


U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



MW Lender's Review Panel

AEC & Environmental Review Discussion

Midwest Lenders Conference

Chicago, IL – June 16, 2014

Panelists:

Carl Corrado – Moderator	<i>Great Lakes Financial Group, LP MAP Lender</i>
Staige Miller –	<i>Dominion Due Diligence, 3rd Party PCNA/Environ. Review</i>
Jesse Pasco –	<i>EBI Consulting, 3rd Party PCNA/Environ. Review</i>
Brian Burns –	<i>US. HUD Chicago Multifamily Hub, Construction Analyst</i>
Eddie Davis Jr. –	<i>US. HUD Detroit Multifamily Hub, Construction Analyst</i>

PCNA/Environmental - Overview

- **223f-PCNA Review**
 - Basic Requirements
 - Overview of H2012-27
 - Immediate Repairs
 - Reserve Analysis
 - Lender's Review
 - Insurable Value
 - Accessibility
 - Intrusive Testing
- **Hot Topic Issues – Q/D**
 - Environmental Topics
 - Intrusive Testing
 - Accessibility
 - Reserve Needs Analysis
 - Feasibility
- **Other Programs**
 - 2214(d)4 Applications
 - 223(f) vs. 221(d)4
 - LIHTC/RAD Processing
- **Environmental Review**
 - Requirement Updates
- **Best Practices**


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223(f) Application – Overview

- **Refinance/Acquisition of Existing Multifamily Housing Projects w/ Minor-Moderate Repair** MAP 3.9
 - A/E-Cost Review Firm Application/Processing Req'ts - *Refer to MAP Guide 5.23-5.27, 6.9-6.11 & HN 2012-27/ML 2012-25*
 - Environmental/Val Firm Application/Processing Req'ts - *Refer to MAP Guide ch.7 and 9*
 - 223(f) Refinance with Repairs thresholds - *under defined Sub-Rehab level by MAP Guide, ch. 5.12*

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Physical Assessment



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PCNA – Basic Requirements

- **Purpose:** Define the immediate and long term physical needs of existing properties and provide a plan for financing these physical capital needs.
- **Users:** Borrowers, Lenders, and HUD (Development & Asset Management)
- **Required for:**
 - 223f & 223a7 applications for FHA mortgage insurance
 - 10-year update for existing FHA insured properties
 - Other Multifamily Housing functions, such as:
 - Transfer of Physical Assets (TPA)
 - Partial Payment of Claim (PPC)

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PCNA - The Basics

- **Shelf Life²**
 - **6 months** from Effective Date
 - **Effective Date = Day of Physical Inspection^{1B}**
 - To update an expired PCNA the preparer must re-inspect the property, update the report, and sign a new 3rd Party Certification.^{1B}
 - Section 223a7, an existing PCNA may be accepted if:
 - Effective date less than 2 years ago.
 - HUD approval received.
 - PCNA meets HN 2012-27/ML 2012-25 requirements.
 - Update PCNA is required 10 years after the date of the accepted PCNA.

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PCNA - The Basics

- **Assessor Qualifications**
 - No I-of-I w/ Mortgagor^{1F}
 - Meet ASTM E 2018-08 Appendix X1.1²
 - Varies depending on project type and scope, user needs and risks.⁴
 - PCNA Reviewers are generally licensed architect/engineer or has construction industry experience.^{4, MAP 5.1}
- **Format**
 - Cover Sheet^{1F}
 - Property Info
 - Preparer Info
 - ASTM E 2018-08²
 - Table of Contents²
 - See Appendix 6 of HN2012-27/ML2012-25
 - “substantial, but not exact conformance is acceptable”³

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PCNA - The Basics

- **Required Content^{1B & 1F}**
 - **PIR (Physical Inspection Report)**
 - Assess and report existing Property Condition
 - Identify Immediate Repair Needs, critical & non-critical (including owner proposed repairs/improvements)
 - Replacement & Major Maintenance Needs, including total inflated cost estimate for all items, for a min. of 1-20 years of the loan term.
 - Accessibility Compliance
 - **Statement of Resources & Needs**
 - Lender adjustments to PIR, if any – to be clearly noted for HUD firm application review.
 - Recommended repair cost and reserve deposits

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PCNA – Major Changes, H2012-27

- **PIR Requirements²**
 - Conform to ASTM E 2018-08
 - Outside ASTM E 2018-08 scope
 - Clarification of Accessibility Requirements
 - Proposed Improvements & Upgrades (Owner-elected non-critical repairs)
 - Intrusive Tests & Examinations, *when deemed necessary*
- **Statement of Resources & Needs**
 - Capital Items vs. Operational Expenses²
 - Reserve for Replacement Analysis²
 - 1-20 year Estimate Period, will never be more than 20 years.³
 - Minimum Year-End Balance

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PCNA – Immediate Repairs

Critical Repairs

- ❑ Health & Life/Safety items^{1C}
- ❑ Ingress/Egress Issues^{1B}
- ❑ Prevent Sustaining Occupancy^{1B}
- ❑ Deferred Maintenance Items, on 223f/223a7 refinance transactions^{1F}

Non-Critical Repairs

- ❑ Non-Health & Life/Safety items^{1B}
- ❑ Owner-elected Repairs & Improvements^{1F}
- ❑ Deferred Maintenance Items, on purchase transactions^{1F}
- ❑ Corrective Action Plan Items per Accessibility req'ts(see chart) ^{1C}, with HUD Director approval²

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PCNA – Immediate Repairs

Completion of Repairs^{1B,1F,2}

Critical Repairs

- ❑ Must be completed prior to Endorsement (ie. Life/Safety items), except approved accessibility deficiency items to be completed in CAP. Owner's Certification and evidence of completion required prior to Endorsement. ^{1B}

Non-critical Repairs²

- ❑ May be deferred until after Endorsement, but must be completed within 12 months. Work write-up including schedules for completion and at least 3 acceptable bids on items greater than \$25,000 must be submitted. ^{1F}

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PCNA – Reserve Analysis

Remaining Useful Life (RUL) ²

- PCNA to identify the estimated remaining life and use to estimate RUL of components and primary systems of the building(s). ***RUL does NOT = REL (Remaining Economic Life, Appraisal to identify)**

Long Life Components²

- Identify components with a remaining life beyond the Estimate Period, describe, and estimate RUL.
- Lender should address these when recommending an amortization period and when discussing the property's RUL and potential obsolescence.

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PCNA – Reserve Analysis

Capital Item vs. Operational Expense²

- Some components may be treated as an operations expense or as a capital items to be paid out of reserves. HUD does not specify a standard list of capital items.
- Owner’s discretion should be expressly defined and consistently applied from year to year.
- It is the Lender’s responsibility to confirm the Owner’s policy:
 - is identified in the PCNA regarding which repairs and replacements will be treated as operating expenses.
 - is reasonable and that the PCNA’s R4R schedule and underwritten operating expenses are consistent with that policy for firm application review.

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PCNA – Reserve Analysis

Allowable Disbursements²

(See Chapter 4 of Handbook 4350.1 Rev-2.)

- All disbursement requests shall be compared to the Reserve for Replacement items listed in the PCNA.
- Disbursements will be permitted for emergency and unforeseen needs, at the discretion of HUD review.
- Disbursements for items or categories of items not listed in the PCNA as future repairs and replacements will require Hub Director/Asset approval.

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PCNA – Reserve Analysis

Minimum Balance²

- Total deposits to the R4R should not be less than 105% (or higher percentage for some properties, particularly those older than 30 years) of the total estimated needs for the Estimate Period.
(Total R4R Deposits > Total Inflated Needs)²
- Year end balance of the R4R for each year of the Estimate Period must be at least 5% of the total un-inflated needs for the Estimate Period adjusted for inflation of the given year.
(End Balance, Year 1 > 5% x Total Un-inflated Needs)³
 - Un-inflated Needs = \$1,000,000
 - Year 1: Minimum Balance = \$1,000,000 x .05 = 50,000
 - Year 2: Min = 50,000 x 1.02 = 51,000, assuming 2% inflation
 - Year 3: Min = 51,000 x 1.02 = 52,020... and so on.

