



City of Union

Agenda

Council Special Meeting Meeting
Monday, November 22, 2021 @ 7:00 PM
Leonard Almquist Council Chambers, 342 S. Main St,
Union, OR 97883

Page

1. **CALL TO ORDER, PLEDGE OF ALLEGIANCE, ROLL CALL:**

Mayor:

Flint

Councilors:

Farmer, Hawkins, Cox, Richter, Denton
and McMillan

2. **NEW BUSINESS:**

Public comment is welcome on each subject addressed under the public comment rules stated below.

2.1. Roofing of City Hall

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[Roofing Bid - City Hall - Pdf](#)

3. **PUBLIC COMMENT**

Audience members may bring any concern before the Council at this time.

Public comment rules:

All public comment is subject to 3 minutes per individual and time may be cut short by the Mayor if the information addressing the Council becomes redundant. All persons addressing the Council must speak at the lectern and prior to speaking must state their name and address.

4. **ADJOURNMENT:**



Memorandum

Subject: Roofing of City Hall
Meeting: Council Special Meeting - Nov 22 2021
Prepared For: Mayor and Members of Council
Staff Contact: Doug Wiggins,

BACKGROUND INFORMATION:

Roof on City hall is leaking as the roof has hit its end of life of 20 years.

FINANCIAL IMPACT:

\$33,975 would be used from the Building reserve fund to replace the roof.

POLICY IMPLICATIONS:

Given expenditure is greater than \$5,000 and over \$25,000, bids were used through the national TIPS system to secure the bid and meet Oregon State standards along with local ordinance standards to meet bid requirements.

RECOMMENDATION:

To accept the Dura Last bid to replace the roof over City Hall.

ATTACHED:

[11-4-2021 Duro-Last Proposal for City of Union City Hall Lower Roof](#)



November 5, 2021

Mr. Paul Phillips
Utility Lead
City of Union
324 South Main
Union, OR 97883
Tel: (541) 910-0091
Tel: (541) 562-5197
phillips@cityofunion.com

Re: Re-Roofing Project for the City of Union City Hall Lower Deck

Dear Mr. Phillips:

Duro-Last Roofing has developed the following pricing proposal to re-roof the City of Union's City Hall Lower Deck in Union, Oregon. This pricing proposal was developed using Duro-Last's contract number 210205 with The Interlocal Purchasing System (TIPS) and includes the total cost to purchase and install the Duro-Last roofing system.

Duro-Last will provide the Duro-Last roofing system and its installation to the City of Union at RS Means pricing using the Pendleton City Cost Index.

Installation of the Duro-Last Roofing System will be provided by Nelson Roofing Enterprises of Pendleton, an authorized Duro-Last contractor who has achieved Master Contractor status with Duro-Last based on their quantity and quality of commercial installations.

Attached is the Duro-Last specification which defines the work that Duro-Last proposes to complete. When the installation is complete, a Duro-Last Technical Representative will inspect the installation for completeness and conformity to Duro-Last specifications. Following acceptance of the roof, Duro-Last will issue a warranty to Union City.

The Duro-Last Roofing 15 + 5-year warranty provides for consequential damage coverage for the first 15 years and provides for the repair or replacement of the roofing system, and the labor to install it, in the event of a defect in the Duro-Last products for the last five years. The Duro-Last Roofing 15+5 Warranty is available at an additional cost, which has been included in this proposal's pricing.

Based on this scope of work, pricing for Duro-Last to complete the City of Union City Hall Lower Deck re-roofing project is as follows.



Base Price	Contingency Included in Base Price
\$33,927.92	\$2,770.70

Due to the current volatile market conditions, base pricing includes contingencies to cover any unforeseen price increases. Any use of this contingency will be communicated to the City of Union and the city will not be invoiced for contingency not used.

