Manual, is included within the ERC scope of work.

10. Removal of floor tile adhesive (ACM and Non-ACM) present within the building shall be performed by the ERC as part of the environmental remediation project scope of work.

11. Decorative plaster trim present on the ceilings is to remain in place. The ERC shall cut ACM ceiling plaster along the edges of the moldings, taking care to avoid damage to the molding.

12. The cleaning of localized mold present on wall surfaces throughout the basement is included in the Environmental Remediation scope of work. Should, during the course of remediation and demolition work, significant mold contamination be identified, work in this area will cease and the condition assessed to determine if this is a "significant condition", potentially requiring "out of scope" actions by the ERC.

D. Administration

1. The Project Owner is Children's Hospital Housing Partners LP. The Contractor will contract directly with the Owner in accordance with the terms and conditions included within the Project Manual.

2. The Owner's representative is Ms. Erin Cooperrider.

3. All questions related to this project shall be directed to Ms. Cooperrider. Questions shall be submitted in writing or email no later than September 23, 2011.

4. The contract award will be based upon the Base Bid lump sum cost.

5. The Contractor's Bid shall be submitted on the Bid Form provided in the Project Manual to the attention of:

   Ms. Erin Cooperrider
   Children's Hospital Partners LP
   309 Cumberland Avenue, Suite 203
   Portland, Maine 04101

   Please include all required submittals as listed

6. Fax bids will not be accepted.

7. A five percent bid security and 100 percent Performance and Payment Bonds are required for this project.

8. Insurance requirements for this project are detailed in the Project Manual.

9. The ERC shall assume that all work on this project will be performed in accordance with applicable State of Maine Wage rates. Clarification of

this requirement will be provided in an addendum to be issued.

E. Site Inspection

1. The bidders were provided an opportunity to inspect the site to assist in preparing bids at the time of the Pre-Bid meeting. The site will accessible to all bidders throughout the bidding period. Access to the site shall be through Mr. Mike Barton at WR (207-773-3625).

The meeting adjourned at 11:30 AM.

In the event of a discrepancy in these minutes or if additional clarification is required, please contact Ms. Erin Cooperrider no later than 2:00 P.M. on September 23, 2011.

Attachments

ELM TERRACE ENVIRONMENTAL REMEDIATION
ROOM REFERENCE

Room numbers presented within the ACM/LBP Assessment report differ from those presented on the Contract drawings D0.01, D1.0B, D1.01 – D1.03, and D1.0R. The following table provides clarification:

ACM/LBP ROOM NUMBER REFERENCE	CWS ROOM NUMBER REFERENCE
BASEMENT	
Addition	D001 – D004
Room 053	D005/D007
Room 058	D006
Room 020 Lobby	Rooms D008-D010
Elevator	Room D011
Room 005A	Room D012
Room 005	Room D013
Room 007 Storage	Room D014
Room033	Room D015
Room 031 Boiler Room	Room D016
Room 032 Coal Bin	Room D017
Room 011	Room D018
Room 010	Room D019
Room 005 Janitor	Room D020
Room 002/002A	Room D021
Room 004	Room D022
Room 008	Room D023
Room 003	Room D024
Room 007 Classroom	Rooms D025/D026
Room 008	Rooms D027/D030
FIRST FLOOR	
Rooms 150/150A	Rooms D101-D103
Rooms 155/157	Rooms D104/105
Room 158	Room D106
Room 153	Room D107
Room 156	Room D108
Room 154	Room D109
Room 151	Room D110
Room 152	Room D111
Room 121	Room D112
Rooms 105A,B,C	Rooms D114-D116
Room 105	Rooms D117/D119
Room 107	Room D118
Room 118	Rooms D120/D121
Room 110	Room D123
Room 108	Room D124
Rooms 106/106A	Rooms D125-D127
Rooms 102/119 Lobby	Room D128
Room 101	Room D130
Room 103	Room D131

ELM TERRACE ENVIRONMENTAL REMEDIATION
ROOM REFERENCE

SECOND FLOOR	
Rooms 260A,B,C	Rooms D201-D203
Room 255	Rooms D204/205
Room 258	Rooms D208/D209
Room 254	Room D210
Room 252	Room D211
Room 250	Room D212
Stairwell	Room D214
Room 220	Rooms D215/D220
Room 205	Room D217
Room 207	Rooms D218
Room 218	Rooms D219
Room 216	Rooms D221/D225
Room 200	Rooms D226,D233-D235
Room 208	Rooms D227-D229
Room 206	Rooms D230, D231
Room 204	Room D232
Room 203	Room D236
Room 201	Room D237
THIRD FLOOR	
Room 360	Room D304
Room 361	Room D301
Room 362	Room D302
Room 363	Room D303
Room 364	Room D305
Room 355	Rooms D306/D307
Room 350	Room D308
Rooms 358/358A	Rooms D309-D311
Room 356	Room D312
Room 359	Room D313
Room 352	Room D314
Room 305	Room D318
Rest Room	Room D324
Room 324	Room D327
Room 318	Room D328
Room 325	Rooms D319, D321-D323, D326
Room 315	Room D320
Rooms 317/319	Rooms D329. D330
Room 322	Room D331
Room 320A	Room D332
Room 316	Room D333
Room 315	Room D334
Room 314	Room D335
Room 311	Room D336
Room 309	Room D337
Room 314	Room D339
Room 312	Room D340
Room 310	Room D341

ELM TERRACE ENVIRONMENTAL REMEDIATION
ROOM REFERENCE

THIRD FLOOR cont.	
Room 302	Room D342
Room 308	Room D343
Room 306	Room D345
Room 304	Room D346
Room 305	Room D347
Room 301	Rooms D348-D350
Room 320	Room D351
ROOF	
Room 591 Elevator Penthouse	Room D401
Stairwell 4th Level	Room D420

