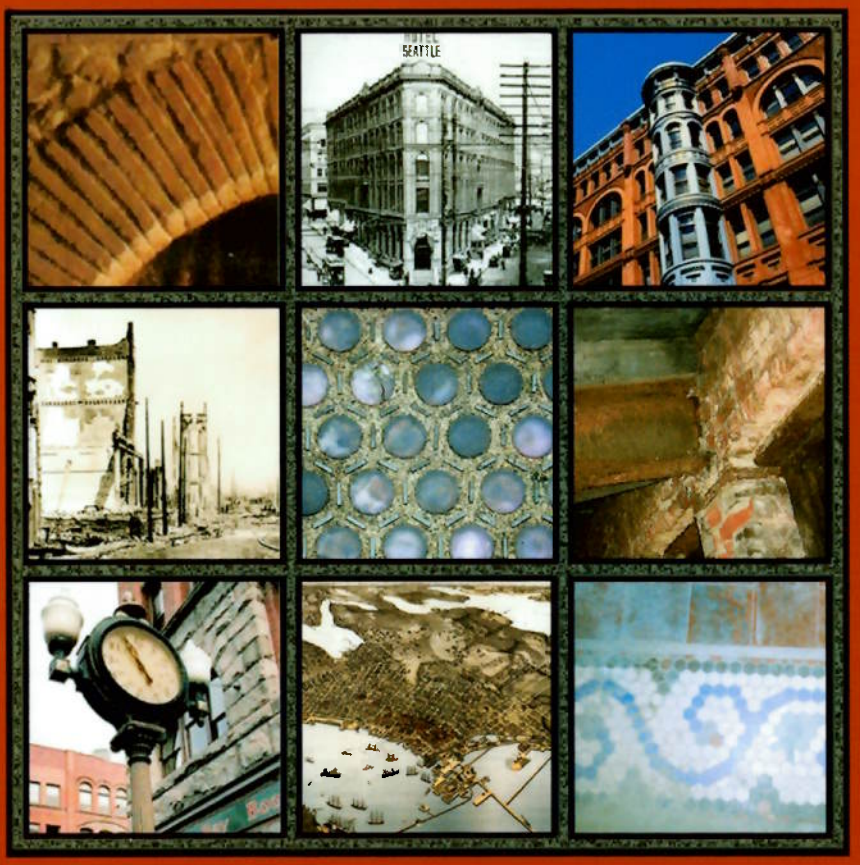
PIONEER SQUARE HISTORIC DISTRICT

AREAWAYS

HAZARD MITIGATION STUDY

MARCH 2003



City of Seattle
Department of Transportation

PB PARSONS BRINCKERHOFF

Sheridan Consulting Group

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INTRODUCTION

In 2000 the City of Seattle Transportation Department contracted with Parsons Brinckerhoff to inspect 110 areaways in the Pioneer Square Historic District to evaluate both their structural integrity and their historic features. The end product, as defined by City Council Resolution 29911, was to document and rate each areaway, balancing both structural safety and historic preservation concerns. This information is intended to be used by the City to make broader policy and financial decisions regarding maintenance and repair of the areaways for the future.

Just as work was being completed for this study, a significant earthquake occurred on February 28, 2001. This required that each areaway be reinspected to identify potential earthquake damage and revise ratings as necessary.

STUDY OBJECTIVES

- To evaluate each areaway for structural integrity, identifying unsafe elements.
- To identify and evaluate historical features in the areaways.
- To develop a rating system balancing structural, historic and public safety concerns to make decisions about areaway repair.
- To provide a context for future decisions regarding changes to historic characteristics of the areaways.
- To assist both the City and property owners with information on the structural condition and relative historic importance of their areaways.

BACKGROUND

At the end of the 19th century Pioneer Square flourished as Seattle's commercial center. In the first decades of the 20th century, however, the city's business core moved north, to newer and larger buildings. This loss, exacerbated by the Depression of the 1930s, began a long period of decline for Pioneer Square. Maintenance of most buildings was neglected, and many sat vacant for long periods. However, in the 1970s, interest in the area ignited, resulting in numerous city studies, plans and legislative and funding efforts to preserve and revitalize the area.

Among these studies was an inventory of areaways, conducted by the Engineering Department, a study of areaway characteristics and uses and a neighborhood plan, all done in the 1973-74 period. These documents form the basis for current studies and plans. Each is summarized briefly below.

Pioneer Square Areaway Study Phase I Areaway Inventory
City of Seattle Department of Engineering, c. 1973
The purpose of this study was to rate the structural soundness of each areaway as a whole, and of each individual structural element. City staff did a visual inspection of each areaway within the original historic district boundaries. The inspection identified general deterioration to many areaways, primarily from settlement and moisture damage due to lack of maintenance and the high water table. About half were found to be in good condition; 23% in fair condition, 18% in poor condition, and 7% in critical condition. However, many of those rated "good" or "fair" required significant repairs to some elements.

In 1983 this inventory was updated and expanded to include the added sections of the historic district. A further update began in 1999 and was completed in 2001 by Parsons Brinckerhoff as part of the current study.

Overview Planning Report Areaway Study
Pioneer Square Historic District
Makers, 1974
This document has become a primary reference for areaway information and history. Its purpose was to examine the history and documentation of the areaways and to prepare guidelines and criteria for their development and use. The report reviewed the early history and construction of these features, going back to the original ordinances and building codes.

This report summarizes the typical characteristics and materials found in areaways, including decks (typically with brick or concrete arches), street and building walls (usually of brick or stone, often with arched openings). It also addresses the difficult issue of historical uses of the areaways and identifies some existing artifacts that may be reminders of these uses, such as door and window sash, hardware and machinery, and floor and wall surfaces. The report makes recommendations for future uses of the areaways and for maintaining and rebuilding them. It recommended that the decks and walls be rebuilt, as necessary, with brick facing added to achieve the historic appearance. It also urged that other features, including prismatic skylights, open stairwells and sidewalk elevators be reconstructed or maintained in keeping with the standards found in the original 1893 ordinance.

Pioneer Square Areaway Study Phase II
City of Seattle Department of Engineering, 1976
The purpose of this second phase of the areaway study was to develop planning concepts, design criteria, prototype designs and cost data to enable the mayor and city council to evaluate the extent to which the city should undertake areaway rehabilitation. The report gives an overview of the major elements of an areaway, the legal aspects and the conditions and uses in the areaways. It also provided prototype designs: two designs for replacing corroded steel beams; two for rebuilding the deck (including installation of a concrete slab); six approaches for rebuilding the street wall (varying in cost, structural support and materials; and, two methods of repairing failing transverse walls. In each case an "in-kind" construction method was presented for historic preservation purposes, generally consisting of rebuilding the element in concrete and facing it with brick. It was assumed that an owner doing the repair would choose the less expensive solutions, while the city would sometimes choose more expensive options such as in-kind repair for preservation purposes.

In summary, the report recommended that:

- The Engineering Department should inventory all city areaways (including those not in Pioneer Square), and prioritize the needed repair work;
- The city should, generally speaking, bear the cost of street wall repair/rehabilitation/ maintenance, while the property owner would pay for sidewalk/deck repairs and maintenance; and,
- the funding would be dependent on the Pioneer Square Preservation Board determining the level of historic rehabilitation needed for each areaway, as accepted by the city council.

It is not known if this report was adopted.

Pioneer Square Historic District Plan
Makers, 1974
This first Pioneer Square neighborhood plan addressed sidewalks and areaways, primarily quoting from the Makers report of the same year. With regard to areaway maintenance and rebuilding, the plan recommended that repairs be made "in kind," using the 1893 ordinance as a guideline for appearance. This typically meant using brick facing over concrete structures; if more economical construction methods were used, ".. the end product should closely adhere to the usual appearance of the code construction."

Pioneer Square Historic District Areaway Right-of-Way Guideplan
Jones & Jones, 1978
This plan was prepared for the Seattle Engineering Department, and formed the basis for the two documents that followed in 1984 and 1990 (see below).

Program Implementation Policy
Seattle Engineering Department, 1984
This report, drawn from the 1978 Jones & Jones report, divided the Pioneer Square Historic District into three areas, based on the historic features found in the areaways. These three areas were used in the 1990 Plan to identify the preferred repair options (see below).

Mayor's Recommended Pioneer Square Plan Update
City of Seattle Department of Community Development, 1990
This neighborhood plan update built on the previous plans, relying heavily on the Overview Planning Report from 1974 and the subsequent areaway plan done by Jones & Jones in 1978. According to this plan, the recommendations regarding areaway responsibility, funding and maintenance made in the 1970s were not enacted as formal city policy. The Engineering Department continued to repair critical areaways as funding became available, attempting to negotiate participation with property owners (usually unsuccessfully).

The 1990 Plan identified three types of alternative repairs (as described in the 1978 guideplan) and the areas where they should be applied. The first option, repair-in-kind, was recommended for the oldest and most historic areaways (as indicated in the 1984 SED areaway rehabilitation plan). The structural repair option was recommended for other areaways. Filling would be recommended in only a few instances.

The repair type was separated into three regions over Pioneer Square Historic District. Area A included the oldest buildings, those around Pioneer Place, First Avenue South and Occidental Avenue South. Generally speaking, Area B was slightly to the east of Area A, with newer buildings, and Area C was farther east and south, with more post-1900 buildings.

Repair-in Kind (Area A)

In this area retention/restoration of all historic features, including prismatic skylights is preferred. Where complete rebuilding is not required, stabilization with new beams to hold existing construction in place is acceptable. No encroachment or filling in the areaways is allowed, and no visible alteration to key features: vaulted ceilings; prism lights; building walls, archways and fenestration; bay and end walls and arched openings; street walls; special architectural features such as curved walls, pilasters and stepped walls. However, the plan supported new standards that would preserve the historic character of the areaways (with no specifics).
See Figure 1 for this type of repair.

