

GENERAL NOTES

MICROFILMED
APR 4 1984

CLEANOUT COVERS AND STEPS:

CLEANOUT COVERS AND STEPS FOR ACCESS TO THE STATION'S GRIT CHAMBER SHALL BE DUCTILE IRON, BY NEENAH-FOUNDRY, FLOCKHART, MCKINLEY OR EQUAL. RECTANGULAR COVER SHALL BE NEENAH R-6661-NH, WITH TYPE 6 HANDLES AND HOT-DIP GALVANIZED TYPE A HASP ON EACH COVER, OR EQUAL. CIRCULAR CLEANOUT COVER SHALL BE NEENAH R-6077 WITH TYPE C SOLID LID AND HOT-DIP GALVANIZED TYPE D STRAP LOCK, OR EQUAL. STEPS SHALL BE NEENAH R-1982-J, OR EQUAL.

FASTENERS:

ALL ANCHORS, ANCHOR BOLTS, STRUCTURAL BOLTS, SCREW ANCHORS, SHIMS, WASHERS AND NUTS SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.

ANCHORS IN MASONRY OR CONCRETE MAY BE EITHER BUILT-IN OR DRILLED-IN AFTER ERECTION. GROUTED-IN FASTENERS WILL NOT BE PERMITTED. ANCHORS DRILLED INTO CONCRETE AFTER PLACEMENT OF THE CONCRETE SHALL BE SELF-DRILLING, NON-CORROSIVE ANCHORS, PHILLIPS RED-HEAD OR STAR SELF-DRILLING. ANCHORS PLACED IN MASONRY AFTER ERECTION OF THE MASONRY SHALL BE "MOLLY" BOLTS, TOGGLE BOLTS OR OTHER APPROVED TYPES OF FASTENER WHICH APPLY LOAD TO THE REAR SURFACE OF INTERIOR VOIDS IN THE MASONRY, NOT FASTENER TYPES WHICH EXERT LATERAL INTERNAL LOADS ON THE MASONRY.

ANCHORS IN WOOD OR METAL SHALL BE TEE NUTS, J-BOLTS OR OTHER TYPES, AS APPROVED BY THE ENGINEER.

"RAMSET" OR OTHER DRIVEN FASTENERS, WOOD AND PLASTIC PLUGS, OR LEAD SHIELDS WILL NOT BE PERMITTED.

HEADS OF ALL FASTENERS IN AREAS EXPOSED TO THE PUBLIC SHALL BE OF AN APPROVED TAMPER-PROOF DESIGN.

STRUCTURAL ALUMINUM:

ALL ALUMINUM ANGLES, PLATES, ETC. SHALL BE FABRICATED TO THE DETAILS SHOWN ON THE DRAWINGS. ALL FABRICATED ALUMINUM ITEMS, EXCEPT HANDRAILING SHALL BE FABRICATED OF ALLOY 6061-T6 WROUGHT ALUMINUM EXCEPT AS OTHERWISE SPECIFIED. ALL AREAS OF FABRICATED ALUMINUM IN CONTACT WITH OR IMBEDDED IN CONCRETE SHALL BE PAINTED WITH ASPHALTIC PAINT PRIOR TO INSTALLATION.

GALVANIZING:

WHERE GALVANIZING IS CALLED FOR, HOT-DIP GALVANIZING AFTER FINAL FABRICATION SHALL BE THE ONLY ACCEPTABLE PROCESS, UNLESS OTHER PROCESSES ARE SPECIFICALLY DENOTED. GALVANIZING SHALL BE TO A MINIMUM DEPOSITION OF TWO OUNCES OF ZINC PER SQUARE FOOT AND SHALL BE DONE IN ACCORDANCE WITH ASTM A 123, A 153 OR A 386, AS APPLICABLE.

LINTELS AND HANGERS:

ALL ROLLED AND FABRICATED SHAPES AND ASSEMBLIES USED AS LINTELS OVER WALL OPENINGS AND AS HANGERS AND SUPPORTS AT OPENINGS IN ROOF DECK SHALL BE HOT-DIP GALVANIZED.