COMMUNITY HOUSING OF MAINE
ELM TERRACE
PRE-BID MEETING

SEPTEMBER 16, 2011

NAME (print)	SIGNATURE	COMPANY/PHONE & FAX	E-MAIL ADDRESS
Dennis Kingman		Summit 262-9040/262-9080	dkingman@summitenv.com
MARK GRAFTON		BTOSale-854-5260	Mark@BTOSenv.com
Kyle Bickett		ABatement f 773-1276	Kricketh@abatementpros.com
Frank Perry		Atlantic Coast. Serv. 740-7240	fperry@ACSME.net
Sue Chase		Summit Env 795-6007	Schase@Summitenv.com
Bob Rickett		Abatement Pros 7731276	RRickett@Abatementpros.com
Frank Walker		Maine Heritage Ironworks 890-8594	Shores20@Hotmail.com
Kris Rickett		Abatement Pros	Krisrickett@abatementpros.com
Vince Maresca		Environvantage	mfo@environvantage.com

Wright-Ryan Construction, Inc
10 Danforth Street
Portland, Maine 04101
P 207 773 3635
F 207 773 5173

Instructions to Shoring Subcontractors – Elm Terrace

Project:	Elm Terrace 66-68 High Street Portland, Maine 04101		
Bid Date:	September 29, 2011		
Time:	1:00 PM		
Start Date:	TBD	End Date:	TBD
Project Duration:	12 months 366 calendar days		
Project Contact:	Michael Barton – Preconstruction Manager mbarton@wright-ryan.com		

Description:

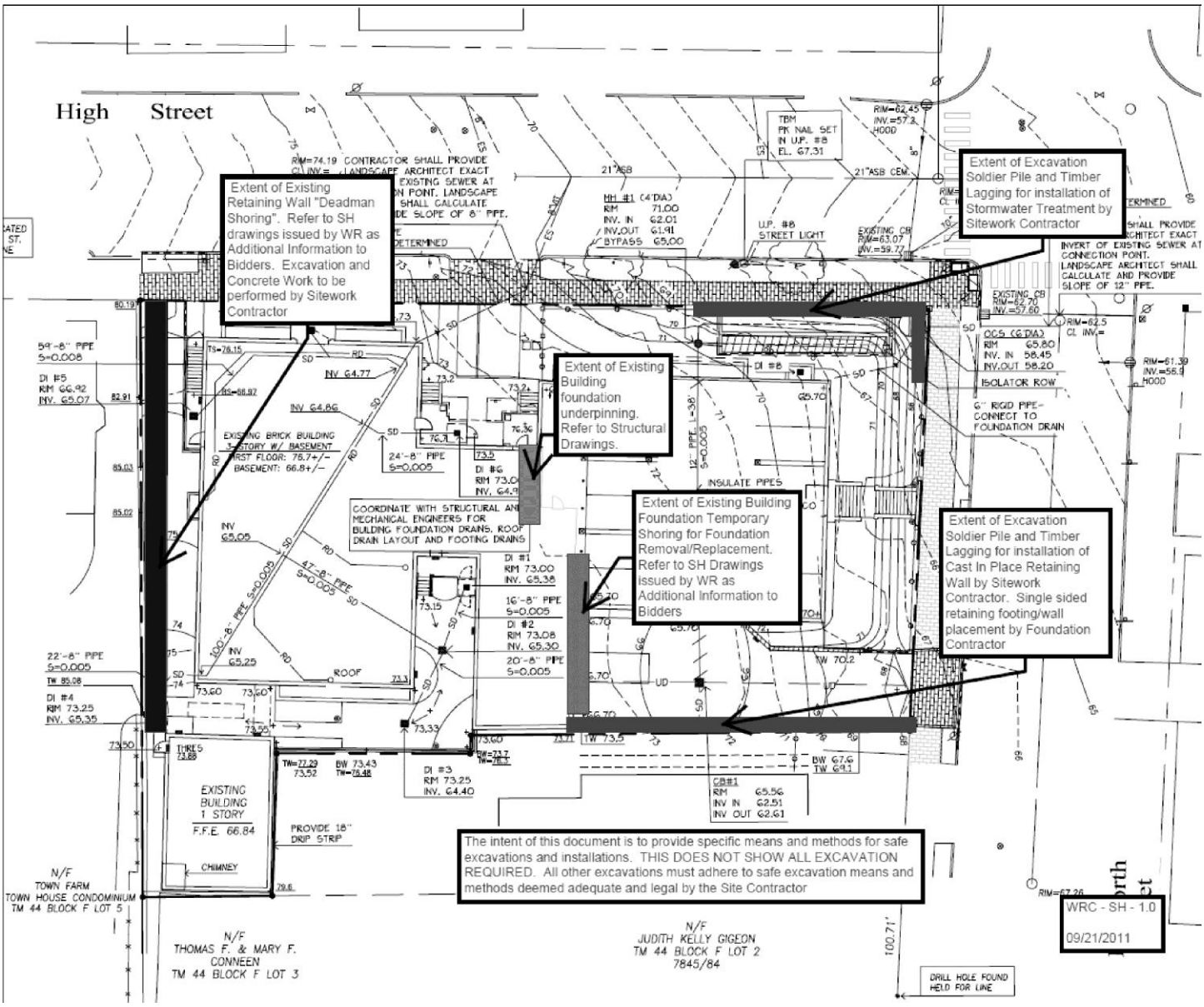
This document serves as additional instructions to potential subcontractors as it pertains to Site and Building Shoring.

- Shoring of existing building
    - Work is to be priced in accordance with documents included in Addendum 1 as additional information available to bidders
        - Substitute approaches will be entertained post bid
- Shoring of existing retaining wall
    - Work is to be priced in accordance with documents included in Addendum 1 as additional information available to bidders
        - Substitute approaches will be entertained post bid
- Excavation Shoring
    - Work is to be priced in accordance with documents included in Addendum 1 as additional information available to bidders
        - The design intent assumes the use of Soldier Pile with Timber Lagging
            - Vibratory Sheet Pile is not permissible.
        - Substitute approaches will be entertained post bid
- All other excavation support measures not indicated on the documents shall be the responsibility of the sitework contractor.

