SECTION 01 01 00
SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Attached GENERAL CONDITIONS, BID FORM, forms a component part of this section.

1.2 SUMMARY OF WORK: Whitko Community Schools: Low Slope Roof Replacement

ITEM I: Low Slope Roof Replacement:

Full Tear-Off Roof Sections:
South Whitley Elementary Roof Section #6, #14

Recover Roof Sections:
South Whitley Elementary Roof Section #8
Whitko Jr/Sr High School Roof Section #8, #9, #10, #12, #14, #15

a. On all indicated tear-off sections, complete a full tear-off of, but not limited to, edge metal details, field and flashing membrane, all layers of insulation, and vapor barrier (if present) down to decking. Properly dispose of debris.

b. On all indicated recover sections, remove but not limited to, edge metal details, flashing membrane, wet insulation as indicated on report or found during construction, membrane and insulation around drains where new sumps will be installed, and loose surface granules. Properly dispose of debris.

c. Remove all abandoned curbs and penetrations down to decking. Properly fill voids/openings below decking with insulation and install new decking of like and kind, or cover small openings with thick steel plating. Secure perimeter of steel plating to assure proper alignment and securement is achieved.

d. Raise all roof penetrations as necessary so to allow flashing heights of a minimum 8” height and install proper curb or rail details (lumber on top of roof is not acceptable). All costs associated with the proper raising of penetrations are the responsibility of the roofing contractor. Utilities such as, but not limited to gas lines, electrical wires, conduit, duct work, disconnect boxes, etc. must be properly disconnected and supported by a qualified contractor prior to the units being elevated. All equipment and utilities are to be properly revised to accommodate the new curb height. The roofing contractor is responsible for the coordination and scheduling of services. All interruptions of utility usage must be pre-approved by and coordinated with **school** officials.

e. On areas of full tear-off over wood and gypsum decking, install a nailable base sheet over prepped and cleaned decking. Pull testing and test results, by fastener manufacturer, require submittal prior to the pre-

construction meeting. Test results will determine proper fastener type and fastener pattern requirements.

f. On areas of full tear-off over sloped decking, install two layers of properly staggered 2.0” insulation board. Mechanically attach or adhere per deck type, deck exposure conditions and per KEE-Hybrid specification requirements and per patterns required by Wind Uplift Pressure calc. *See provided fastener and adhesive ribbon pattern drawings.*

g. On areas of full tear-off over flat decking, install one layer of 2.0” insulation board and a secondary layer(s) of a fully tapered insulation system. Mechanically attach or adhere per deck type, deck exposure conditions and per KEE-Hybrid specification requirements and per patterns required by Wind Uplift Pressure calc. *See provided fastener and adhesive ribbon pattern drawings. NOTE: On the elementary roof section #14, taper layout is to account for and eliminate ponding water, caused by deflection in decking, along both drip edges.*

h. On areas of recover, properly clean, prepare and prime the surface of the existing membrane. Complete adhesion test prior to installation.

i. On areas of recover, install and adhere 1.0” insulation board in low rise foam adhesive per KEE-Hybrid specification requirements and per patterns required by Wind Uplift Pressure calc. *See provided ribbon pattern drawings.*

j. Install tapered insulation sumps around all drain locations on both tear-off and recover roof areas. Sumps are to be a minimum of 1/2:12 slope and 8’ x 8’ in size.

k. On both tear-off and recover areas, install minimum 1/2:12 tapered polyiso saddles/crickets in all areas necessary provide proper and adequate slope and drainage, including, but not limited to, between drains, in outside corners, between drains and perimeter walls, and on the high side of penetrations/curbs. Increased taper may be required on roof sections with increased slope. Saddle/cricket widths are to be ½ of that of their length. Roof systems resulting in areas of ponding water is not acceptable and will require the contractor to correct at their expense.

l. Adhere cant strip at all vertical to horizontal transition points along, but not limited to, penetrations, curbs, walls, area dividers/expansion joints, and roof height transitions.

