ROOF REPLACEMENT AT HOWARD W. BLAKE HIGH SCHOOL

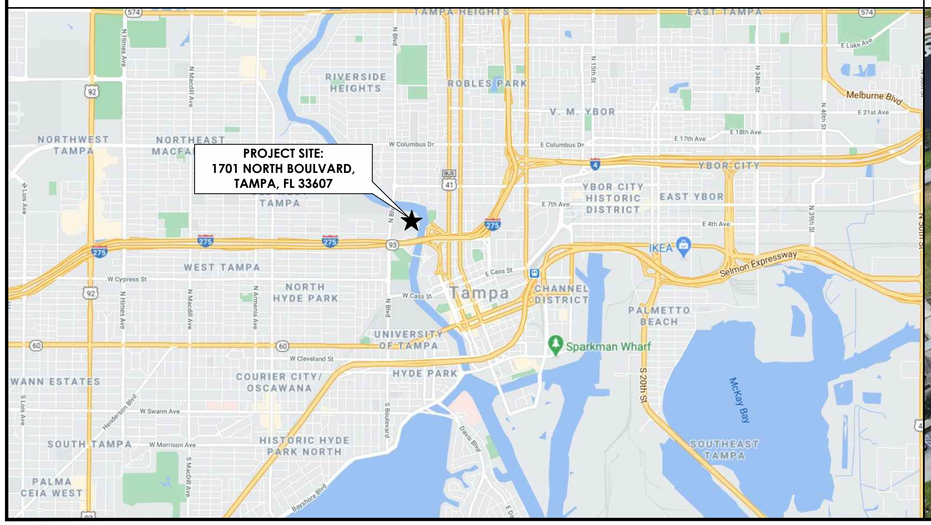
HOWARD W. BLAKE HIGH SCHOOL
1701 North Boulevard,
Tampa, Florida 33607

PREPARED FOR:

HILLSBOROUGH COUNTY PUBLIC SCHOOLS
Construction Operation Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

OCTOBER 15, 2021
100% CONSTRUCTION DOCUMENTS

VICINITY MAP



AERIAL PHOTO

SHEET INDEX

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

Hillsborough County PUBLIC SCHOOLS
Excellence in Education

SCHOOL BOARD MEMBERS

Lynn Gray, Chair
Stacy Hahn, Vice Chair

Nadia Combs
Jessica Vaughn
Melissa Snively
Henry "Shake" Washington
Karen Perez

SUPERINTENDENT OF SCHOOLS:
Addison G. Davis

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	COVER SHEET
Sheet Number:	G-100
Revision No.:	

GENERAL NOTES

CONTRACT REQUIREMENTS AFFECTING ALL TRADES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND EACH OF HIS SUBCONTRACTORS TO REVIEW ALL DRAWINGS, PROJECT MANUAL, ADDENDA, ETC., TO ASSURE COORDINATION OF ALL WORK AFFECTING EACH TRADE. FAILURE TO REVIEW ALL CONTRACT DOCUMENTS FOR APPLICABLE ITEMS OF WORK SHALL NOT RELIEVE THE RESPONSIBLE PARTY FROM PERFORMING ALL WORK REQUIRED.

2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FLORIDA BUILDING CODES AND ALL APPLICABLE CODES AND ORDINANCES. ALL WORK SHALL BE CONSIDERED NEW, UNLESS OTHERWISE INDICATED.

3. TERMINOLOGY, AS USED HEREIN, SHALL HAVE THE FOLLOWING MEANINGS:
   - A. WORK: SHALL MEAN TO INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR A COMPLETE INSTALLATION.
   - B. BY OTHER TRADES: SHALL MEAN WORK IS TO BE DONE BY PERSONS OR PARTIES RESPONSIBLE FOR WORK AT THE PROJECT OTHER THAN THE PARTY OR PARTIES WHO HAVE BEEN DULY AWARDED A CONTRACT FOR WORK OF THIS DIVISION.
   - C. DEMOLITION: SHALL MEAN THE REMOVAL OF ANY/ALL ITEMS NECESSARY TO PERMIT SUBSEQUENT WORK; REMOVAL OF DEBRIS LEAVING AREA AND SUBSTRATE CLEAN, DRY AND UNIFORM, AND IN A CONDITION SUITABLE FOR SUBSEQUENT WORK; REMOVAL OF EXISTING MATERIAL, STRUCTURES, CONSTRUCTION, EQUIPMENT, PIPING, DUCTS, ETC. AND THE CAPPING OR PLUGGING OF ANY EXISTING SERVICES.
   - D. FURNISH: SHALL MEAN SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR SUBSEQUENT REQUIREMENTS.
   - E. INSTALL: SHALL MEAN UNLOAD AND UNPACK AT DESIGNATED DELIVERY POINT ON SITE; STORE IN A SAFE PROTECTED LOCATION AT SITE; PERFORM EVERY OPERATION NECESSARY TO ASSEMBLE, ERECT, PLACE, ANCHOR, AND APPLY ALL SPECIFIED MATERIALS/PRODUCTS, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING AND SIMILAR REQUIREMENTS.
   - F. PROVIDE: PROVIDE AND VARIANTS THEREOF, AS USED HEREIN SHALL MEAN FURNISHING AND INSTALLATION OF ALL LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION, AND SERVICES RENDERED READY FOR INTENDED USE.
   - G. CONCEALED: SHALL MEAN EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED BEHIND WALL FURRING AND WITHIN PARTITIONS, HUNG CEILINGS, CRAWL SPACES OR SHAFTS.
   - H. EXPOSED: SHALL MEAN NOT CONCEALED.

4. SUBMITTALS MUST EXHIBIT CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE TO BRING ANY PROPOSED DEVIATIONS TO THE ATTENTION OF THE ARCHITECT AND HIS FAILURE TO DO SO DOES NOT OBLIGATE THE OWNER TO ACCEPT THE DEVIATIONS. IN ADDITION, THE ARCHITECT'S APPROVAL OF DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL NOT BE THE BASIS FOR ADDITIONAL COST TO THE OWNER. ALL CHANGES REQUIRE OWNER APPROVAL IN ACCORDANCE WITH THE CONSTRUCTION CONTRACT.

5. THE DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENTS, DESIGN AND EXTENT OF THE WORK AND ARE PARTLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR ROUGHING-IN MEASUREMENTS OR TO SERVE AS SHOP DRAWINGS.

6. THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION, DISCREPANCIES BETWEEN ACTUAL CONDITION AND DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

7. IF THE CONTRACT DOCUMENTS INCLUDE CONFLICTING INFORMATION, THE CONTRACTOR IS REQUIRED TO ISSUE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ARCHITECT. IF THE CONFLICT IS DISCOVERED DURING BIDDING, THE BIDDERS MAY EITHER REQUEST CLARIFICATION AS DESCRIBED IN THE INSTRUCTIONS TO BIDDERS, OR SHALL INCLUDE THE COST FOR THE GREATER QUANTITY/BETTER QUALITY INTERPRETATION IN THEIR BID.

8. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY CONDITION HE FINDS, IN HIS JUDGEMENT, WHERE IT WOULD BE DESIRABLE TO MODIFY THE REQUIREMENT TO PRODUCE A BETTER RESULT. IF CONTRACTOR FAILS TO SO NOTIFY ARCHITECT, OR IF HIS RECOMMENDATIONS FOR MODIFICATIONS ARE ACCEPTED, CONTRACTOR ASSUMES SOLE RESPONSIBILITY FOR SATISFACTORY RESULTS.

9. WHERE A TYPICAL OR REPRESENTATIVE DETAIL IS SHOWN (WHETHER INDICATED "TYPICAL" OR NOT) THIS DETAIL SHALL CONSTITUTE THE STANDARD IN WORKMANSHIP AND MATERIALS THROUGHOUT CORRESPONDING PARTS OF THE WORK. ADAPTATION, HOWEVER, SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT. SOME DETAILS ON THE PLANS MAY NOT BE INDICATED AT EACH LOCATION THAT CONDITION OCCURS. CONTRACTOR SHALL PERFORM WORK AS IF THE DETAILS WERE INDICATED ON THE PLAN(S) OR, WHERE SIMILAR DETAILS OCCUR, WHERE NECESSARY, THE CONTRACTOR SHALL ADOPT SUCH DETAIL FOR USE IN SUCH CORRESPONDING PORTIONS OF THE WORK IN A MANNER THAT IS SATISFACTORY TO THE ARCHITECT. DETAILS AND/OR DUCT TRANSITIONS THAT ARE NOT SHOWN SHALL BE REQUIRED AS IF THEY WERE INDICATED ON THE PLANS. CONTRACTOR SHALL SUBMIT NEW SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW AND APPROVAL.

10. IF DIRECTED BY THE ARCHITECT, THE CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK.

11. CONTRACTOR SHALL PROTECT ALL EXISTING CONSTRUCTION INTENDED TO REMAIN. DO NOT REMOVE MORE MATERIAL THAN CAN BE PROTECTED IN THE EVENT OF SUDDEN WIND, RAIN OR INCLEMENT WEATHER. PROTECT FLOORS WITH SUITABLE COVERINGS WHEN NECESSARY. RESTORE ALL DAMAGE TO ORIGINAL CONDITION AT NO COST TO THE OWNER. PROTECT AGAINST FUMES, DUST AND DEBRIS FROM ENTERING AIR INTAKE DUCTS AND OPENINGS. DO NOT OBSTRUCT STREETS, WALKS OR PREMISES WITHOUT PRIOR AUTHORIZATION.

12. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ALL MATTERS OF SAFETY OF PERSON AND PROPERTY ARISING FROM THIS CONTRACT, INCLUDING THE LIABILITIES AND RESPONSIBILITIES OF ALL SUBCONTRACTORS. NEITHER THE ARCHITECT NOR THE OWNER OR ANY OF THEIR REPRESENTATIVES OR EMPLOYEES ARE TO BE ASSUMED TO HAVE ANY ROLE OF RESPONSIBILITY OF MATTERS OF SAFETY EXCEPT THEY (INCLUDING THE ARCHITECT) SHALL HAVE THE AUTHORITY TO ORDER STOPPING OF A PORTION OF THE WORK WHICH THEY NOTICE MAY ENDANGER OCCUPANTS, EMPLOYEES OF THE OWNER, OR THE PUBLIC, OR EMPLOYEES OF THE CONTRACTOR OR SUBCONTRACTORS.

13. THE CONTRACTOR SHALL KEEP THE PREMISES AND SURROUNDING AREA FREE OF ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THIS WORK. THE CONTRACTOR SHALL COMPLETELY REMOVE THE WASTE MATERIAL AND RUBBISH IN A LEGAL MANNER NO LESS FREQUENTLY THAN ONCE A WEEK. THE COST OF ADDITIONAL CLEANING REQUIRED BY THE OWNER FOR WHICH THE CONTRACTOR FAILS TO DO, SHALL BE BACK-CHARGED BY THE OWNER TO THE CONTRACTOR WHETHER DONE BY THE OWNER'S OWN FORCES OR BY SEPARATE CONTRACT WITH OTHERS.

14. MAINTENANCE EXCLUSION: THESE DRAWINGS WERE PREPARED FOR CONSTRUCTION PURPOSES ONLY. THESE DRAWINGS ARE NOT TO BE USED FOR MAINTENANCE PURPOSES AS ACTUAL CONDITIONS MAY VARY FROM THAT SHOWN ON DRAWINGS DUE TO CHANGE ORDER, ALTERATIONS BY OTHERS, FIELD ADJUSTMENTS, ETC.

15. THE CONTRACTOR MUST PLAN THE WORK SO TO AVOID DISRUPTING THE DISTRICT'S MISSION OF TEACHING AND LEARNING. THE CONTRACTOR WILL SCHEDULE THE WORK WITH THE INPUT OF THE SITE ADMINISTRATOR AND FACILITIES OPERATIONS REPRESENTATIVE, TO ENSURE THAT WORK ACTIVITIES COINCIDE WITH THE SCHOOL'S SCHEDULE. THE DISTRICT ACKNOWLEDGES THAT SOME ACTIVITIES MAY TAKE PLACE DURING THE NORMAL SCHOOL DAY WHICH ARE NOT DISRUPTIVE TO TEACHING AND LEARNING, AND WHICH SHALL BE APPROVED IN ADVANCE BY THE FACILITIES OPERATIONS REPRESENTATIVE. THE CONTRACTOR UNDERSTANDS THAT HE MAY BE ASKED TO STOP ANY WORK ACTIVITY DURING THE NORMAL SCHOOL DAY IF THE ACTIVITY PROVES TO BE OF A NUISANCE.

16. CONTRACTOR AND/OR SUBCONTRACTOR(S) IS TO PATCH AND REPAIR ALL AREAS AFFECTED BY DEMOLITION AND/OR NEW CONSTRUCTION WITH MATERIALS AND METHODS TO MATCH EXISTING CONDITIONS AND PROVIDE A UNIFORM NEW APPEARANCE.

17. NO FIELD REVISIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE ARCHITECT/ENGINEER. THIS INCLUDES (BUT IS NOT LIMITED TO) REVISIONS DUE TO MIS-LOCATION, MISFIT OR ANY OTHER CONSTRUCTION ERRORS.

18. CONSTRUCT ALL NECESSARY CHUTES, PLATFORMS OR EDGE DEVICES TO PROTECT PROPERTY AND EQUIPMENT FROM DAMAGE. PROVIDE SPECIAL PROTECTION FOR ALL EXISTING WORK NOT BEING REMOVED. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT ANY OBJECT FROM FALLING OFF THE ROOF OR SIDE OF BUILDING. CONTRACTOR SHALL VERIFY THAT ALL BUILDING DRAINS AND DRAIN LEADERS OF ANY TYPE ARE IN GOOD WORKING ORDER AND REPORT ALL NON-FUNCTIONAL DRAINS TO ARCHITECT PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL PROTECT ALL DRAINS DURING CONSTRUCTION AND REPAIR TO WORKING CONDITION IF DAMAGED OR OBSTRUCTED.

19. TYPES OF JOINT SEALANTS MAY NOT BE INDICATED AT ALL LOCATIONS. DEFAULT SEALANT SHALL BE (DESIGNATION STP-35).

GENERAL NOTES

20. HOUSEKEEPING: CONTRACTORS SHALL MAKE ALL REASONABLE EFFORT TO KEEP THE SITE CLEAN OF DEBRIS. CONTRACTOR TO MAINTAIN FACILITY GROUNDS AND BUILDING PERIMETERS, INCLUDING DEBRIS COLLECTION AREAS AND CONTRACTOR STAGING AREAS, FREE OF MISCELLANEOUS MATERIAL, SCRAP AND DEBRIS RESULTING FROM DEMOLITION AND RE-ROOFING ACTIVITIES.

21. CONSTRUCTION GAPS / VOIDS: BATS ARE A NOTED PROBLEM NUISANCE AT MANY DISTRICT FACILITIES. PREVENTING THE INADVERTENT CREATION OF PLACES FOR BATS TO ROOST IS A REQUIREMENT OF THIS RENOVATION PROJECT. ANY NEW OR EXISTING GAPS / VOIDS UNDER, BEHIND, ADJACENT, AROUND OR WITHIN THE WORK OF THIS CONTRACT, GREATER THAN 1/4-IN. SHALL BE CLOSED BY TIGHT CONSTRUCTION, SHEET METAL, BACKER ROD AND/OR SEALANT OR OTHER APPROVED METHOD. THIS WORK SHALL CONSIDERED PART OF THE PROJECT AND SHALL NOT BE CONSIDERED FOR ADDITIONAL SERVICES OR CHANGE ORDER, WHERE AND WHEN ENCOUNTERED OR REQUIRED.

22. WASTE MANAGEMENT AND DISPOSAL:
   - .1 PAINT, STAIN AND WOOD PRESERVATIVE FINISHES AND RELATED MATERIALS (THINNERS, SOLVENTS, ETC.) ARE REGARDED AS HAZARDOUS PRODUCTS AND ARE SUBJECT TO REGULATIONS FOR DISPOSAL. OBTAIN INFORMATION ON THESE CONTROLS FROM APPLICABLE STATE AND LOCAL GOVERNMENT DEPARTMENTS HAVING JURISDICTION.
   - .2 ALL WASTE MATERIALS SHALL BE SEPARATED AND RECYCLED. WHERE PAINT RECYCLING IS AVAILABLE, COLLECT WASTE PAINT BY TYPE AND PROVIDE FOR DELIVERY TO RECYCLING OR COLLECTION FACILITY. MATERIALS THAT CANNOT BE REUSED MUST BE TREATED AS HAZARDOUS WASTE AND DISPOSED OF IN AN APPROPRIATE MANNER.
   - .3 PLACE MATERIALS DEFINED AS HAZARDOUS OR TOXIC WASTE, INCLUDING USED SEALANT AND ADHESIVE TUBES AND CONTAINERS, IN CONTAINERS OR AREAS DESIGNATED FOR HAZARDOUS WASTE.
   - .4 TO REDUCE THE AMOUNT OF CONTAMINANTS ENTERING WATERWAYS, SANITARY/STORM DRAIN SYSTEMS OR INTO THE GROUND THE FOLLOWING PROCEDURES SHALL BE STRICTLY ADHERED TO:
     - .A RETAIN CLEANING WATER FOR WATER-BASED MATERIALS TO ALLOW SEDIMENTS TO BE FILTERED OUT. IN NO CASE SHALL EQUIPMENT BE CLEANED USING FREE DRAINING WATER.
     - .B RETAIN CLEANERS, THINNERS, SOLVENTS AND EXCESS PAINT AND PLACE IN DESIGNATED CONTAINERS AND ENSURE PROPER DISPOSAL.
     - .C RETURN SOLVENT AND OIL SOAKED RAGS USED DURING PAINTING OPERATIONS FOR CONTAMINANT RECOVERY, PROPER DISPOSAL, OR APPROPRIATE CLEANING AND LAUNDERING.
     - .D DISPOSE OF CONTAMINANTS IN AN APPROVED LEGAL MANNER IN ACCORDANCE WITH HAZARDOUS WASTE REGULATIONS.
     - .E EMPTY PAINT CANS ARE TO BE DRY PRIOR TO DISPOSAL OR RECYCLING (WHERE AVAILABLE).
     - .F CLOSE AND SEAL TIGHTLY PARTLY USED CANS OF MATERIALS INCLUDING SEALANT AND ADHESIVE CONTAINERS AND STORE PROTECTED IN WELL VENTILATED FIRE-SAFE AREA AT MODERATE TEMPERATURE.

FLORIDA PRODUCT APPROVAL

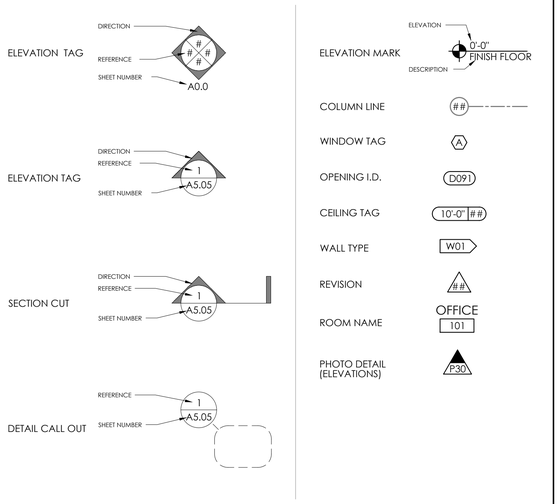
ALL EXTERIOR PRODUCTS SHALL BE TESTED AND APPROVED BY THE STATE OF FLORIDA AND HAVE REGISTERED PRODUCT APPROVAL CODE. THE CONTRACTOR SHALL SUBMIT ALL PROPER FLORIDA APPROVAL DOCUMENTATION WITH THE SHOP DRAWINGS / SUBMITTALS FOR REVIEW AND COMMENT.

A PROJECT BINDER SHALL BE GENERATED FOR ALL SPECIFIED PRODUCTS INCLUDING PRODUCT DATA SHEETS, INSTALLATION INSTRUCTIONS AND MSDS SHEETS.

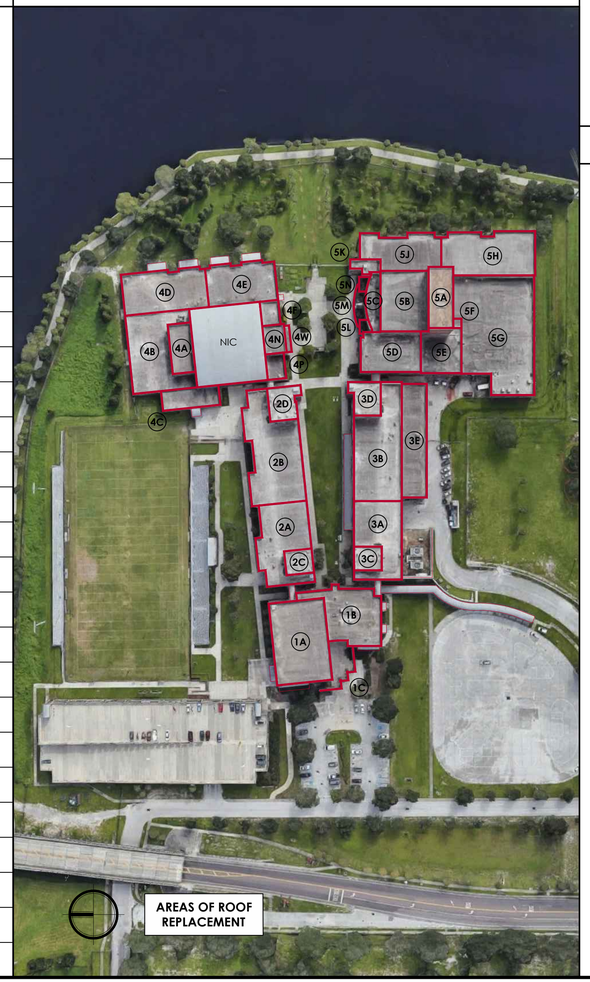
THE INFORMATION AND APPROVAL NUMBERS FOR THE FOLLOWING BUILDING COMPONENTS ARE LISTED AS THE **BASIS OF DESIGN**.

CATEGORY:	MANUFACTURER	PRODUCT DESCRIPTION	APPROVAL NO.
ROOFING PRODUCTS			
1. ASPHALT SHINGLES			
2. BUILT-UP ROOFING			
3. CEMENTS-ADHESIVES			
4. LIQUID-APPLIED ROOFING SYSTEMS			
5. NON-STRUCTURAL METAL ROOFING			
6. STRUCTURAL METAL ROOFING			
7. MODIFIED BITUMEN (TORCH APPLIED)	GAF	2-PLY SBS/APP MOD. BITUMEN OVER STEEL DECK, MECH. ATTACHED	FL5680-R30 SYSTEM #SC-110
8. MODIFIED BITUMEN (TORCH APPLIED)	GAF	2-PLY SBS/APP MOD. BITUMEN OVER CONCRETE DECK, FULLY ADHERED	FL5680-R30 SYSTEM #C-72
9. MODIFIED BITUMEN (TORCH APPLIED)			
10. ROOFING SLATE			
11. CONCRETE ROOF TILES			
12. CLAY ROOF TILES			
13. SINGLE PLY ROOFING			
14. STRUCTURAL COMPONENTS	PRECISION ALUM. PRODUCTS	ALUMINUM A/C STAND	FL16921.1-R4
15. ROOFING UNDERLAYMENT			
16. FIBER-CEMENT PLANK SIDING			
17.			
18.			
19.			
20.			
21.			
22.			

ARCHITECTURAL SYMBOLS



AERIAL PHOTO



ROOFING SYMBOL LEGEND

- EQUIPMENT SUPPORT
- VTR — VENT THROUGH ROOF (VTR), OR SOIL STACK
- DV — DECK VENT
- PP ● PP — PITCH PAN
- RD (4") — ROOF DRAIN (SIZE, INCHES)
- OD (4") — OVERFLOW DRAIN (SIZE, INCHES)
- (12x12) — CURB-MOUNTED EXHAUST FAN (CURB SIZE)
- POWER OR GRAVITY ROOF VENT
- A/C CONDENSING UNIT
- LV — LOUVERED VENT
- +60° — PARAPET WALL (HEIGHT, INCHES)
- ABAND. — ABANDONED (OBSOLETE) CURB
- EV — EXHAUST VENT
- C — ROOF CORE
- H — HOT VENT
- F — FAN
- T — TURBINE VENT
- HS — FLUE (HOT STACK)
- RTU — ROOF TOP UNIT (CURB MOUNTED)
- GOOSENECK VENT
- ● LP — LIGHTNING PROTECTION PENETRATION
- OABAND. — ABANDONED PENETRATION (TO BE REMOVED)
- 7.01 — PHOTOGRAPHIC DETAIL (PLAN DIRECTION)
- DIRECTION OF SLOPE
- 101 — DETAIL NUMBER
- 5 — PLAN SPECIFIC NOTE
- N.I.C. — NOT IN CONTRACT
- R(#) — ROOF AREA (NUMBER)
- M — MECHANICAL / CHILLER PIPE
- EJ — EXPANSION JOINT
- AD — AREA DIVIDER
- G — GAS LINE
- PIPE (WITH SUPPORT)
- E — ELECTRICAL CONDUIT
- PARAPET WALL W/ COPING CAP
- DS — GUTTER WITH DOWNSPOUT
- 4x4 DS 4" DS — DOWNSPOUT (SIZE, INCHES)
- ROOF HATCH (SCUTTLE)
- ANTENNA, MAY VARY
- PONDED WATER
- ROOF LADDER
- WALKPADS
- DS — DOWNSPOUT WITH METAL SPLASH
- WEATHER HEAD
- PIPE PORTAL (CURB MOUNTED)
- AL — ARCHITECTURAL LIGHT

ABBREVIATIONS

A/C	AIR CONDITIONER	FD	FLOOR DRAIN	PT	PAINT
ADJ	ADJACENT	FURN	FURNITURE	POLYISO	POLYISO-CYANURATE
ADMIN	ADMINISTRATION	GA	GAUGE	PP	PITCH PAN
AFF	ABOVE FINISH FLOOR	GALV	GALVANIZED	PVC	POLYVINYL CHLORIDE
A/H	AIR HANDLER	GC	GENERAL CONTRACTOR	PSI	POUNDS PER SQUARE INCH
ALT	ALTERNATE	GSF	GROSS SQUARE FOOTAGE	PT-P.T.	PRESERVATIVE TREATED (WOOD)
ALUM	ALUMINUM	GYP BD	GYPSUM BOARD	QTY	QUANTITY
&	AND	GYPC	GYPSUM CONCRETE DECK	R.C.O.	RAIN CLEAN OUT PLUG
APPROX	APPROXIMATE	HDW	HARDWARE	RWL	RAIN WATER LEADER
A.R.	AS REQUIRED	HVAC	HEATING, VENTILATING, AIR CONDITIONING	REF	REFERENCE TO
ARCH	ARCHITECTURAL	HT	HEIGHT	REFRIG	REFRIGERATOR
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERING	HB	HOSE BIB	REINFOR.	REINFORCEMENT
ASPH	ASPHALT	HWH	HOT WATER HEATER	REQ	REQUIRED
AVG	AVERAGE	INCL. ((I.D.))	INCLUDED INDICATES DETAIL	REV	REVISION/REVISED
AWI	AMERICAN WOODWORK INSTITUTE	INT	INTERIOR	R.O.	ROUGH OPENING
BLDG	BUILDING	JAN	JANITOR	RM	ROOM
BOT	BOTTOM	JUNC	JUNCTION	R.D.	ROOF DRAIN
BUR	BUILT-UP ROOFING	LAB	LABORATORY	SAN	SANITARY
CPT	CARPET	LAM	LAMINATED	SCHED	SCHEDULE
CAB	CABINET	LAV	LAVATORY	SCN	SCREEN
C.I.P.	CAST IN PLACE	LIC	LICENSE	SEC	SECRETARY
CL	CENTERLINE	LN. CLT.	LINEN CLOSET	SF	SQUARE FOOTAGE
CLG	CEILING	M.O.	MAXIMUM OPENING	SIM	SIMILAR
CLGHT	CEILING HEIGHT	MAX	MAXIMUM	SOG	SLAB ON GRADE
CO	CLEAN OUT (DRAINAGE)	MECH	MECHANICAL	SPECS	SPECIFICATIONS
CLR	CLEAR	MEZZ	MEZZANINE	SQ	SQUARE
CONC	CONCRETE	MFR	MANUFACTURER	SS	STAINLESS STEEL
CONTS	CONTINUOUS	MNF	MANUFACTURER'S FINISH	STD	STANDARD
CMU	CONCRETE MASONRY UNIT	MGR	MANAGER	STOR	STORAGE
CONF	CONFERENCE	MPH	MILES PER HOUR	SW	SWITCH
CONT	CONTINUOUS	MISC	MISCELLANEOUS	TV	TELEVISION
C.J.	CONTROL JOINTS	MIN	MINIMUM	TBD	TO BE DETERMINED
CORR	CORRIDOR	M.R.	MOISTURE RESISTANT	T.G.	TONGUE AND GROOVE
CTP	COAL TAR PITCH	NGVD	NATIONAL GEODETIC VERTICAL DATUM	T.O.	TOP OF
DEMO	DEMOLISH (TION)	N.S & F.S.	NEAR SIDE AND FAR SIDE	TYP	TYPICAL
DIAG	DIAGONAL	N	NORTH	UNO	UNLESS NOTED OTHERWISE
DIA	DIAMETER	N/A	NOT APPLICABLE	VE	VALUE ENGINEER
DIM	DIMENSION	NIC	NOT IN CONTRACT	VCT	VINYL COMPOSITION TILE
DN	DOWN	NTS	NOT TO SCALE	V.I.F.	VERIFY IN FIELD
DS	DOWN SPOUT	NOM	NOMINAL	VENT	VENTILATION
DR	DOOR	NO.	NUMBER	V.T.R.	VENT THROUGH ROOF
DTL/DET	DETAIL	O..B.	OIL RUBBED BRONZE	VERT	VERTICAL
DWG	DRAWING	OC	ON CENTER	VWC	VINYL WALLCOVERING
ELEC.	ELECTRICAL	OPNG	OPENING	W/	WITH
EL	ELEVATION	OPP	OPPOSITE	WC	WALLCOVERING
ELEV	ELEVATOR	OSB	ORIENTED STRAND BOARD	WD	WOOD
EQ	EQUAL	OVF.D.	OVERFLOW DRAIN	W/O	WITH OUT
EQUIP	EQUIPMENT	OVF.S.	OVERFLOW SCUPPER	W.	WEST
EXIST	EXISTING	PL	PLASTIC LAMINATE	W.C.	WATER CLOSET
ECF	EXPOSED CONCRETE FINISH	PLAM	PLASTIC LAMINATE	W.P.	WORKING POINT
F.O.	FACE OF	PLYWD	PLYWOOD	WP	WEATHER PROTECTION
FEMA	FEDERAL EMERGENCY MANAGEMENT			WT.	WEIGHT
FT	FEET			WWF	WELDED WIRE FABRIC
FIN	FINISH				
FE	FIRE EXTINGUISHER				
F.(I.D.))	FLEX-I-DRAIN				
FL	FLOOR				

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS

Sheet Number: **G-200**

Revision No.:

PROJECT DATA

JURISDICTION AGENCY:	HILLSBOROUGH COUNTY PUBLIC SCHOOLS CONSTRUCTION OPERATIONS DIVISION 1202 EAST PALM AVENUE. TAMPA, FLORIDA 33605-3512
PROJECT ADDRESS:	HOWARD W. BLAKE HIGH SCHOOL 1701 NORTH BOULEVARD. TAMPA, FLORIDA 33607
OWNER:	HILLSBOROUGH COUNTY PUBLIC SCHOOLS CONSTRUCTION OPERATIONS DIVISION 1202 EAST PALM AVENUE. TAMPA, FLORIDA 33605-3512
ARCHITECT / ROOF CONSULTANT:	C. B. GOLDSMITH AND ASSOCIATES, INC. 2555 NURSERY ROAD CLEARWATER, FLORIDA 33764 PH. (727) 540-0456

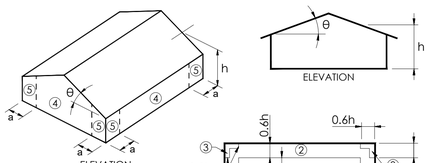
DESIGN WIND LOADS

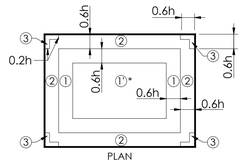
BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150.0	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	30	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT)
EDGE STRIP (a)	SEE PLANS	MINIMUM

DESIGN WIND PRESSURES (ASD):

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE * 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5(+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		





* NOTE: ZONE 1' HAS NOT BEEN EVALUATED.
ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

BUILDING CODES

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, ORDINANCES AND STATUTES, INCLUDING BUT NOT LIMITED TO:

BUILDING	FLORIDA BUILDING CODE (FBC), (7TH ED., 2020)
EXISTING	FLORIDA BUILDING CODE, EXISTING (7TH ED., 2020)
ELECTRICAL	NATIONAL ELECTRIC CODE, NFPA 70 (2020), NFPA 70A (2005)
PLUMBING	FLORIDA BUILDING CODE, PLUMBING (7TH ED., 2020)
MECHANICAL	FLORIDA BUILDING CODE, MECHANICAL (7TH ED., 2020)
TESTING	FLORIDA BUILDING CODE, TEST PROTOCOLS (7TH ED., 2020)
FIRE	FLORIDA FIRE PREVENTION CODE, 7TH ED. FFPC (2020), 2018 NFPA 1
ENERGY CONSERVATION	FLORIDA BUILDING CODE, ENERGY CONSERV. (7TH ED., 2020)
ACCESSIBILITY	FLORIDA ACCESSIBILITY CODE (7TH ED., 2020)

ARCHITECT STATEMENT OF COMPLIANCE: "TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE FLORIDA BUILDING CODE"

GENERAL ROOFING NOTES

1. DEFINITIONS
   - 1.1. ROOFING TERMINOLOGY: REFER TO ASTM D1079 AND GLOSSARY IN THE "NRCA ROOFING AND WATERPROOFING MANUAL" FOR DEFINITION OF TERMS RELATED TO ROOFING WORK IN THIS SECTION.
   - 1.2. ROOF TEAR-OFF: REMOVAL OF EXISTING MEMBRANE ROOFING SYSTEM FROM DECK.
   - 1.3. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE REMOVED AND REINSTALLED.
   - 1.4. EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT INDICATED TO BE REMOVED.
2. PRE-ROOFING CONFERENCE:
   - 2.1. MEET WITH OWNER; ARCHITECT; ROOFING SYSTEM MANUFACTURER'S REPRESENTATIVE; ROOFING INSTALLER, INCLUDING PROJECT MANAGER, SUPERINTENDENT, AND FOREMAN; AND INSTALLERS WHOSE WORK INTERFACES WITH OR AFFECTS ROOFING, INCLUDING INSTALLERS OF ROOF ACCESSORIES, ROOF-MOUNTED EQUIPMENT, MECHANICAL AND ELECTRICAL CONTRACTORS.
   - 2.2. REVIEW METHODS AND PROCEDURES RELATED TO ROOFING SYSTEM TEAR-OFF AND REPLACEMENT INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
     - .1 ROOFING PREPARATION, INCLUDING MEMBRANE ROOFING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS.
     - .2 TEMPORARY PROTECTION REQUIREMENTS FOR EXISTING ROOFING SYSTEM THAT IS TO REMAIN DURING AND AFTER INSTALLATION.
     - .3 EXISTING ROOF DRAINS AND ROOF DRAINAGE DURING EACH STAGE OF RE-ROOFING, AND ROOF DRAIN PLUGGING, PLUG REMOVAL AND REPLACEMENT REQUIREMENTS.
     - .4 CONSTRUCTION SCHEDULE AND AVAILABILITY OF MATERIALS, INSTALLER'S PERSONNEL, EQUIPMENT, AND FACILITIES NEEDED TO MAKE PROGRESS AND AVOID DELAYS.
     - .5 EXISTING DECK REMOVAL PROCEDURES AND OWNER NOTIFICATIONS.
     - .6 CONDITIONS AND ACCEPTANCE OF EXISTING ROOF DECK AND BASE FLASHING SUBSTRATE FOR REUSE.
     - .7 STRUCTURAL LOADING LIMITATIONS OF DECK DURING RE-ROOFING.
     - .8 BASE FLASHINGS, SPECIAL ROOFING DETAILS, DRAINAGE, PENETRATIONS, EQUIPMENT CURBS, AND CONDITION OF OTHER CONSTRUCTION THAT WILL AFFECT RE-ROOFING.
     - .9 HVAC SHUTDOWN AND SEALING OF AIR INTAKES.
     - .10 SHUTDOWN OF FIRE-SUPPRESSION, -PROTECTION, AND -ALARM AND -DETECTION SYSTEMS.
     - .11 GOVERNING REGULATIONS AND REQUIREMENTS FOR INSURANCE AND CERTIFICATES, IF APPLICABLE.
     - .12 EXISTING CONDITIONS THAT MAY REQUIRE NOTIFICATION OF ARCHITECT BEFORE PROCEEDING.
3. DURING ANY RE-ROOFING, DETERIORATED DECKING IS TO BE REPLACED TO PROVIDE A FIRM AND STABLE SURFACE TO ATTACH ROOF SYSTEM.
4. WATER LEAKS THAT CAUSE DAMAGE DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE, INCLUDING ANY ITEMS INSIDE THE BUILDINGS. EXTRA CARE MUST BE TAKEN AT END OF EACH DAYS WORK TO INSTALL WATER TIGHT CUTOFFS AND NIGHT SEALS. CUTOFFS MUST BE COMPLETELY REMOVED PRIOR TO THE RESUMPTION OF ROOFING.
5. ALL ROOFING MATERIALS SHALL BE KEPT DRY. COVER ALL MATERIALS WITH BREATHABLE TARP TYPE COVER. MANUFACTURER'S PROTECTIVE WRAP WILL BE ALLOWED TO REMAIN, IN ADDITION TO THE BREATHABLE TARP. THE USE OF VISQUEEN TO COVER ROOFING MATERIALS STORED ON SITE IS STRICTLY PROHIBITED. FOLLOW RECOMMENDATIONS OF PIMA TECHNICAL BULLETIN #109 FOR CARE AND HANDLING OF POLYISO ROOF INSULATION.
6. ROOF COVERINGS SHALL BE APPLIED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE FLORIDA BUILDING CODE, CHAPTER 15 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. ALL LAYERS OF ROOFING MEMBRANE SHALL BE LAID FREE OF WRINKLES, CREASES, FISHMOUTHS AND SHALL BE LAID AT RIGHT ANGLES TO THE SLOPE OF THE DECK. MEMBRANE SHALL BE LAID DIRECTLY BEHIND THE APPLICATOR. SUFFICIENT PRESSURE SHALL BE EXERTED ON THE ROLL DURING APPLICATION TO PREVENT VOIDS AND AIR POCKETS.
8. BASE FLASHINGS ARE REQUIRED TO EXTEND A MINIMUM OF 8-INCHES ABOVE THE FINISHED ROOF FOR ROOF MOUNTED EQUIPMENT, EXPANSION JOINTS, ETC. VENT STACK PIPES LESS THAN 6-INCHES HIGH SHALL BE EXTENDED.
9. IT IS THE INTENT OF THESE DOCUMENTS THAT ALL MECHANICAL CURBS, ROOF CURBS AND/OR BASE FLASHINGS BE A MINIMUM OF 8-INCHES ABOVE THE FINISHED ROOF SYSTEM. COMPARE THE INSULATION SHOP DRAWINGS WITH ALL THE EXISTING ROOF CURBS TO DETERMINE WHAT THE NEW CURB HEIGHTS WILL BE. CONTRACTOR TO RAISE EACH ROOF CURB SO THE MINIMUM REQUIRED BASE FLASHING HEIGHT OF 8-INCHES CAN BE PROVIDED. RAISING OF EXISTING CURBS CAN BE BY INSTALLING WOOD BLOCKING UNDER THE ROOF CURBS OR BY INSTALLING NEW WOOD CURB EXTENSIONS, AS REQUIRED.
10. LIMIT CONSTRUCTION LOADS ON ROOF TO 100 PSF ROOFTOP EQUIPMENT WHEEL LOADS AND 30 PSF FOR UNIFORMLY DISTRIBUTED LOADS.
11. VERIFY THAT ALL ROOF DRAINS AND DRAIN LEADERS ARE CLEAR PRIOR TO START OF WORK.
12. THE CONTRACTOR SHALL REPLACE ALL STAINED CEILING TILE IN ALL BUILDINGS OF THIS CONTRACT. THE CONTRACTOR SHALL VERIFY THE NUMBER OF STAINED CEILING TILE PRIOR TO THE START OF WORK ON THE PROJECT. ALL DAMAGED CEILING TILES ARE TO BE REPLACED PRIOR TO CALLING FOR SUBSTANTIAL COMPLETION.
13. ALL WOOD BLOCKING AND SHEET METAL FABRICATION AND INSTALLATION SHALL COMPLY WITH ANSI/SPRI ES-1 AND/OR RAS 111. ANCHOR/RESECURE ALL WOOD BLOCKING AS NECESSARY TO COMPLY WITH THE LOAD REQUIREMENTS.
14. DETAILS AND SHEET METAL TRANSITIONS THAT ARE NOT SHOWN SHALL BE REQUIRED AS IF THEY WERE INDICATED ON THE PLANS. CONTRACTOR SHALL SUBMIT NEW OR PROPOSED SHOP DRAWINGS TO ARCHITECT FOR REVIEW AND APPROVAL.
15. CONTINUOUS INSULATION INSTALLED ENTIRELY ABOVE THE ROOF DECK SHALL BE MINIMUM R-25ci FOR CLIMATE ZONE 2A. NOTE: CONTINUOUS INSULATION (CI) IS DEFINED AS INSULATING MATERIAL THAT IS CONTINUOUS ACROSS ALL STRUCTURAL MEMBERS WITHOUT THERMAL BRIDGES OTHER THAN FASTENERS AND SERVICE OPENINGS. IT IS INSTALLED ON THE INTERIOR OR EXTERIOR OR IS INTEGRAL TO ANY OPAQUE SURFACE OF THE BUILDING ENVELOPE.
16. CONTRACTOR SHALL EMPLOY ONLY NRCA PRO-CERTIFIED INSTALLERS AND/OR CERTA-CERTIFIED APPLICATORS TO OPERATE TORCHES WHEN AN OPEN FLAME WILL CONTACT ANY PART OF A ROOF.