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PCNA – Reserve Analysis

Annual Deposit to Reserve for Replacements ADRR²

SOA	Minimum ADRR (PUPA)
223a7	Greater of PCNA recommended or \$250
223f	Greater of PCNA recommended or \$250
221d4	Greater of Formula Method* or \$250

* NC = .006 x Total Structures Cost, or SR = .004 x Mortgage Amount

- For PCNAs not associated with a new application for mortgage insurance, the annual per unit deposit should be an amount sufficient to cover anticipated repair and replacement costs and to place, and maintain, in escrow the minimum balance at the earliest date consistent with the mortgagor's ability to meet all program obligations.
- Waiver of the formula may be requested if formula produces an amount greater than \$500 PUPA. Waiver must be supported by Lender's third party analysis submitted with the firm application, use HUD form - 2.

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PCNA – Reserve Analysis

Constant ADRR

Project: PNA # 001-000000 Units = 174
 Project Name, Location: 6080 W 121st Street PUPA \$1,200
 Building Types: Escalation Method = 0.00% Constant Interest = 3.00% Expense Trend = 3.00%

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
Inflation Needs	\$20,507	\$21,700	\$22,920	\$24,160	\$25,420	\$26,700	\$28,000	\$29,320	\$30,660	\$32,020	\$310,947
Beginning Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$484,814
Annual Deposit	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Year End Bal Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Min Reserve + Interest	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Reserve Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Minimum Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000

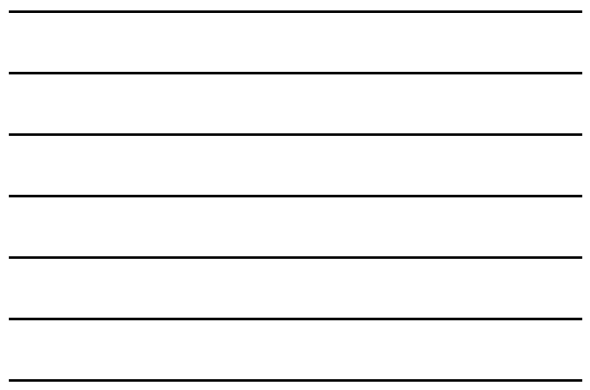
Constant ADRR on 11.20 = \$12,500 PUPA: \$225 % Increase in ADRR: 0.0%
 Escalation Method = 0.00% Constant % Increase in ADRR: 0.00% per PAGA in Notice of 2013-14

ADRR on 11.20 = \$12,500 PUPA: \$225 % Increase in ADRR: 0.0%
 Escalation Method = 0.00% Constant % Increase in ADRR: 0.00% per PAGA in Notice of 2013-14

**Consider Immediate Repairs in Overall Review

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PCNA – Reserve Analysis

MATCH Escalation w/ Inflation

Project: PNA # 001-000000 Units = 504
 Project Name, Location: 6080 W 121st Street PUPA \$437
 Building Types: Escalation Method = 0.00% Constant Interest = 3.00% Expense Trend = 3.00%

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
Inflation Needs	\$20,507	\$21,700	\$22,920	\$24,160	\$25,420	\$26,700	\$28,000	\$29,320	\$30,660	\$32,020	\$310,947
Beginning Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$484,814
Annual Deposit	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Year End Bal Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Min Reserve + Interest	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Reserve Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000
Minimum Balance	\$210,240	\$208,750	\$207,290	\$205,850	\$204,430	\$203,020	\$201,620	\$200,240	\$198,870	\$197,510	\$2,000,000

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 Escalation Method = 0.00% Constant % Increase in ADRR: 0.00% per PAGA in Notice of 2013-14

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**Consider Immediate Repairs in Overall Review

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PCNA – Reserve Analysis

Graduated Annual Contributions²

- **Fixed annual deposits are preferred.**
- **% ↑ ADRR < Compounded Expense ↑.** Percent increase in the deposit for a given year may not exceed the projected percent increases applied to the operating expenses through the years prior to and including that year.
- Lender must provide analysis showing property will have revenue adequate to meet the proposed increases.



3% Expense Trend*	Compounded Over X Years
X = 1	3% Increase
X = 5	12.55% Increase
X = 10	30.48% Increase

*% underwritten by Lender should be used in analysis.

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PCNA – Lender’s Review

Property Obsolescence²

- Mortgage Term < 75% x remaining economic life
 - Lender must review and confirm appropriateness of estimated economic life assessed.
- Lender must reconcile the PCNA and Appraisal to assure that deficient or obsolete components are:
 - Addressed in the Critical or Non-critical Repairs;
 - Properly mitigated by adjustments to rents; and/or
 - Reflected in a shorter mortgage term.
- Appraisal’s value must reflect obsolescence not addressed by repair scope of PCNA.
- **If correction is not economically feasible within repair scope, a 221d4 Sub Rehab should be pursued.**

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PCNA – Lender’s Review

Review of PIR^{1F}

- Verify:
 - Adequate sampling was conducted
 - All repair, replacement, and major maintenance needs over the mortgage term are addressed
 - All cost estimates are reasonable and adequate
- Adjust as necessary:
 - Any repairs that are included in property’s operations budget
 - Only if clear evidence is provided and costs are nominal
- Completion of Repairs
 - Lender is expected to exercise reasonable, independent judgment when recommending completion time of repairs.

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PCNA – 100% Insurable Value

Calculating Insurable Value for 223(f) & 223(a)7, HUD-92329³

- Insurable Value = “replacement cost as new”
 - Market Value is not material to casualty risk insurance
 - See Handbook 4350.1 Chapter 21
- Replacement Cost calculated per building
 - Size the potential claim for each structure, separately.
 - Provide 100% replacement coverage of a partial claim from single event (regardless of FHA insurance).
- Overall Policy > Mortgage Amount
 - The total coverage amount must be at least equal to the lessor of 80% of the total insurable value on HUD 2329.

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MAP Accessibility Compliance

Applicable Requirements²

Project Type	Market Rate	Affordable (Non-Assisted, ie. LIHTC)	Federally Assisted Non-Assisted, ie. LIHTC
1 st Occupancy after 3/13/1991	FHA	FHA	FHA & 504/UFAS
Built between 7/11/1988 - 3/13/1991	None	None	504, UFAS Req'ts
Sub Rehab of projects built after 7/11/1988	None	None	504, UFAS (load bearing wall exception)
Refinance of project built before 7/11/1988***	None	None	504, UFAS Req'ts (load bearing wall & financial/admin. burden exceptions)
All Areas of Public Accommodation	ADA	ADA	ADA & 504, UFAS

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PCNA – Accessibility Compliance

■ Correction of Accessibility Deficiencies²

- All must be included in Corrective Action Plan.
 - In no case may the Department insure such a project without a modification/retrofit plan. The extent and cost of the modifications/retrofits will determine whether the project is feasible as a 223(f) or whether to resubmit it as substantial rehabilitation.¹⁰
- Recommended to be considered Critical Repairs
 - May complete after Endorsement on new insured projects, see requirements on next slide.
 - Deficiencies which are exigent health & safety conditions cannot be deferred.

**LEGAL NOTICE: Corrective Action Plan does not constitute a safe harbor for compliance with FHA, Section 504, or ADA and does not preclude complaints.

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PCNA – Accessibility Compliance

- **Corrective Action Plan²**(Modification/Retrofit Plan^{1D})
 - Addresses all accessibility deficiencies & demonstrates appropriateness of remedies selected.
 - Provides detailed scope of work, cost estimate, & completion schedule for all remedies.
 - If completion is scheduled after Endorsement:
 - Hub Director must approve the plan.
 - Applicable escrow requirements must be met.
 - Remedies must be completed within **12 months**, except for unusual circumstances which require HQ approval.
 - Correction of public and common areas must commence within 30 days of Endorsement^{1D}
 - Unit modifications must commence within 60 days^{1D}

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PCNA – Intrusive Tests

- **When?**
 - Older structures and building components (envelope, mechanical systems, etc.)²
 - Structure and/or components are 30+ years old (**guideline**)²
 - Not replaced/renovated
 - Not well maintained³
 - Not uniquely durable³
- **Why?**^{2, 3}
 - HUD requires intrusive testing as part of PCNA reviews to properly evaluate major building systems and components to the extent required to determine their "Remaining Useful Life" for purposes of supporting long term fully amortizing FHA insured debt.
 - The lender is req'd to ensure that immediate and long term capital needs are identified and adequately funded.^{2, 3}

