3112 3rd Ave South Heritage Preservation Site Plan

Prepared by Jennifer Tschida
Minneapolis Department of Health
On behalf of
Reina S Benavides Guaman

December 12, 2013

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3112 3rd Ave South

Built in 1887 by Alfred Ingham and Brothers. Located in the Healy Historic District of Minneapolis which was locally designated in 1989. The property was foreclosed and purchased by Reina S Benavides Guaman on February 8, 2012 for $50,000. The property is homesteaded. The current family are immigrants and prefer the assistance of a translator.

AGREEMENT.

e this 17 day of Sept 1887 by and between
of Minneapolis, by H. J. BAUMAN, Inspector of Buildings,
the first part; and Ingham & Bros
party of the second part, that for and
eration of Building Permit No. B 12383 to him in
livered by said party of the first part, said party of the second
rees to do the proposed work in accordance with the description
in the application and statement hereto attached, and in the plans
ifications of which the said application and statement are a part,
rding to the provisions of the ordinance entitled "AN ORDI-
: TO REGULATE THE CONSTRUCTION, REPAIRS AND
AL OF BUILDINGS IN THE CITY OF MINNEAPOLIS."
ndments thereto. Passed February 28, 1884. Approved March
84.

H. J. Bauman (Seal.)
Inspector of Buildings.

Alfred Ingham (Seal.)

BUILDING OUTSIDE OF FIRE LIMITS.

GENERAL STATEMENT.

PLAN:

27 x 50

I hereby certify that the within statement is substantially correct.

Alfred Ingham

Minneapolis, DAY. 17 MONTH. Sept 1887 No. B 12383

Owner Ingham & Bros

Architect

BUILDRES. Wood Work

Brick Work

Stone Work

Kind of Building.	STORY	BUILT OF	USED AS	OF	ROOMS.
	2	Wood	Dwl		

LOCATION. No. 3d av So. lot 31st & 32d st. S.

Sec. 16 Ward. 8 Plat. Baker 2nd ad

Block. 8

Lot. 4

To be completed Dec 1st 1887

Estimated cost of Buildings. Build'g $ 3500

Plumbing Application No. D 1840

PERMIT TO BUILD OUTSIDE THE FIRE LIMITS. (Duplicate.)

No. B 12383

Permission is hereby granted to Ingham & Bro *to* Built *the building described in the statement hereto attached. This permit is granted upon the express condition that the person to whom it is granted, and his agents, employes and workmen, in all the work done in, around and upon said building, and any part thereof, shall conform in all respects to the ordinances of the City of Minneapolis, regulating the construction, alteration, repair and removal of buildings in the city limits, and this permit may be revoked at any time upon the violation of any of the provisions of said ordinances.*

H. J. Bauman
Inspector of Buildings.

Rec'd for this permit, $_____ 100

N. B.—The above permit is of no effect unless the name at the head of same is duly recorded in the office of Inspector of Buildings.

Healy block Historic District Design Guidelines

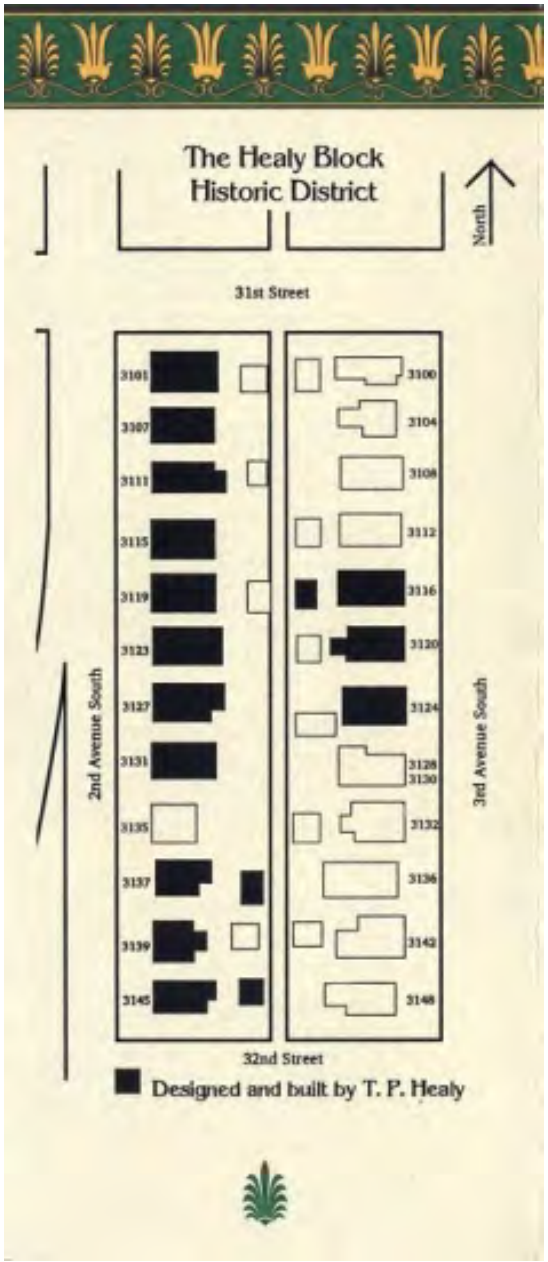
(adopted November 13, 1990)

Windows

- ✓ Replacement or new storm windows and screens shall be constructed of wood and of a painted finish. Vinyl or metal cladding shall not be permitted.
- ✓ Replacement or new windows shall have wood double-hung frames to match the original.
- ✓ Vinyl or metal cladding shall not be permitted.
- ✓ All original art glass or decorative windows such as round top windows shall be retained.
- ✓ Replacement or new windows shall match the original in proportion and size.

Doors

- ✓ Original doors and transoms shall be retained.
- ✓ New or replacement doors shall be raised panel solid wood doors of stained or painted finish.



Background and need

Lead Poisoning

On August 24, 2012, a child living at the property was diagnosed with lead poisoning. In response to the diagnosis, the Minneapolis Health Department conducted a Lead Risk Assessment of the home to identify lead hazards to which the child was exposed. The Lead Risk Assessment identified significant lead hazards throughout the home in lead paint, lead dust and soil.

Orders issued to fix lead hazards

Many of the windows in the home are original and are the greatest lead hazard found due to their significant deterioration and easy access to children. The Minneapolis Health Department ordered all of the hazards to be repaired by the owner as required under Minnesota State Statute 144 Childhood Lead Poisoning Prevention. The orders require that the windows be replaced **or** are taken off site, stripped to bare wood, repaired and repainted. In general, the Minneapolis Health Department prefers the replacement of windows in an effort to permanently remove lead hazards from the child's environment.

Professional Lead Cleaning to temporarily reduce lead dust to safe levels

In November of 2012, the Minneapolis Department of Health hired a contractor to conduct a specialized lead cleaning of all the windows and floors in the home to reduce accessible dust hazards for the child due to the seriousness of the hazards. In addition the contractor stabilized the deteriorating paint in the windows. Dust samples were collected and analyzed to demonstrate that the dust hazards had been brought back to safe levels after the lead cleaning.

Lead dust hazard returns

In September of 2013, the Minneapolis Health Department conducted another inspection of the home and found that the windows were in poor condition. Again, dust samples were collected and analyzed for lead content. The samples showed that once again the windows and floors had significant lead hazards to which the child was being exposed.

