

# SCHOOL ADMINISTRATIVE UNIT THIRTY-NINE

Amherst, Mont Vernon, and Souhegan Cooperative School Districts



ADAM A. STEEL  
Superintendent of Schools

CHRISTINE M. LANDWEHRLE  
Assistant Superintendent

MARGARET A. BEAUCHAMP  
Director of Student Services

MICHELE CROTEAU  
Business Administrator

## Mont Vernon School Board Meeting

Thursday, December 10<sup>th</sup>, 2020 – 6:00 PM

**Due to current COVID-19 precautions, board meetings will be conducted via webinar.**

**Please click the link below to register for the webinar:**

<https://sau39.zoom.us/j/7814242828>

Agenda Item	Time	Desired Action	Backup Materials
Call to Order	6:00 PM	Chair of the Mont Vernon School Board, Ms. Sarah Lawrence, to call the meeting to order.	None
Public Comment I of II	6:05 PM		None
Consent Agenda- Approval	6:10 PM	1. Draft Minutes Nov 12 <sup>th</sup> , 2020 2. Draft Minutes Nov 19 <sup>th</sup> , 2020 3. FY' 22 School Calendar 4. Dec. 2020 Principal's Report 5. MVVS Facilities Update 6. MV FY'21 Tax Rate	11 12 2020 Draft Minutes 11 19 2020 Draft Minutes FY 22 School Calendar Dec 2020 Principal's Report MVVS Facilities Update MV- FY' 21 Tax Rate
FY'22 Budget/Warrant Finalization	6:15 PM	Board to finalize budget, default and warrant articles for FY'22 to bring to the Public Hearing	None
Public Hearing Preparation	6:45 PM	Board to develop presentation materials for Public Hearing in January	None
Public Comment II of II	7:50 PM		
Non- Public Session	7:55 PM	RSA 91 A:3 II ( )	
Meeting Adjourned	8:00 PM		

## Consent Agenda Item #1

1 Mont Vernon School Board  
 2 Thursday, November 12<sup>th</sup>, 2020  
 3 Meeting Minutes- Not Approved

4 Attendees:

5 Administrative Team: Adam Steel- Superintendent, Christine Landwehrle- Assistant  
 6 Superintendent, Michele Croteau- SAU #39 Business Administrator, Meg Beauchamp- Director  
 7 of Student Services, Dr. Kim Sarfde- Principal of the Mont Vernon Village School and Roger  
 8 Preston- Director of Facilities for SAU #39.

9 Mont Vernon Village School Board: Chair- Sarah Lawrence, Vice Chair- Peter Eckhoff,  
 10 Secretary- Scott St. Denis, Stephen O'Keefe and Jessica Hinckley.

11 Board Minutes: Danae A. Marotta

12 Public: Amy Facey- SCSB Vice Chair and Joint Facilities Advisory Committee Chair and Anne  
 13 Ketterer, Lavallee Brensinger Professional Architects, Manchester NH.

14 I. Reconvene Public Session

15 **Chair of the Mont Vernon School Board, Ms. Sarah Lawrence, reconvened the meeting at**  
 16 **6:05PM**

17 II. Public Comment I of II

18 No Public Comment

19 III. Consent Agenda

20 **Mr. O'Keefe motioned to accept the consent agenda items 1. Draft Minutes Oct 15th, 2020,**  
 21 **2. FY' 21 Cap Reserve Trust Funds, 3. March 2020 Treasurer's Report, and 4. NWEA**  
 22 **MAP Assessments Results-Fall 2020. Ms. Hinckley seconded the motion. Motion passed.**

23 Ms. Lawrence asked for Board discussion.

24 There were no comments or questions.

25 **Ms. Lawrence called a Roll Call: Lawrence- Yes, O'Keefe- Yes, Eckhoff- Yes, and**  
 26 **Hinckley- Yes**

27 IV. First Reading Policy- DID Fixed Assets

28 **Mr. O'Keefe motioned to accept Policy DID- Fixed Assets. Ms. Hinckley seconded the**  
 29 **motion. The vote was unanimous.**

30 **Ms. Lawrence called a Roll Call: Lawrence- Yes, O'Keefe- Yes, Eckhoff- Yes, and**  
 31 **Hinckley- Yes**

32 V. FY'22 Budget Discussion

33 Ms. Lawrence added that they just came out of a budget discussion and they are happy to review.  
34 SAU #39 Business Administrator, Ms. Michelle Croteau, replied that they have held several  
35 budget subcommittee meetings and reviewed the budget in detail. They are looking at the Food  
36 Service and comparing benefits and wage rates as it compares to the Amherst amounts. They are  
37 also looking at the travel lines and are proposing a reduction there. There are some items still  
38 open, the tuition agreement and the bus contract and the insurance rates to be finalized.

39 Ms. Lawrence asked for Board questions. The Board has been very involved in the process.

40 Mr. O'Keefe noted how impressed he is with their Budget Committee. They have hit the ground  
41 running.

42 Ms. Lawrence echoed Mr. O'Keefe it has been an engaging process. She feels comfortable with  
43 the process and thanked everyone for their hard work.

44 Mr. Eckhoff offered his sincere apologies for missing a couple of engagements online.

45 Ms. Lawrence replied that there has been a full team. She added that he is an engaged member of  
46 the Board.

47 Mr. Steel thanked the Board and they are pleased that it is going so well.

48 Ms. Lawrence mentioned that there has been many, many meetings. It has been an informative  
49 process. She thanked everyone for their participation.

#### 50 VI. Joint Facilities Advisory Committee Summary

51 Ms. Lawrence added that Ms. Amy Facey, Chair of the Joint Facilities Advisory Committee is  
52 here to give them a short presentation. There was a larger presentation last week, so this is the  
53 summary.

54 Ms. Facey added that she had sent out a revised presentation to Ms. Lawrence. Ms. Anne  
55 Ketterer of Lavallee Brensinger Professional Architects is also in attendance for additional  
56 information.

57 Ms. Facey gave an overview about the beginnings of the Committee. She reviewed a brief  
58 summary of ASD public school building requests with items that were approved and rejected. As  
59 a reminder, they reviewed class size rankings vs. targets. They are able to do this because of  
60 remote learning options which is not optimal.

61 She showed the Board existing conditions at CW and AMS.

62 Ms. Ketterer displayed a picture of the triangle shaped classrooms at AMS. It is less than ideal  
63 with only 500-600 sq. ft of usable space as noted with the circle. The NH DOE standard (ed 300  
64 321.10): 36 square feet per child or 900 sq. ft. which ever is greater.

65 She explained that the mechanical systems at Clark Wilkins are at the end of life and need to be  
66 replaced. All Plumbing systems at Wilkins and Clark are end of life and should be replaced with  
67 code compliant systems. All Electrical systems at Wilkins and Clark are inadequate for a modern

68 technology rich school environment and should be replaced. Emergency electrical systems are  
 69 inadequate as there is no generator. Lighting is end-of-life and energy efficient and should be  
 70 replaced.

71 At AMS, Through-wall Unit ventilators at AMS are inefficient and nearing end of life (5-7 years  
 72 max) should be replaced with modern ducted air systems. New systems to be healthy air  
 73 changes per hour, UV light filtered, and dehumidified for comfort. Boilers at AMS are 10 years  
 74 old and can be re-used for another 15 years. Fire Protection (Sprinklers) at AMS are adequate.

75 Additionally, the water system at AMS is adequate but the electrical needs a substantial upgrade.

76 Ms. Facey reviewed the priorities, address aging, end of life systems with energy efficient  
 77 systems, functional spaces that meet the established Board Class Size Targets, provide flexible,  
 78 teaching spaces, provide secure & technology rich spaces, and utilize the existing sites  
 79 efficiently.

80 She reviewed the cost options at AMS Kick the Can- \$30,600,000, Build a new Middle School-  
 81 \$59,000,000 and Renovate with addition- \$42,000,000.

82 They did do some cost cutting through the subcommittee and came to the amount of  
 83 \$31,680,000. Below are the following changes.

- 84 • Reduced Areas Throughout – No Major Addition
- 85 • Reduced Team Common Areas
- 86 • More Affordable Exterior Masonry (CMU vs Brick)
- 87 • Gym and Cafeteria Flooring to Remain
- 88 • Reduced Millwork
- 89 • Reduced Lockers
- 90 • Refurbish Elevator
- 91 • Drywall partitions VS CMU partitions inside classrooms
- 92 • Reduced Acoustic Panels in Cafeteria
- 93 • Reduced Signage

94 The Renovate and Refurbish includes all of the Kick the Can items. Below are the items that are  
 95 included:

- 96 • Addresses all items in the
- 97 • “Kick the Can” Scenario
- 98 • Renovates the Triangle Classrooms to usable adequately sized classrooms
- 99 • Creates Great Education Space
- 100 • Creates “Like New” facility
- 101 • Creates Missing Special Educ. Areas
- 102 • Creates Missing Collaboration Areas
- 103 • Creates Secure Entrance
- 104 • Relocates 5th Grade to Elementary School
- 105 • Can be Phased with Elementary School project

106 The committee recommended to Renovate and refurbish. The cost comparison was very close,  
 107 and it made sense to choose that option (Kick the Can- \$30,600,000 vs. Renovate and Refurbish-  
 108 \$31,680,000).

109 Ms. Ketterer reviewed the existing AMS first floor plan noting three critical things. First are the  
 110 oddly shaped classrooms, special education spaces not adequately designed, and the main office  
 111 not adjacent to the main entrance. They mentioned that they would be moving the main office  
 112 and it is a safe way of organizing that sequence.

113 She reviewed the side by side comparison. They are creating some really nice common spaces.

114 Ms. Lawrence asked Ms. Facey if she can explain the scope for Clark/Wilkins.

115 Ms. Facey replied that they went through the same process as AMS and landed on a new  
 116 building \$66,038,000. With build new, you will get the following:

- 117 • Creates State of the Art Ideal Space
- 118 • Allows for Consolidation to 1 Elementary School Site (lowers operating expenses)
- 119 • Costs are similar to Renovation / Addition Option
- 120 • Potential for the Most Energy Efficient Facility
- 121 • Simplest Construction Phasing

122 She commented that with the existing elementary school they have 34 general classrooms and  
 123 the proposed is 54 general classrooms.

124 Ms. Ketterer displayed a conceptual design adding that they reduced the size.

125 Ms. Facey added that Clark will continue to be utilized in the short term as swing space during  
 126 construction. They will then make some determinations after discussion from the boards and  
 127 community.

128 She discussed the average life span of a school building

129 Varies by system:

- 130 • Roof: 30 years.
- 131 • MEP systems: 30 Years.
- 132 • Flooring: dependent on choice – likely 20 years.
- 133 • Most school buildings are due for renovation around the 50-year mark.

134 Wilkins is 53 years old, AMS is 48 years old. Both need renovation to remain in use. The  
 135 proposed buildings are durable materials with a target lifespan of 50+ years.

136 An additional question was why should they do the AMS projects? Why not wait until they have  
 137 funds saved in the CRF? The primary cost avoidance of doing it now is construction escalation.  
 138 Many are predicting 5% per year, but a conservative (safe) number we have been using is 4% per  
 139 year. For AMS that equates to \$1.2M per year. Compounding, in 5 years this project may cost  
 140 \$37M. In 10 years, \$45M.

141 Additionally, municipal bond rates are at a low. The CRF may be used to reduce project costs  
 142 The anticipated interest rate varies, in line with NHMBB rates currently 1.97% on a 25-year  
 143 loan. Additionally, the anticipated annual interest payment for both combined projects, a high of  
 144 \$1.3M the first year down to \$60k the last year. All estimates could vary widely.

145 Anticipated schedule of borrowing it would be a 30-year amortization with a sale about 6-9  
 146 months after the vote.

147 Another question that they hear is asking if they can apply for state aid. They can once shovel-  
 148 ready (post bond approval and when designs are 75-100% complete). The application deadline  
 149 will likely be January 2022 and wouldn't be awarded until July of 2023. This program now  
 150 requires a successful bond vote before you are awarded any funding. It is something that they  
 151 want to look at but cannot guarantee.

152 Ms. Ketterer reviewed the energy costs; they are overpaying because the systems are old. When  
 153 they design a new building, they take energy into consideration. They would do this energy  
 154 modeling after the bonds vote.

- 155 • Currently we spend \$1.64/sf/year
- 156 • Average cost per square foot for Schools in the US: \$1.50/sf/year
- 157 • Target cost per square foot for High Performance School: \$1.00/sf/year
- 158 • Energy modeling will occur post-bond

159 She explained the costs to Kick the Can- at AMS and CW with building and space needs.

160 JFAC Member, Mr. Brian Coogan, discussed the long term strategy, to provide a consistent tax-  
 161 rate impact, level the tax-rate impact with cash contributions saved for future projects, determine  
 162 the right balance between bond rates and construction costs, encourage valuation increases.

163 Mr. Steel explained that debt calculator does calculations so that the tax rate is consistent.

164 Ms. Ketterer reviewed the post bond timeline.

165 Ms. Facey added that they have presented this to the Amherst School Board, and they are  
 166 meeting again on Monday and they have another board meeting in December. Their  
 167 recommendation was to do both as one bond so that they can utilize economies of scale and  
 168 bargaining power for a larger scale project. They will be presenting to the Souhegan Board at the  
 169 end of the month.

170 Ms. Lawrence thanked the committee for all of their time and efforts. The reason why they are  
 171 discussing Amherst facilities is because they do tuition in to AMS.

172 Mr. O'Keefe asked to see the timeline again.

173 Mr. O'Keefe inquired about the bond payment in the beginning.

174 Mr. Steel replied that the \$1.5m is just the middle school.

175 Ms. Facey thanked the Board for having them, she asked if they had questions to reach out to her  
176 [afacey@sau39.org](mailto:afacey@sau39.org)

177 VII. Public Comment II of II

178 Mr. O'Keefe thanked SAU #39 Facilities Director, Mr. Roger Preston for all of his work on the  
179 building. He mentioned that the walkway looked pristine on Election Day.

180 Ms. Lawrence thanked Mr. Preston as well. She thanked the public that are attending and  
181 watching the replay.

182 VIII. Non-Public Session

183 **Mr. O'Keefe motioned to enter into Non-Public Session RSA 91 A:3 II (c) and (k) at 7:21**  
184 **PM Mr. Eckhoff seconded the motion. The vote was unanimous, motion passed.**

185 **Ms. Lawrence called a Roll Call: Lawrence- Yes, O'Keefe- Yes, Eckhoff- Yes, St. Denis-**  
186 **Yes and Hinckley- Yes**

187 Other persons present: Mr. Steel, Ms. Croteau, and Ms. Beauchamp.

188

189 Discussion on negotiations, meeting structure and discussion changes and school environment  
190 updates.

191

192 IX. Public Session

193

194 **Mr. O'Keefe motioned to exit Non-Public Session and seal minutes. Mr. Eckhoff seconded**  
195 **the motion. The vote was unanimous, motion passed.**

196

197 **Ms. Lawrence called a Roll Call: Lawrence- Yes, O'Keefe- Yes, Eckhoff- Yes, St. Denis-**  
198 **Yes and Hinckley- Yes**

199

200

**Consent Agenda Item #2**

1 Mont Vernon School Board  
 2 Thursday, November 19<sup>th</sup>, 2020  
 3 Meeting Minutes- Not Approved

4 Attendees:

5 Administrative Team: Adam Steel- Superintendent, Christine Landwehrle- Assistant  
 6 Superintendent, Michele Croteau- SAU #39 Business Administrator, Meg Beauchamp- Director  
 7 of Student Services, Dr. Kim Sarfde- Principal of the Mont Vernon Village School.

8 Mont Vernon Village School Board: Chair- Sarah Lawrence, Vice Chair- Peter Eckhoff, Stephen  
 9 O'Keefe and Jessica Hinckley.

10 Board Minutes: Danae A. Marotta

11 Public: Mont Vernon Community Members

12 I. Call to Order

13 **Chair of the Mont Vernon School Board, Ms. Sarah Lawrence, called the meeting to order**  
 14 **at 5:02PM.**

15 Today, we will be conducting a school board meeting of the Mont Vernon School Board.

16  
 17 Before we get started, I'll read through a checklist to ensure that the meeting that we are holding  
 18 is in compliance with the Right-to-Know Law.

19  
 20 As Chairperson of the Mont Vernon School Board, I find that due to the State of Emergency  
 21 declared by the Governor as a result of the Covid-19 pandemic, and in accordance with the  
 22 Governor's Emergency Order Number 12, pursuant to Executive Order 2020-04 and its  
 23 extensions, this public body is authorized to meet electronically. Please note that there is no  
 24 physical location to observe and listen contemporaneously to this meeting which was authorized  
 25 pursuant to the Governor's Emergency Order.

26  
 27 In accordance with the Emergency Order, I am confirming that:  
 28

- 29 1. We are providing public access to the meeting by telephone, with additional access  
 30 possible by video and other electronic means. We are utilizing Zoom for this electronic  
 31 meeting. All members of the committee and selected legislative staff have the ability to  
 32 communicate contemporaneously in this meeting through this platform. And the public  
 33 has access to contemporaneously watch and or listen to the meeting on Zoom and via  
 34 phone by following the directions and links provided on our website: [www.sau39.org](http://www.sau39.org).  
 35  
 36 2. We have provided public notice of the necessary information for accessing the meeting.  
 37



- 38 3. We are providing a mechanism for the public to alert the public body during the meeting  
 39 if there are problems with access. If anyone has a problem, please email  
 40 [awallace@sau39.org](mailto:awallace@sau39.org).  
 41  
 42 4. In the event the public is unable to access the meeting, we will be adjourned and  
 43 rescheduled.  
 44  
 45 5. Please note that all votes taken during this meeting shall be done by roll call vote.  
 46  
 47 6. Finally, let's start the meeting by taking a roll call attendance. When each member states  
 48 their presence please also state where they are and if anyone else is in the room with you  
 49 during this meeting, which is required under the Right-to-Know Law.  
 50

51 Roll Call: O'Keefe- Home and alone, Hinckley- Home and alone, Lawrence- Home and alone.

## 52 II. Consent Agenda

53 Ms. Lawrence noted that there was a memo regarding the Assistant Superintendent Resolution.

54 **Mr. O'Keefe motioned to accept the Assistant Superintendent Resolution as proposed. Ms.**  
 55 **Hinckley seconded the motion.**

56 Mr. Eckhoff entered the meeting.

57 Ms. Lawrence recapped the meeting for Mr. Eckhoff and asked for discussion.

58 There was no discussion.

59 **Ms. Lawrence called for a roll call vote: Lawrence- Yes, Eckhoff- Yes, Hinckley- Yes and**  
 60 **O'Keefe- Yes. Motion passed.**

## 61 III. Non-Public Session

62 Mr. O'Keefe asked the public viewers to stay on the zoom meeting for information after.

63 **Mr. O'Keefe motioned to enter into Non-Public Session RSA 91-A:3 II (k) at 5:25PM. Ms.**  
 64 **Hinckley seconded the motion. The vote was unanimous, motion passed.**

65 **Ms. Lawrence called for a roll call vote: Lawrence- Yes, Eckhoff- Yes, Hinckley- Yes and**  
 66 **O'Keefe- Yes.**

67 Other persons present during Non-Public Session: Superintendent Steel

68 Description of matters discussed and final decisions made: Tuition agreement

## 69 IV. Public Session

70 **The Board resumed Public Session at 5:48PM.**

71 **Mr. O'Keefe motioned to ratify the proposed tuition agreement between the Mont Vernon**  
 72 **School District and the Amherst School District and to approve the wording for the**

73 **warrant article. “ Shall the School District approve a 5-year tuition agreement with the**  
 74 **Amherst School District to allow for the continued education of Mont Vernon Students at**  
 75 **the Amherst Middle School beginning on July 1<sup>st</sup> 2021, in accordance with the proposed**  
 76 **tuition agreement on file with the School District Clerk. Ms. Hinckley seconded the motion.**  
 77 **The vote was unanimous, motion passed.**

78 **Ms. Lawrence called for a roll call vote: Lawrence- Yes, Eckhoff- Yes, Hinckley- Yes and**  
 79 **O’Keefe- Yes.**

80 Ms. Lawrence added that the Amherst School Board is also reviewing, and the document could  
 81 be available to the public as early as the next day.

82 Mr. O’Keefe asked if they should take a few minutes to summarize the highlights of the  
 83 document.

84 He added that the MVSb has had multiple meetings to redo their agreement with the Amherst  
 85 School District. There were a couple of things that they wanted to focus on. First, they wanted  
 86 more structure and consistency with regards to the tuition that they pay to the Amherst School  
 87 System. They have successfully negotiated a flat rate that is going to be based on the average  
 88 two- year Cost Per Pupil calculation on an October 1<sup>st</sup> deadline. That calculation is formulated by  
 89 the SAU Administration Staff and sent up to the State of NH and documented. They will now be  
 90 subject to, upon approval of their tax base to paying the two-year average of that tuition or that  
 91 CPP calculation as a form of their tuition to send over.

92 They have also successfully renegotiated the way their Paraprofessionals were billed back to  
 93 their community. They bundled that into the actual cost of the educational services to their  
 94 community on the ACPD calculation. They do not have to worry about additional  
 95 paraprofessionals being added back to the Mont Vernon tax base.

96 Third, they have created a 5-year expiration date of this particular contract with an option to  
 97 renew by the MVSb at that time.

98 They also added in four qualitative concerns, 1. A one to one check in, with it being reported  
 99 back in November. 2. Creating synergy between their 6<sup>th</sup> grade educational experience and  
 100 Amherst’s 6<sup>th</sup> grade educational experience by mandating a couple of things ( A. 2 curriculum  
 101 assignments and have them cohesively coordinated between the two districts either by Zoom or  
 102 in person. 3. They want to make sure that their 6<sup>th</sup> grade teachers receive the same Professional  
 103 Development as Amherst’s so that their curriculum is on the same exact pace. 4. Testing being  
 104 reported back to the MVSb so that they are making sure that there are no gaps that are identified.

105 They do believe that it is in the best interest of the community from a financial standpoint and  
 106 qualitative standpoint.

107 V. Public Comment I of I

108 Mr. O’Keefe explained that there is a cap of 5.6%, this is for creating consistency to make sure  
 109 that their tax base is protected from year to year.

110 Ms. Lawrence mentioned that this negotiated contract will help provide them with a little bit  
111 more visibility and stability when it comes to budgeting.

112 She added that the board is available, and their contact information is on the SAU website. She  
113 thanked the public for watching and encouraged the public to attend the upcoming SAU Board  
114 meeting at 6:00PM.

115 VI. Meeting Adjourned

116 **Mr. O’Keefe motioned to adjourn the meeting at 5:42PM. Ms. Hinckley seconded the**  
117 **motion. The vote was unanimous, motion passed.**

118 **Ms. Lawrence called for a roll call vote: Lawrence- Yes, Eckhoff- Yes, Hinckley- Yes and**  
119 **O’Keefe- Yes.**

120

121

Draft

**Consent Agenda Item #3**

**SAU #39 2021-2022 School Calendar - DRAFT**

<p><b>JULY, 2021</b></p> <table border="1"> <thead> <tr> <th>M</th> <th>T</th> <th>W</th> <th>Th</th> <th>F</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> </tbody> </table>	M	T	W	Th	F				1	2	5	6	7	8	9	12	13	14	15	16	19	20	21	22	23	26	27	28	29	30	<p>5 July 4th (Observed) - Offices Closed</p>	<p><b>JANUARY, 2022</b></p> <table border="1"> <thead> <tr> <th>M</th> <th>T</th> <th>W</th> <th>Th</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> </tr> <tr> <td>31</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	M	T	W	Th	F	3	4	5	6	7	10	11	12	13	14	17	18	19	20	21	24	25	26	27	28	31					<p>20 11 Late Start 17 Martin Luther King Jr. Day - No School</p>
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<p><b>AUGUST, 2021</b></p> <table border="1"> <thead> <tr> <th>M</th> <th>T</th> <th>W</th> <th>Th</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>9</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> </tr> <tr> <td>16</td> <td>17</td> <td>18</td> <td>19</td> <td>20</td> </tr> <tr> <td>23</td> <td>24</td> <td>25</td> <td>26</td> <td>27</td> </tr> <tr> <td>30</td> <td>31</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	M	T	W	Th	F	2	3	4	5	6	9	10	11	12	13	16	17	18	19	20	23	24	25	26	27	30	31				<p>31 Teacher Welcome Back Day</p>	<p><b>FEBRUARY, 2022</b></p> <table border="1"> <thead> <tr> <th>M</th> <th>T</th> <th>W</th> <th>Th</th> <th>F</th> </tr> </thead> <tbody> <tr> <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> </tr> <tr> <td>14</td> <td>15</td> <td>16</td> <td>17</td> <td>18</td> </tr> <tr> <td>21</td> <td>22</td> <td>23</td> <td>24</td> <td>25</td> </tr> <tr> <td>28</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	M	T	W	Th	F		1	2	3	4	7	8	9	10	11	14	15	16	17	18	21	22	23	24	25	28					<p>15 8 Late Start 21-25 February Vacation - No School</p>
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		* Subject to Change

# MVVS Board Update

December 2020

December is an exciting month for our students and staff. While we continue to enforce masks and social distancing, we are also striving to create as much normalcy as possible. We have spirit days planned, a visit from Santa Claus on a fire truck, the PTAvenue of Lights event, and a holiday celebration to look forward to!



Our teachers are working hard to plan for remote learning after Christmas. They have been writing lessons and modifying plans to ensure quality instruction in a remote environment. At the same time, our three remote teachers continue to shine in a remote environment. We are happy to report that we have now dedicated a paraprofessional to remote learning to assist with small group support, breakout rooms, and one-on-one support.

Our school community is looking forward to the holiday break. Until then, we will continue to work together to provide the highest quality of education to all students. It truly takes a village!

Miss Kim & the MVVS Staff

**ENROLLMENT**

**MVVS (\* DENOTES ONE CLASSROOM AT THAT GRADE LEVEL)**

Grade	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.
K		21	21	21	20						
1		23	23	23	22						
2		20	19	19	18						
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*5		20	20	20	19						
6		27	27	26	25						
Total		164	163	161	154						
Family		143	143	143	143						

**Remote**

K-4		27	29	30	34						
Gr.5-6		14	12	13	16						

**Homeschool Students**

K-6		11	12	12	12						
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## Coffee with the Principal

If you missed our latest episodes of Coffee with the Principal, you can catch up with the links below. Coffee with the Principal happens every Friday at noon.



[Coffee with Roger Preston, Director of Facilities](#)

[Coffee with Mrs. Redway and Mrs. Whitney, Paraprofessionals](#)

[Coffee with Christine Landwherle, Assistant Superintendent](#)

## Library and Technology Update

Library and Technology are wrapping up the study of digital citizenship with all grades, although lessons will continue throughout the school year as needed. K-2 students participated in a Halloween-themed lesson that included a read-aloud, art project, and incorporated the ChatterPix tech app. An animal research project introduced basic research skills using online resources to 2nd graders. Basic formatting skills have been a focus for 3rd graders. They built their own Jack O'Lantern in Google Docs, learned how to import, copy, and paste images, and then wrote a short story or poem. They have also learned basic formatting skills in Microsoft Word as well.

Students in the 4th grade have just completed a research project and promotional slideshow about the National State Parks. They choose a park, gathered information, created a PowerPoint slideshow with images and music, and converted their slideshow into a video which they presented to the class. They will continue building these skills with a research project and presentation on a midwestern state.

Research and designing technology to present has been the focus for 5th and 6th graders. They have learned how to evaluate sources and will continue to hone their research skills using World Book Online and EBSCO. Students will continue to practice basic design skills by creating presentations and videos with Microsoft and Google applications.

Read-alouds for November and December included books about voting, Veteran's Day, Thanksgiving, Native American Heritage, and December holidays. Students have enjoyed weekly storytime and activities with a focus on the ten books that have been nominated for the New Hampshire Ladybug Book Award and the Great Stone Face Book Award. K-3 students will vote on the NH Ladybug Book winner next week, and 4-6 students will vote on the Great Stone Face Book winner in April.

In the coming weeks, students will continue learning new tech programs, keyboarding, coding, research lessons, utilizing online resources, studying persistence, learn about copyright and the rights of the creator of the resource, and news literacy—fact versus fiction—to identify good versus bad sources of information. All students will participate in Hour of Code activities during Computer Science Education Week, Dec. 7 – 13.

The special education team is continuing to provide services in remote and in-person modalities. The team has worked over the past two weeks to ensure that grades were entered into Empower for students with modified programs, and to ensure that special education progress reports were completed and sent to families. The team met with building-level leadership to review tier 2 and 3 student progress, and to plan any necessary instructional adjustments. The team is working to develop schedules and parent communication regarding the upcoming remote weeks that will take place after the holiday break. During that time, services will not be interrupted, and all special education staff will be utilized to provide services to tier 2 and identified students remotely.

## School Counselor Update

Students continue to work through the Second Step curriculum with Ms.O'Keefe during classroom counseling lessons. Students have been building interpersonal skills by focusing on respectful communication, being kind, initiating friendships, and reading the emotions of others. Many students are moving into the Emotion Management Unit and will begin learning and reviewing coping skills. To help provide students with an additional strategy for their personal "coping skills toolboxes", Ms.O'Keefe will be placing a list of quick and quiet activities students can complete in the hallways outside of their classrooms if they need a movement break to help self-regulate. To help encourage students to continue practicing SEL strategies and concepts at home over the upcoming holiday break, Ms.O'Keefe is also beginning to create some take-home activities for students to complete independently or with their families.

## Music Update

Music class during the month of November was focused on musical instrument families. K-1 discussed the characteristics of the four primary orchestra instrument families: string, woodwind, percussion, and brass. Students became comfortable identifying the appropriate instrument family for both familiar and new instruments. The students particularly enjoyed discussing the percussion family because we were able to use classroom instruments that are easy to clean between students.

Second-grade students reviewed their prior knowledge of instrument families and then learned about instruments that are extra big, extra small, unique in some other way, or originated from cultures around the world, leading to discussions of how these instruments did or did not fit into limitations of the four instrument families. Students in K-2 culminated this unit by constructing one or more turkeys out of a paper turkey body that was labeled with an instrument family name and six feathers that each had a picture of an instrument that belongs in that instrument family.

Grades 3-4 reviewed the four orchestral instrument families, discussed how sound is made from each of the families, and then traveled the world learning about instruments from many different cultures. Students were very engaged in identifying the appropriate instrument family

for each and then trying to figure out what country or part of the world it originated in. An animated discussion developed around the multiple examples of bagpipes from Ireland, Scotland, and Italy! Other surprises were that the wooden didgeridoo qualifies as a brass instrument and how soothing the students found the sounds of the hurdy-gurdy.

Grades 5-6 used Lemony Snicket's pun-filled musical mystery *The Composer Is Dead* as a launching point for a review of orchestral instruments and their families. We then explored the extreme size examples of many instruments, discussed electronic and digital instruments that don't fit into any of the older four instrument categories, and explored some unusual instruments. Students were quite fascinated by the video of the theremin being played without being touched and the intricate workings of the Wintergatan Music Machine. Sixth grade also discussed a basic introduction to the science behind sound waves, frequency versus amplitude, and why different instruments have a unique timbre, sounding different even if they are playing the same pitch.

## Spanish Update

Kindergarten has been working on learning vocabulary for immediate family members such as mother, father, grandmother, grandfather, boy, and girl. We made booklets about why we love them. We also made special Thanksgiving necklaces in Spanish to show what we are thankful for this month. First graders have expanded their family vocabulary to include brothers, sisters, and babies. To celebrate Thanksgiving students made small interactive notebooks with some vocabulary words that are traditional for the holiday. In second grade students have been hard at work with their Very Hungry Caterpillar projects to wrap up units on days of the week, colors, and fruits. For Thanksgiving, we read a silly story about a colorful turkey and made our own versions of the story. Third graders and fourth graders wrapped up numbers and reviewed colors. We are getting ready to dive into basic grammar with descriptive adjectives. We celebrate Thanksgiving via zoom with a silly Thanksgiving Kahoot that everyone enjoyed. Fifth and sixth graders have completed colors and numbers review with an assessment this week. We also played the Thanksgiving Kahoot and took some time to conference about progress reports to ensure students submit any missing work in the next couple of weeks.

## PE Update

**K-2:** Students continue to work on their locomotor skills daily. They are really improving and it is starting to become 'second nature' to them. Students have been learning how to properly perform an overhand and underhand throw. They are participating in a variety of throwing games to work on these skills. We have also been practicing how to properly catch a ball and the difference between catching a ball when it is high and when it is low.

**3-6:** Students have been working hard at their cardiovascular endurance. We have started running two laps of the field with a strong focus on how to properly pace our runs. Students are realizing that their running pace is individual to each student and that it takes practice to learn what our pace is. Students have also been refining their throwing and catching skills by participating in a variety of team games.



## Remote K-4 ELA

In Kindergarten ELA, we will be reading and talking about winter, and how winter affects animals and people. We are finishing up our first pass in the lower case alphabet, and each student will be contributing to a class alphabet book. Collection of the student pages will begin this week on Tuesday, with a drop-off bin in the outer foyer at MV.

In Grade 1 ELA, students have just completed How-To books, which we will share in class. This month we will take a trip around the world and look at holidays and celebrations in different places as our own 'holiday season' continues.

In grade 2 Humanities, students will continue working on their animal research projects. Mrs. Garrity has collected a variety of resources. We will also be learning about maps and globes this month.

In grade 3, students are reading nonfiction and beginning research on weather. All of grade 3 will attend a virtual field trip with the NOAA Weather Service in Gray, Maine on December 8th. Students in Mrs. Holm's class will be working on informational articles on weather topics.

In grade 4, we are working on a Midwest travel project. Brochure templates will be available on Google Classroom, and Mrs. Garrity will be offering support in formatting, etc. We are also building our background knowledge before beginning a new novel this month. The novel deals with some science concepts that bear exploring, as well as knowledge of NH geography. We will continue our study of affixes and related spelling rules.

## Remote K-4 Math

Remote math learners are propelling forward in new math adventures. November saw kindergarteners continue their understanding of teen numbers, emphasizing the "ten" as a part of the whole number. Ten frames help us see the ten and the ones left over. First graders are dazzling us with their fluent decomposition of numbers, becoming masters of addition within twenty. They are even developing a sense of patterns of arithmetic, noticing that adding 20 and 30 is as easy as adding 2 and 3. Second graders are continuing to develop strategies to add and subtract, learning to read and understand word problems. They are such great detectives that they can even spot the extraneous details. Third graders are just about done with their multiplication unit and are amazed to find themselves pretty good at division. These problem-solvers are making connections like crazy and love to be challenged. Fourth graders are rockstars, demonstrating an ability to multiply multi-digit numbers with strategies such as the partial products method and area model. They are using distributive property effectively as they discover how much math they can do mentally – no relying on paper and pencil for these professionals. In routines such as "Number Talks", "Would You Rather (math edition)?" and "Which One Doesn't Belong?", we are continually talking about geometry concepts, measurement, fractions, scale, attributes and real-world problems. We are learning AND having fun – a marvelous combination!

## Remote 5-6

We have some new students joining the remote classes for this segment, and so far, it has been a smooth transition for the fifth and sixth graders due to the careful planning between in-person and remote. In fifth grade, we are beginning our unit on coordinate planes and continuing to read *Peak* in reading. In sixth grade, we are wrapping up our unit on multiplying and dividing decimals by introducing the division of decimals, and we are starting a new unit in reading on real-life figures who have changed the world.

## Kindergarten

In kindergarten, we are starting a non-fiction unit. We are reading texts about migration and are recognizing and learning to use labels. Students know letters a-w and are working on x and y this week. We are working on sight words and know a total of 20 words! We are continuing to work on sentence structure and are learning the difference between a sentence that tells, and a sentence that asks. In math, we are working on adding and decomposing numbers. We are learning that the addition sign tells us to put numbers together. In science, we are learning about what animals do in winter and how they learn to survive throughout the different seasons. We are also continuing to talk about the weather.

## Grade 1

First grade has completed their training and earned their Word Detective badges. They have been continuing to learn word solving strategies with a focus on “snap” words. We are finishing Unit 3 of Foundations that mainly focused on the skills of Phoneme segmentation, consonant digraphs, spelling of ck at the end of words, punctuation (question mark), narrative story form: character, setting, main events, reading with accuracy and prosody as well as retelling with picture notes and visualization. We have almost completed our work on our major math cluster related to addition. Students are working towards mastery at representing and solving problems with addition, understand and apply properties of operations to solve problems with addition, add within 20, and work with addition equations.

## Grade 2

Second graders are finishing up their first fiction reading unit and will begin a new unit, focusing on reading and understanding non-fiction texts. In math, students are working on adding 2 and 3 -digit numbers up to 1,000 as well as solving (and explaining how to solve) word problems. They continue to work on reading maps and learning about map keys during social studies.

## Grade 3

Third Graders continues with the second reading unit that focuses on grasping main ideas and text structures while reading expository texts. Students are reading nonfiction texts while practicing to stop and think, talk, or jot down new ideas or new information. Students are also continuing to create graphic organizers for the main idea and supporting details. In Foundations, we are continuing our unit that focuses on vowel-consonant-e syllables. Students have begun to practice dividing multisyllabic words. In math, students are progressing through the multiplication of 10x10 facts, as well as x11 and x12. Students are using derived facts to work towards automaticity.

## Grade 4 Humanities

Students have been focusing on making inferences from literary and informational text and using evidence from the text to support their thinking. Students practiced persuasive writing techniques from the perspective of a turkey to not be eaten for Thanksgiving dinner based on the book, "My Lucky Day". Students have continued with spelling rules, types of syllables, and learning about the regions of the U.S.

