

# TECH MANAGEMENT, INC.

*Consulting To The Construction Industry*

June 8, 2023

Alex Willeson, Board President - (Email: [awilleson@gmail.com](mailto:awilleson@gmail.com))  
433 South Paula Point Drive  
Dunedin FL 34698

**Re: South Paula Point Condominium  
Phase I: Structural Milestone Inspection per Florida SB 4D**

Dear Mr. Willeson:

As authorized, and as required by Florida Law SB 4D, please find the results from our site visits on June 1, 2023/June 5, 2024, and our review of the original drawings by Jon Barry Allen (Architect) dated June 26, 1972.

**I. In Attendance:**

1. John Smith, Board Representative
2. Brian F. Keane, TMI, P.E., SI,
3. James Pucillo, TMI
4. Bill Lichenstein, TMI
5. Alex Willeson, Board President (part-time)

**II. General Information:**

1. As noted, Florida Law SB 4D requires a Milestone Inspection of all condominium buildings three (3) stories and greater that meet certain age requirements, NLT December 31, 2024.

**144 Annwood Road, Palm Harbor, FL 34685  
Phone 727-785-6907**

2. Please find enclosed as **Exhibit A**, a copy of the City of Dunedin Application for Building Permit that shows the permit was issued on July 6, 1972. No other documents were available.

### **III. Description:**

1. The complex consists of two (2) - three (3) story buildings (24 units each) for a total of forty-eight (48) residential units.
2. The structure(s) are constructed using eight (8) inch block masonry to the 3<sup>rd</sup> floor, then wood framing/PE wood trusses at the roof.
3. The units at the first floor are single story, while the units above (2<sup>nd</sup> and 3<sup>rd</sup> floors) are two (2) story units.
4. The buildings are located next to a canal (protected by a seawall), with direct access to the Gulf of Mexico.

### **IV. Review of the Original Structural Drawings:**

1. The design criteria is based on the 1973 Standard Building Code (the first Florida State Building Code) which did not go into effect until 1974.
  - a. Design wind load = 110 mph (assumed)
  - b. Design soil pressure = unknown
  - c. Floor loads (interior) = 40 psf (LL) (assumed)
  - d. Floor loads (exterior) = 60 psf (LL) (assumed)
  - e. Roof load = 20 psf (LL) (assumed)
2. The structures consists of reinforced concrete spread foundations, with a vapor barrier under the 1<sup>st</sup> floor (4") slab-on-grade reinforced with 6x6-10/10 WWM.
3. The 2<sup>nd</sup> story consist of concrete slabs (while the 3<sup>rd</sup> floor is wood framed) with both levels being supported by eight (8) inch masonry walls (reinforced with Dur-a-wall at 16" o/c, and with reinforced concrete tie beams between each unit and at the end walls.)
4. The roof is supported by wood framed walls and flat PE wood trusses with gable ends.

5. The west and east staircases consist of wood framing with the 6x6/4x4 wood posts noted as pressure treated (PT). **Note: the east staircases were replaced in 2014. (See below).**

**V. History of Repairs:**

1. The roofs were replaced as follows:
  - a. Marina Building (north): (Flat roof): 10 years ago
  - b. Canal Building (south): (Flat roof): 10 years ago
  - c. Marina Building (north): (Gable shingles): 13 years ago
  - d. Canal Building (south): (Gable shingles): 5 years ago
2. The building exterior was repainted in 2016.
3. The wood siding was replaced in 2014 with Hardi-board siding.
4. The east side stairs were replaced with HDG steel stringers and aluminum railings with PC concrete treads in 2013.
5. The elevated walkway (east side) was refurbished in 2013, to include new steel tube columns reported to be HDG; however, the degree of corrosion at the column bases indicates otherwise.
6. The seawall was built in 1975 by the Army Corp of Engineers and consists of concrete panels with a concrete pile cap.
7. The following items are currently scheduled to be addressed by the board as follows:
  - a. The west balcony/wood stairs are to be replaced in seven (7) years, (or sooner.)
  - b. The gable roof shingles from Unit #37 through Unit #48 (Marina Building/West elevation) are to be replaced within two (2) years.
  - c. The exteriors of both buildings are to be repainted in two (2) years. (2025)

**VI. Field Observations: (See Exhibit B for photos)**

1. Building Elevations (Photos P1 through P7, P9 through P42):
  - a. A review of the building elevations found no visible concerns, except:
  - b. Corrosion of the steel column bases on the east elevation.
  - c. The following are hurricane rated sliders at 31 of 48 units with hurricane rated windows at 22 of 48 units.
2. Roof (Photos P43 through 58):
  - a. No visible concerns, except for rust on A/C unit tie down anchors.
  - b. A/C units are on elevated stands, with hurricane tie downs.
3. East entrance staircases: (Photos P4 through P8)
  - a. Visible concerns are limited to minor corrosion on the support columns/ beams.
  - b. There was also limited paint flaking on the columns.
4. East Elevated Walkways: (Photos P84 through P108)
  - a. Visible concerns are limited to minor corrosion on the support columns, edge steel, rusted joint at stairwell plus;
  - b. Several hairline concrete deck cracks.
  - c. Two (2) concrete spalls.
  - d. Damaged ceiling panels.
5. West staircases/balconies: (Photos P24 through P34)
  - a. The staircases/balconies are approximately 20 years old.
  - b. There are numerous locations where wood deterioration, to include cracking and wood rot, were noted.
  - c. These elements may not last for 7 more years. They should be monitored twice a year until they are replaced in 3 to 5 years.

7. Unit balconies (Photos P59 through P83):
  - a. Individual units are covered with various finishes to include tile, acrylic coatings and paint.
  - b. There is one unit (#69) that had a carpet over the entire balcony. (Recommend this carpet be removed, since it will hold moisture and prevent the concrete slab from drying out.)
  - c. Other large carpets (greater than 15 sf prox) should also be removed for the same reason.
  - d. The railings at the west elevation balconies are PT wood which is deteriorating as noted above.
8. The seawall is in relatively fair condition for being almost 50 years old.
  - a. The south seawall pile cap is exhibiting various degrees of surface cracking. The board is planning on replacing the pile cap in the next 5 to 8 years. Based on the degree of surface cracking, it may need to be done sooner.
  - b. The north seawall pile cap is in better condition because of its exposure to sun light.

**VII. Summary:**

1. In general, the two (2) buildings are in generally good condition for a structure that is over 50 years old.
2. The two (2) structures exhibited no major concerns, with no evidence of any settlement problems. Only a few minor items were noted above that are recommended be addressed in the near future with one (1) exception: The west side stairs/balcony railings.
3. The attached drawings showing the photo (P) locations (**Exhibit D**) are included as requested.

**VIII. Recommendations:**

1. The units that are not protected by hurricane rated sliders/windows (though not required by law) should be considered for replacement with hurricane rated units.

2. The west wood staircases/balcony railings should be replaced within 3 to 5 years. Recommend non-wood options.
3. The cracks and spalls at the elevated east walkway are recommended to be repaired to prevent moisture migrating to the reinforcing steel follows:
  - a. To address hairline cracks, install a clear sealer over the entire elevated walkway. This sealer should be installed every 5 years thereafter. Recommend contacting Gemstone (attn: Jim Vonhoff) at 727-541-3194 for recommendations.
  - b. At concrete spalls, recommend repairing per ACI RAP- #7 (**Exhibit C**), then refinish with the same acrylic top coating.
4. The steel corrosion noted on the east staircases and walkways column bases is recommended to be addressed this year to prevent the corrosion from accelerating, as follows:
  - a. Clean damaged steel at the column bases to bare metal.
  - b. Apply 2 coats of cold galvanized (per ASTM A780) to all areas where corrosion was noted.
  - c. Apply a primer and a finish coat of an acrylic paint. (Sherwin Williams or TNEMEC, note TNEMEC offers better warranties on steel. Contact Chad Holmes at 727-201-6706 for TNEMEC's recommendations in a salt environment. Note: TNEMEC will be more expensive than Sherwin Williams.
  - d. Then proceed with repainting the entire exteriors of both buildings in 2025.

Thank you for the opportunity to conduct your Milestone Inspection per Florida Law SB 4D.  
If I can provide further services, please advise.

Sincerely:  
TECH MANAGEMENT INC.

*Brian F Keane*



Brian F  
Keane

Digitally signed  
by Brian F Keane  
Date: 2023.06.10  
12:52:44 -04'00'

Brian F. Keane, PE, SI  
President

Enclosures

cc: John B. Smith (Board Representative)  
File/PAULA\_PT\_MI

**EXHIBIT A**  
**ORIGINAL APPLICATION FOR PERMIT**  
**DATED 7/6/72**



# CITY OF DUNEDIN

Dunedin, Florida

## APPLICATION FOR BUILDING PERMIT

Work shall be started within 90 days from date of this permit. Otherwise, permit shall become null and void.

Drawings shall show all details and specifications of work. Show floor plan, dimension, location on lot, and contain all other details.

Subject to State and Federal Laws and Regulations; and Plat Restrictions.

No. 9 Block F Subdivision Dunedin Chaseway Center  
 Date July 6, 1972  
 Contractor WMA, INC.  
600 West Cove

Lot No. 9 Block F Subdivision Dunedin Chaseway Center  
 Zone: T.F.