Wright Ryan – Site & Building Shoring Extents Plan

9-21-2011

Elm Terrace, Portland, Maine



SECTION 06 20 10

FIBERGLASS CAST COLUMNS

PART 1 GENERAL

1.1 DESCRIPTION

A. Columns shall be Round WorthingtonCast™ columns manufactured by Worthington Millwork, LLC based on design Modern Composite full round and half round as indicated. 10 foot height, 12" diameter, cut to fit, painted.

B. Column design shall have the correct proportions based on Orders of Architecture, except when cut to a specific overall length.

C. WorthingtonCast™ columns are manufactured from highly advanced fiberglass reinforced polymers (FRP)

D. All WorthingtonCast™ and shafts shall be 100% sanded.

E. All WorthingtonCast™ shafts shall be classified as NFPA Class A UBC Class 1, with a smoke density rating below 450 according to ASTM E84-01 testing criteria.

F. Caps shall be Polyurethane, Fiberglass, or Synthetic

G. Bases shall be Polyurethane, Fiberglass, or Synthetic

H. Plinths shall be Polyurethane, Fiberglass, or Synthetic

1.2 SUBMITTALS

A. Submit Worthington product data and shop drawings clearly marked to show column requirements.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURER:

A. Worthington Millwork, LLC.
P.O. Box 600399
Jacksonville, FL 32260-0399
P. 800.872.1608/ F. 904.281.1488
www.WorthingtonMillwork.com

2.2 MATERIALS

A. All fiberglass columns shall be manufactured from advanced fiberglass reinforced polymers (FRP)

PART 3 EXECUTION

3.1 INSTALLTION

A. Follow manufacturer's detailed installation procedures.

1. Determine the position of the plinth by dropping a plumb line from the center of the soffit beam to the floor. Mark this point on the floor with a center of the soffit beam to the floor. Mark this point on the floor with a “X”. This is where you will center the plinth so that the top of the shaft will align with the soffit.
2. Measure the overall height. Raise the soffit or porch slightly with brace for easy installation of the columns.
3. Trim column shaft on bottom end only. Trim with an abrasive saw. Finish both top and bottom of shaft with a rasp to ensure an even load distribution around the entire circumference.
4. Slide cap over top of column shaft. Let cap slide down to rest on neck mold temporarily until shaft is correctly positioned. (If installing a square column, slide neck mold over top of shaft to desired location. Fasten neck mold to shaft. Caulk between neck mold and shaft.)
5. Slide base/plinth onto column shaft from bottom.
6. Place column in a vertical position with load centered over column shaft with even distribution around bearing surfaces.
7. If installation requires that column be secured in place prior to bearing load, use small L brackets. Be careful to ensure L brackets do not interfere with seating of cap and base. Note: To secure bracket to column, drill hole in shaft and use through bolts. Do not use screws.
8. Remove brace to allow load to bear on column shaft.
9. Slide cap up to soffit and attach to soffit using corrosion resistant type screws. Attach base/plinth to floor using appropriate fasteners.
10. Caulk between the cap and soffit, the cap and shaft, and the base and shaft for a finished appearance.

3.2 PAINTING/FINISHING

A. Make sure all surfaces are clean prior to painting. Use mineral spirits if oil or alkyd products are used. Warm soapy water should be used if latex products are utilized.

B. It is necessary to sand the column, caps and bases prior to priming and painting. Some filling may be required. Note: The surface on polyurethane caps and base/plinths must thoroughly scuff sanded with 120 grit sand paper and wiped clean prior to priming and painting.

C. Alkyd or oil based primer and paint are recommended. Latex products can be used, but additional sanding is required.

D. Use a good, high quality exterior paint. At least one coat of primer and two coats of paint should be applied.

E. Follow paint manufacturer’s instructions concerning use within temperature ranges for best results.

F. Do not use paint or solvents containing acetone.

3.3 WARRANTY

A. All fiberglass columns and polyurethane, fiberglass components, and decorative capitals have a Limited Lifetime Warranty.

END OF SECTION

SECTION 08 41 13

ALUMINUM-FRAMED STOREFRONT WINDOW SYSTEM

PART 1 GENERAL

1.1 SUMMARY

A. Section includes aluminum-framed storefronts including, frames, glass, and infill panels.

B. Related Sections:
1. Drawings and general provisions of Contract including General and Supplementary Conditions and all Division 1 specification sections.
2. Provision of waste management: Section 01 74 19, Construction Waste Management and Disposal.
3. Provision of general LEED requirements and forms: Section 01 81 13, Sustainable Design and LEED Requirements."

1.2 SYSTEM DESCRIPTION

A. Aluminum-Framed Storefront System: Painted tubular aluminum sections with supplementary internal support framing, factory fabricated, factory finished, glass and insulated metal panel infill, related flashings, anchorage and attachment devices.

B. System Assembly: Site assembled.

C. System Design: Provide for expansion and contraction within system components caused by temperature cycling. Design and size members to withstand loads caused by pressure and suction of wind.

D. Air Infiltration: Limit air leakage through assembly to 0.06 cfm/min/sq ft (0.003 cu m/s/sq m) of wall area, measured at reference differential pressure across assembly of 1.57 psf (75 Pa) as measured in accordance with ASTM E283.

E. Water Leakage: None when measured in accordance with ASTM E331.

F. System Internal Drainage: Drain water entering framing system to exterior.

1.3 SUBMITTALS

A. LEED Submittals - Product data as per Section 01 81 13, Sustainable Design and LEED Requirements.

B. Section 01 33 00 - Submittal Procedures: Submittal procedures.

C. Product Data: Submit data on product characteristics, performance criteria and limitations.

D. Manufacturer's Installation Instructions: Submit procedure for preparation and installation.

E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 SUSTAINABLE DESIGN REQUIREMENTS AND SUBMITTALS

A. Conform to Section 01 81 13 - Sustainable Design Requirements and provide LEED Submittals, Manufacturer's Certificates and Product Cost Data, where applicable, for targeted LEED Credits targeted.
   1. Refer to Sustainable Design Requirements, Attachment 1: LEED for Homes – Mid-Rise Simplified Project Checklist for a description of each Credit.