Background and need

Grant monies available to assist the family

The Minneapolis Health Department has been awarded a Lead Hazard Control grant by the US Housing and Urban Development Agency to remediate lead hazards in homes where children are present. The family has applied and is qualified to receive grant resources to fix the lead hazards in their home.

Another infant at risk for lead poisoning

There is an urgency to this case as there is a newborn baby living in the property. It is our hope to remove the lead hazards from the windows permanently and before the baby begins to crawl and pull itself up to look out windows.

Another professional lead cleaning to reduce the lead dust hazards that have returned

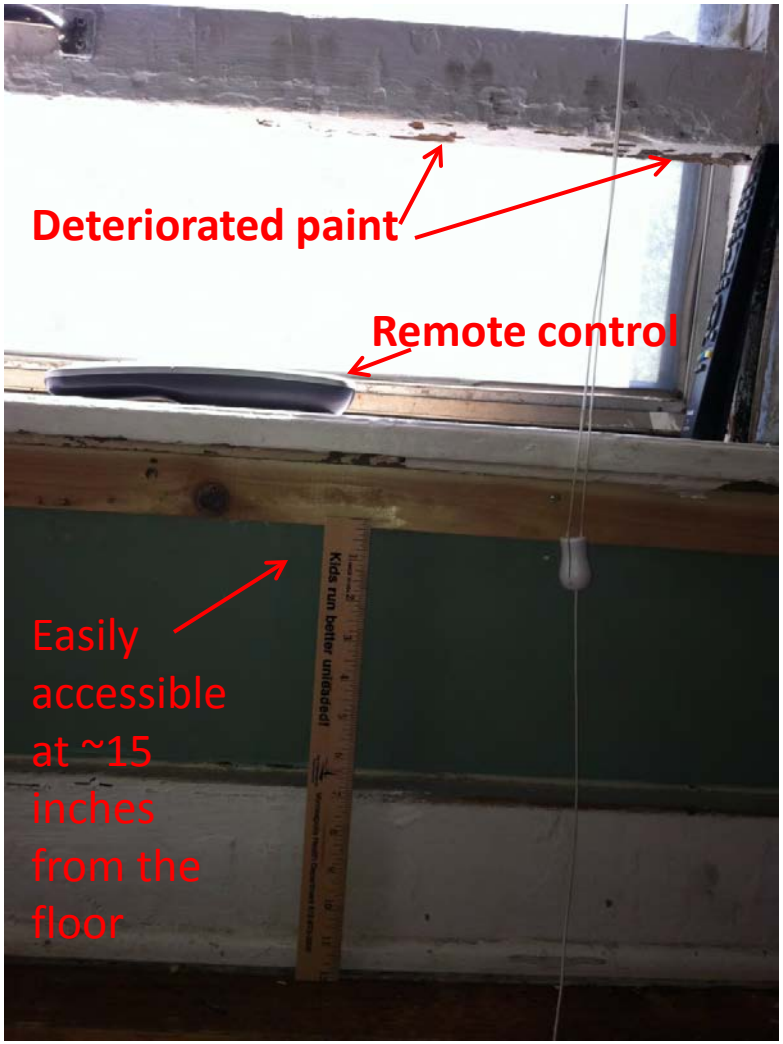
On December 6, 2013, the Minneapolis Department of Health hired a contractor to conduct another specialized lead cleaning of all the windows and floors in the home to reduce accessible dust hazards for the child due to the fact that the dust hazards have returned. In addition the contractor stabilized the deteriorating paint in the windows. Dust samples were collected again and analyzed to show that the dust hazards have once again been reduced to safe levels.

Dangers of Lead Dust to Children

Lead is a neurotoxin. It is especially dangerous to children under the age of 6 due to their hand to mouth behaviors and curiosity of the world around them. This home has a substantial amount of lead paint in the windows which has deteriorated significantly over 126 years of daily use. Lead dust is created from the friction associated with opening and closing the windows and deterioration occurs from exposure to harsh Minnesota elements. As a result, there are major dust hazard on the wells, sills and floors below the windows. **Lead *dust*** is especially dangerous to children because it is easily accessible. It is transferred to a child's hands through touching the window wells and sills while looking out and then putting their hands in their mouth resulting in ingestion of the lead dust. Window sills have a secondary danger because children often "mouth" or bite the sills as they look out the windows.

In this home the windows are exceptionally accessible to the children as they are close to the floors. This photo also shows a remote control on the sill which is likely contaminated with lead dust. Children, pregnant women and their fetus' are at risk of lead poisoning just by touching the contaminated remote control.

On September 26, 2012, this window sill contained 45,000 ug/ft^2 of lead dust which is 180 times the level considered safe for window sills. The floor directly below the window contained 5,200 ug/ft^2 of lead dust which is 130 times the level considered safe for floors.



Fall hazards

- The existing storm screens are not meant to protect a child from falling out a window (they are bug screens)
- Many of the windows in this home are very close to the ground and pose a significant fall hazard for children who would push on the window screen while looking out
- The windows are between 8-16 inches from the ground
- The existing storms are non historic and are not compatible with the period of significance of the district
- Replacing the existing storm screens with *safety* screens that are more compatible with the period of significance will improve the essence of the historic district as well as improve the safety for the children of in the home.

Minneapolis Health Lead Hazard Reduction Grant

- US Housing and Urban Development funded grant awarded to Minneapolis Health
- Goal to prevent childhood lead poisoning
- Grant eligibility requirements:
  - Property built before 1978
  - Low income occupants
  - Children under age 6 present (or visiting significant amount of time)
- Grant pays to fix existing lead hazards in homes (rental or homestead)
- At end of grant all of the lead hazards have been fixed and the property is “lead safe”

Lead grant budget

Lead Hazard Reduction budget

- The grant pays a maximum of $10,000 per dwelling unit to fix lead hazards
- Owner contributes a 10% match (or anything above $10,000)
  - Exemption- owner match can be waived for very low income families in owner occupied home

Grant- Health and Safety Component

- There is a health and safety component of the grant in addition to the Lead Hazard Reduction
- The grant will address health and safety concerns at the property as well
  - Radon, trip hazards, fall hazards, mold etc.
- Up to $900.00 per dwelling unit is available for health and safety

Site Plan

North Side View

North Side View

North Side Cellar Windows

These are the cellar windows on the north side. Note that there is no consistency in "historic-ness" of these windows.

Existing North Side Windows

South Side View

South Side View

Existing South Side Windows

Alley Side

Non historic windows

Lower bath casement window

There are four non-historic windows in this home all on the north side of the home.

1 vinyl casement in the bedroom closet
1 vinyl casement window in the lower bath
1 vinyl double hung window in the upper bath
1 swing window in the upper kitchen containing lead paint

Lower Living Room deterioration

There are two original windows in the living room.
Window 1- Immobile window. We are not requesting any modifications.

Window 2- This window has broken sash cords, is missing the ropes and pulleys are broken. There is missing glass on upper sash and the lower sash contains Plexiglass which is falling out. The exterior sash is rotted, it has a warped meeting rail. There is a non-historic metal storm.

Living Room lead test results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	1st	Living Room 6	B	Window Stop	Wood	Poor	Brown	2.09	POS	4.9

Lead content of *dust* of floors, window wells and sills

Date of Sample	Component Tested	Lead Content (ug/sq ft)	Comments
November 9, 2012 After lead cleaning	Floor	4	Result after *professional lead cleaning*
	Window Well	16.9	Result after *professional lead cleaning*
September 11, 2013	Floor	**66.9**	Result ten months after lead cleaning.
	Window Well	**9,850**	Result ten months after lead cleaning. **Dust levels are 25 times the standard considered safe.**
	Window Sill	**908**	Result ten months after lead cleaning. **Dust levels are 3 times the standard considered safe.**

Dining Room Deterioration

The Dining Room consists of three original double hung windows with non historic metal storms

Window 1-Missing glass, meeting rail rot on both upper and lower portions of lower sash, easy access for child as it is low to ground 18 inches.