Repair-to-Code (Area B)

In this area retention/restoration of historic features is preferred, but structural repairs may be done on a case-by-case basis.
Conventional structural repairs, meeting building codes, is allowed, provided that provisions are made for streetscape improvements such as tree wells, hydrants, light or signal bases and an adequate load factor. When used, this option will preserve to the maximum extent possible existing materials and configurations. Stabilization with new beams to hold existing construction in place is encouraged where rebuilding is not required. Engineering analysis shall consider the stability of the street wall, sidewalk and building wall. Maintaining usability of the areaway is encouraged.
See Figure 2 for this type of repair.

Option-to-Fili (Area C)

In these areas buildings are to be stabilized with new beams as needed to retain existing construction. Filling of an areaway and construction of a new street wall would be allowed only on a case-by-case basis, with the same provisions for streetscape improvements as listed above. This option is discouraged and is to be used in limited areas where structural failure is imminent and the Preservation Board approves use of this option. Only an ultra-light fill which may be removed without undue damage to the filled area will be approved.

Prismatic skylights should be retained in all repair-in-kind areas and should be considered as part of areaway retention in other areas. Light wells and stair wells should be retained wherever possible.
See Figures 3 and 4 for this type of repair.

City Council Resolution 29911

After considerable inventory and policy work over more than twenty years, the city took positive legislative and funding action in 1999. On April 12, 1999, the Seattle City Council passed Resolution 29911 to develop an areaway repair/maintenance program and establish financing guidelines and criteria under the City's Hazard Mitigation Program. This resolution led to the

current study being conducted.

The resolution calls for the following steps:

- Developing a prioritized list of areaways needing repair;
- Working with the Pioneer Square Preservation Board to determine what aspects of an areaway need to be preserved under the City's historic preservation ordinances and the adopted 1990 Pioneer Square Plan;
- Determining the feasibility and costs of completing repairs and/or filling them with lightweight concrete;
- Negotiating with building owners the respective responsibilities of the City and the owners; and,
- Designing a program, funded by permit fees, to inspect all areaways on a regular basis to determine condition, use and need for repairs.

The resolution provided that, in order to protect public safety, the City could undertake repairs to some areaways in Pioneer Square in 1999 without completing all of the steps outlined above. However, the City was to coordinate its work with interested property owners, neighborhood groups, and the Pioneer Square Preservation Board, including obtaining the required Certificates of Approval for any alteration made in the public rights of way in the District.

The resolution also provided guidelines for payment for repairs:

- The city will pay the cost of filling an areaway with lightweight concrete, where use is not an issue.
- If the property owner wishes to continue to use the areaway, and repair costs are greater, the city may pay the amount equal to filling, with the property owner paying the remainder.
- Where the repair is more costly due to historic rehabilitation standards outlined in the updated 1990 Pioneer Square Plan that restrict encroachment that would result from filling the areaway, the City and the abutting property owner may share the costs of this repair;
- Where there are utilities in the areaway or a utility desires access or use, the utility may pay for the costs of moving, stabilizing or installing their facilities, or any incremental cost of the repairs caused by their presence or use.

The process identified in Resolution 29911 resulted in identification of appropriate repairs on a case-by-case basis, weighing structural deficiencies and historic significance with other factors. The information collected during the 2000-2001 structural and historic assessments, discussed in this report, was used to identify the best repair approach for each critical areaway. The recommended repairs, in some cases, vary from the broader recommendations in the 1990 Pioneer Square Plan Update, described above. Upon inspection of the historic elements, it became clear that in many cases the most important feature was the building wall, while the deck and street wall had often been altered. Therefore, filling a portion of the areaway adjacent to the street wall, leaving the building wall freestanding, would, in many buildings, stabilize the sidewalk and street wall while preserving the important historic elements. Use of this approach where possible will make more funds available for those areaways where the historic features or overall importance of the space means that reconstruction is necessary.

KEY ELEMENTS OF THE AREAWAYS

An areaway is defined as the space directly below the sidewalk, between the building wall and the street wall. In some older Pioneer Square buildings, the areaways were created when the city raised the level of the streets in rebuilding after the Great Fire of 1889. Buildings constructed in Pioneer Square in later years followed this pattern, typically constructing areaways to provide additional space. Areaways vary in size, but are typically ten feet high and ten feet wide, running the length of the building.

The 1990 Pioneer Square Plan summarizes the key characteristics of the areaways in these words:

> The most significant qualities of an areaway are the architectural features which render its form, character, and spatial quality. The use of unit materials, articulated bays, ceiling vaults, and other architectural features typical of the period in above grade construction are also significant determinants of architectural merit within the areaways.
>
> There is a strong correlation between the age of an original structure and the type of architectural features present in the adjoining areaway. In general, the oldest areaways are constructed with brick vault ceilings, prism lights, and brick or stone walls. The next oldest are constructed with concrete arch ceilings, prism lights, battered concrete street walls, and concrete end walls. The most recent areaways are generally beam and slab deck construction with concrete areaway walls and piered building walls.

This summary corresponds with what was seen in the inventory, as noted on the matrix in Appendix C. Further details on the key physical elements are described below.

- Decks or Ceilings: These structures support the sidewalks, originally resting on steel I-beams that span from the street wall to the building wall, as required in the original ordinances. These original beams are universally corroded and many have been replaced with newer steel beams or reinforced concrete structures.

  In early post-fire buildings, the deck was of vaulted arches made of red brick, repeating to form the ceiling of the areaway. Many of these original brick arches are still found, but others have been reinforced in some way with concrete. Over the past thirty years, a number of failing brick structures have been replaced with new concrete arches or with concrete slabs; sometimes concrete may have simply been placed over the brick. In 20th century buildings the arches were often built of concrete. It is often difficult to determine whether the concrete arches are original construction or newer additions.

- Street Walls: These were typically made of brick or rubble (irregular stone), or concrete in later years. These walls retain soil beneath the street, thus supporting the street itself. Some have been replaced by concrete, particularly in cases where major building rehabilitation has been done. Again, in newer buildings (after about 1908) concrete may be the original material.

- Building Walls: Of all the elements, building walls have the greatest amount of variety. In early years they were of brick or stone. The appearance was almost always fairly rough in comparison to the main facade above. Often, arched doorways (and sometimes windows) lead from the areaway into the basement. Some of these arches have been filled with concrete, for seismic reinforcement, or covered with wood.

  In some cases there is no building wall, leaving the existing basement open to the areaway. In these cases the building edge is typically defined by brick or stone columns, often with arches in between. In some cases where major rehabilitation has been undertaken, steel columns have been installed.

- End or Partition Walls: The walls at the ends of each areaway are typically of brick, sometimes of stone rubble or concrete. They are not necessarily the same material as the building wall or the street wall; many buildings combine two or three materials. The partition walls, which divide larger areaways into sections, were also typically of brick or rubble, and one building may have two or three materials in different sections.

- Skylights: Prismatic skylights were originally a crucial part of the areaways, providing natural light to the underground space. They are also usually the only portion of the areaways (other than stairwells) noticeable to the passerby. However, skylights are very vulnerable to damage from moisture, foot traffic, vibration and other factors, and the great majority of them have been filled in. Some have been replaced with more modern glass and frames, yielding a different appearance but still maintaining the original function. Only a small number of the original skylights remain, in generally poor condition.

STRUCTURAL INVENTORY METHODOLOGY

The areaways were visually inspected to assess the structural condition of its various elements. The historical features of the areaway, areaway usage and the condition of the sidewalk were also noted. An inventory of the elements of the areaway was performed. The dimensions (length, width and height) of the areaway were measured. The spacing of beams and columns in the areaways was noted to develop a layout plan for the areaway.

Structural Deficiencies

The two most commonly observed deficiencies were corrosion of the steel I-beams and settlement and/or rotation of the street wall. Lack of corrosion protection in the original steel beams and poor soil conditions are the respective causes of these deficiencies.

Some of the other deficiencies observed are cracks in street walls, building walls, or end walls; deterioration of mortar in brick and stone walls and brick arches; damaged skylight panels; and loose stones in rubble walls.

Failure and Consequences

If an I-beam supporting a sidewalk were to fail, the brick arch and the concrete sidewalk slab above it would collapse, with little or no warning. Such a collapse would pose a significant danger to pedestrians.

Another failure scenario involves the street wall. If a street wall rotates sufficiently either towards the building or away from it, the sidewalk beams lose their support, resulting in the collapse of the sidewalk. If the street wall rotates sufficiently toward the building, the wall itself may collapse, causing the soil behind it to cave in and resulting in the collapse of the street and damage to underlying utilities.

Less catastrophic failure of individual elements of an areaway can also pose hazards to the public. These may require closure of traffic lanes or the sidewalk or weight limitations. For example, collapse of a skylight panel may necessitate putting barricades on the sidewalk for pedestrian safety.

Structural Ratings

The individual elements of each areaway are assigned an Adjective Rating as defined in the Definition of Terms (Appendix A), developed by City. The Adjective Rating categories are Good, Fair, Poor and Critical. Based on this rating, the element is assigned a numerical rating of its condition, expressed as a percentage. An Adjective Rating of 'Good' translates to a numerical percentage rating of between 80 and 100. Similarly, 'Fair' translates to a numerical rating between 50 and 80; 'Poor' translates to a numerical rating between 30 and 50; while 'Critical' translates to a numerical rating between 0 and 30. The ratings of the individual elements were entered into the City's computer rating program along with the weight factor given to each element. The weight factor represents the significance of the element in relation to the areaway. The computer program calculates the weighted average rating of the areaway. This rating is termed as the General Condition Rating and is an assessment of the overall structural condition of the areaway (Appendix B).

Prioritized List of Areaways in Need of Repair

Areaways with a General Condition Rating below 60 per cent are considered structurally critical and in need of repair. A repair priority is developed for those areaways that are in need of repair. The list, in Appendix D, includes all areaways with a rating of 65 or lower, as it is assumed that those rated at 65 may be deteriorate to 60 over the next five years.

"Structurally critical" is defined as the state in which there could be partial or full collapse of the areaway or one of its elements if the sidewalk were fully loaded with pedestrians or if there were to be a heavy load like a delivery truck being parked partially on the sidewalk. An earthquake of moderate to high magnitude may also cause soil liquefaction leading to excessive settlement and tilting of street walls or end walls. This overstresses the walls further, leading to cracking and loss of sidewalk support.