B. Targeted LEED Credits
   1. The Scope of Work outlined in this specification is targeted for one or more Credits in order to achieve the specified Certification level of LEED for Homes – Mid-Rise program.
   2. Refer to Drawing L-1 LEED for Homes – Mid-Rise Scope Matrix for specific Credits that are applicable to Work included in this specification Section.
   3. Refer to Section 01 81 13 - Sustainable Design Requirements for required Contractor requirements of each listed LEED Credit.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with AAMA SFM-1 and AAMA MCWM-1 - Metal Curtain Wall, Window, Store Front and Entrance - Guide Specifications Manual.

B. Surface Burning Characteristics:
   1. Foam Insulation: Maximum 75/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

C. Apply label from agency approved by authority having jurisdiction to identify each foam plastic insulation board.

D. Maintain one copy of each document on site.

E. Manufacturer: Company specializing in manufacturing products specified in this section with minimum ten years documented experience.

F. Installer: Company specializing in performing Work of this section with minimum three years documented experience approved by manufacturer.

G. Design wind loading under direct supervision of Professional Engineer experienced in design of this Work and licensed at Project location.

1.6 WARRANTY

A. Furnish five year manufacturer warranty for insulated glass and factory finishes.

PART 2 PRODUCTS

2.1 ALUMINUM-FRAMED STOREFRONTS

A. Manufacturers:
   1. Vistawall Architectural Products.
   2. EFCO Corp.
   3. Kawneer Co., Inc.
   4. Traco.
   5. Tubelite.
   6. US Aluminum.

7. Substitutions: Permitted subject to compliance with requirements.

B. Product Description: Aluminum-framed storefronts, extruded aluminum, with glazing, and hardware.

2.2 COMPONENTS

A. Frames: Thermally broken extruded aluminum; flush glazing stops. Frames for interior glazing need not to be thermally broken. Glazing profiles as indicated on drawings.

B. Reinforced Mullion: Profile of extruded aluminum with internal reinforcement of shaped structural steel section.

C. Doors: Wide Stile 1-3/4 inches thick, nominal 4 1/2 inch wide top rail, 5" wide vertical stiles, and 10 1/2 inch wide bottom rail; square glazing stops.

D. Glass and Glazing: Specified in Section 08 80 00.

E. Glass and Glazing Materials:
1. Glass in Exterior Lights: Clear LoĒ³-366 (Cardinal Glass, or equal) insulating glass with argon gas.LoĒ³-366
2. Glazing Materials: Storefront manufacturer's standard types to suit application and to achieve weather, moisture, and air infiltration requirements.

F. Flashings: Minimum 0.040 inch (1.0 mm) thick aluminum, to match mullion sections where exposed.

G. Steel Sections: ASTM A36/A36M, Structural shapes to suit mullion sections; galvanized.

H. Fasteners: Stainless steel.

I. Perimeter Sealant and Backing Materials: Specified in Section 07 90 00.

J. Provide Deflection Control Slip Track at all storefront head details.

2.3 FABRICATION

A. Fabricate doors and frames allowing for minimum clearances and shim spacing around perimeter of assembly.

B. Accurately and rigidly fit and secure joints and corners, flush, hairline, and weatherproof.

C. Arrange fasteners, attachments, and jointing to ensure concealment from view.

D. Prepare components with internal reinforcement for door hardware and door operator hinge hardware.

2.4 SHOP FINISHING

A. Painted Aluminum Surfaces: AA-M12C12R1x non-specular as fabricated mechanical finish, chemically cleaned, and prepared for applied coating; with organic coating.
1. High Performance Organic Coating: Fluoropolymer coating system complying with AAMA 2604 or 2605 minimum two-coat, with minimum 70 percent polyvinylidene fluoride resin.
2. Color: to be selected by Architect from manufacture's standard colors.

B. Concealed Steel Items: Galvanized to ASTM A123/A123M; minimum 2.0 oz/sq ft coating thickness; galvanize after fabrication.

C. Apply bituminous paint to concealed aluminum and steel surfaces in contact with cementitious or dissimilar metals.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.2 INSTALLATION

A. Install frames, glazing and flashings in accordance with AAMA MCWM-1 - Metal Curtain Wall, Window, Store Front and Entrance - Guide Specifications Manual.

B. Use anchorage devices to securely attach frame assembly to structure.

C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.

D. Coordinate attachment and seal of air and vapor retarder materials. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

F. Install infill panels using method required to achieve performance criteria.

G. Install glass in accordance with Section 08 80 00; separate glass from metal surfaces.

H. Install perimeter sealants in accordance with Section 07 90 00.

I. Tolerances:
   3. Variation from Plane: 1/8 inch per foot (3 mm/m) maximum, or 1/4 inch per 30 feet (6 mm/m); whichever is less.

END OF SECTION

SECTION 08 54 13

FIBERGLASS WINDOWS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. All Fiberglass double hung and picture window complete with hardware, glazing, weather strip, insect screen, sheet rock return, j-channel, and standard or specified anchors, trim and attachments.

1.2 RELATED SECTIONS

A. Related Sections:

1. Drawings and general provisions of Contract including General and Supplementary Conditions and all Division 1 specification sections.
2. Provision of waste management: Section 01 74 19, Construction Waste Management and Disposal.
3. Provision of general LEED requirements and forms: Section 01 81 13, Sustainable Design and LEED Requirements."
4. Section 01 33 00—Submittal Procedures: Shop Drawings, Product Data, and Samples.
5. Section 07 90 00—Joint Sealants: Sill sealant and perimeter caulking.

