

ADDENDUM NO. 2 April 8, 2022

PROJECT: Jerome Elementary School Jerome School District Jerome, Idaho

The following addenda apply to the Drawings and/or Specifications for this project and shall be a part of the Contract Documents.

PROJECT MANUAL

SPECIFICATION SECTION 033000 - CAST IN PLACE CONCRETE

1. Refer to Paragraph 2.7.A.e, delete "Insulation Solutions Inc; Viper Vaporcheck II" as an approved product.

SPECIFICATION SECTION 034500 – PRE-CAST ARCHITECTURAL CONCRETE

1. Refer to Detail 8,9/A8.6, pre-case concrete column caps. Add this specification section, refer to the attachments.

SPECIFICATION SECTION 042000 – UNIT MASONRY

- 1. Refer to Paragraph 2.3.D.5 revise as follows:
 - a. Color A: Ground Face at load bearing and veneer units: Basalite 615.
 - b. Color B: Split Face at load bearing and veneer units: Basalite 630 Moondust.

SPECIFICATION SECTION 064116 - PLASTIC LAMINATE FACED ARCHITECTURAL CABINETS

- 1. The following items are in response to bidders questions and are approved.
 - a. 1-1/8" solid particle board counter tops with 3mm PVC edge banding is approved for the construction of the countertops.

b. The plastic laminate covered window sills may utilize a 1-1/8" solid particle board with a $\frac{1}{2}$ " overhang with 3mm PVC edge banding in lieu of the detailed 2" x 1-1/2" laminate edge.

- c. Frame-less cabinet construction is acceptable.
- d. Pin tumbler cam locks that are re-keyable are approved.

SPECIFICATION SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

1. Refer to Paragraph 2.3.B, add the following subparagraph:

2. Interior Doors shall comply with a Level 2, and Model 1 requirement for physical performance of the steel face sheet and vertical door edge treatment.

SPECIFICATION SECTION 087100 - DOOR HARDWARE

- 1. Addendum No. 1 added door A101. This door shall have Hardware Set 13 with a 1-1/2 hour fire rating.
- 2. Refer to the Hardware Sets, add the following doors and hardware sets: Door C118a (Set 21), Door E100a (Set 16), and Door F101b (Set 5).

3.	Add the following Hardware Set 32	<u>2</u> :							
	Doors: US (Under Stage Doors)								
	2 Hinge, Full Mortise	TA2714 NRP	US26D	МК					
	1 Storeroom Lock	10XG04 LL	US26D	SA					
	1 Cylinder	CorMax		BE					

SPECIFICATION SECTION 099113 - EXTERIOR PAINT

1. Refer to Paragraph 1.2.A.2.c, revise to only include "miscellaneous steel".

SPECIFICATION SECTION 099600 – HIGH PERFORMANCE COATINGS

1. Refer to Paragraph 1.2.A.1.c, revise to only include "Exposed steel columns, structural supports, and lintels".

SPECIFICATION SECTION 107000 - EXTERIOR SUN CONTROL DEVICES

- 1. Refer to Paragraph 2.1.A.2 and revise the manufacturer and product of the vertical sunshades as follows:
 - 2. Revamp Panels

1526 W. Riverside Ave.

Spokane, WA 99201

509-919-0460

revamppanels.com

- 2. Refer to Paragraph 2.5 Vertical Sunshade Construction and replace with the following system components.
 - 1. Vertical Sunshade, exposed brackets
 - 2. Panel: 1/8" steel, with two-coat powder coat finish. Color selected by Architect from full range of Manufacturer's "Cardinal Powder Coat" system.
 - 3. Sun Shade Bracket: Vertical installation, Bracket B, fully engineered.
 - 4. Pattern Design: Simple Turbulence.

5. Panel Size: Refer to drawings, 18" wide by 96" tall.

SPECIFICATION SECTION 114000 – FOODSERVICE EQUIPMENT

- 1. Refer to Paragraph 2.2.B, revise the model to be a Vulcan VC44G, Gas Convection oven.
- 2. Refer to Paragraph 2.2.D, revise the model to be an iCombi Pro 20-1/1, gas fired equipment.
- 3. Refer to Paragraph 2.2.F, revise the model to be a Cleveland KGT-12-T, gas fired equipment.

DRAWINGS

SHEET A3.3

1. Provide new chase in classroom B116 and B121 as shown on sheet A3.3, attached.

SHEET A3.13

- 1. Refer to the Kitchen Equipment Schedule, delete Item No. K26.
- 2. Provide new chase in Dishroom E107b as shown per sheet A3.13, attached.

SHEET A3.16

- 1. Revise General Notes per sheet A3.16, attached.
- 2. At detail 6/A3.16 revise Reference Notes per sheet A3.16, attached.

SHEET A4.1

- 1. Refer to Room Finish Schedule "Area A," revise the flooring at A108, A110, and A111 to be "PFT," porcelain Floor Tile and "PFT," porcelain floor tile base.
- 2. Refer to Room Finish Schedule "Area B," revise the flooring at B112, B113, and B114 to be "PFT," porcelain Floor Tile and "PFT," porcelain floor tile base.
- 3. Refer to Room Finish Schedule "Area C," revise the flooring at C114 and C115 to be "PFT," porcelain Floor Tile and "PFT," porcelain floor tile base.
- 4. Refer to Room Finish Schedule "Area D," revise the flooring at D106, D108, and D109 to be "PFT," porcelain Floor Tile and "PFT," porcelain floor tile base.
- 5. Refer to the Room Finish Schedule "Area E", revise the flooring at E107a, E107b, E109, E110 to be "RVF", resilient sheet flooring and 6" "RVF" integral cove base, refer to Specification Section 096516. Revise the flooring at E108, E112 and E113 to be "PFT," porcelain Floor Tile and "PFT," porcelain floor tile base.
- 6. Refer to the Room Finish Schedule "Area E", revise the flooring at E115 to be "PC", polished concrete.
- 7. Refer to General Note 2, <u>as a clarification</u>, all exposed structure, roof joists, and ductwork shall be painted different colors. This results in three potential colors.

SHEET A4.2

- 1. Provide new details at coiling doors as shown per 1/A4.2, attached.
- 2. Revise Sunshade, type 3 as shown per sheet A4.2, attached.

SHEET A5.3

1. At elevation 4/A5.3, revise keyed note at sunshade location to read 107000.A1 in lieu of 107000.B1

SHEET A6.1

1. Revise reference note 7.04 to read 'Place mechanical platform on manufacturers standard walk pad material.'

SHEET A6.4

1. At detail 4/A6.4, enlarged coping cover seam, revise keyed note to read 076200.C5 in lieu of Division 07.

SHEET A8.4

- 1. Revise details, 2/A8.4 and 10/A8.4 as shown per sheet A8.4, attached.
- 2. Provide new details 11/A8.4 and 12/A8.4 as shown per sheet A8.4, attached.

SHEET A10.1

1. Revise detail 11/A10.1 as shown per sheet A10.1, attached.

SHEET A10.2

1. At detail 18, regarding vending machines provide reference note 10.08, "O.F.O.I Vending Machines."

SHEET A10.4

1. Revise detail 10/A10.4 as shown per sheet A10.4, attached.

SHEET A11.7

1. At Stage F101 provide steel pipe grid system per sheet A11.7, attached.

Landscape Addendum Items

Refer to Breckon Land Design "Addendum #2" attached, this and all related documents shall be a part of this addendum and part of the Contract Documents for this Project.

Structural Addendum Items

Refer to BHB Structural "Addendum #2 attached, this and all related documents shall be a part of of this addendum and part of the Contract Documents for this Project.

Mechanical and Electrical Addendum Items

Refer to Musgrove Engineering "Addendum #2 (Electrical/Mechanical/Plumbing)" attached, this and all related documents shall be a part of this addendum and part of Contract Documents for this Project.

APPROVALS

The following approvals are for manufacturers of products only unless specified products or systems are indicated. Contractor is responsible for providing product and/or materials that are equivalent in size, performance, quality, and appearance to those specified. Contractor is responsible for all conditions and/or field adaptations required for approved products other than those specified.

This acceptance is an acceptance of quality only. No attempt has been made to check each material as to special features, capacities or physical dimensions especially required by this project. Final acceptance of exact features, sizes, capacities, etc. all of which must match materials indicated specified, will be determined when submitted during construction period. Certain acceptances are subject to conditions as noted.

SPECIFICATION SECTION NO.	ITEM	MANUFACTURER / PRODUCT
075423 – TPO Roofing	TPO Membrane	Mule-Hide Products, 60mil
084523 – Translucent Panels	Translucent Panels	Major Industries
114000 - Food Service Equipment	Wire Shelving	Metro
116143 - Platform Curtains	Stage Curtains & Tracks	Janson Industries

Attachments:

Specification Section 034500 – Pre-Cast Architectural Concrete, 11 pages.

Breckon Land Design, Addendum #2

Sheet A3.3 – Floor Plan – Area B Sheet A3.13 – Enlarged Floor Plan – Kitchen Sheet A3.16 – Stair Sections Sheet A4.2 – Door Schedules / Door Types Sheet A8.4 – Architectural Details Sheet A10.1 – Millwork Sheet A10.4 – Millwork Sheet A11.7 – Reflected Ceiling Plan – Area F

BHB Structural, Addendum #2 Sheet S1.16 – Roof Framing Plan – Area F

Musgrove Engineering (Electrical / Mechanical Plumbing), Addendum #2 Specification Section 271500 – Telecommunications Cabling Sheet P2.2 – Plumbing Plan Area B Sheet P4.1 – Enlarged Plumbing Plan

Sheet E3.3 – Fire Alarm Plan – Area C Sheet E7.1 – Special Systems Plan – Area A Sheet E7.2 – Special Systems Plan – Area B Sheet E7.3 – Special Systems Plan – Area C Sheet E7.4 – Special Systems Plan – Area D

Jerome S	School District - New Jerome			
Bids to S	Starr Corporation by April 14	ADD-02 REVISIONS 4/8/22		
		LULL UI		ADD-02 REVISIONS 4/0/22
Bid Package No.	Package Description	Spec Section	Description	Additional Comments: All items include material, labor, and equipment for installation. unless noted otherwise.
BP-01 CONCE	RETE (Building, On-Site & Sub-Division Combi	ined)		
	Concrete (Building, On-Site & Sub-Division)	Division 1	General Requirements	All sections to be included in their entirety.
	Concrete (Building, On-Site & Sub-Division)	033000	Cast-In-Place Concrete	Includes all building, On-Site & Sub-Division concrete including reinforcement and embeds. Includes excavation & backfill of building foundations, installation of 3/4" base material under slabs-on-grade, (gravel provided by Site Contractor). Grading for On-Site & Sub-Division concrete by Site Contractor. Curbs, gutters & sidewalk for both On-Site & Sub-Division included.
	Concrete (Building, On-Site & Sub-Division)	071113	Bituminous Dampproofing	Provide for concrete foundation walls.
	Concrete (Building, On-Site & Sub-Division)	072100	Thermal Insulation	Provide for foundation insulation only.
	Concrete (Building, On-Site & Sub-Division)	079200	Joint Sealants	For this scope of work only.
	Concrete (Building, On-Site & Sub-Division)	321313	Concrete Paving	Excludes concrete for Playground Equipment & Site Furnishings. Includes all curb. gutter & sidewalks.
	Concrete (Building, On-Site & Sub-Division)	321726	Tactile Warning Surfacing	As required for this scope of work.
BP-01a CONC	RETE (Building & On-Site, only)	Division 1	General Requirements	All sections to be included in their entirety
	Concrete (Building & On-Site, only)	033000	Cast-In-Place Concrete	Includes all building and site concrete including reinforcement and embeds. Grading for Building & On-Site concrete by Site Contractor. Curbs, gutters & sidewalk for On-Site included.
	Concrete (Building & On-Site, only)	071113	Bituminous Dampproofing	Provide for concrete foundation walls.
	Concrete (Building & On-Site, only)	072100	Inermal Insulation	For this scope of work only.
	Concrete (Building & On-Site, only)	321313	Concrete Paving	Excludes concrete for Playaround Equipment & Site Furnishings, Includes all
				curb, gutter & sidewalks.
	Concrete (Building & On-Site, only)	321726	Tactile Warning Surfacing	As required for this scope of work.
BP-01b CONC	Concrete (Sub-Division, only)	Division 1	General Requirements	All sections to be included in their entirety
	Concrete (Sub-Division, only)	033000	Cast-In-Place Concrete	Includes all Sub-Division concrete including reinforcement and embeds.
				Grading for Sub-Division concrete by Site Contractor.
	Concrete (Sub-Division, only)	071113	Bituminous Dampproofing	Provide for concrete foundation walls.
	Concrete (Sub-Division, only)	079200	Joint Sealants	For this scope of work only.
	Concrete (Sub-Division, only)	321313	Concrete Paving	Excludes concrete for Playground Equipment & Site Furnishings. Includes all
				curb, gutter & sidewalks.
BP-02 POLISH		321726	Tactile Warning Surfacing	As required for this scope of work.
	Polished Concrete Finishing	Division 1	General Requirements	All sections to be included in their entirety.
	Polished Concrete Finishing	033543	Polished Concrete Finishing	
	Polished Concrete Finishing	079200	Joint Sealants	For this scope of work only.
BP-03 MASON	Masonry	Division 1	General Requirements	All sections to be included in their entirety
	Masonry	034500	Precast Architectural Concrete	ADD-02: Provide precast concrete caps at masonry walls.
	Masonry	042000	Unit Masonry	Include all masonry reinforcement. Bucks for CMU openings by Others.
	Masonry	079200	Joint Sealants	For this scope of work only.
BP-04 STRUC	Structural Steel	Division 1	General Requirements	All sections to be included in their entirety
	Structural Steel	051200	Structural Steel Framing	Material supplied, but installed by Others: Steel bollards, steel downspouts, anchor bolts set in concrete or masonry, masonry lintels,embeds and as per Specs. Include grouting of column bases.
	Structural Steel	052100	Steel Joist Framing	
	Structural Steel	053100	Steel Decking	
	Structural Steel	055113	Metal Paprications	ADD-01: Delete this spec in its entirety
	Structural Steel	055213	Pipe and Tube Railings	
BP-04a STRU	CTURAL STEEL (Install, Only)			
	Structural Steel	Division 1	General Requirements	All sections to be included in their entirety.
	Structural Steel	051200	Structural Steel Framing	Material supplied, but installed by Others: Steel bollards, steel downspouts, anchor bolts set in concrete or masonry, masonry lintels, embeds and as per Specs. Include grouting of column bases.
	Structural Steel	053100	Steel Decking	
	Structural Steel	055000	Metal Fabrications	Includes roof ladder, all miscellaneous angles and lintels.
	Structural Steel	055113	Metal Pan Stairs	ADD-01: Delete this spec in its entirety.
	Structural Steel	055213	Pipe and Tube Railings	.1
BF-040 31K0	Structural Steel	Division 1	General Requirements	All sections to be included in their entirety.
	Structural Steel	051200	Structural Steel Framing	Material supplied, but installed by Others: Steel bollards, steel downspounts, anchor bolts set in concrete or masonry, masonry lintels, embeds and as per Specs.
	Structural Steel	052100	Steel Joist Framing	
	Structural Steel	053100	Steel Decking	
	Structural Steel	055000	Metal Pap Stairs	Includes root ladder, all miscellaneous angles and lintels.
	Structural Steel	055213	Pipe and Tube Railings	
BP-05 ROUGH	I CARPENTRY			
	Rough Carpentry	Division 1	General Requirements	All sections to be included in their entirety.
	Rough Carpentry	061000	Rough Carpentry	framing connectors, (i.e. holdowns, straps, hangers, etc.). Include all CMU openings.
	Rough Carpentry	061600	Sheathing	
	Rough Carpentry	074243	Composite Wall Panels	
	Rough Carpentry	072700	Infiltraton Barriers	
	Rough Carpentry	079200	Joint Sealants	For this scope of work only.
BP-06 MILLW	ORK			

	Millwork	Division 1	General Requirements	All sections to be included in their entirety.
	Milwork	064116	Plastia Laminata Eacod Architectural Cabinata	Includes countertans, window sills, and other missellaneous laminates per the
	MIIWOIK	004110	Flastic Laminate Faced Architectural Cabinets	drawings and specifications. ADD-02: Provide the P-I am wrapped head side
				liambe & door stops for Lindor Stops doors. (LIS) BD 02 to provide the flush
				Jambs & door slops for order-stage doors, (03). BF-00 to provide the hush
				wood doors & nardware specified in Addendum-02.
	Millwork	070200	laint Saalanta	Sealants for this scope of work only
	NG	1 075200	Som Scalants	
BP-0/ KUUFI	Desfer	Division 4	Concert Dominants	All sentime to be included in the incretion.
	Rooling			
	Rooting	072100		For this scope of work only.
	Rooting	074213		
	Roofing	075423	Thermoplastic Polyoletin Roofing (TPO)	
	Roofing	076200	Sheet Metal Flashing and Trim	Gutter and gutter sleeve only. Steel downspout by others. Includes metal valley
		+		flashing.
	Roofing	077200	Roof Accessories	
	Roofing	079200	Joint Sealants	Sealants for this scope of work only.
BP-08 DOORS	S & HARDWARE			
	Doors and Hardware	Division 1	General Requirements	All sections to be included in their entirety.
	Doors and Hardware	081113	Hollow Metal Doors and Frames	Includes metal hollow door and window frames, doors, sidelite and borrow lite
		4		frames and hardware.
	Doors and Hardware	081416	Flush Wood Doors	ADD-02: Provide the Under-Stage doors, (US), plus the hardware specified in
				Addendum-02. These doors are a half-high flush wood door at 1 3/4" thick. BP-
				06 Millwork to provide the P-Lam wrapped head & side jambs plus the door
				stops.
	Doors and Hardware	087100	Door Hardware	Hardware for this scope of work, only.
	Doors and Hardware	088000	Glazing	ADD-01: Delete this Spec Section from BP-08. All glazing provided by BP-10.
			-	
BP-09 OVERH	IEAD COILING DOORS			
	Overhead Coiling Doors	Division 1	General Requirements	All sections to be included in their entirety.
	Overhead Coiling Doors	083313	Overhead Coiling Doors	
	Overhead Coiling Doors	079200	Joint Sealants	Sealants for this scope of work only.
BP-10 ALUMI	NUM FRAMED ENTRANCES & STOREFRONT	S		dd
	Aluminum Framed Entrances & Storefronts	Division 1	General Requirements	All sections to be included in their entirety
	Aluminum Framed Entrances & Storefronts	084113	Aluminum Framed Entrances & Storefronts	
	Aluminum Framed Entrances & Storefronts	084523	Translucent Fiberglass Sandwich Panel Assembly	
	Aluminum Framed Entrances & Storefronts	085610	Page Thru Windowe	1
	Aluminum Framed Entrances & Storefronts	087100	Door Hardware	Hardware for this scope of work, only
	Aluminum Framed Entrances & Storefronts	088000		Individes all glass for storefronts & bollow motal dears & frames
	Aluminum Framed Entrances & Storefronts	088000	Glazing	includes all glass for storefronts & notiow metal doors & frames.
	Aluminum Framed Entrances & Storetronts	079200	Joint Sealants	Sealants for this scope of work only.
BP-11 DRYWA				T
	Drywall	Division 1	General Requirements	All sections to be included in their entirety.
	Drywall	054000	Cold Formed Metal Framing	
	Drywall	066400	Plastic Paneling (FRP)	
	Drywall	072100	Thermal Insulation	Wall, Ceiling & Vapor barrier, only.
	Drywall	078446	Fire Resistive Joint Systems	As applies to the scope of work.
	Drywall	079000	Joint Sealants	Sealants for this scope of work only.
	Drywall	092216	Light Gauge Steel Framing	······································
	Drywall	092900	Gypsum Board	Provide & install cementitious backer units.
	Drywall	095113	Acoustical Panel Ceilings	•
	Dravall	097723	Fabric Wrapped Papels	
	Dravall	098413	Fixed Sound Absorptive Panels	
		1 030413		4
BF-12 WOOD	Wood Athlatia Elegring	Division 1	Conoral Requirements	All soctions to be included in their entirety
	Wood Athletic Flooring	006466	Wood Athletic Election	Includes hardward floaring at Stage E101
	Wood Athletic Flooring	090400		Contract for this source of work and
	wood Athletic Flooring	1 079000	Joint Sealants	Sealants for this scope of work only.
BP-13 TILING	 			T.,
	Tiling	Division 1		All sections to be included in their entirety.
	l lling	093013	Liling	
	Tilina			Cementitious backer units by Drywaii bid package.
BP-14 FLOOR		079000	Joint Sealants	Sealants for this scope of work only.
	R COVERING	079000	Joint Sealants	Sealants for this scope of work only.
k	COVERING Flooring	079000 Division 1	Joint Sealants General Requirements	All sections to be included in their entirety.
	R COVERING Flooring Flooring	079000 Division 1 096513	Joint Sealants General Requirements Resilient Base and Accessories	All sections to be included in their entirety.
	COVERING Flooring Flooring Flooring	079000 Division 1 096513 096516	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring	All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included.
	COVERING Flooring Flooring Flooring Flooring	079000 Division 1 096513 096516 096519	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT)	All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included.
	COVERING Flooring Flooring Flooring Flooring Flooring Flooring	079000 Division 1 096513 096516 096519 096816	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting	Cernentituous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included.
	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Flooring	079000 Division 1 096513 096516 096519 096816 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants	Cerimentulous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes
	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring	079000 Division 1 096513 096516 096519 096816 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants	Lementuicus backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Reading Flooring Flooring Reading Rea	079000 Division 1 096513 096516 096519 096816 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants	All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plooring RG Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements	All sections to be included in their entirety. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plooring Plooring Plooring Plooring Painting Painting Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting	All sections to be included in their entirety. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plooring NG Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting	All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plooring NG Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Carpeting Joint Sealants General Requirements Exterior Painting	All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY"
BP-15 PAINTI	R COVERING Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting	Certerintuous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation-theat are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plo	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting	Certerintuidus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Plooring Painting Painting Painting Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents	Certerintuous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet levation-that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting Painting	079000 Division 1 096513 096516 096816 079000 Division 1 099113 071900	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents	Certerintuous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Plooring Plooring Painting Painting Painting Painting Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals	Certerintuous backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plooring Plooring Plooring Painting Plooring Pl	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 071900 097200 099123	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting	Certerituitous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory finished. (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting	Certerintudus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Paloting Painting Painting Painting Painting Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Sheet Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting	Certerintudus backer drifts by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory-finished, (REF: Elevation Plans A5. 1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1).
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Plooring Plooring Plooring Painting Pa	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings	Certerituidus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 098123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All exposed-to-view structural steel both interior & exterior.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Plooring Painting Pa	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants	Certerintuous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & parapet elevation that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All exposed-to-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Paloting Painting Painting Painting Painting Painting Painting Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants	Certerintudus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation-that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO 'NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants	Lementuicus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All exposed-to-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Painting	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600 079000 079000	Joint Sealants General Requirements Resilient Base and Accessories Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements	Certerintuous backer units by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation-that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All exposed-to-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting. All sections to be included in their entirety.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting Painting Specialties Specialties	079000 Division 1 096513 096516 096816 079000 Division 1 099113 071900 097200 099123 099600 079000 079000 099600 079000	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Sheet Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements Exterior Painting	Letrientuitous backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet levation-that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting. All sections to be included in their entirety.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting Painting Painting Painting Specialties Specialties Specialties	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600 079000 Division 1 083513 101100	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Sheet Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements Accordion Folding Partition Visual Display Surfaces	Letrientuitous backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels. (REF: Spec 098143-2; A; 1). All exposed-to-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting. All sections to be included in their entirety.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting Painting Painting Painting Specialties Specialties Specialties Specialties	079000 Division 1 096513 096516 096516 079000 Division 1 099113 071900 071900 097200 099123 099600 079000 079000 Division 1 083513 101100 101416	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Tile Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements Accordion Folding Partition Visual Display Surfaces Signage	Letrientuitous backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 098123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All exposed-to-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting Painting Specialties Specialties Specialties Specialties Specialties Specialties	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099123 099600 079000 079000 099123 099600 079000 0101416 102113	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Sheet Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements Accordion Folding Partition Visual Display Surfaces Signage Toilet Compartments	Certerituitous backer drive by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation-that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All expose-do-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting. All specied-to-view structural steel both interior & exterior. All expose-do-view structural steel both interior to painting.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting Painting Specialties	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 099200 099123 099600 079000 Division 1 083513 101100 101416 102113 102123	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Sheet Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements Accordion Folding Partition Visual Display Surfaces Signage Toilet Compartments Cubicle Curtains	Letrientuidus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All joints between materials installed under this scope and adjacent finishes All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation-that are not factory-finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 099123). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting. All sections to be included in their entirety.
BP-15 PAINTI	COVERING Flooring Flooring Flooring Flooring Flooring Flooring Painting Painting Painting Painting Painting Painting Painting Painting Painting Specialties	079000 Division 1 096513 096516 096519 096816 079000 Division 1 099113 071900 097200 097200 09923 099600 079000 079000 Division 1 083513 101100 101416 102113 102600	Joint Sealants General Requirements Resilient Sheet Flooring Resilient Sheet Flooring (LVT) Carpeting Joint Sealants General Requirements Exterior Painting Water Repellents Digitally Printed Vinyl Wallcovering Murals Interior Painting High Performance Coatings Joint Sealants General Requirements Accordion Folding Partition Visual Display Surfaces Signage Toilet Compartments Cubicle Curtains Wall & Door Protection	Lementuicus backer drills by Drywan bid package. Sealants for this scope of work only. All sections to be included in their entirety. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. Joint and crack filling, minor leveling, and sanding is included. All sections to be included in their entirety. ADD-02: Prime & paint in entirety all roof top equipment, vents & flues extending above top of parapet elevation that are not factory finished, (REF: Elevation Plans A5.1 plus). DELETE REFERENCE TO "NOT FACTORY FINISHED" and paint everything that extends above the top of parapet. Seal all exterior masonry surfaces with water repellent sealer / anti-graffiti coating. Includes labor and materials to seal the concrete floors indicated in the Room Finish Schedule, (A4.1 & Spec 09912). ADD-01: Include field-painting of Tectum Panels, (REF: Spec 098413-2; A; 1). All exposed-to-view structural steel both interior & exterior. All interior sealants exclusive of concrete, aluminum storefront, and millwork. Includes caulking hollow metal frames prior to painting. All sections to be included in their entirety.