## Grade 4 STEM

4th grade is wrapping up our multiplication unit by applying multiplication concepts to real-world problems. We will soon be moving onto division concepts. In science, we have continued our investigations of the processes that shape the Earth's surface.

## Grade 5

In math, students are wrapping up multiplication and we are about to start learning about coordinate grids. In science, we are wrapping up astronomy and about to start our unit on matter. In social studies, we are wrapping up our unit on exploration, and when we return from winter break, we will start the unit on Native Americans. In ELA, we are wrapping up unit 1 (finishing Peak by winter break). Also, students are working on writing various narratives, practicing editing, and interpreting figurative language.

## Curriculum Coordinator Updates

### **Social Studies Update from Dawn Garneau**

This Month Social Studies has been a focus in the upper wing. 4th graders are continuing to learn about the regions of the United States, while in 5th-grade students are learning about early exploration. They conducted a simulation of early exploration and are now moving on to researching particular explorers. The students will complete a writing assignment to compile this unit. . 6th graders have completed their unit on Early Man, and students have constructed a diorama and finished by writing a 3 paragraph essay showing their understanding of the differences between the Paleolithic, nomadic lifestyle, and the change to the Neolithic and Agrarian lifestyle. We are moving on to our unit on Mesopotamia.

## **Science Update from Mrs. Millas**

This month in science has been a busy and exciting one! In Kindergarten, our youngest scientists have been learning about seasons and the weather. This timing is great, as our weather is definitely starting to change and many observations in temperature and precipitation can be made. In second grade, students have finished their habitat dioramas and are starting a new unit on plant adaptations. Third graders are taking that study of plants to a deeper level as they dive into a plant's life cycle and a study of heredity.

In our upper grades, grade four finished up their investigations on the human body and how all the systems work together. Now they have moved onto an investigation of the processes that shape the Earth's surface. Grade five students have been learning about astronomy. They have learned about Earth's rotation and revolution, how shadows can be used to determine the time of day and season, planets, and the phases of the moon. They have also continued learning about the many constellations that fill the night sky. Sixth graders have finished their study of the rock cycle with a fun culminating activity that required the creation of either a poster, comic book or children's book. The kids took their creativity to the next level as they created pop-up, interactive books and colorful comic book characters that take the reader through the rock cycle and display their deep knowledge of the scientific vocabulary they have been studying.

## **Important Dates**

### DECEMBER

10-MVSB 6-8 PM

21-22 PD Days No School

23-January 1st Christmas Break

### JANUARY

4-18 Remote Status All Students

18-Martin Luther King, JR NO SCHOOL

19-Return to In Person

### **Segment 5**

11/30/20-start date

1/3/21-end date

### **Segment 6**

1/4/21-start date

1/31/21-end date



## Consent Agenda Item #5

SAU #39

12/3/2020

Mont Vernon Village School

November Facilities Update

### Vendor Maintenance Completed

- Boiler #1 fuel valve leak
- Service call for fire panel trouble (device line fault)
- Underground storage tank inspection (report attached)
- Roof consultant design services
- Replacement of side roof
- Building Management System upgrade
- Purchased new vacuum
- Weekly temporary custodial services
- Waste management services weekly schedule

### MVVS Facilities Staff Projects Completed

- Election setup and breakdown
- Repaired duct board in attic
- Reset tripped freeze stat in room W8
- Replaced classroom (W2) heating valve
- Training on underground storage tank
- Implementation of Simple Green as a multi-purpose cleaner
- Weekly generator test
- Daily water meter readings are being recorded
- Weekly fuel readings are being recorded (building fuel and generator)
- Landscaping of the grounds continues to be completed weekly
- Daily cleaning and disinfecting

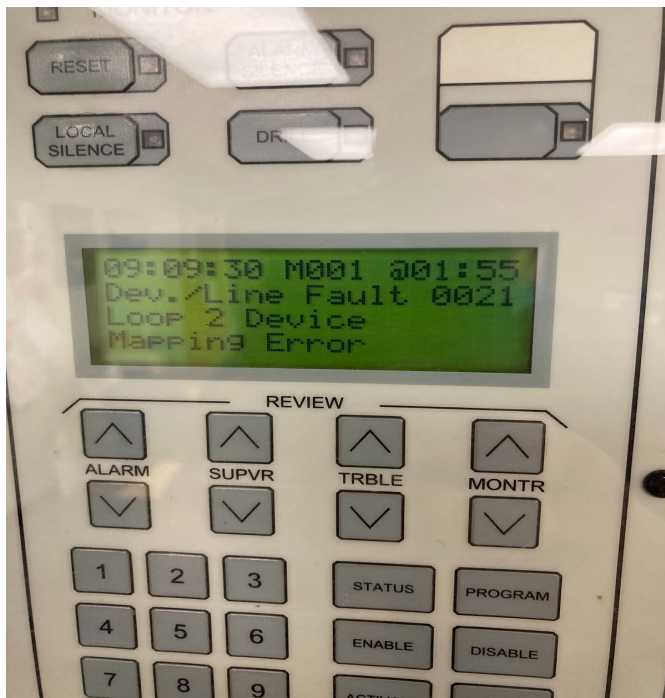
### Upcoming Work

- 12/8 roof replacement walk through, 12/18 roof replacement bid closing (RFP attached)
- Quote to repair John Deere lawn mower
- Video inspection of chimney prior to cleaning
- Repair of two failed actuators for boiler room
- Repair of failed heating valve in ceiling HV (room W8)
- Quote for replacement of failed domestic pressure tank

Installation of new side roof



Duct board repair, fire panel fault, and Simple Green bottles for multi-purpose cleaning



Tripped freeze stat (W8), boiler #1 fuel piping, new energy management system, new vacuum







The State of New Hampshire  
**Department of Environmental Services**



**Robert R. Scott, Commissioner**

11/23/2020

ROGER PRESTON  
MONT VERNON VILLAGE SCHOOL  
PO BOX 849  
AMHERST, NH 03031-0849

**Subject Site: MONT VERNON, VILLAGE SCHOOL, 1 KITTREDGE RD**  
DES Site # 198905083, UST Facility # 0113752

**Reference:** Underground Storage Tank Facility Inspection Report

On November 20, 2020 the New Hampshire Department of Environmental Services, Waste Management Division (DES) conducted an inspection of the underground storage tank (UST) system(s) at the subject site. The inspection was conducted to determine the level of compliance with key elements of the New Hampshire Code of Administrative Rules Env-Or 400 Underground Storage Facilities (UST Rules) and Env-Or 500, Recovery of Gasoline Vapors. These rules were established for the purpose of reducing the number of product releases to the environment from UST systems and to establish a leak detection system which would alert a facility owner or operator before significant environmental damage and economic loss occurs. The inspection conducted at this facility is part of the DES release prevention effort.

**Deficiencies noted during this inspection warrant your facility to be considered in substantial non-compliance with applicable rules. This means they pose a threat of a release to the environment and may result in a release going undetected. The following deficiency(ies) requires your immediate attention:**

**TANK #1 (Containing #2 HEATING OIL with Capacity of 8000 gallons)**

Env-Or 405.09 and Env-Or 406.02 require leak monitoring of tank systems to be installed and in good working order to continuously perform their original design function. Env-Or 405.04, Env-Or 406.01 and Env-Or 406.02 require secondary containment for UST piping systems that is in good working order to perform their original design function, liquid tight and maintained free of liquid and debris.

*The DES inspector has determined the piping sump has liquid, a reportable unusual operating condition, per Env-Or 406.04.*

***Please remove the liquid, investigate the source of liquid, determine if a release has occurred by conducting a tightness test on the tank/piping sump that meets the requirements of Env-Or 406.05 through Env-Or 406.08 or Env-Or 406.15. As an unusual operating condition, submit a written report to DES that describes the investigation and its conclusions, per Env-Or 406.04(e). Please refer to Env-Or 406.08 for test failure requirements, Env-Or 408.03 for repair requirements, Env-Or 406.14(h) and 408.06 through 408.10 for closure requirements, if applicable. Immediately conduct applicable notification and response actions required of Env-Or 600 if a release has occurred.***

DES Web Site: [www.des.nh.gov](http://www.des.nh.gov)

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095

Telephone: (603) 271-3899 Fax: (603) 271-2181 TDD Access: Relay NH 1-800-735-2964

The above noted **deficiencies must be corrected within 30 days** of the date of this inspection. To verify that the proper corrective measures were taken, documentation, in the form of a report from the certified technician that effected the repair, testing results, invoices, inventory records, photographs, etc., indicating the date and description of the corrective measures taken must be **submitted to DES within 45 days** of the date of this inspection. Please be advised that failure to correct the deficiencies in a proper and timely manner will result in DES proceeding under the DES Compliance Assurance Response Policy to determine an appropriate enforcement response. Please note that New Hampshire RSA 125-C and 146-C authorize permit revocation, administrative fines not to exceed \$2,000 per violation, administrative orders, delivery prohibition, injunctive relief, and civil penalties not to exceed \$10,000 per violation per day of continuing violation, and \$25,000 for each continued day of a repeat violation.

Your signature below acknowledges that you were briefed by DES staff concerning the noted deficiencies. Should you have any questions concerning the content of this letter, please contact me in the Waste Management Division of DES at (603) 271-3899. DES appreciates your willingness to comply with the UST program in an effort to preserve New Hampshire's environment.

Sincerely,



11/23/2020

---

HARDING SCHOFIELD, Inspector

Date

11/23/2020

---

ROGER PRESTON, Facility Manager

Date

**Important Dates**

<b>Requirement</b>	<b>Tanks</b>	<b>Next Date Due</b>	<b>Frequency</b>
Tank Leak Monitor Test	1	12/18/2020	Annual
LLD Function Check	N/A	N/A	Annual
Tank Corrosion Protection Test	N/A	N/A	Every 3 years
Piping Corrosion Protection Test	N/A	N/A	Every 3 years
Fittings Corrosion Protection Test	N/A	N/A	Every 3 years
Spill Bucket Tightness Testing	1	12/18/2022	Every 3 years OR monthly interstice monitoring
Overfill Testing	1	11/20/2023	Every 3 years
Primary Containment System Tightness Test	N/A	N/A	Every 3 years
Operator Monthly Checklist			Monthly
JOHN ROBICHAUD - A Operator Training			Every 2 years
JOHN ROBICHAUD - B Operator Training			Every 2 years



The State of New Hampshire  
**Department of Environmental Services**



**Robert R. Scott, Commissioner**

11/20/2020

ROGER PRESTON  
MONT VERNON VILLAGE SCHOOL  
PO BOX 849  
AMHERST, NH 03031-0849

**Subject Site: MONT VERNON, VILLAGE SCHOOL, 1 KITTREDGE RD**  
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**Deficiencies noted during this inspection warrant your facility to be considered in substantial non-compliance with applicable rules. This means they pose a threat of a release to the environment and may result in a release going undetected. The following deficiency(ies) requires your immediate attention:**

**GENERAL**

RSA 146-C:19, II and Env-Or 406.18 require monthly visual inspections be conducted by or under the direction of the class A or B operator at all UST facilities.

*The DES inspector determined monthly visual inspections have not been consistently or comprehensively conducted.*

***Please conduct and record monthly visual inspections and submit a copy of the most recent inspection report to DES.***

RSA 146-C:17-21 requires that all regulated facilities in New Hampshire have designated Class A, B and C operators who have been trained and certified in accordance with an approved training program, a posting of the certified Class C operators for the facility and a posting for the facility response guidelines. Env-Or 404.06 through 404.08 require a permit to operate and that the permit is permanently affixed on the facility premises in a location that is visible to a DES inspector. Env-Or 405.01(g) requires that a UST certificate be permanently affixed and visible to the DES inspector at the facility premises.

*The DES inspector could not verify or determine a Statement of Training form meeting the requirements of RSA 146-C:17,II was submitted to DES to designate a class A operator.*

***Please have at least one employee, that has primary responsibility for operating and maintaining the facility to attend UST Operator Training and submit a Statement of Training form designating a certified class A operator for the subject facility.***

DES Web Site: [www.des.nh.gov](http://www.des.nh.gov)

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095

Telephone: (603) 271-3899 Fax: (603) 271-2181 TDD Access: Relay NH 1-800-735-2964

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The DES inspector could not verify or determine a Statement of Training form meeting the requirements of RSA 146-C:17, it was submitted to DES to designate a class B operator.

**Please have at least one employee, that has primary responsibility for operating and maintaining the facility, attend UST Operator Training and submit a Statement of Training form designating a certified class B operator for the subject site.**

**TANK #1 (Containing #2 HEATING OIL with Capacity of 8000 gallons)**

The facilities day tank system components have been reviewed during the facility inspection for compliance with DES rules.

Per Env-or 403.06 (Env-Or 303.04 for ASTs), day tank system components, per the National Fire Protection Association (NFPA) standards regulated under state fire code, have also been reviewed by the DES inspector utilizing the NFPA code year applicable to the year of the fuel system installation.

**Currently the State Fire Marshal's Office and DES are working on specific guidance on day tank systems covered under these NFPA standards (NFPA 30, 31, 37 and 110). Following our determination on related fire codes and how they are applied to existing day tank systems, DES will then provide correspondence noting any deficient items requiring attention. In the meantime, if you have questions on your day tank system installation and fire code requirements, please consult your local fire chief.**

The above noted **deficiencies must be corrected within 30 days** of the date of this inspection. To verify that the proper corrective measures were taken, documentation, in the form of a report from the certified technician that effected the repair, testing results, invoices, inventory records, photographs, etc., indicating the date and description of the corrective measures taken must be **submitted to DES within 45 days** of the date of this inspection. Please be advised that failure to correct the deficiencies in a proper and timely manner will result in DES proceeding under the DES Compliance Assurance Response Policy to determine an appropriate enforcement response. Please note that New Hampshire RSA 125-C and 146-C authorize permit revocation, administrative fines not to exceed \$2,000 per violation, administrative orders, delivery prohibition, injunctive relief, and civil penalties not to exceed \$10,000 per violation per day of continuing violation, and \$25,000 for each continued day of a repeat violation.

Your signature below acknowledges that you were briefed by DES staff concerning the noted deficiencies. Should you have any questions concerning the content of this letter, please contact me in the Waste Management Division of DES at (603) 271-3899. DES appreciates your willingness to comply with the UST program in an effort to preserve New Hampshire's environment.

Sincerely,



11/20/2020

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HARDING SCHOFIELD, Inspector

Date

11/20/2020

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ROGER PRESTON, Facility Manager

Date

**Important Dates**

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Spill Bucket Tightness Testing	1	12/18/2022	Every 3 years OR monthly interstice monitoring
Overfill Testing	1	11/20/2023	Every 3 years
Primary Containment System Tightness Test	N/A	N/A	Every 3 years
Operator Monthly Checklist			Monthly
JOHN ROBICHAUD - A Operator Training		Past Due	Every 2 years
JOHN ROBICHAUD - B Operator Training		Past Due	Every 2 years

**MONT VERNON SCHOOL OWNER**  
**Mont Vernon, New Hampshire 03057**  
**ROOF REPLACEMENT PROJECT- 2021**  
**Invitation to Bid and Instructions to Bidders**  
**12/4/2020**

**INVITATION TO BID**

The Mont Vernon School District (Owner) will receive sealed bids for a Roof Replacement Project for Mont Vernon Village School located at 1 Kittredge Road, Mont Vernon, NH 03057

**INSTRUCTIONS TO BIDDERS**

1. Submit bids on the bid form enclosed.
2. Specifications are attached. **“ARM Project Manual Design Specifications 2021 Roof Replacement Project”**
3. Bidders shall carefully examine the building to obtain first-hand knowledge and verify measurements of existing conditions.
4. All project work shall be completed during the 2021 summer break (July 1, 2021 through August 20, 2021).
5. It is **mandatory** that all interested bidders attend the walk-through on **Tuesday, December 8, 2020 at 10:30am**. The walk-through will be located at Mont Vernon Village School 1 Kittredge Road, Mont Vernon, NH 03057. Please meet outside the main entrance to sign the required attendance sheet.
6. If you have any questions or concerns regarding this project, please contact Mr. Roger Preston, Director of Facilities at (603) 455-3786 or [rpreston@sau39.org](mailto:rpreston@sau39.org)
7. The School District (Owner) reserves the right to accept or reject any or all bids in part or whole, whether from responsible bidders or otherwise, even though the bidder may not submit the lowest bid. The School District has sole discretion in determining the best interest of the district and to waive any informality deemed to be in the best interest of the School District. Bidders shall be responsible for any and all expenses that they may incur in preparing their bids.
8. Bids should be electronically transmitted via e-mail and password protected to the address listed below with the required subject line. The password shall be contemporaneously submitted in a separate electronic mail submission.

**“MVVS Roof Replacement Project 2021”**

**Electronic Submission**

[rpreston@sau39.org](mailto:rpreston@sau39.org)

Roger Preston, Director of Facilities

9. **BID CLOSING: Friday, December 18, 2020 at 2:00PM**. Bids must be received no later than 2:00 PM, Friday, December 18, 2020. It is the responsibility of the bidder to ensure the bids are received by the Owner before the deadline.
10. Any bids received after the specified date and time will not be considered, nor will late bids be opened.

## **SCOPE OF THE WORK**

The Scope of the Work is set forth in the Project Design Manual and incorporated herein by reference.

**NOTE: In the event that any term and condition set forth in the Project Design Manual differs from a term or condition set forth in this document, the stricter term or condition shall prevail.**

## **EXAMINATION**

1. Contractor must examine the existing area to determine all final field measurements.

## **NONAPPROPRIATION**

Any bid award and contract shall be subject to lawful appropriation and expenditure by the Mont Vernon School District. In the event of nonappropriation, Owner shall promptly notify the Contractor and unless the Owner elects otherwise, the bid award and contract shall be deemed to be terminated without recourse by the Contractor, except as to such limited remedies as may exist under the law of the State of New Hampshire.

## **QUALIFICATION REQUIREMENTS**

**NOTE: More detail regarding Qualification Requirements is set forth in the Project Design Manual**

1. A qualified installer with a minimum of 5 years of experience consistent with the experience requirements set forth in the Project Design Manual.
2. Qualified bidders must have an operational facility within a 100-mile radius of Mont Vernon, New Hampshire.
3. Contractor shall be a single firm specializing in roofing systems. Portions of the work may be subbed out, but ultimate responsibility for workmanship falls on installer.
4. All work shall be executed by skilled tradesmen in a workmanlike manner. All employees must be properly trained and familiar with the work, products and procedures. This work shall be carefully done. Any damage to the physical plant or equipment shall be repaired by skilled mechanics of the trade involved at no additional cost.
5. Contractor **must** provide a list of at least 3 owner references relating to work of a similar project size and scope. Reference list must include contact name, contact email, address and phone number.

## **WORK SITE**

**NOTE: More detail regarding Work Site requirements is set forth in the Project Design Manual**

1. All material will be reviewed and approved by Owner prior to installation.
2. Furnish only the materials as specified herein, in strict accordance with and approval by the manufacturer.
3. Before starting any work, the Contractors shall protect all furnishings, floors and areas.
4. The Mont Vernon School Owner and grounds are a non-smoking area.
5. Non-prescription drugs or alcoholic beverages are not permitted on the grounds.

## **REMOVAL AND DISPOSAL OF MATERIALS**

**NOTE: More detail regarding Removal and Disposal of Materials is set forth in the Project Design Manual**

1. It is the responsibility of the contractor to remove and dispose of all material according to federal, state and local policies.
2. Discarded materials must be removed from school sites on a daily basis.
3. At the completion of the job, all discarded materials, trash and debris shall be removed from the site and all work areas shall be clean.

## **DELIVERY, STORAGE, AND PROTECTION**

**NOTE: More detail regarding Delivery, Storage and Protection is set forth in the Project Design Manual**

1. Products on site must be sealed and properly labeled, in manufacturer's original containers, dry and undamaged. Do not use materials which have been opened prior to this project or damaged in any manner.
2. Products and other materials shall be delivered to site at such a time as required for proper coordination of the work. Village School has minimal storage space and therefore, cannot make accommodations to store materials for an extended period of time.
3. The Contractor shall arrange material storage so as not to interfere with the Owner's operations.
4. Deliver materials in the manufacturer's unopened container or bundles, fully identified with brand, type, grade, class, and all other qualifying information.



5. Take all necessary precautions against fire and other hazards, during delivery, storage, and installation of inflammable adhesives, solvents, and other materials specified herein. Comply with local ordinances and fire regulations in the installation of hazardous materials specified or required under this section.
6. The Contractor is responsible for coordinating and receiving all deliveries and shipments.
7. The Contractor shall hold the Owner harmless from any loss arising from lost, stolen or damaged materials stored at the job site.

## **WARRANTY**

### **NOTE: Additional Warranty requirements are set forth in the Project Design Manual.**

1. The Contractor shall guarantee all workmanship for two (2) years from the date of final payment. Any defects which may arise during this period shall be promptly repaired by the Contractor including any damage done to the Owner's property due to such defects.

## **SPECIAL CONDITIONS**

1. Qualified bidders must have an operational facility within a 100-mile radius of Mont Vernon, New Hampshire.
2. The acquisition of all applicable permits and associated costs to obtain said permits will be the responsibility of the Contractor.
3. This bid cannot be assigned or transferred to any other Contractor.
4. The Contractor must examine the conditions under which the project is to be performed and notify the Owner of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Owner.
5. The Owner shall have general rights of inspection of the work and has the authority to stop work whenever such stoppage may be necessary to insure the proper execution of the contract and shall have the authority to reject any and all materials, whether worked or unworked, if such materials are not in accordance with the plans and specifications.
6. If at any time, the Owner determines that the Contractor's rate of performance is jeopardizing completion of the work within the Contract Time, the Contractor may be considered in default of the contract and the Owner may terminate the contract.
7. Equipment may be stored on site during the project period as required for proper coordination of the work. All equipment shall be removed at the conclusion of the project. The Contractor shall hold the Owner harmless from any loss arising from lost, stolen or damaged equipment stored at the job site.
8. The Contractor shall and ensure that all employees shall perform criminal background checks for all persons that will be present on the job site at any time. If background checks reveal convictions of any crimes involving offense against children, notify the Owner in writing and do not allow the offender access to the jobsite.

## **INDEMNIFICATION**

### **The award of any Bid and the performance of this contract shall be subject to indemnification of the Owner**

1. **To the fullest extent permitted by law, Contractor shall defend and indemnify the Owner, including the Owner's officials, agents, representatives, volunteers and employees ("Indemnified Parties") from and against any and all liabilities, obligations, claims, damages, penalties, causes of action, costs, interest and expenses, including but not limited to reasonable attorney and paralegal fees, which Indemnified Parties may become obligated or suffer by reason of any accident, bodily injury, personal injury, death of person, economic injury or loss of or damage to property, arising indirectly or directly under, out of, in connection with, or as a result of Contractor's negligence, error or omission in the performance of this Contract or the activities of the Contractor or its supervisor's, directors, agents, representatives, volunteers, employees, contractors or subcontractors.**

2. **In addition, and regardless of respective fault, Contractor shall defend and indemnify the Indemnified Parties for any costs, expenses and liabilities arising out of a claim, charge or determination that Contractor's supervisors, directors, agents, representatives, volunteers, employees, contractors or subcontractors are employees of the Indemnified Parties, including but not limited to claims or charges for benefits, wages,**

**fees, penalties, withholdings, damages or taxes brought in connection with laws governing workers compensation, unemployment compensation, social security, Medicare, state or federal taxation, and/or any other similar obligation associated with an employment relationship.**

3. **The Contractor's obligations to defend and indemnify the Indemnified Parties hereunder shall survive the term of this Agreement.**

4. **The Owner shall not be required to defend or indemnify the Contractor, any contractor or subcontractor or any product or material supplier.**

**NO CONFLICT**

1. The Contractor, in submitting a bid shall agree and so state in its proposal that no person acting for or employed by the Owner has a direct or indirect financial interest in the proposal or in any portion of the profits that may be derived there from.

**SAFETY**

**NOTE: Additional Safety requirements are set forth in the Project Design Manual. NOTE: THE CONTRACTOR SHALL COMPLY WITH THE OWNER’S COVID-19 PROTOCOLS.**

- 1. The health and safety of all workers, school employees, and school children is paramount. The Contractor shall implement all practical means of preventing injury including the placement of signs, ropes, barricades or other warning devices to exclude people from the work zone.
- 2. If any unauthorized person enters the work area, the Contractor shall cease all operations which could result in injury/accident to the visitor and not restart until the area is cleared.
- 3. Any ladders used on this project must be in good condition and must be OSHA approved.
- 4. Contractor must comply with all OSHA guidelines for safety and protection of workers and the public.
- 5. Contractor will adhere to the laws in the State of New Hampshire regarding current safety practices, and in accordance with code enforcement.
- 6. If Contractor is performing any work while students are in session, Contractor shall be required to acknowledge receipt and review of the Owner’s Pupil Safety and Violence Prevention Policy.

**BOND REQUIREMENTS**

**NOTE: Additional bond submission requirements are set forth in the Project Design Manual.**

1. Contractors must provide payment bond in accordance with New Hampshire RSA 447:16 Bond Required. “...shall if said contract involves an expenditure of \$35,000, and may if it involves an expenditure of less amount, obtain as a condition precedent to the execution of the contract, sufficient security, by bond or otherwise, in an amount equal to at least 100 percent of the contract price, or of the estimated cost of the work... “. Failure to secure bonding will result in disqualification of bid.

**LAWS AND REGULATIONS**

1. Contractor shall be solely responsible for complying with all Laws and Regulations governing the work, including, without limitation, applicable OSHA, EPA and State regulations and Town of Amherst, NH ordinances.

**INSURANCE**

**NOTE: Additional requirements with regard to documentation of insurance are set forth in the Project Design Manual.**

1. The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor’s operations under the Contract, whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable. The Contractor shall submit a Certificate of Insurance showing the Contractor has the required coverage.

- 1. The Contractor shall name the Mont Vernon School Owner and SAU #39 as an additional insured, and shall provide certification of the same to the Owner
- 2. At all times Contractor shall maintain coverage for claims under Workers’ Compensation, disability benefit and other similar employee benefit acts.
- 3. At all times Contractor shall maintain coverage for claims for damages because of bodily injury, occupational sickness or disease, or death of his employees, and claims insured by usual personal injury liability coverage.
- 4. At all times Contractor shall maintain comprehensive coverage for claims for damage because of bodily injury, occupational sickness or disease, or death of any person other than his employees, and claims insured by usual personal injury liability coverage.
- 5. At all times Contractor shall maintain coverage for claims for damage because of injury to or destruction of tangible property, including loss of use resulting therefrom. Coverage shall meet or exceed the following limits:

a. Workers Compensation and Employers’ Liability	Statutory Limits
Each Accident	\$1,000,000
Disease (Policy Limit)	\$1,000,000
Disease (Each Employee)	\$1,000,000
b. Comprehensive General Liability	
Bodily Injury (Each person/Each occurrence)	\$1,000,000
Property Damage	\$1,000,000
c. Comprehensive Automobile Liability	
Bodily Injury (Each person/Each occurrence)	\$1,000,000

Property Damage

\$1,000,000

### **FINAL INSPECTION**

**NOTE: Additional requirements with regard to Final Inspection are set forth in the Project Design Manual.**

1. At completion of the project and associated work, meet with Owner or their agent to inspect the work. Owner or their agent will list all items requiring correction or completion and furnish a copy of items to each party in attendance.
2. Repair or replace defective work found at time of inspection, as necessary to produce a project which is free of damage and deterioration and according to warranty requirements.
3. Notify the Owner upon completion of corrections.

### **PAYMENT SCHEDULE**

1. Owner will provide payment as follows:

Final Payment – Final payment will not be issued until all components of the Final Inspection have been met to the Owner's satisfaction and Contractor has complied with the payment requirements set forth in the Project Design Manual.

### **CONTRACT DOCUMENTS**

These Bid Specifications and the Design Specifications shall be considered the Contractual Terms between the Parties, and the submission of a Bid shall be considered agreement by the Contractor to be contractually bound to these Bid Specifications and the Design Specifications. Nevertheless, the Owner may require such additional contractual documentation as it deems appropriate.

**COMPANY PROFILE**  
**and**  
**REQUIRED SUBMITTALS**

Please provide the following information regarding your business. ***This form is required as part of your bid submission.*** You may attach additional sheets or documents as needed.

1. DUNS Number or Federal Tax ID # \_\_\_\_\_
2. Company certifies it is not named on the Office of Federal Contracts Compliance Programs Excluded Parties List

Initial if company is not named \_\_\_\_\_

3. Size of Company: Total number of employees \_\_\_\_\_  
Total number of service employees \_\_\_\_\_
4. Number of years in business \_\_\_\_\_  
Number of years under current management \_\_\_\_\_
5. Office locations (service, retail, other) \_\_\_\_\_  
\_\_\_\_\_
6. Please provide website address: \_\_\_\_\_
7. Insurance – Please provide proof of insurance per specifications.
8. Bid Payment Bond – please provide if applicable, see specifications, proof of eligibility Per New Hampshire RSA 447:16 if project is over \$35,000.
9. Warranty Information
  - A. Warranty Coverage: \_\_\_\_\_ (Company Name)
  - B. Number of years on equipment \_\_\_\_\_
  - C. Number of years on labor \_\_\_\_\_
  - D. Number of years on installation \_\_\_\_\_
  - E. Exclusions: \_\_\_\_\_ (Company Name) will not have any liability or obligation under the limited warranty in case of:
    1. Damage caused by natural disasters
    2. Damage caused by snow removal activities
    3. Any defect caused by misuse or abuse of the equipment
    4. Damage caused by unauthorized modification
    5. Damage caused by improper maintenance
    6. \_\_\_\_\_

*Hereby warranties the project listed at the Mont Vernon School District, Mont Vernon, NH is free of any defect in material and workmanship. The period of warranty is two (2) years from the date of completion, final inspection and acceptance. Any defects in material or workmanship resulting from construction procedures that occur during the warranty period will be repaired or replaced.*

Date of Final Inspection: \_\_\_\_\_  
Date of Warranty Expiration: \_\_\_\_\_

10. Provide operations and maintenance manuals.
11. Identify maintenance requirements of proposed equipment (if applicable).
  - A. Required service to maintain warranty.  
\_\_\_\_\_

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B. Service schedule for equipment proposed (example: weekly, monthly, yearly).

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12. Provide list of proposed equipment/materials to be used on this project (per specifications)

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• No equipment substitutions will be part of this project. \_\_\_\_\_  
Please initial above

Proposed Alternate Equipment:

.

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13. List 3 references for which your Company performed similar scope and size work for, include company/agency name, contact name, telephone number, and email address.

1) \_\_\_\_\_

\_\_\_\_\_

2) \_\_\_\_\_

\_\_\_\_\_

3) \_\_\_\_\_

\_\_\_\_\_

14. List all subcontractors to perform work including contact name and telephone number or check box below.  
No subcontractor will be performing work on this project. \_\_\_\_\_

Please initial above

A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

Provide references for each subcontractor under separate attachment.

---

(Company Name)

---

(Print Name)

---

(Authorized Signature & Title)

---

(Date)

**MONT VERNON SCHOOL OWNER  
ROOF REPLACEMENT PROJECT - 2021  
BID PROPOSAL FORM**

Bids should be electronically transmitted via e-mail and password protected to the address listed below with the required subject line. The password shall be contemporaneously submitted in a separate electronic mail submission.

**“MVVS Roof Replacement Project 2021”**

**Electronic Submission**

[rpreston@sau39.org](mailto:rpreston@sau39.org)

Roger Preston, Director of Facilities

DATE: \_\_\_\_\_

SUBMITTED BY:

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Representative

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Email Address

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

PROJECT: **Mont Vernon Village School – 2021 Roof Replacement**

1. STIPULATED SUM (Base Bid)

- A. Having examined the Plans and Specifications, dated November 9, 2020 for construction of the said project, and having inspected the site of/and the conditions affecting and governing the construction of the said projects, the undersigned hereby proposes to furnish all labor, materials, transportation, services, and equipment necessary and/or reasonably required to construct and properly execute the re-roofing work included in the documents for a Base Bid representing the total of all the following bid items (advisory prices):

Base Bid : All labor, materials, services, equipment, permits and all applicable taxes necessary for completion of the work shown on the drawings and in the specifications, except for the item(s) described as unit prices (if any) in Section 01 22 00.

Bid Prices:

- A. **BASE BID:** For all work as outlined in the Project Manual (Section 01 11 13-A thru E, shown in the plans and detail drawings). **Note: Make sure all Unit Prices from Section 01 22 00 are carried.**

1. Roof Area, as designated on the Roof Plan.

**Base Bid:** \$ \_\_\_\_\_

- B. Each bidder shall enter a cost figure for all pricing called for, as well as, the Base Bid. Failure to comply subjects bid to disqualification.

- C. The undersigned affirms that the Base Bid and Alternate Bids represent the entire cost per drawings, specifications, addenda, and any other documents. No claim will be made due to any increase in wage scales, material prices, taxes, insurance, cost indexes, or any other factors affecting the construction industry or this project.
- D. The undersigned further agrees to modify this proposal to include, at the Owner's option, any alternates negotiated before execution of the Contract.

2. ADDENDA

- A. The undersigned acknowledges receipt of Addendum No. N/A to Addendum No. N/A issued during the bidding period.

3. INVITATION TO BID AND INSTRUCTIONS TO BIDDERS

- A. The Invitation To Bid and Instructions To Bidders are herewith incorporated as a part of this Proposal Form.

4. OWNER'S CONSTRUCTION SCHEDULE

- A. The undersigned is aware of the following time schedule for the project:

1.	Roofing recover work out to bid:	December 4, 2020
2.	Roofing recover work pre-bid on or about:	December 8 <sup>th</sup> @ 10:30 am
3.	Roofing recover work bids due:	December 18th, 2020 by 2:00 PM
4.	Pre-award interviews on or about:	January 8th, 2021
5.	Roofing recover work award on or about:	TBD
6.	Pre-construction Meeting on or about:	June 15 <sup>th</sup> , 2021
7.	Start roofing re-cover work on site :	June 20 <sup>th</sup> , 2021
8.	Project complete:	August 10 <sup>th</sup> , 2021

- B. The undersigned declares that their proposal is based on the referenced schedule and sequence. They understand that they must prepare a detailed Construction Time Schedule for all trades based on the schedule and sequence.
- C. The undersigned is aware of the extent of work required under the Base Bid and Alternate Bid to be performed during the hours approved by the building owner.
- D. The undersigned agrees to complete the work required by the referenced schedule and declares that the Base Bid and Alternate Bid set forth in the proposal contains sufficient sums of money to assure completion of the work (and each component thereof) on the referenced schedule. Including the sums sufficient for the hiring of additional help and/or overtime and/or shift work in order to permit completion of work (or any component thereof) on or before the date specified by the referenced schedule.

5. LIST OF SUBCONTRACTORS

- A. The undersigned agrees, if notified of the acceptance of this proposal, that they will utilize the following subcontractors for the following noted types of work, and that all other work not listed below will be performed directly by the undersigned. Attach an additional page if necessary. No substitutions shall be made in the employment of subcontractors without written approval having first been obtained through the Owner.