Duro-Last will invoice the City of Union for materials shipped and 30% mobilization upon initial shipment. Notwithstanding the above referenced base price, all non-Duro-Last materials, including any third-party materials purchased for the project, will be invoiced by Duro-Last to the City of Union at the market price paid by Duro-Last at time of payment to any such third-party supplier.

Any alterations or deviation from the scope of work involving extra costs including, but not limited to, additional materials and labor will be executed only upon written change-orders submitted to Duro-Last, which will result in an extra charge over this proposal.

The base price does not include any allowances for roof deck replacement or for other hidden damages.

The building owner is responsible for obtaining any necessary permits, engineering fees, or tests needed to meet state and local codes.

The base price includes performance and payment bonds. Any bonds for this project shall only apply for a one-year maintenance period commencing on the date of substantial completion of the project. Bond coverage shall not be extended to the 20-year warranty period subsequent to the one-year maintenance period.

Duro-Last Roofing and Nelson Roofing Enterprises are not responsible for the following:

- HVAC alteration and related utility work
- Lightning, lightning protection, or electrical alterations or recertification
- Satellite dishes or antenna recalibration
- Removal of material containing asbestos or asbestos testing
- Ponded water due to previous existing substrate conditions

All material is guaranteed to be as specified. All work will be completed in a workmanlike manner according to standard roofing practices and in accordance with Duro-Last published specifications. Duro-Last Roofing shall not be responsible for delays relating to weather, accidents, or other events beyond our control.



If this proposal is accepted, the Duro-Last TIPS price schedule, terms, and conditions will be applied. In addition:

1. The City of Union's TIPS membership will need to be verified.
2. A purchase order and tax exempt certificate will need to be issued to Duro-Last Roofing.
3. The purchase order should be clearly marked "Per TIPS Contract".
4. E-mail the purchase order in PDF format to TIPS at tipspo@tips-usa.com for review and approval.
5. Duro-Last will issue a Notice to Proceed Nelson Roofing Enterprises after receiving the approved purchase order from TIPS.

If you have any questions regarding this proposal, please contact me at (800) 248-0280 or ktobias@duro-last.com. If this proposal is acceptable, please sign below and return with the aforementioned documents.

The City of Union City Hall Lower Deck Re-Roofing Project Base Price:

Base Price	Contingency Included in Base Price
\$33,927.92	\$2,770.70

Approved By: _____

Title: _____

Date: _____

Best Regards,

Kelly Tobias
Cooperative Purchasing Representative
Duro-Last Roofing, Inc.