New Building  Remodeling   
 Street No. 433 Street Name Central Ave  
 Number of Stories 3 Type of Structure C.B.F.  
 Garage Area 14 sq. ft. Number of Rooms 12  
 Porches 1 sq. ft. R. e. f. e. d. with 1  
 TOTAL 15 sq. ft. Foundation 1

### USE REGULATIONS

Usage CONDOMINIUM RESIDENTIAL APTS  
 Distance from Lot Lines: Front 3 Side 3 Rear 3 Side Street

Usage \_\_\_\_\_  
 Distance from Lot Lines: Front \_\_\_\_\_ Side \_\_\_\_\_ Rear \_\_\_\_\_ Side Street \_\_\_\_\_  
 Garage Capacity \_\_\_\_\_

Plans and Specifications Approved \_\_\_\_\_ 19 \_\_\_\_\_

Building Official \_\_\_\_\_ Signature of Applicant \_\_\_\_\_

Estimated Cost of Completed Project \$ 145,700 Cost of Permit \$ 145.70

Remarks See notes on plan - Foundation - 11' - 11" x 11" x 11" (11' x 11" x 11")

**EXHIBIT B**  
**PHOTOS**

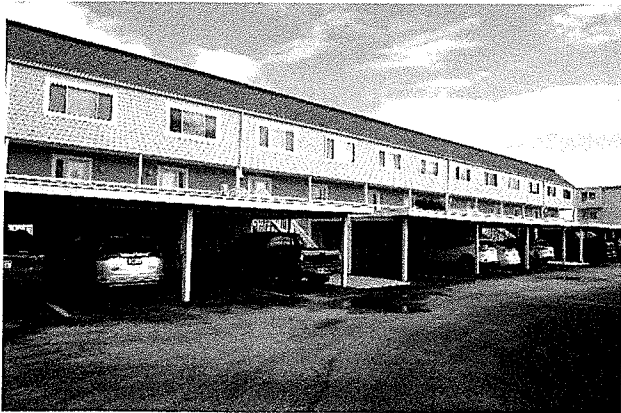
Photo Report  
South Paula Point (06-01-2023)



P 1: Elevation, South Building



P 2: Elevation, Center



P 3: Elevation, North Building



P 4: Stairwell & Gutter Drain



P 5: Rust Underneath Walkway



P 6: Rusted Base



P 7: First Floor Patio



P 8: Rust & Deteriorating Coating



P 9: Rusted Fence



P 10: Elevation; North Building, Northside



P 11: Rear Elevation, North Building



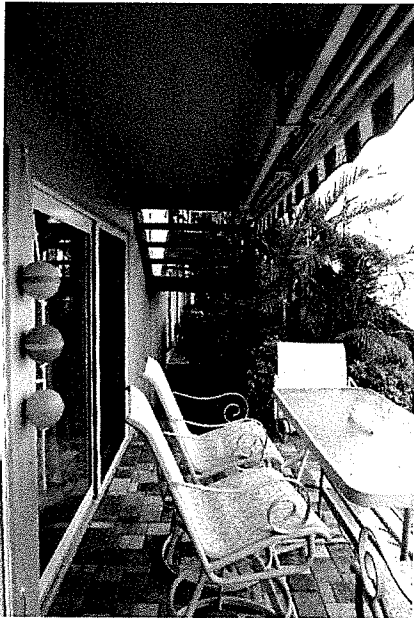
P 12: Deteriorating Wood Stairwell, West Elevation



P 13: Deteriorating Wood Stairwell, West Elevation



P 14: Deteriorating Wood at Landing, West Elevation



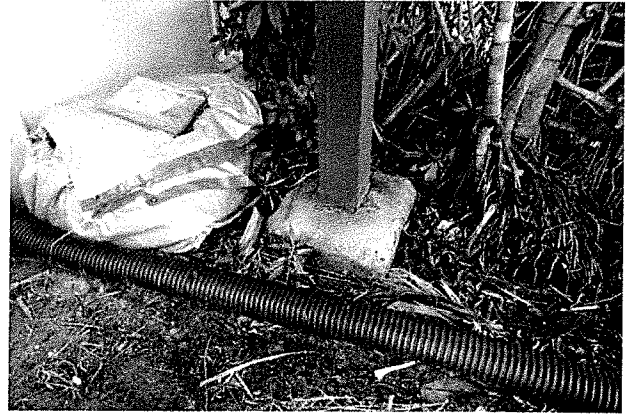
P 15: First Floor Rear Patio, West Elevation



P 16: Deteriorating Wood Railing, West Elevation



P 17: Split Post, West Elevation



P 18: Deteriorating Concrete Base, West Elevation



P 19: Deteriorating Wood Railing, West Elevation



P 20: Elevation; South Building, Southwest Corner



P 21: Elevation; North Building, Southwest Corner



P 22: Elevation; North Building, Southeast Corner

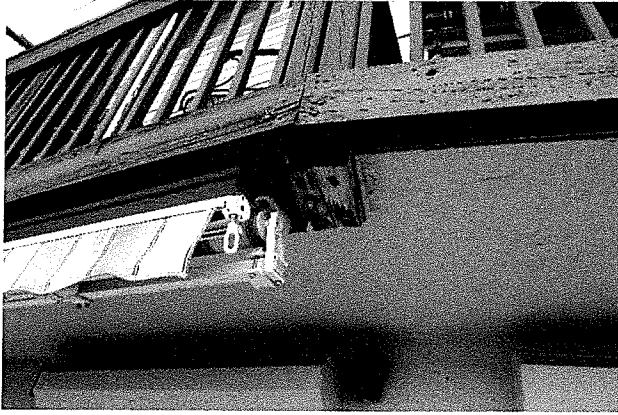


P 23: Elevation; South Building, Northwest Corner



P 24: Deteriorating Wood Railing, West Elevation





P 25: Wood & Fastener Damage, South Elevation



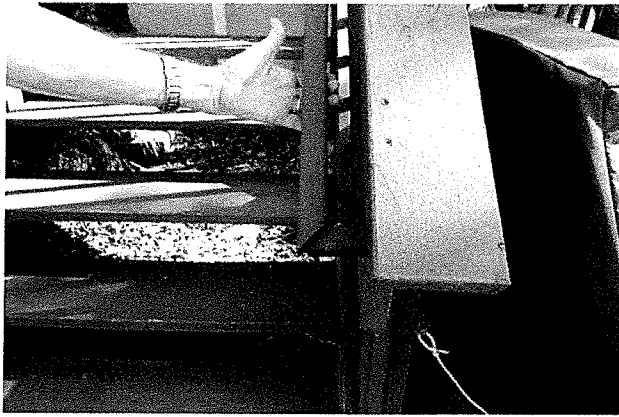
P 26: Concrete Spall & Exposed Steel, South Elevation



P 27: Rust at Concrete Base, South Elevation



P 28: Uncoated Wood at Balcony, South Elevation



P 29: Railing Fault, South Elevation



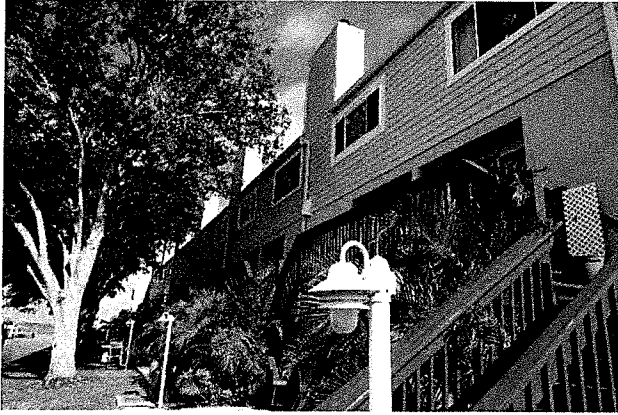
P 30: Southwest Elevation, South Building



P 31: South Elevation; South Building, Southwest Corner



P 32: Moisture Damage at Stairwell, South Elevation



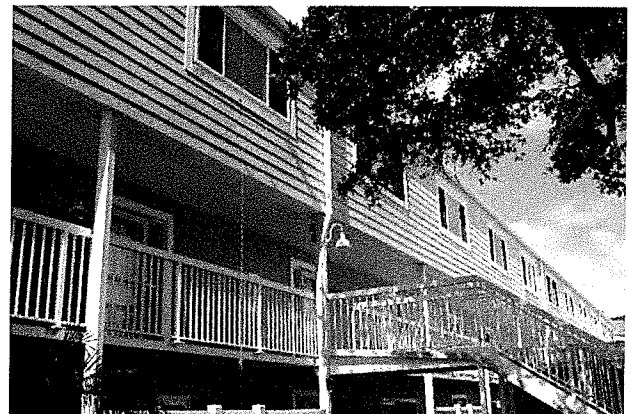
P 33: South Elevation, South Building, Southeast Corner



P 34: South Elevation; South Building, Southeast Corner



P 35: Missing Wood Beam, East Elevation



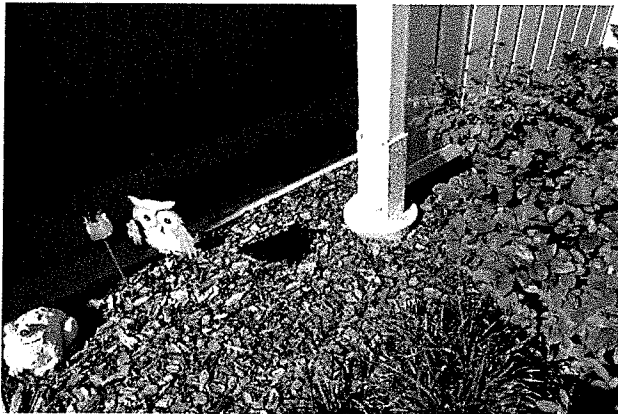
P 36: Drain; North Elevation, South Building



P 37: Rusted Steel underneath Walkway; North Elevation, South Building



P 38: Rusted Steel Base; North Elevation, South Building



P 39: Rusted Steel Base; North Elevation, South Building



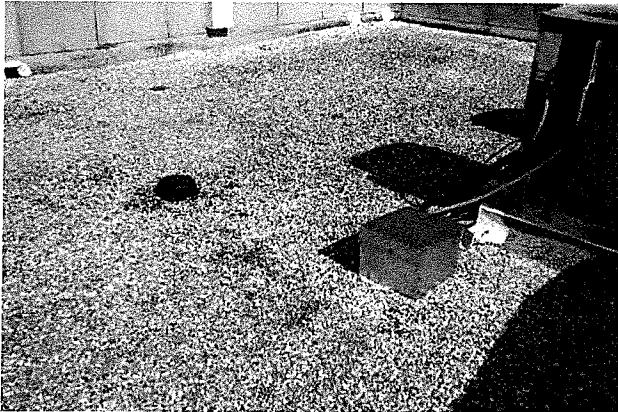
P 40: Rusted Steel Base; North Elevation, South Building



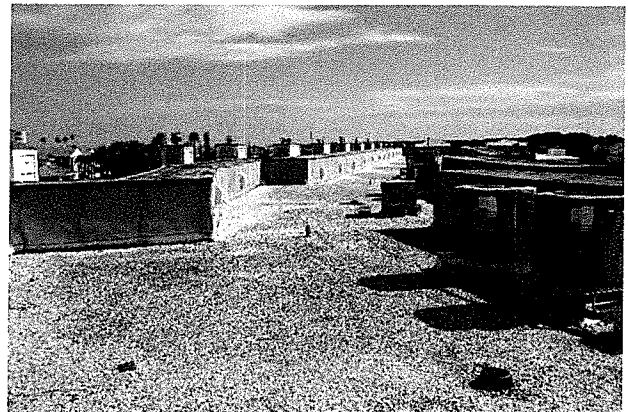
P 41: Rusted Steel Base; North Elevation, South Building



