Getting it Right: A Practical Guide to Addressing Key Issues in Reopened Sandy Claims and Flood Damage

This document addresses common estimating discrepancies found in estimates prepared by flood adjusters who have written, and are currently writing estimates for flood claims under the National Flood Insurance Program.

The report also makes recommendations for adjusters or individuals who are reviewing flood claims to help identify discrepancies in estimates and make revisions following claims estimating best practices.

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June 19, 2015

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1. Gas Lines and Accessories

1. Gas Lines and Accessories

1.1 Issue

Gas service, piping, valves and lines to individual appliances and equipment have been omitted from most estimates. Currently, rough lines and valves that were exposed to salt water are continuing to rust and deteriorate. (*see exhibits 1.4-A, 1.4-B & 1.4-C*) Flexible gas lines to appliances were discarded with the appliances.

1.2 Solution:

Include this issue in the protocol for claims review, identify the presence of gas service to the property and calculate costs for payment to the insureds.

1.3 Claim Review Protocol

Identify if gas services the property.

A. Look at basement, mechanical room or kitchen scope items to identify if any mechanical or appliances are gas. i.e. gas boiler, gas water heater or gas stove or range. Also, exterior photographs may include a photograph of gas service.

    1. If yes,

        a. Identify the level of floodwater and compare to the elevation of rough gas lines and service. Calculate either a square or linier foot allowance for payment.

        b. Add a shut off valve, escutcheon and flex connecting line to all gas fed mechanicals and appliances that are already being replaced in the property. (Note: some service lines may come from above)

    2. If no, note “No gas service to property”

1.4 Exhibits

1.4-A Photo. · Rusted gas line and hanger in a crawlspace post Sandy.

1.4-B Photo. · Rusted gas line and corroding fitting in a crawlspace post Sandy.

1.4-C Photos. C.1 & C.2 – Corroding and rusting gas manifold, fittings and flex gas lines in a crawlspace post Sandy.

1.4-D Excerpt from photo page of estimate prepared for an insured – Depicting a gas range and the servicing flex gas line.

1.4-E Excerpt from photo page of a carrier estimate – Depicting corroding rough gas lines in wall, a shut off valve, and a flex gas line that serviced the gas range.

Exhibit 1.4-A

Exhibit 1.4-B

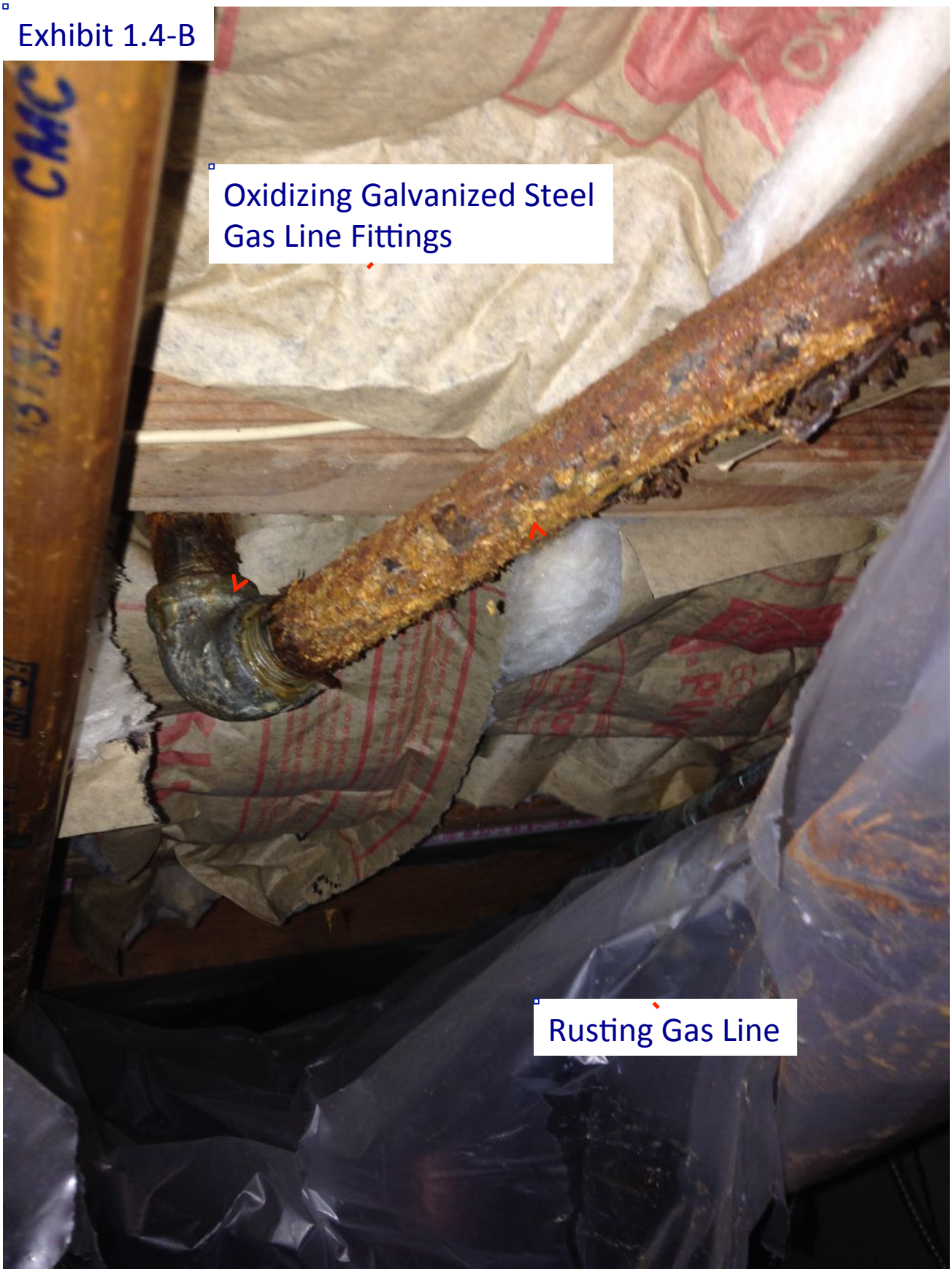

Oxidizing Galvanized Steel Gas Line Fittings
Rusting Gas Line

Exhibit 1.4-C.1

Oxidizing Galvanized Steel Gas Line Fittings

Rusting Steel Gas Line Fittings

Exhibit 1.4-C.2

Oxidizing Galvanized Steel Gas Line Fittings

151 DSC_0438
Date Taken: 11/27/2012
Taken By: INSURED

Exhibit 1.4-D

Photo ID : Kitchen

Exhibit 1.4-E

Photo # : 44
Date : 11/26/12
Taken By : Adjuster

Comment :

Kitchen

2. Sales Tax

2. Sales Tax

2.1 Issue

Sales tax was completely omitted from many estimates written with the Simsol estimating platform. Other estimates use the incorrect tax rate and/or only apply tax to certain items, i.e. materials only. (Note that an estimate totaling 205k without tax on a property, which is compliant to the 30k ICC coverage needs no further action other than the application of sales tax to exceed the policy limits of 250k plus a $2,500 deductible)

2.2 Solution:

1. Clarify the tax rate and inclusion of taxable items for each state.

2. Include this issue in the protocol for claims review and identify the tax allowed for each estimate and adjust accordingly for payment to insureds.

2.3 Claim Review Protocol

A. Locate the sales tax line item in the estimate on the total page (Note: on estimates written in Simsol, the line item may not be present (*see exhibit 2.4-A & B*)).

1. If the estimate is not written in Simsol,

   a. Identify and confirm correct tax rate and items taxed.

      i. Make sure tax is not on materials only etc.

   b. Identify items excluded from tax, do they have corresponding invoices or payments for work completed?

      i. If yes, no additional consideration for tax is needed,

      ii. If no, calculate the proper allowance for tax.

   c. Calculate the appropriate sales tax on all additional allowances (Note: additional allowances may be from adjustments to items excluded from Overhead and Profit).

2. If the estimate is written in Simsol,

a. Identify if the adjuster excluded tax from the estimate (*exhibits 2.4-A, 2.4-B*),

   i. If no, follow steps b),i)-ii) above.

   ii. If yes, identify if the adjuster noted that tax was included in the line items of their estimate.

      a. If yes, review notes to see if there is supporting documentation such as a builders estimate or quotes where the costs by unit or trade equal the estimate without tax.

   iii. if no, calculate tax following steps A), 1), a)-c) above.

B. Calculate Sales Tax (and O&P) on all new allowances accordingly.

2.4 Exhibits

2.4-A Excerpt from totals page of estimate prepared for an insured – Depicting a totals line item for Sales Tax.

2.4-B Excerpt from totals page of a carriers estimate – Depicting no line item for Sales Tax.

Exhibit 2.4-A

With Tax

ESTIMATE TOTALS

ESTIMATE TOTAL PAGE ITEMS	RCV	DIFF	ACV
Repair Item Totals	**$104,798.54**	**$0.00**	**$104,798.54**
Less Excluded O&P Trade(s)	($26,194.40)	$0.00	($26,194.40)
Subtotal For O&P %	$78,604.14	$0.00	$78,604.14
General Contractor Overhead (10.0%)	$7,860.41	$0.00	$7,860.41
General Contractor Profit (10.0%)	$7,860.41	$0.00	$7,860.41
Plus Excluded O&P Trades	$26,194.40	$0.00	$26,194.40
Estimate Totals With O&P	$120,519.36	$0.00	$120,519.36
Applicable Sales Tax Rate: 8.75% (Includes M,L,E,O,P,A)	$10,545.44	$0.00	$10,545.44
Estimate Grand Totals	$131,064.80	$0.00	$131,064.80
Less Deductible	($1,000.00)		($1,000.00)
BUILDING FINAL TOTALS	**$130,064.80**	**$0.00**	**$130,064.80**

Exhibit 2.4-B

Without Tax

ESTIMATE TOTALS

ESTIMATE TOTAL PAGE ITEMS	RCV	DIFF	ACV
Repair Item Totals	**$45,851.45**	**$2,332.72**	**$43,518.73**
Less Excluded O&P Trade(s)	($9,516.20)	($395.24)	($9,120.96)
Subtotal For O&P %	$36,335.25	$1,937.48	$34,397.77
General Contractor Overhead (10.0%)	$3,633.53	$193.75	$3,439.78
General Contractor Profit (10.0%)	$3,633.53	$193.75	$3,439.78
Plus Excluded O&P Trades	$9,516.20	$395.24	$9,120.96
Estimate Totals With O&P	$53,118.51	$2,720.22	$50,398.29
Estimate Grand Totals	$53,118.51	$2,720.22	$50,398.29
Less Deductible	($1,000.00)		($1,000.00)
BUILDING FINAL TOTALS	**$52,118.51**	**$2,720.22**	**$49,398.29**

3. Items Excluded From Overhead and Profit (O & P)

3. Items Excluded from Overhead and Profit (O&P)

3.1 Issue

There are many estimates where the estimator excluded items from O&P without cause. In some cases the items excluded from O&P are in excess of 20,000.

It is appropriate for already incurred expenses that are going to be listed as line items in an estimate to be exclusive from O&P (and tax), as the work has already been performed by a contractor directly with a homeowner. That contractor's materials, labor, mark up, overhead, profit and tax would be included in the invoice. All work, and related line items to be performed by a General Contractor (GC) need to include O&P. Many WYO estimates excluded O&P from items without knowledge of agreed GC exclusion.

3.2 Solution:

Include this issue in the protocol for claims review. If no documentation exists in the file indicating that the items excluded from General Contractors O&P exist, then calculate O&P on those items accordingly.

3.3 Claim Review Protocol

A. Locate totals for O&P and totals for items included and/or excluded from O&P (*Note: these totals may be on the totals page or a separate page in estimate* (*see exhibit 3.4-A, 3.4-B*)).

1. If O&P is calculated on the total of line items, no action is needed, note the review file.

2. If O&P is not calculated on the total of line items, and no schedule or breakdown exists;

   a. Note the total amount not inclusive in the O&P calculation,

   b. Review the file for invoices or receipts for incurred expenses; they are not subject to O&P. Those items should add up to the O&P excluded amounts.

      i. If so, no additional action is needed, note the review file.

ii. If not, research and identify the items in the estimate that add up to the excluded amount. (*Emergency services, kitchen cabinetry, mechanicals, equipment, and flooring are a good place to start.*)

    a. Once all items that total the excluded O&P are identified, separate the items that should be excluded from the items that should not be excluded.

    b. Calculate O&P (plus tax) on all appropriate items that should not be excluded for payment to insureds.

iii. If there is no information in the file that supports the exclusion of line items from O&P, calculate all line items with O&P.

3.4 Exhibits

3.4-A Estimate Total Page

3.4-B Items Excluded from Overhead and Profit Schedule

Exhibit 3.4-A

ESTIMATE TOTALS

ESTIMATE TOTAL PAGE ITEMS	RCV	DIFF	ACV
Repair Item Totals	**$78,032.31**	**$16,925.58**	**$61,106.73**
Less Excluded O&P Trade(s)	($21,857.99)	($6,051.97)	($15,806.02)
Subtotal For O&P %	$56,174.32	$10,873.61	$45,300.71
General Contractor Overhead (10.0%)	$5,617.43	$1,087.36	$4,530.07
General Contractor Profit (10.0%)	$5,617.43	$1,087.36	$4,530.07
Plus Excluded O&P Trades	$21,857.99	$6,051.97	$15,806.02
Estimate Totals With O&P	$89,267.17	$19,100.30	$70,166.87
Estimate Grand Totals	$89,267.17	$19,100.30	$70,166.87
Less Deductible	($1,000.00)		($1,000.00)
BUILDING FINAL TOTALS	**$88,267.17**	**$19,100.30**	**$69,166.87**

RECOVERABLE DEPRECIATION *	**$17,254.94**
NON-RECOVERABLE DEPRECIATION	**$1,845.36**

*This amount represents the total recoverable depreciation for this estimate. Any payable recoverable depreciation is subject to policy coverage limi
Please check policy coverage limit prior to issuing any recoverable depreciation reimbursements.

Exhibit 3.4-B

ITEMS EXCLUDED FROM CONTRACTOR OVERHEAD AND PROFIT

TRADE/SUBTRADE/ITEMS	RCV	DEP	ACV
1.0 GENERAL CONDITIONS	**$2,754.17**	**$0.00**	**$2,754.17**
1.2 CLEANING	$2,754.17	$0.00	$2,754.17
9.0 FINISHES	**$1,335.81**	**$667.92**	**$667.89**
9.11 CARPET & PAD	$1,335.81	$667.92	$667.89
11.0 EQUIPMENT	**$4,523.29**	**$1,177.44**	**$3,345.85**
11.1 KITCHEN	$4,523.29	$1,177.44	$3,345.85
15.0 MECHANICAL	**$9,378.23**	**$4,206.61**	**$5,171.62**
15.3 H.V.A.C.	$4,552.81	$2,276.43	$2,276.38
15.7 BOILERS	$4,825.42	$1,930.18	$2,895.24
17.0 CONTRACT CLEANING	**$3,866.49**	**$0.00**	**$3,866.49**
17.1 CLEANING	$2,066.49	$0.00	$2,066.49
17.2 EQUIPMENT	$1,800.00	$0.00	$1,800.00
TOTAL AMOUNT EXCLUDED FROM O&P	**$21,857.99**	**$6,051.97**	**$15,806.02**

4. Remediation and Clean-up

4. Remediation & Clean-up

4.1 Issue

Many estimates of damages written by adjusters include line items for remediation and clean up which are either unwarranted (*overpaid*), exclusive of covered items, or incomplete in scope. While adjuster file notes, the estimate and photographs will yield certain information FEMA will have to clarify some coverage positions in order to properly address the following issues and establish a protocol for resolve.

A. **Un-warranted remediation and clean up allowances** – In many cases adjusters inspected properties that were already remediated or whose building components were partially demolished (*carpet, drywall etc.*). Best practices would have the adjuster ask the insured who performed the remediation work. The answer in most cases would be one, or a combination of the three following answers:

1. Non-profits or charities, at no expense to the insured. That work would not be payable to the insured by the NFIP. Note, that there may be additional clean up and demolition needed to prepare for rebuilding the property (*see exhibit 4.4-A*).

2. The insureds performed the clean up and removal of building items themselves. In this case line item estimates prepared by the adjusters should not include remove and replace, but include replacement only. The insured would be entitled to reimbursement for the time spent on covered work at the federal minimum hourly wage and covered expenses. Note, that there may be additional clean up and demolition needed to prepare for rebuilding the property (*see exhibit 4.4-A*).

3. A third party remediation company or contractor. In cases where a third party performed remediation and cleanup work, care should be taken to make sure no duplication is included in the estimate.

B. **Exclusion of (Potentially) Covered Items** – In many cases, adjusters have excluded removal of building components and contents from areas of homes that meet the definition of a basement, or, are below the lowest elevated floor above the base flood elevation (BFE). Adjusters state that FEMA only allows for the removal and/or cleanup of the covered building items (17 items) and covered contents (washer, dryer...).