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PCNA – Intrusive Tests

- **Who?**
 - Needs Assessor with that specific expertise³
 - Qualified, 3rd party³
 - Mortgagor's contractor³
 - Under written obligation to, compensated by, and responsible to the Needs Assessor (or Lender)
 - No Identity of Interest with Mortgagor, sponsor, or managing agent.^{1F}
- **What?**
 - Examination beyond the walk-through inspection (ie. electrical, sewer components)³
 - Written report attached to PCNA²
 - Examiner's qualifications
 - Component description
 - Methodology used
 - Condition Assessment
 - Recommended Repairs
 - Estimated RUL

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Environmental Assessment



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Environmental Review – Overview

- **Phase I ESA Report** - MAP Guide Ch. 9 & ASTM E 1527-13
- **HUD 4128** - Environmental Review
- **Asbestos & Lead Based Paint** - HUD programs require assessment of suspect asbestos throughout any structures, built before 1978 & a potential O&M, pursuant to the requirements of ASTM E 2356-10
- **Floodplain and Noise Assessment**
- **Radon Standards** - Refer to Mortgagee Letter 2013-07 and AARST MAMF-2010
- HUD Environmental Review website: <https://www.onecpd.info/environmental-review/>

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Environmental Review – Phase I

ASTM E 1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

PHASE I ESA SCOPE OF WORK

1. **Site Reconnaissance** of the subject property and a visual survey of the adjacent properties to evaluate the potential for RECs;
2. **Interviews** with past and present owners, operators, and occupants;
3. **Records Review** of historical sources of information and federal, state, tribal and local government records; and,
4. **The Written Report** must include the findings, opinions and conclusions of the EP and supporting documentation. It shall identify any data gaps.



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Environmental Review – Updates

On April 16th, HUD issued in the Federal Register a notice indicating HUD's adoption of the updated ASTM E 1527-13 standard effective 05-16-14

MAJOR AREAS OF CHANGE

- Modified definitions for a Recognized Environmental Condition (REC) and Historical Recognized Environmental Condition (HREC)
- New term/definition introduced: Controlled Recognized Environmental Condition (CREC)
- Vapor Migration
- Regulatory Agency File Reviews

****NOTE: None of these are considered major changes for HUD financing****

MINOR AREAS OF CHANGE

- User Responsibilities
- Industrial/Manufacturing Properties
- Appendices



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Environmental Review – Phase I, rev

CHANGES IMPACTING PHASE I ESA REPORTS

- Historical Recognized Environmental Condition (HREC)

OLD Definition (ASTM 05)

- Was added as part of the 2005 ASTM revisions
- "An environmental condition in the past which would have been considered a REC but which may or may not be considered a REC currently."

NEW Definition (ASTM 13)

- "A past release of any hazardous substances or petroleum products that has occurred in connection with the property and **has been addressed** to the satisfaction of the applicable regulatory authority or meeting **unrestricted residential use** criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls)."

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Environmental Review – Phase I, rev

CHANGES IMPACTING PHASE I ESA REPORTS

- New Controlled REC (CREC) Definition –

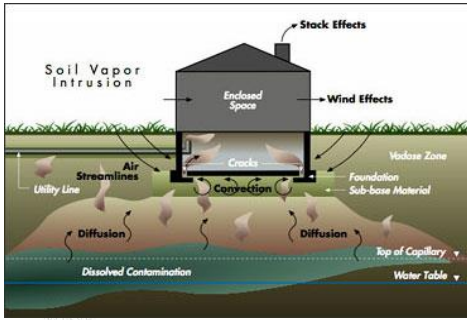
"a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a NFA letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls)... a CREC shall be listed in the Findings Section of the Phase I ESA report, and as a REC in the Conclusions Section of the...report."



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Environmental Review – Vapor



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Environmental Review – Phase I, rev

CHANGES IMPACTING PHASE I ESA REPORTS

- Regulatory File Reviews (Section 8.2.2)
 - If the subject property or any adjoining property are identified in government records search, then pertinent regulatory files and/or records associated with the listing should be reviewed by the EP.
 - If the files are not reviewed by the EP, then the EP will have to provide justification.
 - The EP may review files available from other sources, such as onsite records, local records and interviews with local officials.
 - Documentation must be included.
 - The new standard may result in an increase in file reviews.
 - Based on the fact that HUD has required a Tier 1 Vapor Encroachment Screening (VES) since 2009, a dramatic increase in file reviews should not occur since file reviews are a common component of a VES.

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Environmental Review – Phase I, rev

CHANGES IMPACTING PHASE I ESA REPORTS - QUESTIONNAIRES

- New Questionnaires – New questions were identified in Appendix X3 of ASTM E 1527-13 so old questionnaires can no longer be used!
- User Questionnaire is a requirement of ASTM and AAI requires that these tasks be performed by or on behalf of a party seeking to qualify for a Landowner Liability Protection to CERCLA liability.
- A User Questionnaire cannot be completed by a HUD MAP Lender per the HUD MAP Guide.
- No completed User Questionnaire = Data Gap in the Phase I ESA.
- Other questionnaires are completed as part of Interviews with past and present owners, operators, and occupants of the property.
- The purpose of the Questionnaires is to assist the Environmental Professional with identifying RECs in connection with the property.

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Environmental Review – Phase I, rev

ASTM E 1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

SUMMARY POINTS OF ASTM E 1527-13

- Must be signed by an Environmental Professional per EPA AAI definition and Appendix X2 of ASTM E 1527-13
- Should be formatted as specified in Appendix X4 of ASTM E 1527-13
- An ASTM User Questionnaire should be utilized; it offers the User additional defenses under CERCLA
- The findings section should include the identification or absence of RECs, Historic RECs, Controlled RECs and de minimis conditions
- The Environmental Professional should provide an opinion on whether the findings present a REC and identified RECs/CRECs should be stated in the conclusions of the report
- ASTM E 1527-13 report is valid for 180 days from the date of the site inspection
- Completion of an ESA to ASTM E 1527-13 will comply with AAI rule

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Environmental Review – General

ASTM NON-SCOPE CONSIDERATIONS

- Asbestos, Lead, Radon
- HUD NEPA Compliance
 - Historic Preservation
 - Floodplain Management
 - Wetlands Protection
 - Endangered Species
 - Noise Analysis
 - Explosive/Flammable Hazards
 - Coastal Barrier Resources
 - Coastal Zone Management
 - Sole Source Aquifers
 - Airport Clear Zones



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Environmental Review – Radon

RADON BASICS

- The EPA has identified radon gas zones throughout the country.
 - **Zone 1** – High Radon Gas Potential (> 4.0 picocuries per liter pCi/L)
 - **Zone 2** – Moderate Radon Gas Potential (between 2.0 and 4.0 pCi/L)
 - **Zone 3** – Low Radon Gas Potential (< 2.0 pCi/L)
- The EPA guidelines recommend mitigation for residences with radon concentrations between 2 and 4 pCi/L.
- Short-term testing is required per the ML. Testing is performed for between 48 and 96 hours and then the canisters/devices are retrieved and analyzed by the laboratory.
- Testing is non-invasive.



Charcoal Canister



Continuous Radon Monitor



Electret Ion Chamber

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Environmental Review – Radon

EPA Map of Radon Zones

Zone 1
Zone 2
Zone 3

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Environmental Review – Radon

RADON REQUIREMENTS - HUD ML 2013-07 (or Notice H 2013-03)

- For a 223(f) refinance transaction, on-site testing is required for properties located in an EPA Radon Zone 1 or 2.
 - It is not required for a 223(a)(7) but is encouraged.
 - It is not required for healthcare facilities.
- Testing protocols generally follow the AARST MAMF-2010 Protocol for Conducting Radon and Radon Decay Measurements in Multifamily Buildings, Section III
 - Available at: http://www.aarst.org/standards/messages/296/AARST_MAMF_DraftClean_06-09opt-2127.pdf
- Major exception is HUD requires at least 25% of ground floor units be tested (Plus 10% of upper floors). Note some states require 100% ground floor testing (Illinois, Iowa, Maine and Ohio). This list is expected to grow during CY 2014.