cc: Rodney Boodt, Nelson Roofing Enterprises

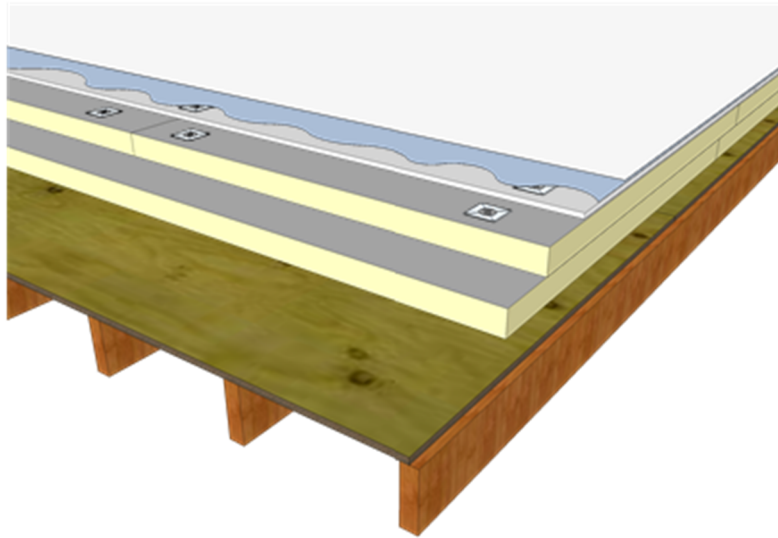
City of Union Hall

342 S. Main St.
Union, OR 97883

Lower Deck

Prepared For: Paul Phillips
City of Union

Prepared By: Jeremy Tunney
Class A Roofing Consultants



Duro-Last Roof Assembly Description

- **Duro-Last® PVC thermoplastic membrane**
Membrane Thickness: 50 mil
Color: White
Attachment: Adhered with solvent-based adhesive
- **DEXCell Glass Mat Roof Board**
Thickness: 1/4 inch
Attachment: Attached with mechanical fasteners
- **Duro-Guard® ISO II (flat)**
Attachment: Attached with mechanical fasteners
- **Duro-Guard® ISO II (flat)**
Attachment: Loosely laid
- **3/4 inch Plywood Roof Deck**



PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Duro-Last® PVC thermoplastic membrane adhered with solvent-based adhesive.
- B. DEXCell Glass Mat Roof Board, attached with mechanical fasteners.
- C. Duro-Guard® ISO II (flat), attached with mechanical fasteners.
- D. Prefabricated flashings, corners, parapets, stacks, vents, and related details.
- E. Fasteners, adhesives, and other accessories required for a complete roofing installation.
- F. Traffic Protection.

1.2 REFERENCES

- A. NRCA - The NRCA Roofing and Waterproofing Manual.
- B. ASCE 7 - Minimum Design Loads For Buildings And Other Structures.
- C. UL - Roofing Materials and Systems Directory, Roofing Systems (TGFU.R10128).
- D. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
- E. ASTM D 751 - Standard Test Methods for Coated Fabrics.
- F. ASTM D 4434 - Standard Specification for Poly(Vinyl Chloride) Sheet Roofing.
- G. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.
- H. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

1.3 SYSTEM DESCRIPTION

- A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.
- C. Physical Properties:
 - 1. Roof product must meet the requirements of Type III PVC sheet roofing as defined by ASTM D 4434 and must meet or exceed the following physical properties.
 - 2. Thickness: 50 mil, nominal, in accordance with ASTM D 751.
 - 3. Thickness Over Scrim: \geq 28 mil in accordance with ASTM D 751.



4. Breaking Strengths: ≥ 390 lbf. (MD) and ≥ 438 lbf. (XMD) in accordance with ASTM D 751, Grab Method.
5. Elongation at Break: $\geq 31\%$ (MD) and $\geq 31\%$ (XMD) in accordance with ASTM D 751, Grab Method.
6. Heat Aging in accordance with ASTM D 3045: 176 °F for 56 days. No sign of cracking, chipping or crazing. (In accordance with ASTM D 4434).
7. Factory Seam Strength: ≥ 417 lbf. in accordance with ASTM D 751, Grab Method.
8. Tearing Strength: ≥ 132 lbf. (MD) and ≥ 163 lbf. (XMD) in accordance with ASTM D 751, Procedure B.
9. Low Temperature Bend (Flexibility): Pass at -40 °F in accordance with ASTM D 2136.
10. Accelerated Weathering: No cracking, checking, crazing, erosion or chalking after 5,000 hours in accordance with ASTM G 154.
11. Linear Dimensional Change: $< 0.5\%$ in accordance with ASTM D 1204 at 176 ± 2 °F for 6 hours.
12. Water Absorption: $< 1.7\%$ in accordance with ASTM D 570 at 158 °F for 166 hours.
13. Static Puncture Resistance: ≥ 56 lbs. in accordance with ASTM D 5602.
14. Dynamic Puncture Resistance: ≥ 14.7 ft-lbf. in accordance with ASTM D 5635.