The following criteria (in approximate order of importance), identified in Resolution 29911, were used to prioritize the areaways in need of repair:

1) public safety and the risk to the traveling public and adjacent properties;
2) volume of traffic and pedestrian use and important utility facilities;
3) historical significance in terms of use or architecture;
4) current use;
5) community priorities as identified in the neighborhood plans;
6) importance to local development;

7) efficient use of limited city resources;
8) other factors that may be identified by the community, the Preservation Board or the City.

Each of these criteria is explained further below:

1) The structural rating is the primary determinant of public safety, as it measures the potential risk to the traveling public and the adjacent properties. The structural repair order is based on the structural ratings.

2) The rating for volume of traffic and pedestrian use was taken from the Mayor's Recommended Pioneer Square Plan, 1990, "Pedestrian Street Classifications." The presence of important utilities in or adjacent to an areaway increases the repair priority because the failure of an areaway or one of its elements could jeopardize the utility service, potentially causing harm to the property owners, tenants, neighboring buildings and businesses, pedestrians and vehicle traffic.

3) The process for identifying historical significance is described in the following section of this report. The ratings are in Appendix C. The presence of historical elements defines the method of repair to be implemented in an areaway, in order to preserve the significant features.

4) Current use of an areaway by abutting property owners is one factor weighed in evaluating the method of repair, but is not the decisive factor.

5) Evaluating the need to repair an areaway based on other neighborhood plans.

6) Assigning priority for repair with consideration to local, private or public development being planned.

7) In order to use city resources efficiently, an areaway would be placed lower on the repair priority list if the cost of repair would exceed the cost to repair several other areaways that are of equal or worse structural condition.

8) Considering any other relevant criteria that may be associated with the community or City policies.

The Prioritized List of Areaways in Need of Repair tabulates the above criteria as applicable for each areaway. The Overall Repair Priority is derived from a combination of the above criteria. The structural repair order is modified based on the Pedestrian Use Rating, location of Utility Facility, cost of repair, and other Relevant Criteria, to yield the Overall Repair Priority.

HISTORIC RESOURCE ASSESSMENT

The assessment of the historical elements of the areaways began with the compilation of information collected in the 1999-2001 structural survey. These engineering inspections did not specifically note all historic features, but did note the materials used in walls and deck of each areaway; photographs were taken for many of the spaces. This information was used to identify those areas that had been significantly altered, or that retained primarily original materials. A

historian inspected approximately 40 per cent of the properties to look specifically at the historic features. This information was used to develop the list of key historic elements and the rating system.

Historic Features

The typical historic features of an areaway in an older building, as described in earlier plans, are:

- A building wall, originally of brick, rubble or stone;
- A wall supporting the street, usually originally of brick or rubble;
- A ceiling or deck supporting the sidewalk, originally of brick arches supported by steel beams;
- End walls and dividing walls (also called fire walls), originally of brick or rubble.

In addition to these typical features, some buildings have other characteristics, such as:

- windows or doorways, often arched, in the building wall, connecting the areaway to the building basement;
- skylights;
- decorative tiled floors;
- building walls with curves or pilasters; or
- decorative columns in place of a building wall, where the areaway is integral with the basement.

The rating system has four categories based on the degree to which the historic integrity of these features remains.

- All four of the key surfaces are substantially unaltered; *or*, the features as they are provide a strong sense of place, *or*, unusually significant features are present (such as tilework).
- Two or three of the key surfaces are substantially unaltered and the areaway as a whole retains a sense of place;
- Significant alterations have occurred to the features, but some sense of place remains;
- Little or no historic integrity; all the elements have been removed or covered to such an extent that no sense of an areaway remains, or the areaway has been filled.

Summary of the Historic Inventory

- The 110 Pioneer Square properties with areaways can be divided into three types, based on materials used.

- About 15% of the properties appear to have largely original materials, the brick and stone that were typical of buildings built shortly after the 1889 fire.

- Approximately 50% are primarily brick or stone, but with some concrete reinforcement. Typically, there are concrete arches or other reinforcement of the sidewalk deck. In some cases, concrete has been used to reinforce or replace the building wall or street wall. In some cases, concrete may have been an original material.

- About 35% are all, or primarily, concrete. This includes older buildings with original concrete (which became common in larger buildings by 1910), major rehabilitation projects where the areaway was rebuilt to non-preservation standards, and newer non-contributing buildings with original concrete (such as the Olympic Building).

- Another typology of areaways is their current use. While complete information on use is not available, it appears that most areaways are not formally used–they are either totally vacant or are used for informal storage of discarded items.

- Usage depends on many factors, including the amount of dampness, the extent to which the space has been improved, and the type of business in the building. Many areaways have dirt floors, which makes them unsuitable for most uses.

- Probably 75% of the areaways contain utility pipes, wiring, meters, alarm systems, or similar infrastructure elements.

- In about 15% of the properties the areaways are integral to the basement, which may be used for storage or as a store, restaurant, health club, parking garage or other active, formal use; in these cases, no building wall separates the areaway from the basement.

- A considerable number are used for organized storage, such as for restaurant supplies or retail stock.

The most common alteration that has been found is replacing, covering or filling original brick or rubble features with concrete. Two questions arise with those places that have concrete: how extensive and intrusive the concrete is, and whether or not the concrete is the original historic material (its use began in the early 1900's).

- Approximately 30% of the areaways have been rated as the most historically intact and significant (1). Typically, these have an arched brick deck and street walls, building walls and end walls of brick or stone. Many have arched doorways or window openings in the building wall. Some have stone building columns or special features such as tile flooring. These characteristics are most commonly found in older buildings (c. 1889-1900) near First Avenue or Occidental Avenue.

- Approximately 35% of the areaways are rated 2. These are primarily older buildings that retain some brick or stone walls or decking; however, one or two of the elements have been covered or replaced with concrete. They may also have special features, usually arches in the building wall.

- About 15% areaways are rated 3. These have been significantly altered, with significant amounts of concrete surface. Many of these are newer structures (post-1900) or major rehabs (Grand Central, Seattle Quilt, Seattle Hardware). They tend to be at the eastern or southern edges of the Pioneer Square area.

- Finally, 18% of the areaways are rated 4. This includes six that have been filled. The

others are either new construction (Olympic Building) or have been completely altered through rehabilitation, such as the Alaska Building, NBBJ and Merrill Place. They retain little or no sense of historic character.

Nothing here should be considered a reason in itself to fill or reduce the historic integrity of any areaway. Before any action is taken, the areaway should be thoroughly evaluated, to identify its historic characteristics and compare them to others, as indicated in the report. This report is not to be used by itself to justify the filling or significant alteration of key features of any areaway. Before any such changes are made, a thorough study of the specific areaway is needed. This report provides the context and background information for that specific study and decision-making.

COMMUNITY INTERVIEWS

The historic resource assessment began with interviews to identify the level of community awareness about the areaways, possible concerns about potential structural safety problems and suggestions for informing and involving the broader Pioneer Square community in discussion about areaway policies and repairs. Ten interviews were conducted in July-September 2000 with city staff members involved with Pioneer Square, major property owners and managers, and business/community representatives. People interviewed were:

Jennifer Meisner, Pioneer Square Preservation Board staff
John Eskelin, City Department of Neighborhoods
Sunny Speidel and Steve Crosier, Underground Tours
Jody Eakins, Pioneer Square Business Improvement Association
Debra Cushing, Pioneer Square Community Development Organization
Kevin Carl, Public Spaces Forum/Pioneer Square Community Council
Adam Hasson, Samis Land Company
Greg Coleman, Martin Smith, Inc.
Rosemary Rice, Pioneer Square Properties
Shannon Yates, No Boundaries, Ltd.

Property managers interviewed were generally knowledgeable about the areaways adjacent to their buildings and with the recurring issues of maintenance and repair. Many of these buildings had been rehabilitated over the past two decades and the areaways were typically well maintained.

Historically, the major barriers to repair and maintenance of the areaways has been the high cost involved and disagreement about whether the city or the property owner should pay for it. These subjects were explored in the interviews; some respondents felt that since the areaways are city property, the city should pay for maintenance and repair. Other property owners were willing to share in costs. One person cited an example where they sought city participation, but the areaway was not considered critical enough for partial city funding. Some mentioned that one factor in determining payment should be the cause of the problem, whether deficiencies are due to owner neglect or city actions. It was pointed out that some city involvement is crucial, as the cost of filling an areaway is more than many small property owners can afford, and reconstruction of historic features would be prohibitive for most owners. Although filling is often the lowest-cost solution to solving structural problems, it was not necessarily seen as the best approach. Most owners would prefer to see potentially usable space preserved if possible.

Community representatives identified their main concerns relevant to this topic as being with the pedestrian environment, particularly with street trees and sidewalk paving (including hazard and appearance issues). They recognized and valued the underground tours and their continued use of the areaways. They expressed little awareness of the potential public safety danger of structurally deficient areaways. They agreed with property owners/managers, however, that potentially usable spaces should be preserved where possible.

The interviews conducted in late summer of 2000 were rendered largely moot by the earthquake that occurred on February 28, 2001. The severe damage to many Pioneer Square buildings overwhelmed concerns about areaways. Seattle Transportation and consultant efforts turned to working with federal agencies to obtain funds for repair of earthquake damage to both streets and areaways. Public involvement regarding repair options for the damaged areaways were coordinated with the Pioneer Square Preservation Board.