P 42: Damaged Wood at Balcony Railing; North Elevation, South Building



P 43: North Building Roof, at Sout East Corner



P 44:L North Building Roof, at Southside facing Northwest



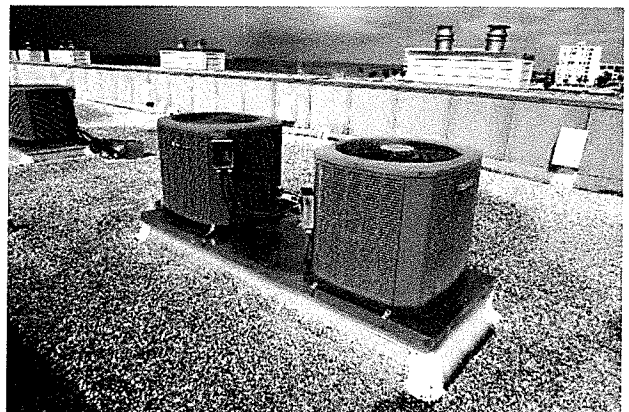
P 45: North Building Roof, at Southside facing North



P 46 North Building Roof, at Northside facing South



P 47: North Building Roof, A/C Units



P 48 Rusted A/C Units with L-Fasteners



P 49: A/C Units with L-Fasteners



P 50: Rusted Drain



P 51: South Building Roof, at Northwest Corner



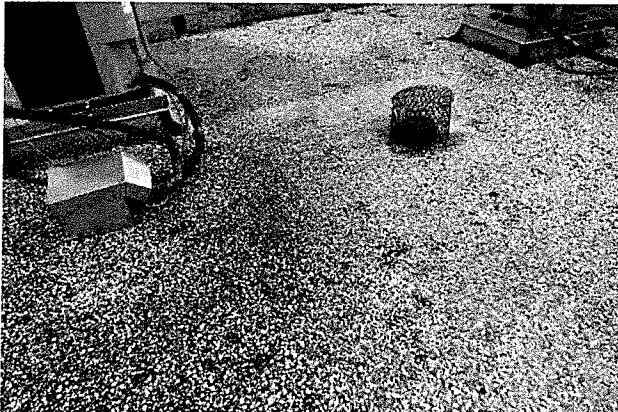
P 52: South Building Roof, at Westside facing Southeast



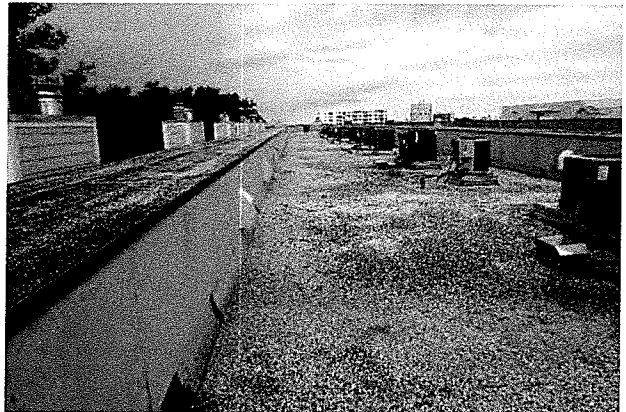
P 53: South Building Roof, at Westside facing East



P 54: Standing Water



P 55: Standing Water, Insufficient Drainage



P 56: South Building Roof, at Eastside facing West





P 57: South Building Roof, A/C Units



P 58: Drain



P 59: 3<sup>rd</sup> Floor Balcony; Rear, Unit 36



P 60: 3<sup>rd</sup> Floor Balcony; Rear Unit 36



P 61: 3<sup>rd</sup> Floor Balcony; Front, Unit 36



P 62: 3<sup>rd</sup> Floor Balcony; Front, Unit 36



P 63: 3<sup>rd</sup> Floor Balcony; Rear, Unit 29



P 64: 3<sup>rd</sup> Floor Balcony; Rear, Unit 29



P 65: 3<sup>rd</sup> Floor Balcony; Front, Unit 29



P 66: 3<sup>rd</sup> Floor Balcony; Front, Unit 29



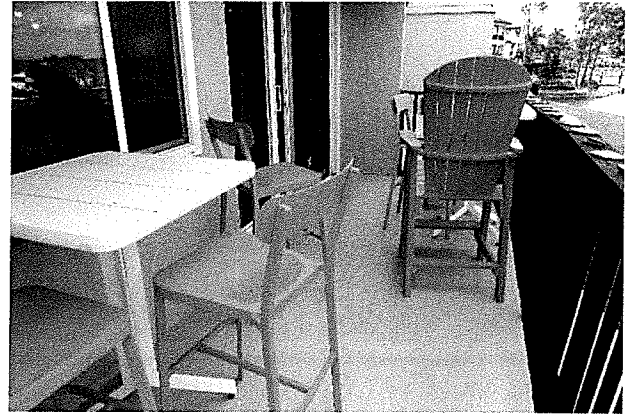
P 67: 2<sup>nd</sup> Floor Balcony, Unit 29



P 68: 2<sup>nd</sup> Floor Balcony, Unit 29



P 69: 2<sup>nd</sup> Floor Balcony & Rug, Unit 30



P 70: 2<sup>nd</sup> Floor Balcony, Unit 36



P 71: 2<sup>nd</sup> Floor Balcony, Unit 36



P 72: 2<sup>nd</sup> Floor Balcony, Unit 37



P 73: 2<sup>nd</sup> Floor Balcony, Unit 37



P 74: 2<sup>nd</sup> Floor Balcony, Unit 38



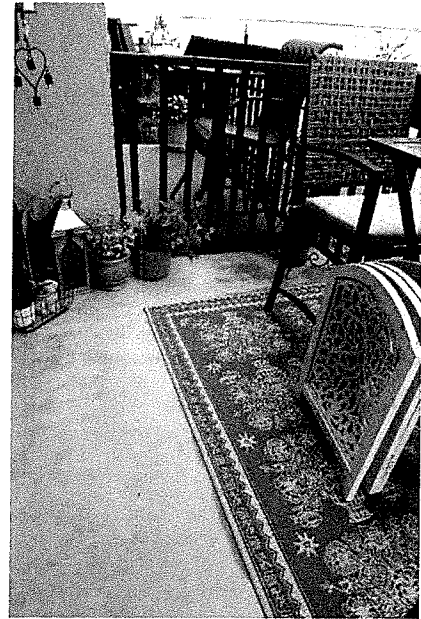
P 75: 2<sup>nd</sup> Floor Balcony, Unit 38



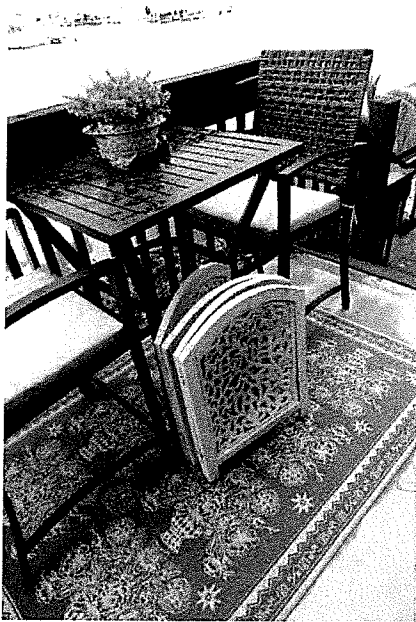
P 76: 2<sup>nd</sup> Floor Balcony, Unit 39



P 77: 2<sup>nd</sup> Floor Balcony, Unit 39



P 78: 2<sup>nd</sup> Floor Balcony, Unit 40



P 79: 2<sup>nd</sup> Floor Balcony, Unit 40



P 80: 2<sup>nd</sup> Floor Balcony, Unit 41



P 81: 2<sup>nd</sup> Floor Balcony, Unit 41



P 82: 2<sup>nd</sup> Floor Balcony, Unit 42



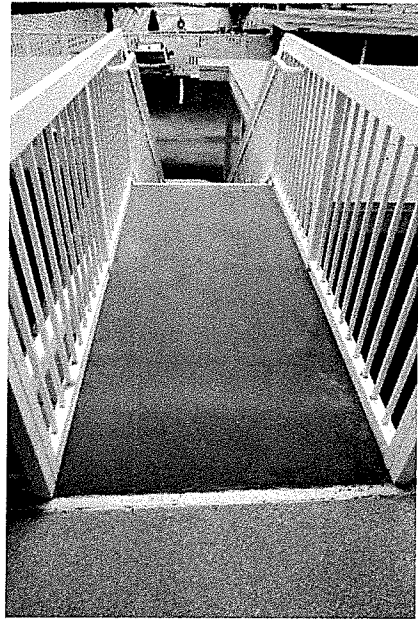
P 83: 2<sup>nd</sup> Floor Balcony, Unit 42