D. Cool Roof Rating Council (CRRC):

1. Membrane must be listed on CRRC website.
 - a. Initial Solar Reflectance: $\geq 88\%$
 - b. Initial Solar Reflective Index (SRI): ≥ 111
 - c. 3-Year Aged Solar Reflectance: $\geq 68\%$
 - d. 3-Year Aged Thermal Emittance: $\geq 84\%$
 - e. 3-Year Aged Solar Reflective Index (SRI): ≥ 82

E. Insulation

1. Provide overall thermal resistance for roofing system as follows:
 - a. Minimum R-value: 38.1.
2. Install using a minimum of two layers.
3. Configuration as indicated on the Drawings.



1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Duro-Last data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Maintenance requirements.
- C. Shop Drawings: Indicate insulation pattern, overall membrane layout, field seam locations, joint or termination detail conditions, and location of fasteners.
- D. Verification Samples: For each product specified, two samples, representing actual product, color, and finish.
 - 1. 4 inch by 6 inch sample of roofing membrane, of color specified.
 - 2. 4 inch by 6 inch sample of walkway pad.
 - 3. Termination bar, fascia bar with cover, drip edge and gravel stop if to be used.
 - 4. Each fastener type to be used for installing membrane, insulation/recover board, termination bar and edge details.
- E. Installer Certification: Certification from the roofing system manufacturer that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
- F. Manufacturer's warranties.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with manufacturer's installation instructions.
- B. Manufacturer Qualifications: A manufacturer specializing in the production of PVC membranes systems and utilizing a Quality Control Manual during the production of the membrane roofing system that has been approved by and is inspected by Underwriters Laboratories.
- C. Installer Qualifications: Company specializing in installation of roofing systems similar to those specified in this project and approved by the roofing system manufacturer.
- D. Source Limitations: Obtain components for membrane roofing system from roofing membrane manufacturer.



- E. There shall be no deviations from the roof membrane manufacturer's specifications or the approved shop drawings without the prior written approval of the manufacturer.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code for roof assembly wind uplift and fire hazard requirements.
- B. Fire Exposure: Provide membrane roofing materials with the following fire-test-response characteristics. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
 - 1. Exterior Fire-Test Exposure:
 - a. Class A; ASTM E 108, for application and roof slopes indicated.
 - 2. Fire-Resistance Ratings: Comply with ASTM E 119 for fire-resistance-rated roof assemblies of which roofing system is a part.
 - 3. Conform to applicable code for roof assembly fire hazard requirements.
- C. Wind Uplift:
 - 1. Roofing System Design: Provide a roofing system designed to resist uplift pressures calculated according to the current edition of the ASCE-7 Specification *Minimum Design Loads for Buildings And Other Structures*.

1.7 PRE-INSTALLATION MEETING

- A. Convene meeting not less than one week before starting work of this section.
- B. Review methods and procedures related to roof deck construction and roofing system including, but not limited to, the following.
 - 1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing installer, roofing system manufacturer's representative, deck installer, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
 - 2. Review and finalize construction schedule and verify availability of materials, installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 3. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
 - 4. Review structural loading limitations of roof deck during and after roofing.
 - 5. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
 - 6. Review governing regulations and requirements for insurance and certificates if



applicable.

7. Review temporary protection requirements for roofing system during and after installation.
8. Review roof observation and repair procedures after roofing installation.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Store roof materials and place equipment in a manner to avoid permanent deflection of deck.
- E. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.9 WARRANTY

- A. Contractor's Warranty: The contractor shall warrant the roof application with respect to workmanship and proper application for two (2) years from the effective date of the warranty issued by the manufacturer.
- B. Manufacturer's Warranty: Must provide for completion of repairs, replacement of membrane or total replacement of the roofing system at the then-current material and labor prices throughout the life of the warranty. In addition the warranty must meet the following criteria:
 1. Warranty Period: 20 years from date issued by the manufacturer.
 2. First 15 years:
 - a. Must provide for completion of repairs, replacement of membrane or total replacement of the roofing system at the then-current material and labor prices.
 - b. No exclusions for incidental or consequential damages.
 3. Last 5 years:
 - a. Excludes incidental and consequential damages.