Contractor Acknowledgement: \_\_\_\_\_ Please Initial

<u>Subcontractor</u>	<u>Type of Work</u>
(Name, Address, Telephone Number)	



# **PROJECT MANUAL**

## **Design Specifications**

*2021 Roof Replacement Project*

**Mont Vernon Village School**  
**1 Kittridge Road**  
**Mont Vernon, NH 03057**

*Created for:*  
**SAU #39**  
**1 School Street**  
**Amherst, NH 03031**

**Designer/Owner's Representative:**  
ARM Consultants LLC  
PO Box 4, Chester, NH 03036  
(603) 234-6030  
info@armroofs.com

**Created on: 11-14-2020**



# School Administrative Unit #39

## Mont Vernon Village School Roof Replacement Project

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**SECTION 01 11 13**

**WORK COVERED BY CONTRACT  
DOCUMENTS**

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-SECTION 01 11 13 -  
WORK COVERED BY CONTRACT DOCUMENTS

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Provide labor and materials necessary to remove the existing materials and install the new specified roofing and related components for the Mont Vernon School District (School Administrative Unit #39) on all portions of the Mont Vernon Village School located at 1 Kittridge Road, Mont Vernon, NH 03057.
- B. **SUMMARY OF WORK**
1. **The work involves removing all shingles, flashing, underlayments, and other related items.**
  2. **The plywood roof deck on all roof areas, will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).**
  3. **The existing wood fascia boards on all roof areas, will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).**
  4. **The existing wood shadow boards on all roof areas, will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).**
  5. **The formed aluminum edge details will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).**
  6. **Preparation involves removal and legal disposal of:**
    - a. **All existing shingles and accessories.**
    - b. **All underlayment and loose or detached ice and water shield.**
    - c. **All related items down to the wood deck.**
    - d. **All existing valleys and ridge caps.**
    - e. **All existing roof vent flashings.**
    - f. **Remove, store, and reinstall all antennas and antenna support per the detail drawings.**
    - g. **All gutters, downspouts, and rain diverters.**
    - h. **Remove, store, and reinstall all ice melt cable. Provide all new clips to properly attach to the new shingles.**
    - i. **All snow belt panels.**
    - j. **Remove, store, and reinstall all fascia and soffits trim and covers, as required, to install the new ice and water shield at roof transition locations (corners, height changes etc.).**
    - k. **Remove, store, and reinstall all PVC trim board to access the step and rising wall flashings.**
    - l. **All damaged or deteriorated PVC trim boards.**
    - m. **All vertical corner pieces shall be removed, stored and reinstalled.**
    - n. **All pitch pocket shall be removed in its entirety.**
    - o. **All clapboards and plywood in locations shown on the roof plan and to accommodate new flashing heights.**
    - p. **All deteriorated wood fascia and shadow boards.**
    - q. **All plywood decking in transition areas that do not currently align. See roof plan for additional information.**
    - r. **Remove, store, and reinstall the existing “J” channel and top row of siding, as required, to remove the existing soffits. Reinstall existing siding and receivers to install the new soffits. This work will need to be conducted on the roof area that was already repaired over the winter as well.**
    - s. **All vinyl soffits and wood soffits with vents that are beneath the vinyl soffit. This work will need to be conducted on the roof area that was already repaired over the winter as well.**
    - t. **After the soffits are removed the prop-a-vents shall be cleaned out of all debris and blown in insulation materials to allow adequate air flow into the roof system. This work will need to be conducted on the roof area that was already repaired over the winter as well.**
    - u. **All Kynar finish aluminum curb wraps shall be removed, store, and reinstalled.**
    - v. **All damaged formed aluminum edge details.**

7. **As part of the preparation, walk the entire site and take pictures of all unsatisfactory conditions which include but are not limited to all items to be reused, or site conditions near areas where the work will be conducted. These pictures, with descriptions shall be provided to the Owner and Owner's Representative a minimum of 48 hours prior to the start of work. All items not shown will be considered the contractor's responsibility for damage. The work and materials needed to repair the items shall be completed, to the Owner's satisfaction, with no additional cost to the Owner or Owner's Representative.**
8. **Installation includes:**
  - a. **A small portion of the roof has already been completed. This area will have the new cap removed and a new cap installed to make the project one continuous roof system. This area will be included in any and all warranties for this roofing project.**
  - b. **Ice and Water Shield:**
    - i. **All Ice and Water Shield shall be high temp.**
    - ii. **Install 100% full coverage ice and water shield over the entire roof area starting from the eave of the roof area.**
  - c. **Install a synthetic polymer-based scrim-reinforced underlayment, over the entire roof area (including over the ice and water shield).**
  - d. **Install new 40-year CertainTeed Landmark Pro two-piece laminated asphalt shingles or equal. (See section 07 31 13 for additional information.)**
  - e. **All valleys shall be red copper Follow the shingle manufacturer's recommendations for aligning and installing the shingles in these areas. Mockups are required prior to the fabrication of the project materials.**
  - f. **Ventilation:**
    - i. **Provide new 12" Shingle vent II or approved equal along the entire ridge areas.**
    - ii. **Provide new CertainTeed, or equal, hidden vent triple 3 1/3" vinyl soffit panels in colonial white. New vinyl "J" or custom bent aluminum receivers (of matching color) will be installed along the existing soffits as required supporting the new soffit panels.**
  - g. **Edge and shadow metal:**
    - i. **New 26-gauge Kynar finish edge metal, drip edge and some exposed trim (see details for locations) shall be installed at designated locations.**
    - ii. **Color match the new metal to the existing trim. Provide samples and install mock-ups prior to ordering the full project.**
    - iii. **Isolation of dissimilar metals must be provided to prevent galvanic reactions between the metals.**
  - h. **Provide new gutters and downspouts per the specifications and detail drawings in locations shown on the roof plan RP-2. Provide gutter extensions at all corners to ensure that the gutters do not become overwhelmed in these areas or overflow during heavy rain.**
  - i. **Vinyl Siding:**
    - i. **Where required, provide new double 4", .042", white vinyl siding on the rising wall as shown on the roof plan RP-2 and in the detail drawings.**
    - ii. **Provide all new vinyl accessories including, but not limited to, 1/2" "J" trim, sill trim and starters as required to provide a complete and professional installation.**
    - iii. **All material shall be nailed in at a minimum of 16" on center. The existing stud layout should be followed to provide the maximum pull out capacity.**
  - j. **Rough Carpentry:**
    - i. **Install new plywood at the transition between the additions and the original roof areas (shown on the roof plan).**
    - ii. **Ensure that the seam from new to old is approximately in the center of the new 4'x8' plywood sheets to prevent any racking of the structures.**
    - iii. **Stagger the new plywood a minimum of 2'-0" from each other. No straight seams from board to board will be allowed running vertically up the roof.**
    - iv. **All plywood shall be tongue and groove or have "H" clips installed between all structural supports. Thickness to match the existing.**
    - v. **Provide new crickets behind all units 18" wider and greater. Frame out of 2x4's and 1/2" APA rated, CDX plywood.**

vi. **Provide new sleepers in locations as shown on the roof plans (refrigeration unit and antenna supports).**

- k. **Provide all new copper pans and step flashings at the chimney location.**
- l. **Provide new, 16 oz, fully soldered, pitch pocket as shown on the roof plan. Fill completely with a 2-part, pourable sealant. The flanges shall be stripped in on the top and both sides with 6” detail tape or ice and water shield.**
- m. **Provide .040 wraps matching the existing, for color and installation techniques, for all vent stands and sleepers. See detail drawings for installation details.**
- n. **New dark bronze Kynar finish, .040”, 4”x4” step flashings and detail tape or 6” wide strip of ice and water shield over the top of all step flashings.**
- o. **Provide new .040 dark bronze Kynar finish, vented wall base flashing per the detail drawings.**
- p. **Remove, store, and reinstall the existing trim at all areas where the rising walls meet the roof to allow for the installation of new step flashings and the ice and water shield.**
- q. **Scrape, prime and paint all non-galvanized and non-structural exposed metal (Plumbing vents). Benjamin Moore Ultra Spec HP low luster enamel for plumbing vents.**
- r. **All new or replacement wood products shall be painted, all 6 sides, after all cutting and trimming of the piece has been complete and prior to the installation of the piece. Test fit the pieces prior to installation.**
- s. **Install new pipe boots around all pipe penetrations in the roof. The flanges of the boots will be stripped in on the top and both sides with 6” detail tape or ice and water shield.**
- t. **All required metal flashings and accessories.**
- u. **Miscellaneous caulking and sealants.**
- v. **During the reinstallation of the PVC trim boards, utilize compatible caulking, glues, and other accessories. All overlaps should be scarf cut to allow for movement without noticeable separation. All existing fastener locations shall be reutilized. The new fasteners shall be fasten master cortex screws with color matched plugs.**

C. All penetrations, curbs, and other roof mounted units may not be shown on the roof plans. While every effort has been made to coordinate this work, the roofing contractor is responsible for conducting as accurate inventory of the actual field conditions and carrying the costs associated with completing the work as outlined in the contract documents.

- D. Related Documents:
- 1. Mount Vernon Village School RFP
  - 2. Code Compliance Page.
  - 3. Roof Plans.
  - 4. Detail Drawings.

E. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and both shall be followed to complete the work.

## 1.2 RELATED WORK

- A. Section 01 22 00 – Unit Prices
- B. Section 01 33 00 – Submittal Procedures
- C. Section 01 77 00 – Close-out Procedures
- D. Section 01 78 00 – Close-Out Submittals
- E. Section 02 40 00 – Demolition

- F. Section 06 10 00 – Rough Carpentry
- G. Section 06 16 00 – Wood Deck Repairs
- H. Section 07 31 13 – Asphalt Shingles
- I. Section 07 46 33 – Vinyl Siding
- J. Section 07 62 00 – Sheet Metal Flashing and Trim
- K. Section 09 91 13 – Painting and Coatings
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

### 1.3 QUALIFICATIONS OF SUPERINTENDENTS

- A. Contractor shall supply statement of qualifications outlining experience and technical expertise relative to the Project. The Owner shall have the right to review the qualifications of the proposed superintendent and ask for a replacement if, in the Owner's opinion, the person proposed does not meet the qualifications that the project will demand.
- B. The Foreman or Project Superintendent shall possess a current OSHA 30-hour Certification.
- C. Contractor shall have an unrestricted licensed construction supervisor on-site at all times.
- D. This superintendent shall be on the job site at all times while work is in progress, including overtime operations by the Contractor's forces or by subcontractors.
- E. No changes in this position shall be made without the Owner's prior approval.
- F. The same foreman and superintendent who were in charge during the general progress of the work shall oversee the completion of all punch list items.

### 1.4 OWNER'S REPRESENTATIVE

- A. **ARM Consultants LLC (ARM)**, PO Box 4, Chester, NH 03036; Telephone: 603-234-6030, E-mail: [info@armroofs.com](mailto:info@armroofs.com), is the Owner's Representative for this project.

### 1.5 QUALITY CONTROL

- A. Contractor shall:
  - 1. Be experienced in the specified roof system to the satisfaction of the Owner and Owner's Representative.
  - 2. Be approved by Owner.
  - 3. Be certified applicator of roof system manufacturer and can show three projects within a 50-mile radius completed in the past five years that have been completed by the contractor of similar design.
  - 4. Be licensed in the state and appropriate county to complete the work, as specified.
  - 5. Be approved to provide all shingle warranties, as specified.
- B. Jobsite Inspector:

1. A Job Site Inspector may be present throughout critical phases of the work. Presence of the Jobsite Inspector in no way relieves or lessens the responsibility of the contractor to perform the work per specifications. The Jobsite Inspector is the Owner's Representative and has the authority to stop roofing operations if he/she feels that the work is not in accordance with the specification or good roofing practice. **If such a stoppage occurs the contractor shall make the roof watertight until any dispute is resolved.**
  2. The Contractor must notify the Owner's Representative as to the working schedule on a daily basis. Ample notification must be given to accommodate inspection personnel.
- C. Random sampling:
1. Roofing material:
    - a. During the course of the work the Owner's Representative may require samples of materials being used at job site and submit them to an independent laboratory for comparison to specified material.
    - b. Should test results prove that a material is not functionally equal to specified material, or that coverage/application rates are not as specified:
      - i. Contractor shall pay for all testing.
      - ii. Roofing installed and found not to comply with the specifications shall be removed and replaced with no change in the contract price.
- D. Roofing Material Manufacturer site inspections:
1. The roofing Contractor shall arrange for the roofing material manufacturer to provide Technical Field Representative to be on-site to observe the work, make corrective recommendations and provide written field reports to the Owner's Representative. The manufacturer's Technical Field Representative shall be on-site as indicated below:
    - a. At any time where the roofing Contractor, Owner or Owner's Representative feels that a technical, material or installation problem exists and that it could compromise the integrity of the roof assembly.
    - b. Final Inspection.
    - c. All field inspection and Final inspection reports generated by the roofing material manufacturer will immediately be distributed to the Owner's Representative.
    - d. The owner's representative shall be notified, within 48 hours, of any manufacturers site visit or inspection.
- E. Pre-Award Meeting:
1. After the bids are received, the Owner and Owner's Representative, at their discretion, can conduct a pre-award meeting with bidders selected by the Owner.
  2. The purpose of the pre-award meeting is to establish:
    - a. The contractor's approach to this specific project.
    - b. The anticipated manpower being provided by the contractor for the project.
    - c. The anticipated production rate the contractor's crew is expected to make per day.
    - d. Crew size
    - e. Mobilization date
    - f. All other factors deemed by the Owner or the Owner's Representative as pertinent to this specific project.
- F. Project meetings:
1. Pre-construction and site mobilization conference. **No work shall commence until this has taken place and submittals have been completed:**
    - a. Will be scheduled by Owner's Representative immediately after notice of award.
    - b. Attendance:
      - i. Owner's Representative
      - ii. Contractor
      - iii. Owner
    - c. Agenda:
      - i. Walkover inspection.
      - ii. Submittal of requested samples.
      - iii. Identification of pre-existing conditions.

2. First day of shingle installation:
  - a. Will be scheduled and coordinated by the Roofing Contractor.
  - b. Attendance:
    - i. Owner's Representative
    - ii. Owner
    - iii. Contractor
    - iv. Material Manufacture's technical representative
  - c. Minimum agenda:
    - i. Review of work progress.
    - ii. Field observations, problems, and decisions.
    - iii. Identification of problems that impede planned progress.
    - iv. Maintenance of progress schedule.
    - v. Maintenance of quality and work standards.
    - vi. Other business relating to work.
3. Progress meetings:
  - a. Will be scheduled by the Owner's Representative as required.
  - b. Attendance:
    - i. Owner's Representative
    - ii. Contractor
    - iii. Owner
  - c. Minimum agenda:
    - i. Review of work progress.
    - ii. Field observations, problems, and decisions.
    - iii. Identification of problems that impede planned progress.
    - iv. Maintenance of progress schedule.
    - v. Maintenance of quality and work standards.
    - vi. Other business relating to work.
4. Substantial completion inspection (95%):
  - a. Will be scheduled by the Owner's Representative upon job completion.
  - b. Attendance:
    - i. Owner's Representative
    - ii. Contractor
    - iii. Roofing material manufacturer
    - iv. Owner
  - c. Minimum agenda:
    - i. Walkover inspection:
    - ii. Identification of problems which may impede issuance of warranty.
5. Final completion inspection:
  - a. Will be scheduled by Owner's Representative within (10) days of substantial completion inspection.

## 1.6 GENERAL CONDITIONS

- A. Contractor's licensing law:
  1. Only the Bids of Contractors licensed in accordance with all applicable laws will be considered. Contractor shall insure that all Subcontractors are licensed in accordance with all laws before submitting his/her Bid.
  2. In a binder, kept on site, a copy of the appropriate license of all operators, from all contractors, utilizing hoisting or lifting equipment.
- B. Examination and bidder representation:
  1. Each bidder, by submitting his Bid, represents that he has read and understands all Contract Documents and that he has visited the site and has familiarized himself with the local conditions under which the Work is to be performed. Contractors will not be given extra payments for conditions that can be determined by thoroughly examining the site and Contract Documents.



C. Occupational Safety and Health Act:

1. The Contractor represents that he is conversant with the Occupational Safety and Health Act and regulations for construction promulgated there under and agrees to comply with all such regulations applicable to the performance of the Work. The Contractor accepts the affirmative duty of enforcing those investigations by Federal Safety and Inspectors at the Contractor's workplace at the job site and of the outcome of any such inspection. The Contractor assumes exclusive responsibility for, and agrees to indemnify the Owner, Owner's Agent, and the Owner's Representative against all consequences of any violations of those regulations by the Contractor, including the payment of any fines, penalty and interest assessed in connection therewith and any court costs and attorneys' fees incurred by the Owner, Owner's Agent, or Owner's Representative.

D. Inspection of site and contract documents:

1. Contractor represents that it has carefully inspected the Contract Documents and examined the Drawings and Specifications and is familiar with and has satisfied itself as to the nature, location, and amount of the Work, the Contractor's access thereto and ability to perform the Work, the terms of this Contract and all incorporated documents as well as the quality, quantity, and availability of labor, materials, equipment, and facilities and other items required for the performance of the Work and the limiting physical and other conditions which may be encountered in the performance of the Work, and assumes all risks there from. Additionally, it is expected that the Contractor has completed this type of Work in the past and has anticipated the cost of all related work necessary to complete the Work at the highest possible quality standards and included that cost in the bid.
2. Prior to submitting a bid, the Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner's Representative, any (1) error, inconsistency, or omission occurring therein or (2) any failure to comply with applicable laws, ordinances, rules, regulations, codes, or orders of any public authority that come to the attention of the Contractor or would have come to its attention with the exercise of due care. If the Contractor performs, or allows any subcontractor to perform, any of the Work knowing, or when with the exercise of due care it would have known, it to be subject to an error, inconsistency, or omission in the Drawings and Specifications, or contrary to applicable laws, ordinances, rules, regulations, codes, or others of any public authority, and fails to give the Owner's Representative notice thereof prior to performance thereof, the Contractor shall bear all costs arising there from.
3. Prior to submitting a Bid, Contractor shall conduct a comprehensive inspection of the building interior and exterior to accurately determine the conditions present, Contractor shall conduct extensive test cut sampling of the roof and related items to evaluate the conditions present including but not limited to:
  - a. Condition, slope and profile of the roof decks.
  - b. Edges.
  - c. Curbs.
  - d. Flashing height at all curbs and walls.
  - e. Fascia, shadow and soffit board condition and sizes.
  - f. Any specialty soffit vent metal or other accessories required.
  - g. Ability to remove both soffits and clean out the prop-a-vents leading to the attic.

E. Miscellaneous:

1. Contractor shall be responsible for all financial obligations to obtain all necessary permits and licenses and comply with all statutes, ordinances, rules, regulations, and orders of any governmental or quasi-government authority applicable to the performance of the Work and be responsible for and correct any violations thereof. The Contractor shall provide such evidence of compliance with the foregoing as the Owner or Owner's Representative may request.
2. Contractor shall, at its sole cost and expense, remedy all damage to the Work or property of others caused by Contractor, including but not limited to property of the Owner's to the satisfaction of the Owner.
3. The Contractor shall be as fully responsible to the Owner for the acts and omissions of its subcontractors, their agents and persons directly or indirectly employed by them, and other persons performing any of the work as it is for the acts and omissions of persons directly employed by Contractor.
4. It is the Contractor's responsibility during the course of the Work to bring to the attention of the Owner's Representative any defective membrane, insulation or deck discovered where not previously identified.

F. Procedures:

The work shall be performed subject to, and in strict accordance with, the following requirements:

1. The Contractor shall promptly submit work plans, shop drawings, samples and other submittals required under the Contract Documents expeditiously and in a manner that will not cause delay in the progress of the work of the Contractor. No extension of time shall, in any event, be granted for delay by the Contractor in preparing drawings or in securing approval of the Owner's Representative thereto where such drawings are not properly prepared or when the Contractor, by the exercise of reasonable diligence and judgment, could have anticipated the delay. No portion of the Work requiring shop drawings, samples or other submittals shall commence until the Contractor has submitted, and the Owner's Representative has approved such submittals.
2. The Contractor, in carrying out its Work, shall take all necessary precautions to properly protect the finished and unfinished work of other trades and adjacent property from damage caused by its operations and further agrees to pay the Owner for any damages or delay that may be caused to such work by the Contractor.
3. The Owner and Owner's Representative reserve the right to perform Work related to the project with its own forces and to award separate contracts in connection with other portions of the project. The Contractor shall cooperate with the Owner and the Owner's Representative and any such separate contractors in avoiding interference and shall participate in the preparation of coordinated drawings as required by the Owner or as otherwise appropriate, specifically noting and advising the Owner's Representative of any interference. The Contractor shall use labor force compatible with those of any separate contractors, so the Work may proceed without interference by labor disputes.
4. The Contractor, upon request by the Owner's Representative, shall furnish weekly, type written progress reports on the Work and such other periodic reports as the Owner's Representative may require, including information of the status of materials and equipment that may be in the course of preparation or manufacture.
5. The Contractor specifically agrees that it is responsible for the protection of its Work and the interior of the building until final completion and acceptance thereof by the Owner, and that it will make good or replace, at no expense to the Owner, any damage that occurs prior to said final acceptance.
6. The Contractor shall have the right to store tools, equipment, materials and supplies, only as, when and where directed by the Owner or Owner's Representative. The Contractor shall only use such access to and from the site as specifically designated by the Owner. The Contractor, its Subcontractors and their agents and employees shall park only in those areas designated by the Owner. The Contractor shall be liable for all damages resulting from the use of entry upon private property whether with or without the consent of the Owner or Owner's Representative; and the Contractor shall defend and hold harmless the Owner and Owner's Representative from any and all claims and liabilities with respect thereto.
7. The Contractor shall properly store and protect its equipment, tools and all materials delivered to the site but not incorporated into the Work; and any loss thereto shall be borne solely by the Contractor.
8. The Contractor shall furnish portable toilet facilities, ladders, hoists, temporary protection and similar general condition items required to perform the Work. All tools shall be neatly stored at the end of each day.
9. Contractor acknowledges that the Owner, its tenants, and their respective guests and invitees will continue to occupy the existing buildings of the property and the Contractor shall (1) not interrupt or interfere with access to the buildings compromising the property and the normal business of the property, (2) limit construction operations to methods and procedures which will not adversely and unduly affect the normal business operations of the property and, (3) take all appropriate steps to minimize noise, drafts, odors, air pollution, ambient discomfort, poor lighting, hazards and other undesirable effects and conditions. None of the foregoing shall justify and extension of the Contract time or an increase in the Contract Sum.
10. If the Owner or Owner's Representative determines that the roofing contractor's superintendent, Foreman, crew or sub-contractor's actions are in any way detrimental to the project, quality/quantity of work or not acting in the best interest of the Owner they will have the right to have such individual(s) removed from the project and the property. Contractor shall replace at no cost to the Owner.

G. Work to be performed:

1. Except as otherwise provided herein, Contractor shall furnish all labor, materials, tools, equipment, supervision, and services necessary to execute and complete the work identified and described in these specifications. The work shall be performed by the Contractor in a good and workman-like manner strictly in accordance with the Contract Documents.
2. Do not sub-contract roofing operations.

H. Removal of debris:

1. Removal of rubbish and debris caused by the Contractor's Work shall be done by the Contractor whenever required by the Owner or Owner's Representative. If such removal is not done by the Contractor as directed, the Owner or Owner's Representative may do so at the Contractor's expense. The Project site shall be maintained in an orderly and clean condition and the Contractor shall leave the Project site, at the completion of the Contractor's work, free of all rubbish and debris caused by the Contractor, and in a condition satisfactory to the Owner. The Owner and Owner's Representative reserve the right to cause all unidentifiable debris to be removed from the Project site and allocate the cost thereof, by way of back charge or otherwise, among the responsible parties.
2. The site shall be monitored periodically during the day and kept free of any debris.

I. Regulatory and permit requirements:

1. (IBC) 2009 International Building Code.
2. (IEBC) 2009 International Existing Building Code.
3. Contractor is responsible for acquiring all building permits to satisfy Federal, State and Local requirements, (If required by the Local Building Official).
4. Contractor is responsible for acquiring the necessary approvals from the Fire Department, if applicable.

1.7 SITE CONDITIONS

A. Field measurements and material quantities:

1. **Contractor shall have SOLE responsibility for accuracy of all measurements, estimates of material quantities and sizes, and site conditions that will affect work.**
2. **Dimensions provided on roof plans shall be verified. Contractor is responsible for all detailed measurements.**

B. Existing conditions:

1. Building space directly under roof area covered by this specification will be utilized by ongoing operations. Do not interrupt operations unless prior written approval is received from Owner/Owner's Representative.

C. Interior protection:

1. At deck repair locations, vent locations or any penetration where debris can enter the building, interior protection must be provided. Means and methods to be approved by Owner's Representative and Owner.
2. At locations where interior ceiling exists, the contractor shall take extensive precautions to protect the interior.
3. Contractor shall coordinate with Owner to survey the underside of the deck on a daily basis to avoid contacting electrical conduit wires or other mechanical lines with membrane or insulation fasteners. **Any damage to conduit of other materials affixed to the deck will be repairs at the Contractor's expense.**

D. Safety requirements:

1. Awarded vendor shall conform to the OSHA standards for General Industry and Construction Industry standards.
2. Comply with federal, state, local and Owner fire and safety requirements.
3. Advise Owner whenever work is expected to be hazardous to Owner, employees, and/or operators.
4. Maintain fire extinguishers within easy access whenever power tools are being used.
5. Utilize a safety line with flags at perimeter of work area adjacent to the flat PVC roof area at all times.
6. Post and maintain MSDS sheets for all products being used on the project.
7. Any access ladder used to access the roof shall be secured to prevent access to the roof by person's not involved with the Work.
8. Comply with Chapter 14 of the 2009 International Existing Building Code.

E. Set up and access:

1. The set-up area for the Contractor will be designated at the Pre-Bid meeting. The Contractor will be responsible for replacing damaged landscaping concrete or asphalt and will be required to leave a clean, level, raked area, not contaminated by solvents, adhesives, cleaners, etc.
2. Contractor must utilize chute or crane for disposal of demolition debris to dumpsters. Provide tarps along the wall to protect exterior surfaces and windows.
3. Contractor will be responsible for cleaning any and all dirt or contamination to the building walls that is determined to have come from the reroofing project at the end of the project.
4. Contractor shall provide a portable sanitary facility which must be secured against vandalism.
5. The contractor shall be responsible and hold the building owner and owner's representative harmless for any chemicals or foreign material considered hazardous being placed in the dumpsters during the duration of the project.
6. The contractor shall provide tarps, at all times, to prevent, to the greatest extent possible, rainwater from entering the dumpsters and flushing out debris and chemicals. This applies even when inclement weather is not in the forecast.
7. A locked fence shall be provided around the entire dumpster to prevent unlawful and foreign materials from being placed in the dumpsters.
8. The dumpster shall be placed away from windows and door locations. If this is not possible, the contractor shall protect these openings from breakage with plywood or other means. Leaving them exposed will not be an option.
9. All workmen associated with the project will access the roof areas via their own exterior ladders or other exterior means, as described above. **The use of interior stairs and elevators is strictly prohibited.**
10. All areas accessed by the person's involved in the work described in this specification shall be protected and secured at all times.
11. Any damage done to the premises shall be repaired or replaced to the Owner's satisfaction at the contractor's expense.
12. Any delivery trucks, cranes or contractor vehicles leaking fluids, oil or other contaminants will be cleaned and remediated in accordance with EPA standards at the Contractor's expense.
13. **Contractor will take all possible precautions to keep foot and equipment traffic off completed and adjacent roof sections not in the contract.**
14. Contractor to carry enough fencing to provide a perimeter around all materials and dumpsters in their staging area.
15. Patrol the grounds twice daily (one at lunch and once at the end of the day) to clean all debris.
16. **The entire grounds of the school, which includes the roof area, are considered a "no smoking zone." No smoking or vaping will be allowed during the roofing project, on the roof or off.**

## 1.8 SCHEDULE OF VALUES

- A. Contractor shall provide a schedule of values for the project prior to commencement of work. Schedule of values shall be indicated by the following categories:
  1. MOBILIZATION:
    - a. Staging and Pedestrian Protection
    - b. Other: Portable Sanitary Facility, Aerial lifts or Lulls, Craning etc.
    - c. Permits
  2. Roofing:
    - a. Roofing Materials
    - b. Labor to Install: Roofing Materials
    - c. Misc. Accessories: Vinyl siding, soffits, etc.
    - d. Misc. Sheet Metal Fabrications: Edge Metal, Counter flashings, etc.
    - e. Lumber: Plywood, Blocking, Deck Repair, etc.
  3. Miscellaneous Work:
    - a. Landscaping/Site Work
    - b. Vinyl siding installation

SAU #39 (Mont Vernon School District)  
Mont Vernon Village  
1 Kittridge Road  
Mont Vernon, NH 03057  
11-14-2020



ARM Consultants  
PO Box 4, Chester NH 03036  
603-234-6030

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END OF SECTION 01 11 13

**SECTION 01 22 00**

**UNIT PRICES**

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- SECTION 01 22 00 -  
UNIT PRICES

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. The unit prices for items set forth in the Schedule of Unit Prices shall be used to determine adjustments to the Contract Sum when changes in the work involving said items are made in accordance with Article 8 of the Proposal Form and other sections of the Contract Documents.
- B. Definition: A unit price is the payment amount assigned to the Contractor in the Contract Document for a per unit measurement for materials or services added to or deducted from the Contract Sum by appropriate modification. If unit prices are specified. The Contract will be modified for quantities above or below the designated quantity in the Base Bid.

1.2 PRE-DETERMINED UNIT PRICES

- A. Unit prices listed under ADDITION (**ADD**) have been computed to include net cost plus overhead, profit, and bond and all other charges required to complete the work item.
- B. Unit Prices listed under DEDUCTIONS (**DEDUCT**) have been computed at the net cost alone.
- C. Unit Prices net cost include the cost of all labor, materials, equipment, disposal, and all other costs required to complete the work item.
- D. Unit Prices shall apply until the date of Contract Completion established at the time of the Notice to Proceed. If the date of Contract Completion has been modified by Change Order, Unit Prices may be adjusted at the discretion of the Owner or Owner's Representative.
- E. Unit Prices for excavation include the costs of sheeting and bracing, pumping and dewatering, and all other related costs. Excavation quantities shall be measured as compacted in place at maximum dry density.
- F. Materials, methods of installation, and definitions of terms set forth under the various Unit Price items in the Schedule of Unit Prices shall be as indicated in the Contract Documents.

1.3 APPLICABILITY OF UNIT PRICES

- A. The payment lines shall be as indicated in the Contract Documents.
- B. Prior to commencing removal or placement of materials set forth in the Schedule of Unit Prices, the Contractor shall notify the Owner and the Owner's Representative in sufficient time (not less than 24 hours in advance) to permit proper measurements to be taken on behalf of the Owner. Only quantities which have been approved in writing by the Owner's Representative will be considered in the determination of adjustments to the Contract Sum.
  - 1. The Owner reserves the right to monitor the unit price work being performed. If the Owner elects to monitor the work, the Contractor shall not commence the unit price work until the designated monitor is present.
  - 2. In order to be considered for payment, the Contractor shall document in writing all unit price work performed to include the trade, type, quantity and location. The unit price work performed shall be documented at the completion of each workday, verified and signed by the Contractor's superintendent.

3. At the Owner's expense and if quantities of unit price work are in dispute, the Owner may elect to retain an independent party to verify the Contractor's measurement of unit price work performed.
- C. Performance of work which is not required under the Contract Documents or which is not authorized by Change Order, whether or not such work item is set forth hereunder as a Unit Price item, shall not be considered cause for extra payment. The Contractor will be held fully responsible for such unauthorized work, including the performance of all corrective measures required by the Owner's Representative.

#### 1.4 SCHEDULE OF UNIT PRICES

The following unit prices are in effect:

- A. Contractor shall carry the assigned quantity of the materials listed below for removal and replacement in the Base Bid. These costs are above and beyond the required items shown in the specifications and on the roof plans. This includes removal of all associated conduit, wire or other items that maybe attached to the material listed below:
1. Random removal and replacement of existing rotted or deteriorated plywood decking including fastening. This quantity is for installation over and above the work associated with removal of obsolete equipment and related service connections. Quantities shall be determined by calculation of actual square footage installed with no allowance for waste.
    - a. **QUANTITY:** Remove and replace **320 SF** (10 sheets) of 3/4" plywood structural decking.
    - b. Additional plywood deck replacement will be undertaken at:  
**ADD \$ 8.50/SF**
    - c. Should less than the Base Bid Quantity be required a credit will be issued at:  
**DEDUCT \$ 7.50/SF**
  2. Random installation of formed aluminum edge detail, including fastening. Materials to match the existing as closely as possible in gauge and color. Provide sample for approval. Quantities shall be determined by calculation of actual linear footage installed with no allowance for waste.
    - a. **QUANTITY:** Install **200 LF** of aluminum edge detail.
    - b. Additional installation of steel plate will be undertaken at:  
**ADD \$ 4.50/LF**
    - c. Should less than the Base Bid Quantity be required a credit will be issued at:  
**DEDUCT \$ 3.50/LF**
  3. Random removal of existing deteriorated, wood fascia board to structure. Quantities shall be determined by calculation of actual Ln/ft installed with no allowance for waste.
    - a. **QUANTITY:** Remove and replace **50 Ln/ft.** of wood fascia.
    - b. Additional removal and replacement of fascia will be undertaken at:  
**ADD \$ 10.00 per Ln/ft.**
    - c. Should less than Base Bid Quantities be required a credit will be issued at:  
**DEDUCT \$ 9.00 per Ln/ft.**
  4. Random removal of existing deteriorated, wood shadow board to structure. Quantities shall be determined by calculation of actual Ln/ft installed with no allowance for waste.
    - a. **QUANTITY:** Remove and replace **50 Ln/ft.** of wood shadow board.
    - b. Additional removal and replacement of shadow board will be undertaken at:  
**ADD \$ 5.00 per Ln/ft.**
    - c. Should less than Base Bid Quantities be required a credit will be issued at:  
**DEDUCT \$ 4.00 per Ln/ft.**

END OF SECTION 01 22 00



**SECTION 01 33 00**

**SUBMITTAL  
PROCEDURES**

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- SECTION 01 33 00 -  
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Submittal coordination.
- B. Schedule of Submissions.
- C. Submittal procedures and grading
- D. Proposed product list.
- E. Shop drawings and product data.
- F. Product Data.
- G. Manufacturer's instructions.
- H. Manufacturer's certificates.
- I. Emergency addresses.

1.2 SUBMITTAL COORDINATION

- A. Make submittals in a proper and timely fashion, allowing for administrative procedures, Owner's Representative's review, corrections to submissions and re-submittal, if necessary, and fabrication of products without delaying the Project. Minimum processing times required by the Owner's Representative are as follows:
  - 1. Review for Owner's Representative's office only: Allow a minimum of ten (10) working days for review and processing.
  - 2. Reprocessing of submittals: For submittals requiring re-submittal, reprocessing time required shall be the same as first submittal.
  - 3. No extension of Contract Time will be authorized due to failure to transmit submittals sufficiently in advance of scheduled performance of work.
- B. Make submittals of similar items, systems, or those specified in a single specification section together.
- C. Make submittals for products which other products are contingent upon, first.
- D. The Contractor is fully responsible for delay in delivery of materials or progress of work caused by late review of shop drawings due to failure of the Contractor to submit, revise, or re-submit shop drawings in adequate time to allow the Owner's Representative checking and processing of each submission or re-submission.

1.3 PRE-CONSTRUCTION PREPAREDNESS

- A. Prior to the pre-construction meeting the contractor shall go through all of the project details.

- B. The contractor will bring any questions that they may have about the required finished product to the meeting for discussion.
- C. **ARM** requires the project to be done to our details and specification which, in some cases, are above and beyond what the manufacturer would require for warranty.
- D. If a substitute is being requested by the contractor, the contractor shall supply the modified detail they are looking to substitute in writing for review.
- E. A copy of the final agreed upon drawing will be supplied by the contractor to be kept in the **ARM** job file.
- F. If there are no questions or changes discussed and agreed upon, the roof membrane, flashings and metal shall be installed per the details and specifications.
- G. If there are any details installed differently than shown in the details or outlined in the specification the materials will be removed and new materials installed per the details and specifications at no charge to the owner.

#### 1.4 SCHEDULE OF SUBMISSIONS

- A. Schedule procedure: Immediately after being awarded the Contract, meet with the Owner's Representative to discuss the schedule of submissions and then prepare and submit, within seven (7) calendar days, for approval of a schedule of submissions for the work. The schedule of submissions shall be related to the entire Project and shall contain shop drawing Schedule (for shop drawings to be provided by the Contractor).
- B. List all submissions required of each trade:
  - 1. Include the Specification Section number, name of subcontractor or vendor, submittal type, item, description, type, quantity, and size (where applicable) of each submission.
  - 2. For each submission, provide the following dates, as estimated:
    - a. Scheduled date of submission.
    - b. Required date of approval. (permit time for appropriate review and re-submissions as may be required).
    - c. Estimated date of beginning fabrication or manufacture of product (where applicable).
    - d. Required date for delivery of product to site.
    - e. Required date for beginning of installation of product.
    - f. Required date for completion of installation (and in-place testing).
- C. For each submittal, schedule to allow adequate time for review by the Owner's Representative. The Owner's Representative will not be responsible for work performed in shop or field prior to approval. Long-lead items requiring expedited action must be clearly indicated.
  - 1. The schedule shall be reviewed and re-submitted as necessary to conform to approved modifications to the construction Project Schedule and shall be updated as may be required by the Owner's Representative.
- D. Posting of submittal schedule: Print and distribute the submittal schedule to Owner's Representative, Owner, sub-contractors and other parties affected. Post copies in field.
- E. Update schedule throughout progress of the Project, coordinated with scheduling changes in the work, and re-distribute monthly in conjunction with submittal of Application for Payment.

#### 1.5 SUBMITTAL PROCEDURES AND GRADING

- A. Prepare and submit to the Owner's Representative a Construction Schedule, a Schedule of Values, and a Schedule of shop drawings, product data, and samples.
- B. Provide space for Contractor, Owner's Representative, and engineering consultant review stamps, on the front page of each item's submittal copy. Apply Contractor's stamp, signed or initialed certifying that review, verification of products required, field dimensions, adjacent construction work and coordination of Information is in accordance with the requirements of the work and the Contract Documents. The Owner's Representative's stamp shall contain the following data:

\_\_\_\_\_ **REVIEWED**  
\_\_\_\_\_ **FURNISH AS CORRECTED**  
\_\_\_\_\_ **REVISE AND RE-SUBMIT**  
\_\_\_\_\_ **REJECTED**

- 1. The Owner's Representative will insert the date of action taken and an identification of the person taking the action.
  - 2. Submittal Grading:
    - a. REVIEWED – No corrections, no marks.
    - b. FURNISH AS CORRECTED – Re-submission not required. Minor amounts of corrections; all items can be fabricated without further corrections to original submission; checking is complete and all corrections are deemed obvious without ambiguity.
    - c. REVISE AND RESUBMIT – Re-submission required. Minor amounts of corrections; checking is not complete; details of items noted by checker are to be clarified further before full review can be given. Correct and re-submit, do not fabricate noted items requiring correction.
    - d. REJECTED – Submittal is rejected as not in accord with the Contract Documents, too many corrections, or other justifiable reasons. When returning submission, Owner's Representative will state reasons for rejection. Correct and re-submit, do not fabricate.
  - 3. Review/approval neither extends nor alters any contractual obligations of the Owner's Representative, Engineer, or Contractor.
- C. Identify all variations from Contract Documents, and product or system limitations which may be detrimental to successful performance of the completed work.
  - D. Coordinate related submittals and schedule submissions to expedite the Project; the contractor shall be required to upload to the Owner's Box file sharing system. The link and access will be given to the successful bidder upon award.
  - E. Transmit submittals to Owner's Representative at the above address, with individual transmittal forms for each submission, using AIA Document G810.
    - 1. On transmittal form, identify Project, Contractor, subcontractor, installer or supplier, pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate. Transmittals received by the Owner's Representative from sources other than the Contractor will be returned without any action taken.
    - 2. Contractor shall number submittals sequentially by Specifications Section prior to submittal. Re-submitted items shall retain number and be noted as re-submitted.
  - F. Contractor's review: Review all shop drawings and product data. Include, without limitation, verification of the following:
    - 1. Proper title, original date, drawing number (which shall be changed if re-submitted), revision numbers and dates, designation of project contractor, subcontractor, and/or supplier.
    - 2. Identification of Shop Drawings or Product Data by Specification Section and subsection or paragraph where appropriate and identification of Contract Drawings by number and detail.