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Environmental Review – Radon

RADON REQUIREMENTS

- Testing needs to be completed by an National Radon Proficiency Program (NRPP) or National Radon Safety Board (NRSB) licensed professional
- Testing must be completed within 1 year prior to application submission
- Some states have licensing programs
- 221(d)(4) New Construction requires radon resistant construction design based on EPA Radon Zone and post-construction testing
- If mitigation is required, it needs to conform to the following:
 - ASTM E 2121-11**, Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings; or
 - ASTM E 1465-08a**, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings

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Environmental Review – Examples

■ Asbestos

- ❑ Old, existing friable pipe insulation in poor physical condition - needs to be remediated and removed



■ Lead Based Paint (LBP)

- ❑ For conversions and major rehabs, repair scope should include remediation and abatement of existing LBP



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U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



BREAK

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT



Hot Topics: Questions and Discussion

Hot Topics Issues – Environmental

- **Question: Radon Standards** - What critical clarifications, FAQs and/or best practices have been issued/recommended since the Radon ML 2013-07 went into effect on 5/31/2013
 - Professional must complete testing and sign the reports/mitigation reports.
 - Approx. mitigation cost estimates = \$2,000-\$2,500 per unit; Post mitigation testing is required to indicate that mitigation was successful and needs to be completed by certified personnel.
 - 10% upper floors testing is required in all building types (with the exception of the second floor of townhouse units). ***Be aware that some states require 100% testing.**
 - Intrinsic building design may negate the need to complete radon testing (ie. open air parking level); Radon Professional would have to state this; What about building materials containing radium?

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Hot Topics Issues – Environmental

- **Question: Radon Standards** - What critical clarifications, FAQs and/or best practices have been issued/recommended since the Radon ML 2013-07 went into effect on 5/31/2013
 - Averaging of 2 tests is allowed but no more (must be same units).
 - If 25% unit testing is conducted, then all units in an elevated building must be mitigated. If 100% unit testing is conducted, then unit by unit mitigation is allowed.
 - ***Again, Be aware that some state requirements may be more strict than the standards set forth in ML 2013-07 (or Notice H 2013-03).**

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Hot Topics Issues – Intrusive Tests

- **What does HUD mean by the term “Intrusive” examination?**
- Intrusive means the assessor approaches the CNA assignment with tools and methods needed to effectively evaluate a system or component including those which may not be “readily accessible, easily visible.” He/she does this by:
 - opening or gaining access to closed panels, or compartments;
 - looking underneath, in the attic, inserting a probe w/ proper tools;
 - turning on, operating, opening and closing, windows, doors, fixtures, appliances or equipment to see if they work;
 - using his/her professional judgment, given available records and the age and condition of the property, to examine portions or components of a property hidden from view;
 - identifying the need for further testing with specialized equipment and/or a technical specialist when conditions observed by the assessor or maintenance staff warrant, or when knowledge of components and age of those components may require and when the assessor lacks the specialized equipment or the technical expertise to address the need directly.

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Hot Button Issues - Accessibility

■ When do Accessibility req't's go into effect

Project Type	Market Rate	Affordable (Non-Assisted, ie. LIHTC)	Federally Assisted Non-Assisted, ie. LIHTC
1 st Occupancy after 3/13/1991	FHA	FHA	FHA & 504/UFAS
Built between 7/11/1988 - 3/13/1991	None	None	504, UFAS Req'ts
Sub Rehab of projects built after 7/11/1988	None	None	504, UFAS (load bearing wall exception)
Refinance of project built before 7/11/1988***	None	None	504, UFAS Req'ts (load bearing wall & financial/admin. burden exceptions)
All Areas of Public Accommodation	ADA	ADA	ADA & 504, UFAS

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Hot Button Issues – RR Analysis

■ With the minimum balance to the reserve for replacement requirements set forth in the ML2012-25, will it not be likely that properties will need to fund substantial initial deposits to cover the costs of larger repairs in the later years of the Estimate Period?

- Perhaps, but not necessarily. It is important for the PCNA provider and the Lender to work together to formulate reserve deposits that are achievable by the owner and fund the needs assessed over the Estimate Period – at is acceptable to HUD.

* See Replacement Reserve Funding Schedule Example



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Hot Button Issues – RR Analysis

■ What is the difference between Remaining Useful Life (RUL) and Remaining Economic Life (REL)? Why is an appraisal term being addressed by the PCNA?

- RUL is determined by the Needs Assessor based of age, replacements, and maintenance of various building systems. Refer to the Appraisal for an overall REL of the property. **The RUL and REL do NOT have to match.**

■ Replacement Reserve Deposits – Constant vs. Variable

■ Capital Needs Item vs. Operational Expense



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Hot Button Issues – RR Analysis

Project: FWS & SOX XXXXX UNEN - 004
Project Name, Location: ADRM - 5201-205 PUPA \$4.7M

MATCH Escalation w/ Inflation

YEARS 1 - 10											
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Inflation Escalation											\$1,798,441 % 2.5%
Inflation Escalation											\$1,798,441 % 2.5%
Regulatory Escalation											\$1,798,441 % 2.5%
Annual Escalation											\$1,798,441 % 2.5%
Year-Over Escalation											\$1,798,441 % 2.5%
Min Escalation											\$1,798,441 % 2.5%
Maximum Escalation											\$1,798,441 % 2.5%
Escalation Factor = 1.025%											
Interest = 1.025%											
Regulator Demand = 1.025%											
% Increase in ADRM = 20.0%											
50% OR More PUPA to Unen 4 2012-23											

Increase Threshold

YEARS 11 - 20											
2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	TOTAL
Inflation Escalation											\$1,798,441 % 2.5%
Inflation Escalation											\$1,798,441 % 2.5%
Regulatory Escalation											\$1,798,441 % 2.5%
Annual Escalation											\$1,798,441 % 2.5%
Year-Over Escalation											\$1,798,441 % 2.5%
Min Escalation											\$1,798,441 % 2.5%
Maximum Escalation											\$1,798,441 % 2.5%

****Consider Physical Needs, Min. Balance, and Immediate Repairs in Overall Review**

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Hot Button Issues – Feasibility

- **When is it necessary to address Feasibility constraints– Consider the following:**
 - ❑ All review elements – Physical, Environmental, Valuation, Credit, Financial, and Mgt./Operation – have to be considered.
 - ❑ Physical Work Scope – What repairs are necessary/planned to provide decent, safe, and sanitary housing for the loan term?
 - ❑ Does the work scope scale require professional construction coordination/design services?
- **Consider the Main Purpose – to Measure, Assess Risk !!**

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Hot Button Issues – Feasibility

- **223(f) vs. 221(d)4, MAP 5.12 -Substantial Rehab**
 1. The replacement of two or more major building components, or **Major Building Component** refers to the importance of the component and the extent of replacement.
 - a) The component must be significant to the building and its use and normally be expected to last the useful life of the structure, and not be minor or cosmetic. **Examples of major components: roof sheathing, rafters, framing members. Examples of minor components: shingles, built-up-roofing.**
 - b) Total replacement of major components is not required, but at least 50% of the component must be replaced.

****NOTE: Building Systems:** Exterior Envelope (doors, windows, roof, exterior walls), Structural system, Plumbing system, Electrical system, Mechanical (HVAC) system. See LHCT Pilot Program

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Hot Button Issues – Feasibility

- **223(f) vs. 221(d)4, MAP 5.12 -Substantial Rehab**
- 2. Costs which exceed the greater of:
 - a) 15% (exclusive of any soft costs) of the property's replacement cost (fair market value) after completion of all required repairs, replacements, and improvements,
 - b) \$6,500 per dwelling unit (adjusted by HUD's authorized high cost percentage) **Notice H 13-27**, or
 - c) 20% of the mortgage proceeds applied to rehabilitation expenses.

NOTE: Estimates for determining the cost for substantial rehabilitation must include general requirements and fees for contractor's general overhead and profit, bond premium, borrower's and contractor's other fees and design architect and supervisory architect. However, when determining the eligibility of Section 223(f) projects, include only the direct repair costs, and when necessary, separate the soft cost general requirements and fees.