Basement, and areas below the BFE restrictions allow for 2 groupings of coverage, a. which lists

17 items and, b. “Clean-up”. In the covered 17 items, number (16), makes clear that the coverage for utility connections are “... for any item in this list;”. b. Clean-up does not limit the coverage to any item in this list, or any item in a. above. Separately, Coverage C in the policy states the policy covers “... the expense to remove non-owned debris on or in the insured property and owned debris anywhere”. If clarification by FEMA excludes coverage for removal and cleanup of the aforementioned items, claims review should identify overpayment to the insured, and if FEMA determines coverage is afforded for those items, allowances should be calculated accordingly.

C. **Incomplete Scope** – In cases where drying equipment is being accounted for, line item allowances are being included in estimates for de-humidifiers and air movers (fan) on a per unit, per 24 hour period. Estimating platforms such as Xactimate have line items that include the daily rate of each piece of equipment (*see exhibits 4.5-B, 4.4-C*), however as the quantity of days change, Xaxtimate separates the costs to deliver, set up, monitor, take down and clean the equipment (*see exhibits 4.4-D, 4.4-E*). Xactimate also has a line item for the electric use or use of a generator to run the equipment.

4.2 Solution:

Address coverage issues with FEMA, and upon clarification of coverage, include these issues in the protocol for claims review. Review and calculation of overpayments as well as any underpayments are to be calculated accordingly.

4.3 Claim Review Protocol

A. Review the file and identify if remediation and or cleanup were done prior to the adjusters inspection. Note: Work performed and costs incurred prior to the engagement of a GC are excluded from O&P, and tax if included in the cost.

1. If remediation and/or cleanup were performed, determine who performed this work.

a. If performed in whole by a non-profit or charity, identify the line items in the estimate for removals and drying and calculate the totals of those line items. Note: you may have to add the units (sf., lf, or each) for each item and then using the estimating system that the estimate was generated on, look up the costs for remove only, and calculate the total units at that number.

i. If tax and O&P were included in the estimate and allowed for those specific items, they need to be added to the totals for an accurate calculation of overpayment.

b. If performed in part by a non-profit or charity, identify the line items in the estimate for removals and drying that were performed and calculate the totals of those line items. Note: you may have to add the units (sf., lf, or ea.) for each item and then using the estimating system that the estimate was generated on, look up the costs for remove only, and calculate the total units at that number.

   i. If tax and O&P were included in the estimate and allowed for those specific items, they need to be added to the totals for an accurate calculation of overpayment.

   ii. Take note of the items that were not remediated, or cleaned up completely or in part for consideration below.

c. If performed in whole by the insureds,

   i. Determine the total hours the insureds spent on covered work (*to be clarified by FEMA*) and apply the federal minimum wage ($7.25) to calculate allowance to the insureds.

ii. Determine the expenses related to the insureds work and review to determine covered reimbursable expenses. Calculate accordingly.

d. If performed in part by the insureds,

i. Determine the total hours the insureds spent on covered work (*to be clarified by FEMA*) and apply the federal minimum wage ($7.25) to calculate allowance to the insureds.

ii. Determine the expenses related to the insureds work and review to determine covered reimbursable expenses. Calculate accordingly.

iii. Take note of the items that were not remediated, or cleaned up completely or in part for consideration below.

e. If work was performed by a remediation company or contractor,

i. Identify if the charged amount was allowed for in total, or if any deductions were made for un-covered work.

a. If the total amount was allowed, no further

action is needed.

i. Note that if the estimate includes O&P or Tax on the invoice, a calculation of overpayment has to be made and applied accordingly.

b. If the total amount of invoice was not allowed,

i. Identify the amount and scope of work that coverage was excluded for, and compare to the scope to the clarification of coverage that will be provided by FEMA and attached as an exhibit to this doctrine.

a. If the excluded scope of work is not covered, note the file accordingly,

b. If the excluded scope of work is covered, calculate the amount due to the insured, Note: no O&P or tax is to be added to the allowance.

f. If work was not performed at the initial inspection or shortly after, and/or allowances are being considered to establish an Actual Cash Value (ACV) of the loss,

iii. Review the file and estimate to identify the items that were allowed for cleanup of building items and contents.

a. Identify covered and non-covered work, and adjust estimate accordingly.

i. Make allowances for generators and pumps accordingly.

4.4 Exhibits

4.4-A Photos – Non Sandy water loss, showing remaining drywall, insulation and flooring, post demolition and remediation.

4.4-B Xactimate Scope – Typical allowances for dehumidifiers and air movers.

4.4-C Xactimate Scope – Suggested Allowances for dehumidifiers and air movers.

4.4-D Xactimate Item Description – Dehumidifier (per 24 hour period).

4.4-E Xactimate Item Description – Air mover (per 24 hour period).

4.4-F Xactimate Item Description – Equipment setup, take down and monitoring.

4.4-G Xactimate Item Description – Equipment decontamination charge.

Exhibit 4.4-A

Post demo and remediation photo. Note drywall and insulation that was left behind. Allowances are still needed to prep for rebuild.

Post demo and remediation photo. Note T&G wood flooring that was left behind, as contractor did not want to remove finished flooring that the staircase was sitting on. Allowances are still needed to prep for rebuild.

Exhibit 4.4-B

NFIP

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	O&P	TOTAL
109. Dehumidifier (per 24 hour period) - XLarge - No monitoring	3.00 EA	0.00	101.25	32.62	63.79	400.16
110. Air mover (per 24 hour period) - No monitoring	9.00 EA	0.00	30.00	28.99	56.70	355.69
Totals: NFIP				61.61	120.49	755.85

Exhibit 4.4-C

Technical Advisory Board

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	O&P	TOTAL
111. Dehumidifier (per 24 hour period) - XLarge - No monitoring	3.00 EA	0.00	101.25	32.62	63.79	400.16
112. Air mover (per 24 hour period) - No monitoring	9.00 EA	0.00	30.00	28.99	56.70	355.69
113. Equipment setup, take down, and monitoring (hourly charge)	1.00 HR	0.00	55.78	5.99	11.71	73.48
114. Equipment decontamination charge - per piece of equipment	4.00 EA	0.00	36.98	15.88	31.06	194.87
Totals: Technical Advisory Board				83.49	163.26	1,024.20

Price List Item: WTRDHM>> +

Description:

Dehumidifier (per 24 hour period) - XLarge - No monitoring

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
EQU+	WTRDHM>>	101.250	1.000 EA/DA	0.000	1.000	101.25

Costs:	**Lab:** 0.00	**Mat:** 0.00	**Equ:** 101.25	=		101.25
					Labor Burden:	0.00
					Market Conditions:	0.00
					Untaxed Unit Price:	101.25

Definition:

Includes: Equipment cost for a dehumidifier unit. Based on 24 hours of "run time" on the job-site.
Excludes: Set-up, take down, and monitoring. Use WTREQ for set-up, take down, and/or monitoring, if needed.
Quality: Dehumidifier with an AHAM certified rating of 110 - 160 pints per day.
Note: Due to ever improving technology and efficiency of equipment, and as the actual type (brand / model / specs) of equipment used varies among service providers and areas of the country, no specific equipment is referenced within this line item. The price for this line item is therefore based on the reported cost for the most predominantly used "high capacity" dehumidifier in this area.
No life expectancy data

Price List Item: WTRDRY +

Description:

Air mover (per 24 hour period) - No monitoring

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
EQU+	WTRDRY	30.000	1.000 EA/DA	0.000	1.000	30.00

Costs:	**Lab:** 0.00	**Mat:** 0.00	**Equ:** 30.00	=		30.00
					Labor Burden:	0.00
					Market Conditions:	0.00
					Untaxed Unit Price:	30.00

Definition:

Includes: Equipment cost for a standard drying fan. Based on 24 hours of "run time" on the job-site.
Excludes: Set-up, take down, and monitoring. Use WTREQ for set-up, take down, and/or monitoring, if needed.
No life expectancy data

Exhibit 4.4-F

Price List Item: WTREQ +

5/5/2015
Page: 1

Description:

Equipment setup, take down, and monitoring (hourly charge)

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	CLN-R	55.780	1.000 HR/HR	0.000	1.000	55.78

Costs:	**Lab:** 44.97	**Mat:** 0.00	**Equ:** 0.00	=		44.97
					Labor Burden:	10.81
					Market Conditions:	0.00
					Untaxed Unit Price:	55.78

Definition:

Includes: Hourly labor to travel to job-site to deliver, setup, inspect, move and adjust, monitor, take moisture readings, etc. and/or take down & remove dryers and dehumidifiers.
Excludes: Equipment charges.
No life expectancy data

Exhibit 4.4-G

Price List Item: WTREQD +

Description:

Equipment decontamination charge - per piece of equipment

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	CLN-R	55.780	2.000 EA/HR	0.000	2.000	27.90
MAT+	CLNGRM	21.915	8.000 EA/GL	15.000	6.800	3.22
EQU+	CLNPW	70.000	16.030 EA/DA	0.000	16.030	4.37

Costs: **Lab:** 22.49 **Mat:** 3.22 **Equ:** 4.37 **=** 30.08

Labor Burden: 5.41

Market Conditions: 1.49

Untaxed Unit Price: 36.98

Definition:

Includes: Charge for pressure washing equipment, germicide, and labor.
Reference: IICRC S500 3rd Edition standards.
Note: Labor cost to wash contaminated equipment. Per piece of equipment.
No life expectancy data

5. Subflooring

5. Subflooring

5.1 Issue

Most Sandy damage estimates include the replacement of damaged subflooring without including the square footage of subflooring under interior and/or exterior walls. Also, the unit cost allowance does not include the added labor to remove and replace the subflooring under the walls, which includes labor to relieve pressure, cut out nails, work around electric and piping etc. As most insureds were not given allowances for this work, the work was not performed and the subflooring below interior and exterior walls are continuing to deteriorate and compress. There are construction methods to perform this work per linier foot or average per square foot, which is addressed in this section.

In addition, there are many cases where the incorrect floor sheathing was estimated which resulted in both under and overpayments.

5.2 Solution:

Include this issue in the protocol for claims review, and make adjustments accordingly.

5.3 Claim Review Protocol

A. Identify if the type of subflooring being replaced in the estimate and match with photographs.

   1. If the estimate allows for sheathing but the subflooring was T&G planking, make a note for adjustment, to be later combined with additional considerations in this section.

   2. If the estimate allows for T&G planking but the subflooring was sheathing, calculate and note the overpayment, to be later combined with additional considerations in this section.

B. Look in any room of the estimate to identify if the subflooring allowances are listed in the individual rooms of the estimate, or excluded from the individual rooms and included in the footprint of the building.

   1. If subflooring is listed in the footprint of the building, identify if the calculation is for the area

inside of the exterior walls or to the outside of the exterior walls.

a. If measured from the inside of the exterior walls, adjust the sf. calculations to the outside allowing the sf. under the exterior walls.

b. If measured from the outside of the exterior walls, or now calculated to outside, apply the appropriate square footage and costs inclusive of additional considerations in this section.

2. If subflooring is listed in the individual rooms, no allowance was considered for the subflooring under interior or exterior walls. Identify the appropriate footprint measurements (outside of exterior walls) and calculate the correct square footage and costs inclusive of additional considerations in this section

C. Review the line items used in the removal and replacement of subflooring to identify if consideration was made for the added labor to replace subflooring under the walls. Some adjusters use a line item to remove and replace the joists with blocking along with a note identifying an allowance for blocking the walls for removal of subflooring (see exhibit 5.4-D). Note that this method of allowing labor for replacement of subflooring below walls is

not appropriate as the intent is not for the removal and replacement of the floor joists.

1. If the estimate allows consideration for replacing the subflooring under the walls, stairs, etc., no additional consideration is needed unless the insured is contesting the allowance or FEMA has suggested an alternate scope or cost.

2. If the estimate does not allow consideration for replacing the subflooring under the walls, stairs, etc., calculate an allowance accordingly; a suggested method of estimating is addressed in d. below.

D. Estimating the removal and replacement of subflooring, including allowances for subflooring below interior and exterior walls, staircases, etc. should consider the following:

1. They typical estimating system line item for the removal and replacement of subflooring assumes that the work is being performed without hindrances.

2. Platform construction methods include decking a floors framing with sheathing across the entire surface (The sheathing is an iatrical part of the buildings engineered strength). Both exterior and

interior load bearing and non-load bearing walls are constructed on top of the sheathed deck, then a roofing system or additional level is constructed on those walls. (*see exhibit 5.4-A*)

3. Mechanicals, electrical and plumbing systems (MEP's) are installed under, on top of and run through the sheathing and wall framing.

4. Undervalued allowances for subflooring and/or shortcuts by contractors many times result in the replacement of the subflooring in easily accessible areas ignoring the crucial areas under walls etc.. A common practice is for the contractor to cut the subflooring by running a circular saws base plate along the edge of the wall framing which results in a clean cut approximately 1 ½ inches from the framing edge (see exhibit 5.4-B). Abutting new subflooring to old subflooring without adding proper nailers and integrating the sheathing structurally, will result in a less rigid framing system.

Many contractors charge lump sum amounts for the proper removal and replacement of subflooring without further breakdown. Reliance Restoration of New Jersey noted the time and expense to replace the subflooring in a post Sandy 1,320 square foot single story home at the beach. The scope of actual repairs loaded into Xactimate and confirmed by Reliance is shown in Exhibit 5.4-E.

5.4 Exhibits

5.4-A Detail – Depicting the anatomy of a platform constructed home.

5.4-B Photos – Showing post Sandy homes with partial subflooring removed.

5.4-C Photos – Showing a post Sandy (top) and a non-Sandy home with stairs on top of subflooring and finished floor.

5.4-D Excerpt – From a supplemental IA estimate (NFS approved) adding an allowance for subflooring under walls.

5.4-E Excerpt – From an estimate detailing actual costs for replacing full subflooring in a house entered into individual line items in Xactimate.

Exhibit 5.4-A

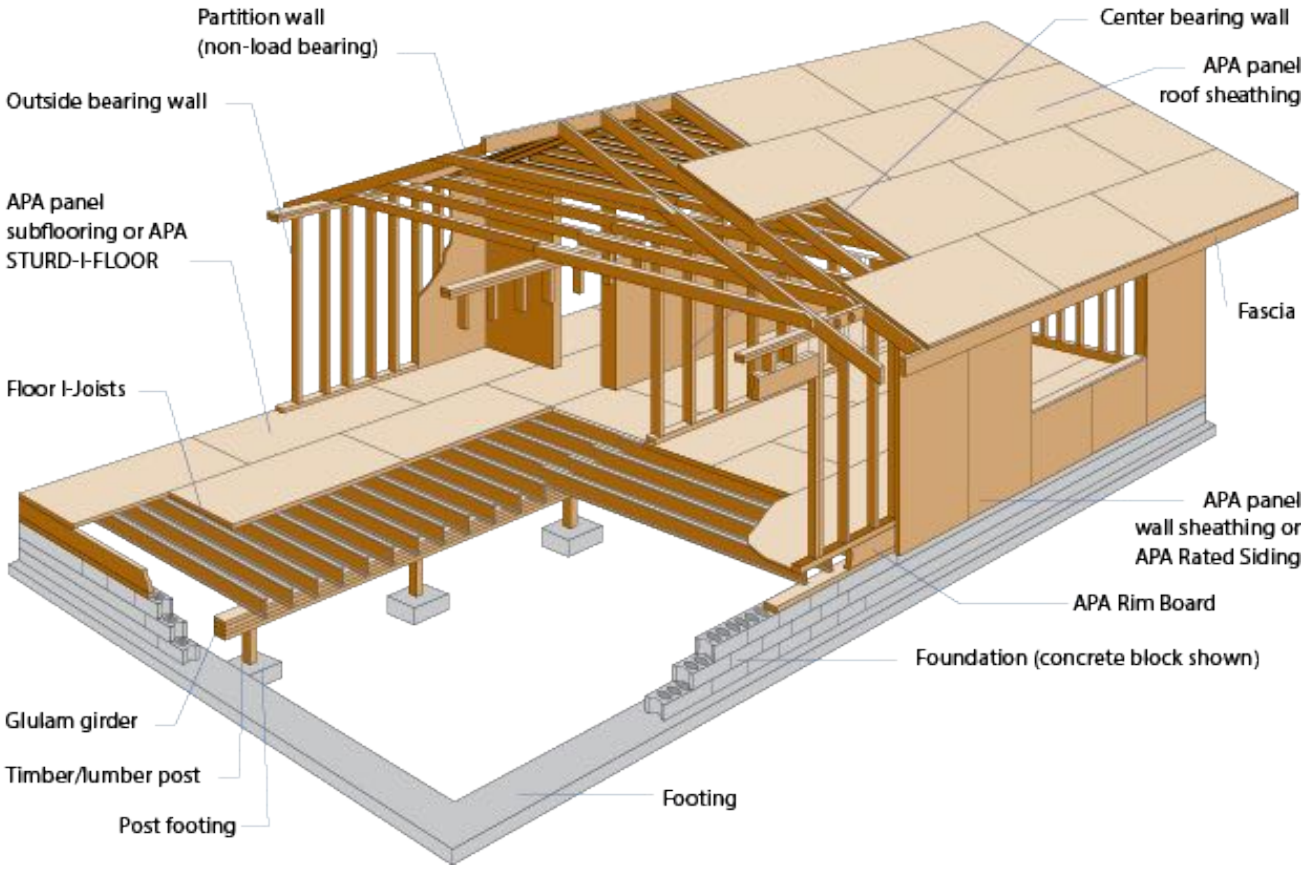
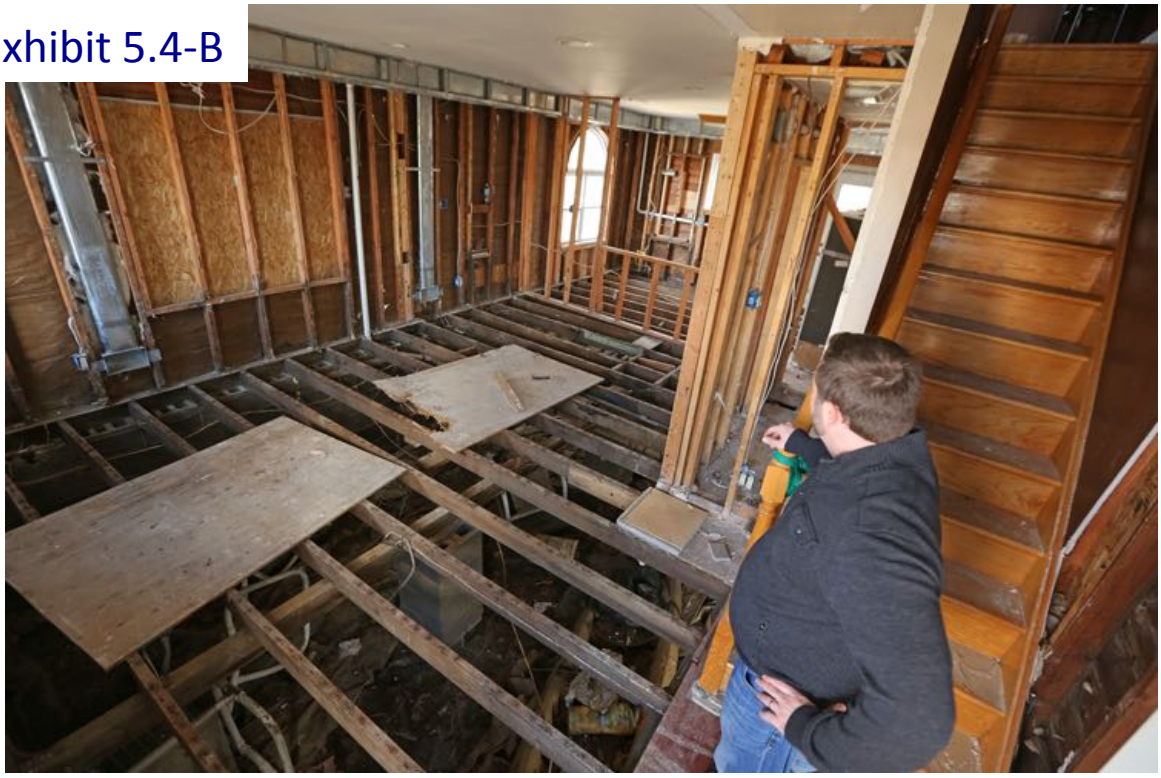