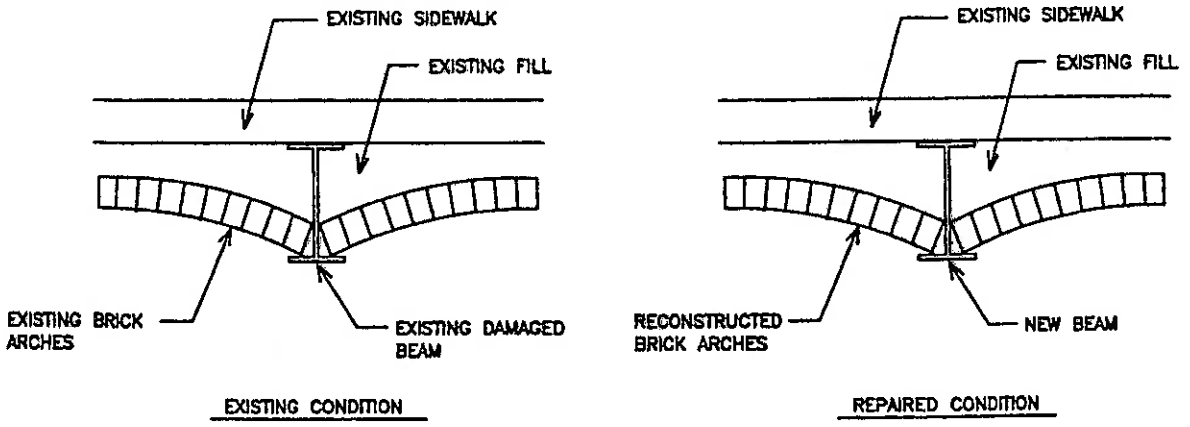
VIDEO

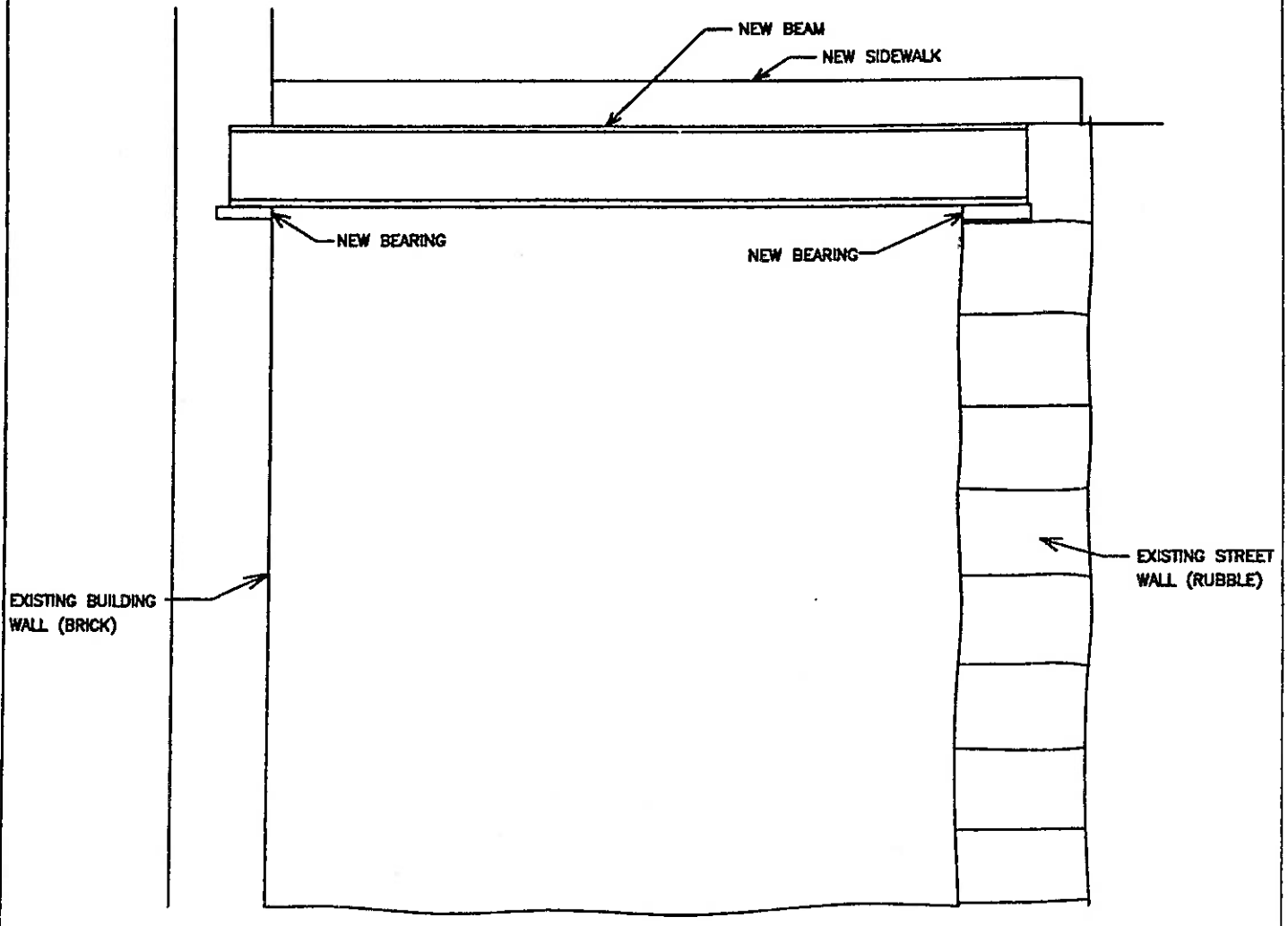
A video describing features of this report was also made to help preserve findings of this study and illustrate historical elements.

AREAWAY SURVEY MAP

A color coded map of all areaways in Pioneer Square Historic District was developed with the structural ratings translated into color codes and historical ratings translated into color coded numbers. It is given in Appendix E.

FIGURES





RECONSTRUCTION WITH BEAM REPLACEMENT

FIGURE 1

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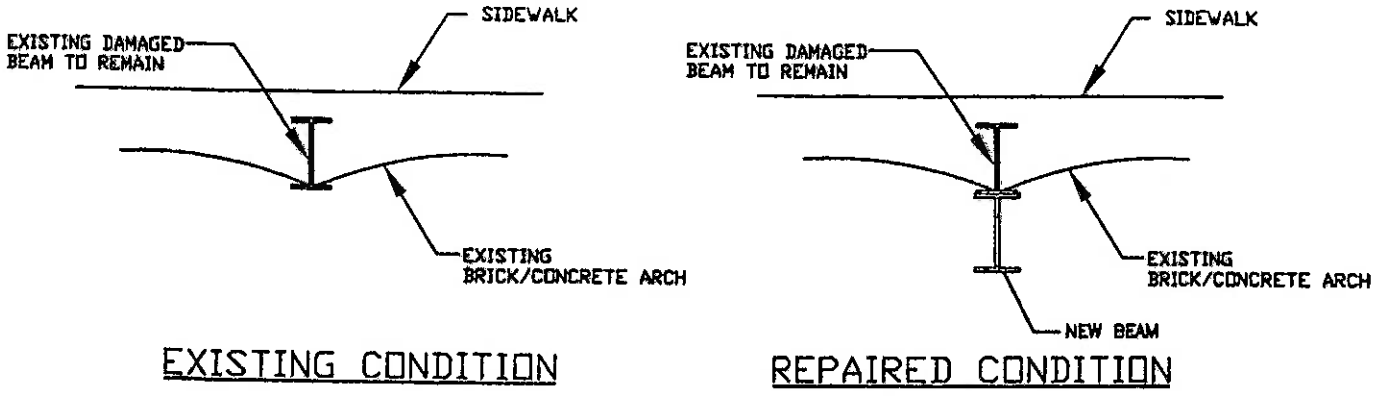
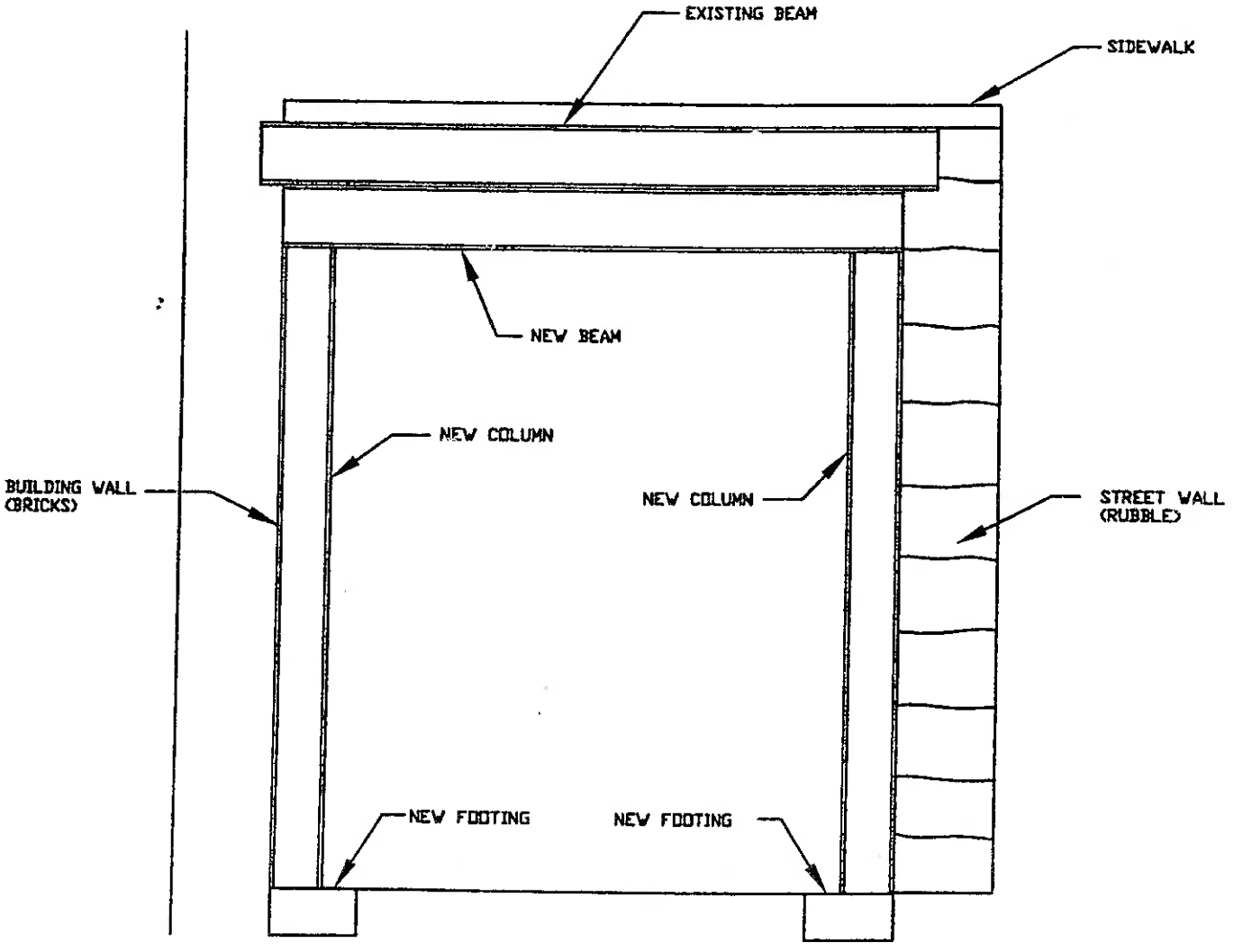