Window 2-Missing storm, missing mutins, mutins were 5/8 inch wide with a depth of 1 3/8, rotting upper and lower meeting rail on lower sash.

Window 3- Split upper meeting rail, rotting lower meeting rail.

Dining Room- Lead Test Results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	1st	Dining Room 7	B-1	Window Stop	Wood	Poor	Brown	1.84	POS	2.7
FO/23480	1st	Dining Room 7	B-1	Window Stop	Wood	Poor	Brown	2.04	POS	2.8
FO/23480	1st	Dining Room 7	B-2	Window Stop	Wood	Poor	Gray	2.44	POS	4.7
FO/23480	1st	Dining Room 7	B-3	Window Sash	Wood	Intact	Natural	1.96	POS	2.5
FO/23480	1st	Dining Room 7	B-3	Window Sash	Wood	Poor	Natural	1.93	POS	1.6
FO/23480	1st	Dining Room 7	B-3	Window Sash	Wood	Poor	Natural	2.37	POS	1.8

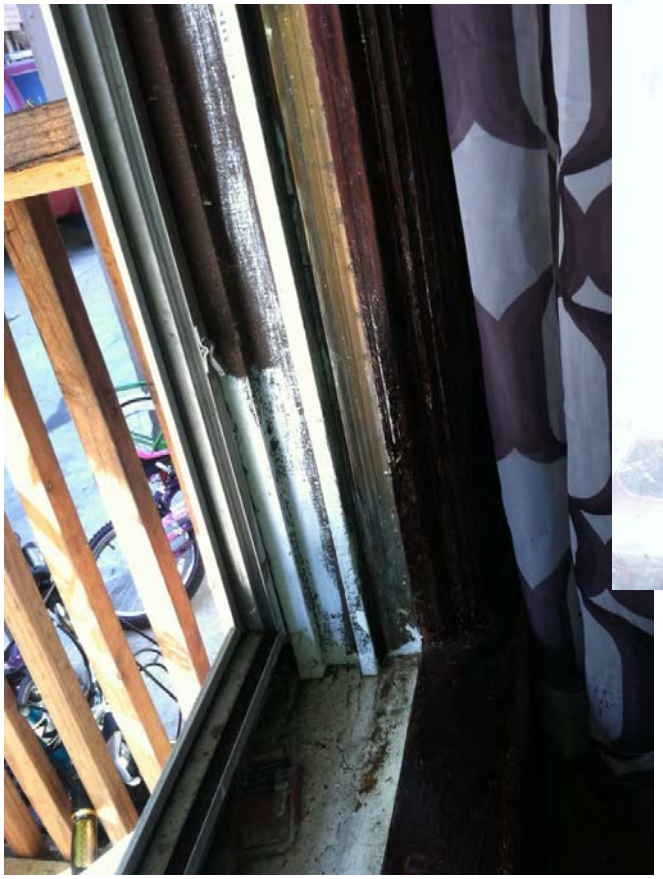
Lead content of *dust* of floors, window wells and sills

Date of Sample	Component Tested	Lead Content of dust (ug/sq ft)	Comments
September 26, 2012	Floor	**55.2**	Result at initial inspection
	Window Well	**194,000**	Result at initial inspection. **485X the standard considered safe.**
November 9, 2012 After lead cleaning	Floor	<2	Result after *professional lead cleaning*
	Window Well	<11.8	Result after *professional lead cleaning*
September 11, 2013	Window Well	**38,000**	Result ten months after lead cleaning. **95X the standard considered safe.**

Kitchen Deterioration

The Kitchen consists of one original double hung window with a metal non-historic storm.

The window has missing sash cords. Sash rot on upper and lower meeting rail and on lower sash. Rotting on right track (stop). Easily accessible by a child as the window is 18 inches from the floor.



Kitchen-Lead Test Results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	1st	Kitchen 8	B	Window Sash	Wood	**Poor**	White	8.51	POS	**1.9**
FO/23480	1st	Kitchen 8	B	Window Stop	Wood	**Poor**	Brown	1.76	POS	**2.6**
FO/23480	1st	Kitchen 8	B	Window Well	Wood	**Poor**	Brown	2.58	POS	**14.5**

Lead content of *dust* of floors, window wells and sills

Date of Sample	Component Tested	Lead Content of dust (ug/sq ft)	Comments
September 26, 2012	Floor	**137**	*Result at initial inspection.* ***Three times the standard considered safe.***
	Window Sill	**948**	*Result at initial inspection.* ***Four times the standard considered safe.***
November 9, 2012 **After lead cleaning**	Floor	<2	Result after *professional lead cleaning*
	Window Sill	54	Result after *professional lead cleaning*

West Bedroom deterioration

The west bedroom contains four windows, two of which are the original double hung windows with metal non-historic storms and are south facing. There are two north facing non-historic windows which are newer casement windows which we are not recommending modifications or replacement.

Window 1- Missing sash cords, broken sash
Window 2- Inaccessible at the time of historic review. However, the window was considered poor at time of lead risk assessment and tested positive for lead paint.

West Bedroom- Lead Test Results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	1st	W Bedroom 9	B-1	Window Casing	Wood	Poor	White	4.65	POS	10.5
FO/23480	1st	W Bedroom 9	B-1	Window Sill	Wood	Poor	White	7.44	POS	8.3
FO/23480	1st	W Bedroom 9	B-1	Window Sash	Wood	Poor	White	10	POS	14.2
FO/23480	1st	W Bedroom 9	B-1	Window Stop	Wood	Poor	Gray	2.07	POS	2.9
FO/23480	1st	W Bedroom 9	B-2	Window Casing	Wood	Poor	White	6.51	POS	5.5
FO/23480	1st	W Bedroom 9	B-2	Window Sill	Wood	Poor	White	4.46	POS	2.5
FO/23480	1st	W Bedroom 9	B-2	Window Sash	Wood	Poor	White	3.35	POS	8.3

Child’s Bedroom deterioration

There is one original double hung window in the child’s bedroom with a metal non-historic storm. The window is missing glass on upper sash, the sash cords are broken, the lower sash dropped down, and the upper and lower meeting rails on lower sash are rotting.

Child's Bedroom- Lead Test Results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	1st	Child's Bedroom 12	D	Window Stop	Wood	Poor	Brown	2.54	POS	12.4
FO/23480	1st	Child's Bedroom 12	D	Window Sash	Wood	Poor	Natural	3.29	POS	1.8

Lead content of *dust* of floors, window wells and sills

Date of testing	**Component**	**Lead Content**	**Comments**
September 11, 2013	Window well	**10,500**	Result ten months after lead cleaning. The lead levels in the dust found in the window well are **26 times the level considered safe for a child.**
	Sill	**252**	Result ten months after lead cleaning. The lead levels found in the dust on the window sill is over the safe level.

East Bedroom deterioration

There are two original double hung windows in the East Bedroom which contain non-historic metal storms.

The window on the street side has a rotted sash, missing sash cords, missing muntins, and the stool is tilted toward outside.

The south side window is 14 inches from floor with easy access by a child. The window is missing the profile, glass and sash cords.