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. E 283: Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
2. E 330: Standard Test Method for Structural Performance of Exterior Windows, Curtains Walls, and Doors by Uniform Static Air Pressure Difference.
3. E 547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
4. E 774: Specification for Sealed Insulated Glass Units.
5. C 1036: Standard Specification for Flat Glass.

B. Sealed Insulating Glass Manufactures Association / Insulating Glass Certification Council (SIGMA / IGCC).

C. American Architectural Manufacturers Association / Window and Door Manufacturers Association (AAMA / WDMA):
1. ANSI/AAMA/NWWDA 101 / I.S.2-97: Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
2. 101/I.S. 2/NAFS-02: Voluntary Performance Specification for Windows, Skylights and Glass Doors/

D. Window and Door Manufacturers Association (WDMA): Hallmark Certification Program.

E. American Architectural Manufacturers Association (AAMA): 613: Voluntary Performance Requirements and Test Procedures for Organic Coatings on Plastic Profiles.

F. National Fenestration Rating Council (NFRC): 101: Procedure for Determining Fenestration Product Thermal Properties.

1.4 SYSTEM DESCRIPTION

A. Design and Performance Requirements:
   1. Window units shall be designed to comply with ANSI / AAMA / NWWDA 101 / I.S.2-97 and 101 / I.S. 2/ NAFS-02
      a. Double Hung: (H-LC30)
   2. Air leakage shall not exceed the following when tested at H-LC30: 1.57 according to ASTM E 283.0.3 cfm per square foot of frame.
   3. No water penetration shall occur when units are tested at the following pressure according to ASTM E 547:
      a. Double Hung: (H-LC30 – 4.5 psf)
   4. Units shall be designed to comply with ASTM E330 for structural performance when tested at the following pressures:
      a. Double Hung: (H-LC-30 - 45 psf)

1.5 SUBMITTALS

A. LEED Submittals - Product data as per Section 01 81 13, Sustainable Design and LEED Requirements.

B. Section 01 33 00 - Submittal Procedures: Submittal procedures.

C. Product Data: Submit data on product characteristics, performance criteria and limitations.

D. Manufacturer's Installation Instructions: Submit procedure for preparation and installation.

E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.6 SUSTAINABLE DESIGN REQUIREMENTS AND SUBMITTALS

A. Conform to Section 01 81 13 - Sustainable Design Requirements and provide LEED Submittals, Manufacturer's Certificates and Product Cost Data, where applicable, for targeted LEED Credits targeted.
   1. Refer to Sustainable Design Requirements, Attachment 1: LEED for Homes – Mid-Rise Simplified Project Checklist for a description of each Credit.

B. Targeted LEED Credits
   1. The Scope of Work outlined in this specification is targeted for one or more Credits in order to achieve the specified Certification level of LEED for Homes – Mid-Rise program.
   2. Refer to Drawing L-1 LEED for Homes – Mid-Rise Scope Matrix for specific Credits that are applicable to Work included in this specification Section.
   3. Refer to Section 01 81 13 - Sustainable Design Requirements for required Contractor requirements of each listed LEED Credit.

1.7 QUALITY ASSURANCE

A. N/A.

1.8 DELIVERY

A. Comply with provisions of Section 01 60 00.

B. Deliver in original packaging and protect from weather.

1.9 STORAGE AND HANDLING

A. Prime or seal wood surfaces, including surface to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation.

B. Store window units in an upright position in a clean and dry storage area above ground and protect from weather under provisions of Section 01 66 00.

1.10 WARRANTY

A. Windows shall be warranted to be free from defects in manufacturing, materials, and workmanship for a period of ten (10) years from purchase date.

B. Window glass shall be warranted to be free from defects in manufacturing, materials and workmanship for period of twenty (20) years from the purchase date.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

A. Description: All Ultrex® Infinity Double Hung type units as manufactured by Infinity Windows and Doors, Fargo, North Dakota, or equal. Operating sash tilt to interior for cleaning or removal.

2.2 FRAME DESCRIPTION

A. Pultruded reinforced fiberglass Exterior and Interior 0.075 inch (2 mm) thick. Frame thickness: 31/32 inch (25 mm) head jamb, 31/32 inch (25 mm) composite side jamb, 25/32 inches (20 mm) sill, flat bottom sill with 8 degree bevel. Frame width: 2 7/8 inches (73mm).

2.3 SASH DESCRIPTION

A. Pultruded reinforced fiberglass, Interior 0.075 inch (2mm) thick. Composite sash thickness: 1-3/8 inches (35 mm) overall. Sash exterior Ultrex, an advanced glass fiber reinforced material, 0.075 inch (2 mm) thick. Operable sash tilt to interior for cleaning or removal.

2.4 GLAZING

A. Select quality complying with ASTM C 1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E 774.

B. Glazing method: 11/16 inch (19 mm) Insulated glass.

C. Glass type: Clear LoĒ³-366 (Cardinal Glass, or equal) insulating glass with argon gas, or equal - glass performance shall have the following characteristics: Visible Light Transmittance = 65%; solar head gain coefficient = 0.27; U Factor = 0.24.; Tempered as indicated or required by code.

D. Glazing seal: Silicone bedding at exterior and a glazing boot to interior.

2.5 Simulated Divided Lites (SDL)

A. 7/8 inch (22mm) wide with internal aluminum spacer bars. Exterior bar: Ultrex□, finish to match exterior Bahama Brown. Interior bar: ABS (Acrylonitrile Butadiene Styrene) Stone White. Pattern: as indicated.

2.6 FINISH

A. Factory baked on acrylic urethane.

B. Sash Color: Bahama Brown exterior with Stone White interior, to be selected by architect.

C. Frame Color: Bahama Brown exterior with Stone White interior, to be selected by architect.

2.7 HARDWARE

A. Balance System: Coil spring block and tackle with nylon cord and glass filled nylon shoe and steel locking shoe.

B. Jamb Track: Pultrusion.

C. Sash Lock: High pressure zinc die-cast cam lock and keeper.
1. Finish: Phosphate coated and electrostatically painted. Color: White.
2. Two locks on units that are over 3-0 in width.