EXISTING CONDITION

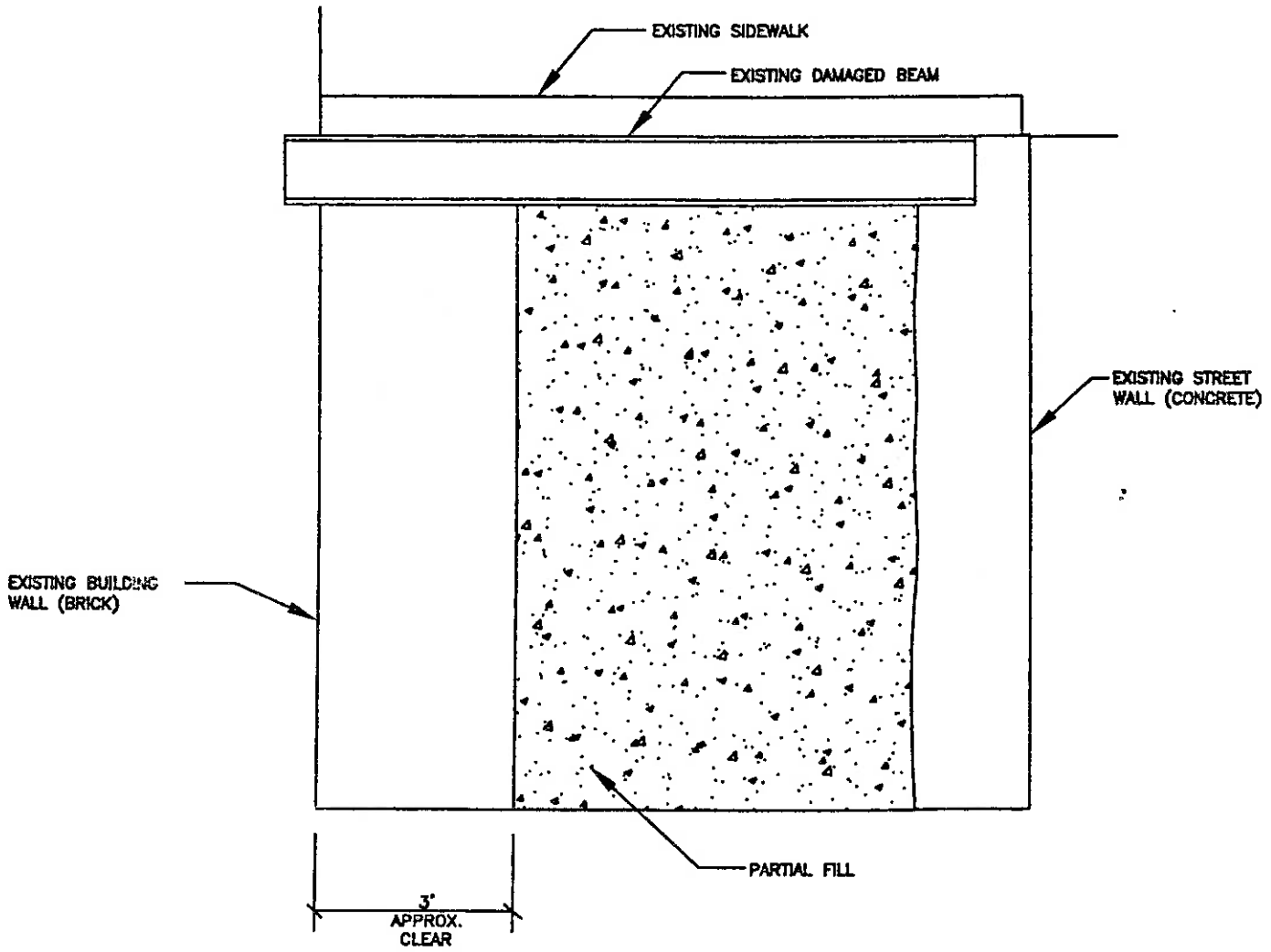
REPAIRED CONDITION



NEW SUPPORT BEAM/COLUMN

FIGURE 2

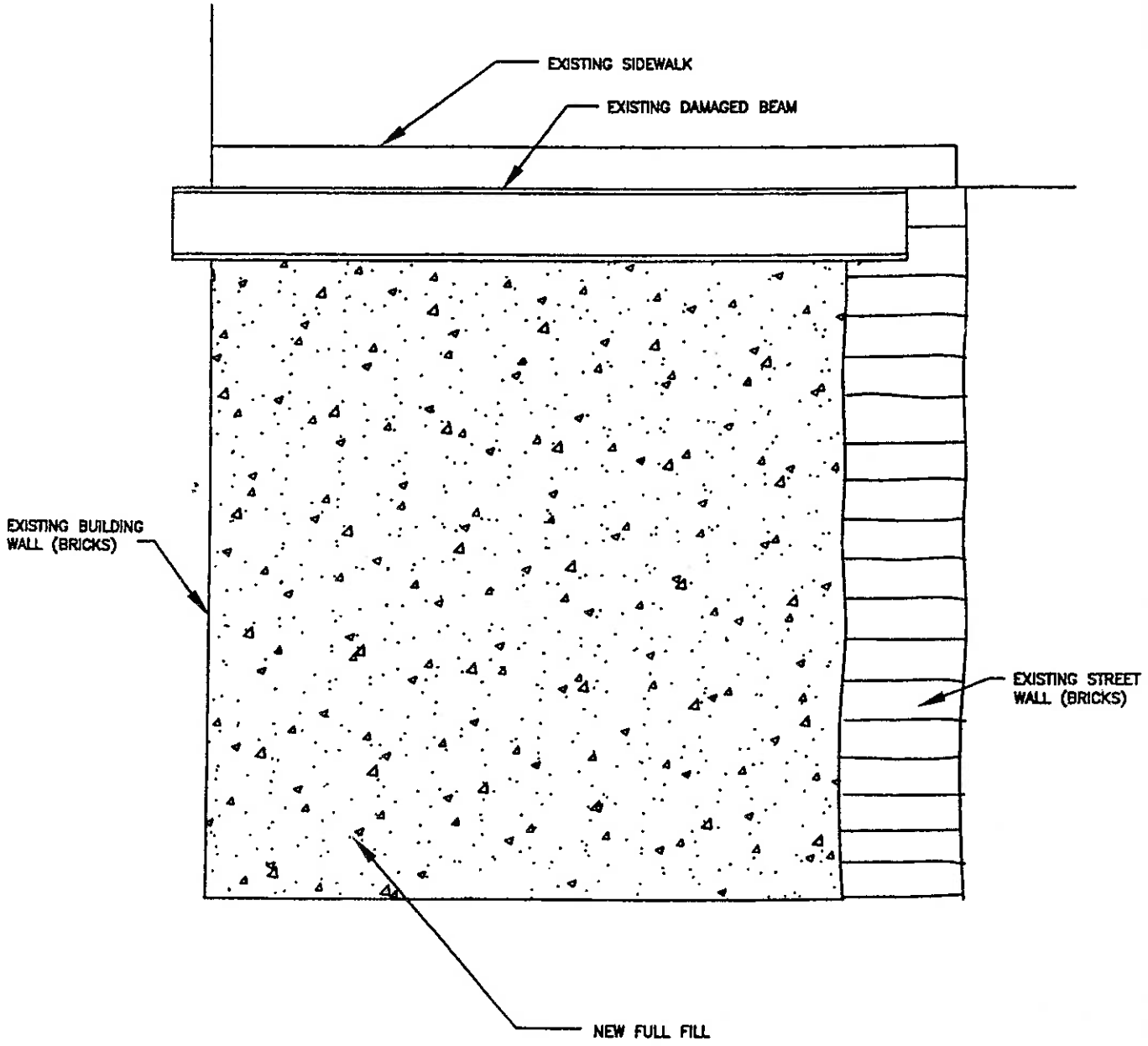
J:/25272c/STRUCTURAL/CAD/new support.DWG



PARTIAL FILL

FIGURE 3

J:/25272c/STRUCTURE/CAD/partial fill.DWG



FULL FILL
FIGURE 4

J:/25272C/STRUCTURE/CAD/full fill.DWG

APPENDIX A

DEFINITION OF TERMS

DEFINITION OF TERMS

Adjective Rating: **(Numerical Percentage Rating)**

Good, Fair, Poor and Critical Ratings are used to describe the individual member condition.

It is important to note that only the visible side of the member could be rated since no materials were sampled or tested, nor was sub-surface information gathered. Example—If only the bottom flange of a steel beam is exposed, the rating is based on the condition of the bottom flange. It is assumed that the encased portions of the steel beams are in better condition due to less exposure to oxygen and moisture.

Good: **(80-100)**

The member referred to is free from significant defects. Loss of metal due to corrosion is less that 10% based on the visible portion of the steel beam. Cracks in walls, floors, and decks are haircracks and considered of no concern structurally.

Fair: **(50-80)**

No major deficiencies, loss of metal or steel due to corrosion, may be up to 25% less than the original thickness; based on the visible portion of the steel beam. If possible, measurements are taken to determine the original thickness and indicated on the individual areaway sheet. Cracks in walls, floors and decks do not exceed ¼ inch but are not considered structurally deficient.