P 84: Elevated Walkway; North Building, at Northside facing South



P 85: Rusted Joint, Elevated Walkway



P 86: Rusted Joint & Stairwell Walkway



P 87: Rusted Steel, Elevated Walkway

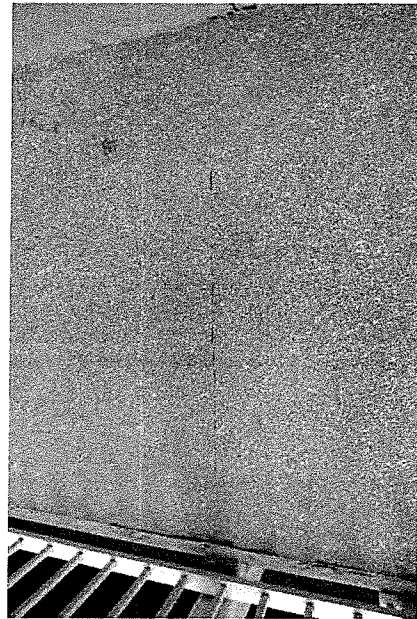


P 88: Concrete Crack, Elevated Walkway

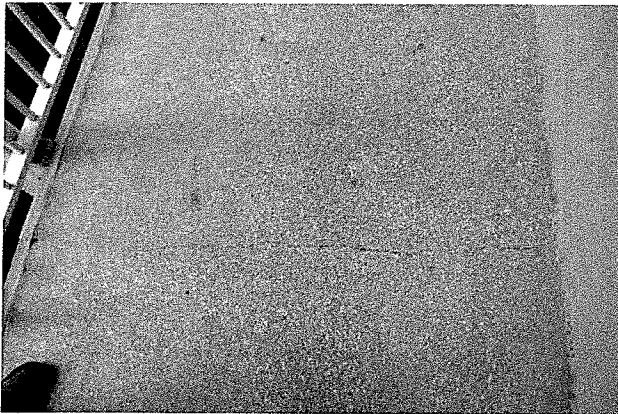




P 89: Rusted Steel, Elevated Walkway



P 90: Concrete Crack, Elevated Walkway



P 91: Concrete Crack, Elevated Walkway



P 92: Concrete Crack, Elevated Walkway



P 93: Concrete Spall, Elevated Walkway



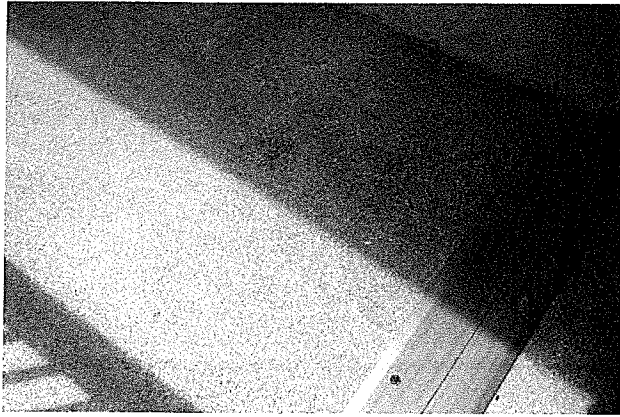
P 94: North Building Elevated Walkway, at Elevator



P 95: South Building Elevated Walkway, at Elevator



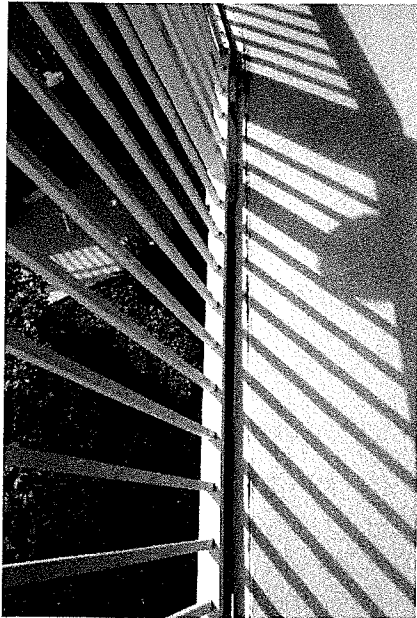
P 96: Damage Ceiling Panels, Elevated Walkway



P 97: Concrete Spall, Elevated Walkway



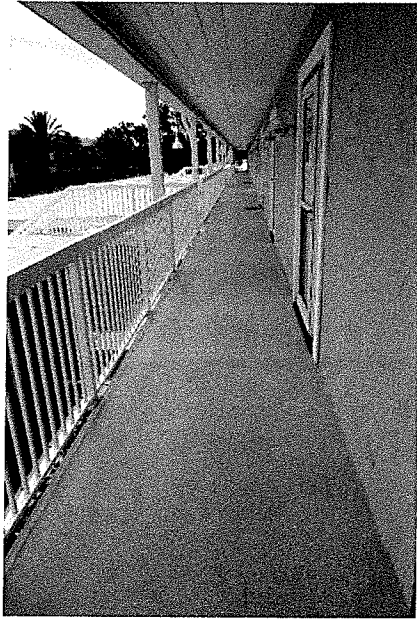
P 98: Rusted Support & Deteriorating Coating,  
Elevated Walkway



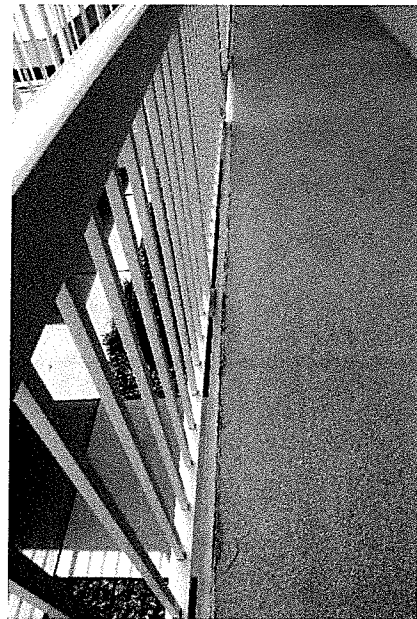
P 99: Rusted Steel, Elevated Walkway



P 100: Rusted Steel & Concrete Crack, Elevated  
Walkway



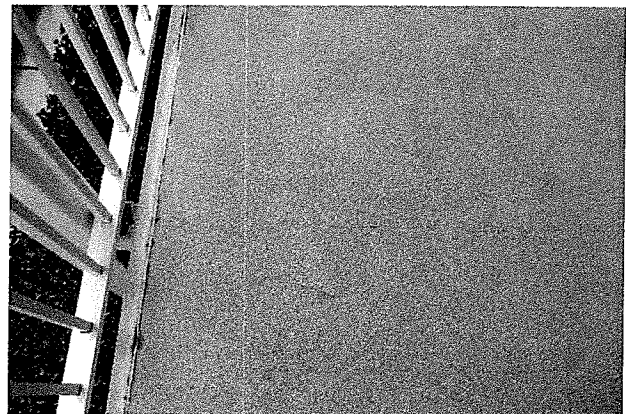
P 101: South Building Elevated Walkway, at Westside facing East



P 102: Rusted Steel, Elevated Walkway



P 103: Rusted Steel, Elevated Walkway



P 104: Concrete Crack, Elevated Walkway



P 105: No Coating on Stairwell Walkway



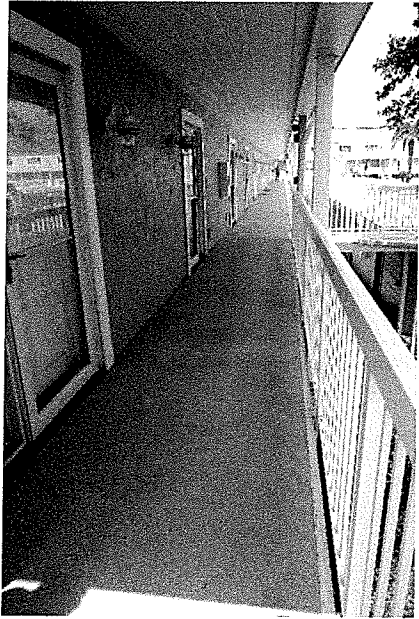
P 106: Rusted Steel



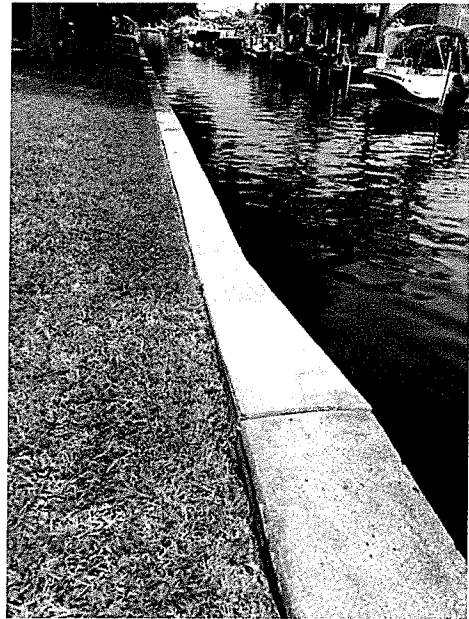
P 107: Rusted Steel



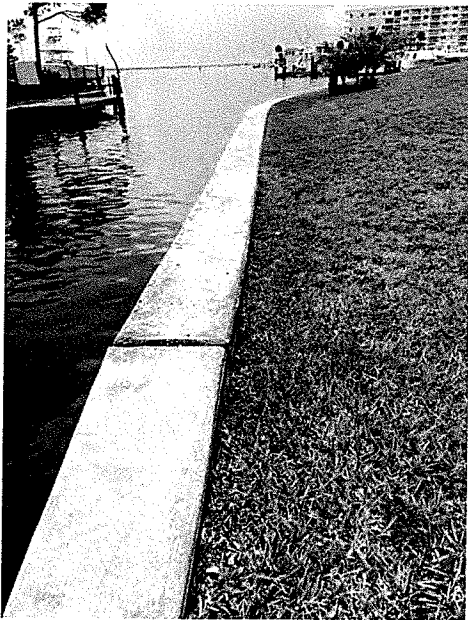
P 108: Rusted Steel



P 109: South Building Walkway, at Eastside facing West



P 110: South Seawall



P 111: North Seawall

**EXHIBIT C**

**ACI RAP #7**



American Concrete Institute®  
Advancing concrete knowledge

www.concrete.org

**RAP-7**

# Spall Repair of Horizontal Concrete Surfaces

Reported by ACI Committee E 706

David W. Whitmore<sup>†</sup>  
Chair

J. Christopher Ball <sup>*</sup>	Bob Joyce	Kelly M. Page
Peter H. Emmons <sup>†</sup>	Brian F. Keane	Jay H. Paul
Timothy R. W. Gillespie	Kenneth M. Lozen	George I. Taylor
H. Peter Golter	John S. Lund	Patrick M. Watson <sup>§</sup>
Fred R. Goodwin		

<sup>\*</sup>Primary author of RAP Bulletin No. 6.

<sup>†</sup>Primary author of RAP Bulletin No. 7.

<sup>‡</sup>Primary author of RAP Bulletin No. 8.

<sup>§</sup>Primary author of RAP Bulletin No. 9.

*The committee would like to thank Brandon Emmons for his illustrations in these bulletins.*

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#### Structural Disclaimer

This document is intended as a voluntary field guide for the Owner, design professional, and concrete repair contractor. It is not intended to relieve the user of this guide of responsibility for a proper condition assessment and structural evaluation of existing conditions, and for the specification of concrete repair methods, materials, or practices by an experienced engineer/designer.