	0	100000		Labor for Tailet Dance, Dance Taurel & Case Discourses, Ourses Furnished &
	Specialities	102800	I ollet & Bath Accessories	Labor for Tollet Paper, Paper Towel & Soap Dispensers, Owner Furnished &
		101110		Contractor Installed.
	Specialties	104413	Fire Extinguisher Cabinets	Provide & Install Knox Box listed in this Specification.
	Specialties	104416	Fire Extinguishers	
	Specialties	105113	Metal Lockers	
	Specialties	107000	Exterior Sun Control Devices	
	Specialties	115213	Projection Screens	
	Specialties	116143	Platform Curtains	
	Specialties	323190	Flagpole	
	Specialties	079000	Joint Sealants	Sealants for this scope of work only.
BP-17 FOOD	SERVICE EQUIPMENT			
	Food Service Equipment	Division 1	General Requirements	All sections to be included in their entirety.
	Food Service Equipment	113013	Residential Appliances	Provide & install all Residential Appliances specified.
	Food Service Equipment	114000	Food Service Equipment	Provide & install all Food Service Equipment specified.
BP-18 GYMN	ASIUM EQUIPMENT			
	Gymnasium Equipment	Division 1	General Requirements	All sections to be included in their entirety.
	Gymnasium Equipment	116600	Wall & Floor Padding	
	Gymnasium Equipment	116623	Gymnasium Equipment	1
BP-19 HORIZ	ONTAL LOUVER BLINDS			
	Horizontal Louver Blinds	Division 1	General Requirements	All sections to be included in their entirety.
	Horizontal Louver Blinds	122213	Horizontal Louver Blinds	
BP-20 TELES	COPING STANDS			
	Telescoping Stands	Division 1	General Requirements	All sections to be included in their entirety.
	Telescoping Stands	126600	Telescoping Stands	
BP-21 FIRE S	PRINKLER SYSTEM			
	Fire Sprinkler System	Division 1	General Requirements	All sections to be included in their entirety.
	Fire Sprinkler System	210000	Fire Sprinkler Systems	· · · · · · · · · · · · · · · · · · ·
	Fire Sprinkler System	078413	Penetration Firestopping	As required for this scope of work.
	Fire Sprinkler System	078413	Firestopping Appendix A	As required for this scope of work.
	Fire Sprinkler System	078446	Fire Resistive Joint Systems	As required for this scope of work.
	Fire Sprinkler System	079200	Joint Sealants	As required for this scope of work.
	Fire Sprinkler System	083113	Access Doors and Erames	Supply and install as needed for access to items installed under this scope of
				work.
BP-22 PLUME	BING			
	Plumbing	Division 1	General Requirements	All sections to be included in their entirety.
	Plumbing	220000	Plumbing General Requirements	
	Plumbing	220100	Plumbing	
	Plumbing	220800	Commissioning of Plumbing	
	Plumbing	078413	Penetration Firestopping	As required for this scope of work.
	Plumbing	078413	Firestopping Appendix A	As required for this scope of work
	Plumbing	078446	Fire Resistive Joint Systems	As required for this scope of work
	Plumbing	079200	Joint Sealants	As required for this scope of work
	Plumbing	083113	Access Doors and Frames	Supply and install as needed for access to items installed under this scope of
	landing	000110		work.
BP-23 HVAC		_		
	HVAC	Division 1	General Requirements	All sections to be included in their entirety.
	10/40	220000	LIVAC Conoral Deguirements	
	HVAC	230000	nvac General Requirements	
	HVAC	230000	Heating, Ventilating and Air Conditioning	
	HVAC HVAC HVAC	230100 230150	Heating, Ventilating and Air Conditioning Mechanical Start-Up	
	HVAC HVAC HVAC	230100 230150 230593	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC	
	HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements	
	HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System	
	HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping	As required for this scope of work.
	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A	As required for this scope of work. As required for this scope of work.
	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230150 230593 230800 230900 078413 078446	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems	As required for this scope of work. As required for this scope of work. As required for this scope of work.
	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078446 079200	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work.
	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230150 230593 230800 230900 078413 078413 078446 079200 083113	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants Access Doors and Frames	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of
	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230150 230593 230800 230900 078413 078413 078446 079200 083113	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants Access Doors and Frames	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230150 230593 230800 230900 078413 078446 079200 083113	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants Access Doors and Frames	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078446 079200 083113 Division 1	HVAC General Requirements Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078413 078446 079200 083113 Division 1 260500	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078413 078446 079200 083113 Division 1 260500 260501	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230800 078413 078413 078446 079200 083113 Division 1 260500 260501 260502	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078413 078446 079200 083113 Division 1 260500 2605001 260501 260502 260501	Heating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 Division 1 260500 260501 260502 260519 260526	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grunnding Punderting Devices	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078446 079200 083113 Division 1 260500 260501 260502 260529 260529 260526	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC Electrical	230000 230100 230150 230593 230800 230900 078413 078413 078446 079200 083113 Division 1 260500 260501 260500 260501 260502 260529 260529 260529	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Coho Terve	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 Division 1 260500 260501 260501 260502 260519 260529 260533 260533 260533	Heating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 Division 1 260500 260501 260501 260502 260519 260526 260529 260533 260536 260543 260543	Heating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230000 230100 230150 230593 230800 230900 078413 078413 078446 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260502 260529 260529 260533 260533 260533 260543 260543	InvAc General Requirements Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Firestopping Appendix A Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Systems Commissioning Lichting Contact	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC Electrical	230100 230100 230150 230593 230800 230900 078413 078413 078413 078446 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260502 260519 260526 260529 260533 260533 260533 260543 260543 260543 260800 260923 260543	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dov_Type_Transformers	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 Division 1 260500 260501 260501 260502 260519 260529 260529 260533 260523 260543 260543 260543 260923 262200 260923	Heating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 Division 1 260500 260501 260501 260502 260519 260526 260529 260533 260536 260543 260543 260543 260923 262200 2622413	Heating, Venilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelhoards	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078413 078413 078413 078413 078413 078200 083113 260500 260501 260502 260519 260526 260529 260533 260533 260533 260533 260533 260533 260543 260572 260572 260572 260573 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 2605775 26057756 26057756 26057756 26057756200 26057756 26057756200 26057756 26057756200 26057756 26057756200 260577756200 26057756 26057756200 26057756 26057756 26057756 26057756 26057756 26057756 26057756 2605775626057756 260577756 260577756260577756 260577756260577756 260577756260577756 260577756260577756 260577756260577756 260577756260577756 260577756 260577756277756 260577756260577756 260577756 260577756 260577756260577756 2605777756 2605777756 2605777756 2605777756 2605777756 2605777756 2605777756 2605777756 2605777756 2605777756 26057777756 26057777756 26057777756 26057777756 2605777757777756 270777777	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Suporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelboards	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078446 079200 083113 260500 260501 260500 260502 260529 260529 260533 260533 260543 260543 260543 260543 260543 260543 260543	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelboards Wiring Devices	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078414 079200 083113 078446 079200 083113 078446 079200 083113 078446 079200 260501 260502 260501 260502 260519 260526 260529 260529 260533 260536 260543 260800 260923 260543 260800 260923 262200 262416 262726 262813 262813	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelboards Wiring Devices Fuse Diry-Type Transformers Diry-Type Transformers Diry-Type Transformers Diryetes Fuses Disconnect Switches	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260501 260502 260502 260529 260528 260529 260533 260536 260543 2605552 260543 2605552 2605552 260555	NVAC General Requirements Heating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelboards Wiring Devices Fuses Diry-Type Transformers Switchboards Panelboards Directomet Switches Transient Voltage Surpression	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078413 078413 078413 078413 078413 078413 079200 083113 260500 260501 260501 260502 260519 260526 260529 260533 260536 260543 260536 260543 260536 260543 260543 260543 260543 262200 262413 262215 262415 262726 262813 262815 262815 262815	Heating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Suporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Systems Commissioning Lighting Control Devices Pny-Type Transformers Switchboards Panelboards Wiring Devices Fuses Divitchboards Paneboards Transient Voltage Surge Suppression Interior Lighting	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078446 079200 083113 260500 260501 260500 260501 260502 260529 260529 260533 260533 260533 260543 260556 260543 260556 260543 260556 260556 260556 260556 260556 260556 260556 260557 260556 2605577 2605577 2605577 2605577777777777777777777777777777777777	Hvacing, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 078446 079200 083113 078446 079200 083113 078446 079200 083113 078446 079200 083513 260502 260501 260502 260529 260533 260529 260533 260526 260529 260533 260529 260533 260529 260533 260529 260533 260529 260529 260533 260529 260529 260529 260533 260529 26	Hvating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Tester Voltage Surge Suppression	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety. Include concrete light pole bases, excavation, backfill & compaction.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260501 260502 260519 260529 260529 260529 260533 260533 260536 260543 260543 260543 260543 260543 260543 262200 262413 262216 262215 262313 262216 262313 262416 262726 262813 262815 262314 265100 265600 271101 271500	Hvating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Panelboards Wring Devices Fuses Dry-Type Transformers Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Exterior Lighting Exterior Lighting	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078413 078443 079200 083113 260500 260501 260501 260502 260519 260526 260529 260533 260536 260543 260536 260543 260536 260543 260536 260543 260543 260543 262200 262413 262210 262413 262210 262413 262815 262813 262815 262813 262815 262813 262815 262815 262813 262815 262815 262815 262813 262815 263815 26	Hvating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Suporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Dry-Type Transformers Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Exterior Lighting Telecommunication Cabling Interior Lighting Testerior Lighting Testerior Lighting	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
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BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 078446 079200 083113 078446 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260501 260502 260519 260529 260533 260529 260533 260529 260533 260529 260533 260529 260543 262560 263556 260543 262560 263575 26256575 26357575 26357575757575757575757575757575757575757	Hvating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Exterior Lighting Telecommunication Cabling Interior Lighting Exterior Lighting Telecommunication Cabling Interior Lighting Conductors and Clock Network Sound Systems Classroom Audio System <td>As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety. Include concrete light pole bases, excavation, backfill & compaction. ADD-02: Include this section in its entirety.</td>	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety. Include concrete light pole bases, excavation, backfill & compaction. ADD-02: Include this section in its entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260501 260502 260519 260526 260529 260529 260533 260533 260536 260543 260556 260557 275570 275570 275500 281000	Hvating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Panelboards Wiring Devices Fuses Diry-Type Transformers Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Telecommunication Cabling Integrated Communications and Clock Network Sound Systems Classroom Audio System Access Control System	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety.
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BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078413 078443 078200 083113 078446 079200 083113 078446 079200 083113 078446 079200 083113 260502 260501 260502 260503 260502 260529 260533 260526 260523 260525 260523 260523 260523 260525 260523 260523 260525 260523 260525 260523 260525 260523 260525 260523 260525 260523 260525 260523 260526 260525 260525 260523 260526 260525 260525 260525 260525 260525 260525 260523 260526 260525 260523 260526 260525 271101 275117 275500 282310 282329 282329 282320	HVAC General Requirements Heating, Veniliating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Switchboards Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Etector Lighting Telecommunication Cabling Interior Lighting Calearoom Audio System Colasoroom Audio System Access Control System Colasure Lighting Control Cabling <td>As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety. Include concrete light pole bases, excavation, backfill & compaction. ADD-02: Include this section in its entirety.</td>	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety. Include concrete light pole bases, excavation, backfill & compaction. ADD-02: Include this section in its entirety.
BP-24 ELECT	HVAC HVAC HVAC HVAC HVAC HVAC HVAC HVAC	230100 230100 230150 230593 230800 230900 078413 078443 078443 079200 083113 078446 079200 083113 078446 079200 083113 260500 260501 260501 260502 260519 260529 262560 2726 262510 262510 262510 262510 262510 262510 262510 262510 2755116 275510 275510 275510 275510 275510 275510 275510 275510 275500 282300 28330 282300 28330 28330 28350 285	Hvating, Ventilating and Air Conditioning Mechanical Start-Up Testing, Adjusting, and Balancing for HVAC HVAC Commissioning Requirements Direct Digital Control System Penetration Firestopping Fire Resistive Joint Systems Joint Sealants Access Doors and Frames General Requirements Electrical General Provisions Field Test and Operational Check Coordination Study Conductors and Cables Grounding Supporting Devices Raceways and Boxes Cable Trays Under Slab and Underground Electrical Work Lighting Control Devices Panelboards Wiring Devices Fuses Disconnect Switches Transient Voltage Surge Suppression Interior Lighting Exterior Lighting Exterior Lighting Telecommunication Cabling Integrated Communications and Clock Network Sound Systems Classroom Audio System Access Control System Video Management System Video Surveillance Remote Devices and Sensors	As required for this scope of work. As required for this scope of work. As required for this scope of work. Supply and install as needed for access to items installed under this scope of work. All sections to be included in their entirety. All sections to be included in their entirety. Include concrete light pole bases, excavation, backfill & compaction. ADD-02: Include this section in its entirety. As required for this scope of work.

		070440		
	Electrical	078446	Fire Resistive Joint Systems	As required for this scope of work.
	Electrical	079200	Joint Sealants	As required for this scope of work.
	Electrical	083113	Access Doors and Frames	Supply and install as needed for access to items installed under this scope of
				work.
BP-25 SITEW	ORK (On-Site & Sub-Division Combined)			
	Sitework (On-Site & Sub-Division Combined)	Division 1	General Requirements	All sections to be included in their entirety. Refer to both the On-Site and
				Glen Eagle Sub-Division Civil drawings.
	Sitework (On-Site & Sub-Division Combined)	310120	Traffic Control Requirements	As required for this scope of work for both On-Site & Sub-Division Sitework
		010120		
	Sitework (On-Site & Sub-Division Combined)	311000	Site Clearing	Includes erosion controls for both On-Site & Sub-Division Sitework
	Sitework (On Site & Sub Division Combined)	212000	Earth Moving	Provide base material for Building interior slabs-on-grade. Placed by Concrete
	Silework (On-Sile & Sub-Division Combined)	312000	Earth Moving	Contractor, Ruilding foundation executation & backfill by Concrete Contractor
				Contractor. Building foundation excavation & backlin by Concrete Contractor.
				Excavation & backing for on-one & out-Division cast-in-place structures
				included. Gravel & grading for On-Site & Sub-Division concrete included.
				Includes grading, gravel & asphalt.
	Sitework (On-Site & Sub-Division Combined)	315000	Excavation Support & Protecton	Include for both On-Site & Sub-Division Sitework.
ADD-01	Sitework (On-Site & Sub-Division Combined)	Glen Eagle Sub-	On & Off-Site Utilities	Provide all utilities both On-Site & Sub-Division as shown on On-Site & Glen
	, , , , , , , , , , , , , , , , , , ,	Division & On-		Eagle Sub-Division Civil drawings. This work excludes the Production &
		Site Civil		Injection wells, but includes all piping to and from those wells to the building.
		drawings		Includes Fire Service Line from Main to inside MECH E111 up through slab
				including flange connection. Includes Water Service Line from Main to inside
				MECH E111 up through slab, including flange connection
				MEON ETT up unough slab, molduling liange connection.
	Sitewark (On Site & Sub Division Combined	204700	Devement Markinga	Includes parking lot strining handican stalls, directional arrows, fire land
	SILEWORK (UN-SILE & SUD-DIVISION COMDINED)	321/23	Pavement Markings	moleces parking for surpring, nanuloap statis, directional arrows, life lane
	Sitewark (On Site 9 Out Division On Line)	200450	Cita Cianago	Interkings. Excludes surpring for prayground area games.
J	SILEWORK (UN-SILE & SUD-DIVISION COMDINED)	323150	I Sile Signage	Includes all site signage, either pole, fence or building mounted.
	Sitework (On-Site & Sub-Division Combined)	Appendix A	Geotechnical Report	Provide a unit price on Site Work bid form for rock excavation.
BP-25a SITEV	VORK (On-Site, Only)			
	Sitework (On-Site, Only)	Division 1	General Requirements	All sections to be included in their entirety. Refer to the On-Site Civil
1	(·····)/	1		drawings.
	Sitework (On-Site, Only)	310120	Traffic Control Requirements	As required for this scope of work for On-Site Sitework, only,
	Sitework (On Site, Only)	311000	Site Clearing	Includes erosion controls for On-Site Sitework, only
		311000		Deside bees restaid for Duilding intering sloke on grade. Disad by Osciente
	Sitework (On-Site, Only)	312000	Earth Moving	Provide base material for Building Interior slabs-on-grade. Placed by Concrete
				Contractor. Building foundation excavation & backfill by Concrete Contractor.
				Includes grading, gravel & asphalt.
	Sitework (On-Site, Only)	315000	Excavation Support & Protecton	Include for On-Site Sitework, only.
ADD-01	Sitework (On-Site, Only)	On-Site Civil	On-Site Utilities	Includes all utilities. Connect to stub-ins provided by Sub-Division Contractor.
		drawings		This work excludes the Production & Injection wells, but includes all piping to
				and from the wells to the building. Includes Fire Service Line from Main to
				inside MECH E111 up through slab including flange connection. Includes
				Water Service Line from Main to inside MECH E111 up through slab including
				flange connection
	Citamente (On Cita, Onder)	004700	Devenue and Mandelin and	Indige connection.
	Sitework (On-Site, Only)	321723	Pavement Markings	includes parking lot striping, nandicap stalls, directional arrows, lire lane
				markings. Excludes striping for playground area games.
	Sitework (On-Site, Only)	323150	Site Signage	Includes all site signage, either pole, fence or building mounted.
	Sitework (On-Site, Only)	Appendix A	Geotechnical Report	Provide a unit price on Site Work bid form for rock excavation.
BP-25b SITEV	VORK (Sub-Division, Only)			
	Sitework (Sub-Division, Only)	1	General Requirements	All as attempted by the local sector of the sector of the All and the All and Feedback with
		Division 1		All sections to be included in their entirety. Refer to the Gien Eagle Sub-
	Chewonk (Cub Division, Only)	Division 1		Division Civil drawings.
	Sitework (Sub-Division, Only)	Division 1 310120	Traffic Control Requirements	All sections to be included in their entirety. Kerer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only.
	Sitework (Sub-Division, Only)	310120 311000	Traffic Control Requirements	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000	Traffic Control Requirements Site Clearing	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Divisions for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000	Traffic Control Requirements Site Clearing Earth Moving	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes arcding around & combalt
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000	Traffic Control Requirements Site Clearing Earth Moving	An sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub-	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities	An sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Jivision 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Jivision 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Jivision 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings 321723	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings	Al sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 231723 323150	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work.
	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Jivision 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playaround Equipment & Structures	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report	As required for this scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Includes again for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Bitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Bitework (Sub-Division, Only) Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) Bitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321900	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playageund Equipment and Structures	Al sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1. Playargound EO. Lists Include all expects for this scope of work.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321800	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321800 321822	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Sunthatic Playground Turf	Al sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf	All sections to be included in their entirety. Refer to the Gibn Edgle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements	All sections to be included in their entirety. Refer for the Gren Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Site Fumishings Site Fumishings	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323300	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings	All sections to be included in their entirety. Refer to the Gifen Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Reference of the scope of work. All sections to be included in their entirety.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only)	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323300	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings	All sections to be included in their entirety. Refer to the Gien Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Refered to the scope of work. All sections to be included in their entirety.
BP-27 PLAYG	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Site Furnishings Site Furnishings Site Furnishings	Division 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321820 321822 Division 1 323300	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings	All sections to be included in their entirety. Refer to the Gibn Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. All sections to a provide and install all items in this Spec Section. Includes concrete, bases & anchoring for all equipment along with striping.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures URNISHINGS Site Fumishings Site Fumishings LINK & DECORATIVE FENCES Chain-Link & Decorative Fences	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323300	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements	All sections to be included in their entirety. Refer to the Gifen Edgle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. All sections to be included in their entirety.
BP-27 PLAYG	Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures UNISHINGS Site Furnishings Site Furnishings -LINK & DECORATIVE FENCES Chain-Link & Decorative Fences Chain-Link & Decorative Fences	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323300 Division 1 323113	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Chain Link Fences and Gates	All sections to be included in their entirety. Refer to the Gibn Edgle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Provide and install all items in this Spec Section. Includes concrete, bases & anchoring for all equipment along with striping. All sections to be included in their entirety.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Site Furnishings Site	Division 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321800 321822 Division 1 32300 Division 1 323110	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings	All sections to be included in their entirety. Refer to the Gibn Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures URNISHINGS Site Furnishings Site Furnishings LINK & DECORATIVE FENCES Chain-Link & Decorative Fences Chain-Link & Decorative Fences Chain-Link & Decorative Fences	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323300 Division 1 323113 323113	Solution requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings	All sections to be included in their entirety. Privision Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Includes of Sub-Division Sitework, only. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Provide and install all items in this Spec Section. Includes concrete, bases & anchoring for all equipment along with striping. All sections to be included in their entirety. All sections to be included in their entirety.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN BP-30 LANDS	Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Chain-Link & Decorative Fences Chain-Link & DecorativeF	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323300 Division 1 323113 323119	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings	All sections to be included in their entirety. Refer to the Gibn Edgle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN	Sitework (Sub-Division, Only) Sitework (Sub-Division, Only) ROUND EQUIPMENT & STRUCTURES Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Playground Equipment & Structures Chain-Link & Decorative Fences Chain-Link & Decorative Fences CAPE & IRRIGATION Landscape & Irrigation	Division 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321800 321822 Division 1 323113 323119 Division 1	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings General Requirements Chain Link Fences and Gates Decorative Metal Fences and Gates General Requirements	All sections to be included in their entirety. Refer to the Gibn Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN- BP-30 LANDS	Sitework (Sub-Division, Only) Sitework (Sub-Division, Category, Structures Site Furnishings Link & Decorative Fences Chain-Link & Decorative Fences Chain-Link & Decorative Fences Chain-Link & Decorative Fences Chain-Link & Iter (Sub-Division, Chaines) Site Site Furnishings Site Site Site Site Site Site Site Site	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 323113 323113 323119 Division 1 328400	Control Requirements Site Clearing Earth Moving Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings General Requirements General Requirements Gite Link Fences and Gates Decorative Metal Fences and Gates General Requirements Landscape Irrigation	All sections to be included in their entirety. Refer to the Gife Edgle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Includes erosion controls for Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Provide and install all items in this Spec Section. Includes concrete, bases & anchoring for all equipment along with striping. All sections to be included in their entirety. All sections to be included in their entirety. All sections to be included in their entirety.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN- BP-30 LANDS	Sitework (Sub-Division, Only) Sitewo	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321822 Division 1 32310 Division 1 323113 323119 Division 1 328400 328500	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings General Requirements Chain Link Fences and Gates Decorative Metal Fences and Gates Decorative Metal Fences and Gates Landscape Irrigation Landscape Grading	All sections to be included in their entirety. Privision Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Includes for Sub-Division Sitework, only. Includes of Sub-Division Sitework, only. Includes and the scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Site will be cut to sub-grade elevation, (+/-) one-tenth by Others.
BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN BP-30 LANDS	Sitework (Sub-Division, Only) Sitewo	Division 1 310120 311000 312000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321800 321822 Division 1 323300 Division 1 323113 323119 Division 1 328400 328500 328500	Traffic Control Requirements Site Clearing Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings General Requirements Chain Link Fences and Gates Decorative Metal Fences and Gates General Requirements Landscape Irrigation Landscape Grading Soil Preparation	All sections to be included in their entirety. Refer to the Gibn Eagle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Include for Sub-Division Sitework, only. Includes all utilities stubbed into the building site as shown on drawings. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. All sections to be included in their entirety.
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BP-27 PLAYG BP-28 SITE FI BP-29 CHAIN BP-30 LANDS	Sitework (Sub-Division, Only) Sitewo	Division 1 310120 311000 312000 315000 Glen Eagle Sub- Division Civil drawings 321723 323150 Appendix A Division 1 321800 321822 Division 1 323300 Division 1 323113 323119 Division 1 328400 328500 328113 329200 329200	Solution Traditional Trequinements Site Clearing Earth Moving Earth Moving Excavation Support & Protecton On-Site Utilities Pavement Markings Site Signage Geotechnical Report General Requirements Playground Equipment and Structures Synthetic Playground Turf General Requirements Site Furnishings General Requirements Site Furnishings General Requirements Chain Link Fences and Gates Decorative Metal Fences and Gates General Requirements Sidereal Requirements Landscape Irrigation Landscape Grading Soil Preparation Turf and Grasses Tree Protection and Trimming	All sections to be included in their entirety. Refer to the Gibn Edgle Sub- Division Civil drawings. As required for this scope of work for Sub-Division Sitework, only. Includes erosion controls for Sub-Division Sitework, only. Gravel & grading for On-Site & Sub-Division concrete included. Includes grading, gravel & asphalt. Includes of Sub-Division Sitework, only. Includes and the scope of work. As required for this scope of work. As required for this scope of work. As required for this scope of work. Provide a unit price on Site Work bid form for rock excavation. All sections to be included in their entirety. REF: SD2.1 - Playground EQ Lists. Includes all concrete for this scope of work. All sections to be included in their entirety. Provide and install all items in this Spec Section. Includes concrete, bases & anchoring for all equipment along with striping. All sections to be included in their entirety. Site will be cut to sub-grade elevation, (+/-) one-tenth by Others.