Partition wall
(non-load bearing)
Outside bearing wall
APA panel
subflooring or APA
STURD-I-FLOOR
Floor I-Joists
Glulam girder
Timber/lumber post
Post footing
Footing
Center bearing wall
APA panel
roof sheathing
Fascia
APA panel
wall sheathing or
APA Rated Siding
APA Rim Board
Foundation (concrete block shown)

Exhibit 5.4-B



Sandy homes where subflooring was removed in easily accessible areas and not under walls or stairs. Note saw cuts along wall edge.

Exhibit 5.4-C

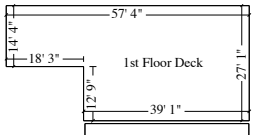
Remaining subflooring under the stairs and exterior walls

Remaining subflooring and finished hardwood under stairs

Exhibit 5.4-D

R&R Sheathing - plywood - 3/4" CDX	443.84 SF	2.86	135.19	253.88	1,658.45	(168.41)	1,490.04
R&R Joist - floor or ceiling - 2x10 - w/blocking - 16" oc	107.44 SF	4.54	51.95	97.56	637.29	(73.57)	563.72
Allowance for blocking of the walls to remove the sub-flooring							
R&R Underlayment - sound/crack membrane - up to 40 mil	443.84 SF	2.83	133.76	251.22	1,641.04	(141.30)	1,499.74
R&R Parquet flooring	443.84 SF	11.95	564.86	1,060.78	6,929.53	(712.48)	6,217.05

Exhibit 5.4-E



1st Floor Deck **Height: 8'**

1,350.67	SF Walls	1,320.09	SF Ceiling
2,670.76	SF Walls & Ceiling	1,320.09	SF Floor
146.68	SY Flooring	168.83	LF Floor Perimeter
168.83	LF Ceil. Perimeter		

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	O&P	TOTAL
Subfloor Labor						
Xactimate remove and replace floor sheathing or sub flooring does not include any allowance for removing and/or replacing sub flooring below interior or exterior walls, under staircases or built ins, nor does it consider working around, electric lines or piping.						
The following labor and materials account for the removal and replacement of the sub flooring in rooms and under walls in a framed and closed in home.						
6. Carpenter - Mechanic - per hour	48.00 HR	0.00	70.51	284.29	676.90	4,345.67
7. Carpenter - General Framer - per hour	48.00 HR	0.00	60.02	242.00	576.20	3,699.16
8. Demolition Laborer - per hour	48.00 HR	0.00	46.50	187.49	446.40	2,865.89
Subfloor Materials						
9. (Material Only) Sheathing - plywood - 3/4" CDX	1,320.09 SF	0.00	1.08	119.76	285.14	1,830.60
10. (Material Only) 2" x 4" lumber (. 667 BF per LF)	296.83 LF	0.00	0.48	11.96	28.50	182.94
11. (Material Only) Nails - 8D	1,320.09 SF	0.00	0.02	2.22	5.28	33.90
12. (Material Only) Construction Adhesive - Sheathing Subfloor	1,320.09 SF	0.00	0.05	5.54	13.20	84.74
13. Temporary shoring post - Screw jack (per day)	12.00 DA	0.00	32.77	33.04	78.64	504.92
14. (Material Only) 2" x 12" lumber (2 BF per LF)	40.00 LF	0.00	1.79	6.01	14.32	91.93

6. Exterior Sheathing

6. Exterior Sheathing

6.1 Issue

Exterior sheathing is made of similar materials to subflooring. In many cases, exterior sheathing is made of materials i.e. homasote, that are less susceptible to adverse effects of flooding than subflooring. In most homes, the exterior sheathing extends down the side of the house lower than the subflooring as the exterior sheathing also covers the box beam and floor framing, many times hanging lower to overlap the foundation wall. Exhibit 6.4-A details the anatomy of a typical home which shows the exterior sheathing in relation to the subfloor, and exhibit 6.4-B (an excerpt form a training video) depicts a theoretical flood line, wet subfloor sheathing and wet, wicked exterior wall sheathing.

In many cases where adjusters have determined that the subflooring is damaged to the extent it warrants full replacement, yet do not allow for replacement of the exterior sheathing. Subflooring has a higher likelihood of salvage or repaired as you can usually access the subfloor from above and below to clean, dry and treat. Exterior sheathing is accessible on one side when the drywall and insulation are removed, but the exterior side of the sheathing is not accessible unless you remove the

siding and vapor barrier. In some cases, (see exhibit 6.4-C) the interior side of the exterior sheathing is also lined with a tarpaper vapor barrier and drying is not effective unless you remove the additional vapor barrier. It is the siding, insulation, old siding layers and vapor barriers that keep the newly saturated sheathing from drying properly, resulting in rot.

Many times, adjusters address one side of exterior sheathing in the rooms by cleaning and applying an anti microbial agent, but ignore the outside of the sheathing, only allowing for pressure washing of siding. In addition, the dehumidifier and fan allowances that adjusters cite are FEMA's maximum allowed equipment per room or sf. is not adequate to dry the exterior sheathing thru vapor barriers.

Exhibits 6.4-D and 6.4-E are excerpts from an adjusters estimate for a home damaged by flood caused by Sandy. D shows a photograph of the front of the risk, and E is the scope the adjuster is allowing for the exterior of the home. The adjuster is replacing the exterior wall insulation (from the inside), and pressure washing the exterior siding. Exhibits 6.4F and 6.4-G are photographs of the same area with a section of the siding removed to display the damaged insulation and microbial growth.

6.2 Solution:

Have FEMA make a decision on the matter and include this issue in the protocol for claims review and adjustment accordingly.

6.3 Claim Review Protocol

A. Review FEMA's resolution on the matter and review the file to identify what scope was allowed for both subflooring, and exterior sheathing.

    1. If both subflooring and exterior sheathing are being repaired, i.e. cleaned and treated, make sure the outside of the exterior sheathing is also being addressed. Note that other building components may also be damaged or may need to be removed and replaced for access.

    2. If subflooring is being replaced and the exterior sheathing is not, adjust the scope to allow for the items and concerns addressed in this section.

B. Additional allowances and/or adjusted scope should consider the following.

1. Multiple layers of sheathing, vapor barriers, insulation, and abandoned siding behind the vinyl, metal or finished siding (see exhibit 6.4-H).

2. Lighting fixtures, Shutters, house numbers, mail boxes, door bells, exterior electric, railings, mechanical lines etc. that would need to be removed and re-installed in order to perform the proper repair.

3. Doors and windows that are installed outside of the sheathing and vapor barrier, including their nailing flanges, flashing and counter flashings.

Additional issues addressed in this doctrine related to insulation, and the replacement of siding or any other applicable issue for consideration that overlaps this issue.

6.4 Exhibits

6.4-A Detail – Depicting platform construction anatomy.

6.4-B Excerpt from a training video – Depicting exterior sheathing and subflooring.

6.4-C Photos – Showing homes damaged by Sandy, 1 of a tar paper barrier inside of the exterior sheathing and 1 of an exterior sheathing moisture reading weeks after Sandy.

6.4-D Excerpt of an Adjusters Sandy estimate – Showing the front of a risk.

6.4-E Excerpt of an Adjusters estimate – Exterior scope of risk depicted in 6.4-D.

6.4-F Excerpt from an estimate prepared for an insured – 2 photos of the risk mentioned in 6.4-D & E, showing a section of the siding removed.

6.4-G Excerpt from an estimate prepared for an insured – 2 photos of the risk mentioned in 6.4-D & E, showing close ups of a section of the siding removed.

6.4-H Photo – Showing multiple layers of exterior sidings, insulation and sheathing of a home in Breezy Point, NY that was flooded by Sandy.

Exhibit 6.4-A

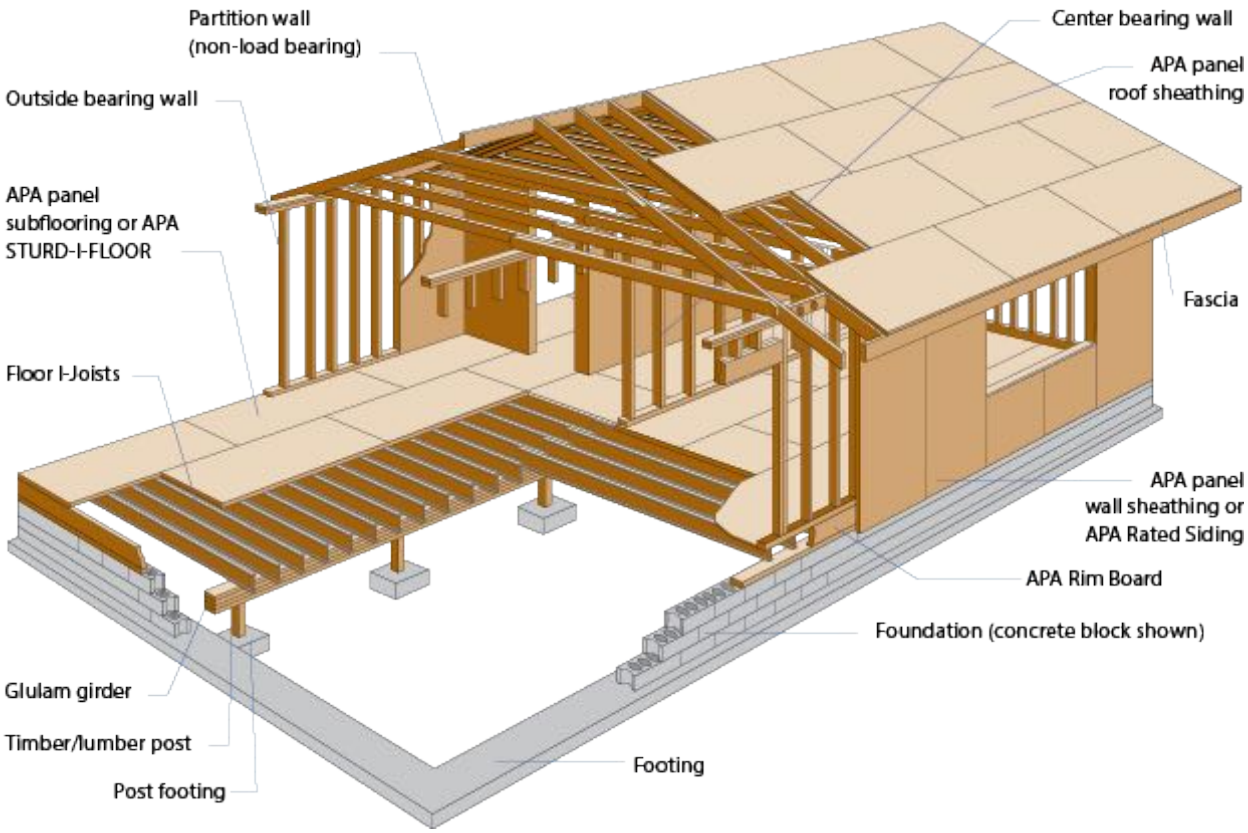


Exhibit 6.4-B

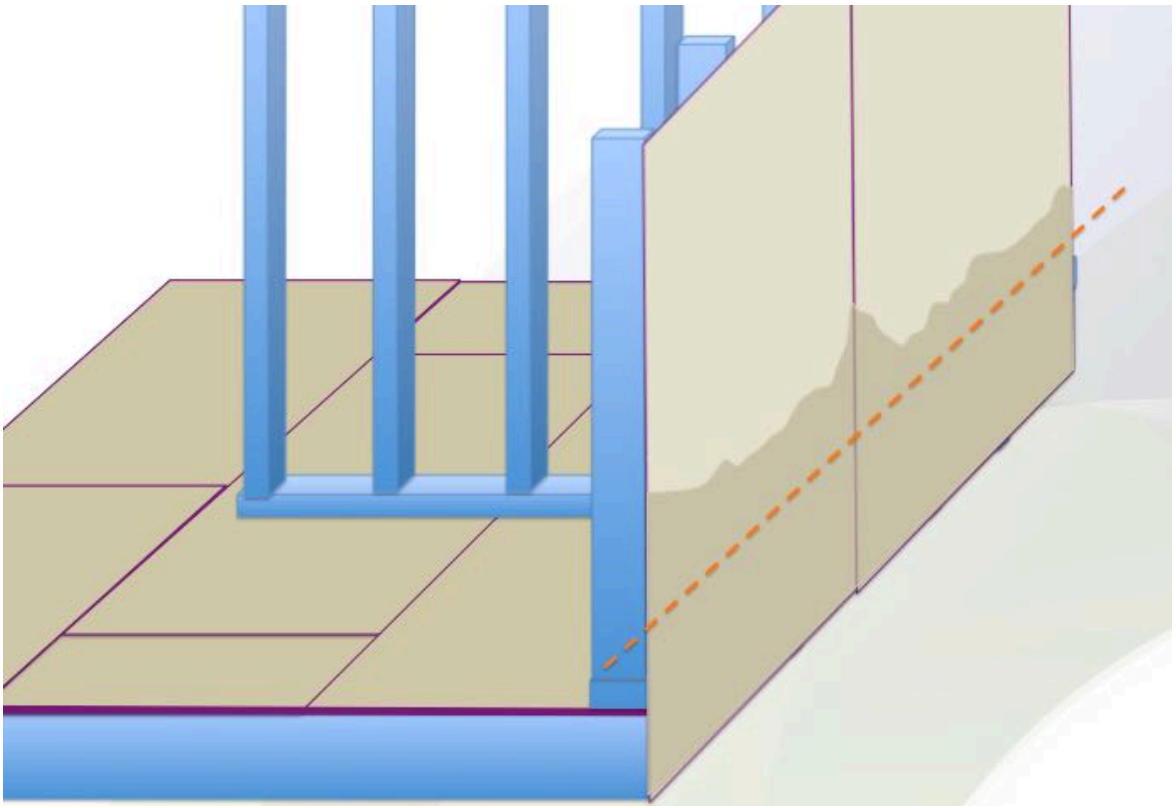


Exhibit 6.4-C

A partially gutted home damaged by shows tar paper between the exterior wall framing and the exterior sheathing which would prevent drying efforts to reach the exterior sheathing.

A separate home damaged by Sandy yielded high levels of moisture weeks after Sandy.