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Other Programs



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Other Programs – Overview

- **221d4 New Construction and Substantial Rehabilitation Multifamily Housing Projects**
 - A/E-Cost/Environmental Processing Requirements
- **LIHTC 223f Pilot– Moderate Rehabilitation**
 - Application Processing Requirements
- **RAD New Const./Sub-Rehabilitation**
 - A/E-Cost/Environmental Processing Requirements

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221(d)4 Application – Overview

■ New Construction/Substantial-Rehab of Multifamily Housing Projects MAP 3.5

- ❑ Development Team Member - Roles
- ❑ A/E-Cost Review Firm Application/Processing Req'ts - *Refer to MAP Guide 5.1-5.22, 6.1-6.8, ch.12*
- ❑ Environmental/Val Firm Application/Processing Req'ts - *Refer to MAP Guide ch.7 and 9*
- ❑ 221(d)4 Repair/Rehab thresholds - *Sub-Rehab levels defined in MAP Guide, ch. 5.12*

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221(d)4 Application – Overview

■ Development Team Members – Roles

- ❑ **MAP Lender/Mortgagee** - Acts as the coordinator of the Project Team, communicates with the government agency (U.S. Dept. HUD) and underwrites the firm financing application.
- ❑ **Sponsor/Mortgagor** – Owner/Borrower and/or management of subject property. Lender's client.
- ❑ **Architects/Engineers** - Licensed design professional involved in project from early schematics to occupancy. Must be reliable in developing site and building design, code compliance, and cost efficiency. Owner's clients

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221(d)4 Application – Overview

■ Development Team Members – Roles

- ❑ **General Contractor** - Construction coordinator. Needs to get involved as early as possible in order to establish appropriate bidding/construction costs and logistics once project design develops. Owner's client.
- ❑ **3rd Party Reviewer** - Prepares 3rd Party Reports for A/E Cost reviews per MAP guidelines. Functions as a continuous liaison between mortgagor and the architect. Lender's Client.
- ❑ **HUD Construction Analyst** – Reviews Architectural and Cost exhibits including 3rd Party Reports. Verifies compliance with Federal Guidelines and HUD Regulations.

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221(d)4 Application – vs. 223(f)

■ Substantial Rehabilitation, MAP 5.12 -Substantial Rehab

1. The replacement of two or more major building components, or
Major Building Component refers to the importance of the component and the extent of replacement.
 - a) The component must be significant to the building and its use and normally be expected to last the useful life of the structure, and not be minor or cosmetic. Examples of major components: roof sheathing, rafters, framing members. Examples of minor components: shingles, built-up-roofing.
 - b) Total replacement of major components is not required, but at least 50% of the component must be replaced.

****NOTE: Building Systems:** Exterior Envelope (doors, windows, roof, exterior walls), Structural system, Plumbing system, Electrical system, Mechanical (HVAC) system. See LIHTC Pilot Program

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221(d)4 Application – vs. 223(f)

■ Substantial Rehabilitation, MAP 5.12 -Substantial Rehab

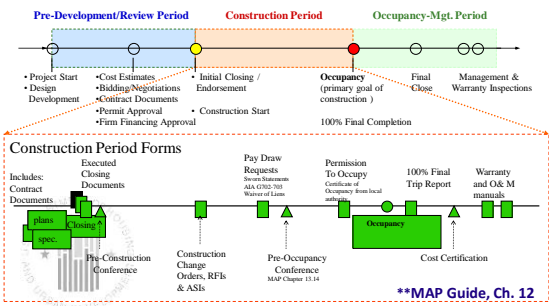
2. Costs which exceed the greater of:
 - a) 15% (exclusive of any soft costs) of the property's replacement cost (fair market value) after completion of all required repairs, replacements, and improvements,
 - b) \$6,500 per dwelling unit (adjusted by HUD's authorized high cost percentage) **Notice H 13-27**, or
 - c) 20% of the mortgage proceeds applied to rehabilitation expenses.

NOTE: Estimates for determining the cost for substantial rehabilitation must include general requirements and fees for contractor's general overhead and profit, bond premium, borrower's and contractor's other fees and design architect and supervisory architect. However, when determining the eligibility of Section 223(f) projects, include only the direct repair costs, and when necessary, separate the soft cost general requirements and fees.

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Project Application – Schedule



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223(f) Application – LIHTC Pilot

■ Review Processing for LIHTC Applications, MAP 5.28 & LIHTC Pilot Guide

- Revisions to AE/Cost Processing-
 - Schematic Drawings may be submitted at Firm Application
 - Static footprint of building(s) on surveyed site plan
 - Gross building & net residential square footage
 - Unit layouts for each major unit type
 - Sufficient detail to determine:
 - Davis-Bacon Wage rate classification, as required
 - Compliance with accessibility requirements
- Development team members must have adequate HUD experience
- LIHTC Moderate Rehab program limited to max. of \$40,000 per unit and compliance w/ building rehab work scope.

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RAD Program

■ Review Processing for RAD Applications

- Refer to **HN 2012-20 (RAD Underwriting Notice) & www.Hud.gov/rad**
 - RAD is an OAHF program converting public housing’s subsidy source from ACC (Section 9) to PBRA or PBV (Section 8). It is not an FHA-insured mortgage program or SOA.
 - For RAD public housing and mod-rehab conversions pursuing FHA-financing, current HQ guidance is that all conversions, regardless of the SOA, must provide a **R**PCA. This report is MAP compliant, but its scope differs from our traditional PCNA report as it includes extensive consideration of green components and suggests early replacement based upon payback periods.
 - Owners and lenders should **NOT** order a “regular” MAP compliant PCNA as both Multifamily Housing Development (as FHA) and OAHF (as the RAD program) will not accept its findings as the RAD program requires the MAP compliant **R**PCA.

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RAD Program

■ Review Processing for RAD Applications

- All other AEC processing is 100% MAP Guide, normal, standard, etc. If a RAD conversion is seeking an FHA-insured mortgage, it must meet all MAP Guide regulations and use the **R**PCA’s recommendations for reserves, repairs, etc. (Just like we do with a “regular” PCNA).
- **Project Capital Needs Assessment (PCNA) Requirements, HN2012-20-IV.G:** For public housing and Mod-Rehab transactions, the RAD program requires submission of a RAD-specific standard Physical Condition Assessment (PCA) report that meets the requirements detailed in 5 Section 1 of PIH Notice 2012-32. This PCA report meets all the criteria of the MAP Guide PCNA report and is to be submitted in lieu of the MAP Guide PCNA, with an update if required in order to be current at the time of the application for FHA mortgage insurance. [...]For the purposes of FHA underwriting, the cost of developing this RAD PCA report is mortgage-able.

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Best Practices



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Best Practices

Preparation for Site Visit, MAP Appendix 5G

- **Lender** - Identify if project loan is currently in HUD portfolio or not
 - RR balances
 - Recent REAC Inspections
- **Borrower** – Address any property management/maintenance concerns, rough immediate repair ideas, owner electives.
- **Physical Repair/Maintenance History** – obtain costs and time of recent capital replacements (Appliances, Cabinets, Carpets, etc.)
- **Site information** – Property location, building type(s), unusual characteristics

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Best Practices

Sampling Method, MAP Appendix 5G

- Property Inspection Method must be explained in the report
- Lender prepares **Dwelling Unit Breakdown** including unit count and unit areas for each structure
 - Needs Assessor should confirm unit breakdown during inspection for accuracy
- Lender submits estimate of the Gross Floor Area for each structure based on the best estimate of the Needs Assessor

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Best Practices

Content, MAP Appendix 5G

- Provide Comprehensive Physical Description of Property.
 - **Site information** – Property location, building type(s), site and utility characteristics.
 - **Building elements** - Include comprehensive summary description of all building systems and elements.
- Immediate Repairs
 - Provide detailed Critical and Non-Critical Repair Scopes
- Site applicable Federal, State, and Local Codes used in review.