Sheet E7.5 – Special Systems Plan – Area E Sheet E7.6 – Special Systems Plan – Area F Sheet E7.7 – Special Systems Plan – Add Alternates 1 & 2

- End of Addendum No. 2 -

SECTION 034500 - PRECAST ARCHITECTURAL CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Architectural precast concrete column caps.
- B. Related Requirements:
 - 1. Section 033000 "Cast-in-Place Concrete" for installing connection anchors in concrete.
 - 2. Section 055000 "Metal Fabrications" for miscellaneous steel shapes.
 - 3. Section 071900 "Water Repellents" for water-repellent finish treatments.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Design Mixtures: For each precast concrete mixture. Include compressive strength and waterabsorption tests.
- C. Shop Drawings:
 - 1. Detail fabrication and installation of architectural precast concrete units.
 - 2. Indicate locations, plans, elevations, dimensions, shapes, and cross sections of each unit.
 - 3. Indicate joints, reveals, drips, chamfers, and extent and location of each surface finish.
 - 4. Indicate details at building corners.
 - 5. Indicate separate face and backup mixture locations and thicknesses.
 - 6. Indicate type, size, and length of welded connections by AWS standard symbols. Detail loose and cast-in hardware and connections.
 - 7. Indicate locations, tolerances, and details of anchorage devices to be embedded in or attached to structure or other construction.
 - 8. Indicate locations, extent, and treatment of dry joints if two-stage casting is proposed.
 - 9. Include plans and elevations showing unit location and sequence of erection for special conditions.
 - 10. Indicate location of each architectural precast concrete unit by same identification mark placed on panel.
 - 11. Indicate relationship of architectural precast concrete units to adjacent materials.
 - 12. If design modifications are proposed to meet performance requirements and field conditions, submit design calculations and Shop Drawings. Do not adversely affect the

appearance, durability, or strength of units when modifying details or materials and maintain the general design concept.

- D. Samples: Design reference samples for initial verification of design intent, for each type of finish indicated on exposed surfaces of architectural precast concrete units, in sets of three, representative of finish, color, and texture variations expected; approximately 12 by 12 by 2 inches (300 by 300 by 50 mm).
 - 1. When other faces of precast concrete unit are exposed, include Samples illustrating workmanship, color, and texture of backup concrete as well as facing concrete.
 - a. Grout Samples for Initial Selection: Color charts consisting of actual sections of grout showing manufacturer's full range of colors.
 - b. Grout Samples for Verification: Showing color and texture of joint treatment.
- E. Delegated-Design Submittal: For architectural precast concrete indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 - 1. Show governing panel types, connections, types of reinforcement, including special reinforcement, and concrete cover on reinforcement. Indicate location, type, magnitude, and direction of loads imposed on the building structural frame from architectural precast concrete.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A precast concrete erector qualified and designated by PCI's Certificate of Compliance to install non-load bearing units.
- B. Fabricator Qualifications: A firm that assumes responsibility for engineering architectural precast concrete units to comply with performance requirements. This responsibility includes preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer.
- C. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
- D. Quality-Control Standard: For manufacturing procedures and testing requirements, qualitycontrol recommendations, and dimensional tolerances for types of units required, comply with PCI MNL 117, "Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products."

1.5 COORDINATION

A. Furnish loose connection hardware and anchorage items to be embedded in or attached to other construction without delaying the Work. Provide locations, setting diagrams, templates, instructions, and directions, as required, for installation.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver architectural precast concrete units in such quantities and at such times to limit unloading units temporarily on the ground or other rehandling.
- B. Support units during shipment on nonstaining shock-absorbing material.
- C. Store units with adequate dunnage and bracing and protect units to prevent contact with soil, to prevent staining, and to prevent cracking, distortion, warping or other physical damage.
- D. Place stored units so identification marks are clearly visible, and units can be inspected.
- E. Handle and transport units in a manner that avoids excessive stresses that cause cracking or damage.
- F. Lift and support units only at designated points indicated on Shop Drawings.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers
 - 1. Northwest Pre-Cast
 - 2. Forterra

2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, to design architectural precast concrete units.
- B. Design Standards: Comply with ACI 318 (ACI 318M) and design recommendations of PCI MNL 120, "PCI Design Handbook Precast and Prestressed Concrete," applicable to types of architectural precast concrete units indicated.
- C. Structural Performance: Provide architectural precast concrete units and connections capable of withstanding the following design loads within limits and under conditions indicated:
 - 1. Loads: As indicated on Structural Drawings.

2.3 MOLD MATERIALS

A. Molds: Rigid, dimensionally stable, non-absorptive material, warp and buckle free, that provides continuous and true precast concrete surfaces within fabrication tolerances indicated; nonreactive with concrete and suitable for producing required finishes.

- 1. Mold-Release Agent: Commercially produced form-release agent that does not bond with, stain or adversely affect precast concrete surfaces and does not impair subsequent surface or joint treatments of precast concrete.
- B. Form Liners: Units of face design, texture, arrangement, and configuration. Use with manufacturer's recommended form-release agent that does not bond with, stain, or adversely affect precast concrete surfaces and does not impair subsequent surface or joint treatments of precast concrete.
- C. Surface Retarder: Chemical set retarder, capable of temporarily delaying final hardening of newly placed concrete mixture to depth of reveal specified.

2.4 REINFORCING MATERIALS

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.
- B. Low-Alloy-Steel Reinforcing Bars: ASTM A 706/A 706M, deformed.
- C. Steel Bar Mats: ASTM A 184/A 184M, fabricated from ASTM A 615/A 615M, Grade 60, deformed bars, assembled with clips.
- D. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets.
- E. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.
- F. Supports: Suspend reinforcement from back of mold or use bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place according to PCI MNL 117.

2.5 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150/C 150M, Type I or Type III, gray, unless otherwise indicated.
 - 1. For surfaces exposed to view in finished structure, use gray or white cement, of same type, brand, and mill source.
- B. Supplementary Cementitious Materials:
 - 1. Fly Ash: ASTM C 618, Class C or F, with maximum loss on ignition of 3 percent.
 - 2. Metakaolin: ASTM C 618, Class N.
 - 3. Silica Fume: ASTM C 1240, with optional chemical and physical requirement.
 - 4. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
- C. Normal-Weight Aggregates: Except as modified by PCI MNL 117, ASTM C 33/C 33M, with coarse aggregates complying with Class 5S. Stockpile fine and coarse aggregates for each type of exposed finish from a single source (pit or quarry) for Project.
 - 1. Face-Mixture-Coarse Aggregates: Selected, hard, and durable; free of material that reacts with cement or causes staining; to match selected finish sample.

- a. Gradation: Uniformly graded.
- 2. Face-Mixture-Fine Aggregates: Selected, natural or manufactured sand compatible with coarse aggregate; to match approved finish sample.
- D. Coloring Admixture: ASTM C 979/C 979M, synthetic or natural mineral-oxide pigments or colored water-reducing admixtures, temperature stable, and nonfading.
- E. Water: Potable; free from deleterious material that may affect color stability, setting, or strength of concrete and complying with chemical limits of PCI MNL 117.
- F. Air-Entraining Admixture: ASTM C 260, certified by manufacturer to be compatible with other required admixtures.
- G. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and to not contain calcium chloride, or more than 0.15 percent chloride ions or other salts by weight of admixture.
 - 1. Water-Reducing Admixtures: ASTM C 494/C 494M, Type A.
 - 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 - 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 - 4. Water-Reducing and Accelerating Admixture: ASTM C 494/C 494M, Type E.
 - 5. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
 - 6. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
 - 7. Plasticizing Admixture: ASTM C 1017/C 1017M, Type I.
 - 8. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.6 STEEL CONNECTION MATERIALS

- A. Carbon-Steel Shapes and Plates: ASTM A 36/A 36M.
- B. Carbon-Steel-Headed Studs: ASTM A 108, AISI 1018 through AISI 1020, cold finished, AWS D1.1/D1.1M, Type A or Type B, with arc shields and with minimum mechanical properties of PCI MNL 117, Table 3.2.3.
- C. Carbon-Steel Plate: ASTM A 283/A 283M, Grade C.
- D. Malleable Iron Castings: ASTM A 47/A 47M, Grade 32510 or Grade 35028.
- E. Carbon-Steel Castings: ASTM A 27/A 27M, Grade 60-30 (Grade 415-205).
- F. High-Strength, Low-Alloy Structural Steel: ASTM A 572/A 572M.
- G. Carbon-Steel Structural Tubing: ASTM A 500/A 500M, Grade B or Grade C.
- H. Wrought Carbon-Steel Bars: ASTM A 675/A 675M, Grade 65 (Grade 450).
- I. Deformed-Steel Wire or Bar Anchors: ASTM A 496/A 496M or ASTM A 706/A 706M.
- J. Carbon-Steel Bolts and Studs: ASTM A 307, carbon-steel, hex-head bolts and studs; carbonsteel nuts, ASTM A 563 (ASTM A 563M); and flat, unhardened steel washers, ASTM F 844.

- K. High-Strength Bolts and Nuts: ASTM A 325 (ASTM A 325M), Type 1, heavy hex steel structural bolts; heavy hex carbon-steel nuts, ASTM A 563 (ASTM A 563M); and hardened carbon-steel washers, ASTM F 436 (ASTM F 436M).
- L. Shop-Primed Finish: Prepare surfaces of nongalvanized steel items, except those surfaces to be embedded in concrete, according to requirements in SSPC-SP 3 and shop-apply lead- and chromate-free, rust-inhibitive primer, complying with performance requirements in MPI 79 SSPC-Paint 25 according to SSPC-PA 1.
- M. Welding Electrodes: Comply with AWS standards.

2.7 ACCESSORIES

- A. Reglets: Specified in Section 076200 "Sheet Metal Flashing and Trim."
- B. Reglets: PVC extrusions, felt or fiber filled, or with face opening of slots covered.
- C. Precast Accessories: Provide clips, hangers, high-density plastic or steel shims, and other accessories required to install architectural precast concrete units.

2.8 GROUT MATERIALS

- A. Sand-Cement Grout: Portland cement, ASTM C 150/C 150M, Type I, and clean, natural sand, ASTM C 144 or ASTM C 404. Mix at ratio of 1 part cement to 2-1/2 to 3 parts sand, by volume, with minimum water required for placement and hydration. Water-soluble chloride ion content less than 0.06 percent by weight of cement when tested according to ASTM C 1218/C 1218M.
- B. Nonmetallic, Nonshrink Grout: Packaged, nonmetallic, noncorrosive, nonstaining grout containing selected silica sands, portland cement, shrinkage-compensating agents, plasticizing and water-reducing agents, complying with ASTM C 1107/C 1107M, Grade A for drypack and Grades B and C for flowable grout and of consistency suitable for application within a 30-minute working time. Water-soluble chloride ion content less than 0.06 percent by weight of cement when tested according to ASTM C 1218/C 1218M.
- C. Epoxy-Resin Grout: Two-component, mineral-filled epoxy resin; ASTM C 881/C 881M, of type, grade, and class to suit requirements.

2.9 CONCRETE MIXTURES

- A. Prepare design mixtures for each type of precast concrete required.
 - 1. Use a single design mixture for units with more than one major face or edge exposed.
 - 2. Where only one face of unit is exposed use either a single design mixture or separate mixtures for face and backup.
- B. Limit use of fly ash and ground granulated blast-furnace slag to 20 percent of portland cement by weight; limit metakaolin and silica fume to 10 percent of portland cement by weight.

- C. Design mixtures may be prepared by a qualified independent testing agency or by qualified precast plant personnel at architectural precast concrete fabricator's option.
- D. Limit water-soluble chloride ions to maximum percentage by weight of cement permitted by ACI 318 (ACI 318M) or PCI MNL 117 when tested according to ASTM C 1218/C 1218M.
- E. Normal-Weight Concrete Mixtures: Proportion full-depth mixture by either laboratory trial batch or field test data methods according to ACI 211.1, with materials to be used on Project, to provide normal-weight concrete with the following properties:
 - 1. Compressive Strength (28 Days): 5000 psi (34.5 MPa) minimum.
 - 2. Maximum Water-Cementitious Materials Ratio: 0.45.
- F. Water Absorption: 6 percent by weight or 14 percent by volume, tested according to ASTM C 642, except for boiling requirement.
- G. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content complying with PCI MNL 117.
- H. When included in design mixtures, add other admixtures to concrete mixtures according to manufacturer's written instructions.

2.10 MOLD FABRICATION

- A. Molds: Accurately construct molds, mortar tight, of sufficient strength to withstand pressures due to concrete-placement operations and temperature changes and for prestressing and detensioning operations. Coat contact surfaces of molds with release agent before reinforcement is placed. Avoid contamination of reinforcement and prestressing tendons by release agent.
 - 1. Place form liners accurately to provide finished surface texture indicated. Provide solid backing and supports to maintain stability of liners during concrete placement. Coat form liner with form-release agent.
- B. Maintain molds to provide completed architectural precast concrete units of shapes, lines, and dimensions indicated, within fabrication tolerances specified.
 - 1. Form joints are not permitted on faces exposed to view in the finished work.
 - 2. Edge and Corner Treatment: Uniformly chamfered.

2.11 FABRICATION

- A. Cast-in Anchors, Inserts, Plates, Angles, and Other Anchorage Hardware: Fabricate anchorage hardware with sufficient anchorage and embedment to comply with design requirements. Accurately position for attachment of loose hardware, and secure in place during precasting operations. Locate anchorage hardware where it does not affect position of main reinforcement or concrete placement.
 - 1. Weld-headed studs and deformed bar anchors used for anchorage according to AWS D1.1/D1.1M and AWS C5.4, "Recommended Practices for Stud Welding."

- B. Furnish loose hardware items including steel plates, clip angles, seat angles, anchors, dowels, cramps, hangers, and other hardware shapes for securing architectural precast concrete units to supporting and adjacent construction.
- C. Cast-in reglets, slots, holes, and other accessories in architectural precast concrete units as indicated on the Contract Drawings and / or as required by the manufacturer for a complete installation.
- D. Cast-in openings larger than 10 inches (250 mm) in any dimension. Do not drill or cut openings or prestressing strand without Architect's approval.
- E. Reinforcement: Comply with recommendations in PCI MNL 117 for fabricating, placing, and supporting reinforcement.
 - 1. Clean reinforcement of loose rust and mill scale, earth, and other materials that reduce or destroy the bond with concrete. When damage to epoxy-coated reinforcing exceeds limits specified in ASTM A 775/A 775M, repair with patching material compatible with coating material and epoxy coat bar ends after cutting.
 - 2. Accurately position, support, and secure reinforcement against displacement during concrete-placement and consolidation operations. Completely conceal support devices to prevent exposure on finished surfaces.
 - 3. Place reinforcing steel and prestressing strands to maintain at least 3/4-inch (19-mm) minimum concrete cover. Increase cover requirements for reinforcing steel to 1-1/2 inches (38 mm) when units are exposed to corrosive environment or severe exposure conditions. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position while placing concrete. Direct wire tie ends away from finished, exposed concrete surfaces.
 - 4. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh spacing and wire tie laps, where required by design. Offset laps of adjoining widths to prevent continuous laps in either direction.
- F. Reinforce architectural precast concrete units to resist handling, transportation, and erection stresses and specified in-place loads.
- G. Comply with requirements in PCI MNL 117 and requirements in this Section for measuring, mixing, transporting, and placing concrete. After concrete batching, no additional water may be added.
- H. Place face mixture to a minimum thickness after consolidation of the greater of 1 inch (25 mm) or 1.5 times the maximum aggregate size, but not less than the minimum reinforcing cover specified.
- I. Place concrete in a continuous operation to prevent cold joints or planes of weakness from forming in precast concrete units.
 - 1. Place backup concrete mixture to ensure bond with face-mixture concrete.
- J. Thoroughly consolidate placed concrete by internal and external vibration without dislocating or damaging reinforcement and built-in items, and minimize pour lines, honeycombing, or entrapped air voids on surfaces. Use equipment and procedures complying with PCI MNL 117.

- 1. Place self-consolidating concrete without vibration according to PCI TR-6, "Interim Guidelines for the Use of Self-Consolidating Concrete in Precast/Prestressed Concrete Institute Member Plants." Ensure adequate bond between face and backup concrete, if used.
- K. Comply with PCI MNL 117 for hot- and cold-weather concrete placement.
- L. Identify pickup points of architectural precast concrete units and orientation in structure with permanent markings, complying with markings indicated on Shop Drawings. Imprint or permanently mark casting date on each architectural precast concrete unit on a surface that does not show in finished structure.
- M. Cure concrete, according to requirements in PCI MNL 117, by moisture retention without heat or by accelerated heat curing using low-pressure live steam or radiant heat and moisture. Cure units until compressive strength is high enough to ensure that stripping does not have an effect on performance or appearance of final product.
- N. Discard and replace architectural precast concrete units that do not comply with requirements, including structural, manufacturing tolerance, and appearance, unless repairs meet requirements in PCI MNL 117 and Architect's approval.

2.12 FABRICATION TOLERANCES

A. Fabricate architectural precast concrete units to shapes, lines, and dimensions indicated so each finished unit complies with PCI MNL 117 product tolerances as well as position tolerances for cast-in items.

2.13 FINISHES

- A. Exposed faces shall be free of joint marks, grain, and other obvious defects. Corners, including false joints shall be uniform, straight, and sharp. Finish exposed-face surfaces of architectural precast concrete units to match approved design reference sample and as follows:
 - 1. PCI's "Architectural Precast Concrete Color and Texture Selection Guide," of plate numbers indicated.
 - 2. Acid-Etched Finish: Use acid and hot-water solution, equipment, application techniques, and cleaning procedures to expose aggregate and surrounding matrix surfaces. Protect hardware, connections, and insulation from acid attach.

2.14 SOURCE QUALITY CONTROL

- A. Quality-Control Testing: Test and inspect precast concrete according to PCI MNL 117 requirements. If using self-consolidating concrete, also test and inspect according to PCI TR-6, ASTM C 1610/C 1610M, ASTM C 1611/C 1611M, ASTM C 1621/C 1621M, and ASTM C 1712.
- B. Defective Units: Discard and replace recast architectural concrete units that do not comply with acceptability requirements in PCI MNL 117, including concrete strength, manufacturing tolerances, and color and texture range. Chipped, spalled, or cracked units may be repaired,

subject to Architect's approval. Architect reserves the right to reject precast units that do not match approved samples, sample panels, and mockups. Replace unacceptable units with precast concrete units that comply with requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine supporting structural frame or foundation and conditions for compliance with requirements for installation tolerances, bearing surface tolerances, and other conditions affecting performance of the Work.
- B. Do not install precast concrete units until supporting cast-in-place concrete has attained minimum allowable design compressive strength and supporting steel or other structure is structurally ready to receive loads from precast concrete units.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install clips, hangers, bearing pads, and other accessories required for connecting architectural precast concrete units to supporting members and backup materials.
- B. Erect architectural precast concrete level, plumb, and square within specified allowable tolerances. Provide temporary supports and bracing as required to maintain position, stability, and alignment of units until permanent connections are completed.
- C. Connect architectural precast concrete units in position by bolting, welding, grouting, or as otherwise indicated on Shop Drawings. Remove temporary shims, wedges, and spacers as soon as practical after connecting and grouting are completed.
- D. Grouting or Dry-Packing Connections and Joints: Grout connections where required or indicated. Retain flowable grout in place until hard enough to support itself. Alternatively, pack spaces with stiff dry-pack grout material, tamping until voids are completely filled. Place grout and finish smooth, level, and plumb with adjacent concrete surfaces. Promptly remove grout material from exposed surfaces before it affects finishes or hardens. Keep grouted joints damp for not less than 24 hours after initial set.

3.3 ERECTION TOLERANCES

A. Erect architectural precast concrete units level, plumb, square, and in alignment without exceeding the noncumulative erection tolerances of PCI MNL 117, Appendix I.

3.4 REPAIRS

A. Repair architectural precast concrete units if permitted by Architect. Architect reserves the right to reject repaired units that do not comply with requirements.

- B. Mix patching materials and repair units so cured patches blend with color, texture, and uniformity of adjacent exposed surfaces and show no apparent line of demarcation between original and repaired work, when viewed in typical daylight illumination from a distance of 20 feet (6 m).
- C. Remove and replace damaged architectural precast concrete units when repairs do not comply with requirements.

3.5 CLEANING

- A. Clean surfaces of precast concrete units exposed to view.
- B. Clean mortar, plaster, fireproofing, weld slag, and other deleterious material from concrete surfaces and adjacent materials immediately.
- C. Clean exposed surfaces of precast concrete units after erection and completion of joint treatment to remove weld marks, other markings, dirt, and stains.
 - 1. Perform cleaning procedures, if necessary, according to precast concrete fabricator's recommendations. Protect other work from staining or damage due to cleaning operations.
 - 2. Do not use cleaning materials or processes that could change the appearance of exposed concrete finishes or damage adjacent materials.

END OF SECTION 034500



Landscape Architecture • Waterscape Design • Graphic Communication • Civil Engineering • Irrigation Design • Land Planning

Addendum #2

DATE: April 8, 2022 TO: Bidders FROM: Jon Breckon RE: Addendum #2, Jerome Elementary School

Specifications

- 1-1 Specification Section 323300 Article 2.3 Site Furnishings, Item A. Trash Receptacles: 32 Gallon Litter, SM, Plastisol, Expanded Metal Trash Receptacle with flat top lid, Model # 995-131 + 955-001 by Premier Polysteel is acceptable as an approved equal.
- **1-2** Specification Section 323300 Article 2.3 Site Furnishings, Item C. Benches: Langdon Series, 6' Flat Bench, Model # LAF-6-HS-P by Thomas Steele is acceptable as an approved equal.
- **1-3** Specification Section 323300 Article 2.3 Site Furnishings, Item E. Tetherball: Single Post Tetherball, Model # PC-1701 by Playcraft Systems is acceptable as an approved equal.
- **1-4** Specification Section 323300 Article 2.3 Site Furnishings Items F.-M. (Playground striping): Oil Based Acrylic Paint Model # TTP-115 is an acceptable substitution.



1/8" = 1'-0"

General Notes

- 1. EXTERIOR DIMENSIONS ARE TO OUTSIDE FACE OF FINISH, UNLESS NOTED OTHERWISE.
- 2. INTERIOR DIMENSIONS ARE TO FACE OF STUD UNLESS NOTE OTHERWISE.
- 3. SEE SHEET A1.1 FOR CODE COMPLIANCE FLOOR PLAN AND BUILDING CODE COMPLIANCE SUMMARY. 4. SEE SHEET A3.8 FOR TYPICAL CLASSROOMS, TACKBOARD, AND MARKERBOARD SIZES AND LAYOUTS.
- 5. SEE SHEET A4.1 FOR ROOM FINISH SCHEDULE.
- SEE SHEET A4.2 FOR DOOR SCHEDULE AND DOOR TYPES AND SHEETS A4.2, A4.3, AND A4.4 FOR WINDOWS AND FRAME TYPES.
- FURNISH AND INSTALL INTERIOR SIGNS AT ALL INTERIOR DOORS AND AT OTHER LOCATIONS UP TO SPECIFIED LIMITS. SEE SPECIFICATIONS. 8. FURNISH AND INSTALL WINDOW BLINDS.
- 9. SEE SHEET A1.2 FOR SPECIALTY MOUNTING HEIGHTS. 10. SEE SHEET A8.1 FOR WALL TYPES.