East Bedroom deterioration

East Bedroom- Lead Test Results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	2nd	E Bedroom 15	B	Window Casing	Wood	Poor	White	10	POS	6.1
FO/23480	2nd	E Bedroom 15	B	Window Sill	Wood	Poor	White	3.11	POS	6.3
FO/23480	2nd	E Bedroom 15	B	Window Sash	Wood	Poor	White	10	POS	5.6
FO/23480	2nd	E Bedroom 15	A	Window Casing	Wood	Poor	White	6.85	POS	7.9
FO/23480	2nd	E Bedroom 15	A	Window Sill	Wood	Poor	White	3.32	POS	1.8
FO/23480	2nd	E Bedroom 15	A	Window Stop	Wood	Poor	White	2.13	POS	11
FO/23480	2nd	E Bedroom 15	A	Window Well	Wood	Poor	White	2.06	POS	2.5

Lead content in *painted* window surfaces

Date of test	**Component tested**	**Lead Content**	**Comments**
September 26, 2012	Floor	**5,200**	The dust levels at initial inspection. **Lead content is 130 times the standard considered safe.**
	Window Sill	**45,000**	The dust levels at initial inspection. **The lead levels are 180 times the standard considered safe.**
November 9, 2012	Floor	5.4	The dust levels after a professional lead cleaning.
	Window Well	78.2	The dust levels after a professional lead cleaning.
September 11, 2013	Window Well	**3,000**	The lead levels ten months after the lead cleaning. **The hazard has returned as the lead levels are 7.5 times the standards considered safe.**
	Window Well	**2,740**	The lead levels ten months after the lead cleaning. **The hazard has returned as the lead levels are 7 times the standards considered safe.**

Upper Living Room Deterioration

The upper living room contains two original double hung windows with non-historic metal sashes. Window 1 is missing sash cords has a cracked upper meeting rail on lower sash, and a rotted lower meeting rail on lower sash. Window 2 has a rotted sash, missing glass (plexie glass replaced), paint on sash cord, the profile is rotted and a rotted exterior sash.

Upper Living Room- Lead Test Results

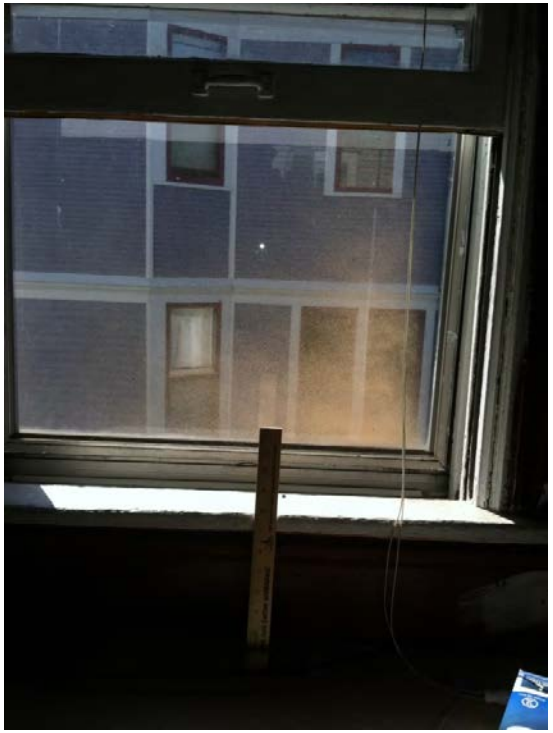
Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	2nd	Living Room 16	B	Window Casing	Wood	Poor	Pink	10	POS	5.1
FO/23480	2nd	Living Room 16	B	Window Casing	Wood	Poor	Pink	10	POS	5.3
FO/23480	2nd	Living Room 16	B	Window Sill	Wood	Poor	Pink	9.86	POS	6.9
FO/23480	2nd	Living Room 16	B	Window Sash	Wood	Poor	Pink	10	POS	6.8
FO/23480	2nd	Living Room 16	B	Window Stop	Wood	Poor	Pink	2.16	POS	3.8
FO/23480	2nd	Living Room 16	C	Window Casing	Wood	Poor	Pink	10	POS	7.5
FO/23480	2nd	Living Room 16	C	Window Stop	Wood	Poor	Brown	1.66	POS	1.8
FO/23480	2nd	Living Room 16	C	Window Sash	Wood	Poor	White	10	POS	4.1

Lead content in *painted* window surfaces

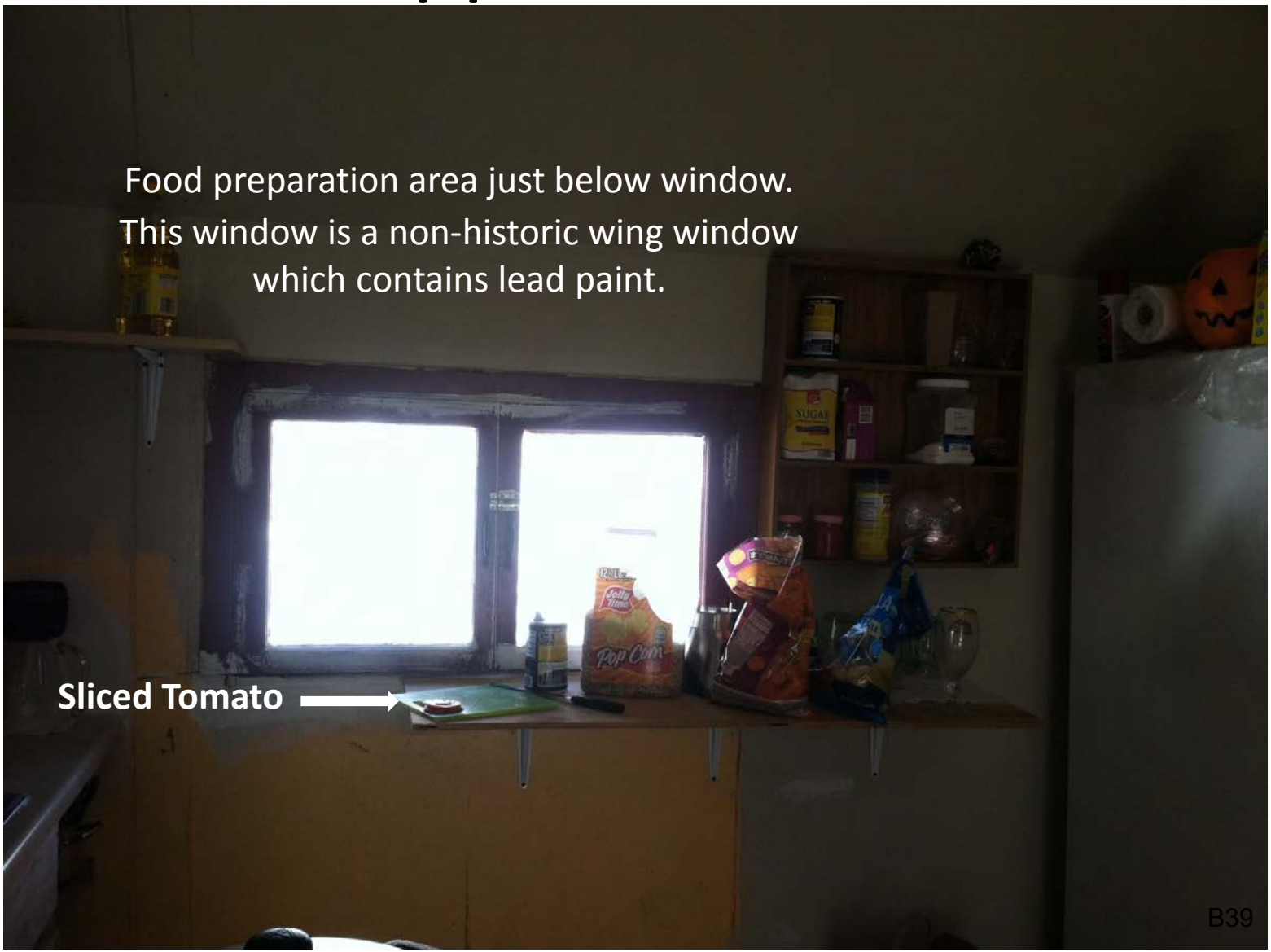
Date of test	**Component tested**	**Lead Content (ug/sq ft)**	**Comments**
September 11, 20313	Window Well	**42,800**	Result ten months after lead cleaning. The window well contains lead dust that is **107 times the level that is considered safe for children.**