4. Must provide positive drainage.
5. No exclusion for damage caused by biological growth.
6. Issued direct from and serviced by the roof membrane manufacturer.
7. Transferable for the full term of the warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: Duro-Last Roofing, Inc., which is located at: 525 Morley Drive, Saginaw, MI 48601. Telephone: 800-248-0280.
- B. All roofing system components to be provided or approved by Duro-Last Roofing, Inc.
- C. Substitutions: Not permitted.

2.2 ROOFING SYSTEM COMPONENTS

- A. Roofing Membrane: Duro-Last® PVC thermoplastic membrane conforming to ASTM D 4434, type III, fabric-reinforced, PVC, NSF/ANSI 347 Gold or Platinum Certification, and a product-specific third-party verified Environmental Product Declaration. Membrane properties as follows:
 1. Thickness:
 - a. 50 mil.
 2. Exposed Face Color:
 - a. White.
 3. Minimum recycle content 7% post-industrial and 0% post-consumer.
 4. Recycled at end of life into resilient flooring or concrete expansion joints.
- B. Accessory Materials: Provide accessory materials supplied by or approved for use by Duro-Last Roofing, Inc.
 1. Sheet Flashing: Manufacturer's standard reinforced PVC sheet flashing.
 2. Duro-Last Factory Prefabricated Flashings: manufactured using Manufacturer's standard reinforced PVC membrane.
 - a. Curb Flashings.
 - b. Inside and Outside Corners.
 3. Sealants and Adhesives: Compatible with roofing system and supplied by Duro-Last Roofing, Inc.
 - a. Duro-Caulk® Plus.
 - b. Strip Mastic.



4. Slip Sheet: Compatible with roofing system and supplied by Duro-Last Roofing, Inc.
5. Fasteners and Plates: Factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane and insulation to substrate. Supplied by Duro-Last Roofing, Inc.
 - a. #14 Heavy Duty Fasteners.
 - b. Cleat Plates.
 - c. 3 inch Metal Plates.
6. PV Anchors
7. Termination and Edge Details: Supplied by Duro-Last Roofing, Inc.
 - a. Termination Bar.
 - b. Vinyl Coated Metal Drip Edge.
8. Vinyl Coated Metal: Supplied by Duro-Last Roofing, Inc. 24 gauge, hot-dipped galvanized, grade 90 metal with a minimum of 17 mil of Duro-Last membrane laminated to one side.

C. Walkways:

1. Provide non-skid, maintenance-free walkway pads in areas of heavy foot traffic and around mechanical equipment.
 - a. Duro-Last Roof Trak® III Walkway Pad.

2.3 ROOF INSULATION

A. General:

1. Provide preformed roof insulation boards that comply with requirements and referenced standards, as selected from manufacturer's standard sizes.
2. Provide preformed saddles, crickets, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.

B. Polyisocyanurate Board Insulation: Complying with ASTM C 1289, Type II, felt or glass-fiber mat facer on both major surfaces. Material as supplied by Duro-Last.

1. Duro-Guard® ISO II (flat).
2. Duro-Guard® ISO II (flat).

2.4 ROOF INSULATION ACCESSORIES

- A. General: Provide roof insulation accessories approved by the roof membrane manufacturer and as recommended by insulation manufacturer for the intended use.
- B. Fasteners: Provide Duro-Last factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening insulation



and/or insulation cover boards in conformance to specified design requirements.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that the surfaces and site conditions are ready to receive work.
- B. Verify that the deck is supported and secured.
- C. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
- D. Verify that the deck surfaces are dry and free of standing water, ice or snow.
- E. Verify that all roof openings or penetrations through the roof are solidly set.
- F. If substrate preparation is the responsibility of another contractor, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Surfaces shall be clean, smooth, free of fins, sharp edges, loose and foreign material, oil, grease, and bitumen.