#### ACI Repair Application Procedure 7.

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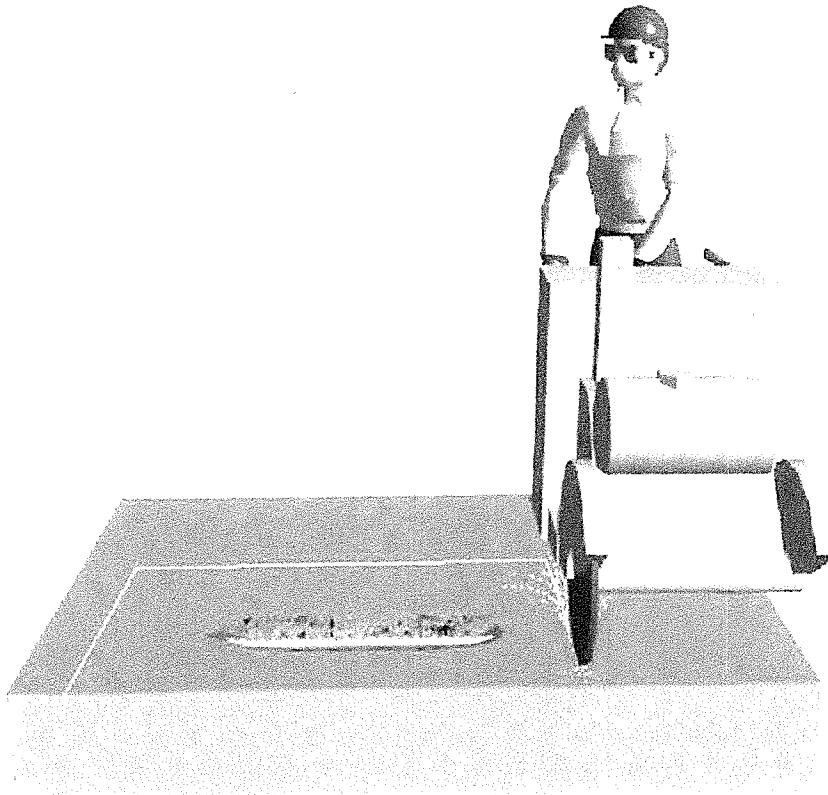
American Concrete Institute®  
Advancing concrete knowledge

ACI RAP Bulletin 7

FIELD GUIDE TO  
CONCRETE REPAIR  
APPLICATION PROCEDURES

# Spall Repair of Horizontal Concrete Surfaces

by Peter Emmons



## Introduction

Horizontal surface repair is common on slabs either elevated or on grade. Deterioration may be caused by corrosion of embedded reinforcement resulting in delamination and spalling. Other common causes include freezing-and-thawing deterioration and chemical attack. After an evaluation of the deterioration by an engineer, a plan should be developed including objectives and specifications for the repair. Steps for repairs that include layout, removals, edge preparation, mixing, bonding, placement, and curing have been included below as a step-by-step guide for use by field personnel.

### What is the purpose of this repair?

The purpose of spall repair is to repair deteriorated concrete, repair damaged reinforcing steel, and replace the lost concrete section.

### When do I use this method?

This method should be used for repairing spalls on horizontal surfaces such as structural slabs, exterior slabs on ground, balconies, and interior floors.

### How do I prepare the surface?

Regardless of the repair method, surface preparation is essentially the same. Unsound concrete is removed. Exposed bars are undercut and surfaces are cleaned with high-pressure water (3000 psi minimum) or are abrasively blasted. Follow the steps outlined below:

#### Surface preparation

*Step 1*—Sound the concrete surfaces to locate delaminated areas.

*Step 2*—Mark the perimeter of the repair area. Preferable layout will result in simple geometric shapes with few re-entrant corners.

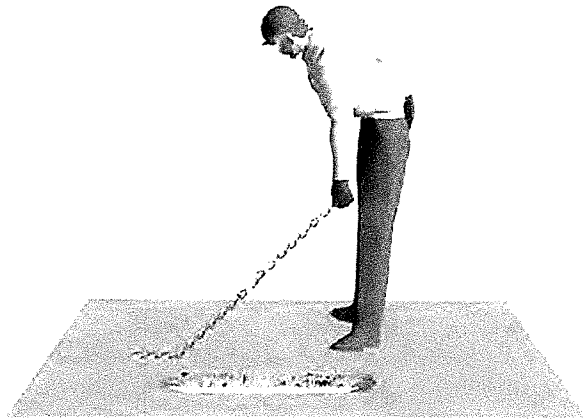
*Step 3*—Sawcut the perimeter of the repair. To avoid damaging reinforcement, the sawcut should not be deeper than the cover over the reinforcement. If the delamination is caused by corrosion, but the area of corroded reinforcing isn't apparent, use chipping hammers to expose the reinforcement until areas of uncorroded bars are found. Then sawcut an area that encompasses the boundaries of corrosion that have been established.

*Step 4*—Perform initial concrete removal with either 15-lb or 30-lb jackhammers. Jackhammers larger than 30 lb may cause damage to reinforcement, reinforcement bond to surrounding concrete, and remaining concrete. Use 15-lb jackhammers for final removal and detailing around the reinforcing steel.

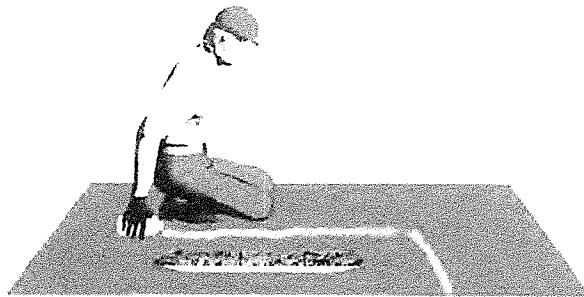
*Step 5*—If exposed bars are corroded, concrete surrounding the bar should be fully removed to expose the corroded bar, regardless of how much of the bar is corroded. Removals around the bar should allow the hand to pass under the bar. Clearance around the bar should be approximately 3/4 in. (20 mm).

*Step 6*—If corroded bars are found and the bars have loss of cross section, a structural engineer should be consulted.

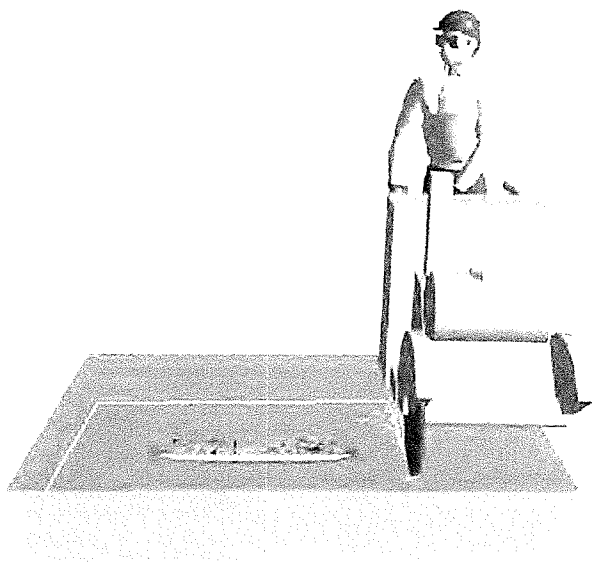
*Step 7*—Final cleaning of the exposed reinforcement and concrete is required. Use of high-pressure water or abrasive



*Fig. 1—Sound the concrete surface to locate delaminated areas. Chain drags can be used for sounding.*



*Fig. 2—Mark the perimeter of the repair area using simple geometric shapes and minimizing re-entrant corners.*



*Fig. 3—Sawcut the repair perimeter, but no deeper than the thickness of the concrete cover over the reinforcement.*

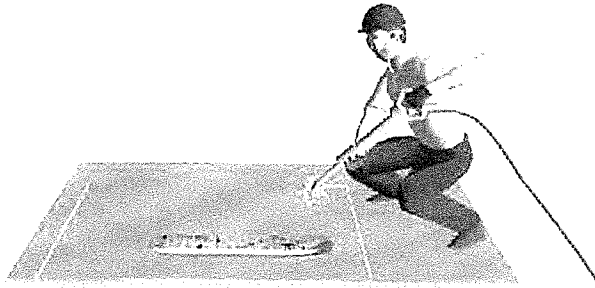


Fig. 4—Initial concrete removal within the sawcut area, using a 15- or 30-lb jackhammer. Use 15-lb jackhammer for final removal.

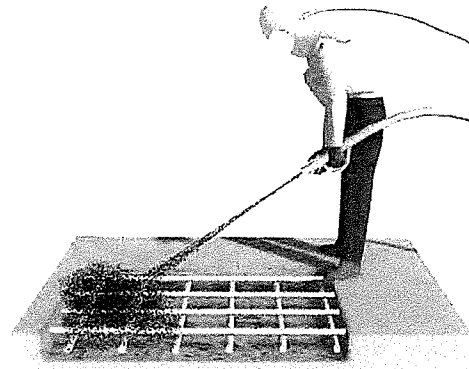


Fig. 7—Clean the exposed concrete and reinforcing bars with high-pressure water or abrasive blasting.

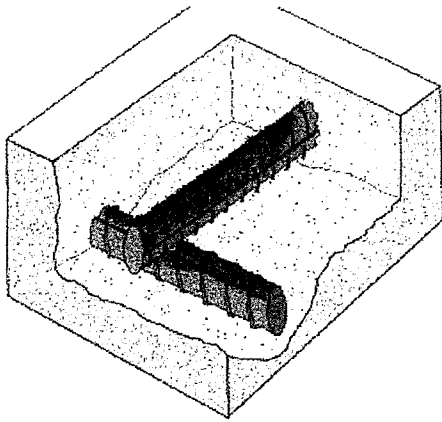


Fig. 5—If corrosion is present, remove enough concrete to fully expose the corroded bar.

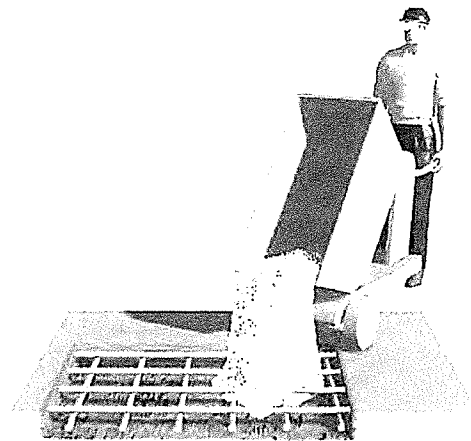


Fig. 8—Place repair material into the prepared cavity by buggy, pump, or other conveying method.