Exhibit 6.4-D

Excerpt from a Sandy claim independent adjuster estimate.
Photo of front of risk. and related estimate scope for the exterior

Photo ID : Front Elevation

Photo # : 1
Date : 11/12/12
Taken By : Adjuster

Comment :

Risk is elevated, risk is pre firm, no basement, flood zone A04, interior flood line 24", exterior flood line 68"

Exhibit 6.4-E

Excerpt from a Sandy claim independent adjuster estimate.
Related estimate scope for the exterior of above home.

Estimate Section: Exterior

Exterior ..... 61' 6.0" x 15' 6.0" x 6'

Lower Perimeter:	154.00 LF	Floor SF:	953.30 SF	Wall SF:	924.00 SF
Upper Perimeter:	154.00 LF	Floor SY:	105.92 SY	Ceiling SF:	953.30 SF

Quantity	Description	Unit Cost	RCV	DEP	ACV
308.0 SF	Remove and Replace Wall Insulation (100.0% / 2.0')	$1.02	$314.16	$31.42	$282.74
924.0 SF	Pressure Wash Exterior Siding (100.0% / 6.0')	$0.26	$240.24		$240.24
1.0 EA	Dumpster Rental	$877.20	$877.20		$877.20
	Totals For Exterior		**$1,431.60**	**$31.42**	**$1,400.18**

Note: The IA only allows to pressure wash exterior siding. There is no consideration in the estimate for damage to the siding itself, the building components behind the siding or trapped water.

Exhibit 6.4-F

An excerpt from an estimate prepared for the insured depicts the building components behind the siding and the direct physical damage caused by flood.

141 DSC_0423
Date Taken: 6/26/2013
Taken By: INSURED

142 DSC_0424
Date Taken: 6/26/2013
Taken By: INSURED

Exhibit 6.4-G

Microbial growth is present due water and moisture that was trapped between the multiple layers of building materials. Note: Vapor barriers such as house wrap, tar paper and facing on insulation are designed to prevent the pass thru of moisture.

135 DSC_0421 (2)
Date Taken: 6/26/2013
Taken By: INSURED

Note: Camera date is incorrect.

9 Front
Date Taken: 1/5/2008
Taken By: BILL

When the cedar planks is removed the tar paper has water damage

Exhibit 6.4-H

A photo of the layers of siding in a Breezy Point flooded home from Sandy. Note the multiple layers of siding, vapor barriers, insulation and sheathing behind the siding. A video of this home shows the siding to be disconnected from the rotted sheathing

7. Steel Brackets, Hangers, Plates and Accessories

7. Steel Brackets, Hangers, Plates and Accessories

7.1 Issue

In many cases adjusters have omitted the replacement, cleaning, and servicing of plumbing valves and accessories, and metal-building components damaged by floodwaters. These items include, lally columns, beams, joist hangers, spacer plates, wire brackets, band brackets and their related bolts, screws and fasteners (see exhibits 7.4-A, B, C, D, E, F &G). These heavier steel items need to be sanded, cleaned, treated with a rust inhibitor and then primed and/or painted, Fasteners hangers, brackets and accessories should be replaced.

FEMA has, in part, addressed the negative affects that salt water flooding has on metal fasteners at structural connections in bulletin W-13027a, additional clarification and a comprehensive protocol can rectify the matter.

7.2 Solution:

Address the issue with FEMA for clarification and include this issue in the protocol for claims review.

7.3 Claim Review Protocol

A. Review the clarification by FEMA on the matter, the attached exhibits for examples of damages, then review the file and estimate to determine if metal brackets and building components were addressed and considered in payment to the insured.

1. If the estimate addressed these items, identify what was allowed in the estimate and review for additional needs.

    a. If all needs have been addressed, no further action is needed. Note the file accordingly.

    b. If all needs have not been addressed, consider and adjust the estimate accordingly.

2. If not, identify the type of construction and make allowances for repairs and replacement of metal components that were damaged by floodwaters. Consideration should, at a minimum, include:

    a. Plumbing and gas piping (both potable and heating system piping),

    b. Shut off valves,

c. Saddle Valves (for refrigerator chill lines),

d. Foundation J bolts and sill plate brackets,

e. Ductwork and plenum sheet metal,

f. Soil pipe brackets and hangers (even PVC piping can be held by metal hangers),

g. Wire pipe hangers and brackets,

h. Strap hangers and brackets,

i. Fasteners and plates for framing, including bolts, weld joints and associated hardware,

j. Metal electrical boxes and metal electrical accessories. (note: basement and levels below lowest elevated floors above the BFE have restrictions).

7.4 Exhibits

7.4-A Photo – Rusted gas line bracket in a Sandy damaged house.

7.4-B Photos – Rusted bracket, hanger and electric line staples in a Sandy damaged house.

7.4-C Photos – Rusted wire pipe hangers and oxidizing piping in a Sandy damaged house.

7.4-D Photo – Rusted Simpson Strong Tie seismic hurricane strap in a Sandy damaged house.

7.4-E Photos – Oxidizing angle bracket and bolts, and rusting bracket nails and electrical line staple in a Sandy damaged house.

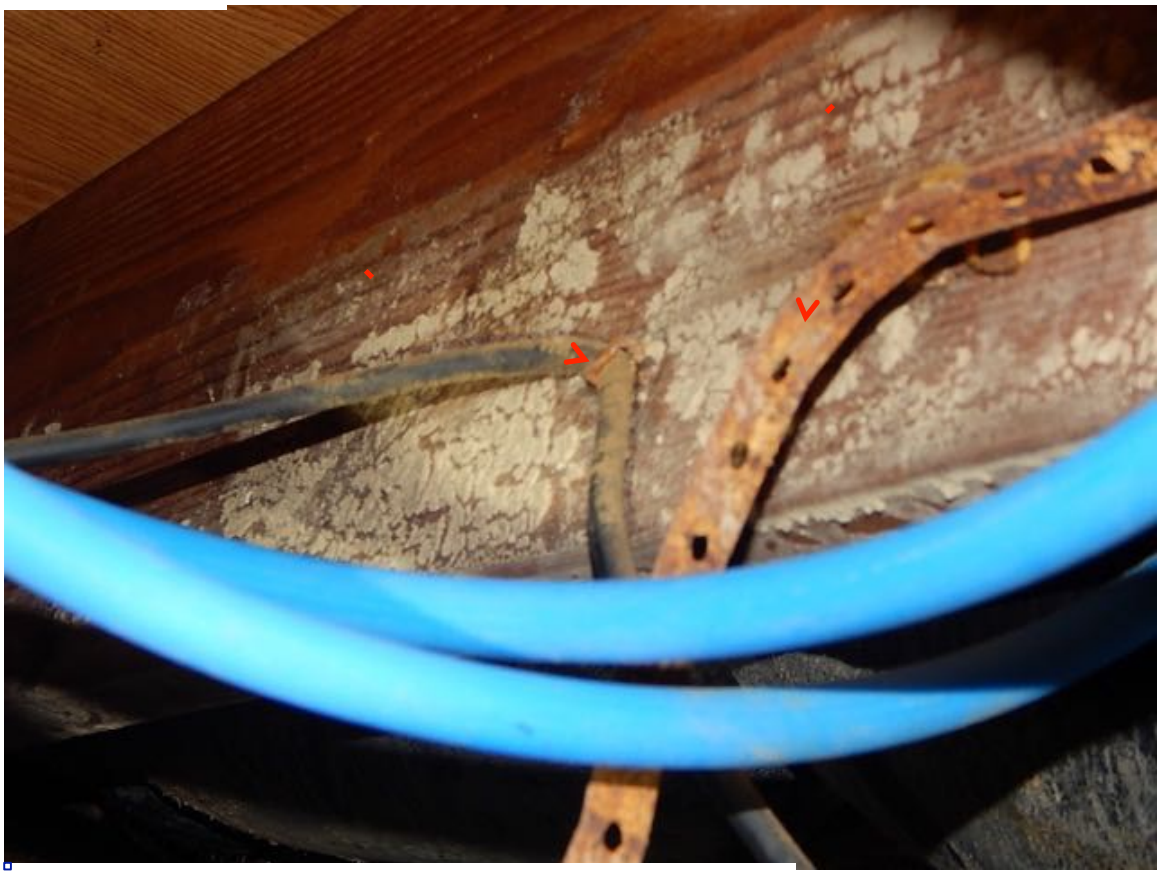
7.4-F Photos – Rusted shut off valve handle and rusted hose clamp in a Sandy damaged house.

7.4-G Photos – Rusted through and failed pipe brackets and hangers in a Sandy damaged house.

Exhibit 7.4-A

Metal hanger for a gas line in a post Sandy Breezy Point home. The claim was adjusted without consideration for the brackets.

Exhibit 7.4-B



Rusted Brackets, staples and hangers.

Exhibit 7.4-C

Rusted wire pipe hangers.

Exhibit 7.4-D

Rusted Simpson strong tie bracket and nails.

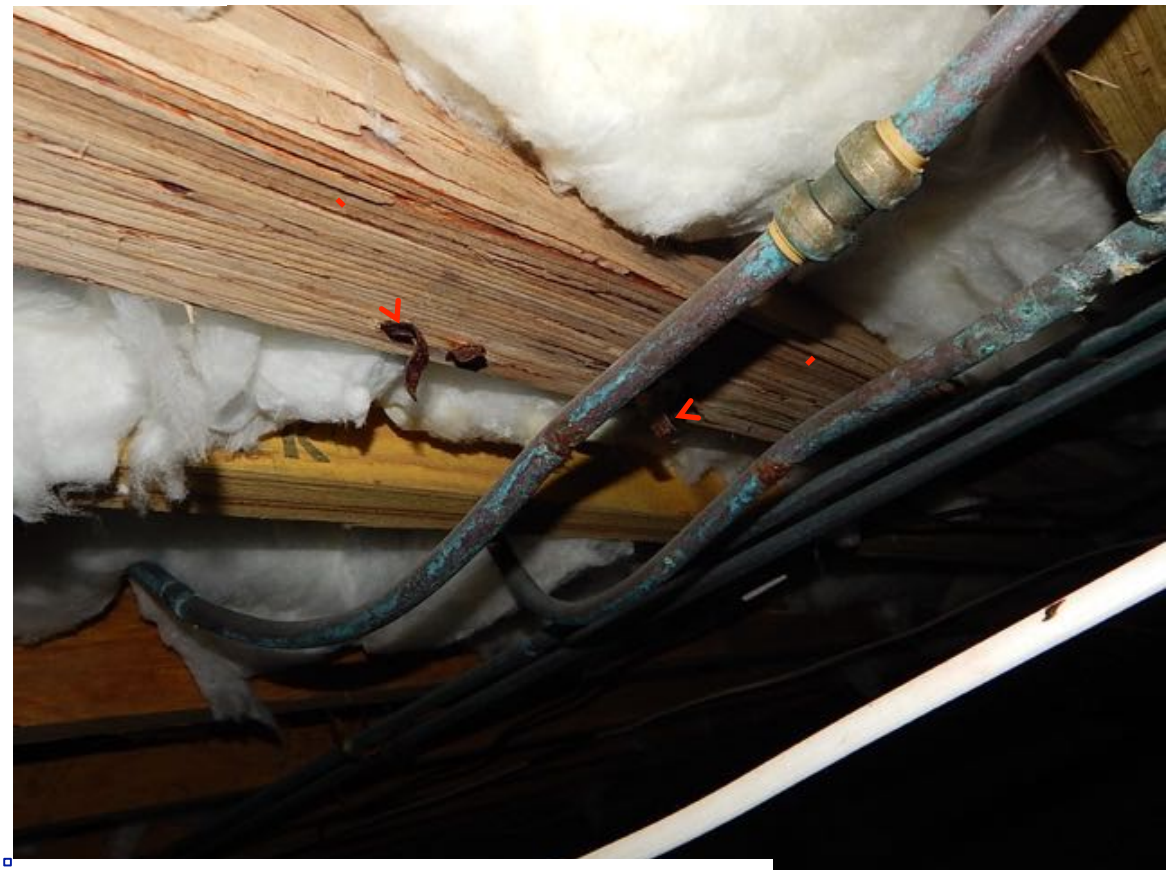
Exhibit 7.4-E

Corroding and rusting angle and rusting nails.

Exhibit 7.4-F

Rusted shut off valve and line clamp.

Exhibit 7.4-G



Rusted and failed brackets and strap.

8. Room vs. Footprint Measurements

8. Room vs. Footprint Measurements

8.1 Issue

It is common practice for adjusters to include line items such as subflooring, insulation, square foot electric, and treating and sealing framing in individual rooms. This method only allows for the listed items to be considered within the confines of the room, reducing the amount due to the insureds.

When an adjuster measures a room, they are measuring the length and width from the inside walls of the room and are excluding the square footage under the interior and exterior walls (see exhibit 8.4-A). Best estimating practices dictate that square foot allowances intended for a level of a building should be listed in a crawlspace, basement or a separate area in the estimate that calculates the interior or exterior square footage accordingly.

Exhibits 8.4-B and 8.4-C show Xactimate sketches for a home. The top sketch, B shows the floor plan and each individual room. The square footage of all rooms on the main level, measured room-by-room, totals 1,304.55 sf. The bottom sketch, C shows the footprint of the main level from the outside edge of the exterior walls. The

square footage of the footprint including the areas under the walls, totals 1,438.18 sf. The difference in measuring practices is slightly over 133 sf., or the equivalent of an 11’ x 12’ room.

8.2 Solution:

Include this issue in the protocol for claims review and adjust the applicable items accordingly.

8.3 Claim Review Protocol

A. Review the estimate and identify any items that are listed in individual rooms that may be more appropriately listed as footprint items. Some items to consider are:

   1. Subflooring,

   2. Square foot electric,

   3. Floor or Ceiling Insulation,

   4. Cleaning, treating or sealing framing,

   5. Rough plumbing or gas piping,

   6. HVAC per square foot.

B. If there are no items listed in the rooms that are more appropriate for footprint entries, no additional action is necessary. Note the file accordingly.

C. If there are items listed in rooms that are more appropriate for footprint entries, determine the adjustments by one of the following methods:

1. If you have access to the native estimate file, remove the line items listed in the individual rooms and enter them into the footprint of the level. You may have to enter a separate room with the total square footage.

2. If you do not have access to the native file,

    a. Add the square footage of all of the rooms listed in the estimate for that level,

    b. Determine the total square footage of the interior and exterior of the footprint or appropriate level,

    c. Calculate the variance to determine the omitted square footage, and note the added scope for consideration to the insureds. Note that attached garages or certain areas of the home may not ne appropriate to include in the new allowance i.e. If you are calculating batt insulation for a crawlspace, you would not include the part of the building on a slab with no insulation.

8.4 Exhibits

8.4-A Excerpt from a training video – Depicting a cross section wall detail and potentially omitted square footage.

8.4-B Excerpt from a Xactimate sketch – Depicting the floor plan of the main level of a home and the combined room square footage totals.

8.4-C Excerpt from a Xactimate sketch – Depicting the footprint of the main level of a home and the total square footage.

Exhibit 8.4-A

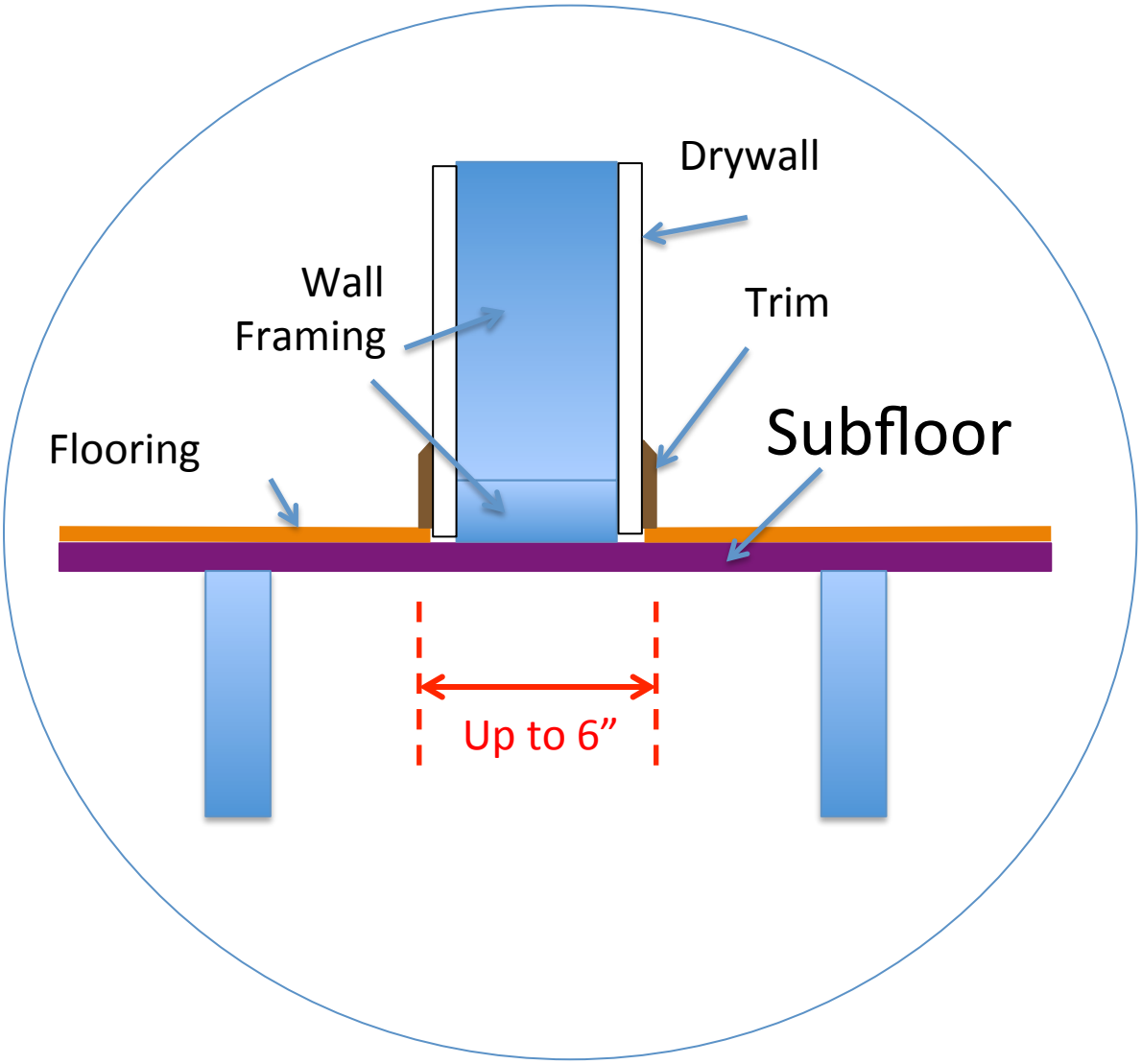


Exhibit 8.4-B

Individual room total = 1,304.55 sf.