Upper Kitchen deterioration



The Upper Kitchen has one original double hung window which contains a non-historic metal storm. The second window is a non-historic swing window. The double hung window's lower sash is rotting and missing the profile. This window is a significant lead and fall hazard for young children as it is 8 inches from the floor.

Upper Kitchen



Upper Kitchen- Lead Test Results

Lead content in *painted* window surfaces

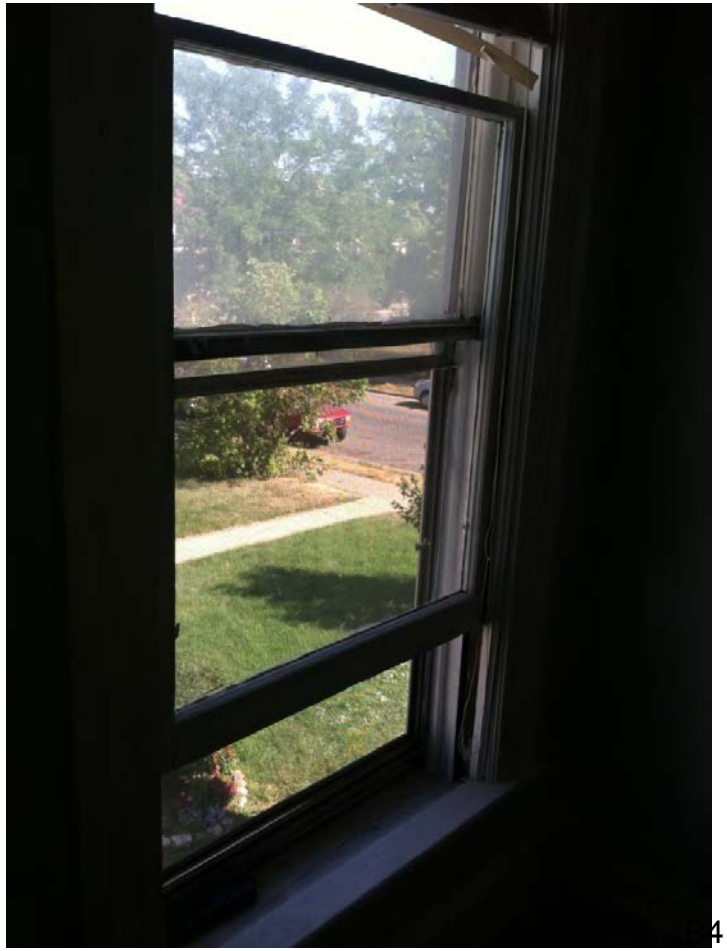
Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	2nd	Kitchen 17	D	Window Sash	Wood	Poor	Red	10	POS	4.6
FO/23480	2nd	Kitchen 17	D	Window Sash	Wood	Poor	Red	10	POS	4.4
FO/23480	2nd	Kitchen 17	D	Window Sash	Wood	Poor	Red	10	POS	2
FO/23480	2nd	Kitchen 17	B	Window Casing	Wood	Poor	Red	10	POS	4.9
FO/23480	2nd	Kitchen 17	B	Window Sill	Wood	Poor	Red	10	POS	5.6
FO/23480	2nd	Kitchen 17	B	Window Sash	Wood	Poor	White	10	POS	4.8
FO/23480	2nd	Kitchen 17	B	Window Stop	Wood	Poor	White	4.79	POS	5.5

Lead content in *painted* window surfaces

Date of Test	Component tested	Lead Content (ug/sq ft)	Comments
September 11, 2013	Window Well	**632**	Result ten months after lead cleaning. The lead dust content in window well is considered hazardous to children. Window well is 8 inches from floor with easy access for children.

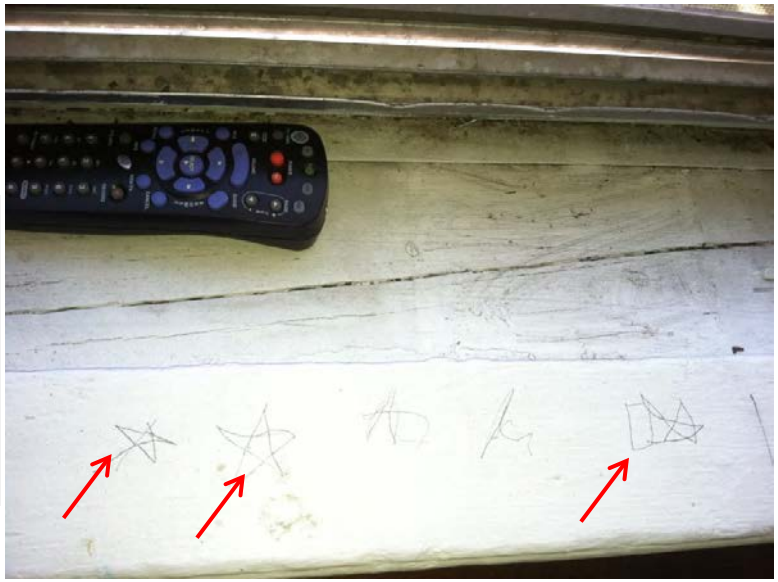
NW Bedroom deterioration

The NW bed has one original window with a non-historic metal storm. The meeting rail on upper sash is separated, the lower sash is rotted, it's missing sash cords and missing glass on lower sash (plexie glass).



NW Bedroom 18

This window is easily accessible to a child. Note the drawing on the sill and remote control in well.



Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	2nd	NW Bedroom 18	D	Window Stop	Wood	Poor	Brown	1.98	POS	1.6
FO/23480	2nd	NW Bedroom 18	D	Window Stop	Wood	Poor	Brown	1.99	POS	3.5

Lead content in *painted* window surfaces

Date of lead test	**Component tested**	**Lead Content (ug/sq ft)**	**Comments**
September 11, 2013	Window Well	**6050**	Result ten months after lead cleaning. The lead levels in the dust found in the window well are **15 times the level considered safe for a child.**

Hallway Deterioration

There are two original windows in the hallway which contain a non-historic metal storm.

Window 1- Window on stairway is missing mutins on both upper and lower sash. The lower sash contains plexie glass, the right corner of the lower sash is rotting. This window contains a historic lock.

Window 2- The upper sash, lower meeting rail, and the lower sash meeting rail are all rotting. Both lower corners are chipped. Loose lower sash. Brass weather stripping is bent and won't lock. This window contains a historical lock.