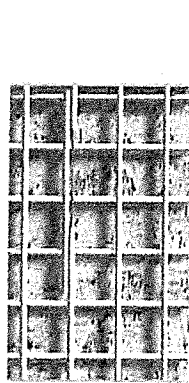


Fig. 6—Remove enough concrete so clearance beneath bars is about 3/4 in.

blasting is required to remove loose and bond-inhibiting materials.

### Placement procedures

*Step 8*—Pre-wet concrete surfaces before placing repair materials. Concrete surfaces receiving repair materials should be saturated surface-dry (SSD). An SSD condition is

achieved when the body of the concrete is saturated and free surface water and puddles have been removed from the surface of the concrete. Wetting the surface immediately before placing material may result in standing water and water-filled surface pores. This condition will result in poor bond between the repair material and the concrete substrate.

*Step 9*—Use of bonding agents is optional. The most common bonding agents are composed of cement and water mixed together to form a broomable slurry. When a cement slurry is used, care should be exercised so the slurry doesn't dry prior to placement of the repair material. Manufactured bonding agents can also be used. Follow manufacturer instructions for use of these materials. Certain repair material mixture proportions and placement conditions may not require a separate bonding agent. If a manufactured (bagged) product is used, follow the manufacturer's instructions. Follow the procedures outlined in the preceding section of this document. This will ensure that the placement methods and materials will result in adequate bond.

*Step 10*—Mix bagged repair material in accordance with the manufacturer's instructions. If using ready-mixed

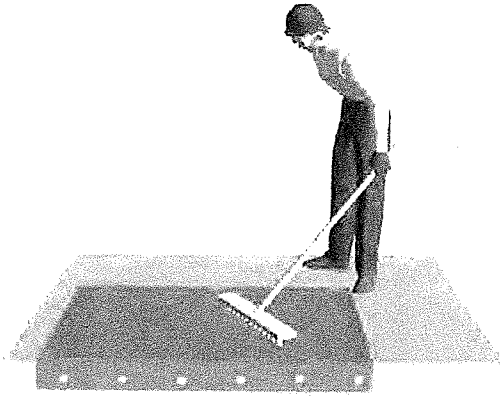


Fig. 9—Strike off, then float the repaired surface.

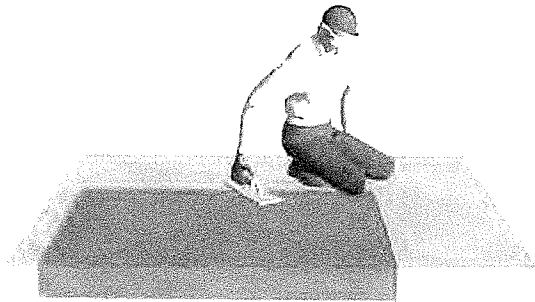


Fig. 10—After floating, trowel or broom the surface.

concrete, follow project specifications for mixing and transport requirements.

*Step 11*—Place repair material into the prepared cavity by buggy, pumpline, or other acceptable method.

*Step 12*—Consolidate the repair material into the cavity using either a vibrating screed or internal vibrator. Vibration allows the repair material to flow around the reinforcing steel and also come into intimate contact with the existing concrete substrate. This will promote maximum bond between the new material and the substrate. Entrapped air will also be removed in this step.

*Step 13*—Screed the repair material.

*Step 14*—Float the repair material.

*Step 15*—Trowel the repair material or broom the surface for texture.

*Step 16*—Cure the repair in accordance with the manufacturer's recommendations (if the material is bagged). If the repair uses ready-mixed or site-mixed concrete, place wet burlap and a polyethylene sheet over the repair for a minimum of 7 days. An alternative to wet burlap is the use of a spray-applied curing compound.

#### How do I select the right material?

If ready-mixed concrete is used for the repairs, a water-cement ratio (*w/c*) of not more than 0.40 should be used. Compressive strength should be greater than the original

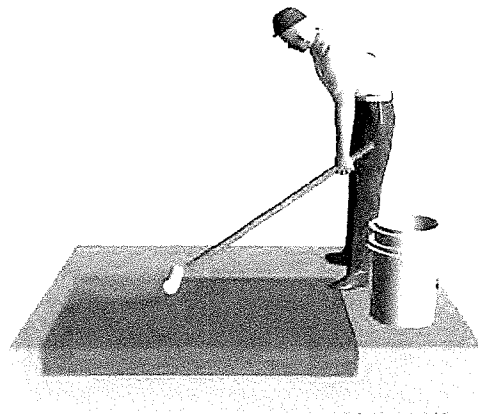


Fig. 11—Cure with wet coverings, or use a spray- or roller-applied curing compound as shown here.

concrete and should not be less than 4000 psi. Other properties such as low shrinkage may be desirable and should be specified by the owner's representative. Prepackaged materials specially designed for the repair of concrete surfaces can also be used. Selection should be based on meeting the specified properties outlined by the owner's representative.

#### What equipment do I need?

- Sawcutting equipment and blades
- Chipping hammers
- Air compressor
- Abrasive blast equipment
- Concrete mixing and placing equipment
- Concrete finishing tools

#### What are the safety considerations?

- Eye protection is required for demolition and cleaning operations.
- Hearing protection must reduce sound levels reaching the inner ear to limits on these levels that are specified by OSHA.
- Respiratory protection is required when airborne dust or vapors are produced.
- Skin should be protected from chemicals and cement.
- Material Safety Data Sheets (MSDS) should be available for materials on the job site.

It is the responsibility of the user of this document to establish health and safety practices appropriate to the specific circumstances involved with its use. ACI does not make any representations with regard to health and safety issues and the use of this document. The user must determine the applicability of all regulatory limitations before applying the document and must comply with all applicable laws and regulations including, but not limited to, United States Occupational Safety and Health Administration (OSHA) health and safety standards.

#### Preconstruction meeting

Prior to proceeding with the repair, a preconstruction meeting is recommended. The meeting should include representatives from participating parties (owner, engineer, contractor, materials manufacturer), and specifically address

the parameters, means, methods, and materials necessary to achieve the repair objectives.

### How do I check the repair?

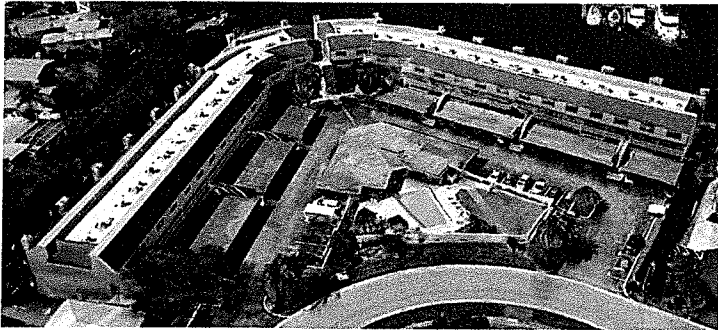
- Check surface preparation in two ways. First, the surface should be free of dust or other bond-inhibiting materials. A visual check is the first thing to do. The visual check should observe the surface for signs of dust or anything that may cause the repair material not to bond to the visible surface. The second check is to sound the area with a hammer to locate any delaminations that may still exist beneath the prepared surface.
- Test the repair-material properties to ensure the material meets the desired or specified properties. Compressive strength is the most common test. Samples of the material should be placed into the standard cylinder molds used for concrete testing and sent to a lab for testing.
- Check bond using a pull-off test. This test requires core drilling through the repair into the substrate approximately 1/2 in. (12 mm); the concrete core should remain attached to the substrate. Minimum core diameter is 2 in. (50 mm). After core drilling, a steel plate is glued to the top of the core. A specially designed pulling device is attached to the steel plate and is used to pull the plate until failure of the concrete occurs with the core. The force required to break the core is divided by the area of the core resulting in a value expressed in psi (pounds per square inch) or MPa (megaPascals). A target value above 150 psi (1 MPa) is recommended. In some cases, however, values below 150 psi (1 MPa) and above 100 psi (0.7 MPa) are acceptable. If the test

results are below 100 psi (0.7 MPa), critically review materials and procedures to develop a plan for improving the bond strength of the repair. More information regarding this procedure is given in ICRI Technical Guideline No. 03739, "Guide to Using In-Situ Tensile Pull-Off Tests to Evaluate Bond of Concrete Surface Materials," published by the International Concrete Repair Institute.

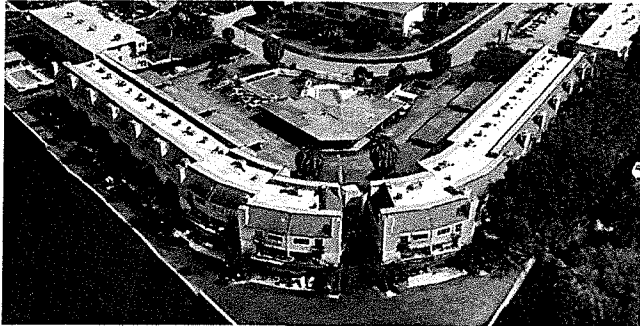
### References

- ACI Committee 201, 1992, "Guide for Making a Condition Survey of Concrete in Service (ACI 201.R-92), American Concrete Institute, Farmington Hills, Mich., 16 pp.
- ACI Committee 308, 1992, "Standard Specification for Curing Concrete (ACI 308-92)," American Concrete Institute, Farmington Hills, Mich., 11 pp.
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- ACI Committee 515, 1985, "A Guide to the Use of Waterproofing, Damp-proofing, Protective, and Decorative Barriers for Concrete (ACI 515.1R-79 (Revised 1985)), American Concrete Institute, Farmington Hills, Mich., 44 pp.
- ACI Committee 546, 2004, "Concrete Repair Guide (ACI 546R-04)," American Concrete Institute, Farmington Hills, Mich., 53 pp.
- International Concrete Repair Institute, "Guide for Selecting and Specifying Materials for Repair of Concrete Surfaces," *ICRI Technical Guideline No. 03733*.
- International Concrete Repair Institute, "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion," *ICRI Technical Guideline No. 03730*.
- International Concrete Repair Institute, "Guide to Using In-Situ Tensile Pull-Off Tests to Evaluate Bond of Concrete Surface Materials," *ICRI Technical Guideline No. 03739*.
- International Concrete Repair Institute, "Selecting and Specifying Concrete Surface Preparation for Coatings, Sealers, and Polymer Overlays," *ICRI Technical Guideline No. 03732*.