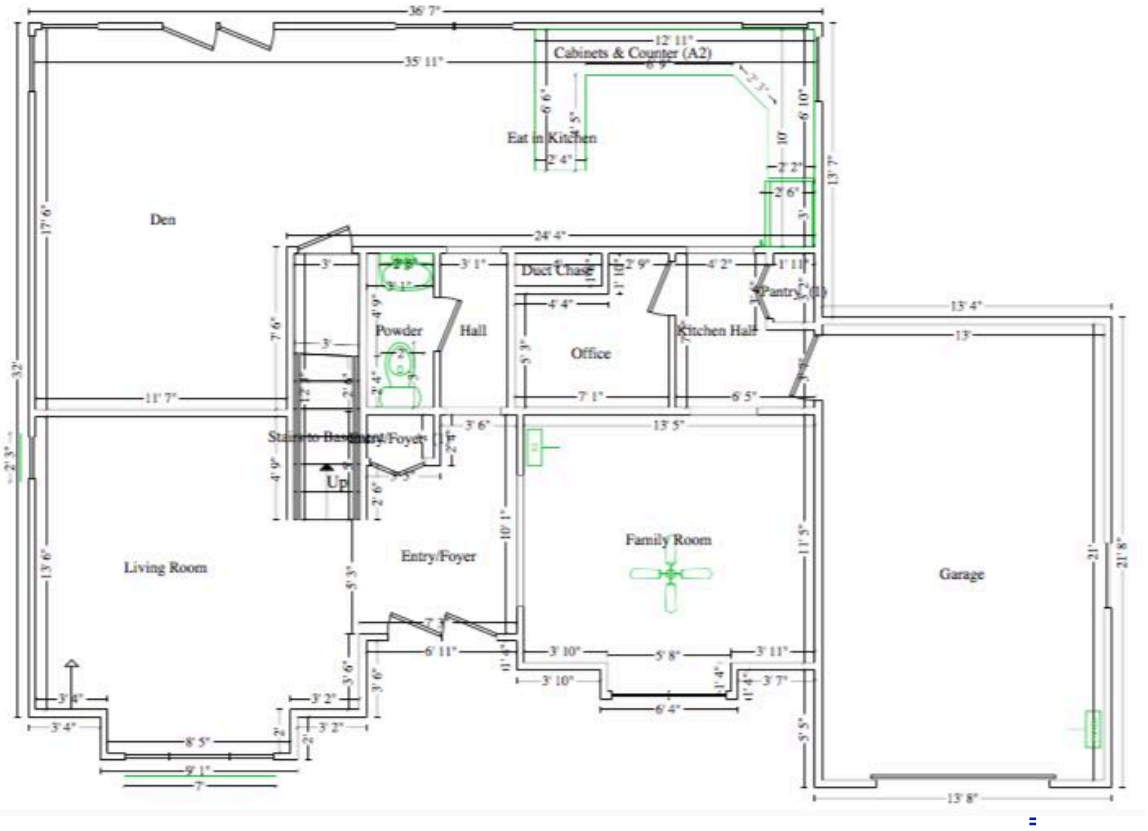
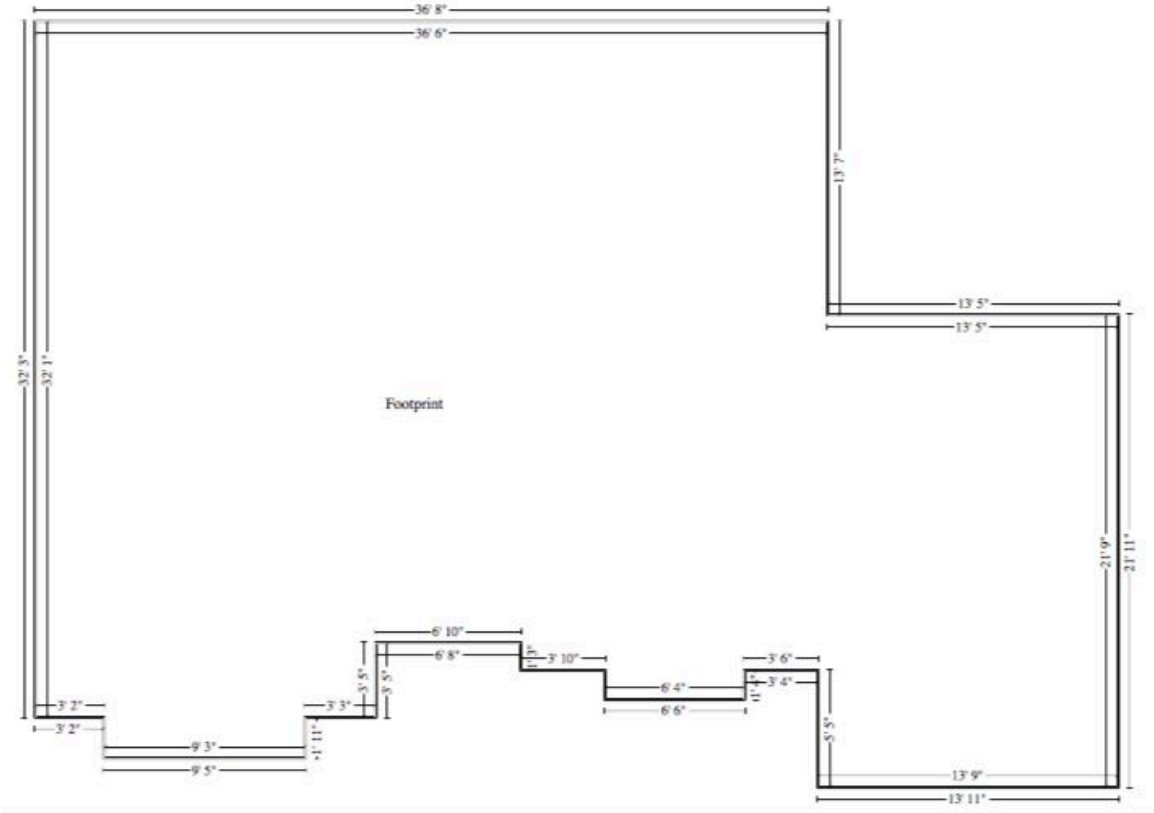


Exhibit 8.4-C

Footprint total = 1,438.18 sf.



9. BX vs. Romex

9. BX vs. Romex

9.1 Issue

In cases where a home is wired with “BX” (metal armored cable), many estimates allow line items or square foot costs for “Romex” (non metal cable). The materials costs for BX is significantly higher than romex (see exhibits 9.4-A & 9.4-B) BX wiring includes armored covered wiring, metal boxes and designed connectors. The labor to install is almost triple that or romex wiring.

9.2 Solution:

Include this issue in the protocol for claims review and adjust estimates accordingly.

9.3 Claim Review Protocol

A. Consider room vs. footprint measurements while addressing this issue.

B. Review photographs to identify the type of electric wiring in the home.

C. Check the estimate to identify the type of wiring allowed.

    1. If the wiring allowed matches the wiring in the home and the measurements are appropriate, no further action is needed. Note the file accordingly.

    2. If the wiring allowed does not match the wiring in the home, or the measurements are incorrect, calculate the difference in cost per square foot and appropriate measurements and adjust accordingly.

D. If incurred expenses exceed the allowance, look for measurement deficiencies including omitted areas below staircases, mechanical chases etc. for additional allowances. Also, note that xactimate does not have a line item for rewire of a residence with BX wiring. There will likely be a difference in labor and materials making up the variance.

9.4 Exhibits

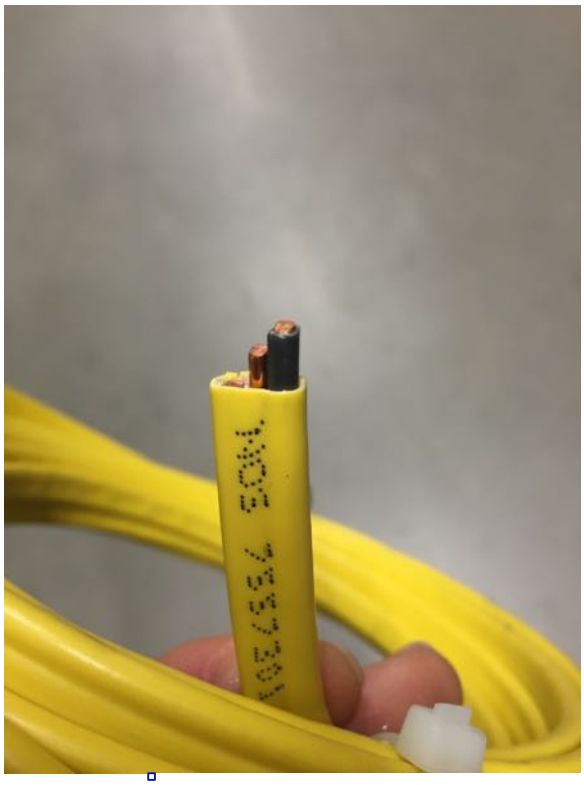
9.4-A Photos – Depicting Romex and BX wiring and their material costs at Home Depot.

9.4-B Photos – Depicting Romex and BX boxes and their material costs at Home Depot.

9.4-C Photos – From Sandy damaged homes showing the presence of BX wiring and metal boxes.

9.4-D Excerpt from Xactimate example – Showing the differences in un-factored unit cost for rewire with and without conduit.

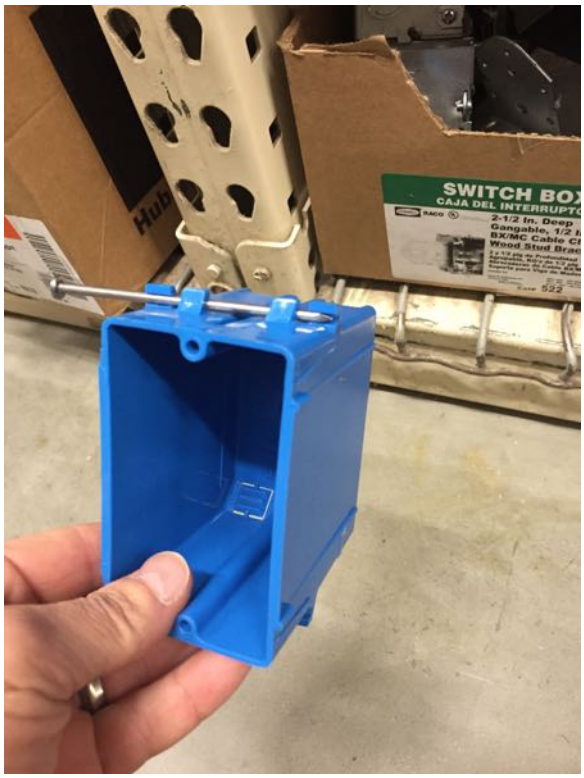
Exhibit 9.4-A



Romex

BX

Exhibit 9.4-B



Plastic box for Romex

Metal box for BX

Exhibit 9.4-C

Exhibit 9.4-D

Xactimate cost differences from a home where the adjuster used romex scope instead of BX scope which was present at the house.

NFIP

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	O&P	TOTAL
115. Rewire - average residence - copper wiring	1,300.00 SF	0.00	2.93	409.04	799.89	5,017.93
Totals: NFIP				409.04	799.89	5,017.93

Technical Advisory Board

DESCRIPTION	QTY	REMOVE	REPLACE	TAX	O&P	TOTAL
116. Rewire - average residence - copper wiring with conduit	1,300.00 SF	0.00	4.24	591.92	1,157.52	7,261.44
Totals: Technical Advisory Board				591.92	1,157.52	7,261.44

Note: Xactimate does not have a line item to rewire a residence with BX and metal boxes.

10. The Removal of Dry vs. Wet Building Components

10. The Removal of Dry vs. Wet Building Components

10.1 Issue

Adjusters consistently estimate flood damages entering either one line item to remove and replace a building component, or two line items for the removal and replacement of a building component, both using scope that assumes the item to be removed is dry. Most estimating platforms have line items to remove wet building components, and even have separate line items for different categories of water. Estimating best practices dictates that flood damage should always be estimated on a two-line basis for the removal and replacement of building components. Many times the removal of damaged building components is performed well in advance of the replacement and often is accompanied by an invoice for work making the individual removal line items moot. One line item for the total incurred expense is appropriate along with a note attached to the line item.

The unit costs listed for the removal of wet items are more appropriate allowances for the work to be performed. In some cases the costs are double the cost to remove dry items. In addition, the single line item to remove and replace a building component assumes that

the same contractor is going to perform both acts. Estimating software platforms calculates the work yields accordingly. Below is a partial list of examples using Xactimate pricing:

Underlayment	Dry @ 1.11	Wet @ 2.02	/ sf.
Carpet Pad	Dry @ 0.14	Wet @ 0.67	/ sf.
Carpet	Dry @ 0.32	Wet @ 0.69	/ sf.
Paneling	Dry @ 0.37	Wet @ 0.84	/ sf.
Floating Floor	Dry @ 1.41	Wet @ 2.16	/ sf.
Wood Flooring	Dry @ 2.81	Wet @ 4.39	/ sf.
Insulation	Dry @ 0.34	Wet @ 0.98	/ sf.
Trim	Dry @ 0.61	Wet @ 0.93	/ sf.
Baseboard	Dry @ 0.54	Wet @ 0.93	/ sf.

Exhibit 10.4-A shows the actual line items in Xactimate and their definitions. Note that all items list to remove and bag the building components. Many times the components are not bagged, rather they are tied or taped in bundles and an equivalent cost.

10.2 Solution:

Have FEMA make a determination and include this issue in the protocol for claims review and where appropriate, revise allowances for insureds.

10.3 Claim Review Protocol

A. Review FEMAs clarification of the matter,

B. Review the estimate and identify the line items used for the removal.

1. If one line item is used for both removal and replacement,

a. Identify who performed the removal and identify incurred costs if any.

i. If costs were incurred and owed, calculate them against the allowance and adjust accordingly. You can determine the amount allowed for removal by identifying the pricelist or database used and replicate the line item. Once done, you can change the selector or function for remove only, or replace only and calculate the appropriate value.

ii. If no costs were incurred and no allowance for removal is warranted, calculate overpayment accordingly. You can determine the amount allowed for removal by identifying the pricelist or database used

and replicate the line item. Once done, you can change the selector or function for remove only, or replace only and calculate the appropriate value.

2. If two line items were used and removal only is identified,

    a. Identify who performed the removal and identify incurred costs if any.

        i. If costs were incurred and owed, calculate them against the allowance and adjust accordingly.

        ii. If no costs were incurred and no allowance for removal is warranted, calculate overpayment accordingly.

3. If you are calculating the value of damages for the loss solely by the scope and pricing allowed by the estimating software, either delete or modify the scope to remove dry building components and replace or modify to allow for the replacement of wet building components.

10.4 Exhibits

10.4-A Excerpt from Xactimate – Showing line item comparisons for both dry and wet removals for a number of building components.