3. On each submittal, as a minimum, Contractor shall identify the following:
  - a. Errors, inconsistencies, and omissions discovered in the contract documents and field conditions must be reported at once to the Owner's Representative.
  - b. Any variations from code requirements contained in the contract documents must be reported promptly in writing to both the Owner's Representative and the Owner.
  - c. Promptly report to the Owner's Representative information that any design, process, or product infringes on a patent.
  - d. Names of subcontractors and Suppliers must be given in writing to the Owner's Representative as soon as practicable after award of the Contract, preferably at the pre-construction meeting. (Note: If objection is made, a change order is possible) List shall include name(s) of contact person(s), address, telephone, and fax number(s).
- G. Revise and re-submit submittals as required, identify all changes made since previous submittal. Distribute copies of reviewed submittals to concerned parties; instruct parties to promptly report any inability to comply with provisions.

#### 1.6 PROPOSED PRODUCTS LIST

- A. Within seven (7) days after date of Owner-Contractor Agreement, submit complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation and reference standards.

#### 1.7 SHOP DRAWINGS

- A. General: Provide accurately prepared, large scale and detailed shop drawings prepared specifically for this Project. Show adjacent conditions and related work. Show accurate field dimensions where appropriate. Identify materials and products shown. Note all conditions that require coordination with other trades and special installation procedures. Standard information prepared without specific reference to this Project is not considered shop drawings.
  1. Shop drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings
  2. Show every component of fabricated items, notes regarding manufacturing process coatings and finishes, dimensions, and appropriate trade names. Show anchorage and fastening details, including type, size, and spacing. Show material gauge and thickness. Indicate welding details and joint types.
  3. Review each submittal for conformity with the Contract requirements prior to submittal; certify such review on each shop drawing with Contractor's stamp, signature, and date. Reference on shop drawings to other sections, installers, suppliers, or trade(s) shall designate the appropriate specification sections, and the term "by others" shall not be used.

#### 1.8 PRODUCT DATA

- A. Submit Product data to Owner's Representative in packets of (5) copies each for distribution and filing, as the Owner's Representative may prescribe, accompanied by an appropriate transmittal form. Product data includes, but is not limited to:
  1. Catalog cuts
  2. Complete specifications
  3. Standard color charts
  4. Performance data
  5. Certified laboratory test report data

6. Health and safety precautions
7. Illustrated capacities, characteristics, wiring diagrams, controls, and other pertinent information for complete product and product use description.

B. **If more than one size or type is shown on any printed sheet, indicate clearly intended item(s).**

C. When accepted or disapproved, the Owner's Representative will retain three (3) copies. Submit sufficient copies for all other parties. **No copies stamped, REJECTED or RE-SUBMIT shall be sent to the job site.**

#### 1.9 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual Specification Sections, submit manufacturer's printed instructions for delivery, handling, storage, assembly, installation, start-up, adjusting, and finishing in quantities specified for project data.
- B. Identify conflicts between manufacturer's instructions and Contract Documents.

#### 1.10 MANUFACTURER'S CERTIFICATES

- A. When specified in individual Specification Sections, submit manufacturer's certificate to Owner's Representative for review, in quantities specified under product data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates must be recent or the most current test results on material or product, but either must be approved by Owner's Representative.

#### 1.11 EMERGENCY ADDRESSES

- A. Within seven (7) days of Notice to Proceed, submit to both the Owner and the Owner's Representative, in writing, the name, addresses, and telephone numbers of key members of their organization, including Contractor's Superintendent and personnel at the site, to be contacted in the event of emergencies at the building site, which may occur during non-working hours.

END OF SECTION 01 33 00

**SECTION 01 77 00**

**CLOSE-OUT  
PROCEDURES**

- SECTION 01 77 00 -  
CLOSE-OUT PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Close-out procedures.
- B. Conferences occurring after Substantial Completion.

1.2 CLOSE-OUT PROCEDURES – SUBSTANTIAL COMPLETION

- A. Prior to requesting inspection for certification of Substantial Completion, complete the following:
  - 1. On Application for Payment, show 100% completion for portions of work claimed as substantially complete. Submit list of incomplete items, value of incomplete work, and reasons work is not complete.
  - 2. Evidence of compliance with requirements of governmental agencies having jurisdiction including, but not necessarily limited to:
    - a. Certificate of Final Inspections.
    - b. Certificate of Occupancy (if applicable).
  - 3. Submission of product and installation warranties, workmanship bonds, maintenance agreements, installer certifications and similar documents specified in individual sections.
  - 4. Remove temporary facilities and services that are no longer required.
  - 5. Complete Final Cleaning, including repair and restoration, or replacement of damaged work.
  - 6. Remove surplus materials, rubbish, and similar elements.
  - 7. Application for reduction of retainage.
  - 8. Consent of Surety.
  - 9. Notification of shifting insurance coverage.
- B. Within two (2) weeks after receipt of the notice of Substantial Completion from the Contractor, the Owner's Representative will inspect to determine status of completion.
  - 1. Should the Owner's Representative determine that the Work is not substantially complete:
    - a. The Owner's Representative will notify the Contractor in writing, stating the reasons therefore.
    - b. The Contractor shall remedy the deficiencies and send a second written notice of Substantial Completion to the Owner's Representative, requesting re-inspection.
- C. When the Owner's Representative concurs that the work is substantially complete:
  - 1. The Owner's Representative will prepare Contractor's list of items to be completed or corrected, as verified by the Owner's Representative.
  - 2. The Owner's Representative will submit the list to the Owner, and to the Contractor, for their written acceptance of the responsibilities assigned to them.

1.3 CLOSE-OUT PROCEDURES – FINAL ACCEPTANCE

- A. Prior to requesting inspection for certification of Final Acceptance and final payment, perform the following:
  - 1. Completion of incomplete Work. Submit a copy of the final inspection list stating that each item has been completed or otherwise resolved for acceptance.
  - 2. Prove that all taxes, fees, and similar legal obligations have been paid.
  - 3. Submit final payment requests with release of all liens, and supporting documentation.
  - 4. Provide written assurances that all unsettled claims are in the process of and will be resolved.



5. Submit updated final statement, including accounting for final additional changes to the Contract Sum. Show additional Contract Sum, additions and deductions, previous Change Orders, total adjusted Contract Sum, previous payments, and Contract Sum due.
  6. Submit consent of surety to Final Payment.
  7. Submit evidence of continuing insurance coverage complying with insurance requirements.
  8. Remove remaining temporary facilities and services.
  9. Deliver to Owner and obtain receipts for:
    - a. Operation and Maintenance Manuals for items so listed in individual Sections of the Specifications, and for other items when so directed by the Owner's Representative.
    - b. Warranties and bonds specified in individual Sections of the Specifications.
    - c. List of subcontractors, service organizations, and principal vendors, including names, addresses, and telephone numbers where they can be reached for emergency service at all times, including nights, weekends and holidays.
  10. Submit Certification stating work has been inspected for compliance with the Contract Documents.
  11. Submit Certification stating that work is 100% complete and ready for final inspection.
- B. Within seven (7) days after receipt of the request for Final Acceptance from the Contractor, the Owner's Representative will inspect to determine status of completion.
1. Should the Owner's Representative determine that the work is incomplete or defective:
    - a. The Owner's Representative will notify the Contractor in writing, stating the reasons listing the incomplete or defective work.
    - b. The Contractor shall take immediate steps to remedy the deficiencies and send a second written notice of request for Final Acceptance to the Owner's Representative.
    - c. Costs relative to the Owner's Representative's re-inspection due to failure of work to comply with claims made by the Contractor, will be compensated by the Owner, who will deduct the amount of such compensation from the Final Payment due to the Contractor.
- C. After the Owner's Representative finds the work acceptable, the Owner's Representative will review the Final Close-out Submittals.
- D. Application for Final Payment: Submit Application for Final Payment in accordance with procedures and requirements of the General Requirements and Supplementary Conditions.
1. The Owner's Representative will prepare a Final Change Order, reflecting approved adjustments to the Contract Sum not previously made by other Change Orders.

#### 1.4 CONFERENCES AFTER SUBSTANTIAL COMPLETION

- A. The Owner reserves the right to call for conferences commencing with the date of Substantial Completion and continuing for one year thereafter, for purposes of inspecting the work and to plan correction of any deficiencies or failures discovered during this period.
1. Attendance is required by Contractor's Project Manager, Owner's Representative, Owner's Representative's Job site Inspector and each applicator, installer, and supplier as the Owner may direct or the Contractor may wish to have present. All representatives attending such meetings shall be the same persons, or shall have the same powers and authority, as those attending progress meetings occurring prior to the Date of Substantial Completion.

END OF SECTION 01 77 00

**SECTION 01 78 00**

**CLOSE-OUT  
SUBMITTALS**

- SECTION 01 78 00 -  
CLOSE-OUT SUBMITTALS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Preventative maintenance instructions.
- B. Product Warranties and Bonds.

1.2 MAINTENANCE MANUAL

- A. Prepare manufacturer's preventative maintenance instructions in the form of a bound manual.
- B. Furnish two (2) bound and properly identified Manuals prior to request for final Acceptance.
  - 1. Manuals should be 8½ by 11 inch pages bound in three "D ring" capacity binders with durable plastic covers. Internally subdivide the binder contents with permanent page dividers.
    - a. Arrange contents by section numbers and sequence as listed in the Table of Contents of this Project Manual.
    - 2. Each manual shall include the same following minimum information:
      - a. Table of Contents.
      - b. Directory of Contractors, subcontractors, and major equipment suppliers listing addresses, phone numbers, and appropriate emergency phone numbers.
        - i. Include local sources of supplies.
      - c. Maintenance and inspection instructions for finishes.
      - d. Product and manufacturer's Certificates.
      - e. Photocopies of all extended warranties and bonds.
    - 3. Submit one copy of completed volume in final form (21) days prior to Final Inspection. This copy will be returned after final inspection with Owner's Representative's comments; Revise and submit all volumes to Owner.
- C. Furnish electronic copy or two (2) CD's with all information that was submitted in paper form.

1.3 PRODUCT WARRANTIES AND BONDS

- A. The Contractor shall furnish a full two year warranty for all work, valid from the date of substantial completion.
- B. Provide duplicate notarized copies of extended warranties specified in individual Specification Sections. Submit extended warranties with Operating and Maintenance Manuals.

1.4 "AS BUILT" DRAWINGS

- A. **Contractor shall prepare and provide a full set of "as built" drawings in AutoCAD and PDF.**
- B. The "As built" drawings shall be modified, as required, to reflect change orders, field changes or conditions discovered during construction.

END OF SECTION 01 78 00

**SECTION 02 40 00**

**DEMOLITION**

- SECTION 02 40 00 -  
DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

- A. The work of this section consists of the demolition and legal disposal of roofing materials and related components to be removed.
- B. Demolition work shall include but is not limited to the following on all roofs in contract:
1. The work involves removing all the existing roof systems and other related items, as specified, on the roof areas as shown in the contract drawings.
  2. All existing shingles and accessories.
  3. All underlayment and loose or detached ice and water shield.
  4. All related items down to the wood deck.
  5. All existing valleys and ridge caps.
  6. All existing roof vent flashings.
  7. Remove, store, and reinstall all antennas and antenna support per the detail drawings.
  8. All gutters, downspouts, and rain diverters.
  9. Remove, store, and reinstall all ice melt cable. Provide all new clips to properly attach to the new shingles.
  10. All snow belt panels.
  11. Remove, store, and reinstall all fascia and soffits trim and covers, as required, to install the new ice and water shield at roof transition locations (corners, height changes etc.).
  12. Remove, store, and reinstall all PVC trim board to access the step and rising wall flashings.
  13. All damaged or deteriorated PVC trim boards.
  14. All vertical corner pieces shall be removed, stored, and reinstalled.
  15. All pitch pocket shall be removed down to the structural decking.
  16. All clapboards and plywood in locations shown on the roof plan.
  17. All deteriorated wood fascia and shadow boards.
  18. All plywood decking in transition area that do not currently align. See roof plan for additional information.
  19. Remove, store, and reinstall the existing "J" channel and top row of siding, as required, to remove the existing soffits. Reinstall existing siding and receivers to install the new soffits. This work will need to be conducted on the roof area that was already repaired over the winter as well.
  20. All vinyl soffits and wood soffits with vents that is beneath the vinyl soffit. This work will need to be conducted on the roof area that was already repaired over the winter as well.
  21. After the soffits are removed the prop-a-vents shall be cleaned out of all debris and blown in insulation materials to allow adequate air flow into the roof system. This work will need to be conducted on the roof area that was already repaired over the winter as well.
  22. All Kynar finish aluminum curb wraps shall be removed, store, and reinstalled.
  23. All damaged formed aluminum edge details.
  24. The plywood roof deck on all roof areas, will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).
  25. The existing wood fascia boards on all roof areas, will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).
  26. The existing wood shadow boards on all roof areas, will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).
  27. The formed aluminum edge details will be inspected and repaired on a unit price basis (*Base bid quantity with additional ADD/DEDUCT pricing*).
  28. Contractor should expect the structural deck to be wet in certain areas and plan work, production and nightly tie-in accordingly. Contractor shall ensure that the deck is dry prior to installing new roof insulation.
  29. The Contractor is responsible for maintaining the roof in a watertight condition during the roof removal process.
  30. The Contractor shall take care that dirt and debris does not fall into the building to the greatest extent possible.

- 
31. The Contractor is responsible for preventing any dust, debris, asphalt, etc. from entering the facility during the roof replacement project.
  32. Contractor shall take precautions to ensure that dirt and debris does not fall into roof penetrations. The Contractor is responsible for preventing any dust, debris, asphalt, etc. from entering the facility during the roof replacement project.
  33. Contractor shall have sole responsibility for accuracy of all measurements, estimates of material quantities and sizes, and site conditions that will affect work. Contractor shall verify all dimensions and quantities shown on the roof plan and/or otherwise incorporated into the work.
- C. The drawings indicate limits of construction for this project. The specifications specify materials and work requirements for this project. Both are mutually complimentary and shall be followed to complete the work.

## 1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 06 10 00 – Rough Carpentry
- G. Section 06 16 00 – Wood Deck Repairs
- H. Section 07 31 13 – Asphalt Shingles
- I. Section 07 46 33 – Vinyl Siding
- J. Section 07 62 00 – Sheet Metal Flashing and Trim
- K. Section 09 91 13 – Painting and Coatings
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

## 1.3 COORDINATION

- A. It is the responsibility of the Roofing Contractor to coordinate the work of this Section with all other work on the project.

## 1.4 JOB CONDITIONS

- A. Field measurements and material quantities:
  1. **Contractor shall have SOLE responsibility for accuracy of all measurements, estimates of material quantities and sizes, and site conditions that will affect work.**

**2. Dimensions provided on roof plans shall be verified by the contractor. Contractor is responsible for all detailed measurements.**

- B. The Contractor shall inspect the premises prior to the submittal of his/her proposal for conditions which may affect his/her work.
- C. Demolition, storage of materials, removal of debris and construction operations shall not interfere with Owner's operations.
- D. All hoisting, demolition and hauling equipment and machinery required for the proper and expeditious prosecution and progress of the work shall be furnished, installed, operated and maintained in safe condition by the Contractor for the use of all Subcontractors. All equipment shall comply with OSHA standards.
- E. The Contractor shall remove all debris from the project site and shall legally dispose of all debris generated by the project. Prior to demolition, Contractor shall furnish documentation of the disposal method used, satisfactory to the Owner, Owner's Representative and legal authorities.
- F. All debris which is removed from the site shall be properly secured and totally covered before it is transported.
- G. No heavy mobile equipment shall be permitted on the roof deck structure. All equipment shall be approved by the Owner's Representative prior to the start of construction.
- H. The Owner and the Owner's Representative assume no responsibility for the actual condition of the structure.
- I. Do not drop goods or any other equipment on to the roof. Carefully lower onto the surface so as to minimize interior noise.
- J. Contractor shall conduct operations to minimize dust, gravel, pitch dust and other debris from accumulating between deck joints. Carefully sweep out deck joints prior to installing new materials to remove any debris.
- K. **Do not store demolition debris or equipment on finished roof areas. Any damaged shingles found to be a result of the contractor's failure to follow these guidelines will be replaced at the Contractor's expense.**
- L. **Do not overload the structure by stock piling existing or new materials on the roof.**

1.5 PERMITS

- A. The Contractor, at his/her sole cost, shall obtain all necessary authorizations, including permits, licenses, and easements, for permanent structures and changes, give all necessary notices, pay all legal fees, and comply with all regulations of all authorities having jurisdiction, including State, County, and City Building and Sanitary Laws, Rules, Ordinances, or Regulations, relating to the building or preservation of public health. The Contractor shall pay all inspection fees and costs imposed by the above. The Contractor shall check with the local Fire Departments regarding required details which may be mandated and carry the cost of those details in the base bid.

1.6 SUBMITTALS

- A. Submit data as listed below under provisions of the Contract:
  - 1. Demolition sequence schedule.
  - 2. Schematic plan showing all of the staging areas including dumpster lay down areas.

1.7 SEQUENCE OF OPERATIONS

- A. The Contractor shall submit for approval the complete sequence of operations for demolition and show how it is coordinated with all other aspects of the job. Work shall not begin until such a schedule has been approved by the Owner's Representative and the Owner.
- B. The Contractor shall include with his/her sequence schedule a description of all procedures and equipment to be utilized to perform the demolition work.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Provide adequate number and size of all dumpsters; refuse containers, trucks, chutes etc. for proper execution of demolition work. All demolition removal containers shall be properly protected and maintained on a daily basis.

## PART 3 - EXECUTION

### 3.1 PROTECTION

- A. Before starting demolition, the Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance or interruption of any public and private utilities or services or any component of said utilities or services under the jurisdiction of the Owner, utility companies or corporations, Police Department, Fire Department and Public Works Department including gas, electricity, steam, refrigeration, telephone, telegraph, police signal, fire alarm, water, sanitary sewer, storm drainage and other systems which will be affected by the work to be performed under this Contract.
- B. Adequate protection of persons and property shall be provided at all times. The work shall be executed in a manner to avoid interference with the use of adjacent buildings, areas or properties, and to avoid interruption of free passage to or from such buildings, areas or properties.
- C. Furnish signs, lights, barricades and other equipment as may be necessary for the safe execution of the work.
- D. Provide personnel to direct passersby away from areas presenting a particular hazard.
- E. Contractor is to have on site all equipment and materials needed to protect the interior from the elements.
- F. Contractor shall coordinate with the Owner or facilities department to survey the underside of the deck on a daily basis to avoid contacting electrical conduit wires or other mechanical lines with membrane or insulation fasteners. **Any damage to conduit of other materials affixed to the deck will be repairs at the Contractor's expense.**
- G. Contractor to carry enough fencing to provide a perimeter around all materials and dumpsters in their staging area.

### 3.2 POLLUTION CONTROL

- A. The Contractor shall be aware that the facility will be occupied throughout the course of construction and that any disruption or inconvenience sustained by the tenants or nearby residents must be kept to an absolute minimum. To this end, the Contractor shall provide, if necessary, any other equipment or procedures necessary to minimize dust and debris infiltration. Also, the Contractor shall select equipment and procedures to minimize noise discomfort.
- B. All rubble shall be considered the property of the Contractor and shall be removed from the site in its entirety and be legally disposed of. On-site storage of discarded material will not be permitted.



- C. The Contractor shall supply a chute for removal of debris from the roof. This is necessary to limit the spread of dust or debris.
- D. Contractor shall keep area free of trash and debris. Failure to do so will result in the contractor being back charged for clean-up operations.
- E. The contractor shall be responsible and hold the building owner and owner's representative harmless for any chemicals or foreign material considered hazardous being placed in the dumpsters during the duration of the project.
- F. The contractor shall provide tarps, at all times, to prevent, to the greatest extent possible, rainwater from entering the dumpsters and flushing out debris and chemicals. This applies even when inclement weather is not in the forecast.
- G. A locked fence shall be provided around the entire dumpster to prevent unlawful and foreign materials from being placed in the dumpsters

### 3.3 ON-SITE STORAGE

- A. Ground level storage areas will be provided adjacent to the facility for equipment and new materials. Size and location of area shall be coordinated with the Owner.
- B. All tools shall be neatly stored at the end of each workday. This applies to gravel and roof-based equipment and tools.
- C. **Do not store demolition debris or equipment on finished roof areas or on adjacent roof areas not in contract. Any damaged shingles found to be a result of the contractor's failure to follow these guidelines will be replaced at the contractor's expense.**

### 3.4 TEAR-OFF AND NIGHTLY TIE-IN

- A. The Contractor shall provide a **sealed nightly tie-in** at the end of each workday regardless of the projected weather forecast.

### 3.5 REPAIR OF DAMAGES

- A. The Contractor shall provide a list of damaged or deteriorated elements of the building and adjacent areas to the Owner prior to demolition work and shall be responsible for repair or replacement of damaged or deteriorated items not on that list when the operations of the Contractor are substantially complete.
- B. Damage to any portion of the building which results in disruption of or inconvenience to the Owner or his/her employees shall be immediately repaired or replaced by the Contractor. If such restitution is not promptly made, the Owner shall have the necessary work performed by an outside agency at the Contractor's expense.

### 3.6 CLEAN-UP

- A. The building and adjacent areas shall be left in a **broom-clean condition** at the end of each day.
- B. On completion of the work of this section and after removal of all debris, the site shall be left in a clean condition satisfactory of the Owner and to the Owner's Representative.

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- C. Restore all concrete, asphalt, walkways, landscaping, fencing, shrubs or other landscaping to its original condition.
- D. The roofing contractor shall patrol the roof and ground areas, on a daily basis, to remove all debris from the area.

END OF SECTION 02 40 00

**SECTION 06 10 00**

**ROUGH  
CARPENTRY**

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- SECTION 06 10 00 -  
ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. The work of this Section consists of furnishing and installing all rough carpentry and related items as indicated on the drawing and/or specified herein, required to complete the work.
- B. Provide new crickets behind all units 18" wider and greater. Frame out of 2x4's and ½" APA rated, CDX plywood.
- C. Provide new sleepers in locations as shown on the roof plans.
- D. All materials shall be verified by Contractor to be proper for each intended use, and the entire work of this Section shall be done in such a manner that each installation will perform its intended purpose, as applicable, in the finished work.
- E. Where referred to, standard specifications of technical societies, manufacturer's associations, and federal agencies shall include all amendments current as of the date of issue of these specifications.
- F. Provide all blocking and plywood as specified herein and indicated on drawings needed for installation of roof membrane and flashings. New plywood and blocking shall be installed where shown on the detail drawings or indicated on the roof plan notes.
- G. Certain areas of the fascia board have deteriorated and are in need of replacement. Provide *ADD/DEDUCT* pricing for lengths to be carried in the Base Bid.
- H. Certain areas of the shadow board have deteriorated and are in need of replacement. Provide *ADD/DEDUCT* pricing for lengths to be carried in the Base Bid.
- I. All new or replacement wood products shall be painted, all 6 sides, after all cutting and trimming of the piece has been complete and prior to the installation of the piece. Test fit the pieces prior to installation.
- J. The project shall comply with ASCE 7-05 Wind Uplift criteria (see code compliance page RP-1 and Specification Section 07 53 23:3.5 for more information).
- K. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are mutually complimentary to each other and both shall be followed to complete the work.

1.2 RELATED WORK UNDER OTHER SECTIONS

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals

- F. Section 02 40 00 – Demolition
- G. Section 06 16 00 – Wood Deck Repairs
- H. Section 07 31 13 – Asphalt Shingles
- I. Section 07 46 33 – Vinyl Siding
- J. Section 07 62 00 – Sheet Metal Flashing and Trim
- K. Section 09 91 13 – Painting and Coatings
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

1.3 QUALITY ASSURANCE

- A. Any deteriorated wood blocking, wood shadow board, wood soffit and wood fascia boards as a result of previous moisture penetration, shall be replaced on a unit price basis.

1.4 DELIVERY AND STORAGE

- A. All materials when delivered to site shall be stacked and stored above the ground under protective coverings or indoors in such a manner as to insure proper drainage, ventilation, and protection from the weather.
- B. All new wood blocking repair material shall be stored inside, off the ground, and away from exposure to moisture or excessive heat. All material shall be delivered in its original, unopened containers with the manufacturer clearly identified.

1.5 SUBMITTALS

- A. Submit the following under the conditions of the Contract.
  - 1. Manufacturer's or applicator's specification for wood preservative treatment and treatment procedure to be sure that a satisfactory treatment will be obtained.
  - 2. Manufacturer's specification data sheets for all fasteners to be used, clearly identifying such as their intended use.
  - 3. Manufacturer's pull-out test results for each type of fastener to be used for concrete, steel, and tongue and groove roof decks.

1.6 UNIT PRICES

- A. Contractor shall carry assigned quantity of the materials below for removal and replacement in the Base Bid:
  - 1. Random removal of existing deteriorated, wood fascia board to structure. Quantities shall be determined by calculation of actual Ln/ft installed with no allowance for waste.
    - a. **QUANTITY:** Remove and replace **50 Ln/ft.** of wood fascia.
    - b. Additional removal and replacement of fascia will be undertaken at:  
**ADD \$ 10.00 per Ln/ft.**
    - c. Should less than Base Bid Quantities be required a credit will be issued against the Base Bid at:  
**DEDUCT \$ 9.00 per Ln/ft.**

2. Random removal of existing deteriorated, wood shadow board to structure. Quantities shall be determined by calculation of actual Ln/ft installed with no allowance for waste.
  - a. **QUANTITY:** Remove and replace **50 Ln/ft.** of wood shadow board.
  - b. Additional removal and replacement of shadow board will be undertaken at:  
**ADD \$ 5.00 per Ln/ft.**
  - c. Should less than Base Bid Quantities be required a credit will be issued at:  
**DEDUCT \$ 4.00 per Ln/ft.**

## PART 2 - PRODUCTS

### 2.1 DIMENSIONAL LUMBER

- A. Blocking and framing materials shall be of sound stock, new, straight, of consistent size, free of stains and mildew. Where exposed or semi-exposed, wood members shall be selected for the best possible appearance from the grade of stock specified.
- B. Blocking and framing materials shall be kiln dried to a moisture content of no more than 19%. Pressure treated lumber shall be kiln dried a second time after treatment.
- C. Blocking and framing materials shall be surfaced four sides and shall bear the grade and trademark of the association under whose rules it is produced, and a mark of mill identification. Materials shall be construction grade Douglas Fir, Southern Yellow Pine or wood having similar decay resistant properties.
- D. Blocking shall be furnished in the longest practical lengths with respect to each intended use -- at least twelve feet unless shorter lengths are required. Single length pieces shall be used whenever possible.
- E. Blocking shall have a minimum size of 1½" x 5½", unless otherwise noted on plan.
- F. Block shall be long enough to allow minimum of (4) four fasteners per specified spacing requirements.
- G. All blocking must be attached to all structural steel studs with specified screws. See Section 06 10 00:2:2.4:F for additional information. Nails will not be acceptable into steel studs under any circumstances.

### 2.2 PLYWOOD

- A. All plywood shall be APA stamped and shall meet the requirements or Product Standard PS 1-83 for Construction and Industrial Plywood.
- B. Nailers 10" wide and narrower that are indicated as plywood may be a single piece of dimensional lumber as specified in Paragraph 2.1 of this section.
- C. All plywood must be attached to all structural steel studs with specified screws. See Section 06 10 00:2:2.4:F for additional information. Nails will not be acceptable into steel studs under any circumstances.
- D. Plywood perimeter blocking shall be installed with the specified screws spaced at 6" on center in a staggered pattern.
- E. Plywood for wall sheathing shall be installed with the specified screws spaced at 8" on center on the two vertical edges and 1'-4" on center for the intermediate attachment locations (each stud).

## 2.3 FASTENERS

- A. Screws for attaching wood blocking or plywood to wood shall be #10 flat head hot-dip galvanized wood screws spaced at 12" on center and of sufficient length to penetrate the substrate at least 1½". (Pull out value of 163# x load duration factor of 0.9 = 147# > 100# required.)
- B. Nails for attaching wood and plywood blocking to substrate:
  - 1. Shall have a minimum deformed shank diameter of 0.128" (10d).
  - 2. Be spaced at 6" o.c. (on center) staggered and of sufficient length to penetrate the substrate at least 1½".
    - a. The substrate thickness will be required to be more than the penetrated value to ensure the nails do not puncture the opposite side.
  - 3. The nails shall not be over driven. Any nail found to be over driven will require another nail be installed within ½" from the center line of the over driven nail.
- C. Fasteners for attaching wood blocking to concrete or grout filled concrete masonry units shall be zinc-plated or stainless steel and shall be pre-drilled per manufacturer's recommendations. The anchors shall be 3/16" in diameter and of sufficient length to penetrate the substrate a minimum of 1 5/8". Washers of matching metal shall be under bolt heads to prevent excessive compression of wood. (275# tensile strength)
- D. Fasteners for attaching wood blocking or plywood to masonry walls or brick shall be concrete masonry tapping screws (Phillips head flat) and of sufficient length to penetrate the substrate a minimum of 1". (tensile strength of 119#)
- E. Fasteners for attaching wood blocking to hollow concrete masonry units or hollow brick shall be 3/8" threaded rod with screen tube in epoxy adhesive. Minimum embedment or 2" into substrate is required.
- F. Any fastener into or through pressure treated wood products shall be stainless steel or other approved materials for use in ALQ or ACQ lumber. All fasteners shall meet or exceed above listed values.
- G. Powder-actuated type fasteners may not be used to fasten wood blocking or flashing.
- H. Penetrating type fasteners driven into masonry by impact are not considered reliable and will not be approved.
- I. All fasteners shall be FM Global approved and have the stamp of approval on the fastener itself or on the box the fasteners are supplied in from the manufacturer.
- J. Nails are not considered an acceptable means of attachment to any form of steel, whether structural or otherwise, under any circumstances.

## 2.4 TRIM BOARDS

- A. Shall be 1 x lumber, plywood is not acceptable. (Unless otherwise noted on the Plans or Detail drawings).
- B. The trim boards shall be grade D-select or better, S4S (surfaced on 4 sides).
- C. All trim boards shall be primed on all (6) six sides prior to installation but after being cut to size. Any board that is re-cut after priming must be re-primed on any exposed wood surface. The exposed surfaces include any areas that may have been scratched, peeled or otherwise damaged during the handling and trimming processes.
- D. Paint all new trim boards to match the existing trim boards.

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PART 3 - EXECUTION

3.1 PREPARATION

- A. Remove existing roof system, as specified:
- B. Completely remove all deteriorated areas of wood blocking:
  - 1. If substantial portions of the wood blocking and structure are deteriorated beyond repair and require replacement, notify Owner's Representative and Owner immediately and await further instructions.

3.2 INSTALLATION

- A. Cutting of existing blocking:
  - 1. All cuts must be straight and true.
  - 2. The cut depth shall not exceed that of the blocking cross section width. Any wood members damaged by improper cutting will be replaced at the contractor expense.
  - 3. All cuts will be square, plum and true.
- B. Fit and function:
  - 1. Assure all new blocking is flush with the surrounding area.
  - 2. When cutting and fitting new material maintain maximum 1/4" gaps.
  - 3. Maintain manufacturers recommended spacing for all plywood and panels.

3.3 GENERAL

- A. Construct all rough carpentry work called for on the drawings plumb, level, and true with tight, close fitting joints. Carpentry shall be securely attached and braced to surrounding construction and executed in a first-class workmanship manner.
- B. Shim, trim, back-cut or otherwise modify, as necessary, all perimeter blocking so that it fits flush, level and plumb. Create straight lines for perimeter metal without waving along building elevation.
- C. Blocking shall be built to the same thickness as the insulation to the maximum extent possible, within 1/16" plus or minus. Blocking shall extend at least 2" beyond edge of metal flashing.
- D. Plywood shall be securely fastened at the top, middle and bottom with the approved fastener at 6" on center (o.c.). When used in layers, each layer of plywood shall be secured equal, with fastener spacing as specified herein.
- E. All sleepers and any other lumber exposed directly to concrete shall be pressure treated lumber.
- F. **Ensure that all blocking is properly attached to the structure before adding additional courses.**
- G. Pressure treated wood is required at any locations where contact between wood and concrete or other masonry product that is already existing. Kiln dried lumber can be used provided that proper isolation is supplied via Owens Corning Sill Gasket or approved equal.
- H. Pressure treated lumber shall not be used when in contact with steel studs or steel decking. If used in these locations the contractor shall supply proper isolation via Owens Corning Sill Gasket or approved equal.

3.4 FASTENING



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- A. Fasteners for wood blocking shall be staggered and spaced 12" o.c. when secured to wood blocking, steel, tongue and groove wood decking, concrete or masonry. The staggered fastening pattern shall be increased within 8' from outside corners to 6" o.c. Smaller pieces of blocking, such as at penetrations, shall have a minimum of four fasteners per piece. A fastener shall be located no more than 4" from the end of each piece of blocking. Fasteners to penetrate the substrate a minimum of 1¼" attaching to wood blocking, and 1 5/8" or 2" (See Section 06 10 00:2.4 for fastener information) when attaching to concrete substrates, masonry walls, concrete, steel and tongue and groove wood deck.  
Withdrawal resistance should be 100 lb per fastener minimum. Nails are not acceptable due to the fact that they cannot attain the required pullout values.
- B. Counter bore at all bolt heads, nuts and washers, as may be required, to provide a flush surface for installation of roofing membrane materials.
- C. For fasteners that are 3/8" dia. stagger fasteners if installed into a 1½" x 5½" board or larger. Spacing of fasteners shall be 2'- 8" o.c. outside of the corners. Within 8'-0" from the corners the fastening should be increased to 1'- 4" o.c. Follow manufactures recommendations for edge and end of masonry installation and spacing.
- D. Re-fasten all existing wood blocking that is to remain in accordance with the above reference fastening rate (reference paragraph 3.2. A, B & C).

END OF SECTION 06 10 00

**SECTION 06 16 00**

**WOOD DECK  
REPAIRS**

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- SECTION 06 16 00 -  
WOOD DECK REPAIRS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. After removal of existing roofing system, the Contractor shall repair all deteriorated or otherwise damaged wood roof deck as specified herein and as shown on the drawings required to complete the work.
- B. Transition deck repair:
  - 1. Install new plywood at the transition between the additions and the original roof areas (shown on the roof plan).
  - 2. Ensure that the seam from new to old is approximately in the center of the new 4'x8' plywood sheets to prevent any racking of the structures.
  - 3. Stagger the new plywood a minimum of 2'-0" from each other. No straight seams from board to board will be allowed running vertically up the roof.
  - 4. All plywood shall be tongue and groove or have "H" clips installed between all structural supports. Thickness to match the existing.
- C. The process of re-securing up to 20% of any loose or lifted plywood decking shall be carried in the base bid amount. No additional charges shall be allowed for deck fastening.
- D. Replace additional plywood deck on a quantity *ADD/DEDUCT* basis, See Section 01 22 00 for additional information.
- E. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and shall be followed to complete the work.

1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 02 40 00 – Demolition
- G. Section 06 10 00 – Rough Carpentry
- H. Section 07 31 13 – Asphalt Shingles
- I. Section 07 46 33 – Vinyl Siding
- J. Section 07 62 00 – Sheet Metal Flashing and Trim
- K. Section 09 91 13 – Painting and Coatings

- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

1.3 QUALITY ASSURANCE

- A. The existing roof deck shall be inspected by the Owner’s Representative as the existing roofing system is removed. All deteriorated or moisture laden areas as noted, shall be removed and repaired or replaced.
- B. The Contractor is to exercise extreme caution when removing existing roof systems to ensure the integrity of the existing wood roof deck.
- C. The Contractor, as specified herein, at no additional cost to the Owner shall properly repair any roof deck damage as a result of the roof removal process.
- D. Any deteriorated wood roof deck, as a result of previous moisture penetration, shall be repaired or replaced.
- E. Prior to the commencement of new work, the Owner’s Representative shall approve all exposed deck surfaces for concealment. This approval shall be conducted on a daily basis in conjunction with the removal of the existing roofing system.
- F. If wood deck deterioration is beyond repair and requires replacement, notify Owner’s Representative and Owner immediately and await further instructions.

1.4 STORAGE AND HANDLING

- A. All new wood deck repair material shall be stored inside, off the ground, and away from exposure to moisture or excessive heat. All material shall be delivered in its original, unopened containers with the manufacturer clearly identified.

1.5 SUBMITTAL

- A. Manufacturer’s specification data on wood deck materials.