DOORS AND FRAMES:

ALL HOLLOW METAL DOORS SHALL BE FULL FLUSH METAL DOORS WITH HEAVY GAUGE FACE SHEETS AND INTERNAL REINFORCEMENT. ALL DOOR INTERIORS SHALL BE SOUND DEADENED WITH HEAVY ASPHALTIC MASTIC. DOOR SIDES, TOPS AND BOTTOMS SHALL BE FULL FLUSH, WITH WELDED AND GROUND SEAMS, AND ALL EDGES SEALED. WELDED HINGE, CLOSER, LOCK AND STRIKE REINFORCEMENT SHALL BE PROVIDED. DOOR NO. 1 SHALL BE FILLED WITH NON-ABSORBANT THERMAL INSULATION. DOOR NOS. 2 AND 3 SHALL BE FURNISHED WITH TWO LITES EACH OF 1/4" THICK, POLISHED WIRE, SAFETY GLASS. FACE SHEETS SHALL BE 18 GAUGE FOR DOOR NO. 1. DOORS NOS. 2 & 3 SHALL BE U.S. METALS SERIES D8 WITH 204R1 ANODIZED FINISH AND ALUMINUM FRAMES, OR EQUAL.

ALL HOLLOW METAL DOOR FRAMES SHALL BE DOUBLE RABBET WELDED STEEL OR ALUMINUM FRAMES WITH 5/8" RABBET. FRAMES SHALL BE EQUIPPED WITH 12 GAUGE CLOSER REINFORCEMENT, 9 GAUGE HINGE REINFORCEMENTS, AND 11 GAUGE STRIKE REINFORCEMENTS. FRAMES SHALL BE 16 GAUGE, WITH MITERED AND WELDED TOP CORNERS AND MASONRY ANCHORS ON JAMBS AND HEADS. FRAMES SHALL HAVE 3 RUBBER BUMPERS ON STRIKE JAMB.

ALL STEEL DOORS AND FRAMES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION WITH NOT LESS THAN 2.0 OUNCES OF ZINC PER SQUARE FOOT; OR SHALL BE PHOSPHATIZED, BONDERIZED AND PAINTED WITH TWO COATS OF ZINC RICH ORGANIC PRIMER PAINT AFTER FABRICATION.

HARDWARE:

DOOR NO. 1 SHALL BE FITTED WITH A MORTISE LOCKSET CONFORMING TO FEDERAL SPECIFICATION FF-H-106C AND DOOR NOS. 2 AND 3 SHALL BE FITTED WITH CYLINDRICAL LOCKSETS CONFORMING TO FEDERAL SPECIFICATION FF-H-106A, ALL IN ACCORDANCE WITH THE REQUIREMENTS CONTAINED HEREIN. ALL STRIKES SHALL BE HEAVY DUTY, CONFORMING TO ANSI REQUIREMENTS, AND WITH CURVED LIPS. DOOR NO. 1 SHALL LOCK BY KEY FROM BOTH SIDES. ALL KNOBS SHALL BE 2 1/4", MODIFIED CYLINDRICAL SHAPE AND HEAVY, COLD FORGED. LOCKS SHALL BE 5-PIN TUMBLER-DESIGN. PROVIDE 5 HEAVY DUTY PADLOCKS, MASTER KEYED TO DOOR NO. 1. SIX KEYS SHALL BE SUPPLIED TO THE OWNER. ONE AND ONE-HALF PAIR OF HEAVY DUTY, BALL-BEARING HINGES

IS REQUIRED FOR EACH DOOR. DOOR NO. 1 SHALL BE EQUIPPED WITH A NARROW, HYDRAULIC CLOSER WITH ADJUSTABLE CLOSING SPEED AND BACK CHECK, FULL METAL COVER AND HOLD OPEN ARM, MOUNTED ON THE INTERIOR FACE OF THE DOOR. THRESHOLD SHALL BE HEAVY-DUTY CAST ALUMINUM SADDLE TYPE, CUT TO FIT JAMBS. DOOR NOS. 2 AND 3 SHALL HAVE HEAVY-DUTY FLOORMOUNTED BUMPERS WITH DOOR MOUNTED IMPACT PLATE AND FRICTION CATCH. FINISH FOR ALL HARDWARE SHALL BE US32D.

PAINTING:

ALL PAINT MATERIAL SELECTED FOR THE COATING SYSTEMS, SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. ALL PAINT MATERIALS SHALL BE COMPATIBLE IN USE; MATERIALS NOT COMPATIBLE SHALL BE REMOVED TO BASE MATERIAL. PAINTS LISTED BELOW ARE KOPPERS TO DENOTE GENERIC TYPE AND PERFORMANCE. PAINT SYSTEMS MEETING THESE PARAMETERS BY PPG, SHERWIN-WILLIAMS, ASHLAND, NOCORO OR PORTER SHALL BE ACCEPTABLE. ALL PAINT THICKNESS SHALL BE MINIMUM DRY MIL THICKNESS.