D. Sash Lift: Zinc die cast contoured sash lift, two per unit. Color: White.

2.8 WEATHER STRIP

A. Weather Strip: Weather strip at jambs with a foam type material for added long-term performance to seal against both the bottom sash and top sash stiles. The bottom sash has a weather strip to seal against the sill, the top check rail has a weather strip interlock to seal against the bottom check rail, and the top rail seals against a weather strip on the head jamb parting stop. Color: White.

2.9 JAMB EXTENSION

A. N/A

2.10 INSECT SCREEN

A. Insect Screens: Factory installed (removable) full screen. Screen cloth, 20 x 20 mesh: Charcoal High Transparency Fiberglass. Frame color: Bahama Brown.

2.11 ACCESSORIES AND TRIM

A. Installation Accessories:
   1. Factory installed vinyl folding nailing fin at head, sill and side jambs.
   2. Sheetrock return head and jambs, stool receiver sill. Confirm size and dimensions with drawings.
   3. Complete operator package of hardware required for installation.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verification of Conditions: Before Installation, verify openings are plumb, square, and of proper dimension as required in Section 01 70 00. Report frame defects or unsuitable conditions to the General Contractor before proceeding.

B. Acceptance of Conditions: Beginning of installation confirms acceptance of existing conditions.

3.2 INSTALLATION

A. Comply with Section 01 70 00.

B. Assemble and install window unit according to manufacturer's instructions and reviewed shop drawings.

C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 90 00 Joint Sealants. Do not use expansive foam sealant.

D. Install accessory items as required.

E. Use finish nails to apply wood trim and moldings.

3.3 CLEANING

A. Remove visible labels and adhesive residue according to manufacturer's instructions.

B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 70 00.

3.4 PROTECTING INSTALLED CONSTRUCTION

A. Comply with Section 01 70 00.

B. Protect windows from damage by chemicals, solvents, paint, or other construction operations that may cause damage.

END OF SECTION

SECTION 14 42 50

VERTICAL WHEELCHAIR LIFTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Enclosed, self-contained vertical platform wheelchair lift.

1.2 RELATED SECTIONS

A. Section 03300 - Cast-In-Place Concrete: Concrete shaftway and anchor placement.

B. Section 04800 - Masonry Assemblies: Masonry shaftway and anchor placement.

C. Section 06100 - Rough Carpentry: Blocking in framed construction for lift attachment.

D. Section 09260 - Gypsum Board Assemblies: Gypsum board shaftway.

E. Division 16 - Electrical: Dedicated telephone service and wiring connections.

F. Division 16 - Electrical: Lighting and wiring connections at top of shaft.

G. Division 16 - Electrical: Electrical power service and wiring connections.

1.3 REFERENCES

A. ASME A17.1 - Safety Code for Elevators and Escalators.

B. ASME A17.5 - Elevator and Escalator Electrical Equipment.

C. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.

D. ICC/ANS1A117.1 - Accessible and Usable Buildings and Facilities.

E. NFPA 70 - National Electric Code.

1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturers data sheets on each product to be used including:
   1. Submit manufacturer's installation instructions, including preparation, storage and handling requirements.
   2. Include complete description of performance and operating characteristics.
   3. Show maximum and average power demands.

C. Shop Drawings:

1. Show typical details of assembly, erection and anchorage.
2. Include wiring diagrams for power, control, and signal systems.
3. Show complete layout and location of equipment, including required clearances and coordination with shaftway.

D. Selection Samples: For each finished product specified, provide two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finished product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Firm with minimum 10 years experience in manufacturing of vertical platform lifts, with evidence of experience with similar installations of type specified.

B. Installer Qualifications: Licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall maintain an adequate stock of replacement parts, have qualified people available to ensure fulfillment of maintenance and callback service without unreasonable loss of time in reaching project site.

1.6 REGULATORY REQUIREMENTS

A. Provide platform lifts in compliance with:
1. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
2. ASME A17.1 - Safety Code for Elevators and Escalators.
3. ASME A17.5 - Elevator and Escalator Electrical Equipment.
4. NFPA 70 - National Electric Code.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store components off the ground in a dry covered area, protected from adverse weather conditions.

1.8 PROJECT CONDITIONS

A. Do not use wheelchair lift for hoisting materials or personnel during construction period.

1.9 WARRANTY

A. Warranty: Manufacturer shall warrant the wheelchair lift materials and workmanship for two years following completion of installation

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Garaventa Lift; United States - P.O. Box 1769, Blaine, WA 98231-1769. Canada - 7505 134A St., Surrey, BC V3W 7B3. ASD. Toll Free: 800-663-6556. Tel: (604) 594-0422. Fax: (604) 594-9915. Email: brarnsav(asiaraventalift.com Web: wwvvsgaraventalift.corn.

B. Requests for substitutions will be considered in accordance with provisions of Section

2.2 ENCLOSED VERTICAL WHEELCHAIR LIFT

A. Capacity: 750 lbs (340 kg) rated capacity.

B. Mast Height:
1. Model GVL-EN-42; 45 inches (1143 mm) maximum lifting height.

C. Nominal Clear Platform Dimensions:
1. Standard: 37-1/4 inches (947 mm) by 54 inches (1370 mm).

D. Platform Configuration:
1. Straight Through Entry/Exit: Front and rear openings.

E. Landing Openings:
1. Upper Landing: Gate.

F. Doors and Gates: Doors and gates shall be self closing type.
1. Door Construction: Aluminum frame with:
a. Panels of 1/4 inch (6 mm) laminated safety glass with 16 gauge (1.5 mm) galvanized steel kick plate.

2. Power Door/Gate Operator: Automatically opens the door/gate when platform arrives at a landing. Will also open at landing by pressing call button or gently the pulling door.
a. ADA Compliant and obstruction sensitive.
b. Low voltage, 24 VDC with all wiring concealed.
c. Location:
1) Lower Landing: Door.