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Best Practices

Format

- **Be Clear** - Provide Organization and Clarity in each PCNA Report
 - **Sections** – Provide chapter separators between report content and supporting appendix information
 - **Text font** – Use 10 point or greater, where appropriate
 - **Margins** – Use less than 1.5" left and right sides
 - **Paper Sizing** - Consider 11.5 x 17" paper for RR Analysis layout
 - **Submit electronic file** along with **ONE** Hardcopy to HUD
 - **PRINT DOUBLED SIDED WHEN POSSIBLE**
 - **Hub's Request**, check with other HUD offices

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Best Practices – Examples

Property Condition Summary

- Breakdowns component conditions at a glance

Section Name	Condition	Count	Area	Cost	Max Cost
SITE CONDITIONS					
1.1 Site Access and Easements					
1.2 Driveway and Parking				\$10,000	\$10,000
1.3 Site Assessment & Landscaping				\$100	\$100
1.4 Utilities					
1.5 Other Hazards				\$1,000	\$1,000
BUILDING CONDITIONS					
2.1 Exterior					
2.2 Superstructure					
2.3 Building Envelope					\$1,000
2.4 Interior & Finish					
2.5 Roofing					
2.6 Mechanical					
2.7 ADA Compliance				\$57,000	\$57,000
MECHANICAL & COMPONENTS					
3.1 HVAC				\$1,000	\$1,000
3.2 Plumbing				\$1,000	\$1,000
3.3 Electrical					
3.4 Fire/Life Safety				\$11,000	\$11,000
3.5 Elevator					
MATERIAL CODE VIOLATIONS					
4.0 Code					
OTHER STRUCTURES, ADVERTISEMENTS, SPECIAL INTEREST ITEMS					
5.0 Other					
			TOTALS	\$86,000	\$86,000

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Best Practices – Examples

Repair Description

- Very important to have complete detailed descriptions, and address any underlying causes

Repair/replace rusted exterior metal stairs/stringers Need more details!
Where?
How many?

Install ADA door lever hardware to the mobility impaired resident units - 305, 307, 205, 207, 105, 107 to include the exterior entry and interior doors

Gives specifics on where and what needs to be done



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Best Practices – Examples

Provide Site Plan layout for reference

Areas of site repairs

Building-unit designations

Unit #	Unit Address	Unit Address	Unit Address
112	215	217	219
114	215	217	219
116	215	217	219
118	215	217	219
120	215	217	219
122	215	217	219
124	215	217	219
126	215	217	219
128	215	217	219
130	215	217	219

Unit Size	With W/D	Without W/D
1 Bedroom	855.00	850.00
2 Bedroom	1,020.00	985.00
3 Bedroom	1,205.00	1,170.00
4 Bedroom	1,355.00	1,320.00

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Best Practices – RR Summary Ex.

TABLE 3a - SUMMARY FUNDING SCHEDULE FOR 37-YEAR REPLACEMENT RESERVES

Project: 65286
Address: 15154 TRIN
Rising #:
Project Type: RR
Rising Name: 65286
Rising Type: RR

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total																						
Annual Repair Reserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Annual Repair Reserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Common Issues – Life Safety



GFCI outlet needed at washer/dryers
Also required at all kitchen & bathroom outlets

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Physical Issues – Site Conditions

■ Address Pavement



Patch repairs, full replacement, seal coat...
Silicate bids from a professional as necessary.

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Common Issues – Site Conditions

■ Erosion/Drainage



Redesign and excavate for better drainage away from structures – revise downspout design layout.
Hire professional to design as necessary.

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Physical Issues – Building Envelope

Roofing



Replace roofing, clean/replace gutters.
Solicit bids from a professional as necessary.

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Physical Issues – Building Envelope

Masonry



Tuck pointing: Before & After

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Physical Issues – Building Envelope

Masonry



Rusted lintel needing replacement.
Hire professional engineer & solicit bids, as necessary.



New lintel in place

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Physical Issues – Building Envelope

■ Exterior Siding



Repaint, repair, reseal, or replace – verify material

Check for moisture infiltration and **conduct intrusive tests as necessary**



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Physical Issues – Building Envelope

■ Fenestrations (Windows/Doors/Openings)



Remove and replace caulk, replace window as necessary. Check for moisture infiltration and **conduct intrusive tests as necessary**



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Sources & References

1. **MAP Guide - ch. 3, 5, 6, 9, 12, Appendices**
 - A. Section 3.9
 - B. Section 5.26
 - C. Section 5.27
 - D. Appendix 5C
 - E. Appendix 5D
 - F. Appendix 5G
2. **HN 2012-27/ML 2012-25**
3. **FAQ for HN 2012-27/ML 2012-25 (2/5/2013); & FAQ CNA Guidance dated 5/15/2014.**
4. **ASTM E 2018-08**, Standard Guide for PCA: Baseline Property Condition Assessment Process
5. **Notice H 13-27**

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References - Accessibility



Accessibility Guidelines

- Fair Housing Act (FHA)
 - <http://www.huduser.org/publications/pdf/fairhousing/fairintro.pdf>
- Section 504 of the Rehabilitation Act of 1973 (504)
 - <http://www.hud.gov/offices/fheo/disabilities/sect504.cfm>
- Uniform Federal Accessibility Standards (UFAS)
 - <http://www.access-board.gov/ufas/ufas-html/ufas.htm>
 - <http://www.hud.gov/offices/fheo/library/UFASAccessibilityChecklistforPHAs-5-7-08.pdf>
- Americans with Disabilities Act of 1990 (ADA)
 - <http://www.ada.gov/pubs/ada.htm>
 - <http://www.access-board.gov/adaag/html/adaag.htm>



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References – Environmental

References for information in the Panel Discussion includes:

- **MAP Guide** – Chapter 9 Environmental Review and Requirements
- **ASTM E 1527-13**: Standard Practice for Environmental Site Assessments: Phase I ESA Process
- **ASTM E 2600-10**: Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions
- **Mortgagee Letter 2013-07**: HUD Office of Multifamily Development Radon Policy Letter
- **ANSI-AARST MAMF-2010**: Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings
- **ASTM E 2356-10**: Standard Practice for Comprehensive Building Asbestos Surveys
- **ASTM E 2308-10**: Standard Guide for Limited Asbestos Screens of Buildings

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PCNA – Reserve Analysis

Project:					Constant ADRR			
FHA # XXX-XXXX	Units = 174	IDRR =	\$219,240	per unit	\$1,260	Inflation Factor =	2.00%	Firm review
Project Name, Location		ADRR (1-10) =	\$87,000	PUPA	\$500	Interest =	1.00%	
Building types		Escalation factor =	0.00%	Constant		Expense Trend =	3.00%	

YEARS 1 - 10	2014 Year 1	2015 Year 2	2016 Year 3	2017 Year 4	2018 Year 5	2019 Year 6	2020 Year 7	2021 Year 8	2022 Year 9	2023 Year 10	TOTAL
Un-inflated Needs	\$22,323	\$47,523	\$72,723	\$130,223	\$135,356	\$138,606	\$101,056	\$74,523	\$34,523	\$9,823	\$766,679 ***rev.
Inflated Needs	\$22,323	\$48,712	\$76,403	\$140,237	\$149,406	\$156,819	\$117,195	\$88,586	\$42,063	\$12,268	\$854,012 ***rev.
Beginning Balance	\$219,240	\$286,756	\$328,295	\$342,281	\$291,934	\$231,823	\$163,624	\$134,764	\$134,509	\$181,241	
Annual Deposit	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	\$87,000	
Year-End RR Balance	\$283,917	\$325,044	\$338,892	\$289,044	\$229,528	\$162,004	\$133,429	\$133,178	\$179,446	\$255,973	
RR Balance + Interest	\$286,756	\$328,295	\$342,281	\$291,934	\$231,823	\$163,624	\$134,764	\$134,509	\$181,241	\$258,533	
Per/Unit Balance	\$1,648	\$1,887	\$1,967	\$1,678	\$1,332	\$940	\$775	\$773	\$1,042	\$1,486	
Minimum Balance	\$59,470	\$60,660	\$61,873	\$63,110	\$64,373	\$65,660	\$66,973	\$68,313	\$69,679	\$71,073	

Constant	ADRR (yr 11-20) =	\$91,350	PUPA=	\$525	% Increase in ADRR=	5.0%	Increased Constant
	Escalation factor =	0.00%	Constant		MAX % Increase in ADRR=	30.48%	per FAQ's to Notice H 2012-27