Poor: **(30-50)**

Major deficiencies are evident. Loss of metal may be up to 50% less than originally, based on the visible portion of the steel beam.

Cracks in walls, floors and decks up to 1 inch. Differential settlement shall not exceed ½ inch.

Critical: **(0-30)**

Loss of metal exceeds 50% or includes rusted-through portions on the visible portion of the steel beam. Cracks exceed 1 inch differential; settlement exceeds ½ inch, and/or structural walls or support indicate evidence of significant structural inadequacy.

APPENDIX B

GENERAL CONDITION RATING

APPENDIX B
SEATRAN AREAWAYS
GENERAL CONDITION RATINGS

Updated: 6/28/2002

AREAWAY NUMBER	AREAWAY STRUCTURAL RATING			REPAIR STATUS/PRIORITY
	AREA A	AREA B	AREA C	
201	76.67			
202	62.50			
203	86.84	80.00		
204	75.00			
301	66.67	66.67		
401	76.00	76.00		
402	81.03			
403	83.33			
404	75.00			
405	72.92	72.92		
406	66.67	61.46		
407	81.25			
501	81.25			
502	71.87			
503	75.00	81.90	81.90	
601	77.08	69.79	58.33	reconstruct 6/02
701	72.92			
702	80.21			
801	72.92			
802	70.83	70.83		
803	72.92			
804	72.92			
805	72.92	72.92		
806	81.25			
901	95.00	94.74		
902	74.00			
903	68.75			
904	Filled			
905	Filled	Filled		
906	46.00			
907	52.00			
908	75.00	49.00		
909	62.00			
910	64.00			
911	64.58	79.17		
912	60.42			
913	75.00			
1001	77.59	66.67		
1002	73.96	48.75		
1003	22.00			fill 7/02
1004	73.44			
1005	67.50			

APPENDIX B
SEATRAN AREAWAYS
GENERAL CONDITION RATINGS
Updated: 6/28/2002

AREAWAY NUMBER	AREAWAY STRUCTURAL RATING			REPAIR STATUS/PRIORITY
	AREA A	AREA B	AREA C	
1101	60.42			
1102	74.00			
1103	54.17			
1201	75.00	66.67		
1202	72.92			
1203	65.62			
1204	70.83			
1205	70.83			
1206	70.83	70.83		
1301	80.00	62.00		
1302	68.75			
1303	77.50	70.00	65.36	
1401	Filled			
1402	83.33			
1403	Filled	45.28		
1404	Filled			
1501	Filled	Filled	Filled	
1601	63.54			
1602	81.25			
1603	69.81	72.92		
1604	75.00			
1701	83.33	83.33		
1702	77.08			
1703	77.08			
1704	83.33			
1705	83.33	80.00		
1801	76.04	76.04		
1802	72.92			
1803	81.25	81.25		
1804	81.25			
1805	70.00	66.67		
1806	77.08	70.83		
1807	80.00			
1808	81.25	70.83		
1809	80.00			
1901	84.37	71.87		
1902	79.17	79.17		
1903	65.00	77.08		
1904	78.95			
2001	64.58	70.83	78.02	
2101	68.75			
2102	83.33			

APPENDIX B
SEATRAN AREAWAYS
GENERAL CONDITION RATINGS
Updated: 6/28/2002

AREAWAY NUMBER	AREAWAY STRUCTURAL RATING			REPAIR STATUS/PRIORITY
	AREA A	AREA B	AREA C	
2103	66.67			
2201	77.08	83.33		
2202	72.92	56.25		reconstruct 6/02
4000	84.48	83.82		
5000	58.33			
5001	61.20			
5002	60.42			
5003	61.46			
6000	38.00			
6001	66.67			
6002	30.00			fill 7/02
6003	29.17	27.08		fill 7/02
6004	56.90			fill 7/02
7000	70.83			
7001	78.95			
8000	52.08	77.08		
8001	70.83			
8002	79.17			
8003	55.00			
9000	95.00			
9001	68.75			
9002	77.08			
10000	72.92	72.92		
10001	72.92			
10002	72.92			
10003	68.75			
10011	90.62	90.62		
10012	85.42	85.42	91.67	
10013	45.83	83.33		
10014	80.00			

APPENDIX C

PIONEER SQUARE AREAWAYS HISTORICAL RATINGS MATRIX

APPENDIX C: PIONEER SQUARE AREAWAYS HISTORICAL RATINGS MATRIX

July 2002

SDOT #[1] PSHD #	Address	Historic Name Common Name Construction Date/Historic Significance[2]	Historical Significance Rating[3]	Notes
201 25	627 1st	Pioneer Drug (secondary)	1	
202 26	625 1st	Emerald City (secondary)	1	
203 29	92-94 Yesler 695-1st	Mutual Life (1890, 1903, primary)	2	toy store; rehabbed 1983; some surfaces covered
204 28	88-90 Yesler	Post Hotel (primary)	2	restaurant
301 52	102-18 Cherry; 700-06 1st	Scheuerman 110 Cherry (1890, primary)	1	restaurant storage
401 53	103-07 Cherry	Lowman United Way (1906, primary)	4	storage

[1] The first number is that assigned during the structural inspection; this number is keyed to the accompanying map. The second number is that assigned in the Pioneer Square Historic District nomination forms.

[2] The National Register landmark district nomination forms for Pioneer Square designate four levels of significance for buildings. The properties most significant to the history of the district are "primary" and those of lesser significance are "secondary." When the district was expanded to the east, with more post-1900 buildings, the less significant ones were designated "tertiary." Newer construction and buildings that have been severely altered are given the designation "intrusion." Areaways may have greater or lesser significance than the building itself.

[3] Ratings are on a scale of 1 to 4, with 1 being the most historically intact and significant areaways. Those areaways rated 4 have been filled or significantly altered.

SDOT # PSHD #	Address	Historic Name Common Name Construction Date/Historic Significance	Historical Significance Rating	Notes
402 54	616 1st	Lowman & Hanford (1889, primary)	2	underground tour rehabbed 1981
403 55	612-14 1st	Howard (1890, primary)	1	underground tour
404 55	612-614 - 1st	Howard (primary)	1	underground tour
405 56	602 1st	Pioneer (1888-91, primary)	1	underground tour rehabbed 1973-75
406 75	601-11 2nd	Butler (1889-90, secondary)	2	
407 74	615-19 2nd	Bailey/Broderick (1889-91, primary)	2	storage
501 112	618 2nd	Alaska (1903-04, primary)	4	rehabbed 1982; mostly finished space
502 113	606-10 2nd	Corona Hotel (1903, secondary)	4	rehabbed 2000
503 114	600 2nd	Hartford (1929, secondary)	3	
601 76	515 2nd	2nd & James Garage (c. 1961, intrusion)	1	tile floors from earlier hotel
701 115	520-24 2nd	Collins (1893, primary)	2	rehabbed 2000
702 117	502-08 2nd	Smith Tower (1914, primary)	2	rehabbed 1999; health club
801 31	89-93 Yesler 103-07 1st S.	Schwabacher (1890, 1892, primary)	1	underground tour

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
802 30	95-99 Yesler	Yesler/Bank of Commerce (1890, 1904, primary)	1	underground tour
803 31	103-07 1st S.	Schwabacher (1890, 1892, primary)	1	underground tour
804 32	109-15 1st S.	Northern Hotel Terry-Denny Building (1889, primary)	1	underground tour rehabbed 2000 northern portion integral with basement
805 33	117 1st S.	Maynard (1892, primary)	1	rehabbed 1975
806 10	68-74 S. Washington	L & H Printing (intrusion)	3	
901 none	100 1st S.	Olympic Building (1985, intrusion)	4	
902 61	106-08 1st S.	Lippy/Kind (1902, primary)	3	rehabbed 1985
903 62	110-12 1st S.	City Club (1889/1898/1905, primary)	2	rehabbed 1985
904 63	114-20 1st S.	State Hotel New Orleans (c. 1890, primary)	4	filled
905 63	114-20 1st S.	Delmar (c. 1890, primary)	4	filled
906 82	116 S. Washington	Laguna Pottery (secondary)	2	small areaway
907 83	118 S. Washington	Interurban Hotel Cowri (intrusion)	2	

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
908 83	173 S. Washington	Interurban Hotel Last Supper Club (intrusion)	2	
909 81	115-17 Occidental S.	(intrusion)	3	underground tour
910 80	107-09 Occidental S.	Saveway Market (secondary)	1	underground tour
911 79	101 Occidental S. 119 Yesler	Korn (1890, secondary)	2	underground tour
912 78	111 Yesler	Eagle Café Bohemian (secondary)	1	
913 77	109 Yesler	Merchants Café (secondary)	2	restaurant; partially covered with new brick
1001 92	102-08 Occidental S.	Interurban Building (1890, primary)	1	
1002 102	401-07 2nd S.	Barney's (intrusion)	3	
1003 100	411 2nd Ave. S.	(intrusion)	3	
1004 99	417 2nd Ave. S.	(primary)	3	
1005 98	421 2nd Ave. S.	Metropole (secondary)	1	
1101 119	201-09 Yesler	Campbell & Fuller (secondary)	2	
1102 122	404 2nd Ave. S.	(primary)	3	
1103 123	400 2nd Ave. S.	(primary)	2	integral with basement

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
1201 35	201-05 1st S.	J&M Hotel & Café (1890, secondary)	1	
1202 36	207 1st S.	Skagit Building Central Tavern (secondary)	1	storage
1203 37	209 1st S.	Marathon Building Larry's Greenfront (secondary)	1	
1204 38	211 1st S.	Pioneer Square Rug	1	
1205 39	213-15 1st S.	Luck Hotel (1889, secondary)	1	
1206 40	217-19 1st S.	New England (secondary)	1	music studio
1301 64	204 1st S.	Buttnick (secondary)	2	corner arches filled w/concrete; skylight
1302 65	206 1st S.	City Loan (1903, secondary)	4	rehabbed 1975
1303 66	208-20 1st S.	Squire-Latimer Grand Central (1889, secondary)	3	rehabbed 1971-73
1401 106	213-17 2nd S.	Ruggles/Lucknow Waterfall Place (1900, secondary)	4	filled rehabbed 1984
1402 105	207-11 2nd S.	Leroy Hotel Norberry Tile (1889/1949, intrusion)	4	filled