COATING	REQUIRED DRY MIL THICKNESS
A. INTERIOR CONCRETE BLOCK WALLS AND PRECAST CONCRETE CEILING:	
PRIMER (CONCRETE BLOCK): KOPPERS BLOCK SEALER*	VARIES
PRIMER (CONCRETE):	N.A.
FIRST COAT: GLAMORGLAZE	3 MILS
SECOND COAT: GLAMORGLAZE	3 MILS
GENERIC TYPE: HIGH SOLIDS, GLOSS FINISH POLYAMIDE CURED EPOXY	
*USE TWO COATS OF EXTRA HEAVY BLOCK SEALER TO OBTAIN FILLED, SMOOTH BLOCK SURFACE.	
B. CONTROL PANELS, MOTOR CONTROL CENTER, HOLLOW/METAL DOORS AND FRAMES, NON-SUBMERGED EQUIPMENT AND CONDUIT:	
PRETREATMENT: KOPPERS 30 METAL CONDITIONER	
PRIMER: KOPPERS PUG PRIMER	2 MILS
FIRST COAT: RUSTARMOR 500 ENAMEL	2 MILS
SECOND COAT: RUSTARMOR 500 ENAMEL	2 MILS
GENERIC TYPE: LONG OIL, ALKYD RESIN ENAMEL	
C. ALL INTERIOR PIPING, VALVES, PUMPS, EQUIPMENT, CONDUITS, INCLUDING SLUICE GATE AND FLAP GATES AND ITEMS NOT COATED WITH FACTORY BAKED-ON SYSTEMS:	
PRETREATMENT: KOPPERS 30 METAL CONDITIONER	
KOPPERS 40 PASSIVATOR, OR INTERNAL RUST-INHIBITIVE	
PRIMER 621-FDA, AS APPLICABLE	N.A.
PRIMER: TOREX 820 PRIMER OR PUG	
PRIMER, AS APPLICABLE	2 MILS
(PUMPS ONLY) PVD EPOXY PRIMER	2 MILS
FIRST COAT: TOREX 810 HEAVY	2 MILS
SECOND COAT: TOREX 800 ENAMEL	2 MILS
GENERIC TYPE: CHLORINATED NATURAL RUBBER	
D. ALL PIPING, CONDUITS, JUNCTIONS BOXES, EQUIPMENT, HOUSINGS, ETC. ABOVE GRADE AND EXPOSED TO THE WEATHER:	
PRETREATMENT: KOPPERS 30 METAL CONDITIONER	
KOPPERS 40 PASSIVATOR, OR RIGORTX METAL	
PRIMER, AS APPLICABLE	N.A.
FIRST COAT: KOPPERS 401 VINYL	3 MILS
SECOND COAT: KOPPERS 401 VINYL	3 MILS
E. MISCELLANEOUS: GALVANIZED MATERIAL THAT IS SCRATCHED OR FIELD WELDED SHALL BE GIVEN 2 COATS OF ORGANIC ZINC, 2 MILS EACH. ALUMINUM IN CONTACT WITH CONCRETE SHALL BE PRIMED WITH KOPPERS 30 METAL CONDITIONER AND GIVEN TWO COATS OF COAL-TAR COATING, 12 MILS EACH.	

F. FINISH SCHEDULE: DOOR NO. 1, INCLUDING FRAME; VENTS; LOUVERS; FASCIA; AND ROOF VENTILATORS SHALL ALL BE MEDIUM BRONZE FINISH, FEDERAL STANDARD COLOR (FS) 20045. CEILING SHALL BE FS 17875. INTERIOR DOORS AND WALLS SHALL BE FS 13531. PUMPS, PIPING, AND VALVES SHALL BE FS 34558. OTHER COLORS SHALL BE SELECTED BY THE OWNER. ALL FINISH COLORS SHALL BE APPROVED BY THE OWNER PRIOR TO PAINTING.

CAULKING:

CAULKING COLOR SHALL MATCH THE SURROUNDING SURFACES OR SHALL BE COLORS APPROVED BY THE ENGINEER. WHERE A SPECIFIC TYPE OF CAULK IS NOT SPECIFIED, USE THAT ONE OF THE THREE TYPES OF MATERIAL SPECIFIED WHICH BEST SUITS THE INSTALLATION AND CORRESPONDS TO THE MANUFACTURER'S RECOMMENDATION.

TYPE 1 CAULK - A SINGLE COMPONENT ACRYLIC TERPOLYMER SEALANT OF AVERAGE SHORE A HARDNESS OF 35, COMPLYING WITH FEDERAL SPECIFICATIONS TT-S-00230, TREMCO MONO, SONOLASTIC NP 1 OR EQUAL.