SCOPE OF ROOFING WORK

THE ROOFING WORK IN THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING BRIEF OUTLINE (PRESENTED HERE AS A GUIDE ONLY):

1. SCHOOL HOURS WHEN CLASSES ARE IN SESSION ARE AS FOLLOWS:
   - 1.1 MONDAY-FRIDAY: (HOURS TO BE DETERMINED)
2. WORK RESTRICTIONS:
   - 2.1 OCCUPIED BUILDINGS / ACTIVE SCHOOL DATES (DATE TO BE DETERMINED):
     - .1 WORK HOURS ARE RESTRICTED TO NON-HOLIDAY WEEKDAYS BETWEEN 3:30PM AND 6:30AM, MONDAY- FRIDAY. WORK MAY BE PERFORMED ON WEEKENDS AND HOLIDAYS ON THE ROOF AND SITE WITHOUT TIME RESTRICTIONS.
     - .2 ACCESS TO BUILDINGS INTERIORS FOR PLUMBING, ELECTRICAL, MECHANICAL AND/OR STRUCTURAL WORK WILL BE ALLOWED BETWEEN 3:00PM AND 8:30PM, MONDAY–FRIDAY. WORKERS INSIDE OF BUILDINGS ARE TO BE DIRECTLY AND CONSTANTLY SUPERVISED BY THE CONSTRUCTION SUPERINTENDENT. THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR REPORTED MISSING AND/OR DAMAGED ITEMS OUTSIDE OF THE SUPERVISED CONSTRUCTION AREA.
     - .3 WORKERS ARE TO DISPLAY JESSICA LUNSFORD BADGES WHILE STUDENTS ARE ON CAMPUS.
     - .4 ALL DISTURBED AREAS OF THE CAMPUS ARE TO BE RESTORED FOR USE BY STUDENTS PRIOR TO 6:30AM ON THE NEXT SCHOOL DAY.
     - .5 WORK MAY BE PERFORMED ON WEEKENDS AND HOLIDAYS INSIDE THE BUILDING WITH 72 HOUR ADVANCE NOTICE AND REQUIRES CUSTODIAL COORDINATION AND COMPENSATION FOR TIME.
   - 2.2 SUMMER MONTHS (DATES TO BE DETERMINED):
     - .1 WORK MANY BE PERFORMED ON WEEKDAYS, WEEKENDS, AND HOLIDAYS ON THE ROOF AND SITE WITHOUT RESTRICTIONS.
     - .2 ACCESS TO BUILDING INTERIORS FOR PLUMBING, ELECTRICAL, MECHANICAL AND/OR STRUCTURAL WORK WILL BE PROVIDED FROM 7:00AM UNTIL 5:00PM, MONDAY–FRIDAY. WORKERS INSIDE OF BUILDINGS ARE TO BE DIRECTLY AND CONSTANTLY SUPERVISED BY THE CONSTRUCTION SUPERINTENDENT. CONTRACTOR SHALL NOT BE RESPONSIBLE FOR REPORTED MISSING AND/OR DAMAGED ITEMS OUTSIDE OF THE SUPERVISED CONSTRUCTION AREA.
     - .3 THE SCHOOL WILL NOT BE CLOSED TO STUDENTS DURING THIS TIME. WORKERS ARE TO DISPLAY JESSICA LUNSFORD BADGES WHILE STUDENTS ARE ON CAMPUS.
     - .4 ALL PLUMBING, ELECTRICAL, AND/OR MECHANICAL WORK SHALL BE SUBSTANTIALLY COMPLETE DURING THIS TIME PERIOD.
   - 2.3 WORK MAY NOT BE PERFORMED, NOR MAY MATERIALS BE DELIVERED, EXCEPT DURING TIMES WHEN THE CONSTRUCTION SUPERINTENDENT IS ON SITE.
   - 2.4 **THE CAP SHEET AND BASE FLASHING INSTALLATION MUST BE PERFORMED DURING DAYLIGHT HOURS** BETWEEN 10:00AM TO 8:00PM (OR SUNSET). TORCHING OF ROOFING MATERIALS SHALL NOT BE PERFORMED OVER OCCUPIED SPACE.
   - 2.5 THE BIDDERS, BY SUBMITTING A BID, AGREE TO RESTRICT THEIR WORK AS NOTED ABOVE. THE WORK HOURS MAY NOT BE ALTERED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER. WORK HOURS WILL NOT BE ALTERED FOR THE CONTRACTOR'S CONVENIENCE.
3. SELECTIVE DEMOLITION - REFER TO SECTION 02 41 20:
   - 3.1 PATCH ALL DETERIORATED, RUSTED, OR DAMAGED DECK COMPONENTS (UNIT COST BASIS).
   - 3.2 REMOVE THE EXISTING MATERIALS IN PREPARATION FOR A NEW ROOFING SYSTEM.
   - 3.3 PROVIDE PHYSICAL PROTECTION TO ALL INTERIOR SPACES DURING DEMOLITION AND CONSTRUCTION. CONTRACTOR SHALL ALSO PROVIDE NIGHTLY CLEANING TO RETURN SPACES TO USE THE FOLLOWING MORNING.
   - 3.4 FLASHING, SHEET METAL AND ACCESSORIES: REMOVE ALL EXISTING FLASHING AND COUNTER FLASHING AS INDICATED ON THE DRAWINGS, ETC. - SCRAP. REMOVE ALL EXISTING ACCESSORIES ON ROOF TO BE REUSED - CLEAN THOROUGHLY AND SAVE FOR REUSE. DISCONNECT/REMOVE ALL ITEMS INDICATED FOR DISPOSAL.
   - 3.5 REMOVE ABANDONED ROOF ACCESSORIES AND REPAIR ALL ABANDONED DECK OPENINGS.
   - 3.6 CUT EXISTING PARAPET WALLS TO ENLARGE EXISTING SECONDARY SCUPPER OPENINGS.
   - 3.7 DISPOSE OF SCRAP LEGALLY.
   - 3.8 STORE AND PROTECT REUSABLE MATERIALS, SPECIALTIES AND ACCESSORIES INTENDED TO BE REINSTALLED.
4. LANDSCAPING:
   - 4.1 PHOTOGRAPHICALLY DOCUMENT ALL LANDSCAPING AROUND PERIMETER OF BUILDING;
   - 4.2 UNLESS OTHERWISE INDICATED, PRUNING AND/OR TRIMMING OF EXISTING TREES SHALL BE BY CONTRACTOR. CONTRACTOR TO NOTIFY OWNER WHERE TREES AND SHRUBS CONFLICT WITH THE WORK, PRIOR TO ANY PRUNING AND/OR TRIMMING.
   - 4.3 CONTRACTOR SHALL TEST IRRIGATION SYSTEM PRIOR TO THE START OF CONSTRUCTION. AND PROVIDE WRITTEN DOCUMENTATION OF ALL DEFICIENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE EXISTING IRRIGATION SYSTEMS. CONTRACTOR SHALL REPLACE ALL DAMAGED COMPONENTS AS REQUIRED TO BRING SYSTEM BACK TO ORIGINAL CONDITION AFTER COMPLETION OF THE WORK. VERIFY SYSTEM BEFORE THE START AND AFTER COMPLETION OF WORK;
   - 4.4 INSTALL NEW SOD TO REPLACE THAT WHICH WAS DESTROYED DURING THE WORK.
5. CEMENTITIOUS DECK REPAIRS - REFER TO SECTION 03 51 00:
   - 5.1 VERIFY CONDITION OF EXISTING LIGHT WEIGHT CONCRETE DECK AND REPAIR/REPLACE ALL DETERIORATED, FRACTURED, AND LOOSE CONCRETE. PROVIDE PHOTOGRAPHIC DOCUMENTATION OF DETERIORATED CONCRETE BEFORE AND AFTER REPAIRS AT EACH LOCATION AND MARK ALL REPAIR LOCATIONS ON ROOF PLANS. UNIT COSTS FOR CEMENTITIOUS REPAIRS WILL NOT BE AUTHORIZED WITHOUT PROPER DOCUMENTATION.
6. METAL DECK REPAIRS - REFER TO SECTION 05 31 40:
   - 6.1 VERIFY CONDITION OF EXISTING METAL DECK AND REPAIR/REPLACE ALL DETERIORATED DECKING COMPONENTS (TO MATCH). PROVIDE PHOTOGRAPHIC DOCUMENTATION OF DETERIORATED ROOF DECK BEFORE AND AFTER REPAIRS AT EACH LOCATION AND MARK ALL REPAIR LOCATIONS ON ROOF PLANS. UNIT COSTS FOR DECK REPAIRS WILL NOT BE AUTHORIZED WITHOUT PROPER DOCUMENTATION.
7. ROUGH CARPENTRY - REFER TO SECTION 06 10 00:
   - 7.1 VERIFY CONDITION OF EXISTING WOOD PLANK DECK AND REPAIR/REPLACE ALL DETERIORATED DECKING COMPONENTS (TO MATCH). RE-ANCHOR ALL PERIMETER WOOD NAILERS/BLOCKING.
   - 7.2 VERIFY EXISTING AND PROVIDE NEW PRESERVATIVE TREATED LUMBER AND PLYWOOD TO MATCH AND REPLACE ALL DETERIORATED PARTS, PIECES AND SHAPES.
   - 7.3 PROVIDE NEW PRESERVATIVE TREATED PLYWOOD, NAILERS, BLOCKING, SHIMS, PLATES AND CURBS AS REQUIRED TO COMPLETE AND/OR CORRECT THE WORK AND TO CONFORM TO REQUIREMENTS OF ALL NEW EXTERIOR DETAILS.
   - 7.4 BACKUP REQUIRED. PROVIDE PHOTOGRAPHIC DOCUMENTATION OF DETERIORATED WOOD COMPONENTS BEFORE AND AFTER REPAIRS AT EACH LOCATION AND MARK ALL REPAIR LOCATIONS ON ROOF PLANS. UNIT COSTS WORK TO REPLACE WOOD WILL NOT BE AUTHORIZED WITHOUT PROPER DOCUMENTATION.
8. ROOF AND DECK INSULATION - REFER TO SECTION 07 22 00:
   - 8.1 FURNISH AND INSTALL NEW RIGID AND TAPERED INSULATION.
   - 8.2 PROVIDE NEW SPECIFIED FIRE BARRIER (COVER) BOARDS.
   - 8.3 PROVIDE NEW TAPERED CRICKETS, SUMPS, CANTS AND/OR EDGE STRIPS.
   - 8.4 PROVIDE NEW SPECIFIED NON-CORROSIVE FASTENERS.
9. MODIFIED BITUMEN ROOFING MEMBRANE - REFER TO SECTION 07 52 16.2:
   - 9.1 FURNISH AND INSTALL NEW MULTIPLE PLY MODIFIED BITUMEN ROOFING SYSTEM WITH 2-PLY BASE FLASHINGS AT DESIGNATED ROOF AREAS.

SCOPE OF ROOFING WORK, CONT'D

- 9.2 CONTRACTOR SHALL EMPLOY ONLY NRCA PRO-CERTIFIED INSTALLERS AND/OR CERTA-CERTIFIED APPLICATORS TO OPERATE TORCHES WHEN AN OPEN FLAME WILL CONTACT ANY PART OF A ROOF.
- 9.3 PROVIDE NEW FOIL-FACED ALUMINUM BASE FLASHING AT LOCATIONS INDICATED.
- 9.4 PROVIDE ALL NECESSARY ACCESSORY COMPONENTS TO ENSURE A WEATHERTIGHT INSTALLATION.
- 9.5 IF THE CONTRACTOR'S PROPOSED ROOFING MANUFACTURER DOES NOT HAVE TESTING FOR THE SPECIFIED ROOF DECKS, THEN SITE SPECIFIC TESTING (INCLUDING PULL TESTS), AND ENGINEERING SHALL BE REQUIRED.
- 9.6 PROVIDE FIVE (5) YEAR CONTRACTOR WARRANTY, INCLUDED IN THESE DOCUMENTS.
- 9.7 PROVIDE TWENTY (20) YEAR MANUFACTURER'S NDL WEATHERTIGHTNESS WARRANTY, INCLUDED IN THESE DOCUMENTS.

10. FLASHING, SHEET METAL AND ACCESSORIES - REFER TO SECTION 07 60 00:
    - 10.1 PROVIDE NEW METAL FLASHINGS AND COUNTER FLASHINGS, AND PARAPET COPINGS, AND SEALANTS PER TYPICAL DETAILS. FIELD TEMPLATE AND SHOP FABRICATE METAL FLASHINGS AS MUCH AS POSSIBLE.
    - 10.2 PROVIDE NEW REINFORCED LIQUID FLASHING SYSTEM TO TRANSITION DETAILS, WHERE INDICATED. EMBED MATCHING GRANULES IN TOP COAT OF ALL LIQUID FLASHING DETAILS.
    - 10.3 VENTILATION UNITS SUPPORT CURBS: INSTALL NEW EF CURBS AS INDICATED WITH NEW PT WOOD FRAMING OR PRE-MANUFACTURED NAILERS TO 12-IN. ABOVE TOP OF FINISHED ROOFING (TYPICAL). EXTEND ELECTRICAL, AND MECHANICAL DUCTS AS REQUIRED. INSTALL NEW SKIRT FLASHING, PER TYPICAL DETAIL.
    - 10.4 ACCESSORIES: INSTALL NEW VTR FLASHINGS (WITH PIPE EXTENSIONS, WHERE REQUIRED), ROOF-TO-ROOF LADDERS, EDGE PROTECTION GUARD RAILS, THROUGH-WALL SECONDARY SCUPPERS, METAL COPINGS, METAL FASCIA, SURFACE-MOUNTED COUNTER FLASHINGS, SKIRT METAL FLASHINGS, CONDENSATE/ELECTRICAL PIPE SUPPORTS, ETC., PER SPECIFICATIONS AND TYPICAL DETAILS.
    - 10.5 PROVIDE NEW ALUMINUM EQUIPMENT SUPPORTS (PRECISION ALUMINUM PRODUCTS, ALUMA-STAND, FL16921-R3), WHERE INDICATED.
    - 10.6 UNLESS OTHERWISE INDICATED, THE EXISTING ROOF DRAINS ARE TO REMAIN. CLEAN EXISTING DRAIN BODY/BOWL AND PROVIDE NEW CAST IRON STRAINER, CLAMPING RING, ADJUSTABLE EXTENSIONS AND STAINLESS STEEL HARDWARE (I.E. BOLT, WASHER AND LOCK WASHER). PAINT ALL CLAMPING RINGS AND STRAINERS.
    - 10.7 INSPECT HORIZONTAL PIPE LEADERS BELOW ALL ROOF DRAINS ENSURING BRACED HANGER INSTALLATION HAS BEEN PROVIDED WITHIN 2-FEET OF EACH DRAIN. VERIFY PRESENCE OF ASPHALT AND/OR PITCH INSIDE EXISTING PIPE LEADERS. PROVIDE REPORT INDICATING THE LOCATION WHERE EXISTING LEADERS ARE CLOGGED WITH PITCH OR HAVE RESTRICTED FLOW.
    - 10.8 FLOOD TEST ALL NEW AND EXISTING ROOF DRAINS AND DRAIN CONNECTIONS.
    - 10.9 PROVIDE NEW SPECIFIED NON-CORROSIVE FASTENERS, WHERE REMOVED OR REPLACED. UNLESS OTHERWISE INDICATED, PROVIDED ONLY STAINLESS STEEL FASTENERS. GALVANIZED ANCHORS AND/OR FASTENERS ARE NOT ACCEPTABLE.
11. MISCELLANEOUS:
    - 11.1 REPAIR ALL EXISTING SIDEWALKS DAMAGED DURING COURSE OF WORK. THE BURDEN SHALL BE ON THE CONTRACTOR TO DEMONSTRATE IF THE SIDEWALKS WERE DAMAGED PRIOR TO START OF WORK.
    - 11.2 PROVIDE TEMPORARY SCAFFOLDING STAIR TOWERS FOR ROOF ACCESS BY OWNER AT APPROVED AND/OR DESIGNATED LOCATIONS. STAIR TOWERS SHALL BE COMPRISED OF SCAFFOLD COMPONENTS AND WHICH CONTAINS INTERNAL STAIRWAY UNITS AND REST PLATFORMS. STAIR TOWERS SHALL BE CONSTRUCTED WITH MINIMUM 1/2-IN. CDX PLYWOOD SECURED AROUND THE BASE OF STAIR WITH A LOCKABLE GATE TO LIMIT GROUND ACCESS. ALL SCAFFOLDS SHALL BE ERECTED, MODIFIED AND DISMANTLED ONLY UNDER THE SUPERVISION OF A COMPETENT PERSON. ERECTION, USE, MAINTENANCE AND DISASSEMBLY MUST CONFORM TO CURRENT MANUFACTURER'S INSTRUCTIONS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS.
    - 11.3 PROVIDE VISUAL SURVEY OF EXISTING CONDITIONS PRIOR TO START OF THE WORK. DOCUMENT WHERE FIREPROOFING IS MISSING FROM UNDERSIDE OF ROOF DECK. UPON COMPLETION OF EACH ROOF SECTION, SURVEY UNDERSIDE OF ROOF DECK AND REPLACE EXISTING FIREPROOFING DISPLACED FROM MECHANICAL ATTACHMENT OF INSULATION, PER UNIT COST BASIS.
    - 11.4 ASBESTOS CONTAINING MATERIAL (ACM) ABATEMENT: LABORATORY RESULTS INDICATE THAT NO ASBESTOS CONTAINING MATERIALS WERE DETECTED. REFER TO APPENDIX A FOR SUMMARY OF FINDINGS.
    - 11.5 LEAD-BASED PAINT ABATEMENT: NO LEAD-BASED PAINT MATERIALS WERE DETECTED. REFER TO APPENDIX A FOR SUMMARY OF FINDINGS.
    - 11.6 CONTRACTOR TO ASSIST ARCHITECT WITH ROOF ACCESS AFTER HOURS TO PERFORM A POST INSTALLATION AUDIT: PERFORM ROOF CUTS TO VERIFY ROOF CONDITIONS IDENTIFIED DURING THE SURVEY; AND REPAIR ROOF UPON COMPLETION.
    - 11.7 SPECIAL CONDITIONS:
      - .1 ADDITIONAL CONTRACT TIME SHALL BE ALLOTTED FOR "RAIN, TEMPERATURE OR WIND DAYS" WHEN PROPERLY DOCUMENTED. REQUESTS FOR ADDITIONAL CONTRACT TIME SHALL BE REQUESTED MONTHLY.
      - .2 WIRELESS WEATHER STATION: FOR PURPOSES OF VERIFICATION AND DOCUMENTATION OF THE WEATHER CONDITIONS AT THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A NEW PORTABLE WIRELESS WEATHER MONITORING STATION - REFER TO SECTION 01 45 00. DELIVER TO OWNER UPON COMPLETION OF WORK.
      - .3 ON-SITE OFFICE FACILITIES: NOT REQUIRED.
      - .4 PROJECT PHOTOGRAPHS: REQUIRED.
        - (1) DIGITAL PHOTOGRAPHS: PROVIDE DIGITAL PHOTOGRAPHS PER SECTION 01 32 33.
        - (2) AERIAL PHOTOGRAPHS: CONTRACTOR SHALL PROVIDE AERIAL PHOTOGRAPHS OF THE CONSTRUCTION SITE. PHOTOGRAPHS SHALL BE TAKEN ON A MONTHLY BASIS AND SHALL CONSIST OF (3) DIFFERENT VIEWS. PROVIDE (3) MINIMUM 8-IN. X 10-IN. GLOSS PRINTS OF FINAL AERIAL IMAGES UPON FINAL COMPLETION, INCLUDING A CD WITH DIGITAL COPY OF ORIGINAL (HIGH RESOLUTION) PRINT IMAGES WITH COPYRIGHT RELEASE. REFER TO SECTION 01 32 33.
      - .5 PROVIDE FIVE (5) YEAR CONTRACTOR'S GUARANTEE FOR ALL WORK. WARRANTIES OF LONGER DURATIONS ARE INCLUDED IN OTHER SECTIONS.
    - 11.8 PROVIDE APPROPRIATE FALL PROTECTION, WARNING LINES, COVERS, PLATFORMS, GUARDRAILS, AND OTHER PROTECTION EQUIPMENT AS NECESSARY TO ACCESS AND PERFORM THE WORK PER OSHA REQUIREMENTS.
    - 11.9 PROTECT PUBLIC AND PRIVATE PROPERTY FROM CONSEQUENTIAL DAMAGE FROM THE WORK OF THIS CONTRACT.
    - 11.10 CLEAN UP AND RESTORE ALL AREAS AFFECTED BY CONSTRUCTION. THIS INCLUDES REPAIRING PAVEMENT, INSTALLING SOD IN LAWN AREAS THAT ARE AFFECTED BY CONSTRUCTION, REPLACING DAMAGED LANDSCAPING, TOUCH UP DAMAGED PAINTED SURFACES, AND SWEEPING ALL PAVED AREAS WITH A MAGNETIZED SWEEPER.

cbga
C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456
Email: info@cbgoldsmith.com
License: AR-94537
Seal:
STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT
Robert J. Whitcomb

Consultant:

Client:
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

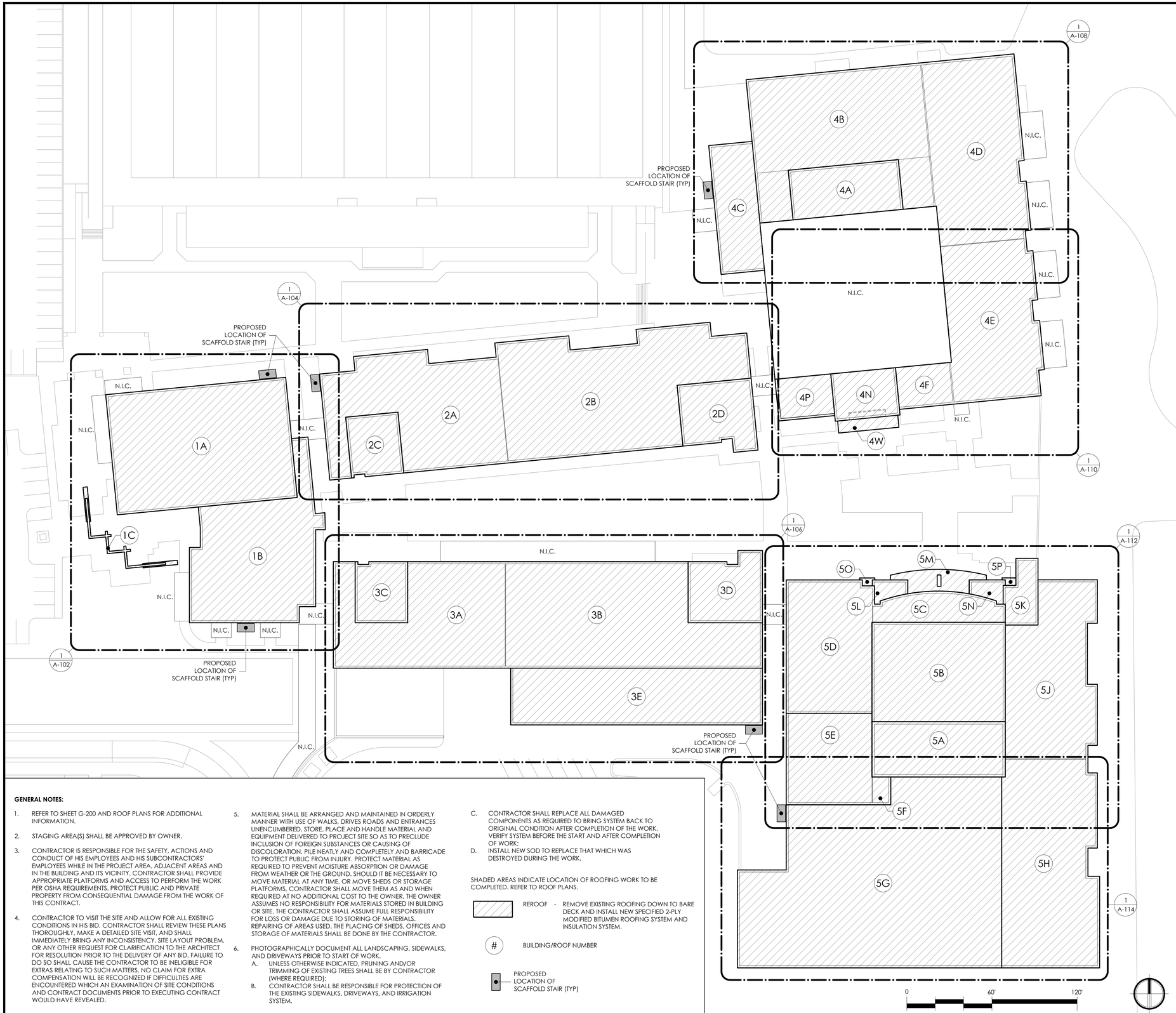
REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
PROJECT DATA, GENERAL ROOFING NOTES, SCOPE OF ROOFING WORK

Sheet Number: **G-300**
Revision No.:



EXISTING ROOFING COMPONENTS MATRIX

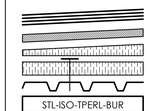
ROOF NUMBER	AREA * (SQ.FT)	DECK TYPE	SLOPE IN DECK	INSULATION AND ROOFING
RA-1A	10,838	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-1B	7,776	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-1C	267	BRICK	--	--
RA-2A	8,417	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-2B	12,002	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-2C	1,575	STEEL	NO	2.5"ISO+TPERL+4PLY BUR
RA-2D	2,383	STEEL	NO	2.5"ISO+T"PERL+4PLY BUR
RA-3A	7,456	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-3B	11,409	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-3C	1,578	STEEL	NO	2.5"ISO+TPERL+4PLY BUR
RA-3D	2,360	STEEL	NO	2.5"ISO+TPERL+4PLY BUR
RA-3E	7,080	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4A	2,740	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4B	9,823	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4C	2,851	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4D	8,427	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4E	7,073	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4F	1,133	STEEL	YES	2.5"ISO+.5PERL+4PLY BUR
RA-4N	1,535	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4P	1,165	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-4W	496	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5A	3,664	CONC	NO	2.5"ISO+TPERL+4PLY BUR
RA-5B	6,576	CONC	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5C	1,766	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5D	5,676	CONC	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5E	3,897	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5F	259	CONC	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5G	21,354	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5H	9,791	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5J	7,098	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5K	961	STEEL	YES	2.5"ISO+.5"PERL+4PLY BUR
RA-5L	309	CONC	NO	2.5"ISO+TPERL+4PLY BUR
RA-5M	780	CONC	NO	2.5"ISO+TPERL+4PLY BUR
RA-5N	319	CONC	NO	2.5"ISO+TPERL+4PLY BUR
RA-5O	46	CONC	NO	2.5"ISO+TPERL+4PLY BUR
RA-5P	44	CONC	NO	2.5"ISO+TPERL+4PLY BUR

170,924 SQ. FT. TOTAL ROOF AREA

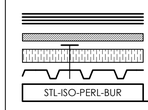
NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
BS = BASE SHEET
ISO = RIGID POLYISOCYANURATE
TPERL = TAPERED PERLITE
PERL = PERLITE BOARD
BUR = BUILT-UP ROOF
MBR = MODIFIED BITUMEN ROOF

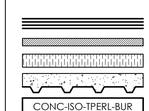
EXISTING ROOF ASSEMBLIES



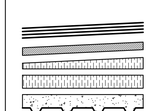
BUR — EXISTING 4-PLY B.U.R. ROOFING SYSTEM
TPERL — EXISTING TAPERED INSULATION AND PERLITE COVER BOARD
ISO — EXISTING INSULATION
STL — EXISTING STEEL DECK
STL-ISO-TPERL-BUR — **EXISTING ROOF ASSEMBLY**
EXISTING STEEL ROOF DECK



BUR — EXISTING 4-PLY B.U.R. ROOFING SYSTEM
PERL — EXISTING PERLITE COVER BOARD
ISO — EXISTING INSULATION
STL — EXISTING STEEL DECK
STL-ISO-PERL-BUR — **EXISTING ROOF ASSEMBLY**
EXISTING STEEL ROOF DECK



BUR — EXISTING 4-PLY B.U.R. ROOFING SYSTEM
PERL — EXISTING PERLITE COVER BOARD
ISO — EXISTING INSULATION
CONC — EXISTING CONCRETE DECK
CONC-ISO-TPERL-BUR — **EXISTING ROOF ASSEMBLY**
EXISTING CONCRETE ROOF DECK



BUR — EXISTING 4-PLY B.U.R. ROOFING SYSTEM
TPERL — EXISTING TAPERED INSULATION AND PERLITE COVER BOARD
ISO — EXISTING INSULATION
CONC — EXISTING CONCRETE DECK
CONC-ISO-TPERL-BUR — **EXISTING ROOF ASSEMBLY**
EXISTING CONCRETE ROOF DECK

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

GENERAL NOTES:

1. REFER TO SHEET G-200 AND ROOF PLANS FOR ADDITIONAL INFORMATION.
2. STAGING AREA(S) SHALL BE APPROVED BY OWNER.
3. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY, ACTIONS AND CONDUCT OF HIS EMPLOYEES AND HIS SUBCONTRACTORS' EMPLOYEES WHILE IN THE PROJECT AREA, ADJACENT AREAS AND IN THE BUILDING AND ITS VICINITY. CONTRACTOR SHALL PROVIDE APPROPRIATE PLATFORMS AND ACCESS TO PERFORM THE WORK PER OSHA REQUIREMENTS. PROTECT PUBLIC AND PRIVATE PROPERTY FROM CONSEQUENTIAL DAMAGE FROM THE WORK OF THIS CONTRACT.
4. CONTRACTOR TO VISIT THE SITE AND ALLOW FOR ALL EXISTING CONDITIONS IN HIS BID. CONTRACTOR SHALL REVIEW THESE PLANS THOROUGHLY, MAKE A DETAILED SITE VISIT, AND SHALL IMMEDIATELY BRING ANY INCONSISTENCY, SITE LAYOUT PROBLEM, OR ANY OTHER REQUEST FOR CLARIFICATION TO THE ARCHITECT FOR RESOLUTION PRIOR TO THE DELIVERY OF ANY BID. FAILURE TO DO SO SHALL CAUSE THE CONTRACTOR TO BE INELIGIBLE FOR EXTRAS RELATING TO SUCH MATTERS. NO CLAIM FOR EXTRA COMPENSATION WILL BE RECOGNIZED IF DIFFICULTIES ARE ENCOUNTERED WHICH AN EXAMINATION OF SITE CONDITIONS AND CONTRACT DOCUMENTS PRIOR TO EXECUTING CONTRACT WOULD HAVE REVEALED.
5. MATERIAL SHALL BE ARRANGED AND MAINTAINED IN ORDERLY MANNER WITH USE OF WALKS, DRIVES ROADS AND ENTRANCES UNENCUMBERED. STORE, PLACE AND HANDLE MATERIAL AND EQUIPMENT DELIVERED TO PROJECT SITE SO AS TO PRECLUDE INCLUSION OF FOREIGN SUBSTANCES OR CAUSING OF DISCOLORATION, PILE NEATLY AND COMPLETELY AND BARRICADE TO PROTECT PUBLIC FROM INJURY. PROTECT MATERIAL AS REQUIRED TO PREVENT MOISTURE ABSORPTION OR DAMAGE FROM WEATHER OR THE GROUND. SHOULD IT BE NECESSARY TO MOVE MATERIAL AT ANY TIME, OR MOVE SHEDS OR STORAGE PLATFORMS, CONTRACTOR SHALL MOVE THEM AS AND WHEN REQUIRED AT NO ADDITIONAL COST TO THE OWNER. THE OWNER ASSUMES NO RESPONSIBILITY FOR MATERIALS STORED IN BUILDING OR SITE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR LOSS OR DAMAGE DUE TO STORING OF MATERIALS, REPAIRING OF AREAS USED, THE PLACING OF SHEDS, OFFICES AND STORAGE OF MATERIALS SHALL BE DONE BY THE CONTRACTOR.
6. PHOTOGRAPHICALLY DOCUMENT ALL LANDSCAPING, SIDEWALKS, AND DRIVEWAYS PRIOR TO START OF WORK.
   A. UNLESS OTHERWISE INDICATED, PRUNING AND/OR TRIMMING OF EXISTING TREES SHALL BE BY CONTRACTOR (WHERE REQUIRED);
   B. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE EXISTING SIDEWALKS, DRIVEWAYS, AND IRRIGATION SYSTEM.
   C. CONTRACTOR SHALL REPLACE ALL DAMAGED COMPONENTS AS REQUIRED TO BRING SYSTEM BACK TO ORIGINAL CONDITION AFTER COMPLETION OF THE WORK. VERIFY SYSTEM BEFORE THE START AND AFTER COMPLETION OF WORK;
   D. INSTALL NEW SOD TO REPLACE THAT WHICH WAS DESTROYED DURING THE WORK.