1.6 UNIT PRICES

- A. Contractor shall carry the assigned quantity of perimeter wood blocking removal and replacement (listed below) in the Base Bid:
  - 1. Random removal and replacement of existing rotted or deteriorated plywood decking including fastening. This quantity is for installation over and above the work associated with removal of obsolete equipment and related service connections. Quantities shall be determined by calculation of actual square footage installed with no allowance for waste.
    - a. **QUANTITY:** Remove and replace **320 SF** (10 sheets) of ¾” plywood structural decking.
    - b. Additional plywood deck replacement will be undertaken at:  
**ADD \$ 8.50/SF**
    - c. Should less than the Base Bid Quantity be required a credit will be issued at:  
**DEDUCT \$ 7.50/SF**

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## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Laminated or multi-layer wood elements including grade stamped plywood a minimum of ¾" thick, laminated tongue and groove wood deck made by combining three (3) or more solid pieces of lumber with adhesives and under pressure. All laminated and Owner's Representative lumber must carry all necessary certifications, markings and stamps.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Remove existing roof system as specified:
  - 1. Inspect the underside of the deck in the area of repair to assure that it is free from electrical, plumbing, video or other connections and/or fixtures.
- B. Completely remove all deteriorated areas of wood roof deck:
  - 1. If substantial portions of the wood deck and structure are deteriorated beyond repair and require replacement, notify Owner's Representative and Owner immediately and await further instructions.

### 3.2 INSTALLATION

- A. Cutting of existing deck:
  - 1. All cuts must be centered over the appropriate bearing point.
  - 2. The cut depth shall not exceed that of the deck cross section width. Any members damaged by improper cutting will be replaced at the contractor expense.
  - 3. All cuts will be square, plumb and true.
- B. Wood framing:
  - 1. Cut and fit appropriate size and type structural wood framing in the repair / replacement area as may be required.
  - 2. New roof deck pieces shall be sized at a minimum of four (4) square feet or as approved by the Owner's Representative.
  - 3. New wood decking will span a minimum of two bearing points in the direction of the deck run.
  - 4. Utilize 8d, 10d, 12d or 16d hot dipped galvanized common nails to secure all decking and structural members. Screw type fasteners will be stainless steel of galvanized.
  - 5. 2" x 6" wood decking shall have a minimum of two (2) nails at each point of securement. 2"x 8" decking shall have three (3) nails and 2"x 10" decking will have four (4) nails at each point of securement.
  - 6. For all 3"x lumber use (2) 3/8" x 6" Timberlock brand, or equal, heavy duty wood screws installed per manufacturer's recommendations.
  - 7. Plywood decking shall be secured a minimum of 6" o.c. (on center) at the ends and 8" o.c. intermediate. Provide construction adhesive along the entire length of all structural framing prior to installing the new plywood.
  - 8. Adhere to all manufacturers' specifications for installation and securement where they differ from the above.
- C. Fit and function:
  - 1. Assure all new decking is flush with the surrounding area.
  - 2. Assure all tongues and grooves are properly engaged.
  - 3. When cutting and fitting new material maintain maximum ¼" gaps.
  - 4. Maintain manufacturers recommended spacing for all plywood panels.
  - 5. If tongue and groove boards are not used provide "H" clips between all supports between sheets of plywood.

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6. All tongues and grooves shall be fully intact and installed in all locations with the exception of the final board in any infill section. The final board shall have the lower portion of the groove removed and the remaining top of the groove and the tongue of the adjacent board mechanically attached with #12 screws at 12" on center. Pre-drill, as required, to ensure the boards do not split.
  7. Plywood decking shall be installed with 16d nails at 6" on center on the edges along the seams to other decking as well as 8" on center along all intermediate supports.

END OF SECTION 06 16 00

**SECTION 07 31 13**

**ASPHALT  
SHINGLES**

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- SECTION 07 31 13 -  
ASPHALT SHINGLES

PART 1 - GENERAL

1.1 SECTION INCLUDES:

- A. The work of this section involves installing new impact resistant (IR) asphalt roof shingles, starter shingles, ridge shingles, flashings, drip edge, underlayment Ice and Watershield and other related items pertaining to the main shingle roof area.
- B. A small portion of the roof has already been completed. This area will have the new cap removed and a new cap installed to make the project one continuous roof system. This area will be included in any and all warranties for this roofing project.
- C. Install a synthetic polymer-based scrim-reinforced underlayment, over the entire roof area (including over the ice and water shield).
- D. Ice and Water Shield:
  - 1. All Ice and Water Shield shall be high temp.
  - 2. Install 100% full coverage ice and water shield over the entire roof area starting from the eave of the roof area.
- E. Install new pipe boots around all pipe penetrations in the roof. The flanges of the boots will be stripped in on the top and both sides with 6" detail tape or ice and water shield.
- F. Provide new 12" shingle vent II or approved equal along the all ridge areas.
- G. Install new 40-year Certainteed Landmark Pro two-piece laminated asphalt shingles or equal.
- H. All required metal flashings and accessories.
- I. Miscellaneous caulking and sealants.
- J. All shingles, including starter shingles, hip/ridge shingles, Ice and Water shield and underlayment materials shall be supplied by the same manufacturer.
- K. All penetrations, curbs, and other roof mounted units may not be shown on the roof plans. While every effort has been made to coordinate this work, the roofing contractor is responsible for conducting as accurate inventory of the actual field conditions and carrying the costs associated with completing the work as outlined in the contract documents.
- L. The drawings indicate limits of construction for this project. The specifications specify materials and work requirements for this project. Both are mutually complimentary and shall be followed to complete the work.

1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures



- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 02 40 00 – Demolition
- G. Section 06 10 00 – Rough Carpentry
- H. Section 06 16 00 – Wood Deck Repairs
- I. Section 07 46 33 – Vinyl Siding
- J. Section 07 62 00 – Sheet Metal Flashing and Trim
- K. Section 09 91 13 – Painting and Coatings
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

### 1.3 ASSEMBLY AND SCOPE

- A. The new shingle roof system will be installed in accordance with the following:
  - 1. Any loose roof decking will be re-secured/re-nailed.
  - 2. Ice and Watershield will be installed over 100% of the roof area.
  - 3. Underlayment will be installed in the field of the roof and **will** cover Ice and Watershield.
  - 4. Manufactures starter shingles shall be utilized at first course (eave) and at rake edge.
  - 5. Install roof shingles to comply with manufacturers' 40 year warranty including the 10-year Surestart warranty, the 15-year Streakfighter warranty and the 15-year wind resistance warranty with upgrades as required to meet the 110 mph wind rating.
  - 6. Shingles shall be nailed with (6) approved roofing nails per shingle. All fasteners shall be set straight and not be over or under driven. Comply with manufacturers' fastening requirements. Chalk lines, as necessary.
  - 7. On slopes greater than 21/12 pitch apply 1 inch diameter spots of asphalt roofing cement (ASTM D 4586 Type II) under the shingle tab corner according to application instructions provided on the shingle package. For Class 4 Impact resistance, IR shingles must be applied according to the instructions indicated in manufactures instructions for new roof or tear off and not by roofing over existing shingles. Verify existing roof slope in field.
  - 8. Strip in all drip edge with a 6" strip of ice and water shield.
  - 9. All valleys are to be copper and installed per the manufacturer's recommendations unless other wise noted.
  - 10. Provide asphaltic cement at all shingle areas along valleys and rake edges.

### 1.4 SUBMITTALS

- A. Product data for each type of product specified, including details of construction relative to materials, dimensions of individual components, profiles, textures, and colors.
- B. Samples for verification in the form of 2 full-size units of each type of asphalt shingle indicated showing the full range of variations expected in these characteristics.
- C. Product data on Ice and Watershield.
- D. Provide a letter from the shingle manufacturer stating that the assembly, as specified and proposed, including

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all accessories qualifies for all specified shingle and wind warranties.

- E. Provide information and detailed description of air distribution and regulation system designated to ensure controlled and even air pressure to all pneumatic nail guns.

#### 1.5 QUALITY ASSURANCE

- A. Fire-Test-Response Classification: Where products with a fire-test-response classification are specified, provide asphalt shingles identical to those tested according to ASTM E 108 or UL 790 and listed by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify each bundle of asphalt shingles with appropriate markings indicating fire-test-response classification of applicable testing and inspecting agency.
- B. Wind-Resistance-Test Characteristics: Where wind-resistant asphalt shingles are indicated on the code compliance page RP-1, provide products identical to those tested according to ASTM D 3161 or UL 997 and passed. Identify each bundle of asphalt shingles with appropriate markings of applicable testing, inspecting agency and FM Global. Assembly shall comply with all FM Loss Prevention Data Sheets.
- C. Mockup: Prior to installing shingles, construct mockups to verify selections made under sample submittals and to demonstrate aesthetic effects as well as quality of materials and execution. Build mockups to comply with the following requirements, using materials indicated for final Work.
  - 1. Locate mockups on site in the location and of the size indicated or, if not indicated, as directed by the Owner's Representative.
  - 2. Demonstrate the proposed range of aesthetic effects and workmanship.
  - 3. Obtain Owner Representative's approval of mockups before start of final unit of Work.
    - a. When directed, demolish and remove mockups from Project site.
    - b. Accepted mockups in an undisturbed condition at the time of Substantial Completion may become part of the completed Work.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's unopened bundles or containers with labels intact.
- B. Handle and store materials at Project site to prevent water damage, staining, or other physical damage. Store roll goods on end. Comply with manufacturer's recommendations for job-site storage, handling, and protection.

#### 1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installing asphalt shingles only when existing and forecasted weather conditions will permit work to be performed according to manufacturers' recommendations and warranty requirements, and when substrate is completely dry.
- B. Once the existing shingles have been removed the contractor is responsible to keep the roof water tight at the end of each working day regardless of the current or forecast weather conditions.

#### 1.8 WARRANTY

- A. Special Warranty: Submit a written warranty signed by manufacturer agreeing to repair or replace asphalt shingles that fail in materials or workmanship within the specified warranty period. Failures include, but are not limited to, deformation or deterioration of asphalt shingles beyond normal weathering.
  - 1. Manufacturer's standard 40 year limited transferable warranty after date of Substantial Completion.

2. Manufacturer's 10 year Surestart warranty or equal.
3. Manufacturer's 15 year Streakfighter warranty or equal.
4. Manufacturer's 15 year Wind resistance warranty with enhancements to meet the 130 mph wind requirement or equal.

#### 1.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels clearly describing contents.
1. Furnish 6 bundles of asphalt shingles, identical to those to be installed, in unbroken packaging.
  2. Shingles shall be placed into a storage space by the contractor at the direction of the Owner or Owner's Representative.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering asphalt shingles that may be incorporated in the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide asphalt shingles produced by:  
CertainTeed Corporation or approved equal.

#### 2.2 ASPHALT SHINGLES

- A. Required product line of shingles from the above manufacture's:
1. CertainTeed: Landmark Pro.
- B. Colors, Blends, and Patterns: Where manufacturer's standard products are indicated, provide asphalt shingles with the following requirements:
1. Color selection will be owner's choice. (Basis of design shall be colonial slate)
  2. Contractor shall provide manufacturers color chart.
- C. Impact Resistant Shingles: Conforming to ASTM D 3018 Type I – Self Sealing; UL Certification of ASTM D 3462, ASTM D 3161 Class "F" (110-mph) /UL997 Wind Resistance and UL Class A Fire Resistance ASTM E108; ASTM D 7158 Class H Wind Resistance; UL2390/ASTM D 6381 Class H Wind Resistance; UL 2218 Class 4 Impact Resistance; glass fiber mat base; ceramically colored/UV resistant mineral surface granules across entire face of shingle; four tab shingle with each tab independently colored by granules no bleed over of granules from previous tab. The back of the tabs contains an impact resistant fiberglass scrim.
1. Fungus Resistant: Provide shingles that have been surface treated to remain free of fungus and algae growth, which adversely affects the appearance of the roof, for at least 5 years.
  2. 4 bundle architectural shingles.
  3. On slopes greater than 21/12 pitch apply 1 inch diameter spots of asphalt roofing cement (ASTM D 4586 Type II) under the shingle tab corner according to application instructions provided on the shingle package. For Class 4 Impact resistance, Highland Slate IR shingles must be applied according to the instructions indicated in manufactures instructions for new roof or tear off and not by roofing over existing shingles. Verify existing roof slope in field.
- D. Hip and Ridge Shingles:
1. Manufacture's ridge cap.
  2. Manufacturer's hip and ridge shingles matching the color, thickness and quality of the series of shingle.

- E. Starter Shingles
  - 1. Manufacture's starter shingles.
- F. Underlayment for field of roof.
  - 1. Manufacture's commercial grade underlayment (Diamond Deck or equal).
  - 2. To be installed over 100% of all shingle roof areas including over the ice and water shield.
- F. All products to be supplied by the shingle manufacturer.

### 2.3 ICE AND WATER SHIELD

- A. To be from the same manufacturer of the roof shingles.
  - 1. "Winterguard" High temperature, high tack membrane or equal
  - 2. Meet or exceed ASTM D1970

### 2.4 ACCESSORIES

- A. Asphalt Plastic Cement: Non-asbestos fibrated asphalt cement, complying with ASTM D 4586.
- B. Nails: Hot-dip galvanized steel, 0.120-inch diameter barbed shank, sharp-pointed, conventional roofing nails with a minimum 3/8-inch diameter head and of sufficient length to penetrate 3/4 inch into solid decking or at least 1/8 inch through plywood sheathing.
  - 1. Where nails are in contact with flashing, prevent galvanic action by providing nails made from the same metal as that of the flashing.
- C. Provide new detail tape or 6" ice and water shield to strip in all step flashing tops.
- D. Provide new detail tape (preferred) or 6" ice and water shield to strip in all drip edge.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrate for compliance with requirements for substrates, installation tolerances, and other conditions affecting performance of asphalt shingles. Do not proceed with installation until unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with non-corrosive roofing nails.
- B. Coordinate installation with flashings and other adjoining work to ensure proper sequencing. Do not install roofing materials until all vent stacks and other penetrations through roof sheathing have been installed and are securely fastened against movement.

### 3.3 ICE AND WATER SHIELD

- A. Install specified Ice and Water Shield:
  - 1. All Ice and Water Shield shall be high temp.
  - 2. Base Bid: All areas shall receive 100% coverage.
- B. Ice and water shield shall extend up curbs and cheek walls the full height to the underside of the eave. Install step flashing over Ice and Water Shield. Strip in the top edge of the step flashing to provide temporary water proofing.
- C. Ice and Water Shield underlayment shall be installed to roof deck and flashing to make a completely water tight assembly.
- D. Roofing underlayment shall be installed over Ice and Watershield.
- E. Provide new detail tape or 6" ice and water shield to strip in all step flashing tops at dormer locations.
- F. Provide new 6" ice and water shield to strip in all ice melt system metal.

### 3.4 INSTALLATION

- A. General: Comply with manufacturer's instructions and recommendations but not less than those recommended by ARMA's "Residential Asphalt Roofing Manual" or "The NRCA Steep Roofing Manual."
  - 1. Fasten asphalt shingles to roof sheathing with nails.
- B. Flashing: Install metal flashing and trim as indicated and according to details and recommendations of the "Asphalt Roofing" section of "The NRCA Steep Roofing Manual" and ARMA's "Residential Asphalt Roofing Manual."
- C. Install asphalt shingles, beginning at roof's lower edge, with manufacture's starter strip of roll roofing or inverted asphalt shingles with tabs removed. Fasten asphalt shingles in the desired weather exposure pattern; use number of fasteners per shingle as recommended by manufacturer. **Use vertical and horizontal chalk lines to ensure straight coursing.**
- D. Hip and Ridge: install manufacturer's hip and ridge shingles. Match color to roof shingles.
- E. On rake edges apply 1 inch diameter spots of asphalt roofing cement (ASTM D 4586 Type II) under the shingle tab corner according to application instructions provided on the shingle package. For Class 4 Impact resistance, shingles must be applied according to the instructions indicated in manufactures instructions for new roof or tear off and not by roofing over existing shingles. Verify existing roof slope in field.

### 3.5 SHINGLE NAILING

- A. All shingles will be installed with (6) six nails per shingle and in compliance with the manufacturer's guidelines.
- B. Nails shall not be over driven, under driven or installed at an angle. Any shingle installed with any single or combination of these issues shall be removed and a new shingle shall be installed properly in its place at no additional cost.
- C. Any shingle that is installed with any deviation will be deemed unacceptable and will be subject to removal at no additional cost.
- D. Follow all manufacturer guide lines for installing shingles on steep slope roofs.

### 3.6 ADJUSTING

SAU #39 (Mont Vernon School District)  
Mont Vernon Village  
1 Kittridge Road  
Mont Vernon, NH 03057  
11-14-2020



ARM Consultants  
PO Box 4, Chester NH 03036  
603-234-6030

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- A. Replace any damaged materials installed under this Section with new materials that meet specified requirements.
- B. Any shingles with scuff marks or granule loss shall be replaced.

END OF SECTION 07 31 13

**SECTION 07 46 33**

**VINYL SIDING**

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- SECTION 07 46 33 -  
VINYL SIDING

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Vinyl siding on the rising wall as designated on the roof plan RP-2.
- B. Accessories and trim.
- C. Where required, provide new double 4", .042", white vinyl siding on the rising wall as shown on the roof plan RP-2 and in the detail drawings.
- D. Provide all new vinyl accessories including, but not limited to, ½" "J" trim, sill trim and starters as required to provide a complete and professional installation.
- E. Provide new CertainTeed, or equal, hidden vent, triple 3 1/3" vinyl soffit panels in colonial white. New vinyl "J" or custom bent aluminum receivers (of matching color) will be installed.
- F. Remove, store, and reinstall all PVC trim board to access the step and rising wall flashings.
- G. All damaged or deteriorated PVC trim boards.
- H. All vertical corner pieces shall be removed, stored and reinstalled.
- I. Remove, store, and reinstall the existing "J" channel and top row of siding, as required, to remove the existing soffits. Reinstall existing siding and receivers to install the new soffits. This work will need to be conducted on the roof area that was already repaired over the winter as well.
- J. The drawings indicate limits of construction for this project. The specifications specify materials and work requirements for this project. Both are mutually complimentary and shall be followed to complete the work.

1.2 RELATED SECTIONS

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 02 40 00 – Demolition
- G. Section 06 10 00 – Rough Carpentry
- H. Section 06 16 00 – Wood Deck Repairs



- I. Section 07 31 13 – Asphalt Shingles
- J. Section 07 62 00 – Sheet Metal Flashing and Trim
- K. Section 09 91 13 – Painting and Coatings
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

### 1.3 REFERENCES

- A. ASTM D 635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.
- B. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- C. ASTM D 648 - Test Method for Deflection Temperature of Plastics Under Flexural Load.
- D. ASTM D 696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 Degrees C and 30 Degrees C.
- E. ASTM D 790 -- Standard Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials.
- F. ASTM D 1435 - Standard Practice Method for Outdoor Weathering of Plastics.
- G. ASTM D 1929 - Standard Test Method for Ignition Properties of Plastics.
- H. ASTM D 2843 - Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
- I. ASTM D 3679 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding.
- J. ASTM D 4101 - Standard Specification for Propylene Plastic Injection and Extrusion Materials.
- K. ASTM D 4216 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Related Plastic Building Product Compounds.
- L. ASTM D 4226 - Standard Test Method for Impact Resistance of PVC Building Products.
- M. ASTM D 4477 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Soffit.
- N. ASTM D 5206 - Standard Windload Resistance Test.
- O. ASTM E 84 - Standard test Method for Surface Burning Characteristics of Building Materials.
- P. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.

### 1.4 PERFORMANCE REQUIREMENTS

- A. PVC Fire Resistance: Provide vinyl siding products that meet or exceed the following ratings:
  - 1. Flame spread index 20, fuel contribution 0, smoke development rating 360, per ASTM E 84.
  - 2. Self-ignition temperature: 824 degrees F (440 degrees C) per ASTM D 1929.
  - 3. Fire endurance classification of 1 hour, per ASTM E 119 as wall assembly.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Selection Samples: For each finish product specified, one complete set of color chips representing manufacturer's full range of available colors and patterns. Emailed or digital samples are not allowed.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Provide installer with not less than three years of experience with products specified or has obtained advanced certification from the siding manufacturer.
- B. Mock-Up: Provide a mock-up for evaluation of installation techniques and workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship and color is approved by Architect.
  - 3. Reinstall mock-up area as required to produce acceptable work.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.

#### 1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

#### 1.9 WARRANTY

- A. Provide manufacturer's standard lifetime limited warranty on siding products, transferable to new owners.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Certain-Teed Corporation, Siding Products Group, Valley Forge, Pennsylvania 1948 or approved equal.
- B. Substitutions: As submitted and approved.

- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

## 2.2 MATERIALS

- A. Polyvinyl Chloride: Provide siding and soffit materials made of PVC compound with cell classification of 13344-B, as defined by ASTM D 4216, that meets or exceeds the following properties:
1. Impact strength: 2.20 ft-lbs per inch at test temperature of 73 degrees F. (22.7 degrees C.), and 1.30 ft-lbs per inch at test temperature of 32 degrees F (0 degrees C), per ASTM D 4226.
  2. Tensile strength: 7,344 psi (50,637 kPa)
  3. Flexural modulus of elasticity in tension: 455,750 psi (3,142,396 kPa).
  4. Deflection temperature under load of 264 psi (1820 kPa): 168 degrees F (76 degrees C).
  5. Coefficient of expansion: .000034 in/in/degree F.
  6. Chemical resistance: Excellent.
- B. Vinyl Components: Provide products made of extruded polyvinyl chloride as specified in this section and manufactured to comply with requirements of ASTM D 3679.
1. Provide elongated nailing slots on nailing flanges to allow for movement.
  2. Factory-notch ends of horizontal panels to form overlapping joints.
  3. Provide products that meet weathering requirements of ASTM D 3679.

## 2.3 VINYL SIDING

- A. Main Street:
1. Design: Double 4" clapboard; brushed finish with Studfinder Installation System.
  2. Width: 8"
  3. Length: 12'-6" plus or minus .025".
  4. Average Thickness: 0.042"
  5. Panel Projection: 1/2"
  6. Panel Exposure: 4" plus or minus .062".
  7. Maximum Warp (per 2 panels): 0.250".
  8. Color: White.
- B. Soffit Accessories:
1. J-Channel: 1/2" by 12'-6" length, for vertical and eave applications.
  2. F-Channel.
  3. Soffit Double Channel Lineal: 1/2" by 12'-6" length, for eave applications.
  4. Color: Customers choice of standard colors

## 2.4 VINYL CARPENTRY ACCESSORIES

- A. Standard Vinyl and Aluminum Accessories:
1. Corner post: Standard width, 10' and 12' lengths.
  2. J-Channel: Standard width, 12'-6" length.
  3. Dual undersill trim: 12'-6" length.
  4. 2-1/2" Metal Starter Strip.
  5. Color: to match customers choice

## 2.5 FASTENERS

- A. Provide galvanized or other corrosion-resistant nails as recommended by manufacturer of siding products.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Examine, clean, and repair as necessary any substrate conditions which would be detrimental to proper installation.
- B. Do not begin installation until unacceptable conditions have been corrected.
- C. Ensure that the Tyvek and Ice and Water Shield are behind the new siding as specified.

### 3.3 INSTALLATION

- A. Install products in accordance with the latest printed instructions of the manufacturer.
- B. Install products with all components true and plumb.
- C. Nail horizontal panels by placing nail in center of slot. Nail vertical panels by placing first nail at top of top slot and remaining nails in center of slots. Drive nails straight, leaving 1/16 inch (1.6 mm) space between nail head and flange of panel.
- D. Allow space between both ends of siding panels and trim for thermal movement. Overlap horizontal panel ends one-half the width of factory pre-cut notches.
- E. Stagger lap joints in horizontal siding in uniform pattern as successive courses of siding are installed.
- F. Install J-channel and flashing to accommodate successive courses of vertical siding. Install wood shims at building corners to bring cut edges of vertical siding out to correct plane.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

### 3.5 CLEANING

SAU #39 (Mont Vernon School District)  
Mont Vernon Village  
1 Kittridge Road  
Mont Vernon, NH 03057  
11-14-2020



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PO Box 4, Chester NH 03036  
603-234-6030

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- A. At completion of work, remove debris caused by siding installation from project site.

END OF SECTION 07 46 33

**SECTION 07 62 00**

**SHEET METAL FLASHING  
AND TRIM**

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- SECTION 07 62 00 -  
SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

- A. Drawings and general provisions of the Contract, including Technical Requirements.
- B. Furnish and install metal flashing required to complete the roofing application according to details and specified herein. This includes but is not limited to the following:
  - 1. Sheet metal flashing at perimeters, metal extender pieces, base wall counter-flashings, counter-flashings, ridges and valleys on specified roof areas for a complete and thorough job.
- C. Edge and shadow metal:
  - 1. New 26-gauge Kynar finish edge metal, drip edge and some exposed trim (see details for locations) shall be installed at designated locations.
  - 2. Color match the new metal to the existing trim. Provide samples and install mock-ups prior to ordering the full project.
  - 3. Isolation of dissimilar metals must be provided to prevent galvanic reactions between the metals.
- D. Provide new .040 dark bronze Kynar finish, vented wall base flashing per the detail drawings.
- E. New dark bronze Kynar finish, .040, 4"x4" step flashings and detail tape or 6" wide strip of ice and water shield over the top of all step flashings.
- F. Provide .040 wraps matching the existing, for color and installation techniques, for all vent stands and sleepers. See detail drawings for installation details.
- G. New Gutters and downspouts at the location shown on the plan:
  - 1. Provide new gutter and downspout, as shown in the Detail drawings.
  - 2. New gutterers to be made from .040 Kynar finish clad aluminum.
  - 3. Provide liquid flashing (Kemperol BRM or approved equal) at all gutter joints. Kemper to be full height and width of joints.
  - 4. New down spouts 3"x 5" made from .040 Kynar finish aluminum and are to be 4-sided with the slip joint side.
  - 5. Provide gutter extensions at all corners to ensure that the gutters do not become overwhelmed in these areas or overflow during heavy rain.
- H. On a unit price basis, install new .032, white bent aluminum trim around the perimeter of the entire project area as shown on the detail drawings. Color match the new metal to the existing trim. Provide samples and install mock-ups prior to ordering the full project.
- I. All valleys to be red copper. Ensure the edges are stripped in with 6" wide piece of detail tape of ice and water shield.
- J. New sheet metal accessories and metal edge assembly as designated and detailed in the contract documents.
- K. The project shall comply with ASCE 7-05 Wind Uplift criteria (see code compliance page RP-1 and Specification Section 07531:3.6, for more information).
- L. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and shall be followed to complete the work.

## 1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 02 40 00 – Demolition
- G. Section 06 10 00 – Rough Carpentry
- H. Section 06 16 00 – Wood Deck Repairs
- I. Section 07 31 13 – Asphalt Shingles
- J. Section 07 46 33 – Vinyl Siding
- K. Section 09 91 13 – Painting and Coatings
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

## 1.3 REFERENCES

- A. ASTM B209 - Aluminum and Aluminum-Alloy Sheet and Plate.
- B. SMACNA - Sheet Metal and Air Conditioning Contractors National Association.
- C. ASTM B370 - Copper Sheet and Strip for Building Construction.
- D. SSPC - Steel Structures Painting Manual; Steel Structures Painting Council.

## 1.4 PERFORMANCE REQUIREMENTS

- A. General: Install sheet metal flashing and trim to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failing.
- B. Performance Requirements:
  - 1. System shall accommodate movement of components without buckling, failure of joint seals, undue stress on fasteners, or other detrimental effects when subjected to seasonal temperature changes and live loads.
  - 2. Design system capable of withstanding building code requirements for negative wind pressure.
- C. Interface with Adjacent Systems:



1. Integrate design and connections with adjacent construction.
2. Accommodate allowable tolerances and deflections for structural members in installation.

- D. “White Glove” Installation: Copper wall cladding installer shall use all means necessary to prevent the natural oils of the installer's skin from interfering with the natural and consistent oxidation process of the copper. Installers shall clean the mill oils from the raw material and finish sheets with clean cotton cloths. Installers shall wear white cotton gloves (no dots) and long sleeves while handling all copper materials.

#### 1.5 SUBMITTALS

- A. General: Submit each item in this Article.
- B. Product Data including manufacturer's material and finish data, installation instructions, and general recommendations for each specified flashing material and fabricated product.
- C. Shop Drawings of each item specified showing layout, profiles, methods of joining, and anchorage details.
- D. Qualification data for firms and persons to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of owner’s representatives and owners, and other information specified.

#### 1.6 QUALITY ASSURANCE

- A. All personnel concerned with the shop fabrication and field installation of sheet metal work must be qualified sheet metal journeymen who may be assisted by sheet metal apprentices qualifying for their journeyman status. The foreman of the crew must have a least five years experience in roofing sheet metal work.
  1. Installer shall have successfully completed the zinc manufacturer’s training program
- B. Mockups: Prior to installing sheet metal flashing and trim, construct mockups indicated to verify selections made under Sample submittals and to demonstrate aesthetic effects as well as qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for final unit of work.
  1. Locate mockups on-site in the location and of the size indicated or, if not indicated, as directed by Owner’s Representative.
    - a. Provide at least one corner joint
    - b. Provide at least 2 sections with joint cover plate or under plate.
  2. Notify Owner’s Representative one week in advance of the dates and times when mockups will be constructed.
  3. Demonstrate the proposed range of aesthetic effects and workmanship.
  4. Construct mockups for the following type of sheet metal flashing and trim:
    - a. Exposed trim, gravel stops, and fasciae.
    - b. All metal flashing devices.
  5. Obtain approval of mockups before start of final unit of work.
  6. Retain and maintain mockups during construction in an undisturbed condition as a standard for judging the completed work.
    - a. When directed, demolish and remove mockups from Project site.
    - b. Approved mockups in an undisturbed condition at the time of Substantial Completion may become part of the completed Work.

#### 1.7 PROJECT CONDITIONS

- A. Coordinate Work of this Section with interfacing and adjoining work for proper sequencing of each installation. Ensure best possible weather resistance, durability of work, and protection of materials and finishes.
- B. Environmental Requirements:
  - 1. Do not install work of this Section during inclement weather.
  - 2. Do not install work of this Section when moisture from rain or other moisture source is present, forecasted or expected.
- C. Provide 6" strip of ice and water shield at all edge metal.

1.8 DELIVERY, STORAGE & HANDLING

- A. Store the materials on platforms off the ground and tilted sufficiently to ensure no water remains on the material, protected with a tarpaulin or other suitable watertight and ventilated covering. Do not store materials in contact with other materials that might cause staining, denting, or other surface damage.
- B. Care shall be exercised in handling and placing materials to prevent damage that would impair the adequacy or appearance of the installed material.
  - 1. It is recommended to handle the materials with gloves to minimize the amount of final cleaning required.

1.9 WARRANTY

- A. General Warranty: Special warranties specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Weathertight Warranty: Submit a written warranty executed by the Installer agreeing to repair or replace sheet metal that fails to remain weathertight within the specified warranty period.
  - 1. Warranty Period: 5 years from date of Substantial Completion.

1.10 UNIT PRICES

- A. Contractor shall carry the assigned quantity of kynar finish aluminum shadow board cover removal and replacement in the Base Bid :
  - 1. Random replacement of damaged or deteriorated .032 kynar finish aluminum shadow board covers, profile matching that of the existing, including securing to structure. Quantities shall be determined by calculation of actual sq/ft installed with no allowance for waste.
    - a. **QUANTITY:** Remove and replace **200 ln/ft.** of .032 kynar finish aluminum shadow board covers.
    - b. Additional removal and replacement of shadow board covers will be undertaken at:
      - ADD \$ 4.50 per ln/ft.**
    - c. Should less than Base Bid Quantities be required a credit will be issued at:
      - DEDUCT \$ 3.50 per ln/ft.**
- B. The Contractor shall notify the Owner's Representative immediately upon uncovering existing damaged or deteriorated shadow board covers.
- C. The Contractor shall perform unit price work only when approved by the Owner's Representative. The Owner's Representative and Contractors will verify quantities at each progress meeting.

PART 2 - PRODUCTS

## 2.1 METALS

- A. Kynar finished aluminum
  - 1. Factory-Painted Aluminum Sheet: ASTM B 209, 3003-H14, with a minimum thickness of 0.040 inch, unless otherwise indicated.
  - 2. Factory-Painted Aluminum Sheet: ASTM B 209, 3003-H14, with a minimum thickness of 0.032 inch, unless otherwise indicated.
- B. Copper: ASTM B 370; temper H00, cold rolled except where temper .060 is required for forming; not less than 16 oz./sq. ft, unless otherwise indicated.
- C. Aluminum (hook strip only): ASTM B 209, 3003-H14, with a minimum thickness of 0.050 inch, unless otherwise indicated.
- D. All hook strips shall be one gauge heavier than metal being secured.

## 2.2 MISCELLANEOUS MATERIALS AND ACCESSORIES

- A. Solder: For use with steel or copper, provide 50 - 50 tin/lead solder (ASTM B 32), with rosin flux.
- B. Solder: For use with zinc, ASTM C32, 60 percent lead and 40 percent tin with low antimony, as recommended by manufacturer
- C. Fasteners: Same metal as sheet metal flashing or other noncorrosive metal as recommended by sheet metal manufacturer. Match finish of exposed heads with material being fastened. Refer to detail drawing.
- D. Adhesives: Type recommended by flashing sheet metal manufacturer for waterproof and weather-resistant seaming and adhesive application of flashing sheet metal.
- E. Metal Accessories: Provide sheet metal clips, straps, anchoring devices, and similar accessory units as required for installation of Work, matching or compatible with material being installed; noncorrosive; size and thickness required for performance.
- F. Stack Flashing: Pipes penetrating shingled roofs shall be ARFCO, or equal, self-sealing neoprene collar with copper flange.
- G. Roofing Cement: ASTM D 2822, asphaltic.
- H. Elastomeric Sealant: Generic type recommended by manufacturer of metal and fabricator of components being sealed and complying with requirements for joint sealants.

## 2.3 FABRICATION, GENERAL

- A. Sheet Metal Fabrication Standard: Fabricate sheet metal flashing and trim to comply with recommendations of SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, metal, and other characteristics of the item indicated.
- B. Comply with details shown to fabricate sheet metal flashing and trim that fit substrates and result in waterproof and weather-resistant performance once installed. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.

- C. Form exposed sheet metal Work that is without excessive oil canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems.
- D. Seams: Fabricate cover or under plates at each joint of materials matching the new edge metal. Form seams and seal with EPDM. Rivet joints for additional strength
- E. Expansion Provisions: Space movement joints at maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions in Work cannot be used or would not be sufficiently weatherproof and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).
- F. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate elastomeric sealant to comply with SMACNA standards.
- G. Separate metal from noncompatible metal or corrosive substrates by coating concealed surfaces at locations of contact with asphalt mastic or other permanent separation as recommended by manufacturer.
- H. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of sheet metal.
- I. Shop fabricate all sheet metal to the greatest extent possible.
- J. Fabricate cleats and attachment devices from same material as sheet metal component being anchored or from compatible, noncorrosive metal recommended by sheet metal manufacturer.
  - 1. Size: As recommended by SMACNA manual or sheet metal manufacturer for application but never less than thickness of metal being secured.

## 2.4 SHEET METAL FABRICATIONS

- A. General: Fabricate sheet metal items in thickness or weight needed to comply with performance requirements but not less than that listed below for each application and metal.
- B. Exposed Trim (vented wall base flashing, vent wraps): Fabricate from the following material and as shown on detail drawings:
  - 1. Kynar aluminum sheet, color: Dark Bronze. Factory-Painted Aluminum Sheet: ASTM B 209, 3003-H14, with a minimum thickness of 0.040 inch, unless otherwise indicated.
- C. Drip edge, gutters and downspouts: Fabricate from the following material and as shown on detail drawings:
  - 1. Kynar aluminum sheet, color: White. Factory-Painted Aluminum Sheet: ASTM B 209, 3003-H14, with a minimum thickness of 0.032 inch, unless otherwise indicated.
- D. Step Flashing: Fabricate from the following material and as shown on detail drawings:
  - 1. Kynar aluminum sheet, color: Dark Bronze. Factory-Painted Aluminum Sheet: ASTM B 209, 3003-H14, with a minimum thickness of 0.040 inch, unless otherwise indicated.
- E. Gable end metal: Fabricate from the following material and as shown on detail drawings:
  - 1. Kynar aluminum sheet, color: White. Factory-Painted Aluminum Sheet: ASTM B 209, 3003-H14, with a minimum thickness of 0.032 inch, unless otherwise indicated.
- F. Valley: Fabricate from the following material as shown on the detail drawings:

1. Copper: ASTM B 370; temper H00, cold rolled except where temper 16oz is required for forming; not less than 16 oz./sq. ft., unless otherwise indicated.

- G. Separate metal from noncompatible metal or corrosive substrates by coating concealed surfaces at locations of contact with asphalt mastic or other permanent separation as recommended by manufacturer.
- H. Counter-flashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of the counterflashing lower edge. (See details for locations of each type of metal).

2.5 FASTENERS

- A. For attaching sheet metal to masonry, use self tapping concrete screws or expansion type anchors. These fasteners are to be spaced at 6” on center for the edge metal and 8” on center for all hook strips.
- B. For attaching sheet metal to wood, use 3/8” diameter head, 12 gauge annular ring of sufficient length to provide 1¼” embedment into the substrate of the membrane manufacturer’s approved fastener. Fasteners shall be spaced at 3” on center for all edge metal and spaced at 4” on center for all hook strips.
- C. For attaching termination bar to masonry, use self tapping concrete screws or expansion type anchors. Every other available fastening location shall be utilized to provide proper fastener spacing (approximately 16” on center). A fastener is required at each end in the outer most location of the termination bar.
- D. For attaching counter flashings with cut in reglets the lead wedges shall be spaced not more than 16” on center.
- E. To prevent corrosion, the indicated fastener materials shall be used with the following sheet metals:

<u>Sheet Metal</u>	<u>Nails</u>	<u>Screws</u>	<u>Rivets</u>
Aluminum	Aluminum or Zinc	Aluminum or Zinc	Aluminum or Zinc
Copper	Copper	Bronze	Bronze
Freedon Gray Copper	Copper	Bronze	Bronze
Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Rheinzink	Stainless Steel, Galvanized Steel, or Aluminum	Stainless Steel, Galvanized Steel, or Aluminum	Stainless Steel, Galvanized Steel, or Aluminum

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions under which sheet metal flashing and trim are to be installed and verify that Work may properly commence. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Unless otherwise indicated, install sheet metal flashing and trim to comply with performance requirements, manufacturer's installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Anchor units of Work securely in place by methods indicated, providing for thermal expansion of metal units; conceal fasteners where possible, and set units true to line and level as indicated. Install Work with laps, joints, and seams that will be permanently watertight and weatherproof. Workmanship for sheet metal shall be as follows:
  1. Surfaces to cover with sheet metal shall be free from defects of every description and clean of dirt and other foreign matter before sheet metal Work is started.