Reference Notes

- SEE EXTERIOR ELEVATIONS FOR MATERIAL 4.01 CHANGES. 6.08 23" DEPTH BASE CABINET THIS CLASSROOM CLOSET. 11.01 O.F.C.I. FLAT SCREEN TV. TEACHER STATION, O.F.O.I. (N.I.C.)
- 11.02

Keyed Notes

VINYL FABRIC FACED CORK TACKBOARD 101100.B1 DISPLAY RAIL TACK STRIP, LENGTH PER PLAN 101100.D1 102600.A1 CORNER GUARD, 90 DEGREE, 4'-0" FIRE EXTINGUISHER CABINET, SEMI-RECESSED 104413.A1

Legend

- - -





Keyed Plan







1 ENLARGED FLOOR PLAN - KITCHEN 1/4" = 1'-0"

KITCHEN EQUIPMENT SCHEDULE

				PLI	PLUMBING CONNECTIONS					
ITEM #	QTY.	EQUIPMENT	MANUFACTURER / MODEL	COLD	HOT	WASTE	VENT		5	
	1		L	1	1	4	1			
K1	1	DISHWASHER	'HOBART' AM-16T-BAS	3/4"	2"	1 1/2"		208v / 60 / 3ph , 1 hp / 5 KW HEATER	(2) 30 AMF	
K1.2	1	BOOSTER HEATER	'HATCO' C-15		3/4"	3/4"		208V / 60 / 3-PHASE, 15 KW		
K2	1	DISHTABLE WITH TROUGH AND TRIPLE SINK	CUSTOM FABRICATED REFER TO DETAILS						14 GA STA SHELF UN	
K3	1	GARBAGE DISPOSER	'HOBART' FD4/150	1/2"		2"		1 1/2 hp, 208/240 v, 8 amps	PROVIDE	
К4	1	PRE-RINSE UNIT	'T&S' BRASS & BRONZE B-0133-B WITH B-0155 W/ SWING NOZZLE SIZED TO SINKS	1/2"	1/2"				PROVIDE	
K5	2	HOT FOOD CABINET	METRO C539-CDC					120v, 16a, 60H2	DUTCH DO	
K6	1	REACH-IN REFRIGERATOR	BEVERAGE-AIR HRS2HC-1G						DOUBLE D	
K7	1	STEAM DROP IN	ADVANCE TABCO SLIMLINE DISLS-3-240-M					208/240v, 14 AMPS, 3300 WATTS	RECESS F	
K8	1	ICE MAKER / ICE BIN	AVANTCO ICE KMC-350-B2F	3/4"				1 PHASE / 60 / 12 AMPS / 115	5	
K9	2	DBL. STACK CONVECTION OVEN (ELECTRIC)	VULCAN VC44GD					SEE ELECTRICAL	PROVIDE	
K10~~	kur.	WHXER, 40 QT.	HOBART ALBOUN	μ	~~~	m	h h h	13/4/HPX230x/50/1	- PROVIDE	
K11	1	MIXER, 60 QT.	'HOBART' HL600					3/4 HP / 230v / 50 / 1	PROVIDE	
K12	2	S.S. TABLE	'DUKE' 416-2460						(2) TIERS	
K13	2	S.S. TABLE	'DUKE' 416-2460						(2) TIERS	
K14	1	S.S. TABLE W/ (2) SINKS 24" x 22"	CUSTOM FABRICATED REFER	1/4"	1/4"	1 1/2"	1 1/2"		PROVIDE	
K15	1	SERVICE COUNTER	CUSTOM FABRICATED REFER TO DETAILS	1/4"	1/4"	1 1/2"	1 1/2"		INSTALL K	
K16	1	WALK - IN COOLER	KOLPACK 4" PANELS			3/4"		208v / 60 / 3ph 19.6 AMPS 2 1/2 HP	REFER TC	
K1Z~~~	1~~~	WALKLINEREEZER	KOLPACK4"PANELS		\sim		\sim		∕	
K18	2	SINGLE STACK COMBI OVEN (GAS)	RATIONAL ICOMBI PRO 20 -1/1 GAS	3/4"		3/4"		SEE ELECTRICAL	GAS CONI	
K19	2	STEAM KETTLE	'CLEVELAND' KGT-12-T	1/2"	1/2"	1/2"		SEE ELECTRICAL	2" TANGEI SWING SF AND SPRI	
K20~~	231	WHRE-SHELVING HNIT	'MELIRQ'SUPER ERECTA	m	~~~	m	~~~	mmm	COOLER /	
K23	3	WIRE SHELVING UNIT, WALL MOUNTED	'UNIVERSAL' STAINLESS						12" DEEP	
K27	1	PRE-RINSE UNIT	'T&S' BRASS & BRONZE B-0133-B WITH B-0155 W/ SWING NOZZLE SIZED TO SINKS	1/2"	1/2"				PROVIDE	
K28	1	DOUBLE SINK MIXING FAUCET	'T&S' B-0221	1/2"	1/2"				DECK MO	
K29	1	S.S. TABLE	CUSTOM FABRICATED REFER TO DETAILS						REFER TO	
K30	1	S.S. TABLE	CUSTOM FABRICATED REFER TO DETAILS							
K31	1	SERVICE COUNTER	CUSTOM FABRICATED REFER TO DETAILS							
K32	1	S.S. DISHTABLE	CUSTOM FABRICATED REFER TO DETAILS						REFER TO	
K33	2	SNEEZE GUARD - CEILING MOUNTED	'BSI' ZG9500-5 EZ SPAN							





3 BACKSPLASH DETAIL 1/4" = 1'-0"

P BREAKERS	[
	-
NDER, SIM.	
GROUP B ACCESSORIES AND 18" CONE SINK WITH WATER SWIRL.	1
W/ B109 WALL BRACKET AND HANDWASH FAUCET	
OORS, INSULATED, HOLDING AND PROOFING	-
DOORS, GLASS DOOR	
PANS 1/2", BOTH STEAM AND DRY HEAT. OPEN SHELVING, ON CASTERS	
	2
	1 K
WHITH ACCESSORY PACKAGE	م ;
WITH ACCESSORY PACKAGE.	
OF (3) 'DUKE' 185 DRAWERS	
OF (3) 'DUKE' 185 DRAWERS	
UUKE' 314659 DRAIN AT ALL SINKS. REFER TO MECHANICAL FOR PIPING SIZES AND NS. PROVIDE DRAIN BOARD AND (3) DUKE 185 DRAWERS.	
K7	
O KITCHEN EQUIPMENT NOTES.	
DKIICHEN/EQUIPMENT HQIES ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	h
INECTION 3/4" NPT	
ENT DRAW OFF VALVE WITH DRAIN STRAINER. HOT AND COLD WATER FAUCET WITH POUT AND MOUNING BRACKET. KETTLE ACCESSORY KIT NG ASSISTED COVER AND COOKING BASKETS W/ ST28 EQUIPMENT STAND.	1
ROXY COATED, MICROBANDROIECTION AND ALUMINUM SPLITSLEEVES FOR	
P X LENGTH INDICATED	
W/ B109 WALL BRACKET AND HANDWASH FAUCET	-
DUNTED	-
O PLUMBING FOR PIPING SIZES AND DRAINS.	+
	-
O PLUMBING FOR PIPING SIZES AND DRAINS.	2

REMARKS













Kitchen Equipment Notes

ALL SHOP AND FIELD JOINTS IN STAINLESS STEEL. TOPS OF DISHTABLE K2, K15, K14, K29, K30, K31, AND SERVING COUNTER(S) K15 AND K31 SHALL BE CONTINUOUSLY WELDED

MECHANICAL CONTRACTOR SHALL RUN SUPPLY, WASTE, AND VENT PIPING TO AND SHALL MAKE CONNECTIONS TO ALL

ELECTRICAL CONTRACTOR SHALL RUN CONDUIT AND CONDUCTORS TO AND SHALL PROVIDE J-BOXES, OUTLETS, BREAKERS, ETC. FOR ALL ITEMS OF KITCHEN EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR SHALL PROVIDE AND PLUMBING CONTRACTOR SHALL INSTALL ALL FAUCETS, DRAINS, TRAPS, STRAINERS, ETC. FOR SINKS IN KITCHEN

5. ALL KITCHEN EQUIPMENT SHALL BE NSF APPROVED. ITEMS K2, K14, K15, K29, K30, K31 SHALL BE CONSTRUCTED IN ACCORDANCE WITH NSG STANDARDS.

CONDENSING UNITS FOR ITEMS K16 AND K17 SHALL BE LOCATED ON THE ROOF. REFER TO MECHANICAL AND ROOF PLAN. EACH CONDENSING UNIT SHALL BE PROVIDED WITH

A. WEATHERPROOF OF CONTROLS

C. HEAD PRESSURE CONTROL VALVE

E. CURBS FOR ROOF MOUNTED INSTALLATION (CURBS SHOULD ACCOUNT FOR DEPTH OF INSULATION).

PREFABRICATED COOLER / FREEZER PANELS TO MEET REQUIREMENTS OF INTERNATIONAL BUILDING CODE. 8. ITEMS K16 AND K17 SHALL MEET THE FOLLOWING CRITERIA

A. SIZES SHALL BE SHOWN ON THE DRAWINGS AND HEIGHT SHALL BE 8'-6" CLEAR INSIDE B. WALLS SHALL BE 4" THICK R34. ROOF (CEILING) PANELS SHALL MATCH WALL PANELS. FINISH OF PANELS SHALL

a. OUTSIDE - 26 GA. EMBOSSED GALVANIZED STEEL WITH

BAKED ON POLYESTER ENAMEL. b. INSIDE - 0.032" EMBOSSED ALUMINUM.

C. FLOOR SHALL BE RECESSED TO ACCOMMODATE INSULATED FLOOR PANELS. FLOOR PANELS SHALL HAVE A SPRAYED NON-SLIP EPOXY FLOOR FINISH. 1" OSB SUBFLOOR BACKING. THICKNESS OF FLOOR PANELS

D. DOORS SHALL BE STANDARD IN FITTING OVER LAP TYPE

E. PROVIDE ALL ACCESSORIES AND COMPONENTS AS REQUIRED FOR COMPLETE AND OPERATIONAL COOLER FREEZER INSTALLATION, MEETING ALL APPLICABLE CODES, REGULATIONS, AND STANDARDS.

F. ENCLOSURES SHALL BE LISTED BY THE NATIONAL SANITATION FOUNDATION (N.S.F.) STANDARD #7 AND

- SHALL BEAR THE N.S.F. SEAL OF APPROVAL G. PROVIDE 26 GA. STAINLESS STEEL CLOSURE STRIP AT TOP
- OF FREEZER / COOLER UNITS TO TERMINATE AT H. PROVIDE A SINGLE WALL PANEL BETWEEN THE FREEZER

AND COOLER UNITS. GROUT BETWEEN FLOOR SLAB AND COOLER / FREEZER UNIT PER MANUFACTURER SPECS.

General Notes

- EXTERIOR DIMENSIONS ARE TO OUTSIDE FACE OF FINISH, UNLESS NOTED OTHERWISE.
- INTERIOR DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. SEE SHEET A1.1 FOR CODE COMPLIANCE FLOOR PLAN AND
- BUILDING CODE COMPLIANCE SUMMARY. SEE SHEET A3.8 FOR TYPICAL CLASSROOMS, TACKBOARD,
- AND MARKERBOARD SIZES AND LAYOUTS. SEE SHEET A4.1 FOR ROOM FINISH SCHEDULE.
- SEE SHEET A4.2 FOR DOOR SCHEDULE AND DOOR TYPES AND SHEETS A4.2, A4.3, AND A4.4 FOR WINDOWS AND FRAME TYPES.
- FURNISH AND INSTALL INTERIOR SIGNS AT ALL INTERIOR DOORS AND AT OTHER LOCATIONS UP TO SPECIFIED LIMITS. SEE SPECIFICATIONS.
- FURNISH AND INSTALL WINDOW BLINDS. 9. SEE SHEET A1.2 FOR SPECIALTY MOUNTING HEIGHTS.
- 10. SEE SHEET A8.1 FOR WALL TYPES.

Reference Notes

STAINLESS STEEL BACKSPLASH DETAIL. SEE 11.05 DETAIL 3 / A3.13 STAINLESS STEEL WALL CLADDING OVER 11.06 CEMENTITIOUS BACKER UNIT. SEE DETAIL 2 / A3.13

Keyed Notes

055000 D1	BOLT(S)
055000.11	STEEL PLATE
055000 1	STEEL TUBE
092216 A4	STEEL STUD(S) 6" 20 GA @ 16" O.C. U.N.O.
092216.C1	STEEL STUD TRACK, SAME WIDTH AND GUAG AS STUDS U.N.O.
092216.11	POWER DRIVEN ANCHOR(S)
093013.F1	CEMENTITIOUS BACKER UNITS, 5/8"
102800.K1	MOP HOOK.
104413.A2	FIRE EXTINGUISHER CABINET, SURFACED MOUNTED
114000.A8	16 GA. STAINLESS STEEL CLADDING
114000.E2	REFRIGERATOR (WALK-IN)
114000.F2	FREEZER (WALK-IN)
220100.M1	MOP SINK

28 GA. STAINLESS STEEL MOUNTED ABOVE BACKSPLASH

INSTALL SOLID BLOCKING IN FRAME WALLS WHERE NECESSARY FOR ANCHORING

ARCHITECTS 2400 E. Riverwalk Drive Boise, Idaho 83706 www.lkvarchitects.com 208.336.3443 8 4 N -7 N → # Q \mathbf{N} School No District Elementary School Idaho erome Jerome ш 100 Ζ

DATE: 02/11/2022 **LKV PROJECT #: 2120**

DRAWN BY: KB CHECKED BY: BT

BID SET













$5 \frac{\text{STAGE STAIR DETAIL}}{3/4" = 1'-0"}$





- STAIR TREAD







Door Schedule - Area 'A'

		14/2 141	Door			Frame				Door Schedule	
M	ark	Width	Height	Туре	Mat.	Finish	Туре	Mat.	Finish	Rating	Remarks
A100a	l	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
A1006	\sim	ᡩᡔᡋᡃ᠆ᢅ	7-9		ALUM	ANDD	Az			\sim	\sim
<u>{</u> A101		8' - 0"	7' - 0"	A2	STL	PNT	A1	STL	PNT	1 1/2 HR	7,105
_\ <u>A102</u> a	r.r.	sour	KOU	BM	FW	STIN	ISAN .	STL	RATU		t t
A102b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
A103a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		7
A103b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
A104a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		7
A104b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
A105a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A105b)	3' - 0"	7' - 0"	A1	FW	STN	S4	STL	PNT		
A106a		3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A106b		3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A107		3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A107a	l	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A109a	l	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A109b)	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A109c	:	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
A109d		6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		
A111		3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A112a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A112b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A113a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A113b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A114a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A114b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A115a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A115b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A116a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A116b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A117a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A117b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A118a	l	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
A118b)	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
A119		3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
A120		3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
A121		3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
A122		3' - 0"	7' - 0"	B1	FW	STN	S1	STI	PNT		

			Door				Frame			Door Schedule
Mark	Width	Height	Туре	Mat.	Finish	Туре	Mat.	Finish	Rating	Remarks
C100a	6' - 0"	7' - 0"	D2	ALUM	ANOD	A1	ALUM	ANOD		1, 2
C100b	6' - 0"	7' - 0"	D2	ALUM	ANOD	A11	ALUM	ANOD		1, 2
C102	3' - 0"	7' - 0"	D1	FW	STN	S5	STL	PNT		
C102b	4' - 0"	3' - 4"	CCD2							
C103	3' - 0"	7' - 0"	C1	FW	STN	S1	STL	PNT		
C104a	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C104b	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C104c	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C105a	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C105b	3' - 0"	7' - 0"	C1	FW	STN	S1	STL	PNT		
C105c	3' - 0"	7' - 0"	C1	FW	STN	S1	STL	PNT		
C106	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C107	3' - 0"	7' - 0"	C1	FW	STN	S1	STL	PNT		
C108	3' - 0"	7' - 0"	C1	FW	STN	S6	STL	PNT		
C109	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C110	3' - 0"	7' - 0"	C1	FW	STN	S1	STL	PNT		
C111	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C112	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C112a	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C112b	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C113	3' - 0"	7' - 0"	C1	FW	STN	S1	STL	PNT		
C114	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C115	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C117	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C118a	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C118b	3' - 0"	7' - 0"	D1	FW	STN	S1	STL	PNT		
C118c	6' - 0"	7' - 0"	D2	FW	STN	S1	STL	PNT		
C149~~~	6-0-	7-10-	\sim			sh	STE			
C120	8' - 0"	7' - 0"	C2	STL	PNT	S1	STL	PNT }		
G121	بد"لعر"بد	~7'-2"~~~	Bu	EVU	STN	Shun	جتليب	PAT		
C122	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT -		
C123	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
C123a	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C123b	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT		8
C124	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C125	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C126	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
C127	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		

rame			Door Schedule
Mat.	Finish	Rating	Remarks
JM	ANOD		1

STL

PNT

			Frame				Door Schedule			
Mark	Width	Height	Туре	Mat.	Finish	Туре	Mat.	Finish	Rating	Remarks
D100a	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
D100b	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		
D101	8' - 0"	7' - 0"	A2	STL	PNT	S3	STL	PNT	1 1/2 HR	5, 10
D102a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		7
D102b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
D103a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		7
D103b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
D104a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		7
D104b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
D105a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		7
D105b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		7
D106	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D107a	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D107b	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D107c	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
D107d	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		
D110	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D111	2' - 8"	3' - 4"	CCD4							
D111a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
D111b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D112a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
D112b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D113a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
D113b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D114a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
D114b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D115	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
D115a	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D115b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
D115c	3' - 0"	7' - 0"	D1	ALUM	ANOD	A5	ALUM	ANOD		
D116	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
D117	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		

						Frame			Door Schedule	
Mark	Width	Height	Туре	Mat.	Finish	Туре	Mat.	Finish	Rating	Remarks
100a	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
100b	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		
101	8' - 0"	7' - 0"	A2	STL	PNT	S3	STL	PNT	1 1/2 HR	5, 10
106a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
106b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
107a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
107b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
108a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
108b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
109a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
109b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
110	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
111a	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
111b	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
111c	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
111d	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		
114	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
115a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
115b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
116a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
116b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
117a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
117b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
118	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
119a	3' - 0"	7' - 0"	B1	FW	STN	S4	STL	PNT		
119b	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		
120a	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		1
120b	6' - 0"	7' - 0"	D2	ALUM	ANOD	A2	ALUM	ANOD		
21	3' - 0"	7' - 0"	B1	STL	PNT	S1	STL	PNT	1 1/2 HR	10

3' - 0" 7' - 0" B1 FW STN S1



Door Types 1/4" = 1'-0"

A123

Door Schedule - Area 'B'



 $\bigcirc 1 \\ 1/4" = 1'-0"$

Door Schedule - Area 'C'

Door Schedule - Area 'E'

	Door						Frame			Door Schedule	
Mark	Width	Height	Туре	Mat.	Finish	Туре	Mat.	Finish	Rating	Remarks	
E100	6' - 0"	7' - 0"	B2	STL	PNT	S3	STL	PNT	1 1/2 HR	10	
E100a	3' - 0"	7' - 0"	B11	STL	PNT	S2	STL	PNT	1 1/2 HR	10	
E100b	3' - 0"	7' - 0"	A1	STL	PNT	S2	STL	PNT			
E100c	3' - 0"	7' - 0"	A1	STL	PNT	S2	STL	PNT			
E101	6' - 0"	7' - 0"	B2	STL	PNT	S10	STL	PNT		1	
E101a	6' - 0"	7' - 0"	A2	STL	PNT	S1	STL	PNT			
102	3' - 8"	7' - 0"	A1	FW	STN	S1	STL	PNT			
E103	3' - 0"	7' - 0"	B1	STL	PNT	S1	STL	PNT			
-103a	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT			
E104	3' - 0"	7' - 0"	B1	STL	PNT	S1	STL	PNT			
E105	6' - 0"	7' - 0"	A2	STL	PNT	S1	STL	PNT			
E106	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT	3/4 HR	10	
E106a	3' - 0"	7' - 0"	A1	FW	STN	S2	STL	PNT	3/4 HR	10	
E107a	4' - 0"	7' - 0"	B1	STL	PNT	S3	STL	PNT			
E107b	6' - 0"	7' - 0"	B2	STL	PNT	S1	STL	PNT		1, 4, 6	
E107c	4' - 0"	3' - 9"	CCD1								
E107d	10' - 8"	3' - 9"	CCD3								
E107e	10' - 8"	3' - 9"	CCD3								
E107f	2' - 8"	3' - 4"	CCD4								
108	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT			
E109	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT			
E110	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT			
E111	3' - 8"	7' - 0"	A1	STL	PNT	S1	STL	PNT			
E111a	6' - 0"	7' - 0"	A2	STL	PNT	S3	STL	PNT			
E112	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT			
E113	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT			
E114	2' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT			
E116	3' - 0"	7' - 0"	A1	STL	PNT	S1	STL	PNT			

Door Schedule - Area 'F'

0001 3	cheuur	e - Alea	ar							
			Door				Frame			Door Schedule
Mark	Width	Height	Туре	Mat.	Finish	Туре	Mat.	Finish	Rating	Remarks
F100a	3' - 0"	7' - 0"	A1	STL	PNT	S2	STL	PNT		
F100b	6' - 0"	7' - 0"	C2	FW	STN	S3	STL	PNT		
F100c	6' - 0"	7' - 0"	C2	FW	STN	S3	STL	PNT		
F100d	3' - 0"	7' - 0"	A1	STL	PNT	S2	STL	PNT		
F100e	3'-0"	7'-0"	Al	STL	PNI	S2	STL	PNT	\sim	
F100f	4' - 0"	2' - 3"	A2							11
F1012	S'stin	Frigure	AL	FYD	star	show	ster	PAT	<u> </u>	m
F101b	3' - 0"	7' - 0"	A1	STL	PNT	S2	STL	PNT		
F102	6' - 0"	7' - 0"	C2	STL	PNT	S1	STL	PNT		
F102a	6' - 0"	7' - 0"	D2	ALUM	ANOD	A9	ALUM	ANOD		1
F103	3' - 0"	7' - 0"	B1	FW	STN	S1	STL	PNT		
F103a	3' - 0"	7' - 0"	A1	FW	STN	S1	STL	PNT		



4' - 2"

TYPE 1 (ADMIN)



TYPE 2 (GYMNASIUM)



General Notes

- EXTERIOR DIMENSIONS ARE TO OUTSIDE FACE OF CONCRETE FOUNDATION WALL / CMU VENEER UNLESS NOTED OTHERWISE OR UNLESS CENTERLINE DESIGNATION (- - -)IS INDICATED.
- INTERIOR DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE OR UNLESS CENTERLINE (- - -) DESIGNATION IS INDICATED.
- SEE SHEET A1.2 A1.4 FOR CODE COMPLIANCE FLOOR PLAN AND BUILDING CODE COMPLIANCE SUMMARY.
- 4. SEE SHEET A4.1 FOR ROOM FINISH SCHEDULE. 5. SEE SHEET A4.2, A4.3, A4.4 FOR DOOR SCHEDULE AND DOOR
- AND WINDOW FRAME TYPES. FURNISH AND INSTALL INTERIOR SIGNS AT ALL INTERIOR DOORS AND AT OTHER LOCATIONS UP TO SPECIFIED LIMITS. SEE SPECIFICATIONS.
- FURNISH AND INSTALL WINDOW BLINDS AT SPECIFIED LOCATIONS, SEE SPECIFICATION 122113.
- SEE SHEET A1.3 FOR SPECIALTY ITEM MOUNTING HEIGHTS. SEE SHEETS A8.1 FOR EXTERIOR AND INTERIOR WALL TYPES: EWT-#, IWT-#.

Reference Notes

PERFORATED SLATS. 8.01 9.04 WALL TYPE PER PLANS.

Keyed Notes

COILING COUNTER DOOR 083313.A1 083323.A1 OVERHEAD COILING DOOR 107000.A1 METAL SUNSHADE ASSEMBLY SUNSHADE ASSEMBLY, VERTICAL. 107000.B1

Door Schedule Remarks

- 1. ACCESS CONTROL. REFER TO DOOR HARDWARE SPECIFICATION 087100 AND ELECTRICAL DRAWINGS FOR
- REQUIRED DOOR HARDWARE SYSTEM. 2. ADA PUSH PLATE ACTUATORS. REFER TO DOOR HARDWARE
- SPECIFICATION SECTION 087100. DOOR TO FIT ABOVE RAISED THRESHOLD. SEE SECTION. 4. PEEP HOLE / DOOR BELL
- 5. MAG. HOLD.
- 6. DOORBELL
- 7. PART OF ALTERNATE BID. 8. PUSH BUTTON HOLD.
- 9. ROOF ACCESS. SEE DOOR JAMB DETAILS 8/A6.13 & 9/A8.7. 10. FIRE RATED DOOR. 11. UNDERSTAGE DOORS. (5) 4'-0" WIDE. COORDINATE WITH STRUCTURAL FRAMING PLAN.