Hallway Deterioration

Hall/Stairs-Lead Test Results

Lead content in *painted* window surfaces

Insp/XRF	Floor	Room	Side	Component	Substrate	Condition	Color	DI	Results	PbC
FO/23480	1.5	Hall/Stairs 13	D	Window Stop	Wood	Poor	Brown	1.84	POS	2.6
FO/23480	1.5	Hall/Stairs 13	D	Window Sash	Wood	Poor	Natural	2.36	POS	1.8
FO/23480	1.5	Hall/Stairs 13	A	Window Stop	Wood	Poor	Brown	1.69	POS	13
FO/23480	1st	Hall/Stairs 13	A	Window Sash	Wood	Intact	Natural	2.55	POS	1.8
AR/222	2nd	Hall-2 20	D	Window Sash	Wood	Intact	Natural	1.83	POS	1.5
AR/222	2nd	Hall-2 20	D	Window Stop	Wood	Poor	Brown	2.04	POS	13.5
AR/222	2nd	Hall-2 20	D	Window Well	Wood	Poor	Brown	2.25	POS	14.5
AR/222	2nd	Hall-2 20	A	Window Well	Wood	Poor	Brown	1.47	POS	2.8
AR/222	2nd	Hall-2 20	A	Window Stop	Wood	Poor	Brown	1.9	POS	9.4

NW Bedroom Lead content in *painted* window surfaces

Date of lead test	**Component Tested**	**Lead Content (ug/sq ft)**	**Comments**
September 11, 2013	Window Well	**55800**	Result ten months after lead cleaning. The lead dust content found in the window well **139 times the level which is considered safe for children.**
	Window Sill	**375**	Result ten months after lead cleaning. The lead dust content found on the window sill **considered hazardous for children.**

Exterior alley side door

This door is an original door painted with lead paint. The bottom has been cut to accommodate a remodeled floor on the interior and therefore has 1-2 inch gap between the door and floor allowing excessive cold into the bedroom of the owners where a newborn baby sleeps.

Existing non-historical metal storm

The home has non-historical metal storm windows such as this one throughout.

Relocation

- Both HUD and the Minnesota Department of Health require that the family be relocated during lead hazard reduction activities.
- Relocation is to protect the family from exposure to the hazardous material while it is being disturbed.
- The family may only return after lead dust samples indicate safe levels.
- Relocating a family results in additional costs to the project at $500 per week.
- A window restoration project of this magnitude is estimated at three weeks at a cost of $1,500 to relocate.
- Window replacement generally takes one week at a cost of $500 to relocate.

Window Options

Window Option 1
Replace existing double hung windows containing lead paint with new wood double hung frames to match the original in proportion and size.

Window Option 2
Restore the existing double hung windows by scraping the lead paint off to bare wood. Replace rotted wood components with new, replace glass and rope/pulleys, clean pulley pockets, varnish pulley system to prevent recontamination.

Window cost comparison

Minnesota Remodeling and Restoration has the sole bid contract (#C28680) award for the City of Minneapolis Lead Hazard Reduction Grant. The prices below are per contract C28680.

Option 1
Replace 16 existing windows- $9,654.

Option 2
Restore and repair 16 existing windows- $26,854.

Storm window options

Storm option 1- No change. Leave existing non-historic metal storms in place.

Storm option 2- Replace the non-historic metal storms with new storms which are based on the period of significance for which the district was designated.

Option 2a- 16 *Steel Lansing Safety Storms

Cost- $4,436

Option 2b- 16 Wood Larson Flush mount-

Cost- $11,081

*Safety storms prevent children from falling out windows. Can withhold up to 100 lbs of pressure.

Cost matrix
Window/Storms combinations

Window	Do nothing to windows	Replace Windows	Restore Windows
Leave Existing storms	**$0.00** Least protective	**$10,154** Moderately protective	***$28,354** Mildly protective
Metal Safety Storms	**$4,436** Least protective	**$14,590** **Most protective**	***$32,790** Moderately protective
Wood Storms	**$11,081** Least protective	**$21,234** Moderately protective	***$39,435** Mildly protective

Note: costs to relocate the family have been included above as follows $500 for window replacement and $1,500 for window restoration.

***Full lead abatement is required and the cost of entire project will increase which has **not** been included in costs above. The following items would have to be abated throughout the home; baseboards, window casings, walls, doors, door jambs, door casings, door thresholds, chair rails, stair treads, stair risers, columns, window sills, and porch floor.

Cost comparison of window options

The following pages outline all of the different combination of options with prices including the pros and cons of each combination.

- Restoration of existing historic windows
- Replacement of existing lead painted historic windows
- Storm windows
  - Leave existing non historic metal storms
  - Install new wood storms
  - Install metal safety storms

“Do nothing” option (withdraw family from grant)

This is the most dangerous option:

- The family will still be required to fix the lead hazards
- There is the potential for family to create more of a hazard through “fixing” the lead hazards
- The fall hazards will remain if safety screens are not installed

Restoration options

HUD requires that if more than $25,000 is spent on a property then **total lead abatement** is required. Lead abatement means that all of the lead paint must be removed from the property. There are two methods for abatement. The first is to remove and replace the components containing lead paint. This method would also remove the historic wood work from the property. The second is to strip the wood work to bare wood. This method is time consuming and costly. Either method, significantly increases the cost of the project. All of the "restore" existing windows options fall into this category and are not feasible for the Minneapolis Department of Health.

Restoration options

Restore windows only- $26,854

Significantly above grant budget, total lead abatement required, lead hazards may return, fall hazards remain

Restore windows install wood storms- $37,935

Most expensive option, significantly above grant budget, total lead abatement required, lead hazards may return, fall hazards remain

Restore windows install metal safety storms-$31,290

Significantly above grant budget, total lead abatement required, lead hazards may return, fall hazards repaired

Replacement options

Replace windows only-$9,654
Least cost method, lead hazards fixed, fall hazards remain

Replace windows install wood storms- $20,735
Above grant budget, lead hazards fixed, fall hazards remain

***Replace windows install metal safety storms- $14,090**
*Department of Health's proposal. Slightly above grant budget but "do-able," lead hazards fixed, fall hazards removed