SHADED AREAS INDICATE LOCATION OF ROOFING WORK TO BE COMPLETED. REFER TO ROOF PLANS.

REROOF - REMOVE EXISTING ROOFING DOWN TO BARE DECK AND INSTALL NEW SPECIFIED 2-PLY MODIFIED BITUMEN ROOFING SYSTEM AND INSULATION SYSTEM.

(#) BUILDING/ROOF NUMBER

PROPOSED LOCATION OF SCAFFOLD STAIR (TYP)

1	SITE PLAN - OVERALL ROOF PLAN
A-100	1/32" = 1'-0"

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	SITE PLAN
Sheet Number:	A-100
Revision No.:	

PLUMBING NOTES:

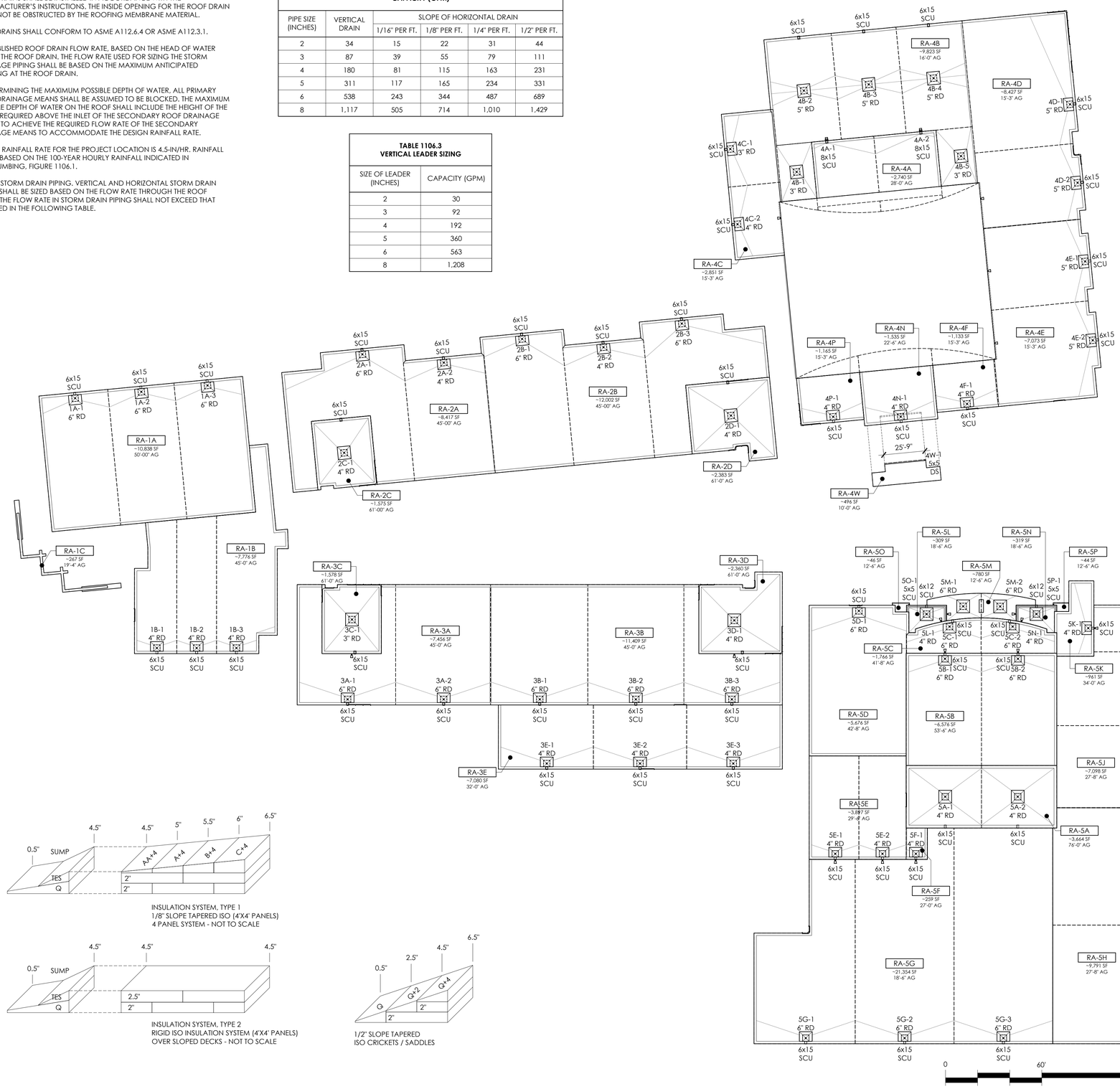
1. ROOF DRAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE INSIDE OPENING FOR THE ROOF DRAIN SHALL NOT BE OBSTRUCTED BY THE ROOFING MEMBRANE MATERIAL.
2. ROOF DRAINS SHALL CONFORM TO ASME A112.6.4 OR ASME A112.3.1.
3. THE PUBLISHED ROOF DRAIN FLOW RATE, BASED ON THE HEAD OF WATER ABOVE THE ROOF DRAIN, THE FLOW RATE USED FOR SIZING THE STORM DRAINAGE PIPING SHALL BE BASED ON THE MAXIMUM ANTICIPATED PONDING AT THE ROOF DRAIN.
4. IN DETERMINING THE MAXIMUM POSSIBLE DEPTH OF WATER, ALL PRIMARY ROOF DRAINAGE MEANS SHALL BE ASSUMED TO BE BLOCKED. THE MAXIMUM POSSIBLE DEPTH OF WATER ON THE ROOF SHALL INCLUDE THE HEIGHT OF THE WATER REQUIRED ABOVE THE INLET OF THE SECONDARY ROOF DRAINAGE MEANS TO ACHIEVE THE REQUIRED FLOW RATE OF THE SECONDARY DRAINAGE MEANS TO ACCOMMODATE THE DESIGN RAINFALL RATE.
5. DESIGN RAINFALL RATE FOR THE PROJECT LOCATION IS 4.5-IN/HR. RAINFALL RATE IS BASED ON THE 100-YEAR HOURLY RAINFALL INDICATED IN FBC-PLUMBING, FIGURE 1106.1.
6. SIZE OF STORM DRAIN PIPING. VERTICAL AND HORIZONTAL STORM DRAIN PIPING SHALL BE SIZED BASED ON THE FLOW RATE THROUGH THE ROOF DRAIN. THE FLOW RATE IN STORM DRAIN PIPING SHALL NOT EXCEED THAT SPECIFIED IN THE FOLLOWING TABLE.

TABLE 1106.2 - STORM DRAIN PIPE SIZING CAPACITY (GPM)

PIPE SIZE (INCHES)	VERTICAL DRAIN	SLOPE OF HORIZONTAL DRAIN			
		1/16" PER FT.	1/8" PER FT.	1/4" PER FT.	1/2" PER FT.
2	34	15	22	31	44
3	87	39	55	79	111
4	180	81	115	163	231
5	311	117	165	234	331
6	538	243	344	487	689
8	1,117	505	714	1,010	1,429

TABLE 1106.3 VERTICAL LEADER SIZING

SIZE OF LEADER (INCHES)	CAPACITY (GPM)
2	30
3	92
4	192
5	360
6	563
8	1,208



INSULATION SYSTEM, TYPE 1
1/8" SLOPE TAPERED ISO (4'X4' PANELS)
4 PANEL SYSTEM - NOT TO SCALE

INSULATION SYSTEM, TYPE 2
RIGID ISO INSULATION SYSTEM (4'X4' PANELS)
OVER SLOPED DECKS - NOT TO SCALE

1/2" SLOPE TAPERED
ISO CRICKETS / SADDLES

1	DRAINS CAPACITY VERIFICATION PLAN
A-101	1/32" = 1'-0"

REQUIRED ROOF DRAINAGE CAPACITY

DRAIN/DS LABEL	TRIBUTARY AREA (SQ.FT.)	**REQ'D CAPACITY (GPM)	DRAIN/DS SIZE (INCHES)	SCUPPER SIZE	RESERVED
1A-1	3,656 SF	171.1	6"	6x15	
1A-2	3,525 SF	165.0	6"	6x15	
1A-3	3,656 SF	171.1	6"	6x15	
1B-1	1,992 SF	93.2	4"	6x15	
1B-2	2,162 SF	101.2	4"	6x15	
1B-3	3,897 SF	182.4	4"	6x15	
1C	267 SF				
2A-1	5,628 SF	263.4	6"	6x15	
2A-2	3,788 SF	177.3	4"	6x15	
2B-1	4,229 SF	197.9	6"	6x15	
2B-2	3,788 SF	177.3	4"	6x15	
2B-3	4,735 SF	221.6	6"	6x15	
2C-1	1,575 SF	73.7	4"	6x15	
2D-1	2,383 SF	111.5	4"	6x15	
3A-1	3,999 SF	187.2	6"	6x15	
3A-2	4,442 SF	207.9	6"	6x15	
3B-1	4,548 SF	212.8	6"	6x15	
3B-2	4,495 SF	210.4	6"	6x15	
3B-3	2,366 SF	110.7	6"	6x15	
3C-1	1,578 SF	73.9	3"	6x15	
3D-1	2,360 SF	110.4	4"	6x15	
3E-1	2,754 SF	128.9	4"	6x15	
3E-2	2,703 SF	126.5	4"	6x15	
3E-3	2,773 SF	129.8	4"	6x15	
4A-1*	1,468 SF	68.7		8x15*	
4A-2*	1,469 SF	68.7		8x15*	
4B-1	1,030 SF	48.2	3"		
4B-2	4,340 SF	203.1	5"	6x15	
4B-3	2,939 SF	137.5	5"	6x15	
4B-4	4,328 SF	202.6	5"	6x15	
4B-5	1,059 SF	49.6	3"		
4C-1	1,475 SF	69.0	3"	6x15	
4C-2	1,425 SF	66.7	4"	6x15	
4D-1	5,398 SF	252.6	5"	6x15	
4D-2	3,177 SF	148.7	5"	6x15	
4E-1	3,501 SF	163.8	5"	6x15	
4E-2	3,988 SF	186.6	5"	6x15	
4F-1	1,500 SF	70.2	4"	6x15	
4N-1	1,798 SF	84.1	4"	6x15	
4P-1	1,535 SF	71.8	4"	6x15	
4W-1	496 SF	23.2	5x5		6x6
5A-1	1,832 SF	85.7	4"	6x15	
5A-2	1,832 SF	85.7	4"	6x15	
5B-1	3,288 SF	153.9	6"	6x15	
5B-2	3,288 SF	153.9	6"	6x15	
5C-1	1,157 SF	54.1	6"	6x15	
5C-2	1,170 SF	54.8	6"	6x15	
5D-1	6,027 SF	282.1	6"	6x15	
5E-1	2,200 SF	103.0	4"	6x15	
5E-2	3,072 SF	143.8	4"	6x15	
5F-1	584 SF	27.3	4"	6x15	
5G-1	5,827 SF	272.7	6"	6x15	
5G-2	8,234 SF	385.4	6"	6x15	
5G-3	10,666 SF	499.2	6"	6x15	
5H-1	5,025 SF	235.2	6"	6x15	
5H-2	5,133 SF	240.2	6"	6x15	
5J-1	4,227 SF	197.8	6"	6x15	
5J-2	3,240 SF	151.6	4"	6x15	
5J-3	1,326 SF	62.1	4"	6x15	
5K-1	1,016 SF	47.5	4"	6x15	
5L-1	801 SF	37.5	4"	6x12	
5M-1	774 SF	36.2	6"		
5M-2	774 SF	36.2	6"		
5N-1	744 SF	34.8	4"	6x12	
5O-1	261 SF	12.2		5x5	
5P-1	202 SF	9.5		5x5	

* MARKED AREAS DRAINS TO A LOWER LEVEL ROOF AREA THROUGH A PRIMARY SCUPPER

** DESIGN RAINFALL RATE OF 4.5-IN. PER HOUR IS EQUAL TO **2.805 G.P.H.** PER 1 SQ.FT. OR **0.0468 G.P.M.** PER 1 SQ.FT.

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
DRAINS CAPACITY PLAN

Sheet Number: **A-101**

Revision No.:

ROOF AREAS AND SYSTEM MATRIX

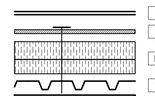
ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-1A	10,838	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-1B	7,776	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-1C	267	N	BRICK	N/A	N/A	METAL COPING

18,614 SQ. FT. TOTAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

NEW ROOF ASSEMBLY

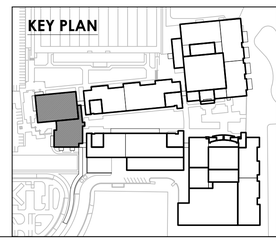


MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**
	EXISTING STEEL ROOF DECK

DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT. TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GUTTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT. O.C. REFER TO 59/A-509.

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

1	ROOF PLAN (ROOF AREAS - 1A, 1B)
A-102	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

No.	Description	Date
REVISIONS	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL

Sheet Number: **A-102**

Revision No.:

1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 1A, 1B)
A-103	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

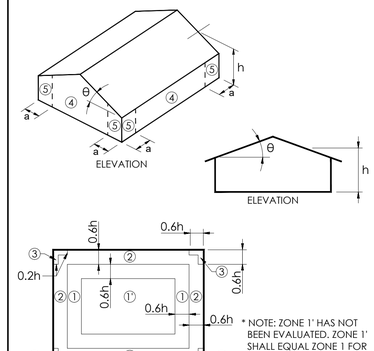
DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							



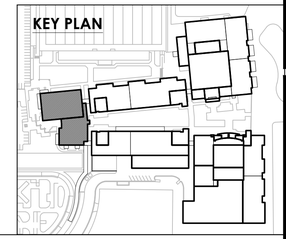
* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

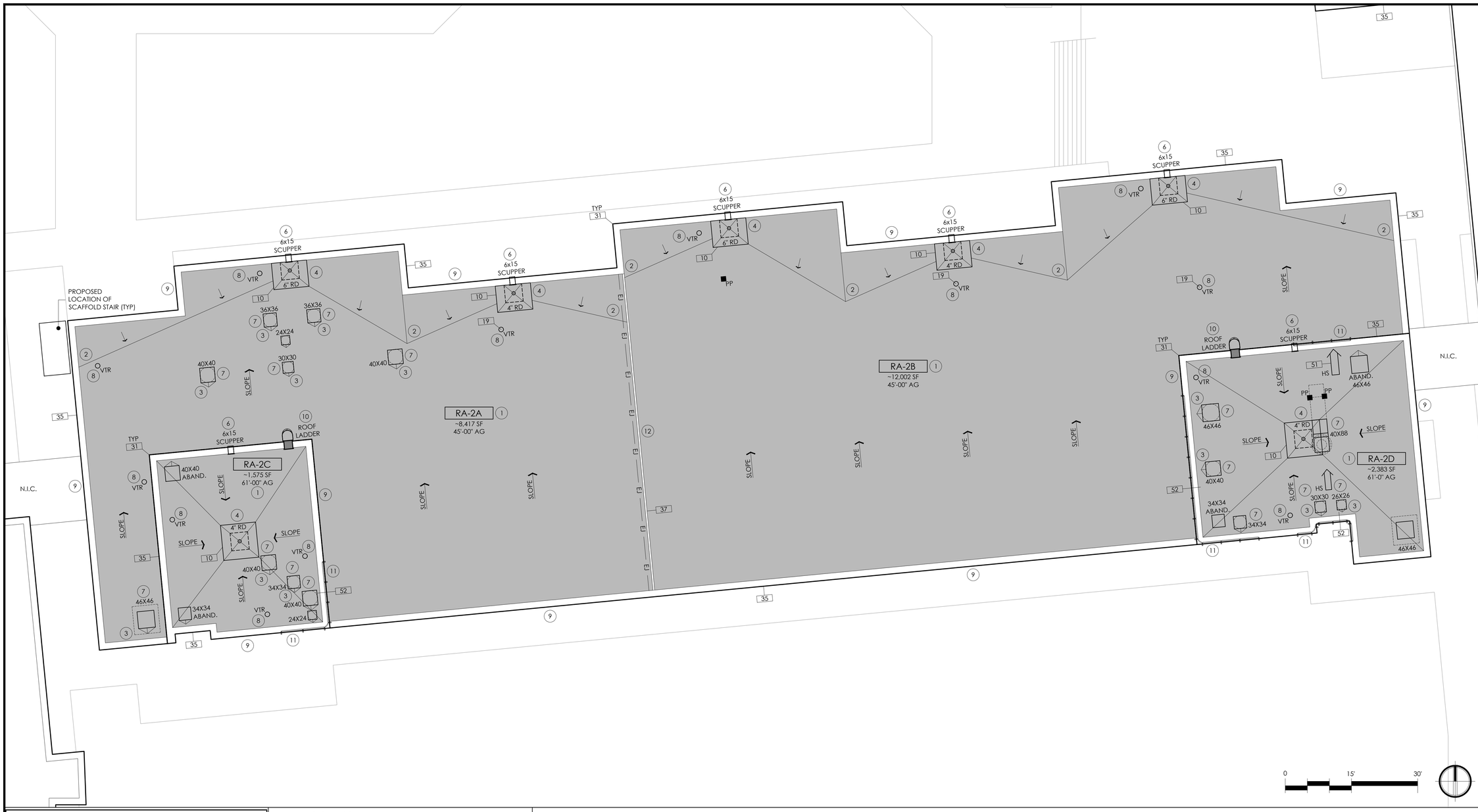
REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	WIND ZONES & DIMENSIONS PLAN PARTIAL

Sheet Number: **A-103**

Revision No.:



ROOF AREAS AND SYSTEM MATRIX

ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-2A	8,417	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-2B	12,002	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-2C	1,575	N	STEEL	MECH	ISO(1)-GRB	2-PLY MBR TORCH
RA-2D	2,383	N	STEEL	MECH	ISO(1)-GRB	2-PLY MBR TORCH

24,377 SQ. FT. PARTIAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

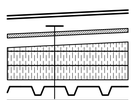
KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

NEW ROOF ASSEMBLY

MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**

EXISTING STEEL ROOF DECK

NEW ROOF ASSEMBLY



MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(1)	INSULATION SYSTEM, TYPE 1 (OFFSET, LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(1)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**

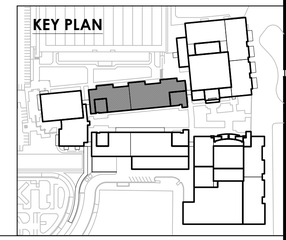
EXISTING STEEL ROOF DECK

DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT, TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GUTTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT. O.C. REFER TO 59/A-509.

1	ROOF PLAN (ROOF AREAS - 2A, 2B, 2C, 2D)
A-104	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA
ROBERT J. WHITCOMB
AR0094537
REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

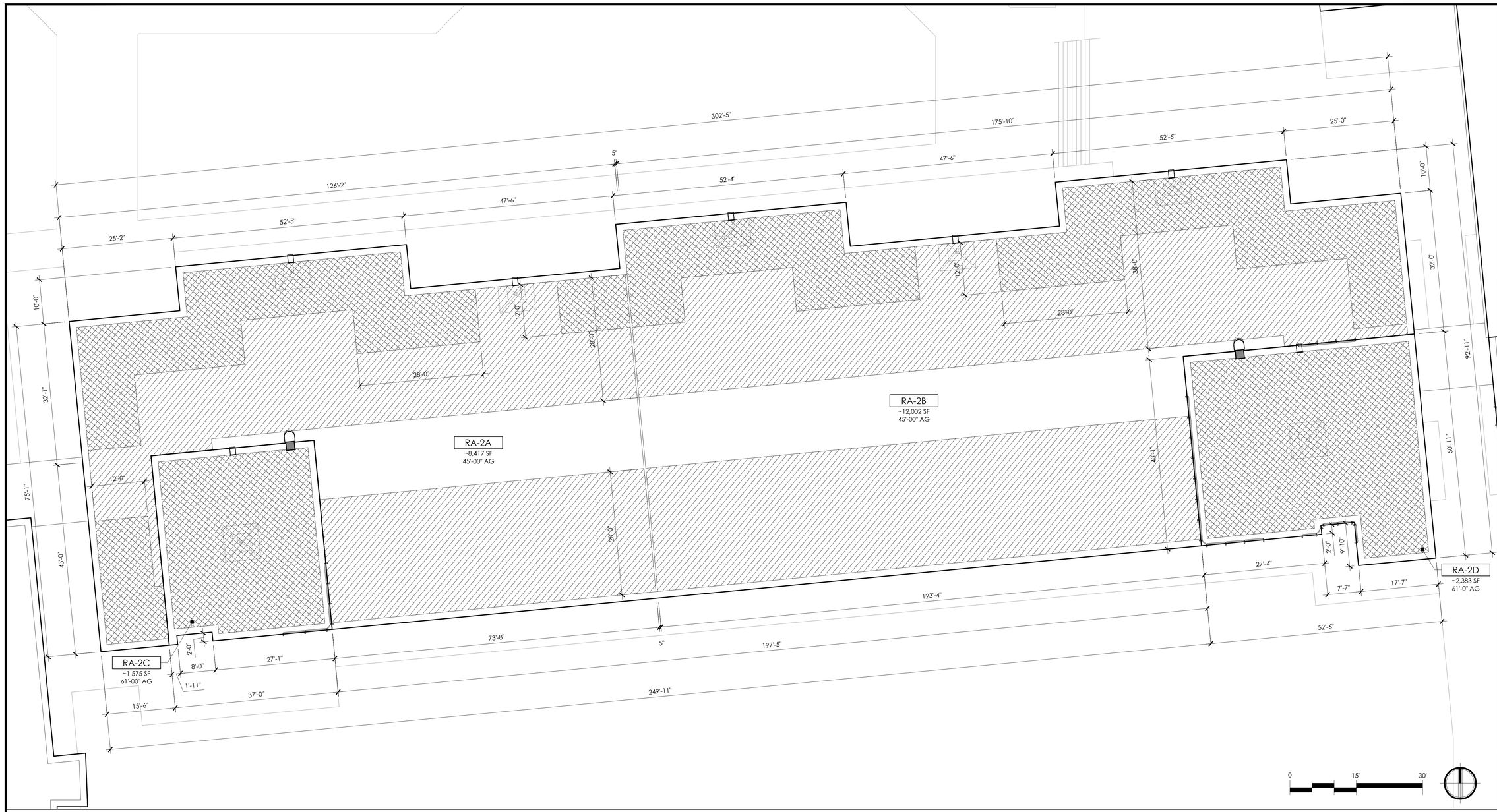
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL

Sheet Number: **A-104**

Revision No.:



DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

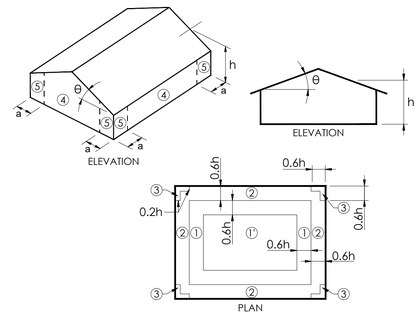
DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							

* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

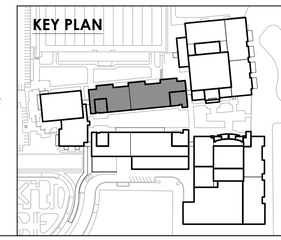


DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 2A, 2B, 2C, 2D)
A-105	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

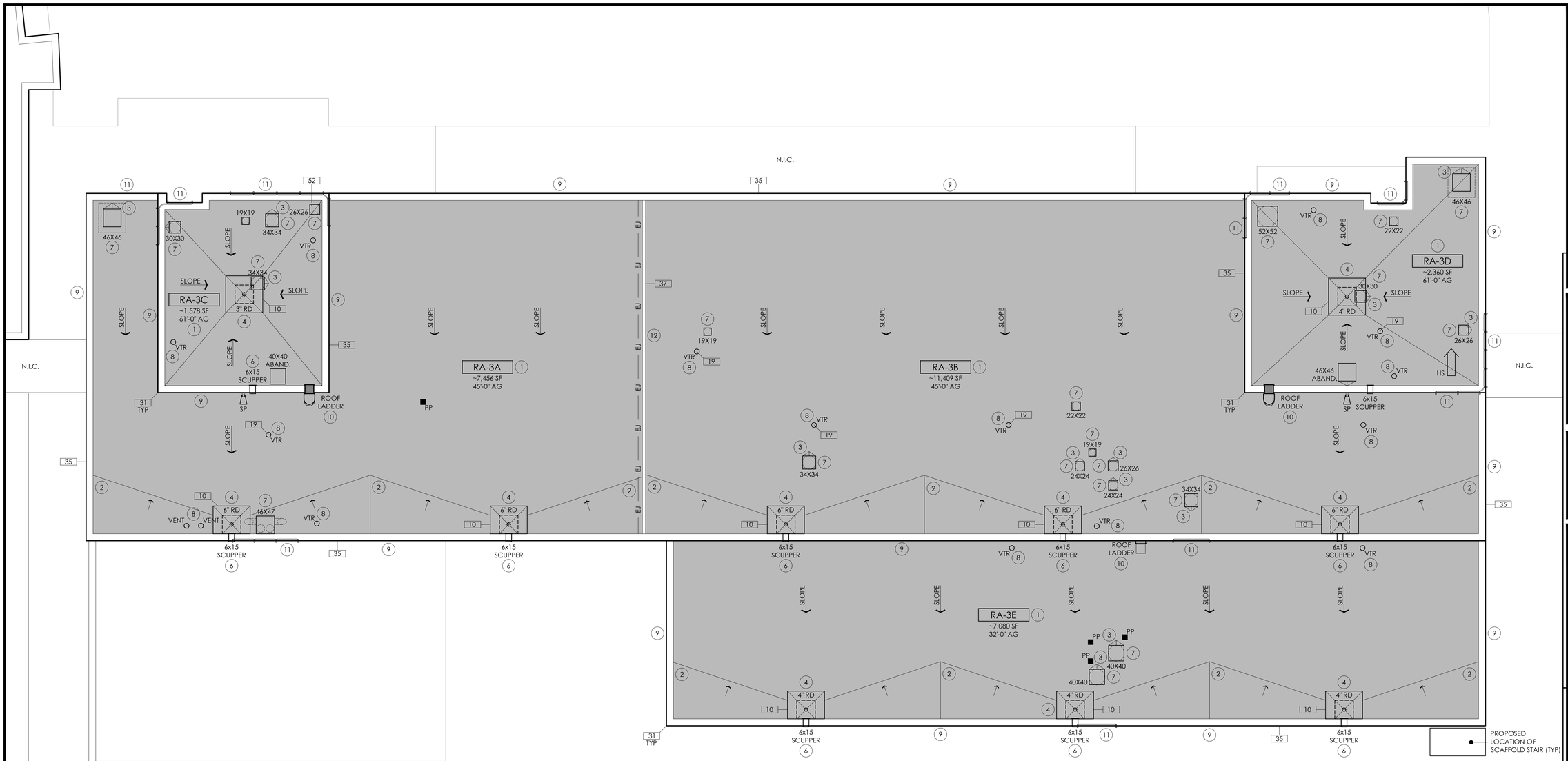
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	WIND ZONES & DIMENSIONS PLAN PARTIAL

Sheet Number: **A-105**

Revision No.:



ROOF AREAS AND SYSTEM MATRIX

ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-3A	7,456	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-3B	11,409	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-3C	1,578	N	STEEL	MECH	ISO(1)-GRB	2-PLY MBR TORCH
RA-3D	2,360	N	STEEL	MECH	ISO(1)-GRB	2-PLY MBR TORCH
RA-3E	7,080	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH

29,883 SQ. FT. PARTIAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

NEW ROOF ASSEMBLY

MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**
	EXISTING STEEL ROOF DECK

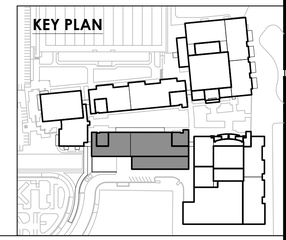
NEW ROOF ASSEMBLY

MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(1)	INSULATION SYSTEM, TYPE 1 (OFFSET, LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(1)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**
	EXISTING STEEL ROOF DECK

DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT, TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GUTTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT, O.C. REFER TO 59/A-509.

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

1	ROOF PLAN (ROOF AREAS - 3A, 3B, 3C, 3D, 3E)
A-106	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

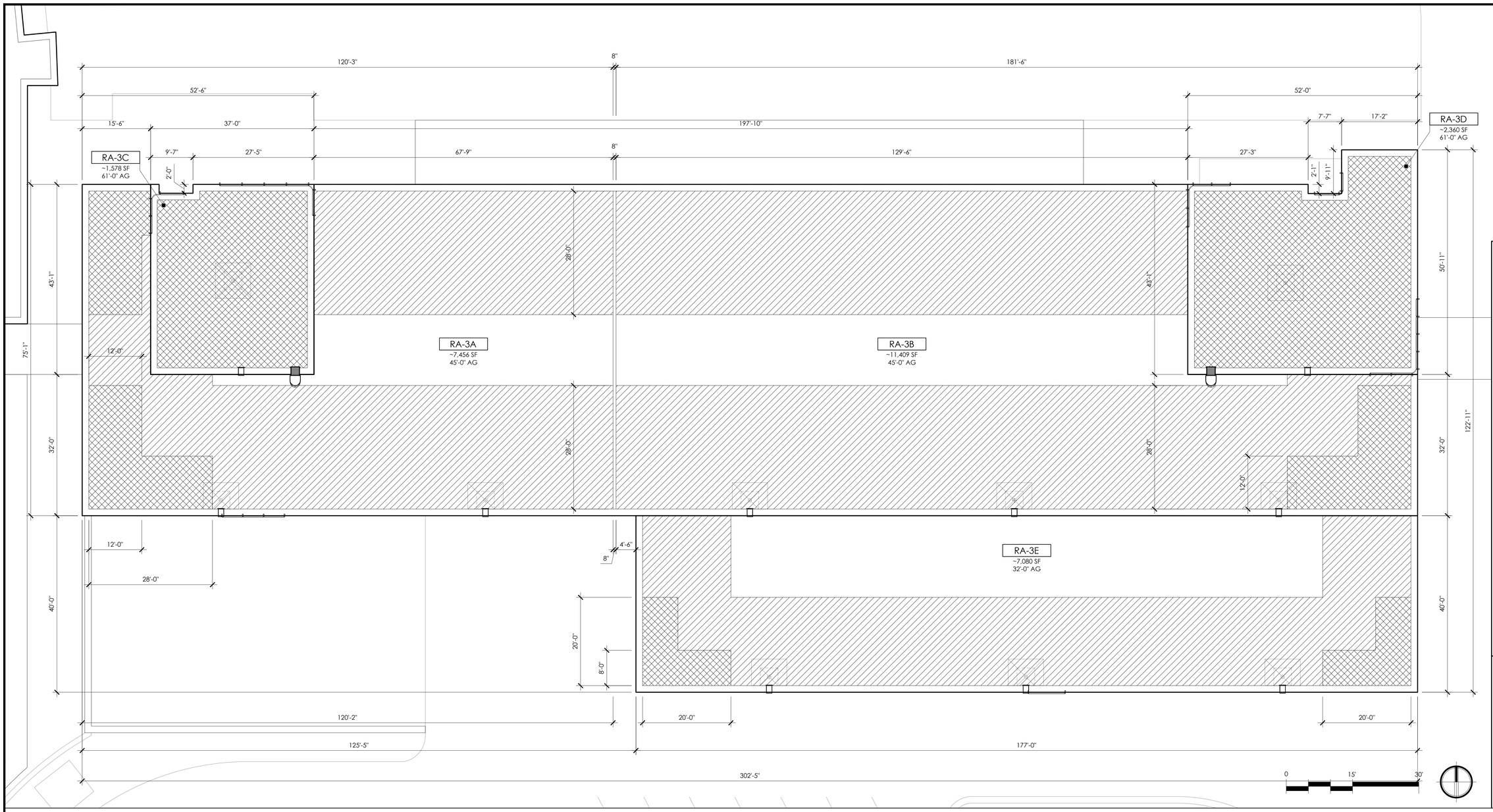
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL

Sheet Number: **A-106**

Revision No.:



DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

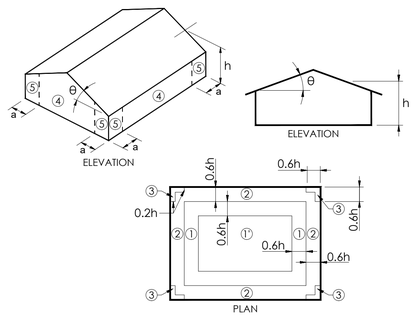
DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							

* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

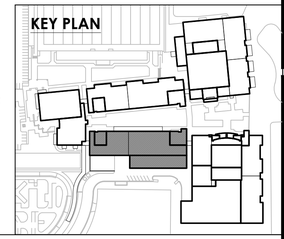


DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 3A, 3B, 3C, 3D, 3E)
A-107	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
WIND ZONES & DIMENSIONS PLAN
PARTIAL

Sheet Number: **A-107**

Revision No.:

ROOF AREAS AND SYSTEM MATRIX

ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-4A	2,740	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4B	9,823	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4C	2,851	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4D	8,427	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH

23,841 SQ. FT. PARTIAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

NEW ROOF ASSEMBLY

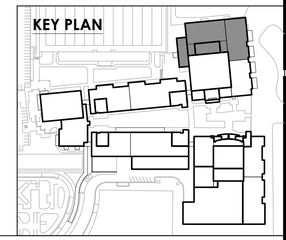
MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**
	EXISTING STEEL ROOF DECK

DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT, TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GLITTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT, O.C. REFER TO 59/A-509.

1	ROOF PLAN (ROOF AREAS - 4A, 4B, 4C, 4D)
A-108	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

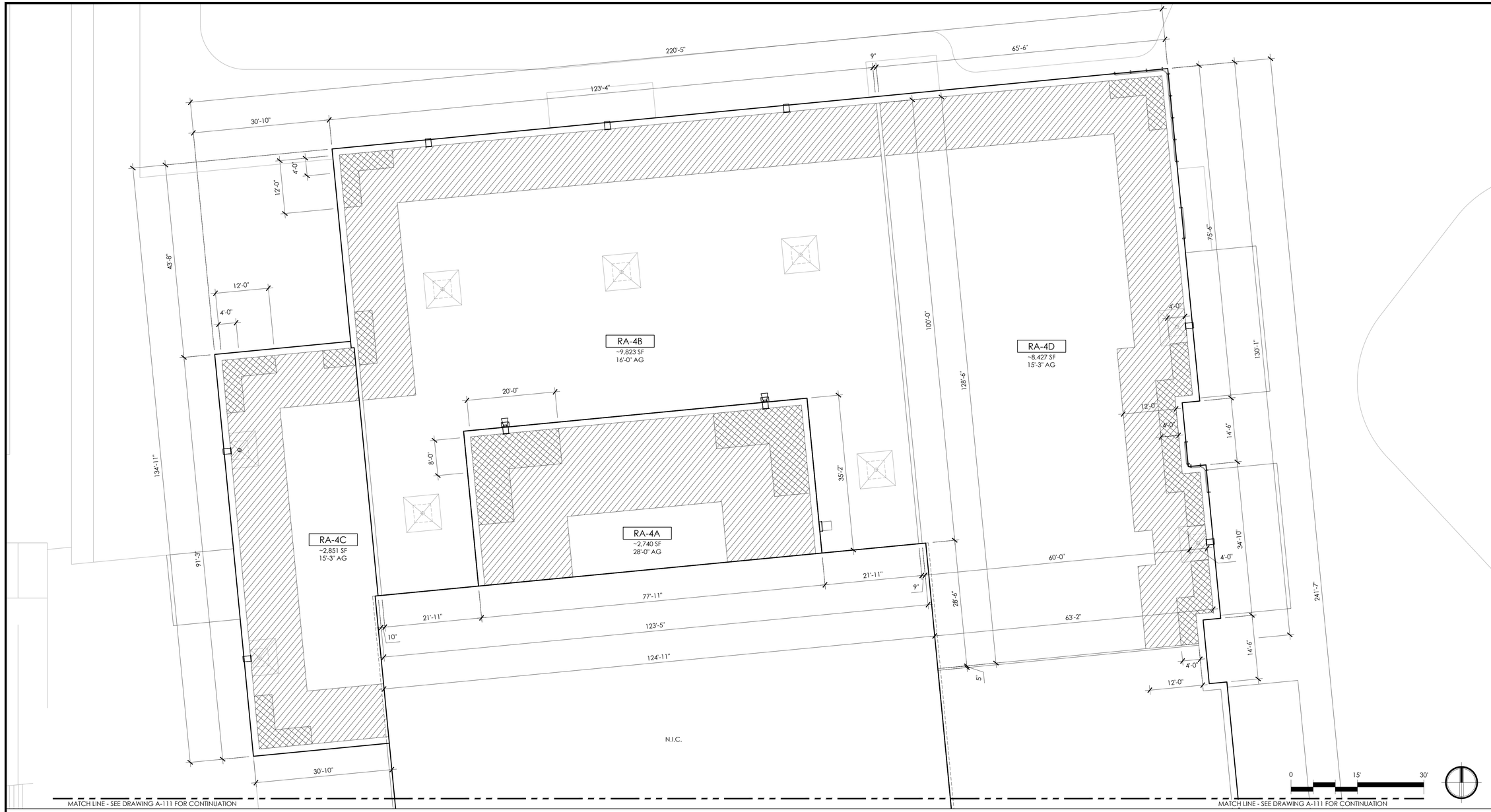
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL

Sheet Number: **A-108**

Revision No.:



DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

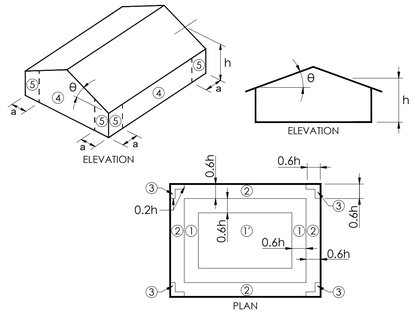
DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							

* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

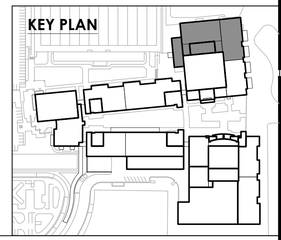


DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 4A, 4B, 4C, 4D)
A-109	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
WIND ZONES & DIMENSIONS PLAN
PARTIAL

Sheet Number: **A-109**

Revision No.:

ROOF AREAS AND SYSTEM MATRIX

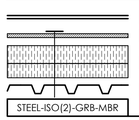
ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-4E	7,073	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4F	1,133	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4N	1,535	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4P	1,165	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-4W	496	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH

11,402 SQ. FT. PARTIAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

NEW ROOF ASSEMBLY



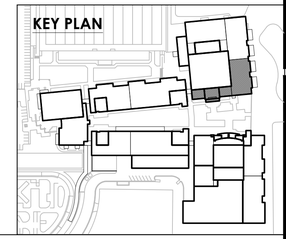
MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**
	EXISTING STEEL ROOF DECK

DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT, TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GUTTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT, O.C. REFER TO 59/A-509.