DESCRIPTION	QTY	REMOVE
Underlayment		
76. Remove Underlayment - sound/crack membrane - up to 40 mil	253.00 SF	1.11
74. Tear out non-salv underlayment & bag - Category 3 water	253.00 SF	2.02
Carpet Pad		
93. Remove Carpet pad	253.00 SF	0.14
59. Tear out wet carpet pad, cut/bag - Category 3 water	253.00 SF	0.67
Carpet		
94. Remove Carpet	253.00 SF	0.32
96. Tear out wet non-salvageable carpet, cut/bag - Cat 3 water	253.00 SF	0.69
Paneling		
102. Remove Paneling	536.00 SF	0.37
92. Remove Bead board - 1/4" to 3/8" hardwood	536.00 SF	0.37
98. Tear out wet paneling, bag for disposal - Cat 3	536.00 SF	0.84
Floating Floor		
103. Remove Engineered wood flooring - floating	253.00 SF	1.41
104. Tear out non-salv floating floor & bag - Category 3 water	253.00 SF	2.16
Wood Flooring		
105. Remove Pre-finished solid wood flooring	253.00 SF	2.81
58. Tear out non-salv wood floor & bag - Category 3 water	253.00 SF	4.39
Insulation		
108. Remove Batt insulation - 6" - R19	536.00 SF	0.34
109. Tear out and bag wet insulation - Category 3 water	536.00 SF	0.98
Trim		
111. Remove Casing - 2 1/4"	67.00 LF	0.61
110. Tear out trim and bag for disposal - Cat 3	67.00 LF	0.93
Baseboard Trim		
113. Remove Baseboard - 3 1/4"	67.00 LF	0.54
112. Tear out baseboard and bag for disposal - Cat 3	67.00 LF	0.93

11. Toilet Related Scope and Line Items

11. Toilet Related Scope and Line Items

11.1 Issue

Adjusters estimating damages, which include line items for toilets, typically use one line item for the action they are stating in their estimate. In many cases the line item(s) to replace, or remove and reinstall a toilet is intended to include all of the related components. Those components usually include the mounting bolts and wax ring, but generally exclude other related items that the adjuster intends to include but is unaware of their exclusion from his listed scope. Common related items include:

A. The metal mounting flange,

B. The stop valve (shut off valve),

C. The supply line from the valve to the toilet,

D. Cleaning of the toilet (if being re-installed),

E. Replacement or cleaning of the toilet seat,

F. Replacement or cleaning of the rough plumbing,

G. Wrapping or the protection of the toilet if the toilet is to remain in a gutted house until re-installation.

The stop valve, flange and mounting bolts are metal and are susceptible to rust and corrosion once exposed to salt water. Exhibits 11.4-A-C depict rusted and corroded stop valves, piping and escutcheons, flanges, and a mounting bolt. (*Note the top photograph of 11.4-B is a metal flange on a PVC pipe*)

All estimating platforms including Xactimate and Simsol have line items to address the scope listed above. As estimating platforms are traditionally a la cart, it is important to make sure the intent of the estimator is reflected properly in the line items selected to calculate damages. Exhibits 11.4-D-G depict Xactimate line item descriptions for the removal and replacement or re-installation of a toilet and toilet related scope. The description lists the related labor and materials included and excluded in the line item.

11.2 Solution:

Have FEMA make a determination to include this issue in the protocol for claims review and where appropriate, revise allowances for insureds.

11.3 Claim Review Protocol

A. Review the estimate identifying the bathrooms where coverage applies for toilets and related items.

B. Determine if the intent of the adjuster was to replace, remove and replace, or remove and reinstall the toilet.

C. Determine the flood line relative to the elevation of the toilet being addressed.

D. With the information above match the intent with the directions below,

1. If the intent is to replace the toilet, and the room or portion of the room the toilet is located is not subject to restrictions, review the line item(s) description and add any new scope. Common additional scope items are:

   a. The toilet flange,

   b. The stop valve and escutcheon,

   c. The toilet seat.

   Note that new toilets typically come with a wax ring, supply line and the two bolts to attach the toilet to the flange.

2. If the intent is to remove and reinstall the toilet, and the room or portion of the room the toilet is located is not subject to restrictions, review the line item(s) description and add any new scope. Common additional scope items are:

    a. The toilet flange,

    b. The wax seal,

    c. The stop valve and escutcheon,

    d. Cleaning of the toilet and seat.

    Note that most estimating platforms assume a remove and re-install will be performed in a home with an adjacent room or hall that the toilet can be placed temporarily. Also it is assumed that there will be no need to protect the toilet or place a stopper or material in the drain line preventing debris from clogging the drain. Additional consideration may be needed to wrap and protect the toilet onsite or store it offsite during the rough phase of the rebuild.

11.4 Exhibits

11.4-A Photos – Depicting rusted stop valves, piping & escutcheons.

11.4-B Photos – Depicting rusted toilet flanges.

11.4-C Photos – Depicting a rusted toilet bolt.

11.4-D Xactimate Description – Replace Toilet

11.4-E Xactimate Description – Remove and Re-Install Toilet

11.4-F Xactimate Description – Replace Stop Valve

11.4-G Xactimate Description – Replace Flange

Exhibit 11.4-A

Escutcheon, Rough Pipe and Angle Stop Valve

Exhibit 11.4-B

Mounting Bolt, Toilet Flange and PVC Drain Pipe

Exhibit 11.4-C

Mounting Bolt and Lock Nut

Exhibit 11.4-D

Price List Item: PLMTLT +

5/19/2015
Page: 1

Description:
Toilet

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	0.750 EA/HR	14.583	0.641	216.33
MAT+	PLMBOWLBLTS	2.744	1.000 EA/EA	0.000	1.000	2.74
MAT+	PLMFERL3/8	0.470	1.000 EA/EA	0.000	1.000	0.47
MAT+	PLMSL3/8	5.519	1.000 EA/EA	0.000	1.000	5.52
MAT+	PLMTLT	152.440	1.000 EA/EA	0.000	1.000	152.44
MAT+	PLMWAXRING	1.808	1.000 EA/EA	0.000	1.000	1.81

Costs: **Lab:** 193.57 **Mat:** 162.98 **Equ:** 0.00 **=** 356.55

Labor Burden: 22.76

Market Conditions: 0.01

Untaxed Unit Price: 379.32

Definition:
Includes: Toilet, wax ring, one supply line, two brass bowl bolts/screws, and installation labor.
Excludes: Toilet seat.
Quality: Vitreous china toilet in standard colors.
Green: Toilets are considered green by LEED when they use 1.6 gallons, or less, per flush.
Note: If toilet seat is needed see item PLMTLTS*.
Average life expectancy 150 years
Average depreciation 0.67% per year
Maximum depreciation 100%

Exhibit 11.4-E

Price List Item: PLMTLT R

5/19/2015

Description:
Toilet

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLBR	PLM	138.590	0.658 EA/HR	14.583	0.562	246.59
MATR	PLMBOWLBLTS	2.744	1.000 EA/EA	0.000	1.000	2.74
MATR	PLMWAXRING	1.808	1.000 EA/EA	0.000	1.000	1.81

Costs: **Lab:** 220.65 **Mat:** 4.55 **Equ:** 0.00 **=** 225.20

Labor Burden: 25.94

Market Conditions: 0.00

Untaxed Unit Price: 251.14

Definition:
Includes: On site storage, wax ring, brass mounting bolts, and labor.
Excludes: Any additional materials or hardware.
Note: Labor cost to disconnect and detach a toilet, move to an adjacent room for storage, and reinstall at a later time.
No life expectancy data

Exhibit 11.4-F

Price List Item: PLMSTOP &

5/19/2015

Description:

Angle stop

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	6.000 EA/HR	17.708	4.938	28.06
MAT+	PLMSTOP	7.187	1.000 EA/EA	0.000	1.000	7.19
RLB-	DMO	55.200	15.000 EA/HR	33.333	10.000	5.52

Costs: **Lab:** 29.37 **Mat:** 7.19 **Equ:** 0.00 **=** 36.56

Labor Burden:	4.21
Market Conditions:	0.01
Untaxed Unit Price:	40.78

Definition:

Includes: Angle stop valve and installation labor. Labor cost to remove an angle stop and to discard in a job-site waste receptacle.
Average life expectancy 100 years
Average depreciation 1% per year
Maximum depreciation 100%

Exhibit 11.4-G

Price List Item: PLMTLTFL

5/19/2015

Description:
Toilet flange

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	1.000 EA/HR	17.708	0.823	168.42
MAT+	PLMBP4F	25.000	1.000 EA/EA	0.000	1.000	25.00
MAT+	PLMDRN4	2.406	0.500 EA/LF	2.000	0.490	4.91
MAT+	PLMFTGFL	5.103	1.000 EA/EA	0.000	1.000	5.10
MAT+	PLMPVCCEM	12.051	100.000 EA/QT	0.000	100.000	0.12
RLB-	PLM	138.590	3.000 EA/HR	14.583	2.563	54.09
Costs:		**Lab:** 199.10	**Mat:** 35.13	**Equ:** 0.00	=	234.23
					Labor Burden:	23.41
					Market Conditions:	0.00
					Untaxed Unit Price:	257.64

Definition:
Includes: Toilet flange, pipe, coupling, pipe cement, and labor to install. Labor cost to remove toilet flange and to discard in a job-site waste receptacle.
Excludes: Concrete or framing demolition.
Average life expectancy 25 years
Average depreciation 4% per year
Maximum depreciation 100%

Exhibit 11.4-H

Price List Item: PLMTLTS- +

5/24/2015

Description:
Toilet seat - Standard grade

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	6.500 EA/HR	14.583	5.552	24.96
MAT+	PLMTLTS-	12.000	1.000 EA/EA	0.000	1.000	12.00

Costs: **Lab:** 22.33 **Mat:** 12.00 **Equ:** 0.00 **=** 34.33

Labor Burden: 2.63

Market Conditions: 0.00

Untaxed Unit Price: 36.96

Definition:
Includes: Toilet seat and installation labor.
Quality: White.
Average life expectancy 9 years
Average depreciation 11.11% per year
Maximum depreciation 100%

12. Boiler Related Scope and Line Items

12. Boiler Related Scope and Line Items

12.1 Issue

Adjusters estimating damages, which include line items for boilers, typically use one line item for the action they are stating in their estimate. In many cases after a catastrophe, the damaged boiler and related parts have already been replaced when the adjuster inspects the home. There are other times that the boiler has not been replaced and the adjuster who is estimating the loss includes a line item or items for replacement. Boiler line items usually include the removal and replacement of the boiler only, and generally exclude other related items that the adjuster intends to include but is unaware of their exclusion from his listed scope. Common related items include:

A. The circulating pump,

B. Flow switches and zone valves,

C. Ball valves (shut off valves),

D. Pressure regulators,

E. Electric sub-panels, boxes and hardwiring,

F. Black pipe with fittings,

G. Replacement or cleaning of the rough plumbing,

H. The vent for exhaust and barometric damper,

I. Expansion tank.

All estimating platforms have line items for a boiler, but those line items usually exclude ancillary components the estimator is intending to include in his allowances. Exhibit 12.4-A shows a typical xactimate line item used for the removal and replacement of a boiler. Exhibit 12.4-E is the xactimate line item description, which lists the labor and material for the defined scope and notes some of the additional line items and their codes for inclusion if intended. Exhibit 12.4-B shows multiple Xactimate line items used to replace a boiler and the related parts for a specific system. Exhibits 12.4-F thru N are the Xactimate line item descriptions for the additional scope listed in 12.4-B (*Note that every line item defines its included and excluded items and individual costs for labor and materials*).

12.2 Solution:

Have FEMA make a determination to include this issue in the protocol for claims review and where appropriate, revise allowances for insureds.

12.3 Claim Review Protocol

A. Review the estimate and identify the room or area that addresses the mechanicals.

B. Determine the flood line relative to the elevation of the boiler being addressed.

C. Determine the intended scope of the adjuster estimating the damages, and whether the boiler was already replaced to which the incurred cost was allowed, or if the estimator intended to address the replacement in the estimate.

D. With the information above; match the intent with the directions below,

   1. If the boiler was already replaced and the estimate reflects a bid item or references an invoice;

      a. Match the line item with the invoice, and make sure there was no additional allowance for Overhead and Profit (O&P) or Tax, as those items are typically included in the price of the incurred work. (*Note that in very few cases, a General Contractor may have been hired for the entire job and O&P and Tax are warranted.*)

2. If the boiler replacement is being allowed for in the estimate using scope and values from an estimating platform;

    a. Check the line items used in the estimate, and match the scope with photographs for the boiler room or system.

        i. If there are no photographs of the boiler or related components,

            a. Contact the insured and ask them how many zones their system had and gather as much information about the system present during Sandy.

            b. Ask the insured for, and contact the contractor that performed the work for more information about the old system if you need more information.

    b. With new information gathered, adjust the additional needs accordingly.

Note: An insured may have replaced their older boiler with a new high efficiency system. In most cases, an older cast iron boiler would cost more to replace then the newer higher efficiency system. Consideration for Same Like, Kind and Quality should prevail.

12.4 Exhibits

12.4-A Excerpt – Xactimate Scope for a Boiler.

12.4-B Excerpt – Xactimate Scope for a Boiler including related parts.

12.4-C Photos – Depicting Boilers and related parts.

12.4-D Photos – Depicting Boilers and related parts.

12.4-E Xactimate Description – Replace Boiler.

12.4-F Xactimate Description – Remove & Replace Circulating Pump.

12.4-G Xactimate Description – Remove & Replace Flow Switch (used for Zone Valve).

12.4-H Xactimate Description – Remove & Replace 3/4” Ball Valve (shut off valve)

12.4-I Xactimate Description – Remove & Replace ¾” Water Pressure Regulator Valve.

12.4-J Xactimate Description – Equipment Connection

12.4-K Xactimate Description – Remove & Replace ¾” Black Pipe and Fittings.

12.4-L Xactimate Description – Remove & Replace ¾" Copper Water Supply Line.

12.4-M Xactimate Description – Remove & Replace Aluminum Furnace Vent.

12.4-N Xactimate Description – Remove & Replace a 2gal. Expansion Tank.

Exhibit 12.4-A

Single line item scope for a boiler, consistent with many independent adjusters estimates.

Boiler - Typical WYO / IA Scope

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	RCV	DEPREC.	ACV
4. R&R Boiler - natural gas - 130,000 BTU	1.00 EA	4,222.91	374.78	4,597.69	(0.00)	4,597.69
Totals: Boiler - Typical WYO / IA Scope			**374.78**	**4,597.69**	**0.00**	**4,597.69**

Exhibit 12.4-B

Multiple line item scope for the same boiler, including additionally damaged covered components.

Boiler Technical Advisory Work Group

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	RCV	DEPREC.	ACV
17. R&R Boiler - natural gas - 130,000 BTU	1.00 EA	4,222.91	374.78	4,597.69	(0.00)	4,597.69
18. R&R Circulator pump - cast iron - 3/4" - 1/40 to 1/20 HP	1.00 EA	466.39	41.39	507.78	(0.00)	507.78
19. R&R Tamper & flow switches	4.00 EA	196.54	69.77	855.93	(0.00)	855.93
20. R&R Ball valve - brass - 3/4"	6.00 EA	61.61	32.80	402.46	(0.00)	402.46
21. R&R Water pressure regulator valve - 3/4"	3.00 EA	120.08	31.97	392.21	(0.00)	392.21
22. Equipment connections	1.00 EA	572.05	50.77	622.82	(0.00)	622.82
23. R&R Black pipe with fitting and hanger, 3/4"	7.00 LF	18.72	11.63	142.67	(0.00)	142.67
24. R&R Water supply line - copper with fitting and hanger, 3/4"	12.00 LF	22.60	24.07	295.27	(0.00)	295.27
25. R&R Furnace vent - aluminum, 4"	4.00 LF	16.24	5.77	70.73	(0.00)	70.73
26. R&R Thermal expansion tank - 2 gallon	1.00 EA	347.16	30.81	377.97	(0.00)	377.97
Totals: Boiler Technical Advisory Work Group			**673.76**	**8,265.53**	**0.00**	**8,265.53**

Note: Both examples above use the Xactimate price list without adjustment for post Sandy costs.