m. Install one layer of ½” Densdeck Prime recovery board in low rise insulation adhesive per patterns required by Wind Uplift Pressure calc.

n. Install a base layer of Garland’s high performance SBS base sheet in Green-lock interply cold process adhesive, or by torch applied method. Secure each layer of the membrane by using a 50-lb. roller 30 minutes after on cold process, and immediately after torch application.

o. For cold process methods, cut the base sheets in 1/3rds and cap sheets in half and let them relax before installation for a minimum of 1 hr. If the membrane is installed at night, or at low temperatures, it can blister during the day when the temperatures get high. Installation during cold temperatures requires consistent utilization of, and storage of all rolls in hot boxes that are capable of achieving and maintaining proper installation temperature. Hot box must have a watertight enclosure. Keep bleed-out to a 1/4" and use the weighted roller to get air pockets out from under the sheet. Priming of the base sheet top surface may be required prior to the installation of the cap sheet in cases the surface of the base sheet becomes dirty.

p. Install Garland's high-performance fleece back KEE membrane in low rise foam adhesive per manufacturer's installation requirements. Low rise foam adhesive is to be applied by way of spatter spray method. Please reference manufacturer's detailed KEE hybrid system application guidelines. Clean, unsoiled footwear and/or protection is required when walking on the KEE membrane during and after installation. Soiled and stained membrane will not be accepted and may require replacement.

q. Install all new raised edge perimeter, penetration, and projection flashings using a base ply of Garland SBS modified base sheet. Set the SBS base sheets in cold process Green-Lock Flashing adhesive, or torch application.

r. Install KEE-Stone Non-fleece back flashing membrane over the new SBS base sheet flashing. KEE-Stone NF Flashing membrane is to be adhered by way of Garland KEE Flashing Adhesive . Leave the bottom 3" free of adhesive to allow for heat-welding of cap flashing membrane to field membrane.

s. All modified base flashings should be sealed at the end of each day, no exceptions. Apply Green-Lock SA to top of termination bar and along the toe edge. Any flashing that is terminated prior to passing over the top edge of the perimeter wall or penetration is to receive a termination bar, green-lock structural adhesive and counter-flashing detail per provided detail drawing. Termination bar and caulking should be installed daily. All flashing ply is to be sealed on a daily basis with roofing cement and mesh after being secured. All block wall flashing is to be terminated and counter-flashed under new through wall metal as specified on provided detail drawing.

t. Install new 22-gauge, metal details at all, but not limited to, gutters, parapet walls, drip edges, raised metal edges, expansion joints, area dividers, under window sills, roof transitions, counterflashing, etc. The raised edge metal detail will consist of an aluminum extruded cleat and snap-on architectural metal and must meet the ANSI/SPRI ES-1 code requirements.

u. Install rubber roof mats at the base of all roof access doorways, attached ladders , at HVAC unit access doors, and stairways.

v. Paint all existing steel gas lines safety yellow, or a color of client's choice.

w. Replace drain strainer covers with new aluminum units. Replacement units must be of the proper type and size for existing drain bowl/ring.

GENERAL NOTES:

x. Any deck replaced in exposed areas shall match exposed deck fit and finish and configuration.

y. Mechanical fasteners shall be of proper size and length to provide a minimum of 1" penetration into the upper rib of metal decking, and a maximum length not penetrating bottom rib of deck, and 1" penetration of wood decking, when deck is not exposed or visible.

z. Mechanical fasteners penetrating areas of exposed or visible decking must match deck color. Improper coloed fasteners will require being painted to match existing deck color.

aa. Clean up all debris and damage done to grounds, buildings and roof top (if any). Fill any holes or ruts with clean topsoil and plant new grass seed if necessary. Netting must be installed to hold the new grass seed and straw in place. Plywood should be laid under the dumpster, and anywhere heavy machinery will be driven.

bb. All existing walls, etc.., must be protected so that these areas are not marked up from material spills or tracking of materials by walking. Contractor is responsible for properly protecting the parking lot, sidewalks, concrete, asphalt, etc.., from damage. Contractor to cover the areas with plywood or whatever material they deem necessary for proper protection. Any damage done to these areas will be repaired by the contractor using "like" material.