3.3 INSTALLATION

- A. Install insulation in accordance with the roof manufacturer's requirements.
- B. Insulation: Duro-Guard® ISO II (flat).
 - 1. Install insulation in accordance with the roof manufacturer's requirements.
 - 2. Insulation shall be adequately supported to sustain normal foot traffic without damage.
 - 3. Where field trimmed, insulation shall be fitted tightly around roof protrusions with no gaps greater than ¼ inch.
 - 4. No more insulation shall be applied than can be covered with the roof membrane by the end of the day or the onset of inclement weather.
 - 5. If more than one layer of insulation is used, all joints between subsequent layers shall be offset by at least 6 inches.
 - 6. Mechanical Attachment: Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet applicable design requirements.



- a. Install fasteners in accordance with the roof manufacturer's requirements.
Fasteners that are improperly installed must be replaced or corrected.
 7. Install mechanical fasteners through top layer to attach Duro-Guard® ISO II (flat) insulation. Install all layers in parallel courses with end joints staggered 50% and adjacent boards butted together with no gaps greater than ¼ inch.
- C. Insulation Cover Board: DEXCell Glass Mat Roof Board.
 1. Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet applicable design requirements.
 - a. Install fasteners in accordance with the roof manufacturer's requirements.
Fasteners that are improperly installed must be replaced or corrected.
 - b. Attach boards in parallel courses with end joints staggered 50% and adjacent boards butted together with no gaps greater than ¼ inch.
- D. Roof Membrane: 50 mil, Duro-Last® PVC thermoplastic membrane.
 1. Use only membrane adhesive acceptable to the roof manufacturer's that meets the applicable design requirements.
 - a. Solvent-based membrane adhesive.
 2. Cut membrane to fit neatly around all penetrations and roof projections.
 3. Unroll roofing membrane and positioned with a minimum 6 inch overlap.
 4. Apply adhesive in accordance with the roof manufacturer's requirements.
 - a. Apply at the required rate in smooth, even coatings without voids, globs, puddles or similar irregularities. Use care not to contaminate the area of the membrane where hot air welding will occur.
 5. Apply adhesive to both the substrate and the bottom side of roof membrane.
 6. Follow guidelines outlined in the adhesive's Product Data Sheet.
 7. Read the adhesive's Material Safety Data Sheet (MSDS) prior to using the adhesive.
- E. Seaming:
 1. Weld overlapping sheets together using hot air. Minimum weld width is 1-1/2 inches.
 2. Check field welded seams for continuity and integrity and repair all imperfections by the end of each work day.
- F. Membrane Termination/Securement: All membrane terminations shall be completed in accordance with the membrane manufacturer's requirements.
 1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
 2. Provide securement at any angle change where the slope or combined slopes exceeds



- two inches in one horizontal foot.
- G. Flashings: Complete all flashings and terminations as indicated on the drawings and in accordance with the membrane manufacturer's requirements.
1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
 - a. Do not apply flashing over existing thru-wall flashings or weep holes.
 - b. Secure flashing on a vertical surface before the seam between the flashing and the main roof sheet is completed.
 - c. Extend flashing membrane a minimum of 6 inches (152 mm) onto the main roof sheet beyond the mechanical securement.
 - d. Use care to ensure that the flashing does not bridge locations where there is a change in direction (e.g. where the parapet meets the roof deck).
 2. Penetrations:
 - a. Flash all pipes, supports, soil stacks, cold vents, and other penetrations passing through the roofing membrane as indicated on the Drawings and in accordance with the membrane manufacturer's requirements.
 - b. Utilize custom prefabricated flashings supplied by the membrane manufacturer.
 - c. Existing Flashings: Remove when necessary to allow new flashing to terminate directly to the penetration.
 3. Pipe Clusters and Unusual Shapes:
 - a. Clusters of pipes or other penetrations which cannot be sealed with prefabricated membrane flashings shall be sealed by surrounding them with a prefabricated vinyl-coated metal pitch pan and sealant supplied by the membrane manufacturer.
 - b. Vinyl-coated metal pitch pans shall be installed, flashed and filled with sealant in accordance with the membrane manufacturer's requirements.
 - c. Pitch pans shall not be used where prefabricated or field fabricated flashings are possible.
- H. Roof Drains:
1. Coordinate installation of roof drains and vents specified in Section 15146 - Plumbing Specialties.
 2. Remove existing flashing and asphalt at existing drains in preparation for sealant and membrane.
 3. Provide a smooth clean surface on the mating surface between the clamping ring and the drain base.
- I. Edge Details:



1. Provide edge details as indicated on the Drawings. Install in accordance with the membrane manufacturer's requirements.
2. Join individual sections in accordance with the membrane manufacturer's requirements.
3. Coordinate installation of metal flashing and counter flashing specified in Section 07620.
4. Manufactured Roof Specialties: Coordinate installation of copings, counter flashing systems, gutters, downspouts, and roof expansion assemblies specified in Section 07710.

J. Walkways:

1. Install walkways in accordance with the membrane manufacturer's requirements.
2. Provide walkways where indicated on the Drawings.
3. Install walkway pads at roof hatches, access doors, rooftop ladders and all other traffic concentration points regardless of traffic frequency. Provided in areas receiving regular traffic to service rooftop units or where a passageway over the surface is required.
4. Do not install walkways over flashings or field seams until manufacturer's warranty inspection has been completed.

K. Water cut-offs:

1. Provide water cut-offs on a daily basis at the completion of work and at the onset of inclement weather.
2. Provide water cut-offs to ensure that water does not flow beneath the completed sections of the new roofing system.
3. Remove water cut-offs prior to the resumption of work.
4. The integrity of the water cut-off is the sole responsibility of the roofing contractor.
5. Any membrane contaminated by the cut-off material shall be cleaned or removed.

3.4 FIELD QUALITY CONTROL

- A. The membrane manufacturer's representative shall provide a comprehensive final inspection after completion of the roof system. All application errors shall be addressed and final punch list completed.

3.5 PROTECTION

- A. Protect installed roofing products from construction operations until completion of project.
- B. Where traffic is anticipated over completed roofing membrane, protect from damage



using durable materials that are compatible with membrane.

C. Repair or replace damaged products after work is completed.

END OF SECTION



ADDITIONAL INFORMATION

1. All metal colors to be chosen from one of Duro-Last's standard color choices.
2. Open Market Items are not covered under the Duro-Last warranty.
3. If required, any HVAC, plumbing, electrical, or other miscellaneous work that may need to be moved or disconnected and reconnected (other than normal roofing practice) will need to be done by others at building owner's expense. The cost of these services is not included in this proposal.
4. Building owner is responsible for obtaining any necessary permits, engineering fees, or tests needed to meet state and local codes.
5. Nelson Roofing Enterprises to provide dump and disposal fees. All debris will be disposed of in an approved facility in accordance with all local, state, and federal regulations. Jobsite to be cleaned daily.
6. Work to be performed under OSHA rules and regulations.
7. Provide a Duro-Last 15 + 5-year warranty which provides for consequential damage coverage for the first 15 years and provides for the repair or replacement of the roofing system, and the labor to install it, in the event of a defect in the Duro-Last products for the last five years.
8. Duro-Last and Nelson Roofing Enterprises are not responsible for existing building conditions such as, but not limited to, leaking walls, windows, gutters, interior drains, pipes, air conditioner equipment, electrical wiring, ducts, vents, fans, parapets, mansards, water lines, masonry walls, adjacent roofs, skylights, trim, existing water damage to the interior of the building (walls, ceilings, floors, etc.), hidden conduit within or below the existing roofing system, or the existence of mold.
9. Any bonds for this project apply only to the one-year maintenance period commencing on the date of substantial completion. Bonds do not extend to the full 20-year warranty period.