G. Lift Components:
1. Machine Tower: Custom aluminum extrusion.
2. Base Frame: Structural steel.
3. Platform Side Wall Panels: 42-1/8 (1070 mm) inches high. 16 gauge (1.5 mm) galvanized steel sheet. Custom aluminum extrusion tubing frame.
4. Enclosure Panels:
a. 1/4 inch (6 mm) laminated safety glass.

H. Enclosure Height Above Upper landing:
1. Enclosure shall extend 42-1/8 inches (1070 mm) above the upper landing level

I. Infill Panel Kit: Provide 16 gauge (1.5 mm) galvanized panels and mounting hardware to cover void between side of enclosure, drive mast and adjacent wall at the following locations:
1. Upper landing.

J. Base Mounting and Access to Lift at Lower Landing:

1. Pit Mount: Lift to be mounted in pit with dimensions to meet manufacturers requirements for the platform size specified. Pit construction shall be in accordance to Section

K. Options:
1. Outdoor Protection: Lift shall include modifications recommended by manufacturer for reliable performance in outdoor climate of project site.

L. Leadscrew Drive:
1. Drive Type: Self-lubricating acme screw drive.
2. Emergency Operation: Manual handwheel device to raise or lower platform.
3. Battery Powered Emergency Lowering: Battery powered platform lowering device that automatically activates in the event of power failure. Allows passenger to drive platform downward to lower landing. Does not operate lift in up direction.
4. Safety Devices:
   a. Integral safety nut assembly with safety switch.

5. Travel Speed: 10 fpm (3.0 m/minute).
6. Motor: 2.0 hp (560 W).
7. Power Supply:
   a. 120 VAC single phase; 60 Hz on a dedicated 20 amp circuit.

M. Platform Controls: 24 VDC control circuit with the following features.
1. Direction Control: Illuminated tactile and constant pressure push buttons with dual platform courtesy lights and safety light.
2. Illuminated and audible emergency stop switch shuts off power to lift and activates audio alarm equipped with battery backup.
3. Keyed operation.
4. Emergency Telephone: Platform shall be equipped with ADA compliant autodialer telephone with a stainless steel faceplate. Telephone shall operate in the event of power failure. A telephone line shall be supplied to the lift site as specified under Division 16.

N. Call Station Controls: 24 VDC control circuit with the following features.
1. Direction Control: Illuminated tactile and constant pressure push buttons with illuminated "In Use" indicator.
2. Keyed operation.
3. Call Station Mounting:
   a. Lower:
      1) Wall mounted surface.

   b. Upper:
      1) Frame mounted.

0. Finishes
1. Aluminum Extrusions: Champagne anodized finish.
2. Lift Finish: Baked powder coat finish, color as selected by the Architect from manufacturers optional RAL color chart.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. Verify shaft and machine space are of correct size and within tolerances.

C. Verify required landings and openings are of correct size and within tolerances.

D. Verify electrical rough-in is at correct location.

E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install platform lifts in accordance with applicable regulatory requirements including ASME A 17.1, ASME A 18.1 and the manufacturer's instructions.

B. Install system components and connect to building utilities.

C. Accommodate equipment in space indicated.

D. Startup equipment in accordance with manufacturer's instructions.

E. Adjust for smooth operation.

3.4 FIELD QUALITY CONTROL

A. Perform tests in compliance with ASME A 17.1 or A18.1 and as required by authorities having jurisdiction.

B. Schedule tests with agencies and Architect, Owner, and Contractor present.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 32 31 10

CHAIN LINK FENCE

1 PART 1 GENERAL

1.1 DESCRIPTION

A. Bidding requirements, conditions of the contract and pertinent portions of sections in Division One of these specifications, apply to the section as fully as though repeated herein.

B. Work under this section includes furnishing and installing:

1. Chainlink fence

1.2 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

1. Changes in specification may not be made after the bid date.

2. Shop Drawings: Layout of fence with dimensions, details, and finishes of component accessories and post foundations.

3. Product Data: Manufacturer's catalogue cuts indicating material compliance and specified options.

4. Samples: If requested, samples of materials are available (e.g. finials, post caps, and accessories).

1.3 DELIVERY

A. Package, handle, deliver and store fencing at the project site in a manner that will avoid damage.

1.4 REFERENCES

A. ANSI/ASTM A123 - Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products.

B. ANSI/ASTM F567 - Installation of Chain-Link Fence.

C. ASTM A116 - Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric.

D. ASTM A120 – Pipe, Steel, Black and Hot-Dipped Zinc Coated (Galvanized) Welded and Seamless, for Ordinary Uses.

E. ASTM A153 – Zinc Coating (Hot Dip) on Iron and Steel Hardware.

F. ASTM A392 – Zinc-Coated Steel Chain-Link Fence Fabric.

G. ASTM A428 – Weight of Coating on Aluminum-Coated Iron or Steel Articles.

H. ASTM A491 – Aluminum-Coated Steel Chain Link Fence Fabric.

I. ASTM C569 – Steel, Carbon (0.15) Maximum Percent), Hot-rolled Sheet and Strip Commercial Quality.

J. ASTM C94 – Ready Mixed Concrete.

K. ASTM F573 – Residential Zinc-Coated Steel Chain Link Fence Fabric.

L. ASTM F668 – Poly (Vinyl Chloride) (PVC) Coated Steel Chain Link Fence Fabric.

M. Chain Link Fence Manufacturers Institute (CLFMI) – Product Manual.

N. FS FF-F-191 – Fencing Wire and Post Metal (and Chain Link Fence Fabric and Accessories).

2 PART 2 PRODUCTS

2.1 MANUFACTURER:

A. Chainlink Fence: Acceptable manufacturers subject to compliance with requirements, provide products of one of the following:

1. Allied Tube and Conduit Corporation

2. Anchor Fence, Inc.

3. United States Steel

4. Acme Fence Company

Product of other manufacturers may be considered subject to compliance with the requirements as judged by the Architect and or Owner's Representative.