Exhibit 12.4-C

Photo # : 76
Date : 11/26/12
Taken By : Adjuster

Comment :

Water heater

Exhibit 12.4-D

Exhibit 12.4-E

Price List Item: HVCBLR &

5/2/2015
Page: 1

Description:
Boiler - natural gas - 130,000 BTU

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	HVC	133.000	0.091 EA/HR	31.250	0.063	2,125.87
MAT+	HVCBLR	1,943.990	1.000 EA/EA	0.000	1.000	1,943.99
RLB-	DMO	55.200	0.541 EA/HR	33.333	0.361	153.05
Costs:		**Lab:** 2,037.56	**Mat:** 1,943.99	**Equ:** 0.00	**=**	3,981.55
					Labor Burden:	241.36
					Market Conditions:	0.00
					Untaxed Unit Price:	4,222.91

Definition:
Includes: Gas boiler and installation labor. Labor cost to remove a gas boiler and to discard in a job-site waste receptacle.
Quality: 130,000 BTU output.
Green: Boilers are considered green if it is Energy Star rated. Ductwork, filters, and controls must meet standards to qualify as a green product. Efficiencies of at least 87% for oil, 94% for gas, and 80% for wood are required.
Note: If checkvalve and/or circulator pump is needed use items PLMCHV* and PLMCPUMP*.
Average life expectancy 30 years
Average depreciation 3.33% per year
Maximum depreciation 100%

Exhibit 12.4-F

Price List Item: PLMCPUMP<< &

5/24/2015
Page: 1

Description:

Circulator pump - cast iron - 3/4" - 1/40 to 1/20 HP

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	0.750 EA/HR	31.250	0.516	268.79
MAT+	PLMCPUMP<<	155.000	1.000 EA/EA	0.000	1.000	155.00
MAT+	PLMCPUMPFL	9.490	1.000 EA/EA	0.000	1.000	9.49
RLB-	DMO	55.200	2.500 EA/HR	33.333	1.667	33.11

Costs: **Lab:** 266.08 **Mat:** 164.49 **Equ:** 0.00 **=** 430.57

Labor Burden: 35.82

Market Conditions: 0.00

Untaxed Unit Price: 466.39

Definition:

Includes: Circulator pump, fittings, and installation labor. Labor cost to remove circulator pump and to discard in a job-site waste receptacle.
Excludes: Check valve.
Quality: Cast iron circulating water pump for boiler heating system up to 3/4" connection (inlet and outlet) residential application; ratings from 1/20 to 1/40 HP.
Note: If check valve is needed use items PLMCHV*.
Average life expectancy 12 years
Average depreciation 8.33% per year
Maximum depreciation 100%

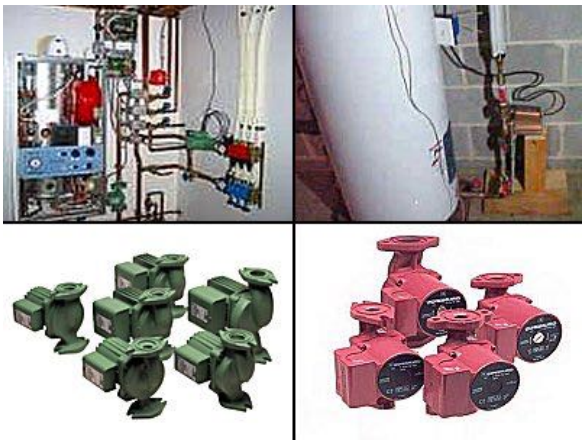


Exhibit 12.4-G

Price List Item: ELSFLOWSW &

5/24/2015
Page: 1

Description:
Tamper & flow switches

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	ELE	90.910	2.000 EA/HR	28.125	1.438	63.24
MAT+	ELSFLOWSW	112.600	1.000 EA/EA	0.000	1.000	112.60
RLB-	DMO	55.200	4.000 EA/HR	33.333	2.667	20.70

Costs:	**Lab:** 68.95	**Mat:** 112.60	**Equ:** 0.00	=		181.55
					Labor Burden:	14.99
					Market Conditions:	0.00
					Untaxed Unit Price:	196.54

Definition:

Includes: Fire alarm system flow switch and labor to install and make electrical signal connections. Labor to remove a tamper/flow switch and to discard in a job-site waste receptacle.
Average life expectancy 10 years
Average depreciation 10% per year
Maximum depreciation 100%

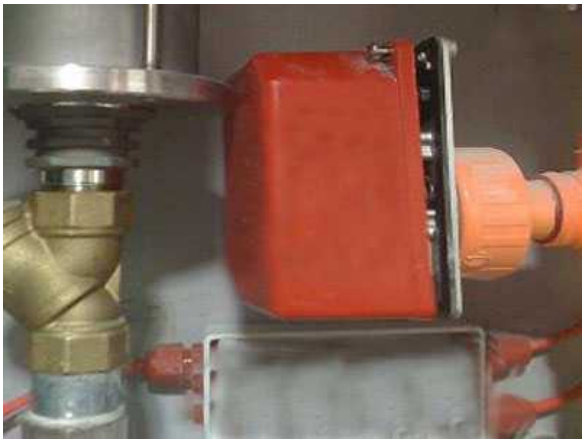


Exhibit 12.4-H

Price List Item: PLMBV3/4 &

5/24/2015

Description:
Ball valve - brass - 3/4"

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	5.000 EA/HR	31.250	3.438	40.31
MAT+	PLMBV3/4	14.394	1.000 EA/EA	0.000	1.000	14.39
RLB-	DMO	55.200	12.000 EA/HR	33.333	8.000	6.90

Costs: **Lab:** 41.40 **Mat:** 14.39 **Equ:** 0.00 **=** 55.79

Labor Burden:	5.81
Market Conditions:	0.01
Untaxed Unit Price:	61.61

Definition:
Includes: Ball valve and installation labor. Labor cost to remove a ball valve and to discard in a job-site waste receptacle.
Quality: 3/4" brass ball valve.
Green: Brass valves, as well as all metals, are considered green by LEED due to their being manufactured from at least 25% recycled material.
Average life expectancy 70 years
Average depreciation 1.43% per year
Maximum depreciation 100%

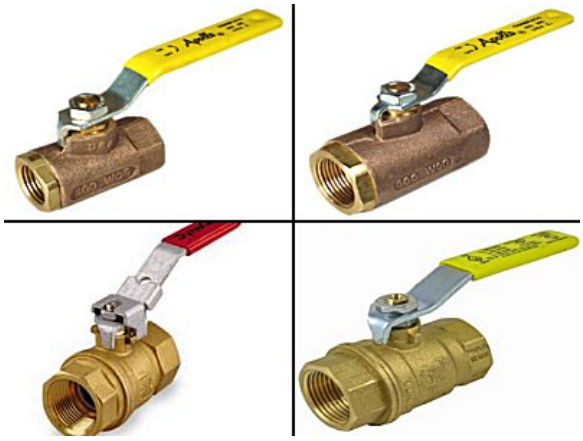


Exhibit 12.4-I

Price List Item: PLMSLPV3/4 &

5/24/2015
Page: 1

Description:

Water pressure regulator valve - 3/4"

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	3.000 EA/HR	31.250	2.063	67.19
MAT+	PLMSLPV3/4	45.990	1.000 EA/EA	0.000	1.000	45.99
RLB-	DMO	55.200	12.000 EA/HR	33.333	8.000	6.90

Costs: **Lab:** 65.45 **Mat:** 45.99 **Equ:** 0.00 = 111.44

Labor Burden: 8.64

Market Conditions: 0.00

Untaxed Unit Price: 120.08

Definition:

Includes: Pressure regulator valve and installation labor. Labor to remove a pressure regulator valve and to discard in a job-site waste receptacle.
Quality: Water pressure reducing/regulating valve, 3/4" (10-70 psi).
Average life expectancy 18 years
Average depreciation 5.56% per year
Maximum depreciation 100%

Exhibit 12.4-J

Price List Item: ELEECON +

5/24/2015

Description:
Equipment connections

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	ELE	90.910	0.350 EA/HR	31.250	0.241	377.80
MAT+	ELE#8	0.420	0.003 EA/LF	5.000	0.003	147.37
MAT+	ELEBOX2	4.530	1.000 EA/EA	0.000	1.000	4.53
MAT+	ELEFLEX	0.486	0.013 EA/LF	5.000	0.012	39.35
MAT+	ELEFLEXC3/4	1.181	0.500 EA/EA	0.000	0.500	2.36
MAT+	ELENUT	9.527	15.000 EA/BX	0.000	15.000	0.64

Costs:	**Lab:** 316.38	**Mat:** 194.25	**Equ:** 0.00	=		510.63
					Labor Burden:	61.42
					Market Conditions:	0.00
					Untaxed Unit Price:	572.05

Definition:

Includes: Material and labor to make the power connection for any standard sized piece of electrical equipment.
Excludes: Power panel, breaker, or power control box.
Quality: 110/220 vac connection up to 75'.
Average life expectancy 30 years
Average depreciation 3.33% per year
Maximum depreciation 100%

Exhibit 12.4-K

Price List Item: PLMBP3/4 &

5/24/2015
Page: 1

Description:
Black pipe with fitting and hanger, 3/4"

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	14.300 LF/HR	31.250	9.831	14.09
MAT+	PLMBP3/4	1.529	1.000 LF/LF	2.000	0.980	1.56
MAT+	PLMBP3/4F	0.880	10.000 LF/EA	0.000	10.000	0.09
MAT+	PLMBP3/4H	0.300	10.000 LF/EA	0.000	10.000	0.03
RLB-	DMO	55.200	28.000 LF/HR	33.333	18.667	2.95
Costs:		**Lab:** 14.89	**Mat:** 1.68	**Equ:** 0.00	=	16.57
					Labor Burden:	2.15
					Market Conditions:	0.00
					Untaxed Unit Price:	18.72

Definition:
Includes: Schedule 40 black pipe with fittings and hangers and installation labor. Labor cost to remove black pipe and to discard in a job-site waste receptacle.
Quality: 1 fitting and 1 hanger per 10 lineal ft.
Green: Black pipes, as well as all metals, are considered green by LEED due to their being manufactured from at least 25% recycled material.
Note: 3/4" pipe. Frequently used for gas lines.
Average life expectancy 50 years
Average depreciation 2% per year
Maximum depreciation 100%

Exhibit 12.4-L

Price List Item: PLMSL3/4 &

5/24/2015
Page: 1

Description:

Water supply line - copper with fitting and hanger, 3/4"

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	10.750 LF/HR	31.250	7.391	18.75
MAT+	PLMCP3/4F	2.640	8.000 LF/EA	0.000	8.000	0.33
MAT+	PLMCP3/4	1.830	1.000 LF/LF	0.000	1.000	1.83
MAT+	PLMCP3/4H	1.520	8.000 LF/EA	0.000	8.000	0.19
RLB-	DMO	55.200	55.000 LF/HR	33.333	36.667	1.50
Costs:		**Lab:** 17.94	**Mat:** 2.35	**Equ:** 0.00	=	20.29
					Labor Burden:	2.31
					Market Conditions:	0.00
					Untaxed Unit Price:	22.60

Definition:

Includes: Copper water pipe with fittings and hangers, and installation labor. Labor cost to remove 3/4" copper pipe and to discard in a job-site waste receptacle.
Quality: 3/4" pipe. One fitting and one hanger every 8 LF.
Green: Plumbing systems may be considered green by LEED if they contribute to the water use reduction credit. Copper, as well as all metals, is considered green by LEED due to their being manufactured from at least 25% recycled material.
Average life expectancy 50 years
Average depreciation 2% per year
Maximum depreciation 100%

Exhibit 12.4-M

Price List Item: HVCVENT4 &

5/24/2015
Page: 1

Description:
Furnace vent - aluminum, 4"

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	HVC	133.000	19.416 LF/HR	31.250	13.349	9.96
MAT+	HVCVENT4	4.960	1.000 LF/LF	5.000	0.950	5.22
MAT+	HVCVENTEL4	3.090	8.000 LF/EA	0.000	8.000	0.39
RLB-	DMO	55.200	123.541 LF/HR	33.333	82.361	0.67
Costs:		**Lab:** 9.51	**Mat:** 5.61	**Equ:** 0.00	=	15.12
					Labor Burden:	1.12
					Market Conditions:	0.00
					Untaxed Unit Price:	16.24

Definition:
Includes: Vent pipe, elbow, and installation labor. Labor cost to remove a furnace vent and to discard in a job-site waste receptacle.
Quality: 4" aluminum vent pipe, 1 elbow every 8 LF.
Average life expectancy 25 years
Average depreciation 4% per year
Maximum depreciation 100%

Exhibit 12.4-N

Price List Item: PLMTET2 &

5/24/2015
Page: 1

Description:

Thermal expansion tank - 2 gallon

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PLM	138.590	0.800 EA/HR	31.250	0.550	251.98
MAT+	PLMCP3/4F	2.640	1.000 EA/EA	0.000	1.000	2.64
MAT+	PLMTET2	43.842	1.000 EA/EA	0.000	1.000	43.84
RLB-	DMO	55.200	1.700 EA/HR	33.333	1.133	48.70

Costs:	**Lab:** 263.08	**Mat:** 46.48	**Equ:** 0.00	=		309.56
					Labor Burden:	37.60
					Market Conditions:	0.00
					Untaxed Unit Price:	347.16

Definition:

Includes: Tank, fitting, and installation labor. Labor cost to remove an expansion tank and to discard in a job-site waste receptacle.
Excludes: In-line valves, pressure switches, and piping.
Quality: Pre-charged thermal expansion tank with either diaphragm or bladder membrane with 2 gallon capacity.
Green: All metals are considered green by LEED due to their being manufactured from at least 25% recycled material.
Average life expectancy 10 years
Average depreciation 10% per year
Maximum depreciation 100%

13. Two Coat Seal and Paint Limitations for Drywall

13. Two Coat Seal and Paint Limitation for Drywall

13.1 Issue

WYO's, mostly Allstate have stated that the NFIP only allows two coats of any combination of primer, sealer and paint on a wall surface or trim. The NFIP has no such restriction to our knowledge, and intends to put an insured back to pre loss condition subject to the deductible and stated exclusions. All estimating platforms have line items to seal or prime, plus line items to paint with one, two or three coats.

Best practices allow for a coat of primer for new drywall and joint compound, or two coats if the new drywall is purple or green board (water resistant) usually found in bathrooms, followed by two coats of paint.

Note that new drywall for a 4' flood cut will result in an area of new drywall and joint compound up to five feet.

13.2 Solution:

Have FEMA clarify their position on restricting coats to two coats, or their agreement to the allowance of best practices recommended primer plus two coats of paint totaling three or more coats.

13.3 Claim Review Protocol

A. Review the estimate and identify the allowances for sealing and painting. (*Note that estimates written for AllState typically only allows for one coat of primer and one coat of paint.*)

1. Adjust the estimate accordingly;

a. In general rooms with flood cuts,

i. Allow one coat of PVA primer for the new drywall plus joint compound (*One additional perimeter foot taking door and window openings into consideration*).

ii. Allow 2 coats of paint for walls.

b. In bathrooms with flood cuts,

i. Allow two coats of PVA primer for the new drywall plus joint compound (*One additional perimeter foot taking door, window openings and tiled surfaces into consideration*. (*tiled areas still need one coat of primer*)).

ii. Allow 2 coats of paint for walls

c. In rooms where water levels necessitated the removal of the entire wall drywall from floor to ceiling,

   i. Allow one coat of primer, with an additional one foot of primer for joint compound on the ceiling as the corner joint will be spackled into the ceiling joint,

   ii. Allow 2 coats of paint for the walls and ceiling.

13.4 Exhibits

13.4-A Excerpt From an Allstate Flood Estimate – Showing one line item to seal and paint the walls totaling 2 coats.

13.4-B Excerpt from a Standard Fire Flood Estimate – Showing 2 line items to seal then paint totaling 3 coats.

13.4-C Xactimate Description – Seal/prime then paint {V} (2coats)

13.4-D Xactimate Description – Seal {V} w/PVA primer – one coat

13.4-E Xactimate Description – Paint {V} – one coat

13.4-F Xactimate Description – Paint {V} – two coats

13.4-G Xactimate Description – Mask and prep for paint – tape only (per LF)

Exhibit 13.4-A

Excerpt from an AllState WYO Sandy Claim.
Note line 18 “Seal/prime then paint the walls (2 coats)” @ 0.79/sf

16. R&R 1/2" drywall - hung, tapcd, floated, ready for paint	267.33 SF	2.44	652.29	4/150 yrs	Normal	2.67%	(14.04)	638.25
17. Mask and prep for paint - tape only (per LF)	73.50 LF	0.46	33.81	4/15 yrs	Normal	26.67%	(9.02)	24.79
18. Seal/prime then paint the walls (2 coats)	507.11 SF	0.79	400.62	4/15 yrs	Normal	26.67%	(106.83)	293.79

Exhibit 13.4-B

Excerpt from a Standard Fire WYO Sandy Claim.
Note second and third lines,
“Seal part of the walls w/latex based stain blocker – one coat” @ 0.60/sf.
“Paint the walls – two coats” @ 0.91/sf.
Both line items totaling $1.51/sf.