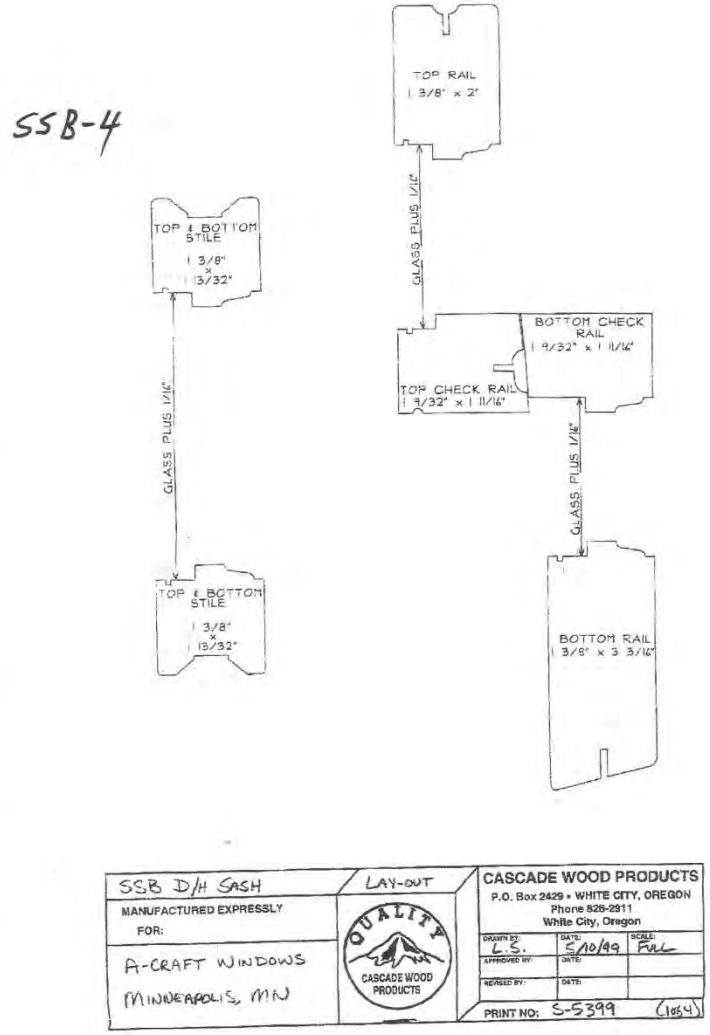
New Window Specifications

Manufactured by A Craft, 2223 Snelling Ave., Minneapolis.

Wood window with vinyl jamb liner.

- Sash thickness is the same as what exists (1-3/8")
- Bottom rail is the same as what exists (3-3/16).
- Top rail is the same as what exists (2").
- Meeting rails are thicker by approximately 1/2 to 5/8", which will help in longevity on large windows. Existing meeting rails vary due to poor condition of existing windows, but some were 1-1/8 and others just under 1".
- Stiles are narrower by 3/4" to accommodate vinyl jamb liners.
- Glass size (or visible daylight) will be the same width on new windows as existing. Glass height will be approximately 1/4" shorter than existing.

Window specifications



New Window built by A Craft in South Minneapolis

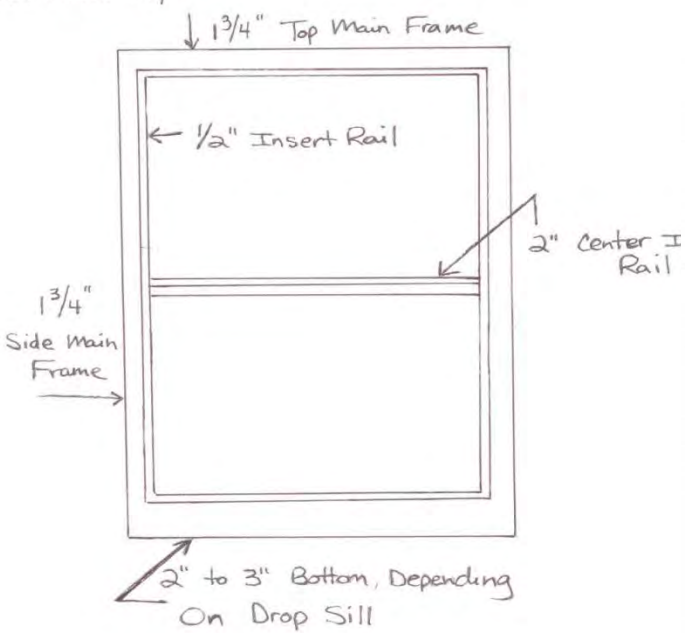
New Window built by A Craft in South Minneapolis

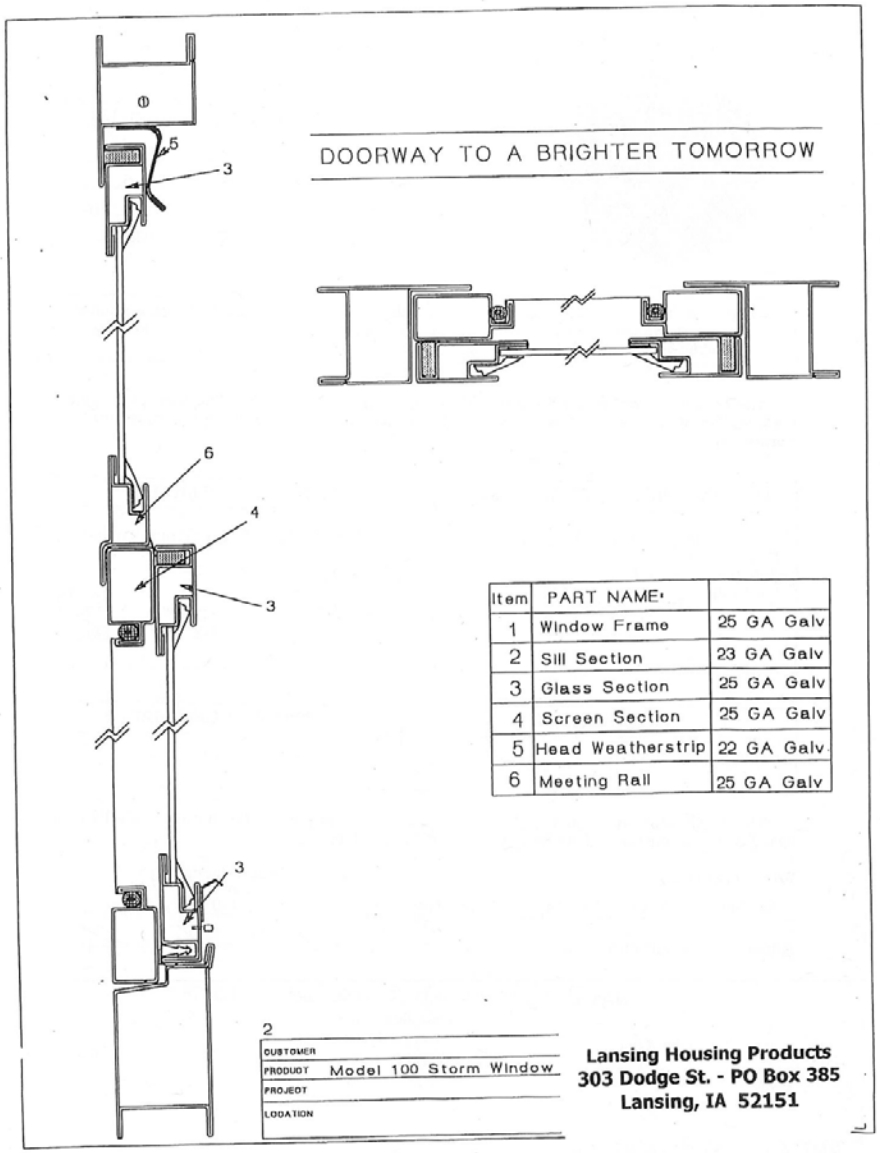
New Window built by A Craft in South Minneapolis

New Window built by A Craft in South Minneapolis

Lansing safety storm windows specifications & photos

Jen,
Is this sketch helpful?
Brian McCarthy





NATIONAL CERTIFIED TESTING LABORATORIES
FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17402 • TELEPHONE (717) 846-1200

STRUCTURAL PERFORMANCE TEST REPORT

REPORT NO: NCTL-110-2659-2
TEST DATE: 08/04/87
REPORT DATE: 08/13/87
EXPIRATION DATE: 08/31/91
REVISED DATE: 04/11/88

CLIENT: Solar Window Division
Marcla, Inc.
P.O. Box 396
305 Dodge Street
Lansing, IA 52151

TEST SPECIMEN: Solar Window Division/Marcla, Incorporated's Model "100" Vertically Operating Storm Window for External Application. (VWE-15)

TEST SPECIFICATION: ANSI/AAMA 1002.10-83, "Voluntary Specifications for Aluminum Insulating Storm Products for Windows and Sliding Glass Doors" Section 2.3.