Door Schedule Abbreviations

ALUMINUM ALUM ANOD ANODIZED FACTORY FACT FLUSH WOOD PAINT STEEL FW PNT STL STN STAIN

Legend - Glass Types

- A1 1/4" FLOAT GLASS
 B1 1/4" TEMPERED SAFETY GLASS
 C1 1" TINTED INSULATED GLASS, NON-TEMPERED
 C2 1" TINTED INSULATED GLASS, TEMPERED





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DOOR SCHEDULE / DOOR TYPES





(083113.A1)

(114000.A7)-

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4"

2". -

5 5

















ARCHITEC TURAL DETAILS

























9 LIBRARY DESK - EAST 1/4" = 1'-0"



5 RECEPTION - INTERIOR WEST 1/4" = 1'-0"





-(064116.N2)

(064116.D1)(6.02)















7 RECEPTION - EXTERIOR FRONT 1/4" = 1'-0"









- FIELD VERIFY ALL ROOM DIMENSIONS PRIOR TO FABRICATION OF MILLWORK AND ADJUST MILLWORK DIMENSIONS
- ACCORDINGLY. ALL COUNTERTOP SPLASHES SHALL BE 4" HIGH UNLESS
- NOTED OTHERWISE. ALL TOE KICK SPACES SHALL BE 4" HIGH UNLESS NOTED OTHERWISE. FURNISH AND INSTALL 4" BASE MATERIAL TO
- MATCH ROOM, TYPICAL. FURNISH AND INSTALL SOLID WOOD BLOCKING, MINIMUM 1 1/2" THICK, AT STUD WALLS AND PARTITIONS FOR ATTACHMENT OF CABINETS, COUNTERTOPS, AND SHELVING
- UNITS. DEPTH OF UNIT DESIGNATION D=X" VERIFY SINK / LAVATORY SIZE REQUIREMENTS.
- TYPICAL CABINET CONSTRUCTION SHALL BE MIN. 3/4" MELAMINE COATED PARTICLE BOARD EXCEPT AT EXPOSED EXTERIOR SURFACES. EXPOSED EXTERIOR SURFACES SHALL HAVE HIGH PRESSURE DECORATIVE LAMINATE IN LIEU OF MELAMINE COATING UNLESS NOTED OTHERWISE. BACK PANELS SHALL BE MINIMUM 1/2" MELAMINE COATED PARTICLE BOARD UNLESS NOTED OTHERWISE. WHERE ALL CABINETS / SHELVING (W/O A COUNTER ABOVE) MEET AT AN INSIDE CORNER OF A ROOM, A HORIZONTAL CLOSURE PANEL SHALL
- BE PROVIDED AT THE TOP TO CLOSE OFF VOID SPACE BELOW TYPICAL COUNTERTOP CONSTRUCTION SHALL BE MINIMUM 3/4" PARTICLE BOARD WITH HIGH PRESSURE DECORATIVE LAMINATE AT TOPS AND BACKSPLASHES WITH 1 1/2" FRONT SELF EDGE UNLESS NOTED OTHERWISE. PVC EDGE BANDING, 0.12", (3mm) THICK, MATCHING LAMINATE COLOR, PATTERN, AND FINISH, TO BE AT VERTICAL COUNTER TOP SURFACES.
- RADIUS OUTSIDE COUNTER CORNERS WITH 1" RADIUS. FURNISH AND INSTALL 3mm PVC EDGE BANDING (64023.K1) AS REQUIRED AT ALL EXPOSED CABINET FACE FRAME, SHELF, DOOR, AND DRAWER EDGES.
- SEE TYPICAL ACCESSORY MOUNTING HEIGHT DETAIL ON SHEET A1.2.

Reference Notes

6.01	KNEE SPACE, 2'-3" CLR. INSTALL (1) 3" DIA. RUBBER GROMMET (64116.M1) IN COUNTER ABOVE EACH KNEE SPACE EXCEPT AT SINK LOCATIONS. FURNISH AND INSTALL 4" BASE MATERIAL TO MATCH ROOM, TYPICAL.
6.02	SIDE / END / LEG PANELS. TYPICAL AT UPPERS AND BASE CABINETS.
6.03	TYPICAL CABINET COMPONENT IDENTICAL AT UPPERS AND BASE CABINETS.
6.05	NO BACKSPLASH.
6.06	BOOK DROP SLOT. 12" X 3"
11.01	O.F.C.I. FLAT SCREEN TV.

Keyed Notes

064116.A1	3/4" MELAMINE COATED PARTICLE BOARD
064116.A2	1/2" MELAMINE COATED PARTICLE BOARD
064116.C1	3/4" PARTICLE BOARD
064116.C2	1/2" PARTICLE BOARD
064116.D1	H.P. DECORATIVE LAMINATE - EXPOSED EXTERIOR SURFACES
064116.D2	H.P. DECORATIVE LAMINATE - TOPS, EDGES, AND BACKSPLASH
064116.E1	ADJUSTABLE SHELVES ON 32MM SYSTEM SHELF SUPPORTS - 3/4" MELAMINE COATED PARTICLE BOARD
064116.E2	ADJUSTABLE SHELVES ON 32MM SYSTEM SHELF SUPPORTS - 1" PARTICLE BOARD W/ H.P. DECORATIVE LAMINATE
064116.F1	DRAWER(S) ON SLIDES W/ PULL(S)
064116.F2	HANGING FILE TRACK
064116.G1	DOOR(S) ON HINGES W/ PULL(S)
064116.I1	CYLINDER LOCK
064116.N2	1/4" PLEXIGLASS SHELVES
081113.C1	HOLLOW METAL GLAZING FRAME
220100.M1	MOP SINK



(064116.E1)



17 JANITOR 1/4" = 1'-0"

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1 <u>B118 STORAGE - WEST</u> 1/4" = 1'-0"















(064116.A1)

(064116.A2)





General Notes

- . FIELD VERIFY ALL ROOM DIMENSIONS PRIOR TO FABRICATION OF MILLWORK AND ADJUST MILLWORK DIMENSIONS ACCORDINGLY.
- 2. ALL COUNTERTOP SPLASHES SHALL BE 4" HIGH UNLESS NOTED OTHERWISE. 3. ALL TOE KICK SPACES SHALL BE 4" HIGH UNLESS NOTED
- OTHERWISE. FURNISH AND INSTALL 4" BASE MATERIAL TO MATCH ROOM, TYPICAL.
- 4. FURNISH AND INSTALL SOLID WOOD BLOCKING, MINIMUM 1 1/2" THICK, AT STUD WALLS AND PARTITIONS FOR ATTACHMENT OF CABINETS, COUNTERTOPS, AND SHELVING UNITS.
- DEPTH OF UNIT DESIGNATION D=X" VERIFY SINK / LAVATORY SIZE REQUIREMENTS. 6. TYPICAL CABINET CONSTRUCTION SHALL BE MIN. 3/4"
- MELAMINE COATED PARTICLE BOARD EXCEPT AT EXPOSED EXTERIOR SURFACES. EXPOSED EXTERIOR SURFACES SHALL HAVE HIGH PRESSURE DECORATIVE LAMINATE IN LIEU OF MELAMINE COATING UNLESS NOTED OTHERWISE. BACK PANELS SHALL BE MINIMUM 1/2" MELAMINE COATED PARTICLE BOARD UNLESS NOTED OTHERWISE. WHERE ALL CABINETS / SHELVING (W/O A COUNTER ABOVE) MEET AT AN INSIDE CORNER OF A ROOM, A HORIZONTAL CLOSURE PANEL SHALL
- BE PROVIDED AT THE TOP TO CLOSE OFF VOID SPACE BELOW. TYPICAL COUNTERTOP CONSTRUCTION SHALL BE MINIMUM 3/4" PARTICLE BOARD WITH HIGH PRESSURE DECORATIVE LAMINATE AT TOPS AND BACKSPLASHES WITH 1 1/2" FRONT SELF EDGE UNLESS NOTED OTHERWISE. PVC EDGE BANDING, 0.12", (3mm) THICK, MATCHING LAMINATE COLOR, PATTERN, AND FINISH, TO BE AT VERTICAL COUNTER TOP SURFACES. RADIUS OUTSIDE COUNTER CORNERS WITH 1" RADIUS.
- 8. FURNISH AND INSTALL 3mm PVC EDGE BANDING (64023.K1) AS REQUIRED AT ALL EXPOSED CABINET FACE FRAME, SHELF, DOOR, AND DRAWER EDGES.
- . SEE TYPICAL ACCESSORY MOUNTING HEIGHT DETAIL ON SHEET A1.2.

Reference Notes

6.02	SIDE / END / LEG PANELS. TYPICAL AT UPPERS AND BASE CABINETS.
6.03	TYPICAL CABINET COMPONENT IDENTICAL AT UPPERS AND BASE CABINETS.
6.05	NO BACKSPLASH.
10.02	PAPER TOWEL AND SOAP DISPENSER(S). O.F./C.I.
11.01	O.F.C.I. FLAT SCREEN TV.
22.01	SINK. SEE PLUMBING DOCUMENTS.

Keyed Notes

064116.A1	3/4" MELAMINE COATED PARTICLE BOARD
064116.A2	1/2" MELAMINE COATED PARTICLE BOARD
064116.C1	3/4" PARTICLE BOARD
064116.D1	H.P. DECORATIVE LAMINATE - EXPOSED EXTERIOR SURFACES
064116.D2	H.P. DECORATIVE LAMINATE - TOPS, EDGES, AND BACKSPLASH
064116.E1	ADJUSTABLE SHELVES ON 32MM SYSTEM SHELF SUPPORTS - 3/4" MELAMINE COATED PARTICLE BOARD
064116.F1	DRAWER(S) ON SLIDES W/ PULL(S)
064116.G1	DOOR(S) ON HINGES W/ PULL(S)
064116.N2	1/4" PLEXIGLASS SHELVES
101100.B1	VINYL FABRIC FACED CORK TACKBOARD





 $1 \frac{\text{REFLECTED CEILING PLAN - AREA F}}{1/8" = 1'-0"}$

General Notes

- . SEE SPECIFICATIONS FOR SUSPENDED PANEL INSTALLATION REQUIREMENTS.
- 2. SEE ROOM FINISH SCHEDULE SHEET A4.1 FOR ADDITIONAL REQUIREMENTS.
- . COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.

Reference Notes

Keyed Notes

(055000,01) STEEL PIPE GRID SYSTEM 2 095113.44 SUSPENDED ACOUSTICAL PANEL CEILING, IMPACT RESISTANT PANELS



4 ∖ A7.9/

-(I)

(11)

NORTH





ARCHITECTS 2400 E. Riverwalk Drive Boise, Idaho 83706 www.lkvarchitects.com 208.336.3443 M # $\overline{}$ 0 N School School District No Elementary Idaho jē, Ы **Jerome** N. 100 E. Jer Jerome Jel DATE: 02/11/2022 LKV PROJECT #: 2120 DRAWN BY: Author CHECKED BY: Checker BID SET DRAWING NO .: A11.7 REFLECTED CEILING PLAN – AREA F



April 8 2022

BHB STRUCTURAL 390 E. Corporate Drive Ste. 104 Meridian, ID 83642

Brook Thornton LKV Architects

p. 208 891 7157 **bhbengineers.com**

RE: Jerome ES - Addendum #2 Structural Narrative

Following are the changes to the structural sheets in Addendum #2:

- S1.16
 - Added additional loading for trusses over the stage

Sincerely

Drew Morgan, SE Associate, BHB Consulting Engineers, P.C.



TYP	B C D E			A R 2400 Boise 208.3	C I E. R Jacobia Jacob	HITE iverwalk ho 83706 rchitects. 443	C T S Drive com
	(F)	MARK DESIGNATION CONNECTION WB-12A (2) 2x12 (2) 2x12	390	BHE East Mei bhb(S S Corp ridiar 1-20 @bh	FRUC porate Dr n, Idaho & 8-891-71 benginee	FURAL rive, Ste. 10 33642 57 ers.com
TYP AT MASONRY		WB-12B (3) 2x12 WB-12C (3) 1.3/4"x11.1/4" LVL		Date	4/1/22	4/8/22	
55.12		WOOD POST SCHEDULE (WP-x) MARK DESIGNATION CONNECTION WP-6A (2) 2x6 (2) 2x6 WP-6B (3) 2x6 (3) 2x6 WP-6C 6x6 DFL NO. 2 (2) 2x6 ROOF FRAMING DESIGN LOADS ROOF FRAMING DESIGN LOADS 20 psf		A Description	1 Addendum #1	2 Addendum #2	
7		 IOTAL LOAD 43 pst ROOF FRAMING PLAN NOTES VERIFY ALL ROOF OPENINGS FOR MECHANICAL SHAFTS, DRAINS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. ALL JOISTS SHALL HAVE 5" DEEP BEARING ENDS (UNO). ALL ROOF OPENINGS GREATER THAN, OR EQUAL TO, 12" x 12" SHALL BE FRAMED AS INDICATED IN DETAILS 1/S5.12 AND 2/S5.12 FOR OPENINGS WHICH CUT LESS THAN TWO DECK FLUTES, SEE DETAIL 3/S5.12. SEE DETAIL 10/S5.12 FOR STEEL BRACE DETAIL CONNECTIONS AND LOCATIONS. SEE DETAIL 4/S5.12 WHEN CONCENTRATED LOADS ARE LOCATED MORE THAN 6" FROM JOIST PANEL POINT. SEE DETAIL 5/S5.12 WHEN MECHANICAL UNITS ARE HUNG BELOW JOISTS. VERIFY SIZE, WEIGHT, AND LOCATION OF ALL ROOF TOP MECHANICAL UNITS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. SEE DETAIL 6/S5.12 FOR STEEL FRAMES AT ALL ROOF TOP EQUIPMENT. COORDINATE OPENINGS WITH MECHANICAL DUCTWORK WITH MECHANICAL DRAWINGS. CONFIGURE TRUSS WEBBING TO ALLOW FOR DUCTWORK AS REQUIRED. JOIST SUPPLIER SHALL DESIGN ALL ROOF JOIST BEARING ENDS AT WALLS TO TRANSFER 1250lbs 					
	G	 (ALLOWABLE) AXIAL LOAD THROUGH JOIST BEARING ENDS. 10. OPEN WEB STEEL JOISTS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN. 11. JOIST BRIDGING SHOWN ON PLANS IS FOR REPRESENTATION ONLY; ACTUAL SIZE, QUANTITY, AND LOADSTONMUL DE DETERMINED BY THE JOIST OWNED FOR IS TO BE TO WE DEDUCIDED TO THE AND AND 				~ -	
TYP 1 55.13 WSW-6A-6	(H) (I)	 LOCATION WILL BE DETERMINED BY THE JOIST SUPPLIEN PER SJT REQUIREMENTS. ALL BRIDGING AND BRIDGING ANCHORS NEED TO BE IN PLACE BEFORE APPLYING ANY LOADS. WHERE SKYLIGHT OR MECHANICAL UNITS/DUCTS INTERRUPT HORIZONTAL BRIDGING, PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE OF THE OPENING. WHERE DIAGONAL BRIDGING CONFLICTS WITH MECHANICAL DUCTS, REMOVE DIAGONAL BRIDGING AND REPLACE WITH HORIZONTAL BRIDGING AFTER ROOF DECK IS IN PLACE. SEE DETAIL 1/S5.11 FOR FRAMING AROUND ALL OPENINGS IN TRUSS ROOF FRAMING SEE DETAIL 5/S5.11 FOR TYPICAL BUILT-UP BEAM DETAIL. SEE DETAIL 2/S5.11 FOR TYPICAL TOP PLATE SPLICE DETAIL. SEE DETAIL 3/S5.11 FOR TYPICAL TOP PLATE SPLICE DETAIL. SEE DETAIL 3/S5.02 FOR CONDITION AT RECESSES IN MASONRY WALLS. SEE DETAIL 4/S5.02 FOR TYPICAL CONTROL JOINTS IN MASONRY WALLS. SEE DETAIL 5/S5.02 FOR TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALLS. SEE ARCHITECTURAL PLANS FOR DIMENSIONS TO ALL STEEL COLUMNS. JOIST DESIGNER SHALL DESIGN JOISTS AND SUPPLY ADDITIONAL BRIDGING AS REQUIRED FOR UPLIFT DUE TO WIND. ASSUME: 0.6DL = 12psf <u>0.6WL = 21psf (UPLIFT)</u> 9psf NET UPLIFT (ASD) 		monton, Cobool		nool District No. 26	Idaho
8		21. INDICATED TRÜSSES SHALL BE DESIGNED FOR A 500# POINT LOAD AT ANY POINT ALONG THE BOTTOM CHORD.				e Sch	Jerome,
	NORTH	Key Plan		DATE LKVI DRAV CHEO Bid DRA RO		bruary 1' JECT #: 3Y: TNT D BY: DM t IG NO.: RAMING F ARFA F	и 1 2022 210947 16 16 РГАМ –



OVER 45 YEARS OF ENGINEERING EXCELLENCE

Addendum #2

(ELECTRICAL/MECHANICAL/PLUMBING)

Project:	<u>Jerome Elementary School</u>		
Sheet:	1 of 3	Attention:	Brook Thornton
Prepared By:	Angelo Neglia/Chris Dyke		Boise, ID 83706
Job Number:	21-422		2400 E. Riverside Drive
Date:	04-08-2022	To:	LKV Architects

Electrical:

Prior Approvals:

- 1. Sheet E10.1 LIGHTING FIXTURE SCHEDULE:
 - a. Type F1; WE-EF Lighting, FLC230 LED series Floodlight
 - b. Type TL1; Intense Lighting, TEK IPS8 Series two circuit, two neutral, 8' track system.
 - i. Track Head; Intense Lighting, GTM Series LED dimmable track head.

Specification Revisions:

1. Specification Section 271500- Telecommunications Cabling has been added.

Plan Revisions:

- 1. Sheet E3.3 FIRE ALARM PLAN AREA C
 - a. Add door holds, relay and command module to door C120, Corridor C120 and add to circuit to LC1-7.
- 2. Sheet E6.8 ENLARGED KITCHEN PLAN
 - a. Move disconnects under dish washer on north CMU wall to new furred out wall, Dishwasher E107b
- 3. Sheet E7.1 SPECIAL SYSTEMS PLAN AREA A
 - a. Add card reader at door A100a, Vestibule A100
 - b. Move card reader closer to door A109c
 - c. Updated keynote #17
- 4. Sheet E7.2 SPECIAL SYSTEMS PLAN AREA B
 - a. Add card reader at door B100a, Vestibule B100.
 - b. Updated keynote #15
- 5. Sheet E7.3 SPECIAL SYSTEMD PLAN AREA C
 - a. Added keynote #20 to door C100b, Security Vestibule C100.
 - b. Updated keynote #18 and #20



OVER 45 YEARS OF ENGINEERING EXCELLENCE

- 6. Sheet E7.4 SPECIAL SYSTEMS PLAN AREA D
 - a. Add card reader at door D100a, Vestibule D100.
 - b. Updated keynote #18
- 7. Sheet E7.5 SPECIAL SYSTEMS PLAN AREA E
 - a. Updated keynote #24
- 8. Sheet E7.6 SPECIAL SYSTEMS PLAN AREA F
 - a. Updated keynote #24
- 9. Sheet E7.7 SPECIAL SYSTEMS PLANS ADD ALTERNATES 1 & 2
 - a. Add card reader at door A100a, Vestibule A100

Mechanical:

Equipment Approvals:

The following manufacturers shall be approved for bidding only. Final approval shall be based on requirements of plans and specifications. These manufactures are to be approved along with approved manufacturers listed on equipment schedules.

Hot Water Boilers: Armstrong International - ABH Boiler

RTU: Rheem

Water Source Heat Pumps: Aaon

Plumbing:

Plan Revisions:

- 1. Sheet P2.2 PLUMBING PLAN AREA B
 - a. Relocated piping behind sink S-1 in Talented and Gifted B121 to new furred out wall.
- 2. Sheet P4.1 ENLARGED PLUMBING PLAN
 - a. Relocated piping behind K-1 & K-3 to added furred out wall.



OVER 45 YEARS OF ENGINEERING EXCELLENCE

Attachments:

Specification 271500 Sheet E3.3 – FIRE ALARM PLAN – AREA C Sheet E7.1 – SPECIAL SYSTEMS PLAN – AREA A Sheet E7.2 – SPECIAL SYSTEMS PLAN – AREA B Sheet E7.3 – SPECIAL SYSTEMD PLAN – AREA C Sheet E7.4 – SPECIAL SYSTEMS PLAN – AREA D Sheet E7.5 – SPECIAL SYSTEMS PLAN – AREA E Sheet E7.6 – SPECIAL SYSTEMS PLAN – AREA F Sheet E7.7 – SPECIAL SYSTEMS PLANS – ADD ALTERNATES 1 & 2

Sheet P2.2 – PLUMBING PLAN AREA B Sheet P4.1 – ENLARGED PLUMBING PLAN

End of Addendum

SECTION 271500 TELECOMMUNICATIONS CABLING

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Communications System Overview
- B. Communications System Requirements
- C. Communications cabinets, racks, frames and enclosures
- D. Communications termination blocks and patch panels
- E. Communications cable management and ladder rack
- F. Communications rack mounted power protection and power strips
- G. Grounding
- H. Communications system requirements for backbone optical fiber cabling
- I. Communications pathway system requirements for wire basket tray and j-hooks
- J. Communications system requirements for horizontal four pair twisted pair Category 6A copper cabling
- K. Category 6A four pair cable

1.2 PRODUCTS INSTALLED BUT NOT SUPPLIED UNDER THIS SECTION

- A. All conduit and EMT required for Communications cabling pathway in/out of cross connect closets and in/out of wall cavities at the work area. EMT or Conduit for pathways shall have no more than two 90-degree bends and no continuous section over 100'.
- B. All core holes and poke through devices in the floor for the installation of Communications cabling.
- C. All core holes and EMT sleeves between floors for the routing of Communications cabling.
- D. Back boxes for the mounting of NEMA rated faceplates.
- E. Drag line or pull string at the back boxes fished through EMT or conduit to the other end for installing 4 pair and multi-pair cables.

1.3 RELATED SECTIONS

- A. Section 000000 Procurement and Contracting requirements.
- B. Section 010000 General Requirements
- C. Section 260500 Electrical General Provisions
- D. Section 271100 Communications Equipment Room Fittings
- E. Section 271300 Communications Backbone Cabling
- F. Section 271500 Communications Horizontal Cabling

1.4 REFERENCES

- A. ANSI/TIA 568-C.0 Generic Communications Cabling for Customer Premises.
- B. ANSI/TIA 568-C.1 Commercial Building Telecommunications Cabling Standard, Part 1: General Requirements.
- C. ANSI/TIA 568-C.2 Commercial Building Telecommunications Cabling Standard, Part 2: Balanced Twisted-Pair Cabling Components
- D. ANSI/TIA 568-C.3 Commercial Building Telecommunications Cabling Standard, Part 3: Optical Fiber Cabling Components Standard
- E. ANSI/TIA 569-B Commercial Building Standards For Telecommunications Pathways And Spaces
- F. ANSI/TIA 606-B The Administration Standard For The Telecommunications Infrastructure Of Commercial Building
- G. ANSI/TIA-607-B Commercial Building Grounding And Bonding Requirements For Telecommunications
- H. TIA-536-14-A Optical Power Loss Measurements of Installed Multimode Fiber Cable Plant OFSTP-14A
- I. ANSI/TIA-942 Telecommunications Infrastructure Standard for Data Centers
- J. BICSI Telecommunications Distribution Methods Manual (TDMM) 12th Edition
- K. ISO/IEC 11801 Information Technology Generic Cabling for Customer Premise
- L. ISO/IEC 11801 Class EA (Category 6A) Standard

- M. IEEE 802.3 Standard for Information technology -Telecommunications and information exchange between systems - Local and metropolitan area networks – Specific requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications
- N. IEC 61156-1, Multicore and Symmetrical Pair/Quad Cables for Digital Communications Part 1: Generic Specification, 2005
- O. NFPA-70 National Electrical Code 2008 edition
- P. NECA/BICSI-568-A Standard for Installing Commercial Building Telecommunications Cabling
- Q. Federal Communications Commission Part 15 and Part 68
- R. UL 444 Standard for Safety of Communications Cable
- S. UL 1666 Standard for Safety of Flame Propagation Height
- T. NFPA 262 Flame Travel and Smoke of Wires and Cables
- U. Local Authority Having Jurisdiction

1.5 DEFINITIONS

- A. ANSI American Northern Standards Institute
- B. AWG American Wire Gauge
- C. BICSI Building Industry Consulting Service International
- D. EIA Electronics Industry Alliance
- E. ETL Intertek Semko Labs
- F. FCC Federal Communications Commission
- G. IEC International Electrotechnical Commission
- H. IEEE Institute of Electrical and Electronic Engineers
- I. IDC Insulation displacement contact
- J. ISO International Standards Organization
- K. J-STD Joint Standard
- L. NECA National Electrical Contractors Association
- M. NFPA National Fire Protection Agency
- N. SC Subscriber Channel
- O. TIA Telecommunications Industry Association
- P. UL Underwriters Laboratory
- Q. 10GBase-T networking protocol capable of transmitting 10 billion bits of information per second over copper twisted pair.
- R. 10GBase-SX networking protocol capable of transmitting 10 billion bits of information per second over optical fiber at 850 nanometers.