1	ROOF PLAN (ROOF AREAS - 4E, 4F, 4N, 4P, 4W)
A-110	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

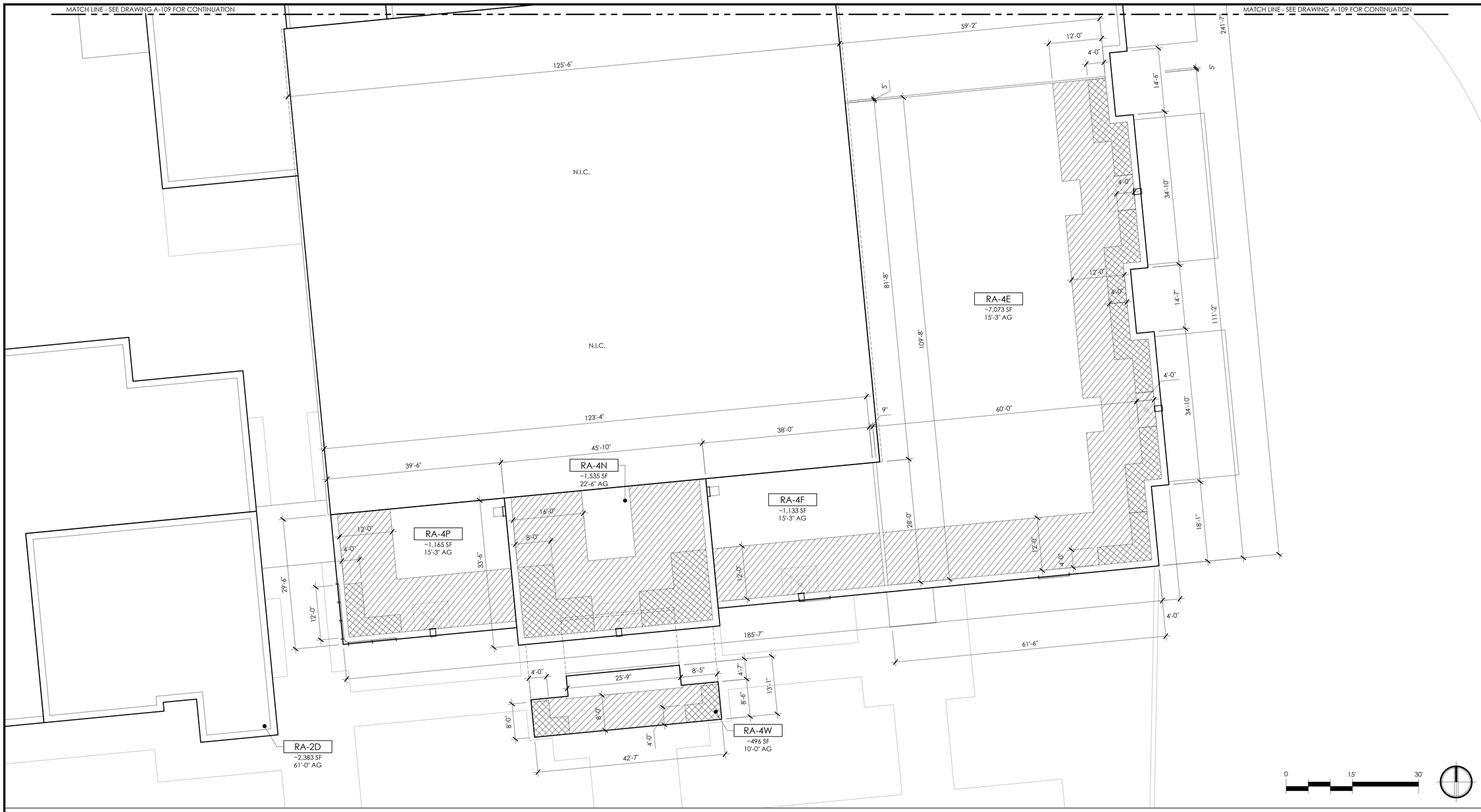
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL

Sheet Number: **A-110**

Revision No.:



DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

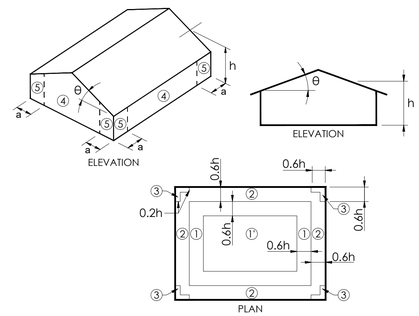
DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							

* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

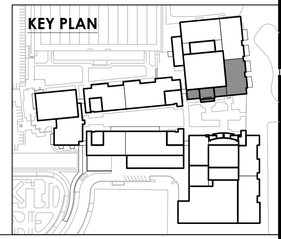


DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 4E, 4F, 4N, 4P, 4W)
A-111	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

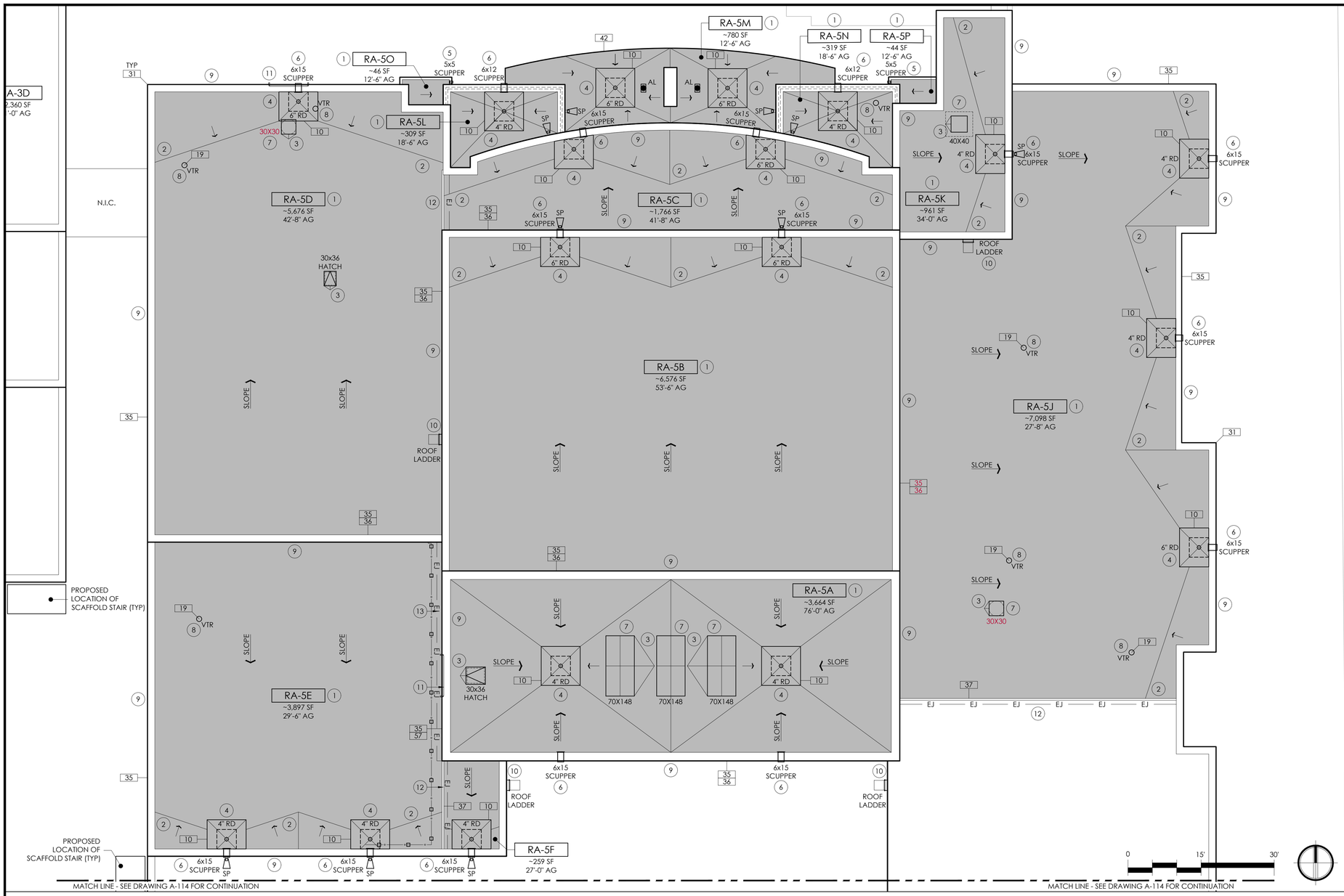
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
WIND ZONES & DIMENSIONS PLAN
PARTIAL

Sheet Number: **A-111**

Revision No.:



DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT, TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GUTTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT. O.C. REFER TO 59/A-509.

1	ROOF PLAN (ROOF AREAS - 5A, 5B, 5C, 5D, 5E, 5F, 5J, 5K, 5L, 5M, 5N, 5O, 5P)
A-112	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

ROOF AREAS AND SYSTEM MATRIX

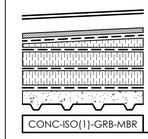
ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-5A	3,664	N	CONC	ADH	ISO(1)-GRB	2-PLY MBR TORCH
RA-5B	6,576	Y	CONC	ADH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5C	1,766	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5D	5,676	Y	CONC	ADH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5E	3,897	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5F	259	Y	CONC	ADH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5J	7,098	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5K	961	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5L	309	N	CONC	ADH	ISO(1)-GRB	2-PLY MBR TORCH
RA-5M	780	N	CONC	ADH	ISO(1)-GRB	2-PLY MBR TORCH
RA-5N	319	N	CONC	ADH	ISO(1)-GRB	2-PLY MBR TORCH
RA-5O	46	N	CONC	ADH	ISO(1)-GRB	2-PLY MBR TORCH
RA-5P	44	N	CONC	ADH	ISO(1)-GRB	2-PLY MBR TORCH

31,395 SQ. FT. PARTIAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

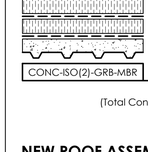
NEW ROOF ASSEMBLY



MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (FULLY ADHERED)
ISO(1)	INSULATION SYSTEM, TYPE 1 (OFFSET, FULLY ADHERED)
CONC	EXISTING CONCRETE DECK
CONC-ISO(1)-GRB-MBR	**EXISTING ROOF ASSEMBLY**

EXISTING CONCRETE ROOF DECK
(Total Constant Insulation Thickness to be 4.5" to achieve R-25)

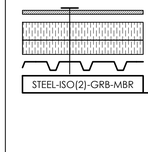
NEW ROOF ASSEMBLY



MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (FULLY ADHERED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (FULLY ADHERED)
CONC	EXISTING CONCRETE DECK
CONC-ISO(2)-GRB-MBR	**EXISTING ROOF ASSEMBLY**

EXISTING CONCRETE ROOF DECK
(Total Constant Insulation Thickness to be 4.5" to achieve R-25)

NEW ROOF ASSEMBLY



MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**

EXISTING STEEL ROOF DECK

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537
Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

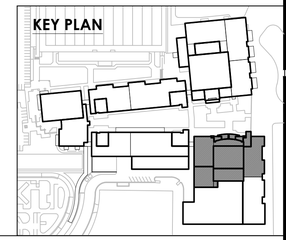
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

KEY PLAN



Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL
Sheet Number:	A-112
Revision No.:	

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

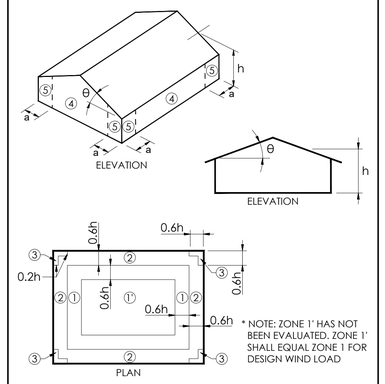
DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							



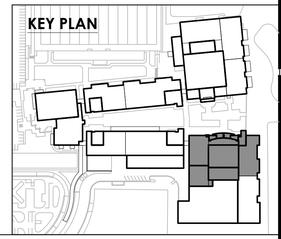
* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Adress:

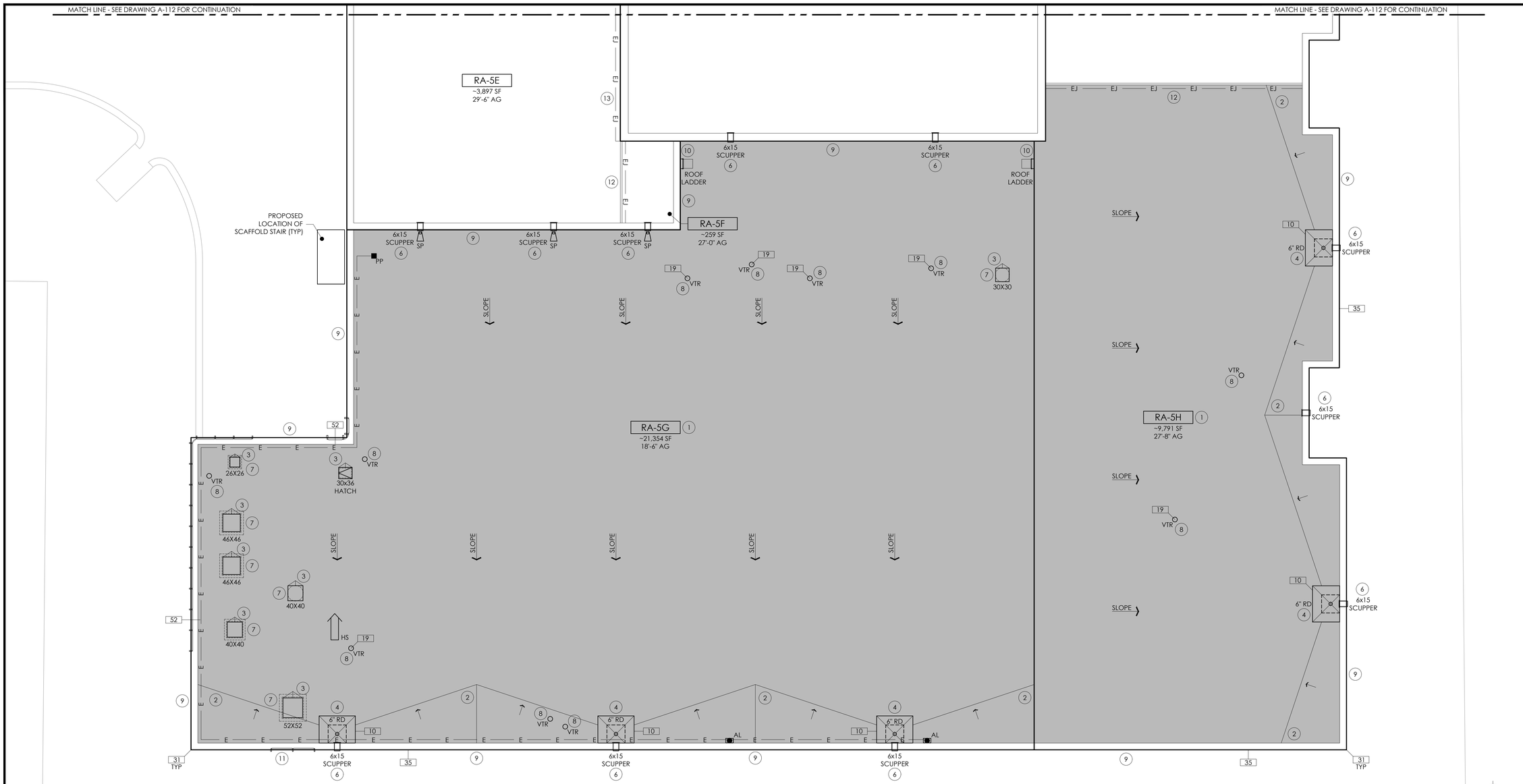
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	WIND ZONES & DIMENSIONS PLAN PARTIAL
Sheet Number:	A-113
Revision No.:	

1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 5A, 5B, 5C, 5D, 5E, 5F, 5J, 5K, 5L, 5M, 5N, 5O, 5P)
A-113	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)



ROOF AREAS AND SYSTEM MATRIX

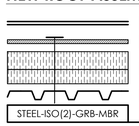
ROOF NUMBER	AREA* (SQ.FT)	DECK SLOPE	DECK TYPE	ISO ATTACH	INSULATION SYSTEM	ROOF SYSTEM
RA-5G	21,354	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH
RA-5H	9,791	Y	STEEL	MECH	ISO(2)-GRB	2-PLY MBR TORCH

31,145 SQ. FT. PARTIAL ROOF AREA

NOTE: * ALL ROOF AREAS SHALL BE VERIFIED IN FIELD

KEY:
ISO(1) = INSULATION SYSTEM, TYPE 1 (2"+2" RIGID POLYISO+TAPERED POLYISO)
ISO(2) = INSULATION SYSTEM, TYPE 2 (2"+2.5" RIGID POLYISO)
ADH = FULLY ADHERED WITH SPECIFIED FOAM ADHESIVE
MECH = MECHANICALLY ATTACHED WITH SPECIFIED FASTENERS
TORCH = TORCH-APPLIED INSTALLATION
GRB = GYPSUM ROOF BOARD
MBR = MODIFIED BITUMEN ROOF

NEW ROOF ASSEMBLY



MBR	MOD. BIT. ROOF SYSTEM (2-PLY), TORCH
GRB	1/2-IN. GYPSUM ROOF BOARD (MECH. ATTACHED)
ISO(2)	INSULATION SYSTEM, TYPE 2 (LOOSE LAID)
STEEL	EXISTING STEEL DECK
STEEL-ISO(2)-GRB-MBR	**NEW CONSTRUCTION ROOF ASSEMBLY**
	EXISTING STEEL ROOF DECK

DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. ELIMINATE ABANDONED CURBS, ACCESSORIES, ETC. VERIFY AND REPAIR DECK PER DETAILS 21 AND 22/A-503 AND SPECIFICATIONS.
2. PROVIDE NEW TAPERED CRICKETS AND/OR SADDLES TO DIVERT WATER TO ROOF DRAINS. VERIFY EXISTING ROOF SLOPE. TYPICAL. SEE DETAIL 12/A-502.
3. INSTALL NEW TAPERED CRICKETS ON HIGH SIDE OF ALL MECHANICAL EQUIPMENT OR CURBS HAVING WIDTH GREATER THAN 24-IN. TYPICAL.
4. VERIFY PIPE SIZES AND REPLACE EXISTING ROOF DRAINS WITH NEW TO MATCH. PROVIDE NEW STATIC EXTENSION TO MATCH DRAIN AND INSULATION HEIGHT. PROVIDE NEW STAINLESS STEEL HARDWARE WITH WASHERS AND LOCK WASHERS. PAINT NEW STRAINER DOME AND HARDWARE. SEE DETAIL 10/A-502. FLASH NEW ROOF DRAINS PER DETAIL 11/A-502. PROVIDE TAPERED SUMP AT ALL DRAINS.
5. NEW PRIMARY SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 16/A-503.
6. NEW OVERFLOW SCUPPER (6"X15" APPROX.) AT EXISTING LOCATION. PROVIDE NEW 2X4 PT WOOD BLOCKING ON ALL SIDES WHERE MISSING AS REQUIRED. SEE DETAIL 15/A-503, 55/A-508 AND 56/A-508.
7. EXISTING VENTILATOR FAN OR VENT, CURB MOUNTED. FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. SEE DETAIL 25 THRU 30/A-504.
8. TYPICAL VENT PENETRATION SEE DETAIL 19/A-503. FIELD VERIFY CONDITIONS. INSTALL NEW PIPE INSERTS WHERE VENT PIPES ARE LESS THAN 8-INCHES. SEE DETAIL 20/A-503.
9. PROVIDE NEW ALUMINUM COPINGS AT PARAPET WALLS. SEE DETAIL 35/A-505. TYPICAL.
10. REUSE EXISTING OR PROVIDE NEW ALUMINUM ROOF LADDER AS SHOWN AND PER DETAIL 47/A-507. SUBMIT SHOP DRAWINGS FOR EACH NEW LOCATION. PROVIDE NEW 24X24X2 CONC. PAVER OVER TARGET MEMBRANE AT BASE OF ROOF LADDERS. TYPICAL. PROVIDE SAFETY HOOPS ON LADDERS LONGER THAN 20-FT.
11. PROVIDE/INSTALL NEW FALL PROTECTION RAILINGS (SERVICE GUARD RAIL) TO BE 42" ABOVE FINISHED ROOF SURFACE AND EXTEND 30" TO EACH SIDE OF ADJACENT MECHANICAL EQUIPMENT AT ROOF PARAPET EDGE PER FBC MECHANICAL CODE 304.11. SEE DETAIL 52/A-507.
12. EXISTING ROOF-TO-ROOF EXP. JOINT. VERIFY EXISTING EXP. JOINT CURB CONSTRUCTION AND INSTALL NEW PT WOOD MATERIALS TO ACHIEVE 10-IN. MINIMUM CURB HEIGHT, TYPICAL. REFER TO DETAIL 37/A-505. PROVIDE NEW END TRANSITIONS PER DETAIL 38/A-505.
13. PROVIDE NEW ROOF-TO-WALL EXPANSION JOINT ASSEMBLY. SEE DETAIL 57/A-508.
14. NEW PERIMETER GUTTER AT RA-4W WITH SPECIFIED DOWNSPOUTS. SLOPE TO DRAIN. REFER TO DETAIL 46/A-506. PROVIDE GUTTER EXP. JT., WHERE SHOWN.
15. REPAIR CRACKS AND PROVIDE NEW COPING TO BRICK MASONRY AT SCHOOL ENTRANCE WALLS (RA-1C) PER SPECIFICATION. FIELD VERIFY AREA AND CONDITION.
16. EXISTING VTR WITH EXTENDED PIPE. PROVIDE NEW PVC PIPE AND ELBOWS TO MATCH DIAMETER AND EXTEND PIPE A MINIMUM OF 10-FT FROM CLOSEST AIR VENT. PROVIDE 3-FT HIGH VERTICAL RETURN. SECURE PIPE TO VENT STACK WITH NO-HUB CONNECTOR; SOLVENT WELD PIPES AND ELBOWS TOGETHER; AND SUPPORT PIPE WITH TWO NEW ADJUSTABLE PIPE SUPPORTS AT 6-FT. O.C. REFER TO 59/A-509.

1	ROOF PLAN (ROOF AREAS - 5G, 5H)
A-114	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

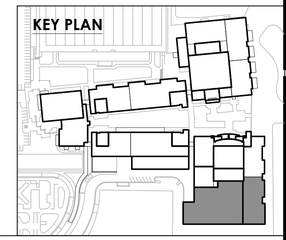
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS No.	Description	Date
	100% Preliminary Documents	10/15/2021

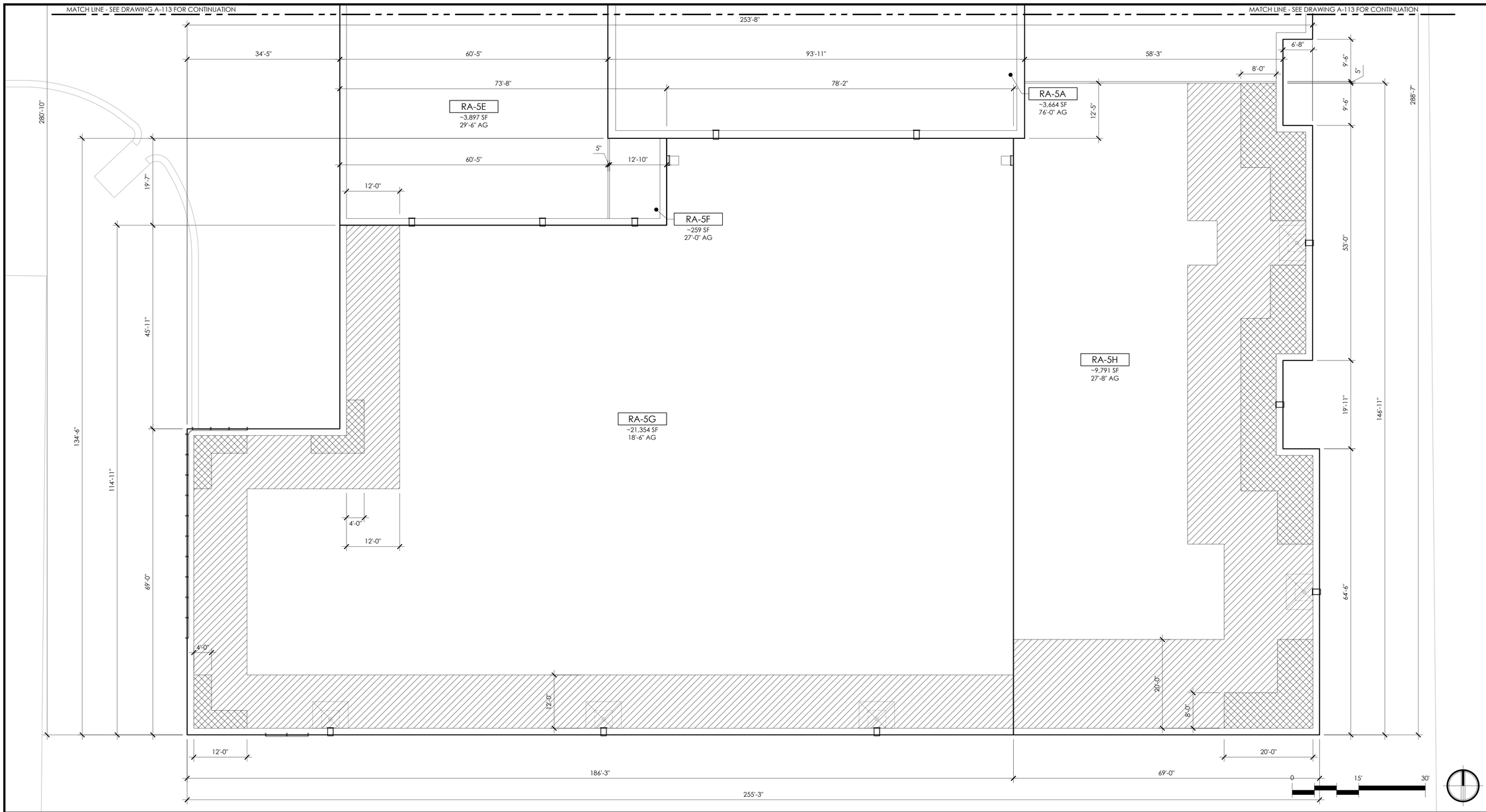
KEY PLAN



Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	ROOF PLAN PARTIAL

Sheet Number: **A-114**

Revision No.:



DESIGN WIND LOADS

BUILDING CODE:	2020 FBC (7TH ED.)	
ASCE 7 EDITION	ASCE 7-16	
ENCLOSURE:	ENCLOSED	
ULTIMATE WIND SPEED (V_ult)	150	MPH
NOMINAL WIND SPEED (V_asd)	116.2	MPH
RISK CATEGORY	CATEGORY III	
INTERNAL PRESSURE COEF.	+/- 0.18	
EXPOSURE CATEGORY	C	
MEAN ROOF HEIGHT (h) (z)	VARIES	FEET
ROOF SLOPE (θ)	1.19 (0.25:12)	DEGREES (IN./FT.)
EDGE STRIP (a)	SEE PLANS	MINIMUM

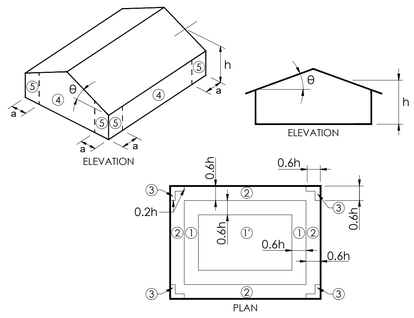
DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	WALLS & ROOFS AT HEIGHT > 60-FEET (PSF)						
	ZONE 1 (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE 4 (-)	ZONE 5 (-)	ZONE 4 (+)	ZONE 5 (+)
<10	-55.29	-86.78	-118.28	-37.79	-69.29	+37.79	+37.79
<20	-52.19	-82.44	-112.70	-37.79	-69.29	+37.79	+37.79
<50	-48.09	-76.71	-105.32	-35.80	-61.32	+34.80	+34.80
<100	-44.99	-72.37	-99.74	-34.29	-55.29	+32.54	+32.54
KEY							

DESIGN WIND PRESSURES (ASD)

EFFECTIVE AREA (FT²)	GABLE ROOFS AT HEIGHT ≤ 60-FEET (PSF)						
	ZONE 1 (-)	ZONE * 1' (-)	ZONE 2 (-)	ZONE 3 (-)	ZONE ALL (+)		
<10	-54.25	-31.16	-71.56	-97.53	+13.85		
<20	-50.67	-31.16	-66.96	-88.33	+12.98		
<50	-45.94	-31.16	-60.88	-76.16	+11.83		
<100	-42.36	-31.16	-56.28	-66.96	+10.96		
KEY							

* NOTE: ZONE 1' HAS NOT BEEN EVALUATED. ZONE 1' SHALL EQUAL ZONE 1 FOR DESIGN WIND LOAD

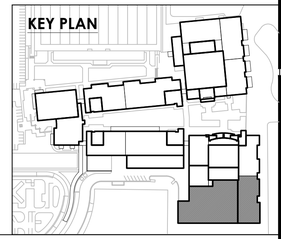


DIAGRAMS TAKEN FROM ASCE 7-16, FIGURES 30.3-1 AND 30.3-2A

NOTES:

1. EDGE STRIPS AND END ZONES: USE ZONE WIDTH DIMENSIONS AS SHOWN ON DRAWINGS. ZONE DIMENSIONS HAVE BEEN INCREASED OR ROUNDED UP TO MATCH INSULATION BOARD DIMENSIONS.
2. INCREASE FASTENER DENSITY AT EDGE STRIPS AND END ZONES IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND SUBMITTALS.
3. REFER TO SHEET G-200 FOR TYPICAL NOTES.
4. PER ASCE-7-16, A DIRECTIONALITY FACTOR Kd=0.85 HAS BEEN APPLIED TO THE VALUES IN THE TABLE.
5. WIND SPEEDS FOR PROJECT SITE ARE:
   V_ULT = 150 MPH
   V_ASD = 116.2 MPH

KEY PLAN



1	WIND ZONES & DIMENSIONS PLAN (ROOF AREAS - 5G, 5H)
A-115	3/32" = 1'-0" (FIELD VERIFY ALL DIMENSIONS AND AREAS NOTED)

NOTE: THE BUILDING DATA ON THE DRAWINGS IS REPRODUCED AS RECEIVED FROM THE RESPONSIBLE PROFESSIONAL AND/OR AS RECORDED FROM OBSERVATIONS IN THE FIELD. BECAUSE THE DRAWINGS MAY NOT REPRESENT THE EXISTING CONDITIONS EXACTLY, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SUBMIT NEW SHOP DRAWINGS OF ALL CONFLICTING CONDITIONS OR QUESTIONS OF INTERPRETATION.

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:
WIND ZONES & DIMENSIONS PLAN
PARTIAL

Sheet Number: **A-115**

Revision No.:

STANDARD INSTALLATION SPECIFICATION NOTES FOR SDHC 2-PLY MODIFIED BITUMEN ROOFING SYSTEM (TORCH-APPLIED):

1. BEFORE INSTALLATION OF ROOFING OR INSULATION MATERIALS, VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO BEGINNING WORK. ALL DECK SURFACES MUST BE SOUND, CLEAN, SMOOTH, DRY AND FREE OF DEBRIS, LOOSE MATERIAL OR DEFECTS WHICH WOULD HAVE AN ADVERSE EFFECT ON THE ROOFING OR INSULATION OR THEIR PERFORMANCE. REMOVE ALL FOREIGN MATTER THAT WOULD INTERFERE WITH PROPER INSTALLATION OF THE SPECIFIED ROOFING SYSTEM.

2. THE ROOFING SYSTEM SPECIFIED AND DETAILED HEREIN IN MANY CASES ARE MORE DEMANDING THAN MANUFACTURERS DETAILS. THESE INCLUDE BASE FLASHING DETAILS, GRAVEL STOP DETAILS, MEMBRANE LAYOUT AND STAGGER DETAILS AND SHEET METAL DETAILS.

3. INSTALL SUMPS, 4' X 4' IN SIZE, AT EACH ROOF DRAIN, WITH 1-1/2" IN 12" SLOPE (MIN.) TO ROOF DRAIN. THE SUMP SIZE MAY BE INCREASED UP TO 8' X 8' (MAX.). IF REQUIRED TO PREVENT VOIDS OR BUCKLES IN THE ROOF PLIES. TRIM OR TAPER SURFACE OF ADJOINING INSULATION SO COMPLETED SURFACE IS FLUSH AND DOES NOT RESTRICT FLOW OF WATER.

4. DETERIORATED DECKING SHALL BE REPAIRED TO PROVIDE A FIRM, STABLE SURFACE FOR THE ROOF SYSTEM.

5. ANY WATER LEAKS THAT CAUSE DAMAGE DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE ROOFING CONTRACTOR TO REPAIR AND/OR REPLACE, INCLUDING ANY ITEMS INSIDE THE BUILDINGS. EXTRA CARE MUST BE TAKEN AT END OF EACH DAYS WORK TO INSTALL WATER TIGHT CUTOFFS AND NIGHT SEALS. CUTOFFS MUST BE COMPLETELY REMOVED PRIOR TO THE RESUMPTION OF ROOFING.

6. ALL ROOFING MATERIALS SHALL BE KEPT DRY. COVER MATERIALS WITH BREATHABLE TARP TYPE COVER. MFR'S PROTECTIVE WRAP WILL BE ALLOWED TO REMAIN, IN ADDITION TO THE BREATHABLE TARP. THE USE OF VISQUEEN TO COVER ROOFING MATERIALS STORED ON SITE IS STRICTLY PROHIBITED.

7. ALL LAYERS OF ROOFING MEMBRANE SHALL BE LAID FREE OF WRINKLES, CREASES, FISHMOUTHS AND SHALL BE LAID AT RIGHT ANGLES TO THE SLOPE OF THE DECK. MEMBRANE SHALL BE LAID DIRECTLY BEHIND THE APPLICATOR. SUFFICIENT PRESSURE SHALL BE EXERTED ON THE ROLL DURING APPLICATION TO PREVENT VOIDS, AIR POCKETS AND WASHBOARD WRINKLES. NOTE THAT WASHBOARD WINKLES IN THE CAP SHEET APPLICATION MAY BE SUBJECT TO REMOVAL AND REPLACEMENT.

8. THE SMOOTH PLY SHALL START AT THE LOW POINT OF THE ROOF AND SHALL BE STAGGERED SO NO LAP FALLS OVER TOP OF ANOTHER LAP. THE SIDE LAPS SHALL BE 3-IN. OR 4-IN. WITH AND END LAPS 6-IN. WIDE.

9. THE CAP SHEET MEMBRANE TO BE INSTALLED DURING DAY LIGHT HOURS ONLY AND AFTER THE SMOOTH PLY APPLICATION HAS BEEN ACCEPTED BY ARCHITECT AND ROOFING MFR. INSTALL CAP SHEET WITH NO DRY LAP EDGES. A SMALL AMOUNT OF ASPHALT RUN-OUT (APPROX. 1/2-IN.) IS EXPECTED AND DESIRED. CONTRACTOR TO INSTALL LOOSE WHITE GRANULES INTO ASPHALT RUN-OUT. DO NOT WALK ON NEWLY INSTALLED CAP SHEET AS FOOT PRINTS WILL SHOW AND VOIDS WILL OCCUR. STAGGER TO BE 1/2 WIDTH OF THE SECOND PLY AND HALF LENGTH OF ROLL (16 FT.) PROFESSIONAL WORKMANSHIP IS REQUIRED TO KEEP WHITE CAP SHEET AND FLASHING ESTHETICALLY PLEASING UPON COMPLETION OF PROJECT. SLOPPY WORK OR POOR CAP SHEET LAYOUT WILL RESULT IN ADDITIONAL CAP SHEET BEING INSTALLED AS DETERMINED BY ARCHITECT.