2. Lines, arises and angles shall be sharp and true. Plane surfaces shall be free from waves and buckles. Joints and seams in plain surfaces shall be avoided as far as possible.
  3. Sheet metal Work exposed to the weather shall be permanently watertight and weathertight, with suitable provisions made for free expansion and contraction without causing leaks.
  4. Exposed edges shall be doubled back 1/2" in such a manner as to conceal them and provide stiffness.
  5. No nails shall be exposed on the face of the finished work except as approved or except as directed herein.
- B. Install exposed sheet metal Work that is without excessive oil canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
- C. Roof-Edge Flashings: Secure metal flashings at roof edges according to FM Loss Prevention Data Sheet 1-49 for appropriate, wind zone.
1. Hook strips should be continuous, and at least one gauge heavier than the fascia metal. They should be secured with annular threaded nails long enough to penetrate the wood 1-1/4 in. The nail head should be 3/16 in. minimum. When screws are used, they should be No. 8 minimum and long enough to penetrate wood 3/4 in. or metal 3/8 in. Fasteners should be either corrosion-resistant steel or treated to resist corrosion.
  2. Metal fascia and cant flashing should be secured to wood nailers at the bottom edge with a continuous hook strip. Metal sections should be secured at each end under the joint cover in the outside face with two large nails through slotted holes to permit expansion and contraction. Nail heads should be somewhat larger than the slotted holes. 4 in. wide joint covers should be hooked over the metal at the upper and lower ends. A bead of caulking should be applied under the joint cover approximately 1 in. from the end of each metal fascia section.
  3. Metal coping and counter-flashing should be secured by a hook strip attached to the wall exterior. It should be secured on the inside with No. 10 stainless steel screw fasteners through neoprene washers at 20 in. spacing, long enough to penetrate the wood 1 inch holes should be oversized to permit movement when heavy gauge metal or aluminum is used.
- D. Expansion Provisions: Provide for thermal expansion of exposed sheet metal Work. Space movement joints at maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions in Work cannot be used or would not be sufficiently weatherproof and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).
- E. Sealed Joints: Form non-expansion, but movable, joints in metal to accommodate elastomeric sealant to comply with SMACNA standards. Fill joint with sealant and form metal to completely conceal sealant.
1. Use joint adhesive for nonmoving joints specified not to be soldered.
- F. Separations: Separate metal from non-compatible metal or corrosive substrates, including ACQ treated lumber, by coating concealed surfaces, at locations of contact, with asphalt mastic or other permanent separation as recommended by manufacturer.
1. Underlayment: Where installing stainless steel or aluminum directly on cementitious or wood substrates, install a slip sheet of red-rosin paper and a course of polyethylene underlayment.
- G. Install metal flashing in accordance with manufacturer's recommendations.
- H. Finish work to be free from water leakage under all weather conditions.
- I. Install electrolytic isolation materials between dissimilar metals. Avoid to the greatest extent practical, using dissimilar metals in contact with each other. This includes direct contact with pressure treated or ACA Lumber.

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- J. All exposed new sheet metal work shall be cleaned at completion of installation. Grease and oil films, asphalt, handling marks, contamination from steel wool, fitting and drilling debris shall be removed and the work scrubbed clean. All new exposed metal surfaces shall be free of dents, creases, waves, scratch marks, and solder or weld marks. Daily cleanup and removal from site of all shavings, clippings, shearings, rivets, fasteners, and whatever other debris resulting from these operations are required.
  - K. Proceed with flashing work concurrently to membrane installation to prevent water intrusion into the roof assembly.
  - L. Sheet metal panel lines, brakes, and angles are to be sharp and true, and surfaces free from objectionable wave, warp, or buckle. Fold exposed edges of sheet metal back 1/2" to form an inside hem.
  - M. Fasteners exposed to weather shall utilize neoprene washers between the fastener head and the metal flashing.
  - N. All sheet metal fabrications shall be hemmed at exposed edges.
  - O. All sheet metal fabrications shall be level or plumb.
  - P. Where stacks or vents pass through roof, install preformed factory pipe seals around pipes embedded into roof. Flash into roofing with elastomeric flashing.
  - Q. Kemperol BRM liquid applied resin:
    - 1. Coating shall be the length and width of all internal seams.
    - 2. Along the out edges of the new sealant, provide 2 layers of painter's tape stacked on each other to provide a thickness at the edge of the coating.
    - 3. Apply the first coat and then the fleece reinforcing sheet centered on the joint to be waterproofed.
    - 4. Apply top coat after the manufacturer's required dry time.
    - 5. No work shall be completed on wet, damp or otherwise moist and/or contaminated surfaces. All preparation work shall conform to the manufacturer's requirements.
- 3.3 EDGE METAL
- A. Install continuous cleat fastened 4" on center, as required by the manufacturer. Hook gravel stop around cleat and fasten horizontal flange at 3" on center.
  - B. Maximum length of gravel stop either side of corners shall be five feet. Outside corners shall be formed from a single length of metal with mitered flange.
  - C. Install per Detail drawing.
- 3.4 CLEANING AND PROTECTION
- A. Clean exposed metal surfaces, removing substances that might cause corrosion of metal or deterioration of finishes.
  - B. Provide final protection and maintain conditions that ensure sheet metal flashing and trim work during construction is without damage or deterioration other than natural weathering at the time of Substantial Completion.

END OF SECTION 07 62 00

**SECTION 09 91 13**

**EXTERIOR  
PAINTING**



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- SECTION 09 91 13 -  
EXTERIOR PAINTING

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. The work involves the preparation, priming and painting of all non-structural, non-galvanized metal pipes and exposed steel (including the existing plumbing vents). Apply two coats of brush grade exterior paint.
  - 1. Plumbing vent color: Matte Black.
- B. All penetrations, curbs, and other roof mounted units may not be shown on the roof plans. While every effort has been made to coordinate this work, the roofing contractor is responsible for conducting as accurate inventory of the actual field conditions and carrying the costs associated with completing the work as outlined in the contract documents.
- C. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and shall be followed to complete the work.

1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 02 40 00 – Demolition
- G. Section 06 10 00 – Rough Carpentry
- H. Section 06 16 00 – Wood Deck Repairs
- I. Section 07 31 13 – Asphalt Shingles
- J. Section 07 46 33 – Vinyl Siding
- K. Section 07 62 00 – Sheet Metal Flashing and Trim
- L. Section 23 00 00 – Temporary Mechanical Disconnects
- M. Section 26 00 00 – Temporary Electrical Disconnects

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1.3 SUBMITTALS

- A. Submit product data listed below:
1. Manufacturer's safety data sheet (MSDS) for each type of paint to be used.
  2. Manufacturer's color chart, **for each paint**, to be used.

1.4 DELIVERY AND STORAGE

- A. All paints and painting materials shall be delivered in their original and unopened containers plainly marked with the name, brand, analysis of the product and manufacturer.

1.5 ENVIRONMENT

- A. No paint shall be applied when the ambient temperature or the surface temperature of the material to be painted is above or below the manufacturer's recommended application temperature.

1.6 COLORS

- A. Colors of finish coats as indicated above. Contractor shall provide the Owner with sample mock-ups of paint installed for approval. **No paint shall be applied before approval by Owner.**

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. The paints to be used in the work shall be of brush grade Benjamin Moore for the Ultra HP low luster enamel or approved equivalent.
- B. Paint products applied to any surface shall be from the same manufacturer unless other products are specifically recommended by the manufacturer for use with its products.
- C. Apply paint per manufacturer's recommended number of coats (minimum of 2) and follow all between coat recommendations for preparation and drying times.

2.2 MATERIALS

- A. Exterior Non-Structural Steel:
1. Benjamin Moore Ultra Spec HP low luster **exterior brush grade paints** (or approved equivalent).

PART 3 - EXECUTION

3.1 MIXING

- A. Painting materials shall be stored and mixed in a single place, designated by the Owner for this purpose. The Contractor shall not use any plumbing fixture or pipe for mixing or for disposal of any refuse material. The

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Contractor shall carry to the mixing room all water necessary and shall dump all waste outside of the building into a suitable receptacle. The Contractor will be held responsible for any damage due to his failure to observe these provisions. Water and clean-up material shall be legally disposed of off site.

### 3.2 WORKMANSHIP

- A. Surface preparation shall meet or exceed the coating manufacturer's printed recommendations and these specifications.
- B. Cleaning and painting shall be so programmed that dust and other contaminants from the cleaning process will not fall on prepared surfaces or wet, newly painted surfaces.
- C. Only skilled Applicators shall be employed in the work. All surfaces to be painted shall be clean and ready to receive paint. The Owner's Representative shall be notified in writing of any conditions that would prevent proper paint application of affect future paint performance and that are not to be corrected under the work of this section. The start of the Work will imply acceptance of conditions either as found or as corrected.
- D. Paint shall be applied under favorable conditions and shall be brushed out carefully to a smooth, even coating without runs, sags or drips. Each coat of paint shall be allowed to dry thoroughly, not only on the surface, but throughout the thickness of the paint film before the next coat is applied. Finish surfaces shall be uniform in finish and color, and free from flash spots and brush marks. In all cases, the paint film produced shall be satisfactory in all respects to the Owner's Representative.
- E. Paint shall be applied to obtain coverage per gallon not greater than that recommended by the manufacturer, so that dry film thickness is not less than that required. The Contractor shall record, in a manner satisfactory to the Owner's Representative, the quantities of paint used for successive coats on the various parts of the work.
- F. **No spray cans or spray applied paint will be allowed or accepted.**

### 3.3 PAINTING OF STEEL

- A. Correct defects and clean surfaces which affect the work. Laitance should be vacuumed from the surface or washed off with clean water to insure proper adhesion of the new paint. Rust and loose paint shall be removed from exterior metal by power wire brushing to SSPC-3.
- B. Apply primer and topcoats with brushes in accordance with manufacturer's instructions.
- C. Contrasting color primer shall be used to ensure complete coverage of all surfaces.

### 3.4 CLEAN-UP AND PROTECTION

- A. The Contractor shall not only protect work at all times but shall also protect all adjacent work and materials by the use of sufficient drop cloth during the progress of his work.
- B. Upon completion of the work, the Contractor shall clean up paint spots, oil and stains from floors, glass, hardware and similar finished items.

SAU #39 (Mont Vernon School District)  
Mont Vernon Village  
1 Kittridge Road  
Mont Vernon, NH 03057  
11-14-2020



ARM Consultants  
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- 
- C. Empty cans, soiled wiping cloths and related waste shall be removed from the building at the end of each day's work.

END OF SECTION 09 91 13

**SECTION 23 00 00**

**TEMPORARY MECHANICAL  
DISCONNECTS**

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- SECTION 23 00 00 -  
TEMPORARY MECHANICAL DISCONNECTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Temporarily remove any roof top mechanical equipment as needed. Install all roofing and flashing as required and reinstall. **The cost of this work shall be included in the Base Bid.**
- B. The existing duct wrap shall be removed 1'-0" above the finished roof height to allow for proper flashing. The duct wrap shall be replaced and repaired as shown in the detail drawings.
- C. The Contractor shall make all modifications associated with the flashing of the equipment including modifications in the sheet metal, ductwork, piping and electrical wiring.
- D. The Contractor shall be responsible for maintaining watertight integrity of the existing curbs including the installation of temporary flashings as required.
- D. The Contractor shall be responsible for raising all equipment, conduit, pitch pockets, etc. to accommodate the new roof and insulation assembly. **The cost of this work shall be included in the Base Bid.**
- E. All penetrations, curbs, and other roof mounted units may not be shown on the roof plans. While every effort has been made to coordinate this work, the roofing contractor is responsible for conducting an accurate inventory of the actual field conditions and carrying the costs associated with completing the work as outlined in the contract documents.
- F. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and both shall be followed to complete the work.

1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
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- I. Section 07 31 13 – Asphalt Shingles
- J. Section 07 46 33 – Vinyl Siding

- K. Section 07 62 00 – Sheet Metal Flashing and Trim
- L. Section 09 91 13 – Painting and Coatings
- M. Section 26 00 00 – Temporary Electrical Disconnects

### 1.3 QUALITY ASSURANCE

- A. The Contractor shall employ mechanics proficient in the trades involved.
- B. The Contractor shall disconnect mechanical equipment only when performing roofing work in the immediate area of the equipment.
- C. Each unit shall be fully operational immediately after reinstallation. Shut-down time for each unit shall be limited to an (8) eight-hour period unless otherwise agreed in writing by Owner's Representative.
- D. Prior to commencing any disconnects, the Owner shall be given 48 hours notice.
- E. Contractor shall utilize only licensed Electrical, Plumbing and HVAC personal. All disconnect and reconnection work is to be completed utilizing licensed trade personnel.

### 1.4 TESTING

- A. Prior to commencing roofing work, the Contractor shall test all mechanical units in the presence of the Owner's Representative.
- B. All deficiencies in operation including unusual noises will be noted in writing and shall become a matter of record.
- C. Upon completion of the reinstallation of each unit, it shall be retested by the Contractor in the presence of the Owner's Representative.
- D. Any deficiencies that were not noted in the initial testing shall be corrected by the Contractor at his expense.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. Any replacement parts or additional materials needed due to changes in curb or sleeper heights shall be as recommended by the manufacturer of the mechanical unit or as required by governing codes, and shall match the existing materials as to type, size, thickness and quality.

## PART 3 – EXECUTION

### 3.1 GENERAL

- A. After disconnection, move units a sufficient distance to permit the installation of the new raised curbs, roofing and flashing materials.
- B. Units shall be moved onto existing roofing to the maximum extent possible. Provide plywood bases to rest disconnected units on.

SAU #39 (Mont Vernon School District)  
Mont Vernon Village  
1 Kittridge Road  
Mont Vernon, NH 03057  
11-14-2020



ARM Consultants  
PO Box 4, Chester NH 03036  
603-234-6030

- 
- C. Provide plywood traffic ways for moving units. If mechanical contrivances of wheeled “A” frame-type hoists are used, plywood shall be placed under the equipment for its full route of movement. Plywood shall be a minimum of 5/8” thick.
  
  - D. Under no circumstances shall any mechanical units be stored on completed sections of the new roof or any adjoining roofs not included in this contract.

END OF SECTION 23 00 00



**SECTION 26 00 00**

**TEMPORARY ELECTRICAL  
DISCONNECTS**

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- SECTION 26 00 00 -  
TEMPORARY ELECTRICAL DISCONNECTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Temporarily disconnect all roof top electrical equipment or circuits including fans, roof top circuits and HVAC units as needed. Install all roofing and flashing as required and reconnect all items. **The cost of this work shall be included in the Base Bid.**
- B. This work includes, but is not limited to, any and all temporary removal, storage, and reinstallation of the existing heat trace cable.
- C. All penetrations, curbs, and other roof mounted units may not be shown on the roof plans. While every effort has been made to coordinate this work, the roofing contractor is responsible for conducting as accurate inventory of the actual field conditions and carrying the costs associated with completing the work as outlined in the contract documents.
- D. The drawings indicate and show limits of construction for this project. The specifications specify materials and work requirements for this project. Both are complimentary to each other and both shall be followed to complete the work.

1.2 RELATED WORK

- A. Section 01 11 13 – Work Covered by Contract Documents
- B. Section 01 22 00 – Unit Prices
- C. Section 01 33 00 – Submittal Procedures
- D. Section 01 77 00 – Close-out Procedures
- E. Section 01 78 00 – Close-Out Submittals
- F. Section 02 40 00 – Demolition
- G. Section 06 10 00 – Rough Carpentry
- H. Section 06 16 00 – Wood Deck Repairs
- I. Section 07 31 13 – Asphalt Shingles
- J. Section 07 46 33 – Vinyl Siding
- K. Section 07 62 00 – Sheet Metal Flashing and Trim
- L. Section 09 91 13 – Painting and Coatings
- M. Section 23 00 00 – Temporary Mechanical Disconnects

---

1.3 QUALITY ASSURANCE

- A. The Contractor shall employ mechanical licensed in the electrical trade.
- B. The Contractor shall disconnect electrical equipment or feeds only when performing roofing work in the immediate area of the equipment or feed.
- C. Each feed or unit shall be fully operational immediately after reinstallation. Shutdown time for each unit shall be limited to an (8) eight-hour period unless otherwise agreed in writing by Owner's Representative.
- D. Prior to Commencing and disconnects, the Owner shall be given 48 hours notice.

1.4 TESTING

- A. Prior to commencing roofing work, the Contractor shall test all circuits in the presence of the Owner's Representative.
- B. All deficiencies in operation will be noted in writing and shall become a matter of record.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Any replacement parts or additional materials needed due to changes in curb shall be as required by the State Building Code.

PART 3 - EXECUTION

3.1 GENERAL

- A. After disconnection, move electrical equipment and materials a sufficient distance to permit the installation of roofing and flashing materials.
- B. Perform all work to meet the requirements of the State Building Code.
- C. Resetting: As soon as practicable after the flashing operations on a unit are completed:
  - 1. Install any required duct or electrical connections.
  - 2. Reinstall the units and reconnect for operation.
- D. Retesting: As soon as units have been reconnected and are serviceable, retest them with the Owner's Representative to assure that they are fully operational and do not evidence any deficiencies not previously noted.

END OF SECTION 26 00 00

# **ROOF PLAN & DETAIL DRAWINGS**

# MONT VERNON ELEMENTARY

1 KITTREDGE RD.  
MONT VERNON, NH 03057

### BUILDING CODE REFERENCES

- 1) 2015 INTERNATIONAL BUILDING CODE
  - A) THE STATE OF NEW HAMPSHIRE HAS ADOPTED THE 2015 INTERNATIONAL BUILDING CODE
  - B) CHAPTER 34 OF THE 2009 IBC TITLED EXISTING BUILDING AND STRUCTURES HAS BEEN DELETED IN ITS ENTIRETY. THE PROVISIONS OF THE INTERNATIONAL EXISTING BUILDING CODE PROVISIONS SHALL CONTROL THE ALTERATION REPAIR AND ADDITION TO AN EXISTING BUILDING.
  - C) IEBC DEFINITIONS: CHAPTER 5 REPAIRS:
    - EXISTING MATERIALS (502.1): MATERIALS ALREADY IN USE IN A BUILDING IN COMPLIANCE WITH REQUIREMENTS OR APPROVALS IN EFFECT AT THE TIME OF THEIR ERECTION OR INSTALLATION SHALL BE PERMITTED TO REMAIN IN USE UNLESS DETERMINED BY THE BUILDING OFFICIAL TO BE UNSAFE PER SECTION 115.

NEW AND REPLACEMENT MATERIALS (502.2): EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO HAZARDOUS TO LIFE, HEALTH OR PROPERTY IS CREATED. HAZARDOUS MATERIALS SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

DAINGEROUS (SECTION 202 GENERAL DEFINITIONS): ANY BUILDING, STRUCTURE OR PORTION THEREOF THAT MEETS ANY OF THE CONDITIONS DESCRIBED BELOW SHALL BE DEEMED DANGEROUS:

- 1.) THE BUILDING OR STRUCTURE HAS COLLAPSED, HAS PARTIALLY COLLAPSED, HAS MOVED OFF ITS FOUNDATION, OR LACKS THE NECESSARY SUPPORT OF THE GROUND.
- 2.) THERE EXISTS A SIGNIFICANT RISK OF COLLAPSE, DETACHMENT, OR DISLODGEEMENT OF ANY PORTION, MEMBER, APPURTENANCE OR ORNAMENTATION OF THE BUILDING OR STRUCTURE UNDER SERVICE LOADS.

### ROOF WIND UPLIFT DESIGN PRESSURE

- 1) METHOD A - 2015 IEBC & ASCE-7-05
  - A) CLASSIFICATION: ALTERATION
  - B) OCCUPANCY CLASS: TYPE II
  - C) SECTION 6.5.1 ASCE 7-05 (METHOD 2) :
    - 1) BASIC WIND SPEED: 105 MPH
    - 2) BUILDING HEIGHT (h): 15'-0"
    - 3) EXPOSURE CATEGORY: C EXPOSURE FACTOR (Kz): 0.94
    - 4) DIRECTIONALITY FACTOR (Kd): 0.85
    - 5) IMPORTANCE FACTOR (I): 1.15
    - 6) TOPOGRAPHIC FACTOR (Kzt): 1.00
    - 7) VELOCITY CONSTANT: 0.00256
    - 8) VELOCITY PRESSURE EQUATION:  $Qz = 0.00256(Kz)(Kzt)(Kd)(V)^2(I)$   
 $Qz = 0.00256(0.94)(1.00)(0.85)(105)^2(1.15) = 25.93$  PSF

### D) UPLIFT DESIGN WIND PRESSURE

- 1) BUILDING WIDTH (w): 31'-2"
- 2) BUILDING HEIGHT (h): 15'-0"
- 3) ASPECT RATIO  $h/w < 1$ :  $15/31.17 = 0.48$  (USE EQUATION 6-22 PER SECTION 6.5.12.4.3)
- 4) EQUATION 6-22:  $p = qz[(GCp) - q(GCpi)]$  VALUES FROM FIGURE 6-5 AND 6-11B
  - a) INTERNAL PRESSURE COEFFICIENT (GCpi): 0.18 (FULLY ENCLOSED)
  - b) ZONE 1 (FIELD) (GCp 1 = -1.00-0.18):.....25.93 PSF (-1.18) = -30.60 PSF
  - c) ZONE 2 (PERIMETER) (GCp 2 = -1.80-0.18):.....25.93 PSF (-1.98) = -51.34 PSF
  - d) ZONE 3 (SALIENT CORNERS) (GCp 3 = -2.80-0.18):.....25.93 PSF (-2.98) = -77.27 PSF

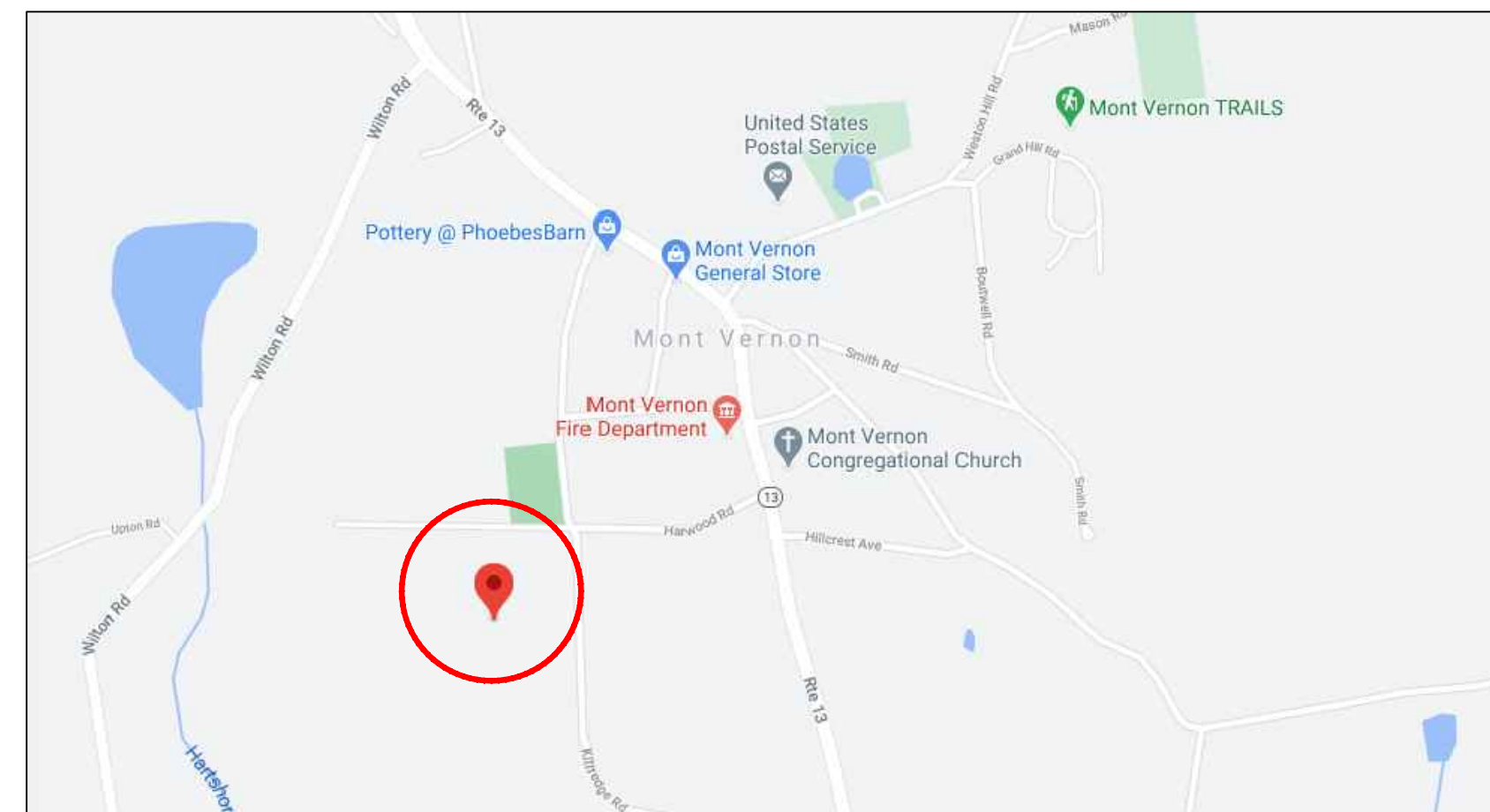
### GRAVITY DESIGN CRITERIA

- 1) 2015 INTERNATIONAL EXISTING BUILDING CODE
  - A) SECTION 101.5 COMPLIANCE METHOD: PRESCRIPTIVE METHOD - SEE CHAPTER 3 2009 IEBC
  - B) EXISTING STRUCTURAL ROOF SNOW LOAD:  $P_g = 30$  PSF PLUS DRIFT BASED ON SIMILAR BUILDINGS DESIGNED AT THE SAME TIME.
  - C) IEBC 303.3 EXISTING STRUCTURAL ELEMENTS CARRYING GRAVITY LOAD: ANY EXISTING GRAVITY LOAD-CARRYING STRUCTURAL ELEMENT FOR WHICH AN ALTERATION CAUSES AN INCREASE IN DESIGN GRAVITY LOAD MORE THAN 5 PERCENT SHALL BE STRENGTHENED, SUPPLEMENTED, REPLACED OR OTHERWISE ALTERED AS NEEDED TO CARRY THE INCREASED GRAVITY LOAD REQUIRED BY THE INTERNATIONAL BUILDING CODE FOR NEW STRUCTURES.
    - 1) EXISTING LOAD: 3.81 PSF
    - 2) NEW LOAD: 3.85 PSF
    - 3) INCREASE IN LOADING:  $3.85$  PSF -  $3.81$  PSF =  $+0.04$  PSF
    - 4) DESIGN LOAD (Pg): 30 PSF
    - 5) PERCENTAGE OF INCREASE:  $0.04$  PSF /  $30$  PSF =  $+0.13\% < +5\%$  ALLOWABLE

- EXISTING MAIN ROOF SYSTEM:
- i) 3 TAB SHINGLES: 3.50 PSF
  - ii) ICE AND WATER SHIELD: 0.31 PSF
  - iii) TOTAL EXISTING DEAD LOAD: 3.81 PSF

- PROPOSED MAIN ROOF SYSTEM:
- i) ARCHITECTURAL SHINGLES: 3.50 PSF
  - ii) UNDERLAYMENT: 0.04 PSF
  - iii) ICE AND WATER SHIELD: 0.31 PSF
  - iv) TOTAL DEAD LOAD OF NEW ASSEMBLY: 3.85 PSF
  - v) TOTAL DEAD LOAD OF EXISTING ASSEMBLY: 3.81 PSF
  - v) TOTAL SUPERIMPOSED DEAD LOAD:  $+0.04$  PSF

DRAWING INDEX	
SHEET NUMBER	SHEET DESCRIPTION
RP-1	Cover Sheet (D-Size)
RP-2	Roof Plan (D-Size)
RP-3	Roof Plan (A-Size)
RP-4	Roof Plan Notes (A-Size)
RP-5	Photo Page (A-Size)
RP-6	Code Compliance (A-Size)
D-1	Pipe Flashing (A-Size)
D-2	RIDGE LINE Vent (A-Size)
D-3	Eave and Soffit Detail(A-Size)
D-4	Rising Wall Flashing (A-Size)
D-5	HVAC Enclosure (A-Size)
D-6	Rake Detail (A-Size)
D-7	HVAC Platform (A-Size)
D-8	Building Joint (A-Size)
D-9	Vertical Surface (A-Size)
D-10	Sleeper Support (A-Size)
D-11	Gutter and Downspout (A-Size)



ARM Consultants LLC  
P.O. Box 411, 03056  
(603) 234-6030

#	DATE	BY	DESCRIPTION

PROJECT NAME: MONT VERNON SCHOOLS  
PROJECT ADDRESS: 300 GEORGE STREET  
MONT VERNON, NH

DRAWN BY: JCA  
DATE ISSUED: 11-19-2020  
SCALE: NTS  
(ON "D" SIZE PAPER)  
DRAWING: RP-1

SCHOOL ADMINISTRATIVE UNIT #39  
1 SCHOOL STREET  
AMHERST, NH 03031

DATE ISSUED: 11-19-2020

SCALE: NTS (ON "D" SIZE PAPER)

DRAWING: RP-1

PROJECT TITLE: CODE COMPLIANCE PAGE

SYMBOL LEGEND	
	Antenna
	Asbestos sample Black = negative RED = positive
	24x24x2 Conc. paver
	Condenser unit
	Curb to be Removed
	DEMOLITION NOTE
	Detail Marker
	Drain w/ or w/o sump
	DRAWING NOTE
	Equipment Fan
	Exp Joint or Change in Slope
	Fall Arrest Anchor
	Guard rail system
	Hot Stack
	Insulation Boards
	Overflow Drain
	Lightning Protection
	Picture Reference and Direction
	Pipe Penetration
	Piping or Duct Work
	Pitchpocket
	Roof Hatch
	RTU Curb
	Satellite Dish
	Scupper
	Skylight
	Sleeper
	Smoke Hatch
	Walkway pad
	"Whirly Bird" exhaust

STD HATCH PATTERNS:	
	RIGID BOARD INSULATION
	HIGH DENSITY INSULATION
	WOOD FIBER/PERLITE
	CONCRETE
	SEALANT/ CAULKING
	GYPSUM / DENS DECK
	PLYWOOD/ OSB
	BATT INSULATION
	MASONRY

STANDARD ABBREVIATIONS	
APPROX.	APPROXIMATELY
B.S.	BOTH SIDES
BUR.	BUILT UP ROOF
CL.	CENTER LINE
CONN.	CONNECTION
CONT.	CONTINUOUS
EL. OR ELEV.	ELEVATION
EPDM.	ETHYLENE-PROPYLENE-DIENE-MONOMER
L.C.C.	LEAD COATED COPPER
MAX.	MAXIMUM
MFR.	MANUFACTURER
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
O.C. OR OC	ON CENTER
POLY.	POLYISOCYANURATE
PVC.	POLYVINYL CHLORIDE
SIM.	SIMILAR
T.O.P.	TOP OF PARAPET
TPO.	THERMAL PLASTIC OLEFIN WITH
w/	WITH

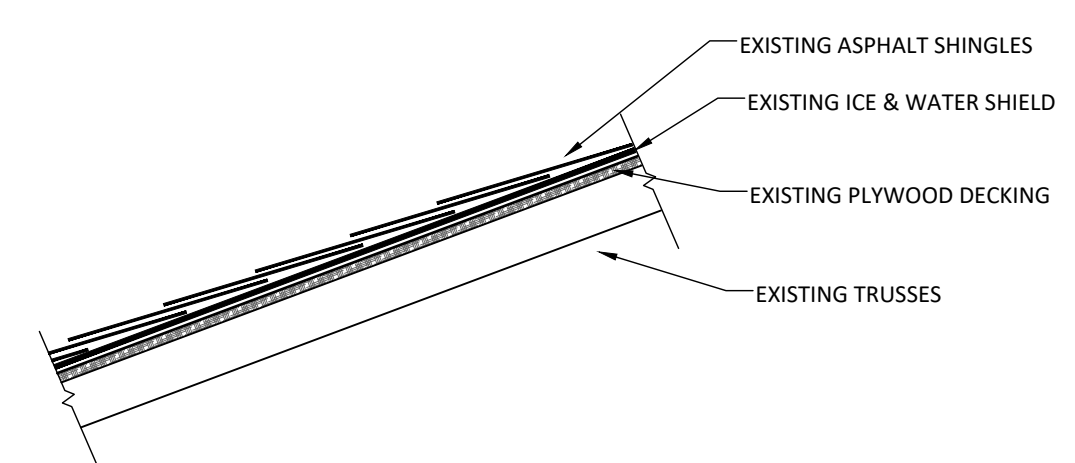
**DEMOLITION NOTES:**

- 1 BY HAND OR MECHANICAL MEANS, DEMOLISH AND REMOVE ANY DESIGNATED OBSOLETE EQUIPMENT, PENETRATIONS OR DEVICES. INSTALL NEW DECKING AND ROOFING AS DIRECTED IN THE SPECIFICATIONS.
- 2 **DO NOT** OVERLOAD STRUCTURE BY STORING DEMOLITION MATERIALS, ROOFING MATERIALS OR AGGREGATE. DISPERSE WEIGHT ON ROOF DECK.
- 3 REMOVE THE EXISTING SHINGLES AND UNDERLAYMENT. REMOVE ANY ICE & WATER SHIELD THAT IS LOOSE OR DETACHED.
- 4 REMOVE, STORE, AND REINSTALL THE EXISTING SIDING, TRIM, AND CORNERBOARDS WHERE REQUIRED. CONTRACTOR TO PROVIDE A MINIMUM OF 8" UP THE RISING WALLS. THE BUILDING IS TO BE KEPT WATERTIGHT DURING ALL PHASES OF CONSTRUCTION.
- 5 REMOVE AND REPLACE DAMAGED OR DETERIORATED SHADOW AND FASCIA BOARDS AS LISTED IN THE SPECIFICATION FOR ALL AREAS THAT ARE CURRENTLY DAMAGED OR DETERIORATED.
- 6 REMOVE BOTH LAYERS OF SOFFIT VENTS IN THEIR ENTIRETY, THIS MAY INVOLVE REMOVAL OF THE TRIM AND TOP LAYER OF SIDING TO GAIN ACCESS. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
- 7 REMOVE AND REINSTALL ALL HEAT TRACE WIRES ON ROOFS 4, 6 AND 11