R&R 1/2" drywall - hung, taped, with smooth wall finish	102.22 SF	2.98	32.45	60.92	397.98	(52.23)	345.75
Seal part of the walls w/latex based stain blocker - one coat	102.22 SF	0.60	6.53	12.26	80.12	(12.68)	67.44
Paint the walls - two coats	204.44 SF	0.91	19.81	37.20	243.05	(38.49)	204.56

Exhibit 13.4-C

Price List Item: PNTSP +

5/26/2015

Description:
Seal/prime then paint {V} (2 coats)

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PNT	67.630	128.955 SF/HR	17.708	106.120	0.64
MAT+	PNTL	29.566	350.000 SF/GL	5.000	332.500	0.09
MAT+	PNTPUT	17.990	12,000.000 SF/GL	5.000	11400.000	0.00
MAT+	PNTSANDP	0.566	800.000 SF/SH	5.000	760.000	0.00
MAT+	PNTSEALPVA	9.000	360.000 SF/GL	5.000	342.000	0.03
Costs:		**Lab:** 0.52	**Mat:** 0.12	**Equ:** 0.00	=	0.64
					Labor Burden:	0.12
					Market Conditions:	0.03
					Untaxed Unit Price:	0.79

Definition:
Includes: Sealer, latex paint, painter's putty, sandpaper, and labor.
Quality: One coat of sealer and one coat of paint.
Note: Painters frequently remove switch and outlet cover plates, drop light fixtures, and move items away from walls to make painting easier. An average amount of this kind of prep work is included.
Average life expectancy 15 years
Average depreciation 6.67% per year
Maximum depreciation 100%

Exhibit 13.4-D

Price List Item: PNTS- +

5/26/2015

Description:
Seal {V} w/PVA primer - one coat

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PNT	67.630	214.924 SF/HR	17.708	176.865	0.38
MAT+	PNTPUT	17.990	12,000.000 SF/GL	5.000	11400.000	0.00
MAT+	PNTSANDP	0.566	800.000 SF/SH	5.000	760.000	0.00
MAT+	PNTSEALPVA	9.000	360.000 SF/GL	5.000	342.000	0.03

Costs: **Lab:** 0.31 **Mat:** 0.03 **Equ:** 0.00 **=** 0.34

Labor Burden: 0.07

Market Conditions: 0.00

Untaxed Unit Price: 0.41

Definition:

Includes: Sealer/primer, painter's putty, sandpaper, and labor.
Quality: One coat of PVA primer.
Note: Painters frequently remove switch and outlet cover plates, drop light fixtures, and move items away from walls to make painting easier. An average amount of this kind of prep work is included.
Average life expectancy 15 years
Average depreciation 6.67% per year
Maximum depreciation 100%

Exhibit 13.4-E

Price List Item: PNTP

5/26/2015

Description:
Paint {V} - one coat

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PNT	67.630	214.924 SF/HR	17.708	176.865	0.38
MAT+	PNTL	29.566	350.000 SF/GL	5.000	332.500	0.09
MAT+	PNTPUT	17.990	12,000.000 SF/GL	5.000	11400.000	0.00
MAT+	PNTSANDP	0.566	800.000 SF/SH	5.000	760.000	0.00

Costs:	**Lab:** 0.31	**Mat:** 0.09	**Equ:** 0.00	=	0.40
				Labor Burden:	0.07
				Market Conditions:	0.02
				Untaxed Unit Price:	0.49

Definition:

Includes: Latex paint, painter's putty, sandpaper, and labor.
Quality: One coat.
Note: Painters frequently remove switch and outlet cover plates, drop light fixtures, and move items away from walls to make painting easier. An average amount of this kind of prep work is included.
Average life expectancy 15 years
Average depreciation 6.67% per year
Maximum depreciation 100%

Exhibit 13.4-F

Price List Item: PNTP2 +

5/27/2015

Description:
Paint {V} - two coats

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PNT	67.630	145.000 SF/HR	17.708	119.323	0.57
MAT+	PNTL	29.566	190.000 SF/GL	5.000	180.500	0.16
MAT+	PNTPUT	17.990	12,000.000 SF/GL	5.000	11400.000	0.00
MAT+	PNTSANDP	0.566	800.000 SF/SH	5.000	760.000	0.00

Costs: **Lab:** 0.46 **Mat:** 0.17 **Equ:** 0.00 **=** 0.63

Labor Burden:	0.11
Market Conditions:	0.00
Untaxed Unit Price:	0.74

Definition:

Includes: Latex paint, painter's putty, sandpaper, and labor.
Quality: Two coats.
Note: Painters frequently remove switch and outlet cover plates, drop light fixtures, and move items away from walls to make painting easier. An average amount of this kind of prep work is included.
Average life expectancy 15 years
Average depreciation 6.67% per year
Maximum depreciation 100%

Exhibit 13.4-G

Price List Item: PNTMASKLFT +

5/26/2015

Description:
Mask and prep for paint - tape only (per LF)

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	PNT	67.630	200.000 LF/HR	19.792	160.416	0.42
MAT+	PNTMSKT>	5.600	180.000 LF/RL	10.000	162.000	0.04

Costs:	**Lab:** 0.34	**Mat:** 0.04	**Equ:** 0.00	**=**	0.38
				Labor Burden:	0.08
				Market Conditions:	0.00
				Untaxed Unit Price:	0.46

Definition:
Includes: Masking tape and labor.
Quality: 2" masking tape.
Average life expectancy 15 years
Average depreciation 6.67% per year
Maximum depreciation 100%

14. Flood Cut vs. Square Foot Drywall Scope

14. Flood Cut vs. Square Foot Drywall Scope

14.1 Issue

A Flood Cut is a term used in water remediation and construction used to describe the partial removal of drywall up to a certain height. The obvious purpose is to allow the removal of water damaged drywall, insulation and other building materials and allow access to framing and salvageable materials for drying.

Adjusters estimating flood losses typically remove and replace drywall on a square foot basis, noting the scope to be a flood cut of 2', 4', 25% or 50% of a wall. (*see exhibit 14.4-A*) This method of estimating is without consideration of the less obvious component of a flood cut, which is to remove the drywall in such a manner that a clean level cut line is left behind for the contractor who will replace the drywall.

All estimating platforms price the square foot cost for the removal and replacement of drywall with the assumption that an entire wall is being removed, then replaced. No allowance is made to determine a height for a flood cut, drop a chalk line, razor cut the drywall using a straight edge, or careful removal at the line. In replacement, no allowance is made to drywall up to a cut of a finished wall.

Estimating platforms do have specific line items for making a flood cut and for the replacement of drywall into a flood cut opening. These line items are specifically designed for the appropriate scope, and are priced per linier foot not square foot. (*see exhibit 14.4-B*)

14.2 Solution:

Make this issue part of the claims review process and adjust estimates accordingly.

14.3 Claim Review Protocol

A. Review the estimate and determine the line items used for the removal and replacement of drywall in each room.

B. Adjust the estimate according to the following;

1. Flood Cut – Removal of drywall

a. Determine if the drywall removal was performed by a contractor, homeowner, non-profit, or an allowance is to be made using an estimating platform.

i. If removed by a contractor,

1. Review the file for an invoice,

2. Review photographs to determine if a clean flood cut was made or additional work is needed,

3. Adjust the remove part of the drywall to the incurred cost and make any additional allowances for work still needed i.e. removing additional nails or screws, or scraping glue off of the studs.

ii. If removed by the homeowner,

1. Contact the insured to determine the total hours spent performing the work,

2. Review photographs to determine if a clean flood cut was made or additional work is needed,

3. Adjust the remove part of the drywall to allow for Federal Minimum Wage for the hours incurred by the insured for removal and make any additional hourly allowances for work still needed i.e. removing additional nails or screws or scraping glue off of the studs

iii. If removed by a non-profit or at no cost to the insured,

1. Review photographs to determine if a clean flood cut was made or additional work is needed,

2. Adjust the remove part of the drywall to zero, and make any additional allowances for work still needed i.e. removing additional nails or screws or scraping glue off of the studs.

iv. If the flood cut removal is being estimated,

1. Remove the incorrect square foot allowances to remove and replace dry drywall,

2. Add a line item for making a flood cut, accounting for removal of category 3 water damaged drywall to the defined height. *Note that flood cut line items usually are calculated on a linier foot basis, make sure you use the perimeter of the floor not ceiling, as the floor will account for door openings. Window openings on a 4' flood cut are balanced by waste calculations.*

2. Flood Cut – Replacement of Drywall

a. Replace the drywall allowance for each room in the estimate with the recommended replacement by linier foot, or adjust the unit cost of the replacement of drywall per square foot to account for the replacement to a flood line.

b. As the newly installed drywall is not likely to have a texture consistent with the existing wall, add any additional line items for texturing, skim coating or additional spackling to obtain a pre loss consistent finish across the entire wall. (*Note, if pre loss conditions in a room contained patched drywall areas or an inconsistent finish, the insured is only owed for a patched or inconsistent finish*)

c. As the replacement of drywall does not account for materials being delivered, in store pick up or additional allowances to get the drywall to the home, make any necessary allowances on a job basis not a room or square foot basis.

14.4 Exhibits

14.4-A Example Line Items – Typical WYO scope for the removal and replacement of drywall for Sandy claims.

14.4-B Sample Line Items – Technical Advisory Work Group recommended scope for the removal and replacement of drywall for Sandy claims.

14.4-C Xactimate Description · Remove and replace 1/2" drywall – hung, taped, floated, ready for paint.

14.4-D Xactimate Description · Tear out wet drywall, cleanup, bag, per LF – to 4' – Cat 3.

14.4-E Xactimate Description – Drywall replacement per LF – up to 4' tall.

14.4-F Xactimate Description · Tear out wet drywall, cleanup, bag, per LF – to 2' – Cat 3.

14.4-G Xactimate Description · Drywall replacement per LF – up to 2' tall.

14.4-H Xactimate Description – Texture drywall – light hand texture.

Exhibit 14.4-A

Typical WYO scope for drywall damage,
Assumes the drywall is dry when removed, and that the entire room or walls are being removed.

The replacement assumes that the entire wall or room is being replaced, and also assumes the materials are an in house or stock item by the contractor.

WYO - IA Typical Scope

DESCRIPTION	QTY	RESET	REMOVE	REPLACE	TAX	O&P	TOTAL
97. R&R 1/2" drywall - hung, taped, floated, ready for paint	151.25 SF		0.47	1.97	39.63	77.50	486.18
50% of the walls, 1 foot above the flood line.							
Totals: WYO - IA Typical Scope					39.63	77.50	486.18

Exhibit 14.4-B

Best practices state that you should use line items that most accurately represent the work you are intending to perform.
The scope below represents appropriate line items for the removal of category 3 flood water damaged drywall up to a 4’ flood cut, and to replace drywall up to a 4’ flood cut.

Technical Advisory Work Group

DESCRIPTION	QTY	RESET	REMOVE	REPLACE	TAX	O&P	TOTAL
98. Tear out wet drywall, cleanup, bag, per LF - to 4' - Cat 3	37.50 LF		6.00	0.00	24.16	47.25	296.41
99. Drywall replacement per LF - up to 4' tall	37.50 LF		0.00	11.42	45.99	89.93	564.17
101. Texture drywall - light hand texture	302.50 SF		0.00	0.56	18.19	35.57	223.17
Totals: Technical Advisory Work Group					88.34	172.76	1,083.75

Line items also exist for flood cuts up to 2’.

Exhibit 14.4-C

Price List Item: DRY1/2 &

5/27/2015
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Description:

1/2" drywall - hung, taped, floated, ready for paint

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	DRY	90.000	80.000 SF/HR	28.125	57.500	1.56
MAT+	DRY1/2	0.291	1.000 SF/SF	15.000	0.850	0.34
MAT+	DRYCBEAD	0.242	19.000 SF/LF	5.000	18.050	0.01
MAT+	DRYMUD	12.075	320.000 SF/BX	10.000	288.000	0.04
MAT+	DRYSCREW	1.757	200.000 SF/LB	5.000	190.000	0.01
MAT+	DRYTAPE	5.233	1,559.000 SF/RL	5.000	1481.050	0.00
MAT+	DRYN	1.392	400.000 SF/LB	5.000	380.000	0.00
RLB-	DMO	55.200	180.000 SF/HR	33.333	120.001	0.47

Costs:	**Lab:** 1.68	**Mat:** 0.41	**Equ:** 0.00	=	2.09
				Labor Burden:	0.35
				Market Conditions:	0.00
				Untaxed Unit Price:	2.44

Definition:

Includes: Drywall, metal corner bead, joint/texture compound (mud), drywall nails, perfotape, grabber screws, and installation labor. Labor cost to remove 1/2" drywall, including screws and/or nails, and to discard in a job-site waste receptacle.
Quality: 1/2" drywall hung, taped, and floated to produce a finish that is ready for paint. For complete skim-coat smooth-surface texture, see item DRY 1/2++.
Note: This item includes the following steps: tape coat, 1st coat, 2nd coat, a third step to prep for a paint finish. The third step may be a final sanding and touch-up, or a sprayed on orange peel type texture. Drywall material components are surveyed as a typical house-stocked price (as opposed to in-store shelf price). Consideration may be needed for delivery outside of a normal service area, small quantities, store pick up, or special circumstances resulting in higher delivery/transportation costs. The estimator should verify that the material allowance is sufficient for the actual material and associated delivery costs.
Average life expectancy 150 years
Average depreciation 0.67% per year
Maximum depreciation 100%

Price List Item: DRY1/2 &

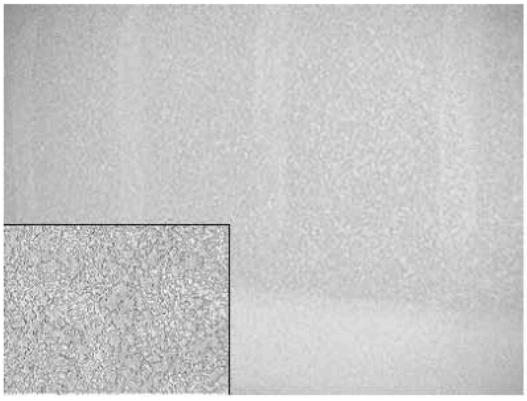

Exhibit 14.4-D

Price List Item: WTRDRYW4S -

5/27/2015

Description:

Tear out wet drywall, cleanup, bag, per LF - to 4' - Cat 3

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB-	CLN-R	55.780	13.433 LF/HR	19.792	10.774	5.18
MAT-	CLNBAG	92.505	136.000 LF/BX	10.000	122.400	0.76

Costs:	**Lab:** 4.18	**Mat:** 0.76	**Equ:** 0.00	=		4.94
				Labor Burden:		1.00
				Market Conditions:		0.06
				Untaxed Unit Price:		6.00

Definition:

Includes: Labor cost to cut and remove and bag wet drywall, including screws and/or nails, in a strip up to 4' tall and to discard in a job-site waste receptacle.
Reference: IICRC S500 3rd Edition standards.
Note: Price includes removal and clean-up of Category 3 water damaged drywall up to 4' high.
No life expectancy data

Exhibit 14.4-E

Price List Item: DRYLF> +

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Page: 1

Description:
Drywall replacement per LF - up to 4' tall

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	DRY	90.000	12.750 LF/HR	28.125	9.164	9.82
MAT+	DRY1/2	0.291	0.250 LF/SF	15.000	0.213	1.37
MAT+	DRYCBEAD	0.242	19.000 LF/LF	5.000	18.050	0.01
MAT+	DRYMUD	12.075	80.000 LF/BX	10.000	72.000	0.17
MAT+	DRYSCREW	1.757	53.330 LF/LB	5.000	50.664	0.04
MAT+	DRYTAPE	5.233	430.000 LF/RL	5.000	408.500	0.01

Costs:	Lab: 8.31	Mat: 1.60	Equ: 0.00	=	9.91
				Labor Burden:	1.51
				Market Conditions:	0.00
				Untaxed Unit Price:	11.42

Definition:
Includes: Drywall, metal corner bead, joint compound (mud), perfotape, drywall screws, and labor to install.
Excludes: Matching existing drywall finish (see items DRY TEX*).
Average life expectancy 150 years
Average depreciation 0.67% per year
Maximum depreciation 100%

Exhibit 14.4-F

Price List Item: WTRDRYWLS

5/27/2015
Page: 1

Description:

Tear out wet drywall, cleanup, bag, per LF - to 2' - Cat 3

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB-	CLN-R	55.780	18.433 LF/HR	19.792	14.785	3.78
MAT-	CLNBAG	92.505	272.500 LF/BX	10.000	245.250	0.38

Costs:	**Lab:** 3.05	**Mat:** 0.38	**Equ:** 0.00	=		3.43
					Labor Burden:	0.73
					Market Conditions:	0.00
					Untaxed Unit Price:	4.16

Definition:

Includes: Labor cost to cut and remove and bag wet drywall, including screws and/or nails, in a strip up to 2' tall and to discard in a job-site waste receptacle.
Reference: IICRC S500 3rd Edition standards.
Note: Price includes removal and clean-up of Category 3 water damaged drywall up to 2 ' high.
No life expectancy data

Exhibit 14.4-G

Price List Item: DRYLF

5/27/2015

Description:
Drywall replacement per LF - up to 2' tall

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	DRY	90.000	17.518 LF/HR	28.125	12.591	7.15
MAT+	DRY1/2	0.291	0.500 LF/SF	15.000	0.425	0.69
MAT+	DRYCBEAD	0.242	19.000 LF/LF	5.000	18.050	0.01
MAT+	DRYMUD	12.075	90.000 LF/BX	10.000	81.000	0.15
MAT+	DRYSCREW	1.757	75.000 LF/LB	5.000	71.250	0.03
MAT+	DRYTAPE	5.233	450.000 LF/RL	5.000	427.500	0.01
RLB-	DMO	55.200	33.500 LF/HR	33.333	22.333	2.47

Costs:	**Lab:** 7.96	**Mat:** 0.88	**Equ:** 0.00	=	8.84
				Labor Burden:	1.66
				Market Conditions:	0.01
				Untaxed Unit Price:	10.51

Definition:
Includes: Drywall, metal corner bead, joint compound (mud), perfotape, drywall screws, and labor to install. Labor cost to cut and remove drywall, including screws and/or nails, in a strip up to 2' tall and to discard in a job-site waste receptacle.
Excludes: Matching existing drywall finish (see items DRY TEX*).
Average life expectancy 150 years
Average depreciation 0.67% per year
Maximum depreciation 100%

Exhibit 14.4-H

Price List Item: DRYTEX +

5/27/2015

Description:

Texture drywall - light hand texture

Assembly Information:

Type	Component	Cost	Direct Yield	SPT Event %	Yield	Unit Price
RLB+	DRY	90.000	255.000 SF/HR	28.125	183.281	0.49
MAT+	DRYMUD	12.075	200.000 SF/BX	10.000	180.000	0.07

Costs:	**Lab:** 0.41	**Mat:** 0.07	**Equ:** 0.00	=		0.48
				Labor Burden:		0.08
				Market Conditions:		0.00
				Untaxed Unit Price:		0.56

Definition:

Includes: Drywall joint compound and labor.
Quality: Light texture with a light trowel or brush finish.
Note: Texture is applied by hand.
Average life expectancy 150 years
Average depreciation 0.67% per year
Maximum depreciation 100%