10. BASE FLASHINGS ARE REQUIRED TO EXTEND A MINIMUM OF 8-INCHES ABOVE THE FINISHED ROOF FOR ROOF MOUNTED EQUIPMENT, EXPANSION JOINTS, ETC.

11. APPLY NEW MATCHING COLOR MINERAL GRANULES TO ALL LIQUID MEMBRANE FLASHINGS, TYPICAL.

12. TOTAL INSTALLATION CONCEPT: A COMPLETE NEW ROOFING SYSTEM HAS BEEN SPECIFIED. PARTIAL REPLACEMENT, PATCHING, OR SPLICING NEW ROOFING INTO EXISTING ARE NOT ACCEPTABLE UNDER ANY CIRCUMSTANCES. IF A SECTION OF EXISTING ROOF WARRANTS EXCESSIVE REWORKING AND/OR PATCHING, THE ENTIRE AREA OR SECTION OF ROOFING SHALL BE REPLACED. THIS SHALL MEAN FROM EDGE AND/OR EXPANSION JOINT TO EDGE AND/OR EXPANSION JOINT, IN BOTH DIRECTIONS. AT THE DISCRETION OF THE ARCHITECT AND THE ROOF SYSTEM MANUFACTURER, THE ROOF AREA IN QUESTION MAY BE CLEANED, PRIMED AND OVERLAID WITH AN ADDITIONAL LAYER OF CAP SHEET OR REPAIRED AS DEEMED ACCEPTABLE.

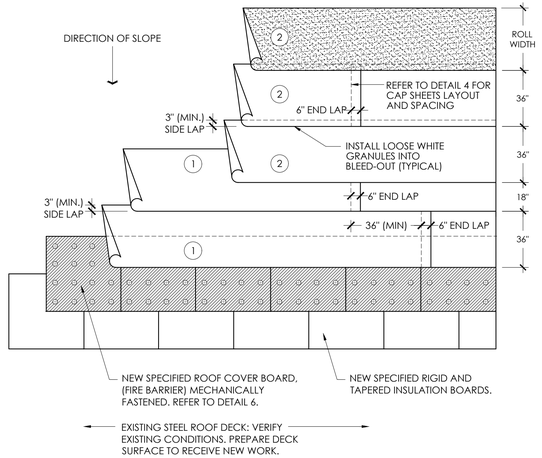
13. CONTRACTOR SHALL EMPLOY ONLY NRCA PRO-CERTIFIED INSTALLERS AND/OR CERTA-CERTIFIED APPLICATORS TO OPERATE TORCHES WHEN AN OPEN FLAME WILL CONTACT ANY PART OF A ROOF.

1 | STANDARD ROOFING SPECIFICATION
A-501 | NOT TO SCALE

STANDARD INSTALLATION SPECIFICATIONS FOR MULTIPLE-PLY MODIFIED ASPHALT ROOFING SYSTEM OVER NEW INSULATION AND GYPSUM ROOF BOARDS (COVER BOARDS) - STEEL ROOF DECKS.

(1) 1 PLY - SMOOTH SBS INTERPLY MEMBRANE (TORCH-APPLIED) TO INSULATION SYSTEM.
- A. 3-IN. (MINIMUM) SIDE LAP (PER MFG. DETAIL).
- B. 6-IN. END LAP.
- C. STAGGER WIDTH SO NO LAPS FALL ON TOP OF LOWER PLY.

(2) 1 PLY - WHITE GRANULAR SBS CAP SHEET (TORCH-APPLIED) TO SMOOTH INTERPLY.
- A. 3-IN. (MINIMUM) SIDE LAP (PER MFG. DETAIL).
- B. 6-IN. END LAP.
- C. STAGGER ENDS 1/2 LENGTH OF ROLLS (16FT.) WHEREVER POSSIBLE.

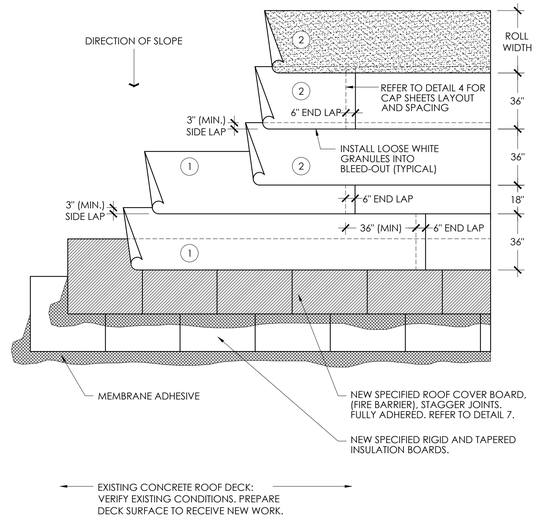


2 | NEW SBS MODIFIED BITUMEN ROOFING SYSTEM, STEEL ROOF DECKS
A-501 | NOT TO SCALE

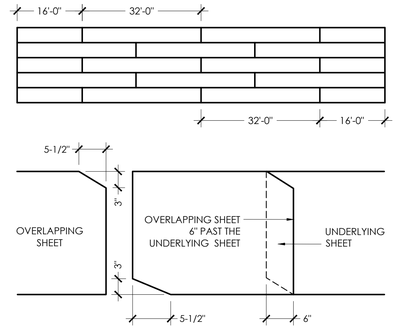
STANDARD INSTALLATION SPECIFICATIONS FOR MULTIPLE-PLY MODIFIED ASPHALT ROOFING SYSTEM OVER NEW INSULATION AND GYPSUM ROOF BOARDS (COVER BOARDS) - CONCRETE ROOF DECKS.

(1) 1 PLY - SMOOTH SBS INTERPLY MEMBRANE (TORCH-APPLIED) TO INSULATION SYSTEM.
- A. 3-IN. (MINIMUM) SIDE LAP (PER MFG. DETAIL).
- B. 6-IN. END LAP.
- C. STAGGER WIDTH SO NO LAPS FALL ON TOP OF LOWER PLY.

(2) 1 PLY - WHITE GRANULAR SBS CAP SHEET (TORCH-APPLIED) TO SMOOTH INTERPLY.
- A. 3-IN. (MINIMUM) SIDE LAP (PER MFG. DETAIL).
- B. 6-IN. END LAP.
- C. STAGGER ENDS 1/2 LENGTH OF ROLLS (16FT.) WHEREVER POSSIBLE.



3 | NEW SBS MODIFIED BITUMEN ROOFING SYSTEM, CONCRETE ROOF DECKS
A-501 | NOT TO SCALE



1. VERIFY EXISTING CONDITIONS AND PLAN CAP SHEET LAYOUT PRIOR TO START OF WORK. INSTALL CAP SHEET PER THE ABOVE DIAGRAM. LENGTH OF ANY INSTALLED CAP SHEET SEGMENT SHALL BE NO LESS THAN 6-FT.
2. APPLY CAP SHEET WITHIN 30 DAYS OF DRY-IN, BUT NO LATER THAN 60 DAYS. DO NOT EXCEED MANUFACTURER'S ACCEPTABLE LIMIT.
3. UNROLL MODIFIED BITUMEN MEMBRANE SHEETS AND ALLOW TO RELAX MINIMUM OF 30 MINUTES IN DIRECT SUNLIGHT PRIOR TO INSTALLING SHEETS.
4. UNDERLYING MEMBRANES SHALL BE INSPECTED AND FREE OF MOISTURE, DAMAGE, HOLES, PUNCTURE, GOUGES, ABRASIONS, AND ANY OTHER DEFECTS, INCLUDING LOOSE MATERIALS, DEBRIS, SEDIMENTS, DUST, AND ANY OTHER CONDITIONS REQUIRED BY THE MEMBRANE MFR. PRIOR TO CAP SHEET INSTALLATION.
5. THE GRANULATED CAP SHEET TO BE INSTALLED DURING DAYLIGHT HOURS ONLY. DO NOT APPLY CAP SHEET IF RAIN HAS OCCURRED WITHIN THE PREVIOUS 24 HOURS.
6. BEFORE TORCHING OVER END LAPS, TRIM THE UNDERLYING SHEET'S LOWER CORNER AT THE END OF THE ROLL. FOLLOW WITH OVERLAPPING SHEET, TRIMMING THE UPPER OUTSIDE CORNER. CORNERS SHOULD BE TRIMMED ON A DIAGONAL ANGLE 5-1/2" LONG FROM END OF ROLL TO OUTSIDE EDGE. WIDTH OF TRIM SHOULD BE EQUAL IN WIDTH TO THE SIDE LAP SPECIFIED. TRIMMED CORNERS SHOULD BE COMPLETELY COVERED BY APPLICATION OF SUCCEEDING CORNERS.
7. ALL LAPS IN CAP SHEET WHERE INSTALLED OVER EXISTING GRANULE SURFACING SHALL BE 100-PERCENT EMBEDDED. PRIOR TO FORMING LAP OVER GRANULATED SURFACES, EMBED GRANULES OF THE RECEIVING SHEET BY HEATING AND TROWELING-IN THE GRANULES TO FORM A UNIFORM BLACK COMPOUND SURFACE.
8. PROFESSIONAL WORKMANSHIP SHALL BE REQUIRED TO KEEP ROOF'S WHITE CAP SHEET AND FLASHING LOOKING AESTHETICALLY PLEASING UPON COMPLETION OF PROJECT. MINIMIZE TRAFFIC ON NEWLY INSTALLED CAP SHEET MEMBRANE. REPAIR ALL FOOT PRINTS IN CAP SHEET.
9. PROVIDE TIGHT SMOOTH LAMINATIONS OF EACH MEMBRANE LAYER WITHOUT WRINKLES, RIDGES, BUCKLES, KINKS, FISH MOUTHS, OR VOIDS.

4 | CAP SHEET INSTALLATION AND LAYOUT DIAGRAM
A-501 | NOT TO SCALE

FASTENER SCHEDULE (MINIMUM REQUIREMENTS)

APPLICATION	FASTENER SPACING	WASHER REQ'D?	HOLE CONFIG.	FASTENER TYPE
SHEET METAL COMPONENTS				
1. EDGE/DRIP METAL TO WOOD	3-IN. O.C. STAGGER	N/A	N/A	(A)
2. EDGE/DRIP METAL, CONT. CLEAT TO WOOD	6-IN. O.C. (MAX)	N/A	N/A	(A)
3. EXP. JOINT, CONT. CLEAT TO WOOD	8-IN. O.C. (MAX)	N/A	N/A	(A)
4. EXP. JOINT, EXPOSED FLANGE TO WOOD	12-IN. O.C. (MAX)	YES	SLOTTED	(B)
5. AREA DIVIDERS, EXPOSED FLANGE TO WOOD	12-IN. O.C. (MAX)	YES	SLOTTED	(B)
6. AREA DIVIDER, CONT. CLEAT TO WOOD	8-IN. O.C. (MAX)	N/A	N/A	(A)
7. SURFACE-MOUNTED COUNTER FLASHING TO WOOD	12-IN. O.C. (MAX)	YES	SLOTTED	(B)
8. SURFACE-MOUNTED COUNTER FLASHING TO CONC.	12-IN. O.C. (MAX)	YES	SLOTTED	(D) OR (E)
9. COPING CAP, CONT. CLEAT TO WOOD.	6-IN. O.C. (MAX)	N/A	N/A	(A)
10. COPING CAP, INSIDE FLANGE TO WOOD	12-IN. O.C. (MAX)	YES	SLOTTED	(B)
11. METAL GUTTERS TO WOOD	12-IN. O.C. (MAX)	N/A	CNTRSINK	(A)
12. GUTTER HANGERS TO CONCRETE OR MASONRY	2 EACH	N/A	5/16-IN.	(C)
13. DOWNSPOUT BRACKETS TO CONCRETE	EACH SIDE	IF REQ'D	N/A	(D) OR (E)
14. SELF-FLASHING ACCESSORIES TO WOOD	6-IN. O.C. (MAX)	N/A	N/A	(A)
15. SELF-FLASHING ACCESSORIES TO METAL DECK	2 PER SIDE	N/A	SLOTTED	(F)
16. CURB-MOUNTED VENT, EXPOSED FLANGE TO WOOD	24-IN. (OR 2/SIDE)	IF REQ'D		(B)
WOOD BLOCKING AND PLYWOOD COMPONENTS				
17. P.T. WOOD BLOCKING TO METAL DECK	12-IN. O.C. (MAX)	IF REQ'D	3/16-IN.	(F)
18. P.T. WOOD BLOCKING TO CONCRETE/MASONRY	12-IN. O.C. (MAX)	IF REQ'D	5/16-IN.	(J)
19. P.T. WOOD BLOCKING/NAILERS TO WOOD	12-IN. O.C. (MAX)	N/A	N/A	(I)
20. P.T. WOOD BLOCKING TO GYPSUM OR "TECTUM"	12-IN. O.C. (MAX)	YES	5/8-IN.	(H)
21. WOOD FRAMING	AS REQUIRED	N/A	N/A	(G)
22. CDX PLYWOOD TO CONC./MASONRY SURFACES	12-IN. O.C. (MAX)	N/A	CNTRSINK	(C)
23. P.T. WOOD CURB EXTENSIONS TO WOOD	12-IN. O.C. (MAX)	N/A	N/A	(K)
24. PLYWOOD OVER INSULATION TO METAL DECK	REFER TO DETAIL	N/A	N/A	(L)

NOTES:
(A) 12 GAUGE, 304 STAINLESS, RING SHANK NAIL WITH 3/8-IN. DIA. HEAD; LENGTH TO PENETRATE SUBSTRATE 1-1/2-IN.
(B) #12, 304 STAINLESS, HEX HEAD WOOD SCREW WITH S.S. BONDED EPDM WASHER x 3-IN. LONG.
(C) 1/4-IN. x 1-1/2-INCH, 304 STAINLESS MASONRY ANCHOR SCREW. (PHILLIPS FLAT HEAD)
(D) 1/4-IN. x 1-1/2-INCH, 304 STAINLESS MASONRY ANCHOR SCREW. (HEX HEAD)
(E) 1/4-IN. x 1-1/2-INCH, PIN-DRIVE MASONRY ANCHOR WITH COATED PHILIPS DRIVE SCREW (MUSHROOM HEAD)
(F) #15 SELF DRILLING, COATED DECK SCREW
(G) #12 DIAMOND POINT, HOT DIPPED GALV. BOX NAILS - LENGTH SUFFICIENT TO PENETRATE SUBSTRATE 1-1/2 INCHES
(H) PRE-ASSEMBLED, SPEED-LOCK TOGGLE BOLT WITH 3-INCH PLATE AND "LOUIE-LOOP" WIRE
(I) 16d RING SHANK, 304 STAINLESS NAILS x 3-IN. LONG.
(J) 316L STAINLESS SPIKE (PRE-EXPANDED) ANCHOR; LENGTH TO BE SUFFICIENT FOR 1-IN. MIN. EMBEDMENT
(K) 8d RING SHANK, 304 STAINLESS NAILS x 2 1/2-IN. LONG (TOE NAILED)
(L) ATLAS NAIL BASE FASTENER (5/8" HEAD, 0.245" DIA., FLAT HEAD W/ RECESSED DRIVE. STEEL WITH EPOXY COATING)

REFER TO SECTION 07 60 00 FOR SPECIFIC PRODUCT INFORMATION. FOR ALL CONDITIONS NOT COVERED ABOVE, REFER TO FASTENER REQUIREMENTS OF THE WRITTEN SPECIFICATIONS, DETAILS, AND/OR CONSULT WITH ARCHITECT.

5 | FASTENER SCHEDULE
A-501 | NOT TO SCALE

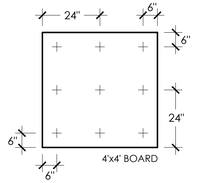
NOTE: LOCATION, SPACING AND NUMBER OF INSULATION BOARD FASTENERS IS VERY IMPORTANT FOR RESISTANCE OF WIND UPLIFT PRESSURES. COMPLIANCE WITH THIS SPECIFICATION IS CRITICAL.

FIELD (ZONE 1)

(9) FASTENERS PER BOARD, 1 PER 1.78 SQ. FT.

IN THE FIELD OF THE ROOF, FASTEN NEW INSULATION BOARD WITH SPECIFIED FASTENERS AND 3-IN. DISCS: 4' x 4' BOARD - (9) FASTENERS PER BOARD.

ZONE WIDTH (a) = 12'-0" MINIMUM

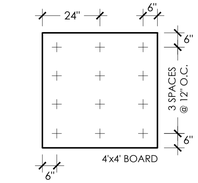


PERIMETER (ZONE 2)

(12) FASTENERS PER BOARD, 1 PER 1.33 SQ. FT.

IN THE PERIMETER ZONES (ENHANCED WIND ZONES), FASTEN NEW INSULATION BOARD WITH SPECIFIED FASTENERS AND 3-IN. DISCS: 4' x 4' BOARD - (12) FASTENERS PER BOARD.

ZONE WIDTH (a) = 12'-0" MINIMUM

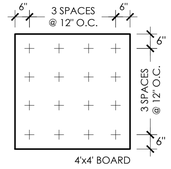


CORNERS (ZONE 3)

(16) FASTENERS PER BOARD, 1 PER 1 SQ. FT.

IN THE CORNER ZONES (ENHANCED WIND ZONES), FASTEN NEW INSULATION BOARD WITH SPECIFIED FASTENERS AND 3-IN. DISCS: 4' x 4' BOARD - (16) FASTENERS PER BOARD.

ZONE WIDTH (a) = 12'-0" MINIMUM



NOTE: ACTUAL SPACING, FASTENER TYPE AND NUMBER OF INSULATION BOARD FASTENERS MAY DIFFER FROM THE SUBMITTED TEST DATA AND/OR SHOP DRAWINGS. IF THE SPACING IN THE TEST DATA IS LESS STRINGENT THAN PROVIDED HEREIN, CONTRACTOR SHALL USE THE ABOVE FASTENING PATTERNS AS A MINIMUM.

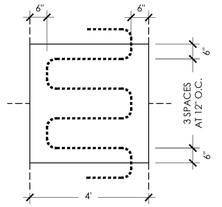
6 | INSULATION/COVER BOARD FASTENING PATTERN (MINIMUM REQUIREMENTS)
A-501 | NOT TO SCALE

FIELD (ZONE 1)

APPLICATION RATE 4' x 4' INSULATION BOARD

IN THE FIELD OF THE ROOF, SECURE GYPSUM COVER BOARD AND ALL RIGID AND TAPERED INSULATION WITH NEW SPECIFIED FOAM ADHESIVE USING 12-IN. RIBBONS.

ZONE WIDTH (a) = 12'-0" MINIMUM

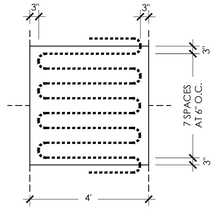


PERIMETERS AND CORNERS (ZONES 2 & 3)

APPLICATION RATE 4' x 4' INSULATION BOARD

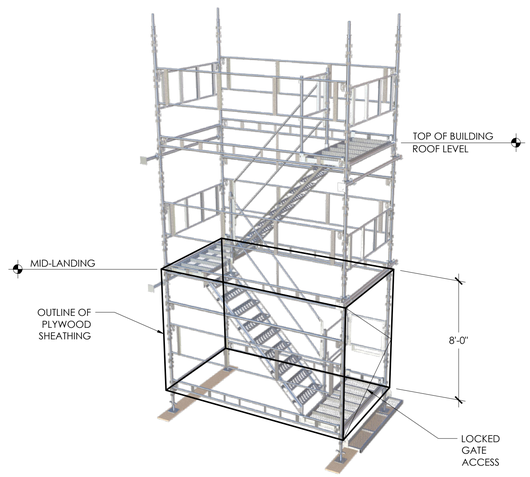
IN THE PERIMETER AND CORNERS OF THE ROOF, SECURE GYPSUM COVER BOARD AND ALL RIGID AND TAPERED INSULATION WITH NEW SPECIFIED FOAM ADHESIVE USING 6-IN. RIBBONS.

ZONE WIDTH (a) = 12'-0" MINIMUM



NOTES:
1. INSULATION ADHESIVE IS USED TO ADHERE RIGID INSULATION PANELS AND COVER BOARDS TO SUBSTRATES APPROVED IN ADVANCED BY THE MATERIAL MANUFACTURER. INSULATION BOARDS TO BE A MAX. OF 4x4-FT.
2. DISPENSE FOAM ADHESIVE AT 12-IN. ON CENTER BANDS, OR AS APPROVED BY MANUFACTURER TO MEET DESIGN PRESSURES. INCREASE PATTERN DENSITY AT THE ENHANCED WIND AREAS, AS SHOWN ABOVE.
3. ALLOW FOAM TO RISE 3/4-IN. TO 1-IN., LAY INSULATION INTO POSITION AND PLACE BALLAST ON BOARDS UNTIL ADHESIVE SETS (5-7 MINUTES).
4. THE SPACING OF RIBBONS MAY DIFFER FROM THE SUBMITTED TEST DATA, IF THE SPACING IN THE TEST DATA IS LESS STRINGENT THAN PROVIDED HEREIN, CONTRACTOR SHALL USE THE ABOVE PATTERNS AS A MINIMUM.
5. FOR FULLY BONDED ASSEMBLIES, THE MAX. DESIGN PRESSURE FOR THE SELECTED ASSEMBLY SHALL MEET OR EXCEED THE ZONE 3 PRESSURE IN ACCORD. WITH FBC CHAPTER 16. NO RATIONAL ANALYSIS IS PERMITTED.
6. FOR EXISTING SUBSTRATES IN A BONDED RE-ROOF INSTALLATION, THE EXISTING ROOF SURFACE OR EXISTING ROOF DECK SHALL BE EXAMINED FOR COMPATIBILITY AND BOND PERFORMANCE WITH THE SELECTED ADHESIVE, AND THE EXISTING ROOF SYSTEM (FOR RECOVER) SHALL BE CAPABLE OF RESISTING PROJECT DESIGN PRESSURES ON ITS OWN MERIT TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION, AS DOCUMENTED THROUGH FIELD UPLIFT TESTING IN ACCORDANCE WITH ANSI/SPRI IA-1, ASTM E907, FM LOSS PREVENTION DATA SHEET 1-52 OR TESTING APPLICATION STANDARD TAS 124 SHALL BE CONDUCTED ON MOCK-UPS OF THE PROPOSED NEW ROOF ASSEMBLY.
7. ON LIGHTWEIGHT CONCRETE DECKS, IN ADDITION TO INSULATION ADHESIVE, SECURE ALL INSULATION LAYERS AND COVER BOARD WITH SPECIFIED FASTENERS (1 FASTENER AT EACH CORNER AND 1 IN CENTER OF THE BOARD). ENGAGE FASTENERS BY DRIVING THEM THROUGH LIGHTWEIGHT AND INTO STEEL DECK.

7 | INSULATION/COVER BOARD FASTENING PATTERN FOR ADHESIVE (MINIMUM REQUIREMENTS)
A-501 | NOT TO SCALE



TEMPORARY STAIRS DIAGRAM

TYPICAL NOTES:
1. UNLESS OTHERWISE INDICATED OWNER TO PROVIDE SEPARATE LOCKS. CONTRACTOR TO DOUBLE LOCK.
2. PROVIDE TEMPORARY SCAFFOLD STAIR WHERE INDICATED ON SITE PLAN OR AS REQUIRED TO ENSURE ACCESS TO ROOF. TYPICAL FOR EACH BUILDING.
3. STAIR TO BE MINIMUM 6'-0" X 6'-0" FOR ONE STORY ACCESS OR 6'-0" X 12'-0" FOR TWO STORY ACCESS AND ABOVE.
4. PROVIDE VERTICAL 2X4 TIED TO METAL SCAFFOLDING POST TO TEMPORARILY ATTACH PLYWOOD SHEATHING.
5. DESIGN AND ASSEMBLY OF SCAFFOLD STAIR TO BE IN ACCORDANCE WITH OSHA REQUIREMENTS.
6. DO NOT STORE ANY MATERIAL ON SCAFFOLDS. TOWERS MUST BE TIED AND ADEQUATELY BRACED.

8 | TEMPORARY STAIR SCAFFOLD DIAGRAM
A-501 | NOT TO SCALE

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

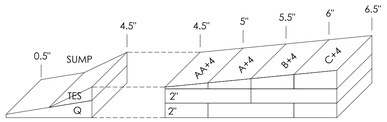
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

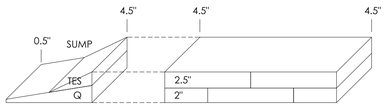
ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

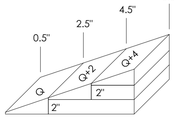
Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	DETAILS
Sheet Number:	A-501
Revision No.:	



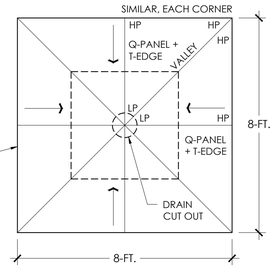
INSULATION SYSTEM, TYPE 1
1/8" SLOPE TAPERED ISO (4'X4' PANELS) 4 PANEL SYSTEM



INSULATION SYSTEM, TYPE 2
RIGID ISO INSULATION SYSTEM (4'X4' PANELS)
OVER SLOPED DECKS



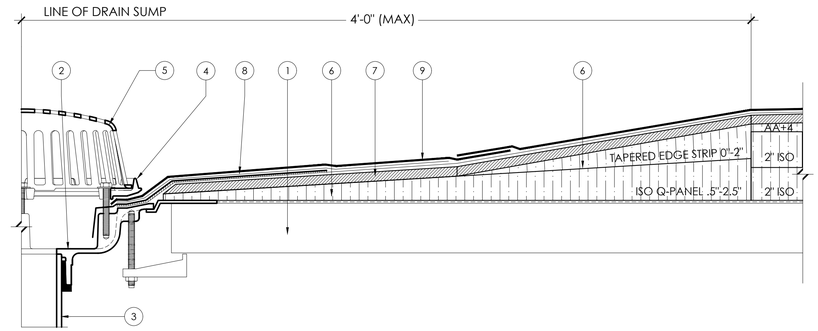
1/2" SLOPE TAPERED
ISO CRICKETS / SADDLES



TAPERED SUMP AT DRAINS

NOTE: TAPERED SUMP TO BE FIELD FABRICATED USING Q-PANELS. CUT TAPERED PANELS TO PROVIDE OUTLINE FOR DRAIN BOWL. TYPICAL DRAIN SUMP TO BE 8-FT. X 8-FT. PROVIDE NEW 24" (0"-2") POLYISO TAPERED EDGE STRIPS TO MATCH HEIGHT OF STARTING INSULATION.

9	INSULATION SYSTEM DIAGRAMS
A-502	NOT TO SCALE

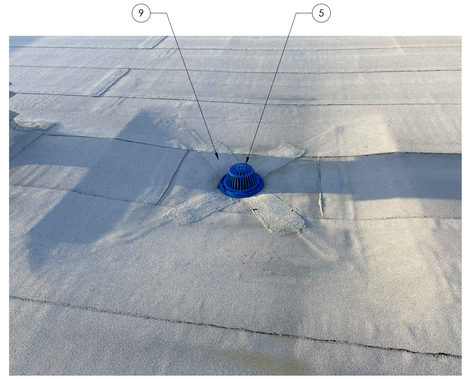


NOTE: ALL PLUMBING WORK TO BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR. VERIFY CONDITION BELOW EACH ROOF DRAIN. ENSURE EACH ROOF DRAIN LEADER IS SUPPORTED WITHIN 2'-0" OF DRAIN. PROVIDE NEW SUPPORT HANGER, WHERE MISSING OR REQUIRED.

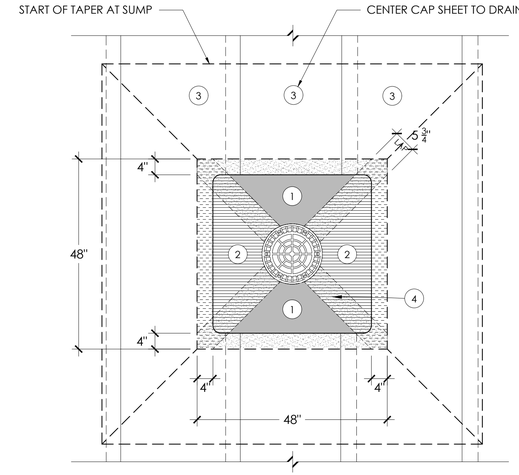
INSPECT FROM BELOW EACH DRAIN THAT ALL HORIZONTAL STORM LEADERS HAVE BEEN PROVIDED BRACED PIPE HANGERS WITHIN 2'-0" OF THE ROOF DRAIN. PROVIDE WHERE MISSING AND REPAIR AS NECESSARY.

DRAWING NOTES:

1. EXISTING ROOF DECK, TO REMAIN. VERIFY EXISTING CONDITIONS. REPAIR DECKING AS REQUIRED.
2. NEW CAST IRON DRAIN BOWL.
3. VERIFY EXIST. CONDITIONS AND CLEAN OUT ALL PIPE LEADERS OF ASPHALT/PITCH. TYPICAL.
4. NEW CLAMP COLLAR/RING. ENSURE THAT EACH LAYER OF ROOFING MATERIAL IS SECURE UNDER CLAMPING RING. PROVIDE NEW S.S. BOLTS TO MATCH THREAD IN SUMP. PROVIDE NEW S.S. WASHERS AND LOCK WASHERS TO MATCH BOLT SIZE. ENSURE THAT ALL THREADS IN THE DRAIN SUMP ARE CLEAN OF ROOF CEMENT PRIOR TO FASTENING. APPLY ANTI-SEIZE COATING TO BOLT THREADS BEFORE INSTALLATION. USE TFE PIPE THREAD SEALANT WITH TEFLON OR EQUAL. RE-TIGHTEN ALL BOLTS PRIOR TO FINAL WALKTHRU. PAINT TO MATCH STRAINER DOME.
5. NEW CAST IRON STRAINER DOME. CLEAN AND PAINT WITH NEW ALIPHATIC POLYURETHANE ENAMEL. COLOR TO MATCH SHERWIN WILLIAMS SW 6965–HYPER BLUE.
6. PROVIDE NEW TAPERED SUMP (Q PANEL AND TAPERED EDGE STRIP) AROUND THE ROOF DRAIN 8'-0" X 8'-0" WITH (MIN.). STANDING WATER AROUND THE ROOF DRAIN IS NOT ACCEPTABLE.
7. NEW GYPSUM ROOF (COVER) BOARD.
8. NEW 36x36-IN. SQUARE - 4 LB. LEAD FLASHING, TURN DOWN INTO DRAIN BOWL. PRE-PUNCH LEAD FOR CLAMPING RING BOLTS (DO NOT CUT OR NOTCH LEAD AROUND BOLTS). PRIME LEAD (BOTH SIDES). APPLY TWO PLIES OF FIBERGLASS FABRIC AND THREE COURSES OF MODIFIED ASPHALT ROOF CEMENT. STRIP-IN WITH SMOOTH PLY MEMBRANE, TYPICAL.
9. NEW SPECIFIED ROOFING SYSTEM. MITER CUT CAP SHEET MEMBRANE IN CORNERS AND APPLY SPECIFIED LIQUID FLASHING OVER LAPS. REFER TO TYPICAL DETAIL 11.



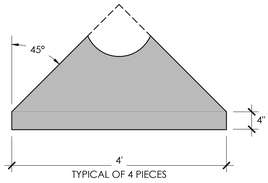
10	ROOF DRAIN FLASHING AND DRAIN REPAIR
A-502	NOT TO SCALE



LAYERING OF FLASHING SHEETS

DRAWING NOTES:

1. FIRST LAYER CAP FLASHING SHEET.
2. SECOND LAYER CAP FLASHING SHEET.
3. SBS MODIFIED ROOF MEMBRANE CAP SHEET. LAP 4" OVER CAP FLASHING SHEETS. INSTALL FIRST SHEET TO CENTERLINE OF DRAIN.
4. APPLY NEW LIQUID FLASHING AT ALL MITER JOINTS. INSTALL NEW MATCHING GRANULES TO WET LIQUID FLASHING. TYPICAL.



FLASHING SHEET TEMPLATE

11	ROOF DRAIN FLASHING AT SUMP
A-502	NOT TO SCALE

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

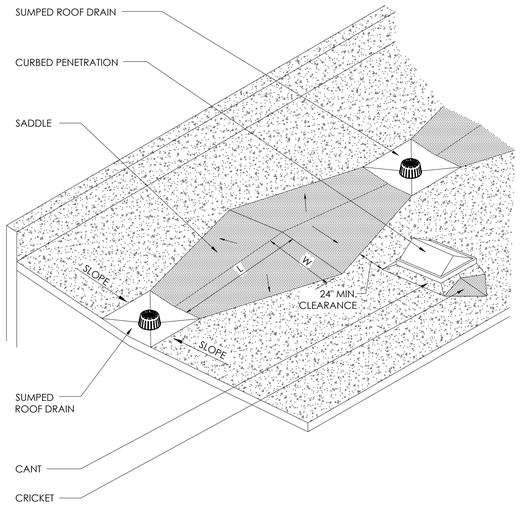
STATE OF FLORIDA
ROBERT J. WHITCOMB
AR0094537
REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

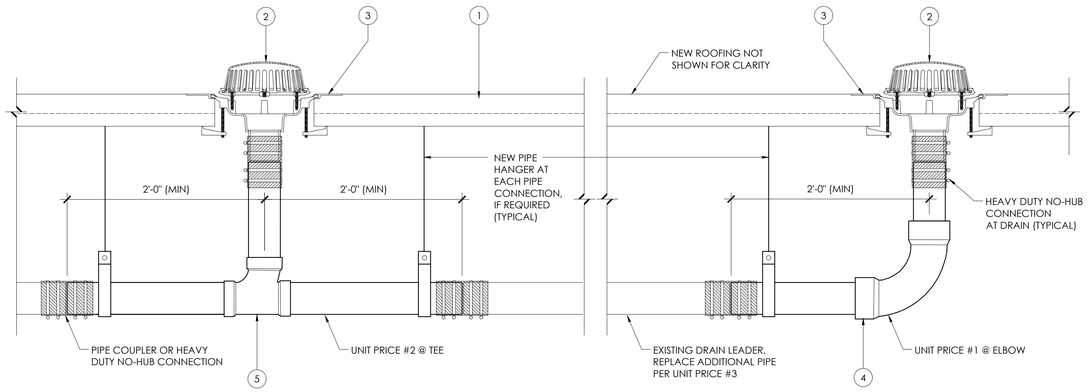


NOTES:

1. SADDLES SHOULD BE LOCATED IN VALLEYS BETWEEN ROOF DRAINS, AND CRICKETS SHOULD BE LOCATED ON THE HIGH SIDE OF CURBS.
2. LOCATE ROOF DRAINS AT POINTS OF MAXIMUM DECK DEFLECTION/LOW AREAS FOR DRAINAGE.
3. SADDLE INSULATION MAY BE SANDWICHED BETWEEN LAYERS OF FLAT STOCK INSULATION.

RECOMMENDED MAXIMUM L:W RATIOS FOR SADDLES AND CRICKETS		
ROOF SLOPE	SADDLE MATERIAL SLOPE	L:W RATIO
1/8	1/4	3:1
1/4	1/2	3:1
1/2	1/2	4:1

12	TYPICAL CRICKET / SADDLE DESIGN REQUIREMENTS
A-502	NOT TO SCALE

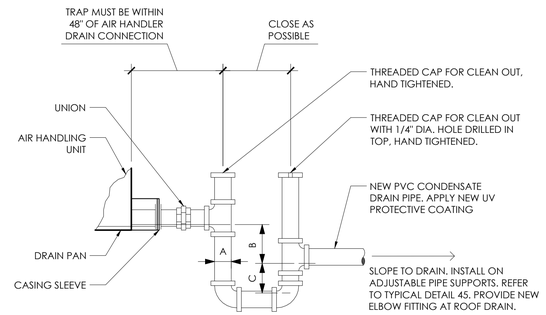


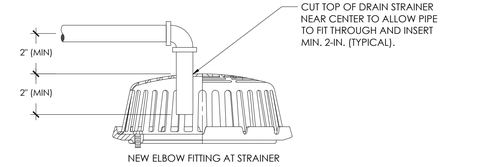
ROOF DRAIN SECTION DIAGRAM

DRAWING NOTES:

1. EXISTING ROOF DECK, TO REMAIN. VERIFY EXISTING CONDITIONS. REPAIR DECKING AS REQUIRED (UNIT COST BASIS).
2. NEW OR EXISTING CAST IRON ROOF DRAIN. REFER TO DETAIL 10.
3. SECURE NEW CAST IRON DRAIN USING DECK CLAMP AND DRAIN RECEIVER. INSTALL TOP OF NEW DRAIN RECEIVER TO BE FLUSH WITH SURFACE OF THE DECK, TYPICAL.
4. **UNIT PRICE #1**: REMOVE EXISTING AND PROVIDE NEW 24-IN. OF 6-IN. (MINIMUM) DIAMETER HORIZONTAL PIPING (VERIFY PIPE DIAMETER). PROVIDE NEW 6-IN. (MINIMUM) DIAMETER VERTICAL PIPE LEADER (VERIFY LENGTH). PROVIDE NEW 90-DEG. ELBOW FITTING AND COUPLER (ALTERNATE: HEAVY DUTY NO-HUB CONNECTION) TO MATCH SIZE. ADD NEW PIPE HANGER AT EACH COUPLER. NEW PIPE TO BE SCHEDULE 40 PVC.
5. **UNIT PRICE #2**: REMOVE EXISTING AND PROVIDE NEW 24-IN. OF 6-IN. (MINIMUM) DIAMETER HORIZONTAL PIPING (VERIFY PIPE DIAMETER) AT EACH SIDE OF TEE. PROVIDE NEW 6-IN. (MINIMUM) DIAMETER VERTICAL PIPE LEADER (VERIFY LENGTH). PROVIDE NEW TEE FITTING AND TWO PIPE COUPLERS (ALTERNATE: HEAVY DUTY NO-HUB CONNECTION) TO MATCH SIZE. ADD NEW PIPE HANGER AT COUPLERS TO MATCH EXISTING. NEW PIPE TO BE SCHEDULE 40 PVC.
6. **UNIT PRICE #3**: REMOVE EXISTING AND PROVIDE NEW OF 5-IN. DIAMETER HORIZONTAL PIPING (VERIFY PIPE DIAMETER) WHERE REQUIRED TO COMPLETE PIPE CONNECTIONS. NEW PIPE TO BE SCHEDULE 40 PVC.