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
1403 104	171-73 S. Washington	McCoy's Firehouse (secondary)	2	Washington St. section filled
1404 103	167-69 S. Washington	(intrusion)	4	filled
1501 124	2nd Ave. S. & Washington	Apex (secondary)	4	filled
1601 127	211-15 S. Washington	(intrusion)	3	
1602 28x	312-18 2nd Ave. S. Ext.	Union Gospel Mission (secondary)	4	
1603 128	219 S. Washington	Union Gospel Mission Hotel (1904, secondary)	1	
1604 129	219-21 S. Washington	Union Gospel Mission Café (primary)	2	
1701 41	301 1st S.	Matilda Winehill Block Bread of Life Mission (1890, primary)	1	
1702 43	309 1st S.	Maud (1889, primary)	2	rehabbed 1970
1703 44	313 1st S.	Crown Hotel Carolyn Staley (1890, secondary)	1	rehabbed 1971
1704 45	317 1st S.	Squire (1900, secondary)	2	
1705 46	321 1st S.	Smith (1900, secondary)	1	used for parking
1801 67	300-04 1st S.	Globe Elliott Bay Books (1890, primary)	1	rehabbed 1965 restaurant, storage integral with basement

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
1802 68	306-10 1st S.	Globe Hotel (1898, primary)	1	
1803 69	312-14 1st S.	Nord Hotel (1890, secondary)	1	rehabbed 1979
1804 70	316 1st S.	Walker Seattle Quilt (1904, secondary)	3	used for parking rehabbed 1982
1805 71	322-24 1st S.	Capitol Brewing Co. Flury & Co. (1900, primary)	3	rehabbed 1963
1806	122 S. Jackson	Scientific Temple Billiards	2	integral with basement
1807 88	311-13 Occidental S.	Waltham (1890, secondary)	2	arches very low, floor built up; restored as part of Occidental Mall; exterior stair
1808 87	119 S. Main 301-09 Occidental S.	Union Trust (1893, primary)	2	mostly finished space, intact but covered
1809 86	115-17 S. Main	Union Trust Annex (1902, primary)	2	mostly finished space, intact but covered
1901 95	300-310 Occidental S.	State Bank of America (1890, secondary)	1	bank vault in areaway
1902 96	314-22 Occidental S.	Sportcaster (secondary)	1	
1903 110	319-23 2nd Ave. S.	Cadillac Hotel (c. 1889, secondary)	3	
1904 109	315 2nd Ave. S.	Duncan & Sons (1900, primary)	4	

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
2001 47	401 1st S.	Pacific Marine Schwabacher Merrill Place (1905, primary)	4	rehabbed 1984
2101 72	101 S. Jackson	Wax & Raine NBBJ/Heritage Building (1904, secondary)	4	rehabbed 1982 largely inaccessible
2102 91	123 S. Jackson	Foster White (secondary)	4	tunnel to 2103 at south end
2103 44x	419 Occidental S.	McKesson & Robbins F. X. McRory's (1907, primary)	4	tunnel to 2102
2201 97	400-10 Occidental S.	Washington Shoe Manufacturing (secondary)	2	rehabbed 2000
2202 111	165-73 S. Jackson	North Coast Electric Court in the Square (1900, secondary)	2	rehabbed 1985
4000 17x	215-22 Yesler	Frye Hotel (1908, primary)	1	integral with basement; considerable amount of marble
5000/ 5002 24x	220 2nd S. 202 S. Main	Masin's Furniture (1900, tertiary)	3	
5001 23x	206 2nd S.	Northwest Hotel Supply Masin's Furniture (1905, tertiary)	3	
5003 25x	210 S Main	John Corgiat Bldg. (1900, primary)	3	restaurant; finished ceiling
6000 34x	213 S. Main	Longshore Union Hall Seattle Boatmen's Union (1900, tertiary)	2	much of building wall collapsed

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
6001 33x	307-11 3rd S.	Norris Safe/Mottman (1906, primary)	2	integral with basement
6002 32x	214-22 S. Jackson 313-23 3rd S.	U. S. Rubber/Stadium Furniture/Seattle Paint Leathers (primary)	2	large part integral with basement vaults
6003 31x	320-22 2nd S.	Fulton Hotel (1890, tertiary)	2	
6004 30x	312-16 2nd S.	restaurant (1901, tertiary)	2	
7000 35x	222 2nd Ave. Ext. S. 222 S. Main	Seattle Lighting (1906, primary)	4	
7001 36x	210-22 2nd Ave. Ext. S.	Seattle Lighting Annex (1946, intrusion)	4	rehabbed as part of King St. Station area improvements
8000 22x	216-22 3rd S.	C.T. Takahashi & Co. (1905, secondary)	3	
8001/8002 21x	208-14 3rd S.	West Coast Wholesale Drug The Lofts (1904, primary)	4	used for parking rehabbed c. 1997
8003 20x	206 3rd S.	Norton (1904, primary)	4	
9000-9002 14x	118 Prefontaine Pl. S.	Prefontaine (1909, primary)	2	
10000-10001 16x	300-14 S. Washington	Kaplan (1908, secondary)	2	integral part of basement
10002 15x	101-13 Prefontaine Pl. S.	Tashiro Hardware (1908, secondary)	2	same building as #10001
10003 11x	400 Yesler	Old Public Safety (1908, primary)	3	rehabbed 1975-78

SDOT # PSHD #	Address	Historic Name Common Name Date/Historic Significance	Historical Significance Rating	Notes
10011 50	501 1st S.	Seattle Hardware (1904, primary)	4	
10012 45x	500 1st S.	500 1st S.	4	
10013 6	621 Post	Seattle Steam Company Post Street Plant (secondary)	2	
10014 none	5th S. & Jackson		4	

APPENDIX D

PRIORITIZED LIST OF AREAWAYS IN NEED OF REPAIR

SEATTLE DEPARTMENT OF TRANSPORTATION AREAWAYS

PRIORITIZED LIST OF AREAWAYS IN NEED OF REPAIR

Updated: 3/18/2003

AREAWAY NUMBER	GENERAL CONDITION RATING			STRUCTURAL REPAIR ORDER CRITERIA	PEDESTRIAN USE RATING CRITERIA	UTILITY FACILITY CRITERIA	HISTORICAL RATING CRITERIA	CITY RESOURCES CRITERIA	OTHER RELEVANT CRITERIA	REPAIR OPTION: FILL / PARTIAL FILL / RECONSTRUCT	PLAN AREA SF	UNIT COST PER SF	TOTAL COST FOR AREAWAY	OVERALL REPAIR PRIORITY	OVERALL REPAIR STATUS	AREAWAY NUMBER
	AREA A	AREA B	AREA C													
6000	38.00			1	2	Manhole	2			Partial Fill	490	$190	$93,100	**1**	Filled 4/03	**6000**
906	46.00			4	1	Manhole	2			Fill	330	$190	$62,700	**2**	Filled 2/03	**906**
1403	45.28	Filled		2	2		2	Higher cost		Partial Fill	696	$190	$132,240	**3**		**1403**
908	49.00	75.00		6	1		2			Partial Fill	495	$190	$94,050	**4**		**908**
907	52.00			7	1		2			Partial Fill	224	$190	$42,560	**5**		**907**
1002	48.75	73.96		5	2		3			Partial Fill	802.5	$190	$152,475	**6**		**1002**
8000	52.08	77.08		8	2		3			Fill	900	$190	$171,000	**7**		**8000**
10013	45.83	83.33		3	2		2		Low ped use	Fill	486	$190	$92,340	**8**		**10013**
1103	54.17			9	2		2			Partial Fill	228	$190	$43,320	**9**		**1103**
8003	55.00			10	2		4			Fill	300	$190	$57,000	**10**		**8003**
5000	58.33			11	2		3			Partial Fill	1100	$190	$209,000	**11**		**5000**
912	60.42			12	2		1			Reconstruct	143.5	$475	$68,163	**12**		**912**
1101	60.42			13	2		2		Redeveloprnent	Partial Fill	833.75	$190	$158,413	**13**		**1101**
5002	60.42			14	2		3			Partial Fill	376	$190	$71,440	**14**		**5002**
5001	61.20			15	2		3			Fill	1246	$190	$236,740	**15**		**5001**
5003	61.46			17	2		3			Partial Fill	360	$190	$68,400	**16**		**5003**
909	62.00			18	3		3		UG Tour	Partial Fill	345	$190	$65,550	**17**		**909**
1301	62.00	80.00		19	1		2			Partial Fill	763	$190	$144,970	**18**		**1301**
202	62.50			20	1		1			Reconstruct	378	$475	$179,550	**19**		**202**
1601	63.54			21	2		3		Current use	New Support	522	$475	$247,950	**20**		**1601**
406	61.46	66.67		16	2		2	Higher cost		Reconstruct/Fill	1200	$333	$399,000	**21**		**406**
911	64.58	79.17		23	3		2		UG Tour	Partial Fill	265.5	$190	$50,445	**22**		**911**
2001	64.58	70.83	78.02	24	1		4			Partial Fill	900	$190	$171,000	**23**		**2001**
1903	65.00	77.08		25	2		3			Partial Fill	1042.5	$190	$198,075	**24**		**1903**
910	64.00			22	3		1	Higher cost	UG Tour	Reconstruct	1062.5	$475	$504,688	**25**		**910**
1303	65.36	70.00	77.50	26	1		3									**1303**
1203	65.62			27	1		1									**1203**
301	66.67	66.67		28	1		1									**301**
1001	66.67	77.59		29	3		1									**1001**
1201	66.67	75.00		30	1		1									**1201**
1805	66.67	70.00		31	1		3									**1805**
2103	66.67			32	3		4									**2103**
6001	66.67			33	2		2									**6001**
1005	67.50			34	2		1									**1005**
903	68.75			35	1		2									**903**
1302	68.75			36	1		4									**1302**
2101	68.75			37	1		4									**2101**
9001	68.75			38	2		2									**9001**
10003	68.75			39	2		3									**10003**
601	69.79	77.08	100.00	40	2		1								Reconstructed 5/03	**601**
1603	69.81	72.92		41	2		1									**1603**
802	70.83	70.83		42	1		1									**802**
1204	70.83			43	1		1									**1204**
1205	70.83			44	1		1									**1205**
1206	70.83	70.83		45	1		1									**1206**
1806	70.83	77.08		46	1		2									**1806**
1808	70.83	81.25		47	3		2									**1808**
7000	70.83			48	2		4									**7000**
8001	70.83			49	2		4									**8001**
502	71.87			50	2		4									**502**