TEST SPECIMEN DESCRIPTION

GENERAL: The test specimen was an exterior one-over-one white painted steel two track vertical sliding storm window measuring 3'8" wide by 5'2" high overall. The exterior panel measured 3'5-1/2" wide by 2'5-15/16" high; the interior panel measured 3'5-1/2" wide by 2'5-9/16" high. Both panels were removable. One spring loaded metal slide bolt was located at each end of the interior bottom rail; the keepers were notched into the jambs as follows: 1/2", 3-3/4", 14-1/4", 25-3/4", and 28" above the sill. The main frame employed steel expanders at all members, with the sill expander fastened with five screws. A steel interior panel guide (28" long) was fastened to the interior face of each jamb. A steel exterior panel guide (2-3/4" long) was fastened to the interior face of each jamb 5-1/4" from the head. The exterior panel was held in position with a steel stop fastened to each jamb and a steel retainer fastened to the head. The frame corners were of double screw mitered corner construction with die cast corner gussets. The glass panels were of mitered corner construction with staked-in-place metal corner keys. A steel lift handle was double screwed to the interior bottom rail 4" from each end.

GLAZING: All panels were interior glazed using double strength glass, an adhesive bedding, and a flexible vinyl glazing bead.

WSTP: Single strips of felt weatherstrip were located at each panel stile and exterior top rail. Single strips of felt weatherstrip were located at each interior panel guide. A single strip of flexible vinyl leaf was located at the interior meeting rail.

WEEPS: One vertical weep slot measuring 3/32" x 2" was located 7" from each end of the sill expander.

SURFACE FINISH: The interior and exterior surfaces were white painted steel.

SCREEN: The box-type screen measuring 3'5" wide by 2'5-1/8" high was of mitered type corner construction with staked-in-place metal corner keys. The screen employed fiberglass mesh cloth with a hollow vinyl spline. One pull tab was employed at mid-span of the screen top rail.

TEST RESULTS

PARAGRAPH NO.	TITLE OF TEST	MEASURED	ALLOWED
2.3.3.1	Operating Force	27#	30#
2.3.3.2	Air Infiltration		
	0.56 psf (15 mph)	0.05 CFM/FT	-----
	1.57 psf (25 mph)	0.32 CFM/FT	1.0 CFM/FT
2.3.3.3	Water Drainage ~ 5.0 GPH/FT^2 WTP = 2.0 psf	No Entry	No Entry
2.3.3.4	Uniform Load		
	22.5 psf Exterior	No Damage	No Damage
	22.5 psf Interior	No Damage	No Damage
2.3.3.5	Safety Drop	MEETS AS STATED	
2.3.3.6	Glass and Screen Inserts Squareness		
	Exterior Panel	1/16"	5/16"
	Interior Panel	1/16"	5/16"
	Screen	0"	5/16"
2.3.3.7	Attachment of Insect Screen to Frame	40 in lbs	40 in lbs
2.3.3.8	Concentrated Load and Glass Adherence		
	Exterior Panel:		
	Stiles	1/16"	1/8"
	Top Rail	1/16"	1/8"
	Meeting Rail	1/16"	1/8"
	Interior Panel:		
	Stiles	0"	1/8"
	Meeting Rail	3/32"	1/8"
	Bottom Rail	3/32"	1/8"

This test specimen meets the performance criteria level of VWE-15 of the ANSI/AAMA 1002.10-83 specification. (Section 2.3)

TESTS COMPLETED: 08/04/87

Revised 04/11/88

Lansing Housing Products•800-331-8200•Fax 563-538-4392• lansinghp@mchsi.com

Model 100 Solar Steel Storm Window

SCOPE

To furnish Steel Storm Windows with hardware, screws, and other fitting necessary for a complete installation

GENERAL

1. Each unit, unless otherwise specified, shall consist of a main frame, closure frame, two glass inserts and one screen insert. Screen to be approximately equal in size to the lower glass.
2. Mullion sections shall be provided in all openings where the width is such that two units are required.
3. The meeting rail of any SOLAR combination window shall always coincide with the meeting rail of the primary window. All meeting rails shall incorporate an integral drip cap as a rain shield and further weather proofing.

MATERIAL AND CONSTRUCTION

1. The window shall consist of three major sections, namely, a main frame, a closure frame and insert frame. The window frame, closure frame and insert frame shall be made of .025" galvanized steel. The main frame shall be rigidly assembled with mechanical corners. The top corners shall be mitered on a 45 degree angle, the bottom corners shall be butt jointed. All main frame corners shall be assembled with the use of heavy die cast metal corner inserts and secured with #6 x 3/8" self tapping metal screws. All insert sections shall be 45 degree mitered corners assembled with die cast metal corner inserts and the entire assembly shall be corner staked securely.
2. The frame shall support the upper glass insert and screen insert in the same plane, one above the other, respectively. In place directly behind the screen insert, shall be the lower glass insert. This insert shall be arranged to slide vertically in a weather-tight manner and be held in place by felt weather stripped insert retainers and adjusted in its various ventilation positions by means of spring latch pin assemblies.
3. All points of contact between the operable glass insert and frame shall be through a weather-proof felt weather stripping.
4. All glass shall be single strength. Glass shall be sealed using a silicon based caulk applied to the metal insert and glazed in place with a polyvinyl retainer for easy replacement of broken glass.
5. Screen cloth shall be 18 x 14 mesh fiberglass, held in place by a removable polyvinyl spline.
6. An alternate safety screen can be added that consists of an extruded aluminum with .018, .023 or .028 stainless steel screen

FINISH

1. All exposed areas of stainless wire cloth and frames shall be thoroughly washed, rinsed and chemically pre-treated in preparation for powder coating. A finish polyester powder coat paint shall be electrostatically applied, and baked for a minimum of 15 minutes at 400 degrees F. Powder coat paint finish shall be a minimum of 1.5 mil thickness. Color can be selected from one of our standard 12 powder coat finishes.

INSTALLATION KIT

The above described window unit shall be installed to the building by means of Galvanized Steel Closure frames. These closure frames are the only part of the entire window assembly which is attached directly to the building. When the installation is completed it leaves a flush appearance from the exterior.

Photos of storms

Lansing Storm windows with safety screens

Lansing Storms

Storm Window Options: Pros & Cons

Aluminum: Safety storms prevent children from falling out of windows, maintenance free, self storing (no changing of glass/screen panels seasonally), longevity, performance, ease of installation, and reasonable cost.

Wood: looks exactly like what was installed originally in most houses, and no moving parts (simple). However,

- Must maintain paint on two sets of windows per opening,
- Must change storms each season,
- Longevity of storm sash not as long as aluminum,
- Extra labor in fitting (adjusting out of square requires planing and repainting edges, and
- Cost is significantly higher than aluminum.

Proposal

- To replace the existing lead painted double hung windows with new which is necessary to correct unsafe and dangerous conditions on the property with which there are no reasonable alternatives that are permanent and economical.
- To replace non-historical storms on the same windows with metal safety storms which are based on the period of significance for which the district was designated to ensure continued significance and integrity of all contributing properties in the historic district
- Replace existing lead painted exterior door on alley side
- Total cost incurred by Minneapolis Health through grant funds: ~$14, 090.