13	ROOF DRAIN SECTION DIAGRAM
A-502	NOT TO SCALE





CONDENSATE DRAIN PIPING DIMENSIONS

A = FULL SIZE OF UNIT DRAIN CONNECTION

B = 2" MINIMUM

C = 2" MINIMUM

NOTE: COAT ALL NEW PVC PIPE AND FITTINGS WITH EXTREME BOND PRIMER (B51W01150) BY SHERWIN WILLIAMS.

14	NEW CONDENSATE TRAP AND DRAIN PIPE
A-502	NOT TO SCALE

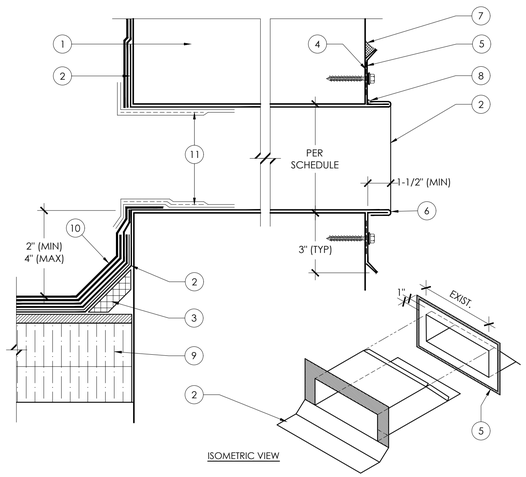
Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

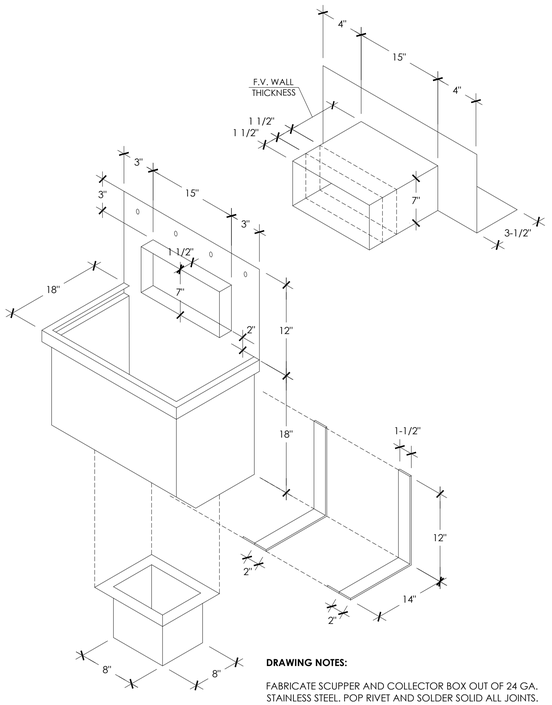
Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	DETAILS
Sheet Number:	A-502
Revision No.:	



DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS. CUT EXISTING WALL AS REQUIRED TO ADJUST SCUPPER OPENING TO 2" MINIMUM TO 4-IN. (MAX) ABOVE ROOF LEVEL, IF REQUIRED.
2. NEW 24 GA. STAINLESS STEEL SCUPPER OUTLET TUBE. ENLARGE OPENING HEIGHT AND WIDTH TO SIZE INDICATED ON SHEET A-101. VERIFY OPENING SIZE AND FABRICATE FLASHING TO FIT.
3. NEW PRE-MOLDED CANT STRIP.
4. NEW SPECIFIED TAPE SEALER. INSTALL TO BACK OF ESCUTCHEON PLATE.
5. NEW 24 GA. STAINLESS STEEL ESCUTCHEON PLATE. FABRICATE TO MATCH PERIMETER OF SCUPPER TUBE. BREAK METAL TO FORM 1/2-IN. (MIN) CAULK TRAY AROUND PERIMETER OF ESCUTCHEON PLATE. EXTEND ESCUTCHEON PLATE UNDER COPING METAL IF WITHIN 6" OF COPING.
6. FOLD METAL TO FORM HEMS AROUND PERIMETER OF ESCUTCHEON PLATE.
7. APPLY CONTINUOUS BEAD OF SPECIFIED SEALANT AROUND ESCUTCHEON. TOOL AS NECESSARY TO PROVIDE UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD, TOP AND SIDES ONLY (TYPICAL).
8. SOLDER SOLID SCUPPER TUBE TO ESCUTCHEON PLATE.
9. NEW INSULATION AND GYPSUM ROOF (COVER) BOARD.
10. NEW SPECIFIED ROOFING AND BASE FLASHING SYSTEM.
11. STRIP-IN EDGE OF MEMBRANE WITH SPECIFIED LIQUID FLASHING MEMBRANE INTO SCUPPER

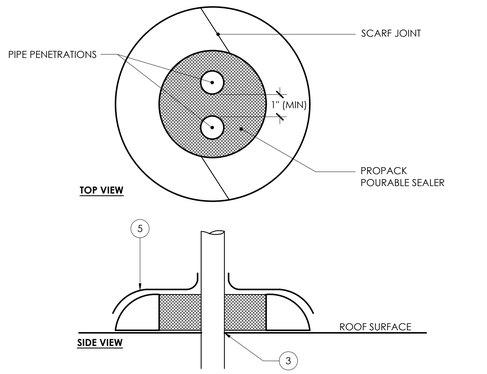
15	NEW OVERFLOW SCUPPER AT EXISTING LOCATION DETAIL
A-503	NOT TO SCALE



DRAWING NOTES:

FABRICATE SCUPPER AND COLLECTOR BOX OUT OF 24 GA. STAINLESS STEEL. POP RIVET AND SOLDER SOLID ALL JOINTS. SUPPORT BRACKET TO BE FABRICATED FROM 3/16" X 1-1/2" STAINLESS BAR STOCK.

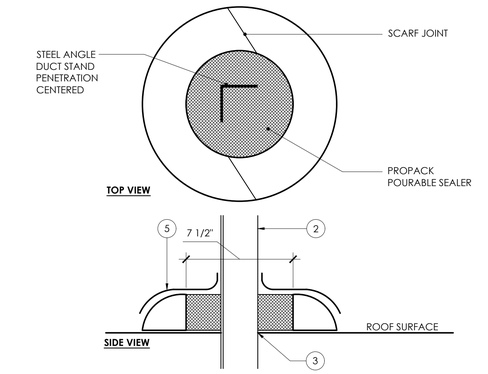
16	THRU-WALL PRIMARY SCUPPER WITH COLLECTOR BOX
A-503	NOT TO SCALE



DRAWING NOTES:

1. REMOVE EXISTING PITCH PAN AND THOROUGHLY CLEAN ALL PENETRATIONS. EMPLOY A LICENSED TRADESMAN TO DISCONNECT ELECTRICAL LINES, RECONNECT AND TEST SYSTEM UPON COMPLETION.
2. PROVIDE NEW GALVANIZED METAL CONDUIT WHERE EMT LINES PENETRATE ROOF DECK - EXTEND 12" ABOVE ROOF AND ANCHOR SECURELY TO JOISTS BELOW. INSTALL NEW 45 DEG. TRANSITION FITTING AND NEW "WEATHER TIGHT" FLEXIBLE CONDUIT TO JUNCTION BOX ON MECH. UNIT, WHERE REQUIRED.
3. SEAL OPENING AROUND DECK PENETRATION WITH OAKUM OR INSULATION MATERIAL.
4. SPACE ALL PENETRATIONS A MINIMUM OF ONE-INCH APART PRIOR TO APPLICATION OF POURABLE SEALANT (TYPICAL).
5. INSTALL LEAD FLASHING OVER PITCH PAN, SECURED WITH NEW STAINLESS STEEL DRAWBANDS.
6. CONTRACTOR SHALLOW FOLLOW THE PRINTED MANUFACTURER'S APPLICATION INSTRUCTIONS. FIELD VERIFY EXISTING PENETRATIONS AND SELECT PROPER SIZE (PROVIDE STRAIGHT SECTIONS WHERE REQUIRED).

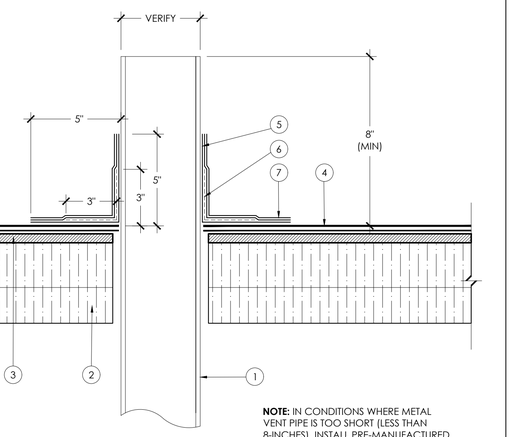
17	TYPICAL PRE-MANUFACTURED PITCH POCKET (CHEM-CURB)
A-503	NOT TO SCALE



DRAWING NOTES:

1. REMOVE EXISTING PITCH PAN AND THOROUGHLY CLEAN ALL PENETRATIONS. EMPLOY A LICENSED TRADESMAN TO DISCONNECT ELECTRICAL LINES, RECONNECT AND TEST SYSTEM UPON COMPLETION.
2. REPLACE EXISTING STEEL ANGLE SUPPORT POST WITH NEW GALVANIZED STEEL SUPPORT POST TO MATCH EXISTING SIZE. RE-ANCHOR SECURELY TO STRUCTURE BELOW DECK SAME AS EXISTING.
3. SEAL OPENING AROUND DECK PENETRATION WITH OAKUM OR INSULATION MATERIAL.
4. SPACE ALL PENETRATIONS A MINIMUM OF ONE-INCH APART PRIOR TO APPLICATION OF POURABLE SEALANT (TYPICAL).
5. INSTALL LEAD FLASHING OVER PITCH PAN, SECURED WITH NEW STAINLESS STEEL DRAWBANDS.
6. CONTRACTOR SHALLOW FOLLOW THE PRINTED MANUFACTURER'S APPLICATION INSTRUCTIONS. FIELD VERIFY EXISTING PENETRATIONS AND SELECT PROPER SIZE (PROVIDE STRAIGHT SECTIONS WHERE REQUIRED).

18	TYPICAL PRE-MANUFACTURED PITCH POCKET (CHEM-CURB)
A-503	NOT TO SCALE

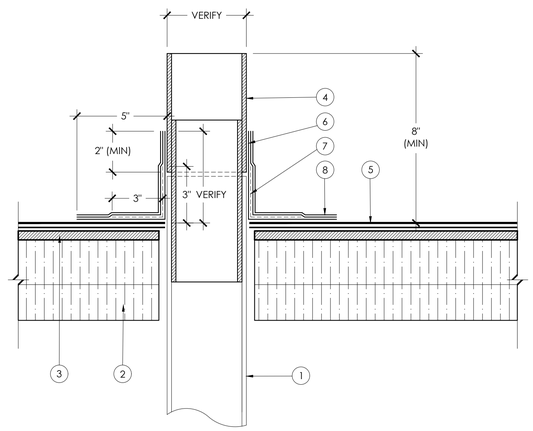


NOTE: IN CONDITIONS WHERE METAL VENT PIPE IS TOO SHORT (LESS THAN 8-INCHES), INSTALL PRE-MANUFACTURED PIPE INSERT PER DETAIL 20/A-503.

DRAWING NOTES:

1. EXISTING PLUMBING VENT STACK (VTR). VERIFY SIZE AND HEIGHT OF PIPE.
2. NEW INSULATION SYSTEM.
3. NEW GYPSUM ROOF (COVER) BOARD.
4. NEW SPECIFIED ROOFING SYSTEM.
5. PREPARE SURFACES, MASK OFF AREA AND APPLY NEW LIQUID FLASHING BASE COAT OVER SPECIFIED PRIMER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALLOW PRIMER 30 MINUTES TO CURE PRIOR TO APPLYING LIQUID FLASHING.
6. NEW REINFORCING FABRIC. EXTEND FABRIC 3-INCHES (MINIMUM) ONTO ROOF AND UP PIPE PENETRATION. FULLY ENCAPSULATE FABRIC IN LIQUID FLASHING BASE COAT. TRIM FABRIC IN A TRADITIONAL "FINGER JOINT" PATTERN AND EMBED IN THE BASE AND TOP LAYER OF LIQUID FLASHING.
7. ALLOW BASE COAT TO CURE 60 MINUTES BEFORE APPLYING NEW FINISH COAT. INSTALL LOOSE GRANULES OVER WET FINISH COAT.

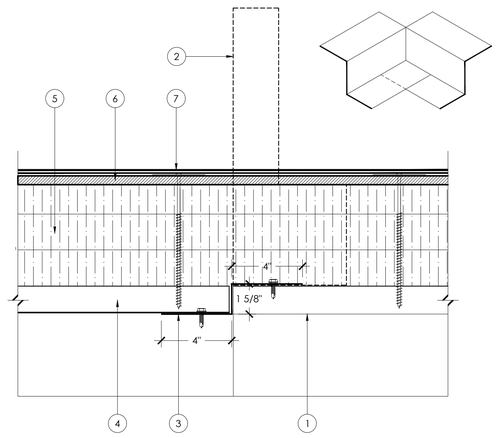
19	TYPICAL VENT THRU ROOF (WITH LIQUID FLASHING)
A-503	NOT USED



DRAWING NOTES:

1. EXISTING PLUMBING VENT STACK (VTR). VERIFY SIZE AND HEIGHT OF PIPE.
2. NEW SPECIFIED INSULATION SYSTEM.
3. NEW GYPSUM ROOF (COVER) BOARD.
4. PROVIDE NEW TUBOS PREFABRICATED VENT PIPE EXTENSION, AS NEEDED TO BRING VTR TO 8-IN. (MIN) ABOVE TOP OF NEW ROOFING.
5. NEW SPECIFIED ROOFING SYSTEM.
6. PREPARE SURFACES, MASK OFF AREA AND APPLY NEW LIQUID FLASHING BASE COAT OVER SPECIFIED PRIMER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALLOW PRIMER 30 MINUTES TO CURE PRIOR TO APPLYING LIQUID FLASHING.
7. NEW REINFORCING FABRIC. EXTEND FABRIC 3-INCHES (MINIMUM) ONTO ROOF AND UP PIPE PENETRATION. FULLY ENCAPSULATE FABRIC IN LIQUID FLASHING BASE COAT. TRIM FABRIC IN A TRADITIONAL "FINGER JOINT" PATTERN AND EMBED IN THE BASE AND TOP LAYER OF LIQUID FLASHING.
8. ALLOW BASE COAT TO CURE 60 MINUTES BEFORE APPLYING NEW FINISH COAT. INSTALL LOOSE GRANULES OVER WET FINISH COAT.

20	TYPICAL VENT THRU ROOF (WITH EXTENDER)
A-503	NOT USED

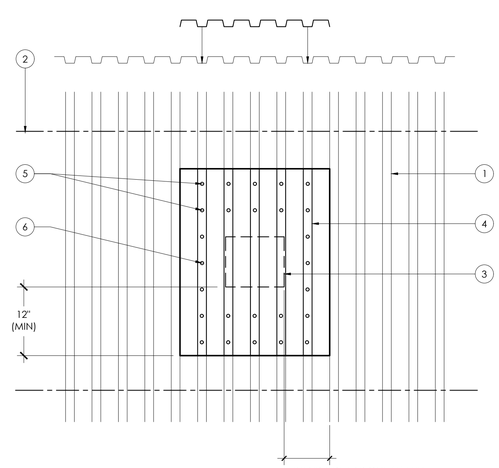


DRAWING NOTES:

1. EXISTING ROOF DECK - TO REMAIN. REPAIR AS REQ'D. VERIFY EXISTING CONDITIONS.
2. REMOVE EXISTING CURB AND/OR ROOF ACCESSORY TO PROVIDE ACCESS FOR THE WORK, WHERE REQUIRED.
3. INSTALL NEW 16 GA STEEL ZEE ANGLE AROUND PERIMETER OF OPENING. SECURE ZEE TO DECK WITH SPECIFIED FASTENERS AT EACH FLUTE OR 6-IN. O.C. (TYPICAL).
4. NEW 22 GA STEEL "B" DECKING - CUT TO FIT OPENING. INSTALL DECK TO SPAN SHORT DIMENSION. SECURE WITH NEW #10-16x3/4-IN. HWH, #1 POINT TEKS SCREW AT 6-IN. O.C. (EVERY FLUTE).
5. NEW INSULATION FILL TO MATCH HEIGHT OF NEW INSULATION.
6. NEW GYPSUM ROOF BOARD.
7. NEW SPECIFIED ROOFING SYSTEM.

NOTE: FOR ROOF OPENINGS LARGER THAT 36-IN., PROVIDE NEW 5X5X5/16" STEEL ANGLE (TYPICAL). PRE-DRILL CLEARANCE HOLES AT 12" O.C. INSTALL ANGLE TO INSIDE PERIMETER OF CURB STEEL AND SECURE WITH NEW 12-24x1.5" (TEKS) HWH SCREWS. PROVIDE INTERMEDIATE SUPPORTS AT OPENINGS GREATER THAN 5-FT. WELD OR MECHANICALLY ATTACH ABUTTING ANGLES TO PERIMETER ANGLE.

21	INFILL ROOF REPAIR AT AVERAGE DECK PENETRATIONS (12-IN. TO 36-IN. IN SIZE)
A-503	NOT USED



DRAWING NOTES:

1. EXISTING STEEL ROOF DECK. VERIFY EXISTING CONDITIONS.
2. EXISTING ROOF JOIST.
3. TYPICAL 12-IN. (& SMALLER) HOLE IN EXISTING DECK TO BE COVERED.
4. INSTALL NEW STEEL ROOF DECK TO MATCH EXISTING GAUGE AND PROFILE.
5. TWO (2) ROWS #12 TEK SCREWS AT 6-IN. O. C., EACH END (TYPICAL)
6. #12 TEK SCREWS, 6-IN. O.C., EACH SIDE (TYPICAL).

22	DECK REPAIR AT MINOR PENETRATIONS (12-IN. OR LESS IN SIZE)
A-503	NOT USED

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA
ROBERT J. WHITCOMB
AR0094537
REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

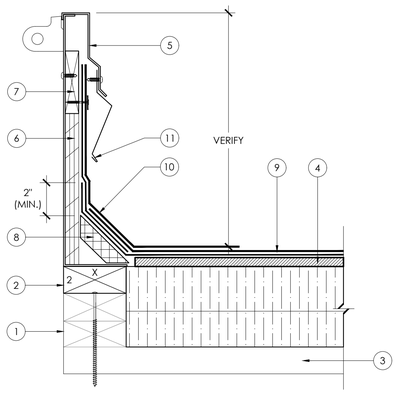
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

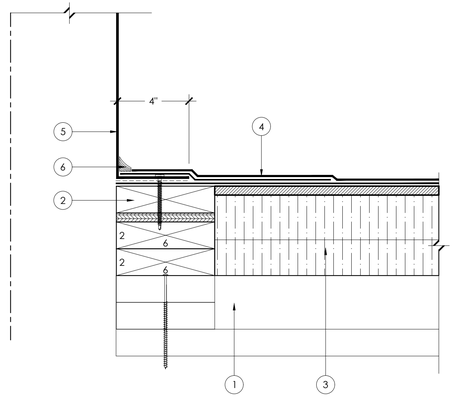
Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title: DETAILS	
Sheet Number: A-503	Revision No.:



DRAWING NOTES:

1. EXISTING WOOD BLOCKING. VERIFY AND REPLACE IF DETERIORATED.
2. ADD NEW WOOD BLOCKING TO HEIGHT OF NEW INSULATION
3. EXISTING STEEL DECK TO REMAIN. REPAIR AS REQUIRED.
4. NEW SPECIFIED INSULATION SYSTEM AND GYPSUM COVER BOARD.
5. EXISTING ROOF SCUTTLE (HATCH). REMOVE AND REINSTALL ON NEW WOOD BLOCKING. REMOVE EXISTING HARDWARE. PAINT EXISTING HATCH COVER AND REINSTALL HARDWARE.
6. NEW CURB INSULATION BOARD.
7. NEW PT WOOD NAILER.
8. NEW PRE-MOLDED CANT STRIP.
9. NEW SPECIFIED ROOFING SYSTEM.
10. NEW SPECIFIED 2-PLY BASE FLASHING.
11. NEW SPECIFIED SKIRT METAL FLASHING. SHOP FABRICATE TO CONFIGURATION INDICATED. WELD SOLID EACH CORNER. LAP METAL IN CENTER OF CURB 4-IN. - APPLY SEALANT BETWEEN METAL AT LAP. SECURE TO CURB WITH SPECIFIED FASTENERS 12-IN. O.C. (EQUALLY SPACED).

23	ROOF HATCH FLASHING DETAIL
A-504	NOT TO SCALE

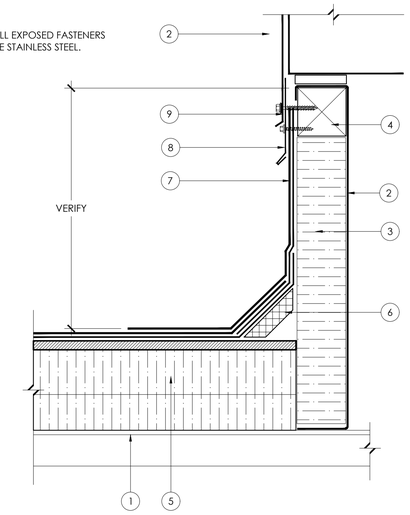


DRAWING NOTES:

1. EXISTING CONSTRUCTION AND ROOF DECK, TO REMAIN. REPAIR AS REQUIRED.
2. NEW PT WOOD NAILERS. CUT EXISTING ROOFING (AS REQUIRED) AND INSTALL NAILERS TO MATCH TOTAL HEIGHT OF NEW INSULATION. SECURE TO DECK WITH SPEC'D FASTENERS. SHIM WITH PLYWOOD AS REQ'D.
3. NEW SPECIFIED INSULATION SYSTEM AND GYPSUM COVER BOARD.
4. NEW SPECIFIED ROOFING SYSTEM.
5. NEW OR EXISTING SELF-FLASHING METAL ACCESSORY. PRIME BOTH SIDES OF METAL FLANGE AND SET IN A BED OF ROOFING CEMENT. SECURE TO NAILER 6-IN. O.C. AROUND PERIMETER. (TYPICAL).

   WHERE NOTED ON THE DRAWINGS, FABRICATE NEW ACCESSORY OF 22 GA STAINLESS STEEL TO MATCH CONFIGURATION OF EACH COMPONENT. POP RIVET AND SOLDER ALL JOINTS. ALTERNATE: 0.050" WELDED ALUM.
6. INSTALL CONTINUOUS BEAD OF SPECIFIED SEALANT AROUND PERIMETER OF VENT. TOOL AS NECESSARY TO PROVIDE A UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD.

24	TYPICAL SELF FLASHING FLANGED ACCESSORY
A-504	NOT TO SCALE

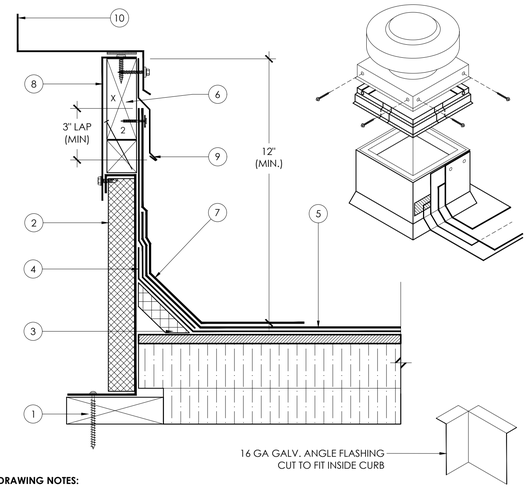


NOTE: ALL EXPOSED FASTENERS SHALL BE STAINLESS STEEL.

DRAWING NOTES:

1. EXISTING STEEL DECK TO REMAIN, REPAIR AS REQUIRED.
2. NEW OR EXISTING MECH EQUIP (LARGE FAN OR DUCT) AND CURB, EXTEND DUCT AND MECHANICAL/ELECTRICAL LINES, AS REQUIRED, AND RECONNECT.
3. NEW INSULATION, SET IN ROOF CEMENT.
4. PROVIDE NEW PT WOOD NAILER WHERE NONE EXISTS.
5. NEW INSULATION AND GYPSUM ROOF (COVER) BOARD.
6. NEW PRE-MOLDED CANT STRIP, SET IN ROOF CEMENT.
7. NEW SPECIFIED ROOFING AND BASE FLASHING SYSTEM.
8. NEW .050-IN. ALUM. SKIRT FLASHING. SHOP FABRICATE TO CONFIGURATION AS SHOWN. PROVIDE DRIP AND HEM EDGE. PRE-DRILL ALL HOLES. SECURE WITH SPECIFIED FASTENERS 12" O.C.
9. REINSTALL EXISTING METAL COVER FLASHING FLANGE. FASTEN TO CURB WITH SPECIFIED FASTENERS (12" O.C. 2 PER SIDE MINIMUM).

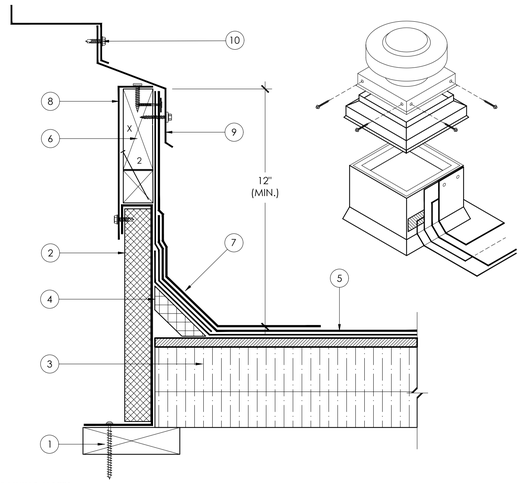
25	EQUIPMENT CURB DETAIL
A-504	NOT TO SCALE



DRAWING NOTES:

1. EXISTING ROOF DECK AND BLOCKING - TO REMAIN. REPAIR AS REQUIRED.
2. EXIST. MECHANICAL CURB. REFASTEN BETWEEN EACH SCREW. VERIFY CURB TYPE.
3. NEW SPECIFIED INSULATION AND GYPSUM COVER BOARD.
4. NEW PRE-MOLDED CANT STRIP.
5. NEW SPECIFIED ROOFING SYSTEM.
6. NEW PT 2x NAILER (CURB EXTENSION). ANCHOR SECURELY TO TOP OF EXISTING CURB WITH SPECIFIED FASTENERS.
7. NEW SPECIFIED 2-PLY BASE FLASHING.
8. NEW 16 GA. GALV. BENT PLATE. SECURE PLATES TO SIDE OF METAL CURB WITH #12x1" HWH TEK SCREWS AND NEW WOOD NAILER WITH #10-13x1.5" GP 302 S.S. CONCEALOR SCREWS AT (2) PER SIDE. ISOLATE METAL WITH NEW FOAM BACKER TAPE.
9. NEW 0.050-IN. ALUM. SKIRT METAL FLASHING. SHOP FABRICATE TO CONFIGURATION INDICATED. WELD SOLID EACH CORNER. LAP METAL IN CENTER OF CURB 4-IN. - APPLY SEALANT BETWEEN METAL AT LAP. SECURE TO CURB WITH SPECIFIED FASTENERS 12-IN. O.C. (EQUALLY SPACED)
10. NEW/EXISTING VENTILATOR FAN WITH FLASHING FLANGE. DISCONNECT FAN. EXTEND DUCT AND MECHANICAL/ ELECTRICAL LINES, AS REQUIRED, AND RECONNECT. FASTEN TO CURB WITH SPECIFIED S.S. FASTENERS (12" O.C. OR 2 PER SIDE, MINIMUM).

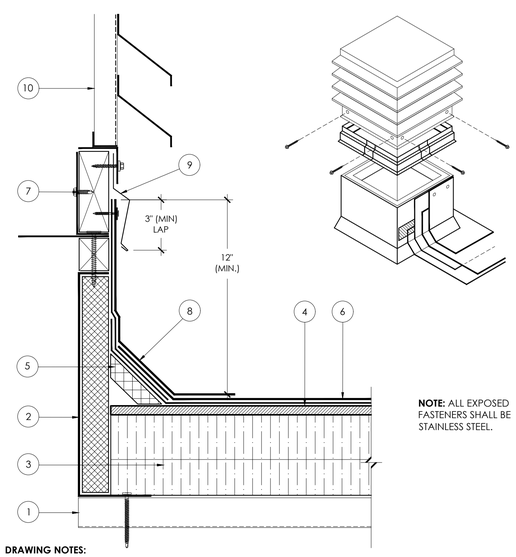
26	TYPICAL VENT CURB FLASHING
A-504	NOT TO SCALE



DRAWING NOTES:

1. EXISTING ROOF DECK AND BLOCKING - TO REMAIN. REPAIR AS REQUIRED.
2. EXIST. MECHANICAL CURB. REFASTEN BETWEEN EACH SCREW. VERIFY CURB TYPE.
3. NEW SPECIFIED INSULATION AND GYPSUM COVER BOARD.
4. NEW PRE-MOLDED CANT STRIP.
5. NEW SPECIFIED ROOFING SYSTEM.
6. NEW PT 2x NAILER (CURB EXTENSION). ANCHOR SECURELY TO TOP OF EXISTING CURB WITH SPECIFIED FASTENERS.
7. NEW SPECIFIED 2-PLY BASE FLASHING.
8. NEW 16 GA. GALV. BENT PLATE. SECURE PLATES TO SIDE OF METAL CURB WITH #12x1" HWH TEK SCREWS AND NEW WOOD NAILER WITH #10-13x1.5" GP 302 S.S. CONCEALOR SCREWS AT (2) PER SIDE.
9. NEW 0.050-IN. ALUM. OFFSET FLASHING. SHOP FABRICATE IN ONE PIECE TO CONFIGURATION INDICATED. WELD SOLID EACH CORNER. SECURE TO CURB WITH SPECIFIED FASTENERS 12-IN. O.C. (EQUALLY SPACED)
10. NEW/EXISTING VENTILATOR FAN WITH FLASHING FLANGE. DISCONNECT FAN, EXTEND DUCT AND MECHANICAL/ ELECTRICAL LINES, AS REQUIRED, AND RECONNECT. FASTEN TO CURB WITH SPECIFIED S.S. FASTENERS (12" O.C. OR 2 PER SIDE, MINIMUM).

27	TYPICAL VENT CURB FLASHING (WITH OFFSET)
A-504	NOT TO SCALE

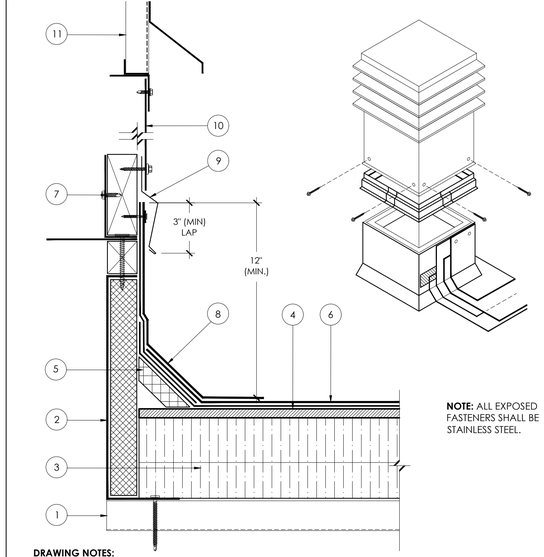


NOTE: ALL EXPOSED FASTENERS SHALL BE STAINLESS STEEL.

DRAWING NOTES:

1. EXISTING ROOF DECK, TO REMAIN.
2. EXISTING MECHANICAL CURB.
3. NEW INSULATION SYSTEM.
4. NEW GYPSUM ROOF (COVER) BOARD.
5. NEW PRE-MOLDED CANT STRIP.
6. NEW SPECIFIED ROOFING SYSTEM.
7. NEW PT 2x NAILER (CURB EXTENSION). ANCHOR SECURELY TO TOP OF EXISTING CURB WITH SPECIFIED FASTENERS OR PROVIDE NEW PRE-MANUFACTURED CURB TO MEET REQUIRED HEIGHT SHOWN.
8. NEW SPECIFIED 2-PLY BASE FLASHING.
9. NEW SPECIFIED SKIRT METAL FLASHING. SHOP FABRICATE TO CONFIGURATION INDICATED. WELD EACH CORNER. LAP METAL IN CENTER OF CURB 4-IN. APPLY SEALANT BETWEEN METAL AT LAPS. SECURE TO CURB WITH SPECIFIED FASTENERS 12-IN. O.C. (EQUALLY SPACED).
10. EXISTING VENTILATOR FAN. VERIFY CONFIGURATION OF HOOD TO DETERMINE BEST WAY TO EXTEND HEIGHT. DISCONNECT FAN, EXTEND MECHANICAL/ELECTRICAL LINES AND DUCT (AS REQUIRED) AND RECONNECT. FASTEN TO CURB WITH SPECIFIED FASTENERS AT 12-IN. ON CENTER (3 PER SIDE, MINIMUM).

28	EXHAUST FAN / EQUIPMENT CURB WITH SKIRT AND EXTENDER
A-504	NOT TO SCALE

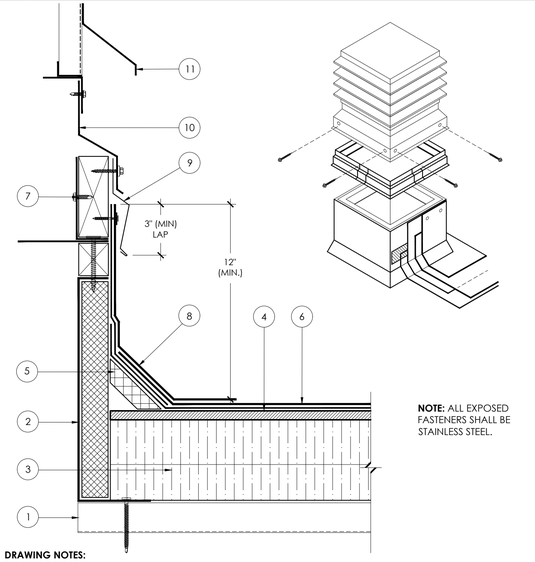


NOTE: ALL EXPOSED FASTENERS SHALL BE STAINLESS STEEL.

DRAWING NOTES:

1. EXISTING ROOF DECK, TO REMAIN.
2. EXISTING MECHANICAL CURB.
3. NEW INSULATION SYSTEM.
4. NEW GYPSUM ROOF (COVER) BOARD.
5. NEW PRE-MOLDED CANT STRIP.
6. NEW SPECIFIED ROOFING SYSTEM.
7. NEW PT 2x NAILER (CURB EXTENSION). ANCHOR SECURELY TO TOP OF EXISTING CURB WITH SPECIFIED FASTENERS OR PROVIDE NEW PRE-MANUFACTURED CURB TO MEET REQUIRED HEIGHT SHOWN.
8. NEW SPECIFIED 2-PLY BASE FLASHING.
9. NEW SPECIFIED SKIRT METAL FLASHING. SHOP FABRICATE TO CONFIGURATION INDICATED. WELD EACH CORNER. LAP METAL IN CENTER OF CURB 4-IN., APPLY SEALANT BETWEEN METAL AT LAPS. SECURE TO CURB WITH SPECIFIED FASTENERS 12-IN. O.C. (EQUALLY SPACED).
10. EXISTING METAL DUCT EXTENDER.
11. EXISTING VENTILATOR FAN. VERIFY CONFIGURATION OF HOOD TO DETERMINE BEST WAY TO EXTEND HEIGHT. DISCONNECT FAN, EXTEND MECHANICAL/ELECTRICAL LINES AND DUCT (AS REQUIRED) AND RECONNECT. FASTEN TO CURB WITH SPECIFIED FASTENERS AT 12-IN. ON CENTER (3 PER SIDE, MINIMUM).