1.6 SYSTEMS DESCRIPTION

- A. As a basis of design the structured cabling system as identified in this specification is based on the nCompass[™] solution. It is not the intent of the specification to require the installation of the nCompass[™] solution, but to set the standards of the cabling system.
- B. Horizontal copper cabling system consists of Category 6A (Augmented) cables with four unshielded twisted pairs of solid annealed copper wrapped in riser rated insulation with an overall riser rated jacket (Max OD of .275) with a wire thickness of 23 AWG. Each four pair cable is terminated onto 8 position 8 conductor Category 6A connectors using 110 style IDCs. Connectors are placed into NEMA rated faceplates at the work area and placed into rack mounted patching panels in the equipment / networking rooms.
- C. Copper cabling system use a 4 pair unshielded twisted pair cable that is capable of transporting and supporting network speeds up to 10 Gigabits per second.
- D. Copper cabling system is capable of supporting baseband signaling for voice, data or video applications.
- E. Cabling system is a modular system utilizing an 8 position 8 conductor jack and plug for termination and interface.
- F. Cabling system components are expected to provide more than 25 years of continuous operation.
- G. Communications cables pathways are to provide support to communications cables as they route from equipment room to outlet locations
- H. Backbone optical fiber cabling system consists Laser Optimized single-mode glass in 6-strand configuration with color coded 900 micron buffer tubing wrapped with an Aqua riser jacket. All strands are terminated using a Pre-Polished multimode SC connector and placed into rack mounted metal panels with plates containing adapter sleeves to couple the connectors together for a physical contact. Panels are placed only in the

equipment / network rooms. Optical fiber cable and copper backbone components are expected to provide more than 25 years of continuous operation.

- I. Horizontal coax cabling system consists of RG6 coax cable from equipment room to specified outlet locations. Each RG6 terminates with a compression F-connector at out let and equipment room. At outlet connect terminated RG6 to feed through F-connector in faceplate. Connect terminated RG6 to feed through Fconnector in rack mounted patching panel in equipment/ networking rooms.
- J. Racks are used for the mounting and housing of passive and active networking equipment. All cabinets and racks utilize threaded screws to mount 19" spaced equipment.
- K. Termination blocks and patch panels are used for the termination of unshielded twisted pair cabling and optical fiber cabling.
- L. Termination blocks and patch panels are used for patching and cross connecting network edge devices to communicate with network switching equipment.
- M. Ladder racking within the communications room is used as a pathway for communications cable to route from the wall area over to the racks and cabinets.
- N. Cable management products are used within the racks and cabinets along with wall termination blocks to route communication cables to their termination / patching points while maintaining required bend radius requirements
- O. Pathways for communications cables consist of wire basket tray and j-hooks. Install per manufactures recommendations.
- P. Rack mounted power protection for surge suppression, transient voltage suppression and current draw metering are necessary to protect sensitive networking equipment from damage while allowing for a centralized location for equipment power.
- Q. Grounding for communications system to comply with ANSI/TIA 607-B
- R. Fire stop sleeves shall be installed when penetrating through a fire rated wall. Restore wall to original rating. Provide sleeve that requires no maintenance and allows for 0 to 100 percent cable fill.

1.7 SUBMITTALS

- A. Prior to Installation
 - 1. Submit cut sheets of material to be used.
 - 2. Provide a hard copy and soft copy of proposed test results to be submitted in the tester's native format
 - 3. Coordinate with owner on rack and ladder racking layout within the equipment rooms.
- B. Prior to final acceptance
 - 1. Ensure all warranties specify that the Owner is entitled to all rights guaranteed by the warranty for various components.
 - 2. Provide a 3' by 3' hard copy and soft CAD copy As-Built of the floor plan showing pathway, footages and labeling sequence of all optical fiber cables, copper cables, copper pairs and fiber strands upon Substantial Completion.
 - 3. Provide 1 copy of printed and 1 soft copy of all Tier 1 test results in its native format using an OLTS.
 - 4. Provide an affidavit by an Executor of the Communications Contractor that all backbone copper pairs have been verified for continuity using a hand held tester.
 - 5. Provide a warranty statement from the connectivity Manufacturer for applications assurance and that the Owner is entitled to all rights guaranteed by the warranty.
- C. Warranty
 - 1. Communications Contractor shall provide a 1-year parts and labor warranty against defective workmanship and/or system component failure.
 - 2. Communications Contractor shall execute a Lifetime Applications Assurance Warranty for 10GBase-SX up to 300 meters for parts and labor from the connectivity Manufacturer.
 - 3. Communications Contractor shall execute a Lifetime Applications Assurance Warranty for analog / digital voice applications up to 800 meters for parts and labor from the connectivity Manufacturer.
 - 4. Communications Contractor shall execute a Lifetime warranty against materials defect and an Applications Assurance Warranty for 10GBase-T applications for parts and labor from the connectivity Manufacturer.

1.8 QUALITY ASSURANCE

A. Qualifications TELECOMMUNICATIONS CABLING

- 1. Install all components as directed by Manufacturer's installation guidelines.
- 2. All products shall bear the mark of UL or ETL for performance level.
- 3. System installation shall meet all applicable Local/State codes and safety requirements where project is located.
- 4. All products shall be new and un-used in original packaging.
- B. Bidder Qualifications
 - 1. Contractor shall have experience in the installation and testing of similar systems as specified herein and shall have completed at least two projects of similar size and scope within the last 24 months. The Contractor shall provide references upon request (including the project name, address, date of implementation, client name, title, telephone number, and project description).
 - 2. The Contractor bidding on communication systems specified herein shall be certified by the manufacture of the cabling and equipment utilized. The awarded contractor must be able to install, service, and warranty the specified product prior to the time of bid and throughout the duration of the installation; or, the bidding Contractor shall utilize a sub-Contractor(s) certified by the manufacture. The awarded contractor must be eligible to support the Limited Lifetime Warranty. Manufacturer certifications shall not be project specific and should be valid for any and all projects completed by Contractor.
 - 3. The Contractor must meet all training requirements of the manufacture. The contractor must be in good standing with minimum 30% of the technicians on site and at least one manager current with the required training.
 - 4. The contractor is responsible for workmanship and installation practices in accordance with manufacture's requirements.
 - 5. The Contractor must maintain a state Contractor's license as required by the state.
 - 6. The Contractor installing the structured cabling shall have a RCDD functioning as project manager. The Contractor's RCDD/project manager shall complete at a minimum the following tasks.
 - a Review and submit Contractor's shor drawings
 - a. Review and submit Contractor's shop drawings.
 - b. Conduct weekly site visits to review the installation and progress of the structured cabling during the communications installation phase of the project.
 - c. Review and sign completed punch list items.
 - d. Review and submit Contractor's as-built documentation.

1.9 DELIVERY, STORAGE, AND PROTECTION

- A. Communications Contractor shall ensure that materials delivery to work area shall be coordinated with construction site manager responsible for materials distribution to all trades.
- B. Communications Contractor is responsible for all materials, tools and vehicles left on the job site.
- C. Communications Contractor shall coordinate a disposal bin for the removal of all trash produced by the Communications Contractor personnel during the project.
- D. Communications Contractor shall ensure materials are stored in an environmental area where:
 - 1. Temperature does not exceed 120 degrees Fahrenheit nor below 32 degrees Fahrenheit.
 - 2. Humidity does not exceed 80 %.
 - 3. No direct exposure to sunlight.
- E. Follow Manufacturer's recommendations for handling of materials.

1.10 PROJECT CONDITIONS

- A. Environmental Requirements
 - 1. Communications Contractor shall ensure that any pollutants produced during the Work is disposed off according to local, state or national regulations. Follow the most stringent guidelines.
 - 2. It is preferred that the Communications Contractor recycle any used or un-used components during the course of the construction project.
- B. Field Measurements
 - 1. Communications Contractor shall coordinate with electrical engineer on project that the main electrical service ground has a resistance to earth of less than 5 ohms.
 - 2. Communications Contractor shall ensure that all grounding bus bars for all equipment /network rooms shall have a resistance of less than 1 ohm back to the main electrical service ground.
 - 3. Communications Contractor shall ensure that all field testers have been calibrated from the Manufacturer within 1 year.

1.11 SEQUENCING

A. Communications Contractor shall coordinate with Owner's project manager on sequencing of various trades and construction teams for the lifecycle of the project.

1.12 SCHEDULING

- A. Communications Contractor shall provide a detailed construction schedule with hard dates for completion of roughing in cables, terminations and testing once scheduling sequence has been determined to the Owner's Project Manager.
- B. Cabling schedule shall be in a software program designated by the Owner's Project Manager.

1.13 MAINTENANCE

- A. Extra Materials provide to Owner at completion of project
 - 1. 6 horizontal wire managers.
 - 2. Provide to Owner at completion of project patch cords. Parch Cords shall be EZ Patch, patch cord dispensing solution
 - 3. 150 3' Category 6A patch cords blue Ortronics # EZC6A03Q50-06
 - 4. 250 5' Category 6A patch cords blue Ortronics # EZC6A05Q50-06
 - 5. 150 7' Category 6A patch cords blue Ortronics # EZC6A07Q40-06

1.14 WARRANTY

- A. Communications Contractor shall provide a 1-year parts and labor warranty against defective workmanship and/or system component failure.
- B. Limited Lifetime warranty will be required as described below for the following systems or system components
 - 1. Category 6A+ Cabling, Connectivity Hardware, and Patch Cables shall be covered by a, Limited Lifetime warranty labor, and application assurance warranty. The application assurance portion shall provide coverage for the cabling system to support the applications that are designed for the specifications outlined in TIA/EIA 568-C.0-2. These applications include, but are not limited to 10BASE-T, 100BASE-T, 100BASE-T, 10GBase-T and 155 Mb/s ATM
- C. Telecommunication Contractor must submit all materials and documentation required to meet the manufacturer's warranty requirements.
- D. Telecommunication Contractor shall provide a signed Warranty Registration Form and warranty certificate to the Owner.
- E. Communications Contractor shall execute a Lifetime Applications Assurance Warranty for 10GBase-SX up to 300 meters for parts and labor from the connectivity Manufacturer.
- F. Communications Contractor shall execute a Lifetime Applications Assurance Warranty for analog / digital voice applications up to 800 meters for parts and labor from the connectivity Manufacturer.
- G. Communications Contractor shall execute a Lifetime warranty against materials defect and an Applications Assurance Warranty for 10GBase-T applications for parts and labor from the connectivity Manufacturer.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. All racks, cabinets, horizontal wire management, vertical wire management, grounding bars and ladder racking shall be manufactured by Ortronics, Chatsworth, or Belden.
- B. All termination blocks, patch panels and rack mounted power strips with power protection shall be manufactured by Ortronics, Leviton Network Solutions, or Belden
- C. Fiber Optic Cabling: Superior Essex, Berk-Tek, or Belden.
- D. Category 6A connectors: Ortronics, Leviton, or Belden.
- E. Category 6A cable: Superior Essex, Leviton, or Belden.
- F. Wire basket tray: Cablofil or Chatsworth
- G. Specified Technologies Inc. (STI) for all fire stopping products.

2.2 SYSTEM PERFORMANCE

- A. Horizontal four pair Category 6A copper cabling system shall be capable of supporting 10GBase-T applications for a total distance of 100 meters with equipment cords.
- B. Backbone multipair Category 3 copper cabling system shall be capable of supporting analog and digital voice grade applications that operate at or below 16 Megahertz for a total distance of 800 meters with equipment cords.
- C. Backbone optical fiber cabling system shall be capable of supporting 10GBase-SX applications for a total distance of 300 meters with equipment cords.
- D. Component Requirements
 - 1. Attributes Optical Fiber
 - a. Optical cable is a single-mode Laser Optimized optical fiber system.
 - b. Optical fiber cable is used as part of a cabling system in a panel to panel system utilizing duplex Subscriber Channel (SC) Pre-Polished connectors coupled through a ceramic sleeve plastic housing as the interface.
 - c. Optical fiber cable shall provide for the continuous operation of transporting short wavelength light without introducing bit errors onto the transport system.
 - d. Optical fiber cable shall be a tight buffered distribution fiber with pull strength members with an Aqua color for intra building connections.
 - e. Optical fiber cable shall be loose tube loose tube single jacket all dielectric for inter building connections.
 - 2. Tests Optical Fiber
 - a. Testing shall be performed using a Tier 1 tester such as an OLTS at the wavelength of 850 nm and 1300 nm.
 - b. Communications Contractor shall comply with encircled flux testing. (TIA-526-14-B)
 - c. Test results shall be bi-directional showing a power loss not greater than 2.0 dB as part of a cabling system.
 - d. One hard copy of all test results shall also be provided to the Owner upon substantial completion.
 - e. All testers used shall be calibrated by the Factory within 1 year to ensure accuracy.
 - f. Tier 2 testing using an OTDR is required if the Contractor splices any optical fiber strands.
 - 3. Attributes Category 6A Cable
 - a. All connectivity and cable shall have an Category 6A designation or 10 Gig. designation permanently and visibly displayed on the component.
 - b. Copper cable shall have a flame retardant and low smoke Polyvinyl Chloride jacket.
 - c. Copper cable shall have a maximum nominal outer diameter of .275" with a completely round dimension.
 - d. Category 6A connectors shall utilize a Cone of Silence to provide additional isolation of Alien Crosstalk between the connectors.
 - 4. Requirements Category 6A Cable
 - a. Cable system shall have an Impedance value of 100 ohms.
 - b. All Category 6A cable conductors shall be terminated onto 8 position 8 conductor Category 6A connectors using 110 style IDC.
 - c. All Category 6A connectors shall be placed into front loading faceplates.
 - d. Cable system shall have a minimum two Category 6A blue cables, with additional cables provided where indicated on the plans, installed at every faceplate for information access except for wall mount phones and Access Point antennas.
 - e. Wall mount phones and Access Point antennas shall receive one blue Category 6A cable for information access.
 - f. Appearance of cable system faceplates shall match the décor and mounting height of electrical outlet faceplates.
 - g. All faceplates shall have a station identification window for a machine label protected behind transparent plastic.
 - h. Copper cable shall be Superior_Essex # 6H-272-2A 10Gain XP Category 6A cable.
 - i. Category 6A Connector shall be Ortronics # OR-TJ6A.
 - j. Patch panel shall be Ortronics # OR-PHD6AU48.
 - k. Patch cords shall be Ortronics # OR-MC610xx-06 in (EZ Patch box) Category 6A equipment cords where "xx" shall be footage required.
 - I. Faceplate shall be Ortronics # OR-403STJ1x stainless steel wall plate with top and bottom designation windows to hold a machine label where "x" shall be port quantity required.

- m. Copper cable conductors shall be constructed of 23 AWG solid annealed bare high-quality copper inside insulation comprising of Flourinated Ethylene Propylene (FEP).
- n. Copper cable shall contain eight conductors and twisted into four pairs consisting of a blue/blue-white, orange/orange-white, green/green-white and brown/brown-white configuration.
- o. Copper cable shall have a web separator between all pairs.
- p. Copper cable shall have a non-conductive isolation wrap layer.
- q. Copper cable shall use a Quick Count marking system.
- r. Category 6A connector shall be made of high impact thermoplastic UL 94V-O rating.
- s. Category 6A connectors and patch panel ports shall use 110 type Insulation Displacement Contacts for the termination of copper cable conductors.
- 5. Tests Category 6A Cable
 - a. Test results for all Category 6A copper cables shall be provided on CD in a Level V tester's native format.
 - b. All tests shall have a "PASS" result for all required parameters from the frequency of 1 to 500 MHZ.
 - c. One hard copy and one soft copy in the tester's native format of all test results shall be provided to the Owner upon substantial completion.
 - d. Test results showing an asterisk (*) will not be accepted as it is below the acceptable margin of the tester's accuracy limits.
 - e. All test results shall show electrical performance of the cabling system from 1 500 MHz when testing for Insertion Loss, Near End Crosstalk, Power Sum Near End Crosstalk, Attenuation to Crosstalk Ratio Far End, Power Sum Attenuation to Crosstalk Ratio Far End and Return Loss.
 - f. 1% or 5 cables shall be subjected to a measurement for Alien Crosstalk at the Near end and Far end of the cabling link if required for the warranty. Alien Crosstalk testing shall be done with Fluke Networks Alien Crosstalk software.
 - All testing shall be done with a Fluke Networks DSX 5000.
- 6. Racks

g.

- a. Free standing 4-post equipment rack shall be Ortronics #OR-MM20720FXD38-X or equal.
- b. Free standing 2-post equipment rack shall be Ortronics #OR-MM6710 or equal.
- c. Free standing equipment racks used for the mounting and housing of passive and active networking equipment shall be made of strong and lightweight aluminum powder coated black.
- d. Free standing 4-post racks shall be 84" in height, 23.75" in width, 30" in depth.
- e. Free standing 2-post racks shall be 84" in height, 20.19" in width, 10.5" in depth.
- f. Free standing racks shall accommodate equipment space totaling 45 rack mount units.
- g. Free standing racks shall be sized to accept 19" spaced equipment and handle a total weight load of 1, 500 pounds.
- h. Free standing racks have side rails tapped on both sides with universal hole patterns for threaded 12-24 screws.
- 7. Termination blocks
 - a. Termination blocks shall be Ortronics 300 pair blocks # OR-30200007 for Category 3 multipair cables.
 - b. Vertical wire management shall be Ortronics # OR-806003197.
 - c. Vertical wire management shall be used between fields of various 300 pair blocks to facilitate cross connect wire.
 - d. Termination blocks shall have a mounting frame kit with cable tray, C4/5 connectors, 100 pair bases, horizontal cord managers, label strip holders and white label strips.
 - e. Provide 4'x8' sheet of plywood painted white with fire retardant paint in each equipment room. Coordinate with owner on final install location.
- 8. Coax Patch panels
 - a. Patch panel shall be Ortronics # OR-SPKSU48 flat panel empty.
 - b. F-connector feed through shall be Ortronics # OR-KSFCN module.
- 5. Copper Patch panels
 - a. Patch panel shall be Ortronics # OR-PHD6AU48 110 style Category 6A patch panel.
 - b. Patch panel shall have 24 ports in a height of 3.5" taking up 1 rack mount units.
- 6. Optical fiber patch panel / enclosure

- a. Optical fiber enclosure shall be Ortronics # OR-FC01U-C OptiMo panel for up to 3 adapter plates in a 1.75" height.
- b. Optical fiber enclosure shall be Ortronics # OR-FC02U-C OptiMo panel for 6 adapter plates in a 3.5" height.
- c. Optical fiber enclosure shall be Ortronics # OR-FC04U-C OptiMo panel for 12 adapter plates in a 7" height.
- Optical fiber adapter plate shall be Ortronics # OR-OFP-SCD12LC with 6 duplex MM SC adapter sleeves for OM3 laser optimized fiber.
- e. Fiber enclosures shall be able to accept splice trays.
- 7. Horizontal cable management
 - a. Horizontal cable manager shall have snap-on removable hinged door that opens past 180 degrees and remains open in up position for convenient cable access.
- 8. Vertical cable management
 - a. Vertical cable manager shall have cage design to promote efficient routing of patch cords between racks.
 - b. Vertical cable manager shall have hinged doors and be one solid piece.
- 9. Ladder racking
 - a. Ladder racking shall be aluminum, 12" or 18" wide powder coated black.
- 10. Grounding
 - a. TMGB shall meet EIA/TIA 607 requirements. Be 20"x4"x1/4" and have insulators between copper bar and support bracket.
 - b. TGB shall meet EIA/TIA 607 requirements. Be 12"x2"x1/4" and have insulators between copper bar and support bracket.
 - c. Universal Rack Grounding Bar shall be Ortronics # OR-GBH19KIT.
 - d. Compression Connector Lugs shall be Ortronics # as need per cable size.
- 11. Power protection power strips
 - a. Rack mounted power distribution unit (PDU) shall be rated for 20 Amps and have a 15' twist-lock plug and 8 outlets receptacles.

D.

- 2.3 SOURCE QUALITY CONTROL
 - A. Materials shall be purchased from Distributors authorized by system Manufacturers to sell new and unused components.

PART 3 - EXECUTION

- 3.1 INSTALLATION
 - A. Follow and adhere to installation practices specified by the applicable Telecommunications Industry Association standards.
 - B. Follow and adhere to installation practices specified by BICSI Information Transport System Installation Manual, current edition.
 - C. Follow and adhere to installation practices specified by BICSI Telecommunications Distribution Methods Manual, current edition.
 - D. Follow and adhere to installation practices specified by NFPA-70 National Electric Code, current edition.
 - E. Follow and adhere to installation practices specified by the Manufacturers.
 - F. Free standing racks
 - 1. Assemble free standing racks according to manufacturer's instructions. Verify that equipment mounting rails are sized properly for rack-mount equipment before attaching the rack to the floor.
 - 2. All racks must be attached to the floor in four places using appropriate floor mounting anchors. When placed over a raised floor, threaded rods should pass through the raised floor tile and be secured in the structural floor below.
 - 3. Racks shall be grounded to the telecommunications busbar using #6 AWG green insulated solid copper wire and any necessary attachment hardware provided by the Communications Contractor.
 - 4. The equipment load should be evenly distributed and uniform on the rack. Place large and heavy equipment towards the bottom of the rack. Secure all equipment to the rack with equipment mounting screws.
 - 5. Coordinate with owner for mounting position of rack mount power strips.

- G. Cable management
 - 1. Vertical cable manager shall be installed on every rack vertical rail. Where two rack rails will be butted together there shall be one vertical wire managers between the racks.
 - 2. Horizontal wire managers shall be utilized above and below every copper patch panel.
 - 3. All cables shall sweep in and out of any cable management product without a deformation of cable jacket.
 - 4. Ensure cables are properly supported when using cable management to ensure cables do not sag.
 - 5. Utilize Velcro for securing of cables on cable management
- H. Termination Blocks
 - 1. Mount securely to wood-based backboard at a height of 4' from the ladder racking.
 - Route cable bundles through the back of the mounting frame; secure with Velcro, without overstressing the cables.
 - 3. Position vertical cord managers adjacent to wall mounting frame units with a 2" separation between block frames.
 - 4. When cross connecting wire utilize wire cord managers horizontally and vertically.
 - 5. Label all pairs using included designation strips.
 - 6. Coordinate with owner for final termination block layout
- I. Copper and Fiber patching panels
 - 1. Mount patch panels using supplied screws and ensure panels are at a straight 180-degree orientation.
 - 2. Ensure copper panels have horizontal wire management above and below the panels.
 - 3. Machine label all termination ports on panels with coax number, UTP copper cable number or optical fiber strand number.
 - 4. Route all cables to backside of termination panels in an asymmetrical orientation to ensure cable bundles are split evenly.
 - 5. Utilize rear wire management bars for supporting cables into point of termination.
 - 6. Secure all cables on all panels using Velcro to prevent cables from pulling away.
 - 7. Utilize adapter plates inside enclosures with plastic plungers for quick and tool less mounting inside fiber enclosure.
 - 8. Utilize removable front and rear doors on fiber optic enclosures to route cables in and out of panel
- J. Grounding
 - 1. Coordinate with owner for placement of TMGB and TGB in equipment rooms.
 - 2. Provide one TMGB in MDF. Provide one TGB in each IDF.
 - 3. Connect grounding bus bar with No. 4 AWG
 - 4. Bond metallic equipment to the grounding bus bar with No. 6 AWG
- K. Optical Fiber
 - 1. Install all components in a neat and workmanlike manner.
 - 2. Cabling shall utilize a star topology with no more than 2 levels of backbone.
 - 3. Optical fiber cable length shall not exceed 300 meters.
 - 4. Copper backbone cable length shall not exceed 500 meters for the 1st level and 300 meters for the 2nd level for a total not to exceed distance of 800 meters.
 - 5. Install all copper and fiber backbone cables in accordance with manufacturer's recommendations.
 - 6. All optical fiber cables shall be installed in appropriately rated plastic tubing (innerduct) or interlocking armor for protection.
 - 7. All backbone communications cables hall be installed in pathways and spaces designated for communications cables
 - 8. Ensure pulling tension of copper cables do not exceed a pull load of 25 foot pounds.
 - 9. Ensure pulling tension of optical fiber cables do not exceed a pull load of 50 foot pounds.
 - 10. No splices are permitted in any copper cable.
 - 11. Splices used for optical fiber cables shall not exceed .3 dB.
 - 12. Optical fiber cables and multipair copper cables shall support a bend radius of 10 times the cable outside diameter when not subject to tensile load, and 15 times the cable outside diameter when subject to tensile loading up to the cable's rated limit.
 - 13. Contractor shall provide in a quick and timely fashion any additional materials or labor that may be damaged during the work at no charge to the owner.
 - 14. Pull one additional "Mule Tape" or 1/4" Nylon rope when pulling cables through any conduit.
 - 15. Properly support backbone cables in ceiling every 4'-5' using J-Hooks or cable tray.
 - 16. Provide 20' service loop at both equipment closet ends.
 - 17. Terminate cables so as not to pull tight on terminating equipment.