cc. The contractor is responsible for taking pictures of the interior and exterior of the building, parking lot, staging areas, etc. before work begins. This will help to determine who is responsible for any interior and/ or exterior damage that may take place during the project work.

dd. Contractor is responsible for evaluation of the bottom/ interior side of roof areas of exposed decking to determine utility and conduit proximity prior to installation of insulation fasteners.

ee. All insulation should be covered with a breathable canvas tarp at all times. The factory plastic is not acceptable. All roll goods should also be covered in a tarp once the pallet has been opened. All rolls goods must be standing up or should be thrown away.

ff. Contractors are responsible for removing metal wall panels, coping, gutter detail etc.., at time of the pre-bid or prior to bid submission to make sure that they know what they are dealing with before proceeding with their bid.

gg. Contractor has the sole responsibility of taking roof core cuts and verifying existing deck types/conditions prior to bid.

hh. Contractor to submit manufacturer designed tapered insulation layout drawings for review and approval prior to the start of the project.

ii. All contractors must view the Garland application videos, along with their foreman, to ensure that they understand the proper installation of the specified Garland System.

The scope of work and shop drawings supersedes any discrepancies in the additional specification sections and/or data sheets. Any questions with, necessary changes to the scope of work, details, or products being used must be put into writing and e-mailed to **Austin Papenbrock** at **apapenbrock@garlandco.com** for approval before the change is made. Failure to put a change into writing makes the contractor liable for any issues.

The Contractor is to read through the entire specification package prior to bidding. The scope of work is simply a guide on how the system is to be assembled, additional details on the system are included in the rest of the specification package and must be followed.

1.3 INTENT OF THE SPECIFICATIONS

A. The intent of these specifications is to describe the material and methods of construction required for the performance of the work. In general, it is intended that the drawings delineate the detailed extent of the work. When there is a discrepancy between drawings, referenced specifications, and standards and this specification, this specification shall govern.

1.4 PROTECTION

A. The contractor shall use every available precaution to provide for the safety of the property owner, visitors to the site, and all connected with the work under the Contract.

B. All existing facilities both above & below ground shall be protected & maintained free of damage. Existing facilities shall remain operating during the period of construction unless otherwise permitted. All access roadways must remain open to traffic unless otherwise permitted.

C. Barricades, consisting of chain-link style fence and base plates, shall be erected to fence off all construction areas from operations personnel.

1.5 SAFETY REQUIREMENTS:

1. All applications, material handling, and associated equipment shall conform to and be operated in conformance with OSHA safety requirements.

2. Comply with federal, state, and local and owner fire and safety requirements.

3. Advise owner whenever work is expected to be hazardous to owner employees and/or operations.

4. Maintain a crewman as a floor guard whenever roof decking is being repaired or replaced and whenever any roofing is being removed.

5. Maintain proper fire extinguisher within easy access whenever power tools, roofing kettles, and torches are being used. A MINIMUM OF A 2 HOUR FIRE WATCH SHALL BE STRICTLY ADHERED TO WHENEVER PROPANE TORCHES ARE IN OR HAVE BEEN IN USE.

6. ALL SAFETY REQUIREMENTS OF THE BUILDING OWNER MUST BE FOLLOWED. NO EXCEPTIONS WILL BE PERMITTED. SAFETY ORIENTATION MEETING REQUIRED PRIOR TO PERFORMING ANY WORK.

1.5 HOUSEKEEPING

A. Keep materials and jobsite neat and orderly, removing scrap, waste & debris daily.
B. Maintenance of clean conditions while work is in progress and cleanup when work is completed shall be in strict accordance with the “General Conditions” of this contract.
C. No smoking is allowed on the jobsite or anywhere on the client’s property.
D. Follow all requirements established by the building owner.
E. All building measurements are the sole responsibility of the contractor

END OF SECTION