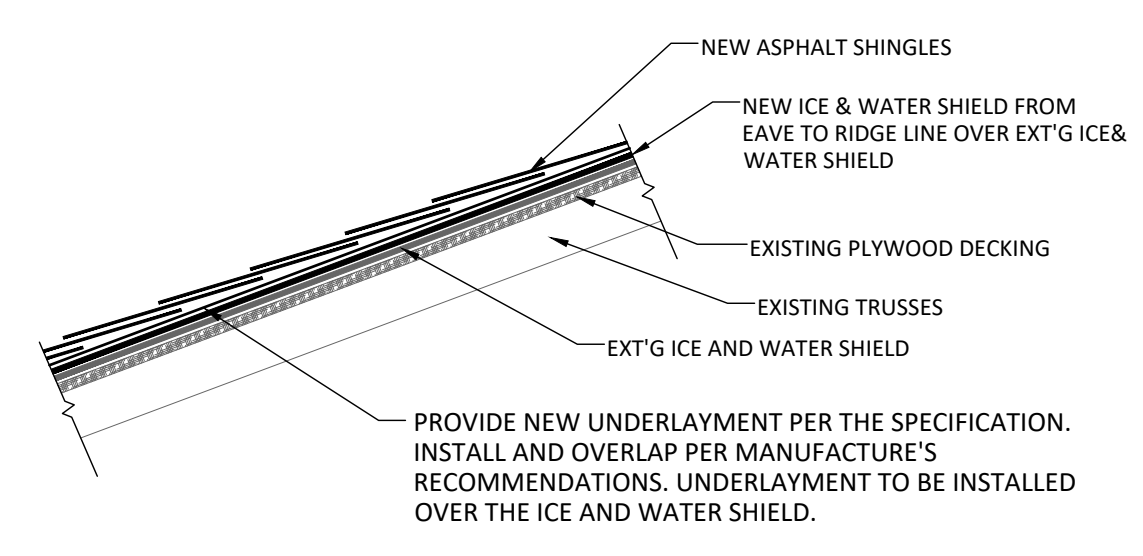
**DRAWING NOTES:**

- A. CERTAIN DETAILS MAY REQUIRE FIELD ADJUSTMENT OR MODIFICATIONS TO FIT IN A GIVEN SITUATION. AT SOME LOCATIONS A COMBINATION OF TWO OR MORE DETAILS ASSEMBLED TOGETHER OR RELATED SEPARATELY MAY BE REQUIRED.
- B. CLEAN, SCRAPE, WIRE BRUSH, PRIME AND PAINT, BY BRUSH, ALL EXPOSED NON-STRUCTURAL, NON-GALVANIZED STEEL (PLUMBING PIPES) THE COLOR SHALL BE AS SPECIFIED.
- C. CONTRACTOR ACCESS WILL BE VIA AN EXTERIOR LADDER. INTERIOR ACCESS WILL NOT BE PERMITTED.
- D. INSTALL A NEW, 100% COVERAGE, LAYER OF SYNTHETIC POLYMER BASED, SCRIM REINFORCED UNDERLAYMENT OVER NEW HIGH TEMPERATURE ICE & WATER SHIELD, AND THEN INSTALL NEW CERTAINTED SHINGLES AS SPECIFIED.
- E. ALL VALLEYS TO BE COPPER, UNLESS OTHER WISE NOTED. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR CUTTING, ALIGNING AND INSTALLING THESE SHINGLES.
- F. INSTALL NEW PROVIDE NEW CERTAINTED HIDDEN 3 1/3" VINYL PANEL IN COLONIAL WHITE OR APPROVED EQUAL AT ALL SOFFITS
- G. CONTRACTOR SHALL NOT ACCESS, STORE MATERIALS, TOOLS OR OTHER ITEMS ON ADJACENT ROOF AREAS. DO NOT USE AS A STAGING AREA OF ANY KIND.
- H. PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
- J. PROVIDE "IN-PLACE MOCKUP" OF ALL METAL FLASHING AND TERMINATIONS. PROVIDE AT LEAST ONE CORNER AND ONE JOINT FOR ALL CONDITIONS FOR APPROVAL. APPROVED MOCKUPS IN AN UNDISTURBED CONDITION AT THE TIME OF SUBSTANTIAL COMPLETION MAY BECOME PART OF THE COMPLETED WORK.
- K. ADDRESS RIDGE LINE CREATED BY BUILDING JOINT BELOW ROOF ON ROOFS 5 & 6 PER DETAILS. STAGGER ALL PLYWOOD REPAIRS.
- L. INVESTIGATE CAUSE OF RAISED RIDGE LINES IN ROOF 5 AND REPAIR WITH NEW DECKING, AND ROOFING AS REQUIRED.
- M. ALL RIDGE LINE VENTS SHALL BE CUT BACK SO THERE IS A MAXIMUM OF 12" AT EITHER END OF THE RIDGE LINE TO ENSURE PROPER VENTILATION. ADDITIONALLY VENT SPACE UNDER RIDGE VENT TO BE MIN 2" CLEAR, MAY REQUIRE CUTTING TO ACHIEVE.
- N. PROVIDE CRICKETS BEHIND ALL CURBS OR OTHER ROOF STRUCTURES GREATER THAN 18" WIDE
- P. PROVIDE NEW SLEEPERS FOR ANTENNA MOUNTS

Mont Vernon Squarefootage		
Roof		SQFT
Roof 1		548
Roof 2		482
Roof 3		548
Roof 4		482
Roof 5		7840
Roof 6		7173
Roof 7		949
Roof 8		949
Roof 9		2635
Roof 10		2595
Roof 11		3151
Roof 12		3303
Roof 13		153
Roof 14		153
Roof 15		1130
Roof 16		1185
Roof 17		1788
Roof 18		255
Roof 19		2700
Roof 20		222
Roof 21		3868
Roof 22		3868
TOTAL		45977

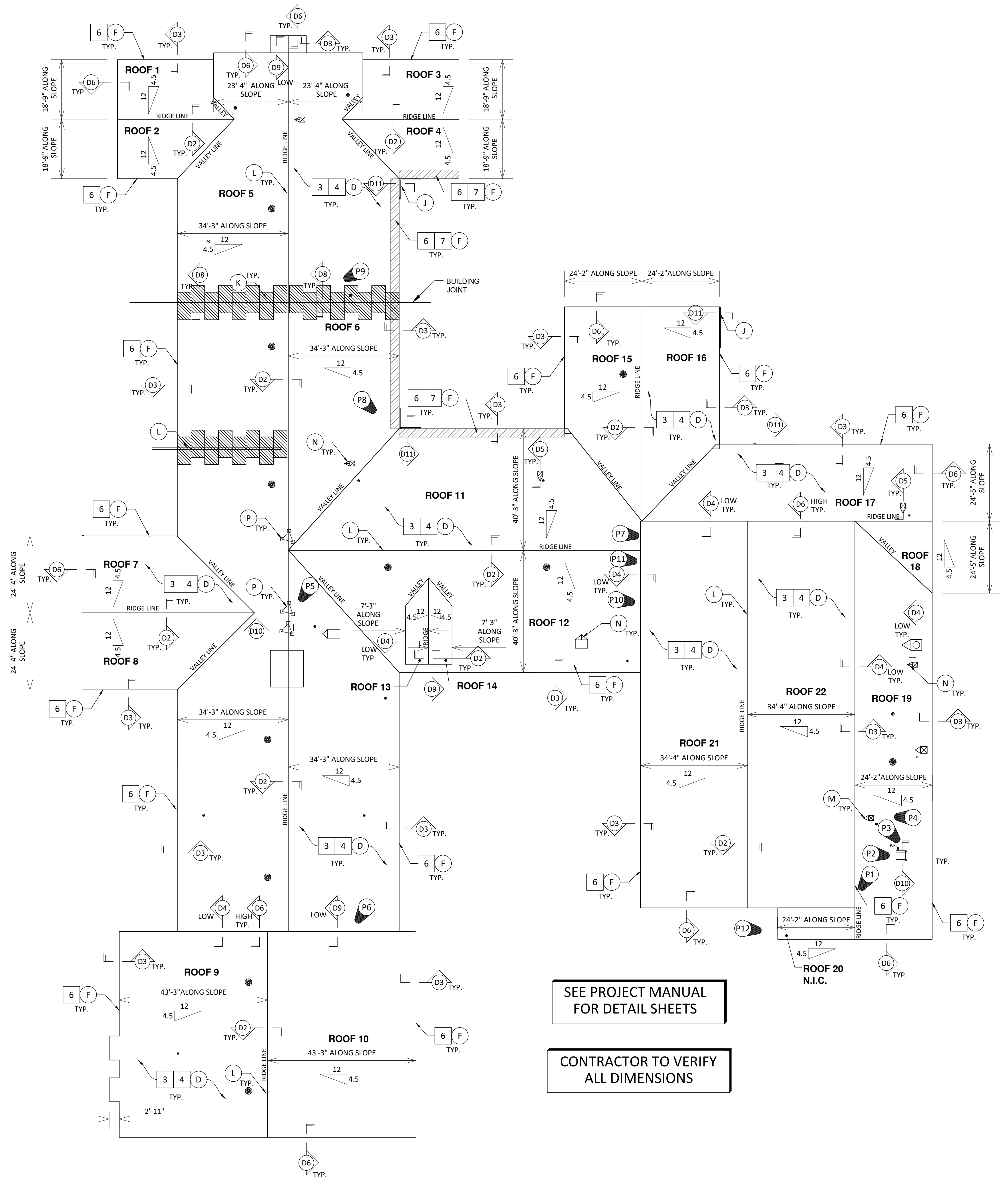


**EXISTING ROOF SYSTEM**



**PROPOSED ROOF SYSTEM**

**EXISTING CROSS SECTION INFORMATION IS BASED ON LIMITED TEST CUTS. INFORMATION SHOULD BE CONSIDERED RANDOM SAMPLES AND VERIFIED BY THE CONTRACTOR IN THE FIELD.**



**ARM**  
ARM Consultants LLC  
P.O. Box 4  
Chester, NH 03036  
(603) 251-6026

#	DATE	BY	DESCRIPTION

**SCHOOL ADMINISTRATIVE UNIT #39**

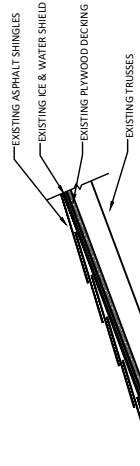
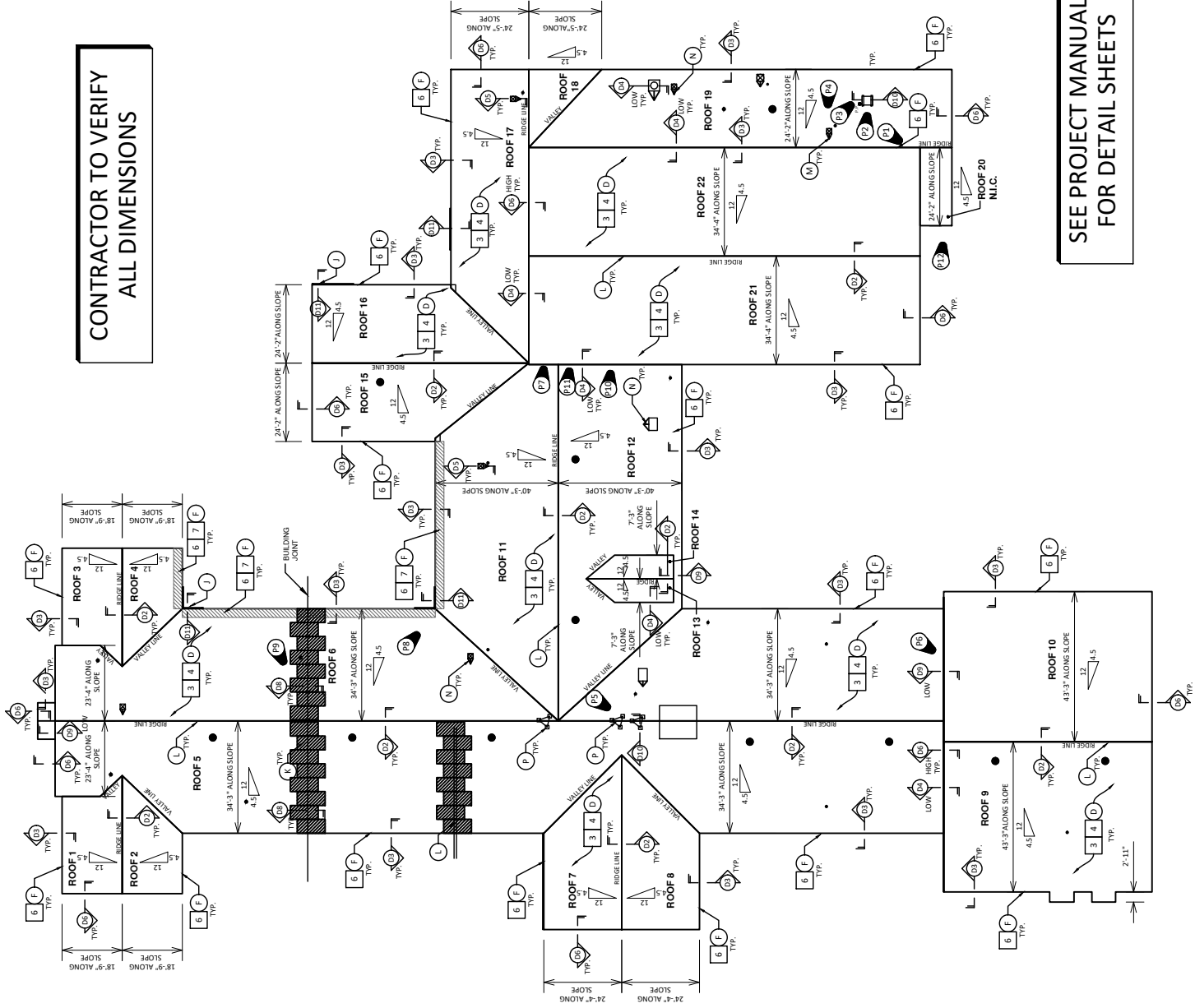
**MONT VERNON SCHOOLS**  
300 GEORGE STREET  
NEW HAVEN, CT

**ROOF PLAN**

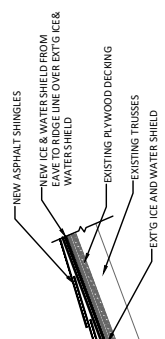
DRAWN BY: JCA  
CHECKED BY: TEA  
DATE TESTED: 11-19-2020  
SCALE: 1/16" = 1'-0"  
(ON "D" SIZE PAPER)  
DRAWING: **RP-2**

CONTRACTOR TO VERIFY  
ALL DIMENSIONS

SEE PROJECT MANUAL  
FOR DETAIL SHEETS



**EXISTING ROOF SYSTEM**



PROVIDE NEW UNDERLAYMENT PER THE SPECIFICATION.  
INSTALL AND OVERLAP PER MANUFACTURER'S  
RECOMMENDATIONS. UNDERLAYMENT TO BE INSTALLED  
OVER THE ICE AND WATER SHIELD.

**PROPOSED ROOF SYSTEM**

**EXISTING CROSS SECTION INFORMATION  
IS BASED ON LIMITED TEST CUTS.  
INFORMATION SHOULD BE CONSIDERED  
RANDOM SAMPLES AND VERIFIED BY THE  
CONTRACTOR IN THE FIELD.**

Mont Vernon Squarefootage	
Roof	SQFT
Roof 1	548
Roof 2	482
Roof 3	548
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Roof 5	7840
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Roof 11	3151
Roof 12	3303
Roof 13	153
Roof 14	153
Roof 15	1130
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Roof 17	1788
Roof 18	255
Roof 19	2700
Roof 20	222
Roof 21	3868
Roof 22	3868
<b>TOTAL</b>	<b>45977</b>



ARM Consultants LLC  
P.O. Box 4  
Chester, NH 03036  
(603) 234 6030

PROJECT NAME:  
**MONT VERNON SCHOOLS**

PROJECT LOCATION:  
**1 KITTEREDGE ROAD  
MONT VERNON, NH**

SHEET TITLE:  
**ROOF PLAN**

DATE:  
11-19-2020

DRAWN BY:  
JCA

CHECKED BY:  
TEA

#	DATE	BY	DESCRIPTION

SCALE:  
NTS

DRAWING NO.:

**RP-3**

**DRAWING NOTES:**

A. CERTAIN DETAILS MAY REQUIRE FIELD ADJUSTMENT OR MODIFICATIONS TO FIT IN A GIVEN SITUATION. AT SOME LOCATIONS A COMBINATION OF TWO OR MORE DETAILS ASSEMBLED TOGETHER OR RELATED SEPARATELY MAY BE REQUIRED.

B. CLEAN, SCRAPE, WIRE BRUSH, PRIME AND PAINT, BY BRUSH, ALL EXPOSED NON-STRUCTURAL, NON-GALVANIZED STEEL (PLUMBING PIPES) THE COLOR SHALL BE AS SPECIFIED.

C. CONTRACTOR ACCESS WILL BE VIA AN EXTERIOR LADDER. INTERIOR ACCESS WILL NOT BE PERMITTED.

D. INSTALL A NEW, 100% COVERAGE; LAYER OF SYNTHETIC POLYMER BASED, SCRIM REINFORCED UNDERLAYMENT OVER NEW HIGH TEMPERATURE ICE & WATER SHIELD AND THEN INSTALL NEW CERTAINTED SHINGLES AS SPECIFIED.

E. ALL VALLEYS TO BE COPPER, UNLESS OTHERWISE NOTED. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR CUTTING, ALIGNING AND INSTALLING THESE SHINGLES.

F. INSTALL NEW PROVIDE NEW CERTAINTED HIDDEN 3 1/3" VINYL PANEL IN COLONIAL WHITE OR APPROVED EQUAL AT ALL SOFFITS

G. CONTRACTOR SHALL NOT ACCESS, STORE MATERIALS, TOOLS OR OTHER ITEMS ON ADJACENT ROOF AREAS. DO NOT USE AS A STAGING AREA OF ANY KIND.

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J. PROVIDE "IN-PLACE MOCKUP" OF ALL METAL FLASHING AND TERMINATIONS. PROVIDE AT LEAST ONE CORNER AND ONE JOINT FOR ALL CONDITIONS FOR APPROVAL. APPROVED MOCKUPS IN AN UNDISTURBED CONDITION AT THE TIME OF SUBSTANTIAL COMPLETION MAY BECOME PART OF THE COMPLETED WORK.

K. ADDRESS RIDGE LINE CREATED BY BUILDING JOINT BELOW ROOF ON ROOFS 5 & 6 PER DETAILS. STAGGER ALL PLYWOOD REPAIRS.

L. INVESTIGATE CAUSE OF RAISED RIDGE LINES IN ROOF 5 AND REPAIR WITH NEW DECKING, AND ROOFING AS REQUIRED.

M. ALL RIDGE LINE VENTS SHALL BE CUT BACK SO THERE IS A MAXIMUM OF 12" AT EITHER END OF THE RIDGE LINE TO ENSURE PROPER VENTILATION. ADDITIONALLY VENT SPACE UNDER RIDGE VENT TO BE MIN 2" CLEAR, MAY REQUIRE CUTTING TO ACHIEVE.

N. PROVIDE CRICKETS BEHIND ALL CURBS OR OTHER ROOF STRUCTURES GREATER THAN 18" WIDE

P. PROVIDE NEW SLEEPERS FOR ANTENNA MOUNTS

**DEMOLITION NOTES:**

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2 DO NOT OVERLOAD STRUCTURE BY STORING DEMOLITION MATERIALS, ROOFING MATERIALS OR AGGREGATE. DISPERSE WEIGHT ON ROOF DECK.

3 REMOVE THE EXISTING SHINGLES AND UNDERLAYMENT. REMOVE ANY ICE & WATER SHIELD THAT IS LOOSE OR DETACHED.

4 REMOVE, STORE, AND REINSTALL THE EXISTING SIDING, TRIM, AND CORNERBOARDS WHERE REQUIRED. CONTRACTOR TO PROVIDE A MINIMUM OF 8" UP THE RISING WALLS. THE BUILDING IS TO BE KEPT WATERTIGHT DURING ALL PHASES OF CONSTRUCTION.

5 REMOVE AND REPLACE DAMAGED OR DETERIORATED SHADOW AND FASCIA BOARDS AS LISTED IN THE SPECIFICATION FOR ALL AREAS THAT ARE CURRENTLY DAMAGED OR DETERIORATED.

6 REMOVE BOTH LAYERS OF SOFFIT VENTS IN THEIR ENTIRETY, THIS MAY INVOLVE REMOVAL OF THE TRIM AND TOP LAYER OF SIDING TO GAIN ACCESS. THIS WORK SHALL BE INCLUDED IN THE BASE BID.

7 REMOVE AND REINSTALL ALL HEAT TRACE WIRES ON ROOFS 4, 6 AND 11



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Chester, NH 03036  
(603) 234 6030

PROJECT NAME:

**MONT VERNON SCHOOLS**

PROJECT LOCATION:

1 KITTEREDGE ROAD  
MONT VERNON, NH

DATE:

11-19-2020

SHEET TITLE:

**ROOF PLAN NOTES**

DRAWN BY:

JCA

CHECKED BY:

TEA

#	DATE	BY	DESCRIPTION

SCALE:

NTS

DRAWING NO.:

**RP-4**





P1: REMOVE BOTH SOFFIT LEVELS PER THE PLANS AND SPECIFICATIONS.



P2: REMOVE THE EXISTING PLATFORM AND REPLACE WITH 2, LEVEL, SLEEPERS.



P3: PROVIDE NEW PITCH POCKET. STRIP IN THE TOPS AND SIDE LIKE A PLUMBING VENT FLASHING.



P4: REMOVE, STORE AND REINSTALL ALL CURB WRAPS. PROVIDE NEW WRAPS AROUND CURBS WHERE WRAPS ARE NOT CURRENTLY INSTALLED.



P5: REMOVE STORE AND REINSTALL THE BALLAST SYSTEM. PROVIDE NEW 12"x12" SLEEPER "PADS" UNDER ALL SUPPORTS FASTENED TO THE ROOF AREA.



P6: REMOVE ALL TRIM METAL IN THIS AREA TO RUN THE ICE AND WATER SHIELD UP AND OVER THIS TRANSITION. INSTALL NEW EDGE METAL WHEN COMPLETE.



P7: REMOVE, STORE AND REINSTALL THE EXISTING TRIM BOARDS. REMOVE ALL NAILS AND OTHER FASTENERS. REUTILIZE THE SAME HOLES WITH FASTEN MASTER CORTEX TRIM SCREWS AND COLOR MATCH PLUGS.



P8: REMOVE, STORE AND REINSTALL THE HEAT TRACE CABLES IN THE SAME LOCATIONS AS CURRENTLY COVERED.



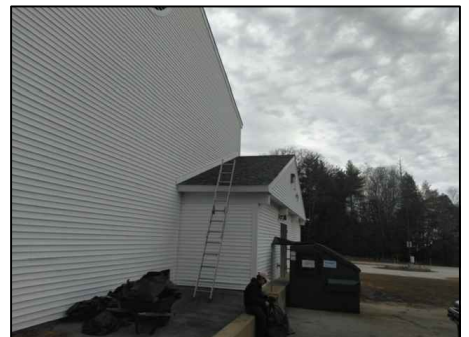
P9: TRANSITION IN PLYWOOD HEIGHT. THE SHINGLE SHOWN VERTICAL WAS USED AS A SHIM TO EVEN OUT THE HEIGHT OF THE SHINGLES. PROVIDE NEW PLYWOOD PER THE DETAIL DRAWINGS.



P10: THE TRIM SHALL BE REINSTALLED WITH OVERLAPPING SCARF CUTS AND MATERIAL COMPATIBLE GLUES.



P11: THE SIDING SHALL BE REINSTALLED WITH ALL CLIPS ENGAGED. AREAS OF DAMAGED SIDING SHALL BE REPAIRED.



P12: THIS PORTION OF THE ROOF WAS COMPLETED AS A REPAIR IN NOVEMBER 2020 AND WILL BE INCLUDED IN THE WARRANTY.



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PROJECT NAME:

**MONT VERNON SCHOOLS**

PROJECT LOCATION:

1 KITTEREDGE ROAD  
MONT VERNON, NH

SHEET TITLE:

PHOTO PAGE

DATE:

11-19-2020

DRAWN BY:

JCA

CHECKED BY:

TEA

#	DATE	BY	DESCRIPTION

SCALE:

NTS

DRAWING NO.:

**RP-5**

# MONT VERNON ELEMENTARY

1 KITTREDGE RD.  
MONT VERNON, NH 03057

**BUILDING CODE REFERENCES**

- 2015 INTERNATIONAL BUILDING CODE
- 2015 INTERNATIONAL MECHANICAL AND ELECTRICAL PLUMBING CODE
- CHAPTER 3A OF THE 2009 IBC TITLED EXISTING BUILDING AND STRUCTURES HAS BEEN DELETED IN ITS ENTIRETY. THE PROVISIONS OF THE INTERNATIONAL EXISTING BUILDING CODE PROVISIONS SHALL CONTROL THE ALTERATION REPAIR AND ADDITION TO AN EXISTING BUILDING.
- IBC DEFINITIONS: CHAPTER 5 REPAIRS:
- EXISTING MATERIALS (502.1): MATERIALS ALREADY IN USE IN A BUILDING IN COMPLIANCE WITH REQUIREMENTS OR APPROVALS IN EFFECT AT THE TIME OF THEIR ERECTION OR INSTALLATION SHALL REMAIN IN USE UNLESS DETERMINED BY THE BUILDING OFFICIAL TO BE UNSAFE PER SECTION 115.

NEW AND REPLACEMENT MATERIALS (502.2): EXCEPT AS OTHERWISE REQUIRED OR PERMITTED BY THIS CODE, MATERIALS PERMITTED BY THE APPLICABLE CODE FOR NEW CONSTRUCTION SHALL BE USED. LIKE MATERIALS SHALL BE PERMITTED FOR REPAIRS AND ALTERATIONS, PROVIDED NO WEAKENING OF THE STRUCTURE OR THE BUILDING OCCURS. MATERIALS SHALL BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

DANGEROUS (SECTION 202 GENERAL DEFINITIONS): ANY BUILDING, STRUCTURE OR PORTION THEREOF THAT MEETS ANY OF THE CONDITIONS DESCRIBED BELOW SHALL BE DEEMED DANGEROUS:

- THE BUILDING OR STRUCTURE HAS COLLAPSED, HAS PARTIALLY COLLAPSED, HAS MOVED OFF ITS FOUNDATION, OR LACKS THE NECESSARY SUPPORT OF THE GROUND.
- THERE EXISTS A SIGNIFICANT RISK OF COLLAPSE, DETACHMENT, OR DISLODGE OF ANY PORTION, MEMBER, APPLURANCE OR ORNAMENTATION OF THE BUILDING OR STRUCTURE UNDER SERVICE LOADS.

**ROOF WIND UPLIFT DESIGN PRESSURE**

- METHOD A - 2015 IBC & ASCE 7-05
  - CLASSIFICATION: ALTERATION
  - OCCUPANCY CLASS: TYPE II
  - SECTION 6.5.1 ASCE 7-05 (METHOD 2)
    - BASIC WIND SPEED: 105 MPH
    - EXPOSURE CATEGORY: B
    - EXPOSURE CATEGORY: C: EXPOSURE FACTOR (Kz): 0.94
    - DIRECTIONALITY FACTOR (Kd): 0.85
    - IMPORTANCE FACTOR (I): 1.15
    - TOPOGRAPHIC FACTOR (Kt): 1.00
    - VELOCITY CONSTANT: 0.00256
    - VELOCITY PRESSURE (qs): 20.0 psf (qs = 0.00256 Kz Kd I Kt V^2)
    - qs = 0.00256(0.94)(1.00)(0.85)(1.15)^2(1.00)^2(105)^2 = 25.93 PSF

**D) UPLIFT DESIGN WIND PRESSURE**

- BUILDING WIDTH (W): 31'-2"
- BUILDING HEIGHT (H): 15'-0"
- WIND DIRECTION: 17-0-48 (USE EQUATION 6.29 PER SECTION 6.5.12.4.3)
- EQUATION 6.22:  $p = q(GCp) - q(GZI)$  VALUES FROM FIGURE 6-2 AND 6-11B
  - INTERNAL PRESSURE COEFFICIENT (GCp): 0.18 (FULLY ENCLOSED)
  - ZONE 1 (FIELD) (GZI) = 1.00-0.18: ..... 25.93 PSF (-1.18) = -30.60 PSF
  - ZONE 2 (PERIMETER) (GZI) = 1.80-0.18: ..... 25.93 PSF (-1.98) = -51.34 PSF
  - ZONE 3 (SALIENT CORNERS) (GZI) = 2.80-0.18: ..... 25.93 PSF (-2.98) = -77.27 PSF

**GRAVITY DESIGN CRITERIA**

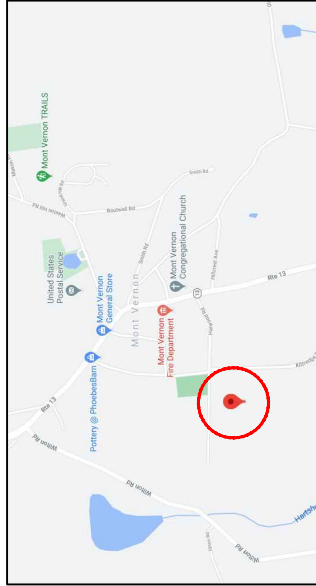
- 2015 INTERNATIONAL EXISTING BUILDING CODE
  - SECTION 101.5 COMPLIANCE METHOD: PRESCRIPTIVE METHOD - SEE CHAPTER 3 2009 IBC
  - EXISTING STRUCTURAL ROOF SNOW LOAD: Ps = 30 PSF PLUS DRIFT BASED ON SIMILAR BUILDINGS DESIGNED AT THE SAME TIME
- IBC 303.2 EXISTING STRUCTURAL ELEMENTS CARRYING GRAVITY LOAD: ANY EXISTING STRUCTURE SHALL BE EVALUATED TO DETERMINE IF IT IS CAPABLE OF CARRYING AN INCREASED DESIGN GRAVITY LOAD MORE THAN 5 PERCENT SHALL BE STRENGTHENED, SUPPLEMENTED, REPLACED OR OTHERWISE ALTERED AS NEEDED TO CARRY THE INCREASED GRAVITY LOAD REQUIRED BY THE INTERNATIONAL BUILDING CODE FOR NEW STRUCTURES.
  - EXISTING LOAD: 3.81 PSF
  - NEW LOAD: 3.86 PSF
  - PERCENTAGE OF INCREASE: 0.04 PSF / 30 PSF = +0.13% < +5% ALLOWABLE
  - DESIGN LOAD (Pd): 30 PSF

**EXISTING MAIN ROOF SYSTEM:**

- 2 TAB SHINGLES: 3.80 PSF
- 1" INSULATION: 0.31 PSF
- TOTAL EXISTING DEAD LOAD: 3.81 PSF

**PROPOSED MAIN ROOF SYSTEM:**

- ARCHITECTURAL SHINGLES: 3.50 PSF
- UNDERLAYER: 0.31 PSF
- 1" INSULATION: 0.31 PSF
- TOTAL DEAD LOAD OF NEW ASSEMBLY: 3.85 PSF
- TOTAL DEAD LOAD OF EXISTING ASSEMBLY: 3.81 PSF
- TOTAL SUPERIMPOSED DEAD LOAD: +0.04 PSF



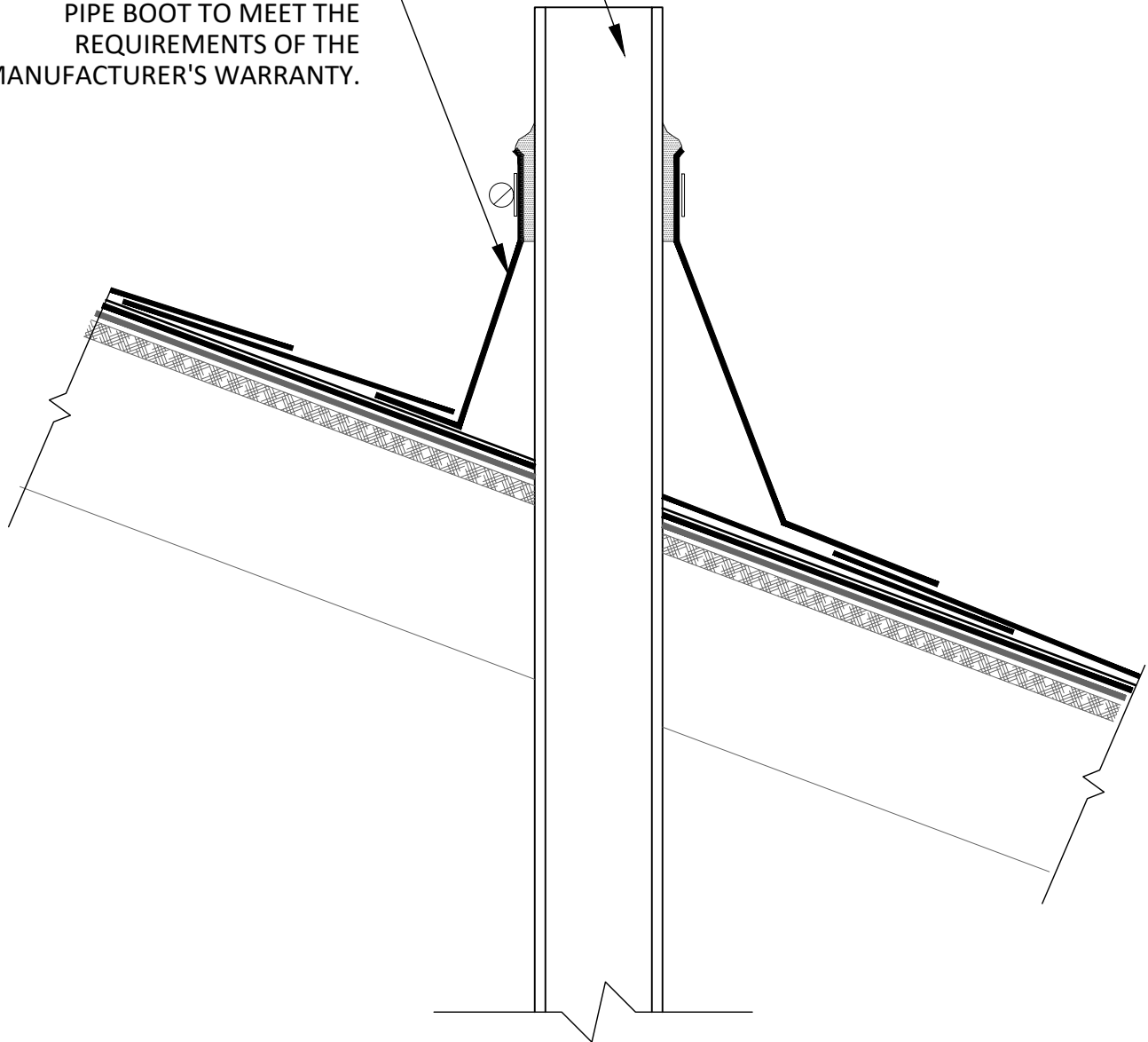
DRAWING INDEX	
SHEET NUMBER	SHEET DESCRIPTION
RP-1	Cover Sheet (D-Size)
RP-2	Roof Plan (D-Size)
RP-3	Roof Plan (A-Size)
RP-4	Roof Plan Notes (A-Size)
RP-5	Photo Page (A-Size)
RP-6	Code Compliance (A-Size)
D-1	Pipe Flashing (A-Size)
D-2	RIDGE LINE Vent (A-Size)
D-3	Eave and Soffit Detail (A-Size)
D-4	Rising Wall Flashing (A-Size)
D-5	HVAC Enclosure (A-Size)
D-6	Rake Detail (A-Size)
D-7	HVAC Platform (A-Size)
D-8	Building Joint (A-Size)
D-9	Vertical Surface (A-Size)
D-10	Sleeper Support (A-Size)
D-11	Gutter and Downspout (A-Size)

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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>	#	DATE	BY	DESCRIPTION	SCALE: NTS
PROJECT LOCATION: 1 KITTREDGE ROAD MONT VERNON, NH		11-19-2020			DRAWING NO.:
SHEET TITLE: <b>CODE COMPLIANCE</b>	DRAWN BY: JCA	CHECKED BY: TEA			<b>RP-6</b>

CLEAN THE EXPOSED PIPE AND  
PAINT PER THE SPECIFICATION.  
TYPICAL.

NEW PRE-MANUFACTURED  
PIPE BOOT TO MEET THE  
REQUIREMENTS OF THE  
MANUFACTURER'S WARRANTY.



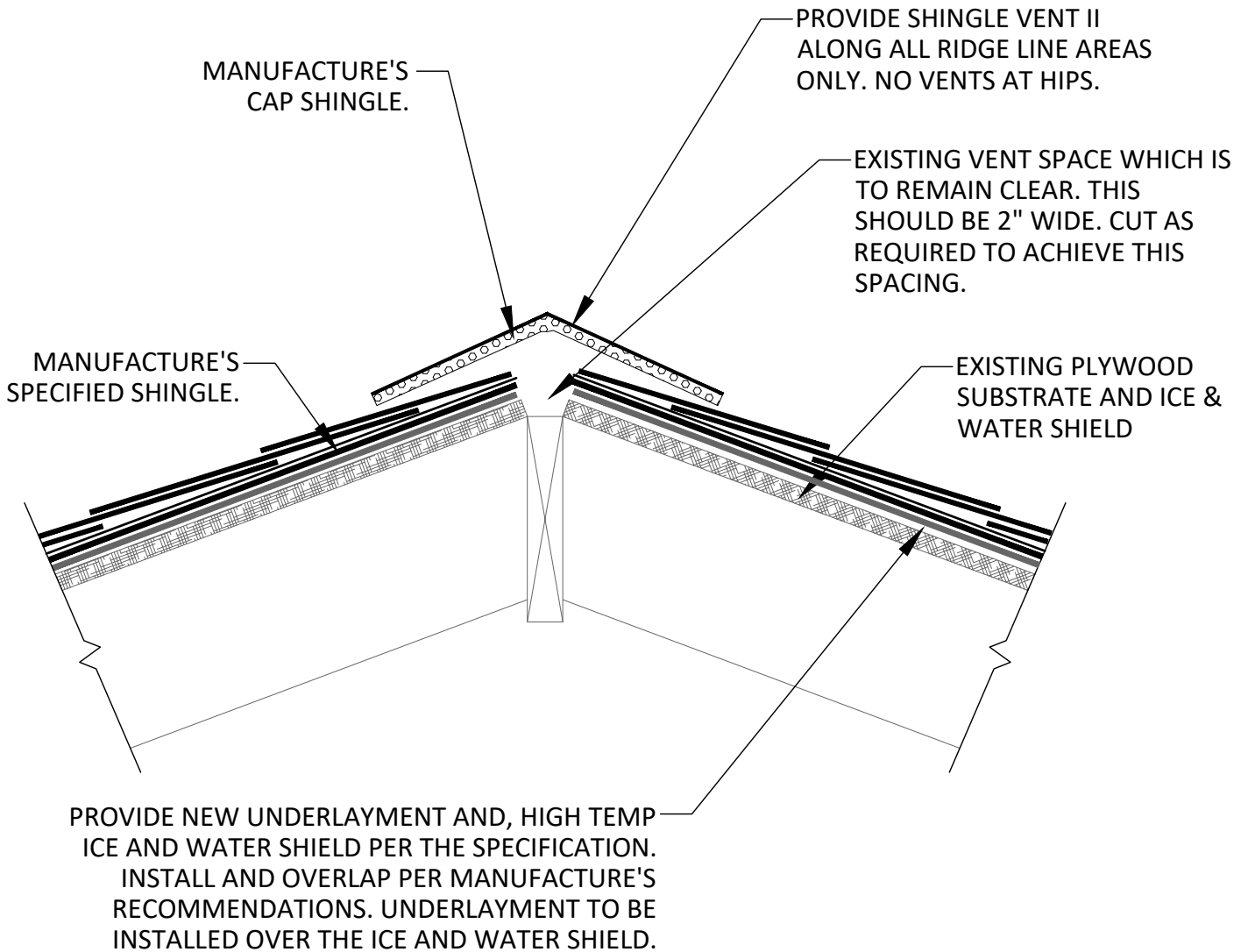
**NOTE:**

1. PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
2. PROVIDE ICE AND WATER SHIELD AROUND THE TOP AND SIDES OF THE FLANGE OF THE BOOT.