**EXHIBIT D**  
**DRAWINGS**



AERIAL FRONT VIEW  
SCALE: N.T.S.



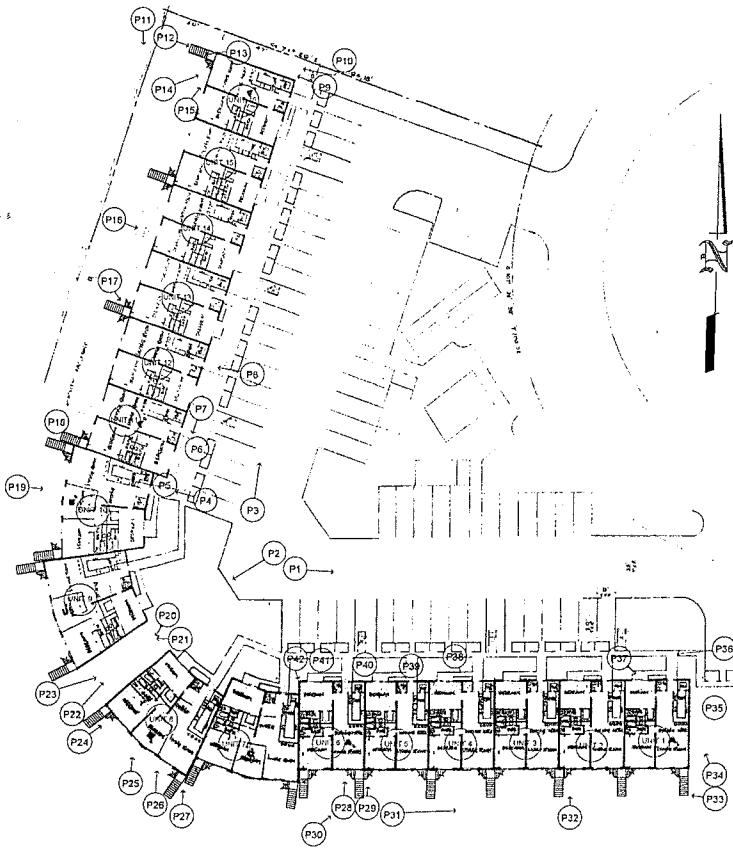
AERIAL REAR VIEW  
SCALE: N.T.S.

SHEET INDEX	
SR-1	SCOPE OF WORK, LOCATION MAP AERIAL VIEW.
SR-2	ROOF PLAN
SR-3	FIRST FLOOR
SR-4	SECOND FLOOR
SR-5	THIRD FLOOR
SR-6	PHOTOS
SR-7	PHOTOS
SR-8	PHOTOS

PROJECT CRITERIA

- I: SCOPE OF SERVICES
1. FLORIDA LAW 59 40 REQUIRES A PHASE 1 MILESTONE INSPECTION OF ALL CONDOMINIUM BUILDINGS THREE (3) STORIES AND GREATER THAT MEET CERTAIN AGE REQUIREMENTS NLT 12/31/24.
  2. ENCLOSED WITHIN THE ATTACHED REPORT, PLEASE FIND A COPY OF THE CITY OF DUNEDIN'S APPLICATION FOR BUILDING PERMIT ISSUED 7/6/72 THAT SHOWS WHEN THE BUILDING WAS INITIALLY PERMITTED. THE FIRST CERTIFICATE OF OCCUPANCY WAS NOT AVAILABLE.
- II: DESIGN CRITERIA
1. THE APPLICABLE CODE WAS THE STANDARD BUILDING CODE (SBC), HOWEVER, IT WAS NOT FORMALLY ADOPTED BY THE STATE OF FLORIDA UNTIL 1974.
  2. DESIGN LOADS:
    - a: ROOF LIVE LOAD (ASSUMED): 20 PSF
    - b: INTERIOR FLOOR LIVE LOAD (ASSUMED): 40 PSF
    - c: EXTERIOR WALKWAY LIVE LOAD (ASSUMED): 60 PSF
    - d: WIND SPEED (ASSUMED): 110 MPH
    - e: SOIL BEARING PRESSURE: UNKNOWN.
- III: BUILDING DESCRIPTION
1. THE COMPLEX INCLUDES TWO (2)- THREE (3) STORY BUILDINGS (24 UNITS EACH) FOR A TOTAL OF FOURTY-EIGHT (48) RESIDENTIAL UNITS
  2. THE STRUCTURE CONSISTS OF REINFORCED CONCRETE SPREAD FOUNDATIONS WITH A VAPOR BARRIER UNDER THE SLAB-ON-GRADE.
  3. THE 2ND STORY CONSISTS OF CONCRETE SLABS (WHILE THE 3RD FLOOR IS WOOD FRAMED) WITH BOTH LEVELS BEING SUPPORTED BY EIGHT (8) INCH MASONRY WALLS (REINFORCED WITH CONCRETE TIE BEAMS) BETWEEN EACH UNIT AND AT THE END WALLS.
  4. THE ROOF IS SUPPORTED BY WOOD FRAMED WALLS AND FLAT WOOD TRUSSES WITH GABLE ENDS.
  5. THE WEST ELEVATED WALKWAYS AND STAIRCASE ARE WOOD FRAMED WITH THE 6X6 AND 4X4 WOOD POSTS NOTED AS PRESSURE TREATED (PT).
  6. THE EAST STAIRCASES WERE REPLACED APPROXIMATELY TEN (10) YEARS AGO.

TECH MANAGEMENT, INC. 433 SOUTH PAULA DRIVE DUNEDIN, FLORIDA 33500 PAUL HANCOCK, P.E.
ISSUED AS A N.T.S. RECORD SET (10/2024)
<b>SOUTH PAULA POINT CONDOMINIUM</b> 433 SOUTH PAULA DR. DUNEDIN FL. 34698
PHASE 1 MILESTONE INSPECTION
DATE: 06/06/23 SCALE: AS NOTED JOB: J23-15
SHEET <b>SR-1</b> 1 OF 8 SHEETS



FIRST FLOOR PLAN  
SCALE N.T.S.



TCS MANAGEMENT, INC.  
COMMERCIAL  
GENERAL CONTRACTORS  
11500 W. PALM BEACH BLVD.  
PALM BEACH, FL 33469

ISSUED AS PART OF  
PROJECT  
060623

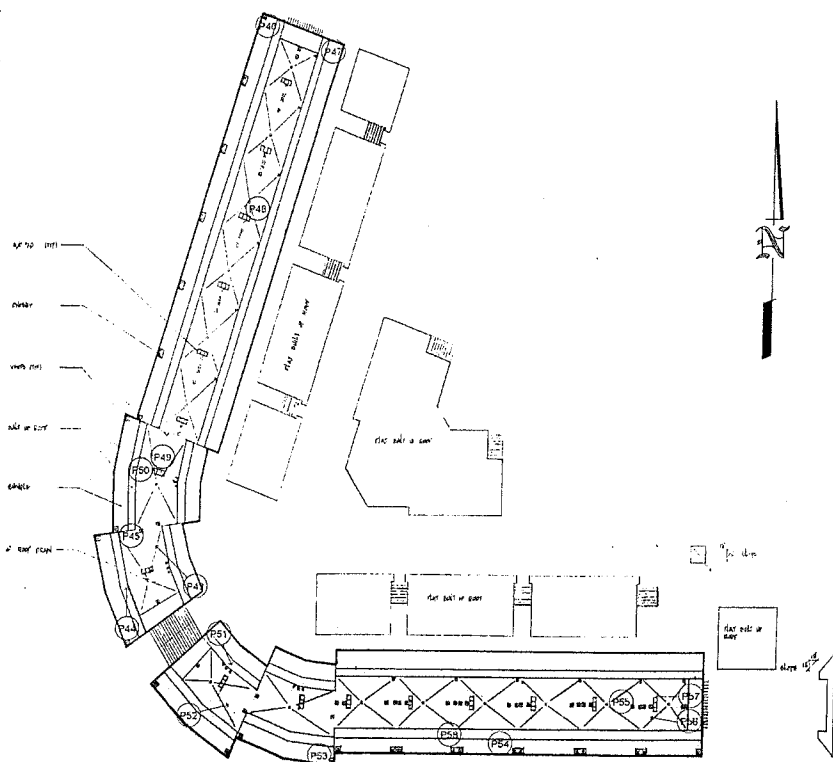
SOUTH PAULA POINT CONDOMINIUM  
433 SOUTH PAULA DR.  
DUNEDIN FL. 34698

PHASE I  
ELECTRICAL  
INSPECTION

DATE: 06/06/23  
SCALE: AS NOTED  
JOB: 23-15

SHEET  
**SR-5**  
5 OF 8 SHEETS





ROOF PLAN  
SCALE: N.T.S.



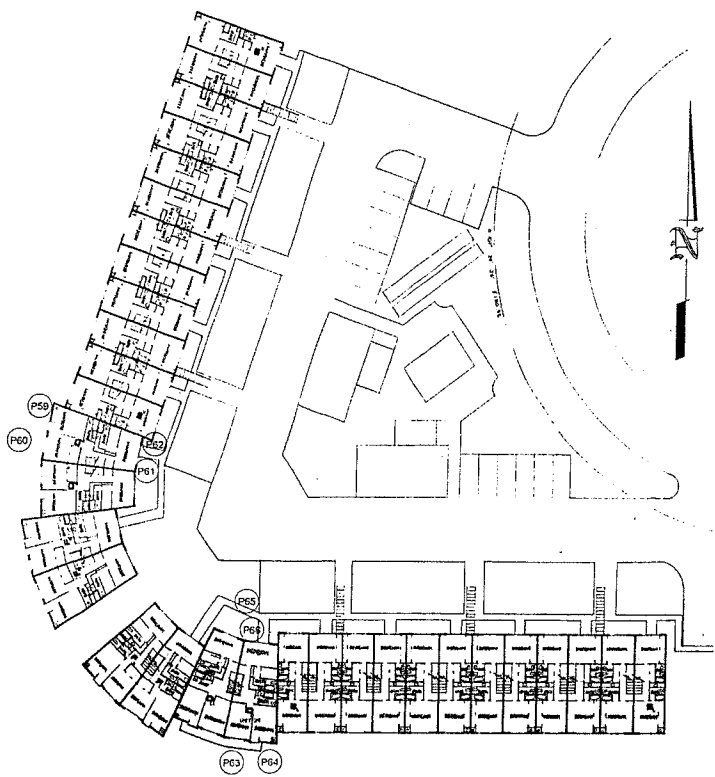
ISSUED AS A SET  
(SEE COVER)

**SOUTH PAULA POINT CONDOMINIUM**  
433 SOUTH PAULA DR.  
DUNEDIN FL 34698

PHASE 1  
MILESTONE  
INSPECTION

DATE: 06/02/23  
SCALE: AS NOTED  
JOB: 223-15

SHEET  
**SR-2**  
2 OF 8 SHEETS



THIRD FLOOR PLAN  
SCALE: N.T.S.