2.2 MATERIALS:

A. Chainlink Fence:

1. Fabric

a. No. 9 ga. (0.148"± 0.005") finished size galvanized steel wires, vinyl coated 2" mesh, with both top and bottom salvages twisted.

b. Furnish one-piece fabric widths for fencing.

2. End, Corner and Pull Posts: Galvanized steel, minimum sizes and weights as follows:

a. 4'-0" Fabric Height: 2.875" OD pipe, 5.79 lbs./lin. ft.

3. Line Posts: Galvanized steel, with exposed portions finished, minimum sizes and weights as follows:

a. 4'-0" Fabric Height: 2.375" OD steel pipe, 3.65 lbs./lin. ft.

4. Top Rail: Rails: 1.66" OD pipe, 2.27 lbs./ft. or 1.625" x 1.25" roll-formed sections, 1.35 lbs./ft.; galvanized steel, manufacturer's longest lengths.

5. Couplings: Expansion type, approximately 6" long, for each joint.

6. Attaching Devices: Provide means for attaching top rail securely to each corner, pull and end post.

7. Sleeves: Galvanized steel pipe not less than 6" long and with inside diameter not less than ½" greater than outside diameter of pipe. Provide steel plate closure welded to bottom of sleeve of width and length not less than 1" greater than outside diameter of sleeve.

8. Tension Wire: 7 gauge galvanized steel, coated coil spring wire, located at bottom of fabric.

9. Wire Ties: 11 gauge galvanized steel.

10. Post Brace Assembly: Manufacturer's standard adjustable brace at end and at both sides of corner and pull posts, with horizontal brace located at mid-height of fabric. Use same material as top rail for brace, and truss to line posts with 0.375" diameter rod and adjustable tightener.

11. Post Tops: Galvanized steel, weather tight closure cap for each tubular post. Furnish caps with openings to permit passage of top rail.

12. Stretcher Bars: Galvanized steel, one piece lengths equal to full height of fabric, with minimum cross-section of 3/16" x ¾". Provide one stretch bar for each end post, and two for each corner and pull post.

13. Gate, Hinge and Latch Assemblies: Capable of being locked by owner supplied pad locks.

14. Stretch Bar Bands: Manufacturer's standard.

15. Portland Cement: ASTM C150.

16. Aggregates: ASTM C33.

17. Water: Clean

18. Non-shrink, Non-metallic Grout: Premixed, factory-packaged, non-corrosive, non-staining, non-gaseous, exterior grout complying with CE CRD-C621.

19. Finish

a. Framing: Galvanized steel, ASTM A120 or A123, with not less than 1.8 oz. Zinc/sq. ft. of surface.

b. Hardware and Accessories: Galvanized, ASTM A153 with zinc weights in accordance with Table I.

3 PART 3 EXECUTION

3.1 EXAMINATION:

A. Verify areas to receive fencing are completed to final grades and elevations.

B. Ensure property lines and legal boundaries of work are clearly established.

1.2 INSTALLATION:

A. Chainlink Fence:

1. Comply with recommended procedures and instructions of fencing manufacturer. Provide secure, aligned installation with line posts spaced at 10'-0" o.c. maximum.

2. Grade Set Posts: Drill, air drive, or hand excavate using post hole digger in firm undisturbed or compacted soil.

3. Excavate hole for each post to minimum diameter recommended by fence manufacturer but not less than four times largest cross-section of post. Excavate hole depths approximately 3" lower than post bottom with bottom of posts set not less than 36" below finish grade surface.

4. Center and align posts in holes 3" above bottom of excavation.

5. Concrete Mixing: Mix materials to obtain concrete with minimum 28-day comprehensive strength of 2,500 psi; 1" maximum size aggregate, maximum 3" slump, and 2-4% entrained air.

6. Place concrete around end posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations. Extend concrete footing 2" above grade and trowel to crown to shed water.

7. Sleeve Set Posts: Anchor posts by means of pipe sleeves preset and anchored into concrete. After posts have been inserted into sleeves, fill annular space between post and sleeve solid with non-shrink, non-metallic grout, mixed and placed to comply with grout manufacturer's directions.

8. Top Rails: Run rail continuously, bending to form radius for curved runs. Provide expansion couplings as recommended by manufacturer.

9. Center Rails: Provide center rails where indicated. Install in one piece between posts and flush with post on fabric side, using special offset fittings where necessary.

10. Brace Assemblies: Install braces so posts are plumb when diagonal rod is under proper tension.

11. Tension Wire: Install tension wires through post cap loops before stretching fabric and tie to each post cap with not less than 6 ga. galvanized wire. Fasten fabric to tension wire using 11 ga. galvanized steel hog rings spaced 24" o.c.

12. Fabric: Leave approximately 2" between finish grade and bottom salvage. Pull fabric taut and tie to posts, rails and tension wires. Install fabric on security side

of fence, and anchor to framework so that fabric remains in tension after pulling force is released.

13. Stretcher Bars: Secure at end, corner, pull, and gate posts by threading through or clamping to fabric at 4" o.c., and secure to posts with metal bands spaced at 15" o.c.

14. Tie Wires:

    a. Use U-shaped wire, conforming with diameter of pipe to which attached, clasping pipe and fabric firmly when ends twisted at least two full turns. Bend ends of wire to minimize hazard to persons or clothing.

    b. Tie fabric to line posts with wire ties spaced 12" o.c. Tie fabric to rails and braces with wire ties spaced 24" o.c. Tie fabric to tension wires with hog rings spaced 24" o.c.

    c. Manufacturer's standard procedure will be accepted if of equal strength and durability.

15. Fasteners: Install nuts for tension bands and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.3 CLEANING:

A. Clean up debris and unused material, and remove from site.

…END OF SECTION 32 31 10