- 18. Ensure that all splice closures for optical fibers are properly sealed for protection of the cable and splices.
- 19. Neatly and permanently label all backbone cables with the cable number at both ends and at all splice locations.
- 20. Terminate all pairs, conductors and strands at all ends according to manufacturer's instructions following color code sequence.
- 21. Utilize Velcro in all closets.
- 22. Lable all fiber pairs using the 568SC method.
- 23. Fire stop sleeves shall be maintenance free and allow for hassle free installation for future cable installs.
- 24. All optical fiber cable shall be installed in the fiber panels in accordance with the manufacturer's instructions.
- 25. Field test instruments for multimode fiber cabling shall meet the requirements of TIA-526-14-B.
- 26. Test with an Optical Loss Test Set (OLTS) with a calibration sticker that is within 1 year of calibration date.
- 27. The light source shall meet the launch requirements of ANSI/TIA-455-78-B, TIA-568 C.3 and TIA TSB140. This launch condition can be achieved either within the field test equipment or by use of an external mandrel wrap with a Category 1 light source.
- 28. When using a mandrel wrap, the reference jumper should be wrapped in five non-overlapping turns around a smooth round mandrel (rod) during the reference calibration of the source to the detector and for all loss measurements in accordance with TIA-568 C.3 and TIA TSB140
- 29. Link attenuation testing shall use the One Reference Jumper Method specified by TIA-526-14-B, Method B, TIA-526-7, Method A.1, TIA-568 C.3 and TIA TSB140.
- 30. Link attenuation does not include any active devices or passive devices other than cable, connectors, and splices.
- 31. The backbone optical fiber cabling link segment shall be tested in both directions at both operating wavelengths of 850 nanometers and 1300 nanometers to account for attenuation deltas associated with wavelength.
- 32. Because backbone length and the potential number of splices vary depending upon site conditions, the link attenuation equation (1) should be used to determine acceptance values based upon this Standard's component requirement at each of the applicable wavelengths.
- 33. Link Attenuation = Cable Attenuation + Connector Insertion loss + Splice Insertion loss
- 34. Total loss budget for any fiber Channel shall not exceed 2.0 dB
- L. Category 6A Cabling
 - 1. Install all components in a neat and workmanlike manner.
 - 2. Install all horizontal cables and termination frames in accordance with manufacturer's recommendations.
 - 3. Ensure terminations are at 180 degrees to the jack with no more than 1/4" un-twisting and no more than 1/2" un-jacketing.
 - 4. Ensure terminations have no un-twisting and that tower separators are utilized to separate pairs.
 - 5. Ensure that when cables enter equipment rooms that they are bundled and combed to point of termination.
 - 6. Ensure pulling tensions of cables are not exceeded.
 - 7. Maintain proper cable bend radius of 4 times the cable's outer diameter during placement.
 - 8. No splices are permitted.
 - 9. No link shall exceed 90 meters. Contractor is responsible for verifying proper footages.
 - 10. Contractor shall provide in a quick and timely fashion any additional materials or labor that may be damaged during the work at no charge to the owner.
 - 11. Pull one additional "Mule Tape" or 1⁄4" Nylon rope when pulling cables through any conduit utilizing existing pull string.
 - 12. Properly support horizontal cables in ceiling every 4'-5' using J-Hooks or cable tray.
 - 13. Place horizontal cables in pathways and spaces dedicated for communications cables.
 - 14. Provide 5' of slack at station end in ceiling and not inside wall.
 - 15. Machine label all horizontal cables with cable number at both ends.
 - 16. Machine label all termination panels with cable number.
 - 17. Fire stop sleeves shall be maintenance free and allow for hassle free installation for future cable installs.
 - 18. Terminate all pairs and conductors at all ends according to manufacturer's instructions following color code sequence.

- 19. Utilize Velcro in all closets.
- 20. Install all wire basket tray and j-hooks to manufactures recommendations. Supply all necessary part for a complete system.
- 21. Label and document the horizontal cable installation to include labeling and pathways on the As-Built record drawings.
- M. Ladder racking
 - 1. Ladder rack shall be attached to the top of the rack using equipment rack top plate and runway standoff kit to deliver cables to the rack. The rack should not be drilled to attach ladder rack. Use appropriate hardware from the ladder rack manufacturer.
 - 2. Ladder racking shall be supported every 5' with 3/8" threaded rod anchored and secured to permanent ceiling structure where not secured to rack.
 - 3. Loading of cable rack shall not exceed 6" depth and should have retainers every 24" to prevent cables from spilling over the sides.
 - 4. Where ladder racking butts up against wall the appropriately sized wall mount bracket shall be utilized.
 - 5. Ladder racking shall utilize all appropriate radius drop stringers corner bends and other devices to maintain cable bend radius when entering and exiting racks and cabinets.
 - 6. Mating pieces of ladder racking together shall utilize appropriate butt splice and junction splice kits.
 - 7. All cut and exposed sharp ends shall utilize a plastic end cap to prevent injury.
 - 8. Where cables leave ladder racking provide appropriate drop out

3.2 FIELD QUALITY CONTROL

- A. Contractor shall make available all ceiling and termination work for inspection by Manufacturer's representative and/or owner's representative.
- B. Contractor shall replace all defective components.

3.3 ADJUSTING

A. No additional work outside of the contract scope of work shall be completed without the approval of the Owner or Owner's representative.

3.4 CLEANING

- A. Communications Contractor shall wipe down all equipment racks, cabinets and panels prior to turnover to the Owner.
- B. Communications Contractor shall sweep and mop the floors of all equipment rooms or connection point closets prior to turnover to the Owner.

3.5 PROTECTION

- A. It is the responsibility of the Communications Contractor to ensure equipment is protected from dust and water during the project with appropriate materials.
- B. Remove all protective covers and protective materials from equipment prior to turnover to Owner.

3.6 SCHEDULES

- A. Coordinate communications work with Owner's project manager and follow scheduling sequence as established by Owner's project manager.
- B. It is recommended that the Communications Contractor schedule closely with any systems furniture contractor to ensure turnover date is met.

END OF SECTION - 27 15 00







 $1 \frac{\text{PLUMBING FLOOR PLAN - AREA B}}{1/8" = 1'-0"}$

KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

- 1. ROUTE 1" CW LINE UP TO ROOF HYDRANT. SEE SHEET P3.2 FOR CONTINUATION.
- 2. 4" RD & OD LINES FROM ABOVE. SEE SHEET P3.2 FOR CONTINUATION.
- 3. ROUTE RD & OD PIPING ABOVE CEILING THROUGH JOIST WEBBING. (TYPICAL)
- ROUTE PLUMBING LINE UP INTO JOIST SPACE TO AVOID OBSTRUCTIONS ABOVE HALLWAY CEILING.
- 5. ROUTE 3/4" CW & HW DROP TO BACK OF SINKS. ROUTE 1/2" CW & HW TO EACH SINK.
- 6. ROUTE PIPING ABOVE CEILING. (TYPICAL)
- 7. ROUTE RD DOWN IN WALL TO BELOW GRADE. SEE SHEET P1.2 FOR CONTINUATION.
- ROUTE 2" RD DOWN INSIDE COLUMN. PROVIDE WITH WCO & GCO. ELECTRICAL TO PROVIDE HEAT TAPE ON VERTICAL PIPE.
- 9. FIRE CAULK PIPING PENETRATION THROUGH FIRE WALL.
- 10. ROUTE 4" RD DOWN IN WALL TO BELOW GRADE. SEE SHEET P1.2 FOR CONTINUATION. PROVIDE CLEANOUT BEFORE PIPE PENETRATES FLOOR.



ARCHITECTS 2400 E. Riverwalk Drive Boise, Idaho 83706 www.lkvarchitects.com 208.336.3443 SIONAL A 4/7/202 MUSGROVE ENGINEERING, P.A. project number: 21-422 N # 261 School School District No. Elementary N. 100 E. Jerome, Idaho Jerome Jerome DATE: 02/11/2022 LKV PROJECT #: 2120 DRAWN BY: Author CHECKED BY: Checker BID SET DRAWING NO .: P2.2 PLUMBING PLAN AREA B



1/4" = 1'-0"

KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

AREA F

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- SEE REDUCED PRESSURE BACKFLOW PREVENTOR (POINT OF USE) DETAIL #8 ON P5.3. ROUTE TO NEAREST APPROVED DRAIN. ROUTE THROUGH WALL IF REQUIRED.
- 2. SEE REDUCED PRESSURE BACKFLOW PREVENTOR (STACKED) DETAIL #2 ON P5.3. ROUTE TO NEAREST APPROVED DRAIN.
- 3. ROUTE 3/4" HW, 1" CW, 2" GAS AND 2" VENT PIPE DOWN IN FULL HEIGHT WALL. PERPENDICULAR TO HALF HEIGHT WALL. ROUTE ALL PIPING HORIZONTALY THROUGH HALF WALL AND CONNECT TO RPBP'S AND EQUIPMENT AS SCHEDULED IN KITCHEN EQUIPMENT SCHEDULE.
- 4. PROVIDE RPBP-1 FOR HOT WATER AND COLD WATER CONNECTION TO STEAM KETTLES. ROUTE 3/4" HW AND 3/4" CE LINE THROUGH RPBP-1'S THEN SPLIT INTO (2) 1/2" CW AND (2) 1/2" HW FOR CONNECTION TO EACH STEAM KETTLE.
- 5. ROUTE 3/4" CW LINE THROUGH RPBP-1 THEN SPLIT INTO (2) 3/4" CW LINES FOR CONNECTION TO EACH K-5. ROUTE 3/4" LINES THROUGH WATER FILTER AND CONNECTION TO EQUIPMENT PER MANUFACTURER'S RECOMMENDATION.
- ROUTE 3/4" HW LINE THROUGH BOOST HEATER BEFORE CONNECTING TO DISHWASHER. CONNECT TO DISHWASHER PER MANUFACTURER'S RECOMMENDATION. 1/2" CW LINE FOR COOL DOWN KIT ON DISHWASHER.
- ROUTE 3/4" CD FROM FREEZER THROUGH WALL AND SLOPED ALONG WALL IN MECHANICAL ROOM TO FLOOR SINK.
- 8. ROUTE 3/4" CD FROM COOLER THROUGH WALL TO FLOOR SINK.
- 9. ROUTE 3" VTR UP NEAR EXHAUST FAN ON ROOF. COORDINATE EXACT LOCAITON OF VTR WITH FAN LOCATION.
- 10. SEE ENLARGED MECHANICAL ROOM PLAN FOR CONTINUATION OF GAS PIPING.
- 11. ROUTE 1/2" CW LINE THROUGH RBPB-1 AND THEN CONNECTION TO DISPOSER PER MANUFACTURER'S RECOMMENDATION.
- 12. ROUTE 1/2" CW LINE THROUGH WALL TO DRINKING FOUNTAIN IN CAFETORIUM. SEE SHEET P2.6 FOR CONTINUATION.
- 13. PROVIDE GAS CONNECTION AT EACH PIECE OF EQUIPMENT SPECIFIED IN KITCHEN EQUIPMENT SCHEDULE. SEE GAS EQUIPMENT CONNECTION DETAIL #3 ON SHEET P5.1 FOR CONNECTION REQUIREMENTS.
- 14. ROUTE 3/4" CW LINE THROUGH RPBP-1 THEN SPLIT INTO (2) 3/4" CW LINES FOR CONNECTION TO EACH K-13. ROUTE 3/4" LINES THROUGH WATER FILTER AND CONNECTION TO EQUIPMENT PER MANUFACTURER'S RECOMMENDATION.
- 15. GAS SOLINOID SHUT-OFF VALVE. VALVE TO BE CONNECTED TO HOOD CONTROL PANEL.





KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

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- 1. PROVIDE NAC EXTENDER AND AMPLIFIER(S) AS REQUIRED.
- 2. PROVIDE RED HANDLED LOCKABLE TYPE CIRCUIT BREAKER IN PANEL AT POSITION INDICATED.
- 3. CARBON MONOXIDE SENSOR. PROVIDE AND INSTALL A SYSTEM SENSOR C01224 CARBON MONOXIDE SENSOR WITH REAL TEST TECHNOLOGY OR APPROVED EQUAL. CONNECT SENSORS TO THE FIRE ALARM SYSTEM AND PROGRAM FOR MONITORING. ACTUATION OF THE CO DETECTOR SHALL CAUSE THE DEVICE TO SOUND ALERT, AND A SUPERVISORY SIGNAL ON THE FIRE ALARM SYSTEM. PROVIDE AND INSTALL ALL CABLING, HARDWARE, RELAYS, AND PROGRAMMING FOR A COMPLETE SYSTEM. SENSOR SHALL NOT BE A COMBINED SMOKE/CO DETECTION DEVICE.
- 4. FLUSH MOUNTED REMOTE FIRE ALARM ANNUNCIATOR. VERIFY LOCATION WITH AHJ PRIOR TO ROUGH-IN.
- 5. FLUSH MOUNTED REMOTE FIRE ALARM COMMAND STATION WITH LOCKABLE COVER. VERIFY LOCATION WITH AHJ PRIOR TO ROUGH-IN.
- KNOX BOX WITH ALARM TAMPER SWITCH. COORDINATE LOCATION WITH ARCHITECTURAL PLANS.
- 7. MONITOR MODULE FOR KNOX BOX TAMPER SWITCH. PROVIDE 3/4" CONDUIT FROM KNOX BOX TO ABOVE ACCESSIBLE CEILING. COORDINATE LOCATION AND CONNECTION REQUIREMENTS WITH AHJ PRIOR TO ROUGH-IN.
- 8. PROVIDE MONITOR MODULE AND RELAY FOR DOOR HOLDS. PROGRAM AS REQUIRED TO ALLOW THE FIRE ALARM SYSTEM TO RELEASE FIRE DOORS UPON ACTIVATION OF ADJACENT SMOKE DETECTORS. PROVIDE BACK BOXES, CONDUIT, CONDUCTORS AND ANY ASSOCIATED MATERIALS AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.



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AREA C



1 SPECIAL SYSTEMS PLAN - AREA A 1/8" = 1'-0"

KEYED NOTES:

- (#) SYMBOL USED FOR CALLOUT 1. PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.

- TEACHER STATION DETAIL.
- TV DETAIL.
- PAGE FIRST. RE:POWER PLANS

- 2. PROVIDE DATA OUTLET FOR THE DDC SYSTEM CONTROL PANEL. VERIFY PANEL LOCATION WITH THE CONTROLS CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- 3. CEILING MOUNTED WIRELESS ACCESS POINT (WAP). PROVIDE SURFACE MOUNTED DATA JACK IN CEILING WITH (2) DATA PORTS. PROVIDE DATA CABLING, QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED AND ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- 4. TEACHERS STATION WHISKER FACEPLATE. PROVIDE JUNCTION BOX AND ROUTE 1-1/4" CONDUIT UP WALL TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING AND FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED FROM DATA OUTLET, TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING RE:CLASSROOM
- 5. CLASSROOM TV DATA AND A/V. PROVIDE JUNCTION BOX AT HEIGHT INDICATED AND ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED FROM DATA OUTLET, TO THE DATA RACK INDICATD. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. RE:CLASSROOM
- 6. FURNISH AND INSTALL CEILING MOUNTED TOPCAT CLASSROOM AMPLIFICATION SPEAKER WITH (2) FLEXMICS, MEDIA CONNECT, AND

- INSTALL THE 50-FOOT, 18/2 CABLE BETWEEN THE WALL 7 SPEAKER/CLOCK AND THE CLASSROOM AMPLIFICATION SYSTEM SPEAKER TO ALLOW THE INTERCOM SYSTEM TO OVER-RIDE THE CLASSROOM AMPLIFICATION SYSTEM AND UTILIZE THE ASSOCIATED SPEAKERS DURING ANNOUNCEMENTS. 18/2 CABLE PROVIDED WITH THE CLASSROOM AMPLIFICATION SYSTEM. TERMINATE THE CABLE AT EACH END PER THE INTERCOM INSTALLATION INSTRUCTIONS.
- PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER 8. COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
- TWO WAY COMMUNICATION AND EMERGENCY CALL BUTTON BETWEEN CLASSROOM AND ADMIN AREA. PROVIDE CALL BUTTON AND CABLING REQUIRED COMPATIBLE WITH INTERCOM SYSTEM. COORDINATE SYSTEM REQUIREMENTS WITH INTERCOM SYSTEM INSTALLER.
- 10. ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.
- 11. EXTERIOR ANALOG, FLUSH MOUNTED, INTERCOM SPEAKER WITH VANDAL RESISTANT COVER. SPEAKER TO BE CONNECTED TO THE BUILDING INTERCOM SYSTEM VIA A ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, 4x4 BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK. MOUNT SPEAKER AT 11'-0" AFF. VERIFY MOUNTING HEIGHT PRIOR TO ROUGH IN.

- 12. INTERIOR SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, ABOVE THE ACCESSIBLE CEILING, OR AT THE BUILDING STRUCTURE FOR SECURITY CAMERA CONNECTION. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN DATA RACK INDICATED.
- 13. EXTERIOR WALL MOUNTED SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE A JUNCTION BOX AT 12'-0" AFG AND 3/4" CONDUIT FROM THE JUNCTION BOX TO THE NEAREST ACCESSIBLE CEILING SPACE. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, IN THE JUNCTION BOX. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN THE DATA RACK INDICATED.
- 14. PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.
- 15. DEVICE IN THIS LOCATION UNDER BASE BID CONDITIONS. REFER TO ADD ALTERNATE SPECIAL SYSTEMS PLANS FOR LOCATION UNDER ADD ALTERNATE CONDITIONS.
- 16. STUB (1)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- \cdots STUB (3) 3/4" CONDUITS FROM DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING. STUB ONE CONDUIT FROM TOP OF DOOR FRAME ON LATCH SIDE AND ONE INTO DOOR FRAME AT MIDDLE HINGES ON EACH SIDE OF DOUBLE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.





SPECIAL SYSTEMS PLAN -

AREA A

18. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.





KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

- PROVIDE DATA OUTLET FOR THE DDC SYSTEM CONTROL PANEL. VERIFY PANEL LOCATION WITH THE CONTROLS CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- 2. CEILING MOUNTED WIRELESS ACCESS POINT (WAP). PROVIDE SURFACE MOUNTED DATA JACK IN CEILING WITH (2) DATA PORTS. PROVIDE DATA CABLING, QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED AND ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- 3. TEACHERS STATION WHISKER FACEPLATE. PROVIDE JUNCTION BOX AND ROUTE 1-1/4" CONDUIT UP WALL TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING AND FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET, TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING RE:CLASSROOM TEACHER STATION DETAIL.
- CLASSROOM TV DATA AND A/V. PROVIDE JUNCTION BOX AT HEIGHT INDICATED AND ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED FROM DATA OUTLET, TO THE DATA RACK INDICATD. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. RE:CLASSROOM TV DETAIL.
- 5. FURNISH AND INSTALL CEILING MOUNTED TOPCAT CLASSROOM AMPLIFICATION SPEAKER WITH (2) FLEXMICS, MEDIA CONNECT, AND PAGE FIRST. RE:POWER PLANS
- 6. INSTALL THE 50-FOOT, 18/2 CABLE BETWEEN THE WALL SPEAKER/CLOCK AND THE CLASSROOM AMPLIFICATION SYSTEM SPEAKER TO ALLOW THE INTERCOM SYSTEM TO OVER-RIDE THE CLASSROOM AMPLIFICATION SYSTEM AND UTILIZE THE ASSOCIATED SPEAKERS DURING ANNOUNCEMENTS. 18/2 CABLE PROVIDED WITH THE CLASSROOM AMPLIFICATION SYSTEM. TERMINATE THE CABLE AT EACH END PER THE INTERCOM INSTALLATION INSTRUCTIONS.
- PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.

7

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- 8. TWO WAY COMMUNICATION AND EMERGENCY CALL BUTTON BETWEEN CLASSROOM AND ADMIN AREA. PROVIDE CALL BUTTON AND CABLING REQUIRED COMPATIBLE WITH INTERCOM SYSTEM. COORDINATE SYSTEM REQUIREMENTS WITH INTERCOM SYSTEM INSTALLER.
- ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.
- 10. EXTERIOR ANALOG, FLUSH MOUNTED, INTERCOM SPEAKER WITH VANDAL RESISTANT COVER. SPEAKER TO BE CONNECTED TO THE BUILDING INTERCOM SYSTEM VIA A ZONE CONTROLLER. CONNEC TO PAGING ZONE INDICATED. PROVIDE SPEAKER, 4x4 BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK. MOUNT SPEAKER AT 11'-0" AFF. VERIFY MOUNTING HEIGHT PRIOR TO ROUGH IN.

- 11. INTERIOR SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, ABOVE THE ACCESSIBLE CEILING, OR AT THE BUILDING STRUCTURE FOR SECURITY CAMERA CONNECTION. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN DATA RACK INDICATED.
- 12. EXTERIOR WALL MOUNTED SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE A JUNCTION BOX AT 12'-0" AFG AND 3/4" CONDUIT FROM THE JUNCTION BOX TO THE NEAREST ACCESSIBLE CEILING SPACE. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, IN THE JUNCTION BOX. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN THE DATA RACK INDICATED.
- 13. PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.
- 14. STUB (1)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 15. STUB (3) 3/4" CONDUITS FROM DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING. STUB ONE CONDUIT FROM TOP OF DOOR FRAME ON LATCH SIDE AND ONE INTO DOOR FRAME AT MIDDLE HINGES ON EACH SIDE OF DOUBLE DOOR. ACCESS CONTROL CABLING TO BE FURNISHED BY EDNETICS. RE: DOOR ACCESS CONTROL DETAIL
- 16. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.

AREA B

1 SPECIAL SYSTEMS PLAN - AREA C 1/8" = 1'-0"

KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.

2. CEILING MOUNTED WIRELESS ACCESS POINT (WAP). PROVIDE SURFACE MOUNTED DATA JACK IN CEILING WITH (2) DATA PORTS PROVIDE DATA CABLING, QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED AND ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.

3. TEACHERS STATION WHISKER FACEPLATE. PROVIDE JUNCTION BOX AND ROUTE 1-1/4" CONDUIT UP WALL TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING AND FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET, TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING RE:CLASSROOM TEACHER STATION DETAIL.

4. CLASSROOM TV DATA AND A/V. PROVIDE JUNCTION BOX AT HEIGHT INDICATED AND ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED FROM DATA OUTLET, TO THE DATA RACK INDICATD. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. RE:CLASSROOM

5. FURNISH AND INSTALL CEILING MOUNTED TOPCAT CLASSROOM AMPLIFICATION SPEAKER WITH (2) FLEXMICS, MEDIA CONNECT, AND PAGE FIRST. RE:POWER PLANS

6. INSTALL THE 50-FOOT, 18/2 CABLE BETWEEN THE WALL SPEAKER/CLOCK AND THE CLASSROOM AMPLIFICATION SYSTEM SPEAKER TO ALLOW THE INTERCOM SYSTEM TO OVER-RIDE THE CLASSROOM AMPLIFICATION SYSTEM AND UTILIZE THE ASSOCIATED SPEAKERS DURING ANNOUNCEMENTS. 18/2 CABLE PROVIDED WITH THE CLASSROOM AMPLIFICATION SYSTEM. TERMINATE THE CABLE AT EACH END PER THE INTERCOM INSTALLATION INSTRUCTIONS.

7. PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.

8. TWO WAY COMMUNICATION AND EMERGENCY CALL BUTTON BETWEEN CLASSROOM AND ADMIN AREA. PROVIDE CALL BUTTON AND CABLING REQUIRED COMPATIBLE WITH INTERCOM SYSTEM. COORDINATE SYSTEM REQUIREMENTS WITH INTERCOM SYSTEM

9. DATA RECEPTACLE MOUNTED IN MILLWORK. COORDINATE BOX LOCATION AND CONDUIT ROUTING WITH MILLWORK INSTALLER PRIOR TO ROUGH-IN.

10. VOLUME CONTROL FOR CLOCK AND SPEAKER COMBINATION UNIT. PROVIDE VOLUME BUTTON AND CABLING COMPATIBLE WITH INTERCOM SYSTEM AS REQUIRED. COORDINATE SYSTEM REQUIREMENTS WITH INTERCOM SYSTEM INSTALLER.

11. PROVIDE SURFACE MOUNTED IP CLOCK READERBOARD UNIT AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM READERBOARD UNIT TO THE DATA RACK INDICATED TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.

12. ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.

13. EXTERIOR ANALOG, FLUSH MOUNTED, INTERCOM SPEAKER WITH VANDAL RESISTANT COVER. SPEAKER TO BE CONNECTED TO THE BUILDING INTERCOM SYSTEM VIA A ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, 4x4 BACKBOX, AND CABLING, PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK. MOUNT SPEAKER AT 11'-0" AFF. VERIFY MOUNTING HEIGHT PRIOR TO ROUGH IN.

14. INTERIOR SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, ABOVE THE ACCESSIBLE CEILING, OR AT THE BUILDING STRUCTURE FOR SECURITY CAMERA CONNECTION. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN DATA RACK INDICATED.

15. PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.

- 16. EXTERIOR WALL MOUNTED SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE A JUNCTION BOX AT 12'-0" AFG AND 3/4" CONDUIT FROM THE JUNCTION BOX TO THE NEAREST ACCESSIBLE CEILING SPACE. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, IN THE JUNCTION BOX. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN THE DATA RACK INDICATED.
- 17. TV DATA AND A/V BOX MOUNTED AT HEIGHT INDICATED. PROVIDE 2-GANG JUNCTION BOX AND STUB A 1" CONDIT TO VOID ABOVE ACCESSIBLE CEILING AND A 1-1/4" CONDUIT FROM THE A/V BOX TO THE FLOOR BOX IN THIS ROOM. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATION AND TEST ALL CABLING.
- 18. MULTI-SERVICE FLOOR BOX. PROVIDE 1" CONDUIT FROM FLOOR BOX TO THE VOID ABOVE THE ACCESSIBLE CEILING FOR DATA CABLING. PROVIDE A 1-1/4" CONDUIT WITH HDMI CABLING FROM THE FLOOR BOX TO THE A/V BOX AT THE TV. RE:POWER PLAN – AREA C.
- 19. CABLE TRAY IN THIS LOCATION AT DIFFERING HEIGHTS. COORDINATE CABLE TRAY ROUTING WITH OTHER DISCIPLINES AND WALL PENETRATIONS ABOVE ACCESSIBLE CEILING. PROVIDE TRANSITION FROM CABLE TRAY ABOVE TO CABLE TRAY BELOW TO SUPPORT CABLES.
- 20. STUB (3) 3/4" CONDUITS FROM DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING. STUB ONE CONDUIT FROM TOP OF DOOR FRAME ON LATCH SIDE AND ONE INTO DOOR FRAME AT MIDDLE HINGES ON EACH SIDE OF DOUBLE DOOR. PROVIDE CABLING TO TRE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR MTO ROUGH MILLING CONTROLOGICAL
- 21. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.

AREA C

KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

- 1. PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- PROVIDE DATA OUTLET FOR THE DDC SYSTEM CONTROL PANEL. VERIFY PANEL LOCATION WITH THE CONTROLS CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- 3. CEILING MOUNTED WIRELESS ACCESS POINT (WAP). PROVIDE SURFACE MOUNTED DATA JACK IN CEILING WITH (2) DATA PORTS. PROVIDE DATA CABLING, QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED AND ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- 4. TEACHERS STATION WHISKER FACEPLATE. PROVIDE JUNCTION BOX AND ROUTE 1-1/4" CONDUIT UP WALL TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING AND FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET, TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING RE:CLASSROOM TEACHER STATION DETAIL.
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- 7. INSTALL THE 50-FOOT, 18/2 CABLE BETWEEN THE WALL SPEAKER/CLOCK AND THE CLASSROOM AMPLIFICATION SYSTEM SPEAKER TO ALLOW THE INTERCOM SYSTEM TO OVER-RIDE THE CLASSROOM AMPLIFICATION SYSTEM AND UTILIZE THE ASSOCIATED SPEAKERS DURING ANNOUNCEMENTS. 18/2 CABLE PROVIDED WITH THE CLASSROOM AMPLIFICATION SYSTEM. TERMINATE THE CABLE AT EACH END PER THE INTERCOM INSTALLATION INSTRUCTIONS.
- 8. PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
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- 10. ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.
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- 13. EXTERIOR WALL MOUNTED SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE A JUNCTION BOX AT 12'-0" AFG AND 3/4" CONDUIT FROM THE JUNCTION BOX TO THE NEAREST ACCESSIBLE CEILING SPACE. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, IN THE JUNCTION BOX. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN THE DATA RACK INDICATED.
- 14. PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.
- 15. DEVICE IN THIS LOCATION UNDER BASE BID CONDITIONS. REFER TO ADD ALTERNATE SPECIAL SYSTEMS PLANS FOR LOCATION UNDER ADD ALTERNATE CONDITIONS.
- 16. STUB (2)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR AND ONE CONDUIT INTO THE FRAME AT THE MIDDLE HINGE. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 17. STUB (1)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 18. STUB (3) 3/4" CONDUITS FROM DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING. STUB ONE CONDUIT FROM TOP OF DOOR FRAME ON LATCH SIDE AND ONE INTO DOOR FRAME AT MIDDLE HINGES ON EACH SIDE OF DOUBLE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR . TO ROUGH-IN.
- 19. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.

KEYED NOTES:

SYMBOL USED FOR CALLOUT

- PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- 2. PROVIDE DATA OUTLET FOR THE DDC SYSTEM CONTROL PANEL. VERIFY PANEL LOCATION WITH THE CONTROLS CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
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- 5. PROVIDE SURFACE MOUNTED IP CLOCK READERBOARD UNIT AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM READERBOARD UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
- 6. ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.
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- PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.
- 10. ROOM SOUND SYSTEM SPEAKER MOUNTED AT THE BUILDING STRUCTURE. PROVIDE CONDUIT AND CABLING BETWEEN EACH SPEAKER THEN TO THE CORRESPONDING GYM OR CAFETERIA SOUND SYSTEM HEAD-END EQUIPMENT LOCATED IN P.E. OFFICE 103. COORDINATE LOCATION AND AIMING OF THE SPEAKER TO PROVIDE OPTIMAL PERFORMANCE WITHIN THE SPACE.
- 11. PROVIDE JUNCTION BOX IN WALL AT +12' AFF, UNO, FOR A WIRELESS ACCESS POINT (WAP). COORDINATE THE DATA OUTLET LOCATION WITH THE SCHOOL DISTRICT I.T. STAFF PRIOR TO INSTALLATION. PROVIDE 1" CONDUIT WITH DATA CABLES, QUANTITY AS INDICATED TO DATA RACK INDICATED. PROVIDE 18" OF SLACK IN THE BOX FOR CONNECTION TO OWNER PROVIDED WAP. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT I.T. STAFF AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- 12. MICROPHONE AND AUXILIARY INPUT JACKS FOR GYM MOUNTED AT 1'-6" AFF. PROVIDE 3/4" CONDUIT AND CABLING AS REQUIRED TO THE GYM HEAD-END SOUND SYSTEM LOCATED IN P.E. OFFICE E103.
- 13. FLUSH MOUNTED REMOTE SOUND SYSTEM CONTROL PANEL MOUNTED AT 46" AFF. PROVIDE ENCLOSURE (HOFFMAN ASE SERIES OR EQUAL) WITH A LOCKABLE HINGED COVER (HOFFMAN AFDF SERIES WITH AN ACLFDF LOCK KIT OR EQUAL). SIZE ENCLOSURE AS REQUIRED TO ACCOMMODATE ALL CONTROLS. CONTROL DEVICES SHALL BE INSTALLED IN JUNCTION BOXES. ALL CONDUCTORS AND CABLING WITHIN THE ENCLOSURE ARE TO BE CONCEALED SO THEY ARE NOT EXPOSED TO THE USER. PROVIDE (2) 3/4" SPARE CONDUITS FROM ENCLOSURE TO BUILDING STRUCTURE. PROVIDE (2)1" CONDUIT WITH CABLING AS REQUIRED TO SOUND SYSTEM HEAD-END UNIT LOCATED IN P.E. OFFICE E103. LOCK SHALL BE KEYED TO MATCH THE SCHOOL MASTER KEY SYSTEM.
- 14. REMOTE SOUND SYSTEM VOLUME CONTROLS. PROVIDE 3-GANG BOX FOR REMOTE SOUND SYSTEM HEAD END CONTROLS AND BLUETOOTH CONTROLS. CONTROLS ARE TO BE LOCATED IN FLUSH MOUNTED LOCKABLE ENCLOSURE.
- 15. REMOTE SOUND SYSTEM ANTENNA WITH WIRE GUARD FOR SOUND SYSTEM IN THIS ROOM MOUNTED AT BOTTOM OF ROOF DECK. PROVIDE 1" CONDUIT AND CABLING AS REQUIRED TO SOUND SYSTEM HEAD-END EQUIPMENT LOCATED IN P.E. OFFICE E103.

- 16. REMOTE ALS SOUND SYSTEM ANTENNA WITH WIRE GUARD FOR SOUND SYSTEM IN THIS ROOM MOUNTED AT BOTTOM OF ROOF DECK. PROVIDE 1" CONDUIT AND CABLING AS REQUIRED TO SOUND SYSTEM HEAD-END EQUIPMENT LOCATED IN P.E. OFFICE E103.
- 17. JUNCTION BOX FOR SCOREBOARD CONTROL CABLING MOUNTED AT 1'-6" AFF. PROVIDE 1" CONDUIT FROM SCOREBOARD CONTROLS TO JUNCTION BOX AT SCOREBOARD. PROVIDE BLANK COVER PLATE.
- 18. PROVIDE JUNCTION BOX WITH BLANK COVER PLATE AT 11'-0" FOR SCOREBOARD CONTROLS. VERIFY SCOREBOARD LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.
- 19. GYM SOUND SYSTEM HEAD-END EQUIPMENT FOR GYMNASIUM MOUNTED ON THE WALL SUCH THAT THE TOP OF THE RACK IS 6'-0" AFF.
- 20. WALL MOUNTED MOTION SENSOR. PROVIDE JUNCTION BOX AND COVER PLATE AT 10'-0" AFF AND STUB 3/4" CONDUIT TO THE BUILDING STRUCTURE. COORDINATE WITH ACCESS CONTROLS CONTRACTOR FOR BACKBOX HEIGHT AND LOCATION PRIOR TO ROUGH-IN.
- 21. PROVIDE 1" CONDUIT FROM DATA OUTLET TO STRUCTURE AND ROUTE TO NEAREST ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.
- 22. EXTERIOR ANALOG, FLUSH MOUNTED, INTERCOM SPEAKER WITH VANDAL RESISTANT COVER. SPEAKER TO BE CONNECTED TO THE BUILDING INTERCOM SYSTEM VIA A ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, 4x4 BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK. MOUNT SPEAKER AT 11'-0" AFF. VERIFY MOUNTING HEIGHT PRIOR TO ROUGH IN.
- 23. STUB (1)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 24. STUB (3) 3/4" CONDUITS FROM DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING. STUB ONE CONDUIT FROM TOP OF DOOR FRAME ON LATCH SIDE AND ONE INTO DOOR FRAME AT MIDDLE HINGES ON EACH SIDE OF DOUBLE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 25. CABLE TRAY IN THIS LOCATION AT DIFFERING HEIGHTS. COORDINATE CABLE TRAY ROUTING WITH OTHER DISCIPLINES AND WALL PENETRATIONS ABOVE ACCESSIBLE CEILING. PROVIDE TRANSITION FROM CABLE TRAY ABOVE TO CABLE TRAY BELOW TO SUPPORT CABLES.
- 26. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE INDICATED, FROM AT STRUCTURE, INSIDE CMU WALL AND STUBBED INTO ABOVE 'IDFE' CABLE TRAY ABOVE DATA RACK.
- 27. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.

SPECIAL SYSTEMS PLAN – AREA E

AFF

KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

PROVIDE 1" CONDUIT FROM DATA OUTLET TO VOID ABOVE ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.

- CEILING MOUNTED WIRELESS ACCESS POINT (WAP). PROVIDE SURFACE MOUNTED DATA JACK IN CEILING WITH (2) DATA PORTS. PROVIDE DATA CABLING, QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED AND ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- TEACHERS STATION WHISKER FACEPLATE. PROVIDE JUNCTION BOX AND ROUTE 1-1/4" CONDUIT UP WALL TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING AND FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET, TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING RE:CLASSROOM TEACHER STATION DETAIL.
- CLASSROOM TV DATA AND A/V. PROVIDE JUNCTION BOX AT HEIGHT INDICATED AND ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING FACEPLATE PER SPECIFICATION'S REQUIREMENTS, PROVIDE DATA CABLING: QUANTITY AS INDICATED FROM DATA OUTLET, TO THE DATA RACK INDICATD. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. RE:CLASSROOM
- FURNISH AND INSTALL CEILING MOUNTED TOPCAT CLASSROOM AMPLIFICATION SPEAKER WITH (2) FLEXMICS, MEDIA CONNECT, AND PAGE FIRST. RE:POWER PLANS
- INSTALL THE 50-FOOT, 18/2 CABLE BETWEEN THE WALL SPEAKER/CLOCK AND THE CLASSROOM AMPLIFICATION SYSTEM SPEAKER TO ALLOW THE INTERCOM SYSTEM TO OVER-RIDE THE CLASSROOM AMPLIFICATION SYSTEM AND UTILIZE THE ASSOCIATED SPEAKERS DURING ANNOUNCEMENTS. 18/2 CABLE PROVIDED WITH THE CLASSROOM AMPLIFICATION SYSTEM. TERMINATE THE CABLE AT EACH END PER THE INTERCOM INSTALLATION INSTRUCTIONS.
- PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2^{2} 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
- TWO WAY COMMUNICATION AND EMERGENCY CALL BUTTON BETWEEN CLASSROOM AND ADMIN AREA. PROVIDE CALL BUTTON AND CABLING REQUIRED COMPATIBLE WITH INTERCOM SYSTEM. COORDINATE SYSTEM REQUIREMENTS WITH INTERCOM SYSTEM
- ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.
- 10. INTERIOR SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, ABOVE THE ACCESSIBLE CEILING, OR AT THE BUILDING STRUCTURE FOR SECURITY CAMERA CONNECTION. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN DATA RACK INDICATED.
- 11. EXTERIOR WALL MOUNTED SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE A JUNCTION BOX AT 12'-0" AFG AND 3/4" CONDUIT FROM THE JUNCTION BOX TO THE NEAREST ACCESSIBLE CEILING SPACE. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, IN THE JUNCTION BOX. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN THE DATA RACK INDICATED.
- 12. PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.
- 13. ROOM SOUND SYSTEM SPEAKER MOUNTED AT THE BUILDING STRUCTURE. PROVIDE CONDUIT AND CABLING BETWEEN EACH SPEAKER THEN TO THE CORRESPONDING GYM OR CAFETERIA SOUND SYSTEM HEAD-END EQUIPMENT LOCATED IN P.E. OFFICE 103. COORDINATE LOCATION AND AIMING OF THE SPEAKER TO PROVIDE OPTIMAL PERFORMANCE WITHIN THE SPACE.
- 14. MICROPHONE AND AUXILIARY INPUT JACKS FOR GYM MOUNTED AT 1'-6" AFF. PROVIDE 3/4" CONDUIT AND CABLING AS REQUIRED TO THE GYM HEAD-END SOUND SYSTEM LOCATED IN P.E. OFFICE E103.
- 15. REMOTE SOUND SYSTEM VOLUME CONTROLS. PROVIDE 3-GANG BOX FOR REMOTE SOUND SYSTEM HEAD END CONTROLS AND BLUETOOTH CONTROLS. CONTROLS ARE TO BE LOCATED IN FLUSH MOUNTED LOCKABLE ENCLOSURE.
- 16. FLUSH MOUNTED REMOTE SOUND SYSTEM CONTROL PANEL MOUNTED AT 46" AFF. PROVIDE ENCLOSURE (HOFFMAN ASE SERIES OR EQUAL) WITH A LOCKABLE HINGED COVER (HOFFMAN AFDF SERIES WITH AN ACLFDF LOCK KIT OR EQUAL). SIZE ENCLOSURE AS REQUIRED TO ACCOMMODATE ALL CONTROLS. CONTROL DEVICES SHALL BE INSTALLED IN JUNCTION BOXES. ALL CONDUCTORS AND CABLING WITHIN THE ENCLOSURE ARE TO BE CONCEALED SO THEY ARE NOT EXPOSED TO THE USER. PROVIDE (2) 3/4" SPARE CONDUITS FROM ENCLOSURE TO BUILDING STRUCTURE. PROVIDE (2)1" CONDUIT WITH CABLING AS REQUIRED TO SOUND SYSTEM HEAD-END UNIT LOCATED IN STORAGE F100a. LOCK SHALL BE KEYED TO MATCH THE SCHOOL MASTER KEY SYSTEM.
- 17. GYM SOUND SYSTEM HEAD-END EQUIPMENT FOR CAFETORIUM MOUNTED ON THE WALL SUCH THAT THE TOP OF THE RACK IS 6'-0"

- 18. REMOTE SOUND SYSTEM ANTENNA WITH WIRE GUARD FOR SOUND SYSTEM IN THIS ROOM MOUNTED AT BOTTOM OF ROOF DECK. PROVIDE 1" CONDUIT AND CABLING AS REQUIRED TO SOUND SYSTEM HEAD-END EQUIPMENT LOCATED IN STORAGE F100a.
- 19. REMOTE ALS ANTENNA WITH WIRE GUARD FOR SOUND SYSTEM IN THIS ROOM MOUNTED AT BOTTOM OF ROOF DECK. PROVIDE 1" CONDUIT AND CABLING AS REQUIRED TO SOUND SYSTEM HEAD-END EQUIPMENT LOCATED IN STORAGE F100a.
- 20. PROVIDE JUNCTION BOX IN WALL AT +12' AFF, UNO, FOR A WIRELESS ACCESS POINT (WAP). COORDINATE THE DATA OUTLET LOCATION WITH THE SCHOOL DISTRICT I.T. STAFF PRIOR TO INSTALLATION. PROVIDE 1" CONDUIT WITH DATA CABLES, QUANTITY AS INDICATED TO DATA RACK INDICATED. PROVIDE 18" OF SLACK IN THE BOX FOR CONNECTION TO OWNER PROVIDED WAP. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT I.T. STAFF AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- 21. WALL MOUNTED MOTION SENSOR. PROVIDE JUNCTION BOX AND COVER PLATE AT 10'-0" AFF AND STUB 3/4" CONDUIT TO THE BUILDING STRUCTURE. COORDINATE WITH ACCESS CONTROLS CONTRACTOR FOR BACKBOX HEIGHT AND LOCATION PRIOR TO ROUGH-IN.
- 22. EXTERIOR ANALOG, FLUSH MOUNTED, INTERCOM SPEAKER WITH VANDAL RESISTANT COVER. SPEAKER TO BE CONNECTED TO THE BUILDING INTERCOM SYSTEM VIA A ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, 4x4 BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK. MOUNT SPEAKER AT 11'-0" AFF, UNO. VERIFY MOUNTING HEIGHT PRIOR TO ROUGH IN.
- 23. STUB (1)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- \cdots STUB (3) 3/4" CONDUITS FROM DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING. STUB ONE CONDUIT FROM TOP OF DOOR FRAME ON LATCH SIDE AND ONE INTO DOOR FRAME AT MIDDLE HINGES ON EACH SIDE OF DOUBLE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 25. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE INDICATED, FROM AT STRUCTURE, INSIDE CMU WALL AND STUBBED INTO ABOVE DATA RACK. TERMINATE WITH INSULATED THROAT BUSHINGS.
- 26. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE INDICATED, FROM AT STRUCTURE. INSIDE CMU WALL AND STUBBED TO ABOVE ACCESSIBLE CEILING AND EXTEND TO ABOVE THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.
- 27. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.
- 28. PROVIDE 1" CONDUIT FROM DATA OUTLET UNDERGROUND, TO NEAREST FULL HEIGHT WALL AND TO ABOVE NEAREST ACCESSIBLE CEILING. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING.

2 SPECIAL SYSTEMS PLAN - ADD ALTERNATE 2 1/8" = 1'-0"

KEYED NOTES:

(#) SYMBOL USED FOR CALLOUT

2.

- DEVICE IN THIS LOCATION UNDER ADD ALTERNATE CONDITIONS. REFER TO BASE BID CONDITIONS FOR LOCATION UNDER BASE BID CONDITIONS
- CEILING MOUNTED WIRELESS ACCESS POINT (WAP). PROVIDE SURFACE MOUNTED DATA JACK IN CEILING WITH (2) DATA PORTS. PROVIDE DATA CABLING, QUANTITY AS INDICATED, FROM DATA OUTLET TO THE DATA RACK INDICATED AND ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. THE WAP DEVICE WILL BE FURNISHED AND CALIBRATED BY THE SCHOOL DISTRICT AND INSTALLED BY THE ELECTRICAL CONTRACTOR PER THE MANUFACTURE'S RECOMMENDATIONS. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE INSTALLATION.
- TEACHERS STATION WHISKER FACEPLATE. PROVIDE JUNCTION BOX AND ROUTE 1-1/4" CONDUIT UP WALL TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING AND FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED, FROM DATA OUTLET, TO THE DATA RACK INDICATED. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING RE:CLASSROOM TEACHER STATION DETAIL.
- 4. CLASSROOM TV DATA AND A/V. PROVIDE JUNCTION BOX AT HEIGHT INDICATED AND ROUTE 1-1/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. TERMINATE CONDUIT WITH INSULATED THROAT BUSHINGS. PROVIDE CABLING FACEPLATE PER SPECIFICATION'S REQUIREMENTS. PROVIDE DATA CABLING; QUANTITY AS INDICATED FROM DATA OUTLET, TO THE DATA RACK INDICATD. ROUTE VIA CABLE TRAY. TERMINATE AND TEST ALL CABLING. RE:CLASSROOM TV DETAIL.
- 5. FURNISH AND INSTALL CEILING MOUNTED TOPCAT CLASSROOM AMPLIFICATION SPEAKER WITH (2) FLEXMICS, MEDIA CONNECT, AND PAGE FIRST. RE:POWER PLANS
- 6. INSTALL THE 50-FOOT, 18/2 CABLE BETWEEN THE WALL SPEAKER/CLOCK AND THE CLASSROOM AMPLIFICATION SYSTEM SPEAKER TO ALLOW THE INTERCOM SYSTEM TO OVER-RIDE THE CLASSROOM AMPLIFICATION SYSTEM AND UTILIZE THE ASSOCIATED SPEAKERS DURING ANNOUNCEMENTS. 18/2 CABLE PROVIDED WITH THE CLASSROOM AMPLIFICATION SYSTEM. TERMINATE THE CABLE AT EACH END PER THE INTERCOM INSTALLATION INSTRUCTIONS.
- PROVIDE SURFACE MOUNTED IP CLOCK AND SPEAKER COMBINATION UNIT FOR INTERCOM SYSTEM AT +8'-0' UNO. PROVIDE 2-GANG MUDRING AND STUB 1" CONDUIT FROM MUDRING TO THE VOID ABOVE THE ACCESSIBLE CEILING. TERMINATE WITH INSULATED THROAT BUSHINGS. PROVIDE DATA CABLE FROM COMBO UNIT TO THE DATA RACK INDICATED. TERMINATE AND TEST CABLING. VERIFY COMBO UNIT LOCATION PRIOR TO ROUGH-IN. PROVIDE MATERIALS AND LABOR REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
- TWO WAY COMMUNICATION AND EMERGENCY CALL BUTTON BETWEEN CLASSROOM AND ADMIN AREA. PROVIDE CALL BUTTON AND CABLING REQUIRED COMPATIBLE WITH INTERCOM SYSTEM. COORDINATE SYSTEM REQUIREMENTS WITH INTERCOM SYSTEM INSTALLER.
- ANALOG INTERCOM ZONE SPEAKER TO BE CONNECTED TO THE INTERCOM SYSTEM VIA ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK.
- 10. EXTERIOR ANALOG, FLUSH MOUNTED, INTERCOM SPEAKER WITH VANDAL RESISTANT COVER. SPEAKER TO BE CONNECTED TO THE BUILDING INTERCOM SYSTEM VIA A ZONE CONTROLLER. CONNECT TO PAGING ZONE INDICATED. PROVIDE SPEAKER, 4x4 BACKBOX, AND CABLING. PROVIDE ZONE CONTROL AMPLIFIER IN THE 'MDF' DATA RACK. OWNER TO PROVIDE DATA RACK SWITCHS IN 'MDF' DATA RACK. MOUNT SPEAKER AT 11'-0" AFF. VERIFY MOUNTING HEIGHT PRIOR TO ROUGH IN.
- 11. INTERIOR SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, ABOVE THE ACCESSIBLE CEILING, OR AT THE BUILDING STRUCTURE FOR SECURITY CAMERA CONNECTION. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN DATA RACK INDICATED.

- 12. EXTERIOR WALL MOUNTED SECURITY CAMERA PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE A JUNCTION BOX AT 12'-0" AFG AND 3/4" CONDUIT FROM THE JUNCTION BOX TO THE NEAREST ACCESSIBLE CEILING SPACE. PROVIDE SURFACE MOUNTED DATA BOX (BISCUIT) WITH QUANTITY OF DATA PORTS AS INDICATED, IN THE JUNCTION BOX. COORDINATE THE DATA OUTLET AND CAMERA LOCATION WITH THE SCHOOL DISTRICT PRIOR TO INSTALLATION. PROVIDE DATA CABLES; QUANTITY AS INDICATED, TO A DEDICATED PATCH PANEL IN THE DATA RACK INDICATED.
- 13. PROVIDE JUNCTION BOX FOR CARD READER AT +46" AFG AND 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE CABLING PER SPECIFICATION REQUIREMENTS. REFER TO DOOR ACCESS CONTROL DETAIL.
- 14. STUB (1)3/4" CONDUITS FROM THE DOOR FRAME TO ABOVE NEAREST ACCESSIBLE CEILING FOR DOOR ACCESS CONTROL CABLING. STUB ONE CONDUIT INTO THE TOP OF THE FRAME ON THE LATCH SIDE OF THE DOOR. PROVIDE CABLING TO THE SECURITY AND ACCESS CONTROL HEAD-END EQUIPMENT. VERIFY REQUIREMENTS WITH THE OWNER'S SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
- 15. PROVIDE CONDUIT SLEEVES, QUANTITY AND SIZE AS INDICATED, FROM WALL ABOVE THE ACCESSIBLE CEILING AND EXTEND TO THE CABLE TRAY. TERMINATE WITH INSULATED THROAT BUSHINGS.