TECH MANAGEMENT, INC.  
 CAROL ANN  
 11111 WOODS  
 PALM HARBOR, FL 34683

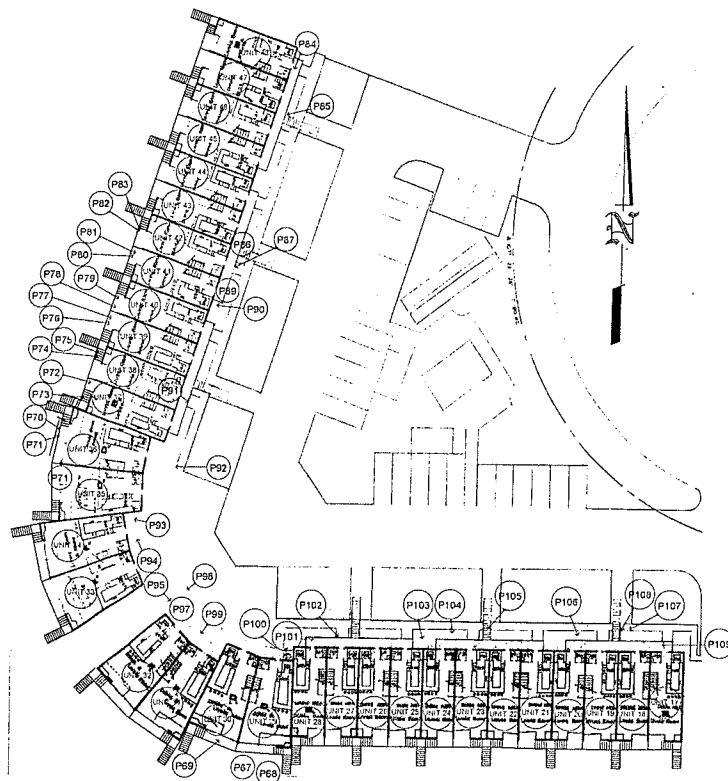
ISSUED AS A PART  
 OF THE  
 PROJECT

SOUTH PAULA POINT CONDOMINIUM  
 433 SOUTH PAULA DR.  
 DUNEDIN FL 34698

PHASE I  
 PRELIMINARY  
 INSPECTION

DATE: 06/20/03  
 SCALE: AS SHOWN  
 JOB: 213-15

SHEET  
**SR-3**  
 3 OF 8 SHEETS



SECOND FLOOR PLAN  
SCALE: 1/4" = 1'-0"

TECH MANAGEMENT, INC.  
 10000 W. BOULEVARD  
 SUITE 200  
 PALM HARBOR, FL 34683

ISSUED AS A PART OF THE PROJECT

SOUTH PAULA POINT CONDOMINIUM  
 433 SOUTH PAULA DR.  
 DUNEDIN FL. 34698

PHASE I  
 INSPECTION

DATE: 06/05/03  
 SCALE: AS SHOWN  
 JOB: 233-16

SHEET  
**SR-4**  
 4 OF 8 SHEETS



PHOTOS

TECH MANAGEMENT, INC.  
 433 SOUTH PAULA DR.  
 DUNEDIN FL 34698

SOUTH PAULA POINT CONDOMINIUM  
 433 SOUTH PAULA DR.  
 DUNEDIN FL 34698

PHASE I  
 VISUAL  
 INSPECTION

DATE: 06/08/23  
 SCALE: AS NOTED  
 JOB: 23-15

SHEET  
**SR-6**  
 6 OF 8 SHEETS



P43 NORTH BUILDING ROOF, AT SOUTHEAST CORNER



P44 NORTH BUILDING ROOF, AT SOUTH SIDE FACING NORTHWEST



P45 NORTH BUILDING ROOF, AT SOUTH SIDE FACING NORTH



P46 NORTH BUILDING ROOF, AT NORTH SIDE FACING SOUTH



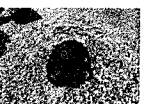
P47 NORTH BUILDING ROOF AC UNITS



P48 RUSTY AC UNITS WITH L-FASTENERS



P49 AC UNITS WITH L-FASTENERS



P50 RUSTY DRAIN



P51 SOUTH BUILDING ROOF, AT NORTHWEST CORNER



P52 SOUTH BUILDING ROOF, AT WESTSIDE FACING SOUTHEAST



P53 SOUTH BUILDING ROOF, AT WESTSIDE FACING EAST



P54 STANDING WATER



P55 STANDING WATER, INSUFFICIENT DRAINAGE



P56 SOUTH BUILDING ROOF, AT EASTSIDE FACING WEST



P57 SOUTH BUILDING ROOF, AC UNITS



P58 DRAIN



P59 3 RD FLOOR BALCONY, REAR, UNIT 29



P60 3 RD FLOOR BALCONY, REAR, UNIT 36



P61 3 RD FLOOR BALCONY, FRONT, UNIT 36



P62 3 RD FLOOR BALCONY, FRONT, UNIT 36



P63 3 RD FLOOR BALCONY, REAR, UNIT 29



P64 3 RD FLOOR BALCONY, REAR, UNIT 29



P65 2 RD FLOOR BALCONY, FRONT, UNIT 29



P66 2 RD FLOOR BALCONY, FRONT, UNIT 29



P67 2ND FLOOR BALCONY, UNIT 29



P68 2ND FLOOR BALCONY, UNIT 29



P69 2ND FLOOR BALCONY & RUG, UNIT 30



P70 2ND FLOOR BALCONY, UNIT 36



P71 2ND FLOOR BALCONY, UNIT 36



P72 2ND FLOOR BALCONY, UNIT 37



P73 2ND FLOOR BALCONY, UNIT 37



P74 2ND FLOOR BALCONY, UNIT 38



P75 2ND FLOOR BALCONY, UNIT 38



P76 2ND FLOOR BALCONY, UNIT 39



P77 2ND FLOOR BALCONY, UNIT 39



P78 2ND FLOOR BALCONY, UNIT 40



P79 2ND FLOOR BALCONY, UNIT 40



P80 2ND FLOOR BALCONY, UNIT 40

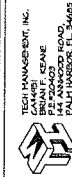


P81 2ND FLOOR BALCONY, UNIT 41



P82 2ND FLOOR BALCONY, UNIT 42

PHOTOS



ISSUED AS A M.I.  
REGISTERED  
LICENSED

SOUTH PAULA POINT CONDOMINIUM  
433 SOUTH PAULA DR.  
DUNEDIN FL. 34698

PHASE 1  
FINAL  
INSPECTION

DATE: 06/06/23

SCALE: AS NOTED

JOB: 23-15

SHEET

SR-7

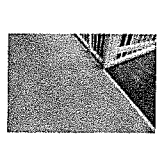
7 OF 8 SHEETS



P93 2ND FLOOR BALCONY, UNIT 42



P94 ELEVATED WALKWAY, NORTH BUILDING, AT NORTHSIDE FACING SOUTH



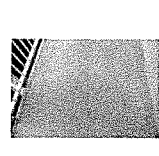
P95 RUSTED JOINT, ELEVATED WALKWAY



P96 RUSTED JOINT & STAIRWELL WALKWAY



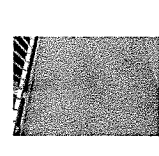
P97 RUSTED STEEL, ELEVATED WALKWAY



P98 CONCRETE CRACK, ELEVATED WALKWAY



P99 RUSTED STEEL, ELEVATED WALKWAY



P90 CONCRETE CRACK, ELEVATED WALKWAY



P91 CONCRETE CRACK, ELEVATED WALKWAY



P92 CONCRETE CRACK, ELEVATED WALKWAY



P93 CONCRETE SPALL, ELEVATED WALKWAY



P94 NORTH BUILDING ELEVATED WALKWAY, AT ELEVATOR



P95 SOUTH BUILDING ELEVATED WALKWAY, AT ELEVATOR



P96 DAMAGE CEILING PANELS, ELEVATED WALKWAY



P97 CONCRETE SPALL, ELEVATED WALKWAY



P98 RUSTED SUPPORT & DETERIORATING COATING, ELEVATED WALKWAY



P99 RUSTED STEEL, ELEVATED WALKWAY



P100 RUSTED STEEL & CONCRETE CRACK, ELEVATED WALKWAY



P101 SOUTH BUILDING ELEVATED WALKWAY, AT WESTSIDE FACING EAST



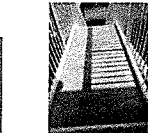
P102 RUSTED STEEL, ELEVATED WALKWAY



P103 RUSTED STEEL, ELEVATED WALKWAY



P104 CONCRETE CRACK, ELEVATED WALKWAY



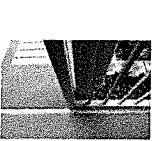
P105 NO COATING ON STAIRWELL WALKWAY



P106 RUSTED STEEL



P107 RUSTED STEEL



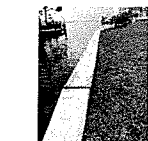
P108 RUSTED STEEL



P109 SOUTH BUILDING WALKWAY, AT EASTSIDE FACING WEST

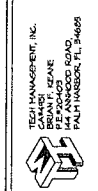


P110 SOUTH SEAWALL



P111 NORTH SEAWALL

PHOTOS



ISSUED AS A PART OF (DRAWING)

SOUTH PAULA POINT CONDOMINIUM  
433 SOUTH PAULA DR.  
DUNEDIN FL 34698

PHASE I  
VISUAL  
INSPECTION

DATE 06/05/23  
SCALE AS NOTED  
JOB J23-15

SHEET  
SR-8  
8 OF 8 SHEETS