TYPE 2 CAULK - A THREE COMPONENT EPOXIDIZED POLYURETHANE, DYMERIC BY TREMCO, OR A TWO COMPONENT POLYMER, SONOLASTIC NP 11 BY SONNEBORN, OR EQUAL COMPLYING WITH FEDERAL SPECIFICATION TT-S-00227E, TYPE 11, CLASS I SUITABLE FOR 25% JOINT MOVEMENT.

TYPE 3 CAULK - A TWO PART POLYURETHANE HORIZONTAL JOINT SEALANT DESIGNED FOR WATERPROOF JOINTS SUBJECTED TO TRAFFIC OR ABRASION CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E, CLASS A, TYPE I AND SHALL BE THC 1900 BY TREMCO, SONOLASTIC PAVING JOINT SEALANT OR EQUAL.

BACK UP MATERIALS SHALL BE USED IN ACCORDANCE WITH THE CAULKING MANUFACTURER'S RECOMMENDATIONS.

STORAGE CABINET:

PROVIDE ONE STEEL STORAGE UNIT, 36" WIDE, 7'-0" HIGH WITH 5 REINFORCED SHELVES 18" DEEP, COMPLETE WITH DOUBLE, THREE POINT LATCHING DOORS WITH CHROME PLATED HANDLES. DOORS AND BODY CONSTRUCTION SHALL BE COLD ROLLED SHEET STEEL WITH RUST RESISTANT FASTENERS. ALL STEEL SURFACES SHALL BE PHOSPHATIZED TO INHIBIT CORROSION AND THEN COATED WITH A BAKED ENAMEL FINISH. THE COLOR SHALL BE SELECTED BY THE ENGINEER.

PUMP STATION, MECHANICAL

SCOPE:

MECHANICAL EQUIPMENT SHALL INCLUDE THE FURNISHING, ERECTION OR INSTALLATION, AND TESTING OF THE EQUIPMENT, AS SHOWN AND SPECIFIED. COMPLETE SHOP DRAWINGS, DESCRIPTIVE LITERATURE AND PERFORMANCE DATA FOR EACH ITEM SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND DELIVERY. THE SHOP DRAWINGS SHALL SHOW LAYOUTS, DIMENSIONS, MATERIALS AND ALL CONSTRUCTION DETAILS. FOUR SETS OF ALL INFORMATION, PLUS THE NUMBER OF SETS THE CONTRACTOR WISHES RETURNED, SHALL BE SUBMITTED. FOUR SETS OF OPERATING AND MAINTENANCE INSTRUCTION MANUALS (O & M) SHALL BE SUBMITTED IN BOOK FORM. **O & M DATA SHALL CONFORM TO THE SPECIFIC PARAGRAPH HEREINAFTER.**

ELECTRICAL DEVICES FURNISHED WITH MECHANICAL EQUIPMENT:

ELECTRICAL DRIVE UNITS FURNISHED WITH UNITS DESCRIBED IN THIS SECTION SHALL INCLUDE ADEQUATE JUNCTION BOXES OR TERMINAL BOXES FOR THE CONNECTION OF EXTERNAL POWER SOURCE CONDUITS, OR CONTINUOUS POWER LEADS TO EXTEND TO THE JUNCTION BOXES SHOWN ON THE DRAWINGS. ALL MOTORS, CONTROLS AND OTHER ELECTRICAL DEVICES, SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NEC) AND THE OHIO BASIC BUILDING CODE.

ROOF EXHAUST FANS:

THE ROOF EXHAUST FANS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE DRAWINGS, AND SHALL BE CENTRIFUGAL DIRECT DRIVE UNITS, CONSTRUCTED OF ALUMINUM EXTERNAL AND INTERNAL PARTS, TYPE A CONSTRUCTION, AND MOUNTED ON INSULATED ALUMINUM FABRICATED CURBS WITH INTEGRAL CANT AND ROOF ADAPTER. CURBS SHALL HAVE INTEGRAL SOUND AND THERMAL INSULATION AND BE EQUIPPED WITH AN AUTOMATIC GRAVITY LOUVER. ROOF FANS SHALL BE EQUIPPED WITH INTEGRAL BIRD SCREENS AND LOCAL DISCONNECT SWITCHES, AND SHALL BE FACTORY PAINTED WITH HIGH-GLOSS EPOXY FINISH IN A COLOR SELECTED BY THE ENGINEER.