29	EXHAUST FAN / EQUIPMENT CURB WITH SKIRT AND EXTENDER
A-504	NOT TO SCALE



DRAWING NOTES:

1. EXISTING ROOF DECK, TO REMAIN.
2. EXISTING MECHANICAL CURB.
3. NEW INSULATION SYSTEM.
4. NEW GYPSUM ROOF (COVER) BOARD.
5. NEW PRE-MOLDED CANT STRIP.
6. NEW SPECIFIED ROOFING SYSTEM.
7. NEW PT 2x NAILER (CURB EXTENSION). ANCHOR SECURELY TO TOP OF EXISTING CURB WITH SPECIFIED FASTENERS OR PROVIDE NEW PRE-MANUFACTURED CURB TO MEET REQUIRED HEIGHT SHOWN.
8. NEW SPECIFIED 2-PLY BASE FLASHING.
9. NEW SPECIFIED SKIRT METAL FLASHING. SHOP FABRICATE TO CONFIGURATION INDICATED. WELD EACH CORNER. LAP METAL IN CENTER OF CURB 4-IN., APPLY SEALANT BETWEEN METAL AT LAPS. SECURE TO CURB WITH SPECIFIED FASTENERS 12-IN. O.C. (EQUALLY SPACED).
10. EXISTING FLASHING ADAPTER.
11. EXISTING VENTILATOR FAN. VERIFY CONFIGURATION OF HOOD TO DETERMINE BEST WAY TO EXTEND HEIGHT. DISCONNECT FAN, EXTEND MECHANICAL/ELECTRICAL LINES AND DUCT (AS REQUIRED) AND RECONNECT. FASTEN TO CURB WITH SPECIFIED FASTENERS AT 12-IN. ON CENTER (3 PER SIDE, MINIMUM).

30	EXHAUST FAN / EQUIPMENT CURB WITH SKIRT AND EXTENDER
A-504	NOT TO SCALE

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

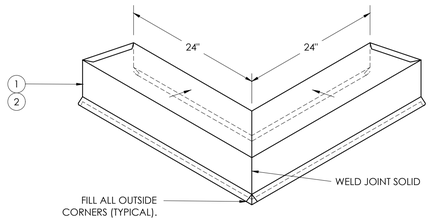
Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title:

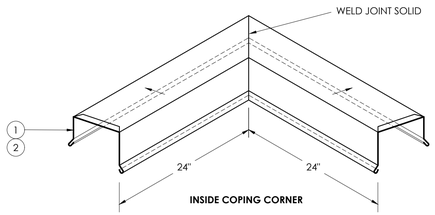
DETAILS

Sheet Number: **A-504**

Revision No.:



OUTSIDE COPING CORNER



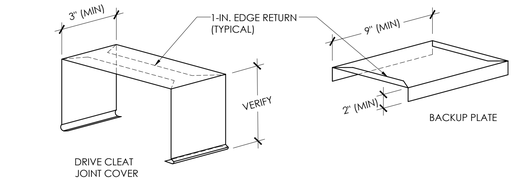
INSIDE COPING CORNER

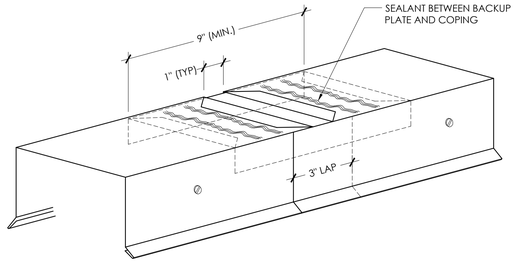
NOTE: VERIFY FIELD DIMENSIONS AND ANGLES PRIOR TO FABRICATION - FIELD TEMPLATE WHERE REQUIRED.

DRAWING NOTES:

1. NEW SPECIFIED COPING CAP. SLOPE TO DRAIN ON ROOF (TYPICAL).
2. SHOP ALL TRANSITIONS 24-IN. FROM EDGE TO CONFIGURATION AS SHOWN. WELD ALL MITERS AND CORNERS TO FORM ONE CONTINUOUS PIECE. ALL JOINTS SHALL BE WELDED.
3. APPLY CONTINUOUS BEAD OF SPECIFIED SEALANT IN FLARED EDGE. TOOL AS NECESSARY TO PROVIDE UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD (TYPICAL).

31 | TYPICAL COPING CORNER TRANSITIONS (ANY ANGLE)
A-505 | NOT TO SCALE

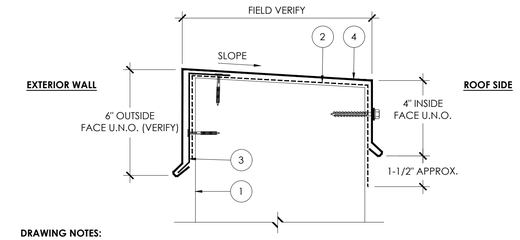




DRAWING NOTES:

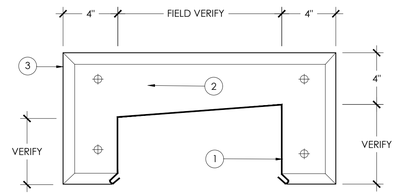
1. VERTICAL FACE DIMENSIONS TO BE 4-IN. MINIMUM, AND 10-IN. MAXIMUM (WITHOUT STIFFENER OR SKIRT EXTENDER).
2. CONTINUOUS CLEATS REQUIRED.
3. BACKUP PLATES ARE REQUIRED.
4. CLOSE CLEAT RECEIVERS TIGHT TO CLEAT CONTINUOUSLY.
5. LAP VERTICAL "LEGS" OF COPING 3-IN. MINIMUM.
6. PROVIDE POSITIVE SLOPE TO ROOF. REFER TO TYPICAL DETAIL. ADD SHIMS AS REQUIRED.
7. ADD NAILERS TO PARAPET WALL TO MAINTAIN 8-IN. ABOVE ROOF SURFACE. TYPICAL.
8. DO NOT USE DRIVE CLEATS ON STEEP SLOPE WALLS OF 2:12 AND GREATER.
9. ADD METAL SKIRTS TO WALL FACE UNDER COPING TO EXTEND FACE TO COVER NAILERS.
10. LINE UP COVER PLATES WHERE A SKIRT METAL IS USED.
11. REFER TO FASTENER SCHEDULE.

32 | TYPICAL COPING LAP DETAIL
A-505 | NOT TO SCALE



DRAWING NOTES:

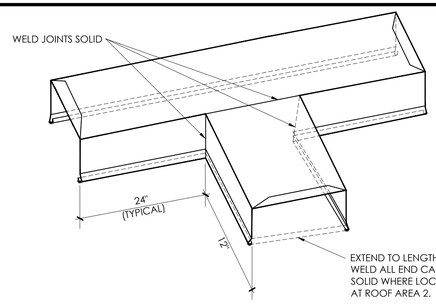
1. EXISTING PARAPET WALL. REPLACE DETERIORATED WOOD NAILERS PER UNIT COST. FIELD VERIFY.
2. NEW CONTINUOUS SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND EPDM MEMBRANE BELOW INSIDE FLANGE APPROX. 2-IN. AND TRIM EVEN WITH COPING METAL AFTER SUBSTANTIAL COMPLETION.
3. NEW CONTINUOUS CLEAT. FASTEN 6" O.C.
4. NEW SPECIFIED COPING CAP. SHOP FABRICATE AND WELD SOLID ALL TRANSITIONS. ENGAGE SECURELY TO WIND CLEAT AND FASTEN TO INSIDE FLANGE OF COPING CAP @ 12-IN. O.C. (TYPICAL). CONNECT END PIECES WITH NEW DRIVE CLEATS.



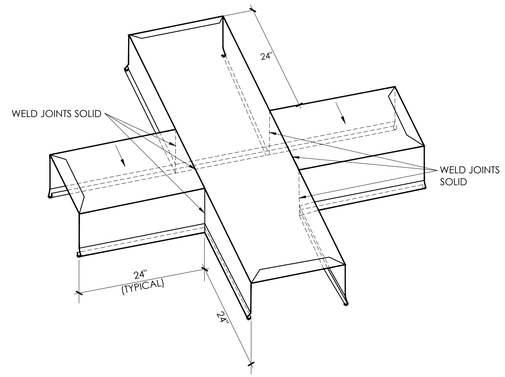
DRAWING NOTES:

1. NEW SPECIFIED COPING CAP. REFER TO TYPICAL DETAIL.
2. SHOP FABRICATE END TRANSITIONS 24-IN. FROM EDGE TO CONFIGURATION AS SHOWN.
3. APPLY CONTINUOUS BEAD OF SPECIFIED SEALANT IN FLARED EDGE. TOOL AS NECESSARY TO PROVIDE UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD (TYPICAL).
4. FIELD TEMPLATE AND SHOP FABRICATE ALL TRANSITIONS. ALL JOINTS SHALL BE WELDED SOLID.

33 | ALUMINUM COPING CAP DETAIL AND END PLATE FLASHING
A-505 | NOT TO SCALE

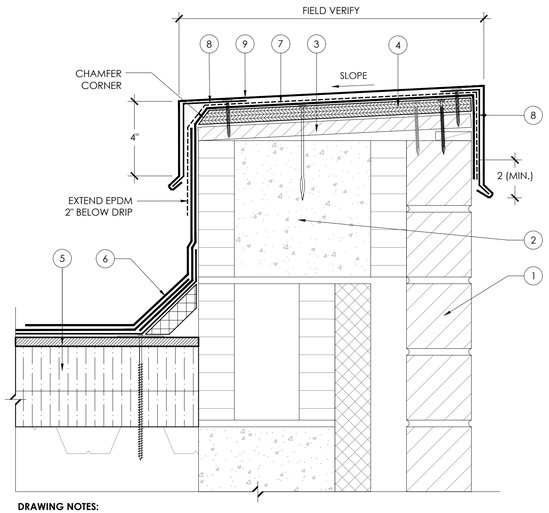


NOTE: VERIFY FIELD DIMENSIONS AND ANGLES PRIOR TO FABRICATION - FIELD TEMPLATE WHERE REQUIRED. WELD ALL MITERS AND CORNERS TO FORM ONE CONTINUOUS PIECE. SLOPE TO DRAIN ON ROOF (TYPICAL). WELD ALL END CAPS SOLID WHERE LOCATED.



NOTE: VERIFY FIELD DIMENSIONS AND ANGLES PRIOR TO FABRICATION - FIELD TEMPLATE WHERE REQUIRED. WELD ALL MITERS AND CORNERS TO FORM ONE CONTINUOUS PIECE. SLOPE TO DRAIN ON ROOF (TYPICAL). WELD ALL END CAPS SOLID WHERE LOCATED.

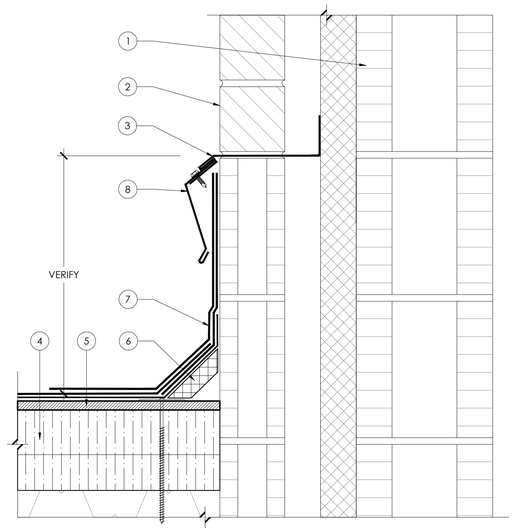
34 | ALUMINUM COPING CAP TRANSITION AND WALL END DETAILS
A-505 | NOT TO SCALE



DRAWING NOTES:

1. EXISTING FACE BRICK, TO REMAIN.
2. EXISTING MASONRY-CMU WALL OR PARAPET, TO REMAIN.
3. EXISTING PLYWOOD ON TOP OF PARAPET, TO REMAIN. RE-SECURE AND/OR ADD WOOD SPACER IF PLYWOOD IS BEND. REPLACE WHERE DETERIORATED.
4. NEW 3/4-INCH PT PLYWOOD. CHAMFER CORNER OF PLYWOOD AS SHOWN. SECURE TO CONCRETE TIE BEAM WITH SPIKES AT 12" O.C. AND WOOD SCREWS IN FIELD 12" O.C. STAGGERED.
5. NEW SPECIFIED INSULATION AND GYPSUM ROOF (COVER) BOARD.
6. NEW SPECIFIED ROOF SYSTEM AND 2-PLY WALL/ BASE FLASHING. CONTINUE SMOOTH PLY OVER TOP OF PARAPET TO COVER ALL WOOD. EXTEND CAP PLY TO TOP TO WALL.
7. NEW CONTINUOUS SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND 2-IN. BELOW INSIDE FACE OF COPING.
8. NEW CONTINUOUS CLEAT. SECURE TO WOOD BLOCKING AT 6-IN. O.C.
9. NEW SPECIFIED COPING CAP. SHOP FABRICATE ALL TRANSITIONS, CORNERS AND BENDS 24-IN. FROM EDGE. WELD ALL JOINTS SOLID. ENGAGE SECURELY TO CLEAT AND FASTEN 12-IN. O.C. REFER TO TYPICAL DETAILS 31 THRU 34/A-505.

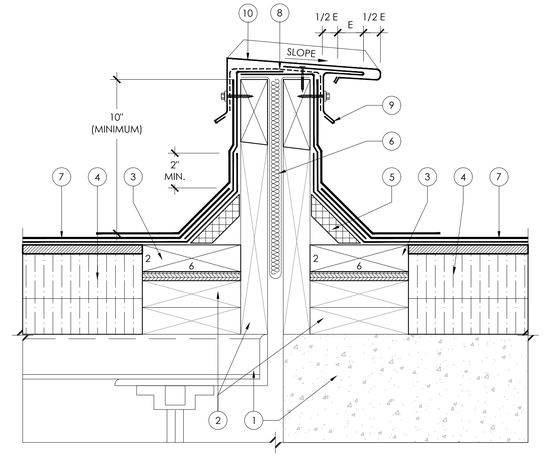
35 | CMU-MASONRY AND BRICK VENEER PARAPET COPING DETAIL (TYPICAL)
A-505 | NOT TO SCALE



DRAWING NOTES:

1. EXISTING MASONRY WALL.
2. EXISTING BRICK VENEER.
3. EXISTING THROUGH WALL REGLET FLASHING. DISENGAGE COUNTER FLASHING TO PROVIDE ACCESS FOR THE WORK.
4. NEW SPECIFIED INSULATION SYSTEM.
5. NEW SPECIFIED GYPSUM ROOF (COVER) BOARD.
6. NEW CANT STRIP, SET IN ROOF CEMENT.
7. NEW SPECIFIED ROOF SYSTEM AND 2-PLY BASE FLASHING.
8. NEW REGLET COUNTER FLASHING. SECURE TO REGLET WITH NEW S.S. SHEET METAL SCREWS AT 12" O.C. (TYPICAL).

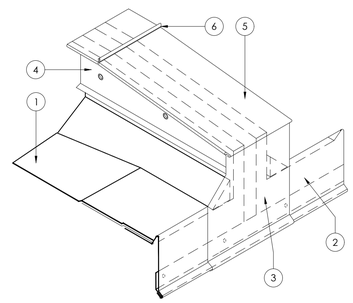
36 | FLASHING AND BRICK VENEER TRANSITION DETAIL (TYPICAL)
A-505 | NOT TO SCALE



DRAWING NOTES:

1. EXISTING CONCRETE STRUCTURE AND/OR ROOF DECK, TO REMAIN.
2. EXISTING EXPANSION JOINT CURB CONSTRUCTION, TO REMAIN. INSTALL NEW PT WOOD TO ACHIEVE 10-IN. (MIN.) CURB HEIGHT, AS SHOWN. ANCHOR SECURELY WITH SPECIFIED FASTENERS. REPLACE WOOD WITH NEW WHERE MISSING AND/OR DETERIORATED.
3. INSTALL NEW 2X PT WOOD BLOCKING TO MATCH HEIGHT OF INSULATION.
4. NEW SPECIFIED INSULATION SYSTEM AND GYPSUM COVER BOARD.
5. NEW PRE-MOLDED CANT STRIP, SET IN ROOF CEMENT.
6. NEW BATT INSULATION IN FELT FOLD - FULL HEIGHT OF CURB.
7. NEW SPECIFIED ROOFING AND BASE FLASHING.
8. NEW CONT'S SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS.
9. NEW EXP. JOINT CLEAT - SHOP FABRICATE AS SHOWN. SECURE TO NAILER AT 6-IN. O.C. WITH SPECIFIED FASTENERS.
10. NEW EXP. JOINT COVER - SHOP FABRICATE ALL TRANSITIONS, CORNERS, AND BENDS 24-IN. FROM EDGE(S). ENGAGE TO CLEAT AND SECURE AT 18-IN. O.C. WITH SPEC'D FASTENERS IN SLOTTED HOLES. CONNECT PIECES WITH 1-IN. STANDING SEAMS.

37 | ROOF-TO-ROOF EXPANSION JOINT
A-505 | NOT TO SCALE



DRAWING NOTES:

1. INSTALL NEW SPECIFIED ROOFING AND BASE FLASHING.
2. NEW PERIMETER EDGE FASCIA. REFER TO TYPICAL DETAIL.
3. NEW SPECIFIED FACE PLATE. FABRICATE TO CONFORM TO THE FASCIA PROFILE AND EXTEND UP TO EXPANSION COVER. FASTEN FACE PLATE SECURELY BY USE OF A HOOK SEAM TO EXPANSION COVER AND ENGAGE FASCIA EDGE.
4. NEW SPECIFIED EXPANSION CLEAT. ANCHOR CLEAT TO FACE OF CURB WITH SPECIFIED FASTENERS 12-INCHES O.C. IN SLOTTED HOLE. LAP METAL 4-INCHES (MIN.) AND HEM ALL EDGES.
5. NEW SPECIFIED EXPANSION JOINT COVER. ENGAGE CLEAT SECURELY. SHOP FABRICATE ALL TRANSITIONS, CORNERS, BENDS AND END CONDITIONS AT 24-INCHES AND INSTALL FIRST. TAPER CURB AT EDGE FASCIA CONDITION, AS SHOWN.
6. PROVIDE 1-INCH STANDING SEAMS AT ALL JOINTS.

38 | EXPANSION JOINT END TRANSITION
A-505 | NOT TO SCALE

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA
ROBERT J. WHITCOMB
AR0094537
REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

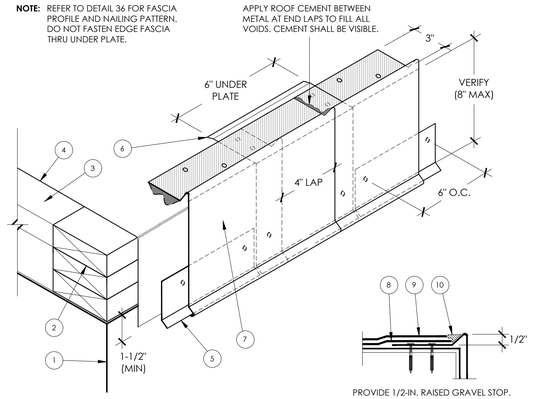
Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	DETAILS
Sheet Number:	A-505
Revision No.:	

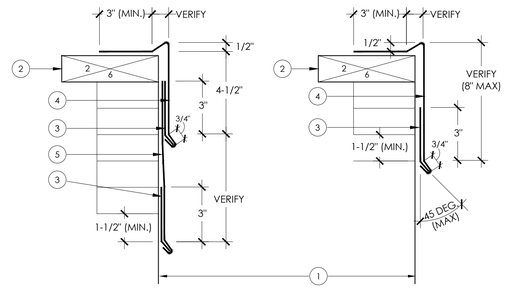
NOTE: REFER TO DETAIL 36 FOR FASCIA PROFILE AND NAILING PATTERN. DO NOT FASTEN EDGE FASCIA THRU UNDER PLATE.



DRAWING NOTES:

1. EXISTING CONSTRUCTION AND ROOF DECK - TO REMAIN. REPAIR AS REQUIRED.
2. NEW OR EXISTING 2x6 (MINIMUM) PT WOOD NAILER. INSTALL NEW WOOD BLOCKING, AS REQUIRED, TO MATCH HEIGHT OF INSULATION. ANCHOR SECURELY WITH SPECIFIED FASTENERS.
3. NEW INSULATION AND GYPSUM ROOF (COVER) BOARD.
4. NEW SMOOTH PLY MEMBRANE. EXTEND MEMBRANE DOWN FACE TO COVER ALL ALL NEW/EXISTING NAILERS. SECURE TO NAILER 12-IN. O.C. (MIN.).
5. NEW CONTINUOUS CLEAT. ANCHOR SECURELY TO NAILER WITH SPEC'D FASTENERS 6-IN. O.C.
6. NEW 6-IN. WIDE JOINT UNDERPLATE. PRIME METAL AND SET IN ROOF CEMENT. SECURE WITH (6) SPEC'D FASTENERS AS SHOWN.
7. NEW EDGE FASCIA. LAP METAL 4-IN. AND SEAL WITH MASTIC AT ROOF SIDE AND APPLY 2 BEADS OF SEALANT ON VERTICAL FACE. CENTER LAPS OVER UNDER PLATES. FIELD TEMPLATE AND WELD ALL CORNERS, BENDS AND END PLATE TRANSITIONS 24-IN. FROM EDGE (TYPICAL). PRIME METAL (BOTH SIDES) AND SET IN 1/8" THICK BED OF ROOFING CEMENT. ANCHOR SECURELY WITH SPECIFIED FASTENERS 3-IN. O.C. STAGGERED. **DO NOT FASTEN EDGE FASCIA THRU UNDER PLATE.**
8. NEW SMOOTH PLY STRIP-IN MEMBRANE (MINIMUM 12-IN. WIDE x 12-FT LONG). INSTALL TO LAP OVER EACH JOINT IN EDGE FASCIA (TYPICAL).
9. NEW SPECIFIED CAP SHEET MEMBRANE. OFFSET FROM EDGE 1/2-IN. TO PROVIDE TROUGH FOR NEW LIQUID FLASHING.
10. CONTINUOUS APPLICATION OF SPECIFIED LIQUID FLASHING AT RAISED EDGE OF FASCIA. INSTALL LOOSE GRANULES INTO WET FLASHING.

39 | EDGE METAL FASCIA, TYPICAL LAP CONDITIONS
A-506 | NOT TO SCALE



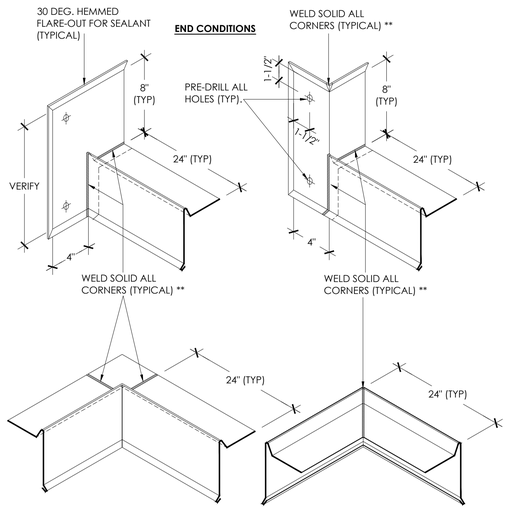
DRAWING NOTES:

1. EXISTING WALL.
2. NEW PT 2X6 WOOD NAILER. ADD ADDITIONAL WOOD NAILERS AS REQUIRED TO MATCH HEIGHT OF INSULATION.
3. NEW SPECIFIED CONTINUOUS CLEAT. ANCHOR SECURELY TO NAILER WITH SPECIFIED FASTENERS 6-IN. O.C. (CONTINUOUS MEANS IN LENGTHS NOT TO EXCEED 10-FT. WITH 1/8-IN. CLEARANCE BETWEEN ENDS. CLEAT END LOCATIONS SHOULD NOT COINCIDE WITH LOCATIONS OF VERTICAL JOINTS.)
4. NEW SPECIFIED EDGE FASCIA (8" MAX FACE DIMENSION). SHOP FABRICATE TO CONFIG. SHOWN ON TYPICAL DETAILS. ENGAGE SECURELY TO CLEAT AND ANCHOR TO NAILER WITH SPECIFIED FASTENERS 3-IN. O.C. STAGGERED.
5. NEW SPECIFIED FASCIA PLATE. SHOP FABRICATE TO CONFIGURATION SHOWN ON TYPICAL DETAILS. ENGAGE SECURELY TO CLEAT AND ANCHOR TO FACE OF NAILER WITH SPECIFIED FASTENERS.

SECURE SHEET METAL TO WOOD WITH ONLY STAINLESS STEEL ANNUAL THREADED ROOFING NAILS BY 1-1/2" IN LENGTH

MATERIAL THICKNESS TOLERANCES		
MATERIAL	THICKNESS (INCHES)	
	FASCIA	CLEAT
ALUMINUM	0.050" (.046"-.054")	0.063" (.059"-.067")

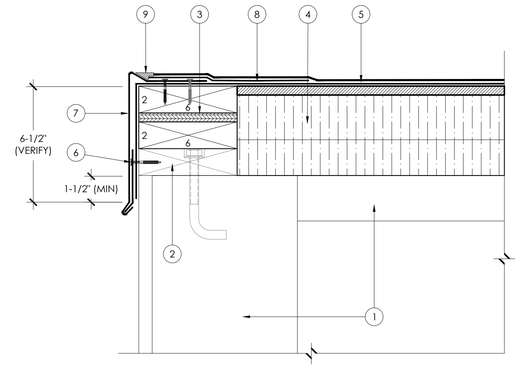
40 | TYPICAL EDGE FASCIA NAILING AND DIMENSIONS
A-506 | NOT TO SCALE



NOTE: FIELD TEMPLATE AND SHOP FABRICATE ALL TRANSITIONS.

** WELD ALL JOINTS SOLID.

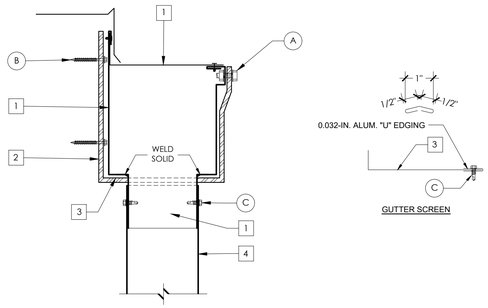
41 | TYPICAL EDGE FASCIA TRANSITIONS
A-506 | NOT TO SCALE



DRAWING NOTES:

1. EXISTING CONSTRUCTION AND ROOF DECK, TO REMAIN. REPAIR AS REQUIRED.
2. EXISTING WOOD BLOCKING. REPLACE WITH NEW WHERE DETERIORATED
3. ADD NEW 2X6 PT WOOD BLOCKING TO MATCH HEIGHT OF INSULATION.
4. NEW SPECIFIED INSULATION AND GYPSUM ROOF (COVER) BOARD.
5. NEW SPECIFIED ROOFING SYSTEM. CARRY SMOOTH INTERPLY MEMBRANE DOWN FACE TO COVER ALL WOOD NAILERS. SECURE TO NAILER 12-IN. O.C. (MIN.)
6. NEW CONTINUOUS CLEATS. ANCHOR SECURELY TO NAILER WITH SPECIFIED FASTENERS 6-IN OC.
7. NEW METAL EDGE FASCIA. REFER TO TYPICAL DETAIL.
8. NEW SMOOTH PLY STRIP-IN MEMBRANE (MINIMUM 12-IN. WIDE x 12-FT LONG). INSTALL TO LAP OVER EACH JOINT IN EDGE FASCIA (TYPICAL).
9. APPLY CONTINUOUS BEAD OF SPECIFIED SEALANT AT RAISED EDGE OF FASCIA. TOOL FIRMLY INTO ALL VOIDS.

42 | TYPICAL EDGE METAL FASCIA, EXTERIOR LOCATIONS
A-506 | NOT TO SCALE



FASTENER SCHEDULE:

(A) 1/4" x 1" STAINLESS STEEL BOLT AND NUT WITH COURSE THREAD.

(B) REFER TO DETAIL 01/A9.1.

(C) 5/16" STAINLESS STEEL SELF-DRILLING SCREW.

MATERIAL DESCRIPTION:

[1] 0.050-IN. ALUMINUM GUTTER, SPACER, OUTLET.

[2] GUTTER SUPPORT BRACKET AND DOWNSPOUT BRACKET: 1/4" x 1 1/4" ALUMINUM BAR @ 30" O/C. FOR GUTTER BRACKET AND SPACE @ 60" O/C. FOR DOWNSPOUT.

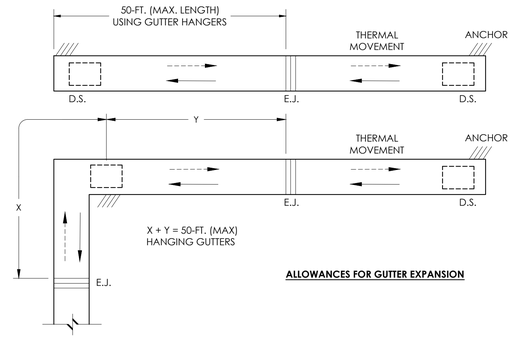
[3] 1/2# .081S. 375" SWO X .937" LWO 60% OPEN AREA 48" LONG MAXIMUM (SOURCE McNICHOLS 800-237-3820 PAGE No. 17 OF THE 2007 CATALOG - GUTTER SCREEN.

[4] 0.050-IN. ALUMINUM DOWNSPOUT.

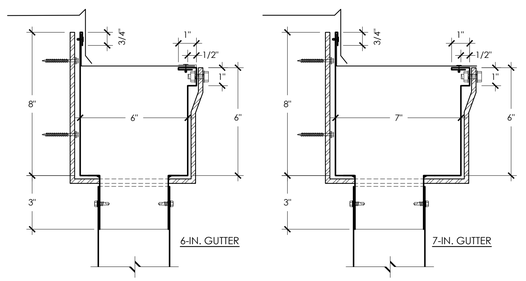
NOTES:

1. PROVIDE SAMPLE FOR APPROVAL PRIOR TO FABRICATION.
2. SLOPE GUTTER TO OUTLETS STANDING WATER IN GUTTER IS NOT ACCEPTABLE.
3. INSTALL EXPANSION JOINTS 50-FT. APART (MAXIMUM).
4. REFER TO DETAIL 0031 FOR EXPANSION JOINT DETAIL.
5. DOWNSPOUT LOCATION TO BE DETERMINED BY OWNER/DESIGNER IN THE FIELD.
6. APPLY A RIBBON OF SILICONE SEALANT BETWEEN GUTTER AND THE HANGER.
7. DO NOT ATTACH GUTTER TO THE BUILDING.
8. GUTTER SIZE MAY BE ADJUSTED WHERE CONDITIONS REQUIRE A SMALLER OR LARGER GUTTER.
9. PROVIDE BREAKS IN GUTTER SCREEN AT ALL GUTTER EXPANSION JOINTS.

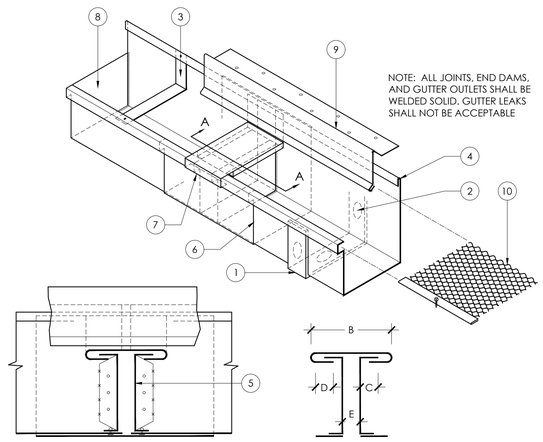
43 | TYPICAL HANGING GUTTER DETAIL
A-506 | NOT TO SCALE



ALLOWANCES FOR GUTTER EXPANSION



44 | GUTTER PROFILES AND ALLOWANCES FOR GUTTER EXPANSION
A-506 | NOT TO SCALE

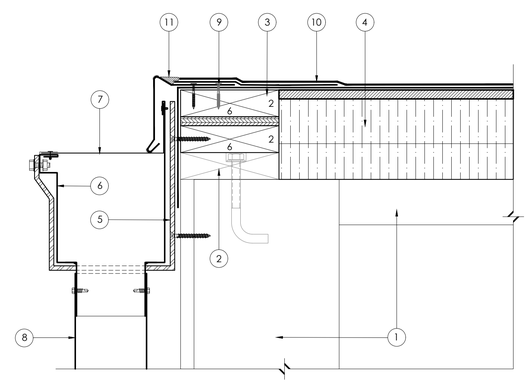


DRAWING NOTES:

1. NEW 1/4-IN. x 1-IN. WIDE GUTTER SUPPORT BRACKET. PROVIDE (3) BRACKETS FOR EVERY 10'-0" SECTION. CHALK LINES AND VERIFY SLOPE PRIOR TO INSTALLING GUTTER. MAKE CORRECTIONS TO SLOPE AS REQUIRED.
2. APPLY DABS OF CLEAR SILICONE SEALANT BETWEEN GUTTER AND BRACKET TO PREVENT WIND CHATTER.
3. NEW 0.063-IN. SPECIFIED SPACER (GUTTER STRAP). LOCATE SPACERS ALTERNATELY BETWEEN BRACKETS AND SECURE WITH POP RIVETS.
4. NEW 0.050-IN. MILL FINISH GUTTER. INSTALL GUTTER TO FLOAT ON SUPPORTS. DO NOT FASTEN GUTTER.
5. NEW GUTTER END CAPS, WELDED SOLID.
6. NEW JOINT COVER PLATE. SEAL IN PLACE.
7. NEW SPECIFIED EXPANSION JOINT COVER.
8. NEW GUTTER END DAM, WELDED SOLID.
9. NEW SPECIFIED GUTTER EDGE FASCIA.
10. NEW STAINLESS STEEL GUTTER SCREEN WITH 0.040" ALUMINUM CLOSURE. FASTEN BETWEEN STRAPS.

MINIMUM INSTALLATION VALUES FOR "E"				
	STAINLESS STEEL		ALUMINUM	
	10 FT.	50 FT.	10 FT.	50 FT.
B	2"	3-1/4"	2-3/4"	4-1/2"
C	1/2"	13/16"	11/16"	1-1/8"
D	1/2"	13/16"	11/16"	1-1/8"
E	1/4"	1-1/8"	3/8"	1-11/16"

45 | GUTTER EXPANSION JOINT
A-506 | NOT TO SCALE



DRAWING NOTES:

1. EXISTING CONSTRUCTION AND ROOF DECK, TO REMAIN. REPAIR AS REQUIRED.
2. EXISTING WOOD BLOCKING. REPLACE WITH NEW WHERE DETERIORATED.
3. INSTALL NEW 2X6 PT WOOD BLOCKING TO MATCH HEIGHT OF INSULATION AT EDGE.
4. NEW SPECIFIED INSULATION AND GYPSUM ROOF (COVER) BOARD.
5. ALUMINUM GUTTER BRACKETS. SECURE TO SUBSTRATE WITH STAINLESS STEEL CONCRETE SCREWS.
6. NEW 6-IN. ALUM. BOX GUTTER. REFER TO TYPICAL DETAILS 43 THRU 45/A-506.
7. NEW SPECIFIED GUTTER SCREEN.
8. NEW 4X5-IN. ALUM. DOWNSPOUT. REFER TO TYPICAL DETAILS 49 AND 50/A-507
9. NEW GUTTER EDGE FASCIA WITH 1/2-IN. RAISED EDGE. FASTEN PER TYPICAL DETAIL.
10. NEW SPECIFIED ROOFING SYSTEM.
11. APPLY CONT'S BEAD OF APPROVED SEALANT AT RAISED EDGE OF FASCIA.

46 | EDGE DETAIL WITH FLOATING GUTTER
A-506 | NOT TO SCALE

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

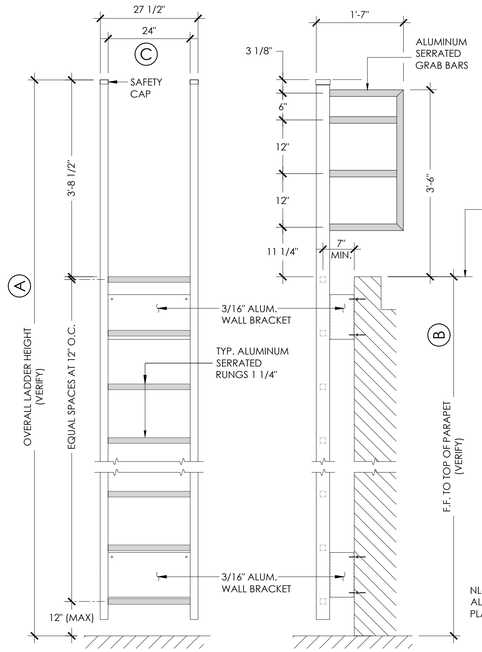
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

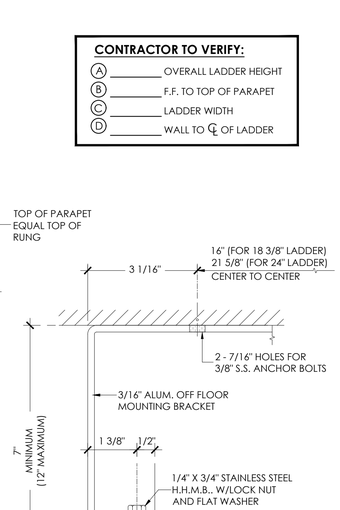
Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	DETAILS
Sheet Number:	A-506
Revision No.:	



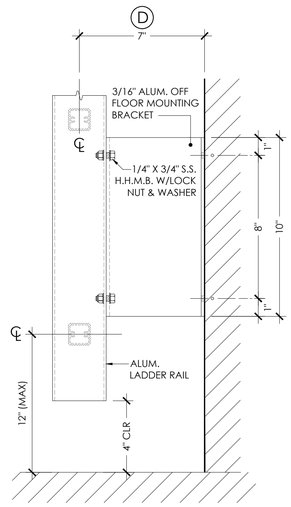
FRONT ELEVATION **SIDE ELEVATION**

CONTRACTOR TO VERIFY:

- (A) _____ OVERALL LADDER HEIGHT
- (B) _____ F.F. TO TOP OF PARAPET
- (C) _____ LADDER WIDTH
- (D) _____ WALL TO ℄ OF LADDER



OFF FLOOR MOUNTING BRACKET

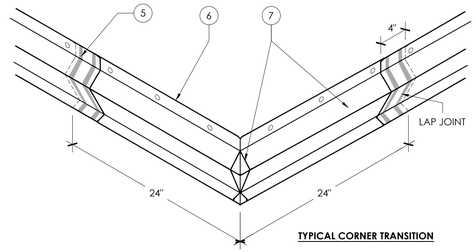


OFF FLOOR MOUNTING BRACKET

NOTE: INSTALL NEW 24X24X2 CONCRETE PAD ON A TARGET MEMBRANE AT ALL LOCATIONS WHERE LADDERS EXIT ONTO A ROOF. TYPICAL.