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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH						DRAWING NO.:
SHEET TITLE: <b>PIPE FLASHING</b>			DATE: 11-19-2020			<b>D-1</b>
DRAWN BY: JCA	CHECKED BY: TEA					



**NOTES:**

- 1.) PROVIDE UNDERLAYMENT OVER ENTIRE ROOF AREA. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS.
- 2.) ALL RIDGE LINE VENTS SHALL BE CUT BACK SO THERE IS A MAXIMUM OF 12" AT EITHER END OF THE RIDGE LINE TO ENSURE PROPER VENTILATION. ADDITIONALLY VENT SPACE UNDER RIDGE VENT TO BE MIN 2" CLEAR, MAY REQUIRE CUTTING TO ACHIEVE.



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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH			11-19-2020			DRAWING NO.:
SHEET TITLE: RIDGE LINE VENT		DRAWN BY: JCA	CHECKED BY: TEA			<b>D-2</b>

PROVIDE NEW UNDERLAYMENT AND NEW HIGH TEMP ICE AND WATER SHIELD PER THE SPECIFICATION. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS. UNDERLAYMENT TO BE INSTALLED OVER THE ICE AND WATER SHIELD.

MANUFACTURE'S STARTER SHINGLE.

.032. KYNAR FINISH ALUMINUM DRIP EDGE. COLOR TO MATCH EXT'G TRIM METAL. STRIP IN TOP WITH 6" DETAIL TAPE OR ICE AND WATER SHIELD.

EXISTING ALUM. FLASHING TO REMAIN. REPAIR IF REQ'D.

NEW CERTAINTED HIDDEN 3 1/3" VINYL PANEL IN COLONIAL WHITE OR APPROVED EQUAL.

EXISTING PLYWOOD SUBSTRATE AND ICE & WATER SHIELD

NOTES:

- 1.) PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
- 2.) STRIP IN THE ENTIRE LENGTH OF THE DRIP EDGE TO THE ICE AND WATER SHIELD WITH 6" WIDE ICE AND WATER SHIELD.



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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH			11-19-2020			DRAWING NO.:
SHEET TITLE: EAVE AND SOFFIT DETAIL		DRAWN BY: JCA	CHECKED BY: TEA			<b>D-3</b>

EXISTING BUILDING WRAP (VAPOR BARRIER) TO OVER LAP NEW ICE AND WATER SHIELD A MINIMUM OF 6".

NEW ICE AND WATER SHIELD TO EXTEND UP FROM THE ROOF A MINIMUM OF 1'-2". REMOVE, STORE AND REINSTALL THE EXISTING CLAPBOARDS TO FACILITATE THIS AS REQUIRED.

NEW 6" STRIP OF ICE AND WATER SHIELD TO STRIP IN THE NEW COUNTER FLASHING.

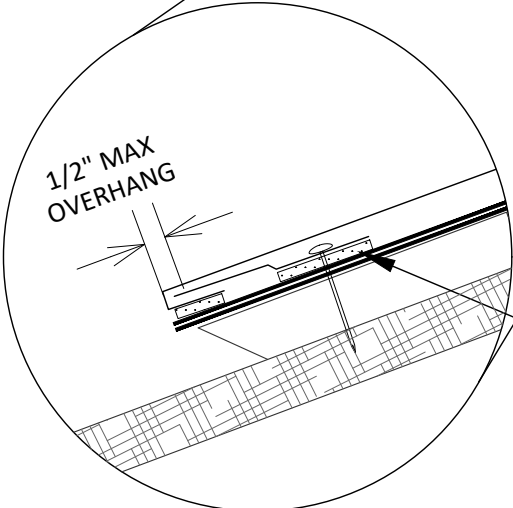
NEW .040 KYNAR FINISHED ALUM. FLASHING VERTICAL LEG = 4". OVERLAP SEAMS 6" MIN. AND SET IN SEALANT. NAILS @16"oc INTO STUDS.

NEW .050 KYNAR FINISHED 4" WIDE, ALUM, CONT. SET IN SEALANT. NAIL WITHIN 3" OF BOTTOM.

NEW 5 1/8" x 3/4" COR-A-VENT ROOF-2-WALL VENT OR APPROVED EAQUAL

PROVIDE NEW UNDERLAYMENT AND, ICE AND WATER SHIELD PER THE SPECIFICATION. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS. UNDERLAYMENT TO BE INSTALLED OVER THE ICE AND WATER SHIELD.

PROVIDE A 2 1/2" MIN GAP



INSTALL CONT. SEALANT TAPE BETWEEN NEW METAL AND NEW SHINGLE.

**NOTE:**

1. PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.



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PROJECT NAME:

**MONT VERNON SCHOOLS**

PROJECT LOCATION:

1 KITTEREDGE ROAD  
MONT VERNON, NH

DATE:

11-19-2020

SHEET TITLE:

**RISING WALL FLASHING**

DRAWN BY:

JCA

CHECKED BY:

TEA

#	DATE	BY	DESCRIPTION

SCALE:

2" = 1'-0"

DRAWING NO.:

**D-4**

NEW .040 KYNAR FINISH ALUM  
ENCLOSURE AROUND HVAC DUCT

RUN ICE AND WATER SHIELD UP SIDE  
OF DUCT 6" MIN.

NEW .050 KYNAR FINISHED 4" WIDE, ALUM,  
CONT. SET IN SEALANT. NAIL WITHIN 3" OF  
BOTTOM.

NEW .040 KYNAR FINISH COUNTER  
FLASHING IN DARK BRONZE. VERTICAL  
LEG = 4", HORIZONTAL LEG = 6".  
OVERLAP SEAMS 6" MIN. AND SET IN  
SEALANT. NAILS @16"oc INTO STUDS.


MANUFACTURE'S  
SPECIFIED SHINGLE.

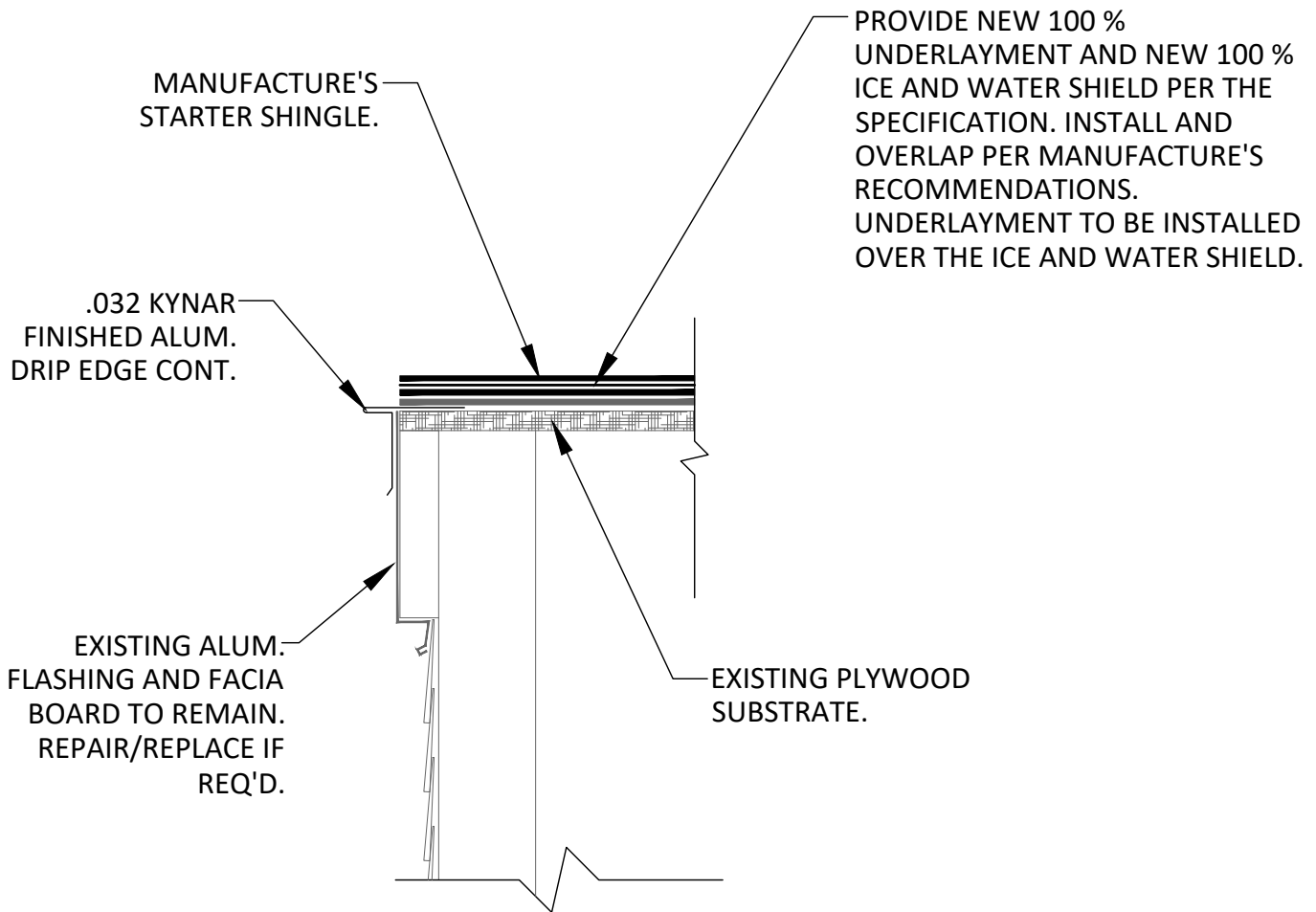
NEW .050 KYNAR FINISHED 4" WIDE, ALUM,  
CONT. SET IN SEALANT. NAIL WITHIN 3" OF  
BOTTOM. SEE DETAIL D-4 FOR ADDITIONAL INFO

PROVIDE NEW UNDERLAYMENT AND NEW ICE  
AND WATER SHIELD PER THE SPECIFICATION.  
INSTALL AND OVERLAP PER MANUFACTURE'S  
RECOMMENDATIONS. UNDERLAYMENT TO BE  
INSTALLED OVER THE ICE AND WATER SHIELD.

**NOTE:**

1. PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.

 <p>ARM Consultants LLC P.O. Box 4 Chester, NH 03036 (603) 234 6030</p>	PROJECT NAME:	MONT VERNON SCHOOLS			#	DATE	BY	DESCRIPTION	SCALE:	2" = 1'-0"
	PROJECT LOCATION:	1 KITTEREDGE ROAD MONT VERNON, NH							DRAWING NO.:	
	SHEET TITLE:	DUCT ENCLOSURE							D-5	
		DRAWN BY:	JCA	CHECKED BY:	TEA					



NOTES:

- 1.) PROVIDE UNDERLAYMENT OVER ENTIRE ROOF AREA INCLUDING ALL ICE AND WATER SHIELD LOCATIONS. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS.
- 2.) PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
- 3.) STRIP IN THE ENTIRE LENGTH OF THE DRIP EDGE TO THE ICE AND WATER SHIELD WITH 6" WIDE ICE AND WATER SHIELD.

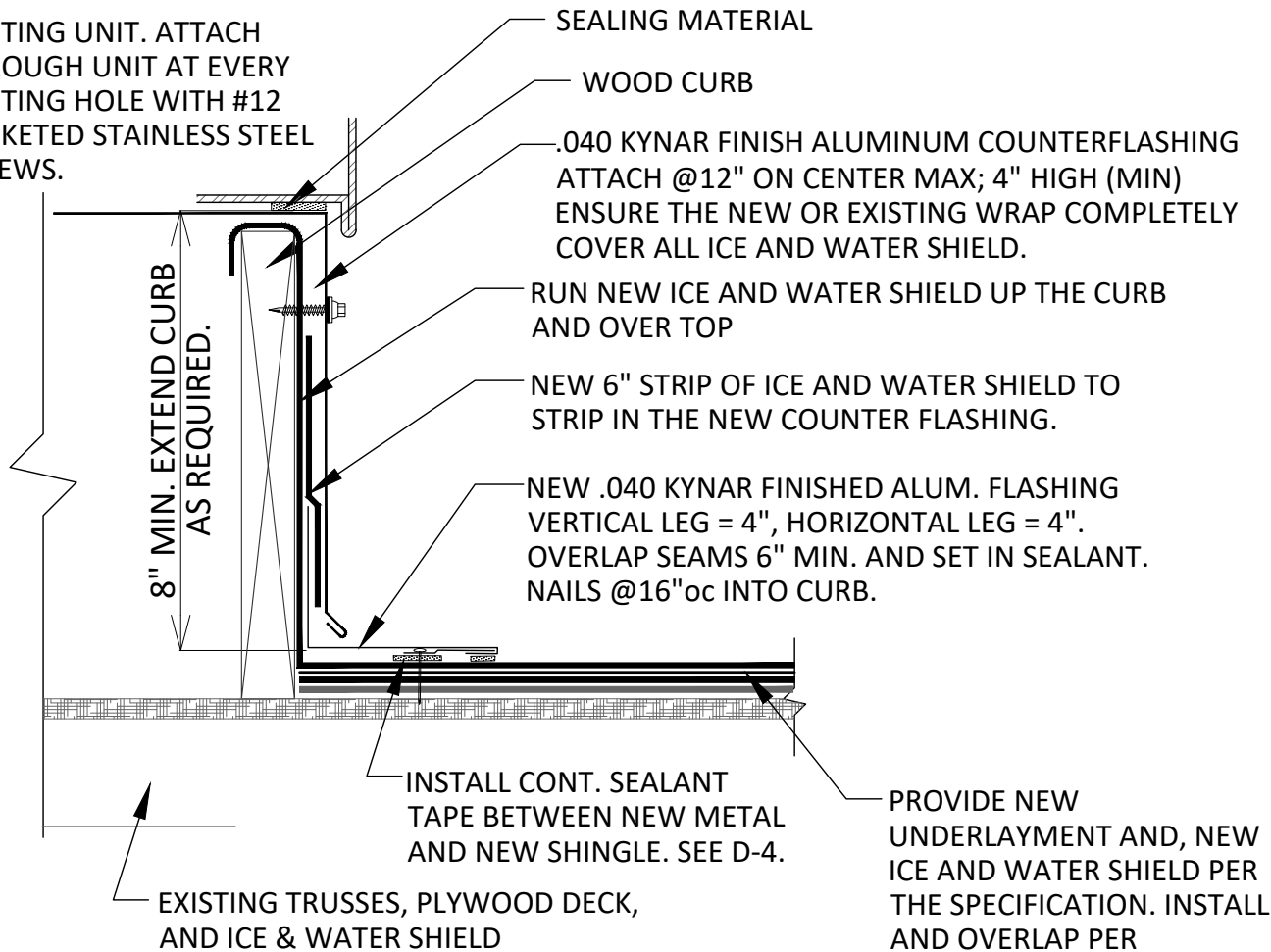


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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH						DRAWING NO.:
DATE: 11-19-2020						<b>D-6</b>
SHEET TITLE: RAKE DETAIL		DRAWN BY: JCA	CHECKED BY: TEA			



EXISTING UNIT. ATTACH THROUGH UNIT AT EVERY EXISTING HOLE WITH #12 GASKETED STAINLESS STEEL SCREWS.



SEALING MATERIAL

WOOD CURB

.040 KYNAR FINISH ALUMINUM COUNTERFLASHING ATTACH @12" ON CENTER MAX; 4" HIGH (MIN) ENSURE THE NEW OR EXISTING WRAP COMPLETELY COVER ALL ICE AND WATER SHIELD.

RUN NEW ICE AND WATER SHIELD UP THE CURB AND OVER TOP

NEW 6" STRIP OF ICE AND WATER SHIELD TO STRIP IN THE NEW COUNTER FLASHING.

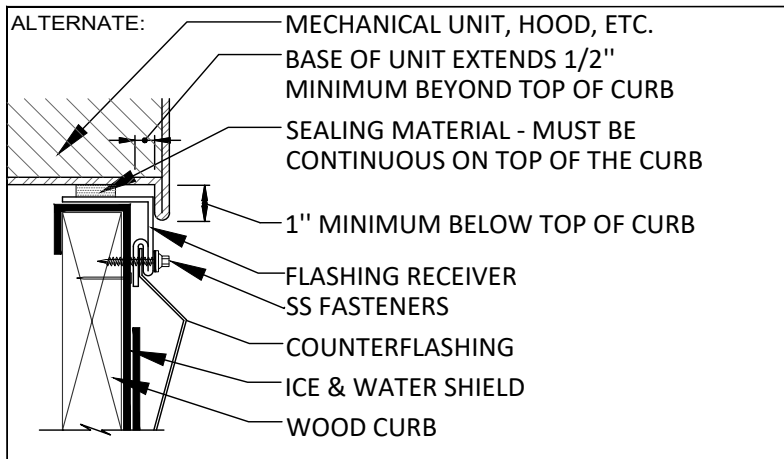
NEW .040 KYNAR FINISHED ALUM. FLASHING VERTICAL LEG = 4", HORIZONTAL LEG = 4". OVERLAP SEAMS 6" MIN. AND SET IN SEALANT. NAILS @16"oc INTO CURB.

8" MIN. EXTEND CURB AS REQUIRED.

INSTALL CONT. SEALANT TAPE BETWEEN NEW METAL AND NEW SHINGLE. SEE D-4.

EXISTING TRUSSES, PLYWOOD DECK, AND ICE & WATER SHIELD

PROVIDE NEW UNDERLAYMENT AND, NEW ICE AND WATER SHIELD PER THE SPECIFICATION. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS. UNDERLAYMENT TO BE INSTALLED OVER THE ICE AND WATER SHIELD.



ALTERNATE:

MECHANICAL UNIT, HOOD, ETC.

BASE OF UNIT EXTENDS 1/2" MINIMUM BEYOND TOP OF CURB

SEALING MATERIAL - MUST BE CONTINUOUS ON TOP OF THE CURB

1" MINIMUM BELOW TOP OF CURB

FLASHING RECEIVER  
SS FASTENERS

COUNTERFLASHING

ICE & WATER SHIELD

WOOD CURB

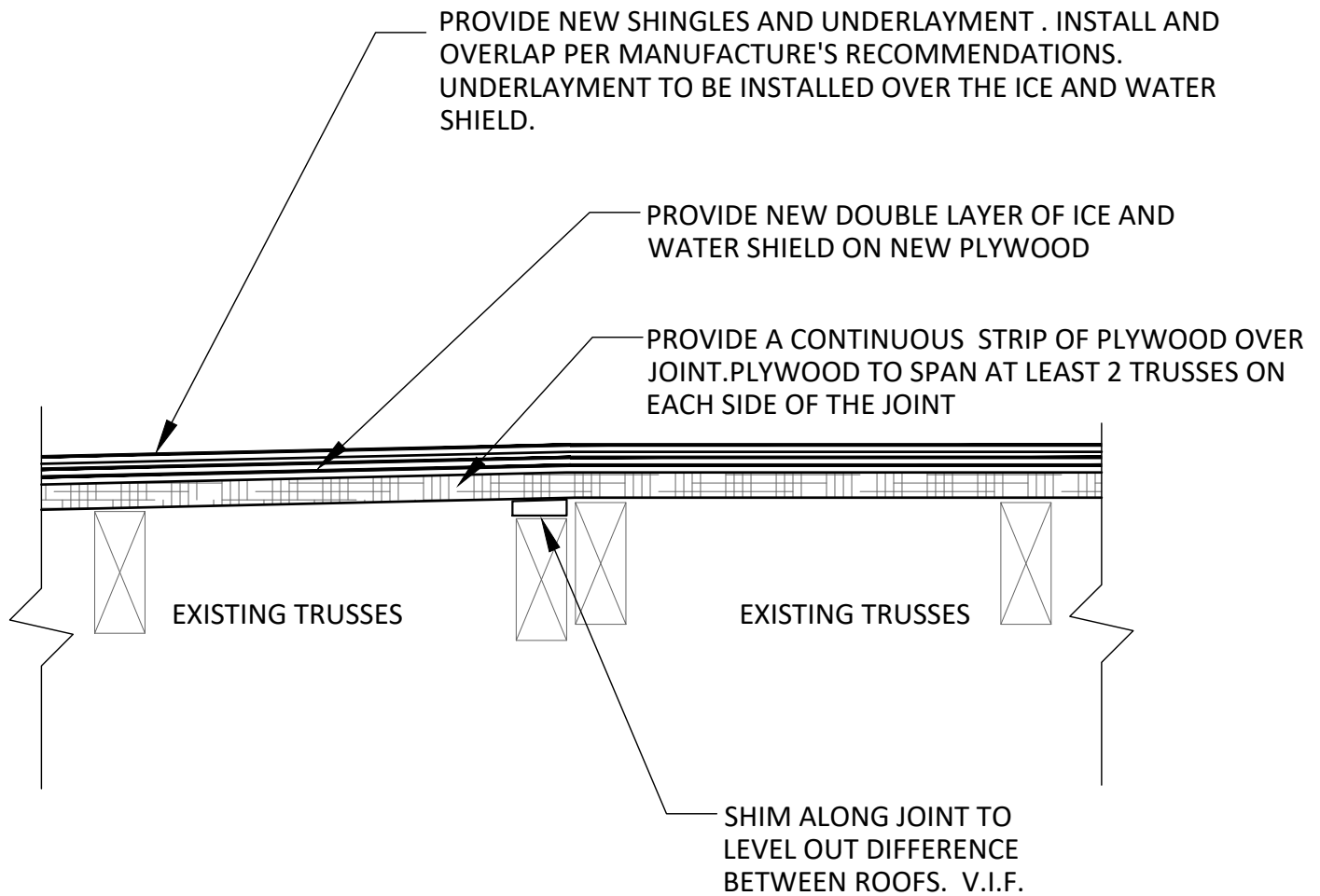
NOTES:

- 1.) THE MECHANICAL UNITS SHOULD NOT BE SET UNTIL THE ROOF MEMBRANE AND FLASHING HAVE BEEN INSTALLED OVER THE CURB.
- 2.) PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
- 3.) ENSURE THAT UNDERLAYMENT IS BETWEEN THE ICE AND WATER SHIELD AND THE NEW EPDM.



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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH			11-19-2020			DRAWING NO.:
SHEET TITLE: HVAC PLATFORM		DRAWN BY: JCA	CHECKED BY: TEA			<b>D-7</b>



**NOTES:**

- 1.) PROVIDE UNDERLAYMENT OVER ENTIRE ROOF AREA INCLUDING ALL ICE AND WATER SHIELD LOCATIONS. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS.
- 2.) PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
- 3.) STRIP IN THE ENTIRE LENGTH OF THE DRIP EDGE TO THE ICE AND WATER SHIELD WITH 6" WIDE ICE AND WATER SHIELD.



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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH						DRAWING NO.:
SHEET TITLE: <b>ROOF JOINT</b>			DATE: 11-19-2020	DRAWN BY: JCA	CHECKED BY: TEA	<b>D-8</b>

EXT'G VERTICAL SURFACE (RISING WALL OR HVAC ENCLOSURE)

REMOVE AND REINSTALL TRIM BOARD OVER NEW FLASHING AND ICE & WATER SHIELD

NEW .040 KYNAR FINISHED ALUM. FLASHING VERTICAL LEG = 4", HORIZONTAL LEG = 4". OVERLAP SEAMS 6" MIN. AND SET IN SEALANT. NAILS @16"oc INTO STUDS.

NEW .040 KYNAR FINISHED ALUM. FLASHING VERTICAL LEG = 4", HORIZONTAL LEG = 4". OVERLAP SEAMS 6" MIN. AND SET IN SEALANT. NAILS @16"oc INTO STUDS.

PROVIDE NEW UNDERLAYMENT AND, NEW ICE AND WATER SHIELD PER THE SPECIFICATION. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS. UNDERLAYMENT TO BE INSTALLED OVER THE ICE AND WATER SHIELD.

INSTALL CONT. SEALANT TAPE BETWEEN NEW METAL AND NEW SHINGLE.

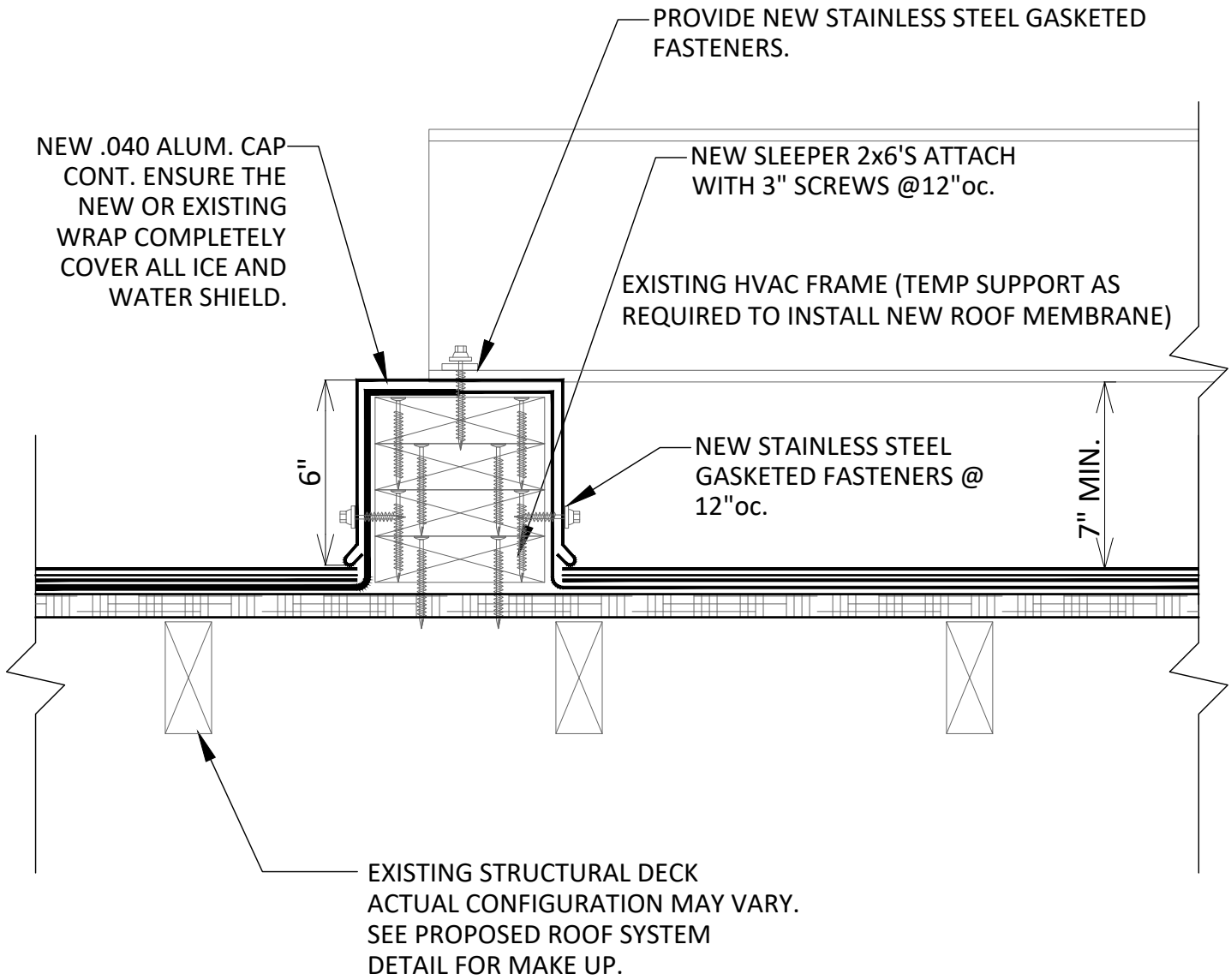
**NOTE:**

1. PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.



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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH			11-19-2020			DRAWING NO.:
SHEET TITLE: VERTICAL SURFACE		DRAWN BY: JCA	CHECKED BY: TEA			<b>D-9</b>



**NOTE:**

- 1.) PROVIDE WATER BLOCK SEALANT FULL LENGTH OF BLOCKING.
- 2.) THE WOOD BLOCKING IS SHOWN AT THE ANTICIPATED THICKNESS OF THE INSULATION ASSEMBLY. ANY VARIATION IN INSULATION THICKNESS DUE TO CRICKETS SHIMMING OR OTHER CONTRACTOR INSTALLED MATERIALS MUST BE ACCOMMODATED FOR AND THE BLOCKING MUST BE ADJUSTED TO FINISH FLUSH WITH THE INSULATION AT NO ADDED EXPENSE TO THE BUILDING OWNER. COORDINATE HEIGHTS IN THE FIELD PRIOR TO INSTALLATION OF THE BLOCKING.



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Chester, NH 03036  
(603) 234 6030

PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH			11-19-2020			DRAWING NO.:
SHEET TITLE: SLEEPER SUPPORT		DRAWN BY: JCA	CHECKED BY: TEA			<b>D-10</b>

PROVIDE NEW UNDERLAYMENT AND NEW HIGH TEMP ICE AND WATER SHIELD PER THE SPECIFICATION. INSTALL AND OVERLAP PER MANUFACTURE'S RECOMMENDATIONS. UNDERLAYMENT TO BE INSTALLED OVER THE ICE AND WATER SHIELD.

MANUFACTURE'S STARTER SHINGLE.

4 1/2  
12

.032. KYNAR FINISH ALUMINUM DRIP EDGE. COLOR TO MATCH EXT'G ALUM. FREE FLOATING GUTTER HANGERS.

.040" 5" KYNAR 500 ALCOA ALUM. BOX GUTTER.

EXISTING PLYWOOD SUBSTRATE AND ICE & WATER SHIELD

2"X3" RECTANGULAR ALUM. EAVE TUBE.

PROVIDE GUTTER WEDGES PER MANUFACTURE'S REQUIREMENTS.

.032" 2"X3" ALUM. ELBOWS AND CONDUCTOR PIPE TO GROUND SPLASH BLOCK.

CONDUCTOR PIPE CLIP, ANCHOR AND SCREW ASSEMBLY. SECURE WITH APPROPRIATE FASTENERS @5'-0"oc MAX.

NOTES:

- 1.) SET, SIZE AND ORIENTATE GUTTER TO CAPTURE ALL ROOF WATER RUN-OFF.
- 2.) PROVIDE ISOLATION TO ENSURE THAT ANY DISSIMILAR METALS DO **NOT** COME IN CONTACT WITH EACH OTHER IN THE FINAL PRODUCT TO PREVENT GALVANIC ACTION.
- 3.) STRIP IN THE ENTIRE LENGTH OF THE DRIP EDGE TO THE ICE AND WATER SHIELD WITH 6" WIDE ICE AND WATER SHIELD.
- 4.) PROVIDE KEMPEROL BRM LIQUID APPLIED RESIN FULL WIDTH AT ALL SEAMS IN THE GUTTERS.



ARM Consultants LLC  
P.O. Box 4  
Chester, NH 03036  
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PROJECT NAME: <b>MONT VERNON SCHOOLS</b>		#	DATE	BY	DESCRIPTION	SCALE: 2" = 1'-0"
PROJECT LOCATION: 1 KITTEREDGE ROAD MONT VERNON, NH			11-19-2020			DRAWING NO.:
SHEET TITLE: GUTTER AND DOWNSPOUT		DRAWN BY: JCA	CHECKED BY: TEA			<b>D-11</b>



**New Hampshire**  
 Department of  
 Revenue  
 Administration

**2020**  
**\$26.58**

## Tax Rate Breakdown Mont Vernon

Municipal Tax Rate Calculation			
Jurisdiction	Tax Effort	Valuation	Tax Rate
Municipal	\$1,503,162	\$317,254,014	<b>\$4.74</b>
County	\$320,949	\$317,254,014	<b>\$1.01</b>
Local Education	\$5,996,193	\$317,254,014	<b>\$18.90</b>
State Education	\$606,360	\$314,172,014	<b>\$1.93</b>
<b>Total</b>	<b>\$8,426,664</b>		<b>\$26.58</b>

Village Tax Rate Calculation			
Jurisdiction	Tax Effort	Valuation	Tax Rate
<b>Total</b>			

Tax Commitment Calculation	
Total Municipal Tax Effort	\$8,426,664
War Service Credits	(\$46,000)
Village District Tax Effort	\$0
<b>Total Property Tax Commitment</b>	<b>\$8,380,664</b>



James P. Gerry  
 Director of Municipal and Property Division  
 New Hampshire Department of Revenue Administration

11/12/2020

## Appropriations and Revenues

### Municipal Accounting Overview

Description	Appropriation	Revenue
Total Appropriation	\$2,896,393	
Net Revenues (Not Including Fund Balance)		(\$987,674)
Fund Balance Voted Surplus		\$0
Fund Balance to Reduce Taxes		(\$600,000)
War Service Credits	\$46,000	
Special Adjustment	\$0	
Actual Overlay Used	\$148,443	
<b>Net Required Local Tax Effort</b>	<b>\$1,503,162</b>	

### County Apportionment

Description	Appropriation	Revenue
Net County Apportionment	\$320,949	
<b>Net Required County Tax Effort</b>	<b>\$320,949</b>	

### Education

Description	Appropriation	Revenue
Net Local School Appropriations	\$5,149,020	
Net Cooperative School Appropriations	\$2,899,880	
Net Education Grant		(\$1,446,347)
Locally Retained State Education Tax		(\$606,360)
<b>Net Required Local Education Tax Effort</b>	<b>\$5,996,193</b>	
State Education Tax	\$606,360	
State Education Tax Not Retained	\$0	
<b>Net Required State Education Tax Effort</b>	<b>\$606,360</b>	

## Valuation

### Municipal (MS-1)

Description	Current Year	Prior Year
Total Assessment Valuation with Utilities	\$317,254,014	\$310,528,264
Total Assessment Valuation without Utilities	\$314,172,014	\$308,392,504
Commercial/Industrial Construction Exemption	\$0	\$0
Total Assessment Valuation with Utilities, Less Commercial/Industrial Construction Exemption	\$317,254,014	\$310,528,264

### Village (MS-1V)

Description	Current Year
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# Mont Vernon

## Tax Commitment Verification

### 2020 Tax Commitment Verification - RSA 76:10 II

Description	Amount
Total Property Tax Commitment	\$8,380,664
1/2% Amount	\$41,903
Acceptable High	\$8,422,567
Acceptable Low	\$8,338,761

If the amount of your total warrant varies by more than 1/2%, the MS-1 form used to calculate the tax rate might not be correct. The tax rate will need to be recalculated. Contact your assessors immediately and call us at 603.230.5090 before you issue the bills. See RSA 76:10, II

<b>Commitment Amount</b>	
Less amount for any applicable Tax Increment Financing Districts (TIF)	
<b>Net amount after TIF adjustment</b>	

**Under penalties of perjury, I verify the amount above was the 2020 commitment amount on the property tax warrant.**

<b>Tax Collector/Deputy Signature:</b>	<b>Date:</b>
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## Requirements for Semi-Annual Billing

### Pursuant to RSA 76:15-a

76:15-a Semi-Annual Collection of Taxes in Certain Towns and Cities - I. Taxes shall be collected in the following manner in towns and cities which adopt the provisions of this section in the manner set out in RSA 76:15-b. A partial payment of the taxes assessed on April 1 in any tax year shall be computed by taking the prior year's assessed valuation times 1/2 of the previous year's tax rate; provided, however, that whenever it shall appear to the selectmen or assessors that certain individual properties have physically changed in valuation, they may use the current year's appraisal times 1/2 the previous year's tax rate to compute the partial payment.

Mont Vernon	Total Tax Rate	Semi-Annual Tax Rate
Total 2020 Tax Rate	\$26.58	\$13.29

Associated Villages



## Fund Balance Retention

<b>Enterprise Funds and Current Year Bonds</b>	<b>\$0</b>
<b>General Fund Operating Expenses</b>	<b>\$9,819,895</b>
<b>Final Overlay</b>	<b>\$148,443</b>

DRA has provided a reference range of fund balance retention amounts below. Please utilize these ranges in the determination of the adequacy of your municipality's unrestricted fund balance, as currently defined in GASB Statement 54. Retention amounts, as part of the municipality's stabilization fund policy [1], should be assessed dependent upon your governments own long-term forecasts and special circumstances. Please note that current best practices published by GFOA recommend, at a minimum, that "...general purpose governments, regardless of size, maintain unrestricted fund balance in their general fund of no less than two months of regular general fund operating revenues or regular general fund operating expenditures." [2],[3]

[1] The National Advisory Council on State and Local Budgeting (NACSLB), (1998), *Framework for Improved State and Local Government Budgeting: Recommended Budget Practices (4.1)*, pg. 17.

[2] Government Finance Officers Association (GFOA), (2015), *Best Practice: Fund Balance Guidelines for the General Fund.*

[3] Government Finance Officers Association (GFOA), (2011), *Best Practice: Replenishing General Fund Balance.*

2020 Fund Balance Retention Guidelines: Mont Vernon	
Description	Amount
<b>Current Amount Retained (19.44%)</b>	<b>\$1,908,906</b>
17% Retained <i>(Maximum Recommended)</i>	\$1,669,382
10% Retained	\$981,990
8% Retained	\$785,592
5% Retained <i>(Minimum Recommended)</i>	\$490,995

**NOTICE: The current fund balance retained amount is above the maximum recommended threshold.**