SEATTLE DEPARTMENT OF TRANSPORTATION AREAWAYS

PRIORITIZED LIST OF AREAWAYS IN NEED OF REPAIR

Updated: 3/18/2003

AREAWAY NUMBER	GENERAL CONDITION RATING			STRUCTURAL REPAIR ORDER CRITERIA	PEDESTRIAN USE RATING CRITERIA	UTILITY FACILITY CRITERIA	HISTORICAL RATING CRITERIA	CITY RESOURCES CRITERIA	OTHER RELEVANT CRITERIA	REPAIR OPTION: FILL / PARTIAL FILL / RECONSTRUCT	PLAN AREA SF	UNIT COST PER SF	TOTAL COST FOR AREAWAY	OVERALL REPAIR PRIORITY	OVERALL REPAIR STATUS	AREAWAY NUMBER
	AREA A	AREA B	AREA C													
1901	71.87	84.37		51	3		1									1901
405	72.92	72.92		52	1		1									405
701	72.92			53	2		2									701
801	72.92			54	1		1									801
803	72.92			55	1		1									803
804	72.92			56	1		1									804
805	72.92	72.92		57	1		1									805
1202	72.92			58	1		1									1202
1802	72.92			59	1		1									1802
2202	72.92	100.00		60	2		2								Reconstructed 12/03	2202
10000	72.92	72.92		61	2		2									10000
10001	72.92			62	2		2									10001
10002	72.92			63	2		2									10002
1004	73.44			64	2		3									1004
902	74.00			65	1		3									902
1102	74.00			66	2		3									1102
204	75.00			67	1		2									204
404	75.00			68	1		1									404
503	75.00	81.90	81.90	69	2		3									503
913	75.00			70	2		2									913
1604	75.00			71	2		2									1604
401	76.00	76.00		72	1		4									401
1801	76.04	76.04		73	1		1									1801
201	76.67			74	1		1									201
1702	77.08			75	1		2									1702
1703	77.08			76	1		1									1703
2201	77.08	83.33		77	1		2									2201
9002	77.08			78	2		2									9002
1904	78.95			79	2		4									1904
7001	78.95			80	2		4									7001
1902	79.17	79.17		81	3		1									1902
8002	79.17			82	2		4									8002
203	80.00	86.84		83	1		2									203
1705	80.00	83.33		84	1		1									1705
1807	80.00			85	3		2									1807
1809	80.00			86	3		2									1809
10014	80.00			87	1		4									10014
702	80.21			88	2		2									702
402	81.03			89	1		2									402
407	81.25			90	2		2									407
501	81.25			91	2		4									501
806	81.25			92	2		3									806
1602	81.25			93	2		4									1602
1803	81.25	81.25		94	1		1									1803
1804	81.25			95	1		3									1804
403	83.33			96	1		1									403
1402	83.33			97	2		4									1402
1701	83.33	83.33		98	1		1									1701
1704	83.33			99	1		2									1704
2102	83.33			100	1		4									2102
4000	83.82	84.48		101	2		1									4000

SEATTLE DEPARTMENT OF TRANSPORTATION AREAWAYS

PRIORITIZED LIST OF AREAWAYS IN NEED OF REPAIR

Updated: 3/18/2003

AREAWAY NUMBER	GENERAL CONDITION RATING			STRUCTURAL REPAIR ORDER CRITERIA	PEDESTRIAN USE RATING CRITERIA	UTILITY FACILITY CRITERIA	HISTORICAL RATING CRITERIA	CITY RESOURCES CRITERIA	OTHER RELEVANT CRITERIA	REPAIR OPTION: FILL / PARTIAL FILL / RECONSTRUCT	PLAN AREA SF	UNIT COST PER SF	TOTAL COST FOR AREAWAY	OVERALL REPAIR PRIORITY	OVERALL REPAIR STATUS	AREAWAY NUMBER
	AREA A	AREA B	AREA C													
10012	85.42	85.42	91.67	102	2		4									10012
10011	90.62	90.62		103	2		4									10011
901	94.74	95.00		104	1		4									901
9000	95.00			105	2		2									9000
1003	Fill				2		3								Filled 3/03	1003
6003	Fill	Fill			2		2								Filled 12/02	6003
6002	Fill				2		2								Filled 12/02	6002
6004	Fill				2		2								Filled 12/02	6004
904	Filled				1		4									904
905	Filled	Filled			1		4								Filled 2/01	905
1401	Filled				2		4									1401
1404	Filled				2		4									1404
1501	Filled	Filled	Filled		2		4									1501

SEATTLE DEPARTMENT OF TRANSPORTATION AREAWAYS

PRIORITIZED LIST OF AREAWAYS IN NEED OF REPAIR

Updated: 3/18/2003

NOTES:

1) General Condition Rating is based on inspections of areaways performed during 1999-2001.

2) Current Rapair Contracts:
   Part of areaways 601 and 2202 are scheduled to be reconstructed per Pioneer Square Historical District Areaway Reconstruction, 4/02.
   Areaways 6002, 6003, 6004 & 1003 are scheduled to be partially filled per Pioneer Square Historical District Areaway Rehabilitation (Fill), 6/02.

3) Structural Repair Priority is assigned in an ascending order based on the General Condition Rating, with the areaway that has lowest General Condition Rating being assigned highest priority of 1.

4) Pedestrian Use Rating is based on Pedestrian Street Classifications, Mayor's Recommended Pioneer Square Plan, Department of Community Development, City of Seattle, 1990, with the following notations:
   1: Class I (High Pedestrian Activity Street)
   2: Class II (Moderate Pedestrian Activity Street)
   3: Street Park (High Pedestrian Activity)

5) Historical Rating is based on Pioneer Square Areaways Historic Characteristics Matrix, 3/02.

6) Overall Repair Priority is derived from Structural Repair Priority, Pedestrian Use Rating, Historical Rating and other Relevant Criteria.
   Areaways with General Condition Rating of about 65.00 are considered to be in need of repair (over next five years) and are prioritized for repair and ranked under 'Overall Repair Priority'.

7) Unit cost for fill or partial fill of an areaway is considered to be $190 / SF plan area.
   Unit cost for reconstruction of sidewalk structure of an areaway is considered to be $475 / SF plan area.
   Unit cost for reconstruction of sidewalk structure of an areaway over half the length and fill of the areaway over the other half is considered to be $333 / SF plan area.
   The above unit costs are the construction amounts only, and do not include construction management, engineering and design, or contingency.
   The above costs are based on 3rd Quarter, 2002 unit prices.

8) Areaway 1403 is assigned a lower overall priority (downgraded by 1 position) because of higher cost of repair.
   Areaway 906 is assigned a higher overall priority (upgraded by 2 positions) because of utility facility nearby.
   Areaway 10013 is assigned a lower overall priority (downgraded by 5 positions) because of low pedestrian use of sidewalk.
   Areaway 406 is assigned a lower overall priority (downgraded by 5 positions) because of its high cost of reconstruction.
   Areaway 910 is assigned a lower overall priority (downgraded by 3 positions) because of its high cost of reconstruction.

9) Areaway 6000 has in its vicinity a Seattle City Light manhole in critical condition.
   Areaway 906 has in its vicinity a Seattle City Light manhole in critical condition.
   Areaway 1601 is being currently actively used by Union Gospel Mission as storage and office for its workshop.
   Areaway 1101 is at a building that is being planned for redevelopment.
   Areaways 909, 910 and 911 are currently on the Underground Tour.

10) Areaway 406 is assigned to be reconstructed over approximately half its length and filled over the remaining length.

APPENDIX E

AREAWAY SURVEY MAP

PSHD

AREAWAY SURVEY

LEGEND

2001 Survey

Structural Ratings

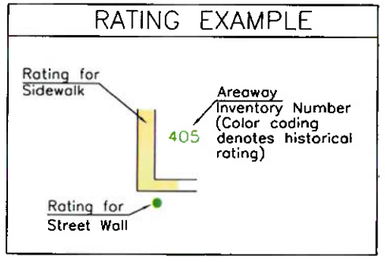
- Critical Sidewalk
- Restorable Sidewalk
- Adequate Sidewalk
- Light–Weight Concrete Filled Areaway
- Critical Street Wall
- Restorable Street Wall
- Adequate Street Wall
- ✳ Critical Street Wall if Fill is Removed
- Restorable Street Wall if Fill is Removed

Historical Ratings

- 405 (1) Substantially Intact, Notable
- 405 (2) Minor Alterations, or Notable Features
- 405 (3) Substantially Altered
- 405 (4) New, or Significantly Altered

- PSHD Boundaries
- Inaccessible Areaway
- No Known Areaway
- V City Light Vault

RATING EXAMPLE



DATE: 03/11/03

Columbia St
Second Ave
Cherry St
Third Ave
Public Safety Bldg.
James St
Fourth Ave
Western Ave
Post St
First Ave
Alaskan Way Viaduct
County Courthouse
Jefferson St
Terrace St
Yesler Way
Pioneer Square Park
Parking Lot
Prefontaine
S Washington St
Occidental Square Park
Casey Park
Second Ave S Extension
Fourth Ave S
S Main St
Bank Vault
Fire Station
S Jackson St
Fifth Ave S
King St

03-03

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