NOTES: 1. GRAB BAR CONDITION VARIES BASED ON APPLICATION. SEE SPECIFICATION.

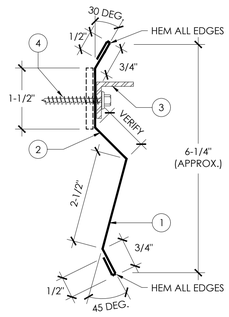
47	ROOF-TO-ROOF LADDER
A-507	NOT TO SCALE



TYPICAL CORNER TRANSITION

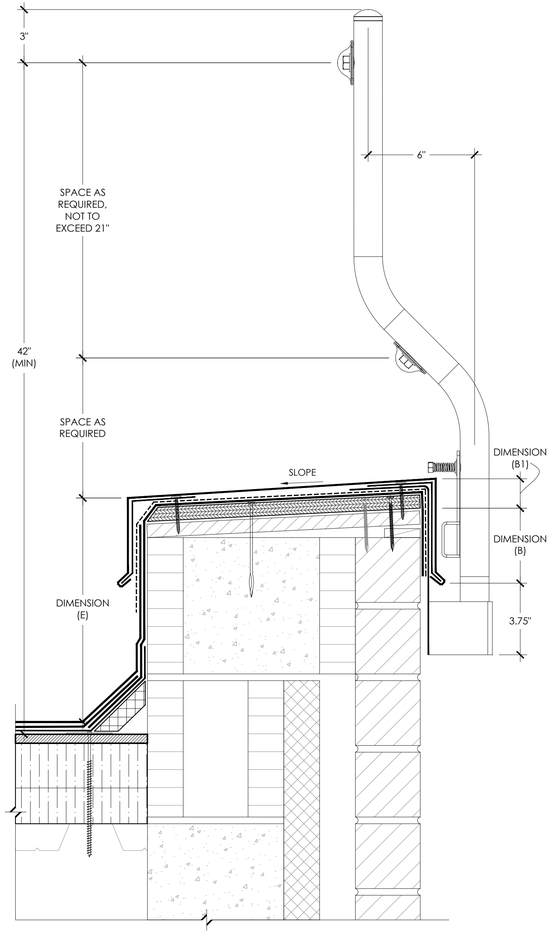
DRAWING NOTES:

1. NEW SURFACE MOUNTED COUNTER FLASHING. SHOP FABRICATE TO CONFIGURATION SHOWN. PROVIDE 4-IN. END PLATES AT ALL END CONDITIONS. WELD SECTIONS TO CONFORM TO FIELD CONDITIONS. HEM ALL EDGES. PRE-DRILL ALL HOLES.
2. NEW SPECIFIED FOAM BACKER TAPE. APPLY IN CONTINUOUS LENGTHS TO BACK OF FLASHING.
3. NEW SPECIFIED HOLD-DOWN ANGLE. PRE-DRILL ALL HOLES. METAL TO BE SAME AS FLASHING.
4. ANCHOR HOLD-DOWN ANGLE AND FLASHING SECURELY WITH SPECIFIED FASTENERS AT 12-IN. O.C.
5. LAP ALL JOINTS 4-IN. (MINIMUM). INSTALL TWO CONTINUOUS BEADS OF SPECIFIED SEALANT BETWEEN METAL AT LAPS.
6. APPLY CONTINUOUS BEAD OF SPECIFIED SEALANT AT TOP FLARE. TOOL AS NECESSARY TO PROVIDE UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD (TYPICAL).
7. CORNER SECTIONS AND BENDS SHALL BE PREFABRICATED AT 24-IN. OUTSIDE OF CORNERS AND WELDED SOLID. DO NOT FIELD SPLICE CORNERS.



PROFILE SECTION

48	TYPICAL SURFACE-MOUNTED COUNTER FLASHING
A-507	NOT TO SCALE



VARIABLE DIMENSIONS:

DIMENSION (B), FACE OF FASCIA OR COPING CAP.

DIMENSION (B), _____ INCHES.

DIMENSION (B1), RISE HT. OF FASCIA OR COPING CAP.

DIMENSION (B1), _____ INCHES.

DIMENSION (D), FACE OF FASCIA OR COPING CAP.

DIMENSION (D), _____ INCHES.

DIMENSION (E), INSIDE HEIGHT OF PARAPET WALL.

DIMENSION (E), _____ INCHES.

FIXED RAIL

ADJUSTABLE RAIL

CORNER RAIL

POST

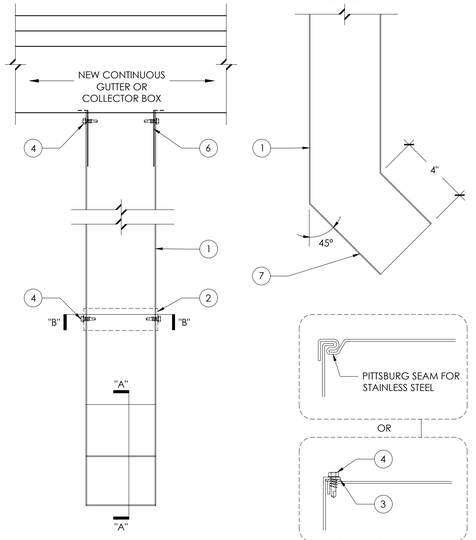
SPECIFICATIONS:

1. MATERIAL:
   - .1 **POST:** 1.25" ID (1.66") X .140" SCHEDULE 40 PIPE (ASTM A53) WELDED TO 2" X 3" X 3.5" STEEL BLOCK (ASTM A36) AND 3/16" STEEL PLATE (ASTM A36) BRACKET WITH PRE-PUNCHED HOLES AND SLOTS FOR PERMANENT STRUCTURAL ATTACHMENT.
   - .2 **HORIZONTAL FIXED RAIL:** 1.625" X .065" (ASTM C1008/1010) STEEL TUBE RAILS.
   - .3. **HORIZONTAL ADJUSTIBLE RAIL:** 1.625" X .065" AND 1.375" X .065" (ASTM C1008/1010) STEEL TUBE ADJUSTABLE SLIDE RAILS
   - .4 **CORNER RAILS:** 1.625" X .065" (ASTM C1008/1010) STEEL TUBE.
2. FINISH: POWDER COAT
3. HARDWARE: 3/8"-16 X 1" ZINC PLATED STEEL RAIL FASTENERS
4. STANDARDS: MEETS AND EXCEEDS OSHA STANDARD1926.502
5. INSTALLATION: STRUCTURAL FASTENERS:
   - .1 WOOD: RSS STRUCTURAL SCREW
   - .2 CONCRETE: CALIBURN PH CONCRETE PAN HEAD SCREW
6. MFR/TRADENAME: NYSROM MODEL FP-GRPLG PERIMETER GUARDRAIL
7. WARRANTY: 5 YEARS.

NOTE: ACCEPTABLE WALL STRUCTURES INCLUDE: CONCRETE MASONRY UNIT, CONCRETE, BRICK OR WOOD.

MODEL	DESCRIPTION	DIMENSION	MATERIAL + FINISH
FP-GRPLG	EDGE MOUNT POST	42"	STEEL, POWDER COAT
FP-GRF60	FIXED RAIL	5'	STEEL, POWDER COAT
FP-GRF96	FIXED RAIL	8'	STEEL, POWDER COAT
FP-GRF118	FIXED RAIL	9'-10"	STEEL, POWDER COAT
FP-GRA43	ADJUSTABLE RAIL	2'-5" TO 3'-9"	STEEL, POWDER COAT
FP-GRA70	ADJUSTABLE RAIL	3'-9" TO 5'-10"	STEEL, POWDER COAT
FP-GRA120	ADJUSTABLE RAIL	5'-10" TO 10'	STEEL, POWDER COAT
FP-GRC12	CORNER RAIL	12"	STEEL, POWDER COAT

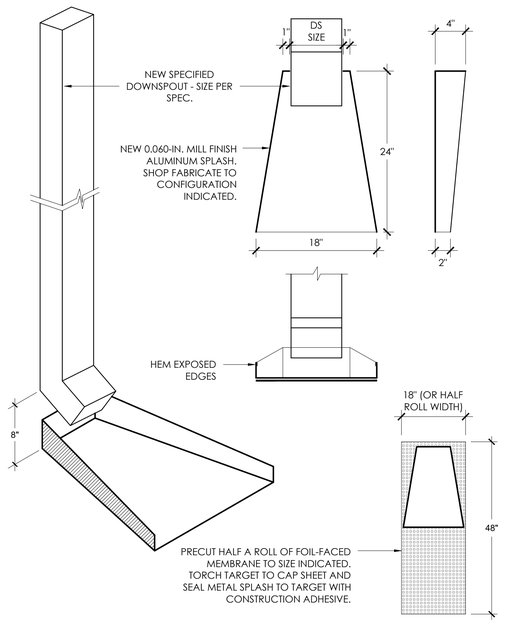
52	GUARDRAIL, PERMANENT LEDGE MOUNT AT PARAPET WALL
A-507	NOT TO SCALE



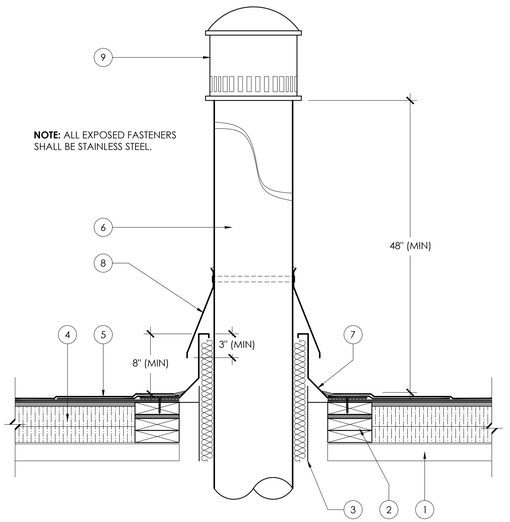
DRAWING NOTES:

1. NEW 0.050-IN. ALUMINUM DOWNSPOUT. ALTERNATE: 4-IN. DIA. PVC PIPE, WHERE APPROVED.
2. NEW DOWNSPOUT SUPPORT BRACKET, 1/4-IN. x 1-1/4-IN. ALUMINUM BAR AT 60-IN. O.C.
3. CONTINUOUS RIBBON OF SPECIFIED SEALANT (STP-35).
4. 5/16-IN. STAINLESS STEEL SELF-DRILLING SCREW. VERIFY LENGTH.
5. REFER TO FASTENER SCHEDULE.
6. SHOP FABRICATED OUTLET TUBE. WELD SOLID TO GUTTER.
7. NEW DIVERTER.

49	TYPICAL DOWNSPOUT PROFILE
A-507	NOT TO SCALE



50	TYPICAL DOWNSPOUT PROFILE AND ALUMINUM SPLASH
A-507	NOT TO SCALE



DRAWING NOTES:

1. EXISTING CONSTRUCTION AND ROOF DECK - TO REMAIN. REPAIR AS REQ'D.
2. NEW PT WOOD NAILERS. CUT EXISTING ROOFING AND INSTALL NAILERS TO MATCH TOTAL HEIGHT OF NEW INSULATION. SECURE TO DECK WITH SPEC'D FASTENERS.
3. NEW METAL LINER AND FIRE-RATED INSULATION.
4. NEW SPECIFIED INSULATION SYSTEM.
5. NEW SPECIFIED ROOFING SYSTEM.
6. NEW HEAT STACK PIPE (FLUE). VERIFY SIZE.
7. NEW FLASHING CAP AND CURB. SET IN A BED OF ROOFING CEMENT. SECURE TO NAILER 6-IN. O.C. AROUND PERIMETER. (TYPICAL). ALTERNATE: WOOD SCREW FASTENERS AT 2 PER SIDE.
8. NEW STAINLESS STEEL RAIN COLLAR. SECURE WITH S.S. DRAWBAND AND APPLY NEW TEMPERATURE APPROPRIATE SEALANT IN CAULK TRAY.
9. CHIMNEY TERMINATION CAP. EXTEND TO MINIMUM HEIGHT.

51	HOT SACK
A-507	NOT TO SCALE

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

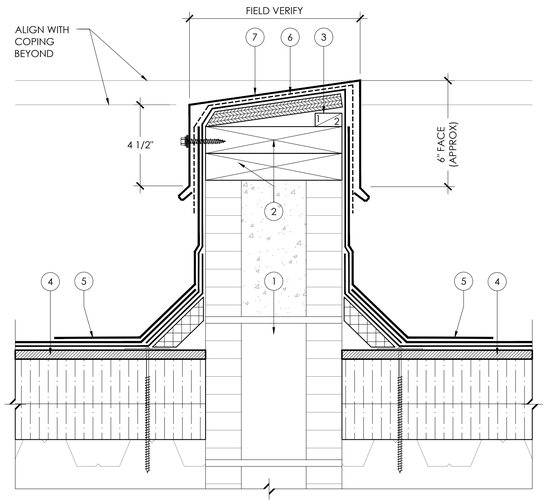
REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021

Sheet Title: DETAILS

Sheet Number: **A-507**

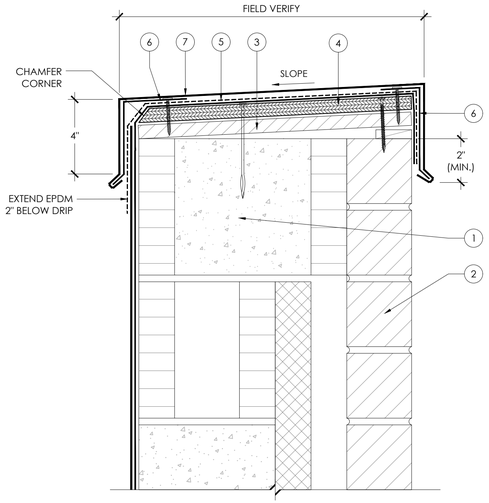
Revision No.:



DRAWING NOTES: (EXISTING MASONRY-CMU PARAPET WALL LOCATION. (SEE ROOF PLANS AND FIELD VERIFY LOCATIONS)

1. EXISTING MASONRY-CMU WALL OR PARAPET, TO REMAIN.
2. ADD NEW 2X PT WOOD NAILER FULL WIDTH OF WALL FASTEN SECURELY WITH SPECIFIED FASTENERS. FASTENING SHALL BE TO CONCRETE TIE BEAM.
3. PROVIDE NEW 3/4-IN. PT PLYWOOD ACROSS NAILERS. CHAMFER EDGE. CREATE SLOPE WITH NEW CONT'S 1X2 PT WOOD SHIM AT EDGE, AS SHOWN.
4. NEW SPECIFIED INSULATION AND GYPSUM ROOF (COVER) BOARD.
5. NEW SPECIFIED ROOF SYSTEM AND 2-PLY WALL/ BASE FLASHING. CONTINUE SMOOTH INNER PLY OVER TOP OF PARAPET TO COVER ALL WOOD.
6. NEW CONTINUOUS SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND 2-IN. BELOW INSIDE FACE OF COPING.
7. NEW SPECIFIED COPING CAP WITH RIDGE TO SLOPE EACH WAY. SHOP FABRICATE ALL TRANSITIONS, CORNERS AND BENDS 24-IN. FROM EDGE. REFER TO DETAILS 13,14,15,16 SIMILAR. WELD ALL JOINTS SOLID. ENGAGE SECURELY TO CLEAT AND FASTEN 12-IN. O.C. ALIGN ALL EDGES AS POSSIBLE WITH ADJACENT ALUMINUM COPINGS.

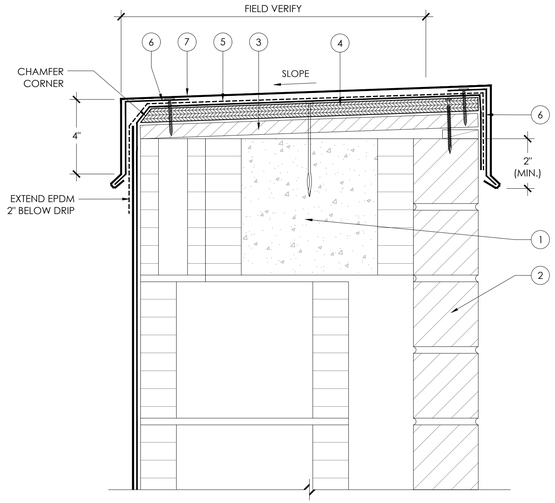
50	PARAPET, COPING, AND FLASHING DETAIL-MASONRY WALL BETWEEN ROOF AREAS 4E/4F
A-508	NOT TO SCALE



DRAWING NOTES:

1. EXISTING SINGLE-BRICK MASONRY-CMU WALL OR PARAPET, TO REMAIN.
2. EXISTING FACE BRICK, TO REMAIN.
3. EXISTING PLYWOOD ON TOP OF PARAPET, TO REMAIN. RE-SECURE AND/OR ADD WOOD SPACER IF PLYWOOD IS BEND. REPLACE WHERE DETERIORATED.
4. NEW 3/4-INCH PT PLYWOOD. CHAMFER CORNER OF PLYWOOD AS SHOWN. SECURE TO CONCRETE TIE BEAM WITH SPIKES AT 12" O.C. AND WOOD SCREWS IN FIELD 12" O.C. STAGGERED.
5. NEW CONTINUOUS SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND 2-IN. BELOW INSIDE FACE OF COPING.
6. NEW CONTINUOUS CLEAT. SECURE TO WOOD BLOCKING AT 6-IN. O.C.
7. NEW SPECIFIED COPING CAP. SHOP FABRICATE ALL TRANSITIONS, CORNERS AND BENDS 24-IN. FROM EDGE. WELD ALL JOINTS SOLID. ENGAGE SECURELY TO CLEAT AND FASTEN 12-IN. O.C. REFER TO TYPICAL DETAILS 25 THRU 27/A-504.

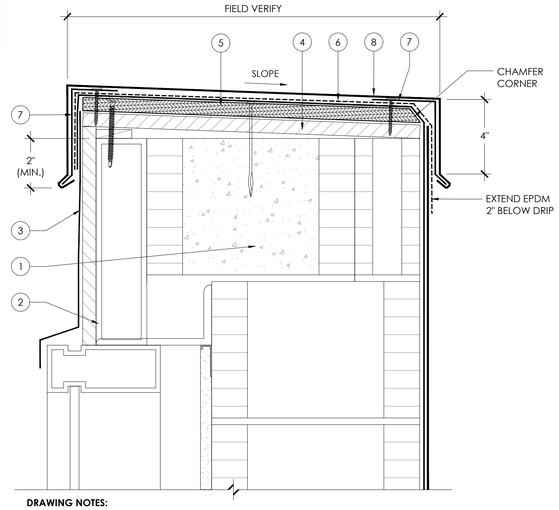
51	CMU-MASONRY AND BRICK VENEER PARAPET COPING DETAIL
A-508	NOT TO SCALE



DRAWING NOTES:

1. EXISTING DOUBLE-BRICK MASONRY-CMU WALL OR PARAPET, TO REMAIN.
2. EXISTING FACE BRICK, TO REMAIN.
3. EXISTING PLYWOOD ON TOP OF PARAPET, TO REMAIN. RE-SECURE AND/OR ADD WOOD SPACER IF PLYWOOD IS BEND. REPLACE WHERE DETERIORATED.
4. NEW 3/4-INCH PT PLYWOOD. CHAMFER CORNER OF PLYWOOD AS SHOWN. SECURE TO CONCRETE TIE BEAM WITH SPIKES AT 12" O.C. AND WOOD SCREWS IN FIELD 12" O.C. STAGGERED.
5. NEW CONTINUOUS SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND 2-IN. BELOW INSIDE FACE OF COPING.
6. NEW CONTINUOUS CLEAT. SECURE TO WOOD BLOCKING AT 6-IN. O.C.
7. NEW SPECIFIED COPING CAP. SHOP FABRICATE ALL TRANSITIONS, CORNERS AND BENDS 24-IN. FROM EDGE. WELD ALL JOINTS SOLID. ENGAGE SECURELY TO CLEAT AND FASTEN 12-IN. O.C. REFER TO TYPICAL DETAILS 25 THRU 27/A-504.

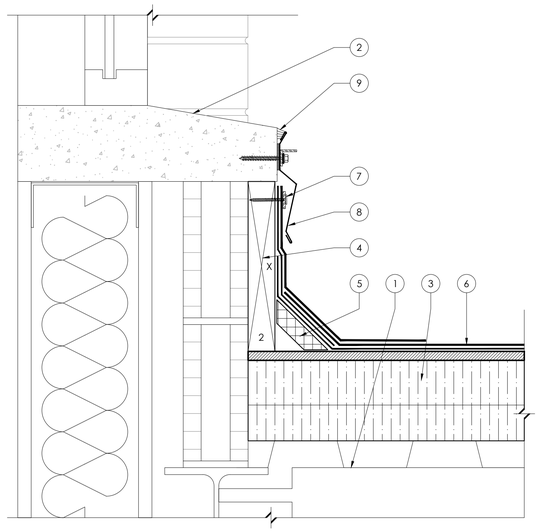
52	CMU-MASONRY AND BRICK VENEER PARAPET COPING DETAIL
A-508	NOT TO SCALE



DRAWING NOTES:

1. EXISTING DOUBLE-BRICK MASONRY-CMU WALL OR PARAPET, TO REMAIN.
2. EXISTING METAL STUDS AND PLYWOOD SHEATHING FACE, TO REMAIN.
3. EXISTING METAL FLASHING ON TOP OF GLAZING, TO REMAIN. REPLACE WHERE DETERIORATED.
4. EXISTING PLYWOOD ON TOP OF PARAPET, TO REMAIN. RE-SECURE AND/OR ADD WOOD SPACER IF PLYWOOD IS BEND. REPLACE WHERE DETERIORATED.
5. NEW 3/4-INCH PT PLYWOOD. CHAMFER CORNER OF PLYWOOD AS SHOWN. SECURE TO CONCRETE TIE BEAM WITH SPIKES AT 12" O.C. AND WOOD SCREWS IN FIELD 12" O.C. STAGGERED.
6. NEW CONTINUOUS SHEET OF 45 MIL EPDM MEMBRANE. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND 2-IN. BELOW INSIDE FACE OF COPING.
7. NEW CONTINUOUS CLEAT. SECURE TO WOOD BLOCKING AT 6-IN. O.C.
8. NEW SPECIFIED COPING CAP. SHOP FABRICATE ALL TRANSITIONS, CORNERS AND BENDS 24-IN. FROM EDGE. WELD ALL JOINTS SOLID. ENGAGE SECURELY TO CLEAT AND FASTEN 12-IN. O.C. REFER TO TYPICAL DETAILS 25 THRU 27/A-504.

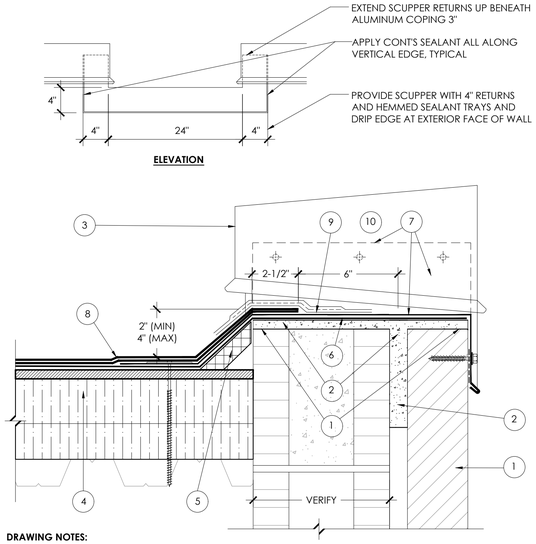
53	CMU-MASONRY AND GLAZING PARAPET COPING DETAIL AT STAIR TOWER
A-508	NOT TO SCALE



DRAWING NOTES:

1. EXISTING ROOF DECK TO REMAIN, REPAIR AS REQUIRED.
2. EXISTING CONCRETE SILL. VERIFY HEIGHT.
3. NEW SPECIFIED INSULATION AND GYPSUM COVER BOARD.
4. NEW PT WOOD NAILER. VERIFY HEIGHT AND CUT TO MATCH. SECURE TO WALL AT 8" O.C. STAGGERED.
5. NEW PRE-MOLDED CANT STRIP - SET IN ROOF CEMENT.
6. NEW SPECIFIED ROOFING AND BASE FLASHING.
7. NEW ALUMINUM TERMINATION BAR AND FASTENERS. PROVIDE 1" MINIMUM EMBEDMENT.
8. NEW SURFACE-MOUNTED COUNTER FLASHING. SECURE AT 12" O.C. REFER TO DETAIL 48/A507.
9. APPLY CONTINUOUS BEAD OF SPECIFIED SEALANT AT TOP OF FLASHING. TOOL AS NECESSARY TO PROVIDE UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD (TYPICAL).

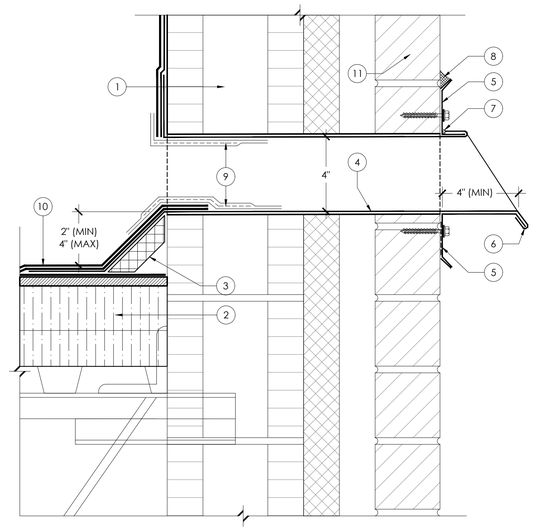
54	COUNTER FLASHING DETAIL AT CONCRETE SILL
A-508	NOT TO SCALE



DRAWING NOTES:

1. SAW-CUT 2-IN. FROM TOP OF EXISTING CMU/CONC. AND BRICK.
2. APPLY 1/2-IN. THICK BASF N425 REPAIR MORTAR TO TOP OF CUT PER ICRI 320.1R, AND IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. EXTEND MORTAR INTO CAVITY 6-IN.
3. REFER DETAIL 35/A505 FOR PARAPET FLASHING AND COPING BEYOND.
4. NEW SPECIFIED INSULATION SYSTEM AND GYPSUM ROOF (COVER) BOARD.
5. NEW PRE-MOLDED CANT STRIP - SET IN ROOF CEMENT.
6. CONTINUE SMOOTH-PLY OVER MASONRY OPENING BOTTOM AND SIDES.
7. NEW CUSTOM FABRICATED 0.062-IN. ALUM. SCUPPER ASSEMBLY. FIELD VERIFY DIMENSIONS, AND FABRICATE TO FIT INTO OPENING EXTENDING UP SIDES UNDER COPING, WITH 4" RETURNS WITH HEMMED SEALANT TRAY AT EXTERIOR FACE OF WALL. WELD SOLID INTO ONE PIECE. SECURE TO SIDE WALL FLASHING WITH SPECIFIED FASTENERS (3 PER SIDE).
8. NEW SPECIFIED ROOFING AND BASE FLASHING SYSTEM.
9. NEW SPECIFIED LIQUID FLASHING.
10. PROVIDE WELDED END CAPS AT SIDES OF ALUMINUM COPING. FIELD VERIFY DIMENSIONS.

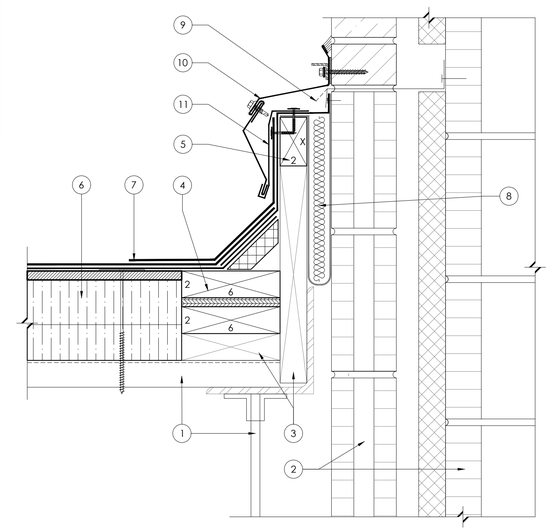
55	OVERFLOW - SECONDARY DRAIN SCUPPER (OPTION 1)
A-508	NOT TO SCALE



DRAWING NOTES:

1. VERIFY EXISTING CONDITIONS AND HEIGHT OF NEW ROOFING. CUT EXISTING PARAPET AS REQUIRED TO PROVIDE NEW 6"x15" SCUPPER OPENING AT THE PROPER HEIGHT.
2. NEW INSULATION AND GYPSUM COVER BOARD.
3. NEW CANT STRIP, SET IN ROOF CEMENT.
4. NEW 24 GA STAINLESS STEEL OVERFLOW SCUPPER (OUTLET TUBE). FIELD OR SHOP FABRICATE.
5. NEW 22 GA. STAINLESS STEEL ESCUTCHEON PLATE. FABRICATE TO MATCH PERIMETER OF SCUPPER TUBE. EXTEND ESCUTCHEON UNDER COPING METAL WHERE GAP IN BETWEEN IS 6" OR LESS.
6. FOLD METAL TO FORM HEMS AROUND PERIMETER OF ESCUTCHEON PLATE.
7. SOLDER SOLID SCUPPER TUBE TO NEW ESCUTCHEON PLATE.
8. APPLY CONT'S BEAD OF SPECIFIED SEALANT AROUND ESCUTCHEON, TOOL AS NECESSARY TO PROVIDE UNIFORM, SLOPING, FULLY ADHERED SEALANT BEAD (TYPICAL). LEAVE BOTTOM OPEN.
9. STRIP-IN EDGE OF MEMBRANE WITH SPECIFIED LIQUID FLASHING MEMBRANE INTO SCUPPER.
10. NEW SPECIFIED ROOFING AND 2-PLY BASE FLASHING SYSTEM.
11. EXISTING BRICK VENEER.

56	THRU-WALL OVERFLOW SCUPPER (OPTION 2)
A-508	NOT TO SCALE



DRAWING NOTES:

1. EXISTING METAL DECK AND JOISTS, TO REMAIN.
2. EXISTING MASONRY CMU WALL AND FACE BRICK TO REMAIN.
3. EXISTING WOOD BLOCKING, TO REMAIN. REPLACE WITH NEW WERE MISSING OR DETERIORATED.
4. INSTALL NEW 2X PT WOOD BLOCKING TO MATCH HEIGHT OF INSULATION.
5. NEW PT WOOD CURB EXTENSION.
6. NEW SPECIFIED INSULATION SYSTEM AND GYPSUM COVER BOARD.
7. NEW SPECIFIED ROOF SYSTEM AND 2-PLY WALL/BASE FLASHING.
8. NEW BATT INSULATION IN FELT FOLD.
9. CUT EXISTING METAL FLASHING AS NEEDED AND FOLD BACK TO COUNTER MEMBRANE.
10. NEW SURFACE-MOUNTED REGLET COUNTER FLASHING. FABRICATE TO CONFIGURATION SHOWN. ANCHOR SECURELY TO THRU-WALL FLASHING AT 12-IN. O.C. AND APPLY CONTINUOUS BEAD OF SEALANT.
11. NEW 24 GA S.S. WIND CLIP AT 24" O.C.

57	ROOF TO WALL TERMINATION DETAIL AT ROOF AREA 5E
A-508	NOT TO SCALE

cbga

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

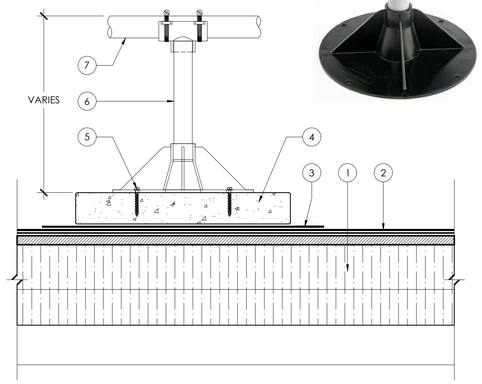
HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS		
No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title: DETAILS	
Sheet Number: A-508	Revision No.:



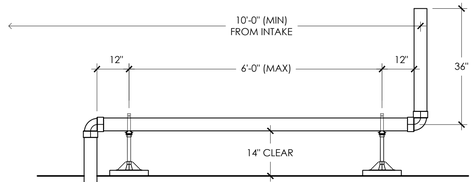
DRAWING NOTES:

1. NEW SPECIFIED INSULATION SYSTEM AND GYPSUM COVER BOARD.
2. NEW SPECIFIED ROOF SYSTEM.
3. NEW 16x16-IN. SQ. CAP SHEET ISOLATION MEMBRANE. SET IN COLD ADHESIVE.
4. NEW 12x12x2-IN. (NOM.) CONCRETE PAVER. ADHERED TO TARGET MEMBRANE.
5. NEW S.S. 3/16x1.5-IN. CONC. FASTENER. (2 MIN).
6. NEW SPECIFIED PIPE PROP ADJUSTABLE PIPE SUPPORT ASSEMBLY (APS-1). VERIFY HEIGHT. PROVIDE SUPPORTS AT 6'-0" ON CENTER, OR EQUALLY SPACED.
7. NEW OR EXISTING PVC PIPE. VERIFY DIA. OF PIPE.

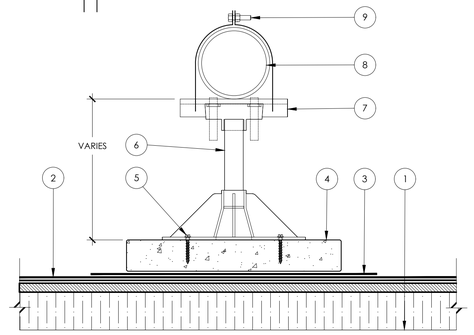
NOTE: COAT ALL NEW PVC PIPE AND FITTINGS WITH EXTREME BOND PRIMER (B51W01150) BY SHERWIN WILLIAMS.

58 ADJUSTABLE PIPE SUPPORT AND DRAIN PIPE

A-509 NOT TO SCALE



VTR WITH EXTENDED PIPE DIAGRAM



DRAWING NOTES:

1. NEW INSULATION SYSTEM AND COVER BOARD.
2. NEW SPECIFIED ROOF SYSTEM.
3. NEW 16x16-IN. SQ. CAP SHEET ISOLATION MEMBRANE. SET IN COLD ADHESIVE.
4. NEW 12x12x2-IN. (NOM.) CONCRETE PAVER. ADHERED TO TARGET MEMBRANE.
5. NEW S.S. 3/16x1.5-IN. CONC. FASTENER. (2 MIN).
6. NEW SPECIFIED PIPE PROP ADJUSTABLE PIPE SUPPORT ASSEMBLY (USPP-MDA). VERIFY HEIGHT. PROVIDE SUPPORTS AT 6'-0" ON CENTER, OR EQUALLY SPACED.
7. NEW STAINLESS STEEL UNISTRUT CHANNEL, 6-IN. LONG (MINIMUM).
8. NEW OR EXISTING PVC PIPE. VERIFY DIA. OF PIPE.
9. NEW STAINLESS STEEL UNISTRUT CHANNEL PIPE CLAMP AND HARDWARE. SIZE TO MATCH PIPE.

59 ADJUSTABLE PIPE SUPPORT

A-509 NOT TO SCALE

60 RESERVED

A-509 NOT TO SCALE

RESERVED

61 RESERVED

A-509 NOT TO SCALE

62 RESERVED

A-509 NOT TO SCALE

63 RESERVED

A-509 NOT TO SCALE

64 RESERVED

A-509 NOT TO SCALE

C. B. GOLDSMITH AND ASSOCIATES, INC.
Building Sciences - Roofing and Exterior Envelope Consulting - Forensic Architecture
2555 Nursery Road
Clearwater, Florida 33764
Phone: 727.540.0456

Email: info@cbgoldsmith.com
License: AR-94537

Seal:

STATE OF FLORIDA · ROBERT J. WHITCOMB · AR0094537 · REGISTERED ARCHITECT

Robert J. Whitcomb

Consultant:

Client:

HILLSBOROUGH COUNTY SCHOOLS
Construction Operations Division
1202 East Palm Avenue
Tampa, Florida 33605-3512

Project Title & Address:

ROOF REPLACEMENT
AT
HOWARD W. BLAKE HIGH SCHOOL
1701 NORTH BOULEVARD
TAMPA, FLORIDA 33607

REVISIONS

No.	Description	Date
	100% Preliminary Documents	10/15/2021

Owner Project ID.:	100252
Architect's Project No.:	202109
Drawn By:	PT
Checked By:	RW
Date:	10/15/2021
Sheet Title:	DETAILS
Sheet Number:	A-509
Revision No.:	