YEARS 11 - 20	2024 Year 11	2025 Year 12	2026 Year 13	2027 Year 14	2028 Year 15	2029 Year 16	2030 Year 17	2031 Year 18	2032 Year 19	2033 Year 20	TOTAL	Years 1-20 Total
Un-inflated Needs	\$38,073	\$22,323	\$32,323	\$55,023	\$98,656	\$71,406	\$32,956	\$22,323	\$27,323	\$22,323	\$422,729	\$1,189,408
Inflated Needs	\$48,737	\$29,288	\$43,472	\$75,850	\$139,401	\$103,417	\$48,923	\$33,967	\$42,616	\$35,688	\$601,359	\$1,455,371
Beginning Balance	\$258,533	\$304,157	\$369,881	\$421,937	\$441,811	\$397,698	\$389,487	\$436,233	\$498,552	\$552,759		**Per HUD rvw. of PCNA
Annual Deposit	\$91,350	\$91,350	\$91,350	\$91,350	\$91,350	\$91,350	\$91,350	\$91,350	\$91,350	\$91,350		\$8,364.20
Year-End Balance	\$301,146	\$366,219	\$417,759	\$437,437	\$393,760	\$385,631	\$431,914	\$493,616	\$547,286	\$608,421		
RR Balance + Interest	\$304,157	\$369,881	\$421,937	\$441,811	\$397,698	\$389,487	\$436,233	\$498,552	\$552,759	\$614,505		
Per/Unit Balance	\$1,748	\$2,126	\$2,425	\$2,539	\$2,286	\$2,238	\$2,507	\$2,865	\$3,177	\$3,532		Inflated needs/unit, Yrs. 1-20
Minimum Balance	\$72,494	\$73,944	\$75,423	\$76,931	\$78,470	\$80,039	\$81,640	\$83,273	\$84,938	\$86,637		

****Consider Immediate Repairs in Overall Review**



PCNA – Reserve Analysis

**MATCH Escalation
w/ Inflation**
2% – 2.5%

Project:															
FHA # XXX-XXXX	Units = 504	IDRR =	\$592,572	per unit	\$1,176	Inflation Factor =	2.50%								Firm
Project Name, Location		ADRR =	\$220,248	PUPA	\$437	Interest =	1.25%								
Building types						Expense Trend =	3.00%								

YEARS 1 - 10	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	TOTAL
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
Un-inflated Needs	\$0	\$184,220	\$48,333	\$68,946	\$169,003	\$205,286	\$236,485	\$294,562	\$319,774	\$231,834	\$1,758,443 *Yr. 2 rev.
Inflated Needs	\$0	\$187,905	\$50,286	\$73,166	\$182,934	\$226,652	\$266,321	\$338,360	\$374,667	\$277,063	\$1,977,354
Beginning Balance	\$592,572	\$822,980	\$871,590	\$1,065,861	\$1,245,251	\$1,321,748	\$1,361,090	\$1,367,066	\$1,306,643	\$1,215,331	
Annual Deposit	\$220,248	\$225,754	\$231,398	\$237,183	\$243,113	\$249,190	\$255,420	\$261,806	\$268,351	\$275,060	
Year-End RR Balance	\$812,820	\$860,829	\$1,052,702	\$1,229,878	\$1,305,430	\$1,344,286	\$1,350,189	\$1,290,512	\$1,200,327	\$1,213,328	
RR Balance + Interest	\$822,980	\$871,590	\$1,065,861	\$1,245,251	\$1,321,748	\$1,361,090	\$1,367,066	\$1,306,643	\$1,215,331	\$1,228,494	
Per/Unit Balance	\$1,633	\$1,729	\$2,115	\$2,471	\$2,623	\$2,701	\$2,712	\$2,593	\$2,411	\$2,437	
Minimum Balance	\$226,977	\$232,651	\$238,468	\$244,429	\$250,540	\$256,803	\$263,224	\$269,804	\$276,549	\$283,463	
			ADRR (yr 11 min.) =	\$281,936	PUPA=	\$559	% Increase in ADRR=	28.0%			
			Escalation factor =	2.50%			MAX % Increase in ADRR=	30.48% per			FAQ's to Notice H 2012-27

Increase Threshold

YEARS 11 - 20	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	TOTAL	Years 1-20 Total
	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20		
Un-inflated Needs	\$282,124	\$291,675	\$300,401	\$341,402	\$259,677	\$262,121	\$262,121	\$245,788	\$256,449	\$279,336	\$2,781,094	\$4,539,537
Inflated Needs	\$343,908	\$362,662	\$380,982	\$441,640	\$342,638	\$352,781	\$359,836	\$344,162	\$366,273	\$406,940	\$3,701,822	\$5,679,176
Beginning Balance	\$1,228,494	\$1,181,104	\$1,121,269	\$1,049,452	\$922,819	\$902,528	\$879,591	\$857,298	\$858,873	\$846,563		
Annual Deposit	\$281,936	\$288,984	\$296,209	\$303,614	\$311,205	\$318,985	\$326,959	\$335,133	\$343,512	\$352,099		
Year-End Balance	\$1,166,522	\$1,107,426	\$1,036,496	\$911,426	\$891,386	\$868,732	\$846,714	\$848,270	\$836,112	\$791,722		
RR Balance + Interest	\$1,181,104	\$1,121,269	\$1,049,452	\$922,819	\$902,528	\$879,591	\$857,298	\$858,873	\$846,563	\$801,619		\$11,268.21
Per/Unit Balance	\$2,343	\$2,225	\$2,082	\$1,831	\$1,791	\$1,745	\$1,701	\$1,704	\$1,680	\$1,591		Inflated needs/unit,
Minimum Balance	\$290,550	\$297,813	\$305,259	\$312,890	\$320,712	\$328,730	\$336,948	\$345,372	\$354,006	\$362,857		Yrs. 1-20

**** Consider Immediate
Repairs in Overall Review**



Best Practices – Examples

Corrective Action Plan (CAP)

Accessibility Repairs

Property Name: HOME Apts.	Number of Units: 210
Location:	Number Buildings: 13
Date of Site Visit: 2013	Reserve Term /Ye 20 years
Project Number: #	Building Age /Years: 28 years

Sec	Component or System	Type	Comments	Quantity	Unit	Unit Cost	Critical Repairs Total \$
7.1.3	Accessibility, Parking	Specific	Provide ADA signage or repair existing signage at all accessible parking spaces and access aisle adjacent to spaces (5' wide min.). (Photos 90-94)	5	EA	\$125.00	\$625
7.1.3	Accessibility, Common area	Specific	Provide audible pad at end of all ramps leading into drive lanes (Photo 90)	4	EA	\$250.00	\$1,000
7.1.3	Accessibility, Common area	Specific	Provide wheelchair knee clearance and wrap pipes at common area kitchen. This will be accomplished as part of planned renovations discussed in Section 7.4. This item will be completed as a Non-Critical Repair	1	LS	\$0.00	\$0
7.1.3	Accessibility, Common area	Specific	Provide rear grab bar in womens common area bathroom (Photo 41)	1	EA	\$250.00	\$250
7.1.3	Accessibility, Common area	Specific	Provide shower hose in common area bathrooms (Photo 43)	2	EA	\$50.00	\$100
7.1.3	Accessibility, Common area	Specific	Provide properly placed compliant signage at common area bathrooms (Photo 76)	2	EA	\$25.00	\$50
7.1.3	Accessibility, Common area	Specific	Repair automatic door at womens bathroom. Not operational at this time of this assessment	1	EA	\$0.00	\$0
7.1.3	Accessibility, Common area	Specific	Provide lever hardware at all interior ground floor common area doors in tenant buildings (Photo 89)	13	EA	\$150.00	\$1,950
7.1.3	Accessibility, Resident Units	Specific	Wrap all pipes (including disposal) at kitchen and bathroom sinks- accessible resident units. (Photos 85 & 86)	4	EA	\$35.00	\$140
7.1.3	Accessibility, Resident Units	Specific	Provide rear grab bar in bathrooms (Photo 87)	2	EA	\$150.00	\$300
7.1.3	Accessibility, Resident Units	Specific	Lower mirror into reach range (less than 40") (Photo 88)	2	LS	\$0.00	\$0

Total Accessibility Repairs Cost	\$4,415
Cost per Unit	\$21

Conditions noted in the Accessibility Repairs are representative of the overall conditions of the property. There may be more detail on specific assessment components in the report text, therefore the Critical Repairs should not be used as a stand alone document.



Best Practices

REPLACEMENT RESERVE TABLE

Property Name: HOME Apartments
 Property Address:
 City, State: LOCATION
 Reserve Term:
 Building Age: 41
 # of Apt. Buildings: 14
 # of Units: 322
 Net Rentable Area (SF): 238,070

RESERVE SUMMARY	Total Uninflated	Total Inflated
Initial Deposit	\$466,900	-
Annual Deposit, Years 1-10	\$146,510	-
Annual Deposit, Years 11-20	\$185,150	-
Annual Deposit, Years 21-37	\$223,790	-
Near Term (Years 1-10)	\$1,465,295	\$1,607,562
Long Term (Years 11-20)	\$1,625,140	\$2,159,035
Remainder Term (Years 21-37)	\$3,327,100	\$5,878,170
Total Reserves:	\$6,417,535	\$9,644,768

ITEM	EUL	EFF AGE	RUL	QTY.	UNIT COST	UNIT	NEAR TERM REPAIRS / REPLACEMENTS										
							YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	
SITE IMPROVEMENTS																	
**Asphalt maintenance/seal/stripe	3	0	3	240,000	\$0.11	SF								\$26,400			
**Asphalt repair allowance	3	1	4	3	\$18,000	LS				\$18,000						\$18,000	
**Asphalt replacement	25	10	15	240,000	\$1.00	SF											
**Concrete repair allowance	3	0	3	8,400	\$6.00	SF								\$3,600			\$3,600
**Tennis/basketball court	15	7	8	4	\$15,000	LS									\$30,000		
**Playground	20	7	13	2	\$20,000	LS											
FAÇADE																	
**Masonry repair allowance	15	5-10	5-10	14	\$1,300	BLDG					\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$4,300	\$4,300
**Repaint/re-caulk/repair allowance (facades and balconies)	3	3	2	322	\$120	UNIT		\$19,320	\$19,320					\$19,320	\$19,320		
**Vinyl siding	30	0-1	29-30	92,000	\$4	SF											
**Windows	30	6	24	736	\$350	EA											
Sliding glass doors	30	6	24	214	\$400	EA											
Exterior double doors	25	6	19	42	\$500	ENTRY											
ROOFING																	
**Roofing/gutters (clubhouse)	20	10	10	3,900	\$2.50	SF											
**Roofing/gutters (apartments)	20	0	20	25,200	\$2.50	SF											
**Roofing/gutters (apartments)	20	10	10	94,500	\$2.50	SF											
MECHANICAL, ELECTRICAL & PLUMBING																	
HVAC – Furnace (electric)	20	15-18+	2-5	322	\$550	UNIT		\$44,000	\$44,550	\$44,000	\$44,550						
HVAC - Condensing units (1.5-2 tons)	15	0-13	2-15	322	\$600	UNIT		\$11,400	\$11,400	\$11,400	\$11,400	\$11,400	\$11,400	\$11,400	\$11,400	\$11,400	\$11,400
**Galvanized steel piping replacement allowance	25-45+	40	2-20	322	\$650	UNIT		\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400
**Fire alarm panel/components	20	10	10	15	\$2,000	BLDG											\$6,000
Gas-fired water heaters (199-MBH)	15	9-13	2-6	15	\$3,000	EA		\$18,000	\$6,000		\$6,000	\$15,000					
INTERIOR ELEMENTS																	
**Common Areas - Carpet	7	2-5	2-5	34,000	\$1.75	SF		\$23,625	\$23,625	\$23,625	\$23,625						\$23,625
Common Area Laundry Equip	15	2	13	42	\$1,100	SET											
**Common area laundry vinyl tile	15	10	5	14	\$450	ROOM								\$6,300			
*Unit - Kitchen cabinets/counters	20	0-18	2-20	322	\$1,150	UNIT		\$35,630	\$35,630	\$35,630	\$35,630	\$35,630	\$35,630	\$35,630	\$35,630	\$35,630	\$36,800
Unit - Bathroom fixtures/vanities	20	0-18	2-20	406	\$250	BATHS		\$3,750	\$3,750	\$3,750	\$3,750	\$3,750	\$3,750	\$3,750	\$3,750	\$3,750	\$3,750
**Unit - Carpet	7	0-5	2-7	322	\$650	UNIT		\$22,750	\$22,750	\$22,750	\$22,750	\$22,750	\$22,750	\$22,750	\$22,750	\$22,750	\$22,750
**Unit - Ceramic tile flooring	30+	5-11	19-25+	234	\$1,000	UNIT											
Unit - Ranges (electric)	15	0-13	2-15	322	\$350	UNIT		\$5,600	\$5,950	\$5,600	\$5,950	\$5,600	\$5,950	\$5,600	\$5,950	\$5,600	
Unit - Refrigerators	15	0-13	2-15	322	\$450	UNIT		\$7,200	\$7,650	\$7,200	\$7,650	\$7,200	\$7,650	\$7,200	\$7,650	\$7,200	
Unit - Dishwashers	15	0-13	2-15	322	\$230	UNIT		\$4,370	\$4,370	\$4,370	\$4,370	\$4,600	\$4,370	\$4,370	\$4,600	\$4,370	
EUL: Expected Useful Life	TOTAL UNINFLATED						\$0	\$206,065	\$195,415	\$186,745	\$189,225	\$145,520	\$104,920	\$153,440	\$143,970	\$139,995	
EFF AGE: Effective age	CUMULATIVE TOTAL UNINFLATED						\$0	\$206,065	\$401,480	\$588,225	\$777,450	\$922,970	\$1,027,890	\$1,181,330	\$1,325,300	\$1,465,295	
RUL: Remaining Useful Life	Inflation Factor @ 2.0%						100.00%	102.00%	104.04%	106.12%	108.24%	110.41%	112.61%	114.87%	117.17%	119.51%	
Quantity: Total Quantity Onsite or to be Replaced	TOTAL INFLATED						\$0	\$210,186	\$203,310	\$198,175	\$204,823	\$160,666	\$118,157	\$176,254	\$168,684	\$167,307	
*Cost Provided by Management	CUMULATIVE TOTAL INFLATED						\$0	\$210,186	\$413,496	\$611,671	\$816,495	\$977,160	\$1,095,317	\$1,271,572	\$1,440,256	\$1,607,562	
** Identified Unit Cost includes 3rd-party labor	ANNUAL DEPOSIT (No annual escalation)						\$146,510	\$146,510	\$146,510	\$146,510	\$146,510	\$146,510	\$146,510	\$146,510	\$146,510	\$146,510	
	BALANCE						\$613,410	\$549,734	\$492,934	\$441,269	\$382,955	\$368,800	\$397,153	\$367,408	\$345,234	\$324,438	

Sources & References

1. **MAP Guide - ch. 3, 5, 6, 9, 12, Appendices**
 - A. **Section 3.9**
 - B. **Section 5.26**
 - C. **Section 5.27**
 - D. **Appendix 5C**
 - E. **Appendix 5D**
 - F. **Appendix 5G**
2. **HN 2012-27/ML 2012-25**
3. **FAQ for HN 2012-27/ML 2012-25 (2/5/2013); & FAQ CNA Guidance dated 5/15/2014.**
4. **ASTM E 2018-08, Standard Guide for PCA: Baseline Property Condition Assessment Process**
5. **Notice H 13-27**

References - Accessibility



Accessibility Guidelines

- Fair Housing Act (FHA)
 - <http://www.huduser.org/publications/pdf/fairhousing/fairintro.pdf>
- Section 504 of the Rehabilitation Act of 1973 (504)
 - <http://www.hud.gov/offices/fheo/disabilities/sect504.cfm>
- Uniform Federal Accessibility Standards (UFAS)
 - <http://www.access-board.gov/ufas/ufas-html/ufas.htm>
 - [http://www.hud.gov/offices/fheo/library/UFASAccessibilityChecklis
tforPHAs-5-7-08.pdf](http://www.hud.gov/offices/fheo/library/UFASAccessibilityChecklis
tforPHAs-5-7-08.pdf)
- Americans with Disabilities Act of 1990 (ADA)
 - <http://www.ada.gov/pubs/ada.htm>
 - ★ □ <http://www.access-board.gov/adaag/html/adaag.htm>



References – Environmental

References for information in the Panel Discussion includes:

- **MAP Guide** – Chapter 9 Environmental Review and Requirements
- **ASTM E 1527-13**: Standard Practice for Environmental Site Assessments: Phase I ESA Process
- **ASTM E 2600-10**: Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions
- **Mortgagee Letter 2013-07**: HUD Office of Multifamily Development Radon Policy Letter
- **ANSI-AARST MAMF-2010**: Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings
- **ASTM E 2356-10**: Standard Practice for Comprehensive Building Asbestos Surveys
- **ASTM E 2308-10**: Standard Guide for Limited Asbestos Screens of Buildings